مؤسسة مدينة دبي للطيران
DUBAI AVIATION CITY CORPORATION

For
Dubai South

Aviation District
Re-named:

محمد بن راشد للطيران
MOHAMMED BIN RASHID AEROSPACE HUB

Planning Regulations and Development Guidelines

Revision 1
November 2022

Dubai South (formerly known as Dubai World Central) is an emerging 145 sq. km master-planned city that is anchored around the new Al Maktoum International Airport (AMIA). It is comprised of significantly large-scale projects which are the Residential District, Commercial District, Golf District, Logistics District and Aviation District. Dubai South is part of the wider Jebel Ali Free Zone, arguably UAE's largest economic investment zone.

Aviation District /MBR Aerospace Hub has been conceived as the future regional headquarters for leading companies working in aviation related industries, including suppliers, maintenance specialists, manufacturers etc. Its main function is to provide support for general aviation activities, recreational aviation as well as education and training related to aviation. In addition, it is home to the Dubai Air-show facility.

Mohammed Bin Rashid Aerospace Hub offers an unprecedented level of connectivity and serves as the perfect gateway for operators to be close to their clients, emerging as a strategic gateway, integrated ecosystem, and free zone destination.

Contents

Glossary of Terms

"**Airside**" means All areas / facilities of an airport that are within a secure boundary, access to which is through controlled security access points. It comprises aprons, taxiways, runways, and any other facility (or even areas within facilities) and zone to which entry by members of the public / staff without valid travel documents / or specific access permits / badges is prohibited.

"**Authority**" shall mean the Dubai Civil Aviation (DCA) - Dubai aviation City Corporation or any other entity delegated by DCA or DACC.

"**Building**" denotes any walled and roofed structure with foundations, erected inside a plot above the ground level using whatever building material, it can be utilized for living, working, storing, or fabricating, abiding to the conditions of the Planning Regulations of the plot.

"**Building Completion Certificate**" is a certificate granted by the Authority acknowledging completion of construction and finishing and enabling connection to public utilities and occupation.

"**Building Permit**" is the license that the Authority issues to allow construction work to proceed on a specific piece of plot, in accordance with approved plans, specifications and conditions.

"**Bonded Area**" means secured area where import goods can be processed, assembled, and packed with simplified custom clearance procedures, characterized by reductions of tariff or consumption taxes.

"**Developer**" shall mean the lessee or his authorized Agent who applies to the Authority on behalf of the lessee.

"**Floor Area Ratio**" (FAR): coefficient that denotes the ratio of the total built up area (Gross Floor Area) of buildings and structures on a given plot over the total land area of the plot.
When calculating the F.A.R, the areas of the following shall be counted as part of the total built up area:

i. Attic spaces with a headroom of 2.15 meters (7 feet) or more.
ii. Interior balconies and mezzanine floors.
iii. Enclosed porches; floor area devoted to accessory uses.
iv. Stairwells

On the other hand, the following areas will be excluded from the Gross Floor Area to determine the FAR:

i. Basement floors if used only for parking, building services and storage.
ii. Balconies, terraces, garden sheds and non-enclosed shade structures (i.e., completely open on 2 sides at least).
v. Mechanical floors with maximum clear height of 2.15 meters (7 feet).
a. Elevator shafts, mechanical ducts for utilities, service rooms for mechanical or electrical equipment within the building, areas reserved for water tanks and other mechanical equipment on the roof.

vi. Roof Attics, or parts thereof, which are not used and cannot be converted for habitation.
vii. Loading/ unloading bays.

"Green Building" is an environmentally responsible, profitable, and healthy place to live and work.

"Gross Floor Area (GFA)" is the sum of all covered areas in a building or structure, measured from the external faces of the building or the center line of the common wall between two attached buildings, inclusive of basements, balconies, terraces, and other projections as well as any other covered space such as car parking lots, circulation corridors, chutes, loading/ unloading bays, service floors, swimming pools and any other structures on the plot.

"Hazardous Goods" means:

i. Any compressed, liquefied, or dissolved gases.
ii. Any substance which becomes dangerous by interaction with water or air.
iii. Any liquid substance with a flash point below 75°C.
vi. Any radioactive material and any substance which readily emits heat or other harmful radiations when it changes state or decomposes.
vii. Sheds which contain vehicles loaded with hazardous materials.
viii. Any other substance considered hazardous by the suppliers.
iv. Any corrosive substance or a substance which emits poisonous concentrations of fumes when heated.
v. Any substance liable to spontaneous combustion.

"Landscaping" is the treatment and maintenance of a plot area or property with predominant vegetation such as ground cover, plants, shrubs, or trees. It includes paving, bricks, rock work and other natural or decorative features in an organized manner designed to create a specific appearance.

"Landside" means the areas of Dubai World Central outside the airport fence to which entry by members of the public is unrestricted. It comprises of the part or whole of the Aviation City, Commercial City, Golf City, Logistic City, Residential City, Dubai Trade Centre, East/West entrance, the Humanitarian Cities, and the areas containing them.

"Loading Space" is an area used for loading or unloading of vehicles, located entirely on private property with a minimum vertical clearance of 4 meters and provided with permanent independent access.

"Mezzanine Floor" denotes a floor that can be accessed from the ground floor only and which covers a maximum of 50% of the ground floor area excluding communal entrances, stairs, and lift areas. The minimum height of the Mezzanine floor must comply with applicable Dubai Codes Building regulations and specifications.
Area of Mezzanine Floor shall be part of FAR calculation.

"Maintenance, Repair & Overhaul "means Services provided for aircraft, relating to the regular upkeep and airworthiness using specially trained personnel and equipment.

"Net Leasable Area (NLA)" The area in a building which is available for rent/ sell to tenants, excludes common areas and spaces devoted to building services.

"Non-Bonded Area" means the area where import goods cannot be packed without custom clearance to export. It has a tax clearance procedure as per the country's law.

"Operation Fitness Certificate" is a certificate granted by the Authority after a Building Completion Certificate is issued, acknowledging completion of installation and testing of machinery, and confirming the facility is safe for Operation.

"Plot" is a developable parcel of land defined by clear boundaries and coordinates.

"Plot Area" is the total area of a plot within the plot lines as measured on a horizontal plan.

"Plot Coverage" (PC): coefficient that denotes the ratio of the area of the building imprint (sum of the areas of the ground projections of the largest floor of all buildings on the plot) over the total land area of the plot. When calculating the plot coverage, the areas covered by roof projections and balconies shall be included as part of the building imprint.
The areas covered by non-enclosed impermanent structures shall not be included (i.e., car parking sheds, gazebos, etc.).

"Plot Frontage" is the portion of the plot construed nearest to the street; all sides of a plot adjacent to streets shall be considered frontage.

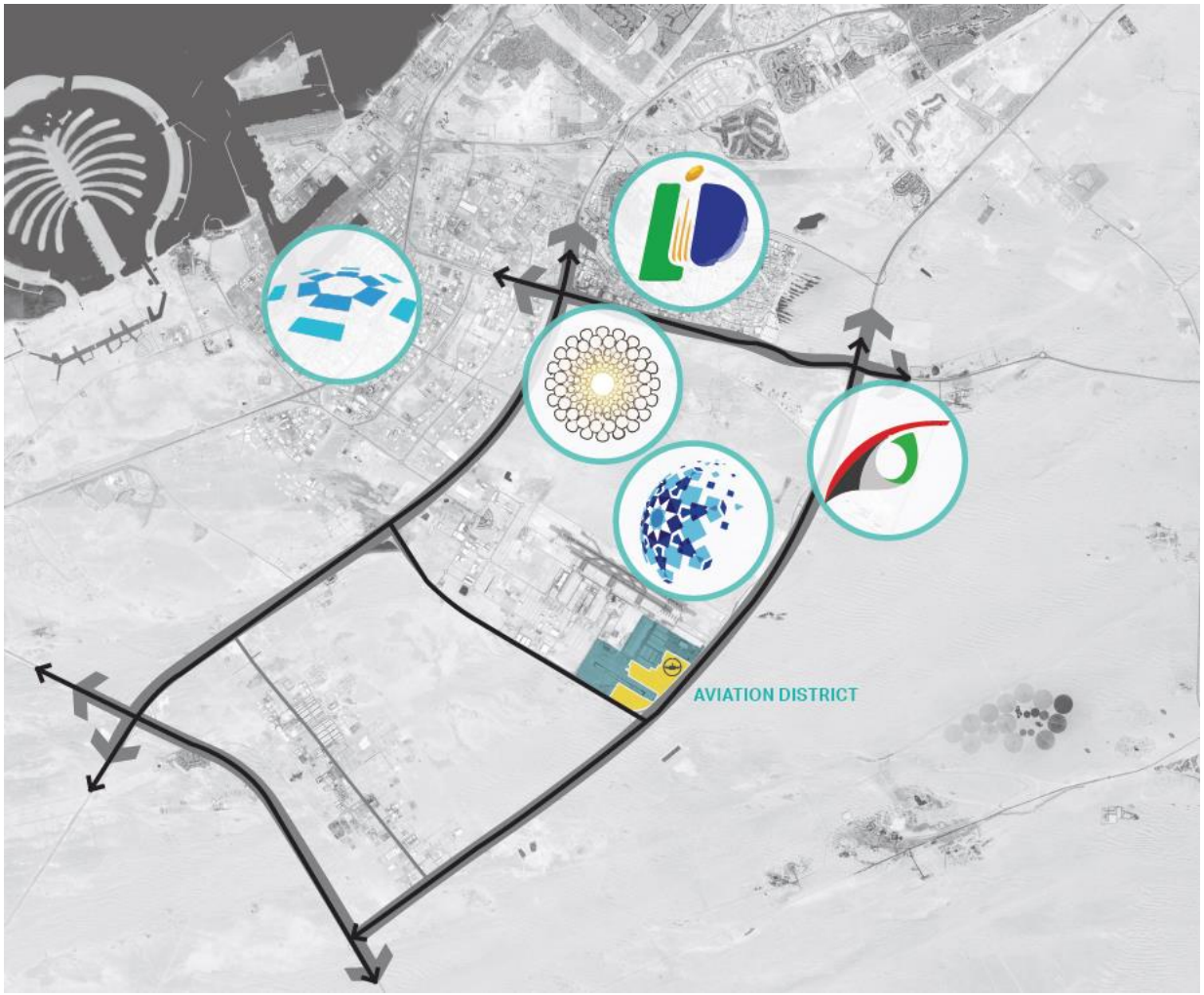
"Plot line" is any line bounding a plot herein defined.

"Setback" denotes the distance separating the building line from the plot boundary line that must be left free of building. A setback may be specified as mandatory; in which case it will define a built to line that all buildings must adhere to. A setback may be specified as a minimum
setback and in this case, the building line may adhere to it or be setback a distance larger than the specified minimum.

"Zone" an area of land shown on the official Zoning Map or described herein, within which uniform regulations for the use and development of land as set forth in these Regulations apply.

Project Location

The Aviation District is located within Dubai South, in proximity to Jebel Ali Free Zone and Dubai Investment Park, Expo 2020 site and adjacent to Al Maktoum Airport. It is bounded by Emirates Road (E611) to the south-east, internal periphery road to the south-west, upcoming Logistics City to the north-west and Al Maktoum International Airport to the north-east. It is within 35 minutes driving distance to Dubai International Airport and within 20 to 30 minutes' distance to DIFC and Downtown areas.



Dubai South Context

Al Maktoum International Airport

It is conceived to be 10 times the size of the current Dubai International Airport and Dubai Cargo Village combined and is planned to hold a passenger capacity of more than 220 million passengers a year in its ultimate phase.

Five parallel runways all of 4.5km in length,92 meters high control tower, 3 dedicated terminals, dedicated facilities earmarked for executive jet operators, hotels, shopping malls, support facilities and state-of-the-art maintenance facilities are few of the facilities envisioned for this area. It is planned to be linked to the existing Dubai International Airport and shall ultimately be serviced by the Dubai Metro in addition to the DWC internal Light Rail Train (LRT).

Aviation District is planned to house the supporting aviation related operations for Al Maktoum International Airport. It is being designed as a one-stop center for all aviation-related operations and future regional headquarters for major companies in aviation industries.

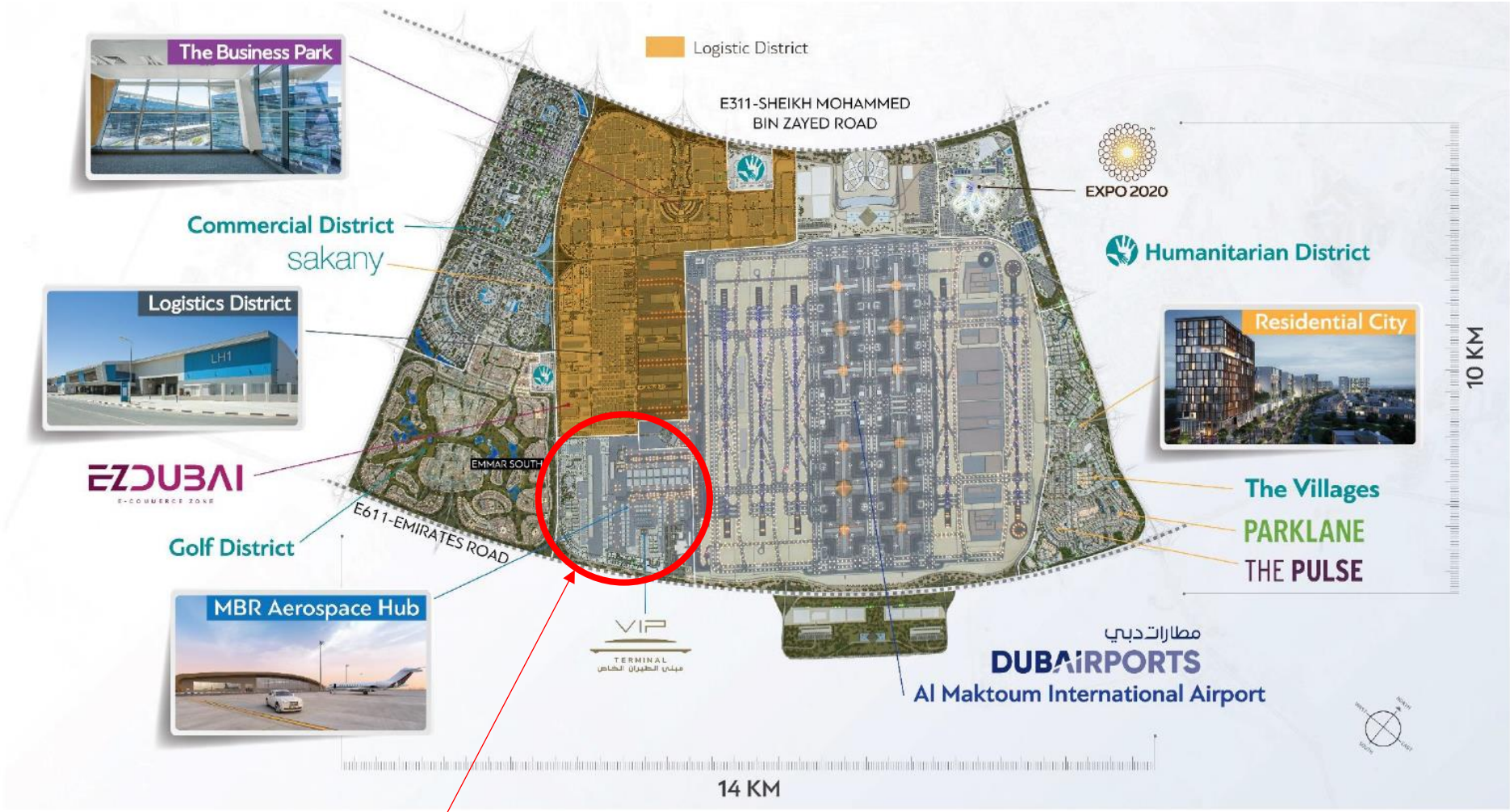
Dubai Logistics City

Site consists of 19 million sq.m of free-zone bonded areas. It is designed to ultimately handle 12 million tons of air cargo annually and includes a staff village, for 50,000 workers. Dubai Logistics city is envisioned to be created for state-of the-art office buildings, dedicated industrial business, trading companies, distributors, logistics service providers and forwarders, and shared facilities, such as warehouses and modern air-side cargo handling facilities.

Golf City

The Golf District is spread over 148 ha. It is expected to accommodate a population of 140,000. Emaar South is representing half of the district and is ideally positioned at the crossroads of Dubai and Abu Dhabi; it is just minutes away from the Expo 2020 site and Al Maktoum International Airport.

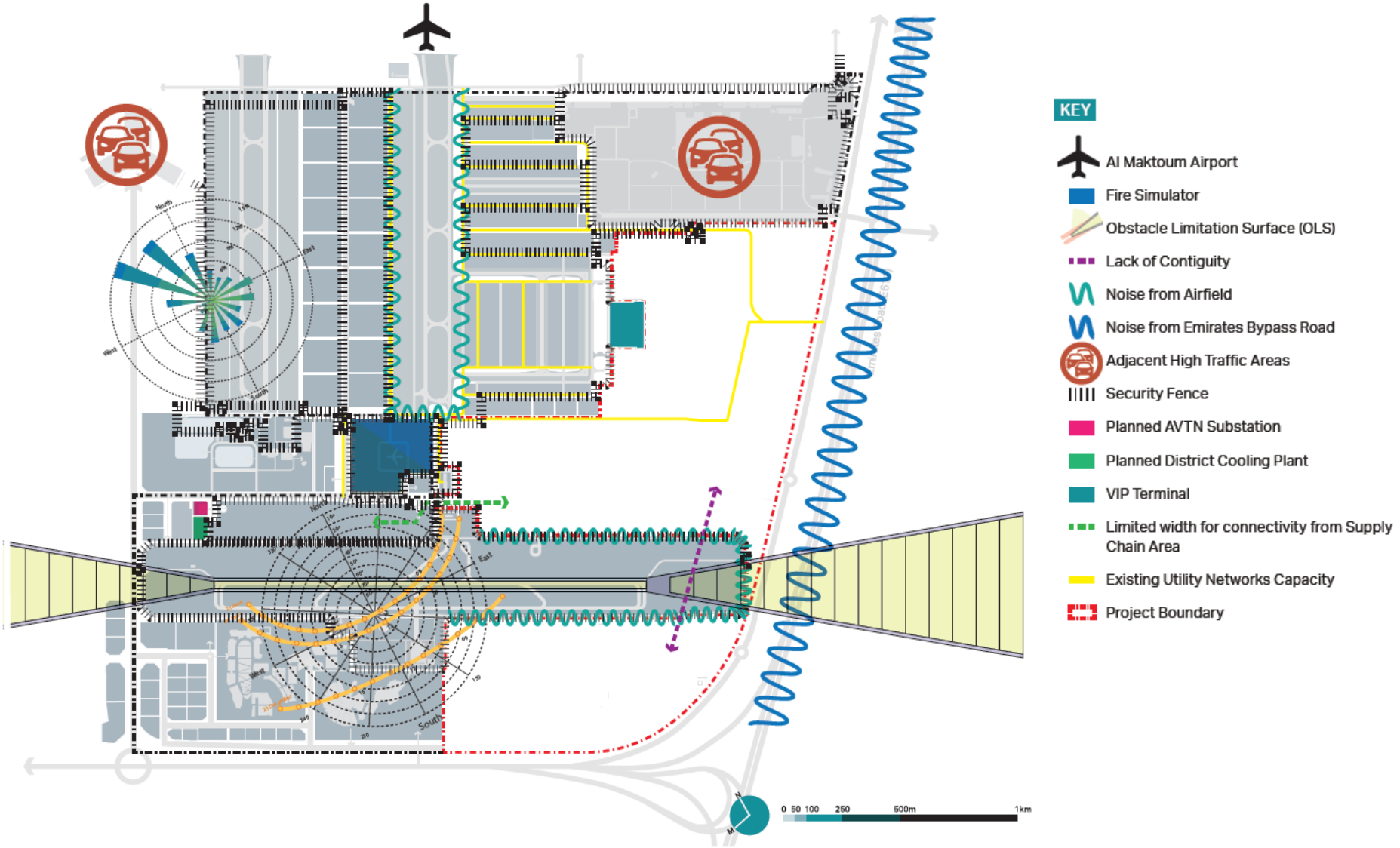
Emaar South is targeting 15,360 apartments units, 53,000 sq m of retail and F+B spaces, 18 Hole Championship Golf Course, 25 neighborhood parks, 22,7000 residential units and 480 sq m of open spaces.


The Business Park
Logistic District
E311-SHEIKH MOHAMMED
BIN ZAYED ROAD
EXPO 2020
Commercial District
sakany
Humanitarian District
Logistics District
Residential City
10 KM
EZDUBAI
E-COMMERCE ZONE
EMMAR SOUTH
The Villages
PARKLANE
THE PULSE
E611-EMIRATES ROAD
Golf District
MBR Aerospace Hub
VIP
TERMINAL
مطارات دبي
DUBAIRPORTS
Al Maktoum International Airport
14 KM
محمد بن راشد للطيران
MOHAMMED BIN RASHID AEROSPACE HUB

MBR Aerospace Hub Master Plan illustration

Site Constraints

Due to its proximity to the airport, the following constraints were taken into consideration during the preparation of the MBR Aerospace Hub Master Plan and land-use distribution:



The four basic principles followed in MBR Aerospace Hub -Landside master planning is:

1. Acknowledging contextual constraints and addressing site limitations.
2. Acknowledging and responding to security related concerns.
3. Providing centralized amenities to optimize space and operations.
4. Maximize Land utilization.

The Master Plan addresses the need for landside functions as supportive to the airside activities with controlled accessibility, depending on the location of these various functions.

MBR Aerospace Hub - Landside is divided into several sub-zones that fall under two main classifications, bonded and non-bonded zones, as follows:

a. Land-uses classified under bonded zones are:

    1. Warehousing and light industry.
    2. Light Industrial Units (LIU).

b. Land-uses classified under non-bonded zones are:

    1. The Airshow
    2. Hospitality Areas
    3. Office Parks
    4. Academies and Training Centers
    5. Commercial Strip and Showrooms

The remaining of the landside area is allocated for the Landside-Airside interfaces and utility areas, in addition to the Heliport facility with its own separate operations and controls. This facility will have a detailed design and will not be entertained in this document.

Design and Planning Objectives

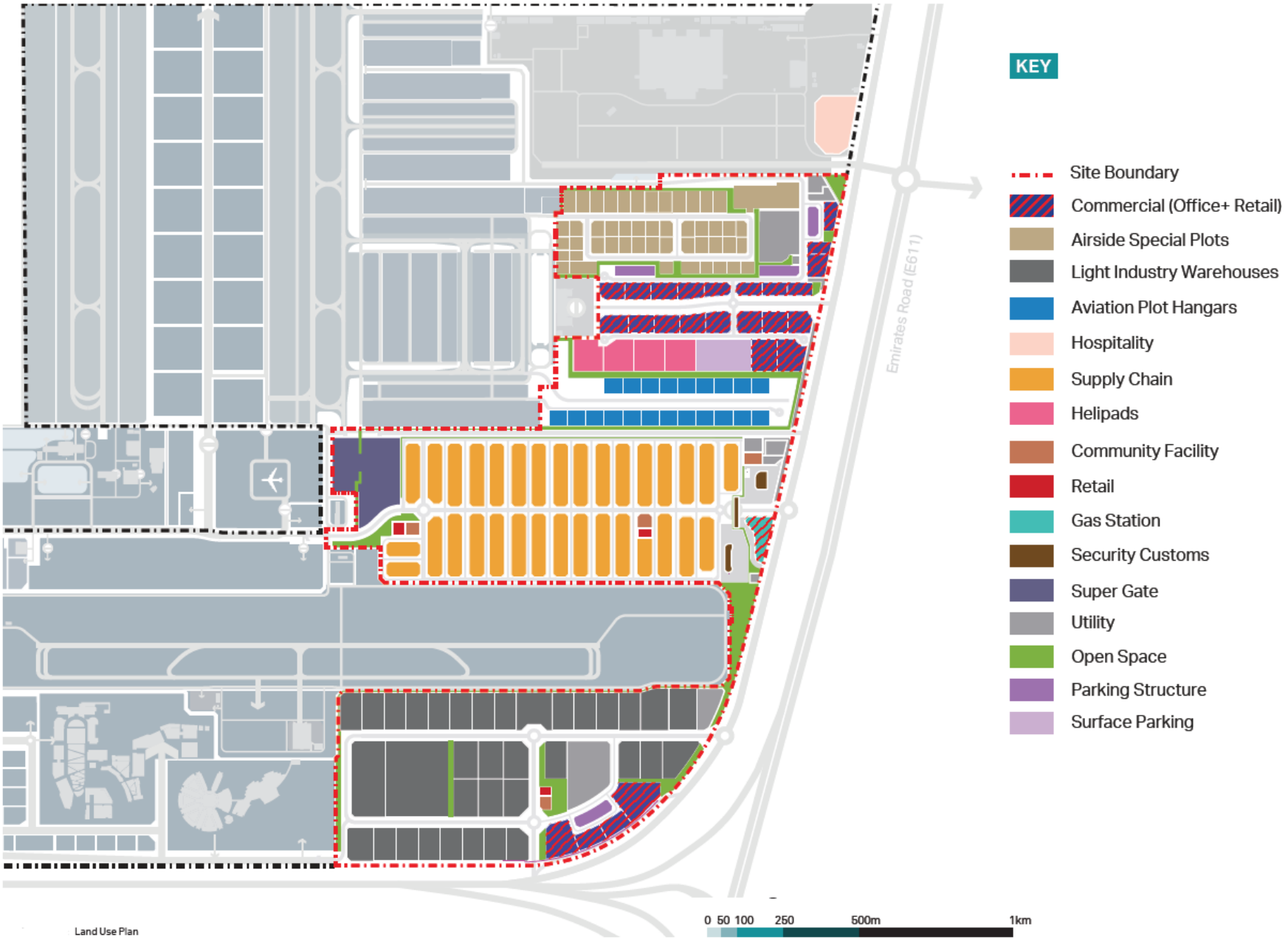
In view of the design approach and principles, and in line with the number of design constraints, preparation of the Aviation City Master Plan required a holistic planning and design vision to create and generate and deliver an attractive and functional layout. Therefore, the objective was not tied or limited to one planning aspect i.e., creating an industrial city that caters to and facilitate airside-landside activities, moreover, the vision was extended to cover all other supportive functional aspects like education, commercial, hospitality and mixed Uses, in other words, aiming on creating the leading aviation industries and commercial hub in the region.

Following these lines, the adopted design and planning objectives were addressed to:

- Create a multi-functional city structure with an organized land-use program that respects all airside and landside concerns
- Provide high-end facilities and services
- Create an ideal hub for aviation and aero-tech industries
- Promote green energy and environment friendly industries

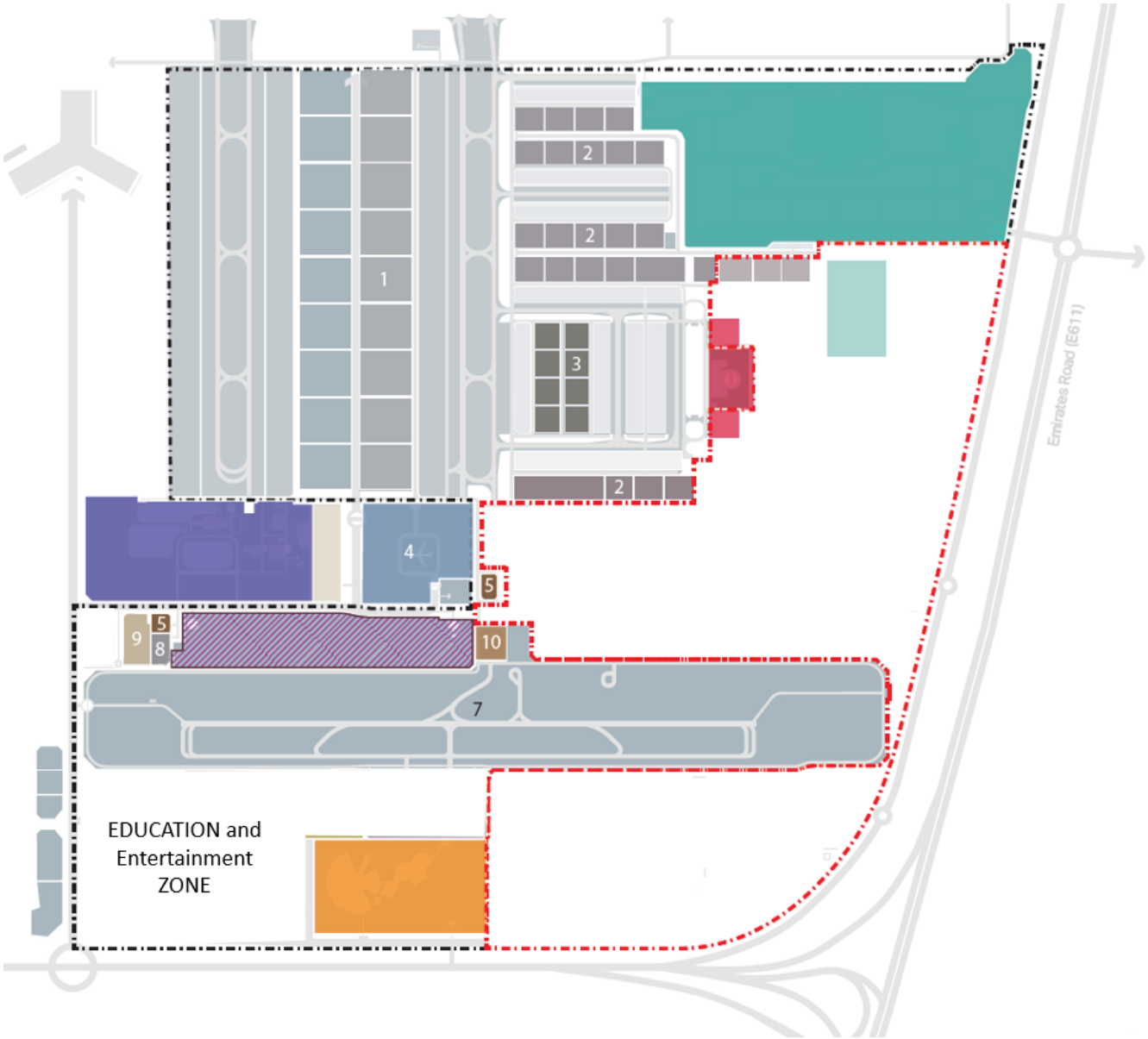
In the above context, the design and planning objectives are all vision oriented which require planning and design regulations to control and define the city's multifunctional role. This booklet is intended to be developers within the city to achieve the goals and preserve the integrity of the whole development.

Master Plan Land Uses



Land Use Plan

Master Plan Land Uses – Surrounding developments

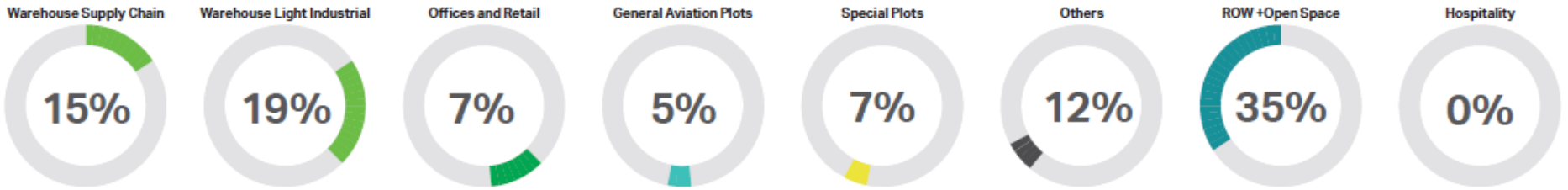


KEY

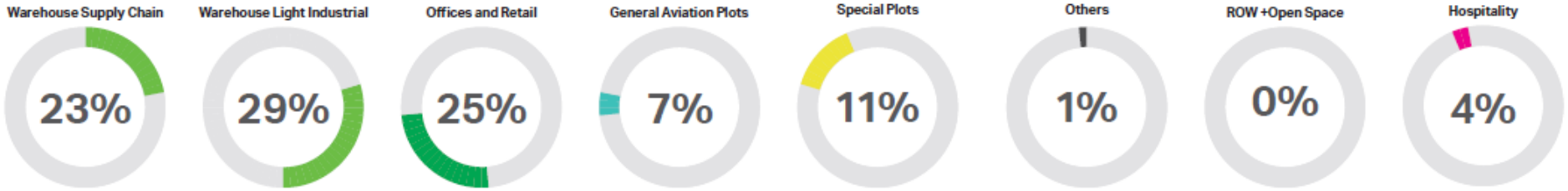
- Aviation Exhibition Centre (The Airshow)
- VIP Terminal
- Emirates Flight Academy (EKFA)
- Landside-Airside Interface
- Supply Chain Area (under construction)
- 1 MRO- Code F
- 2 MRO- Code C
- 3 FBO Hangars
- 4 Fire Simulator / Pond
- 5 ESU (Sub-station)
- 6 Ground Support Equipment (GSE)
- 7 Training Airfield
- 8 District Cooling Plant
- 9 EKFA Laundry Plot
- 10 Fire Station
- Project Boundary

Master Plan – Statistics

Land Area Subdivision



GFA Subdivision



Development Control Procedures

The Development Guidelines and Planning Regulations and Standards contained in this booklet are intended for use by approved Developers seeking to construct industrial or warehousing units with ancillary office facilities, on serviced sites rented in the Dubai South (DS) – MBR Aerospace Hub.

They should be applied in conjunction with the local and international standards and codes of building construction.

The regulations contained in this document shall be the minimum requirements. Developers shall comply with these regulations and with all relevant legislative requirements of the Authority.

The Authority reserves the right to change any of these regulations and it shall be the duty of the consultants, contractors, and developers to ensure that they possess the latest updates.

These regulations include:

a) Procedures for development, covering building permits, construction procedures, alterations to rebuilt units, building completion certificates, power of the Authority and responsibilities and disputes.
b) General planning Regulations governing plot coverage, building setbacks and heights, provision of parking, loading, and unloading facilities, fencing and site landscaping and the external appearance of buildings.

General

Any Developer wishing to rent a serviced plot in the Dubai Logistics District must apply to the Authority, stating his intended operations and his land requirements.

Following the signature of his rental agreement with the Authority, the Developer must appoint a qualified Architectural / Engineering Consultant, registered in Dubai, and approved by the Authority, to carry out the design tasks connected to his project, and to act on his behalf regarding all technical matters related to the design, construction, and completion of his project.

The development shall adopt the Dubai Universal Accessibility Codes and Regulations.

The development shall adopt and house the Dubai Municipality Green Buildings regulations as minimum requirement.

Preliminary Design - All Developers through their consultant shall approach the Authority with the initial design documentation, to obtain the approval on the building volume, built up area, setbacks, external character, and elevations material specifications.

Final Design - All Developers through their consultant shall prepare detailed design documentation and submit for Authority approval - along with the other external Authorities NOCs - prior to applying for Building Permit. The Final Design shall be reviewed by the Authority to assure that:

- Structural and architectural standards are adhered to Master planning guidelines and regulations are followed.

Land Demarcation - All developers through their contractor shall apply to the Authority to issue the Land Demarcation Certificate at two stages during the construction of project as per the plot coordinates of Affection Plan:

1. Pre-construction: requested by contractor prior to applying for the building permit.
2. Post-construction: requested by contractor prior to applying for the building completion.

Mobilization Permit – The appointed contractors shall prepare detailed mobilization plan and submit for approval. The Authority shall review the submission to ensure that all required insurance, bonds, and permits are obtained. This permit shall enable the contractor to start preparatory work

and operations necessary for the movement of personnel, equipment, and furnishing, installation of construction signboard, erecting field offices, construction fence, construction signboard and other facilities necessary for work on the project. (Refer to Figures 3-1 and 3-2)

Enabling Works Permit – The appointed contractors shall prepare Enabling Works Permit application and submit for approval. The Authority shall review the submission to ensure that all required insurance, bonds, and permits are obtained.

Building Permit:

- The building permit will remain valid for the period of 6 months after issuance date.

- Any amendments to approved drawings or deviations from the conditions stipulated in the building permit will not be allowed unless explicit and written consent of the Authority is granted. In case of violation, the Authority reserves itself the right to demolish any illegal addition to the buildings or part thereof. The cost of demolition will be borne by the developer.

- Documents to be submitted to the Authority for obtaining a building permit are mentioned on Building Permit application form.

Building Completion - No buildings or facilities may be occupied by the owner's representatives after construction prior to obtaining a Building Completion Certificate from the Authority.

Operation Fitness Certificate - No facilities may be occupied by the actual tenants unless a Building Fitness Certificate is issued by the Authority.

Note:
All NOCs issued by the Authority shall expire after six months if no subsequent request for NOC is submitted to the Authority.

SIGN BOARD - Design Regulations

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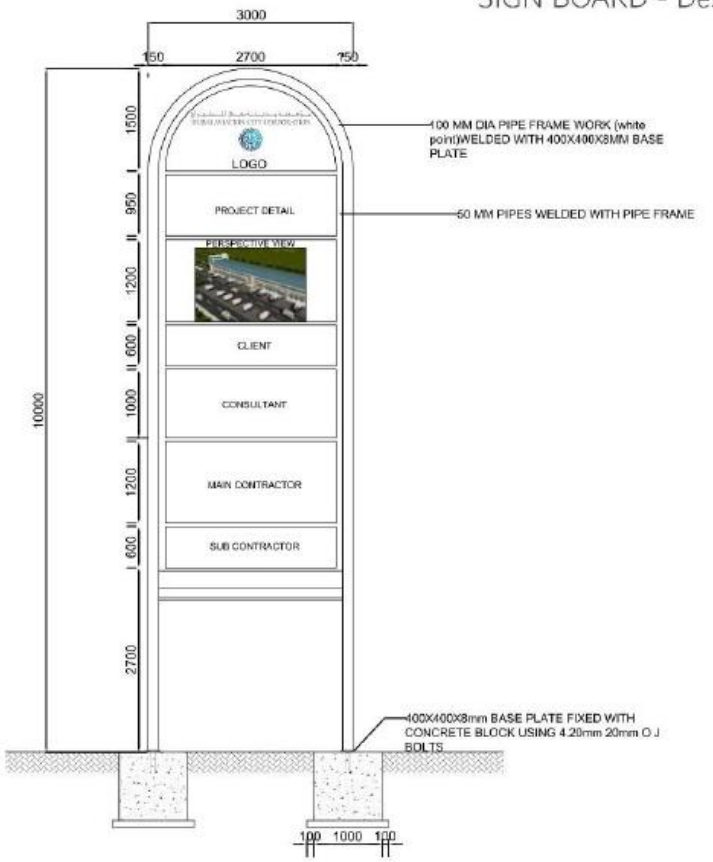
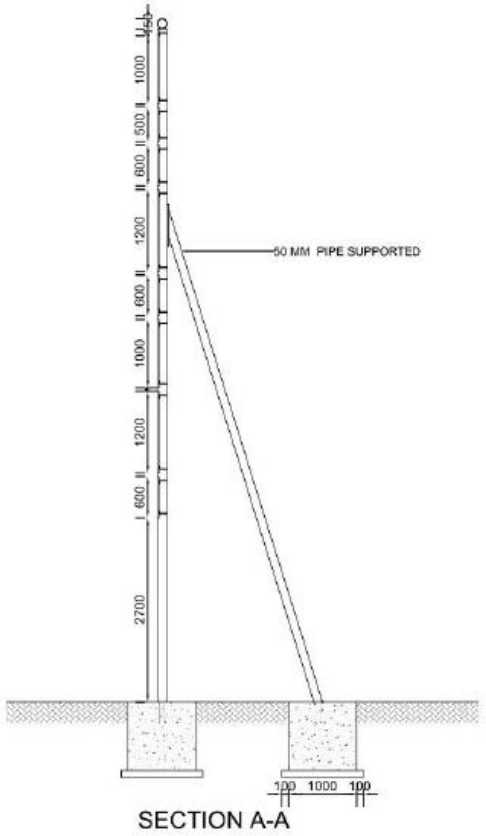
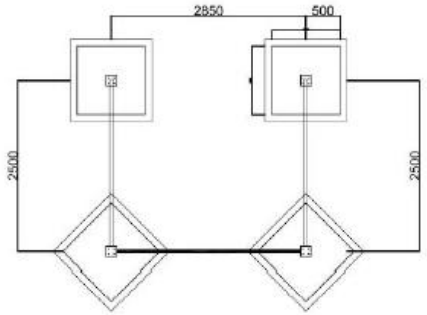
DUBAI AVIATION CITY CORPORATION





SECTION A-A



PLAN

The following rules should be followed;

1- All information on the board should be correct and linguistically edited

2- All details should be written in English

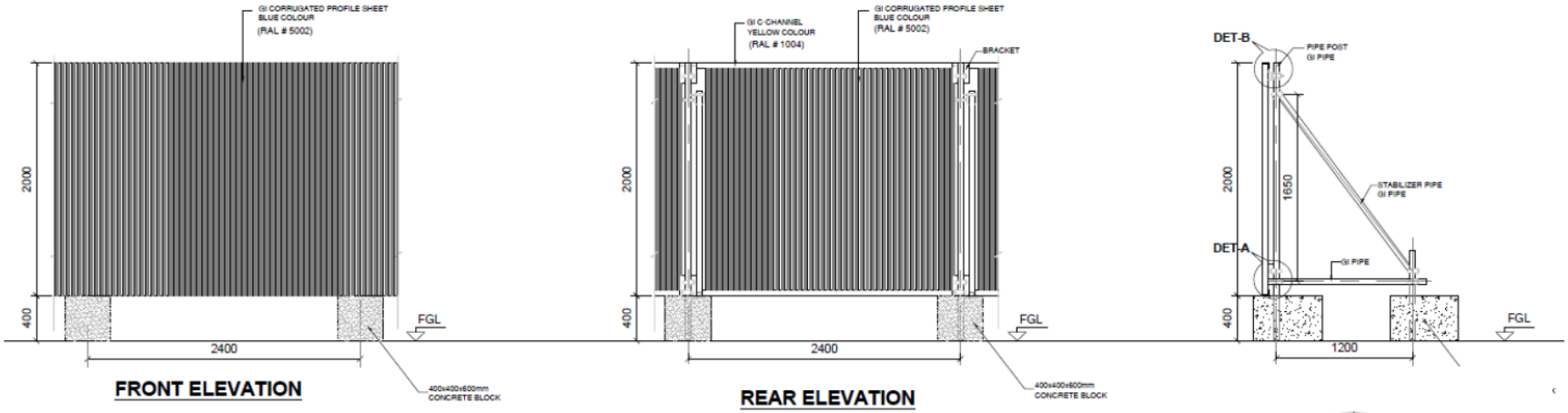
3- Details should be written in clear font and color and readable from far distance

4- Main Contractor and Consultant Company names appear on the sign board should be registered with DWC

5- Sign board should be located within the fence boundary near the entrance

Figure 3-1 – Construction Signboard Template

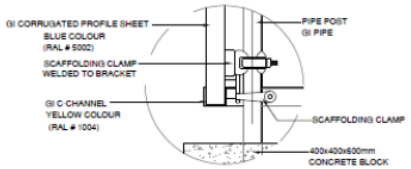
Figure 3-2 – Construction temporary fence



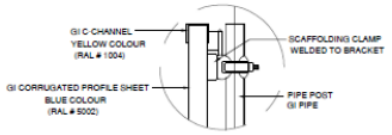
Corrugated Metal Sheet Fence - Continuous type fencing system 2.0 meter height above the footing as per the following specifications:

1) Vertical Main Post : 48mm Dia. GI pipe, 3.2mm thick, 2.50m long @ every 2.40m c/c
2) Inclined Support Post : 48mm Dia. GI pipe, 3.2mm thick, 2.50m long @ every 2.40m c/c
3) Horizontal Support Post : 48mm Dia. GI pipe, 3.2mm thick, 1.50m long @ every 2.40m c/c
4) GI Corrugated Sheet 0.50/0.70 mm thick, 2.0 meter height, Light grey - on both sides of the Fence.
5) GI Channel top and bottom (40 x 40 x 40 x1.20mm thick), Light Grey
6) Fixing Brackets
7) Fitting using with Scaffolding Couplers
8) Front PCC Footing Size : 600 x 400 x 400 mm
9) Back PCC Footing Size : 600 x 400 x 400 mm
10) Back PCC Footing Size : 600 x 400 x 400 mm

Note : Allow for printed graphics on fabric covering the full height of the corrugated sheet –Graphics on fabric by others.



DETAIL-A



DETAIL-B

Completion procedures

A Building Completion Certificate must be applied for by the Consultant upon completion of building works with external finishes and basic electrical, mechanical and fire protection and detection installations.

The Authority will authorize the following services and utilities to be connected to the building only after the issue of the Building Completion Certificate:

All necessary safety precautions shall be taken to protect existing buildings and fences from damage due to excavations, earthworks, or any other building operation. The Developer and his agent are entirely responsible in case of damage.

a) Water supply
b) Power supply
c) Chilled water
d) Fire protection
e) Sewerage discharge
f) Irrigation
g) Gas
h) Telephone
i) Data lines (fiber optics)

The Building Completion Certificate will be issued following a satisfactory inspection visit by the Authority. If the inspection of the buildings reveals that further work must be carried out, the Building Completion Certificate will be delayed until those works are completed.

Building Operations

All building operations must be confined within the boundary fence or wall of the plot. Construction sites are required to be enclosed with temporary hoarding during the period of construction to avoid any hazard to public thoroughfares or adjacent buildings.

The Developer must obtain the approval of the Authority for the siting of temporary buildings and sheds required during construction and must ensure that adequate provisions for safety and the prevention of health hazards related to sanitation, dusting and drainage disposal are taken.

The Authority shall have free and uninterrupted access to the construction site at any time.

The Developer or his agent must give the Authority no less than 6 days' notice following the completion of the building for inspection and prior to obtaining a building completion certificate.

All construction works must be adequately supervised, health and safety requirements must be complied at site. A signed copy of the approved drawings and building permit must be kept on site during construction
Any deviation from the approved drawings, or commencement of a construction operation without approval shall result in a fine. The payment of this fine will not absolve the Developer from correcting the deviation.

Any deviation from the approved drawings, or commencement of a construction operation without approval shall result in a fine. The payment of this fine will not absolve the Developer from correcting the deviation.

Alterations to Build Units

Any alterations to the built facility shall be subject to the issue of a no objection certificate (N.O.C.) by the Authority. To obtain an N.O.C for alteration works, the Developer must present the same set of drawings required for a building permit, covering the areas of proposed alterations.

Prior to occupation, the Developer must obtain an Operation Fitness Certificate to the satisfaction of the Authority.

Alterations related to other Authorities

Any extensions or alterations to the electrical installations shall require the Service Authority (Electrical) approvals.

Any extension/alteration to the sewage installation shall require service Authority approvals.

Power of the Authorities

At the discretion of the Authority the Building Permit may be cancelled if:

- Work was carried out in contravention of the conditions of the Building Permit, or any regulations issued by the Authority.

- It is subsequently revealed that the Building Permit was issued on the basis of erroneous information supplied by the developer or his agent.

Building Permit will not be withheld unreasonably, but the Authority shall have the discretionary power, when issuing a Building Permit, to attach such special conditions thereto as related to all or any of the following matters:

a) Filling or Excavation within the plot.
b) Construction of boundary walls or fences.
c) Construction of the external appearance of the building, in relation to fitness to its intended purpose and location.
d) Disposal of soil, waste, and rainwater.
e) Health and safety of personnel and environmental conditions of the workplace and surroundings.
f) The engineering standards to which any process installation is constructed

The Authority is empowered to change, amend, replace and/or update the regulations without prior notice. It is the developer's responsibility to obtain updated regulations and ensure compliance.

It is the responsibility of the developer to apply up-to-date regulations, the Authority notices, etc. that may supersede ones mentioned in these regulations.

The Authority reserves the right to reject the appointment of consultants or contractors for jobs if they are not deemed competent enough to fulfill the related responsibilities.

The Authority reserves the right to suspend a consultant or a contractor for non-compliance with the regulations.

Responsibilities and Disputes

Neither the checking of the drawings, nor the checking of the structural calculations, nor inspection of the work during the progress of construction, shall be constructed in any way to impose responsibility and/or liability on the Authority or their agents. The developer and his agents shall remain responsible for all errors in the design and execution of the project and for the stability of construction during the progress of the works and after completion.

All complaints and disputes concerning Building Permits and the erection of buildings shall be referred to the Authority. Any financial disputes shall be referred to Dubai courts or agreed arbitration defined in the contract's particulars.

Authority shall carryout HSE inspections periodically during and post construction. However, the developer and his agents shall be responsible for any accidents and/or damages arising out of any lapses to their own property and/or adjoining property for any consequential physical and/or financial damages and liabilities.

GENERAL PLANNING REGULATIONS

General Provisions ·

The Regulations described in this document apply to developments within the DS-MBR Aerospace Hub. These shall be applied along with the current Building Regulations and Specifications issued by the Dubai Codes and Dubai Municipality:

Within the Logistics District, all land plots are determined as in the Land subdivision plan. Plots shown on these plans cannot be subject to further subdivision, however, two or more adjoining plots not separated by the public domain (road, easement, footpath, open spaces…) and pertaining to the same owner, may be grouped after obtaining special permission from the Authority.

Every individual building must be connected to the internal utility networks.

In the office buildings, all visible mechanical equipment, water tanks and other technical installations located on the flat roofs of the office buildings must be screened from the external views by means of shading devices and perforated and/or ventilated screens. The maximum height of the roof parapet (opaque or transparent) is 4 meters, measured from the finish floor level of the top floor to the external top of the parapet – and within the total allowed building height limit. Screens (such as louvers, perforated panels, wire mesh, net, etc.) will be made of metallic products.

The following structures could be exempted from the restricted buildings height after prior approval of the Authority:

a) Erection of Minarets of Mosques and domes.
b) Tent's pylons and towers designed exclusively for structure and for ornamental purposes.
c) Antennas of telecom utilities, private and public satellite receiving equipment installed on top of the roof floors, water tanks and similar structures
d) Any temporary construction structure, metallic poles and fair ground machines that have been approved by the Authority.

All plots must be suitably landscaped to:

a) Provide attractive and pleasant appearance.
b) Contribute to the relief of heat, noise, dust, and glare through proper placement of green planting.
c) Provide visual privacy, in which significant trees are to be planted adjacent to boundaries, acting as a buffer zone.
d) Provide a natural shading device.

All the installations and Buildings to follow Green Building Norms all through design to operation as stipulated by Government of Dubai.

GSM towers as a communication facility have been planned for Logistics District. Many of such towers are planned on the roof top of the designated buildings in the Master Plan in view to create an efficient design for the GSM network. Owners of such building / buildings shall allow the service provider to erect such towers on roof top as and when approached for without and additional cost or whatsoever.

Signage

a) The Consultant shall present to the Authority a drawing of the elevation of the building on which the sign is to be fixed showing the location and design of the proposed sign.

b) Only the registered trade name is allowed as a permanent signage.

c) Directly illuminated signs and intermittent flashing signs will not be allowed. Indirect lighting of signs will be allowed through spotlights fixed to the wall or from ground projectors.

d) No sign shall be displayed without the written approval of the Authority.

e) No sign shall be allowed to be placed on the property fence –without Authority approvals - or on the roof of any building.

f) The external signage will be verified and assessed with the following criteria:

1	CONTENT
1.1	DS FZ LICS / Legality
1.2	No personal contents
1.3	Religious / Sectarian / Racist / Immodesty
1.4	No ads / No marketing messages
2	SIZE
2.1	5-10% from the elevation area - but still to be harmonic in size
3	COLOR
3.1	Corporate ID
3.2	DS color theme
3.3	Pick & match
4	REFLECTION AND MATERAL
4.1	No self-illumination
4.2	No reflected material
4.3	3D letters / indirect lighting
5	LOCATION
5.1	No roof signage
5.2	Flight safety / DCAA compliance

Elevation Treatment and appearance

The Consultant shall exercise great care in the design and detailing of the building elevations, which should be kept simple and well proportioned. The color, materials and finishes used on the façades and roofs of buildings shall be subject to the approval of the Authority.

External cladding shall be made of industrial products such as steel, aluminum sheets or composite panels, cupper, glass, etc. The use of sharp colors for external cladding and glass shall be discouraged.

It must be noted that all building developments in the Al Maktoum International Airport Logistic zone should follow the overall style, character, finishing standard and color scheme of the entire surrounding Airport City.

As such, all developers should approach the Authority with the initial design documentation, to obtain the approval on the external character and skin finishing material specification.

Landscaping

All the plots are to be landscaped as mentioned as mentioned under. Clearly defined areas, accounting to not less than 20% for office plots and 8% for the other plots with other uses are to be landscaped.

The total area of the plot as mentioned above needs to be completely landscaped and planted with appropriate plant material to provide visual interest, shade, and color within the plot. Available spaces and areas assigned for car parking should also be landscaped, but without reducing the number of vehicles of car parking, nor inhibit their safe movement and maneuvering.

The use of adequate desert style furniture like rock, pavers, pebbles, shrubs, and trees is highly recommended.

Where buildings cannot provide adequate shade, trees should be used to shade walkways, car parks, buildings, and outdoor common spaces. Mature specimens or fast-growing trees with high, dense, near evergreen canopies should be planted as early as possible.

Evergreen succulents should be used whenever possible as ground cover, these serve as a glare reducer and to hold the soil from wind born.

It is imperative that water usage be kept to a minimum. “Desert landscaping”, which emphasizes shallow rooted plants and hard surfaces is encouraged to minimize water consumption.

Landscaping plans should reflect the site drainage system, take advantage of water runoff, and should consider shaded, and wind protected areas, such as those created by building forms and walls. They also must show and indicate the numbers, species, positions and sizes of all trees and shrubs, ground cover plants and lawn areas related to the estimated irrigation water demand calculations.

It is recommended that distinctive accent lighting be provided at alleyways and entryways and that special attention be given to eliminate flood light heat generators.

No non-operational areas within the plot shall be left un-surfaced and shall be paved in a material compatible with material specified for areas reserved for car parking.

No landscaping works shall be undertaken outside the boundaries of the assigned plot.

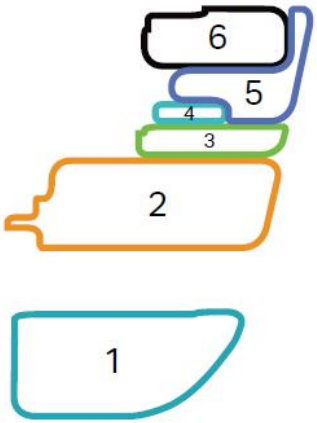
All areas reserved for car parking inside the plot boundary must be paved with grey interlocking blocks and with color interlocking blocks used to define parking limit for each type of vehicle. These roads should be drained and maintained to the satisfaction of the Authority.

MASTER PLAN ZONES

Character Zones

The Master Plan has been divided into 7 character zones:

1. Light Industrial Area
2. Bonded Zone Area
3. Private Jet Hangars
4. Helipads
5. Commercial Headquarters VIP Entry
6. Aviations Special Plots



Character Zones Diagram

ZONE 1 – Multipurpose Plots

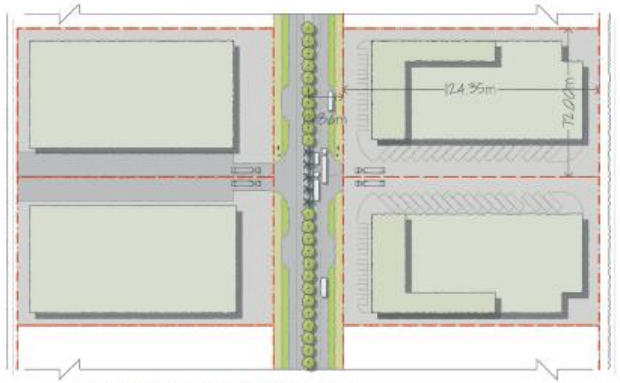
Zone 1 – Enlargement Plan

CHARACTER

Legend

1. Light Industrial Warehouses
2. Offices South West
3. Mosque
4. Food Court
5. Vertical Farming
6. Utility
7. Parking Structure

Zone 1



Zone 1: Light Industrial Area Typical Arrangement

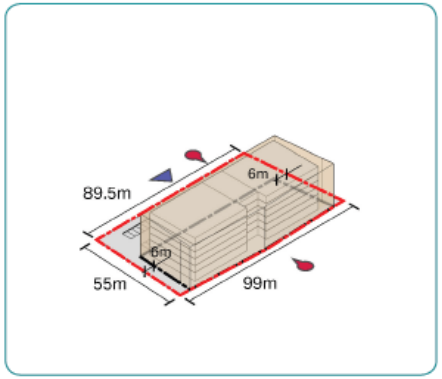
Zone 1

SITE SECTION

Key Plan

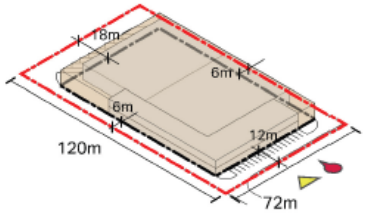
TYPOLOGY

Typical Office Building



Plot Area: 5,193 sq.m.
Max. Plot Coverage: 30 %
Ave. Plot FAR: 1.80
Typical Plot GFA: 9,000 sq.m.
93% Office
7% Retail
Max. Building Height:
G+5 / 22.5m

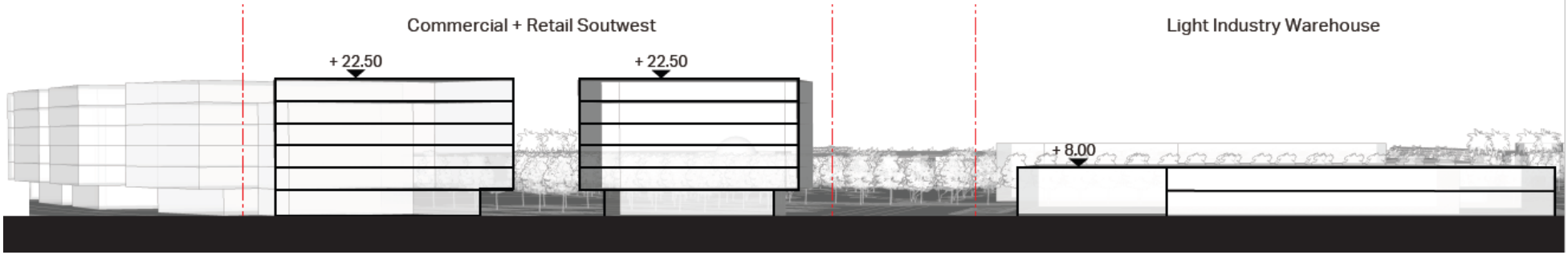
Typical Warehouse Building



Plot Area: 8,953 sq.m.
Max. Plot Coverage: 62%
Max. Plot FAR: 0.75
Plot GFA: 6,175 sq.m.
85% Warehouse
15% Office
Max. Building Height:
G+1 / 8m

Plot Boundary
Setback Line
Airplane Access
Car + Truck Access
Car Access
Truck Access
Pedestrian Access

Zone 1: Plot Typologies



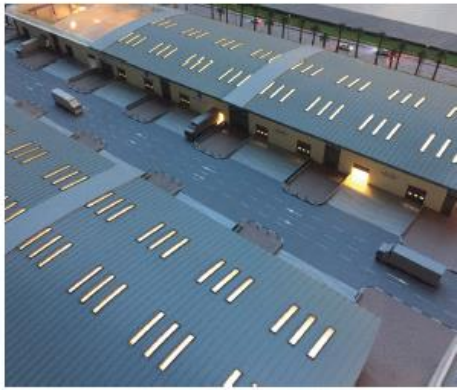
ZONE 2 – Aerospace Supply Chain Expansion

Zone 2

CHARACTER

Legend

1. Security Check In Zone
2. Bonded Zone Gate
3. Warehouses
4. Mosque & Food Court
5. Local Park
6. Gas Station
7. Super gate Access Road
8. Super gate



Zone 2

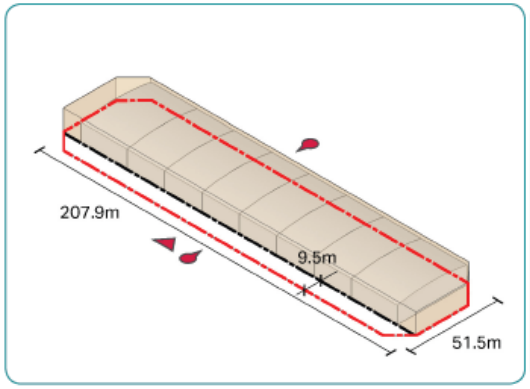
SITE SECTION

Key Plan

Plot Boundary
Setback Line
Airplane Access
Car + Truck Access
Car Access
Truck Access
Pedestrian Access

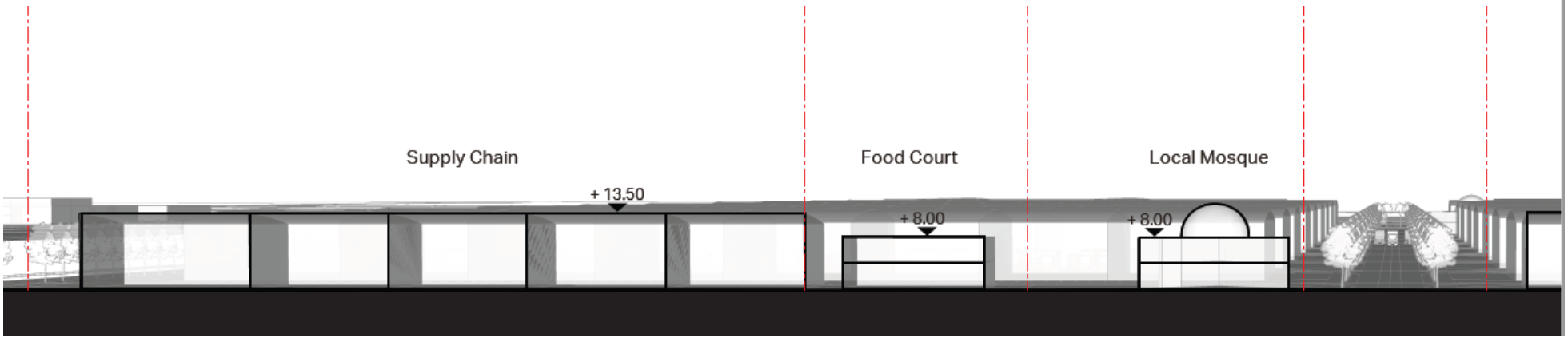
TYPOLOGY

Typical Supply Chain Warehouse

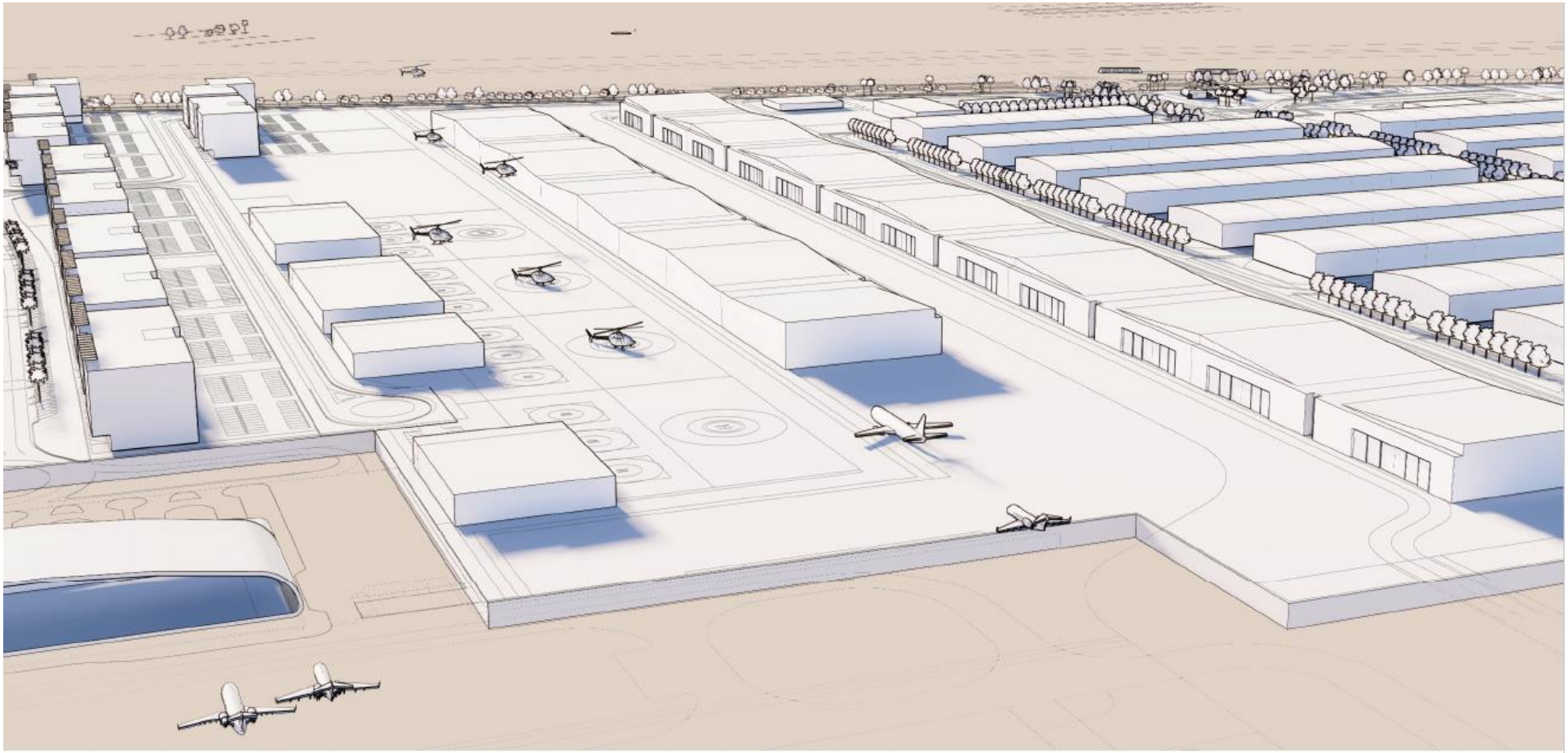


Plot Area: 10,350 sq.m.
Max. Plot Coverage: 80%
Max. Plot FAR: 0.8
Typical Plot GFA: 8,423 sq.m.
85% Warehouse
15% Office
Max. Building Height: G / 13.5m

Figure 5.20 Zone 2: Plot Typology



ZONE 3 – Small Private Jet Hangars

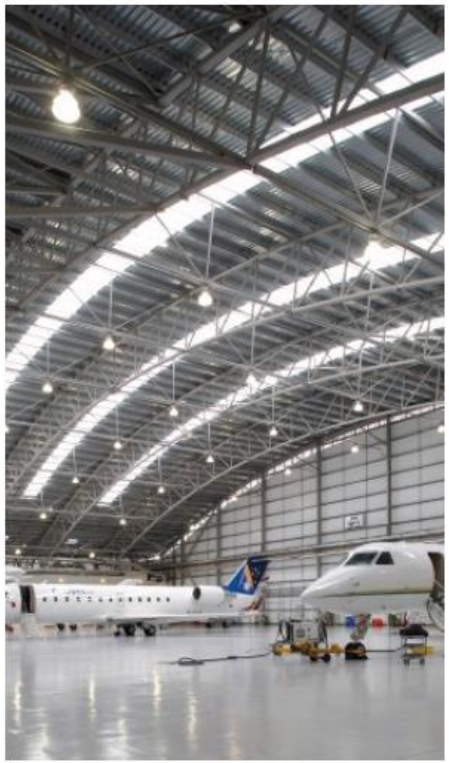


Zone 3

CHARACTER

Legend

1. Private jet Hangars



Zone 3

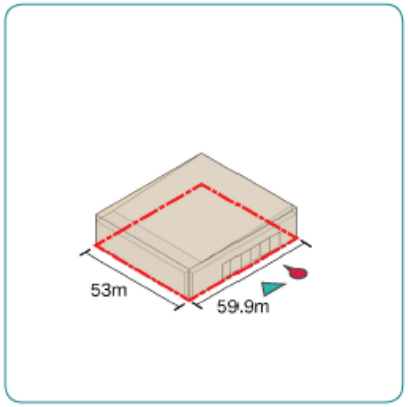
SITE SECTION

Key Plan

Plot Boundary
Setback Line
Airplane Access
Car + Truck Access
Car Access
Truck Access
Pedestrian Access

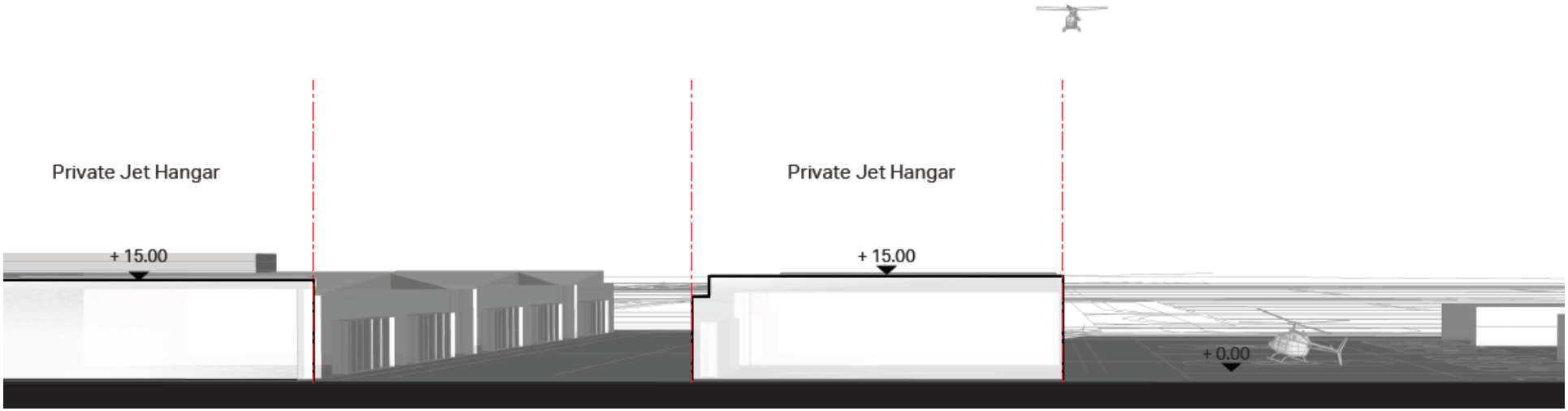
TYPOLOGY

Typical Private Jet Hangar

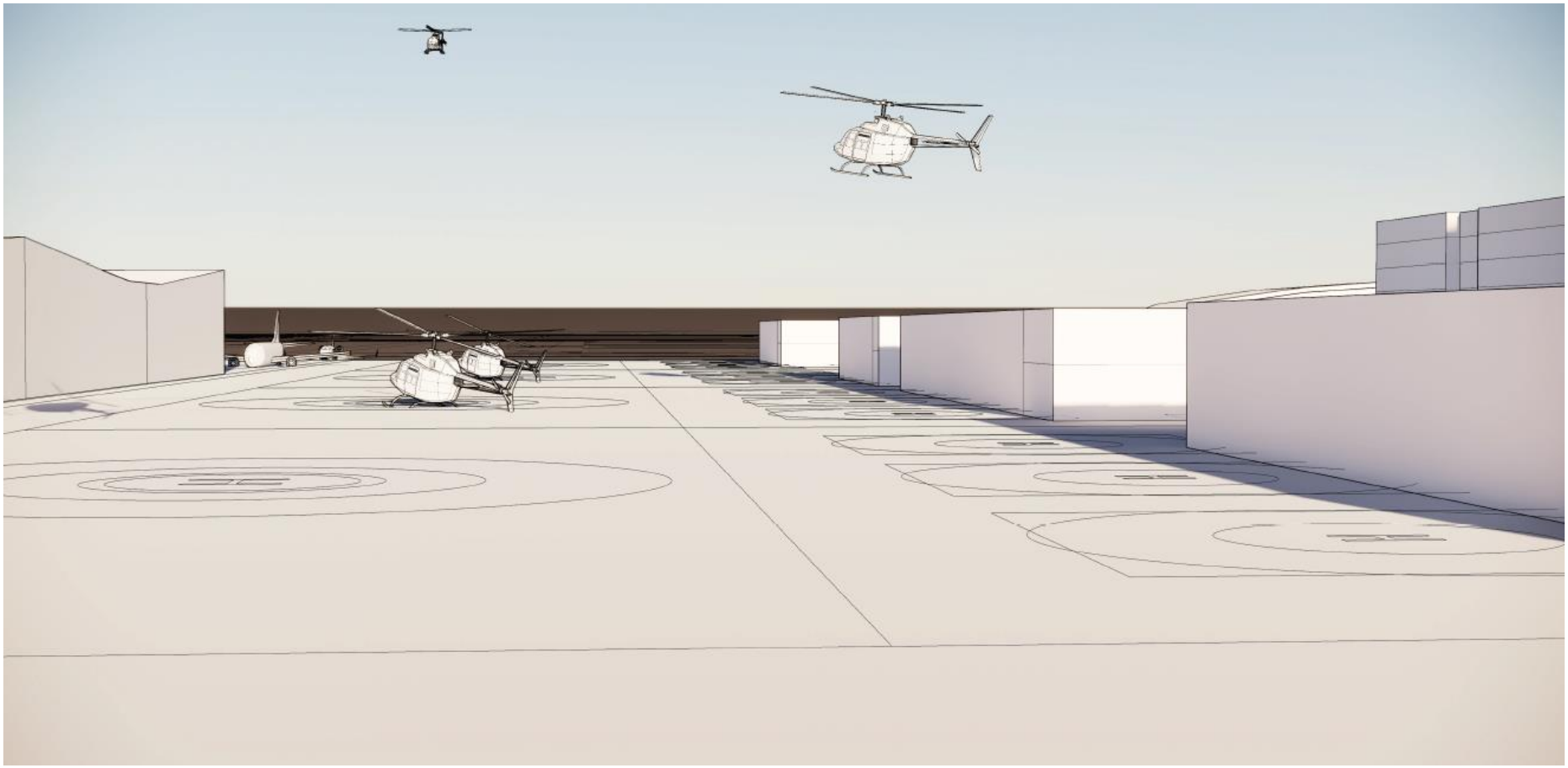


Plot Area: 3,180 sq.m.
Max. Plot Coverage: 100%
Max. Plot FAR: 1
Typical Plot GFA: 3,180 sq.m
90% Jet Hangar
10% Office
Max. Building Height: G / 15m

Figure 5.23 Zone 3: Plot Typology



ZONE 4 – Helicopter Center



Zone 4

CHARACTER

Legend

1. Heliports

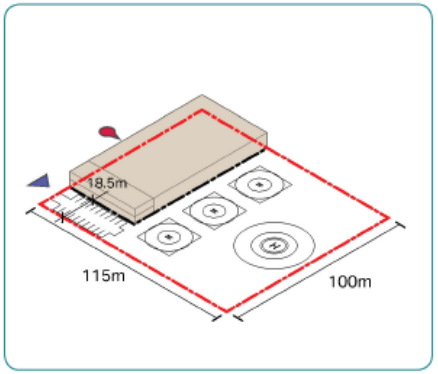
Zone 4

SITE SECTION

Key Plan

TYPOLOGY

Typical Heliport Plot



Plot Area: 11,500 sq.m.

Max. Plot Coverage: 30%

Max. Plot FAR: 0.28

Typical Plot GFA: 3,260 sq.m

94% Jet Hangar

6% Office

Max. Building Height: G+1 / 8m

Plot Boundary
Setback Line
Airplane Access
Car + Truck Access
Car Access
Truck Access
Pedestrian Access

Figure 5.26 Zone 4: Plot Typology

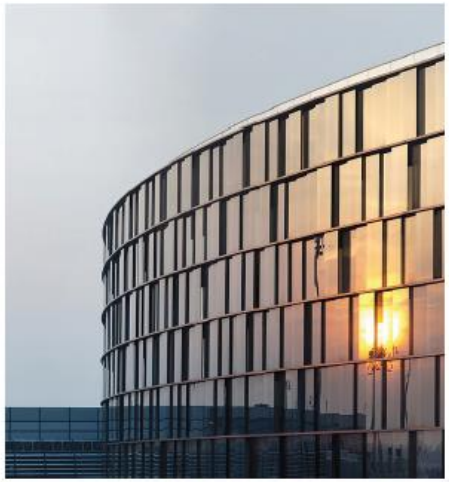
ZONE 5 – VIP Terminal Boulevard

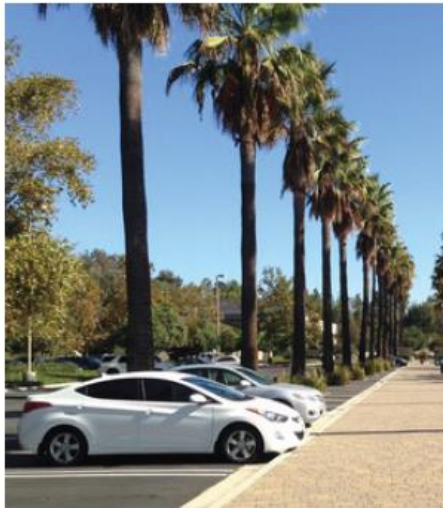
Zone 5

CHARACTER

Legend

1. Retail and Headquarters
2. Parking Structure
3. Surface Parking / Park
4. VIP Terminal
5. Entry Boulevard





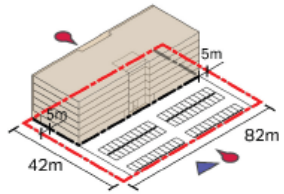
Zone 5

SITE SECTION

Key Plan

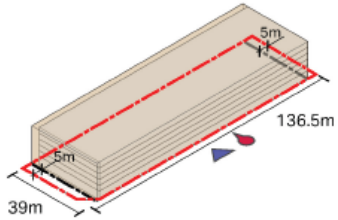
TYPOLOGY

Commercial VIP Entrance



Plot Area: 3,444 sq.m.
Max. Plot Coverage: 30 %
Ave. Plot FAR: 2.0
Plot GFA: 9,720 sq.m.
93% Office
7% Retail
Max. Building Height:
G+5 / 22.5m

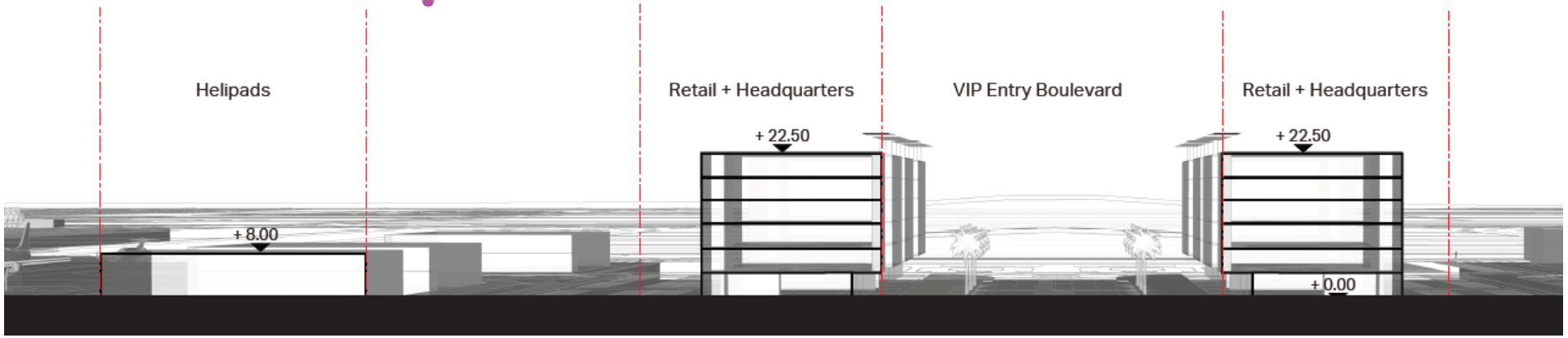
Typical Parking Structure



Plot Area: 5,324 sq.m.
Max. Plot Coverage: 90%
100% Parking
Max. Building Height:
G+5 / 19.5m

Figure 5.29 Zone 5: Plot Typology

Plot Boundary
Setback Line
Airplane Access
Car + Truck Access
Car Access
Truck Access
Pedestrian Access



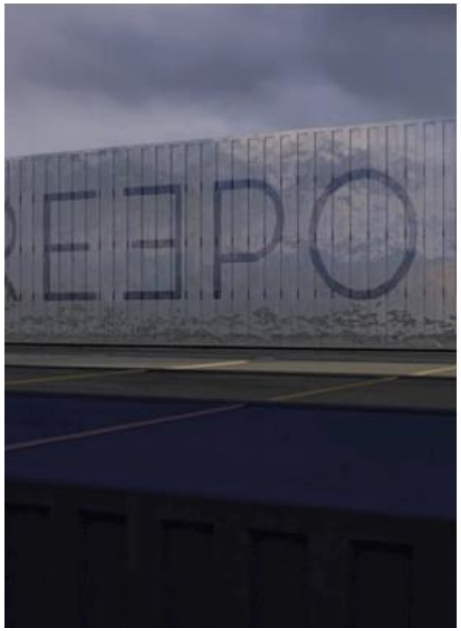
ZONE 6 – Special Plots with Airside Access

Zone 6

CHARACTER

Legend

1. Airside Access
2. Special Plots



Zone 6

SITE SECTION

Key Plan

Plot Boundary
Setback Line
Airplane Access
Car + Truck Access
Car Access
Truck Access
Pedestrian Access

TYPOLOGY

Typical Special Plot

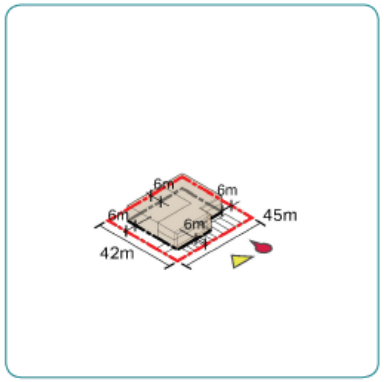


Figure 5.32 Zone 6: Plot Typology

Plot Area: 21,890 sq.m.

Max. Plot Coverage: 60%

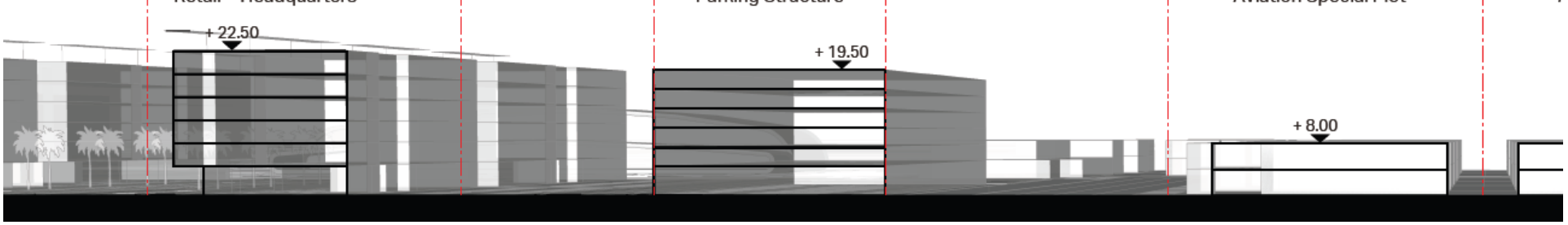
Max. Plot FAR: 0.8

Typical Plot GFA: 1,512 sq.m

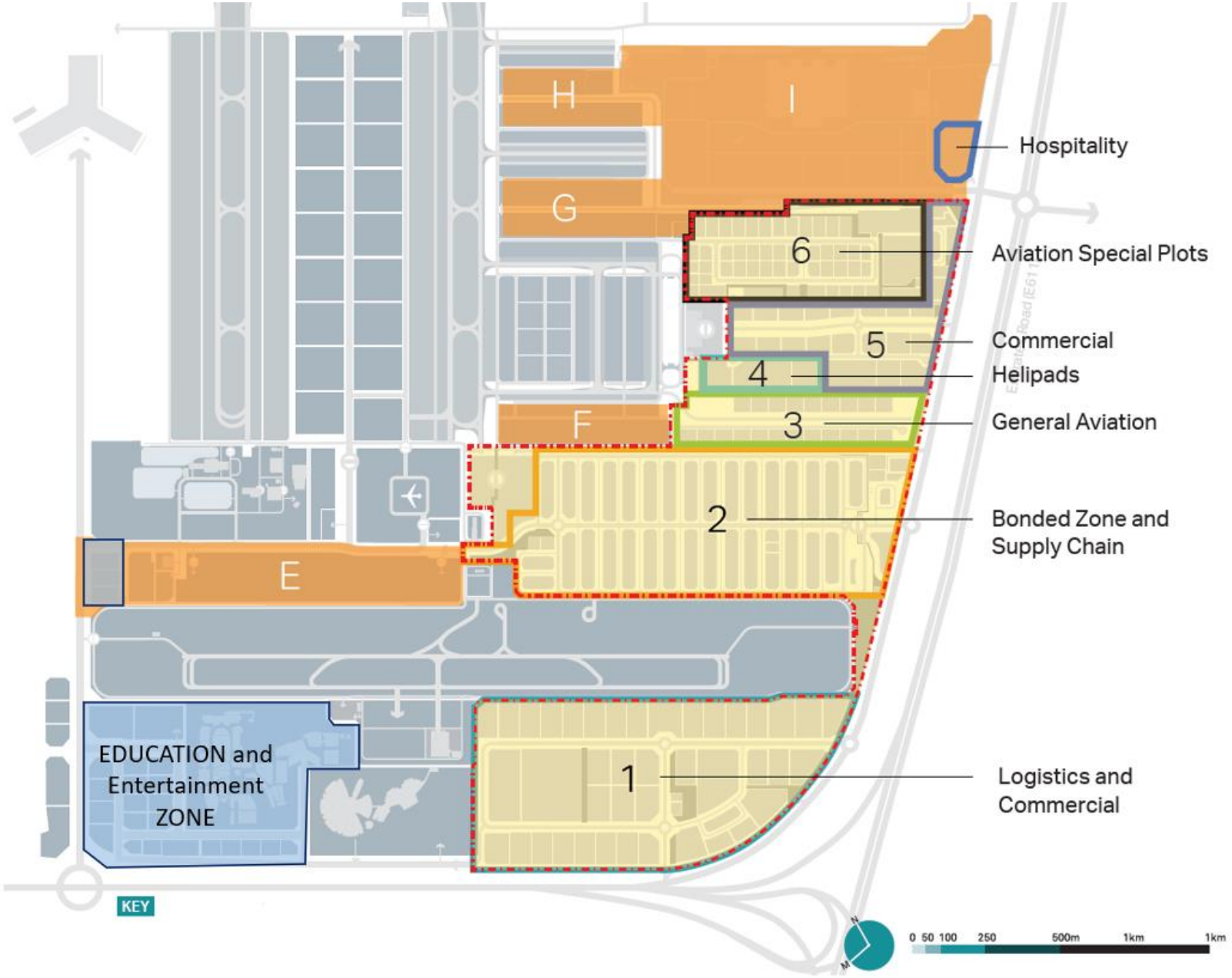
95% Warehouse

5% Office

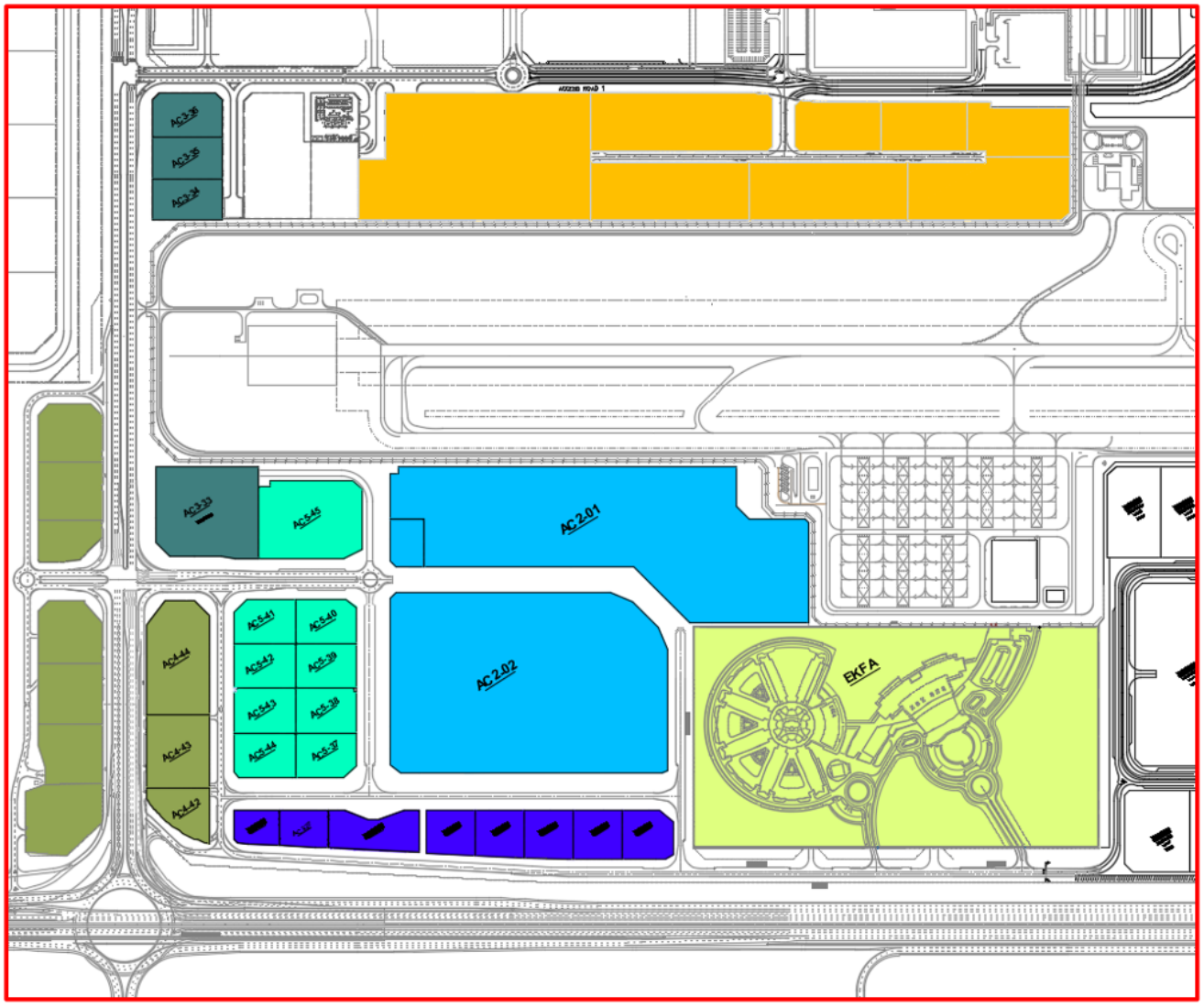
Max. Building Height: G+1



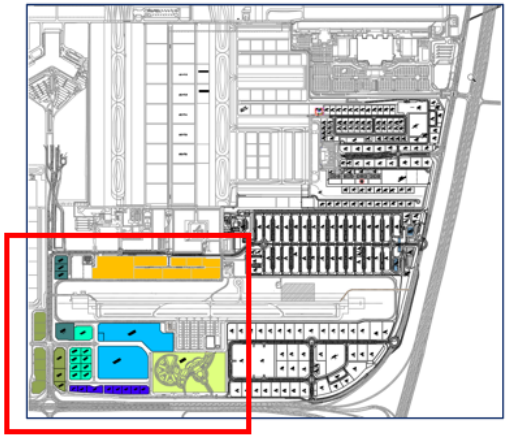
ZONE 7 – Education and Entertainment Zone



Education and Entertainment Zone - Land uses



- Aerospace Supply Chain zone ASSC - under construction and development
- Showrooms - AC3 - 33 till 36
- Light industries warehouses
- Hospitality
- Commercial (office+retail)
- Aerospace University
- EKFA - Emirates Flight Academy



Showrooms – AC3-33 till AC3-36

Maximum plot coverage: 40%.

Minimum setbacks:
a. From Public Roads: 4 meters minimum
b. From Adjoining Plots: 6 meters minimum
c. From Rear Boundaries: 4 meters minimum
d. From buildings within plot: 12 meters minimum
e. From the LRT line (where applicable): 8 meters.

Height: G+M+1

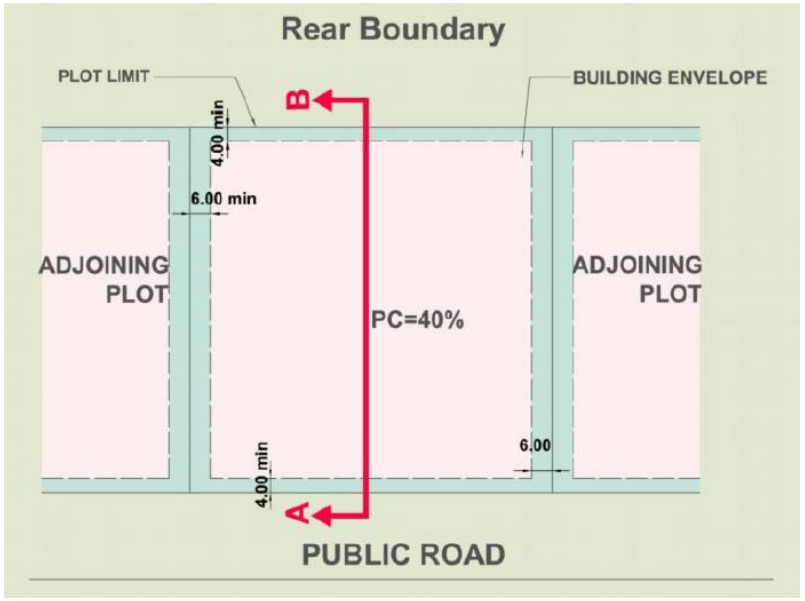
Staircases and any structures on the building's roof must not exceed the total height of 3.2 meters, measured from the roof's finish floor to the highest point in the structure.

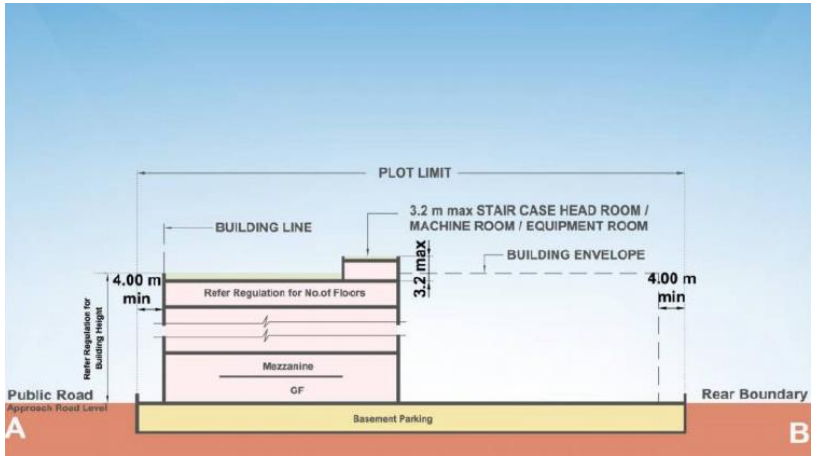
- A mezzanine floor is permitted as part of the ground floor, provided its total area does not exceed 50% of the usable area of the ground floor.

- Maximum height of roof parapet: 1.10 meters.

Parking
Commercial spaces:
· Staff: 1 space per 45m² of Net Leasable Area.
· Visitors: 10% in addition to the total number of spaces required above.

Offices:
· Staff: 1 space per 45m² of Net Leasable Area.
· Visitors: 10% in addition to the total number of spaces required above.





Light industries Warehouses

Max. Plot Coverage: 62%

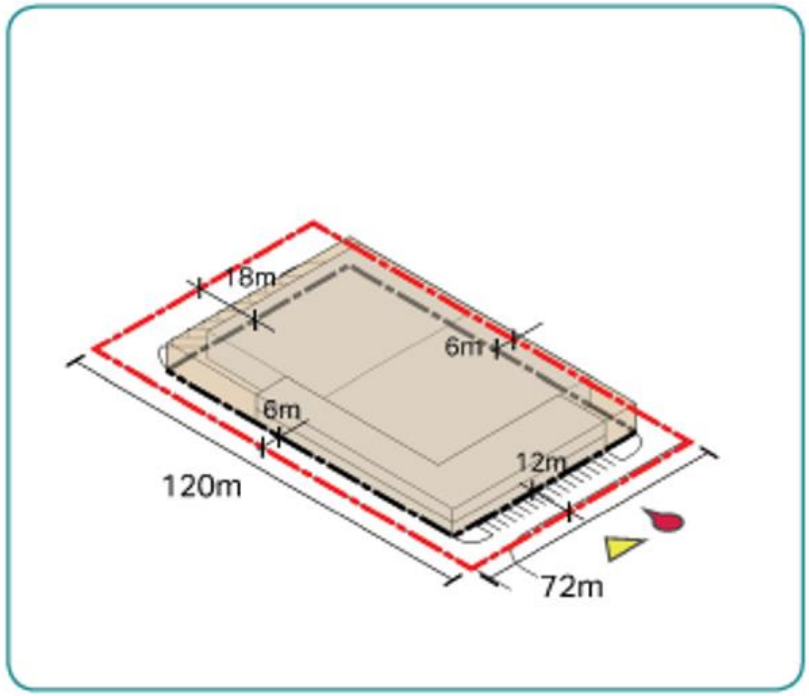
Max. Plot FAR: 0.75

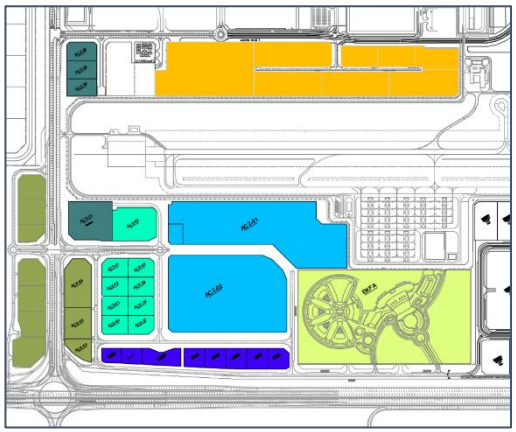
Plot GFA: 6,175 sq.m.

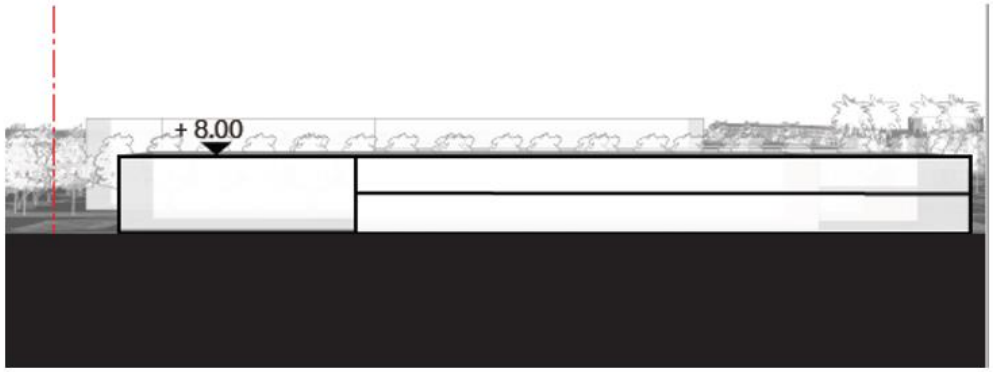
85% Warehouse

15% Office

Max. Building Height:
G+1 / 8m







Hospitality

Hotels is located on both sides of the road leading to the Temporary Passenger Terminal.

- Permitted uses: 3/4-star hotels and serviced apartments.

- Maximum plot coverage: 40%.

- Minimum setbacks:
a. From public roads: 4 meters minimum
b. From adjoining plots: 6 meters minimum
c. From rear boundaries: :4 meters minimum
d. From buildings within plot: 12 meters minimum
e. From the LRT line (where applicable): 8 meters.

- Maximum Floor Area Ratio (FAR): 2.8

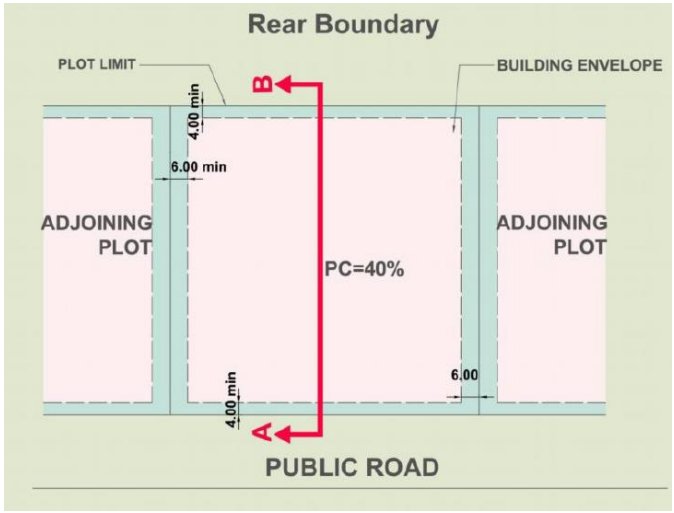
- Maximum number of floors: Ground floor + 7 floors.

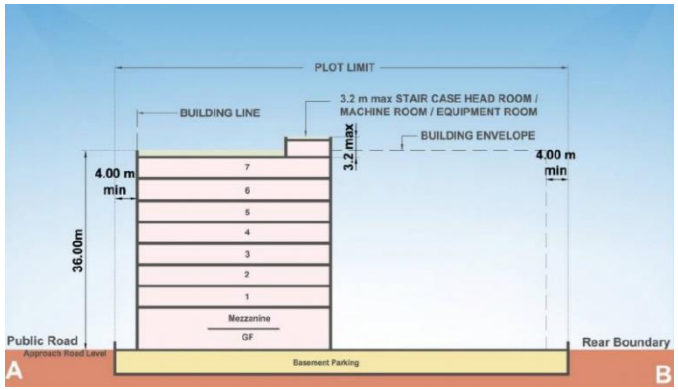
- A mezzanine floor is permitted as part of the ground floor, provided its total area should not exceed 50% of the usable area of the ground floor.

- Maximum building height: 36 meters. Staircases and any structures on the building's roof must not exceed the total height of 3.2 meters, measured from the roof's finish floor to the highest point in the structure.

- Maximum height of roof parapet must not exceed 1.10 meters
.
- Maximum height of the finish floor level of the ground floor: 1.20 meters in comparison to the corresponding road approach level.

Parking:
- Minimum on-plot car parking spaces required:
· Hotel rooms: 1 space per 4 hotel rooms.
· Hotel rooms: 1 space per 1 hotel room if a kitchen or pantry is included in the room.
· Hotel suites: 1 space per 2 hotel suites.
· Conference rooms: 1 space per 20m2 of Net Leasable Area, or 1 space per 5 seats whichever is higher.
· Restaurants: 1 space per 45m2 of restaurant Net Leasable Area.
· Retail: 1 space per 1 retail store, or 1 space per 45m2 of Net Leasable Area, whichever is higher.
· Lobby and hall areas: 1 space per 18 m2.
· Hotel offices: 1 space per 45m2 of Net Leasable Area.
· Visitors: 5% in addition to the total number of spaces required above.





Commercial (office + retail)

Max. Plot Coverage: 30 %

Ave. Plot FAR: 1.80

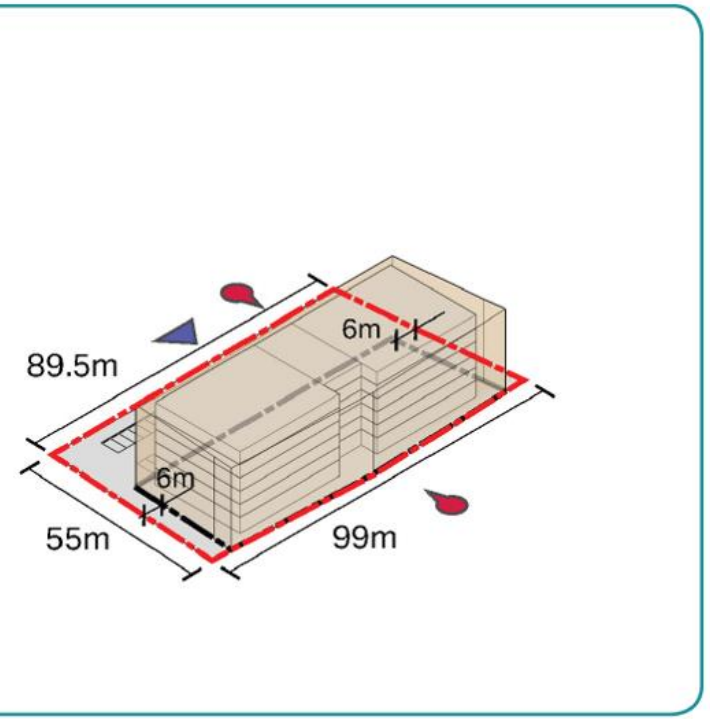
Typical Plot GFA: 9,000 sq.m.

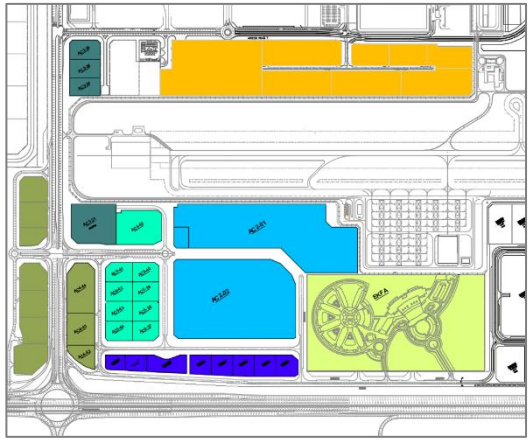
93% Office

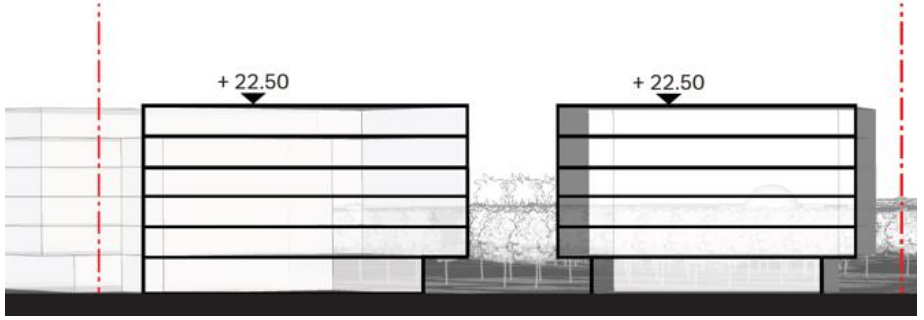
7% Retail

Max. Building Height:
G+5 / 22.5m

Plot Boundary
Setback Line
Airplane Access
Car + Truck Access
Car Access
Truck Access
Pedestrian Access







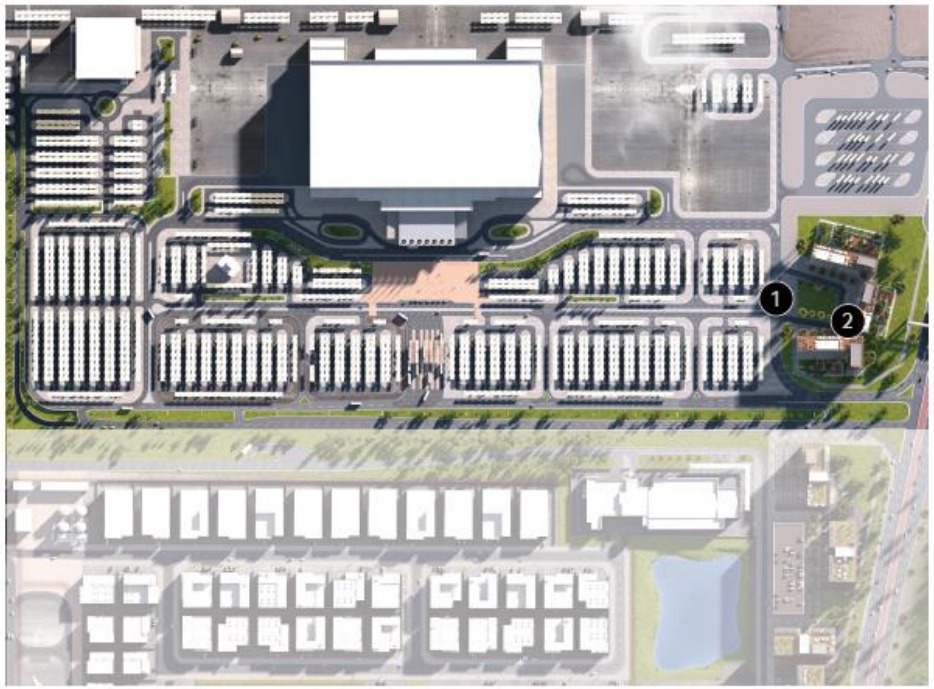
HOTEL AIRSHOW

CHARACTER

Legend

1. Hotel Drop Off
2. Hotel

Plot ID	Land Use	Description	Plot Area (sq.m.)	Plot GFA (Sq.m)	FAR
Airshow					
	Hospitality	Hotel and Retail within Airshow	26,000	40,000	1.55
				-	
Sub Total			26,000	40,000	



Maintenance Repair Overhaul Hangars (MROs) – Fixed Base Operations Hangars (FBOs)

The General Aviation Area consists of MROs and FBOs area and Opened and Covered Aircraft Parking. The MROs and FBOs hangars area will be used for the maintenance, repair and overhauling of aircrafts. It will be the major source of revenue generating activities for General Aviation Area. The FBOs will provide ground support service to the adjacent VIP Terminal area along with other maintenance related services.

SECURITY CONCERNS AND ACCESSIBILITY FROM LANDSIDE

The entry from landside to airside will be from two entry gates located on the Northeastern and Southwestern sides of the General Aviation Area. These gates are provided with enough parking spaces for cars, trucks, and busses. Taking into consideration the security concerns of the police it was decided that no cars will be allowed to enter from landside to airside except for a very limited number after special permission. All the employees and staff will park their cars, company busses and vehicles at the gate and from the gate these staff and employees will be transferred to their respective hangar plots by airside vehicles and busses after screening and security check.

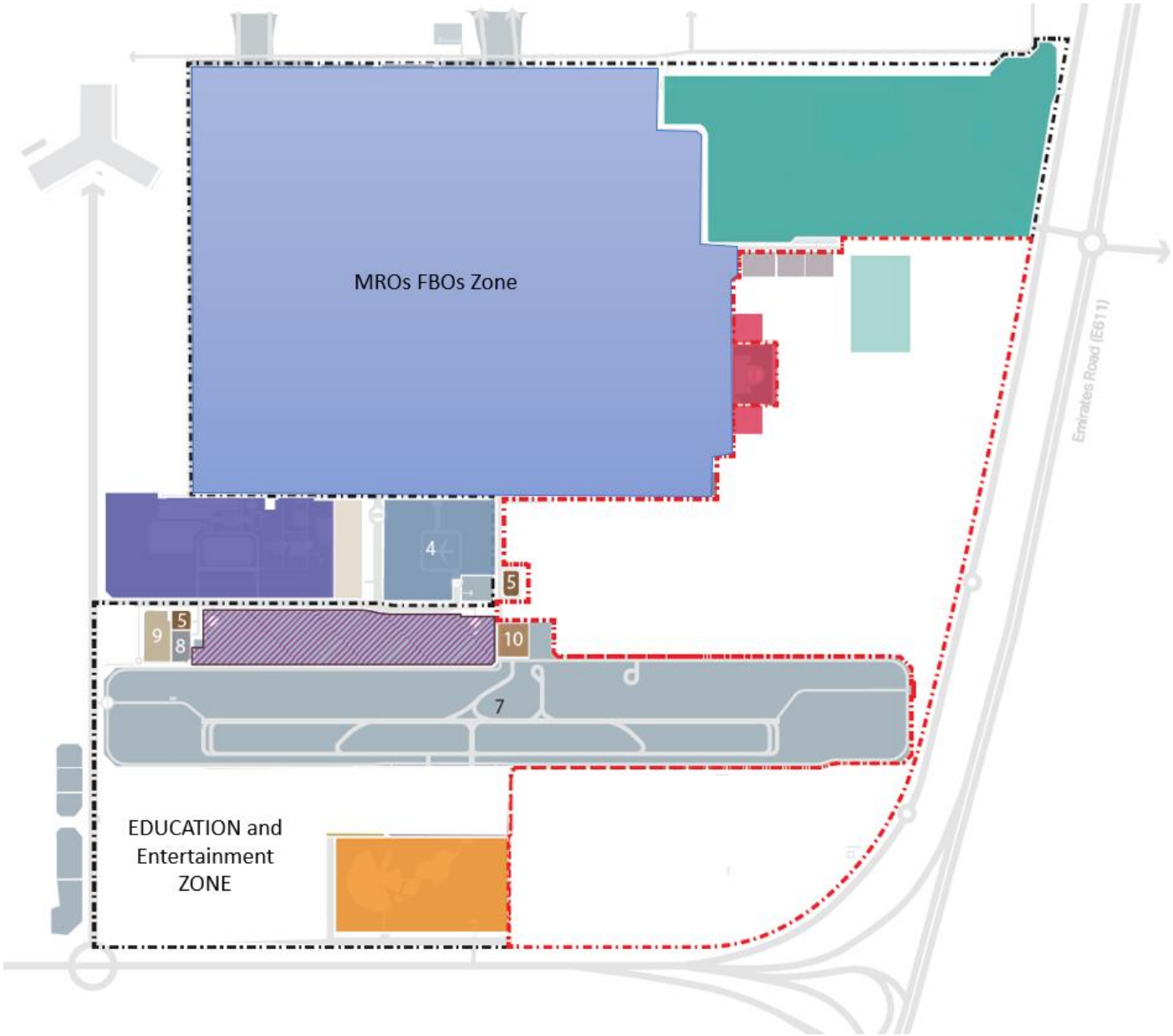
The executives will park their cars in specially designed VIP car parking areas and use limousine service to reach their hangars after security checks.

The service trucks coming to the MROs, FBOs area for delivery of goods or machinery parts will unload their goods/parts at the entry gates. The goods will be loaded to airside trucks after screening and security checks. Exclusive areas are provided for loading and unloading of goods from the trucks.

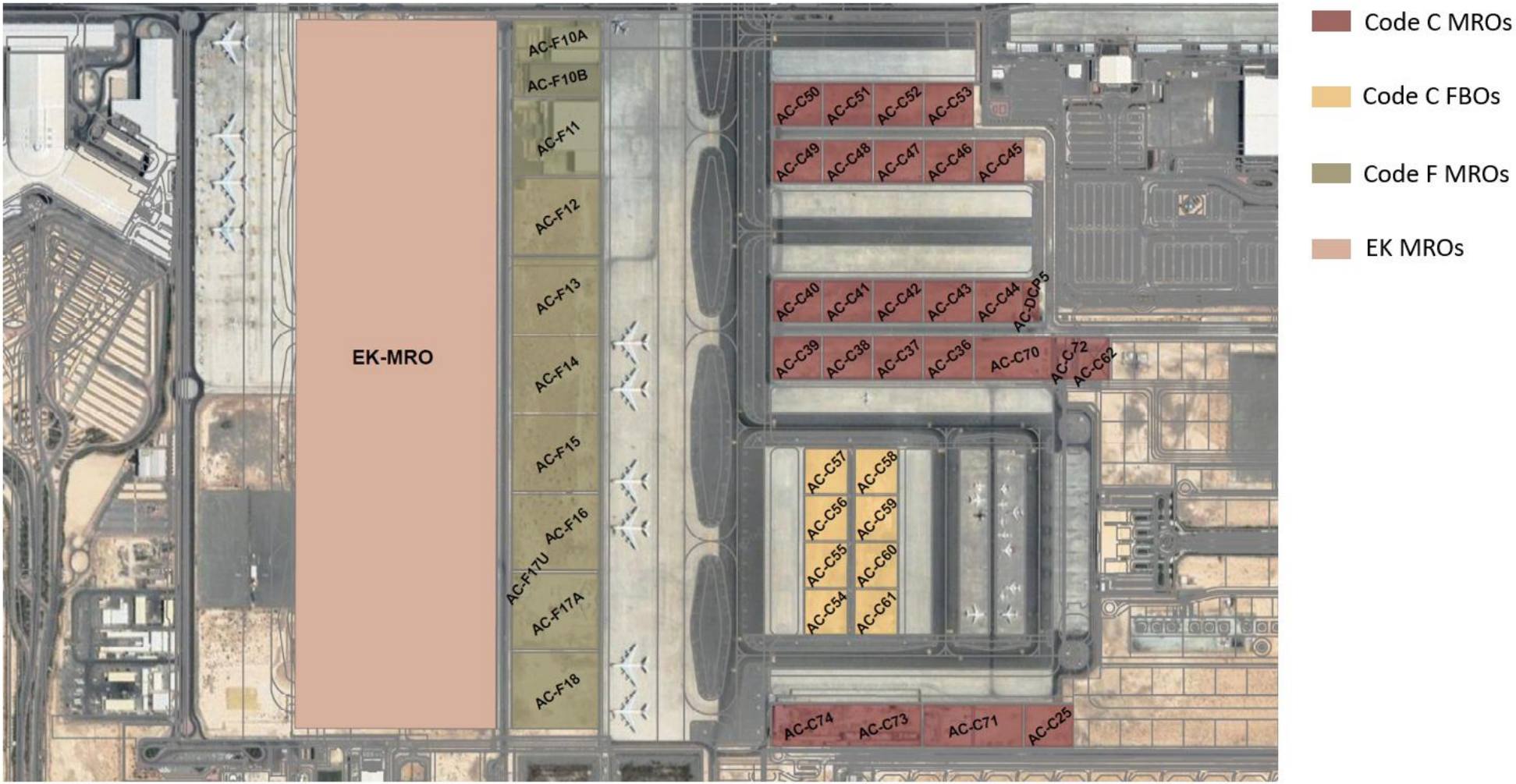
Movement of all staff should be controlled and clearly defined. All MRO and FBO staff will be allowed to access the General Aviation Area only. No permission will be given to the staff to access other parts of the airfield. All MRO and FBO Hangars should be equipped with security facilities to prevent any administrative or other employees from accessing to the airside.

Additional security measures like CCTV and other infrared sensors will be installed to detect any trespasser to unauthorized areas.

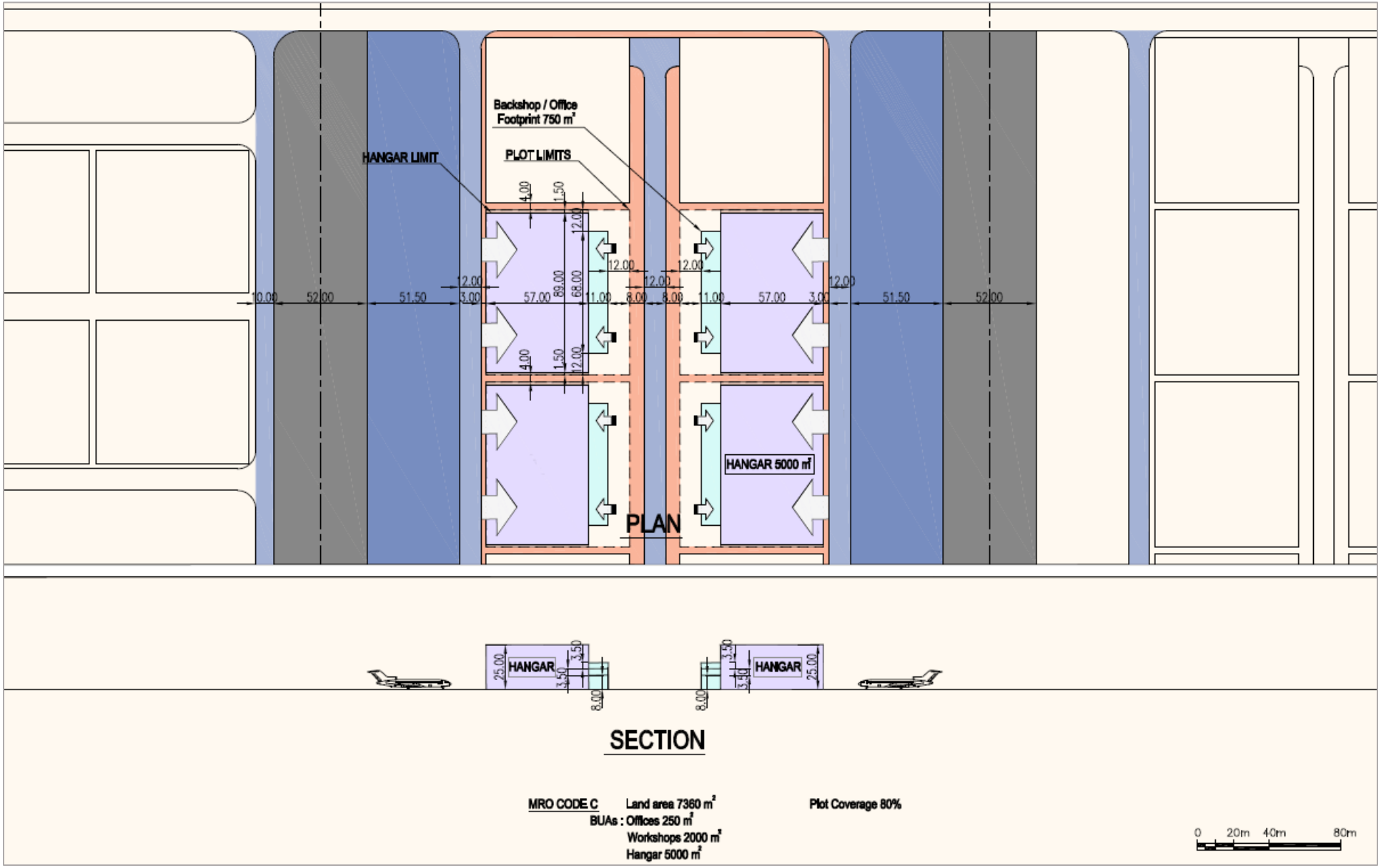
Some facilities – after obtaining necessary permissions from DACC, Dubai Airport and Dubai Police - will have Airside Landside access within the same facility. This arrangement should be coordinated and confirmed by the Aviation Department, DACC, DA/Dubai Police to ensure all the compliances and requirements are put in place.


MROs FBOs Zone
4
5
9
5
8
10
7
EDUCATION and
Entertainment
ZONE
Emirates Road (E611)

MROs – FBOs land uses



Code C MROs


Backshop / Office
Footprint 750 m²
HANGAR LIMIT
PLOT LIMITS
HANGAR 5000 m²
PLAN
HANGAR
HANGAR
SECTION
MRO CODE C
Land area 7360 m²
Plot Coverage 80%
BUAs : Offices 250 m²
Workshops 2000 m²
Hangar 5000 m²
0 20m 40m 80m

Code C MROs

The plots assigned for the Code C maintenance hangars shown in Plan above shall include:

1. One bay hangar with a minimum area of 5000m²
2. The associated maintenance workshops and offices
3. The external structure of the facility.
4. Parking spaces. These shall comprise parking for any vehicle or bus operating within the General Aviation
5. The hangar sliding doors totally extended (fully opened).
6. A hangar set back of 1.5 m at two sides of the plot.

The settings out data of the code C plots are shown in figure above.

These hangars are assigned a plot area of 80x92m. Maximum plot coverage is 80% The adjacent plots are separated by 4.0 meters buffer zone to provide a minimum separation distance in case of fire incidence. It is also utilized to provide utility services connection to each Hangar. The plots are laterally separated by 3.0 meters from the 12.0m Apron GSE road, running in front of the hangars to satisfy the drainage requirements and fire safety issues in case of apron fuel spillage. The back side of these plots is separated by 8 m from the 12 m Back GSE Road. This allows for the crossing of the services along this road.

Permitted Uses

In this zone all the maintenance activities as well as ancillary offices to serve them are permitted to the satisfaction and approval of the authorities. These facilities can also be used for fixed base operations (FBOs) whose permitted uses are described below.

Maximum Building Height:

a. Overall building height measured from the mean finished level of the ground floor to the top of the roof parapet or the top of the coping tile of the pitched roof must not exceed 25m.

b. For all buildings the clear height of each floor measured from the finished floor level to the ceiling should not be less than:
- 2.80m for offices.

Aprons

The Aprons of the code C MRO hangars shall cater for one B727-200 (code C aircraft critical in length) or a combination of Code C, B and A aircraft. The apron is 51.50 m deep and shall comprise the 47-meter apron depth and the 4.50 nose clearance/ short term parking area.
Each hangar is assigned an aircraft stand located the apron in direct contact with its corresponding plot.
The Aprons shall be constructed by the Authority. Nonetheless, it is the responsibility of the hangar operator to provide floodlighting on the hangar structure to light the contact apron.

Apron GSE Roads

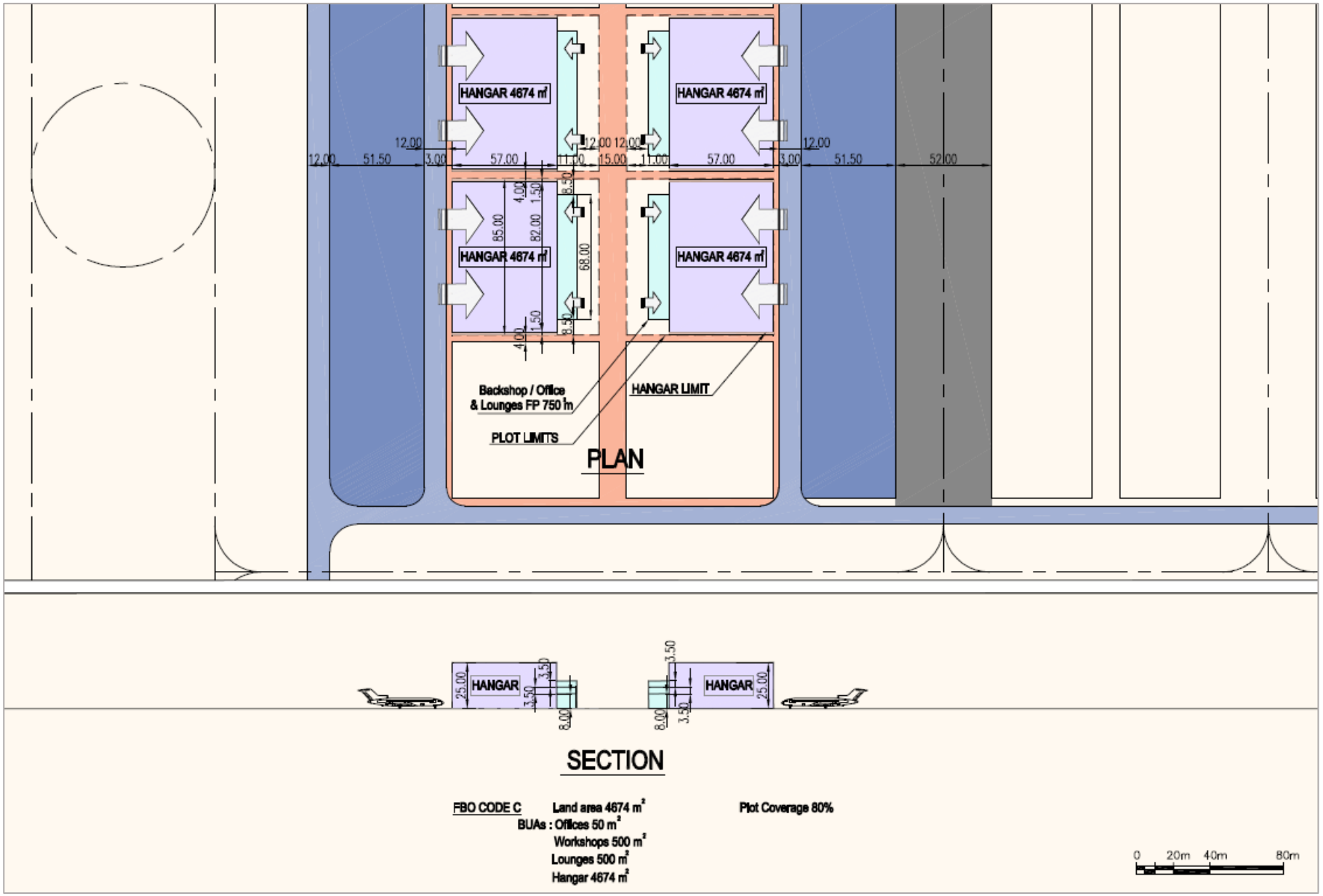
A 12.0-meter GSE Road is planned in front of the code C MRO plots and is set at 3.0 meters in front of the plots. This road shall service the ground handling vehicles to directly service the aircraft and the associated hangar. It connects to the GSE Road network at its western end.

The Apron GSE Road shall be constructed by the Authority. However, it shall be lit from the floodlighting associated with the contact hangar.

Hangars Back Road

A 12m back road runs between the two rows of Code C MRO hangar plots from the back sides to provide direct access to the employees and service vehicles into the hangar's workshops, stores, and offices. This road is planned as dead-end road to prevent MRO end users from accessing the rest of the airfield. Bollards will be installed at the dead ends to prevent any vehicle from accessing the airfield. The road has total corridor of 28 meters which includes the road section 12m and the 8 m buffer from the adjoining plots to run the necessary utilities.

Code C FBOs


HANGAR 4674 m²
HANGAR 4674 m²
HANGAR 4674 m²
HANGAR 4674 m²
12.00
51.50
3.00
57.00
11.00
15.00
11.00
57.00
3.00
51.50
52.00
85.00
82.00
68.00
4.00
1.50
8.50
Backshop / Office
& Lounges FP 750 m²
HANGAR LIMIT
PLOT LIMITS
PLAN
HANGAR
HANGAR
25.00
3.50
8.00
SECTION
FBO CODE C
Land area 4674 m²
BUAs : Offices 50 m²
Workshops 500 m²
Lounges 500 m²
Hangar 4674 m²
Plot Coverage 80%
0
20m
40m
80m

Code C FBOs

The plots assigned for Code C FBO hangars shown above shall include:

1. One bay hangar with a minimum area of 4674m²
2. The associated maintenance workshops, lounges, and offices
3. The external structure of the facility.
4. The hangar sliding doors totally extended (fully opened).
5. A hangar set back of 1.5 m at two sides of the plot.

The setting out data of the code C FBO plots are shown above.

These Hangars are assigned a plot area of 80x85m.
Maximum plot coverage is 80% The adjacent plots are separated by 4.0 meters buffer zone to provide a minimum separation distance in case of fire incidence. It is also utilized to provide utility services connection to each hangar. The plots are laterally separated by 3.0 meters from the 12.0m Apron GSE road, running in front of the hangars, to satisfy the drainage requirements and fire safety issues in case of apron fuel spillage. The two rows of the FBO plots are separated by 15 m to provide direct access and services to the back side of the hangars, and to provide access for the fire truck in case of emergency.

Permitted Uses

In this zone all the requirements of the fixed base operations are permitted to the satisfaction and approval of the authorities.

Maximum Building Height:

a. Overall building height measured from the mean finished level of the ground floor to the top of the roof parapet or the top of the coping tile of the pitched roof must not exceed 25m.
b. For all buildings the clear height of each floor measured from the finished floor level to the ceiling should not be less than:
- 2.80m for offices.

Aprons

The Aprons of the Code C FBO hangars shall cater for one B727-200 (code C aircraft critical in length) or a combination of Code C, B and A aircraft. The apron is 51.50 m deep and shall comprise the 47 meter apron depth and the 4.50 nose clearance/ short term parking area.

Each hangar is assigned an aircraft stand located the apron in direct contact with its corresponding plot.
The Aprons shall be constructed by the Authority. Nonetheless, it is the responsibility of the hangar operator to provide floodlighting on the hangar structure to light the contact apron.

Apron GSE Roads

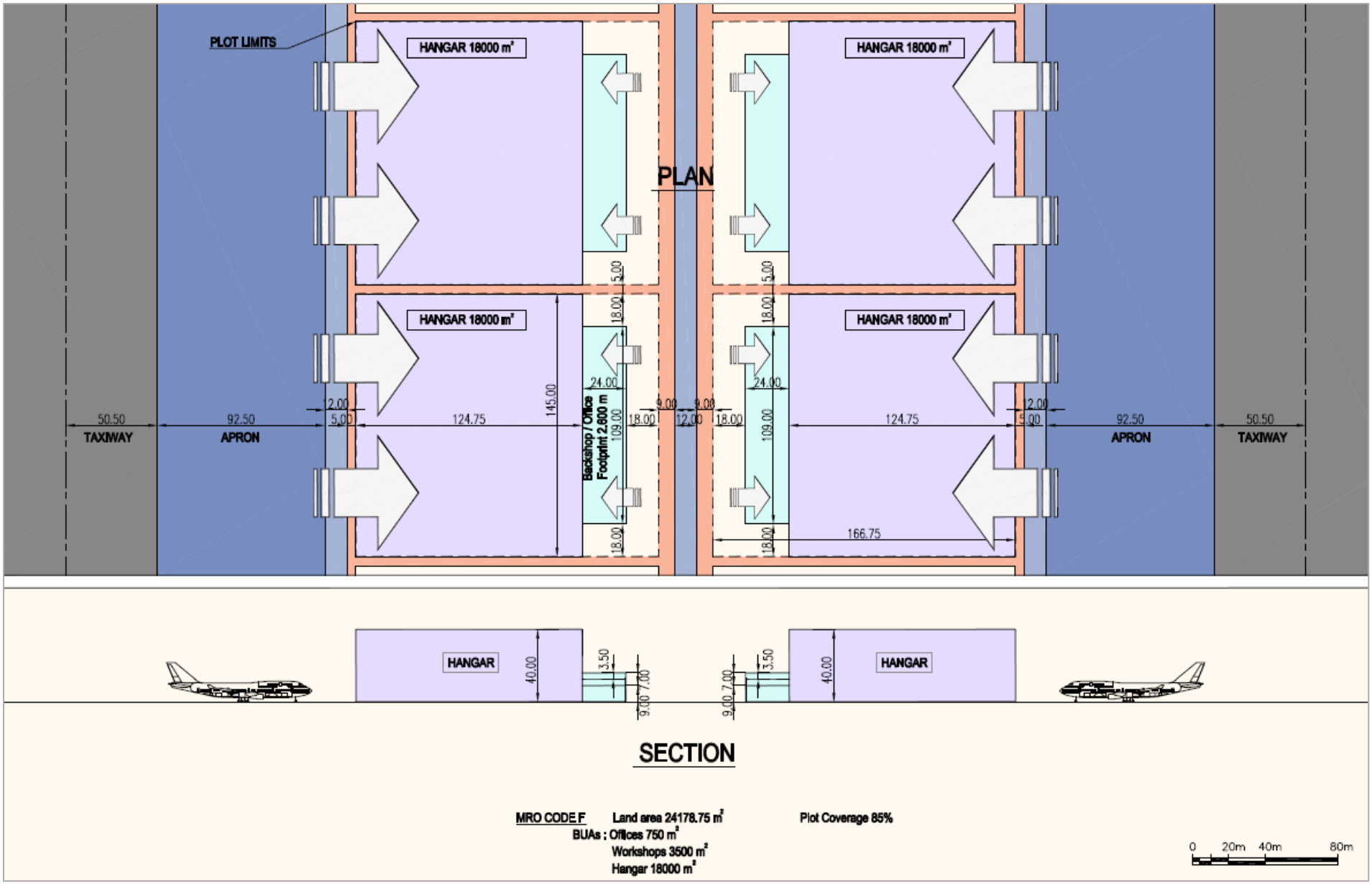
A 12.0-meter GSE Road is planned in front of the Code C FBO plots and is set at 3.0 meters in front of the plots. This road shall service the ground handling vehicles to directly service the aircraft and the associated hangar. It connects to the GSE Road network at its northern and southern ends.

The Apron GSE Road shall be constructed by the Authority. However, it shall be lit from the floodlighting associated with the contact Hangar.

LANDSCAPING

1. Wherever feasible in respect to site safety, the Developer is encouraged to allocate a small proportion of his plot from the back side for greenery and landscaping. The Developer cannot carry out any landscaping works outside his plot boundary.
2. All areas reserved for car parking inside the plot boundary must be paved with grey interlocking blocks with colored interlocking blocks used to define parking limit for each type of vehicle.
3. Landscaping is prohibited on the airside portions of the plot i.e. between the hangar Airside Line and the GSE Road.
4. Plantation should be such that it should not attract the birds.

Code F MROs


PLOT LIMITS
HANGAR 18000 m²
HANGAR 18000 m²
HANGAR 18000 m²
HANGAR 18000 m²
PLAN
5.00
18.00
24.00
2.00
5.00
124.75
145.00
Backshop / Office
Footprint 2.800 m
109.00
9.00
9.00
12.00
18.00
166.75
50.50
TAXIWAY
92.50
APRON
92.50
APRON
50.50
TAXIWAY
HANGAR
40.00
3.50
7.00
9.00
SECTION
MRO CODE F
Land area 24178.75 m²
Plot Coverage 85%
BUAs : Offices 750 m²
Workshops 3500 m²
Hangar 18000 m²
0
20m
40m
80m

Code F MROs

The plots assigned for code F hangars shown above shall include:

1. One bay hangar with a minimum area of 18,000m²
2. The associated maintenance workshops which mainly includes:
- Workshops area
- Technical offices area.
- Main stores area.
3. The external structure of the facility.
4. Parking spaces. These shall comprise parking for any vehicle or bus operating within the General Aviation.
5. The hangar sliding doors totally extended (fully opened).

The settings out data of the code F plots are shown above.

These Hangars are assigned a plot area of 145 x 166.75m. Maximum plot coverage is 85%.

The adjacent plots are separated by 5.0 meters buffer zone to provide a minimum separation distance in case of fire incidence. It is also utilized to provide utility services connection to each hangar. The plots are laterally separated by 5.0 meters from the 12.0m Apron GSE road, running in front of the hangars, to satisfy the drainage requirements and fire safety issues in case of apron fuel spillage. The back side of these plots is separated by 9 m from the 12 m Back GSE Road. This allows for the crossing of the services along this road.

Permitted Uses

In this zone all the maintenance activities as well as ancillary offices to serve them are permitted to the satisfaction and approval of the authorities.

Maximum Building Height:

a. Overall building height measured from the mean finished level of the ground floor to the top of the roof parapet or the top of the coping tile of the pitched roof must not exceed 40m.

b. For all buildings the clear height of each floor measured from the finished floor level to the ceiling should not be less than:
- 2.80m for offices.

Aprons

The Aprons of the code F maintenance hangars shall cater for a combination of one A380-800 and one B727-200 or a combination for one Code E aircraft associated with a smaller code C aircraft. The apron is 92.50 deep and shall comprise the 85meter apron depth and the 7.50 nose clearance/ short term parking area. Each hangar is assigned an aircraft stand located the apron in direct contact with its corresponding plot.

The Aprons, which shall be constructed by the Authority, shall be the property of the Authority. Nonetheless, it is the responsibility of the hangar operator to provide floodlighting on the hangar structure to light the contact apron.

Apron GSE Roads

A 12.0-meter GSE Road is planned in front of the code F plots and is set at 5.0 meters in front of the plots. This road shall service the ground handling vehicles to directly service the aircraft and the associated hangar. It connects to the GSE Road network at its northern and southern ends.
The Apron GSE Road shall be constructed by the Authority. However, it shall be lit from the floodlighting associated with the contact Hangar.

Hangars Back Road

A 12m back road runs between the two rows of Code F hangar plots from the back sides to provide direct access to the employees and service vehicles into the hangar's workshops, stores and offices. This road is planned as dead-end road to prevent MRO end users from accessing the rest of the airfield. Bollards will be installed at the dead ends to prevent any vehicle from accessing the airfield. The road has total corridor of 30 meters which includes the road section 12m and the 9m buffer from the adjoining plots to run the necessary.

ENVIRONMENTAL HEALTH AND SAFETY GUIDELINES

The Aircraft Hangars offer services for base maintenance repair and overhauling of the
aircraft. The hangars mainly divided into two components such as:
a. Offices and storage Area
b. Hangar maintenance and Workshops Area

ENVIRONMENT

The working environment in the maintenance hangars should be such that the effectiveness of the personnel should not be impaired. To achieve this working environment, following measures must be ensured:

1. Air quality inside the hangar must be maintained such that personnel can carry out required tasks without any undue discomfort.

2. Dust and any other airborne contamination should be kept to minimum and not to be permitted to reach to a level in the work task area where visible aircraft/component surface contamination is evident.

3. Lighting should be such that maintenance and inspection work can be carried out in effective manner.

4. Noise shall not distract the personnel from carrying out the inspection tasks. Where it is not possible to control the noise source, such employees should be provided with the necessary personnel equipment to stop the excessive noise.

5. Where a particular maintenance task requires the application of specific environmental condition different from the foregoing, then such conditions should be observed.

6. Where the working environment deteriorates to an unacceptable level in respect of temperature, moisture, wind, light, dust/ other airborne contamination, the maintenance, or inspection task must be suspended until satisfactory conditions are reestablished.

7. Secured storage facilities should be provided for components, equipment, tools, and materials. Storage conditions should ensure the segregation of serviceable components and materials from unserviceable materials, equipment, and tools. The conditions of storage should be in accordance with the manufacturer instructions to prevent deterioration and damage of store items. Access to storage facilities should be restricted to authorized personnel.

The planning regulations of the MROs and FBOs shall comply as minimum requirements with GCAA CARs Part V. Chapter 3. .CAR 145 Approved Maintenance Organizations.. However, where this national regulation might not be as extensive as worldwide applied ones, International Standards and recommended practices should be implemented such as .EASA 145 Regulation.

Referring to GCAA CARs Part V . Chapter 3 .CAR 145.25 Facility Requirements, the organization shall ensure that:

1. Facilities are provided appropriate for all planned work, ensuring, protection from the weather elements. Specialized workshops and bays are segregated as appropriate; to ensure that environmental and work area contamination is unlikely to occur.

a. For base maintenance of aircraft, aircraft hangars are both available and large enough to accommodate on planned base maintenance.

b. For component maintenance, component workshops are large enough to accommodate the components on planned maintenance.

2. Office accommodation is provided for the management of the planned work referred to in paragraph 1), and certifying staff so that they can carry out their designated tasks in a manner that contributes to good aircraft maintenance standards.

SITE AND SERVICES

Site access

Each serviced site must have uninterrupted access to all buildings and facilities situated on it. Internal road width shall be a minimum of 5.50 m and designed to an adequate standard for the use of fire vehicles. It should also be illuminated.

The finished level of any paved road, parking or footpath should not be less than 150 mm above the finished level of the approach road to the site and shall have an adequate fall towards the approach road.

Utility requirements

The Developer shall provide within the plot boundaries the following:

a) Water supply, sewerage, and irrigation services to habitable parts of any building in compliance with the standards set out by the Service Authorities.
b) Electrical power distribution installations in compliance with the Regulations set out by the Service Authority (Electrical).
c) Fire protection facilities shall be in accordance with the recommendations, requirements, and specifications of the National Fire Protection Association, NFPA and approved by the Service Authority (Fire).
d) Storm water drainage and disposal, in accordance with the recommendations and regulations of the relevant Service Authority and Dubai Municipality.

The developer has the right with the agreement of the Authorities to do some works outside the plot boundaries to connect to the infrastructure networks. Provision of any utility and its necessary reservation on any plot will require liaising between the customer and the responsible authorities.

Water Supply

a) Water supply installations shall comply with the relevant Service Authority (water) standards and with the Authority requirements, the British standards and/or the Uniform Plumbing Code (UPC) USA.

b) Water storage tanks shall be provided for every serviced site to accommodate for both the fire protection and the daily domestic water demand requirement. The minimum capacity of any storage tank should not be less than two days or 1 m3 whichever is higher for domestic water use and 90 minutes of coverage for fire protection use.

c) The Developer shall submit a request for a service connection to the Service Authority (Water) documents upon completion of construction.

d) All installations shall be subject to testing by the Service Authority (Water), in accordance with the relevant Regulations.

Developers shall pay a one-time water connection charge and all other charges in application to the Service Authority (Water) Regulations.

Wastewater

a) Wastewater installations shall comply with relevant the Service Authority (Wastewater) requirements and the Authority requirements and British standards.

b) All chambers for the disposal of foul sewerage from any building shall be adequately vented and impervious to liquids internally or externally.

c) Sewers must be of durable material and construction and watertight under all conditions. The internal diameter of any soil drain shall not be less than 150 mm.

d) Service connection between the main inspection chamber of a serviced site and the public infrastructure shall be paid for by the Developer.

e) Drains shall be laid in straight lines between changes of direction or gradient. Maximum distance between manholes shall be 30 m. Manholes must be provided at each change of direction.

f) All installations shall be subject to testing and approval of the Authority.

g) Where industrial liquid waste is likely to be generated, effluent shall be collected into a separate approved system. Effluent treatment plant or a specific tank shall be provided in accordance with the relevant Authority requirements and British standards (BS 6297). No drains from industrial

h) processes shall be allowed to discharge into the Authority drainage network or any soak away without prior treatment complying with the relevant Authority and British standards.

Developers shall pay a one-time connection charge and all other charges thereof in accordance with Authority charges.

Irrigation

a) Irrigation installations shall comply with relevant to the Service Authority (Irrigation) and Authority requirements.

b) All installations shall be subject to testing and approval of the Authority.

c) Water storage tanks shall be provided for every serviced site to accommodate for the daily water demand requirement.

d) The Developer shall submit a request for a service connection to the Authority upon completion of construction, accompanied by a detailed drawing indicating the exact location of the storage reservoir(s) (daily water demand) and connection location with diameter.

Developers shall pay a one-time connection charge and all other charges thereof in accordance with Authority charges.

Storm water Drainage

a) Storm water installations shall comply with the relevant the Service Authority (Drainage) requirements and the relevant Authority and British standards.

b) Roof drainage network shall be designed to a frequency return period of five years.

c) Roof finish shall have a gradient of at least 1:80 capable of directing rainwater to suitable outlets or down pipes, which will discharge freely at ground level.

d) Channels, gutters, outlets, or down pipes shall be of durable material with suitable watertight joints, in accordance with Authority standards.

e) Down pipes shall be at least 80 mm diameter, securely attached to the building.

f) Public parking shall be provided with channels and gutters inlets designed to a minimum rainfall intensity of 64 mm per hour and a minimum time of concentration of 10 minutes.

Refuse Disposal

a) Refuse shall be sorted by each Developer or tenant in two different types, namely domestic and industrial non-hazardous.

b) Domestic waste shall include those generated from usual office work and shall be disposed of in an easily identifiable and accessible container. It is the responsibility of the tenant to make appropriate arrangement for the disposal of his generated trade waste.

c) Industrial nonhazardous waste shall include all bulky packaging material made of cardboard, wood, or paper. Developers or tenants are expected to dispose such material in the bulk bins provided for such purpose by the Authority throughout the Logistics District site.

d) If Developers are expected to generate industrial non-hazardous waste, they may submit a request to the Authority for placing bulk bins within their sites. The request shall include a plan indicating the location and number of the plot, the type of industrial activities, the type of waste and the expected daily and weekly generation rate.

BUILDING DESIGN STRUCTURAL REQUIREMENTS

The building shall be so constructed that the combined dead, imposed and lateral loads (wind + seismic loads are safely transmitted to the ground without deformation and deflection of any part of the building, and without such ground movement impairing the stability of any part of another building. Building stability shall not be impaired by subsoil movement due to swelling or shrinking.

General

Loads shall be defined in accordance with ASCE/SEI 7-16. Consultant should ensure that selected design standards are the latest edition and fully compatible with Dubai South design regulation & guidelines.

Load combinations

Loads shall be factored and combined in accordance with Ch. 2 of ASCE/SEI 7-16. The results from compatible linear analyses of load cases acting individually may be combined and summed algebraically.

Dead loads

Dead loads shall be calculated using the densities and volumes of the materials making up the construction.

Superimposed dead loads

The Engineer is responsible for determining the superimposed dead loads for components not included as either live or dead loads (including the anticipated internal partitions, floor and ceiling finishes, facades and external cladding). Loads shall be defined as concentrated point loads, uniform loads on plan, and/or uniform loads on elevation, as appropriate.

Live loads

Minimum uniform live loads shall not be less than those listed in Ch. 4 of ASCE/SEI 7-16. The following requirements shall also be applied.

a) Concentrated live load shall be evaluated for objects creating significant point loads, including machinery, vehicles and storage racks.
b) The minimum live load for garage and car parking is 3.5 kN/m2 which should be validated based on the type of vehicles accessing the facility. The Engineer shall also take into account the load imposed by emergency vehicles along the designated route.
c) The live load for drained areas of floor surrounding a swimming pool is 2 kN/m2.
d) Pool tanks and other areas susceptible to flooding are to be designed for a load not less than the maximum retained head of water.
e) The Engineer shall design the supporting structure to withstand the loading imposed by the mechanical, electrical and plumbing (MEP) equipment in the designated areas and along the proposed equipment access route.

Wind load

The Engineer shall calculate the effects of wind loading on buildings. The calculation shall take into account strength for life safety, and serviceability for buildings movements affecting cladding or building occupant comfort. Calculations for wind design shall be based on ASCE/SEI 7-16. The Engineer shall also use supporting information and additional rules for application in Dubai from the DBC

Wind pressures

This clause provides the basis for calculation of wind pressures to be used with ASCE/SEI 7-16. The wind speeds of Table F.10 shall be used instead of the wind maps in Section 26.5 of ASCE/SEI 7 16.

The 50 MRI wind speed stated in below Table shall only be used in accordance with Clause 5.3.5 of ACI 318-19.

ASCE/SEI 7-16 MRI (years)	Reference wind speed for 3 s gust at 10 m height on open terrain, V = V_{ref} (m/s)	Application
1	22	Serviceability – occupancy comfort (refer to F.7.12.4.2)
10	30	Serviceability – displacement (refer to F.7.12.4.1)
50	38	Strength in accordance with Clause 5.3.5 of ACI 318 19
300	44	Strength – category I
700	47	Strength – category II
1,700	51	Strength – category III
3,000	53	Strength – category IV

In all cases, the design wind pressure shall be not less than 1 kN/m2

Note: all other design parameters to be as per Dubai building code Edition 2021

Seismic Design

Design should be as per Dubai Building Code Edition 2021

Minimum requirements for concrete work

a) Minimum cement content shall be 370 kg / m3.
b) Maximum water / cement ratio shall be 0.45.
c) Minimum 28 days characteristic cube strength shall be 35 N / mm3.
d) Maximum chloride content (as NaC1) in any mix shall not exceed 0.3 % by weight of cement for reinforced concrete 0.12 % by weight of cement for mass concrete and 0.06 % by weight for prestressed concrete.
e) The following are minimum requirements for concrete in contact with soil:
   - Minimum 28 days characteristic cube strength shall be 40 N / mm3.
   - All reinforced concrete members shall be protected with quality damp- proofing and water-proofing systems.
   - Clear concrete cover to reinforcement shall be not less than 75 mm for footings and 50 mm for columns, beams, slabs, and walls.
   - Anti-termite treatment shall be provided underneath slabs on grade and ground beams to prevent termite infestation. Proposed anti-termite treatment shall be approved by the Authority.

The design and construction of pipelines, storage tanks, boilers, cranes, lifting equipment and pressure vessels shall be checked and certified by an independent third-party inspection agency approved by the Authority.

General Note:

The regulations contained in this document shall be considered to be the minimum standards for the structural design of the Project and contain some, but not all, of the criteria pertinent to the design of the Project. The Dubai building code (edition 2021), UAE Fire and Life Safety Code of Practice and the listed international codes to be used along with this document .

FIRE PROTECTION REGULATIONS

a) Provision of Fire Protection and Life Safety Facilities shall comply with the requirements of the latest version of UAE Fire and Life Safety Code of Practice and International standards like National Fire Protection Association, NFPA and shall be approved by the Service Authority Dubai Civil Defense based on fire risk assessment and (UAE) Government Safety Regulations. On Air side the Dubai Airports Fire Prevention department must approve the designs and Final completion.

b) The building Life Safety design shall be in accordance with latest version of UAE Fire and Life Safety Code of Practice. Every building shall be provided with adequate means of egress, and other safeguards which shall be specified in kind, number, location, and capacity, taking into consideration type of occupancy, number of persons exposed type of building materials and other relevant factors that may affect the safety of occupants.

SECURITY SYSTEM

a) Every building in Commercial sector shall comply to the regulations of Department of Protective Systems of Dubai Police security industry regulatory agency (SIRA) - http://www.sira.gov.ae/

b) Every building in the Commercial sector shall have CCTV recording features as specified by Department of Protective Systems.

c) All warehouses/compounds shall monitor and record the vehicle entry and exits by manual procedures and by CCTV Cameras.

d) Adequate lighting shall be provided at field of camera so that people/picture is identifiable at any time of the day.

e) Developers of commercial buildings shall provide their own CCTV management system.

End of document