

Volume 1 of the Doha Municipality Spatial Development Plan





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1.0 General Requirements and Procedures

1.1 Doha Municipality Spatial Development Plan (MSDP)

The Doha MSDP seeks to achieve the orderly planning and development of land and infrastructure across the Doha municipality in response to expected growth.

It sets out a clearly defined urban structure and a coordinated development approach for the municipality over the next 20 years. The MSDP is made up of the following parts:

- 1. **Strategic Context** The Vision and Development Strategy for the Municipality.
- 2. **Zones and Land Use Regulations** land uses and development standards applying in each zone.
- 3. **Zone Maps** showing the future land uses across the municipality.

In addition, **Action Area Plans** (AAP's) will be prepared from time to time and progressively added to the MSPD for specific locations within the municipality, in order to provide a more detailed level of planning.

1.2 Purpose and Effect of the MSDP

The Doha MSDP provides the land use planning framework and regulations for the entire Municipality and the strategic context for growth and change to 2032. The detailed land use zoning maps and the zoning regulations in the MSDP set out the rules against which development will be assessed.

The MSDP has full legal force and effect in the assessment, decision-making and enforcement of land use development applications, and the manner in which land use development is undertaken within the municipality.

It will be reviewed every 5 years to ensure it responds appropriately to community changes at a local and National level.

Developments are also required to separately address the requirements of the Building Regulations.

1.3 Management of Development

Doha Municipality is divided into a series of Land Use Zones identifying the particular land which uses may be permitted in the zone. Development within each zone is controlled by way of a Zone Code containing:

- the Purposes and Objectives of the Zone;
- a Land Use Table showing the range of uses appropriate within the zone; and
- Zone Regulations specifying the development standards which apply within the zone.

Development within each zone may be classified as being either:

- <u>Permitted</u> does not require a development application but must comply with the development standards in the relevant Zone Code;
- Conditional requires a development application which will be assessed against the MSDP and the development standards in the relevant Zone Code, and which may be subject to additional conditions of approval; or
- <u>Prohibited</u> uses considered inappropriate in the zone and where an application for development approval cannot be made.

Further details are contained in the Zone and Land Use Regulations in this MSDP.

1.4 QNDF Context

The Qatar National Development Framework (QNDF) is the overarching physical and spatial planning policy and strategy context for the state of Qatar to 2032.

It establishes a series of guiding principles and objectives that have been based on the Qatar National Vision 2030 (QNV2030) and contains Structure Plans developed for each Municipality which provide a strategic planning context for each MSDP.

Based on the QNN2030's Four Pillars of Sustainability, the following guiding principles for sustainability were established for the QNDF:

- Quality of Life for All Improving the living, working, playing and learning environment and offering choice, affordability and access for all people.
- Economic Growth and Diversification Fostering competitiveness, encouraging business investment and stimulating innovation.
- Connectivity of People and Places Providing integration, mobility, accessibility and connectivity to improve social, cultural and economic interaction of people, institutions and businesses.
- Ownership in Planning and Implementation
 Encouraging coordination and commitment

among stakeholders in the QNDF's planning and implementation.

- Environmental Values Supporting the preservation and rehabilitation of the natural and built environments.
- Identity Acknowledging and respecting the Qatar national identity.

The translation of the National Vision and the sustainable guiding principles into a spatial and physical development dimension gave rise to a vision for the future urban development of the country which has guided the preparation of the QNDF and subsequent Municipality Spatial Development Plans (MSDPs).

The QNDF vision is to:

"Create a role model for Sustainable Urban Living and Livable Towns and Cities in the 21st Century"

The Doha MSDP has been prepared in accordance with the QNDF as the regulatory framework for managing development in a way that advances the purpose of the QNDF, the National Development Strategy and the Qatar QNV2030.



2.0 Doha Municipality

2.1 Location and Description

Doha Municipality is the capital of Qatar, its largest city with about half of the nation's population, and forms a substantial component of the greater Doha metropolitan area which itself accommodates more than 80% of Qatar's population.

It is the heart of Qatar. Its history captures Qatar's past and its more recent dramatic growth represents Qatar's future. As the capital city of Qatar much of the significant built environment assets of the country are located in Doha.

The Municipality is made up of a number of different character areas spread across three distinct geographic locations all of which fall within the greater Metropolitan Doha. The majority of the Municipality is located around the historic core of Doha with a mix of older and newer residential areas plus large scale commercial areas such as the West Bay tower district and the Grand Hamad banking precinct.

This Core area is the financial and commercial heart of the Qatar and the seat of Government. It also contains major hotels as well as large scale public facilities such as the Hamad Medical City, several university and higher education campuses, a number of mixed-use metro and town centers, the existing sea and air ports, and the new Hamad International Airport which provides the main gateway to Qatar.

The two other major locations are the satellite areas of the Doha Industrial Area, and the Wholesale Market Area located within the adjoining Al Rayyan municipality.

At the municipality level Doha connects the sea with the desert. At the city level, Doha commands an enviable position in the Gulf, defined geographically by the bay, the Corniche and the Grand Park. To the north is the Katara Cultural Village, the prestigious Pearl-Doha residential development located on a reclaimed island and planned to accommodate 45,000 persons, and the tower district of the West Bay Capital City Centre. The old historic city with the Souq Waqif, Mshereib urban renewal development, the Museums Quarter, the Grand Park and the Emiri Diwan have a central location. The Corniche and existing sea port form the eastern border of the city which is framed to the west by lower and medium density residential communities.

Doha is both a capital city and a municipality at the same time. It is experiencing a renaissance and is quickly becoming one of the major cultural capitals of the Middle East. The future Doha as an economic driver and the major employment location for the country will be built on the developing knowledge, technology, education,

science, art and culture sectors as part of a diversified economy

2.2 Population and Employment Growth Expectations – 2010 – 2032

A substantial part of Doha municipality is already developed. The population in Doha City is expected to grow from 797,000 in 2010 to 1,078,410 in 2017, representing an increase of 281,410. Beyond that a decrease of 158,144 people is expected between 2017 and 2032, to result in a 2032 population of 920,266; as major urban development and urban renewal projects are completed and the demographic make-up of the city changes.

Economic activity is expected to increase the number of jobs in the Municipality from 769,000 in 2010 to over 1,000,000 by 2032. Many of these new jobs in a diversified economy are expected to be located within centers throughout Doha particularly those with good access to the metro public transit system presently under construction.

Table 1 Doha City: Population (2010-2032)

	Population
2010	797,000
2017	1,078,410
2032	920,266

The populations for the Wholesale Market Area and Doha Industrial Area are set to fall over the plan due to planned redevelopment and improvements to the existing precincts.

Table 2 Wholesale Market and Doha Industrial Area: Population (2010-2032)

	Population
2010	234,000
2017	208,600
2032	114,700

2.3 Development History

The city's origins are based around the old port, with 80% of the municipality's cultural and historical buildings located within A-ring road.

Rapid expansion of the city in the 1970's saw the urbanized area of the city double between 1970 and 1980. The introduction of the car transformed the traditional pedestrianized street patterns into a car dominated street network, with traditional walking sougs being replaced by destination based strip-shopping. For example, the car dependent Salwa Road commercial corridor is an extension of the more pedestrian oriented Wadi Mushaireb Street.

The concentric structure that dominated the early expansion of the city is still visible today in the urban form with the ring roads and radials forming key elements in the city's legibility.

As a result of rapid urbanisation, Doha within the space of a generation has gone from a town to a world city. This physical, economic and social expansion offers opportunities to meet educational, community, housing and employment needs for the city. However, it also poses significant problems, especially in cultural adjustments due to increased immigration, need for major improvements and expansion of essential urban infrastructure, the ever increasing growth in car dependency and road congestion, as well environmental degradation due to rapid development.

These issues manifest themselves dramatically in the high-density areas of downtown Doha, where high levels of population growth due to immigration have resulted in social and demographic change, gradual decline in the quality and suitability of residential accommodation, relative reductions in the levels of public facilities compared to population growth, a degraded built environment and increased vehicle congestion. The inner city of Doha has lost its ambience, the traditional street patterns are now congested with parked cars, and the connections with its waterfront origins have been lost.

2.4 Key Planning Issues for Doha

Some of the key planning issues now facing the municipality include:

- Lack of a clear hierarchy of mixed use centers that promote vibrancy, vitality and community. The current zoning and development practices, promote the domination of single use shopping corridors/strips along with big box retail premises dispersed in several difficult to access locations.
- High densities have been promoted within the C-Ring, however outside of C-Ring, the population densities have been reduced with no promotion of mixed-use centers, employment hubs or corridors to promote increased densities, accessibility, convenience and vitality. This current pattern of development has promoted low density urban sprawl, which in turn is highly dependent on the private vehicle for access to highly centralised

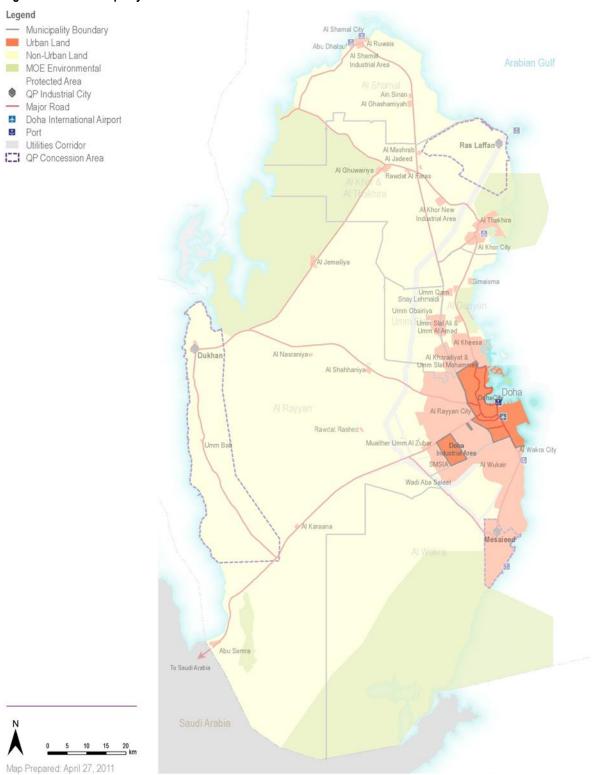
locations for employment, shopping, public facilities such as hospitals and education, leisure and entertainment

- Important character precincts have been devalued through incompatible built form, neglect and lack of services.
- Qatari neighborhoods are increasingly concentrated in the north of the municipality. The current social demographic and housing opportunities of the city core discourage Qataris to move back into the central city therefore limiting future housing choices for Qatari residents.
- Pedestrian connectivity and legibility within the city is severely constrained. The traditional urban patterns (e.g. pedestrian streets, sikkat) that reflect the Qatari past and Arabic culture, have been lost to car dominated roads and indiscriminate parking that create pedestrian impassable barriers which isolate residents from community services.
- A significant percentage of vacant land remains undeveloped and unavailable for appropriate urban redevelopment inside the municipality. despite continuing outward urban expansion of Metropolitan Doha.
- Mega projects have been designed in isolation to their context and urban structure, and in some cases their scale and grain are incompatible with surrounding areas or the availability of necessary infrastructure services.

- This historic heart of the city is now characterized by overcrowding, high numbers of single males and a predominantly low-income expatriate population.
- There is little consistency of architectural language in areas. The built form fails to promote a high quality street appeal that promotes street activity. The interface of the public-private realm is overshadowed by poor ground level building design, poor understanding of site context and surrounds and a clear failure to promote the ground floor as the street edge.
- More effort is required to promote a wider range of housing choices and design options which are culturally and climatically suitable, and which achieve commonly accepted levels of environmental sustainability and livability expectations.
- The design and condition of the public realm is inadequate and even dangerous in many places. The public realm does not respond to the climate and promote micro climates where possible. It does not promote street activity or pedestrian connectivity, through the creation of urban plazas, squares and in turn fails to promote a sense of community and belonging.
- Useable open space for active or passive recreation is severely limited in the City. The Corniche provides a green link between the three Capital City Centers (Doha Downtown, West Bay, Airport City) and the Grand Park is the green lung to the city, however

- outside of these areas, additional town, district and neighbourhood parks need to be provided for the growing population.
- The city is strongly in need of a defining character which promotes it as a readily recognisable international destination, and which brings together many of the important individual urban and cultural developments which are being undertaken.
- The construction of the metro rail network together with other supporting public transit facilities in conjunction with a deliberate mixed-use and mixed density centers policy, presents an ideal opportunity to achieve better urban outcomes and living environment for Doha residents, people who work in the city, and for visitors.
- The existing Doha Industrial Estate requires significant improvement and redevelopment to address many of the physical, environmental, infrastructure and population overcrowding problems which exist in the area. The relocation of inappropriate or noxious industries, establishment of defined town centers, provision of improved roads and utilities, the creation of purpose designed residential precincts together with access to the metro and BRT services are particular challenges which need to be addressed.

Figure 1 Doha Municipality Context



2.5 Municipality Planning Objectives

The planning objectives that apply to Doha Municipality are:

Economic Prosperity

- Promote the continued growth and diversification of the economy, by expanding new employment development in the Capital City Centers of West Bay, Downtown Doha and the future Airport City and the Town Centers of Al Sadd, Al Gharrafa and Old Al Matar
- Progressively redevelop the Doha Industrial Area as a light and medium impact industry precinct by addressing many of the physical, environmental and infrastructure constraints which currently exist.
- Develop a mixed use town center as part of the mixed use eco-friendly industrial park in the Doha Industrial Area.
- Promote an advanced manufacturing sector by developing QEZ1 as a high-tech business park for light industry, manufacturing, logistics and associated commercial.
- Develop and enhance a series of internationally and nationally significant local cultural and arts facilities with appropriate spaces (both indoor and outdoor) for performances and festivals.
- Promote economic activity through main street programs designed at activating streets, returning the community to the centers and promoting

communication and business knowledge transfer through social interaction within a high quality urban environment.

Living in the Community

- Promote Qatari living within the centers and within regeneration neighborhoods as an expansion of the traditional housing choice currently provided.
- Where Qatari housing is located and provided outside of centers, promote a strong Qatari community identity, through the built and natural environments as well as through the provision of services.
- Ensure housing options meet the needs of the changing expatriate population as part of sustainable land use change, promoting urban revitalization of neighborhoods in inner Doha.
- Maximize the flexibility and adaptability of existing and future housing stock to cater for the changing expatriate population to allow conversion and adaptation.
- Ensure the early provision and ready accessibility to necessary community services and facilities to support the daily living needs of residents

Natural Environment

 Enhance the biodiversity of the municipality through the design of new green spaces and through creating open space corridors between destinations, particularly those that enhance the natural environment.

- Promote the provision of green space corridors and connections between the desert and sea.
- Enhance the natural environment, air quality and livability of the municipality by removing noxious and polluting industries from mixed-use and residential areas.
- Promote energy and transport efficient urban developments to reduce the impact on the environment.

Built Environment

- Create a series of connected mixed use Capital City, Town, District and Local Centers that meet the needs of their respective communities, and achieve the principles of Transit Oriented Development.
- Develop a world class waterfront Capital City Precinct made up of the 3 Capital City Centers connected by the Corniche, the Grand Park and a world class public realm.
- Develop the Grand Park as the green heart of the City and a key community asset which also helps promote Doha as an internationally recognised destination.
- Develop Town Centers at Al Sadd, Al Gharrafa and Old Al Matar within Doha City and an Industrial Town Center at the Doha Industrial Area
- Develop District Centers at The Pearl, Fareej Kulaib, Rawdat Al Khail, Najma, Umm Ghuwallina, and Nuaija, through a combination of regeneration, redevelopment and green field development options.

- Identify existing local center opportunities for residential communities and along key corridors within the high density areas of Doha City.
- Identify corridors within Doha, as opportunities for transit boulevards that enhance and support the local community, through retail and residential opportunities.
- Revitalise and reconfigure the West Bay high density residential tower precinct as a high quality, pedestrian friendly and accessible neighbourhood with a readily recognisable character and high level of living amenity.
- Integrate the future Airport City and other mega and large scale urban projects with existing and other planned urban development.
- Improve the quality of neighborhoods in Inner Doha through regeneration that promotes family living and community interaction through the provision of improved high quality open spaces, public realm and community facilities.
- Protect the Al Asmakh and Al Najada neighbourhoods (Zones 4 and 5) as an area of historical importance, reflecting the historic character of Downtown Doha.
- Develop buildings that are sustainable, address QSAS standards, and respond to the climate taking inspiration from historic Islamic architecture to create a new architectural language for Doha.

- Consider opportunities for creating new microclimates in highly pedestrianized areas as a means to promote street activity.
- Provide a range of spaces from nationally significant parks through to pocket parks at the local level that meet the diverse needs of different cultures and age groups.
- Ensure open spaces promote and support key pedestrian routes.

Movement

- Enhance opportunities for pedestrian and cycle movement through the municipality, providing a network of shaded routes that connect key facilities and transit stops to enhance thermal comfort of those on foot and cycle.
- Promote Transit Oriented Development through the integration of land use and transport planning, in particular around Town and District Centers, especially where metro stations are located.
- Reduce the reliance on cars by providing alternative modes of public transport, including the development of a high quality mass transit system and promoting Salwa Road and Al Rayyan Road as Bus Rapid Transit corridors.
- Design streets to provide safe, legible routes for pedestrians and cyclists.
- Design streets as public spaces, creating a strong relationship between buildings, roads and landscaping.

- Enhance the legibility of the city through the introduction of landscaping and public art along key corridors.
- Ensure that access to high quality public transport is available within easy walking distance to all residential communities.
- Maximise the role of the metro system and supporting public transport, and the existing road network in achieving sustainable transport outcomes.
- Ensure transport impacts are carefully considered and evaluated when new urban development proposals are being planned and approved.

Utilities

- Enhance the utility network to ensure that the future demands of residents, workers and visitors to the municipality are met.
- Promote strategies for an efficient provision and distribution of utility network which in turn leads to the overall reduction in the carbon footprint of the Country.
- Ensure proposed urban development proposals fully factor in the impacts on existing utility networks, and their demand on new infrastructure as part of the planning and approval process.

3.0 Vision and Development Strategy

"A modern world-class Capital City based on culture and tradition"

3.1 Vision 2032 for Doha

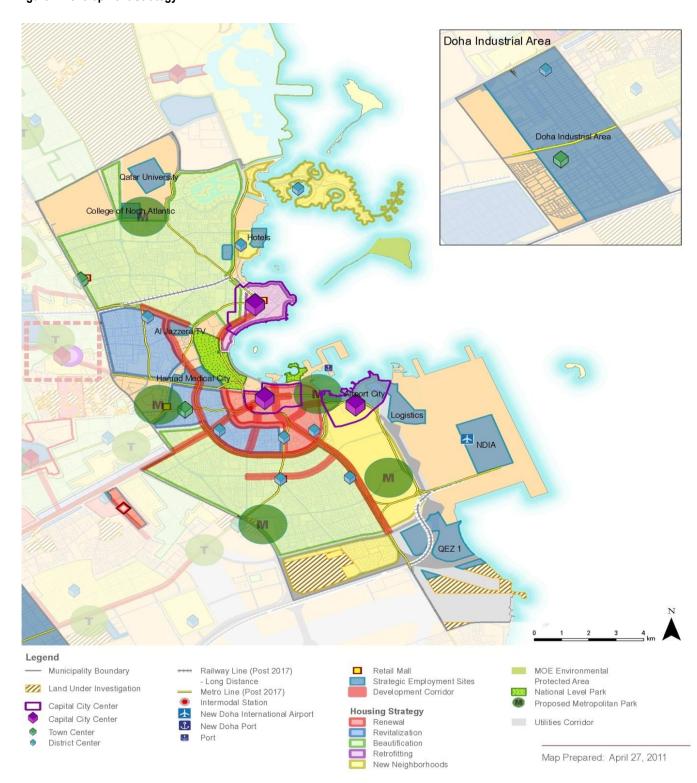
The vision for Doha Municipality is to:

- A world class, modern Arabic capital city that responds to the culture, past history and Islamic beliefs of Qatar.
- A downtown area which celebrates its historic role as the centre of the city and is a focus of economic activity complementary to West Bay.
- A series of employment areas meeting the needs of business that support the economic diversification and enhancement for light and medium industries.
- A building form that activates street frontages and creates a successful interface between the public and private realm.
- A series of livable and vibrant neighborhoods each with high quality community facilities and local amenities in

- local centers that respond to the social and townscape character of the area in which they sit.
- Traditional patterns of urban development such as sikkat are rediscovered and incorporated into the urban form
- Provision is made for Qatari lifestyle preferences throughout the city in a range of density contexts.
- A city with a compact urban form based on a network of mixed use centers where land is used efficiently, and through applying different densities across the city to create a choice of housing whilst responding to the existing built environment, enhancing and regenerating where necessary
- A vibrant focused economic hub providing a range of employment opportunities in a hierarchy of mixed use centers that leverages off location on Metro and Bus Rapid Transit lines

- A city with a Grand park and a Corniche that are complemented by a network of smaller parks and spaces connected by a high quality public realm which successfully responds to the Qatar climate and promotes public spaces as a catalyst for human interaction
- A municipality that is planned to enable the maximum utilization of public transit over the long term through the integrated planning of key employment, leisure and retail destinations.
- Mega projects that are successfully incorporated into the wider urban fabric and that easily coexist with their surrounding areas.

Figure 2 Development Strategy



3.2 Development Strategy

The Development Strategy for Doha Municipality is summarised spatially in the Doha Municipality Structure Plan derived from the QNDF (Figure 2).

3.2.1 Development Strategy Summary Future Growth Management

Doha Municipality will remain the commercial, cultural and administrative heart of the country. International, national and specialized business will be focused within the Capital City Precinct and its three Capital City Centers (of West Bay, Downtown Doha and Airport City). This is where urban design and public realm improvements, together with the construction of innovative, energy efficient buildings, effective utilization of the underground metro and public transit systems, and improved parking and traffic demand management will be undertaken within the Capital City precinct to improve the quality of the living and working environments.

Urban rejuvenation and renewal projects such as Mshereib will be encouraged within the inner city residential and commercial transition area between Downtown Doha and B-Ring to create vibrant medium density neighborhoods characterized by mixed use, additional public open spaces, a high quality public realm and walkable streets. Beyond the current plan period, this transition zone may accommodate further planned expansion of the Downtown Doha Capital City Center.

The West Bay tower district will continue to grow as the major employment location for the country and the main commercial and government Central Business District (CBD). The impact of new residential towers will be carefully reviewed with a greater focus on mixed-use buildings that incorporate residential, commercial and community activities. It will also attract international and multinational company headquarter offices. An Area Action Plan will be prepared for West Bay to identify the key land uses, public realm and implementation actions required.



Downtown Doha will continue to develop as the cultural heart of Doha. Old Doha is rich in heritage and contains irreplaceable heritage assets, street patterns and traditional neighbourhoods. Through Action Area Plans, these areas will be identified, protected and provided with new economic activities to reinforce the strong cultural and commercial identity of Downtown Doha.

The built form of Downtown Doha will be sympathetic with existing cultural icons such as the Islamic Cultural Center and Soug Wagif and surrounding high density,

mixed-use areas. The continued economic vitality of this second Capital City Center, commercial activities and Government institutions will also be supported through medium rise buildings surrounded by high quality streets and public spaces.

The existing Doha International Airport site will be redeveloped to form the third Capital City Center after 2017. It's future roles are envisaged to include a mixture of commercial, high tech and value added knowledge-based industries, and airport-related logistics and tourism accommodation. The redevelopment will focus on creating a high quality public realm with significant tracts of public open space including a future sports facilities hub, surrounded by high and medium density residential development.

Elsewhere in Doha, there will be significant urban redevelopment of some Town Centers and residential areas to create vibrant and accessible neighborhoods. As urban growth and consolidation occurs, new Town Centers will be required at the former international airport site, Qatar University, and legacy opportunities associated with Qatar 2022 and future Olympic bids for Qatar. These new Town Centers are not anticipated to fully mature before 2032.

West of Downtown Doha, the existing strip shopping street along Al Sadd Street will be guided, over time, to form the basis of a new Town Centre with a range of mixed-use, mixed density development. A high quality, high street-type environment is envisaged to support the inner city areas.

A greater diversity and mix of uses will be introduced into a new Town Center within the Doha Industrial Area to cater for the predominant worker population.

3.2.2 Strategy Implementation

The key actions to achieve the future development of Doha Municipality are:

- Promoting a high quality Capital City Precinct that is on a par with other major international cities having a vibrant, attractive and sophisticated public realm where high quality lifestyle choices are achieved;
- Making a robust commitment to the achievement of mixed-use and mixed-density centers under the QNDF centers hierarchy;
- Promoting the location of employment activities, retail, commercial, leisure and entertainment, community services and public facilities within centers which provide greater accessibility to their surrounding residential catchments;
- Ensuring a close relationship between centers, residential areas, major employment nodes, and metro stations and other forms of public transport;
- Promoting higher residential densities and a wider range of housing accommodation within and around centers to achieve transit-oriented outcomes.

- Ensuring that mega projects and related large scale infrastructure facilities and networks are integrated with existing and planned urban development
- Facilitating a modal transfer to the underground metro network and a high quality public transport system, and ensure that radial routes act primarily as transit corridors, whilst promoting orbital road routes to enable a balanced urban growth structure
- Introducing a new density approach and building typologies in urban areas to promote a wide range of accommodation types
- Protecting and enhancing the natural and built environment, through the provision of major public open spaces and a network of smaller local parks, reserves and public realm developments.
- Seeking a high level of amenity and accessibility to day-today needs and community services for residents, workers and visitors.

In addition, the Development Strategy comprises several sectorial components each of which influence and work together to realise the Vision for the municipality. They are:

- 1. Hierarchy of Centres
- 2. Key Employment Nodes outside Centres
- Residential Areas
- 4. Community Facilities
- 5. Open Space and Sports Facilities
- 6. Natural Environment
- 7. Movement
- 8. Utilities
- 9. Commercial Corridors

The contribution of each of these spatial elements and their significance for the future form and development of Doha Municipality is outlined below.

3.3 Hierarchy of Centers

The most important component of the spatial structure for Doha Municipality is the QNDF hierarchy of centres. Centers are the main locations of employment, community services, retail and commercial activity, and transport services. The hierarchy consists of a network of mixed-use and mixed-density centers each with a specific role, function and scale serving a surrounding population catchment. A high level of self-containment is sought. The hierarchy as it relates to Doha is discussed below.

3.3.1 Capital City Centres

At the top of the hierarchy are Capital City Centers serving national population catchments of 500,000+ people. The QNDF identifies three Capital City Centers as the heart of Metropolitan Doha which together form the Doha CBD precinct.

They are the cultural, commercial and civic hub of Doha providing the focus for high-order Government administration, community facilities, retail, commercial business head offices, and specialized personal and professional services. They are also the largest concentration of employment and economic activity as well as higher density residential accommodation, and contain cultural, entertainment, tourism and hotel facilities of national importance.

The Capital City Centers will be the location for international, national and specialized knowledge-based business.

Their zoning is predominantly Special Development (SU) which caters for high density land uses.

(a) West Bay Capital City Center

As the central business, government and commercial district for Doha providing for public and private sector head offices, West Bay is a dramatic statement of Qatar's drive and intention to be noticed on the World Stage. Served by the underground metro (Red Line) a high level of connectivity throughout the center is essential.



With a world class skyline and dramatic peninsula setting on Doha Bay, connection to the water's edge is a unique opportunity that will drive the development of West Bay. With defined residential neighborhoods to the north and west, a commercial tower district core located around the central intermodal public transit station and convention center, and a commercial office spine mirroring the Corniche, the future development of West Bay is both an urban renewal and retrofitting task and an expansion of a growing modern city center.

The future direction for West Bay is to:

- Clearly define and regulate the form and scale of development in the core business area;
- Completed development of the high density residential tower neighborhoods and ensure adequate availability of essential community services;
- Improve pedestrian connectivity and safe traffic circulation throughout the entire area;
- Enhance street amenity through a higher quality public realm, expansion of open space networks, activation of streets through ground floor mixed uses and suitable design and land use regulations, and management of parking and movement.

This rethinking of the urban structure will enhance West Bay and firmly define its role as the premier location for business and high end residential living in Doha.



(b) Downtown Doha Capital City Center

Downtown Doha is the historic and cultural heart of the City and also a focus for government institutions, hotel accommodation, retail, commercial, business and professional services, as well as cultural, tourism and entertainment facilities of national and international significance. The area is served by the underground metro (Gold Line) and will also have access the future expansion of the Red and Green lines in the metro network.

Located in the heart of the Downtown area is the Msheireb urban renewal project. Msheireb is a major mixed-use urban renewal development which includes a combination of commercial and residential properties, retail, cultural and entertainment areas as well as major government buildings, heritage sites, a museum, cultural forum, National Archive and Eid Prayer Ground. It seeks

to bring people back to the area and to revive the old commercial heart of the city through a blend of traditional Qatari heritage and aesthetics and modern urban design.



The close connection of the historically and socially important sougs with the waterfront and the dhow marina and port are vital to the development of Downtown Doha. The Corniche Park and the culturally significant Museum of Islamic Art and the future National Museum quarter provide a memorable interface between the city and the water. The crescent shape of the bay promotes visual connections between the Downtown and West Bay. The Corniche Park that mirrors the crescent is the iconic symbol of Doha and Qatar and an important urban structural element in the connection of West bay, Downtown and the future Airport City.



Within the Downtown area, investment in public spaces should create more active recreational opportunities. The role of the Grand Park can be supported and complemented by a series of urban parks and plazas that enhance, celebrate and memorialize important elements of the city. The introduction of a Souq Waqif Park to enhance the setting of the Fort, the creation of urban plazas along Grand Hamad to define the entry points to Souq Waqif and the Al Fanar, and a monumental square north of the souq promoting the connections of the historic souq with the water will enhance the City Core, architecturally, socially and culturally.

(c) Airport City Capital City Centre

Towards 2017 and beyond, parts of the existing Doha International Airport site will be redeveloped in time to form the third Capital City Center. Airport City will be primarily aimed at providing a mixture of land uses such as hotel accommodation, commercial offices, high tech and value-added knowledge-based industries, a free zone, a technology incubator and logistics sites for bulky

goods storage associated with the Hamad International Airport.

The redevelopment will also create a high quality public realm (including a sports facilities hub) with significant tracts of public open space adjoined by high and medium density residential development.

3.3.2. Town Centers

Town Centers are the third level of the centers hierarchy and are designed to cater for the weekly and day-to-day needs of surrounding suburban residential catchments of 50,000-100,00 people.

There are four Town Centers designated in Doha Municipality:

- Al Gharrafa Town Center (shared with Al Rayyan Municipality)
- Al Sadd
- Old Al Matar
- Doha Industrial Area

Their purpose within Doha Municipality is to cater for more local-level mixed density mixed-use business, convenience retail, small commercial premises and branch offices of government, banking and community services, and local employment. They may also contain lower-order cultural, entertainment, health, and education

facilities. High quality, medium to low density residential neighborhoods will be integrated with these centers.

Town centers are generally developed around a well-defined central core of public and private facilities, and have good access to public transit services such as a metro station. Residential densities are higher within and around the immediate town center core, but graduate down to medium - low density residential development in the surrounding suburbs.

An Action Area Plan (AAP) for each Town Center will be developed to ensure a mixed-use, mixed density approach that meets the needs and expectations of the residential catchment served.

(a) Al Gharrafa Town Center

Al Gharrafa Town Center straddles the boundary of Al Rayyan Municipality and Doha Municipality and is located at the crossroad of Al Shamal Road and Al Markhiya Street. The Center is proposed to serve north-west Doha, the northern part of Al Rayyan and the southern area of Umm Slal Municipality. The center will be serviced by a metro station for the proposed Green Line post 2017.

The Center is already a well-established retail destination with major mall and retail offerings provided by the Landmark Mall, Lulu Hypermarket, Gulf Mall and the Gharrafa Mall serving the regional needs of the northern portion of the city. Other future developments adjoining the center include a boutique hotel with medium density residential housing.

The overall form of development envisaged is medium density in scale, with heights ranging from 2 to 4 storeys in height. The zoning is Mixed Use (MU1) with an emphasis on a mixture of retail, commercial, offices, hotels and community facilities to provide diversity and precinct activation. A high level of connectivity and accessibility throughout the precinct is envisaged. Provision will also be made for single family housing, some extended multi-family accommodation on suitable sites, and a centrally located park within the town center precinct.

Residential development surrounding the town centre will be predominantly low density (R1) in character mainly comprising detached and semi-detached family homes.

There are a number of opportunities to diversify the current employment and residential activities within and adjoining the town center precinct through comprehensive regeneration of strip commercial areas along the southern perimeter by introducing mixed use development with retail and office at street level and medium rise apartments and townhouses above.

The introduction of a range of community facilities into the town center precinct, such as Juma mosques, a library, youth centers and emergency response facilities is encouraged. The development of the center will need to focus on improving pedestrian access between uses and public open spaces. To achieve better connections across Al Shamal and Al Markhiya Roads, pedestrian links/connections are to be implemented and integrated with open space and landscaping creating a

contemporary gateway destination and entrance to Doha from the north.

(b) Al Sadd Town Center

The Al Sadd Town Center will develop along Al Sadd Street and Al Difaaf Street. Anchored by future Gold and Blue metro line station transit nodes at either end of Al Sadd Street, the Al Sadd Town Center will retain a traditional main street design focus, incorporating transit oriented, high density, vertical mixed use development around both transit nodes. The overall form of development within the center is medium to high density in scale. There will be an emphasis on a transit orientation and a mixture of uses creating diversity, street interest and activation, together with a high level of connectivity and accessibility throughout the precinct. Multi-family housing on selected sites and two district parks are also planned within the town center.

The zoning for the majority of the Center is Mixed Use 1 (Retail) and Mixed Use 2 (Office).

Residential development surrounding the town centre is predominantly medium-high density (R4) multi-unit housing in character to the south of the town centre, with a maximum height of G+5, and high density (R5) multi-unit apartment living with a maximum height of G+7 to the north and east. These densities are designed to support transit-oriented development outcomes within an inner city environment anchored on a town center and major employment locations, and where there is a high level of public transport services available.

Vacant and underutilized land between the two stations will be redeveloped for commercial, retail and higher density residential activities. Affordable housing providing accommodation for workers engaged in the service industries should form part of residential development within the town centre.



From the west, Al Sadd Town Center forms a key visual gateway to Doha City, as well as an important transit interchange point, allowing connections to different parts of Doha, such as West Bay, Downtown Doha and the Airport. To the east, development around the intersection of Al Sadd Town Center and the C-Ring road requires careful design outcomes, as the expansion of the town center along C-Ring could potentially devalue the role, function and success of Al Sadd Town Center as a main street destination where walkability and livable center outcomes are a high priority.

The extension of commercial development along C-Ring, near the intersection of Al Sadd Town Center should incorporate destination or local facilities that enhance and support the town center in its role as the civic focus for

the community, as opposed to attracting competing interests and developments that decline the future development and growth of the center as planned.

The Doha Municipality office is already located within the precinct and the center is well placed to assume a secondary town-wide administrative role by becoming the focus for government and community facilities. A Grand Juma Mosque and Daily Mosque are required along with college/vocational training center, youth centers, library and emergency response facilities. Development will preserve the high street character of the town center with new retail development providing direct street level access. Retail accommodation will be encouraged at the ground floor of mixed use buildings.

Al Sadd Street needs to be redesigned to promote a pedestrian-friendly environment with Al Difaaf Street also being a pedestrian priority shared road carriageway. The design of building should achieve a continuous and visually interesting street edge or facade at ground floor, adopts a human scale of architecture and establishes a vibrant and dynamic public realm that animates the streetscape and facilitates human activity.

(c) Old Al Matar Town Center

Al Matar center is located on the intersection of D- Ring and Al Matar Road near the current international airport. The centre will act as a key Gateway from south-eastern Doha and Al Wakra. The role of the center will be to service the catchment of south eastern Doha and meet the daily and weekly convenience needs of residents

through retail development along Al Matar Qadeem. Commercial office accommodation will be located along Al Matar Road.

The zoning will be a combination of Mixed Use 1 and 2 (MU1 and MU2).

The overall form of development within the center is of a medium density scale, with heights ranging from 3 to 5 storeys. There is an emphasis on a transit orientation and a mixture of retail, commercial, offices and community facilities creating diversity, street interest and activation, together with a high level of connectivity and accessibility throughout the precinct. Provision will also be made for some detached single family housing as well as multifamily housing, a park and several smaller open spaces serving community needs within the town center.

Increased building heights are envisaged at the junction of Al Matar Road and Al Matar Qadeem to highlight this key node. Away from the junction building heights should be slightly higher in the District Center than in surrounding residential neighborhoods.

The center will accommodate a Transit Oriented Development metro station with vertical mixed use development. Building heights will be increased on Al Matar Road so it acts as a visible marker and gateway to the District Center. Schools and other community services can be provided close to the District Center as part of a walkable neighbourhood.

The nature of surrounding residential development immediately to the south of the town centre is medium

density (R3) in character comprising a mixture of longestablished detached dwelling houses, multiple dwellings and smaller–scale apartment not exceeding 3 storeys in height. Low density housing (R1), predominantly made up of well-established detached and semi-detached family homes, and occurs to the west of the town center along the D Ring Road. There may be some opportunities for redevelopment within the area surrounding the town center, but it will continue to be mainly of low density in character.

(d) Doha Industrial Town Centre

A Town Center is proposed on a central location within the Doha Industrial Area to meet the needs of residents and employees within the industrial estate. It provides a focal point for retail, leisure and industrial business support activities, and will be served by the western metro station terminus of the future Green Metro line. The provision of the town center forms part of the proposed redevelopment of the industrial estate for light and medium impact industrial activities, and also in relation to resolving the various physical, environmental, infrastructure and population overcrowding problems which exist in the area.

The existing street grid pattern within the DIA will also enable the provision of a network of lower order centers (one district and several local centers) with open space and community facility provision to serve its population.

The clustering of industrial activities, linkages that promote access between community facilities, open

space and residential accommodation as well as on-site local facilities, demonstrates best practice for planning for light and medium impact industrial areas.

3.3.3 District Centers

District Centers are the fourth level within the centers hierarchy and are designed to cater for the weekly and day-to-day needs of surrounding suburban and local area residential catchments of 30,000-50,000 people.

Within Doha Municipality, District Centers include well defined clusters of local-level mixed convenience retail, local supermarkets, small scale local services, food outlets, and a range local community facilities such as primary schools and kindergartens, and public health centers. These mixed use centers are located predominantly within low to medium density residential neighborhoods, and are generally developed around a well-defined central core of public and private facilities. They have good access to public transit services such metro or bus stations.

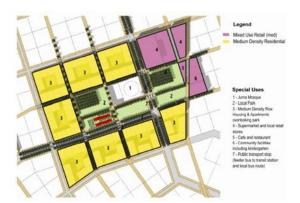
The following District Centres have been identified within Doha Municipality. Their roles and functions are described as follows and more detailed Action Area Plans will be prepared for each of them:

- Pearl –Doha
- Fareej Khulaib
- Al Bustan

- Rawadat Al Khail
- Doha Wholesale market
- Najma
- Umm Ghuwailina
- Nuiaja
- Doha Industrial Northern

3.3.4 Local Centers

Local centers provide for the daily convenience retail and community needs within the immediate surrounding population catchment. They are located on well-defined sites, are small-scale in size, and contain a limited number of small shops.



It is important for the location of a Local Center to be within a convenient walking distance for residents (generally within 400m). The focal point is normally a location with a metro transit station or bus stop, a daily mosque, and complemented by a local park and kindergarten. Local convenience shops providing daily and weekly needs are encouraged especially near existing or proposed community facilities.

Local centres will be identified through a comprehensive planning process for the entire Municipality ensuring that all residential areas are serviced by these Centres.

3.4 Key Employment Nodes outside Centers

There are various centres of employment outside the designated hierarchy of mixed-use centres which are recognised spatially to allow for their continued function and development, and to ensure they are adequately integrated into the overall spatial structure of Doha Municipality. These nodes complement the QNDF centres and contribute to the overall economic vitality of the Municipality, by providing major employment opportunities, and the delivery of higher order public services. It is therefore important for their existing contributions to be protected, maintained and wherever possible enhanced.

The major employment nodes within Doha Municipality include the following:

(a) Qatar University

Qatar University has its main campus within the Municipality. The expansion of the University is encouraged to promote higher education within the country. A masterplan has been prepared that will see the campus of Qatar University significantly increase in size over the plan period with new teaching, residential, sports facilities planned, and the future development of a District Center.



(b) College of the North Atlantic

The College of the North Atlantic also has a campus in the Municipality, located to the south west of the Qatar University Campus. In promoting knowledge based industries it is important that both the College of the North Atlantic and Qatar University create strong relationships with Qatar Science and Technology Park and the proposed Knowledge Park at Al Rayyan North Metropolitan Center, both in Al Rayyan Municipality.

(c) QEZ 1

QEZ1 to the south of Airport City is one of three designated Economic Zones in Qatar. QEZ1 will attract international companies specializing in clean light industries. It will also attract related high value added trade and commercial companies including small-scale manufacturing, technology, logistics and commercial activities. A dedicated bus service is required to serve QEZ1, connecting to the Red-line metro when it is completed by 2020.

(d) Hamad Medical City

Hamad Medical City is one of the largest employers in Qatar. Home to national level medical facilities, Hamad Medical City is the health care hub of Qatar. In addition to providing healthcare it has an important medical research role with strong connections with Education City, particularly the development of SIDRA which itself will employ 2,000 people, and the medical related training courses at Cornell University, promoting scientific research in Qatar.

(e) Al Jazeera Broadcasting

With its headquarters in Doha, Al Jazeera is a world renowned television station with a strong emphasis on international news and children's programming. Al Jazeera is a valuable opportunity as a platform for further media related enterprises to develop in Qatar.

(f) Hamad International Airport

The new international airport is a major employer in its own right and a major economic hub for airport related services such as catering, logistics and hospitality. The airport will also impact on surrounding centers such as the future Airport City Capital City Center, Old Al Matar Town Center and QEZ1 with businesses seeking to be close to the airport. The main focus of the Doha MSDP in terms of the Airport is to facilitate its efficient functioning through its integration into the transport network and mitigating any adverse effects through appropriate separation of incompatible uses.



As the main external gateway to Doha City and the country, the airport provides the first Doha experience that greets visitors. This experience is fundamental to the branding and international image of the city and country. Development of the airport, its surrounding areas and the entrance corridors to the Capital City precincts, must be undertaken carefully and in an integrated manner. This is particularly the case in relation to the many proposed developments and future urban renewal projects being planned for this area and the future Airport City. Included are:

- a major sports venue and water sports facility precinct
- construction of one of the Qatar 2022 FIFA stadiums and support facilities
- QMA Desert Park
- Celebration Park
- Doha Bay Crossing

- the Gold Line Metro Rail
- urban renewal projects on parts of the old international airport and older parts of city adjoining the airport area.

(g) Doha Industrial Area

Doha Industrial Area (DIA) will remain as a major employment center, with a shift towards lower impact manufacturing and service industries largely addressing the needs of the domestic market.

To achieve the change in manufacturing activity the DIA needs to be transformed to ensure it plays its role in Qatar's economic growth. Improving the environment, addressing the residential overpopulation, and modernizing the infrastructure of the DIA is critical if it is to attract new companies and encourage existing companies to move up the value-added chain.

An Action Area Plan will be prepared for the DIA, which sets out the long-term vision to improve the quality of the working environment with the removal of noxious industries, improvements to transport and highways, public realm, creation of new landscaping features, provision for new housing, community and recreation facilities and the creation of new Town and District Centers with a clear distinction between residential and industrial activities.

(h) Doha Port

Doha Port will transfer its role and function to the new port at between Al Wakra and Mesaieed in Al Wakra Municipality over the MSDP plan period. Until the new Doha Port is fully operational, Doha Port will remain the key port for Qatar serving a vital logistical role for the country's immediate economic growth. When the new Doha Port is fully operational the existing port will be converted to recreational and entertainment uses. The QNDF also seeks to ensure that the existing port is utilized for cruise ship berthing.



3.5 Residential Areas

Residential areas comprise most of the land inside the Municipality. Almost all of the land zoned residential is already built out, therefore intervention is not directed at the design and form of new subdivision but in redevelopment and improvement of the street scene. A particular challenge is to encourage the release of vacant private lands which remain undeveloped and unused.



(a) Amenity outcomes common to all densities

Some amenity outcomes are common to all residential areas, and are the chief determinant of residential character. Specific planning and urban design outcomes

which need to be addressed in achieving livable residential neighbourhoods, are:

- Enhance street amenity by improving the relationship between buildings and public realm to create a network of walkable streets.
- Develop one level pedestrian environment where pedestrian access to buildings is at ground floor level and pedestrian movement happens at street level.
- Retain the historic street pattern as much as possible.
- Introduce a series of small public spaces at key locations such as mosques as natural gathering points for the community.
- · Provide private amenity spaces in developments.
- Support a mix of property types to cater for differing accommodation requirements
- Promote housing types that address the microclimate through providing shade and soft landscaping.

(b) High Density Mixed Use

- Ensure towers have an active ground floor, utilizing podium space and minimizing setbacks.
- Buildings should be designed to face the street to provide visual and sensory experience to passers-by at street level with window and door openings enlivening pedestrian spaces.

- Create a series of outside spaces in the ground floors and entrances of towers for uses such as cafés and restaurants.
- Achieve a vertical mix of uses at key activity nodes around Town, District and Local Centers.
- Reduce parking requirements inside TOD centres (District and above) to encourage use of public transport and to channel future growth into centres.
- Promote lot consolidation to achieve more efficient urban development and better amenity outcomes.

(c) High Density Residential

- Promote higher building heights (G+10) on edge of Downtown Doha and around Al Sadd Town Center, reducing heights as development moves away from the city downtown. South of C Ring Road building heights will be reduced to G+3 with additional height around Al Matar District Center.
- Promote lot consolidation to achieve more efficient urban development and better amenity outcomes.

(d) Medium and Low Density Residential

 Neighborhoods should be based around the concept of the fareej with Arabic townscape elements such as sikka, baraha (small semi private spaces) and meyadeen (larger public spaces) incorporated into the design.

• The traditional courtyard dwelling should be promoted through appropriate regulations.



3.6 Community Facilities

The adequate and timely provision of and access to community facilities by matching to their expected catchment population requirements, is a key component of the Development Strategy. Access is most efficient when community facilities are located within centres. This is facilitated primarily by locating required facilities within those centres through the Action Area Planning Process.



Existing community facilities outside of centres are still recognised through the zoning regulations to allow for their efficient continued operation and expansion, but the regulations strongly urge new facilities be channelled into centres.

3.6.1 Education

There is a shortage of both private and public schools in the central area around the Downtown and Al Sadd Town Center, which has arisen as existing school sites have closed. There is also a projected shortage of independent schools in the far north and far south of the city as vacant land is redeveloped for housing.

The Pearl, West Bay and Airport City are projected to have major housing growth and therefore have been identified as locations for private schools. Private schools should be located within residential areas throughout the entire Doha municipality rather than in limited localities and preferably close to mixed use centers and public transit. The development of private school complexes can help meet the overall shortage of education demand in the country and should be considered in these locations rather than in a limited number of localities.

Closed government school sites need to be retained and reused as private schools in areas of need and where land is scarce such as within C-ring road. Within high density areas consideration should be given to applying a modified set of building and site area standards, exploring the opportunity for higher density schools to be smaller scale, multi-level, and with the potential to share some facilities such as sporting facilities between schools.



3.6.2 Healthcare

There are existing and projected gaps in the provision of Primary Health Care (PHC) centers. Additional PHC centers are recommended east of Downtown Doha and in the mixed use centers including West Bay, Al Sadd, The Pearl, Fareej Kulaib, Najma, and Nauija.

In addition, the provision of PHC for single male workers in the DIA needs to be strengthened, and new facilities provided at the Doha Industrial Area Town Center and at district centers where they are located close to worker accommodation. A secondary hospital should also be provided at the Doha Industrial Area Town Center to provide for single male workers.



3.6.3 Religious Facilities

Mosques should be located at the heart of communities, and co-located with local retail and pocket parks in residential areas and local centers. They should form a key part of the design of Local, District and Town Centers. In all instances the minaret can help add legibility to neighborhoods, given a focal point around which to develop non-residential uses.

As part of any major redevelopment proposal, developers are required to work with MAIA to identifying sites for future mosques based on the required standards for community facilities. Major public spaces such as Doha Grand Park should contain mosques locating them close to roads and future public transit to maximize utilization.



The additional provision of mosques for worshippers in areas such as inside C-ring road south of Rayyan Road, also needs to be considered because of the higher than normal population densities in these neighbourhoods. Some existing Juma Mosques will be downgraded to daily mosques while other daily mosques will be upgraded Juma mosques.

3.6.4 Emergency Response Services

The strategy for the future provision of emergency response services will seek to secure additional station sites so that coverage can be extended to meet the required target response times. Sites for Emergency Management Services and Civil Defence stations should be secured at strategic locations within centres in relation to the emerging road network and coordinated with areawide traffic management and control systems as they are introduced.

3.6.5 Other Community Facilities

Other Government service facilities, such as MOI service centers, Post Offices, Youth Centers, Libraries and Community Centers are important local service facilities and form key components of mixed-use centers. Currently there is a shortage and uneven distribution of such facilities therefore additional facilities are required and the spatial distribution needs to be improved to ensure equitable access by all residents to services.

In order to expand Government services to cover the whole City, sites will need to be safeguarded within existing and planned mixed-use centers where a range of Government facilities can be co-located.

3.7 Open Space and Sports

3.7.1 Open Space, Leisure and Recreation

Open Space forms a key element in how Doha Municipality is structured, and adequate provision and access to open space is an important contributor to amenity and health. Their location within the hierarchy of centers enables the most efficient access.

3.7.2 National Level Park

Doha Grand Park represents one of the largest public parks projects in the region, creating a nationally significant facility at the heart of the capital city. The Grand Park will link the Emiri Diwan in the south to West Bay and the State Mosque in the north and is anticipated to provide a range of leisure experiences overlooking Doha Bay. The Grand Park will become an international icon of Qatar, a key part of Qatar's identity. The Grand Park's identity is enhanced by its position on Doha Bay with a strong connection, visual and physical, between the two. The Corniche forms part of the Grand Park and extends northwards and southwards to connect all the Capital City Centers via a linear park route along the coast. To the south the Corniche connects the open spaces of the Museum of Islamic Art, the old port and the existing port. To the north there is the New Town Park in West Bay. All these areas should be developed as part of an integrated open space and leisure network, producing a variety of complementary spaces along the coast.

3.7.3 Metropolitan Park

Metropolitan parks will play an important role in expressing and enhancing the identity and the visual image of the country as well as the benefits the community receive in environmental, economic, tourism, social and health sectors. There is demand for a number of metropolitan parks across Doha. In Doha the demand will be met by a combination of the following committed parks:

- Al Saad Central Metropolitan Park (Zone 38);
- South of Qatar University (Zone 68);
- Airport City mega project

Due to land availability problems in Doha, the National and Metropolitan parks will act as town parks for the adjacent areas that lack town level parks.

3.7.4 Town Park

A Town Park is a multifunctional park that provides a relatively wide range of leisure and sports activities. The park use may focus on specific community needs such as cultural identity related events. Town Parks within a city can have a specific use area such as family or sports and/or public use. There will be at least one Town Park at each town centers. As Doha is characterized by high density areas and the lack of vacant lands; using the minimum of town parks size will be recommended in such cases.

There is a shortage of Town Parks across much of Doha. The broad distribution within the municipality is identified on the open space and recreation facilities master plan. As density plays an important part in the demand for parks, there is a concentration of demand within C Ring Road to meet the needs of the growing family population in this area.

It is proposed to provide the indoor sports core activities within the park, co-located with the main passive nature of the open space function of the park.

3.7.5 District Parks

A District Park provides the same type of facilities and services for a collection of neighborhoods yet on a larger scale, with additional features that meet the expanding recreational needs and/or facilities that are not provided at the local and neighborhood park level. There should be

a choice of Family Park; ladies only park, etc within each local district.

District Parks are also in short supply across much of Doha; the open space and recreation facilities master plan identifies the location of shortfalls. As with the demand for Town Parks there is a concentration of demand within C Ring Road.

3.7.6 Local Parks

The Open Space and Recreation Facilities Strategy will need to consider how demand in high density areas is best met. Within central areas consideration should be given to utilizing surface car parks as open spaces in order to create active urban frontage and enhance the overall built environment.

3.7.7 Other Parks and Spaces

Two or three Neighborhood/pocket parks shall be provided in each local district with different themes and target users so that local people will have a choice of which type of park they wish to visit.

Neighborhood Parks should be provided within walkable distance (250m) of residents. Neighborhood Parks are aimed at those who live in the neighborhood and should be free to enter.

Civic Urban Parks such as squares, plazas and boulevards which provide a free pedestrian space for gathering, resting and strolling are required at all Centers.

There are many instances in Doha where it will be difficult to allocate standard size of open spaces in an urbanized area. In such cases even small spaces can add value to the neighborhood. They should be designed to respond to the higher use demands that will be placed on such spaces.

3.7.8 Development Restrictions in Parks

Inappropriate development within the parks will be discouraged to ensure the integrity of the open space is maintained. In addition, where possible, major road infrastructure should either be diverted around the parks or placed in tunnels to ensure that the parks are not severed by road infrastructure.

3.7.9 Green Network

In addition to the provision of parks it is desirable to achieve a network of spaces that are linked by green corridors. This has benefits from both a biodiversity and recreation perspective. Doha is characterized by a series of Wadi and Hills. This should be protected and integrated into new development. The continuous steep slope leading from near Downtown to the north to Lusail should be kept as open space corridor. Road and utility corridors should also be utilized as green corridors, providing leisure and recreation opportunities.

Road corridors connecting National Parks and Metropolitan Parks are important. The corridor connecting Aspire Park, Al Saad Central Metropolitan Park and Grand Park is a strategically important corridor.

Design and treatment of the road network along this corridor, and similar, need to enhance green and pedestrian linkages with a series of amenities spaces introduced along the corridor.

The landscape treatment of road and utility corridors is required to enhance character and visually connect open space assets. The role of these corridors needs to be considered with a view to adding value to the cityscape.

3.7.10 Implementation

Implementing the above strategy will require land acquisition or land swaps and the utilization of vacant government land to meet the standards. The Open Space Recreation Facilities Strategy and master plan will include an implementation strategy. Developer contributions will be sought for the provision of open spaces with conditions and incentives for the provision of smaller spaces and plazas introduced as part of the planning regulations.

To achieve a lively atmosphere in parks cultural activities should be promoted according to the season. Parks should be designed to allow year round usage with spaces designed to enable use during the day with a lighting strategy designed to control the use of spaces during the evening. Lighting can be used to encourage certain activities during the evening according to the parks role and context.

3.8 Sports Facilities

Al Farjan (Sports Playgrounds)

The existing sports playgrounds within Doha municipality are substandard ones according to study outcomes. New types of more advanced sports playgrounds are recently introduced by QOC that match the international standards.

In the open space and recreation facilities master plan, Al Farjan sports playgrounds are strongly encouraged to accommodate the advanced services and a variety of sport activities.

The most recommended form of the recreational and open space facilities is where the sports playgrounds are provided within the parks as people can use both active and passive open space in the same destination. According to the land availability issue within Doha municipality, the active and passive open spaces will be provided separately, but in a close proximity to each other within the same center.



Ladies Clubs (Indoor Ladies Only sports Playgrounds)

Ladies clubs are dedicated to women and their children, aiming to enrich their social and sports culture; a type of facility that consider the cultural and local trends of the Qatari community and encourages womens participation in sport. In areas that is mainly inhabited by Qataris, a sufficient distribution of ladies clubs have been proposed within the district center at a suitable size to provide indoor sports playgrounds and ancillary services.



Doha Public Parks Program

	Existing Parks		Standards & Guidelines				2017					
Park Type	No	Area (ha)	Proposed Area Ranges	Average Area	Catchment Pop.	Total Demand No. 2017	2017 Gap No.	Required Area(ha)	Total Demand No. 2032		Required Area	
Neighborhood Park	13	3.4	0.1 - 0.25	0.2	1200	724	711	121	670	657	111.67	
Local Park	31	29.1	0.4 to 2	1.2	3000	289	258	310.10	268	237	284.33	
District Park	0	0	2 to 5	3.5	30000-50000	15	15	52.50	15	15	52.50	
Town Park	7	58.8	5 to 15	10	50000-100000	8	1	10.0	8	1	10.0	
Metropolitan / Municipality Park	2	138.2	60 to 200	130	200000	4	2	304.36	4	2	262.49	
National Park	1	222	N/A	N/A	2 million +	N/A	N/A	N/A	N/A	N/A	N/A	

Community Oriented Sports Facilities Program (District Level)

Facility Type	Facility Classification	Size		F	acility Per U	ility Per User Group			Total No. of Facilities	
					ed	Fem	ale			
		Pitch Dimension	Sqm Plot	Quantity	sqm plot	Quantity	sqm plot	Quantity	sqm plot	
Indoor Sports Field	Sports hall	30*36m	3,200	32	102,400	14	44,800	46	147,200	
	Shaded tartan sports field	15*30m	1,350	10	13,500	0	0	10	13,500	
	Artificial grass - FIFA standard	68*105m	10,550	0	0	0	0	0	0	
Outdoor Sports Field (Shaded)	Double FIFA Standard/ Cricket Combined (artificial grass)	120*156m	23,075	2	46,150	0	0	2	46,150	
	Artificial grass - 5 aside	25*35m	1,550	36	55,800	0	0	36	55,800	
	Artificial grass - 7 aside	35*50m	3,000	11	33,000	0	0	11	33,000	
Swimming Pool	Training	15*25m	4,000	12	48,000	6	24,000	18	72,000	
	Standard	25*50m	10,000	2	20,000	0	0	2	20,000	
Total No. of Additional Facilitie	Total No. of Additional Facilities					20	68,800	125	387,650	

Community Oriented Sports Facilities Program (Town Level)

Facility Type	Facility Classification	Plot Size	F	acility Per	User Grou	р	Total No. o	f Facilities
		(Sqm per facility)	Mix	ted Female				
			Quantity	sqm plot	Quantity	sqm plot	Quantity	sqm plot
Tennis	Tennis Court	1,300	71	92300	20	26000	91	118300
Squash	Squash Court	350	8	2800	0	0	8	2800
Beach Volleyball	Beach Volleyball Field	1,500	6	9000	0	0	6	9000
Athletics	Track and Field	22,000	1	22000	0	0	1	22000
Total (sqm)			86	126,100	20	26,000	106	152,100

3.9 Natural Environment

3.9.1 Coastline

Doha Municipality has as short length of coastline mainly comprising the Corniche and the West Bay Tower District much of which is man-made through reclaimed land or modified coastline. It comprises a key scenic, environmental amenity and open space area, and is a major element in the structure of the City. As such planning needs to ensure that development appropriately reflects its sensitivities and that its contribution to amenity is maximised.



An Integrated Coastal Zone Management Plan is to be prepared and will guide future strategy and policies affecting Doha's coastal environment.

Sea level rise caused by climate change is one of the main threats to the coastline of Doha Municipality as a significant amount of urban development has occurred within close proximity to the coastline. To better understand the potential impacts of sea level rise on the municipality's coastline a Coastal Flood Risk Assessment should be carried out to inform future mitigation measures. Essential infrastructure, particularly utilities and emergency services should not be located in risk areas. Developers should apply the precautionary approach to development adjacent to the coastline.

3.9.2 Waste Management

There is a need for a step change in recycling across Doha City; this can be achieved through the introduction of recycling facilities in accessible locations in apartment complexes and compounds, in mixed-use centers and in industrial areas, as well as through recycling awareness programs and incentivized schemes.

3.10 Movement

Transport is the component that binds all other elements together in forming the structure of Doha. Various subcategories are discussed below. The Metro network is the most important as it is the focus of most new higher order (District and above) centres and a major contributor to achieving transit-oriented development outcomes.



3.10.1 Integrated Transport Strategy

A transition from a private car dominated society to a pedestrian friendly society needs to occur within the municipality, through the availability of high quality public transport systems and services being essential. This will not necessarily occur prior to 2017, however, every effort should be made towards this.

This transition will depend on two major factors:

The provision of quality public transport services;

A change of spatial development pattern.

An increase in residential population and densities within the existing and newly designated centers in Doha should assist this transition together with improved accessibility and mobility between the centers and other areas through the wider availability of public transport modes and a more pedestrian friendly transport environment.

It is important for current planning to consider and complement the future metropolitan rail lines. To maximize the benefit of metro rail stations it is imperative that the street system be re-structured in a hierarchical manner to provide and promote excellent mobility, accessibility and integrated opportunities for introducing quality public transport services within the centers and surrounding areas. This should be progressed by:

- Preparing conceptual plans for such inter-modal facilities once such Metro stations locations are identified. Those stations should be fully integrated into the proposed mixed-use centers.
- Re-structuring of the highway / street systems to meet TOD requirements.
- Designating key pedestrian routes and cyclist networks together with a public realm improvement plan including a green open space network, as part of metro and bus station design and operation.
- Promoting the use of high quality bus based public transport to connect the residential neighborhoods with the mixed use centers and rest of Metro Doha.

 Developing a choice of metro stations strategically located within the proposed urban areas providing bus feeder connections where required.

3.10.2 Metro Railway

The proposed metropolitan railway network connects the Capital City Centre and Metropolitan Centers of Doha via four alignments which dissect the city. The main station for Doha is Mshereib where three alignments (Red, Gold and Green lines) – along with a Bus Rapid Transit System – will connect.



There are two main phases for the rail:

- Phase 1 (2019): The Red line alignment which runs from Al Wakra to Al Khor via Mshereib. The Golden Line which runs out to Al Rayyan South along Al Waab Street from Airport City. The Green line to Education City.
- Phase 2 (Post 2022): Involves an extension of Golden and Green Lines to the Industrial Area, and the implementation of a Blue line which runs along C

Ring Road and connects the other alignments. Connections to the long distance line will also be included.

The proposed metropolitan railway line connects the hierarchy of centers as follows:

- Capital City Centers: West Bay, Downtown Doha and Airport City will all be connected in Phase 1 via the Red and Golden alignments.
- Metropolitan Centers: All centers will be connected in Phase 1 via the Golden and Green alignments.

The majority of the lower order Town Center and District Center locations within Doha Municipality are either serviced by the metro system or will have feeder bus services to connect them.

From a vertical alignment perspective all the rail alignments inside of D Ring Road will be underground. Outside of D Ring Road the majority of the alignments will be elevated with some sections at grade. This ensures minimum disturbance to the public realm.

3.10.3 Intermodal Station

The intermodal station at Mshereib is a key hub for major rail lines, the BRT and bus services, and will operate as the public transport centre for Doha Municipality (and Metropolitan Doha). It will be designed to provide ease of transfer between public transport modes. It is also a key commercial opportunity for development as a signature Transit Oriented Development and commercial hub on

the edge of Downtown Doha, containing a vertical mixed use development.



3.10.4 West Bay Transit System

The ultimate design of the WBTS and how it integrates will be dependent on the type of system and the number of estimated passengers. However it is essential that it be fully integrated into the Metro Red Line to allow easy, safe and convenient transfer to/from the WBTS system.



The implementation of the WBTS should not detract from the townscape of West Bay, nor create barriers to pedestrian movement at ground level. Small scale commercial development in the form of convenience retail and cafes will be encouraged at stops.

3.10.5 Park and Ride

The provision of Park and Ride sites can play an important role in reducing traffic congestion and parking problems in Doha Municipality. In the short term, sites on the edge of the Capital City Precinct should be provided to help reduce demand for parking within the Capital City Centers. When the BRT and Metro system are operational, Park and Ride sites should be located further out, to help capture commuters close to home and be colocated with neighbourhood, local and district centers where possible to maximise their attractiveness and utility for metro users.

Opportunities for the provision of Park and Ride should also be considered for all mixed use centers outside the high density residential areas. Park and ride sites should be designed in an integrated way with existing and proposed retail centers, enabling the dual use of car parking spaces throughout the day.

Parking spaces should be covered with shading structure with safe and covered pedestrian routes connecting the parking area to the metro station entrance. The majority of car parking spaces should be located within 250m of the metro station entrance.

3.10.6 Street Network

The dominance of the private motor vehicle within Doha is a major challenge to encouraging the use of public transport and reducing the effect roads have on amenity.

There will be no new expressway systems within Doha Municipality, while some arterial roads will be upgraded as part of the Doha Expressway (DXW) system according to the current roadway improvement program. In order to achieve desirable livability and sustainable land use and environmental outcomes high order roadway systems should be restricted inside C-Ring road to create pedestrian friendly environments, while D-Ring road will be a part of the Expressway system to accommodate the through-traffic.

Where roads have already been committed to or are being built, the emphasis will be on mitigating the effects of those new roads on surrounding communities such as reducing severance and introduction of noise buffering and landscaping.



Within Capital City Centres and surrounding areas the street system should be re-structured to achieve maximum accessibility to multiple destinations in the center areas from the high-order highway system surrounding the centers. The streets should be developed in a pedestrian friendly manner, and any new road infrastructure should not restrict pedestrian movement or have a damaging impact on the setting and amenity of residential neighborhoods.

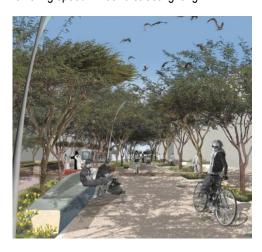
In key activity nodes, commercial corridors and major parks where high flows of bus passengers, cyclists and pedestrians can be anticipated, the design of the road should respond to its context by reducing traffic speeds, lane widths and increasing the number of crossing points and bus stops.

3.10.7 Pedestrian and Cycling

Throughout Doha there are a number of major barriers to pedestrian movement. An increase in the number of grade separated pedestrian crossings is required with priority given to locations around mixed-use centers, commercial corridors and within walking distance of key community facilities such as Juma mosques, schools and health centers.

The system of Sikkas within Downtown Doha should be extended to improve pedestrian and cycling movements, while at the same time be coordinated with an improvement to the public realm.

Within mixed use centers streets should be designed to promote pedestrian priority. Measures include traffic calming techniques such as widening sidewalks, narrowing lane widths, reducing the number of lanes, lowering speed limit and street lighting.



The National Bicycle Master Plan provides the overarching strategy for enhancing routes and facilities for cyclists in Qatar. Priority should be given to those routes that connect the mixed use centers, with routes forming part of the integrated public realm design in activity nodes. As part of the national strategy key long distance leisure and commuter routes should be prioritized:

- Lusail to Airport City coastal route
- Fareej Kulaib District Center to Corniche via Grand Park

- Central Park to Grand Park via Rayyan Road (extending from Aspire Park via Al Wabb Street)
- Al Thumama to Downtown Doha via Green Network Corridor

Developers will be required to provide facilities for cyclists in the form of cycle parking within premises. Cycle parking should also be provided as part of the public realm in mixed use centers and at public transport stations and stops as they are developed. Cycle storage and shower facilities should also be provided in workplaces to enable long distance cycling to work.

3.10.8 Parking

Currently there are major issues with regard to the onstreet and off-street parking across the mixed use centers and large parts of the city Downtown. The shortage of parking is driven by both the lack of public transportation and failure to enforce the planning regulations. Poor land use planning and inappropriate development can also result in parking shortages.

Temporary structure parking (including temporary use of vacant land) can be used to accommodate the parking demand. If such spaces are inside the TOD center areas, those will be converted to other land use such as public parks after completion of the metro lines. Over the long term permanent public car parking in mixed-use centers should be located underground with public open space above.

Ultimately however parking requirements will be reduced inside centres, to encourage development within them and to utilize the ability of public transport to meet the needs of residents and people visiting or working in the centres.

All new development will be required to adhere to all the relevant parking regulations, including those regulations dealing with the design and positioning of car parking. In high density areas the impact of parking should be reduced through placing car parking underground or to the rear of properties. Exposed car parking at the ground floor of buildings will not be permitted.

In commercial areas car parking should be provided as per the standards. Adequate enforcement is also required. Surface car parking on government owned land should be gradually reduced with an emphasis on enhancing the quality of the setting of key buildings.

All proposals in parking will be consistent with the national Parking Master Plan which is currently being prepared by the Transport Planning and Infrastructure Department.

3.11 Utilities

3.11.1 Water

A few limited areas within Doha municipality are not covered by the existing RPS. There are some major changes in terms of RPS coverage in Doha in future including a new Salwa RPS, Doha South RPS & Associated Pipelines: 4 new reservoirs of 6 MIGD capacity, each plus one new pump station with 4 pumps, and a new desalination facility in Ras Abu Fontas. Accordingly no critical issues are anticipated if the planned infrastructure program proceeds.

3.11.2 Wastewater

No issues are anticipated if the planned infrastructure program proceeds. A TSE balancing pond is proposed at Doha Grand Park. Other new major public open spaces should be considered as potential locations for TSE balancing ponds.

3.11.3 Stormwater and Shallow Groundwater Drainage

There are opportunities to enhance shallow groundwater quality and limit the impact of rainfall on the transportation network through the introduction of sustainable drainage techniques. There is the potential to use what wadi's and rodah remain in Doha in the management of storm water.

Shallow groundwater quality needs to be protected through better monitoring of the development industry. An assessment of the impact of development on the water table is being undertaken which will be used to inform future techniques. If the quality of shallow groundwater in Doha is assured, this can be used for landscaping purposes and potentially for district cooling.

3.11.4 Electricity

There are potential shortfalls in electricity supply across areas of growth in Doha. These include the new town centers, QEZ1, City Downtown, Airport City, The Pearl, West Bay and new transport systems including Automated People Mover, Metro Lines, and Tram. The provision of new infrastructure should be aligned with new development.



3.11.5 Telecommunications

The provision of telecommunication infrastructure services and facilities across Doha, should be integrated into new developments to minimize the needs for sites and the visual impacts on neighbourhoods...

New broadband infrastructure is expensive to install and should therefore be phased as part of new development to avoid the costs and disruption of future realignment or removal works.

3.12 Commercial Corridors

The creation of new or expansion of existing retail corridors is discouraged as they conflict with the purpose, role and function of centres, unnecessarily encourage private vehicle usage, present traffic safety issues, increase the need for road expansion and construction, and also lead to major environmental impacts. A limited retention of some significant existing corridors is accepted in recognition of the large amount of investment they represent and the small likelihood the activities they contain will be channelled into centres within the plan period.

Two corridors are proposed to be retained:

- Salwa Road
- Al Matar Road

Further expansion of these corridors is however not permitted.

To serve these corridors, improvements to public transport facilities including provision of bus laybys and screened shelters, as well as upgrading the reliability and frequency of services will need to be prioritized.