



كيزاد Kizad

Kizad Logistics Park

Tenants' Fitting Out Guide

Appendix 1 – Tenant Estidama Guidelines

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1 Estidama Introduction

Estidama, which means 'sustainability' in Arabic, is the initiative which will transform Abu Dhabi into a model of sustainable urbanization. Its aim is to create more sustainable communities, cities and global enterprises and to balance the four pillars of Estidama: Environmental, Economic, Cultural and Social.



The aspirations of Estidama are incorporated into Plan 2030 and other Urban Planning Council (UPC) policies such as the Development Code and the Pearl Rating System.

1.1 Pearl Building Rating System

The Pearl Building Rating System (PBRS) for Estidama aims to address the sustainability of a building development throughout its lifecycle from design through construction to operation. The PBRS provides design guidance and detailed requirements for rating a project's potential performance in relation to the four pillars of Estidama.

The PBRS is organized into a number of categories that are fundamental to enhancing the sustainability of a development. These form the heart of the PBRS:

- a. **Integrated Development Process (IDP):** Encouraging cross-disciplinary teamwork to deliver environmental and quality management throughout the life of the project.
- b. **Natural Systems (NS):** Conserving, preserving and restoring the region's critical natural environments and habitats.
- c. **Livable Buildings, Outdoors (LBo):** Improving the quality and connectivity of outdoor spaces.
- d. **Livable Buildings, Indoors (LBi):** Improving the quality and connectivity of indoor spaces.
- e. **Precious Water (PW):** Reducing water demand and encouraging efficient distribution and alternative water sources.
- f. **Resourceful Energy (RE):** Targeting energy conservation through passive design measures, reduced demand, energy efficiency and renewable sources.
- g. **Stewarding Material (SM):** Ensuring consideration of the 'whole-of-life' cycle when selecting and specifying materials.
- h. **Innovating Practice (IP):** Encouraging innovation in building design and construction to facilitate market and industry transformation.



1.2 KIZAD Logistics Park Pearl Building Rating System

Vision for KIZAD Logistics Park

The compliance with the requirements of Estidama is necessary for any and all projects in Abu Dhabi to obtain a building permit and an occupancy permit.

As part of ADPC (also referenced as the 'Developer' or the 'Landlord') mission to achieve sustainable development as part of the Abu Dhabi Vision 2030, the 'KIZAD Logistics Park' project has been targeted to meet Pearl 2 under Estidama.

No tenant will be allowed to take occupation until the Estidama requirement is satisfied.

In order to achieve this, between ADPC and the Tenant, a total of 60 credit points must be achieved. Fit out works carried out by every Tenant MUST:

- achieve all mandatory credits required by PBRs;
- achieve all credits of PBRs that are 'selected' by ADPC for this development and applies to tenant fit out works; and
- achieve the required number of 'optional' credits that are available for Tenants to select from a list of credit points.

Based on the above, the Estidama credit points for this project are broken down as follows:

- **Requirement Credits**
"Requirement Credits" are compulsory prerequisites that are applicable to all projects (including fit out works) in Abu Dhabi. Tenants are to note these credits and to comply with them during design, construction and operation of the fit out works. These "Requirement Credits" do not earn / achieve any points; however, failing to comply will end into losing the Estidama Rating. The Tenants (and their appointed consultants and contractors) are required to comply with these credits.
Refer to Section 3 below for the "Requirement Credits" for all points that are mandatory per Estidama (Not ADPC) to the fit out works. No credit points shall be awarded against compliance with these credits.
- **Category 1: Credit Points to be Achieved by ADPC**
These are credits that are related to the Base Build works and are achieved by ADPC directly or via the works completed by ADPC's contractor. No action is required from the Tenant is meeting these credits. However, the Tenant is to ensure that his fit out works (during construction and during operation) shall have no impact on jeopardizing the compliance with any of these credits.
- **Category 2: Credit Points to be Achieved by the Tenants To Match Credit Points Achieved by ADPC**
As part of the Base Build, ADPC has committed to certain points/ however, by the nature, Tenants also need to conform to the requirements of these points. Every Tenant is required to meet all of the credit points under this category.



- **Category 3: Alternative Credit Points Available for the Tenants**

In the event Tenant is unable to achieve all of the credit points of Category 2 (above), Tenant shall be allowed to pursue alternative credit points from the list included in Category 3 subject to ADPC approval.

Disclaimer

Tenants are to note that the above distribution of the credit points between the Base Build and the Tenants are subject to amendments and changes by UPC at any time who may impose, at any time, different and/ or additional requirements from the Tenants to achieve any of the Requirement Credits and/or the 'selected' credits to maintain the Pearl 2 Rating for this Development.

2 Governance

2.1 Process & Procedure

The following process describes the approval process for all Tenants. The process aims to ensure all Estidama requirements are included and satisfied prior to the Tenants carrying out the fit out works.

Step 1: Identify all Applicable Requirements

The Tenant shall review the Estidama Tenant Guideline document to determine the applicability of the "Requirement Credits" and the credit points of Category 2 to their fit out works.

The list of submission documents for design has been included within each credit as an indication of the extent and details of the design and construction deliverables to be prepared by the Tenants. However, the Tenant is required to verify the requirements with ADPC prior to submission taking in consideration the particular criteria of the Tenant's fit out work and operation.

Step 2: Select the Alternative Points out of Category 3 Points if Approved by ADPC

The selected alternative points (from Category 3) shall be to ADPC's approval who may, if seen in the Development's best interest, require the Tenant to opt to achieve different point(s).



Step 3: Prepare Fit out Plans

The Tenant shall develop the detailed design documents that demonstrate how the requirements each of Step 1 & Step 2 can be incorporated within the design and construction of the fit out works.

The Tenant shall submit the fit out detailed design to ADPC for review and approval. A letter of approval will be issued upon satisfactory inclusion of Estidama requirements within fit out design.

Step 3(a): Re-submission of Fit out Plans

In the event of non-compliance, ADPC will issue a Corrective Action Report. The Tenant shall resubmit the detailed design prior to commencement of construction works. A letter of approval will be issued upon satisfactory inclusion of Estidama requirements within fit out design.

Step 4: Prepare Fit out Compliance

Upon completion of fit out works, the Tenant shall re-submit fit out compliance evidence. A letter of approval will be issued upon satisfactory demonstration of compliance requirements.

The list of submission documents for construction has been included within each credit.

2.2 Reference

The Tenants must ensure compliance with the full PBRs credit requirements, and may make reference to the Pearl Building Rating System for further guidance. A copy of the PBRs (Version 1) can be obtained online at the following website:

<http://estidama.org/template/estidama/docs/PBRs%20Version%201.0.pdf>

3 “Requirement Credits” for Tenants to Achieve

This section provides requirements for compliance for all Tenants per Estidama advising on the objectives for each according to Estidama PBRs for information only. The Tenant is required to verify the applicable aspects of each to the fit out work and comply as necessary.

Table 1 below list all these “Requirements Credits”.



Credit	
IDP-R2	Tenant Fit Out Design and Construction Guide
IDP-R3	Basic Commissioning
LBI-R1	Healthy Ventilation Delivery
LBI-R2	Smoking Control
LBI-R3	Legionella Management Plan
RE-R1	Improved Energy Performance
RE-R2	Energy Monitoring and Reporting
RE-R3	Ozone Impact of Refrigerant
SM-R1	Hazardous Materials Elimination
SM-R2	Basic Construction Waste Management
SM-R3	Basic Operational Waste Management

Table 1 – “Requirement Credits” for all Tenants

3.1 Tenant Fit Out Design and Construction Guide (IDP-R2)

Objective

The intent of the requirement is to ensure that ADPC shall circulate the Tenant Fitting Out Guideline to all Tenants to be followed by the Tenant’s team in the design and construction of the fit out works to contribute to the overall project’s sustainability objectives and targets.

3.2 Basic Commissioning (IDP-R3)

Objective

The intent of the requirement is to ensure that the building performs as designed to protect occupant health and provide comfort and ongoing building efficiency.

Other related credits is IDP-5 on Re-commissioning of the project.

Tenant Requirement

The tenant shall appoint a commissioning agent to commission its MEP systems installed within the building.



The commissioning process must cover at a minimum the following systems:

- HVAC systems
- Lighting Controls

Guidance / Methodology

The independent commissioning agent must oversee and lead the commissioning process as follows:

- Review Design HVAC and Lighting documentations and check if they are consistent with the design requirements.
- Review Construction Documentations and check for consistency
- Prepare the Commissioning Plan; and
- Review and approve the results of commissioned systems.

Tenants shall refer to the PBRS manual page 18 of 223 for full credit requirements and further guidance on calculations and/or methodology on compliance.

Submission Documentation

Tenant Design Approval

- CV of Commissioning Agent
- Contract with the Commissioning Agent
- Design Documents reviews
- Commissioning Plan clearly indicating commissioning requirements for the project, including tenant's project requirement and basis of design

Tenant Construction Approval

- List of all meetings attended by the Commissioning Agent through commissioning period and project handover, including dates.
- Final Commissioning Report, including Owner's Project Requirements; Project commissioning specifications; Verification of installation; and Operation & Maintenance Manual

3.3 Healthy Ventilation Delivery (LBI-R1)

Objective

The intent of the requirement is to protect the quality of air drawn into buildings for ventilation and to ensure minimum delivery of outdoor fresh air.

Tenant Requirement

Demonstrate that the building mechanical system meets the following requirements:

- The ventilation shall be obtained through mechanical system the natural ventilation is not accepted.
- Separation distances between outdoor air intakes and any exhausts or discharge points comply with ASHRAE 62.1.2007 or local code whichever is more stringent;
- All exhausts are located outside of the defined public realm or as defined by local code, whichever is more stringent; and
- Demonstrate that all of the occupied areas in the building comply with the minimum thresholds set out in ASHRAE 62.1:2007 using the ventilation rate procedure or local code, whichever is more stringent.



Guidance / Methodology

An area on site has been allocated for the location of air intakes and exhaust that will meet the credit requirements.

Should the tenant wish to combine the units, the tenant must ensure that the separation distance requirements are met.

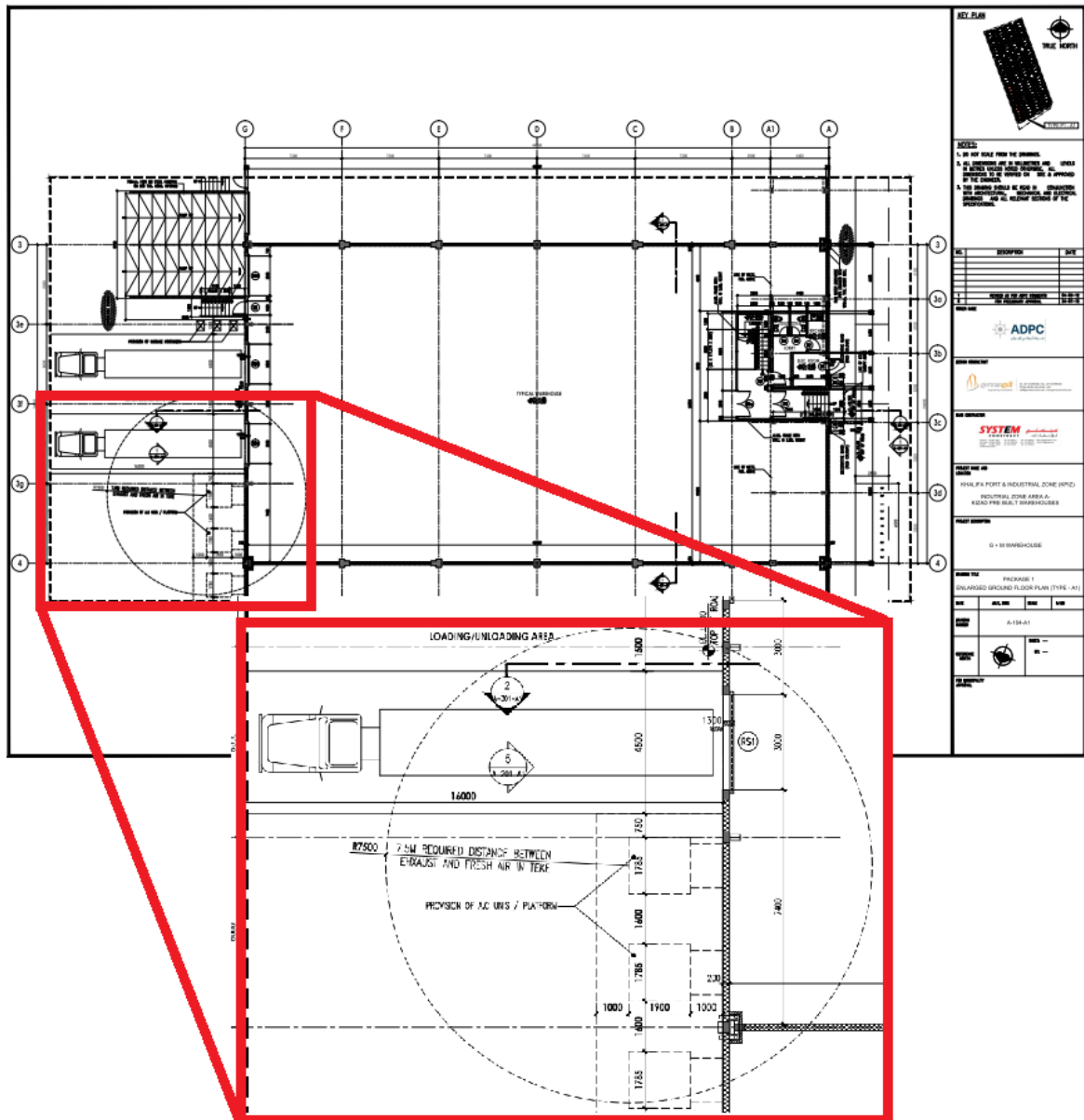


Figure 1. Location of Fresh Air Units

Tenants shall refer to the PBRs manual page 76 of 223 for full credit requirements and further guidance on calculations and/or methodology on compliance.



Submission Documentation

Tenant Design Approval

- Mechanical system drawings marked-up to clearly show distances between air intake points and exhaust air or other discharge points and the distances from the air exhaust points to any defined public realm areas;
- Narrative describing how the mechanical design system meets the Credit Requirements, including description of mechanical ventilation system; and
- Spreadsheet calculations of fresh air ventilation rates based on the ventilation rate procedure for all zones.

Tenant Construction Approval

- As-built mechanical system drawings marked-up to clearly show distances between air intake points and exhaust air or other discharge points and the distances from the air exhaust points to any defined public realm areas;
- Narrative describing how the mechanical design system meets the Credit Requirements, including description of mechanical ventilation system; and
- Commissioning results demonstrating compliance with minimum fresh air ventilation rate requirements.

3.4 Smoking Control (LBI-R2)

Objective

The intent of the requirement is to eliminate and minimize the exposure of the buildings occupants to the harmful effects of tobacco smoking. The Tenants are obliged to follow the No Smoking Policy enforced by ADPC for the fit out design and construction and then during operation.

3.5 Legionella Prevention (LBI-R3)

Objective

The intent of the requirement is to manage the risk of Legionella in water based building systems.

Tenant Requirement

A Legionella Management Plan has been developed by ADPC. Should tenants install any water based system within the tenant fit out space, tenants shall provide a Legionella Management Plan for all relevant water based system.

Tenants shall:

- Ensure that requirements and guidance are aligned to Part 1 and Part 2 of 'Legionnaire's Disease - The Control of Legionella Bacteria in Water Systems', Approved Code of Practice and Guidance (L8), 3rd Edition 2000, UK Health and Safety Executive.
- Implement the Legionnaire Management Plan for all at risk water based systems
- Tenants shall refer to the PBRS manual page 79-80 of 223 for full credit requirements and further guidance on calculations and/or methodology on compliance.

Submission Documentation



Tenant Design Approval

- Narrative and drawings of the water-based systems are present or not. The Narrative must explain the approach to Legionella Management, or confirm no water-based systems are present;
- Legionella Management Plan for the treatment of Legionella in the project's water-based systems

Tenant Construction Approval

- Operations & Maintenance Manual of the water based system;
- Narrative must explain the approach to Legionella Management and how it integrates into the OMM;
- Narrative and As-Built drawings of the project's other water-based systems;
- Legionella Management Plan for the treatment of Legionella in the project's water-based systems
- All Audit checklists associated with the Legionella Management Process including but not limited to plant installation and commissioning, testing, training and competency and record keeping

3.6 Basic Energy Performance (RE-R1)

Objective

The intent of the requirement is to create a decision-support tool to assist the project team in making informed decisions about the options, implications and benefits of various aspects of the building design in order to achieve a minimum level of energy efficiency.

Other related credit is RE-1 on Improved Energy Performance.

3.7 Energy Monitoring and Reporting (RE-R2)

Objective

The intent of the requirement is to encourage the provision of metering facilities that allow the energy performance of the building to be recorded and monitored to allow future improvement and understanding of the use of energy in buildings.

Tenant Requirement

Tenants must refer to the PBRS credit RE-R2 to ensure full compliance to the requirements. (Pages 144-146 of Version 1.0 of the PBRS)

- As part of the energy monitoring strategy the tenant shall segregate and monitor the HVAC energy consumption with that of the other electrical load (e.g. lighting, small power). This scheme shall be enforced at the design level and while preparing electrical single line diagram.
- The electrical design can be optimized by providing dedicated DBs or MCC panel that serves the electrical load exclusively for HVAC system.
- Dedicated DB's/MCC for HVAC load, then can be metered at their main incomer and thus log the tenants cooling energy consumptions.
- Electricity consumptions of the rest of the facility, services can be calculated by a mathematical model, i.e. difference between the tenant main SMDB-WH meter and HVAC load consumption.
- Tenant main SMDB-WH will have one energy meter and under the scope of the base-built contractor.



- If the electrical design does not consider dedicated DBs/MCCs for the HVAC system, then the DBs/MCC that are serving mixed load should be segregated to get the HVAC system electrical consumption.
- Metering strategy produced by the tenant shall be reviewed and affirmed by the owner/developer.

Guidance / Methodology

Space and ducting have been allocated for tenants to install energy meters.

Specification of Energy Meters must be:

- Easy accessible and clearly labelled energy sub-meters must be provided. Individual meter should be provided as a minimum to the following system:
- Circuit Description
- Lighting electrical distribution board meter. This should include both internal & external lighting.
- Small power electrical distribution board meter.
- Air conditioning meter. This should cover as a minimum all external condenser and where applicable associated pimps and air handling units.
- Provide separate energy meters for all single pieces of plant exceeding a maximum load of 20kW.
- Where central data collection facilities are installed, all sub-meters must have data logging capability. Output from this must have the following capabilities:
- Provide hourly, daily, weekly, monthly and annual energy consumption for each end use.
- Compare consumptions to previous days, weeks, months and years for trend analysis;
- Record peak energy consumption for each end use.

Tenant Construction Approval

- Updated brief narrative describing how the requirements of the credit have been achieved;
- Energy system schematics illustrating the metering strategy confirming that the required level of metering has been achieved;
- Manufacturer's data and as-built building services layout drawings clearly indicating the type, extent and locations of all metering; and
- Photographic evidence confirming installation of specified meters and central monitoring system.

3.8 Ozone Impact of Refrigerant (RE-R3)

Objective

The intent of the requirement is to promote the selection of refrigerants that minimize the impacts on the environment.

Tenant Requirement

Demonstrate that all refrigerants to be installed within the project site boundary have an ozone depletion potential (ODP) of zero.

Guidance / Methodology

The ozone depletion potential (ODP) of various refrigerants is given below:



Permissible Refrigerants	ODP	GWP	Common Building Applications
HFC-134a	0	1,430	CFC-12 or HCFC-22 replacement
HFC245fa	0	1,030	Insulation agent, centrifugal chillers
HFC-407c	0	1,700	HCFC-22 replacement
HFC-410a	0	1,900	Air Conditioning
HFC-417a	0	1,950	HCFC-22 replacement

Tenants shall refer to the PBRs manual page 147 of 223 for full credit requirements and further guidance on calculations and/or methodology on compliance.

Submission Documentation

Tenant Design Approval

- Specification extracts for all proposed refrigerants confirming ODP of each refrigerant and gas is zero.

Tenant Construction Approval

- Manufacturer's information for all installed refrigerants confirming ODP of each refrigerant and gas is zero

3.9 Hazardous Material Elimination (SM-R1)

Objective

The intent of the requirement is to eliminate exposure of building occupants to asbestos and minimize toxic effects of Chromated Copper Arsenate treated timber on people and the environment.

Tenant Requirement

Demonstrate that no Asbestos containing Materials or Chromated Copper Arsenate treated timber are used within the development

Tenants shall refer to the PBRs manual page 172 of 223 for full credit requirements and further guidance on calculations and/or methodology on compliance.

Submission Documentation

Tenant Design Approval

Extracts from specifications indicating that no ACMs or CCA-treated timber are to be used in the project as per the Credit Requirements.

Tenant Construction Approval

Evidence of purchase indicating that no ACMs or CCA-treated timber were used in the project as per the Credit Requirements.



3.10 Basic Construction Waste Management (SM-R2)

Objective

The intent of the requirement is to reduce the long-term environmental impacts associated with construction waste collection, transport and disposal.

Other related credit is SM-13 on Improved Construction Waste Management.

3.11 Basic Operational Waste Management (SM-R3)

Objective

The intent of the requirement is to reduce the long-term environmental impacts associated with operational waste collection, transport and disposal.

Other related credit is SM-14: Improved Operational Waste Management.

Tenant Requirement

Develop and implement an Operational Waste Management Plan (OWMP) that includes measures for diverting waste from landfills and incineration to meet a 40% targeted diversion rate.

The Operational Waste Management Plan shall include all the requirements of SM-R2. In addition, the following plans must be included in the Operational Waste Management plan:

- Identify types of waste generated by the warehouse (eg. Office material, Packaging waste, etc.)
- Provide annual estimates of operational waste generated by tenant and a plan to show how a minimum of 40% of waste by weight to be diverted from landfill
- Provide a minimum of four waste bins that are labeled appropriately. One for recyclables (plastic, glass and metals), one for recyclable paper and cardboard, and the third bin for general waste and organic waste.
- How waste is segregated at source
- Organize waste collection for recyclables and non-recyclables

Tenants shall refer to the PBRS manual page 174-175 of 223 for full credit requirements and further guidance on calculations and/or methodology on compliance.

Submission Documentation

Tenant Design Approval

- Operational Waste Strategy that includes:
- Narrative summarizing options researched and selected to meet the diversion targets. The strategy must address waste minimization, storage, collection, and treatment and links to private or municipal and regional infrastructure and programs;
- Calculations documenting projected waste quantities for the development during operation on an annual basis. Waste benchmarks may be obtained from the Centre of Waste Management, waste audits of similar buildings or literature research. References must be clearly listed;



- Waste transfer inventory outlining the intended receiver of waste. This should include information indicating that the carrier, recycling and disposal facilities are licensed.

Tenant Construction Approval

- Updated calculations documenting projected waste quantities for the development during operation on an annual basis; and
- Updated waste transfer inventory outlining the contracted receiver of waste. This should include information indicating that the carrier, recycling and disposal facilities are licensed.

4 Category 1: Credit Points to Be Achieved by ADPC

Points in this Category are related to the Base Build works and are achieved by ADPC. **Table 2** below list these points and included for the Tenant's information and to ensure that the Tenant's fit out works does not introduce any risk to compliance with these credits.

Credit		Number of Points
IDP-3	Construction Environmental Management	2
NS-3	Ecological Enhancement	2
LBo-1	Improved Outdoor Thermal Enhancement	2
LBo-7	Bicycle Facilities	1
LBo-8	Preferred Car Parking Spaces	1
LBi-4	Car Park Air Quality Management	1
LBi-8	Views	1
LBi-10	Safe & Secure Environment	1
PW-1	Improved Interior Water Use Reduction	11
PW-2.1	Exterior Water Use Reduction: Landscape	6
PW-2.3	Exterior Water Use Reduction: Water Features	4
SM-4	Design for Disassembly	1
SM-6	Design for Durability	1
SM-9	Regional Materials	2
SM-10	Recycled Materials	5
SM-13	Improved Construction Waste Management	2
SM-15	Organic Waste Management	1

Table 2 - Category 1 Targeted Credit Points to Be Achieved by ADPC



5 Category 2: Credit Points to Be Achieved by the Tenants To Match Credit Points Achieved by ADPC

This section provides the objective and intent, technical compliance requirements, technical guidance (where applicable), as well as submission documentation required to meet the requirements of the credit points within Category 2.

Table 3 below lists these credits points.

Credit		No. of Points
IDP-5	Re-commissioning	2
IDP-6	Sustainability Communication (Occupant Handbook	1
LBo-8	Preferred Car Parking Spaces	1
LBo-9	Travel Plan	1
LBi-2.4	Material Emissions – Ceiling Systems	1
LBi-6	High Frequency Lighting	1
PW-2.2	Exterior Water Use Reduction: Heat Rejection	8
RE-1	Improved Energy Performance	4
RE-7	Global Warming Impacts of Refrigerants & Fire Suppression Systems	1
SM-14	Improved Operational Waste Management	2

Table 3 - Category 2 Targeted Credit Points to Be Achieved by ADPC

5.1 Re-Commissioning (IDP-5)

Objective

The intent of the requirement is to ensure that the building performs as designed to protect occupant health and comfort, as well as providing for ongoing building efficiency.

Tenant Requirement

Tenants are required to re-commission the building after 1-2 years of tenant occupancy. Tenants are to re-commission at a minimum HVAC systems and lighting systems and controls.



In addition, tenants should demonstrate a commitment to the following:

- Final tuning as required one year after construction completion;
- Re-commissioning two years after construction completion; and
- Development of the building Operation and Maintenance (O&M) Manual; Building Log Book (BLB) or similar record performance, staff training and maintenance schedules.

Tenants shall refer to the PBRS manual page 25-26 of 223 for full credit requirements and further guidance on calculations and/or methodology on compliance.

Submission Documentation

Tenant Design Approval

- Commissioning Plan clearly indicating commissioning requirements for the project, signed off by ADPC, that includes:
 - Extracts from contracts or specifications clearly indicating the requirements for ongoing building commissioning as per the Credit Requirements
 - Extracts from contracts or specifications clearly indicating the requirements for a detailed O&M manual including a table of contents and brief description of each section including details on BMS operation, or other means of monitoring building system performance and utilities consumption and maintenance schedules; and
 - Written commitment by the tenants to maintain a Building Log Book as per the Credit Requirements

Tenant Construction Approval

- Updated Commissioning Plan that clearly indicates the ongoing commissioning requirements for the project and includes:
 - Extracts from contracts or specifications clearly indicating the requirements for ongoing building commissioning (of tenanted space) as per the Credit Requirements;
 - Detailed O&M manual, means of monitoring building system performance and utilities consumption and maintenance schedules; and
 - Copy of the Building Log Book as per the Credit Requirements.

5.2 Sustainability Communication (IDP-6)

Objective

The intent of the requirement is to apply efficient ongoing operation of the building by enabling occupants to appreciate, understand and contribute to responsible resource use in the building.

Tenant Requirement

The Occupant Handbook has been prepared by ADPC to be distributed electronically to all Tenants. The handbook will advise them about the sustainability features designed power station buildings, the operations requirements to achieve the project's sustainability goals and the maintenance requirements in order to ensure systems function as they were designed for.

The Tenants shall be required to comply with all requirements of the Occupant Handbook.



5.3 Preferred Car Parking Spaces (LBo-8)

Objective

The intent of the requirement is to encourage car sharing and more fuel-efficient forms of personal transport.

Tenant Requirement

A mechanism of enforcement of the above restrictions must be implemented to ensure that access to the priority spaces is safeguarded for priority vehicles.

The means of enforcing the preferred use of priority parking spaces is at the discretion of the building user/operator but evidence of a robust strategy will be expected to be demonstrated.

Preferred Car Parking Spaces are spaces specifically:

- For electric vehicles, gas vehicles and hybrids or those forming part of a defined and approved car-sharing scheme or car club;
- supplied with vehicle charging points; and
- Are optimally located for the building access.

5.4 Travel Plan (LBo-9)

Objective

The intent of the requirement is to reduce single occupancy vehicle use by managing the demand for travel and by maximizing the availability of alternatives to traveling by car.

Tenant Requirement

Travel Plan has been prepared by ADPC to detail the strategy for the delivery and monitoring of interventions to promote sustainable travel patterns. Refer to Appendix D.

The Tenants shall be required to comply with all requirements of the Travel Plan.

5.5 Material Emissions - Ceiling Systems (LBi-2.4)

Objective

The intent of this requirement is to confirm the use of low emission ceiling systems to encourage the desirability of these spaces in relation to improved occupant health.

Tenant Requirement

▪ Suspended Ceiling Systems

Demonstrate that all suspended ceiling systems comply with the requirements of BS EN 13964: 2004 section 4.5, in relation to asbestos (no asbestos) and formaldehyde content (which must meet class E1 at a minimum and be tested, classified and appropriately marked).

▪ Non-Suspended Ceiling Systems

Comply with the requirements listed in Section 5.5 on Adhesives, Sealants, Paints & Coatings.



Note: This requirement is already implemented by ADPC for the Base Build works. Hence, by the Tenant not installing any ceiling systems, the credit points shall be awarded automatically.

Tenants shall refer to the PBRS manual page 90 of 223 for full credit requirements and further guidance on calculations and/or methodology on compliance.

Submission Documentation

Tenant Design Approval

Narrative describing all ceiling systems along with extracts from specifications for all ceiling systems and their components in relation to the project. Confirm that all components comply with the credit requirements.

Tenant Construction Approval

- Billing/purchase receipts for all aspects relating to the ceiling systems of the project;
- Tracking sheet, signed by the construction managers for receipt of all products requiring compliance with the requirements; and
- Material Safety Data Sheets and Technical Data Sheets for all products requiring compliance with the credit requirements

5.6 High Frequency Lighting (LBI-6)

This is applicable for any additional lighting (if any) installed by tenants

Objective

The intent of the requirement is to promote indoor visual comfort through the use of high frequency lighting solutions.

Other related credit include: RE-R1: Energy Performance.

Tenant Requirement

- No incandescent lamps may be installed in the project
- Occupancy sensors must be installed in all rooms intended for individual occupancy, conferencing or meeting rooms, open plan offices spaces and hallways or corridors.

Tenants shall refer to the PBRS manual page 104 of 223 for full credit requirements and further guidance on calculations and/or methodology on compliance.

Submission Documentation

Tenant Design Approval

- Confirmation that no incandescent lamps are to be installed
- Extracts from specifications indicating requirements for high frequency electronic ballasts and occupancy sensors; or
- Comprehensive luminaire schedule including ballast specifications
- Confirmation that all spaces comply with the requirements for occupancy sensors

Tenant Construction Approval



- Confirmation that no incandescent lamps are installed.
- Purchase receipts and associated technical data sheets for all lighting system installations and occupancy sensors associated with all occupied spaces; and
- Representative photographs of lighting installations

5.7 Exterior Water Use Reduction: Heat Rejection (PW-2.2)

Objective

The intent of the requirement is to reduce potable water use for heat rejection by promoting the use of recycled water and/or alternatives to water-based heat rejection.

Tenant Requirement

Demonstrate that the project uses no water for heat rejection. (ie. Air Cooled Chillers)

Submission Documentation

Tenant Design Approval

Confirmation that no water is used for heat rejection (i.e. Confirmation that air cooled chillers are used).

Tenant Construction Approval

Provide Datasheet of air cooled chillers.

5.8 Improved Energy Performance (only related to HVAC, Lighting, Fans)building fabric done by ADPC (RE-R1/1)

Objective

The intent of the requirement is to promote further reductions in the projects energy consumption and hence reduce carbon emissions associated with building operation.

Other related credits include: LB0-10: Light Pollution Reduction, and LBi-6: High Frequency Lighting.

The tenant requirements must satisfy credit LBi-R1: Healthy Ventilation Delivery; LBi-1: Ventilation Quality; RE-R1/1: Energy Performance; RE-R3: Ozone Impacts of Refrigerants; of the PBRs.

Tenant Requirement

- HVAC System Specification

Air Cooled chillers with minimum Coefficient of Performance of 4.0 (at AHRI conditions) must be provided.

- Lighting

Lighting Power Density for each space type shall meet the following requirement:



Space Type	Interior Lighting Power Density (W/m ²)
Warehouse	9.0
Office	10.8
Toilet	9.0
Pantry	11.7
Lobby	12.6
Service Area	14.4

- Service Hot Water
Hot water system installed should have efficiency of >98% or to be served by heat pumps

Submission Documentation

Tenant Design Approval

- Air Cooled Chiller performance datasheet. Note that Coefficient of Performance value on datasheet must be at AHRI conditions.
- Lighting layout demonstrating lighting power density mentioned above.
- Confirmation that hot water system has an efficiency of >98% or served by heat pumps

Tenant Construction Approval

- Delivery note of HVAC system
- Demonstrate lighting layout is as per design through purchase (quantity) confirmation
- Datasheet of hot water system installed that meets requirements

5.9 Global Warming Impacts of Refrigerants (RE-7)

Objective

The intent of the requirement is to promote the selection of refrigerants and fire suppression systems that minimized impacts on the environment.

Tenant Requirement

Fire Suppression Systems (1Point)

Demonstrate that all gaseous fire suppression systems have a GWP of 1 or less.

Tenants shall refer to the PBRS manual page 166-168 of 223 for full credit requirements and further guidance on calculations and/or methodology on compliance.

Submission Documentation

Tenant Design Approval

- Extracts from specifications confirming the GWP of all proposed gaseous fire suppression systems.

Tenant Construction Approval

- Manufacturer's information confirming the GWP of all installed gaseous fire suppression systems.



5.10 Improved Operational Waste Management (SM- 14)

Objective

The intent of the requirement is to further reduce the long-term environmental impacts associated with construction waste collection, transport and disposal.

Other related credit is SM-R3: Basic Operational Waste Management.

Tenant Requirement

Develop and implement an Operational Waste Management Plan (OWMP) that includes measures for diverting waste from landfills and incineration to meet an 80% targeted diversion rates.

The Operational Waste Management Plan shall include all the mandatory requirements of SM-R2. In Addition, the following plans must be include in the Operational Waste Management plan:

- Provide annual estimates of operational waste generated by tenant and a plan to show a minimum of 80% of waste by weight to be diverted from landfill
- Waste education (ongoing) to be provided to staff on waste segregation
- Have a person in-charge of waste management for the warehouse unit.

Tenants shall refer to the PBRS manual page 196-197 of 223 for full credit requirements and further guidance on calculations and/or methodology on compliance.

6 Category 3: Alternative Credit Points Available for the Tenants

In the event Tenant is unable to achieve all of the credit points of Category 2, Tenant shall be allowed to pursue alternative credit points from the list included in Category 3 subject to ADPC approval. **Table 4** below list these points.

Credit		Number of Points
LBi-2.1	Material Emissions – Adhesives & Sealants	1
LBi-2.2	Material Emissions – Paints & Coatings	1
LBi-2.3	Material Emissions – Carpets & Hard flooring	1
LBi-2.5	Material Emissions – Formaldehyde Reduction	2
SM-5	Modular Flooring Systems	1

Table 4 - Category 3 Optional Credit Points can be Achieved by the Tenant



6.1 Material Emissions - Adhesives & Sealants (LBI-2.1)

Objective

The intent of the requirement is to encourage the desirability of these spaces in relation to improved occupant health through the use of low emitting adhesives & sealants.

Tenant Requirement

Demonstrate that a minimum of 95% (by weight) of all adhesives and sealants used on the building interior must not exceed the prescribed VOC limits in South Coast Air Quality Management District Rule 1168, some of which are reproduced in the table below.

The VOC limits of the remaining non-compliant adhesives and sealants must be no more than 50% higher than values listed for each product type.

Product Type	Maximum grams of VOC per liter of adhesive or sealant, less water and exempt compounds
Indoor Carpet Adhesive	50
Carpet Pad Adhesive	50
Wood flooring Adhesive	100
Rubber flooring Adhesive	60
Sub-floor adhesive	50
Ceramic tile adhesive	65
Cove base adhesive	50
Plasterboard and wall panel adhesive	50
Multipurpose construction adhesive	70
Structural glazing adhesive	100
Architectural sealants	250

Note: This requirement is already implemented by ADPC for the Base Build works. Hence, by the Tenant not installing any adhesive or sealants, the credit points shall be awarded automatically.

Tenants shall refer to the PBRs manual page 84-85 of 223 for full credit requirements and further guidance on calculations and/or methodology on compliance.

Submission Documentation Tenant Design Approval



Narrative with extracts from specifications for all interior adhesives and sealants in relation to the project confirming which products will and will not comply with the requirements. Establish estimates for quantities of products likely to be used in the case where projects are aiming to meet the VOC limits for 95% of products and enter these into the LBi-2.1 Adhesives and Sealants template.

Tenant Construction Approval

- Billing/purchase receipts for all interior adhesives and sealants used in the project;
- Tracking sheet, signed by the construction managers for receipt of all adhesives and sealants;
- Enter all compliant and non-compliant adhesives and sealants into the LBi-2.1 Adhesives and Sealants template, their VOC content, the allowable VOC content and the quantity used; and
- Material Safety Data Sheets and Technical Data Sheets for all interior adhesives and sealants.

6.2 Material Emissions - Paints & Coatings (LBi-2.2)

Objective

The intent of the requirement is to encourage the desirability of these spaces in relation to improved occupant health through the use of low emitting paints and coatings.

Tenant Requirement

Demonstrate that the interior surface area covered by paints and coatings in the project meet or are less than the maximum VOC content limits values for paints and coatings for 95% of all surface areas covered by paints and coatings per Annex II, Phase II, Table A of European Directive 2004/42/CE: 2004. The VOC limits of the remaining non-compliant paints and coatings must be no more than 50% higher than the values listed above for each product type.

In addition, all paints and coatings must have fungal resistance.

Maximum VOC content limits are as follows:

Product Category	Type*	Phase II (g/l of ready use product)
Interior matt walls and ceilings (Gloss <25 @60°)	WB	30
	SB	30
Interior glossy walls and ceilings (Gloss >25 @60°)	WB	100
	SB	100
Interior trim and cladding paints for wood and metal	WB	130
	SB	300
Interior trim varnishes and wood stains, including opaque wood stains	WB	130
	SB	400
Interior minimal build wood stains	WB	130
	SB	700
Primers	WB	30
	SB	350
Binding Primers	WB	30
	SB	750



One-pack performance coatings	WB	140
	SB	500
Two-pack reactive performance coatings for specific end use such as floors	WB	140
	SB	500
Multi-colored coatings	WB	100
	SB	100
Decorative effect coatings	WB	200
	SB	200

* WB = Water Based, SB = Solvent Based

Note: This requirement is already implemented by ADPC for the Base Build works. Hence, by the Tenant not installing any paints and/ or coating, the credit points shall be awarded automatically.

Tenants shall refer to the PBRs manual page 86-87 of 223 for full credit requirements and further guidance on calculations and/or methodology on compliance.

Submission Documentation

Tenant Design Approval

Narrative with extracts from specifications for all interior paints and coatings in relation to the project confirming which products will and will not comply with the requirements. Establish estimates for quantities of paint and coating products likely to be used and enter these in the LBi-2.2 Paints and Coatings template

Tenant Construction Approval

- Billing / purchase receipts for all interior paints and coatings used in the project;
- Tracking sheet, signed by the construction managers for receipt of all paints and coatings;
- Enter all compliant and non-compliant paints and coatings into the LBi-2.2 Paints and Coatings template, their VOC content, the allowable VOC content and the total quantity used; and
- Material Safety Data Sheets (MSDS) and Technical Data Sheets for all interior paints and coatings.

6.3 Material Emissions - Carpets & Flooring (LBI-2.3)

Objective

The intent of the requirement is to encourage the desirability of these spaces in relation to improved occupant health by the use of appropriate flooring systems.

Tenant Requirement

▪ Carpet

Demonstrate that all carpet and carpet cushion meet or exceed the Carpet and Rug Institute Green Label or Green Label Plus Program or Greenguard Indoor Air Quality Certification Program for Carpets.

▪ Hard Flooring OR Wood Flooring



Hard Flooring: Demonstrate that all hard flooring systems and finishes have achieved FloorScore Certification or Greenguard Indoor Air Quality Certification for low emitting products.

Wood Flooring: Confirm that ALL wood flooring products do not exceed class E1 for formaldehyde content and do not exceed 5 parts per million (ppm) for Pentachlorophenol (PCP) content. Wood products must be tested, classified and appropriately marked according to the requirements of BS EN 14342:2005. All remaining non-wood flooring must comply with the requirements above. In addition, comply with the requirements listed in Section 5.5 on Adhesives, Sealants, Paints & Coatings.

Note: This requirement is already implemented by ADPC for the Base Build works. Hence, by the Tenant not installing any carpets and/ or flooring, the credit points shall be awarded automatically.

Tenants shall refer to the PBRs manual page 88-89 of 223 for full credit requirements and further guidance on calculations and/or methodology on compliance.

Submission Documentation

Tenant Design Approval

Narrative and extracts from specifications for all carpet, carpet cushion, hard flooring, associated finishes and adhesives (as appropriate) in relation to the project. Confirm that the specification complies with the credit requirements.

Tenant Construction Approval

Brief narrative (with submitted As-Built drawings as required) describing the locations of all carpets, carpet cushion, hard flooring products and finishes installed in the project. Enter all types of carpet, carpet cushion, hard flooring products and finishes installed in the project into the LBi-2.3 Carpet and Hard Flooring template. Confirm that all products comply with the requirements outlined. Also upload all associated Material Safety Data Sheets and Technical Data Sheets for these products to demonstrate compliance with the credit requirements.

6.4 Material Emissions - Formaldehyde Reduction (LBI-2.5)

Objective

The intent of the requirement is to mitigate the health risks associated with formaldehyde in building materials and products.

The tenant requirements must satisfy credit LBi-2.5: Material Emissions: Formaldehyde of the PBRs.

Tenant Requirement

Requirement 1:

Demonstrate that all internal construction materials do not exceed formaldehyde VOC content class E1 levels. (This will achieve 1 Point)

Requirement 2:



In addition to achieving the requirement above, demonstrate that all installed furniture does not exceed formaldehyde VOC content class E1 levels. (This will achieve another 1 point)

Note: This requirement is already implemented by ADPC for the Base Build works. Hence, by the Tenant not installing any materials and/or products with formaldehyde, the credit points shall be awarded automatically.

Tenants shall refer to the PBRs manual page 91-92 of 223 for full credit requirements and further guidance on calculations and/or methodology on compliance.

Submission Documentation

Tenant Design Approval

- Interior finish schedule highlighting products likely to contain formaldehyde;
- Interior furniture schedule highlighting products likely to contain formaldehyde (if pursuing Requirement 2); and
- For all products containing formaldehyde, provide extracts from relevant specifications showing how credit requirements are met.

Tenant Construction Approval

- As Built interior finish schedule for all installed products highlighting products containing formaldehyde;
- Schedule for all installed furniture highlighting products containing formaldehyde; and
- For all products containing formaldehyde, provide either Manufacturer's Data sheets OR Third party evidence showing certification of formaldehyde content tested, according to appropriate testing standards (see reference standards) by one of the following:
 - Reputable certified independent testing laboratory; or
 - Certification from a reputable third party assessment body.

6.5 Modular Flooring System (SM-5)

Objective

The intent of the requirement is to minimize waste associated with replacement of flooring systems through the use of modular systems

Tenant Requirement

At least 95% (by surface area) of finished floor areas use modular flooring products.

Flooring products must have one or more of the following environmental characteristics:

- Have a minimum of 30% post-consumer recycled content;
- Be fully or partly recyclable;
- Be rapidly renewable; or
- Be extracted, harvested or recovered and manufactured locally (within the UAE)

Tenants shall refer to the PBRs manual page 182 of 223 for full credit requirements and further guidance on calculations and/or methodology on compliance.

Submission Documentation

Tenant Design Approval



- Floor plans and floor finishes schedule describing all flooring systems used (excluding all non-finished floor areas such as plant rooms), their locations in the building, total area covered, and their environmental characteristic(s);
- Calculations demonstrating that the flooring systems used meet the Credit Requirements in aggregate; and
- Extracts from specifications showing that modular flooring systems meet the environmental characteristic(s) requirements.

Tenant Construction Approval

- As-built floor plans and updated floor finishes schedule describing all flooring systems used (excluding all non-finished floor areas such as plant rooms), their locations in the building, total area covered, and their environmental characteristics;
- Updated calculations demonstrating that the flooring systems used meet the Credit Requirements in aggregate;
- Evidence of purchase and installation of these materials in the project in the form of invoices from suppliers and installers to be provided.



Appendix A – Acronyms



GWP	Global Warming Potential
IDP	Integrated Development Process
IP	Innovating Practice
LBi	Livable Buildings Indoors
LBo	Livable Buildings Outdoors
NS	Natural Systems
ODP	Ozone Depletion Potential
PBRS	Pearl Building Rating System
PW	Precious Water
RE	Resourceful Energy
SM	Stewarding Materials



Appendix B - Estidama Construction Submission Requirements Checklist for tenant



Kizad Logistics Park Package 1 Estidama Checklist Construction Submission Requirements

Target – 2 Pearl

Tenant Information

Tenant Company Name

Tenant Building Number

Date Submitted by Tenant

Document Number

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Requirements Credits

Credit		Credit Points	Targeted Points	Achieved/Not Achieved
IDP-R2	Tenant Fit Out Design and Construction Guide	-	Requirement Credit	
IDP-R3	Basic Commissioning	-	Requirement Credit	
LBi-R1	Healthy Ventilation Delivery	-	Requirement Credit	
LBi-R2	Smoking Control	-	Requirement Credit	
LBi-R3	Legionella Management Plan	-	Requirement Credit	
RE-R1	Improved Energy Performance	-	Requirement Credit	
RE-R2	Energy Monitoring and Reporting	-	Requirement Credit	
RE-R3	Ozone Impact of Refrigerant	-	Requirement Credit	
SM-R1	Hazardous Materials Elimination	-	Requirement Credit	
SM-R2	Basic Construction Waste Management	-	Requirement Credit	
SM-R3	Basic Operational Waste Management	-	Requirement Credit	
IDP-5	Re-Commissioning	2	Mandatory for Tenants	
LBo-9	Travel Plan	1	Mandatory for Tenants	
LBi-2.4	Material Emissions – Ceiling Systems	1	Mandatory for Tenants	
LBi-6	High Frequency Lighting	1	Mandatory for Tenants	



Credit		Credit Points	Targeted Points	Achieved/Not Achieved
PW-1	Improved Interior Water Use Reduction	11	Mandatory for Tenants	If there is fixture replacement
PW-2.2	Exterior Water Use Reduction: Heat Rejection	8	Mandatory for Tenants	
RE-1	Improved Energy Performance	4	Mandatory for Tenants	For HVAC/Fan/Lighting
RE-7	Global Warming Impacts of Refrigerants	1	Mandatory for Tenants	For Fire suppression system inside warehouse if any
SM-14	Improved Operational Waste Management	2	Mandatory for Tenants	
SM-15	Organic waste management	1	Mandatory for Tenants	

Notes:

- All credit points are required from the mandatory credits listed.
- All requirement credits are to be achieved.



Appendix C - Kizad Logistics Park Travel Plan



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1 Introduction

1.1 Kizad Logistics Park Travel Plan

- This Travel Plan presents measures that Kizad (Abu Dhabi Ports Company) will introduce to influence travel patterns among its Tenant Occupiers (TOs) and promote sustainable commuting for employees to and from its Kizad Logistics Park.
- This Travel Plan details the strategy for the delivery and monitoring of interventions to promote sustainable travel patterns. Objectives, targets and indicators have also been determined to be able to monitor change and where change is not achieved, to amend those elements which may not have been effective. This Travel Plan will evolve to match the on-going and changing travel patterns of employees.
- Both Abu Dhabi Ports Company as a whole and its Kizad business unit are committed to enhancing the environmental sustainability of their business practices, both through their own operations and those of their business partners and tenant occupiers. Encouraging and facilitating alternative means of travel to private car trips for commuter journeys is an important way of reducing our environmental impact.

1.2 What is a Travel Plan?

- A Travel Plan is a long-term strategy to encourage users of a workplace to travel by sustainable transport options, and to reduce both their use of, and reliance on, private cars.
- A Travel Plan should be reviewed on a regular basis and modified if the targets within the Plan are not being met.
- A Travel Plan maximises the availability of alternatives to travelling by car. Examples of some measures that can be included to encourage sustainable travel are:
 - The provision of up-to-date public transport information, displayed on a centrally located communal notice board;
 - Online carpool connector to link up employees who want to carpool;
 - Preferred parking spaces for employees that carpool;
 - The provision of free trial tickets for public transport; and
 - Subsidies for public transport passes.
- A Travel Plan could also include measures that encourage a reduction in travel by single-occupancy car journeys through car parking management on the site. This could involve limiting the right to park to people who carpool.

1.3 The Benefits of a Travel Plan

A Travel Plan can offer a number of benefits to Kizad's TOs and their as well as their visitors and the local community. Examples of the benefits include:



Benefits to Tenant Occupiers

- Allow TOs to lead by example and demonstrate good practice in the wider community;
- Contribute to reducing traffic in and around Kizad, thereby reducing congestion and improving commute times;
- Better employee relations by helping to alleviate commute strain (sharing driver load) and by reducing employee transport costs; and
- Make a positive contribution to the organisation's environmental targets.

Benefits to Employees

- Better information and accessibility to other forms of transport for employees and visitors, reducing reliance on the private car;
- Increasing the health and wellbeing of employees, encouraging less stressful travel, leading to an improved quality of life;
- Provide more equitable access to parking facilities, based on need;
- Reduced travel costs for employees and visitors; and
- Reduce travel times for commuting and business journeys.

Benefits to the Environment and Wider Community

- Reduce emissions and improve air quality in the area, helping to tackle climate change issues;
- Reduce localised congestion from peak hour traffic to employment sites; and
- Reduce noise pollution.

1.4 Travel Plan Aim

The aim of this Travel Plan is to:

“Manage car travel to and from Kizad Logistics Park projects through promoting and encouraging the use of alternative, more sustainable modes of transport”.

1.5 Travel Plan Objectives

In order to achieve this aim, a number of objectives have been specified for the Travel Plan. These are:

- Ensure that all TO companies and their employees are made aware of the Travel Plan;
- Encouraging TOs to facilitate and encourage sustainable, healthy and safe travel of their employees and visitors to the sites, with promotion of sustainable transport options as the primary modes of travel to the sites.
- Promote car sharing amongst employees;



- Reduce vehicle carbon emissions through the take up of alternative transport modes and carpooling;
- Maintain direction and progress in Travel Planning through continued management and review.

2 Travel Plan Actions and Promotion

2.1 Promotion and Marketing/ Provision of Information

- Kizad will make its TOs aware of the overall Travel Plan and any changes thereto. It also requires that TOs follow its guidance in encouraging sustainable transport and the reduction of car based transport. TOs are required by Kizad to make sure their Employees are themselves made aware of sustainable travel opportunities.
- The Travel Plan is expected to evolve in response to new travel and transport issues that may arise, and as such, future changes may require a review of current measures to keep up with infrastructure development and employee demand.

2.2 Actions by Kizad

The following actions will be implemented by Kizad within its Kizad Logistics Park schemes and, where appropriate, Kizad will encourage its TOs to follow up with their own relevant activities so as to ensure that a variety of suitable, easily accessible alternatives to single-occupancy car use are available and attractive to employees.

Sustainable Travel Notice Boards

Notice boards will be supplied in common areas on each site (outside the on-site FM office). These notice boards will contain:

- Details of local public transport, cycle ways and cycle parking;
- Details of, and opportunities for car pooling will be posted on these notice boards;
- Any current local or national sustainable travel events;
- Information displayed via notice boards will also assist with promoting sustainable travel to visitors.

Intranet

Kizad is working on an intranet page which will be developed to provide program information, links to key transportation sites, a carpool register and other useful information.

Email Systems

Kizad will use email to communicate with its TOs and provide information that can be passed on to employees.



Carpool Promotional Event

- To boost interest further and at the appropriate time, Kizad will arrange events to promote membership to our carpool registry, and also to promote car sharing in general.
- We can arrange for employees living in close proximity to identify themselves at the lunchtime events and therefore find potential car sharing buddies.

Pool Car

ADPC will encourage its TOs to provide some form of shared transport – either a pool car or a minibus.

Public Transport Information

TOs will be provided with timetable, route and fares information for local bus services to ensure they are able to consider these modes of travel for journeys to and from work. This information will be distributed within the travel brochure and on notice boards.

Car Parking

Kizad Logistics Park schemes have a limited amount of parking space available within the sites and parking areas are clearly marked. Kizad will 'police' parking effectively so that no more than the prescribed numbers of cars are parked by employees and visitors.

2.3 Actions by TOs

- TOs will be encouraged by Kizad to make every effort to follow sustainable transport activities. These will follow the activities as listed above but key will be TOs direct links with its own employees.
- Kizad will require its TOs, as a minimum, to communicate efforts for sustainable travel to their employees and to use media such as emails, newsletters and staff notice boards to promote such activities.
- TOs are requested to look into the potential for subsidising the cost of travel passes for employees that are able to utilise public transportation in their daily commute.
- TOs are requested to look into the potential for Smarter Working Practices such as:
- **Flexible Working Hours (Case by case)** – TOs are encouraged to examine the potential to introduce a practice of flexible working hours for employees upon request. This will help to ensure that those wishing to travel by public transport are not deterred by small conflicts between when such services operate and when they are required to commence or finish work. Where such conflicts do occur, and cannot be resolved, this may lead to a higher level of car dependency. This would be managed at the discretion of the line manager.
- **Remote/Home Working Opportunities** – Home working may only be suitable for a small number of employees within the business, but can reduce the overall number of journeys.



- **Lync/Video/Tele-conferencing Facilities** – Encouraging the use of video and audio conferencing for internal and client meetings will reduce the need for some business travel.

3 Targets and Monitoring

3.1 Travel Plan Targets

- Over time Kizad will set a range of targets for its Kizad Logistics Park occupiers and will monitor and measure these over time, using the results to direct improvements to its activities. The Department of Transport approved Trip Generation Rate (TGR) for the project (Package 1) is outlined in the following table. This is based on 504 employees.

AM Peak			EVE Peak		
IN	OUT	TOTAL	IN	OUT	TOTAL
85	54	139	45	67	112

- The above table provides an indication on the TGR for the site however these figures will be refined once Package 1 is at full occupancy and after initial surveys to establish a baseline.
- As TOs start to move in and their staff locate to Kizad, ADPC will undertake surveys to assess proposed travel activities and, in particular, employees use of cars to commute. Please see Attachment 1 – Travel Plan Survey for Kizad Logistics Park Tenants. Once the results of this survey are known, Kizad will set a range of targets and will repeat the surveys to assess the effectiveness of its efforts, and those of its TOs over time. It is anticipated a 10% target will be set to improve upon the established baseline.

Measure	Timing	Responsibility
Appoint an overall Travel Plan Coordinator	• TBC	• Kizad management
Establish first research survey	• TBC	• Kizad Facilities Manager
Establish TOs main contact individuals	• TBC	• Kizad Facilities Manager
Develop Sustainable Travel Page on Intranet	• TBC	• Kizad IT
Prepare sustainable travel information for TOs	• TBC	• Kizad Facilities Manager



Create on site notice boards	<ul style="list-style-type: none"> TBC 	<ul style="list-style-type: none"> Kizad Facilities Manager
Program Launch	<ul style="list-style-type: none"> TBC 	<ul style="list-style-type: none"> Kizad Facilities Manager
Re-survey TOs employees	<ul style="list-style-type: none"> 12 months after initial survey 	<ul style="list-style-type: none"> Kizad Facilities Manager

- It is anticipated the results will be tabulated as follows:

Objective	Target	Measurement Method
Number of TOs promoting Public transport	<ul style="list-style-type: none"> TBC 	<ul style="list-style-type: none"> Quarterly Survey by Kizad FM
Number of TOs promoting car pooling	<ul style="list-style-type: none"> TBC 	<ul style="list-style-type: none"> Quarterly Survey by Kizad FM
Number of TO employees using private cars		<ul style="list-style-type: none"> Annual Kizad occupier
Number of TO employees using public transport	<ul style="list-style-type: none"> TBC 	<ul style="list-style-type: none"> Annual Kizad occupier Survey

3.2 Monitoring and Mitigation

- The results will be reviewed annually. If there is evidence that the single occupancy vehicle use is not reducing due to TO non-compliance Kizad will follow up in accordance with Kizad Rules and Regulations, specifically in accordance with Part III Warehouse Rules, Part 6 – Fines and Sanctions. If required the “Three Strike Rule” as outlined in the Kizad



Rules and Regulations Part B (Key of Sanctions) of Annexure 4 (Fines and Sanctions) will be applied. Kizad will also review the availability of alternatives forms of transport and amend/increase if required.



The Abu Dhabi Ports Company (Kizad) is committed to reducing single occupancy vehicle use by managing the demand for travel and by maximizing the availability of alternatives to traveling by car. To develop effective and desirable programs we need your opinions and information. This will allow us to understand our baseline car occupancy use and understand your preferences on alternative modes of travel. This survey is designed for staff working in the Kizad Prebuilt Warehouse Development.

Thank you for taking time to respond to this survey.

1. What tenancy block number do you work in?

2. What is your home location?

Dubai

Sharjah

Abu Dhabi - Main Island

Abu Dhabi - Mainland

Abu Dhabi - Yas Island

Abu Dhabi - Saadiyat Island

Others - specify

3. What is your primary mode of transport for your commute? (tick one)

Personal Vehicle

Shared Vehicle

Bus

Bicycle

Other

4. If you ticked 'personal vehicle' for the previous question please provide the Make and Model of the vehicle.

Make

Model

5. Do you carpool?

Yes

No

6. If your answer was 'Yes' to the previous question, what percentage of time do you carpool to the office?

7. If you do not carpool or use any other alternative to a personal vehicle to commute to work please explain why.

8. If Kizad were to support alternative transport systems which would you prefer? Please rank the following options (1 being most preferred)

Carpooling

Buses – increased access and frequency

Bicycle lanes/racks and showers

Others

9. How can Kizad best encourage you to use one of the above forms of transport?