PLANNING & DESIGN GUIDELINES

Huzoom Lusail

Lusail

حزوم لوسيل
Huzoom Lusail

QATARI DIARI
الديار القطرية

حزوم لوسيل

Huzoom Lusail

JANUARY 2023

1.1 CONTENTS

1.3.1 INTRODUCTION

The master plan for Lusail has evolved since 2006 and comprises detailed proposals for a new coastal city quarter to the north side of Doha's city centre.

The Lusail Development covers 19 separate Districts with over 4,000 development parcels. It is a complex real estate construction project for 200,000 residents, overseen by Lusail Real Estate Development Company (LREDC) as Master Developer and involving many Agencies and Sub-Developers all with a mutual interest in delivering a vibrant and successful world class coastal city. The development will feature state-of-the-art Mass Transit Networks, Infrastructure services and a range of Residential, Mixed-Use, Hospitality, Sports, Retail and Entertainment venues and districts. With an over-riding sustainability-driven development strategy, Lusail is a key part of delivering Qatar's forward thinking, global vision for a sustainable approach that befits our times.

To help guide and ensure integrated and high quality delivery of all development, a suite of integrated design guidelines and controls has been prepared for each of the districts. These documents provide a single series of design codes and guidelines that explain the master plan's master plan's intent, its districts and respective parcels as well as the design guidelines for a variety of development typologies across the master plan. Each District Document has its own brand colour to make the family of documents more legible to use.

Each of the documents, comprises 2 sections:

> Section 1: Master plan Overview
> Section 2: District Overview / Design Guidelines and Controls

Document Organization

1.3.2 Section 1: Master Plan Overview

Section 1 introduces the project, its vision and development strategy and its overall significance to Doha and Qatar.

It confirms the status of the development within the national and municipal planning frameworks and shows how the guidance fits into the planning and construction process. Section 1 sets out the rationale behind the overall master plan for the Lusail development, including:

> The vision for the area's development
> The character of its component parts, including retail and employment, centres, residential suburbs
> The transport and green space networks that link its different districts
> Overall guidelines applicable to all development within Lusail Master Plan.

1.3.3 Section 2: District Design Guidelines and Controls

Section 2 provides 2 layers of design guidance

> District-wide: These guidelines set out a series of district-wide urban design frameworks explaining the design context for individual or multiple plot development
> Parcel and Plot: These guidelines explain the design parameters and approach to be used by sub-developers at parcel and plot level.

The district-wide guidelines explain the key development and planning principles for each neighbourhood within a district, together with any district distinguishing features and treatments to be applied.

The sub-developer will need to carefully read and understand the District wide context to ensure that their parcel or plot developments are contributing to the overall success of the district.

The Parcel and Plot guidelines explain the typical and mandatory plot controls along with the guidance on the design intent such as the expected form, style and material treatments for a development.

Section 2 emphasizes the importance of the street composition and public realm design. It is important that all sub-developers consider the street and adjacent plots so that their development contributes to the overall District, Neighbourhood and Street intended sense of character.

The Section 2 guidelines cover:
> Character Guidelines
> Parcel Typology Design Guidelines
> Parcel Architectural Guidelines
> Parcel Landscape Guidelines

1.3.4 Plot Building Regulation Sheets

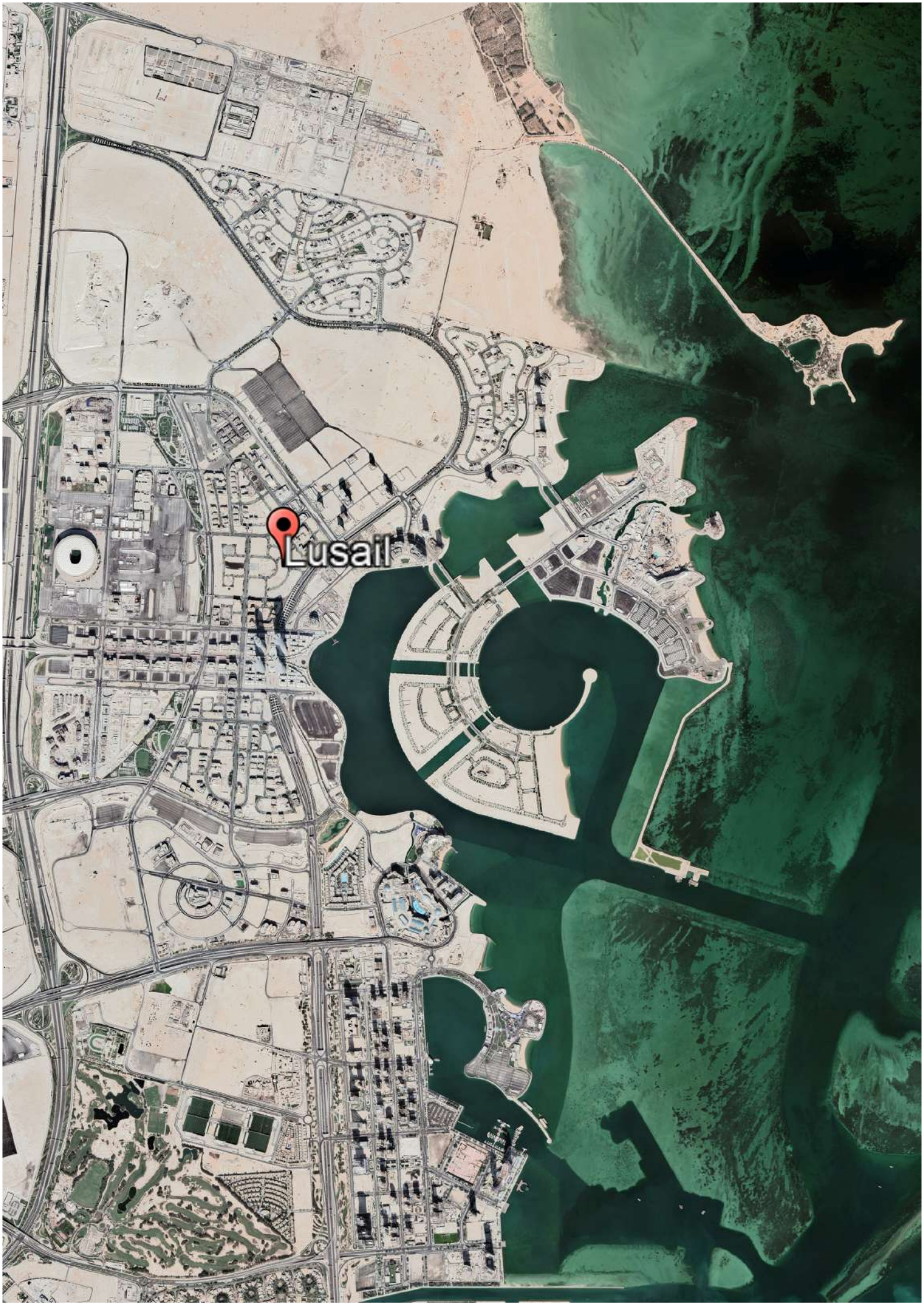
The Plot Building Regulation sheets provide the legal basis for development, setting the conditions of permissible development for each plot and parcel. These are issued to the plot owners at the time of purchase as separate documentation to the Design Guidelines and Controls

Section 1 and 2 of Design Guidelines and Controls are the supplementary documents to the Plot Building Regulation Sheets and provide additional information on how the Plot Building Regulation conditions should be used and understood.

SECTION 1

MASTER PLAN OVERVIEW

CONTENTS


Lusail

1.1 PURPOSE OF SECTION 1

PURPOSE OF SECTION 1

Section 1 sets out the broad principles for the Lusail Master Plan together with an overview of the Character and Design Framework for each District.

Section 1 is to be read in conjunction with Section 2 and the Plot Building Regulation sheets.

Together these sections provide all the development and design guidance required for Investors, Owners and Sub-developers to understand and comply with the design / development quality, aspiration and requirements of Lusail.

The guidance ensures that there is sufficient scope for design and development expression so that each plot can meet sub-developer / owner expectations. Section 1 will help ensure that each plot within the Lusail Development meets the overall expectations.

Section 1 describes the significance of the Lusail Development along with the overarching principles and concepts within the city-wide master plan.

Section 1 explains city-wide development aspects that integrate all the districts such as highway and utility infrastructure, key features and landmarks, principle boulevards and promenades, key amenities and overall open space network.

Section 1 sets out the general development rules, standards and constraints for the development, including general design principles to be observed at district, street / neighbourhood and parcel / plot level.

1.1.1 OTHER REFERENCE PUBLICATIONS

It is expected and required that all Sub-Developers refer to and comply with other statutory documents / codes issued by Ministry of Municipality and Urban Planning (MMUP) as well as other Government Departments and Agencies.

1.2 MASTER PLAN OVERVIEW

Lusail is a 38 square-kilometer development for 200,000 residents and planned by Qatari Diar Real Estate Investment Company (the "Master Developer") on land located just north of the city of Doha.

1.2.1 LUSAIL LOCATION AND CONTEXT

Lusail is located north of Doha (see Figure 1), capital of Qatar. Lusail is one of the most significant developments planned for Qatar, providing a hub for new growth and a new waterfront setting for living, working, and recreation.

The city has a projected population of 200,000 with approximately 170,000 transit work force and 80,000 visitors.

It includes land bounded by the sea to the East, the Al Khor expressway to the West, and extends approximately 7km North of the Ritz Carlton Hotel / Pearl Development Area (see Figure 1). The development will be a new, vibrant and world class master-planned city district and urban environment with a coherent and self-sustaining mix of residential, mixed-use, commercial, retail, recreation, sports, education, leisure and hospitality uses. Lusail includes significant resorts and entertainment venues, that will attract international visitors and expatriate residents as well as Qatari nationals.

The existing coastal area will be transformed through a controlled development strategy that will create a range of waterfront, island and inland environments and characters. Lusail will provide an environment for businesses and families. It will attract discerning investors seeking freehold property opportunities. Lusail will be professionally managed and procured to the highest levels of quality via the Master Developer's property development and management company - Lusail Real Estate Development Company (LREDC).

Location plan (Image by others)

Figure 2 (Image by others)

1.2.2 VISION

The vision for Lusail is for a complete 21st Century Capital City Quarter, offering a broad array of quality leisure facilities, with a range of well-planned neighbourhoods designed to appeal to families, couples and individuals with different needs and aspirations.
The illustration above, Fig. 2 shows the extent of the development.

Lusail will provide a regional focus for sports and leisure entertainment, with shops and value-added employment activities providing unrivalled diversity across the 38 square kilometres of the site. Lusail will become one of Doha's most sought-after addresses with a range of villas, townhouses and apartments designed in a variety of styles. The development will be served by comprehensive highways and path systems, integrated with engineered utility services, within a green network of parks, promenades and waterfront spaces which link the neighbourhoods with destinations and community facilities.

Each neighbourhood cluster will have its own facilities, including shops, schools, parks, healthcare and places of worship, each scaled to suit its catchment.

Lusail will be sold as a series of serviced land parcels and plots, for corporations, development companies, families and individuals to purchase and develop to their own needs. In-addition to Plot Building Regulation Sheets, these needs will be guided through design codes in Sections **1** and **2**.

1.2.3 GUIDING PRINCIPALS

Lusail has been developed as a holistic master plan, featuring low to medium density development comprising a number of different communities designed and planned to compliment Doha's existing facilities and features.

It is held together within a well-conceived framework of luxuriant boulevards, parks, waterside drives and informal spaces which lend character and appeal to each part of the plan.

The guiding principles relate to the communities the master plan will ultimately serve, as well as the networks underlying the master plan for site-wide access and utility provision. These are scaled to fit with the density of Lusail's urban form. The principles are reviewed in summary below:

> Identifiable, self-contained clusters – ensuring each neighbourhood and cluster has its own sense of place and special character, by virtue of its landscape and architectural form. Planned to operate in isolation, while contributing to the wider master plan
> Complete communities – providing the necessary facilities for each neighbourhood including public transport facilities, local shops, estate management, schools, clinics, parks and recreation facilities and places of worship.
> Fixed densities – the capacity of the master plan's infrastructure is finite and has been scaled to accommodate the profile of uses and densities proposed. For this reason the density limits of the Plot Building Regulation sheets must be strictly observed so that the completed development can operate within its means.
> Green communities – extensive use of soft landscape is made possible through the creative reuse of available recycled water. This relies upon the participation of developers and occupiers to plant and maintain low demand (xeriscape) species and adopt a conservative approach to water use.
> Hierarchical infrastructure – roads and access infrastructure have been designed as an efficient and legible series of connected routes designed to service the needs of residents, businesses and visitors.
> Landmark waterfront – world-class attractions and vibrant outdoor spaces connecting the marinas, promenades, beaches and waterfront residential areas as a cohesive edge to the development.
> Gateway identity – key vehicular entrances to Lusail and its districts are marked with high quality built form and landscape to promote the project.
> Cohesive urban design – a simple system of codes are applied to the built form and landscape of the development to ensure each parcel meets the master plan's intent.
> Climatically responsive – planned and designed according to the national GSAS code for sustainable construction, ensuring resource and energy consumption is minimized while maximizing quality of life.

1.3 MASTER PLAN DISTRICTS

1.3.1 THE DISTRICTS

Lusail features a number of different districts, each placed to reinforce the next, and designed to reflect latest best practice

The master plan shown in Figure 3, is made up of 19 Main Districts, each with their own character and purpose.

The 19 Districts are:

- **RAWDAT LUSAIL**
- **AL KHUZAMA + AL NAFEL**
- **AL KHARAYEJ**
- **SEEF LUSAIL SOUTH**
- **FOX HILLS (NORTH AND SOUTH)**
- **ERKIYAH**
- **LUSAIL STADIUM**
- **LUSAIL BOULEVARD + AL SA'AD PLAZA**
- **AL WESSIL**
- **AL YASMEEN**
- **TARFAT LUSAIL**
- **AL MAHA ISLAND**
- **HUZOOM LUSAIL**
- **NAIFA**
- **MARINA**
- **QETAIFAN ISLANDS (NORTH AND SOUTH)**
- **SEEF LUSAIL NORTH**

A description of each District is provided on the following pages.

1.3.2 LUSAIL DISTRICT DESCRIPTIONS

1.3.3 RAWDAT LUSAIL

The Rawdat Lusail comprises of one 18-hole golf course and luxury housing with large shaded patios, open gardens and landscaping, reflecting an outdoor, leisure oriented lifestyle.

Density/Height: Low

Development Summary

Land Area	366 Ha
Population	29,000
Total	22,000 Residents
GFA	1,800,000m²
Building Heights	2-5 levels

1.3.4 AL KHUZAMA + AI NAFEL

Villas (North and West) is a planned community to serve the local population with large villas in high quality vernacular or contemporary style architecture. A total of 895 villas are planned.

Density/Height: Low

Development Summary

Land Area	126 Ha + 52 Ha
Population	7,100
Total	5,400 Residents
GFA	950,000m²
Building Heights	2 levels

1.3.5 AL KHARAYEJ

Located strategically between the Golf course and the Waterfront Residential area, the Al Kharayej Towers are designed to accommodate 42 residential towers. The architecture is a regionally influenced Arabic style blended with contemporary international design.

Density/Height: Medium - High

Development Summary

Land Area	29 Ha
Population	11,000
Total	10,500 Residents
GFA	550,000m²
Building Heights	15-20 levels

1.3.6 LUSAIL STADIUM

The Lusail Stadium will be the host venue for the opening-closing ceremonies and centrepiece of the 2022 FIFA World Cup, Qatar. With a net capacity of 80,000 spectators, the stadium and support facilities with other mixed uses will occupy 100 Ha. of land within Lusail. It will be served by the Lusail LRT system and have pedestrians links to the Doha Metro.

The architecturally innovative stadium design will incorporate latest sustainable technologies and maintain its sporting functionality beyond the main events. Other uses within the site will complement and fully integrate with the rest of Lusail.

Density/Height: As required

Development Summary

Land Area	100 Ha
Total Population	87,000 Event Visitors
Expected GFA	750,000 Residents TBD
Building Heights	

1.3.7 SEEF LUSAIL NORTH

The Seef Lusail North is an exclusive high-rise residential development with luxury towers and private beaches with outward views across the Gulf.

Density/Height: Low - High

Development Summary

Land Area	53 Ha
Population	19,000
Total	17,000 Residents
GFA	940,000m²
Building Heights	20-36 levels

1.3.8 AL WESSIL

Al Wessil is the first energy business centre to exclusively fulfil the commercial, technical and human resource needs of the oil and gas industry in the region. All buildings in this development will be designed with GSAS criteria to achieve high quality and sustainable "Green Buildings".

Density/Height: Medium

Development Summary

Land Area	72 Ha
Population	25,000 employees
GFA	1,000,000m²
Building Heights	4 levels

1.3.9 LUSAIL DISTRICT DESCRIPTIONS

1.3.10 SEEF LUSAIL SOUTH

The Seef Lusail South is a retail and entertainment destination with boutique and lifestyle shopping, combined with residential and office space. Pedestrian connectivity between the developments will lead to the adjacent waterfront public area.

Density/Height: Medium - High

Development Summary

Land Area	54 Ha
Population	29,700
Total	9,600 Residents
GFA	690,000m²
Building Heights	3-15 levels

1.3.11 FOX HILLS (NORTH AND SOUTH)

The Fox Hills District is a medium density Residential Development intersected by a landscaped framework of linear parks emerging from the Crescent Park. The main commercial spine running North-South together with pocket parks organizes the district into smaller precincts. Mixed uses are located on the central axis and surrounded by residential blocks.

Density/Height: Medium

Development Summary

Land Area	168 Ha
Population	50,000
Total	38,600 Residents
GFA	2,100,000m²
Building Heights	5-8 levels

1.3.12 ERKIYAH

The Al Erkiyah master plan is an integration of a mixed-use residential district interlinked with open space networks and unique commercial and medical land use. The vision for this district is to maintain a healthy environment by minimizing internal traffic and congestion. This medium-density district will provide a unique landmark along Al Khor highway.

Density/Height: Medium

Development Summary

Land Area	26 Ha
Population	12,000
Total	10,600 Residents
GFA	640,000m²
Building Heights	8-10 levels

1.3.13 AL YASMEEN

Al Yasmeen is a high density Residential Development designed to cater to the housing needs for the population working in Lusail and particularly in the Corporate District. Contemporary international design with a focus on harmony between users and its surroundings will hallmark this development.

Density/Height: Medium

Development Summary

Land Area	46 Ha
Total Population	20,700 Event Visitors
Expected	18,000 Residents
GFA	980,000m²
Building Heights	5-7 levels

1.3.14 TARFAT LUSAIL

Tarfat Lusail accommodates 2,000 residential units, 11 hotels, a cineplex, nightclubs, theme parks and shopping spaces.

Density/Height: Medium

Development Summary

Land Area	98 Ha
Population	32,400
Total	8,400 Residents
GFA	1,020,000m²
Building Heights	4-13 levels

1.3.15 AL MAHA ISLAND

Linked to Al Maha Island, this island caters to providing entertainment facilities and hotels with a recreational theme.

Density/Height: Medium

Development Summary

Land Area	23 Ha
Population	4,200
GFA	200,000m²
Building Heights	2-12 (for hotel only)

1.3.16 LUSAIL DISTRICT DESCRIPTIONS

1.3.17 HUZOOM LUSAIL

A low density residential community serving the local population by providing smaller villa plots ranging between 400m²-800m² with a few larger plots. The planned community will introduce villas in high quality vernacular style architecture. A total of 2,797 villas are planned complimented with the necessary community facilities.

Density/Height: Low

Development Summary

Land Area	215 Ha
Population	15,384
GFA	2,103,968 m²
Building Heights	2+P levels

1.3.18 NAIFA

Within the 45 Ha. site, the district will be developed as a corporate office campus and regional headquarters of Qatar Petroleum, with numerous public and private spaces connecting the iconic forms of the buildings. The site will be served by the Lusail LRT system and is located in close proximity to Al-Khor highway and the Lusail Marina Interchange. The cluster of office buildings of Energy City-1 and Qatar Petroleum will together create renewed business synergy for the energy sector in Qatar.

Density/Height: TBD

Development Summary

Land Area	45 Ha
Population	TBD
GFA	447,550m²
Building Heights	TBD

1.3.19 MARINA

This is the Downtown of Lusail comprising high-rise towers for office, residential, mixed-use, hotel and retail uses connected to a continuous boardwalk.

Buildings will be designed in an international contemporary style and served by a Light Rail Transit Network.

Density/Height: High

Development Summary

Land Area	186 Ha
Population	103,900
Total	31,000 Residents
GFA	3,600,000m²
Building Heights	15-60 levels

1.3.20 QETAIFAN ISLANDS (NORTH AND SOUTH)

The Qetaifan Islands are a group of 4 islands just off the Lusail Waterfront. The islands are master planned to create the best natural beaches in Doha with a choice of resort type villa developments and medium density terraced apartments. Tourist resorts/boutique hotels, traditional Souks and a marina for 400 large boats will be accommodated along its waterfront.

Density/Height: Low

Development Summary

Land Area	256 Ha
Total Population	37,500 Event Visitors
Expected	15,000 Residents
GFA	1,980,000m²
Building Heights	2-4 levels

1.3.21 LUSAIL BOULEVARD + AL SA'AD PLAZA

This is the heart of Lusail comprising of a central boulevard with mixed use developments of high end retail at the lower levels and offices above. The scale of the street and the buildings are modelled on the Champs Elysées with a focus on branded mega stores and a range of commercial and cultural activities.

Density/Height: Medium / Low

Development Summary

Land Area	52 Ha
Population	20,900
Total	5,500 Residents
GFA	760,000m²
Building Heights	3-6 levels (F.Center 7-12)

Density/Height: High

Development Summary

Land Area	16 Ha
Population	19,300
GFA	620,000m²
Building Heights	55-80

1.4 MASTER PLAN STRATEGIES

The land use framework for Lusail Development has evolved since 2006. The latest land use framework incorporates new sporting attractions to accommodate World Cup events for 2022

1.4.1 LAND USE STRATEGY

The physical and economic impacts of the Lusail Development will be significant and strategic - it will be the home to more than 200,000 residents with further significant employment provided by a range of offices, leisure, entertainment, retail and education facilities.

In addition, Lusail's Stadium District has been designated as the focal site accommodating the Premiere 2022 FIFA World Cup Flagship Stadium venue that will feature the 2022 World Cup Opening Ceremony and final play-off matches.

Strategically, this ensures that Lusail will achieve an International destination status that will ensure positive implications for Lusail's residents, businesses and visitors alike.

Several World Cup stadia are in Lusail which will become an international destination for the city's visitors, businesses and residents.

1.4.2 THE NEED FOR DESIGN GUIDELINES AND CONTROLS

The latest Land Use Strategy Plan for Lusail is illustrated in Figure 4.
The development will incorporate the following elements:

> Residential: Luxury villas and apartments.

> Community services: Civic offices, schools, clinics, mosques, parks and open spaces.

> Hospitality: Hotels, and residents' clubs.

> Entertainment: Arenas, stadia, theme parks and water-related venue activities.

> Commercial Development: Open retail (boutique shops and restaurants), local/ neighbourhood shops, corporate offices, mixed use development.

> Amenities: beaches, golf, marina berths.

Land Use Plan

MASTER PLAN STRATEGIES, CONT.

Lusail will be defined by its open spaces network and the quality of its waterfront featuring sandy beaches, vibrant promenades and prestigious marina facilities

1.4.3 OPEN SPACE STRATEGY

Lusail has been planned with consideration for open space and access to parks, recreation areas and waterfront at its very heart. Lusail recognizes the importance of quality open space and public realm in the creation of superb liveable Districts and Neighbourhoods.

Lusail's open space network will not only provide public spaces for general outdoor enjoyment but is also critical to supporting a general sense of pride and place for residents and visitors alike.

Parks and open-spaces in the District will be provided for community focus and local identity and will support localized neighbourhood activities.

The open space network is also an integral part of Lusail's sustainability-driven precepts and a fundamental part of the movement strategy across the City. A comprehensive system of walks and bicycle routes link all neighbourhoods to all major parks and waterfront areas. This means all residents, workers and visitors will have easy access to Lusail's amenities without the need to rely on vehicles.

The Master Developer is investing in the overall open space and public realm. This means sub-developers and investors will have the benefit of a high-quality network of streets and open spaces that their developments can use.

The plan in Figure 5 sets out the respective open space components, with their relationship to their immediate context and the waters of the Gulf.

Open Space Plan

MASTER PLAN STRATEGIES, CONT.

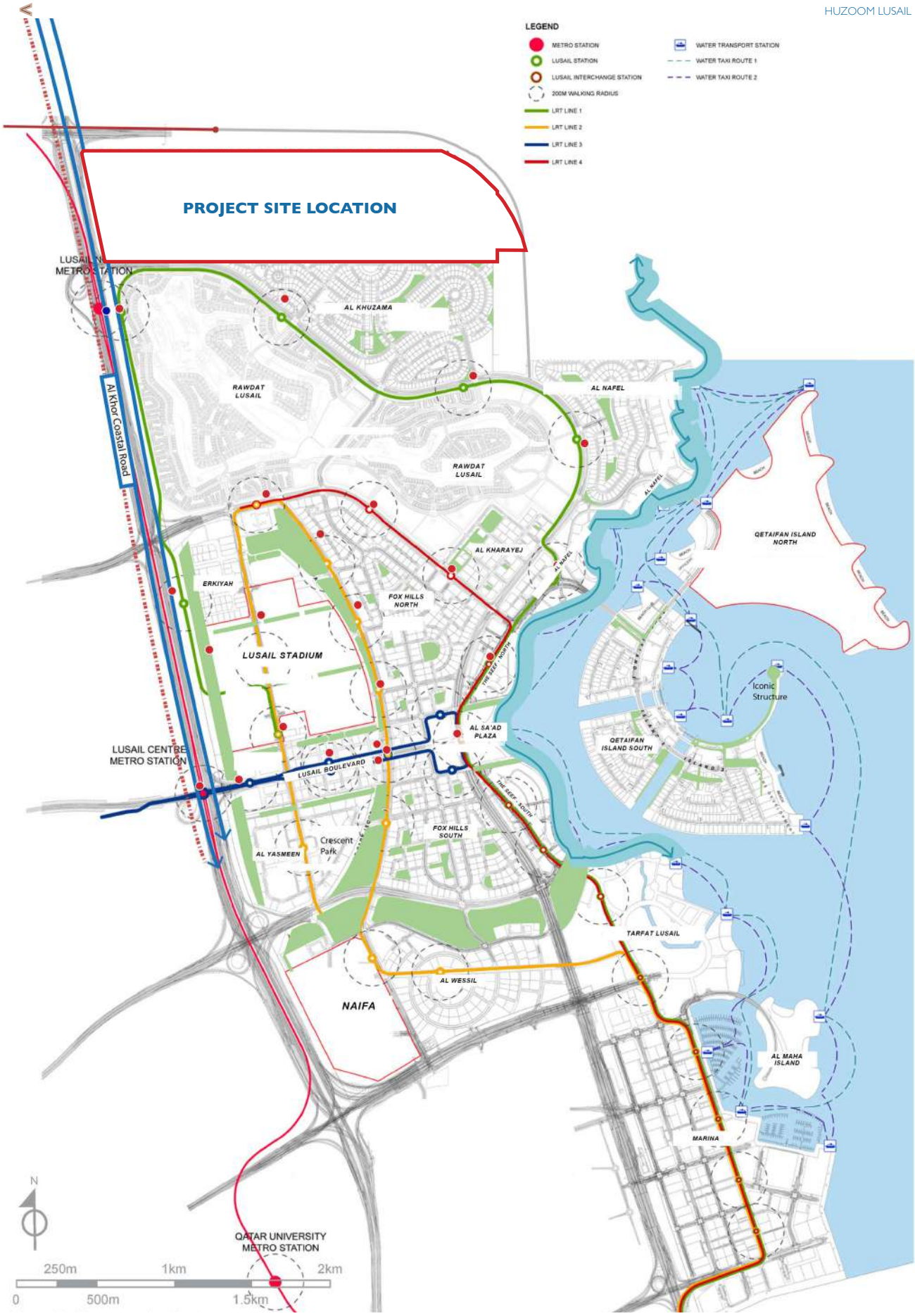
The transport strategy makes provision for all modes and facilitates comprehensive access by road and by sustainable transport as well as fully integrated infrastructure

1.4.4 TRANSPORTATION STRATEGY

Lusail features a range of city-wide transport and infrastructure initiatives to ensure its seamless connection with greater Doha and elsewhere.

This includes LRT tram, bus and ferry networks, as well as facilities for cyclists and pedestrians. This transit network will provide for interconnected circulation between home, work, open space and recreation areas. The plan in Figure 6 illustrates the fully developed transport network that will serve Lusail generally and each district and parcel.

Lusail's proposed road network will form the spine for its utility infrastructure, by incorporating its electrical, water supply, surface water drainage, irrigation, sewerage and telecommunications distribution networks and systems. All services will be available at the boundary limits of each subdivision parcel.



Transportation Strategy

1.5 MASTER PLAN REGULATIONS

The requirements described in this section are mandatory and must be incorporated into all development proposals

1.5.1 LAND USE

Permitted Land-Uses

The land-use distribution and quantum for Lusail has been carefully developed to ensure that the predicted resident and worker population are served by world class transit, infrastructure, amenities and open space networks. The overall master plan land-use zoning and quantum of development is to be maintained and respected. It is expected that all sub-developer proposals will be in accordance with the master plan described in "1.4 Master plan Strategies" above.

Permitted land-uses include mixed-uses, residential, offices, commercial, hospitality, entertainment, cultural, religious, health and education.
The zoning of the permitted Land use for Lusail is shown in Figure 4.

Non Permitted Land-Uses

These include, but are not limited to; industrial, manufacturing, warehousing activities and any use which produces excessive noise, odor, light or environmental nuisance.

1.5.2 GENERAL STANDARDS

Building Design

All building works must meet all local required and applicable building codes, submissions, approvals and permits.
It is a requirement that all development within the Master Community "Lusail" respects the architectural styles defined by the Master Developer for each district and land use and cultural traditions of the region.

All designs submitted as part of the statutory approvals procedure will be required to demonstrate conformity to the ideal which is intended to unify the whole development and to establish clear identity and distinctive character.
Aesthetically pleasing developments of high quality shall be created, which harmonise with the environment and local cultural traditions.

Innovative sustainable building design is encouraged. Buildings shall have a carefully considered identity and appearance, reflecting the character spirit and cultural background of Lusail with modern and contemporary building techniques.

Buildings should be created at the pedestrian and street level in adherence to a high quality public and private landscape environment. Building design shall encompass all structures on site, including those for maintenance, storage and servicing.

Landscape and Public Realm Design

A high quality Private and Public Realm is of great importance to the success of Lusail. Developers are expected to prepare and deliver high quality landscape design.

In addition to Architectural design all development proposals will be expected to include high quality landscape design showing detail of all landscaped areas to the parcel / plot not limited but including planting areas, hard areas, walls, landscape features, pools, lighting, shade structures.

The landscape design must also indicate treatments for private plot to public area interfaces not limited to but including interfaces with side-walks, points of access, streets, open spaces and all other public areas.

Sustainable Design

All buildings and landscape areas are expected to meet GSAS requirements of GORD and Lusail. This applies to building performance, that should be designed to minimise energy and water consumption to landscape areas that should use native and drought tolerant plant species and low water use irrigation systems.

Proposals that can demonstrate significant sustainable improvements will be offered incentives including GFA gains by the Master Developer. These will be considered on a project by project basis.

Waterfront Design

Lusail includes extensive areas of waterfront. All development that interacts or faces water or beach front must be of the highest quality. Significant investment has been made to all waterfront areas to meet the master plan's intent.

Completed and constructed beach and shoreline protection are not to be modified. Any modifications proposed will be required to meet all necessary Authority standards and permits as well as the design aspirations of the Master Developer. This includes any proposals which project beyond the waterfront boundary line such as jetties, walkways, pontoons or other boat landing and mooring facilities.

Boat maintenance, fuelling or the storage of fuel and oil is strictly forbidden on the waterfront of any property except where designated for particular sites.

No waterfront development is permitted that will adversely impact on the privacy, use or character of adjacent plots or public areas.

MASTER PLAN REGULATIONS, CONT.

Access, Servicing and Parking Design

Vehicle access to plots and building plots is permitted only from the access roads and points indicated in the Plot Building Regulation sheets unless otherwise agreed with Master Developer and subject to relevant Authority standards and permits.

Access and service areas for delivery, garbage collection and other service traffic should be separated from other traffic movement.

Plot owners must provide all required parking on site. At least two parking spaces or 2% of the required parking shall be for the disabled.

Surface Parking areas shall be landscaped to a high quality and should include adequate shading to parking spaces. All parking areas are to connect with the local pedestrian path system. This connection must be clearly visible and accessible to all.

Typical Parking spaces are to be minimum 2.65m x 5.8m with minimum aisle width for perpendicular parking to be 6.7m unless otherwise agreed and subject to Authority requirements and standards.

Parking provision shall also be made for access and parking of bicycles, motorbikes, and motorcycles in appropriate locations.

Universal Access Design

The aspiration for Lusail is to maximise opportunities for universal (disabled / handicapped) access for all disabilities. All proposals should provide for barrier-free access in-accordance with recognized best international practice. All development proposals will be expected to include and show universal access details including but not limited to access paths, ramps and building entrances.

Security Design

Security Design should be integrated into all development proposals as required. Where special high security measures are required such special gates, special boundary walls, special guard posts etc these will be expected to be well integrated into the overall design in such a way that they are not obtrusive and do not adversely impact on adjacent plots and public areas.

Design of Levels and Drainage

All development proposals will be expected to integrate seamlessly into the levels of their surroundings and meet relevant Authority standards and permits. Site and context levels must be carefully checked and referenced.

At grade levels within the plots must be designed to integrate well with external levels, especially side-walk and street levels without the requirement for steps and ramps.

All plot generated surface water run-off, storm drainage and roof drainage must be disposed off within the site boundaries and not directed into adjacent roads or properties or beach, or into the sanitary sewer system.

Garbage / Refuse Storage Design

Storage areas for waste material must be carefully designed to allow required access for waste collection whilst being screened from building users, adjacent buildings and public streets and areas. Provisions must also be made to minimise bad odors and control pests.

Integration of Services

All service connections will be subject to relevant Authority standards and permits. It is also of critical importance that service connections are well integrated into the overall building and site design. It is expected that all service connections design will be to a high quality so that services are not be visible and do not affect quality or appearance of the site or building.

Site Lighting Design

Development proposals will be expected to include high quality lighting design showing details of all lighting to the parcel / plot.

Exterior lighting fixtures including high intensity lighting shall be mounted such that light does not adversely affect adjoining sites and public spaces. Landscaped and parking area should be provided with adequate lighting so as to ensure safety and security.

1.5.3 BUILDING CODES

Qatar Building Codes and Regulations

All Design must be in accordance and compliant with applicable regulations and standards of all relevant Qatar Government Authorities and Agencies.

International Standards and Codes

Relevant International Codes and guidance documents for each design discipline maybe applied subject to Master Developer agreement and approval by relevant Qatar Government Departments and Agencies.

1.6 REVIEW AND APPROVAL PROCESS

All Development and Design Proposals by Sub-Developers are subject to Master Developer Approval.

The Plot Building Regulations are mandatory, the guidelines in Sections 1 and 2 provide supplementary controls and guidance that are to be adhered to meet the overall master plan and design intent and expectation of Lusail

1.6.1 STATUS

The Lusail Planning and Design Guidelines comprise 2 Sections which set out the Master Developer's regulations and design intent for Lusail.

The Plot Building Regulation sheets are augmented by Sections 1 and 2 which set out the guidelines for the development of the overall master plan and the design principles for each district, parcel and plot.

Sections 1 and 2 with the Plot Building Regulation sheets are to be read and used in conjunction. This will ensure that Owners and Sub-Developers and other Stakeholders in the project have a full understanding of the mandatory regulations and the design intent, principles and guidance that is required by the Master Developer.

1.6.2 SUPERSEDED GUIDANCE

From time to time LREDC may make changes to rules, regulations or guidelines that apply to development in Lusail.

The Lusail Planning and Design Guidelines contained herein replace the Site Specific Planning and Design Regulations (SPA documents) issued as part of the sales and purchase agreement between LREDC and the owners of Lusail plots.

Please note that the Plot Building Regulation sheets issued to owners are retained. Section 1 and 2 provide supplementary guidance to the regulations indicated on the Plot Building Regulation Sheets.

1.6.3 THE APPROVING AUTHORITY

Lusail Administration Complex

Lusail Administration Complex (CAC), a Department within LREDC, will act as the development control authority for Lusail districts, hereinafter referred to as CAC .

CAC will be responsible for:

- Ensuring compliance with the Planning and Design Guidelines and Controls for Lusail, and administering any amendments to the said rules.
- Establishing an internal Architectural Review Committee to consider and make decisions on development applications and design concepts;
- In making its determination and exercising any discretion allowed under the Design Guidelines and Controls, CAC will take into consideration:
  - The Lusail Master plan and other plans in use by the Master Developer for Lusail development; and
  - All other applicable rules, technical codes, design guides and regulations in use by the Master Developer.

It should be noted that the Design Guidelines and Controls are not intended to retract, annul, impair or interfere with existing by-laws, decrees, regulations, or limitations running with the land.

CAC Powers and Duties

Lusail Administration Complex (CAC) has a number of powers and duties as follows:

- CAC shall administer and enforce the Design Regulations and Guidelines.
- CAC shall be responsible for issuing Concept Design, DC-1, Services Review and DC-2 approvals.
- Al Daayen Municipality shall be responsible for the issuance of Building Permits for developments which have received approval from CAC.
- CAC shall have the power to interpret these Design Guidelines and Controls and to clarify any ambiguities contained therein.
- CAC's decision shall be final and binding on the Developer.

Interpretation

If a question arises concerning discrepancies, inconsistencies or ambiguities within the Design Guidelines and Controls, CAC shall interpret the rules and shall render a decision to clarify the question. CAC's decision shall be final and binding.

Relevant Authorities and Approvals

Nothing in these Design Guidelines and Controls shall relieve the Developer of the responsibility for also meeting the technical requirements of, and securing relevant approval(s), NOC(s) or permit(s) from, any government agency or entity or other third party having jurisdiction over the development activities and the use of land at Lusail, including but not limited to:

- MME
- Al Daayen Municipality
- Kahramaa
- Ashgal
- Ooredoo
- Marafeq (SNG, District Cooling,Vacuum Waste)
- The Department of Civil Defense
- Ministry of the Environment
- Civil Aviation
- Ministry of the Interior (MoI)
- Gulf Organization for Research and Development (GORD)

Written evidence of all such approvals, permits, No Objection Certificates (NOCs), or other permissions (if required) must be submitted to CAC in advance of construction.

REVIEW AND APPROVAL PROCESS, CONT.

1.6.4 OVERVIEW OF REVIEW AND APPROVAL PROCESS

The following paragraphs describe the overall development and design review and approval process that includes the following key steps:

Step 1 Project Initiation with Lusail

Step 2 Pre-Application Meeting (Optional)

Step 3 Concept Design Review and Approval

Step 4 DC1 - Design Control 1 Review and Approval

Step 5 Temporary Building Permit (Optional)

Step 6 Services Review

Step 7 DC2 - Design Control 2 Review and Approval

Step 8 Building Permit

Step 9 Certificate of Completion

1.6.5 PLANNING AND DESIGN GUIDELINE CHECKLIST

A planning and design checklist has been prepared to assist Owner / Developer project teams in assessing and adhering to relevant planning and design guidelines. All project teams will be expected to read, refer to and use the Lusail Planning and Design Guideline documentation in the preparation of their development and design proposals.

GSAS IN LUSAIL

Lusail is committed to the principles of sustainability and green buildings. As such, all projects in Lusail must attain a GSAS two-star rating under the Gulf Organization for Research and Development's (GORD) GSAS rating system.

All projects should be conceived as "green" buildings early on in the design process and sustainability strategies carried forward in the project's design development and execution.

Demonstration of this is required in all stages of CAC's development review and approval process.

GORD administers GSAS and is the entity that determines a building's star rating.

GORD works hand-in hand with CAC during the development review process and should be consulted early on to determine requirements for the star–rating the project is seeking to achieve.

1.6.6 STEP 1 PROJECT INITIATION WITH LUSAIL

The Plot owner must initiate a project with LREDC by submitting a letter to the CAC director, appointing on his qualified local registered consultant to act his behalf.

1.6.7 STEP 2 PRE-APPLICATION MEETING (OPTIONAL)

All Parcel / Owners are recommended to initiate a pre-application meeting with CAC. A meeting will be held upon Developer request.

This is especially important where third party Developers and Design teams are:

> New to the Lusail Project
> Dealing with medium to large developments (small proposals such as single villa applications will not require pre-application)
> Dealing with Complex development proposal.

If a third party Developer and Design team is unclear whether the pre-application stage is needed then they should contact CAC for clarification. It is the responsibility of the Owners / Sub-Developers Project Team to initiate this.

> The purpose of the pre-application meeting is to have dedicated CAC staff time to answer questions regarding a project proposed in Lusail before a project is formally submitted for review.
> These meetings can be used to identify and resolve key issues related to the development site, and highlight project opportunities and constraints.

- The Project Team will be expected to provide sufficient project vision information such that development and design queries or ideas can easily be responded by the CAC team. Ideally this information will be summarized in a short presentation. If required this will include submission of Vision Computer Generated Images (CGIs).
- Pre-application meetings help consultants better understand the expectations that LREDC has for development in its Master Plan. This will ensure that a complete development application is submitted by the project team and this will help save time in the design and approval process.
- No formal approvals are granted at vision and pre-application stage. A record of any meetings / presentations will be prepared by the Project Team and issued to CAC. CAC reserves the right to clarify any item in the submitted record.

Early Ideas and Vision CAC Support

At the pre-application meeting CAC will explain the development review process and outline the Lusail Master Plan development controls and design guidelines that are applicable to the parcel and / or plot.

CAC will provide information on new or emerging initiatives (eg. new policies, infrastructure and utility investments, sustainability, circulars) that could influence or affect the site development or design processes.

CAC can also give some guidance on vision options that the Project team may have prepared prior to the pre-application meeting.

1.6.8 STEP 3 CONCEPT DESIGN REVIEW and APPROVAL

CAC will review Concept Design applications against the Lusail Master Plan, Plot Building Regulations and District Design Guidelines.

Concept Design proposals are to consist mainly of 3D rendering day and night images, illustrating desired character and outcome of the development.

These elements are presented to the CAC Architectural Review Committee.

The Committee will provide feedback on the project and direct the design team to either modify the proposed concept design or to proceed to DC-1 the next stage in the development review process.

1.6.9 STEP 4 - DC-1 DESIGN CONTROL 1 REVIEW AND APPROVAL

DC-1 is the first Architectural approval design step for a proposed development in Lusail. In the DC-1 Stage, CAC Development and Technical teams will evaluate the project's consistency with Lusail's Master Plan, Plot Building Regulations and Design Guidelines.

Initial fire safety approvals are also required at this stage from Qatar Civil Defense Department.

DC-1 endorsement provides assurance to the developer and design team that the project is consistent with the Lusail Master Plan.

CAC's endorsement of the DC-1 allows the project's design development to proceed to the next design stage.

It is critical that proposed Architectural Designs identify and consider realities of its interface with infrastructure, city utilities and tie-in methodology. Each Plot's specific infrastructure conditions will help determine constructability of underground structures, preferred enabling work systems (shoring or open excavation), and extent of basement parking setbacks. They may further impact on above grade Public Realm or neighbouring plot construction, pedestrian / vehicular access and driveways, and internal landscape design.

The Interface between Lusail infrastructure conditions and the proposed project will be evaluated to identify potential clashes; and, any such utility clash or connection clearance or dimensional issue should be resolved in-principle at this stage.

In addition to regulatory requirements under the Master Plan, CAC Development and Technical teams will evaluate architectural design details such as parking layout, façade design and materials, space planning for services and landscape concept.

REVIEW AND APPROVAL PROCESS, CONT.

1.6.10 STEP 5 - TEMPORARY BUILDING PERMIT (OPTIONAL)

A temporary building permit can be obtained after the DC-1 stage for enabling works subject to Lusail approval.
Access to site for enabling works must follow LREDC's Site Access for Construction procedures.

1.6.11 STEP 6 - SERVICES REVIEW

At this stage the consultants will obtain approvals from relevant agencies for electrical, telecommunications, water and irrigation and drainage.

Marafeq engineers will advise on gas, district cooling, pneumatic waste collection and MoI will advise on CCTV and civil defense.

Engineers will review plans against the standards, guidelines and codes imposed by the relevant authorities.

All authorizations shall be obtained from relevant agencies prior to DC-2 submittal.

1.6.12 STEP 7 - DC 2 - DESIGN CONTROL 2 REVIEW AND APPROVAL

DC-2 is the final architectural design step in the approval process of a proposed development in Lusail.

The DC-2 stage generally corresponds with the design industry's detailed architectural design phase that coordinates and resolves all architectural design issues that surface in the Services Review Stage.

At DC-2 CAC planners will evaluate the project's consistency with approved DC-1 and will verify that services drawings are coordinated with the architectural drawings.

DC-2 endorsement allows the project owner to pursue a building permit for the proposed project.

A letter of undertaking will be provided by the Project Owner / Consultant Team for the Structural Design and where needed GSAS, Landscape Design and other key aspects.

1.6.13 STEP 8 - BUILDING PERMIT

Upon receiving design approval the project developer can apply for a building permit.

CAC will administer the building permit application and fees.

Al Daayen Municipality will issue a building permit based upon a DC-2 approval from CAC.

Building permits will be issued by Al Daayen Municipality and received from CAC.

Access to site for enabling works must follow LREDC's Site Access for Construction Procedures.

Site Access for Construction

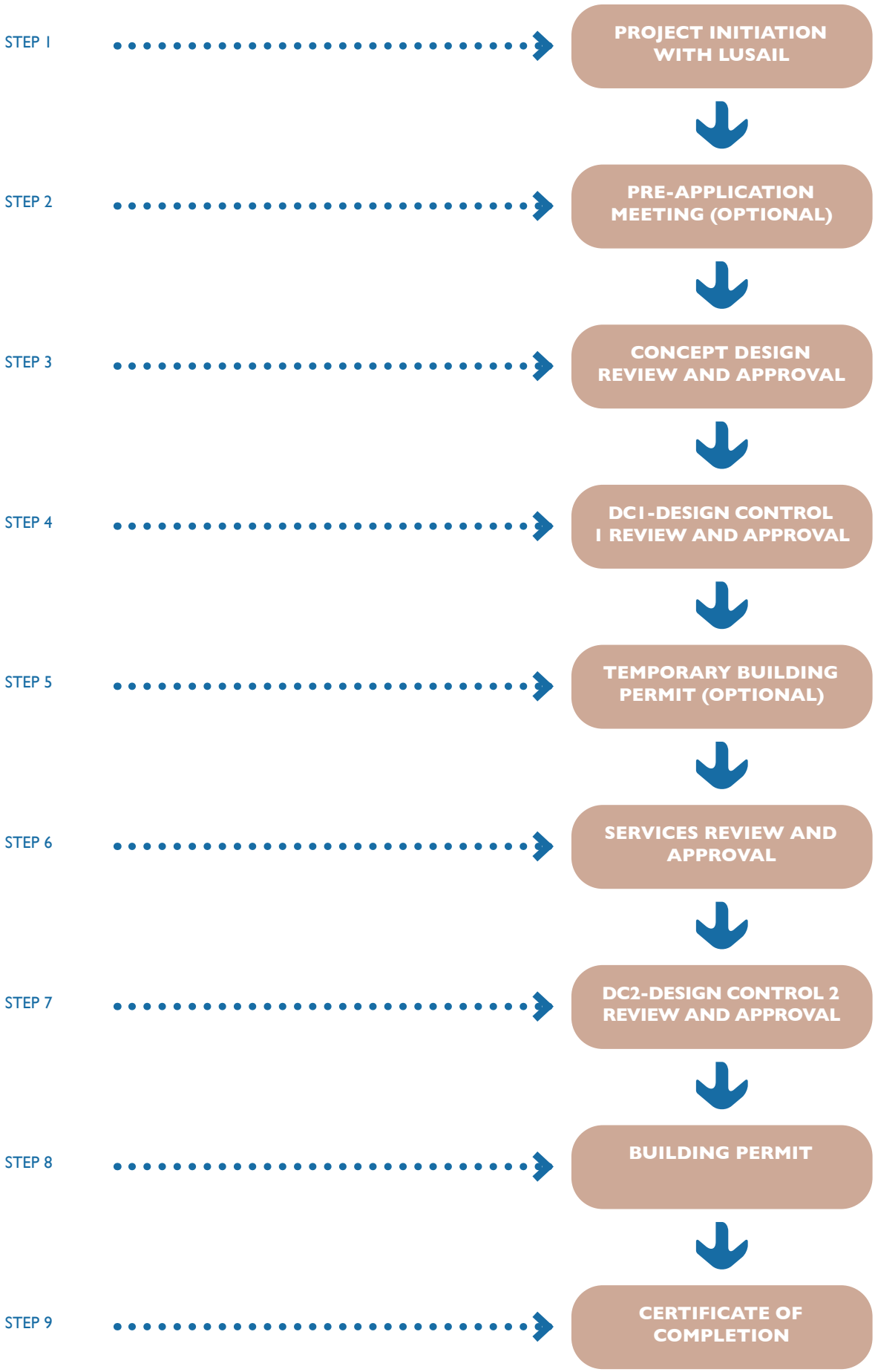
Once the Building Permit is approved and issued the developer must apply

the project's consistency with approved DC-1 and will verify that services drawings are coordinated with the architectural drawings.

DC-2 endorsement allows the project owner to pursue a building permit for the proposed project.

A letter of undertaking will be provided by the Project Owner / Consultant Team for the Structural Design and where needed GSAS, Landscape Design and other key aspects.

1.6.14 STEP 9 - CERTIFICATE OF COMPLETION


STEP 1
PROJECT INITIATION WITH LUSAIL
STEP 2
PRE-APPLICATION MEETING (OPTIONAL)
STEP 3
CONCEPT DESIGN REVIEW AND APPROVAL
STEP 4
DC1-DESIGN CONTROL I REVIEW AND APPROVAL
STEP 5
TEMPORARY BUILDING PERMIT (OPTIONAL)
STEP 6
SERVICES REVIEW AND APPROVAL
STEP 7
DC2-DESIGN CONTROL 2 REVIEW AND APPROVAL
STEP 8
BUILDING PERMIT
STEP 9
CERTIFICATE OF COMPLETION

SECTION 2

DISTRICT GUIDELINES & CONTROLS

Contents

2.1 HOW TO USE THE DESIGN GUIDELINES AND CONTROLS

The District Overview and Design Guidelines and Controls Section provides a clear overview of the district and sets out the brief and framework for plot owners/developers and their design and construction advisors to create a compliant design for the development of each plot

To ensure good understanding of the context, the summary of the key urban design strategies has been included within this Section. These will inform the designers about the overall strategies related to land use distribution, access, massing and other strategies.

2.1.1 THE NEED FOR DESIGN GUIDELINES AND CONTROLS

The guidelines are meant to ensure that the quality of construction remains in line with the ambition and expectations of the master plan. In particular they are conceived to bring about a positive and cohesive urban character, through a comprehensive package of agreed codes that reflect local needs and current international construction standards. These are to be read in conjunction with the Building Regulations Sheets issued upon the purchase of each plot.

Improving on previous controls

It has been decided to prepare a single family of related documents that will enable all parties to understand the potential offered by the development opportunity, and the standards by which the design and construction work will be set against.

Key objectives

- Cohesive approach to massing form and materiality;
- Appropriate distribution of uses and form within each plot;
- Sound inter-plot relationships;
- Appropriate strategies for access and utility provision;
- Flexibility to cope with contemporary needs and demands, including plot aggregation.

Mandatory status

For the purpose of this document, the term **Guidelines** refers to a suggestion, made to assist the design process, for information purposes only.
The term **Controls** refers to rules which are mandatory and must be adhered to. These are highlighted in black for immediate clarity.

2.1.2 HOW DO THE DESIGN GUIDELINES AND CONTROLS WORK?

The guidelines provide an authoritative source book of building forms suitable for each plot within the district. Section 2 can assist the owner in selecting the design advice that best suits their functional needs in terms of size, capacity, accessibility, outlook, privacy and proximity to facilities.

Guide for plot owners

Existing title holders will have reviewed the master plan in Section 1 to select the most appropriate district for their needs. They can refer to Section 2 for further clarification of the structure of their chosen district.
It contains overall district strategies such as: land use designation, open space provision, connectivity and massing. Having understood the context of the district, they will use Design Guidelines and Controls section in conjunction with the existing Building Regulations, to guide them through the design process.

The Guidelines and Controls provide clarity on aspects such as privacy, boundary walls, architectural materials and styles as well as landscape treatments

Navigation

The digital version of **Section 2** can be downloaded from **www.lusail.com.**
Hyperlinks connect the Content Page with the key sections of the document and the **design checklist.**

2.2 HUZOOM LUSAIL OVERVIEW AND KEY DESIGN STRATEGIES

2.2.1 HUZOOM LUSAIL MASTER PLAN CONTEXT AND VISION

As one of the major components and key elements of Lusail; the modern and fast-growing metropolitan area in Qatar; Huzoom Lusail enjoys a strategic location off of the main transportation routes. Huzoom Lusail is a low-density residential community providing smaller residential plot to accommodate and cater to a wider and more diverse housing demand.

HUZOOM LUSAIL

Stretching over 215 hectares of land, Huzoom Lusail is the Northmost district of Lusail. It is predominately low density residential neighborhood featuring smaller size residential plots ranging from 400m²-800m² and a few larger plots. The district is also home to a range of community facilities introduced in compliance with the standards to serve the population of the district.

As part of the overall Lusail master plan, Huzoom Lusail population will have access to the full range of facilities included within the neighboring districts including educational facilities, healthcare facilities, cultural and social facilities and emergency facilities. This in addition to the proximity and accessibility to the golf courses, the business districts, the waterfront hotels and nearby serene beaches.

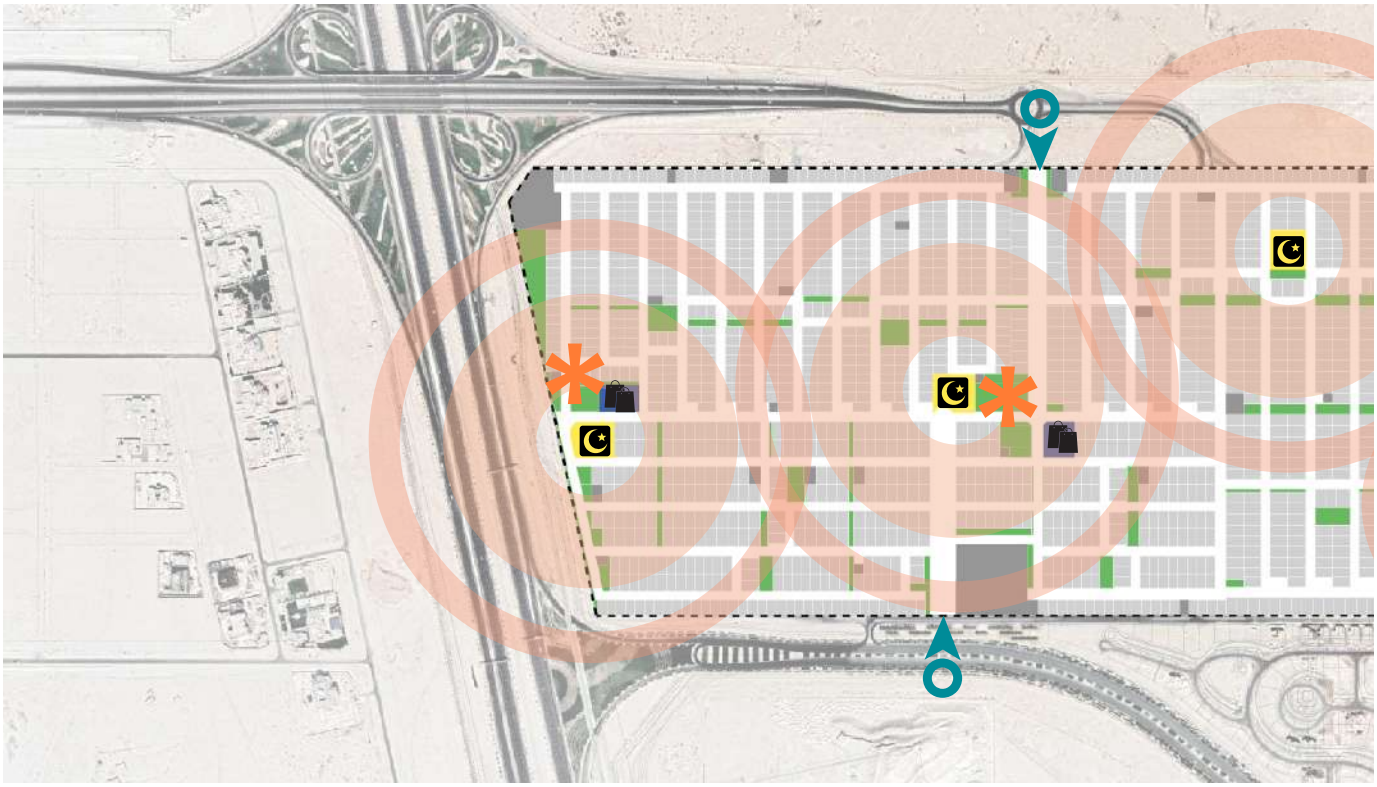
The district also provides walking/cycling opportunities through the well connected green network in addition to the provision within the road network as a strategy to promote a healthy lifestyle for the population of Huzoom Lusail.

Key Plan

Huzoom Lusail

2.2.2 KEY STRATEGIES

URBAN DESIGN FRAMEWORK

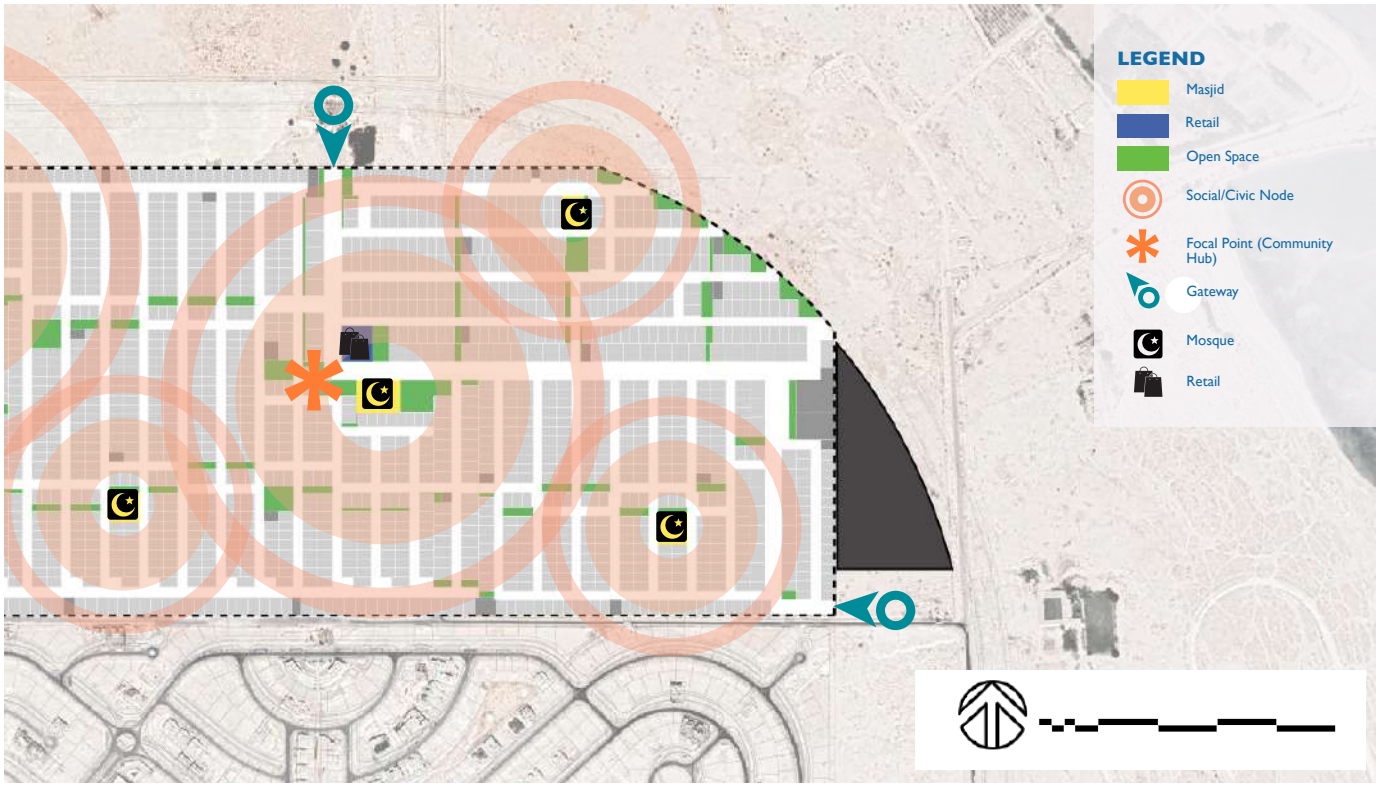


URBAN STRUCTURE

District Location Plan

Huzoom Lusail is designed to provide smaller residential plots ranging in size between 400m²-800m² and served by 3 community hubs. The community hubs are located in central locations housing the community facilities to serve the population within walking distance.

Masjid and Retail (Focal Point)



Retail - Aerial View

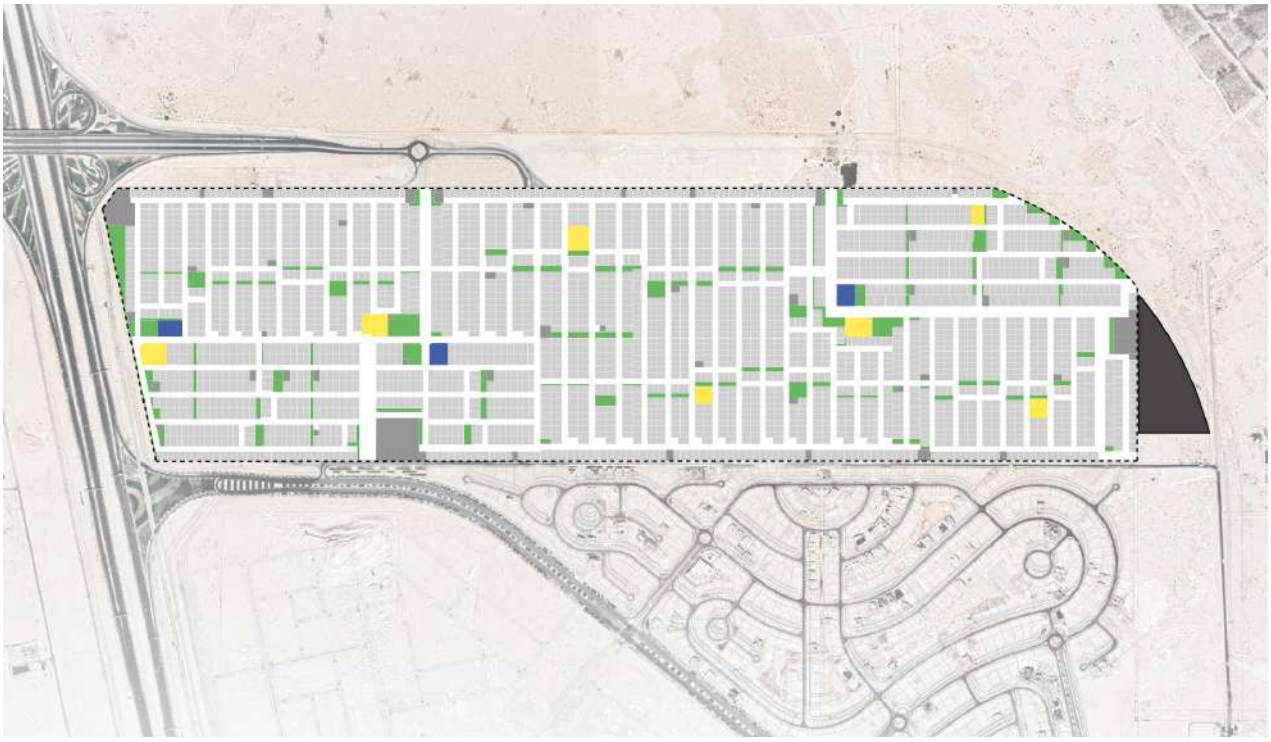
KEY STRATEGIES (CONT.)

LAND USE STRATEGY

LAND USE DISTRIBUTION

The residential component which is the key land use within this district is distributed based on proximities and considering the resulting urban fabric. Multi-unit residential buildings are clustered around open space networks hosting several LRT stations, while townhouses are grouped towards the southern border closer to the single family housing options in neighboring developments.

Educational, medical and civic facilities in general are evenly distributed across the development to guarantee a full catchment area coverage.



LEGEND

	Residential
	Open Space
	Facilities (Local Mosques)
	Commercial (Retail)
	Utilities

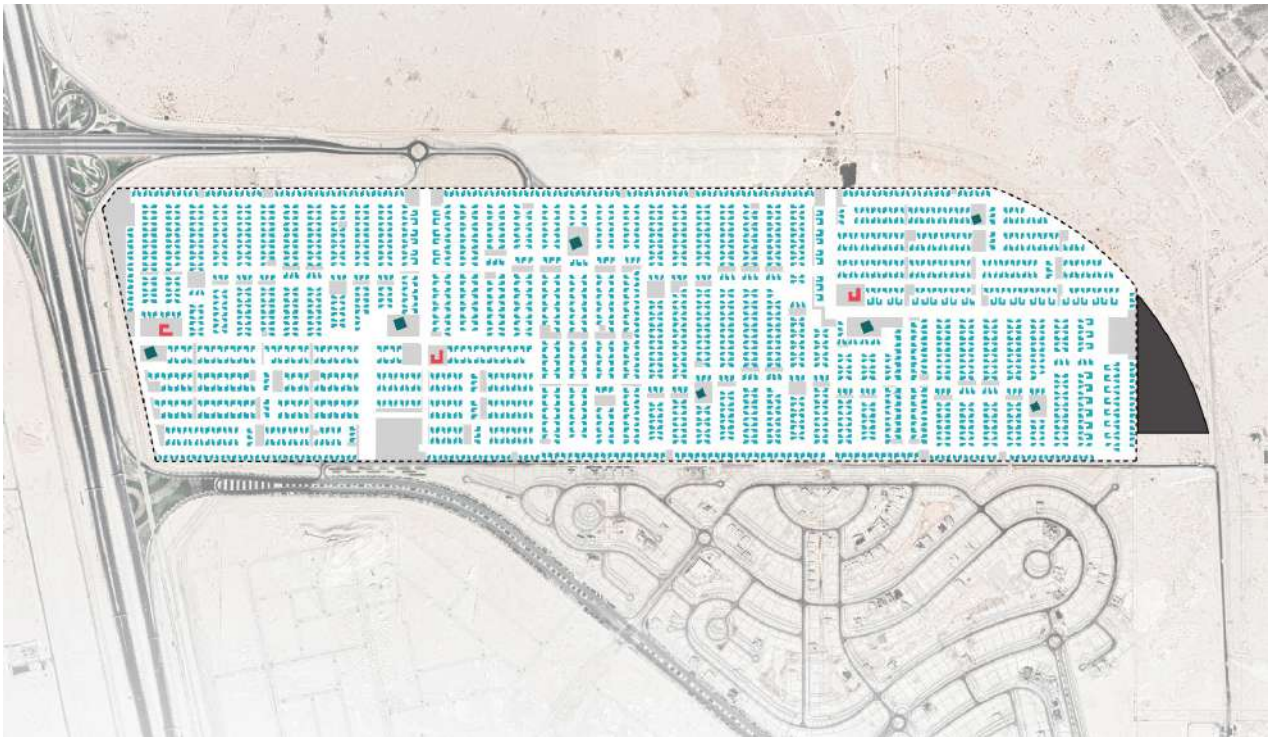
District Location Plan

MASSING STRATEGY

BUILDING HEGHT

In order to accomplish the image desired for the district and to achieve an appealing massing configuration, the height factor is planned to follow the below limits arranged by land use:

Land Use	Max. Height	Max. Height	Comments
Residential			
Low Density Villas	G+1+P	13	Basement allowed
Civic Facilities			
Mosques	G+1	15	Minaret height (excluded from height limit) see mosque guidelines
Retail Facilities	G	10	



LEGEND

	10M (Retail and Utilities)
	13M G+1+P (Residential)
	15M (Mosques)

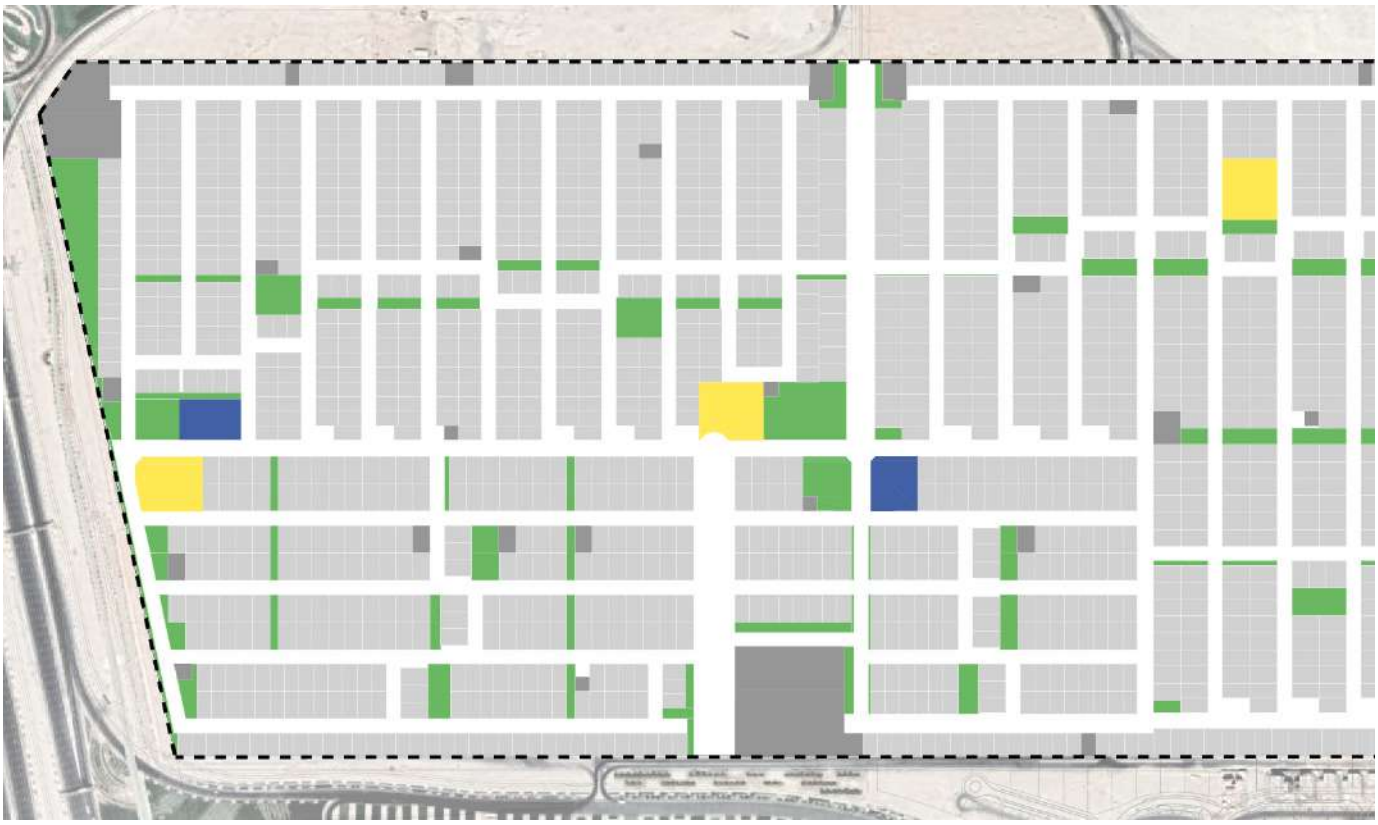
District Location Plan

KEY STRATEGIES (CONT.)

PUBLIC REALM STRATEGY

URBAN FRAMEWORK ANALYSIS

The public realm for Huzoom Lusail Master Plan features the residential streetscape character development , community parks , pocket parks and extended linear spaces and enhanced landscape areas with xeriscaping treatment . The entry landscape will evoke the sense of arrival and the xeriscaping will set a natural feel to the overall development. The community parks, pocket parks and extended linear spaces will provide active and passive recreation to the users.



LEGEND

	Residential
	Open Space
	Facilities (Local Mosques)
	Commercial (Retail)
	Utilities

District Location Plan

KEY STRATEGIES (CONT.)

OPEN SPACE PROVISION

The Open Space Provision that apply to the development are as follows:

- Community park at Masjid and Retail
- Community Park
- Pocket Park
- Linear Park
- Sikka
- Enhanced Landscape

COMMUNITY PARK-MOSQUE & RETAIL

The location of the community mosque and retail is the focus of this neighborhood and a passive recreational program responds with the creation of reflective gathering and meeting spaces. Seating and gathering spaces vary in scale creating intimate neighborhood spaces and larger community gathering spaces adjacent to the mosque and retail plot.

COMMUNITY PARK

The community park are designed to provide gathering spaces and playgrounds. The purpose of community park is to encourage social interaction and foster social activities. Landscape elements such as site furniture is formalized along primary routes with informal clusters of shade structures, picnic tables and chairs, and barbecue areas situated between circulation and activity areas.

POCKET PARK

The pocket parks are spaces between homes that re located throughout the Farej. The pocket parks are designed to meet the needs of the people and facilities close by and provide a pleasant environment for residents.

PLEASE ALSO SEE:

ARCHITECTURAL DESIGN
BOUNDARY WALLS
LANDSCAPE DESIGN

LEGEND

	Project Site Plot
	Community Park at Masjid and Retail
	Community Park
	Pocket Park
	Linear Park
	Sikka
	Enhanced Landscape

District Location Plan

LINEAR PARK

Linear Parks are corridors for passive and active recreation. They are located along natural corridors, utility easements and other linear open spaces. They act as green connectors to the developments and it is intended to be developed as a series of defined open spaces that are interconnected. Specific programming is linked to the neighborhood it intersect, this includes community meeting and gathering spaces, outdoor gym, picnic and barbecue areas. Planting is to be concentrated around areas of activity and the main planting character at this park type will be xeriscaping with mass native planting and feature ornamentals that offer an interesting array of color, texture and form.

SIKKA

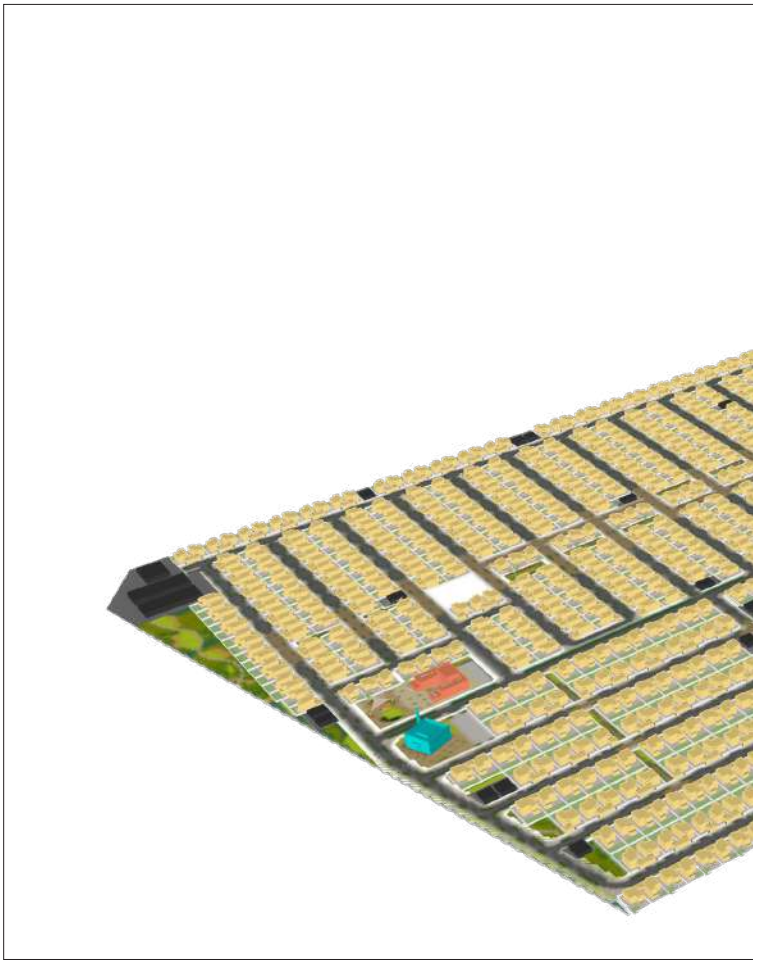
Sikka is the smallest elements of public open space. Sikka provide a network of pedestrian priority routes to community services with shade, seating areas and safe crossings.

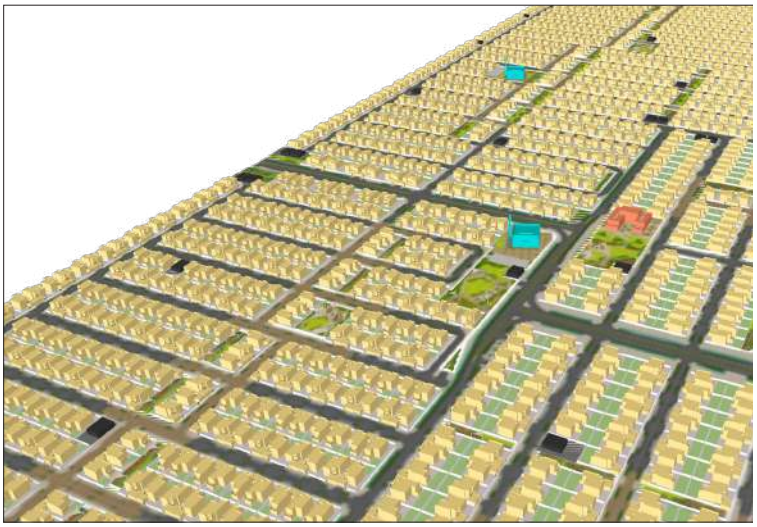
2.3 PLOT TYPOLOGY GUIDELINES AND CONTROLS

2.3.1 PLOT TYPOLOGY LOCATION PLAN

LEGEND

- Low Density Apartments
- Medium Density Apartments
- High Density Apartments
- Souq (Retail, Mixed-Use)
- Retail
- Community Facilities
- Public Open Spaces
- Existing
- LCCC Building
- Utilities
- Utilities Easement
- Helipad
- Medical
- Mosque
- School
- Kindergarten
- Car Service
- LRT Route
- LRT Station

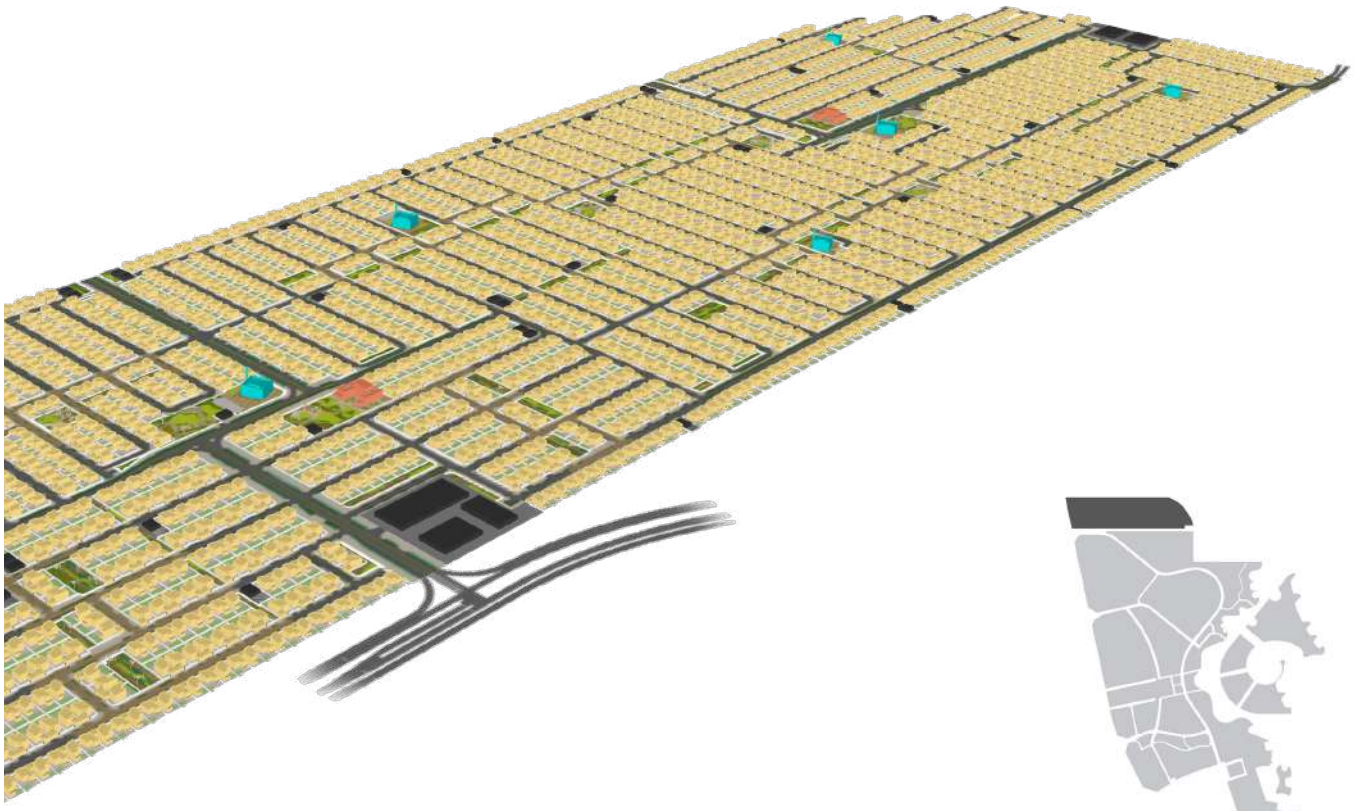




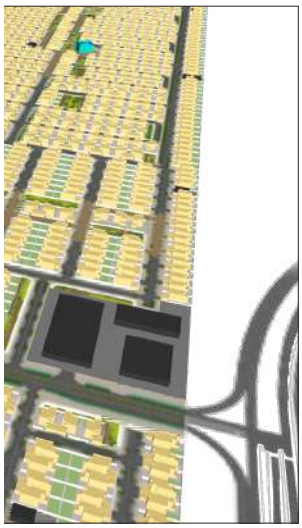
Plot Typologies - Massing

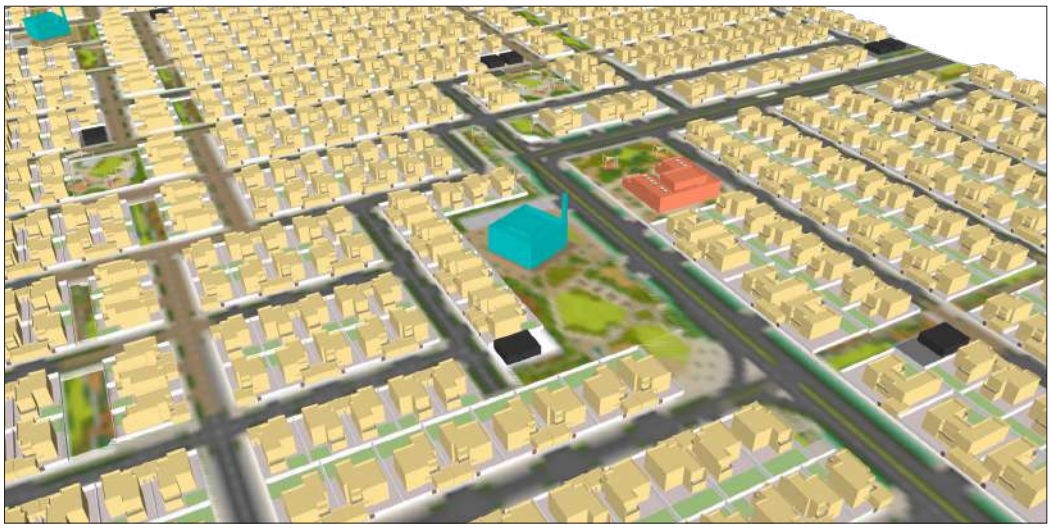
OWNERS GUIDE TO PLOT TYPOLOGIES

2.3.2	for more information on residential buildings plot categories	REF: LND-RTPG
2.3.3	for more information on retail plot categories	REF: LND-RETPG
2.3.4	for more information on mosque plot categories	REF: LND-MTPG



District Location Plan





2.3.2 RESIDENTIAL PLOT TYPOLOGY GUIDELINES AND CONTROLS

PLEASE ALSO SEE:

- ARCHITECTURAL DESIGN
- BOUNDARY WALLS
- LANDSCAPE DESIGN

REF: LMPD-RTPG- Sheet 1/86

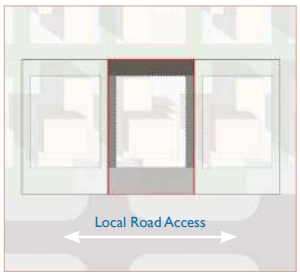
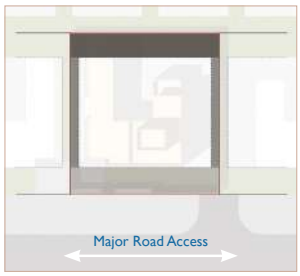
PLOT TYPES

SETBACK LEGEND

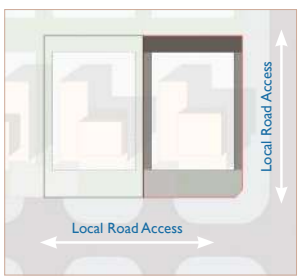
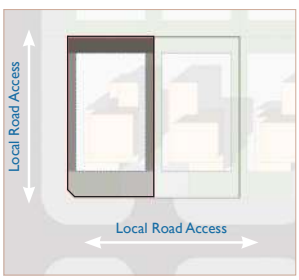
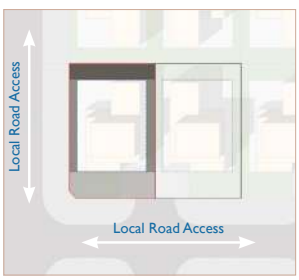
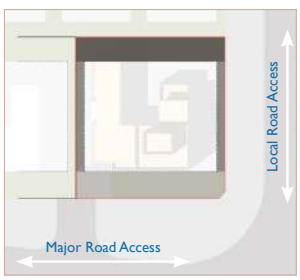
- Front - 5m
- Side - 1.5m
- Rear - 3m

Residential villas within Huzoom Lusail are grouped according to the Typology plan as follows:

INNER PLOTS

Type Aa 555 Sqm Villa	Type Ba 480 Sqm Villa	Type Ca 400 Sqm Villa	Type Da and Ea 800 Sqm and above Villa
• Bordered by 1 street • Building frontage on street • Vehicular access from front • Sharing boundary with 2 plots (or 1 plot and a linear park, masjid, retail or utilities) • Rear facing either another Type Ca Villa, Type Aa Villa, Type Ba Villa, a linear park / open space, or utilities. • Height: 13M G+1+P	• Bordered by 1 street • Building frontage on street • Vehicular access from front • Sharing boundary with 2 plots (or 1 plot and a linear park or utilities) • Rear facing either another Type Ba Villa, Type Aa Villa, Type Da Villa, a linear park / open space, or utilities. • Height: 13M G+1+P	• Bordered by 1 street • Building frontage on street • Vehicular access from front • Sharing boundary with 2 plots (or 1 plot and a linear park or utilities) • Rear facing either another Type Aa Villa, Type Da Villa, a linear park / open space, or utilities. • Height: 13M G+1+P	• Bordered by 1 street • Building frontage on street • Vehicular access from front • Sharing boundary with 2 plots (or 1 plot and a linear park, retail or utilities) • Rear facing either Type Aa Villa, Type Ba Villa, Type Ca Villa, a linear park / open space, or utilities. • Height: 13M G+1+P
			

CORNER PLOTS

Type Ab 544.15 Sqm Villa	Type Bb 479.15 Sqm Villa	Type Cb 399.15 Sqm Villa	Type Db and Eb 799.15 Sqm and above Villa
• Bordered by 2 streets • Building frontage on 2 streets • Vehicular access from front • Sharing boundary with 1 plot • Rear facing either another Type Cb Villa, Type Ab Villa, Type Bb Villa, a linear park / open space, or utilities. • Height: 13M G+1+P	• Bordered by 2 streets • Building frontage on 2 streets • Vehicular access from front • Sharing boundary with 1 plot • Rear facing either another Type Bb Villa, Type Ab Villa, Type Db Villa, or utilities. • Height: 13M G+1+P	• Bordered by 2 streets • Building frontage on 2 streets • Vehicular access from front • Sharing boundary with 1 plot • Rear facing either another Type Ab Villa, Type Db Villa, a linear park/ open space, or utilities. • Height: 13M G+1+P	• Bordered by 2 streets • Building frontage on 2 streets • Vehicular access from front • Sharing boundary with 1 plot • Rear facing Type Bb, Ca or Cb Villa • Height: 13M G+1+P
			

REF: LMPD-RTPG- Sheet 2/86

PLOT TYPOLOGY LOCATION PLAN

Plot Typology Plan

LEGEND

- Type A Villa
- Type B Villa
- Type C Villa
- Type D/E Villa

RESIDENTIAL PLOT TYPOLOGY GUIDELINES AND CONTROLS

REF: LMPD-RTPG- Sheet 3/86

Glossary of Terms

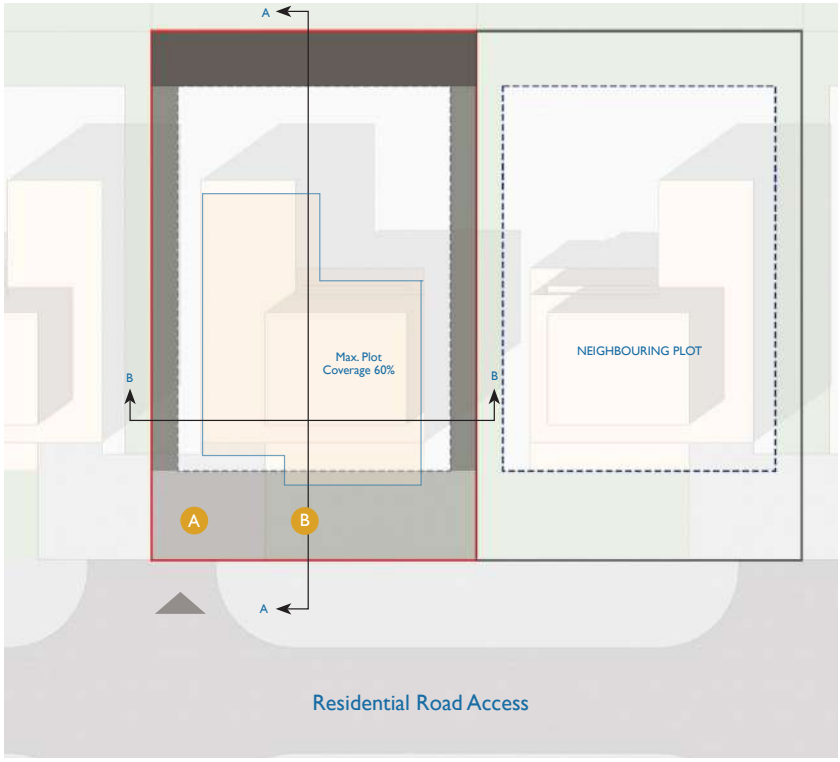
GENERAL PARAMETERS

This guideline sheet has been prepared to support the Plot Regulation sheet issued to each plot owner.

The guidelines intend to promote good urban design and will be enforced by LREDC. Plot owners must demonstrate compliance with the guidelines to ensure rapid acceptance of their proposals.

Due to continued implementation of building developments and related Utility and Landscape infrastructure, based on Lusail's Master Plan, Sub-developers and Consultants need to preconfirm with LREDC all current infrastructure implications on their specific plot.

Furthermore Plot Owners / Consultants must adhere to all Civil Defense Authorities and relevant Codes and Regulations especially relating to Fire Truck Access and Hardstanding requirements for each Plot.



5m min. setback

3m min. setback

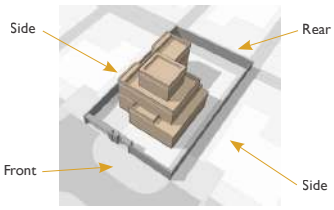
1.5m min. setback (Facades with non-habitable windows or no windows)

A Vehicular Access point (subject to built driveways)

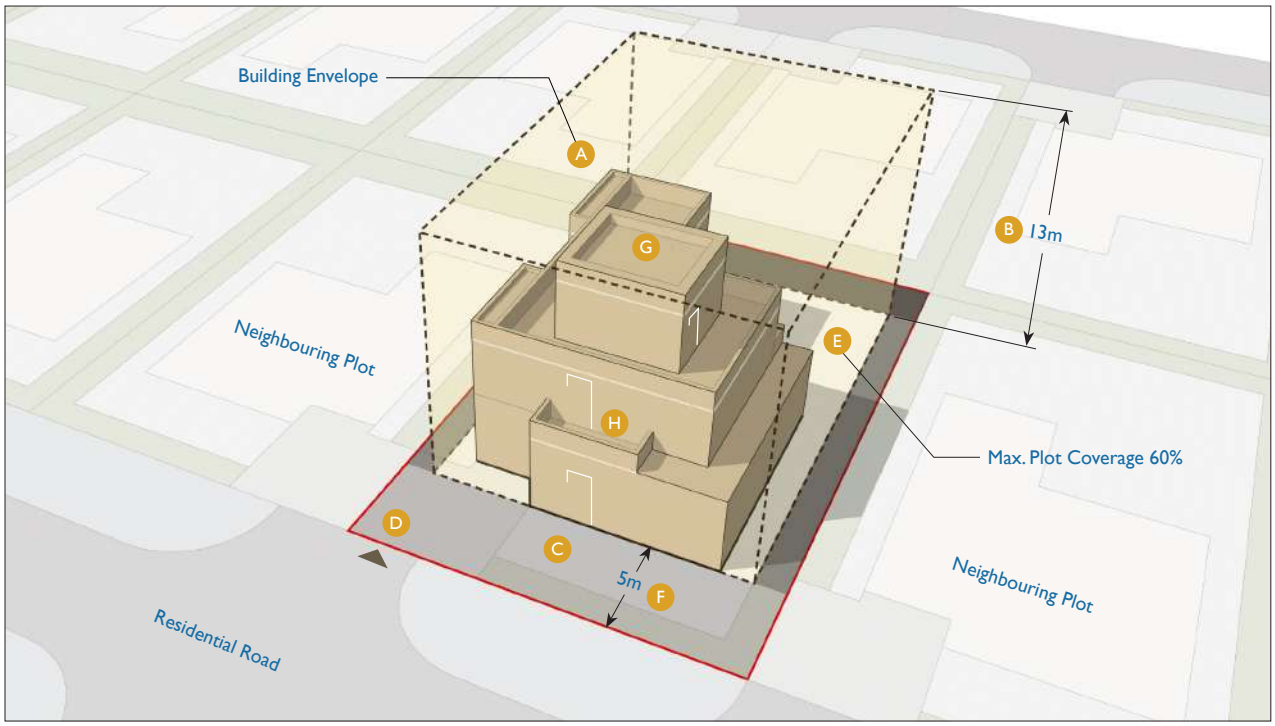
B Pedestrain Access

Vehicular access

KEYPLAN



REF: LMPD-RTPG- Sheet 4/86



KEY PARAMETERS

A BUILDING ENVELOPE
The total area within which permissible construction may occur and is defined by the minimum setback lines and maximum height restrictions.

B MAXIMUM BUILDING HEIGHT
It is measured from the top of curb at point of entry to top of parapet and must not exceed +13m including all parapets and roof structures

C PEDESTERIAN ENTRANCE
To be aligned with villa main doorway. Please refer to Villa Plot Boundary Treatment Guidelines and Controls for further information.

D VEHICULAR ACCESS
It must be via the defined driveway locations. Please refer to Villa Plot Boundary Treatment Guidelines and Controls for further information.

E MAXIMUM PLOT COVERAGE
The portion of a plot that is occupied by any building or structure expressed as a percentage of occupied footprint area to total plot area.
Must not exceed 60%.

F SETBACK
Minimum front setback of 5m for main villa building. This is to maintain a cohesive street alignment. 3m rear setback and 1.5m setback for both sides for facades with non-habitable windows or no windows.

G PENTHOUSE POSITION
Penthouse should have a front setback of 3m from main facade and 1.5m on other sides from the first floor roof limit.

*Other positions (such as at the front or front corner of the building) may be considered but this is at the discretion of the planning department at LREDC.

H CANTILEVERED PROJECTIONS
Cantilevered projections such as balconies should remain within setback limits.

RESIDENTIAL PLOT TYPOLOGY GUIDELINES AND CONTROLS

REF: LMPD-RTPG- Sheet 5/86

EXISTING REGULATION SUMMARY:

The following conditions within Building Regulations Sheet for the Individual Retail Plots remain unchanged

Permitted Land Use	Residential with ancillary buildings	
Plot Area	As per individual Building Regulation sheets	
Max. FAR	1.65	
Max. Plot Coverage	60%	
Penthouse Coverage	70% of first floor area	
Maximum Number of Floors	G+1+P	
Maximum Heights	Main Villa: 13m to top of parapet	
	Ancillary Building: 4 m	
Minimum Setbacks Criteria	5m from Street/Front side	
	3m from rear side	
	1.5m from neighbour's side with non-habitable windows or no windows. 3m side setback if there are windows.	
	Penthouse: Minimum 3m setback from front, street or any open space. Minimum 1.5 m setback from roof edge on neighbor's side or can have zero setback from roof edge with non-habitable windows or no windows on neighbor's side.	
Ancillary building side and rear wall relationship to party wall	Adjacent to Villa plot	Coincident with rear or side party wall
	Adjacent to Open space / Street	Inside / behind the side or rear boundary wall
Minimum Car Parking Provision	2 spaces per dwelling on plot. 1 parking space per dwelling on street.	

REF: LMPD-RTPG- Sheet 6/86

ADDITIONAL REGULATIONS

To safeguard quality, the following regulations are amended to augment and add to the building regulations

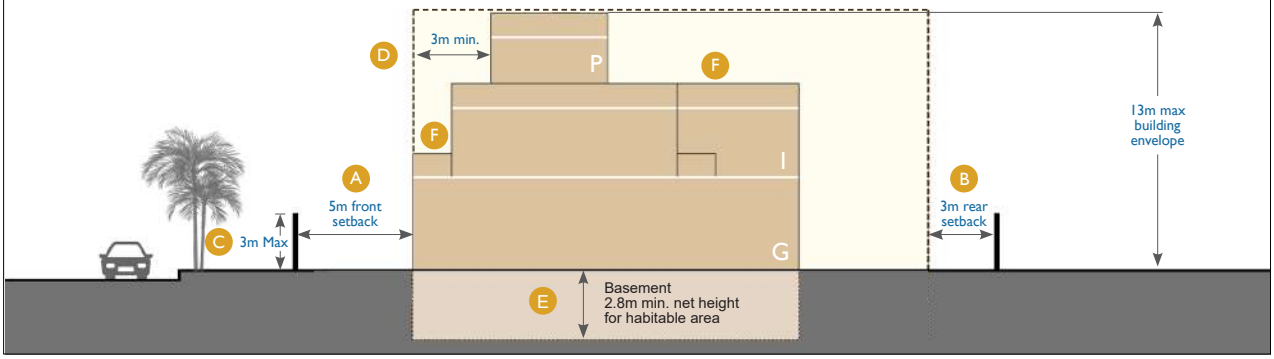
Boundary Wall	2.5m min. to 3m max height (Front boundary walls over 1m in height shall incorporate a traditional design or patterned theme across the entire frontage to remedy the visual impact of bulk and scale on the public realm)
Openings	Side and Rear Setback: openings (eg. windows, balconies and terraces) are allowed in walls between 3.0m and 6.0m setback but should be screened for visual privacy from neighboring properties.
	Front Setback: Openings in front elevations must be setback min. 5.0m and do not have to be screened.
	Balconies and Terraces: All balconies and terraces open to sky whose sides face neighboring plots must have 1.8m high solid screen parapet wall for full privacy.
	Penthouse Openings: Openings onn facades facing neighbours' openings are not allowed in the Penthouse, unless it is minimum 1.5m setback from roof edge with a 1.8m high solid screen wall parapet for privacy, if it is accessible.
Ancillary Buildings	Driver Building: Can be located on front of boundary wall; however, no openings are allowed on front boundary wall facing the street.
	Other ancillary buildings (excluding majlis and driver building) shall not be within front setback. It shall be ideally aligned with the main villa.
	Ancillary Structure Length: Maximum cumulative length of all ancillary buildings must be max. 50% of rear wall length, 50% of neighbour side wall length.
	Basements of any type are not allowed under any Ancillary Building.
Roof Mechanical Equipments	Roof mechanical equipment to be set to the rear of the building and screened from view from all sides.
Landscape	Min. 10% of plot area shall be softscape area.

RESIDENTIAL PLOT TYPOLOGY GUIDELINES AND CONTROLS

REF: LMPD-RTPG- Sheet 7/86

SECTIONS THROUGH VILLA PLOT

SECTION A



A FRONT SETBACK
5m setback from plot boundary

B REAR SETBACK
3m setback from plot boundary

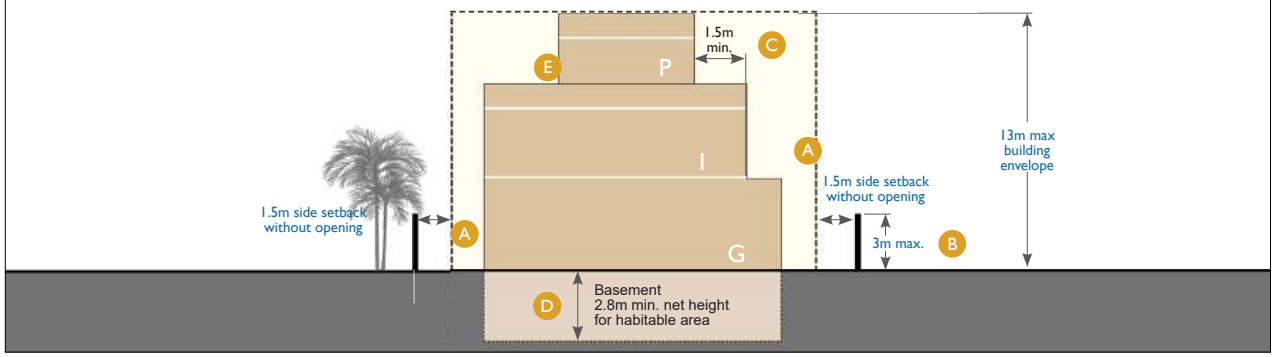
C BOUNDARY WALL
2.5m min - 3m max height. (Front boundary walls over 1m in height shall incorporate a traditional design or patterned theme across the entire frontage to remedy the visual impact of bulk and scale on the public realm)

D PENTHOUSE SETBACK
3m front setback from the facade

E BASEMENT
- Basement limit to follow ground floor footprint
- Permitted habitable uses in the basement are halls, living rooms, kitchens, toilets, maid/driver rooms, gym/sports halls
- Permitted non-habitable uses in the basement include parking, stores, water tanks and mechanical rooms
- 2.8m min. net height for habitable areas

F PRIVACY
Maintaining the neighbour's privacy through adequate treatment of windows (louvres, cladding, protection nets, etc.) if accessible openings are within 3m-6m from the plot boundary. Screen is not necessary in front elevation and other sides with more than 6m setback from plot boundary

SECTION B



A SIDES SETBACK
1.5m setback from plot limit (with non-habitable windows or no windows)

B BOUNDARY WALL
2.5m min-3m max height. (Front boundary walls over 1m in height shall incorporate a traditional design or patterned theme across the entire frontage to remedy the visual impact of bulk and scale on the public realm)

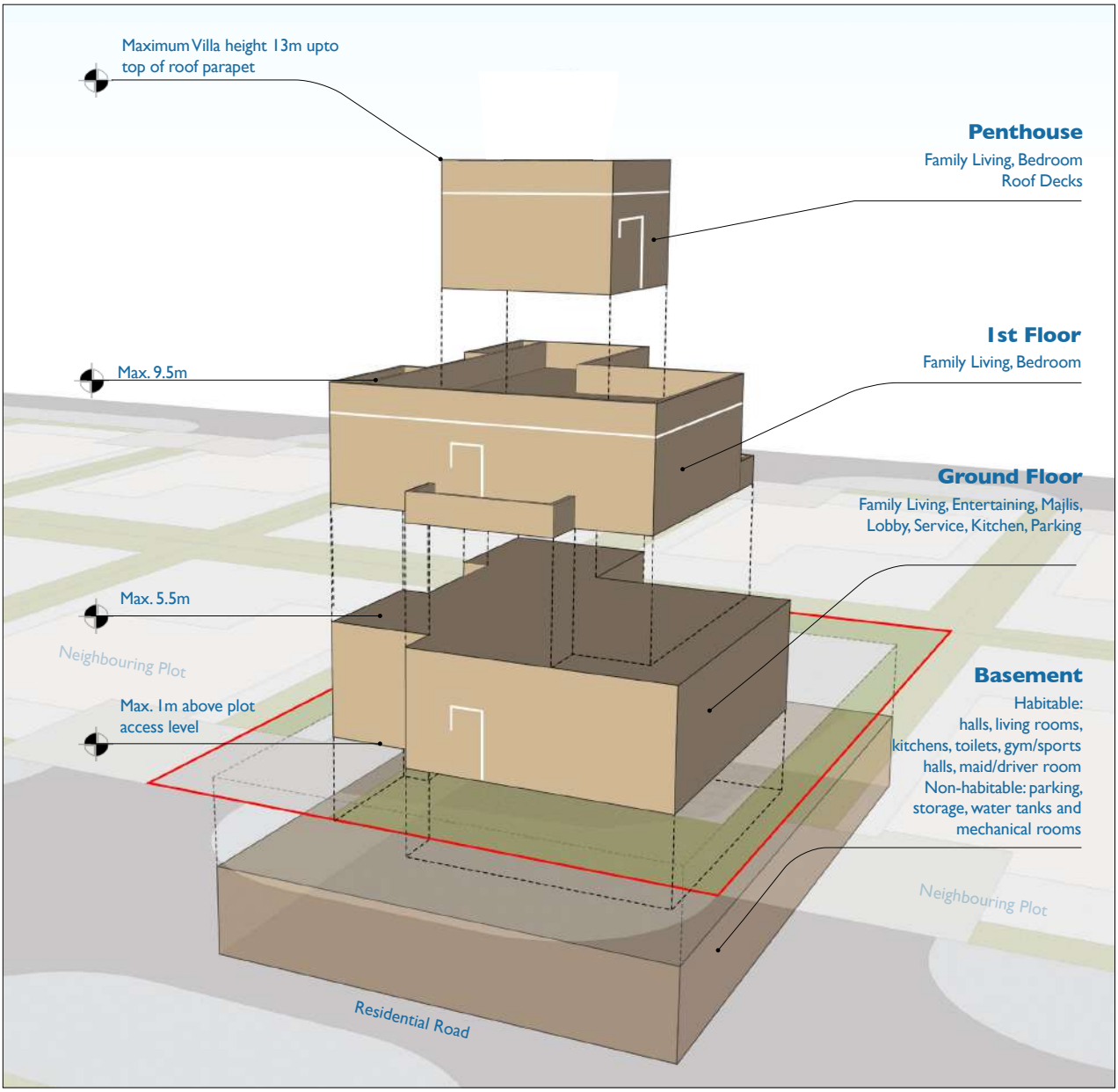
C PENTHOUSE SETBACK
1.5m sides and rear setback from the first floor roof limit.

D BASEMENT
- Basement limit to follow ground floor footprint
- Permitted Uses: Habitable uses in the basement are halls, living rooms, kitchens, toilets, maid / driver rooms, gym/sports halls
- Permitted non-habitable uses in the basement include parking, stores, water tanks and mechanical rooms
- 2.8m min. net height for habitable areas

E PRIVACY
Maintaining the neighbour's privacy through adequate treatment of windows (louvres, cladding, protection nets, etc.) if accessible openings are within 3m-6m from the plot boundary. Screen is not necessary in front elevation and other sides with more than 6m setback from plot boundary

REF: LMPD-RTPG- Sheet 8/86

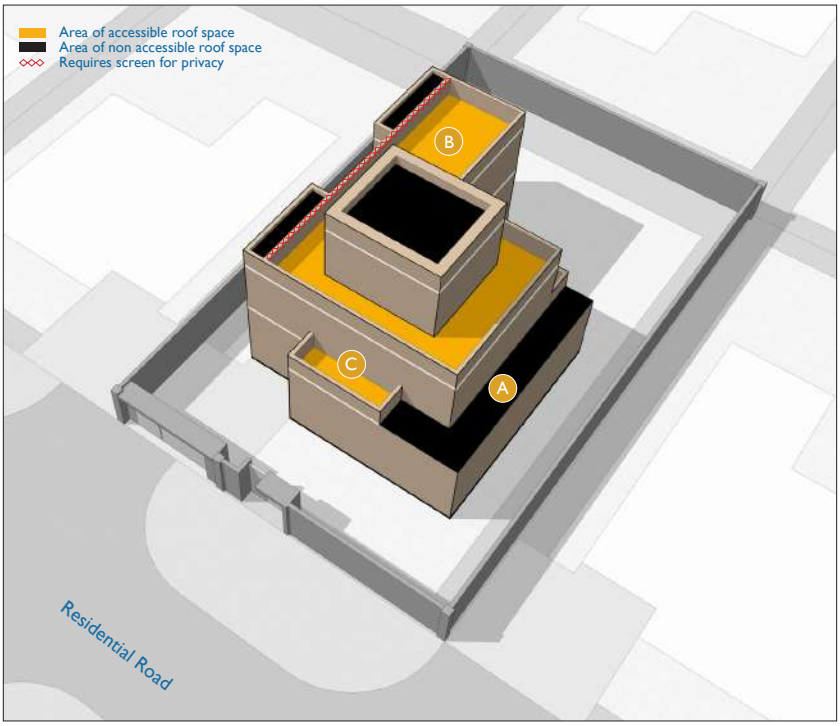
SECTIONAL SUMMARY



RESIDENTIAL PLOT TYPOLOGY GUIDELINES AND CONTROLS

REF: LMPD-RTPG- Sheet 9/86

PRIVACY



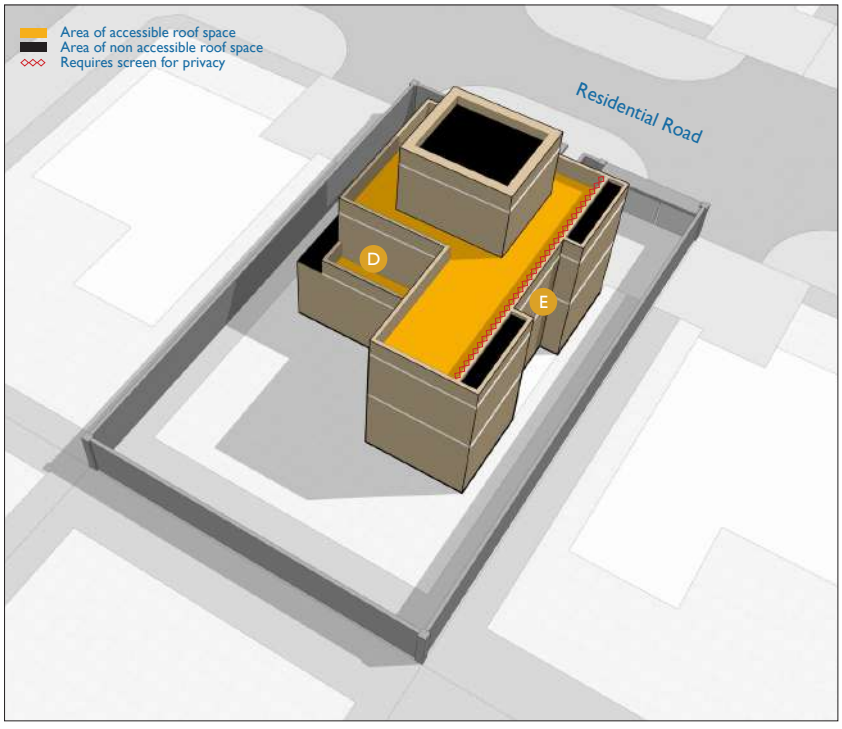
The aim is to control overlooking of neighbouring plots and of passers by. This is done through the following guidelines:

Adequate treatment of windows (louvres, cladding, protection nets, etc.)
Elevations that include openings (windows, balconies and terraces) are to adhere to 3m min setback from the plot boundary. Openings on all levels between 3.0m and 6.0m setback should be screened for visual privacy, except on front elevations, where screening is not required. In cases where the side setback is less than 3.0m, the openings, only non-habitable windows or no windows shall be incorporated.

A — No roof terrace is permitted in this area due to inadequate screening. Access to this roof space should be restricted.

B — Roof terrace is permitted here as this elevation is within 3m-6m setback and requires screening on the side.

C — No screening to windows or terraces is required on front elevations



Roof areas created through the building massing can only be accessible and if appropriate screening requirements are incorporated.

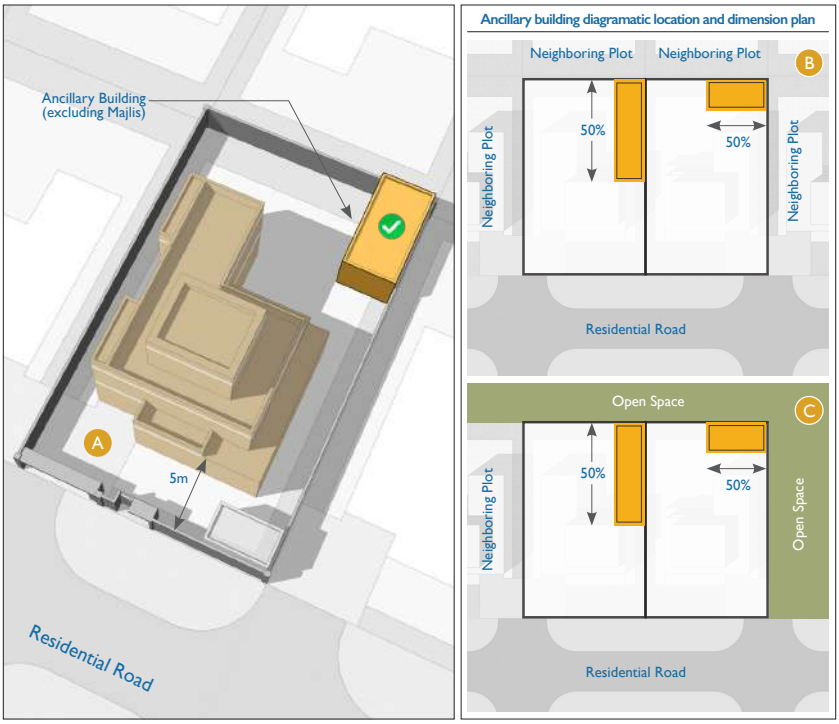
If screening requirements do not apply, access should be restricted by restrained. Furthermore, the material and design of these areas shall deter accessibility and usability.

D — Acessible opening is permitted here as it is more than 6m away from rear and 3m away from side plot boundary, screen is required on the side for privacy.

E — Side and rear openings on all levels between 3.0m and 6.0m setback should be screened for visual privacy.

REF: LMPD-RTPG- Sheet 10/86

PARKING AND ANCILLARY BUILDINGS



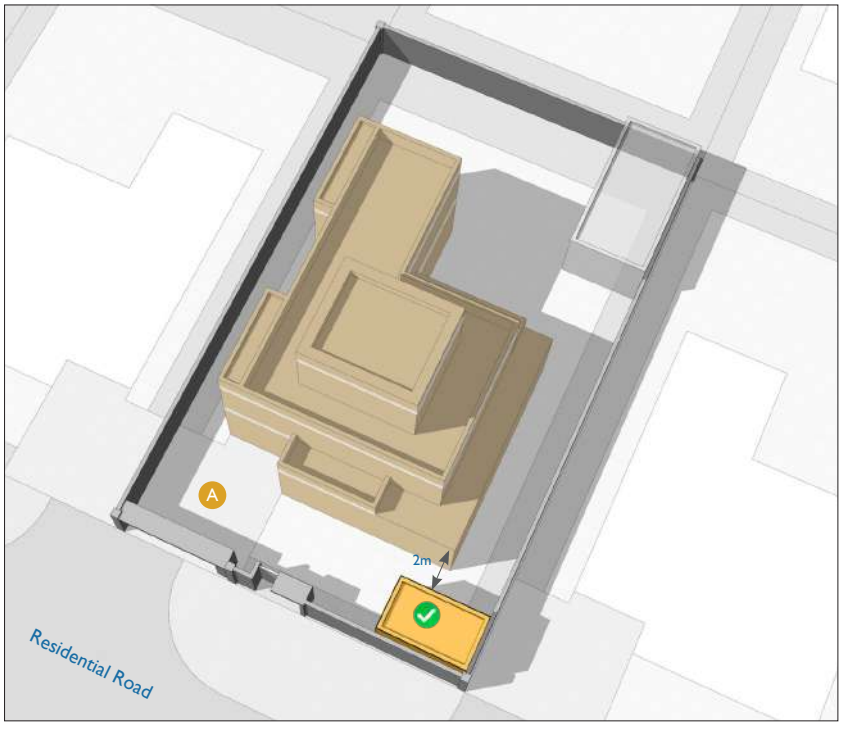
Ancillary buildings include support building such as an outside kitchen, servant's quarters, storage, pool room etc. Ancillary buildings must be included in the overall GFA.

A. Garage to be aligned with driveway. Minimum 2 parking spaces to be provided on-plot.

B. Ancillary buildings and Majlis side and rear wall should be coincident with party wall when there is an adjacent Villa plot.

C. Ancillary buildings and Majlis side and rear wall should be inside/behind the demising wall when there is only open space / street beyond. Fire hazard uses like kitchens should be referenced to local Civil Defense code requirements and other International standards.

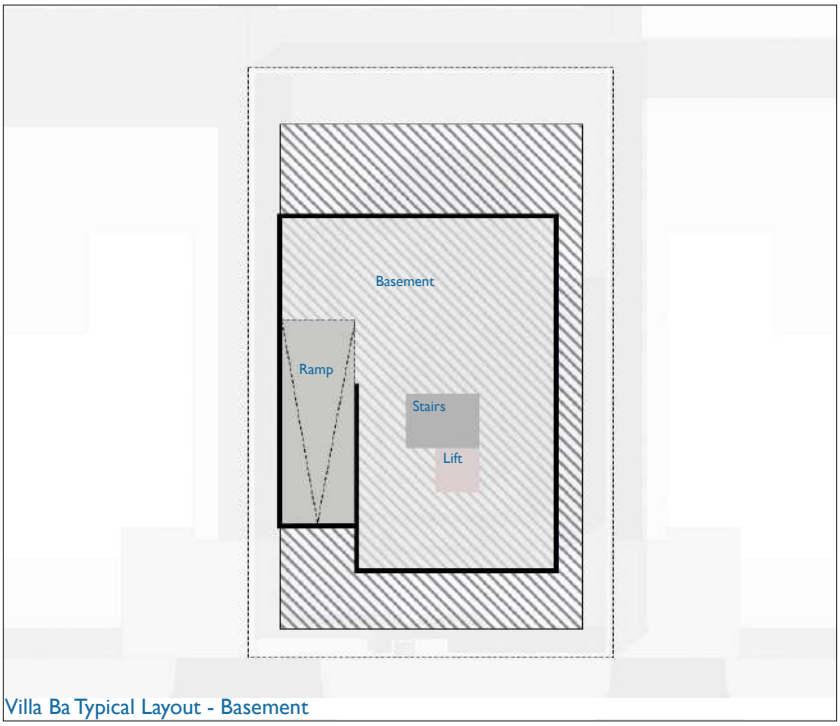
D. Maximum length coverage of ancillary buildings shall be 50% of the side and rear of the plot.



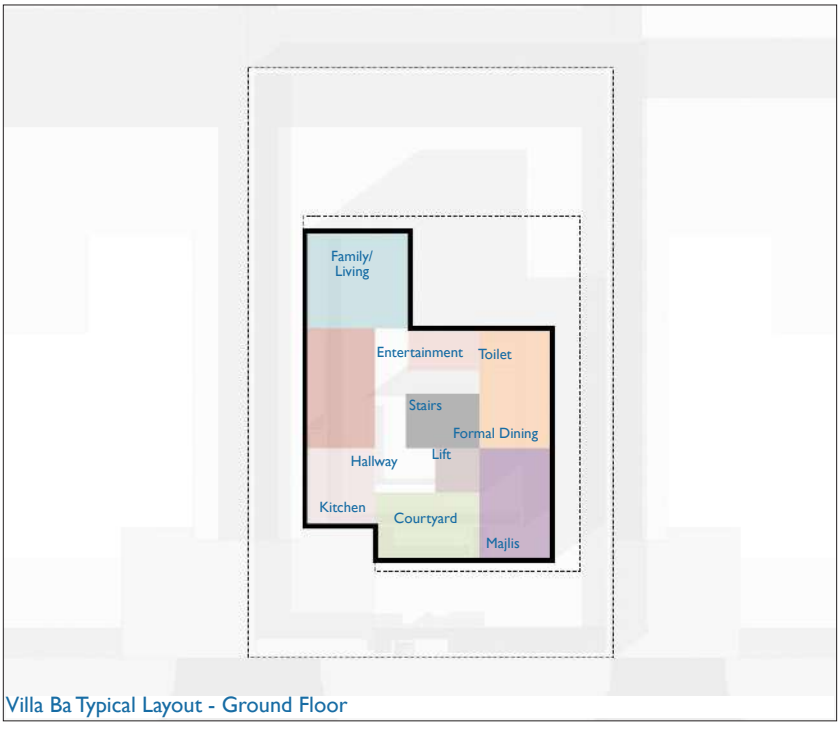
Majlis have different setback requirements than other ancillary buildings. Majlis may be incorporated as part of the main villa or independently at the front of the plot, and (if required) abutting the party wall. If access to the majlis shall be provided from the street, a minimum of 2m setback shall be provided from the front.

RESIDENTIAL PLOT ILLUSTRATIVE LAYOUTS

REF: LMPD-RTPG- Sheet 11/86



Villa Ba Typical Layout - Basement



Villa Ba Typical Layout - Ground Floor

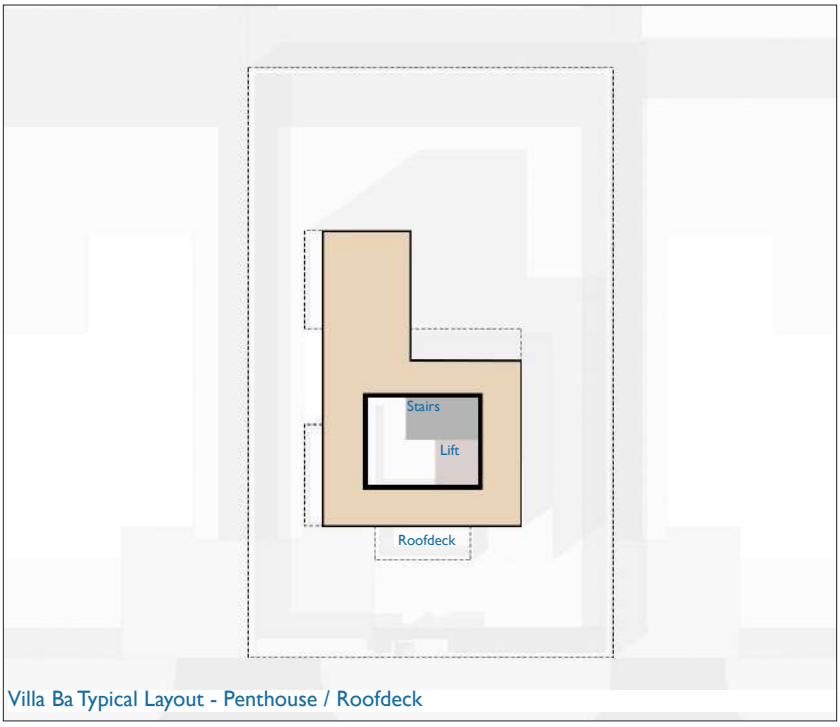
TYPICAL VILLA ILLUSTRATIVE LAYOUT

The aim of this section is to demonstrate an example related to the spatial arrangements for a typical villa.

- Formal functions are located at the front zone of the villa whereas private family function areas are focused towards the rear.
- Servicing functions are located near the garage, with separate entrances: main entrance for residents and their guests; secondary for staff and the car entrance.
- The spacious entrance lobby and courtyard welcomes the residents and guests as it is centred on the main façade, with side link to the majlis.
- Family function areas overlook the backyard. The family rooms and spaces link to the main stair at the core of the house.
- Bedrooms are provided at first floor.

REF: LMPD-RTPG- Sheet 12/86

Villa Ba Typical Layout - First Floor



Villa Ba Typical Layout - Penthouse / Roofdeck

NOTES

> Massing and layout is illustrative

> Owner must co-ordinate provision and requirements for utilities

> All LRDEC and MMUP guidelines and requirements are to be complied with

> Basement level and penthouse levels are optional

> Refer to Architectural Guidelines and Controls for further design information

> Figures subject to revision in accordance with project entitlements and refinement

RESIDENTIAL PLOT AMALGAMATION GUIDELINES

REF: LMPD-RTPG- Sheet 83/86

INTRODUCTION

TYPICAL VILLA ILLUSTRATIVE LAYOUT

Amalgamation is combining two or more contiguous plots into one.

Villa plot amalgamation in the case of Huzoom Lusail's residential plots, is permitted for 2 or more plots provided that all guidelines below are strictly applied: Guidelines and Controls have been provided to ensure the quality of the development and attractive street environment is delivered, while the individual plots are being amalgamated into single, larger villa plot.

Outline:

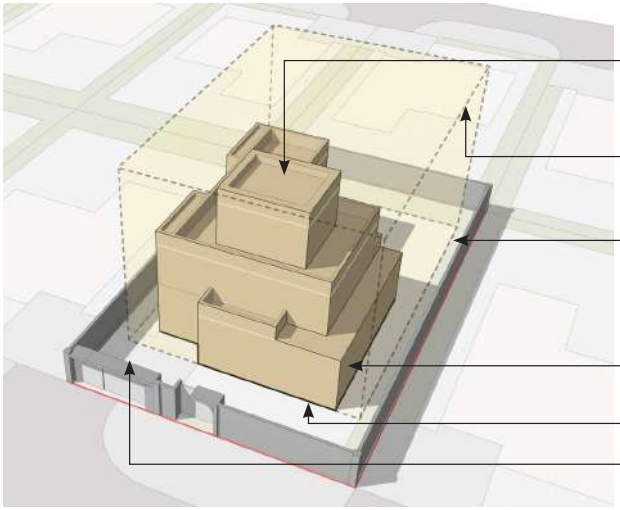
> The key objectives and aspirations of the guidelines summarizing the most important design elements to be protected within the scale of the residential street;

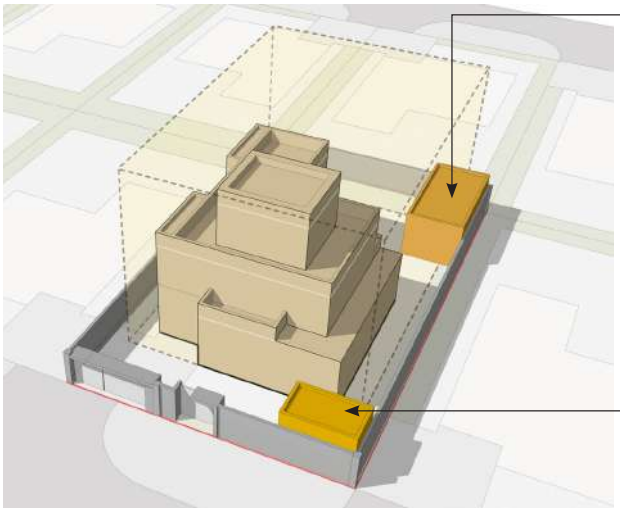
> The combinations and arrangements of the amalgamations and differences of the relevant guidelines

> The illustrative examples of the amalgamation of plots within typical residential street.

BASELINE ELEMENTS (THE STARTING POINT)

PLOT: Residential Villa/ Single Family Villa per Plot
PLOT SIZE: 555m²



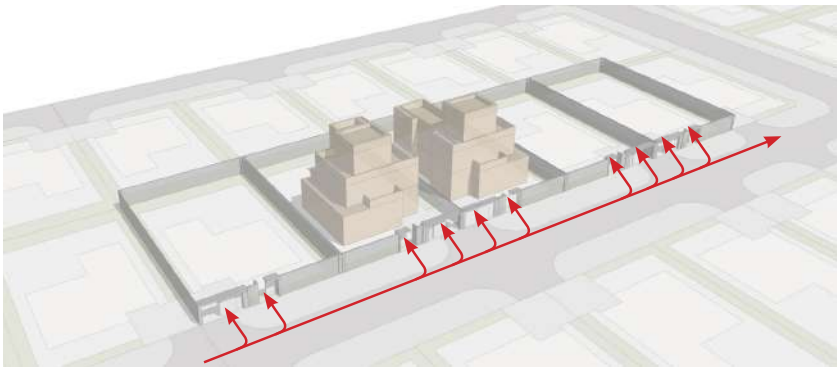


Key approaches used to ensure high quality design and construction to safeguard the value of the develpment:

> All guidelines and parameters shall apply to the amalgamated plot.
> The resulting plot shall maintain all external setbacks, maximum coverage and allocated number of floors so as to preserve the character of the area.
> The GFA of the resulting plot shall not exceed the total of the combined GFA for the amalgamated plots.
> Accesses and connections to the amalgamated plot shall be based on the approved entrances of the separate plots.
> It is highly recommended to adopt varied heights for buildings on amalgamated plots so as to create an interesting massing design.
> When amalgamating plots, the resulting building shall take into consideration all design principles namely avoiding long stretches of facades.
> Subdivision is dividing a larger entity into smaller individual entities.
> In the case of Huzoom Lusail's residential plots, plot subdivision is not permitted.

REF: LMPD-RTPG- Sheet 84/86

KEY CONSIDERATION (AMALGAMATION APPROACH)



PEDESTRIAN EXPERIENCE PERIMETER WALL CONDITION RYTHM OF OPENINGS

Pedestrian gates, vehicular driveways, and boundary walls add to the pedestrian experience and to the character of the public realm. Rhythmatic openings and facade breaks relieve the rigidity of continuous boundary walls and immensely improves the public realm experience.

STREET ELEVATION SETBACKS

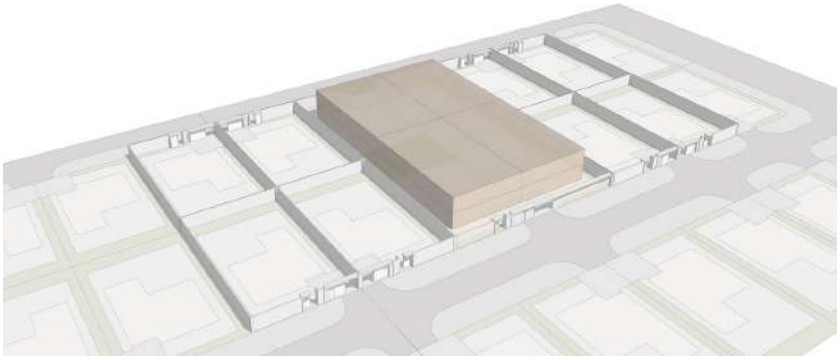
Framing and defining the street is done through controlling the frontage and the built-to-lines and setbacks.The location of key buildings frames the street to enhances the character of the street and the community and resonates with the human scale.

SIZE

Amalgamation of GFA and BUA.

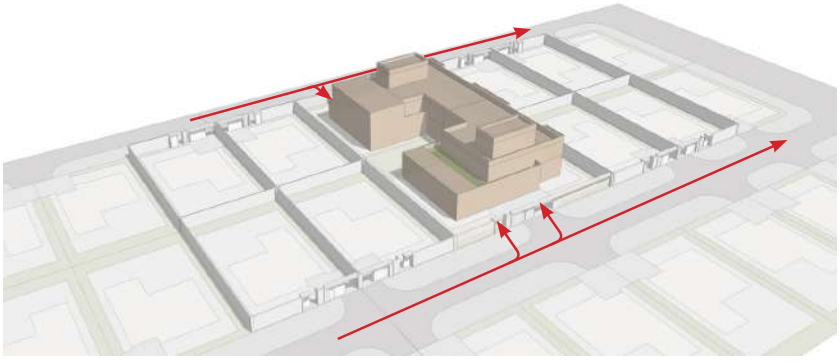
MASSING

Building heights, sections and proportions



PLOT RATIO
AMALGAMATION OF PLOT AREAS

Amalgamated BUA of multiple plots can lead to significant impact on the adjacent plots and the character of the development. Hence, appropriate parameter regulations governing Floor Area Ratio, Footprint as a proportion of the plot and building height limits can be used to preserve the quality of the development.



FRONT AND REAR
PRIMARY AND SECONDARY ADDRESS

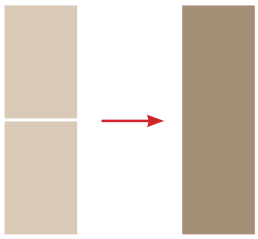
Amalgamation accross two rows of plots, leads to fronting two residential streets. In similar cases, it is import to ensure both roads are used for access and that the frontage is on the more prominent street.

RESIDENTIAL PLOT AMALGAMATION GUIDELINES

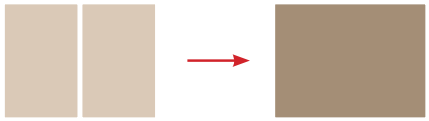
REF: LMPD-RTPG- Sheet 85/86

FOR ILLUSTRATION PURPOSES ONLY

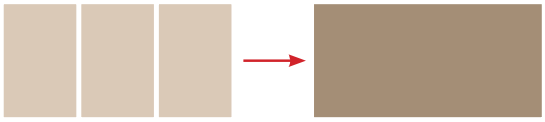
1 AMALGAMATION OF 2 VILLA PLOTS/ ADJACENT REAR
Refer to typical villa plot guidelines for setbacks, heights and controls



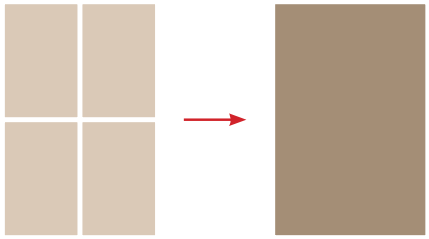
2 AMALGAMATION OF 2 VILLA PLOTS/ ADJACENT SIDES
Refer to typical villa plot guidelines for setbacks, heights and controls



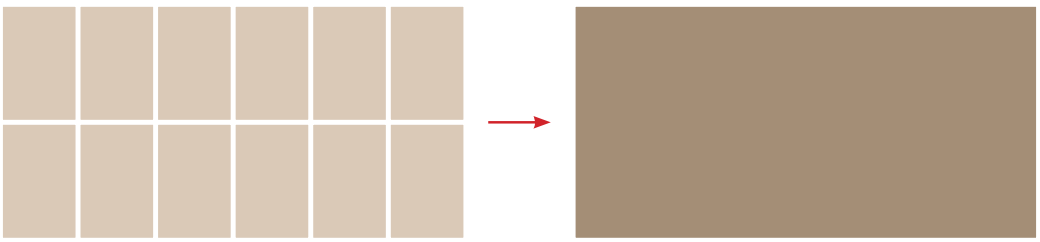
3 AMALGAMATION OF 3 OR MORE VILLA PLOTS / LINEAR



4 AMALGAMATION OF 4 OR MORE VILLA PLOTS / CLUSTER

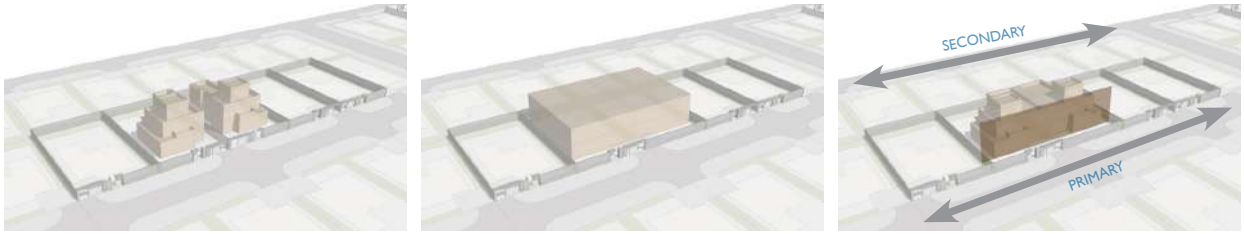


5 AMALGAMATION OF LARGER NUMBER OF VILLA PLOTS/ EXTENDED GROUP
(Special condition, subject for approval)



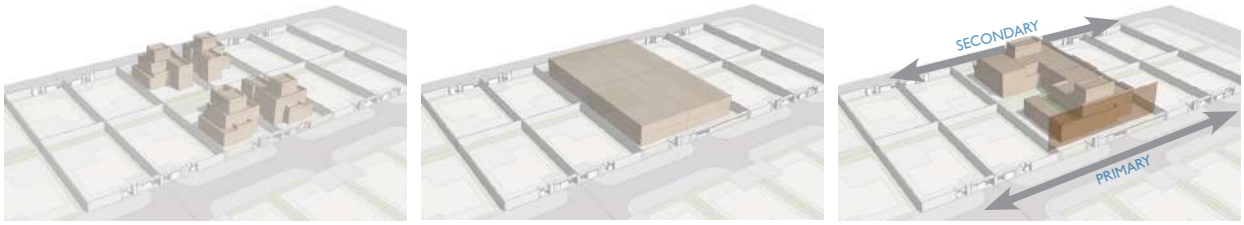
REF: LMPD-RTPG- Sheet 86/86

EXAMPLE OF LINEAR AMALGAMATION



Consolidated boundaries → Combine BUA allowances → Distribute massing within the plot

EXAMPLE OF ADJACENT SIDE AND REAR AMALGAMATION



Consolidated boundaries → Combine BUA allowances → Distribute massing within the plot

KEY CONTROL ON AMALGAMATION SCENARIOS

Huzoom Lusail is a low density residential community, it is essential to maintain the lifestyle and the character of the development through regulating the quantity and character of resdential units offered.

While amalgamation is permitted, It is strictly forbidden to implement housing complexes of any sort within Huzoom Lusail.

Maximum number of housing units will be that of the number of plots that are amalgamated, and those units must be implemented as single detached buildings. Ancillary support buildings are allowed collectively up to maximum FAR and cummulative GFA.

Standard setbacks and regulations apply to all villas on the amalgamated plots except those that are in excess of 2000m² which has specific regulations.

2.3.3 RETAIL PLOT TYPOLOGY GUIDELINES AND CONTROLS

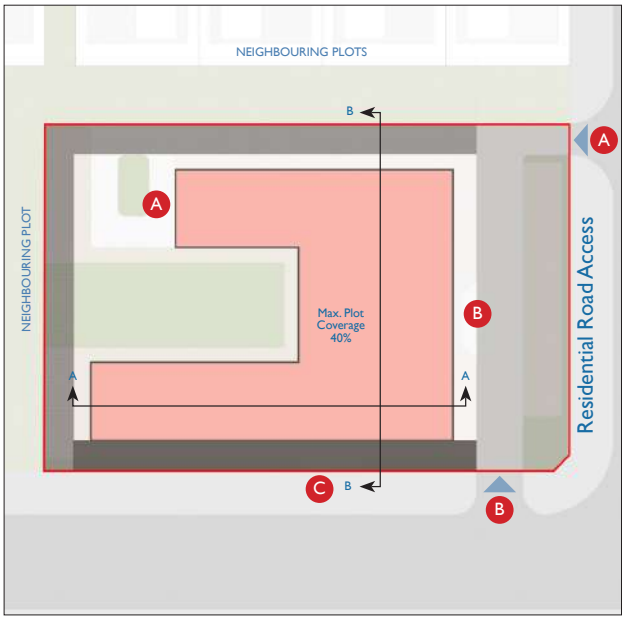
REF: LMPD-RETPG- Sheet 1/4

Glossary of Terms

GENERAL PARAMETERS

This guideline sheet has been prepared to support the plot Regulation sheet issued to each plot owner, defining general principal and parameters to inform the retail provider's approach to the parcel's development.
The guidelines are intended to promote good urban design and will be enforced by Lusail's Development Committee.
This information supplements the building regulation sheets. It clarifies a number of points and lists the various relevant mandatory requirements.
The objective is to foster best design practice to result in a livable neighbourhood.The guidelines and controls are an outcome of Lusail Planning Authority's detailed review of the approval process.
Plot owners must demonstrate compliance with the guidelines to ensure rapid acceptance of their proposals and granting of the appropriate development permits.

Plot parameters shown on individual plot regulation sheets shall be fully complied with.
Variations to the below guidelines per plot typology are listed in the subsequent sections under each typology variation.
The purpose of the guidelines below is to maintain the image of the development and to achieve the desired quality thereof.Thus, shall be strictly complied with.



Retail Plot Plan

15m min. road side setback with parking
4m min. roadside setback without parking
4m setback elsewhere
Main vehicular access

A Service access from the road with with less vehicular traffic / delivery drop-off
B Visitor vehicular access for drop-off and parking
C Pedestrian access separated from vehicular access

The following conditions within Building Regulations Sheet for the Individual Retail Plots remain unchanged

To Safeguard quality, the following regulations are amended to augment and add to the building regulations

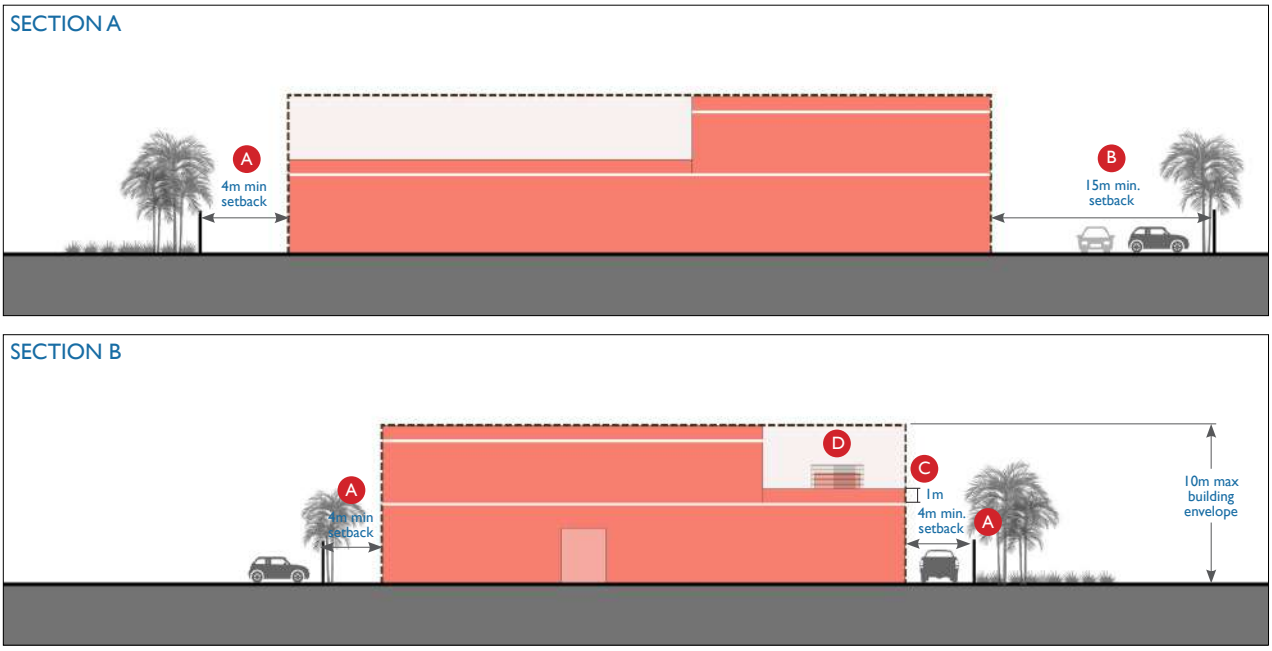
EXISTING REGULATION SUMMARY:

Permitted Land Use	Retail (neighbourhood)
Plot Area	As per individual Building Regulation Sheets
Maximum FAR	0.40
Maximum Plot Coverage	40%
Maximum Number of Floors	G+1
Maximum Height	10m including parapet
Minimum Setbacks Criteria	15m minimum from road side with parking; 4m minimum from road side without parking
	4m minimum elsewhere
Minimum Car Parking Provision	1 space per 50m² of retail GFA space
Car Parking Location	Subject to LREDC Approval

ADDITIONAL REGULATIONS:

Boundary Wall	No Boundary walls. Party walls shall be 3m high, when adjacent to residential plots.
Access	Servicing to be separate from general traffic and pedestrian movement.
Parking	Plot owners to provide all parking on site.
Screening	Refuse and general external storage to be screened from view with enclosures of 2m minimum height.
	Stairwells, vents, utility equipment to be recessed away from the street and screened from view.
	Rooftop parapets to be provided to 1m minimum height

REF: LMPD-RETPG- Sheet 2/4



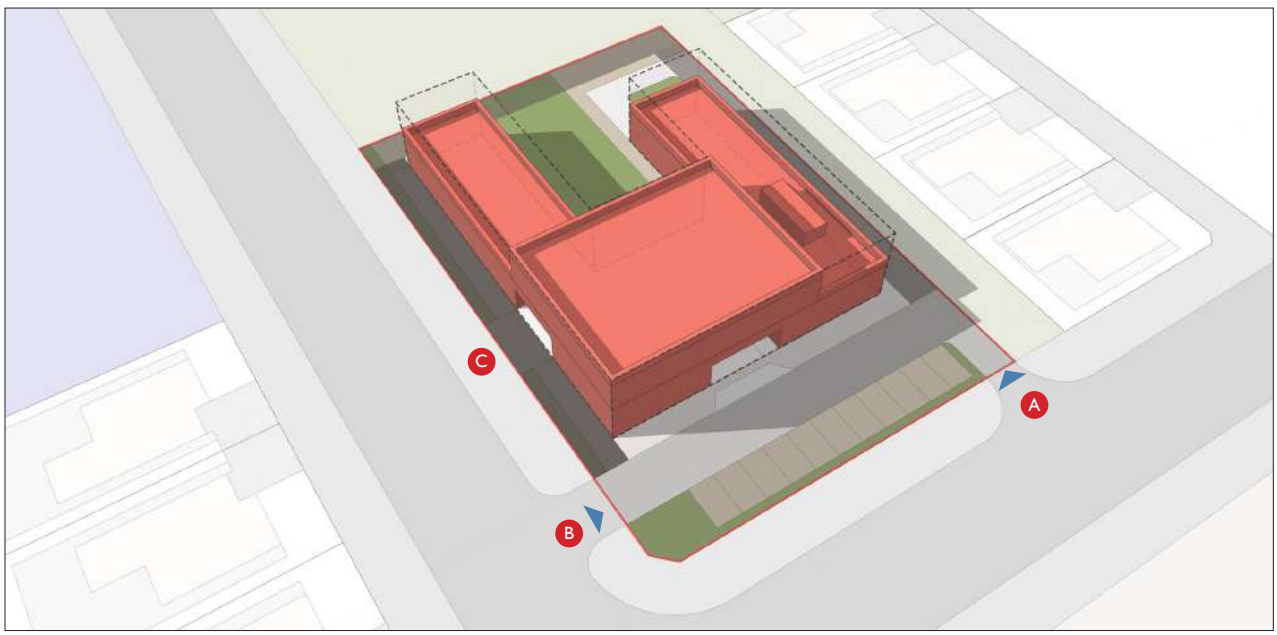
A Min. 4m setback from roadside without parking and elsewhere

B Min. 15m setback from roadside with parking

C Min 1m. roof parapet to conceal mechanical plant

D Min 1m. roof parapet to conceal mechanical plant

Typical Retail Plot- Section



15m min. setback

4m min. setback

Main vehicular access

A Service access from the road with with less vehicular traffic/ delivery drop-off

B Visitor vehicular access for drop-off and parking

C Pedestrian access separated from vehicular access

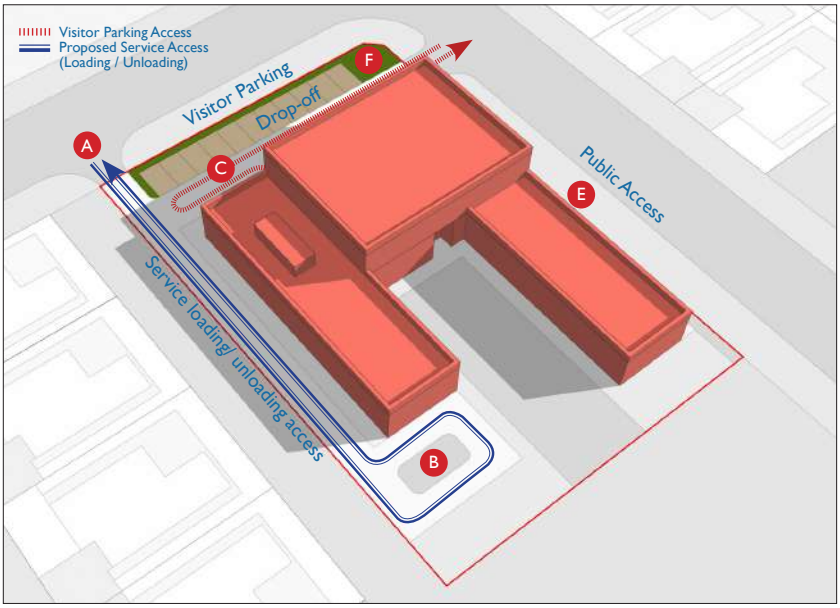
D Building envelope

Typical Retail Plot - View

RETAIL PLOT TYPOLOGY GUIDELINES AND CONTROLS

REF: LMPD-RETPG- Sheet 3/4

ACCESS, SERVICING AND PARKING



Service traffic to be separated from all other traffic and pedestrian access. All parking to be provided on site.

Vehicles for visitors and services should access from the rear or the side of the plot. Access for service vihicles must be from the road with less traffic. The aim behind the guidelines is to ensure separating servicing traffic from all other traffic and pedestrians' access and to maintaining a pleasant streetscape, street definition and retail frontage at the main road. Parking for the retail plots shall be fully provided on plot. It is encouraged that the driveways leading to the retail plot are grouped with driveways servicing neighboring plots for the purpose of reducing the disruption to pedestrian movement.

A Service access in/out

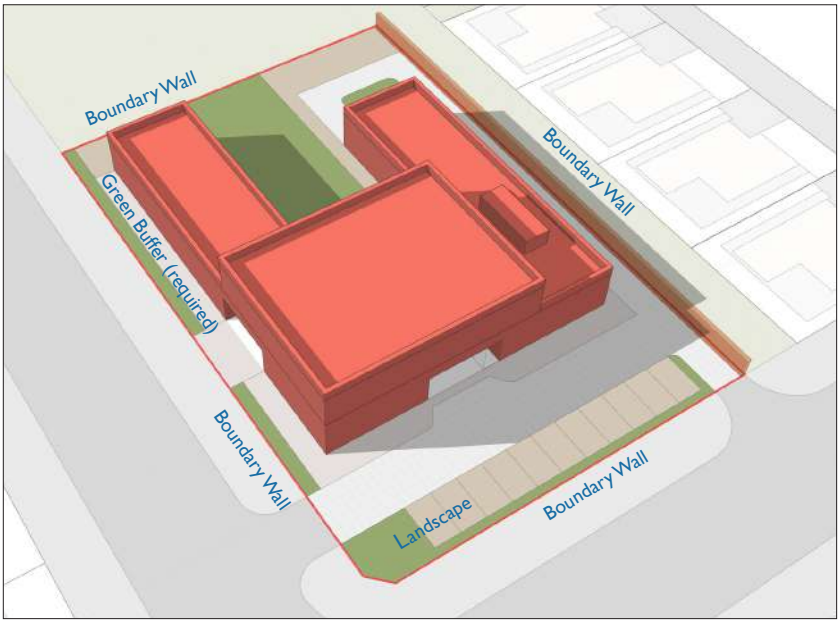
B Servicing encouraged at rear of parcel, maintaining 4m min. setback. Provision for on-site turning of service vehicles at GF level.

C Parking access, circulation and drop-off

E Pedestrian entrance separated from vehicular routing

F Provided trees as shade on parking bays and to improve streetscape

VISIBILITY, PRIVACY AND BOUNDARY WALL



Enhance visibility of the district. Delivery, storage and service areas to be screened from residential units.

As an important component of community hubs, retail plots provide strong visibility, character and image identity at the hubs and within the community. These components contribute to orienting pedestrians, promote community interaction and enhance character areas.

Rear party walls with residential uses must comply with a min. 3m height service areas and deliveries should be at the rear and must be screened from residential villas. All outside storage must be screened from parking spaces and pedestrians.

A Service access in/out

B Servicing encouraged at rear of parcel, maintaining 4m min. setback. Provision for on-site turning of service vehicles at GF level.

E Pedestrian entrance separated from vehicular routing

F Provided trees as shade on parking bays and to improve streetscape

REF: LMPD-RETPG- Sheet 4/4

LANDSCAPE AND SHADING

Parking to be shaded and screened from roads and residentail units.

Parking to be shaded and allowing for pedestrian cerculation and accessibility.

Parking to be screened from roads by planting, walls or fences subject to approval.

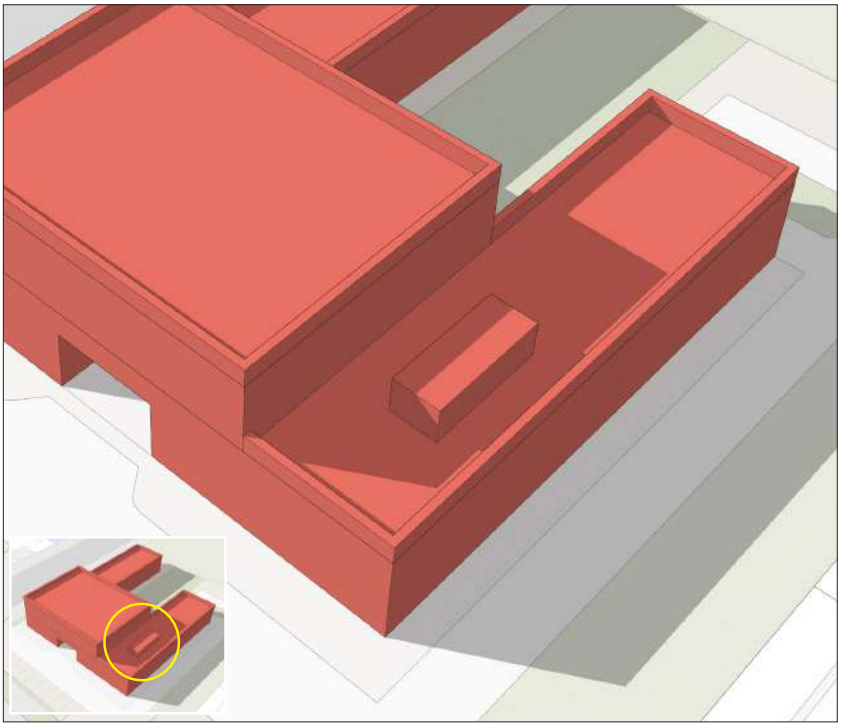
A 1.5m strip planting serves as screen from major road and provides shading

B Provided trees as shade on parking bays and to improve streetscape

C Trees are encouraged to provide shading in public interactive space which integrates with the neighbouring open space

D Pedestrian entrance separated from vehicular routing

ROOF AND PARAPET



The Roof shall incorporate creativity and justify overall architecture of the building.

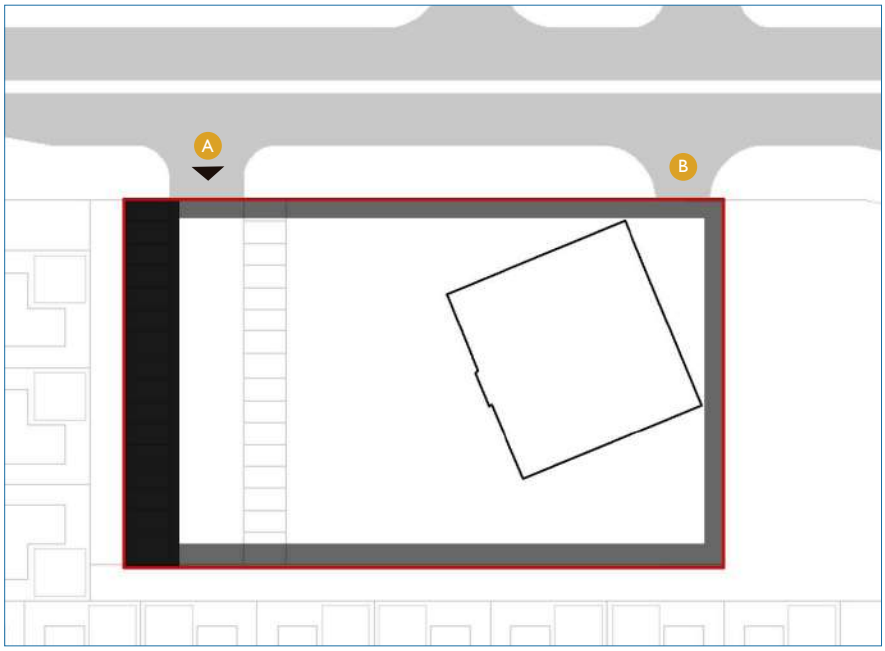
2.3.4 MASJID PLOT TYPOLOGY GUIDELINES AND CONTROLS

REF: LMPD-MTPG- Sheet 1/6

GENERAL PARAMETERS

This sheet defines the general principles and parameters to inform the mosque provider's approach to the mosque parcel's development. This information supplements the Building Regulation sheets. It clarifies a number of points and lists the various relevant mandatory requirements. The objective is to foster best design practice to result in a livable neighborhood. The guidelines and controls are an outcome of Lusail Planning Authority's detailed review of the approval process.
It is mandatory to receive the Private Engineering Office´s approval on all types of mosque elevations as well as elevations of mosques' ancillary buildings.

For additional regulations on the Mosque design please refer to the Private Engineering Office's requirements for the approval of mosques and government buildings' elevations.



The following conditions within Building Regulations Sheet for the Individual Retail Plots remain unchanged

EXISTING REGULATION SUMMARY:

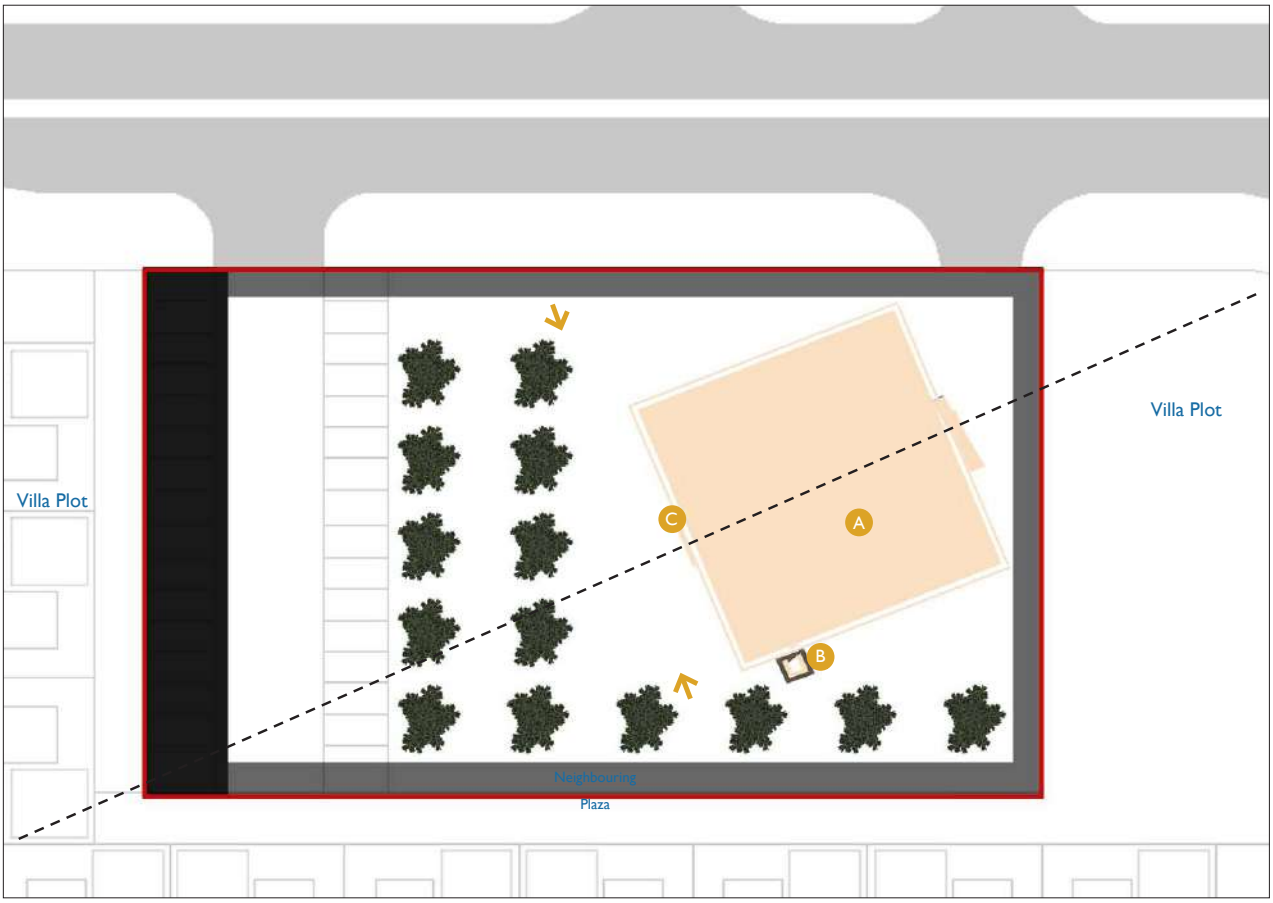
Permitted Land Use	Mosque
Plot Area	Refer to Plot Regulation Sheet
Maximum FAR	Refer to Plot Regulation Sheet
Maximum Plot Coverage	70%
Maximum Number of Floors	G+1
Maximum Height	15m Excluding Minaret
Maximum Number of Basement Floors	1
Min Setbacks Criteria	3m from road side
	7m from parking area side.
Minimum Car Parking Provision	1 space per 15 worshippers
Car Parking Location	Subject to LREDC Approval

To safeguard quality, the following regulations are amended to augment and add to the building regulations

ADDITIONAL REGULATIONS:

Boundary Wall	Not Permitted
Access	Separate access points to be provided for vehicular and pedestrian circulations.
Parking	Basement parking is recommended to allow for a better open space provision within the plot. On-site parking shall be properly screened.
Screening	All MEP equipment shall be properly screened with creative use of materials.

REF: LMPD-MTPG- Sheet 2/6



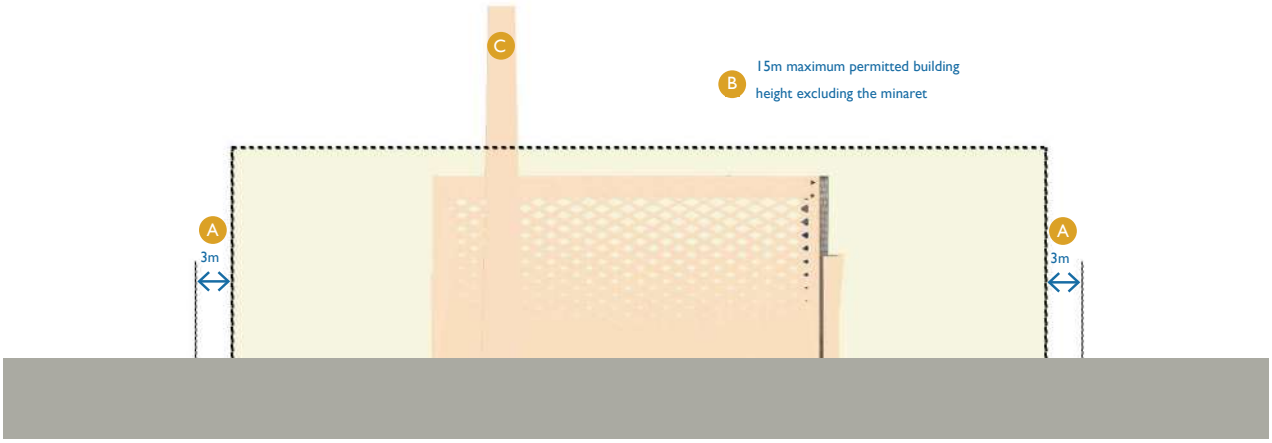
A Mosque main building
B Minaret
C Qibla
Visibility from surrounding road
Orientation Towards Mecca

Design example of traditional mosque with modern twist

Design example of traditional minaret with modern twist

MASJID PLOT TYPOLOGY GUIDELINES AND CONTROLS

REF: LMPD-MTPG- Sheet 3/6



Mosque-Elevation

A 3m setback from all sides

B Permitted building height limit

C Minaret

Mosque Building Envelope

A Building Envelope: The building envelope defines the boundaries of the permissible construction area within the mosque plot. In other words, construction can only take place within the red dashed box. As shown, the building envelope is dictated by the setback area and by the permitted maximum building height.

3m min. setback

7m min. setback

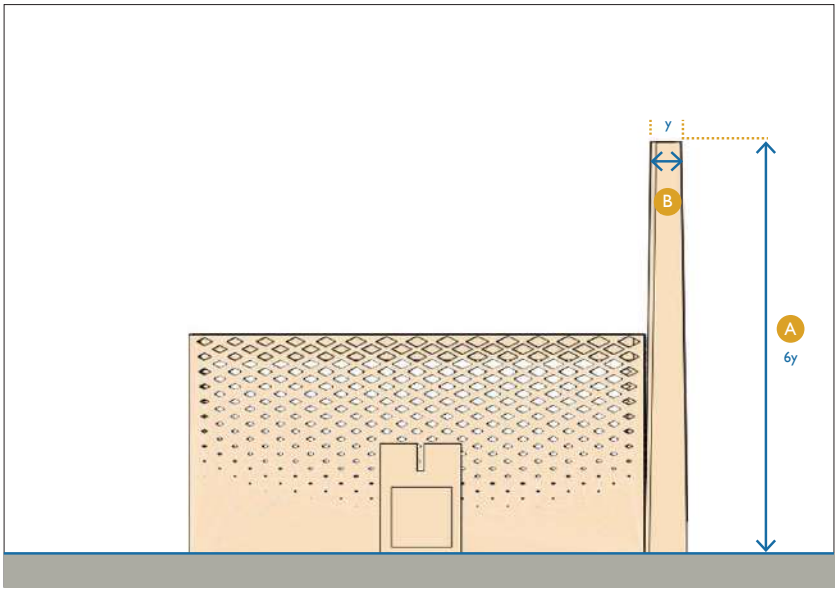
REF: LMPD-MTPG- Sheet 4/6

ORIENTATION

A Courtyard
B Arcade
C Qibla
D Minaret
E Landscaped entrance
3m min. setback
7m min. setback

- Mosques shall be centrally located and have a clear access to welcome users.
- All mosques shall orient the altar towards Mecca.
- Entrances shall be clear from the street and specially landscaped to highlight their importance.
- Landscape detailing should follow a more formalized plan reflecting its importance as a landmark and cultural facility.

MINARET



A Minaret height
B Minaret width

- The mosque shall have 1 minaret
- The minaret's height shall be proportionate to its base width. A 1:6 proportion is recommended.
- The minaret shall be attached to the mosque or free standing and shall be located on the right hand side, while facing qibla

MASJID PLOT TYPOLOGY GUIDELINES AND CONTROLS

REF: LMPD-MTPG- Sheet 5/6

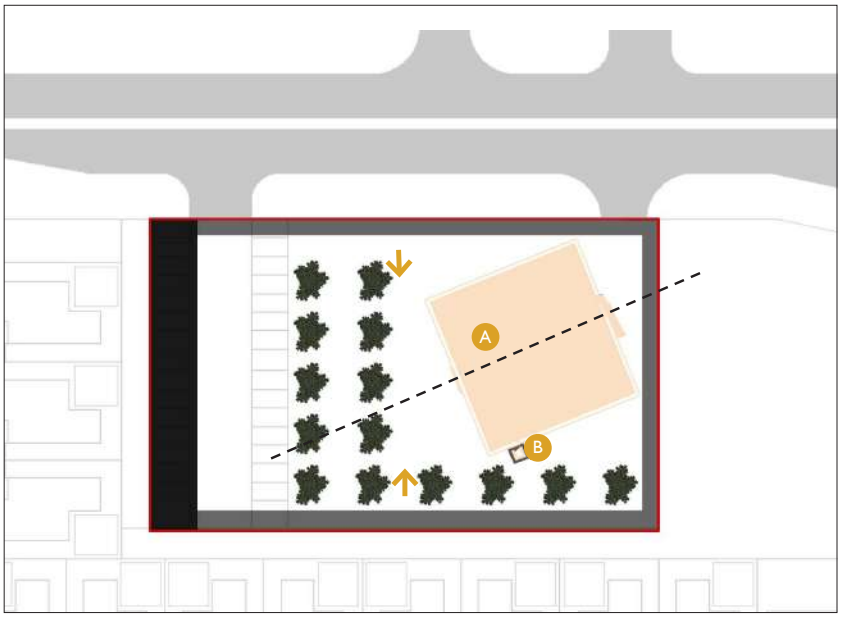
ACCESS, SERVICING AND PARKING

A Vehicular Access
B Pedestrian Access

Mosque Building Envelope
3m min. setback
7m min. setback

- To ensure worshippers safety, pedestrian access shall be completely separated from vehicular or service one.
- Pedestrian access shall be clear and well-defined.
- Surface and basement parking are both permitted.
- Basement parking is highly encouraged to allow for maximum provision of open space around the mosque and support its function as social node and gathering space.
- The vehicular access to the mosque plot shall be limited to accessing the designated parking area.

VISIBILITY



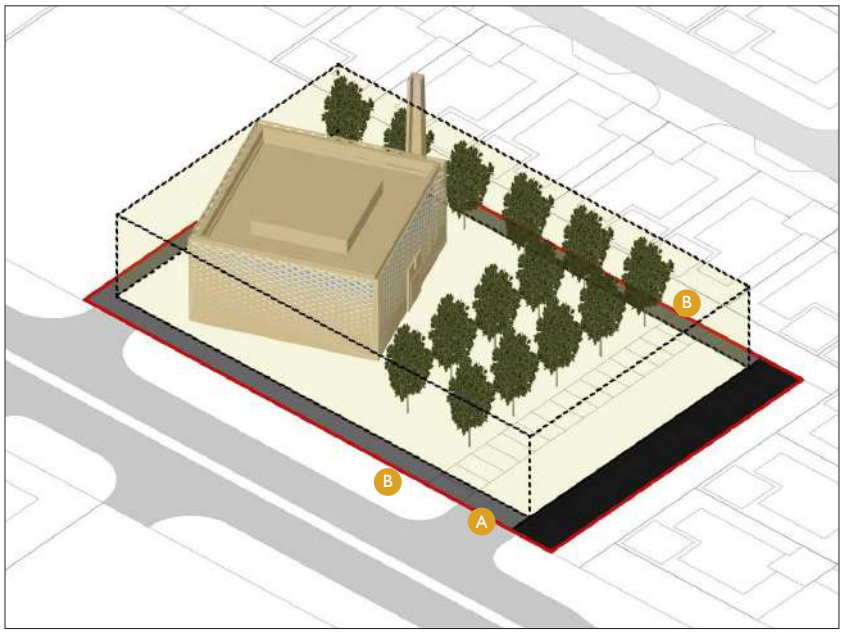
A Mosque main building
B Minaret

Orientation towards Mecca
Visibility from surrounding road

- Mosques shall be focal social points within the district.
- Mosques shall be visible and identified from a distance with appealing design and inviting landscape.
- Mosques shall be designed as landmarks featuring vernacular architecture with modern day twist.
- The minaret shall act as focal point emphasizing the mosque visibility and prominence within the district.

REF: LMPD-MTPG- Sheet 6/6

LANDSCAPE AND SHADING



A Vehicular Access

B Pedestrian Access

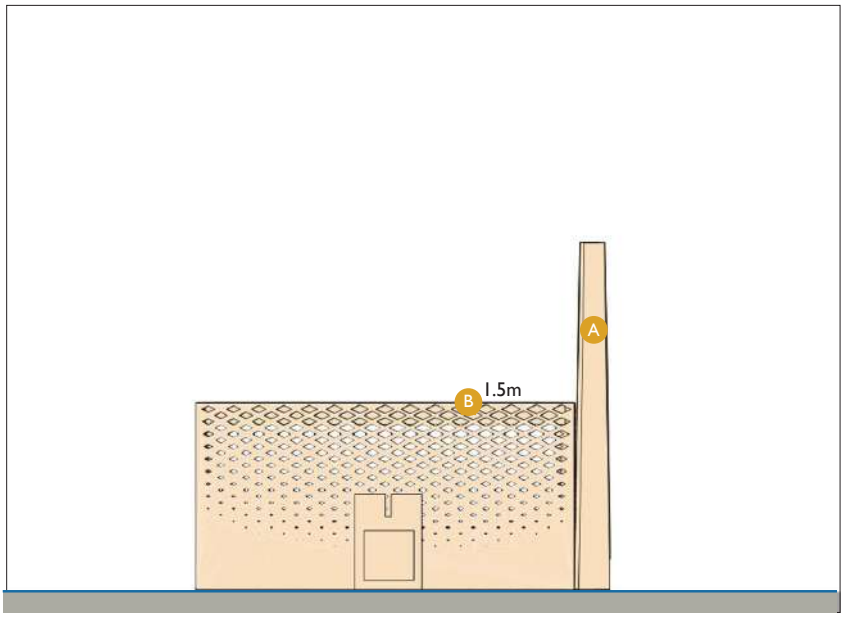
Mosque Building Envelope

3m min. setback

7m min. setback

- Entrance area shall feature high quality paving to highlight the main entry area and emphasize its importance.
- Shade trees shall be provided for all paved gathering areas to increase comfort and social interaction.
- Water features are encouraged to enrich the mosque landscaped area and add to its uniqueness as a landmark within the district.

ROOF AND PARAPET



A Minaret

B Parapet

- Articulation of the parapet shall be minimal featuring traditional Qatari architecture with modern flavor.
- The height of parapet shall not exceed 1.5m.
- The roof shall be creatively designed featuring classic design elements with modern treatment.
- Domes are not permitted.

2.4 ARCHITECTURAL GUIDELINES AND CONTROLS

2.4.1 RESIDENTIAL DESIGN GUIDELINES

ARCHITECTURAL STYLE

STYLE DESCRIPTION

This guideline sheet has been prepared to support the plot regulation sheet issued to each plot owner.

The guidelines are intended to promote good urban design and will be enforced by Lusail's Development Committee. Plot owners must demonstrate compliance with the guidelines to ensure rapid acceptance of their proposals and granting of the appropriate development permits.

STYLE ILLUSTRATION

TRADITIONAL DESIGN

CONTEMPORARY DESIGN






KEY ELEMENTS



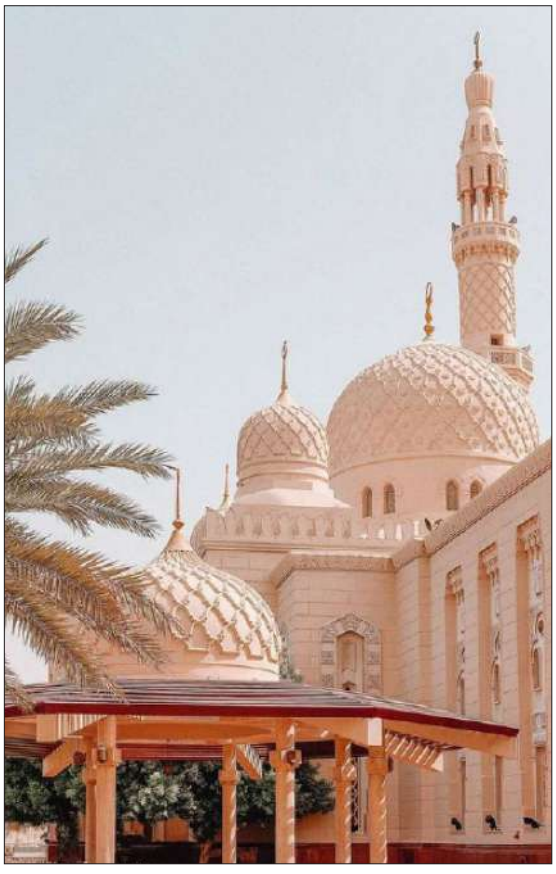
ARCHITECTURAL GUIDELINES AND CONTROLS

RESIDENTIAL DESIGN GUIDELINES, CONT.

FACADES

The proposed architecture style for the development should be traditional interpreted in a contemporary manner. Influences of these two architecture styles should be reflected in the details, proportions and materials of Villas, Retail Plot and Masjids.

POSITIVE INTERPRETATION



Futuristic designs that lack simplicity and do not go with the traditional and contemporary style is not recommended. Arabesque design with excessive ornamental elements are not recommended.

NEGATIVE INTERPRETATION






ARCHITECTURAL GUIDELINES AND CONTROLS

RESIDENTIAL DESIGN GUIDELINES, CONT.

FACADE TREATMENT

General Remarks

Building facades are a reflection of the building massing and should be articulated to provide visual interest, while also enhancing the spaces within.

The facade and its corresponding elements should respect the human scale and contribute to the character of the street.

The following design parameters should be considered when designing building facades:

- Continuous Facades are highly discouraged. The continuity of street front facades shall be interrupted every 20m as a maximum (either by recessing or projecting section of the mass, adding or subtracting to the mass) in order to create visual interest
- Main entrances shall be located within the primary facade and facing the main street for better visibility and accessibility
- Number, depth, dimensions and orientation of fenestrations should be considered while designing the facade
- Offset or change in the direction of wall planes, stepping back of upper stories can be done to create interesting facades
- All facades shall incorporate fenestrations like feature windows, bay windows, pergolas, screens, overhanging roofs, trellis etc.
- Highly articulated buildings may generate spaces that could be used as shaded balconies and environmental terraces.
- Horizontal and vertical architectural elements shall be used to create visual interest and articulate the building masses

Facade Ornamentation

In order to reflect the Qatari traditional architecture, ornamentations and architectural elements are recommended to be represented within the facade design. Examples on those would include but not limited to:

- Shading screens reflecting local patterns or a variation of those
- Add on decorative patterns and elements

Arabesque Features

Building facades can have arabesque decorative elements which may include:

Example of a contemporary variation on traditional architecture ornamentation

- Recessed geometrical patterns
- Shade panels and screens
- Wall and floor tiles
- Ornamental iron work

Building Illumination

The lighting of the building should be such that the architecture components typical to the structure are clearly recognizable and the architectural qualities of the building are highlighted to create ambiance and "sense of place."

The design parameters for the building illumination follow the Lusail Nightscape Lighting Strategy, which defines the Lighting Design Guidelines and Parameters for each plot according to the Ambient Mood of each street. The general design considerations are as follows:

- Lighting shall be subtle, so that only the effect of the lighting is visible along the facades and not the lights themselves
- Lighting fixture typology should be chosen so as to minimize the visibility of fixtures and cabling on the facades
- Lighting is encouraged to highlight the structural expressionism of the

Example of building illumination of a Contemporary Villa

MATERIALS AND COLOURS

architecture like massing, extrusions, cantilevers, balconies, setbacks, entries, and crowns of the building

- Lighting of facades in and around windows is not recommended to avoid light pollution for residents
- Site and building lighting should be located and directed to prevent glare, light pollution, stray glow etc.
- Facade lighting shall enhance the "human scale" to create a halo effect above the ground floor. Ground level illumination provides lighting in scale to the observer and highlights key elements
- The lighting shall draw the eye of the observer towards entrances and key elements in the facade
- Where colonnades exist along the ground floor, building lighting shall illuminate within the colonnade to focus views and create a clear, evenly spaced lighting effect to assist in navigation

MATERIALS

Selection of materials and colors will be in conjecture with the overall theme of the development. Plain walls without any decorative joints are encouraged.

Primary Materials

STONE

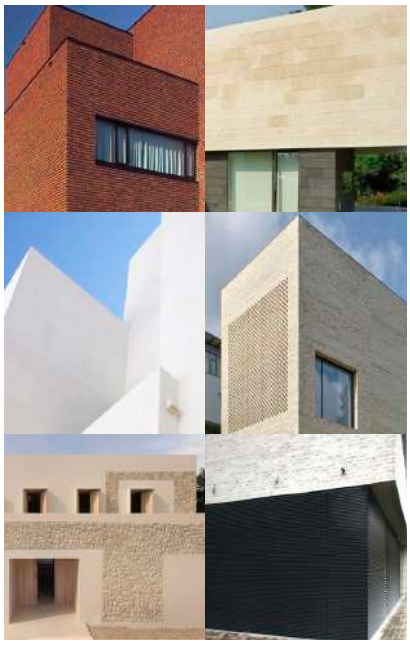
- Stone cladding shall be used as a primary material for the exterior surface finishes of the buildings
- Finishes like Bush hammered;
- Honed; Riven; Chiselled; Punched; or Polished are not permitted
- The following shall be applied to joint style:
  - > Horizontal joints shall only be visible
  - > Joint to be filled with material matching the color of the stone
  - > Joints shall run between 40cm as a minimum - 60cm as a maximum

Secondary Materials

- PLASTER

Plaster shall be used within the exterior surface to complement the design and enhance the architectural articulation

- Material change shall only be applied wherever there is a change or an interruption to the mass/surface to the main body of the façade.



Example of primary materials: Brick, sandstone, limestone, patterned, stonewall, louvered panel in garage

- Secondary materials that are consistent with the local architecture of Qatar are encouraged. Appropriate building materials can include:
  - > Concrete
  - > Timber
  - > Metal Sheet or cast material (non reflective) cladding
  - > Metal paneling, perforated screens

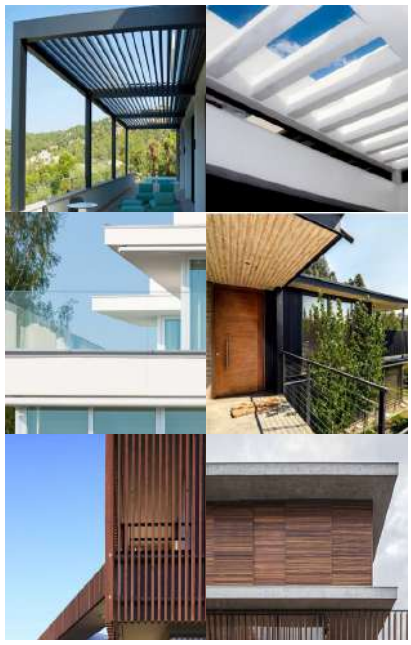
- PRECAST CONCRETE

Precast concrete shall have no exposed aggregate. This material is better suited for large applications. Intense textured surfaces are not appropriate.

- TIMBER

Painted or stained wood of various types/ species is permitted as aesthetic elements of a facade.

- Generating continuous facades are highly discouraged.
- Paint shall be applied on flat surfaces and roofs to reflect sun radiation and reduce heat penetrating into the building



Example of secondary materials: Metal, concrete, glass, and wooden slats, panels and louvers

COLORS

Earthy tones and similar natural colors are encouraged

- Shades and combinations of earth colors shall be used. Primary colors are prohibited.
- Glazing for doors and windows in shades of brown, grey or clear
- A combination of colors is encouraged in order to enrich the architectural character and create interest.
- Dark accent colours shall not exceed 10% of the facade area

ARCHITECTURAL GUIDELINES AND CONTROLS

RESIDENTIAL DESIGN GUIDELINES, CONT.

FENESTRATIONS

Solid to Void Ratio

- All facades shall incorporate fenestrations
- A maximum of 60% of all buildings facades shall be void.
- The monotony and continuity of street front facades shall be interrupted every 20m as a maximum (either by recessing or projecting section of the mass, adding or subtracting to the mass) in order to create visual interest and a pattern of shading and lighting that enriches the design.

Windows

PROPORTIONS

- Size, shape, location and orientation of the window opening shall be given special attention and consideration. The size of a window will control the amount of daylight a room receives. However, the size of an opening in a wall or of a plane can be determined by additional factors other than light, such as the material and construction of the wall or roof plane, requirements for visual privacy, ventilation and enclosure of the space, or the opening's effect on the building's exterior form and appearance.
- Where window openings are not permitted or restricted due to internal function or layout, architectural façade elements shall be used to achieve the desired visual appearance. These elements and design treatments include but not limited to the following:
  - > Window recessing which will allow for better shading
  - > Window screening

GENERAL CONDITIONS

- To ensure desired design character, all openings shall be of vertical proportion.
- Mirrored/reflected, colored or black glass shall not be permitted.
- Screening may be permitted in the case where window opening cannot meet the required measurements.
- Continuous glazed facades shall not be permitted. Proper shading shall be provided for large openings to achieve desired indoor thermal comfort.

WINDOW RECESSES AND PROJECTIONS

Recessing and projecting windows are permitted and encouraged to provide shading and emphasize depth. Recessing and projecting features shall be an integral element of the façade design and shall be in compliance with desired architectural style.

MATERIALS

Mirrored/reflected, colored or black glass shall not be permitted. Dark window frames are recommended to achieve contrast and define openings. White window frames are subject to Lusail approval.

Doors

- Main entrances shall be easily identifiable and form a transition between outside and inside areas. Entrance doors shall be emphasized by either recessing or projecting these below a canopy or by any creative architectural approach.
- Secondary entrance doors shall not subdue the main one.
- Public entrance shall be in compliance with the building design and character and well-proportioned to convey the right sense of human scale.
- Doors shall be vertically oriented. Window openings adjacent to doors shall not be higher than top door opening.

Example of villa fenestrations

Example of villa fenestrations

PROJECTIONS AND PRIVACY

Projections

BALCONIES

- In order to create an interesting building form, balconies are encouraged and highly recommended in particular for street facing facades. Balconies will help create exciting building shapes and will add an interesting depth to the building elevations.
- Balcony design shall be in compliance with building design, architectural style and character.
- Balconies shall be an integral element of the building design and its form and shall be designed to reflect the intended building design and architectural language.
- The use of different materials is encouraged in balcony design and at least one side on the balcony shall be open featuring balustrade or creative screening elements.
- Projecting balconies shall at least extend 1.5m at minimum measured from the main building façade wall.
- Enclosed balconies are not permitted including glass-enclosed ones.
- Supportive pillars or posts are prohibited as well.

BALUSTRADES

- To create exciting building treatment, material and color of balustrades shall contrast with those of the main building. To ensure durability and safety, the balustrade structure shall be metal while properly screened.
- Glass and timber balustrades are encouraged as far the material used is in contrast with the building's main facade.
- The height of the balustrade shall be 1.2 m at a minimum. The design of the balustrade shall feature a well-proportioned module to create desired visual rhythm.
- Screening elements, shading fixtures and pergolas shall be fully integrated with the building design, the balcony and the balustrade style.
- All fixing elements in glass balustrades such as clamps, bolts, channels, etc. shall not be permitted and only invisible or properly concealed fixtures are permitted.

EXTERNAL STAIRWAYS

The external stairways are yet another element of the building design and its architectural character that shall be fully integrated in the design and not treated as an afterthought.

Metal stairways with industrial appearance shall be avoided at all costs. Style and material of the external staircase shall be compatible to the main building design and finishing.

Shading and Privacy Structures

SHADING STRUCTURE

- In order to provide desired thermal comfort, shading structures are encouraged. Pergolas and any other shading fixtures shall be of durable material and fixed where possible. Permanent fixed shading structures shall be given preference over moved/rolled systems.
- Design of shading structures shall be compatible with the building design in size, material and architectural style.
- Overhangs may be used; however, they shall be of durable and high quality materials such as; timber, canvas or metal. Canvas material if used shall be supported by the wood or metal structures and shall be safely assembled.
- Proper shading shall be provided for large openings to achieve desired indoor thermal comfort such as shutters, screens and awnings.
- Solar shading is highly encouraged through the use of awnings, brows, projection and overhangs to allow for solar protection.
- To achieve appealing visual contrast, shading materials shall differ from that of the building while being smartly integrated into the building design and in harmony with architectural style.

SCREENING

- Screens shall feature modern design. The use of traditional mashrabiyya is encouraged however with a modern twist and interpretation. The use of geometric strong patterns and designs are highly encouraged to create pleasant shadow effects and interesting compositions.
- Screening elements shall provide privacy and concealment where needed and shall be in harmony with the overall building design. Using overlapping/multi layered panels is encouraged to enhance privacy, increase ventilation and allow light penetrability.
- Vertical screens are recommended and shall be designed as an integral part of the facade complimenting its style and vertical lines and shall not appear as isolated or alien fixtures.
- In order to achieve contrast and desired distinction, screens are preferred to have a dark color tone.
- Horizontal screens can only be permitted as independent structures or when used in pergolas but shall not be permitted if connecting with the building.

ARCADE SCREENING

Arcade screening (if applicable) shall be thoroughly incorporated as part of the arcade design to provide solar protection and enhance thermal comfort within the arcade space.

Example of villa screens

ARCHITECTURAL GUIDELINES AND CONTROLS

RESIDENTIAL DESIGN GUIDELINES, CONT.

FACADE TREATMENT

Arcades

Arcades are an essential element of the design of any building as they provide a transitional area between outdoor and indoor spaces. Arcades have different functions that include the following:

> Enhance building design and further define the architectural style
> Provide semi-sheltered space and protection from direct sun heat
> Act as screening façade e.g. when used for parking

To ensure architectural design harmony, arcades shall be integrally designed as part of the building and comply effortlessly with its style and character.

- Arcades are permitted at ground level only. Upper floor arcades shall not be permitted.
- Arcades shall only feature orthogonal openings. Scale and size of openings shall be proportionate and in compliance with the building's façade design.
- Arcades may feature screening elements to provide further shading and thermal comfort.
- Canopies and entrance portals may be added to the arcade structure to enhance entry experience and further emphasize entry point
- Arcades openings' scale and module shall be in compliance with the building design and character and well-proportioned to convey the right sense of human scale.

Roof Components

ROOF DESIGN

Articulation of roof planes is encouraged to soften building mass appearance and create an interesting skyline. The design of the roof shall be compatible with the building design and shall provide a proper ending to the building mass. The materials used shall be of a high quality, and homogeneous to enhance the building architectural style and character.

- Pergolas and parapets are permitted
- Pitched roofs, classical pediments and excessive cornice ornaments are not permitted.
- Parapets shall be mandatory to all flat roofs to provide safety and concealment of roof slab or any MEP equipment.

PERGOLAS

- In order to achieve contrast and desired distinction, pergolas are preferred to have a dark color tone and to be of high quality durable material.
- Pergolas shall be thoroughly incorporated as part of the building roof design to provide desired finish expression and articulation
- To create exciting roof finish treatment, material and color of pergolas shall contrast with those of the main building. Metal and timber pergolas are encouraged.

PARAPETS

- Parapets shall be mandatory for flat roofs and shall have a minimum height of 1.2m to ensure safety and conceal MEP equipment.
- The use of parapets is recommended on all roof types.
- Simple cornice details are permitted that are compatible with the building façade design and architectural style. Excessive decorative cornice designs clashing with the façade style shall be avoided.
- Material shall be of a high quality, durable and homogeneous to enhance the architectural style and the desired roof appearance design. Glass parapets are recommended to enhance visibility as long as they are compatible with the overall building design and achieve safety measures.

ROOF EQUIPMENT

- All MEP equipment shall be properly screened from public view. Parapets and screens are examples of proper screening methods.
- Some mechanical equipment such as air conditioning units shall be properly screened and shaded to avoid equipment overheating.
- All MEP equipment located on roof tops shall be placed within a minimum 2m setback from building wall and shall be entirely concealed.

Example of arcade - retail component

Example of pergola - residential component

Example of MEP equipment screening

MATERIALS AND COLOURS

Lighting Design

All plot owners must refer to requirements of their plot under Lusail Nightscape Strategy.

The following regulations provide general guidelines and shall be used in conjunction with the Lusail Nightscape Strategy:

- Building Illumination and Lighting Design within the plots shall follow the Lusail Nightscape Lighting Strategy, which defines the Lighting Design Guidelines and Parameters for each plot according to the Ambient Mood of each street.
- All Sub-Developers shall follow the parameters established for the designated Ambient Mood as per Lusail Nightscape Lighting Strategy.
- Lighting design shall consider the following:
  - > Eye-catching design to catch visitors interest.
  - > All main architectural elements shall be visible at night.
  - > Lighting effects shall be utilized to enhance architectural massing and volumes.
  - > Lighting design shall carefully consider façade breaks and building setbacks.

ROOF DESIGN

- > Lighting design shall be key element in the design of landmark building in the development (retail mosque).
- > Rooftop lighting shall be utilized to enhance rooftop architectural style and increase the building visibility.

ENTRANCES

- > Lighting shall be utilized to emphasize entry points and enhance their visibility.
- > Different illumination intensities shall be utilized to distinguish entry area from the overall building façade.
- > Lighting design shall be utilized to accentuate entrance architecture style and appeal to residents and visitors.

Example of villa lighting

Example of villa lighting

Example of masjid lighting

Example of masjid lighting

Example of retail lighting

ARCHITECTURAL GUIDELINES AND CONTROLS

2.4.2 RETAIL DESIGN GUIDELINES

RETAIL DESIGN GUIDELINE CONSIDERATIONS

Building Design in term of scale, architectural character, roof lines, and building mass shall be compatible with the following guidelines:

Innovative architectural design is encouraged to highlight the community hubs.

All sides of a building shall be consistent in architectural detail and style. All screening walls, canopies, sheltering structures, landscape elements and other outdoor sheltered spaces shall also express the same architectural character, detailing and material.

Ground floor shall be of an ample height so as to lend prominence to the floor at the pedestrian level.

The location and orientation of the buildings shall be in compliance with the established steetscape and built form of the area.

Building structures are encouraged to be located in close proximity to neighboring roads to help better define road edges.

Vehicular routes shall be easily identified and well-marked to allow for ease of mobility and circulation across the different areas on plot. On-site circulation shall aspire to avoid/minimize conflict with pedestrian activity.

Landscape buffers shall be used to avoid any potential negative impacts on surrounding with relation to noise.

Shade trees shall be provided within the landscape buffer so as to offer more convenient walking experience.

Pedestrian connections and walkways shall be enhanced to safely buffer vehicular traffic and circulation on plot.

Paved roads shall be provided within plot to allow for ease of mobility and access

REFERENCE IMAGES

(Image by others)

(Image by others)

RETAIL DESIGN GUIDELINE CONSIDERATIONS

Retail plots are special highly visible plots where creative architecture can be utilized to mark the core of the community.

Vibrant, coherent colourscheme shall be used. Building shall be emphasized through colours, materials and scale.

Details of all proposed colours and materials must be shown on the building plans and elevations with colour clips and samples
at the time the project is submitted to Lusail for Final Building Approval.

Non-reflective glazing shall be used. Highly reflective mirrored glazing is not permitted. Shading is to be achieved by providing awning. This is in order to provide a pedestrian friendly environment and a relatively convenient outdoor experience.

The percentage of glazing within the facade shall be a minimum of 70% at the ground floor level so as to maintain visual connection.

Incorporating strategies or items to reduce the visual and physical connection with the public realm such as posters, shelving and dark glazing shall not be allowed.

All materials used shall be climatically appropriate given the region's heat and humidity conditions.

The use of creative material combinations within buildings is highly encouraged to create design interest.

Exterior lighting fixtures including high intensity lighting shall be mounted so that light does not adversely affect adjoining sites and public spaces

Lighting for facades shall highlight the architectural qualities and key elements of the building.

RECOMMENDED MATERIALS

ARCHITECTURAL GUIDELINES AND CONTROLS

2.4.3 MASJID DESIGN GUIDELINES

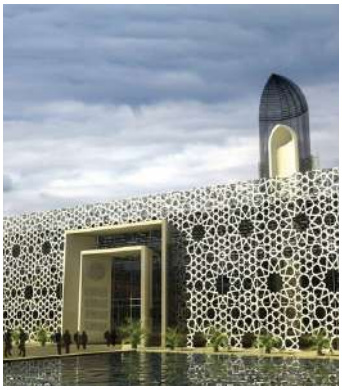
MOSQUE DESIGN GUIDELINES CONSIDERATIONS

Building Design in term of scale, architectural character, roof lines, and building mass shall be compatible with the following guidelines:

- All mosques shall orient the altar towards Mecca.
- Mosques are required to commit to Traditional Qatari heritage however featuring a modern twist and contemporary flavor.
- Mosques shall be designed by a qualified professional such as an architect or engineer in accordance with Qatar Building Codes.
- Building design shall be responsive to the natural local climate and culture.
- The materials used in the building shall be of high quality materials and homogenous to enhance the architectural style and the built environment.
- Details that create shade and cast shadows shall be used to provide visual relief to the mosque building.
- Mosque architectural style shall properly relate to microclimate conditions and sustainable design principles.
- The construction of green buildings is encouraged wherever possible to minimize the use of traditional energy consuming technologies and focus on alternative options such as courtyards, breezeways, shade structures and arcades.

REFERENCE IMAGES

(Image by others)



(Images by others)

(Image by others)

RECOMMENDED MATERIALS

- Primary colors are not permitted.
- The primary mosque building finish colour shall be subject to Lusail approval and shall be of earthy natural tone. Dark tone colours may be considered for emphasizing a particular geometric surface, e.g. a window, door, minaret or cornice, however the dark colour shall not exceed 20% of the total facades area.
- All blockwork shall be rendered using a high performance and maintenance-free render or render/paint system. The system shall fulfill the requirements for sealing the blocks while allowing them to breathe to attain equilibrium moisture content. Render systems that are flexible to allow for any minor movement in the structure and feature colouring incorporated into the render are encouraged. This eliminates the need for painting to provide an attractive, durable and maintenance-free finishing system. For painted finishes, the use of environment-friendly water-based paint is encouraged.
- Details of all proposed colours and materials must be shown on the mosque building plans and elevations with colour clips and samples at the time the project is submitted to Lusail for Final Building Approval.
- Non-reflective glazing shall be used. Highly reflective mirrored glazing is not permitted. Shading is to be achieved by recessing windows or providing mashrabia
- Windows may be tinted shades of gray, brown or green (medium or light tinting). Glazing samples or colour photographs must be submitted to Lusail for Final Building Approval
- The use of stone cladding is encouraged. Stone cladding may also be used to accent the entrance features of a building. The use of stone cladding for the full facade of a building is subject to design approval of the stone materials, size and finish.

Stone Cladding Example (Image by others)

Decorative Screen Example (Image by others)

Earthy Tone Colour Example (Image by others)

Mashrabiyya Example (Image by others)

2.5 BOUNDARY WALL TREATMENT GUIDELINES AND CONTROLS

GENERAL

RATIONALE

The Boundary Wall parameters are intended to provide an elevation guide that is adaptive to the design of each plot. These Guidelines and Control sheets support the existing Building Regulations and helps provide privacy, security, safety, visual amenity and a clear demarcation of Public vs Private lots. Boundary wall design and details are related to the plot location.

Three categories of boundary walls have been identified:

- **Entrance Wall**
Boundary wall at the Villa Entry

- **Park Wall**
Boundary Wall shared between residential plot and green open space/community space.

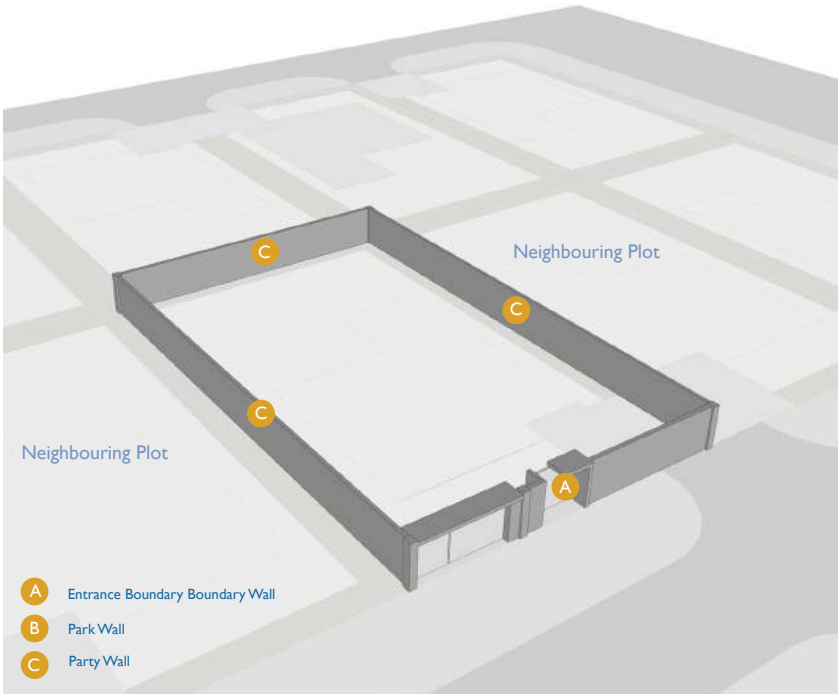
- **Party Wall**
Boundary Wall between 2, 3 or 4 residential plots

Privacy is a key parameter between adjacent plots, and plots adjoining open and public spaces.

KEY OBJECTIVES

- Boundary walls to have consistent architectural language throughout the development
- Total height of boundary wall not to exceed 3m
- Standardized design palette
- High quality and durable finishes

REFERENCE IMAGES



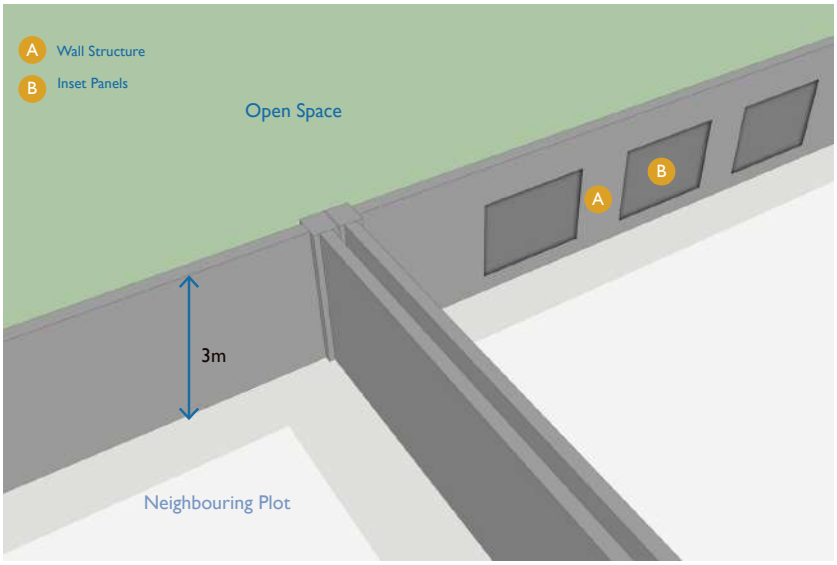
Types	Controls
Entrance Boundary Wall	• Maximum height not to exceed 3m for all entrance walls. Front boundary walls over 1m in height shall incorporate a traditional design or patterned theme across the entire frontage to remedy the visual impact of bulk and scale on the public realm • The front boundary wall to integrate entry gate, pedestrian access, vehicular access and have corner treatment to accomodate for electric and gas meter. • A landscape buffer of 1m inside the villa plot is recommended but not mandatory
Park Wall	• Maximum height not to exceed 3m for all entrance walls • Walls facing green open space to have porosity with 1m of solid wall and the rest as porous
Party Wall	- The party wall between the residential plots shall be maximum 3m high - Approved wall to sit within the defined plot boundary - A landscape buffer of 1m inside the plots is recommended but not mandatory

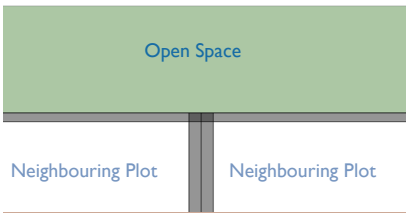
ENTRANCE BOUNDARY WALLS

Components	Guidelines	Mandatory Controls
Pedestrian Entrance	Elements and finishes to suit Villa design	• Design to reflect villa architecture style • Pedestrian gate to be aligned with main villa entrance and recessed by 1m • Gate to be maximum 3.5 m height and maximum 1.5m wide
Vehicular Access	• Elements and finishes to suit Villa design • Reserved area dedicated to Vehicular and Service entry only	• Design to reflect villa architecture style • Gate to maximum 3.5m high and 5.5 wide. • Vehicular gate to be recessed minimum 1.2m from front plot limit.
Refuse Alcove and Utility Panel	To be defined to give clear access to meters and bins	• Refuse alcove to be enclosed, ventilated and covered with construction material • Alcove dimensions to be minimum of 1.5m x 2.5m to accommodate bins • Flooring to be of appropriate material like epoxy/tiled surface with slope or drain to prevent egress of dirty water into the public realm • Must have gate or door for visual screening of bins. Door shall be accessible from outside within vehicular access recess and shall not face the street. • Utility meter location to co-ordinate with authority metering and equipments installation standards
Wall Structure	Modular system to match the villa architecture style	• Boundary wall to be minimum 2.5m and maximum 3m high

BOUNDARY WALL TREATMENT GUIDELINES AND CONTROLS

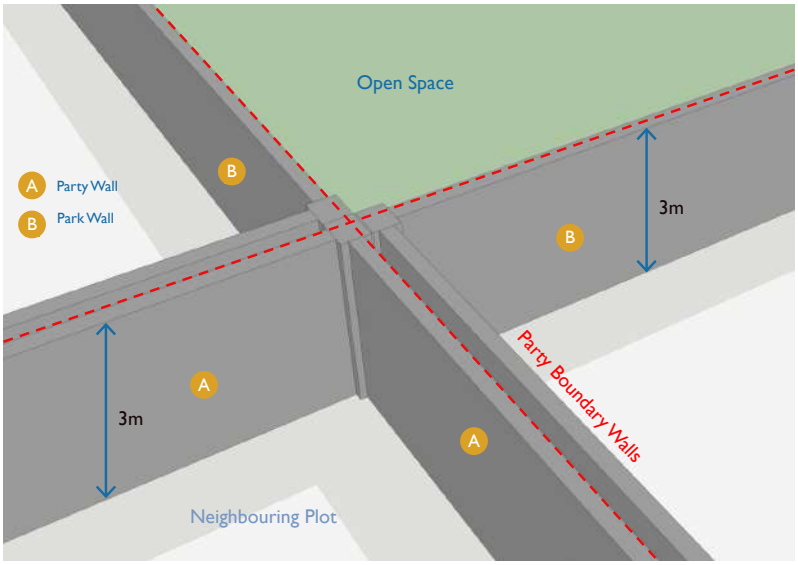
PARK BOUNDARY WALLS

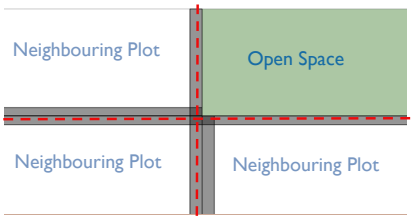




Components	Guidelines	Mandatory Controls
Wall Structure	Modular system to match the villa architecture style	• Boundary wall to be maximum of 3m high • A boundary wall with 1m solid and rest as porous is recommended but not mandatory • A landscape buffer of 1m inside the plot is recommended but not mandatory

PARTY BOUNDARY WALLS





Components	Guidelines	Mandatory Controls
Wall Structure	Modular system to match the villa architecture style	• Design to reflect villa architecture style • Boundary wall to be maximum of 3m high • Each plot owner to construct 1 party wall aligned to the plot line • Walls to fall withing the plot boundary including footings/ foundations • A landscape buffer of 1m inside the plot is recommended but not mandatory • Boundary between plots to be defined by two parallel and adjacent walls

2.6 SIGNAGE AND WAYFINDING GUIDELINES AND CONTROLS

Residential: Signages used in this zone should not overpower the building facade design.
High quality materials, together with conservative designs will give a more calm feel and approach to this zone.
Community Hub: This plot incorporates a mosque and retail facilities, signage should be carefully articulated to work towards the clear understanding of the facade and its tenants.

Signages are divided into 3 broader categories; high level, mid level and low level signages depending on its position on a building. In the case of Huzoom Lusail Development, only low level signage is applicable.

Low Level Building Signage

Low level signs assist with identification of the building at ground level and are helpful for visitors arriving on foot or by car. They are indispensable to the brand expression and identity of individual shopfronts.

> Each shopfront will have a single projected wall sign for each elevation. And when included in an arcade setting, a secondary sign is to be attached to the arcade screen.
> Residential, Religious and Civic buildings will be allowed to have a single sign, on the main elevation. This sign should be cut out letters, no fascias are allowed except as a part of logo or brand.
> Individual letters mounted directly to the wall of the building (or the screens in case of arcades) are the preferred method of low level signing.
> No third party advertising is permissible.

LOW LEVEL SIGN TYPES

Low level signage can assume a number of different solutions that are detailed further in this section. Architects/ Developer should follow all the guidelines stated below unless stated otherwise.

Wall / Screen Mounted Signage

Wall signs shall be placed within a clear signable area. Signable areas are defined as an architecturally continuous wall surface uninterrupted by doors, windows or architectural detail.

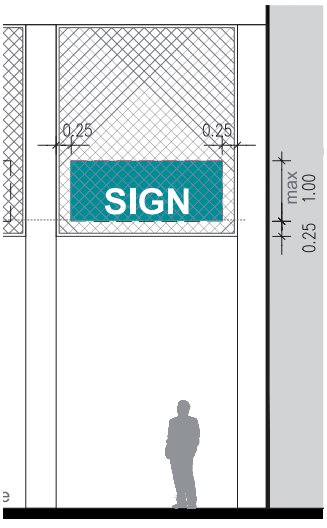
Location and Dimension

> Wall signs are mounted flush and parallel to the building wall. They are fixed securely, projecting no more than 0.3m from the face of the wall, with a minimum of 0.30m text size and a maximum of 1.0m not extending sideways beyond the building face or above the highest line of the building to which it is attached.
> On residential, religious or civic buildings a single wall sign is allowed, that is coordinated in balance with the designated IDB entry sign location with minimum gap of 0.25m. It is located on the main elevation, on the top or side of the main entrance to the building, with a maximum height of 1m to a maximum area of 3sqm.
> For each shopfront a single wall sign (per elevation) is allowed, located 0.25m over the shopfront, centred, with a maximum text height 1m and minimum 0.3m.
> Retail or mixed use plots having arcades could have a sign per screen, with a minimum gap of 0.25m from the bottom and sides, and designed to a minimum text height of 0.30m and maximum height of 1.0m. The bottom gap for all the signs should be kept same and text should be aligned with adjacent signs on the screens of the building

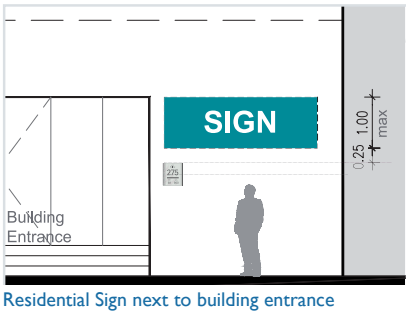
Creative lettering solutions are encouraged

Fascias are accepted as part of logo and brand

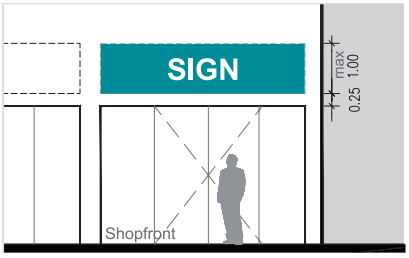
Extruded lettering improves legibility and visibility



Shopfront Sign location and dimensions



Residential Sign next to building entrance



Shopfront Sign location and dimensions

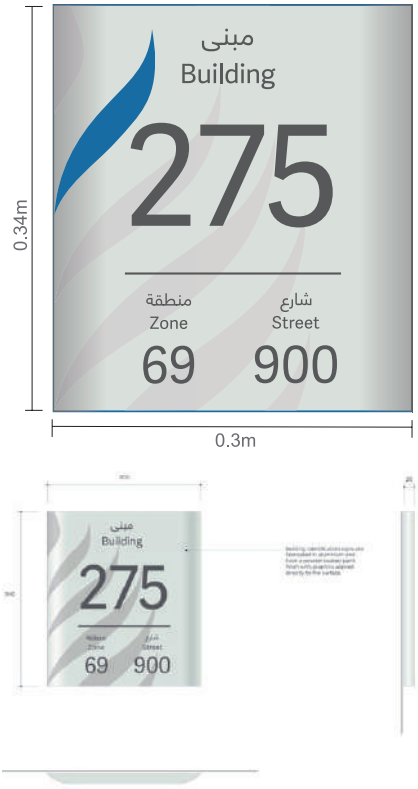
2 IDB and IDBN (Building Identification Signage)

Building Identification Plate (IDB) and Numbers (IDBN) are positioned on all buildings. The key information on the plates is identical to that included on standard national addressing system plates QARS (Qatar Area Referencing System) being implemented across Qatar.

Location and Dimension

> Identification plates - should be more legible than the standard QARS plates to clearly identify the building number from up to 26 meters away.
> Identification number - A large building number should be mounted at the main entrance to all buildings. This is sized to be visible from up to 100m away. Positioning rules are shown here briefly, however for further details please refer to the latest signage drawings and specification from LREDC.
> IDB signage location should relate to the other wall mounted signages on the entrance of any building. The wall mounted signages should be placed at a minimum distance of 0.25m from the IDB signages. They can be placed above, below or adjacent to the IDB signages.
> Consistent positioning of the building identification plate and number is paramount.

The IDB signage design has been developed and detailed in line with the rest of the wayfinding system by LREDC. Each Architect / Developer should abide to the colour, material, size and other design specifications. Refer to the latest signage specifications from LREDC for further details.

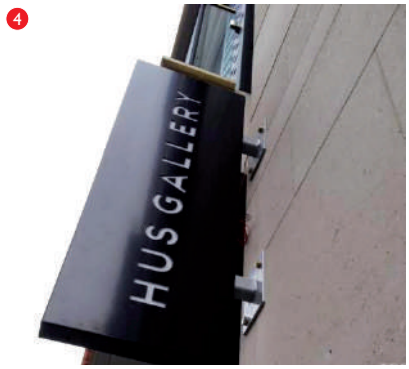


Signage	No.	Type	Definition
LOW LEVEL SIGNAGE	1	Wall Mounted Signage	Wall signs are mounted flush and parallel to the building wall. It is fixed securely projecting not more than 30cm from the face of the wall. It is located on ground floor level of a building, easily seen by pedestrian and cars and not extending sideways beyond the building face.
	2	IDB (Building Identification Signage)	Building identification signs are positioned on all buildings on the ground floor level. The key information on these plates is identical to that included on standard national addressing system plates (QARS) There are two sign types IDB and IDBN referring to Building Identification Plate and Number respectively, both installed near building entrances.
	3	Awning and Canopy Signage	These signs are printed / painted or attached to an awning or canopy above a business door or window. They generally serve to bring shade and highlight the entrances of shopping and business environment and are oriented toward pedestrians.
	4	Projecting Signage	Projecting signs are affixed to the face of a building or structure and projects out perpendicular from the wall surface to which it is mounted. Projecting signs should not be mounted above the first floor window-sill in multi- storied buildings and could be mounted in the arcade zone wherever applicable.
	5	Hanging Signage	Hanging signs are suspended below a marquee, arcade or under a canopy and are generally smaller than projecting signs due to their lower mounting height. Hanging signs shall be used only at ground floor locations except for upper floor businesses with covered entry porches and balconies.
	6	Free Standing Monument	Free standing signs or monument signs refer to ground level signs located to compensate for buildings less visible to the viewer from the main access area.
	7	Boundary Wall Signage	Boundary wall signage will be mainly used for plots with more private uses like school, hospital, police station etc to provide privacy and plot demarcation. Signage will be incorporated to ensure visibility from public spaces.

SIGNAGE AND WAYFINDING GUIDELINES AND CONTROLS

Sign integrated into canopy

Solid color awning with contrasting logo



Projected vertical sign expands brand visibility

Different sign forms are accepted as long as they respect the permitted area

3 Awning and Canopy Signs

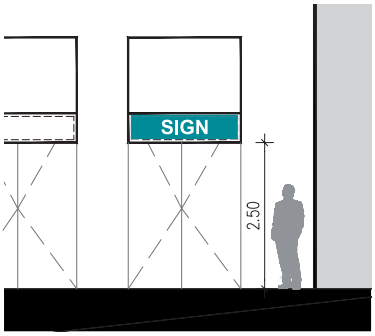
Awning and canopy signs are printed, painted on, or attached to an awning or canopy above a business door or window. They generally serve to bring shade and highlight the entrance of a shopping or business environment. It also brings vibrancy to a shopping area and are oriented toward pedestrians.

Location and Dimension

> Awnings and canopies must be permanently attached to a building.
> Signage text and/or logo shall compromise not more than 30% of the total exterior surface of an awning or canopy with maximum text height of 0.5m and minimum of 0.3m to ensure legibility.
> There should be a minimum clearance height of 2.5m from ground level sidewalk to the lowest point of the awning.
> Open-ended awnings are preferred.
> Awnings and canopies shall be mounted on the horizontal framing element separating the storefront window from the transom (a crosspiece separating a doorway from a window). Awnings shall be designed to project over individual window and door openings and not project as a single continuous feature extending over masonry piers or arches.
> Awnings shall be mounted on the wood or metal framing within a door or window opening, not on the wall surrounding the opening.
> Awning with back-lit graphics or other kinds of interior illuminations are not permitted. Matte finish canvas, glass or metal are appropriate materials for awning or canopies.
> Lettering should be placed on the valance portion of the awning.
> Awnings with a solid colour are preferred. Striped awnings may be appropriate for some buildings without ornamental facades. Striped awnings with highly contrasting, bright colours may be visually jarring and inappropriate.

4 Projecting Signs

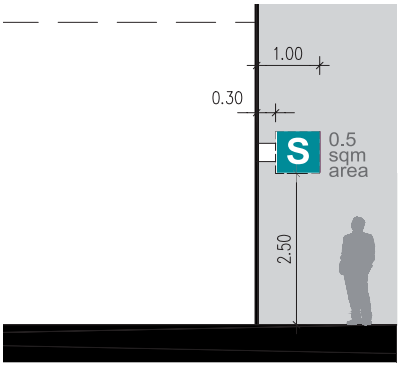
Projecting signs are affixed to the face of a building or structure and project in a perpendicular manner out from the wall surface to which it is mounted.



Awning sign location and dimensions

Location and Dimension

> The design of the sign should consider visually interesting elements such as square or rectangular shapes with painted or applied letters, two or three dimensional symbols or icons, irregular outlines, and / or internal cut-outs.
> Projecting signs shall be small in scale and provide a vertical clearance of 2.5m along pedestrian areas.
> Projecting signs shall be oriented to pedestrians passing on the sidewalk in front of the buildings or pedestrians on the far side of the street rather than to automobiles. This can be achieved by providing a minimum clearance of 0.30m between the building face and maintaining a maximum projection of 0.10m.
> Projecting signs should fit within an imaginary rectangle with a maximum area of 0.5sqm. The maximum text height to be used for primary signage should be 0.50m and minimum text height to be used is 0.30m to ensure visibility.
> Mounting hardware should be an attractive and an integral part of the signage design. Simple round pipe brackets with plugged ends or added decorative elements are generally appropriate for signs.



Logo design integrated into facade metric

Preference for basic background and contrasting colours for increased elgibility

5 Hanging Signs

Hanging signs are suspended below a marquee or under a canopy and are generally smaller than projecting signs due to their lower mounting height.

Location and Dimensions

> Hanging signs shall be used only at ground floor locations.
> Hanging signs shall be treated similar to projecting signs. These signs, excluding supporting rods, chains or similar hangers, shall fit within an imaginary rectangle with a maximum area of 0.5 square meters with a minimum text/ letter height of 0.30m to ensure visibility.
> Hanging signs shall be oriented towards the pedestrian and impart a sense of creativity in their design.

Hanging sign at entry

Hanging signs on arcades

Hanging entry sign

SIGNAGE AND WAYFINDING GUIDELINES AND CONTROLS

Face Illumination

Halo Illumination

Flood Lighting

Light Boxes

Sign Illumination

> Illumination should not interfere or distract from the message conveyed by the sign and should strive to avoid excessive light pollution.
> For optimum efficiency, LED technology or equivalent should be used on all signage illumination.
> Lighting for signs shall not create a hazardous glare for pedestrians or vehicles either in a public street or on any private premises.
> Lighting for all exterior signs, whether lettering is internally back-lit or light is cast onto the face of the sign, shall comply with the lighting standards established on the Lusail Nightscape Strategy.
> Lighting colour shall preferably be white. Buildings should have lighting implemented in one consistent colour throughout all signage instances.
> Different colour selections will be considered and reviewed by LREDC.

Face Illumination

> Face illumination is one of the most common methods for lighting signs and is the preferred solution for wall mounted letters. No interior light source shall be visible to the exterior.
> On all internally illuminated freestanding, wall mounted and projecting signs, light shall be transmitted only through the material that comprise the letters located within the display area.
> No sign shall contain copy which consists of illuminated bulbs or individual lights or light sources.

Halo Illumination

> Back-lit, halo-lit illumination, or reverse channel letters with halo illumination are highly encouraged for lighting purposes. Such signs convey a subtle and attractive appearance and are very legible under moderate ambient lighting conditions.
> Halo illumination allows the sign letter to be opaque while lighting the sign from the interior, making this the preferred solution for cut out letters.
> No interior light source shall be visible to the exterior.
> Hallo illumination should not be used where the backing material is of reflective nature to avoid excessive glare.

Flood-lit Signs

> Flood lighting of an area of a building which carries a brand identity is permitted and encouraged whenever it brings added value to the building facade and design.
> The source of the flood-lit signs must be concealed from view as much as possible and should be focused directly at the sign it is intended to illuminate.
> Flood-lighting should preferably be directed downwards on low level locations, and when close to pedestrian areas, be controlled to result in a gentle wash of light.

Light Boxes

> Internally illuminated light boxes are only permitted when the light box shape is either the whole, or an integral part of the brand identity which the sign represents.
> Internally illuminated light boxes that are not an integral part of the brand identity are not permitted.
> Light boxes cannot exceed a maximum of 0.5m projection from the main facade.

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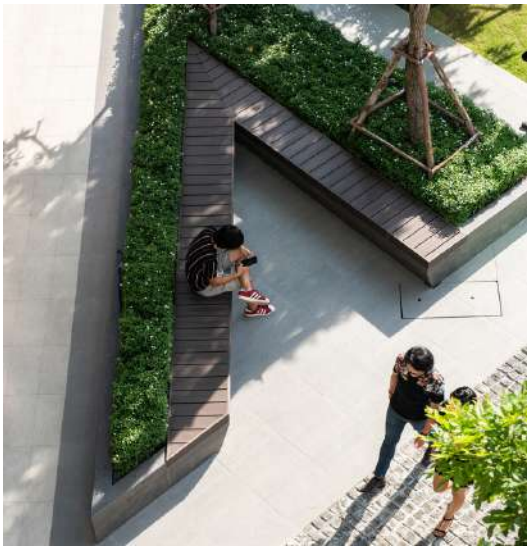
2.7 LANDSCAPE GUIDELINES AND CONTROLS

2.7.1 PUBLIC REALM

COMMUNITY PARK
MOSQUE AND RETAIL

The location of the community mosque and retail is the focus of this neighborhood and a passive recreational program responds with the creation of reflective gathering and meeting spaces. Seating and gathering spaces vary in scale creating intimate neighborhood spaces and larger community gathering spaces adjacent to the mosque and retail plot.



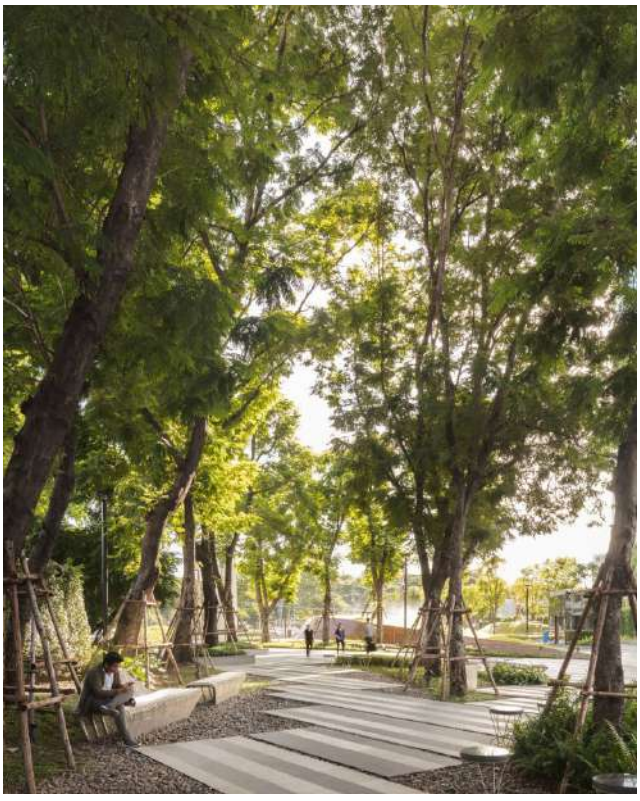
PROGRAMME	COMMUNITY PARK - MOSQUE AND RETAIL
FUNCTION	Community Park next to mosque and retail plot is function to accommodate active and passive uses and community events. These parks provide essential park amenities for residents and visitors which features seating and gathering spaces that varying in scale, creating intimate neighborhood spaces and larger community gathering spaces adjacent to the nearby plots.
ACTIVITY AND FACILITIES	• **Focal point of the park is a central gathering area.** • **Picnic, seating and meeting areas.** • **Areas for rest and respite.** • **Active recreation serve as play areas and informal sports field activities** • **Privacy buffer.**

PROGRAMME	COMMUNITY PARK - MOSQUE AND RETAIL
DESIGN GUIDELINES	Community Park design are to comply with Metropolitan Qatar area theme Fereej / Low Density Residential by QPR-ACM-X-S5-GN-RPT-0002[B]_VOLUME II. **1. GENERAL PRINCIPLE** • **Priority must be given to provide a clear pedestrian corridor, unobstructed by parking, vehicular access or utilities.** **2. PEDESTRIAN STRATEGY** • **A minimum width of 1.8m must be provided, free of physical obstructions such as street trees, street furniture utility boxes, pipework and man-hole covers which are not leveled with the prevailing foot way level.** • **Continuous pedestrian footpath must be provided across dedicated drop-offs and in front of active ground floor uses such parking forecourt and residential blocks.** • **Continuous pedestrian footpath must be provided across service entrances dedicated for goods deliveries.** • **Pedestrian crossings should be provided to facilitate convenient connections between public transport nodes (bus stops and taxi drop-offs), local destinations and buildings.** **3. PLANTING GUIDELINES** • **Tree planting opportunities must be optimized to provide shade along key desire lines, routes to key destinations and at pedestrian crossing points.** • **Passive and comfortable public realm - informal meeting places with trees, canopies, and benches should be integrated in ROW 32m or below to create a community-oriented public realm.** • **Along predominantly east-west oriented streets, more trees should be positioned on the northern edge to offer shade along pedestrian footway.** • **Clustering of street trees around street furniture should be provided at regular intervals along pedestrian zones to offer shade and increase comfort.** **4. HARDSCAPE GUIDELINES** • **The character of hardscape should be adapted to the character of Metropolitan Qatar Landscape Zone and Fereej (Low Density Residential) theme.** • **Unifying palette ranges from neutral tones (silver, grey, and cream) to more vibrant tones (buff and red brown).** • **Productive public realm - desert aggregate or porous paving should be used for parking areas so that natural vegetation can take hold; creating a greener environment in the longer term as well as acting as rainwater attenuation and filter.** **5. SHADING GUDELINES** • **Shade areas to be provided at regular intervals (trees / canopy / shelter).** • **Kiosks / canopy to be located in alignment with tree corridor to ensure clear footway.** • **Some shaded areas of cycle parking should be provided adjacent to refuge areas.**

LANDSCAPE GUIDELINES AND CONTROLS

COMMUNITY PARK
MOSQUE AND RETAIL

PROGRAMME	COMMUNITY PARK - MOSQUE AND RETAIL
DESIGN GUIDELINES; CONT'	**6. FURNITURE GUIDELINES** • **The total seating area requirements SHALL be calculated based on:** > 1 seating area per 40 linear metres of primary pathway > 1 seating area per 80 linear metres of secondary pathway • **The total picnic table requirements SHOULD be calculated based on:** > 1 picnic table per 80 linear meteres of secondary pathway • **The character of furniture should be adapted to the character of Metropolitan Qatar Landscape Zone and Fereej (Low Density Residential) theme.**
HARD LANDSCAPE	**Paving** **Primary Path - 35%** Pre cast concrete pavers Mix - Light Grey, Grey and Dark Grey **Secondary Path - 15%** Pre cast concrete pavers Mix - Light Grey and Grey **Cycle Lane - 10%** Coloured Asphalt Green **Plaza Spaces / Resting Points - 25%** Natural Stone Pavers Mix - Grey, Beiges and Earth Tones **Play Areas - 15%** Rubber surface Colours to be confirmed. **Mulch** • **Majority of garden beds, mulch is to be used within the planted zones and shall follow approved color palette.** **Furniture, Lighting and Signage** • **Furniture: Bins, bespoke seating, benches, bollards, shade structures, cycle racks, public restroom facilities and kiosks** • **Landscape Lighting: Bollard light, uplight, linear light pole light as per lighting strategy.** • **Signage and Wayfinding: As per signage and wayfinding strategy.** **Play Equipment** • **A combination of play equipment that is accessible and caters to all age groups (2- 5 and 5 to 12 years) that meet the required safety standards.** • **Outdoor exercise station shall be provided for activate active recreation.**
SOFT LANDSCAPE	The percentage breakdown of landscape elements shall be as follows: • **Palms - 5%** • **Trees - 20%** • **Shrubs - 10%** • **Groundcovers - 40%** • **Grasses - 25%** Plant species shall be as per QPR-ACM-X-S5-GN-RPT-0002[B]_VOLUME III plant species list.



LANDSCAPE GUIDELINES AND CONTROLS

COMMUNITY PARK
MOSQUE AND RETAIL

HARDSCAPE PALETTE

PRIMARY PATH


Precast Concrete


Precast Concrete


Precast Concrete

SECONDARY PATH


Precast Concrete


Precast Concrete

CYCLE PATH


Coloured Asphalt

PLAZA / RESTING POINTS


Granite


Limestone


Sandstone

PLAY AREAS


Rubber Surface

MISCELLANEOUS


Pebbles


Gravel


Mulch


Boulders

SOFTSCAPE PALETTE

PALMS


Phoenix dactylifera

TREES


Azadirachta indica


Brachychiton acerifolius


Bucida buceras

SHRUBS


Atriplex halimus


Cloerodendron inerme


Leucophyllum frutescens


Vitex agnus castus

GROUNDCOVERS


Aptenia cordifolia


Atriplex semibaccata


Jasminum officinalis


Tradescantia pallida

SUCCULENTS


Agave americana


Agave Attenuata

GRASSES

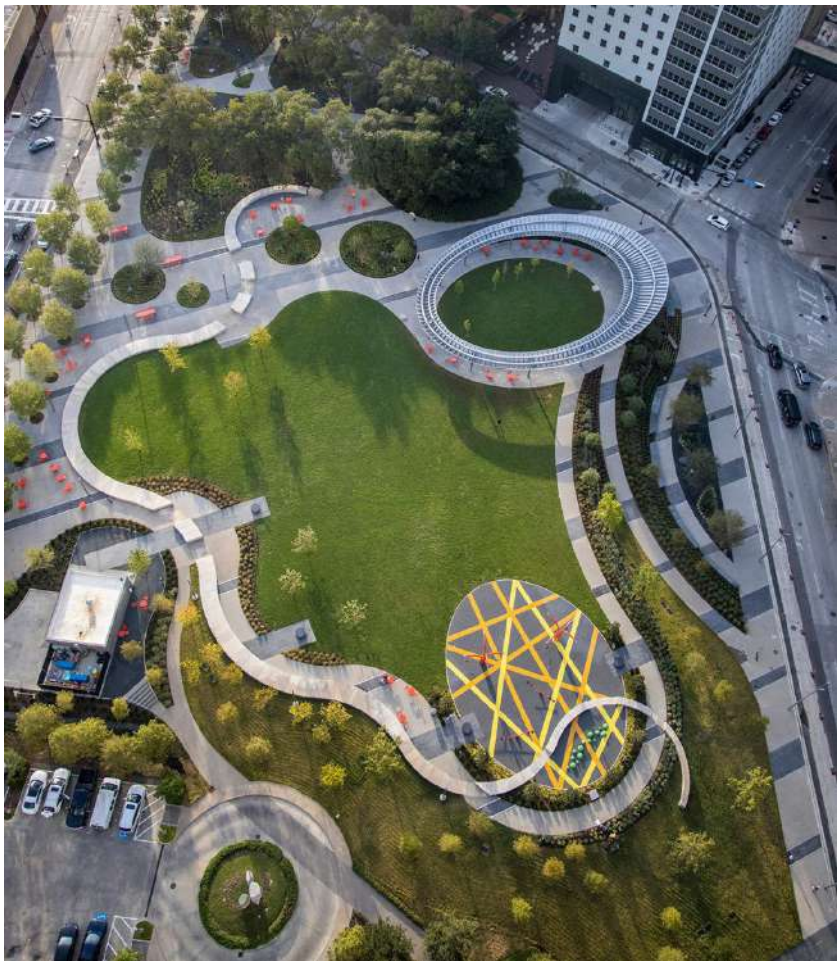

Pennisetum Setaceum

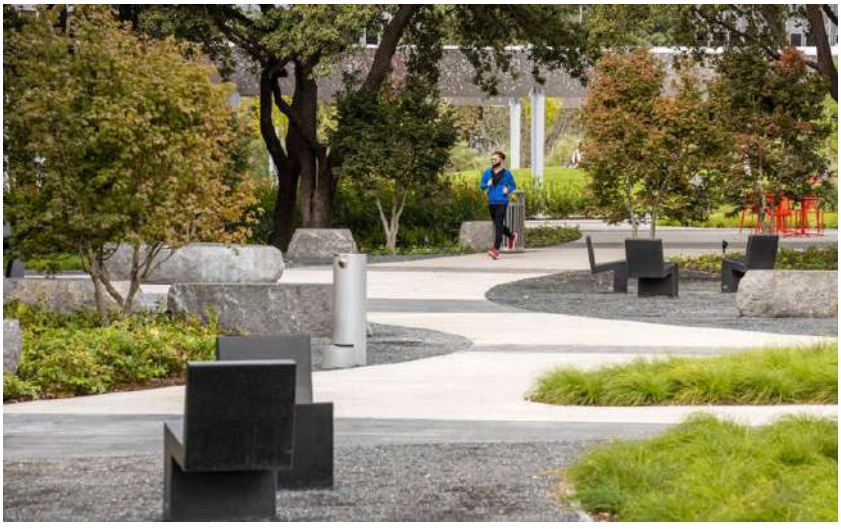

Pennisetum Setaceum Rubra

LANDSCAPE GUIDELINES AND CONTROLS

COMMUNITY PARK

The community park are designed to provide gathering spaces and playgrounds. The purpose of community park is to encourage social interaction and foster social activities. Landscape elements such as site furniture is formalised along primary routes with informal clusters of shade structures, picnic tables and chairs, and barbecue areas situated between circulation and activity areas.





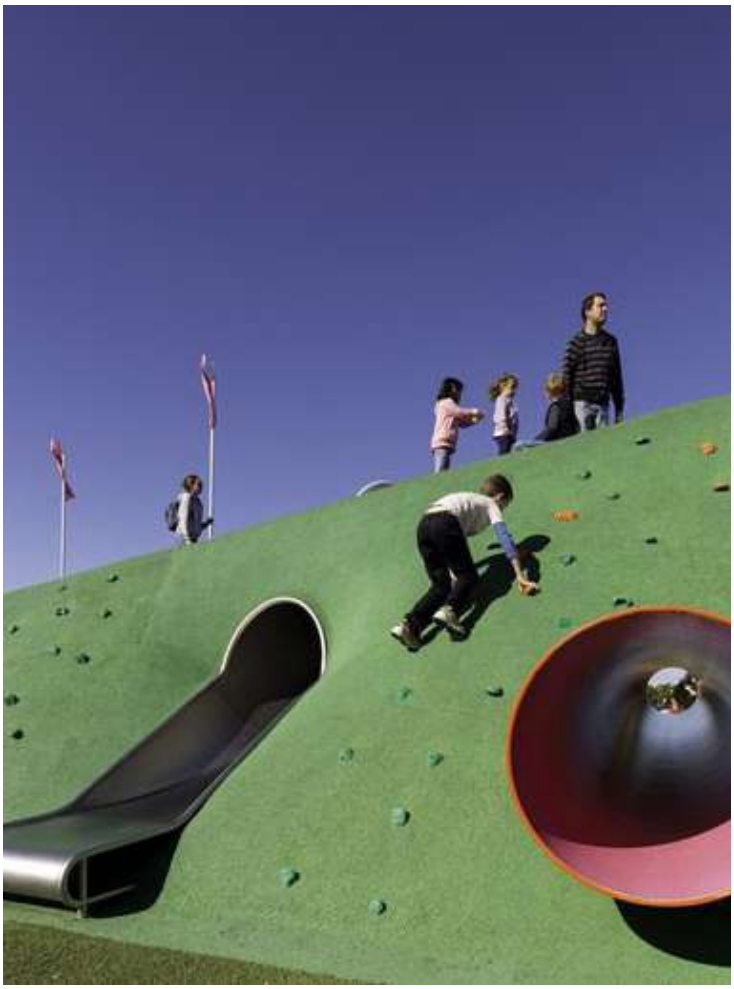
PROGRAMME	COMMUNITY PARK
FUNCTION	The community park are focused around flexible community space with mixed age playgrounds. Gathering areas are designed to encourage social interaction and foster social activities. Site furniture is formalised along primary routes with informal clusters of shade structures, picnic tables and chairs and barbecue areas situated between circulation and activity areas.
ACTIVITY AND FACILITIES	• **Meeting/gathering areas.** • **Areas for rest and respite.**

PROGRAMME	COMMUNITY PARK
DESIGN GUIDELINES	Community Park design are to comply with Metropolitan Qatar area theme Fereej / Low Density Residential by QPR-ACM-X-S5-GN-RPT-0002[B]_VOLUME II. **1. GENERAL PRINCIPLE** • **Priority must be given to provide a clear pedestrian corridor, unobstructed by parking, vehicular access or utilities.** **2. PEDESTRIAN STRATEGY** • **A minimum width of 1.8m must be provided, free of physical obstructions such as street trees, street furniture utility boxes, pipework and man-hole covers which are not levelled with the prevailing footway level.** • **Continuous pedestrian footpath must be provided across dedicated drop-offs and in front of active ground floor uses such parking forecourt and residential blocks.** • **Continuous pedestrian footpath must be provided across service entrances dedicated for goods deliveries.** • **Pedestrian crossings should be provided to facilitate convenient connections between public transport nodes (bus stops and taxi drop-offs), local destinations and buildings.** **3. PLANTING GUIDELINES** • **Tree planting opportunities must be optimised to provide shade along key desire lines, routes to key destinations and at pedestrian crossing points.** • **Passive and comfortable public realm - informal meeting places with trees, canopies, and benches should be integrated in ROW 32m or below to create a community-oriented public realm.** • **Along predominantly east-west oriented streets, more trees should be positioned on the northern edge to offer shade along pedestrian footway.** • **Clustering of street trees around street furniture should be provided at regular intervals along pedestrian zones to offer shade and increase comfort.** **3. HARDSCAPE GUIDELINES** • **The character of hardscape should be adapted to the character of Metropolitan Qatar Landscape Zone and Fereej (Low Density Residential) theme.** • **Unifying palette ranges from neutral tones (silver, grey, and cream) to more vibrant tones (buff and red brown).** • **Productive public realm - desert aggregate or porous paving should be used for parking areas so that natural vegetation can take hold; creating a greener environment in the longer term as well as acting as rainwater attenuation and filter.** **4. SHADING GUDELINES** • **Shade areas to be provided at regular intervals (trees / canopy / shelter).** • **Kiosks / canopy to be located in alignment with tree corridor to ensure clear footway.** • **Some shaded areas of cycle parking should be provided adjacent to refuge areas.**

LANDSCAPE GUIDELINES AND CONTROLS

COMMUNITY PARK

PROGRAMME	COMMUNITY PARK
DESIGN GUIDELINES; CONT'	**5. FURNITURE GUIDELINES** • **Thee total seating area requirements SHALL be calculated based on:** > 1 seating area per 40 linear metres of primary pathway > 1 seating area per 80 linear metres of secondary pathway • **The total picnic table requirements SHOULD be calculated based on:** > 1 picnic table per 80 linear meteres of secondary pathway • **The character of furniture should be adapted to the character of Metropolitan Qatar Landscape Zone and Fereej (Low Density Residential) theme.**
HARD LANDSCAPE	**Paving** **Primary Path - 35%** Pre cast concrete pavers Mix - Light Beige, Beige and Dark Beige **Secondary Path - 15%** Pre cast concrete pavers Mix - Light Beige and Dark Beige **Cycle Lane - 10%** Coloured Asphalt Green **Plaza Spaces / Resting Points - 25%** Natural Stone Pavers Mix - Beige and Earth Tones **Play Areas - 15%** Rubber surface Colours to be confirmed. **Mulch** • **Majority of garden beds, mulch is to be used within the planted zones and shall follow approved color palette.** **Furniture, Lighting and Signage** • **Furniture: Bins, bespoke seating, benches, bollards, shade structures, cycle racks, public restroom facilities and kiosks** • **Landscape Lighting: As per lighting strategy. (eg: bollard light, uplight, linear light and pole light)** • **Signage and Wayfinding: As per signage and wayfinding strategy.** **Play Equipment** • **A combination of play equipment that is accessible and caters to all age groups (2- 5 and 5 to 12 years) that meet the required safety standards.** • **Outdoor exercise station shall be provided for activate active recreation.**
SOFT LANDSCAPE	The percentage breakdown of landscape elements shall be as follows: • **Palms - 5%** • **Trees - 20%** • **Shrubs - 10%** • **Groundcovers - 40%** • **Grasses - 25%** Plant species shall be as per QPR-ACM-X-S5-GN-RPT-0002[B]_VOLUME III plant species list.



LANDSCAPE GUIDELINES AND CONTROLS

COMMUNITY PARK

HARDSCAPE PALETTE

PRIMARY PATH


Precast Concrete


Precast Concrete


Precast Concrete

SECONDARY PATH


Precast Concrete


Precast Concrete

CYCLE PATH


Coloured Asphalt

PLAZA / RESTING POINTS


Limestone


Sandstone

PLAY AREAS


Rubber Surface

MISCELLANEOUS


Gravel


Gravel


Mulch


Boulders

SOFTSCAPE PALETTE

PALMS


Phoenix dactylifera

TREES


Azadirachta indica


Hibiscus tiliaceus


Tabebuia rosea

SHRUBS


Atriplex halimus


Cloerodendron inerme


Duranta repens


Leucophyllum frutescens

GROUNDCOVERS


Aptenia cordifolia


Atriplex semibaccata


Portulacaria afra


Tradescantia pallida

SUCCULENTS


Aloe Claviflora


Agave americana


Agave Attenuata

GRASSES


Pennisetum Setaceum

LANDSCAPE GUIDELINES AND CONTROLS

POCKET PARK

The pocket parks are spaces between homes that re located throughout the Farej. The pocket parks are designed to meet the needs of the people and facilities close by and provide a pleasant environment for residents.

PROGRAMME	POCKET PARK
FUNCTION	The Pocket Parks are ranging from small to medium size parks which offer some scope of gathering space for families coming from the neighbourhood. They will have an overall material palette and character reflecting the local identity with play space for children and seating areas for passive recreation. It is envisaged that these parks will meet the regular demands of nearby residents on weekends and daily basis.
ACTIVITY AND FACILITIES	• **Small meeting/gathering areas.** • **Areas for play, rest and respite**

PROGRAMME	POCKET PARK
DESIGN GUIDELINES	Pocket Park design are to comply with Metropolitan Qatar area theme Fereej / Low Density Residential by QPR-ACM-X-S5-GN-RPT-0002[B]_VOLUME II. **1. GENERAL PRINCIPLE** • **Priority must be given to provide a clear pedestrian corridor, unobstructed by parking, vehicular access or utilities.** • **Should be visually separated from the street.** **2. PEDESTRIAN STRATEGY** • **A minimum width of 1.8m must be provided, free of physical obstructions such as street trees, street furniture utility boxes, pipework and man-hole covers which are not levelled with the prevailing footway level.** • **Pocket Parks should be accessible from the surrounding residences and sikkak within the fareej. Access is limited to pedestrians.** **3. PLANTING GUIDELINES** • **Tree planting opportunities must be optimised to provide shade and maximum comfort.** • **Along predominantly east-west oriented streets, more trees should be positioned on the northern edge to offer shade along pedestrian footway.** • **Clustering of street trees around street furniture should be provided at regular intervals along pedestrian zones to offer shade and increase comfort.** • **May use low-maintenance groundcovers and shrubs.** **4. HARDSCAPE GUIDELINES** • **The character of hardscape should be adapted to the character of Metropolitan Qatar Landscape Zone and Fereej (Low Density Residential) theme.** • **Unifying palette ranges from neutral tones (silver, grey, and cream) to more vibrant tones (buff and red brown).** **5. SHADING GUDELINES** • **Shade areas to be provided at regular intervals (trees / canopy / shelter).** • **Should provide shade for a minimum 50% of the park area.** **6. FURNITURE GUIDELINES** • **The total seating area requirements SHALL be calculated based on:** > 1 seating area per 5 linear metres of primary pathway • **The character of furniture should be adapted to the character of Metropolitan Qatar Landscape Zone and Fereej (Low Density Residential) theme.**

LANDSCAPE GUIDELINES AND CONTROLS

POCKET PARK

PROGRAMME	POCKET PARK
HARD LANDSCAPE	**Paving** **Primary Path - 50%** Pre cast concrete pavers Mix - Light Beige, Beige and Dark Beige **Plaza Spaces / Resting Points - 20%** Natural Stone Pavers Mix - Beige and Earth Tones **Play Areas - 30%** Rubber surface Colours to be confirmed. **Mulch** Majority of garden beds, mulch is to be used within the planted zones and shall follow approved color palette. **Furniture, Lighting and Signage** • **Furniture: Bins, benches, bollards, shade structures and cycle racks** • **Landscape Lighting: Shall provide low-level, pedestrian-scaled-lighting as per lighting strategy. (eg: bollard light and pole light)** • **Signage and Wayfinding: As per signage and wayfinding strategy.** **Play Equipment** • **A combination of play equipment that is accessible and caters to all age groups (2- 5 and 5 to 12 years) that meet the required safety standards.**
SOFT LANDSCAPE	The percentage breakdown of landscape elements shall be as follows: • **Trees - 20%** • **Shrubs - 20%** • **Groundcovers - 40%** • **Grasses - 20%** Plant species shall be as per QPR-ACM-X-S5-GN-RPT-0002[B]_VOLUME III plant species list.

LANDSCAPE GUIDELINES AND CONTROLS

POCKET PARK

HARDSCAPE PALETTE

PRIMARY PATH


Precast Concrete


Precast Concrete


Precast Concrete

RESTING POINTS


Limestone


Sandstone

PLAY AREAS


Rubber Surface

MISCELLANEOUS


Gravel


Gravel


Boulders

SOFTSCAPE PALETTE

TREES


Azadirachta indica


Delonix regia


Parkinsonia aculeata


Peltophorum inerme

SHRUBS


Atriplex halimus


Bougainvillea spectabilis


Cloerodendron inerme


Dodonaea viscosa

GROUNDCOVERS


Aptenia cordifolia


Jasminum officinalis


Lampranthus Saturatus


Verbena Tenuisecta

SUCCULENTS


Agave americana


Agave Attenuata


Crassula multicava

GRASSES


Pennisetum Villosum

LANDSCAPE GUIDELINES AND CONTROLS

LINEAR PARK

Linear Parks are corridors for passive and active recreation. They are located along natural cooridors, utility easements and other linear open spaces. They act as green connectors to the developments and it is intended to be developed as a series of defined open spaces that are interconnected. Specific programming is linked to the neighbourhood it intersect, this includes community meeting and gathering spaces, outdoor gym, picnic and barbecue areas. Planting is to be concentrated around areas of activity and the main planting character at this park type will be xeriscaping with mass native planting and feature ornamentals that offer an interesting array of colour, texture and form.

PROGRAMME	LINEAR PARK
FUNCTION	The Linear Park act as green connectors to the developments and it is intended to be developed as a series of defined open spaces that are interconnected. These parks provide opportunities for exercise and circulation within the community. These parks support healthy living and promote physical activity. Linear Parks also provide habitat corridors for wildlife and serve as areas for storm water management and grey water recycling if required. Each linear park is enhanced by the unique urban or natural characteristics of the corridor.
ACTIVITY AND FACILITIES	• **Meeting/gathering areas.** • **Areas for play, rest and respite**

PROGRAMME	LINEAR PARK
DESIGN GUIDELINES	Pocket Park design are to comply with Metropolitan Qatar area theme Fereej / Low Density Residential by QPR-ACM-X-S5-GN-RPT-0002[B]_VOLUME II. **1. GENERAL PRINCIPLE** • **Priority must be given to provide a clear pedestrian corridor, unobstructed by parking, vehicular access or utilities.** • **Should provide new public amenities along park edges.** • **Rest areas to be provided along the pathway and feature benches, shade structures and wayfinding features.** • **Linear Parks are accessible from streets, public places or other parks in the open space system.** **2. PEDESTRIAN STRATEGY** • **A minimum width of 1.8m must be provided, free of physical obstructions such as street trees, street furniture utility boxes, pipework and man-hole covers which are not levelled with the prevailing footway level.** • **Pedestrian crossings should be provided to facilitate convenient connections between public transport nodes (bus stops and taxi drop-offs), local destinations and buildings.** **3. PLANTING GUIDELINES** • **Should conform to and enhance the existing natural landform.** • **Tree planting opportunities must be optimised to provide shade along key desire lines, routes to key destinations and at pedestrian crossing points.** • **Passive and comfortable public realm - informal meeting places with trees, canopies, and benches should be integrated in ROW 32m or below to create a community-oriented public realm.** • **Along predominantly east-west oriented streets, more trees should be positioned on the northern edge to offer shade along pedestrian footway.** • **Clustering of street trees around street furniture should be provided at regular intervals along pedestrian zones to offer shade and increase comfort.** **4. HARDSCAPE GUIDELINES** • **The character of hardscape should be adapted to the character of Metropolitan Qatar Landscape Zone and Fereej (Low Density Residential) theme.** • **Unifying palette ranges from neutral tones (silver, grey, and cream) to more vibrant tones (buff and red brown).** **5. SHADING GUDELINES** • **Shade areas to be provided at regular intervals to provide maximum comfort for the users (trees / canopy / shelter).** **6. FURNITURE GUIDELINES** • **The total seating area requirements SHALL be calculated based on:** > 1 seating area per 60 linear metres of primary pathway > 1 seating area per 80 linear metres of secondary pathway • **The character of furniture should be adapted to the character of Metropolitan Qatar Landscape Zone and Fereej (Low Density Residential) theme.**

LANDSCAPE GUIDELINES AND CONTROLS

LINEAR PARK

PROGRAMME	LINEAR PARK
HARD LANDSCAPE	**Paving** **Primary Path - 35%** Pre cast concrete pavers Mix - Light Beige, Beige and Dark Beige **Secondary Path - 15%** Pre cast concrete pavers Mix - Light Beige and Dark Beige **Cycle Lane - 10%** Coloured Asphalt Green **Plaza Spaces / Resting Points - 25%** Natural Stone Pavers Mix - Beige and Earth Tones **Play Areas - 15%** Rubber surface Colours to be confirmed. **Mulch** Majority of garden beds, mulch is to be used within the planted zones and shall follow approved color palette. **Furniture, Lighting and Signage** • **Furniture: Bins, benches, bollards, shade structures, picnic tables and cycle racks** • **Landscape Lighting: As per lighting strategy. (eg: bollard light, uplight and pole light)** • **Signage and Wayfinding: As per signage and wayfinding strategy.** **Play Equipment** • **A combination of play equipment that is accessible and caters to all age groups (2 - 5 and 5 - 12 years) that meet the required safety standards.**
SOFT LANDSCAPE	The percentage breakdown of landscape elements shall be as follows: • **Trees - 20%** • **Shrubs - 20%** • **Groundcovers - 40%** • **Grasses - 20%** Plant species shall be as per QPR-ACM-X-S5-GN-RPT-0002[B]_VOLUME III plant species list.

LANDSCAPE GUIDELINES AND CONTROLS

LINEAR PARK

HARDSCAPE PALETTE

PRIMARY PATH


Precast Concrete


Precast Concrete


Precast Concrete

PLAZA / RESTING POINTS


Limestone


Sandstone

CYCLE PATH


Coloured Asphalt

PLAY AREAS


Rubber Surface

MISCELLANEOUS


Gravel


Gravel


Mulch


Boulders

SOFTSCAPE PALETTE

TREES


Albizzia lebbeck


Azadirachta indica


Delonix regia


Hibiscus tiliaecius

SHRUBS


Atriplex halimus


Bougainvillea spectabilis


Cloerodendron inerme


Leucophyllum frutescens

GROUNDCOVERS


Aptenia cordifolia


Atriplex semibaccata


Ruellia tuberosa


Tradescantia pallida

SUCCULENTS


Agave attenuata


Aloe claviflora

GRASSES


Pennisetum setaceum


Pennisetum setaceum rubra

LANDSCAPE GUIDELINES AND CONTROLS

SIKKA

Sikka is the smallest elements of public open space. Sikka provide a network of pedestrian priority routes to community services with shade, seating areas and safe crossings.

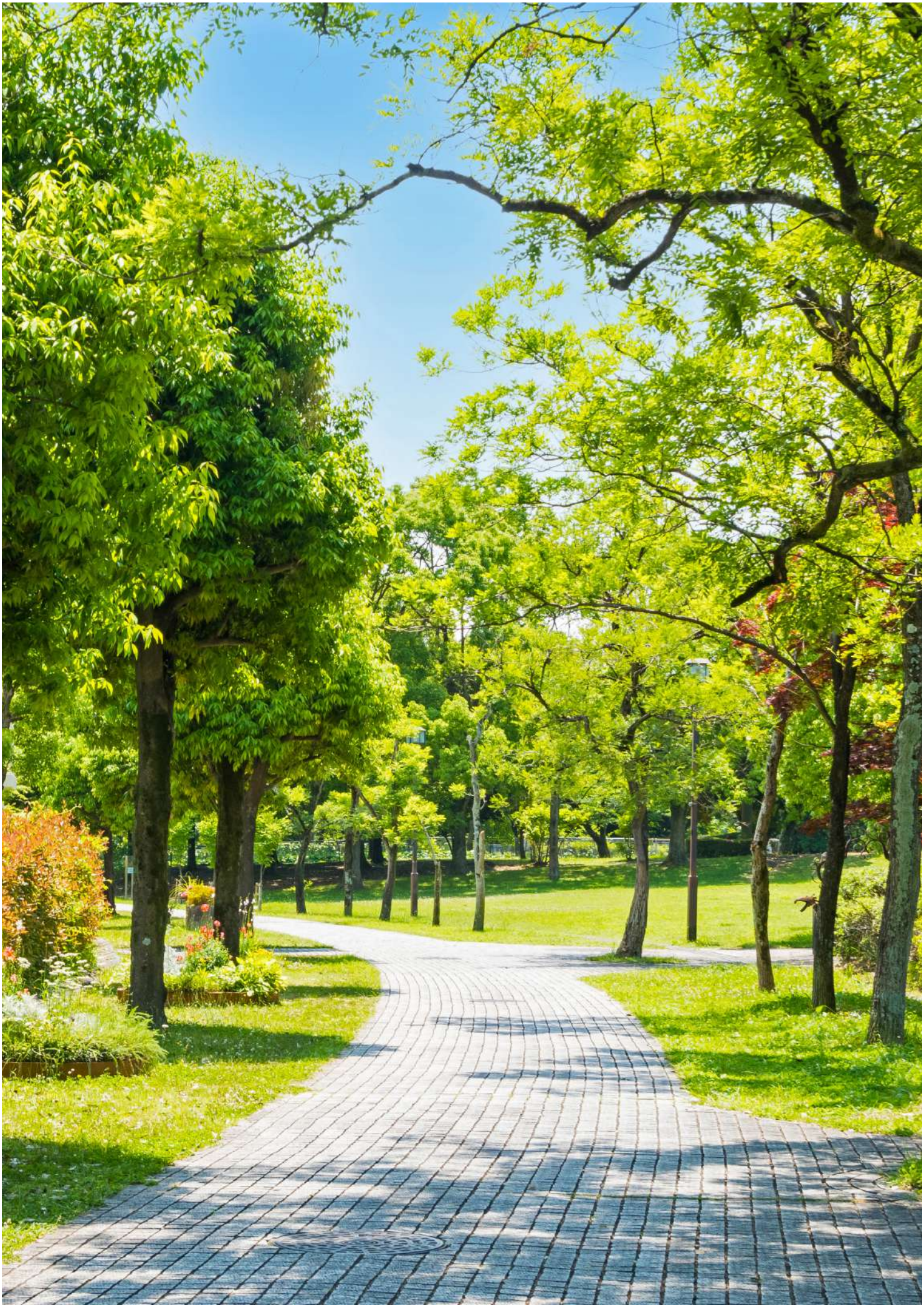
PROGRAMME	SIKKA
FUNCTION	Sikka link each home both to neighbours and to community facilities. Shaded by the buildings they run along, Sikka provide cool, safe, walkable routes to destinations.
ACTIVITY AND FACILITIES	• **Pedestrian connectivity network** • **Shaded seating areas** • **Areas for rest and respite**

PROGRAMME	SIKKA
DESIGN GUIDELINES	Sikka design are to comply with Metropolitan Qatar area theme Fereej / Low Density Residential by QPR-ACM-X-S5-GN-RPT-0002[B]_VOLUME II. **1. GENERAL PRINCIPLE** • **Priority must be given to provide a clear pedestrian corridor, unobstructed by parking, vehicular access or utilities.** • **Rest areas to be provided along the pathway and feature benches, shade structures and wayfinding features.** • **Sikka are accessible from streets, public places or other parks in the open space system.** **2. PEDESTRIAN STRATEGY** • **A minimum width of 1.8m must be provided, free of physical obstructions such as street trees, street furniture utility boxes, pipework and man-hole covers which are not levelled with the prevailing footway level.** • **Pedestrian crossings should be provided to facilitate convenient connections between public transport nodes (bus stops and taxi drop-offs), local destinations and buildings.** **3. PLANTING GUIDELINES** • **Tree planting opportunities must be optimised to provide shade along key desire lines, routes to key destinations and at pedestrian crossing points.** • **Passive and comfortable public realm - informal meeting places with trees, canopies, and benches should be integrated to create a community-oriented public realm.** • **Along predominantly east-west oriented streets, more trees should be positioned on the northern edge to offer shade along pedestrian footway.** • **Clustering of street trees around street furniture should be provided at regular intervals along pedestrian zones to offer shade and increase comfort.** **4. HARDSCAPE GUIDELINES** • **The character of hardscape should be adapted to the character of Metropolitan Qatar Landscape Zone and Fereej (Low Density Residential) theme.** • **Unifying palette ranges from neutral tones (silver, grey, and cream) to more vibrant tones (buff and red brown).** **5. SHADING GUDELINES** • **Shade areas to be provided at regular intervals to provide maximum comfort for the users (trees / canopy / shelter).** **6. FURNITURE GUIDELINES** • **The total seating area requirements SHALL be calculated based on:** > 1 seating area per 40 linear meters of primary pathway > 1 seating area per 80 linear meters of secondary pathway • **The character of furniture should be adapted to the character of Metropolitan Qatar Landscape Zone and Fereej (Low Density Residential) theme.**

LANDSCAPE GUIDELINES AND CONTROLS

SIKKA

PROGRAMME	SIKKA
HARD LANDSCAPE	**Paving** **Primary Path - 85%** Pre cast concrete pavers Mix - Light Beige and Beige **Resting Points - 15%** Natural Stone Pavers Mix - Beige and Earth Tones **Mulch** Majority of garden beds, mulch is to be used within the planted zones and shall follow approved color palette. **Furniture, Lighting and Signage** • **Furniture: Bins, benches, bollards, shade structures, picnic tables and cycle racks** • **Landscape Lighting: As per lighting strategy. (eg: bollard light, uplight and pole light)** • **Signage and Wayfinding: As per signage and wayfinding strategy.** **Play Equipment** • **A combination of play equipment that is accessible and caters to all age groups (2- 5 and 5 to 12 years) that meet the required safety standards.**
SOFT LANDSCAPE	The percentage breakdown of landscape elements shall be as follows: • **Trees - 20%** • **Shrubs - 20%** • **Groundcovers - 40%** • **Grasses - 20%** Plant species shall be as per QPR-ACM-X-S5-GN-RPT-0002[B]_VOLUME III plant species list.



LANDSCAPE GUIDELINES AND CONTROLS

SIKKA

HARDSCAPE PALETTE

PRIMARY PATH


Precast Concrete


Precast Concrete

RESTING POINT


Sandstone

MISCELLANEOUS


Gravel


Gravel


Boulders

SOFTSCAPE PALETTE

TREES


Azadirachta indica


Delonix regia


Hibiscus tiliaecius


Parkinsonia aculeata

SHRUBS


Atriplex halimus


Caesalpinia pulcherrima


Cloerodendron inerme


Tecoma capensis

GROUNDCOVERS


Aptenia cordifolia


Atriplex semibaccata


Lampranthus aureus


Tradescantia pallida

SUCCULENTS


Agave attenuata


Crassula multicava

GRASSES


Pennisetum Setaceum


Pennisetum Setaceum Rubra

LANDSCAPE GUIDELINES AND CONTROLS

2.7.2 STREET TYPOLOGIES

16, 18, 31, 46m ROW

Streetscapes play a central role in the formation of the public realm. They function both as important public space and as the network of linkages, connecting all public spaces throughout the development.

The character and function of streetscapes can vary depending upon where they fall within the public realm hierarchy.

PROGRAMME	STREET TYPOLOGIES
FUNCTION	Streetscapes function to define major intersections and provide visual identification and sense of arrival to the develoment. The streetscape also provide safe and convenient pedestrian and cycle connections to the surrounding open space network.
ACTIVITY AND FACILITIES	• **Pedestrian and cycle connectivity network** • **Seating areas for resting** • **Link to the public tranportation zone**

PROGRAMME	STREET TYPOLOGIES - 16 AND 18m ROW
DESIGN GUIDELINES	Streetscapes design are to comply with Metropolitan Qatar area theme Fereej / Low Density Residential by QPR-ACM-X-S5-GN-RPT-0002[B]_VOLUME II. **1. GENERAL PRINCIPLE** • **Priority must be given to provide a clear pedestrian corridor, unobstructed by parking, vehicular access or utilities.** **2. PEDESTRIAN STRATEGY** • **2.5m width shared pedestrian walkway on both side in ROW 16m and 3.2m in ROW 18m.** • **A minimum width of 1.8m must be provided, free of physical obstructions such as street trees, street furniture utility boxes, pipework and manhole covers which are not levelled with the prevailing footway level.** • **Pedestrian crossings should be provided to facilitate convenient connections between public transport nodes (bus stops and taxi drop-offs), local destinations and buildings.** **3. PLANTING GUIDELINES** • **Tree corridor on both side of the ROW should be provided to ensure maximum comfort.** • **0.5m buffer and 2m planting corridor adjacent to road to soften the ROW.** • **Tree planting opportunities must be optimized to provide shade along key desire lines, routes to key destinations and at pedestrian crossing points.** • **Passive and comfortable public realm - informal meeting places with trees, canopies, and benches should be integrated to create a community-oriented public realm.** • **Along predominantly east-west oriented streets, more trees should be positioned on the northern edge to offer shade along pedestrian footway.** • **Clustering of street trees around street furniture should be provided at regular intervals along pedestrian zones to offer shade and increase comfort.** **4. HARDSCAPE GUIDELINES** • **The character of hardscape should be adapted to the character of Metropolitan Qatar Landscape Zone and Fereej (Low Density Residential) theme.** • **Unifying palette ranges from neutral tones (silver, grey, and cream) to more vibrant tones (buff and red brown).** **5. SHADING GUIDELINES** • **Shade areas to be provided at regular intervals (trees / canopy / shelter).** **6. FURNITURE GUIDELINES** • **The total seating area requirements SHALL be calculated based on:** > 1 seating area per 40 linear meters of primary pathway > 1 seating area per 80 linear meters of secondary pathway • **The character of furniture should be adapted to the character of Metropolitan Qatar Landscape Zone and Fereej (Low Density Residential) theme.**

LANDSCAPE GUIDELINES AND CONTROLS

16 AND 18 ROW

HARDSCAPE PALETTE

PRIMARY PATH


Precast Concrete


Precast Concrete


Precast Concrete

CROSSINGS / INTERSECTIONS


Precast Concrete


Precast Concrete

CYCLE PATH


Coloured Asphalt

RESTING POINTS


Sandstone

MISCELLANEOUS


Gravel


Gravel


Mulch


Boulders

SOFTSCAPE PALETTE

TREES


Delonix regia


Parkinsonia aculeata


Prosopsis cineraria


Acacia farnesiana

SHRUBS


Atriplex halimus


Dodonaea viscosa


Clerodendron inerme


Tecoma capensis

GROUNDCOVERS


Atriplex semibaccata


Carissa macrocarpa


Lampranthus aureus


Verbena tenuisecta

SUCCULENTS


Crassula multicava


Euphorbia larica

GRASSES


Pennesetum villosum


Pennisetum Setaceum Rubra

LANDSCAPE GUIDELINES AND CONTROLS

16 AND 18 ROW

PROGRAMME	STREET TYPOLOGIES - 31m ROW
DESIGN GUIDELINES	Streetscapes design are to comply with Metropolitan Qatar area theme Fereej / Low Density Residential by QPR-ACM-X-S5-GN-RPT-0002[B]_VOLUME II. **1. GENERAL PRINCIPLE** • **Priority must be given to provide a clear pedestrian corridor, unobstructed by parking, vehicular access or utilities.** **2. PEDESTRIAN STRATEGY** • **2m width shared pedestrian walkway on both side of ROW.** • **Continuity of cycle routes to be maintained with provision of dedicated 2m cycle track on both sides of ROW.** • **At bus stops cycle track discontinues to give pedestrian priority.** • **A minimum width of 1.8m must be provided, free of physical obstructions such as street trees, street furniture utility boxes, pipework and manhole covers which are not levelled with the prevailing footway level.** • **Pedestrian crossings should be provided to facilitate convenient connections between public transport nodes (bus stops and taxi drop-offs), local destinations and buildings.** **3. PLANTING GUIDELINES** • **Tree corridor on both side of the ROW should be provided to ensure maximum comfort.** • **1m buffer adjacent to the plot to soften the ROW.** • **Tree planting opportunities must be optimized to provide shade along key desire lines, routes to key destinations and at pedestrian crossing points.** • **Passive and comfortable public realm - informal meeting places with trees, canopies, and benches should be integrated to create a community-oriented public realm.** • **Along predominantly east-west oriented streets, more trees should be positioned on the northern edge to offer shade along pedestrian footway.** • **Clustering of street trees around street furniture should be provided at regular intervals along pedestrian zones to offer shade and increase comfort.** • **Planting along central medians should be provided to reduce the urban heat island effect.** **4. HARDSCAPE GUIDELINES** • **The character of hardscape should be adapted to the character of Metropolitan Qatar Landscape Zone and Fereej (Low Density Residential) theme.** • **Unifying palette ranges from neutral tones (silver, grey, and cream) to more vibrant tones (buff and red brown).** **5. SHADING GUDELINES** • **Shade areas to be provided at regular intervals (trees / canopy / shelter).** • **Shaded areas of cycle parking should be provided adjacent to refuge areas.** **6. FURNITURE GUIDELINES** • **The total seating area requirements SHALL be calculated based on:** > 1 seating area per 40 linear meters of primary pathway > 1 seating area per 80 linear meters of secondary pathway • **The character of furniture should be adapted to the character of Metropolitan Qatar Landscape Zone and Fereej (Low Density Residential) theme.**

PROGRAMME	STREET TYPOLOGIES - 46m ROW
DESIGN GUIDELINES	Streetscapes design are to comply with Metropolitan Qatar area theme Fereej / Low Density Residential by QPR-ACM-X-S5-GN-RPT-0002[B]_VOLUME II. **1. GENERAL PRINCIPLE** • **Priority must be given to provide a clear pedestrian corridor, unobstructed by parking, vehicular access or utilities.** **2. PEDESTRIAN STRATEGY** • **2m width shared pedestrian walkway on both side of ROW.** • **Continuity of cycle routes to be maintained with provision of dedicated 2m cycle track on the left and 3m cycle track on the right of ROW.** • **At bus stops cycle track discontinues to give pedestrian priority.** • **A minimum width of 1.8m must be provided, free of physical obstructions such as street trees, street furniture utility boxes, pipework and manhole covers which are not levelled with the prevailing footway level.** • **Pedestrian crossings should be provided to facilitate convenient connections between public transport nodes (bus stops and taxi drop-offs), local destinations and buildings.** **3. PLANTING GUIDELINES** • **Tree corridor on both side of the ROW should be provided to ensure maximum comfort.** • **7.4m xeriscape buffer adjacent to the plot to soften the ROW edge in coordination with utility corridor.** • **Tree planting opportunities must be optimized to provide shade along key desire lines, routes to key destinations and at pedestrian crossing points.** • **Passive and comfortable public realm - informal meeting places with trees, canopies, and benches should be integrated to create a community-oriented public realm.** • **Along predominantly east-west oriented streets, more trees should be positioned on the northern edge to offer shade along pedestrian footway.** • **Clustering of street trees around street furniture should be provided at regular intervals along pedestrian zones to offer shade and increase comfort.** • **Planting along central medians should be provided to reduce the urban heat island effect.** **4. HARDSCAPE GUIDELINES** • **The character of hardscape should be adapted to the character of Metropolitan Qatar Landscape Zone and Fereej (Low Density Residential) theme.** • **Unifying palette ranges from neutral tones (silver, grey, and cream) to more vibrant tones (buff and red brown).** **5. SHADING GUDELINES** • **Shade areas to be provided at regular intervals (trees / canopy / shelter).** • **Shaded areas of cycle parking should be provided adjacent to refuge areas.** **6. FURNITURE GUIDELINES** • **The total seating area requirements SHALL be calculated based on:** > 1 seating area per 40 linear meters of primary pathway > 1 seating area per 80 linear meters of secondary pathway • **The character of furniture should be adapted to the character of Metropolitan Qatar Landscape Zone and Fereej (Low Density Residential) theme.**

LANDSCAPE GUIDELINES AND CONTROLS

31 AND 46 ROW

HARDSCAPE PALETTE

PRIMARY PATH


Precast Concrete


Precast Concrete


Precast Concrete

CROSSINGS / INTERSECTIONS


Precast Concrete


Precast Concrete

CYCLE PATH


Coloured Asphalt

RESTING POINTS


Sandstone

MISCELLANEOUS


Gravel


Gravel


Mulch


Boulders

SOFTSCAPE PALETTE

PALMS


Phoenix dactylifera

TREES


Delonix regia


Parkinsonia aculeata


Prosopsis cineraria

SHRUBS


Atriplex halimus


Dodonaea viscosa


Clerodendron inerme


Tecoma capensis

GROUNDCOVERS


Atriplex semibaccata


Carissa macrocarpa


Lampranthus aureus


Verbena tenuisecta

SUCCULENTS


Crassula multicava


Euphorbia larica

GRASSES


Pennesetum villosum


Pennisetum Setaceum Rubra

2.8 SUSTAINABILITY GUIDELINES AND CONTROLS

2.8.1 OBJECTIVES AND PURPOSE

This guideline explains the importance of a sustainability mindset for the development of a modern and intelligent community.

Sustainability guidelines are defined based on the following Key Design Principles:

We aim to develop architectural design guidelines for the villas and surrounding open spaces that fully comply with the GSAS minimum 2-star rating, as required, to promote high levels of energy efficiency and a sense of belonging and well-being to its residents.

The authority overseeing the sustainability certification process, GORD, has identified two compliance paths for buildings seeking a 2-stars certification level:

- Performance-based path
- Prescriptive path

The performance-based path will assess the building design and systems against a set of performance-based standards that address the specific regional needs and environment of Qatar. GSAS provides assessment criteria for:

- Urban Connectivity
- Site
- Energy
- Water
- Material
- Indoor Environment
- Cultural and Economic Value
- Management and Operations

Of these, Energy (24%), Water (16%) and Indoor Environment (16%) receive the highest scores. For the purpose of these Guidelines, we will address passive and systems design aspects that contribute to each of the GSAS categories of credits.

Our approach involves the creation of a solid bioclimatic design framework based on future-proof passive design principles that can easily integrate with efficient active systems for maximum levels of comfort at low environmental cost.

The bioclimatic design guidance should provide direction regarding the potential for natural ventilation, daylight availability, solar gain and solar protection issues at massing, façade design, typology and open space provision.

While the prescriptive path, the goal is to comply with the below.

CLIMATE

General

- Severe hot climate with solar radiation excesses all year around.
- Mostly dry. But average minimum Relative Humidity dropping below 40% only between April and September.
- Cooling season from April to mid-November.
- There is a mild need for Heating in January and February.
- The shading period (requirement for shading) is from mid-May to October.

Wind

- Wind predominantly from Northwest all year round.
- South-westerly continental winds bring the highest temperatures.

Passive Design Strategies

- Thermal Mass can be used to reduce indoor peak temperatures. It won't be effective in reducing the cooling load during the hottest summer months (July to August), when night-time temperature is too high.
- Natural Ventilation can provide comfort in the mid-season, mainly in March, April, May, October and November.
- Passive Solar Heating is applicable in January and February.
- Provide evaporative cooling in the mid-season, mainly in April, May, June, October and November.
- Promote night-time radiative and convective cooling.

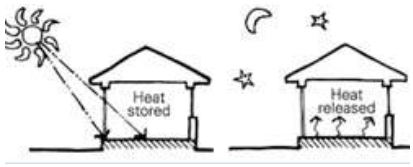
2.8.2 PASSIVE DESIGN STRATEGIES - DETAILED

THERMAL MASS

Thermal mass' describes a material's capacity to absorb, store and release heat. For example, water and concrete have a high capacity to store heat and are referred to as 'high thermal mass' materials. Insulation foam, by contrast, has very little heat storage capacity and is referred to as having 'low thermal mass'.

A common analogy is thermal mass as a kind of thermal battery. When heat is applied (to a limit) by radiation or warmer adjoining air, the battery charges up until which time it becomes fully charged. It discharges when heat starts to flow out as the adjoining air space becomes relatively cooler.

Understanding the properties of thermal mass and its use, particularly in context, is critical to realizing both benefits and potential pitfalls.

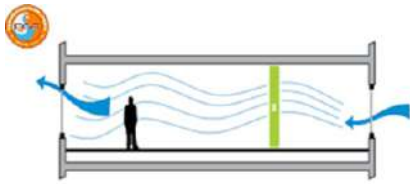


NATURAL VENTILATION

Natural ventilation is a method of allowing fresh outdoor air into indoor living/working spaces by natural means without the use of air conditioning units and other types of mechanically driven devices. It is the process of changing or replacing stale or noxious air with fresh air in any space to provide high indoor air quality.

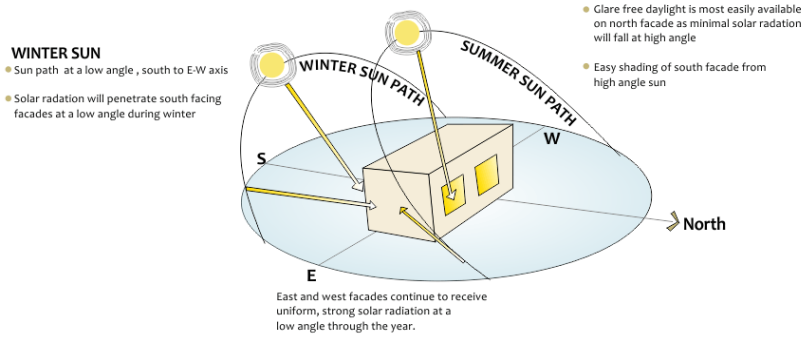
Reducing the need for mechanical ventilation can also have significant energy savings through a reduction in the required cooling load as well as ongoing maintenance and replacement of mechanical systems.

The temperature profile in the region suggests that natural ventilation is not a year-round option, but plot design consideration should be given to maximizing the number of days that a building can use natural ventilation through either user operated windows or a controlled opening at appropriate times of the year.



BUILDING ORIENTATION

Whilst building orientation is likely to be determined by plot size and architectural guidelines, where possible orient buildings to maximize the use of passive and active solar design strategies.



SUSTAINABILITY GUIDELINES AND CONTROLS

PASSIVE DESIGN STRATEGIES - DETAILED, CONT.

MAXIMISING DAYLIGHTING AND VIEWS

By optimizing the exposure to daylight for interior spaces the design will improve light quality for building occupants and reduce the need for artificial lighting thereby reducing impact on energy consumption. This should be considered in tandem with any potential solar gains or glare issues that may arise. Passive daylighting is a system of collecting sunlight to maximize its benefits for lighting, in a controlled manner to avoid unwanted glare. The following strategies may be deployed:

- Window size, shape, position and orientation.
- Review glazing coatings.
- Deploy shading devices (interior and exterior) Blinds, Louvres. Trees for example to reduce glare.
- Skylights and roof lights.
- Atrium spaces, courtyards etc.
- Light wells.
- Select less reflective materials for interior decor.
- Daylight responsive electric lighting controls.

Closely linked to daylighting is the provision of views out for building occupants. To achieve this, it is suggested that where possible a high percentage of regularly occupied area is within 7m of a window with a view out.

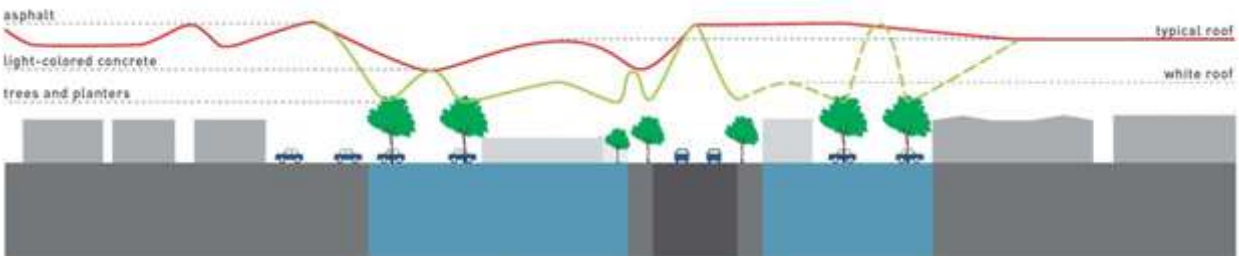
MINIMISING HEAT ISLAND EFFECT

Dark, non-reflective surfaces used for roofs and hardscaping absorb the sun's warmth and radiate heat, creating heat islands. The term "heat island" describes built up areas that are hotter than nearby rural areas.

Heat islands can affect communities by increasing summertime peak energy demand, air conditioning costs, air pollution and greenhouse gas emissions, heat-related illness and mortality, and water quality.

To mitigate against this a variety of strategies can be adopted, including:

- Roofing, hardscaping and building exteriors should have high solar reflectance values.
- All the roofs must be white or aluminum with a high solar reflectivity of above 0.6
- Consideration could also be given to decreasing the building surface area and increasing the distance between the project building and neighboring buildings.
- Shading structures



FACADES

Improved façade design will lead to savings in mechanical equipment and the associated space requirement as well as reducing electricity bills over the years of operating the building.

Building façades should be designed primarily to always avoid solar gain, for all building types.

Additionally, the façades of residential buildings should be designed to take advantage of the benefit of passive solar gain in wintertime.

Preference should be given to maximizing south and southeast façade surface area and minimize west and southwest facade surface area.

SHADING

Providing shading devices on the buildings that will:

- Assist in maintaining a comfortable indoor environment.
- Minimises the incident solar radiation and cools the building thereby positively affecting building performance.
- Can reduce the building peak heat gain and cooling requirements.
- Trees when used as shading devices can provide shade to the building elevations as well as to external hardscaping whilst being aesthetically pleasing on the eye.
- Internal shading devices can lend the occupant a feeling of privacy.
- To provide these benefits
- Solar protection should be provided to all window orientations by shading devices or by window encroaching (balconies, loggias).

Orientation	**Shading Device Type**
North	Not required
East or West	Vertical Device / Louvers (moveable)
South	Fixed Horizontal Device

SUSTAINABILITY GUIDELINES AND CONTROLS

2.8.3 GORD CHECKLIST

Energy	
Roof U-value	<= 0.25 [(W/m2K)]
Wall U-value	<= 0.3 [(W/m2K)]
Glazing to Opaque wall ratio	<= 0.35%
Glazing	<= 2.1 [(W/m2K)] -Double Glazing-Hinged type
Shading Coefficient	<=0.35
HVAC system	- VRF System - DX roof top package air conditioners - Hi-wall mounted split units with minimum 5 star Energy label or above - Window type air conditioning units are not accepted.
Lighting	Use of LED, CFL, T5 lightings or other equivalent efficient fixtures
Domestic Hot Water	Electric wall mounted with minimum efficiency of 90%
All other requirements shall be as per Kahramaa / Lusail regulations.	
Water	
Dual Flush Toilet	<= 4.5 L / flush for full flush and 3L / flush for reduced flush
Lavatory Faucet	<= 4.7 L/min
Kitchen Sink	<= 5.0 L/min
Shower head	<= 8.0L/min
Softscape area	<= 20% of plot area
Plant Species	more than 30% are native or adaptive
Irrigation	Use of automatic and drip irrigation system
All other requirements shall be as per Kahramaa / Lusail regulations.	

حزوم
لوسيل
Huzoom Lusail