

أبوظبي  
Abu Dhabi  
العين 2030  
Al Ain

Plan Al Ain 2030  
Urban Structure Framework Plan





**His Highness Sheikh Khalifa bin Zayed Al Nahyan**  
President of the United Arab Emirates and Ruler of Abu Dhabi





## UPC MANDATE

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His Highness Sheikh Mohammed bin Zayed Al Nahyan, Crown Prince of Abu Dhabi

The Abu Dhabi Urban Planning Council (UPC) was created by Emiri Decree number 23 of the year 2007 and is the agency responsible for the future of Abu Dhabi's urban environments, and the expert authority behind the visionary Plan Abu Dhabi 2030 Urban Structure Framework Plan published September 2007. Chaired by His Highness Sheikh Mohammed bin Zayed Al Nahyan, Crown Prince of Abu Dhabi and Chairman of the Abu Dhabi Executive Council, the UPC defines the shape of the Emirate, ensuring factors such as sustainability, infrastructure capacity, community planning and quality of life, by overseeing development across the city and the Emirate as a whole. The UPC ensures best practice in planning for both new and existing urban areas.

The Abu Dhabi Urban Planning Council's primary purpose is to deliver upon the vision of His Highness Sheikh Khalifa bin Zayed Al Nahyan, President of the UAE, Ruler of Abu Dhabi for the continued fulfillment of the grand design envisaged by the late Sheikh Zayed bin Sultan Al Nahyan and the ongoing evolution of the Emirate of Abu Dhabi. By drawing on local Emirati urban planning expertise, throughout the Cooperation Council for the Arab States of the Gulf (GCC), and around the world, the UPC strives to be a global authority on the future of urban planning and design.

Building on the success of Plan Abu Dhabi 2030, the Abu Dhabi Urban Planning Council is pleased to prepare and approve the Urban Structure Framework Plan for the City of Al Ain "Plan Al Ain 2030" which is contained in this document.







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## EXECUTIVE SUMMARY

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View of the oasis edge: Al Ain will be a contemporary expression of a healthy desert oasis city that builds on traditions of water management and agriculture

The City of Al Ain is an ancient crossroads. For at least 5,000 years it has offered a pleasant, cool respite from the heat of the surrounding desert. It is a garden city of lush oases fed by an ancient irrigation system known as *falaj*.

In order to deliver upon the vision of His Highness Sheikh Khalifa bin Zayed Al Nahyan, President of the UAE, Ruler of Abu Dhabi for the continued fulfilment of the grand design envisaged by the late Sheikh Zayed bin Sultan Al Nahyan and the ongoing evolution of Al Ain as a model desert community, the Urban Planning Council of Abu Dhabi undertook a strategic planning initiative, culminating in this Urban Structure Framework Plan.

“Plan Al Ain 2030”, the Urban Structure Framework Plan, is designed to help Al Ain evaluate and respond to current and future development needs, as well as indoctrinating a strong set of principles, policies and guidelines to guide further planning for new development.

Work on the initiative that produced “Plan Al Ain 2030” included:

- Inspirational sessions with His Highness Sheikh Mohammed bin Zayed Al Nahyan, the Crown Prince of Abu Dhabi, senior

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representatives of the Abu Dhabi Urban Planning Council and senior representatives of Al Ain Municipality and the Abu Dhabi Government, to better understand the vision for Al Ain that would ultimately guide the planning process;

- Economic and demographic analyses to understand the fabric of life in Al Ain, the lifestyle of its citizens and the factors driving demand in the real estate sector;
- Environmental analyses to understand the ecological assets of Al Ain, its biodiversity, ground water situation and its rare location at the nexus of three macro-landscape forms;
- Archaeological summaries to gain a sense of the location and extent of the heritage riches that Al Ain protects on behalf of all citizens of the UAE;
- A 5-day charrette – an intensive design workshop – held in Al Ain in November 2007, involving international experts in diverse fields working side-by-side with representatives from the Abu Dhabi Urban Planning Council, the Abu Dhabi Government and Al Ain Municipality.

## Key Directions

This Urban Structure Framework Plan, “Plan Al Ain 2030”, is a conceptual document that results from subjecting the ideas, themes and directions explored in the integrated design sessions to a rigorous process of review and testing. It articulates the conclusions as a clear vision for Al Ain, expressed through principles, policies, geographic plans, urban design details, and architectural design guidelines. It provides an interim tool for evaluating development and growth propositions prior to full induction of a comprehensive master plan for the city.

This Urban Structure Framework Plan takes as its starting point the cultural and environmental identity of Al Ain. It is projected that the city will grow a lot over the next 25 years. This Plan presents a practical, flexible and sustainable view of the future that is sound enough to accommodate a substantially larger amount of growth than is currently projected. The key directions include:

- Sustainability – For a desert city in one of the most challenging environments in the world, Al Ain has a long history of sustainable development. These lessons from the past will help to inform the present and future. The current era of considerable energy wealth



is only a short period in Al Ain's history but it has left its mark on Al Ain's built fabric. It is essential to accommodate major new population growth without over development, without depleting ground water resources and without encroaching on vital natural habitats or heritage riches. Al Ain's future lies in the ability to prudently use existing wealth to actively explore renewable energy production to reduce the consumption of non-renewable resources and to educate future generations. Resource efficiency is vital.

- **Environmental Priority** – Al Ain's setting at the nexus of the Empty Quarter and Abu Dhabi Emirate's only mountain, Jebel Hafeet, is its most defining characteristic. The Environment Agency estimates that Jebel Hafeet contains 95% of the biodiversity of the Eastern Region. Planning for careful, sensitive growth is essential for preserving these crucial natural assets that give Al Ain its unique character. These assets must be identified and catalogued prior to any development strategy in order for effective development boundaries to be implemented, striking a balance between conservation and development. It is very difficult to reclaim a damaged environment.
- **Cultural Evolution** – Al Ain is strikingly different from the coastal metropolises and a large reason why is its low-scale urban form, resulting from the G+4 height limit imposed by the late Sheikh Zayed bin Sultan Al Nahyan, Founder of the Nation. New development should be designed to comply with this, preserving one of Al Ain's primary differentiators. There should be a range of housing and services, targeting all income levels. Flexibility and creativity will be key to integrating the traditional way of living and simultaneously accommodating the new lifestyle choices that will emerge in a continually evolving culture.
- **Identity** – Al Ain has the rare opportunity to offer a special combination of features in its urban identity: an authentic and safe but also progressive and open Arab city; a personality garnered from the desert, oases and mountains; a traditional agricultural way of life but current with 21st century lifestyle; and a knowledge-based economy founded on the strengths of its universities and hospitals. The city should be defined as much by its natural and heritage riches, as by the infrastructure, streets, businesses and residences to be developed.
- **Life Style** – Above all, it is imperative that Al Ain preserve the pleasant way of life that its inhabitants so enjoy. If the quantity, quality and location of development is not carefully considered, doubling in size could put this at risk. Explicit development

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principles should be used to evaluate proposed projects and to not succumb to persuasive marketing. The tenets of comfortable and convenient livability must be pervasive in all development decisions, with the ultimate goal of retaining Al Ain's character.

- **Modal Choice** – Al Ain is a low-density urban system that is spreading inexorably at its edges. Currently the private car is the primary means for getting around. As the population doubles, Al Ain will need a multi-layered transportation network to connect the downtown core with new growth nodes along the Gateway Transit Corridor. As every trip begins and ends with a walk, Al Ain must also focus on the urban design of its streets and squares in order to produce a cool microclimate that encourages walking.

## A Sustainable Foundation

Al Ain is a modern society shaped by an ancient culture. The strategic policies in this Urban Structure Framework Plan, "Plan Al Ain 2030", are inspired by this history to provide a way of reversing sometimes inappropriate development trends and of satisfying the needs of a growing population. These policies are grounded by the three basic elements of sustainability: the natural environment, economic development and cultural heritage.

**Natural Environment:** Al Ain is blessed with considerable natural riches, including its setting at the nexus of mountains, gravel plain and dunes; the wadis that radiate through its core and dictate its form; and, the aflaj and oases that create historic cultural landscapes. The Plan is founded on protecting and enhancing these riches through: integrating environmental considerations into all land-use planning, endorsing the creation of environmental education facilities, and establishing a comprehensive network of protected areas. It also suggests removal of some existing development that compromises attainment of these goals and recommends specific actions directed to urbanization and urban sprawl.

**Economic Development:** Al Ain is a knowledge centre, famous for its museums, universities and health care infrastructure. Rather than compete with the coastal metropolises for big business and heavy industry, Al Ain should concentrate on these core areas that contribute to its character. What will differentiate Al Ain is the quality of its lifestyle, not the quantity of its shopping malls or skyscrapers. Tourism has an important role to play in this mix, but again, Al Ain's offering should focus on its strengths: its natural setting, its heritage riches, and its pleasant low key lifestyle.



View of the Main Souk: Al Ain's urban fabric and neighbourhood infrastructure will support the Emirate's Arabic values, social arrangements, and culture

**Cultural Heritage:** Al Ain is the spiritual heart of the Emirate of Abu Dhabi, the repository of its cultural memory and ancient wisdom. As the UAE develops rapidly, the heritage riches contained within Al Ain's urban fabric become ever more important. They are a cultural grounding device, reminding all Emiratis of their origins and value system moving forward. For many generations, the tribes of Abu Dhabi spent part of each year fishing and pearling from an island base and part of each year farming dates and ranching camels in desert oases. Al Ain is the largest and most important of these oases, the 'Garden in the Desert', the Royal City. It retains a pleasant livability, founded on its agricultural lifestyle. The extended family is the foundation of social activity and mutual support and the proposed structure of the city in the Urban Structure Framework Plan is to be built out from a basic unit of extended families living together – the "fareej".

"Those who forget their past, compromise their future"

H.H. Sheikh Zayed bin Sultan Al Nahyan, Founding Father of the U.A.E.

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Urban Structure Framework Plan

### Urban Framework

This Urban Structure Framework Plan provides conceptual solutions to shape the growth of Al Ain over the next quarter century. These solutions first address the major issues that shape urban form – the environmental context, land use distribution, transportation infrastructure and network of connected open spaces – and then proceed through more detailed analyses at finer scales.

**Environmental:** Al Ain is situated at the nexus of three spectacular macro-landscape forms: the mountain Jebel Hafeet, the surrounding alluvial gravel plain, and the flowing dunes stretching off to the Rub al Kali, the “Empty Quarter”. These features are form-givers to the city of Al Ain and important elements of its distinctive character. The Environmental Framework Plan is centred on preserving these macro-landscape features from sprawl and encroachment through setting up a gradient of permitted uses.

**Land Use:** The Land Use Framework Plan focuses dense mixed-use development into nodes along a corridor running the length of the city between the two main wadis. The nodes blend multi-family housing with offices and retail space to create the critical mass of residential and employment density that will make transit viable. Industrial uses are shifted to the less constrained area along the new truck route, and Sanaiya is redeveloped into an exciting mixed-use urban neighbourhood, retaining some light, service-oriented industries.

**Transportation:** The Transportation Framework for Roads is predicated on preserving the grid of boulevards that distributes traffic so effectively around Al Ain, rather than constructing limited access highways at great expense. The Transit Framework proposes a layered network to meet different transportation needs. The backbone is a high speed rail link to Abu Dhabi and Dubai, with a surface tram and a network of buses connecting people to the main development nodes.

**Open Space:** The Open Space Framework preserves Al Ain’s ‘Garden in the Desert’ character by drawing the macro-landscape features into the city. Parks, cultural landscapes, natural landscapes and agricultural landscapes are all linked into a coherent, walkable framework. The wadis that traverse the city are developed as a key linking feature in this Framework, connecting the oases, parks and farms into a continuous network.



View of the Al Mudheef Block: urban infill and renewal in Al Ain will focus on the versatile and pleasantly scaled G+4 building typology

## Patterns

**Precincts:** Precincts identify the boundaries of the urban districts that make up the Al Ain metropolitan area. Precincts identified for considerable intensification to in the Plan have been identified, as have districts outside the current urban boundary that are proposed to be included as urban expansion areas for Al Ain.

**Building Heights:** The G+4 height limit instilled through royal decree by the late Sheikh Zayed, Father of the Nation, is strongly endorsed by the Plan, setting G+4 or 20m as the maximum allowable height of development. In lower density neighbourhoods, G+2 is the maximum permitted height, to preserve privacy and view corridors. The domes and minarets of mosques will be the exception to the general principle, in order to give expression to the cityscape skyline.

**Density:** Multi-family residential density is focused into a series of nodes running the length of the city in the east-west direction. Two of these nodes are of a higher order, and also contain significant office density: the Central Business District (CBD) and Asharej. Retail density is also focused in these nodes creating a critical mass of well-blended uses that will support transit ridership and walkability. Two major industrial areas are allocated: a High-Tech Business Park at the



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View of Zayed bin Sultan Street: Al Ain's streetscape design seamlessly integrates traffic and transit, with abundant plantings and shade to cool the microclimate

airport, and a heavier Industrial District along the truck route. Industrial uses are transitioned gradually away from Sanaiya to free up this neighbourhood for redevelopment. Hotel density is clustered in three main areas to meet the different needs of the city: business hotels in the high-density nodes, tourism resorts at the major attractions of Hili, Qattara, the Jebels and Zoo, and both types of hotels in the Central Business District.

### Details

**The “Gateway Transit Corridor”:** The “Gateway Transit Corridor” envisioned in the Plan is devised to channel growth into a transit-supportive framework, allowing real alternatives to the car to develop. It hinges on the creation of five new major nodes along the approach corridor to the Central Business District (CBD), linked to each other and the rest of the city through the surface tram and bus routes. Each node integrates residential density with employment and retail density. The node at Asharej is a higher order centre strategically located at the crossroads to the airport, surrounded by universities, hospitals and knowledge-based industries. It is equivalent to the CBD in terms of residential density and jobs, but at 10km distant, is far enough away to complement and not compete with the CBD.

**The Central Business District:** The downtown of Al Ain is one of the most important districts in the city, but is currently beset by many



problems, including large swathes of underused land, neglect of the built fabric, and a lack of resonance for Emirati citizens. The Plan aims to revitalize it through redeveloping the many tracts of underused land, adding density, amenities and new uses. Complementing this brownfield redevelopment strategy is an overhaul of the street network, focusing on the flyover that is being removed, and the roundabouts that express so much of the city's flavour. No grade-separated or limited-access configurations are supported. The superblocks are overlaid with a fine-grained grid of smaller streets to increase their permeability to pedestrians, and create through-streets that can absorb traffic pressure from the boulevards.

## Building Blocks

**Al Ain Oasis:** All the oases in Al Ain need special treatment and protection in order to prevent deterioration and neglect. Collaborative management through a public trust is recommended, and a scheme is presented for the main downtown oasis, that can serve as a prototype for the rehabilitation of all the oases in Al Ain. The edges of the oasis are hardened with strategic programming to create legible precincts that draw people in: hospitality, mixed-use commercial, cultural, botanical, science, and sport. "Green Fingers" – planted pedestrian byways - connect the oasis out into the city.

**Emirati Communities, the "Fareej":** Informed by the current needs of Emirati communities, several prototypes are proposed to guide the full integration of Emirati neighborhoods throughout the Plan. Residential, retail, infrastructure and amenity development are clustered around a 'high street' or public square, but the shape, boundaries and size of each community differ depending on the setting. Residential densities vary in urban communities to preserve the traditionally lower-density housing style while also providing Emiratis with multi-family housing options. Urban communities are more rigidly defined, by a grid-like system of blocks which allows the urban Emirati neighborhoods to fit seamlessly within the surrounding pattern of the city.

**Al Mudheef Block:** A prototype of urban renewal is provided by the Al Mudheef Block study, which redevelops an abandoned farm and unused guest house into a vibrant collection of small, pedestrian-friendly blocks with a variety of commercial and residential typologies. The strategies employed in this example can be applied across the range of different superblock conditions in the downtown to ensure that it remains competitive with the exciting new districts developing along the Gateway Corridor.

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**High Speed Rail Terminus:** The station is an important anchor in the downtown and the proposed scheme demonstrates how the platforms, parking and drop off facilities could be integrated into a mixed use complex with offices, hotels and retail adjacent to the Mosque, Souk and Oasis.

**Streetscapes:** A series of animated sections illustrate the concepts for a hierarchy of retail streets with distinctive character. Commercial boulevards, retail streets and retail passages offer a variety of outdoor shopping experiences protected from the sun and dust. Wide sidewalks, plantings, shading devices, and careful integration of pedestrian, transit and car infrastructure can create the microclimate and pleasant atmosphere ideal for walking and shopping.

## Supporting the Plan

The Principles and Policies are tools for communicating the graphical elements of the Plan at the interface of the government, developers, and residents of Al Ain, and for stimulating further actions necessary to transform these words and drawings into progress on the ground. The Principles guide the creation of plans, provide criteria for evaluating existing developments, and shape new development proposals. The policy statements clarify the Plan's objectives and guide its implementation. These statements dictate standards and boundaries, identify further actions and research, and outline the best practices associated with each component of the Plan.

## Principles

The planning process has been based on a set of Overarching and Underlying Principles developed with His Highness Sheikh Mohammed bin Zayed Al Nahyan, Crown Prince of Abu Dhabi, the Abu Dhabi Urban Planning Council, Abu Dhabi Government officials, and the leadership of the Al Ain Municipality. These Principles have shaped every element of the Plan, and will continue to guide the development of policy. The Overarching Principles are as follows:

### THE SPIRIT OF AL AIN

Al Ain is the soul of the Emirate. Its spirit emerges from the unique conjunction of Jebel Hafeet, the nurturing oases and the majestic desert that have together sustained over 8,000 years of continuous settlement. It now exemplifies both the ancient Bedouin traditions and the modern aspirations of the Emirate.



View of the Gateway Transit Corridor: the urban design interweaves pedestrians, transit and traffic in a cool, shaded microclimate

### CITY AS OASIS

Al Ain will be a contemporary expression of a healthy desert oasis city that builds on traditions of water management and agriculture while expanding the role of the oasis in the urban setting.

### HIGH QUALITY OF LIFE

Al Ain will maintain its high quality of desert life as a place of respite, through measured rather than uncontrolled growth, sustaining its low-built scale, spaciousness, garden setting, and its traditional patterns of living.

### PROTECTED NATURAL ENVIRONMENT

Al Ain will respect, protect, be scaled to and shaped by its unique natural environment of fragile and endangered desert and mountain ecologies, and increasingly diminished water resources.

### CULTURAL HOMELAND

Al Ain will embody its role as the founding source of the Emirate through protecting its historic assets, its delicate cultural landscapes, and its noble heritage.

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### ARABIC COMMUNITY

Al Ain's urban fabric, neighbourhood infrastructure, and public gardens will support the Emirate's Arabic values, social arrangements, and culture.

### ECONOMIC DEVELOPMENT

Al Ain's economic development will be driven by the competitive advantage of a quality place; existing manufacturing, service trades, higher education and health care will be supported, cultural and ecological tourism expanded, and high-tech and media-based industries encouraged.

## Policies

Specific Policies have been developed for Plan Al Ain 2030 covering the following areas:

Environment, Oases, Land Use, Transportation, Public Open Space, Urban Design, Building Blocks, Social, Infrastructure, Economic Development, and Continuous Planning.



## 1.0 INTRODUCTION

Introduction

Statement of Intent

Project Process





## 1.1 INTRODUCTION

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Jebel Hafeet is a powerful presence in Al Ain and is one of the three macro-landscape features that defines its context

The City of Al Ain is an ancient crossroads. For at least 5,000 years it has offered a pleasant, cool respite from the heat of the surrounding desert. Located at the nexus of the Hajar Mountains, the flowing dunes of the Empty Quarter and an alluvial gravel plain, it is a garden city of lush oases fed by an ancient irrigation system known as *falaj*. It is also the Royal City, the ancestral home of Abu Dhabi's ruling Al Nahyan clan.

In modern times Al Ain has grown rapidly within a firm planning framework. In 1986, the earlier, in-house plans were superseded by the *Al Ain Master Plan to the Year 2000* (Shankland Cox, 1986), and this plan has effectively guided the government land release and housing program to the present day. It was then intended that the 1986 plan be replaced by the *Master Plan, Traffic and Transport Study for Al Ain and its Region to the Year 2015* (Maunsell 2007). While this is a major work, well researched and extensive in its coverage, events have overtaken it.

Al Ain has reached a crucial turning point. A rapidly expanding Emirati population and a policy of very large lot sizes have combined to fill out the available land. The city must now decide when, where and how to develop in order to preserve the relaxed, agricultural character and pleasant way of life that its inhabitants rightfully enjoy.

This Urban Structure Framework Plan, "Plan Al Ain 2030", presents a coherent picture for the future of the city of Al Ain as a modern city with an ancient foundation – environmentally, socially and economically sustainable – and an example to desert communities around the globe. It proposes a way to grow and leverage the economic opportunities at hand without sacrificing the agricultural character of the city and while adding new elements to make it a dynamic hub of knowledge in the modern global economy.

## Introduction

Plan Al Ain 2030

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### 1.2 STATEMENT OF INTENT

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Al Ain is known for its beautiful mosques

In order to deliver upon the vision of His Highness Sheikh Khalifa bin Zayed Al Nahyan, President of the UAE, Ruler of Abu Dhabi for the continued fulfillment of the grand design envisaged by the late Sheikh Zayed bin Sultan Al Nahyan and the ongoing evolution of Al Ain as a model desert community, Al Ain now requires a long-term Comprehensive Plan and overall development regulations to be prepared to guide future growth and to enable detailed plans for various areas and overall development regulations.

The completion of a full Comprehensive Plan will take several years of complex technical work. In advance of that Comprehensive Plan, this Urban Structure Framework Plan provides a vision for use by all agencies with an interest in the future development of Al Ain.

The Urban Structure Framework Plan articulates a clear direction and description of growth for Al Ain. It has been made available in a short timeframe because it does not go into extensive detail about that growth. It sets an environmental context, confirms an urban structure of land use, transportation, open space, and built form. It outlines key “building blocks” through which the urban structure will come together logically and organically over time. It starts with a road map of principles and culminates in a comprehensive set of policies for the important elements of community development.

This Urban Structure Framework Plan is targeted to the year 2030 and an expected population of up to 1 million people. It is not geographically contained by existing administrative boundaries but, instead, encompasses the whole urban area of the city of Al Ain within its natural boundaries.

The Urban Structure Framework Plan must be conceptual enough to be completed quickly but detailed enough to be of both immediate and ongoing utility in responding to proposals for urban change in Al Ain. It is designed to be used for the following purposes:

- The Plan will be the guide to diagnose new developments to ensure they will be consistent with the needs and wants of the people of Al Ain and will come together as a coherent, viable urban whole. The Plan will play this role until the Comprehensive Plan is prepared and approved.
- The Plan will suggest a detailed work program for the further planning of Al Ain, resulting in both a Comprehensive Plan and an array of area plans. It will also set the direction for regulatory guidelines and zoning. (The resulting Comprehensive Plan will generally conform to this plan departing from it only where detailed investigations reveal more appropriate ways of achieving the desired outcomes. This plan will continue to be relevant as a high-level policy document).
- The Plan will offer interim input into other initiatives in Al Ain that shape the city, such as infrastructure schemes, transportation improvements, housing allocation programs, and economic development projects such as tourism.



Colourful doorways are a traditional feature

## Introduction

Plan Al Ain 2030

Urban Structure Framework Plan



H.H. Sheikh Mohammed bin Zayed Al Nahyan



H.H. Sheikh Mohammed bin Zayed Al Nahyan, H.H. Sheikh Tahnoon bin Mohammed Al Nahyan and H.E. Khaldoon Khalifa Al Mubarak



H.H. Sheikh Sultan bin Tahnoon Al Nahyan



H.E. Mohammed Ahmed Al Bowardi



H.E. Falah Mohammed Al Ahbab



## 1.3 PROJECT PROCESS

This Urban Structure Framework Plan is the result of a collaboration between the Abu Dhabi Urban Planning Council and the Al Ain Municipality, Town Planning Sector. In order to meet the ambitious sustainable urban development goals set out by the Abu Dhabi Leadership, an integrated design process to produce the Urban Structure Framework Plan was conceived and implemented.

This integrated design process included a 5 day urban design charrette, that was held in Al Ain November 20-25, 2007. A team of multi-disciplinary experts from Abu Dhabi Emirate and from around the world, participated in the charrette by conducting site visits, generating a preferred urban structural framework, and framing recommendations to guide future development in the city.

Subsequent design sessions were held in Abu Dhabi and Al Ain in early 2008 involving members of the UPC, Al Ain Town Planning representatives and the Management and Production Team. These follow-on sessions were held to refine, test, and finalize the findings and conclusions of the charrette.

The result of this process is the Urban Structure Framework Plan.



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## 2.0 FOUNDATION

Overall Conceptual Statement

A View of the Challenges

Environmental Inspiration

Cultural Inspiration

Principles





## 2.1 OVERALL CONCEPTUAL STATEMENT

Al Ain has a choice of how, when and where it will grow to meet the needs of its people over the next quarter of a century. This Plan is focused on satisfying those needs by attaining and setting an international example of cutting edge sustainable growth – that which filters all decisions through environmental, social and economic criteria. This integrated approach is the premise of this Urban Structure Framework Plan, with the intent to:

- protect and enhance the natural resources and cultural heritage of Al Ain;
- preserve and celebrate the urban agriculture that makes Al Ain so unique in the region and the world;
- integrate nature and humanity; and
- foster economic development and leverage financial resources in a thoughtful and prudent manner.

The elements forming the environmental and cultural foundation of the Plan are described in greater detail in Sections 2.3 and 2.4.

A set of guiding principles is presented in Section 2.5. These tenets are a tool for assessing, identifying, and constructing plans and projects that align with this ethic of responsible growth. They are visionary yet practical, to ensure the ongoing robustness of the Plan. Highlights include:

- the conservation and retention of Al Ain's unique natural setting between the mountains, dunes, wadis and gravel plain;
- the need for conscious and deliberate design of the city's public realm, especially its streets; and
- the role of proper land use programming in enhancing and reinforcing the city's unique cultural identity as an oasis city.



Al Ain weaves ancient heritage into a contemporary framework

## Foundation

### Plan Al Ain 2030 Urban Structure Framework Plan

## 2.2 A VIEW OF THE CHALLENGES



Air conditioner exhaust ruins the microclimate



The automobile dominates Al Ain's transportation



Urban design does not protect from the sun

In order for the "Plan Al Ain 2030" Urban Structure Framework Plan to achieve its objectives, it must embody principles that protect the city, such as:

- ground water retention and restoration;
- preservation of the iconic natural areas, and protection of the aquifer recharge zones and agricultural areas from the intrusion of development;
- prevention of overstressing infrastructure by ultra-low density development; and
- prevention of potential stagnation and neglect in the core of the city.

There is also a need for the plan to ensure that the city:

- minimizes traffic congestion on streets, provides sufficient parking, and offers alternative transportation choices; and
- contains a fully-planned range of affordable housing options to meet the needs of all its population.

The plan must guard against a loss of coherence in the overall urban form, preventing specifically:

- too much commercial development;
- loss of distinctive regional architecture, replaced with poor quality new architecture;
- attempts to exceed the G+4 height imperative;
- lack of shading and amenity in the public realm;
- new road systems based on limited access configurations; and,
- lack of transportation choices.

## 2.3 ENVIRONMENTAL INSPIRATION



The wadis of Jebel Hafeet support a diverse ecosystem, including 95% of the biodiversity of the Eastern Region

The environmental and ecological context for Al Ain's Urban Structure is directed by three key elements:

- its location at the nexus of mountains, gravel plain and dunes;
- the wadis that radiate through its core and dictate its form; and,
- the aflaj and oases that create historic cultural landscapes.

The Urban Structure Framework Plan:

- integrates environmental, social, and economic considerations in all decision making;
- adopts a precautionary principle based on scientific knowledge and clean technologies;
- ensures environmental health, diversity and productivity is maintained through sustainable development; and
- promotes environmental awareness and sense of responsibility.

## Foundation

Plan Al Ain 2030

Urban Structure Framework Plan



Al Ain's garden city character is to be celebrated, preserved and enhanced

### The Urban Structure Framework Plan:

- establishes a comprehensive network of protected areas based on criteria of ecological sensitivity, heritage significance, aquifer recharge and aesthetic appreciation;
- integrates environmental considerations into all land-use planning;
- endorses the creation of environmental education facilities;
- advocates the preservation of the iconic urban agriculture that expresses Al Ain's historic importance as an oasis;
- suggests removal of some existing development and does not support new development that compromises attainment of these goals; and
- recommends specific actions directed to urbanization and urban sprawl, including:
  - o establishing urban development boundaries;
  - o setting aside critical areas and no-development zones; and,
  - o preventing habitat fragmentation.





Jebel Hafeet is to be protected with National Park status

The Urban Structure Framework Plan advocates sustainable building practices, including:

- site development and layout;
- landscaping;
- life cycle materials usage;
- water conservation, harvesting, and reclamation;
- energy and thermal efficiency;
- indoor environmental quality; and,
- historically compatible buildings.

## 2.4 CULTURAL INSPIRATION



Al Ain Oasis: the iconic cultural landscape

**Heritage:** Al Ain is the spiritual heart of the Emirate of Abu Dhabi, the repository of its cultural memory and ancient wisdom. The record of civilization down through the millennia is inextricably part of the built fabric of the city. The very oases themselves, the defining element of the city, are cultural landscapes created through the ingenuity of the ancient falaj irrigation system.

As the UAE develops rapidly, the heritage riches contained within Al Ain's urban fabric become ever more important. They are a cultural grounding device, reminding all Emiratis of their origins, and the basis of this value system as they move forward. This Urban Structure Framework Plan takes as an explicit goal robust protection for the heritage sites and environments, that their lessons may be shared with the next generations of Emiratis.

**Lifestyle:** Al Ain's importance in the cultural life of the UAE is pervasive. For many generations the tribes of Abu Dhabi spent part of each year fishing and pearling from an island base and part of each year farming dates and ranching camels in desert oases. Al Ain is far and away the most important of these oases, and its prevailing agricultural character is something to be celebrated and preserved. It still features large in

the lives of Emiratis, who often come here from Abu Dhabi and Dubai on weekends and during the humid coastal summer. The city retains a pleasant slow-paced livability, founded on the cool garden-like character the oases and farms bring, and the relaxed, generous nature of its inhabitants.

**Families:** The people of Al Ain live in strong, complex family units. The extended family is the foundation of social activity and mutual support. Brothers and sisters of each generation, as they marry and form their own families, wish to live in clusters and in close proximity to other family members. Children are at the center of life. The proposed structure of the city in the Urban Structure Framework Plan is to be built out from a basic unit of extended families living together – the “fareej”. The Plan applies the “fareej” concept to many kinds of circumstances, from the low density suburban subdivisions and villages at the urban fringe to the medium and high density transit corridor and local town centers. It articulates the specific scale and nature of this family-based settlement unit in the context of contemporary living; and uses this as the building blocks of the growing city.

**The Mosque:** Prayer, as a regular offering of faith, is central to day-to-day Al Ain life. Religious tenets are strong and deeply observed. A pervasive built form that results from this commitment are the mosques – large and small. Minarets punctuate the skyline in Al Ain, like in no other Emirati city, due to the G+4 height imperative. While establishing contemporary provisions and structures that modern people expect, the Plan must also discern the forms and patterns that are unique to an Islamic society. Policies in the Plan call for preserving the G+4 height limitation and expressing it in the rhythms and harmonies that will make Al Ain a unique and truly memorable Arab city.



The Oasis expresses the traditional agricultural identity of Al Ain



## 2.5 PRINCIPLES

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The Plan envisions a smooth, active transition between the Main Souk and the Oasis, drawing it into the centre of urban life

### **THE SPIRIT OF AL AIN**

**Al Ain is the soul of the Emirate. Its spirit emerges from the unique conjunction of Jebel Hafeet, the nurturing oases and the majestic desert that have together sustained over 8000 years of continuous settlement. It now exemplifies both the ancient Bedouin traditions and the modern aspirations of the Emirate.**



## **OVERARCHING PRINCIPLES**

### **CITY AS OASIS**

Al Ain will be a contemporary expression of a healthy desert oasis city that builds on traditions of water management and agriculture while expanding the role of the oasis in the urban setting.

### **HIGH QUALITY OF LIFE**

Al Ain will maintain its high quality of desert life as a place of respite, through measured rather than uncontrolled growth, sustaining its low-built scale, spaciousness, garden setting, and its traditional patterns of living.

### **PROTECTED NATURAL ENVIRONMENT**

Al Ain will respect, protect, be scaled to and shaped by its unique natural environment of fragile and endangered desert and mountain ecologies, and increasingly diminished water resources.

### **CULTURAL HOMELAND**

Al Ain will embody its role as the founding source of the Emirate through protecting its historic assets, its delicate cultural landscapes, and its noble heritage.

### **ARABIC COMMUNITY**

Al Ain's urban fabric, neighbourhood infrastructure, and public gardens will enable the Emirate's Arabic values, social arrangements, and culture.

### **ECONOMIC DEVELOPMENT**

Al Ain's economic development will be driven by the competitive advantage of a quality place; existing manufacturing, service trades, higher education and healthcare will be supported, cultural and ecological tourism expanded, and high-tech and media-based industries encouraged.

### UNDERLYING PRINCIPLES

#### URBAN STRUCTURE

To accommodate future growth, Al Ain will build out incrementally along linear axes from a densified downtown core, and will be focused at nodes along transit corridors. Limited expansion of the existing urban area may be permitted after consideration of any environmental impact.

Neighbourhoods and a revitalised downtown will be the backbone of Al Ain's urban structure.

Al Ain's nature as an oasis city in a fragile environment will be protected by a surrounding desert park conservation belt, including Jebel Hafeet, wadis, and archaeological sites.

Al Ain's nature as a low-scale city will be protected by a building height limit of 20 metres, to be expressed as a built form of a ground floor with a maximum of four floors above (including mezzanines, penthouses, architectural appurtenances, or mechanical provisions), called the G+4 height imperative.

The city will be structured to provide and support an open space network that will physically and visually connect the desert, oases, wadis, and farms, Jebel Hafeet and the historic, cultural and natural assets of Al Ain.

The traditional living patterns of Al Ain, reflected in its intricate pattern of mixed-use development, will be maintained and improved.

A fine grain of interconnected and human-scaled streets will be inserted to break up the superblocks and optimise mobility and livability.

Because all trips begin and end with a walk, walking will be made as comfortable and safe as possible, with a shaded pathway system that connects major centres in the city and uses pedestrian comfort as a guiding design strategy.

To reduce congestion and create pedestrian-friendly streets, diverse mobility options will be available, including high quality transit.

An open space network will physically and visually link the historic, cultural, and natural assets of Al Ain.

The farms that permeate the urban fabric in Al Ain will be protected and celebrated as a defining element of the city.

## **ENVIRONMENTAL LEADERSHIP**

The bio-diverse habitats of Jebel Hafeet, the oases, the desert, and the wadis will be respected and conserved.

Oases, wadis and farm edges will be designed sensitively where they integrate with the city.

A substantial protected desert and mountain belt around the city of Al Ain will be established as a National Park and administered through a government commission.

High performance sustainable buildings and ecological urban design will maximise resource efficiency and human comfort in this desert climate.

Visible and accessible sustainability features will demonstrate the environmental stewardship that has strong historical and cultural roots in Emirati history of this treasured desert oasis city.

Energy, water, sewage, and waste infrastructure will be integrated and localised to optimise efficient use of resources.

Dependence upon private automobiles will be minimized through appropriate densities, land use mix, pedestrian orientation, and transportation demand management.

## **WATER MANAGEMENT**

A long term vision is proposed to replenish Al Ain's diminished aquifer to restore its water level to its original state, while protecting it from contamination.

The health of Al Ain's many oases will be restored immediately through the reintroduction of organic practices and the traditional vertical layered ecology of date palms, fruit trees, and leafy crops.

Over time, the original gravity-based falaj system of delivering water to the oases will be restored.

A commission will be established to oversee the productive and cooperative revitalisation of the oases, and the preservation of the farms.

Throughout Al Ain, appropriate and drought tolerant trees, plants, and landscaping will be used to conserve water while shading and cooling Al Ain's public realm.

## Foundation

Plan Al Ain 2030

Urban Structure Framework Plan

Systems of water recycling and re-use will be established throughout Al Ain, particularly in the irrigation of agriculture.

Within Al Ain, water features will be located where people can access them in shaded parks, promenades, public squares, and plazas, rather than within vehicle roadways.

Appropriate watering schedules and limits will be established for landscape and agricultural irrigation.

Laws will require the use of water efficient taps, toilets, showers, and appliances.

### LIVABILITY

Neighbourhood centres of “community-making” facilities such as mosques, gathering places, recreation, and shopping will be distributed throughout residential areas within easy walking distance.

A range of suitable and affordable housing options will meet the various needs and desires of Al Ain’s diverse population, including Emirati extended families, various expatriate households, and guest workers.

The city centre’s traditional fine grain pattern of public ways will be re-established and revitalised.

Innovative ways will be developed to shade and cool Al Ain’s public realm.

### IDENTITY AND IMAGE

The urban fabric will grow by respecting and highlighting Al Ain’s distinctive landscapes of the mountain, oases, and desert.

Al Ain will develop a high quality of architecture and urban design that respects and fits within its unique natural setting and cultural traditions.

Important civic places, monuments, and palaces will commemorate and celebrate Al Ain’s role as the founding source of the Emirate.

Natural, historical, archaeological, cultural and religious assets will be conserved and respected as important elements of the urban fabric.

The unique family culture and traditions of Al Ain will be celebrated and enhanced.

Al Ain will retain its characteristic low-scale development, with a maximum building height of 20 metres in central and transit-oriented areas, and lower building heights elsewhere.

Al Ain will retain its iconic farms as an example of successful urban agriculture.

### **SOCIAL, CULTURAL, AND ECONOMIC DEVELOPMENT**

Social, recreational, and community facilities that meet the basic and evolving needs of Al Ain's diverse population of Emiratis and expatriates will be provided and distributed throughout the city.

The cultural aspects of Al Ain's mixed population will enhance the city's character.

Al Ain's urban form will facilitate the growth of its existing quality economic sectors of healthcare and higher education, as well as the emerging sector of ecological and cultural tourism.

Investments in rail service will be used to focus and shape new development.

Al Ain's economic development strategy will be focused on retaining the city's high quality of life and its tradition as a place of desert agriculture and sanctuary.

Al Ain's many oases, the city's heart and soul, will be sensitively managed and reassume their place as a vital part of the city's public realm.





## 3.0 ECONOMICS

Economic Analysis

Market Projections





## 3.1 ECONOMIC ANALYSIS



Economic development in Al Ain can be accommodated by the versatile G+4 typology that mixes residential, retail and office space into a seamless whole

A well-grounded picture of the projected economic and demographic trends for the next quarter of a century in Al Ain has been essential in the development of this Urban Structure Framework Plan. The population is projected to more than double over this timeframe, and the Plan must identify how this growth, and accompanying economic expansion, will be manifested in built form.

There are considerable complications in generating accurate projections given that the largest component of the work force are male guest workers between the ages of 20 and 40. Many of them live with their employers, in villas or on farms, and are not considered “economically active”.

The economic projections established by the government’s spending priorities in areas such as healthcare, education, tourism and industrial diversification are the core source of the population growth and market projection scenarios outlined in the following section. Per-sector demand is expected as follows:

## Economics

### Plan Al Ain 2030

#### Urban Structure Framework Plan

- Residential: Al Ain will see strong demand for residential units across all sectors of the market as the population grows. There is a projected oversupply of luxury units, and an undersupply of mid/affordable units.
- Office: Al Ain has a limited service sector and a corresponding small demand for office space. This is projected to continue into the foreseeable future.
- Retail: Increasing population and tourism will lead to a growing demand for retail space. Al Ain's ratio of retail square meters per resident is comparatively quite high and will remain so.
- Industrial: The industrial sector will grow with the development of the new High Tech Business Park at the airport, focusing on clean light manufacturing sectors such as computer software and hardware development, and the heavier industrial zone along the truck route, focusing on heavier, dirtier industries like cement manufacturing.
- Hotel: Increased focus on tourism will increase the volume of visits but not the duration. The total number of hotel rooms required is expected to continue to be on the low side for an emerging economy.
- Education: Al Ain has a high ratio of schools per resident, evenly split between government and private schools. A key priority of the Abu Dhabi Government is to grow the universities in the Emirate to retain Emirati students and attract GCC students. This strategy should keep Al Ain in the high segment for tertiary institutions.
- Hospital and Healthcare: Despite its well-regarded hospitals, Al Ain is currently in the low to medium segment of hospital beds per 1,000 people. In order to prevent that ratio from slipping, Al Ain will need to aggressively build more hospital beds as the population grows.
- Recreation: Golf courses have a greater influence on the urban structure than most other recreation facilities. In Al Ain, golf is a popular and growing pass time, but is constrained by the great expense of constructing and maintaining a course in such an arid climate. Only a modest amount of increase in golf courses is foreseen.

## 3.2 MARKET PROJECTIONS

The growth assumptions for the Al Ain metropolitan area used in this Urban Structure Framework Plan are based on population and economic forecasts and on comparisons to international examples. In each case, an emerging and a growing scenario are projected, along with a suggested scenario, which is both a best estimation and a recommendation.

The following table begins with 2005 Census data, giving an accurate population for Al Ain City and five adjoining rural districts that this plan proposes to become part of the Al Ain urban area over the next twenty-two years. From this and other data, a projection to 2007 has been prepared giving a baseline from which to estimate land use requirements out to the adopted planning horizon of 2030.

### 2005 - Census Data Population

(for areas shown in diagram 5.1.1 Precincts)

#### Existing Urban Area

Al Ain City 284,040

#### Urban Expansion Areas (to 2030)

Al Salamat 10,130

Al Yahar 22,234

Um Ghaffa 7,712

Al Dhaher 9,272

Mezyad 5,582

**Total 338,970**

### 2007 - Baseline

- 374,000 residents: 122,000 Emirati, 252,000 Expatriate
- 200,000 annual tourist visits
- 67,049 residential units: 13,203 Emirati, 53,846 Expatriate

	Office Space (‘000 m <sup>2</sup> )	Retail Space (‘000 m <sup>2</sup> )	Industry Space (‘000 m <sup>2</sup> )	Hotel rooms
Baseline	150	460	800	796

### 2013 - Five Year Projection

- 476,000 residents: 141,000 Emirati, 335,000 Expatriate
- 474,000 annual tourist visits
- 86,792 residential units: 15,254 Emirati, 71,538 Expatriate

	Office Space (‘000 m <sup>2</sup> )	Retail Space (‘000 m <sup>2</sup> )	Industry Space (‘000 m <sup>2</sup> )	Hotel rooms
Emerging	291	169	186	1,554
Growing	729	657	1,371	2,525
Suggested	250	600	1,000	1,800

## Economics

### Plan Al Ain 2030

#### Urban Structure Framework Plan

##### 2020

- 627,000 residents: 167,000 Emirati, 460,000 Expatriate
- 710,000 annual tourist visits
- 124,290 residential units: 22,584 Emirati, 101,706 Expatriate

	Office Space (‘000 m <sup>2</sup> )	Retail Space (‘000 m <sup>2</sup> )	Industry Space (‘000 m <sup>2</sup> )	Hotel rooms
Emerging	412	248	263	2,481
Growing	1,030	965	1,937	4,032
Suggested	400	800	1,450	2,700

##### 2030

- 1,000,000 residents: 290,000 Emirati, 710,000 Expatriate
- 1,071,000 annual tourist visits
- 202,061 residential units: 41,428 Emirati, 160,633 Expatriate

	Office Space (‘000 m <sup>2</sup> )	Retail Space (‘000 m <sup>2</sup> )	Industry Space (‘000 m <sup>2</sup> )	Hotel rooms
Emerging	612	388	391	4,009
Growing	1,531	1,511	2,881	6,516
Suggested	600	1,100	1,975	4,000



## 4.0 URBAN STRUCTURE FRAMEWORK PLANS

- Urban Structure Overview
- Environmental Framework
- Land Use Framework
- Transportation Framework
- Public Open Space Framework



## 4.1 URBAN STRUCTURE OVERVIEW

At the core of Plan Al Ain 2030 are the Urban Structure Framework Plans, presented over the following pages, that illustrate the approach to the surrounding environment, land use, transportation, and public open space. These plans are conceptual solutions to the diverse array of challenges facing Al Ain as it grows rapidly over the next quarter of a century. They are “vision” plans, not comprehensive masterplans; they should not be taken literally as one would a zoning map in regard to specific development allowances for individual plots or sites. Each of these Plans requires further refinement, testing and articulation at a much finer scale before it can take on a regulatory role. Under no circumstances should any of the plans, drawings, models or sketches contained herein be construed as absolute directives for specific sites or areas in a legalistic sense. Rather, they represent themes of land use, form, access, and character to be achieved through detailed planning and design.

The plans are organized into four sections:

The first section, “Urban Structure Framework Plans”, deals with the major issues that set the framework of the urban form: environment, land use, transportation and public open space. These plans consider the wider context of the city within the region, Emirate, and nation, and embody the large strategic moves necessary to balance the competing forces shaping the city.

The second section, “Overall Patterns”, concerns patterns arising from the Structural Framework Plans, the ‘nuts and bolts’ that give the Plans their substance – precincts, densities and floor space distributions. These patterns provide specific metrics for the vision proposed in the framework plans, and flesh out the implications of adopting this urban form.

The third section, “Zooming In”, presents focus areas that warrant closer study due to their essential relevance to the proposed urban structural framework. These areas are presented at a higher level of detail in order to ensure that there are no major conflicts between the various systems that make the city work and their expression in the plan. The focal areas are: the Gateway Transit Corridor and the Central Business District.

The fourth section concerns the ‘Building Blocks’ out of which urban redevelopment in the core will occur. The Building Blocks cover specifically the oases of Al Ain, Emirati Communities - “the fareej”, the Al Mudheef Block, the High Speed Rail Terminus and the various types of shopping streets.

Following these is a comprehensive set of Policy Statements to aid in implementation of the Plan.

## 4.2 ENVIRONMENTAL FRAMEWORK

Al Ain is situated at the nexus of three spectacular macro-landscape forms: the mountain Jebel Hafeet, the surrounding alluvial gravel plain, and the flowing dunes stretching off to the *Rub al Kali*, the “Empty Quarter”. These features are form-givers to the City of Al Ain and important elements of its distinctive character. The Environmental Framework Plan is centred on preserving these macro-landscape features, protecting them from urban encroachment and retaining their presence within the city. Another crucial consideration is protecting the aquifer recharge zones, principally to the east of the city.

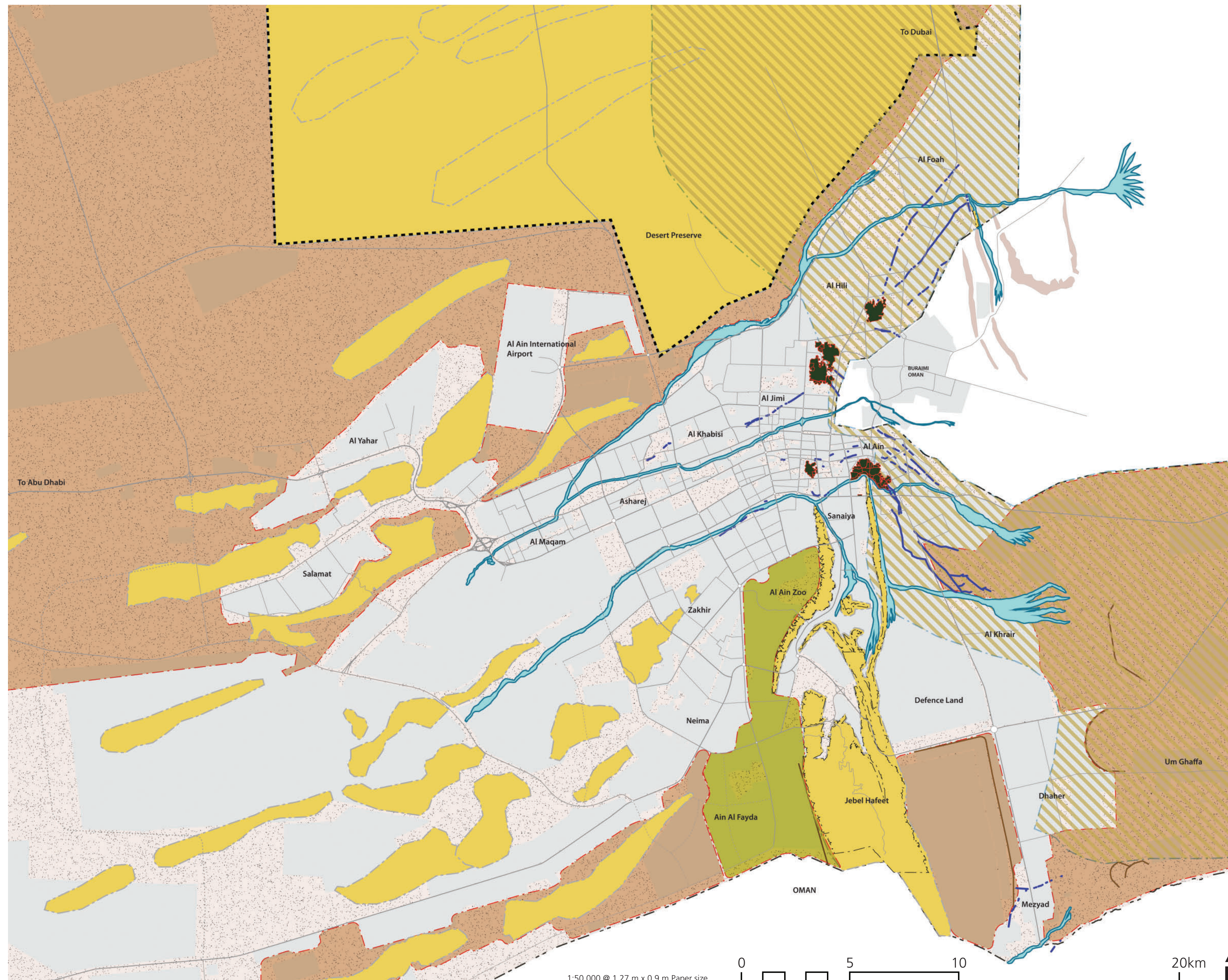
The biggest threat comes from unchecked sprawl. A clearly defined urban development boundary is thus the highest priority. This is achieved by creating three National Parks: Jebel Hafeet National Park, Desert Dunes National Park, and a large Desert Preserve to the north of the city. This series of parks goes a long way towards defining the boundaries that urban development must not cross.

But Al Ain is growing and development must be accommodated. In order to permit the development the city needs, without destroying the future viability of the landscape, the Environmental Framework Plan creates a gradient of permitted uses that transitions from complete protection to complete urbanization. The four echelons of the gradient are as follows:

1. **Protected Sensitive Landscapes:** This is the most stringent category, permitting only the least impactful types of uses. This includes areas of high levels of native biodiversity and character-giving beauty, such as the three national parks outlined above.
2. **Protected with Traditional Agricultural Uses:** Al Ain’s heritage is focused around traditional agricultural, both date farming and camel ranching. Agricultural areas are a key component of the city’s lifestyle and identity. These uses, if practiced in the traditional way, can protect areas of vital strategic importance, such as the aquifer recharge zones.
3. **Protected with Appropriate Development:** Within the urban fabric of Al Ain, there are tracts of land that must be developed using sustainable low impact design strategies. This is particularly the case for development bordering Jebel Hafeet, which contains 95% of the biodiversity of the Eastern Region.
4. **Unprotected:** The preceding three categories define the basis of an urban development boundary to protect the desert from sprawl. Development in unprotected areas should still conform to sustainable best practices.



## 4.2.1 ENVIRONMENTAL FRAMEWORK



### NATURAL LANDSCAPES

- |                |  |  |
|----------------|--|--|
| Green Gradient |  | Protected Sensitive Landscape          |
|                |  | Protected with Traditional Uses        |
|                |  | Protected with Appropriate Development |
|                |  | Wadi                                   |
|                |  | Oasis                                  |
|                |  | Existing Potable Aquifer               |
|                |  | Earth Dam Wall                         |
|                |  | Falaj ( <i>mapping not complete</i> )  |
|                |  | Desert Park Boundary                   |
|                |  | Roads                                  |
|                |  | Urban Development                      |

Note: These plans represent themes to be refined in further planning and design. Land uses, street patterns, and exact alignments in all areas are conceptual, and to be subjected to detailed evaluation and confirmation. Under no circumstances should these plans be construed as final directives for specific sites or areas.





## 4.3 LAND USE FRAMEWORK

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With a robust urban development boundary firmly in place, the important task of allocating land use for the next quarter century can begin. Al Ain must accommodate growth in a way that will not sacrifice its pleasant garden city character, nor create untenable congestion on its streets.

The big move of the Land Use Framework Plan is to focus dense mixed-use development into nodes along a corridor running the length of the city between the two main wadis. The nodes will blend four storey multi-family housing with offices and retail space to create the critical mass of residential and employment density to make transit viable. This 'Gateway Transit Corridor' will accommodate the largest portion of future residential and commercial demand and provide the essential structural framework for the city's growth beyond 2030, while preserving the large areas of historic farm plots.

Allocating Emirati housing is one of the key challenges to be resolved as the population steadily increases over the next quarter century, and the supply of available land diminishes. This has been accomplished in large part by redeveloping brownfield sites. Selective areas of new greenfield sites optimally located for connectivity to the core have also been identified, provided they do not disturb sensitive ecosystems or landscape features. Significant urban infill possibilities exist where housing has become obsolete, and where current uses have gone derelict. Redeveloping brownfield sites such as the ones that have been identified in the Plan is one of the most crucial sustainable strategies that will help the city of Al Ain meet the demands of its expanding housing market.

Outside of the high density nodes along the corridor, medium density areas contain a significant Emirati housing component. District centers are proposed that combine a critical mass of residential and retail density to make sustainable local communities that will keep working and shopping within reasonable proximity of low density housing.

Low density only neighbourhoods are also allocated to preserve this important housing option. To the greatest extent possible these are allocated through prioritizing infill redevelopment, and within reasonable proximity of the district centres and corridor nodes.

Another major structural gesture is the transitioning of industrial land uses away from Sanaiya where they are currently constrained by the mountains and oasis. More importantly, they are isolated from the truck route, which is the most crucial infrastructure to serve them. Much of the activity in Sanaiya is actually not industrial at all, but involves

## Urban Structure Framework Plans

Plan Al Ain 2030

Urban Structure Framework Plan

showrooms, bulky retail and service trades, such as autobody shops. These uses will remain as part of the mix of uses in the neighbourhood, but the more industrial uses will migrate to the new industrial zone along the truck route to the south of the city, where new housing and facilities for workers are already being built. The worker housing will incorporate some local amenities and services and will allow workers to live within walking distance of their jobs. A second smaller industrial zone is allocated adjacent to the airport, which will be an important hub for high-tech enterprises.

Transitioning industrial uses away from Sanaiya provides the opportunity to create vibrant mixed-use neighbourhoods surrounded by the spectacular landscape of the mountain and oasis. There is a poignant axis stretching north from Jebel Hafeet, along the wadis and aflaj, through the ridge mountains to the heart of the Al Ain Oasis. This axis can be brought out through careful area planning and urban design, turning Sanaiya into one of the most desirable neighbourhoods in the city.



## 4.3.1 LAND USE FRAMEWORK



1:50,000 @ 1.27 m x 0.9 m Paper size

0 5 10 20km



### COMMERCE

- Mixed Use - Retail Area
- Mixed Use - Office Area
- Mixed Use - Hotel / Resort
- Mixed Use - Special Tourist Recreation
- Mixed Use - Light Industrial / Artisan

### EMPLOYMENT

- Industrial
- High Tech / Clean Industrial

### CIVIC / INSTITUTIONAL

- Government
- Police / Post / Municipal
- Health Care
- University / College / Higher Education
- Special University Zone
- Cultural

### COMMUNITY

- Religious
- School

### RESIDENTIAL

- High-Density Residential
- Medium-Density Residential
- Low-Density Residential
- Palace / Dignitary Land

### OPEN SPACE / RECREATION

- Parks / Improved Open Space
- Oasis / Heritage Open Space
- Cemetery
- Recreation / Amenity / Sports
- Natural Open Space
- Forest / Woodland / Shelter Belt
- Farms / Agriculture
- Archeological Site
- Desert Reserve
- Desert Reserve / Aquifer

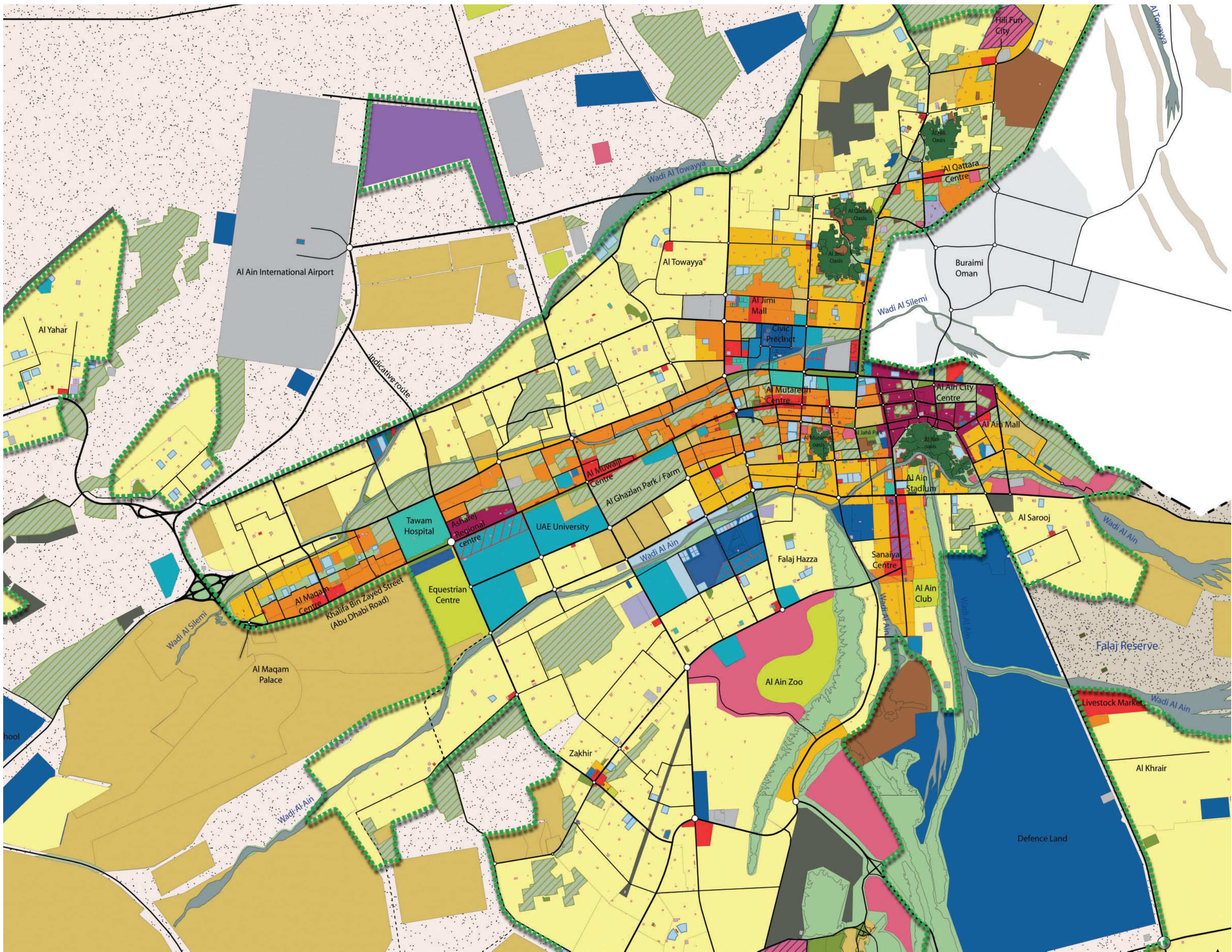
### OTHER

- Utility / Infrastructure
- Wadi
- Roads
- Urban Growth Boundary
- Dam Walls
- International Border

Note: These plans represent themes to be refined in further planning and design. Land uses, street patterns, and exact alignments in all areas are conceptual, and to be subjected to detailed evaluation and confirmation. Under no circumstances should these plans be construed as final directives for specific sites or areas.



4.3.2 LAND USE FRAMEWORK (DETAIL)



COMMERCE

- Mixed Use - Retail Area
- Mixed Use - Office Area
- Mixed Use - Hotel / Resort
- Mixed Use - Special Tourist Recreation
- Mixed Use - Light Industrial / Artisan

EMPLOYMENT

- Industrial
- High Tech / Clean Industrial

CIVIC / INSTITUTIONAL

- Government
- Police / Post / Municipal
- Health Care
- University / College / Higher Education
- Special University Zone
- Cultural

COMMUNITY

- Religious
- School

RESIDENTIAL

- High-Density Residential
- Medium-Density Residential
- Low-Density Residential
- Palace / Dignitary Land

OPEN SPACE / RECREATION

- Parks / Improved Open Space
- Oasis / Heritage Open Space
- Cemetery
- Recreation / Amenity / Sports
- Natural Open Space
- Forest / Woodland / Shelter Belt
- Farms / Agriculture
- Archeological Site
- Desert Reserve
- Desert Reserve / Aquifer

OTHER

- Utility / Infrastructure
- Wadi
- Roads
- Urban Growth Boundary
- Dam Walls
- International Border

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## 4.4 TRANSPORTATION FRAMEWORK

The Transportation Framework Plans provide a balanced array of modal choices for the people of Al Ain. Currently, Al Ain's transportation mix is skewed disproportionately to accommodating the private car. While this needs to remain an important option, the Transit, Pedestrian and Bicycle Frameworks provide the essential ingredients of expanding Al Ain's modal choice.

Al Ain is blessed with a comprehensive system of boulevards that distributes traffic evenly through the urban fabric. Distributing traffic is a sound strategy for alleviating congestion rather than collecting it into limited access freeways. In addition to carving up the city and permanently devaluing large swathes of adjacent land, limited access freeways prevent congestion pressure from dissipating through the street grid. The Transportation Framework for Roads is therefore predicated on preserving the grid. As a first step, this will involve the removal of the flyover on Zayed Bin Sultan Street. Several missing connections that would improve the connectivity of the Al Ain Boulevard grid have also been added.

The roundabouts present both challenges and opportunities. The iconography expresses the vigour and exuberance of a newly created nation and should be preserved. There are many steps that can be taken to make them less dangerous to pedestrians, while generally maintaining them. In the innercity where congestion is an issue, the roundabouts are proposed to be replaced with signalized intersections. At the periphery of the downtown, they are to be maintained as roundabouts, with some upgrades to improve safety. The final component to the road framework is the truck route to the south of the city that ensures efficient and safe goods movement.

The most fundamental element of providing modal choice is the development of a viable system of public transportation. The Transit Framework proposes a layered network of different elements to meet different transportation needs. The backbone is provided by a high speed rail link to Abu Dhabi and Dubai. The Central Terminus will be in the downtown core, and one additional station will be in the Asharej Node along the Gateway Corridor. Following the same route as the high speed rail but travelling on the surface is a tram running the length of the Gateway Corridor. The tram stops are positioned to be within a five minute walk anywhere on the Corridor, and the technology used will be as unobtrusive as possible.

The next layer of transit is a system of shuttle buses -- the Green Line and the Orange Line. The Green Line is tasked with bringing people down to the Tram System along the Corridor. The Orange Line is a

## Urban Structure Framework Plans

Plan Al Ain 2030

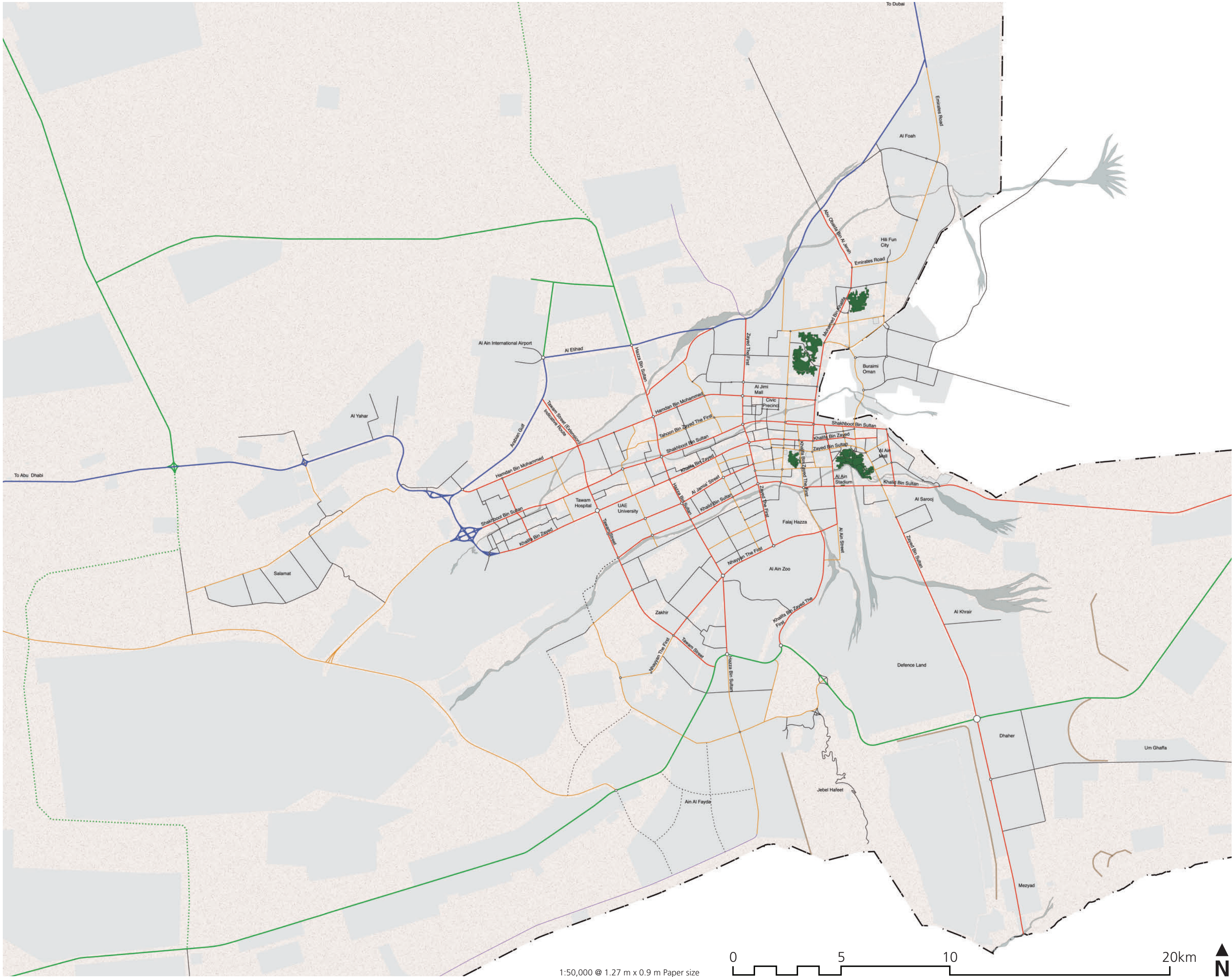
Urban Structure Framework Plan

north-south route connecting the major population centres of Al Jimi and Sanaiya to the core of the city, to the high speed rail, and to the nodes of the Corridor. The final transit layer is a Community Bus network running along major arterial routes, connecting people in rural and low density areas to the city.

While distributing traffic through a continuous grid and supporting this with layers of transit, no matter how long or short, each trip begins and ends with a walk. For this reason, the Pedestrian and Bicycle Framework is an essential development for Al Ain. The Pedestrian Framework hinges on a significant upgrade of the public realm to cool the microclimate for walking. Wider sidewalks, comprehensive shading, and improved crossings are just some of the measures to achieve this. Maximum permeability to pedestrians is also essential to this vision, and so a fine grain system of alleys and passages is overlaid in the downtown core. The wadis and aflaj allow the opportunity to create a completely safe and continuous circulation network for pedestrians and cyclists. The Bicycle Framework provides for on-street cycle lanes along all the major boulevards.



4.4.1 TRANSPORTATION FRAMEWORK: ROADS



TRANSPORTATION FRAMEWORK: ROADS

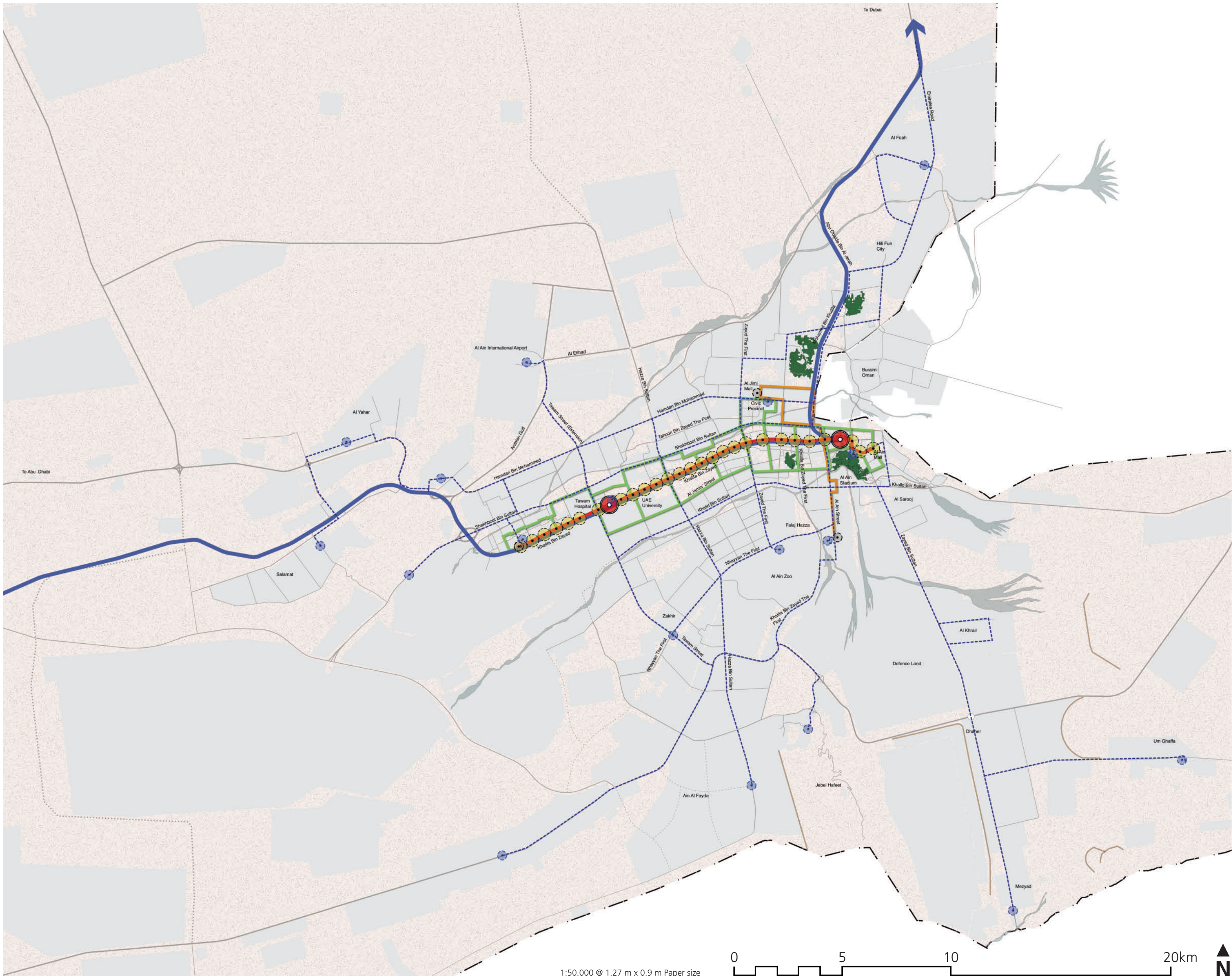
EXISTING AND PROPOSED  
ROAD HIERARCHY

- Primary Arterial
- Truck Route
- Truck Route To Be Approved
- City Arterial
- District Distributor
- Collector Road
- Collector Road To Be Approved
- Rural Road

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4.4.2 TRANSPORTATION FRAMEWORK: TRANSIT



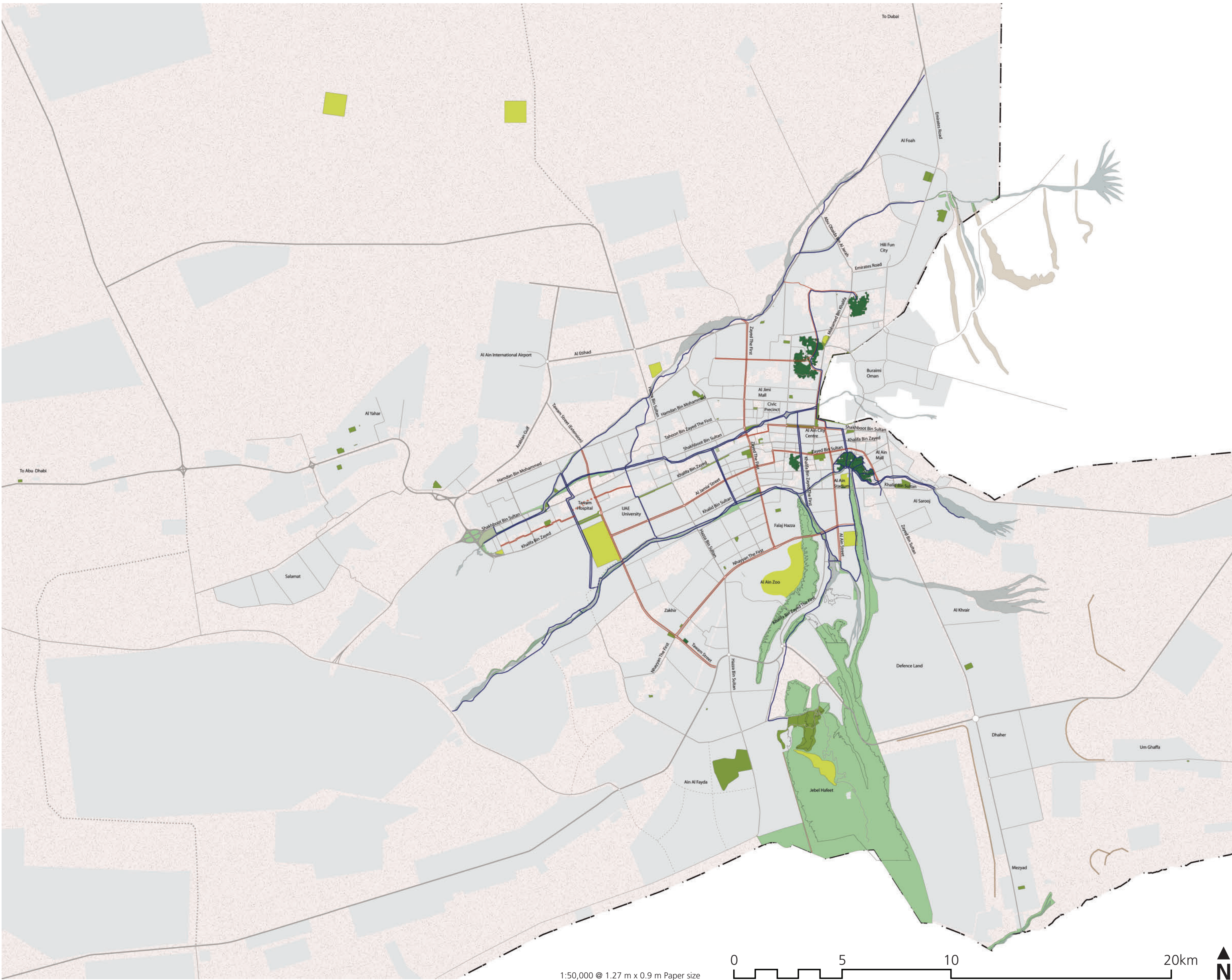
TRANSPORTATION FRAMEWORK: TRANSIT

- High Speed Rail
- Tram System
- Shuttle Bus System
- Orange Line
- Green Line
- Community Bus
- High Speed Rail Station
- Tram Station
- Shuttle Terminus
- Bus Terminus

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4.4.3 TRANSPORTATION FRAMEWORK: PEDESTRIAN AND BICYCLE



**TRANSPORTATION FRAMEWORK:  
BICYCLE AND PEDESTRIAN**

- Pedestrian and Bike Path
- Street Related Bike Lane
- Parks / Improved Open Space
- Oasis / Heritage Open Space
- Recreation / Amenity / Sport
- Natural Open Space
- Wadi
- Urban Development
- Desert

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## 4.5 PUBLIC OPEN SPACE FRAMEWORK

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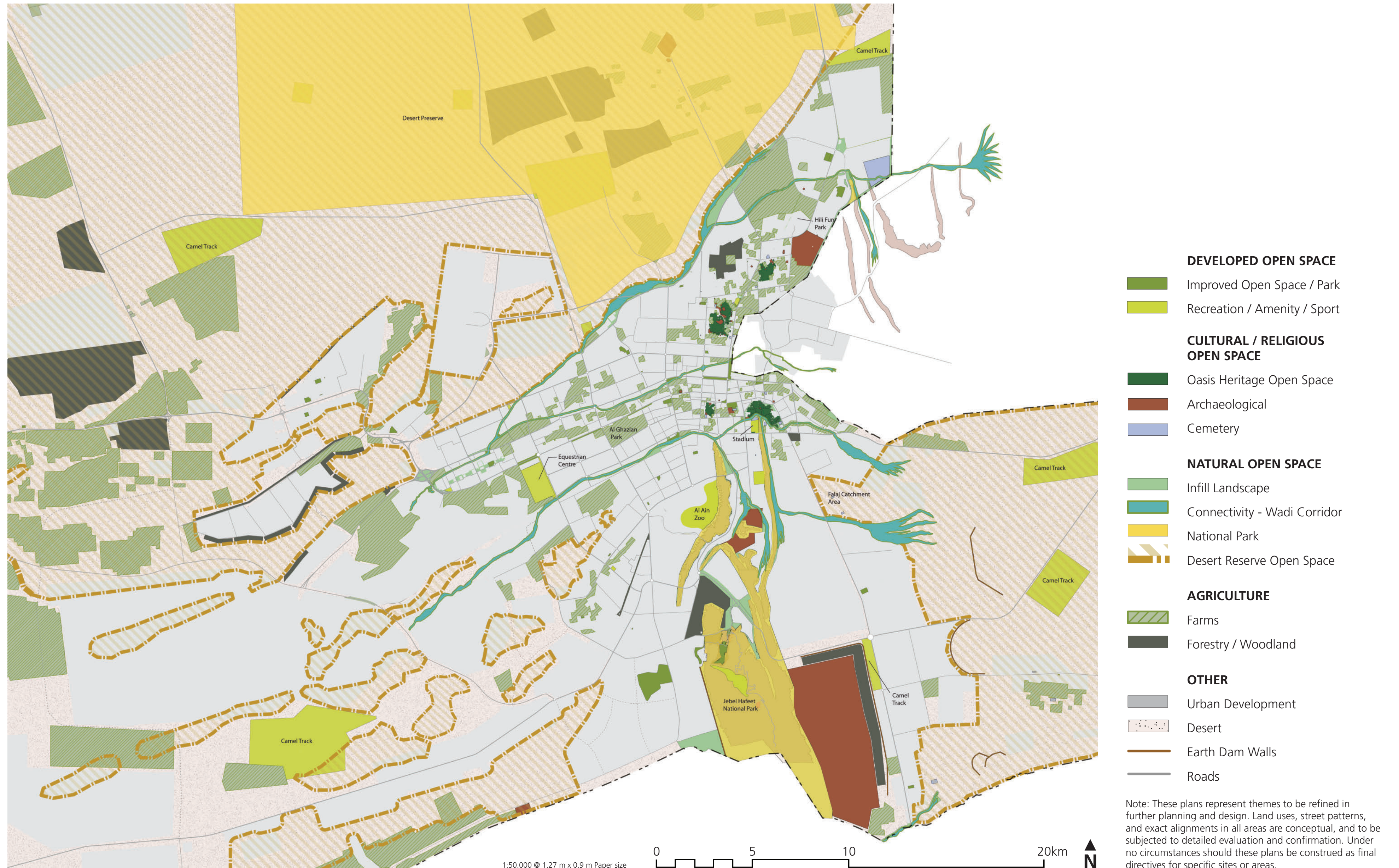
Al Ain is famous for its character as a 'Garden in the Desert' and the Open Space Framework seeks to preserve and enhance this desirable quality. It builds on the Environmental Framework by drawing the macro landscape features around Al Ain into the city. There are four main kinds of public open space that are stitched together into a coherent network:

1. **Parks** – There are two main kinds of parks: landscaped and recreational. Landscaped parks are distributed through the urban fabric to be within reasonable proximity of most of the population. They contain plantings, walkways, terrain, and water features to create a pleasant setting for walking, bike riding and picnicking. Recreational parks are fewer and tend to be distributed outside the core of the city. They contain facilities for sports, entertainment and amusement which include the Al Ain Zoo, Hili Fun Park and numerous camel race tracks.
2. **Cultural Landscapes** – Al Ain contains some of the most important archaeological sites in all of the UAE and these are being comprehensively catalogued and protected. These include Hili Tomb, the more ancient of the falaj, and the burial sites on the slopes of Jebel Hafeet, as well as numerous sites throughout the oases. The final elements of this category are religious sites such as cemeteries and celebration grounds.
3. **Natural Landscapes** – Al Ain's character is defined in large part by the macro landscape features that come together in its midst. This category of open space identifies and protects these features, integrating them directly into the structure of the city. The principle natural landscapes are Jebel Hafeet, the dunes, and the desert park. The wadis are a crucial piece of connective tissue that link the other elements into a framework.
4. **Agricultural Landscapes** – Farms, forests and nurseries are iconic elements in Al Ain's urban form and will be maintained as productive agricultural spaces for the foreseeable future. As private property, they are surrounded by boundary walls that prevent their usage as public open space in the city.





## 4.5.1 PUBLIC OPEN SPACE FRAMEWORK











## 5.0 OVERALL PATTERNS

Precincts and Heights

Land Use Distribution and  
Densities

Phasing and Evolution Over  
Time



## 5.1 PRECINCTS AND HEIGHTS

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The Urban Structure Framework Plan precipitates many implications. The following patterns put specific measures to many of those implications and flesh out some of the details of the urban form that will result from the Plan.

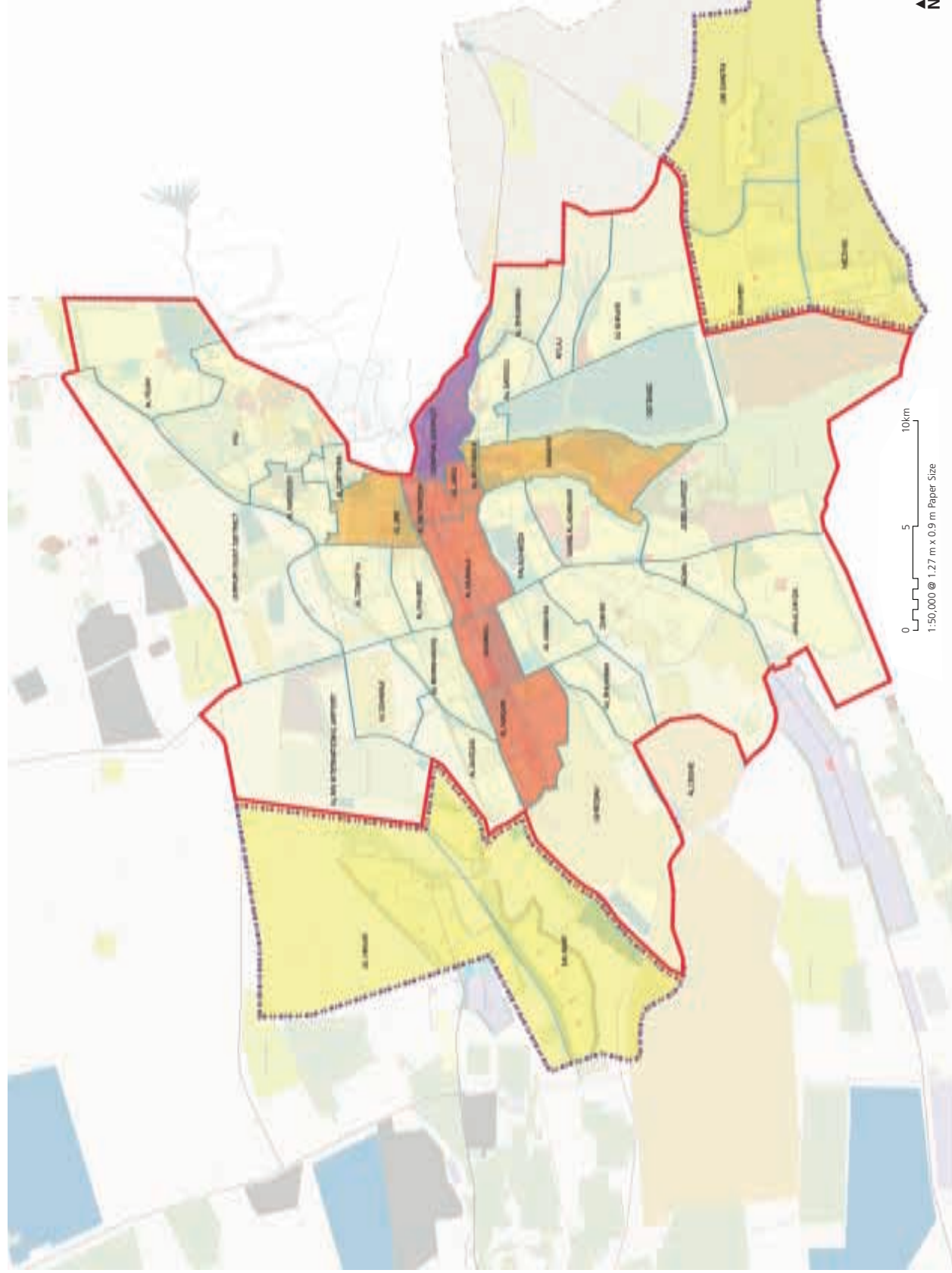
### Precincts

The Precinct Plan shows the Al Ain urban districts, with the current urban boundary. The areas within this boundary and the new urban expansion districts have been used for population counts and for reference throughout the Plan. The red, orange and purple areas are districts that will receive a considerable amount of intensification over the horizon of the Plan: Al Jimi, Sanaiya, Asharej and the CBD. Yellow areas with a dotted purple line are the Urban Expansion Area: districts proposed to be added to the urban system. These areas plus the ones inside the red line create the new area for assessing the total population projection targets in this Urban Structure Framework Plan.

### Building Heights

One of the factors that most distinguishes Al Ain from the coastal metropolises is its low-scale development. This height limit results from a royal decree from the late Sheikh Zayed, Father of the Nation, declaring that G+4 be the maximum permitted height for building development. This G+4 imperative gives Al Ain a strong and coherent image, as well as a pleasant ambience. One of the other important considerations is preserving view corridors – to Jebel Hafeet and the oases – and the maximum G+4 height permits this.

The Gateway Corridor and the existing CBD are both zoned for this characteristic typology. In lower density neighbourhoods, G+2 is the maximum permitted height, to preserve privacy and view corridors. The domes and minarets of mosques will be allowed to go higher as an exception to the general principle, in order to give expression to the cityscape skyline.



URBAN AREAS AND DISTRICTS

- Existing Urban Area Boundary
- Urban Expansion Area (to 2030)
- Urban District Boundaries
- Central District
- Gateway Corridor Intensification Areas
- Sana'iya and Al Jimi Growth Areas

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## 5.2 LAND USE DISTRIBUTION AND DENSITIES

While land use allocations determine what takes place on each portion of land, it is density that determines the intensity of development. Density is unrelated to height: a district with tall towers can have a lower density than a district with a mid-rise, street wall typology. There are densities associated with each kind of land use and the general principle has been to allocate different densities so as to complement and reinforce each other, creating well-defined nodes within the urban structure.

### Residential Density and Population

Currently, the Central District is the only part of Al Ain with a high population density. The Gateway Corridor concept focuses density and intensity into a linear strip that runs the length of the city in the east-west direction. By 2030, the Al Maqam, Asharej, and Al Muwaiji will join the Central District in housing the bulk of the population of Al Ain. A second north-south axis consisting of Hili, Al Jimi, Al Mutaredh, and Sanaiya will also contain higher density, creating a cross-roads structure where the two major axes meet. New Emirati neighborhoods are mostly developed at lower densities but with proximate commercial streets that combine street level retail with higher density housing. Every effort has been made to create a range of housing opportunities in each precinct such that there is no part of the city that Emiratis would not wish to live in.

### Emirati Areas

One of the major aims of the Plan is to accommodate the demand for Emirati housing into the future. The plan shows areas appropriate for this development while respecting environmental and social considerations, including sprawl, access to transport and amenities. Housing is intended to be low density and generally in the order of 30x36m plot sizes, achieving a gross density of 4.5-5.0 units per hectare, which includes non-residential requirements such as schools, parks, mosques, roads, amenities and commercial development.

### Office Space

The two major centers of office space are the Central District and Asharej – at sufficient distance from each other, and with different employment focuses, so that they will complement, rather than compete with each other. The remainder of office density is distributed along the Gateway Corridor to ensure that transit is an option for most people to get to work. Sanaiya and Al Jimi, as major centres of population, also have a component of office space to ensure employment options adjacent to where people live.

## Overall Patterns

Plan Al Ain 2030

Urban Structure Framework Plan

### Retail

Retail density is also focused along the Gateway Corridor. Retail is another big employment sector, as well as a trip generator. Concentrating it along the corridor ensures that shoppers and workers have the opportunity to access it through transit. Outside of the Corridor, retail density has been allocated to serve a neighborhood's needs. Some of this retail will happen along city streets and some within climate controlled malls, scaled to the neighborhood. Large regional malls are minimized and new ones are strategically located as they create intense traffic congestion. Distributed retail density reduces the number of vehicle trips by providing services close to where they are needed.

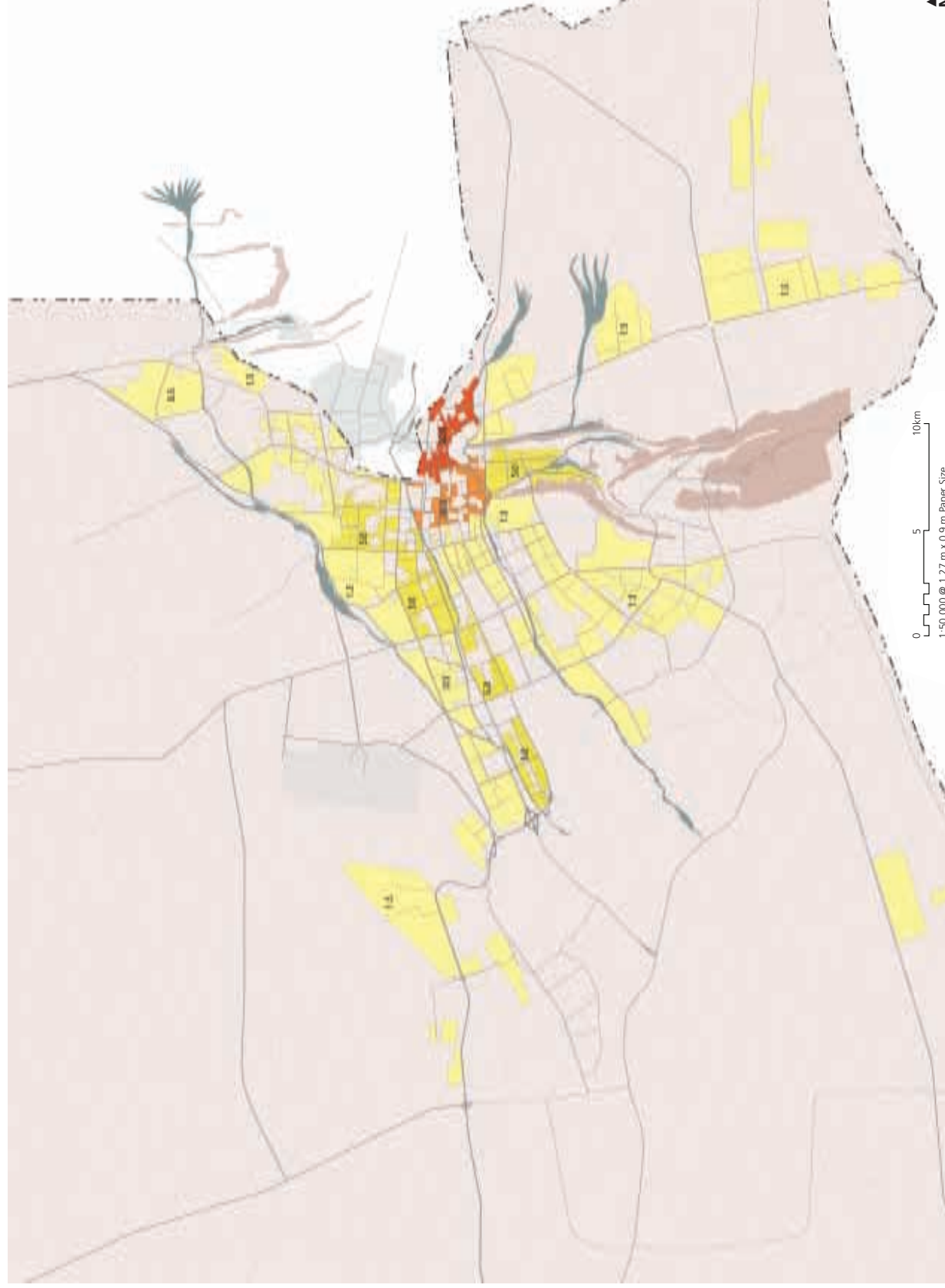
### Industrial

One of the most important structural moves in the Plan is to transition heavier industrial uses away from Sanaiya. Industries rely on sound logistics and so the best place to locate them is near the infrastructures that supply them. In the case of Al Ain, two major industrial areas are allocated: a High-Tech Business Park at the airport, and a heavy Industrial district along the truck route. This minimizes the amount of overland travel required for materials and products and keeps necessary processes of heavy industry away from the centers of population density. Worker housing is already being constructed along the truck route, and will also be built at the airport.

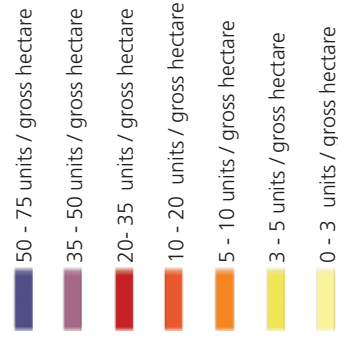
### Hotel

Hotel density is clustered in four main areas to meet the different needs of the city. Along the Gateway Corridor, the need is predominantly for business accommodation and so 3,000 rooms are allocated there. At Hili and Qattara, and at the Jebels and Zoo the need is predominantly for tourism stays, and the 1,000 rooms allocated to these districts are more concentrated in resort-style accommodation. Lastly, in the Central District, both business and tourism accommodations are needed, and so the 2,000 rooms allocated here are divided evenly between the two.

## 5.2.1 EXISTING RESIDENTIAL DENSITY



### RESIDENTIAL DENSITY

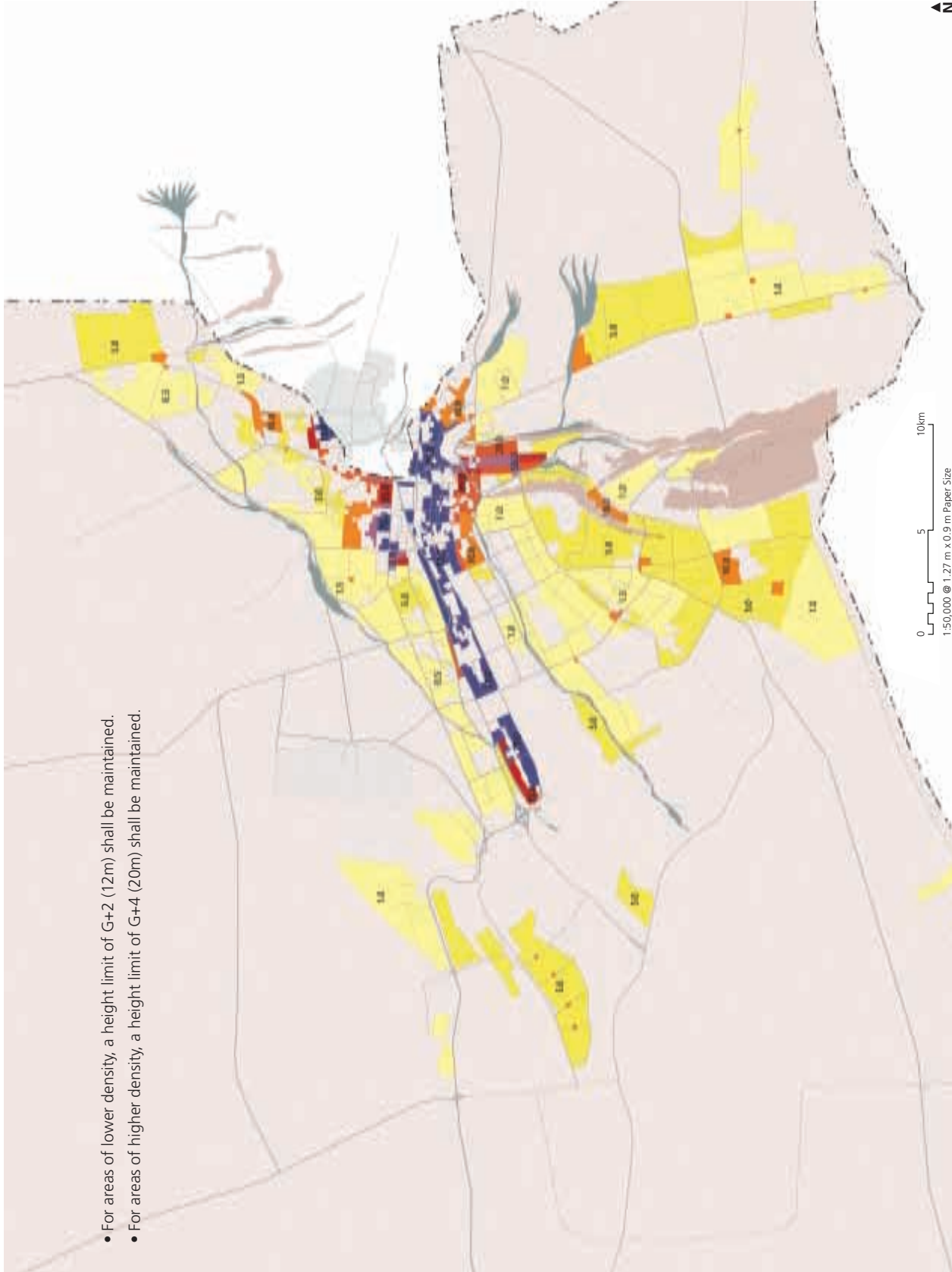


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### 5.2.2 PROPOSED RESIDENTIAL DENSITY

- For areas of lower density, a height limit of G+2 (12m) shall be maintained.
- For areas of higher density, a height limit of G+4 (20m) shall be maintained.

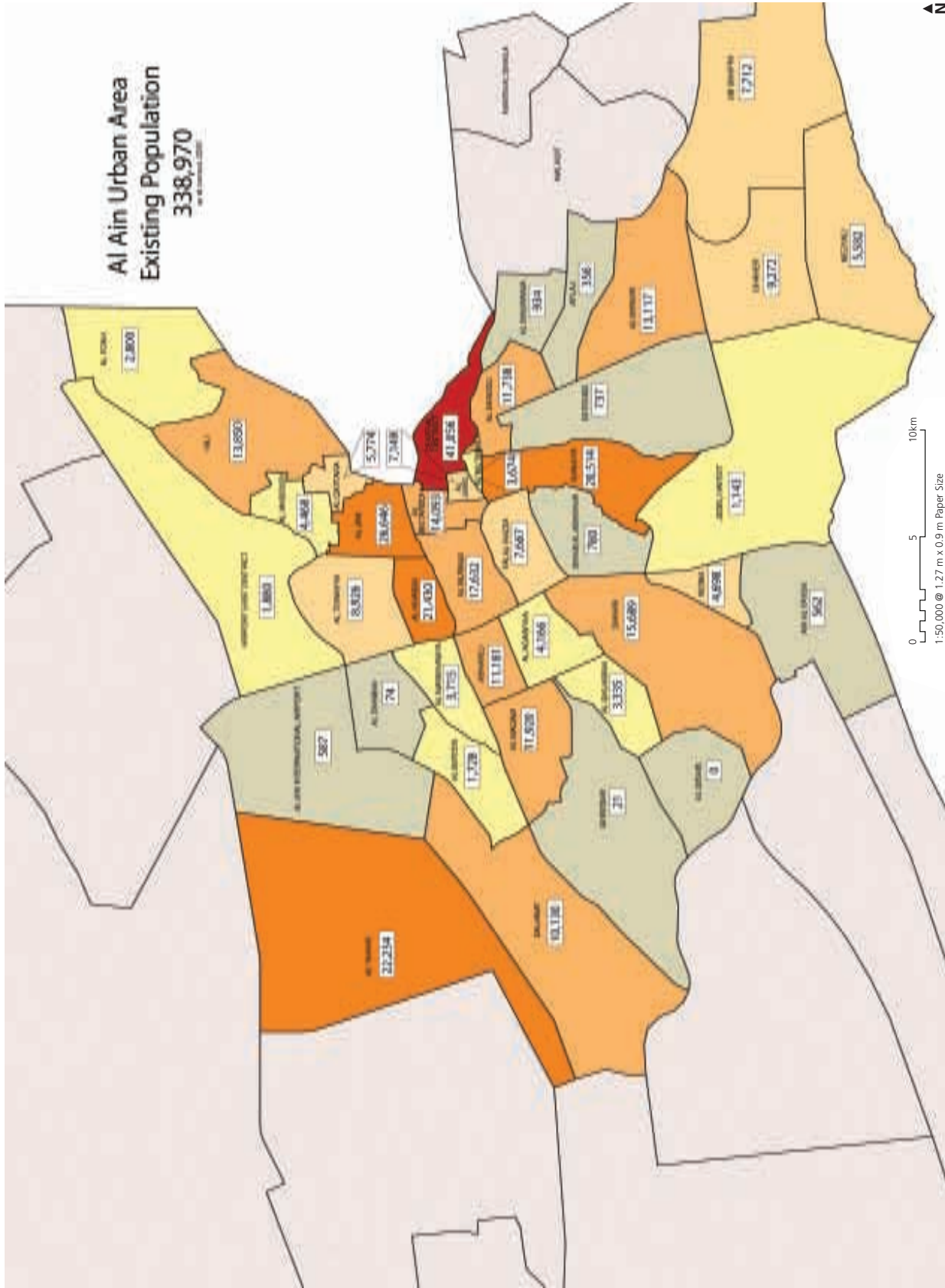


#### RESIDENTIAL DENSITY

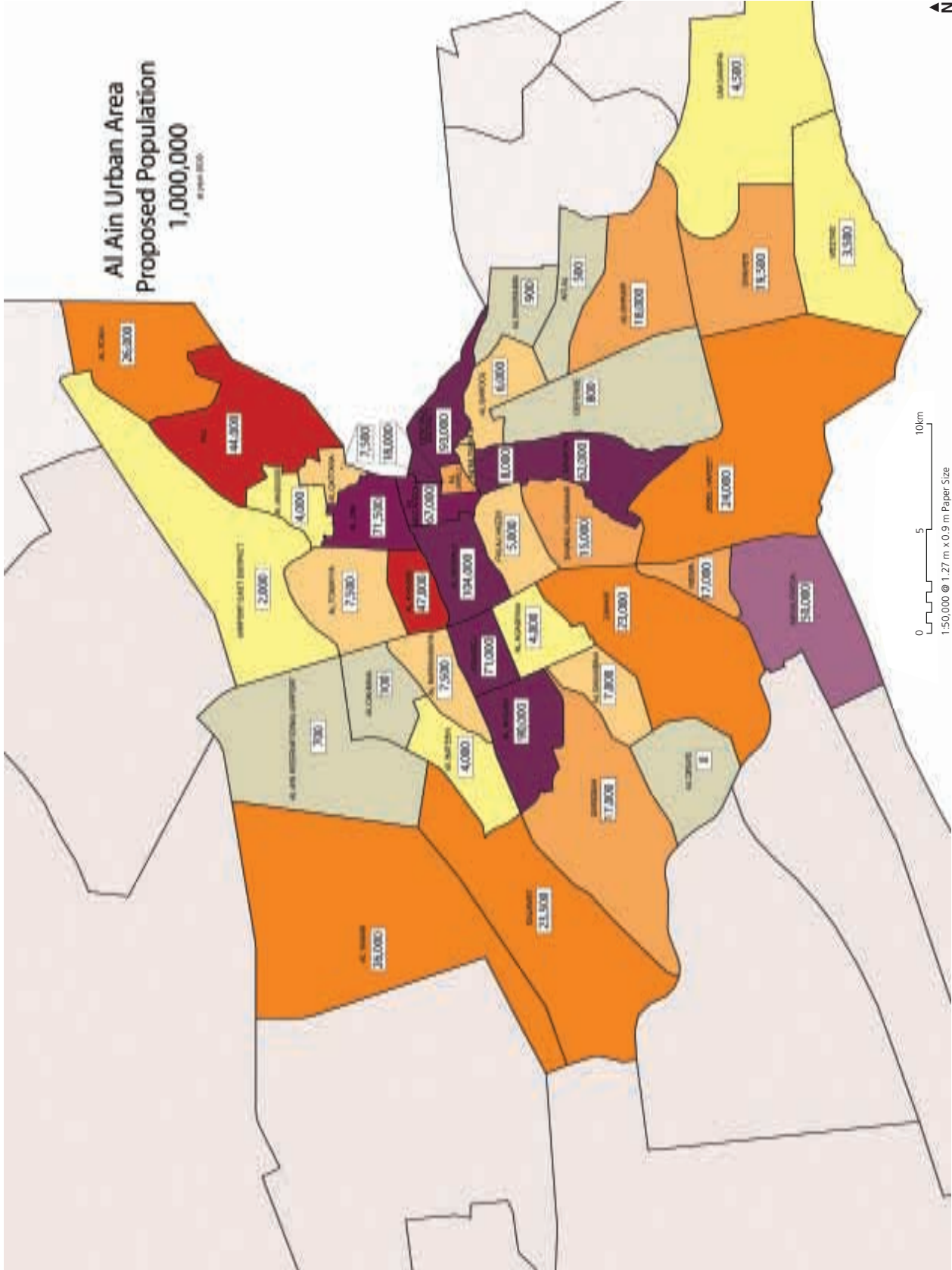
- 50 - 75 units / gross hectare
- 35 - 50 units / gross hectare
- 20- 35 units / gross hectare
- 10 - 20 units / gross hectare
- 5 - 10 units / gross hectare
- 3 - 5 units / gross hectare
- 0 - 3 units / gross hectare

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### 5.2.3 EXISTING POPULATION DISTRIBUTION



5.2.4 PROPOSED POPULATION DISTRIBUTION





5.2.5 OFFICE FLOOR SPACE DISTRIBUTION (GFA)

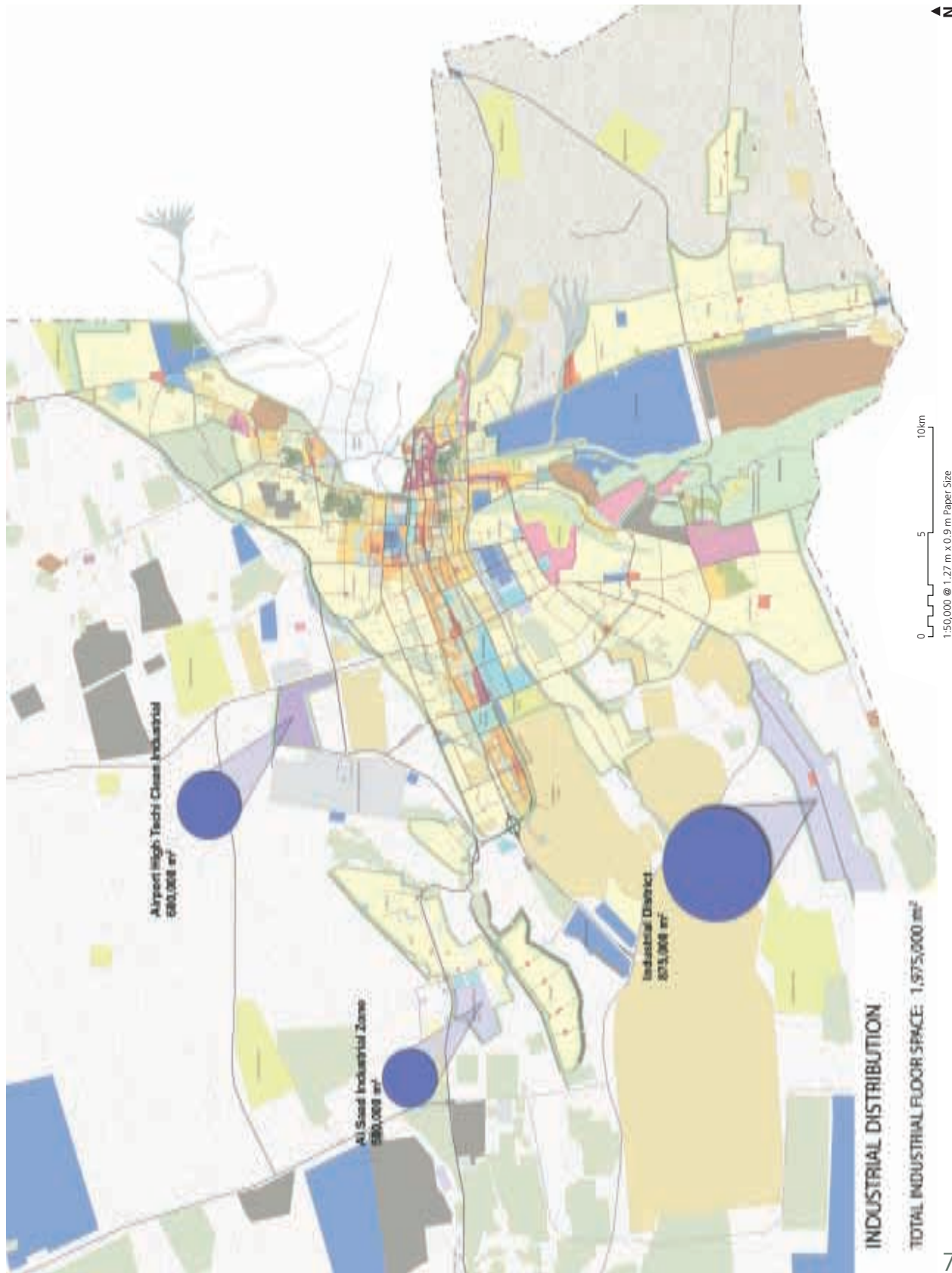


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### 5.2.6 RETAIL FLOOR SPACE DISTRIBUTION (GFA)



## 5.2.7 INDUSTRIAL FLOOR SPACE DISTRIBUTION (GFA)

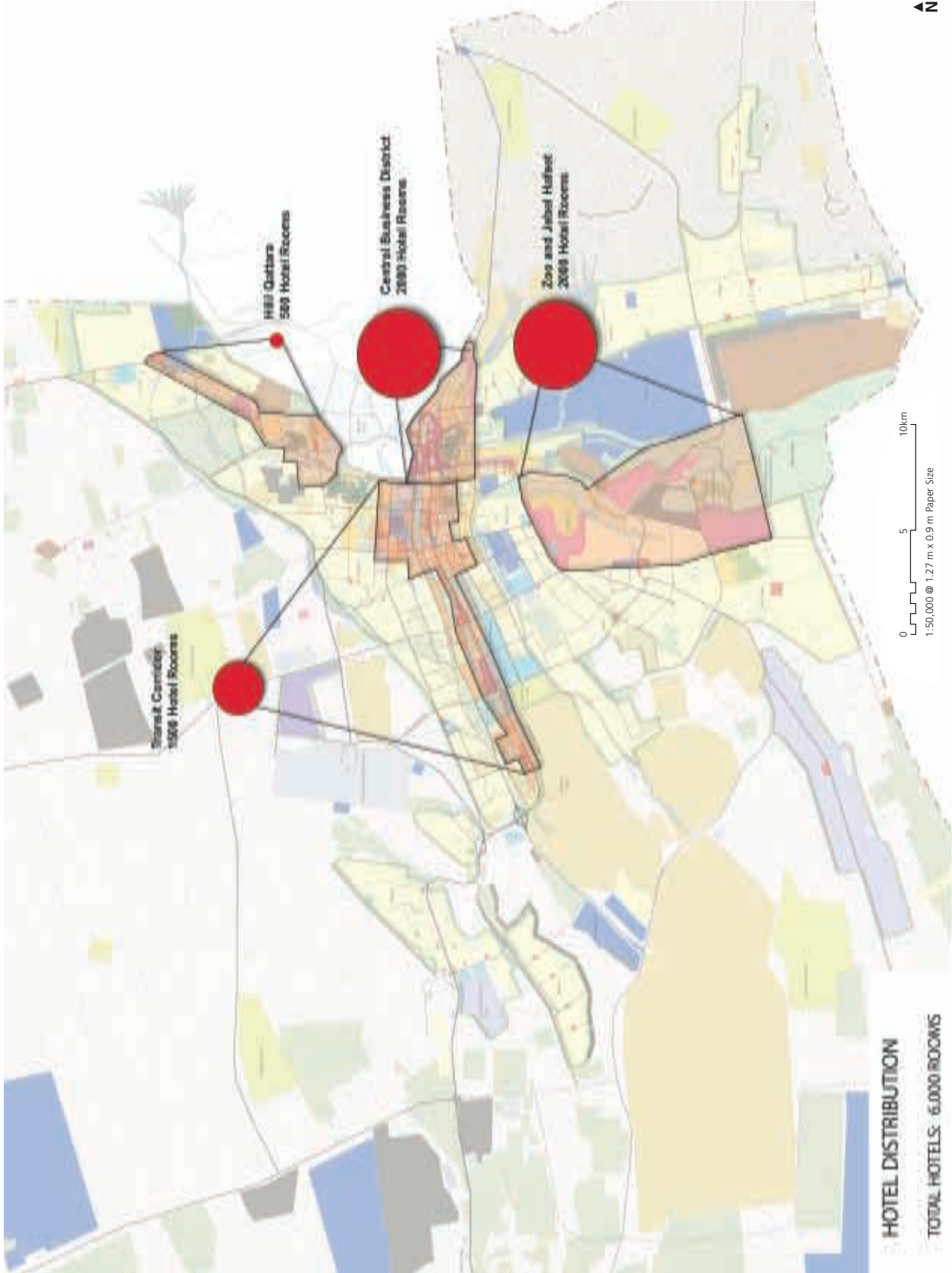


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مجلس أبوظبي للتخطيط العمراني

ABU DHABI URBAN PLANNING COUNCIL

5.2.8 HOTEL ROOM DISTRIBUTION



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## 5.3 PHASING AND EVOLUTION OVER TIME

Plan Al Ain 2030 is envisioned in 3 phases. The phases do not have specific timelines, they are rather a recommended sequence of development intensity.

**Phase 1** – The major structural elements of the Land Use Plan, including the Asharej Node and the CBD redevelopment. This priority of sequence allows for immediate development sites for upcoming development proposals. Emirati housing allocations begin in the most appropriate areas to relieve the acute bottleneck. The zoo, the Jebel Hafeet tourist resort areas and the redevelopment of the Hili Fun Park and its surrounds are also seen as a priority during this phase.

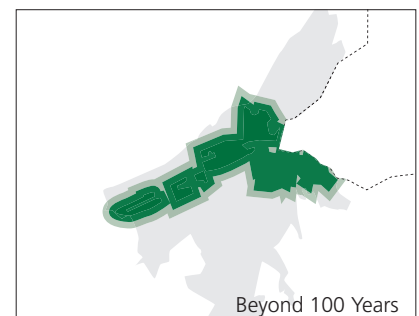
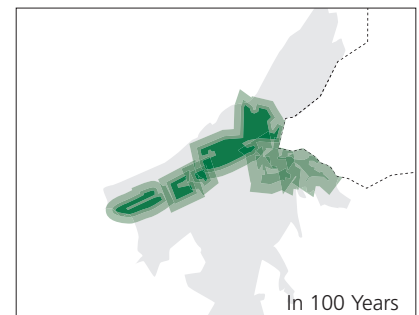
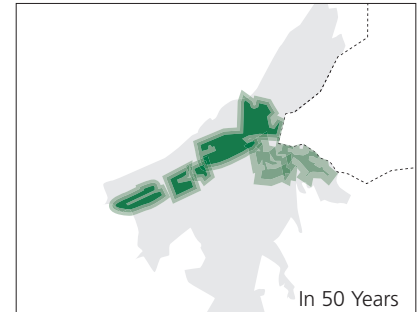
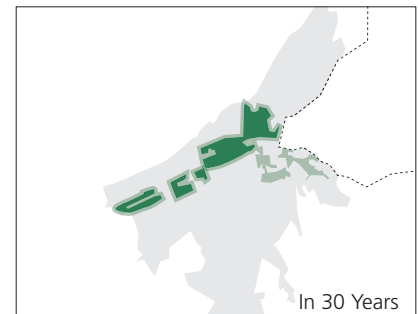
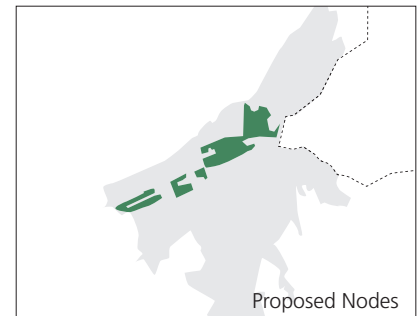
**Phase 2** – The major components of the Gateway Corridor, including intensification of development at the nodes, and the surface tram system. As demand for Emirati housing allocations continue in the areas of Salamat, the Al Khair South East sub region and the redevelopment of inner neighbourhoods, in particular Al Khabisi, are proposed as the most appropriate areas to expand.

**Phase 3** – This phase requires the redevelopment of existing older areas, especially for Emirati housing allocations. Al Khair and Sanaiya are identified for redevelopment and renewal in this 3rd phase. Al Maqam is also to be developed in the last phase, completing the western end of the Gateway Transit Corridor.

Throughout all phases, infill and redevelopment of smaller parcels throughout the main body of the city should continuously occur.

A timeframe as long as 25 years involves considerable uncertainty, and there are many events that could impact development in Al Ain over the next quarter century. The Land Use concept presented in this Urban Structure Framework Plan focuses residential density into nodes along a corridor serviced by rapid transit. This is a fundamentally sound structure that will allow considerable development versatility over time. As the nodes densify and become distinguished by their urban design, architecture and the major types of employment they offer, the city will benefit from having these differentiated dense precincts.

The key feature of this Urban Structure Framework Plan is its versatility. Should the economic or demographic situation diverge significantly from the forecasts, the flexible structure of the Plan is able to evolve to accommodate more or less density over time.







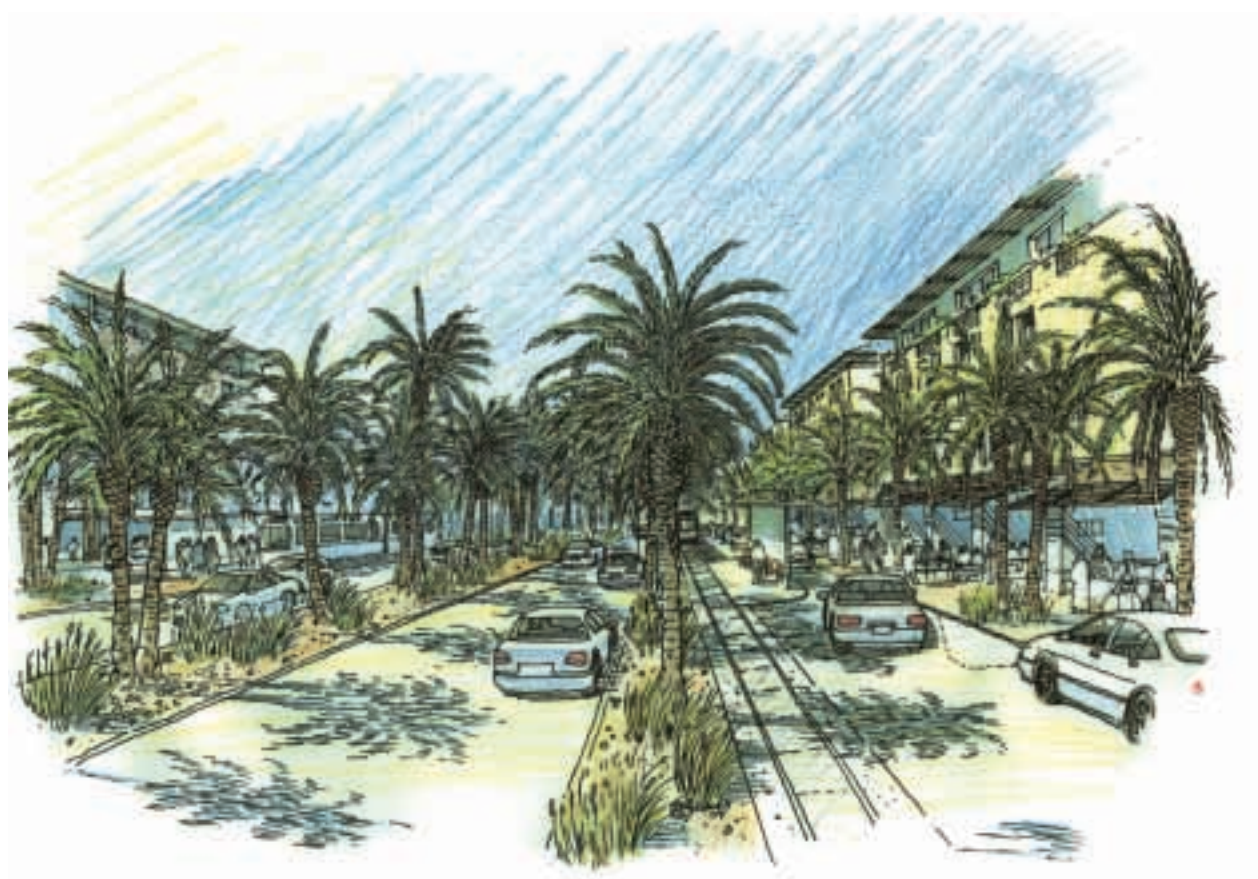
## 6.0 ZOOMING IN

Gateway Transit Corridor

Central Business District



## 6.1 GATEWAY TRANSIT CORRIDOR



As the main thoroughfare into town, the Gateway Transit Corridor incorporates traffic, transit and pedestrians into a seamless whole

Al Ain will grow significantly over the next quarter century, and how that growth is accommodated will go a long way towards determining whether it retains its pleasant garden city character. The most fundamental move of the Plan is to correlate new density with transit to offer viable alternatives to the car. The "Gateway Transit Corridor" is devised to channel growth into a transit-supportive framework, allowing real alternatives to the car to develop.

The Gateway Transit Corridor hinges on the creation of five new major centres along the approach corridor from the Maqam district to the downtown. Each of these centres is a mixed-use node with a significant retail component, providing jobs for new residents, and local shopping opportunities. The five centres are strategically located at important cross streets and at specific places identified as being able to take on a significant urban infill component.

In addition to being mixed-use nodes, each of these new major centres is a stop on the dedicated tram-line that runs the length of the corridor. Focusing residential and commercial density around the stops on

## Zooming In

Plan Al Ain 2030

Urban Structure Framework Plan

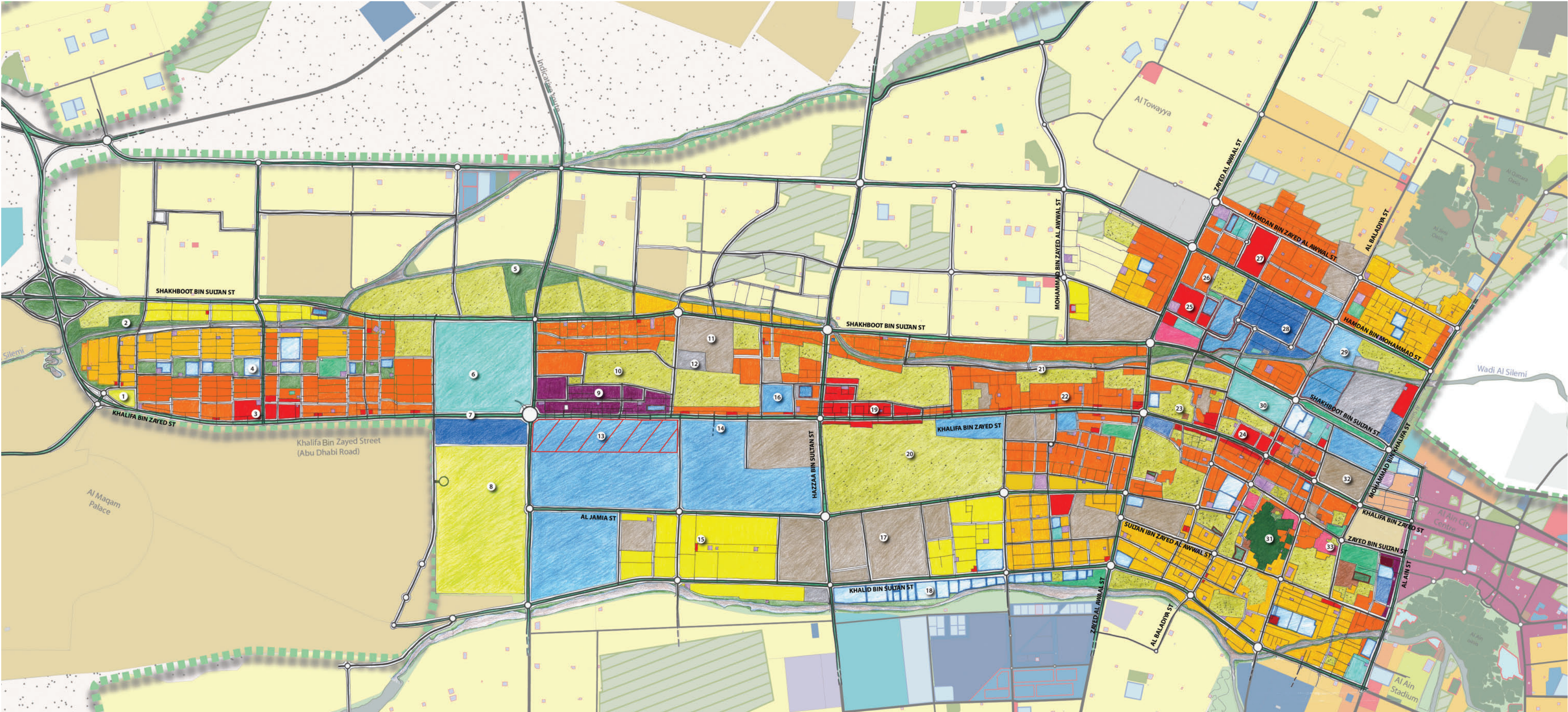
the tramline is the most fundamental strategy of creating a transit-supportive community. The new density of multi-family housing will provide a critical mass of transit ridership connected by the tram to the major centres of employment.

The new node at Asharej is strategically located at the crossroads to the airport, surrounded by universities, hospitals and knowledge-based industries. It will be of higher order than the other district centres, is equivalent to the Central Business District (CBD) in terms of residential density and jobs, but at 10km distant, is far enough away to complement and not compete with the CBD. It is ideally placed to create reverse commuter flow during rush hour and, with an employment focus on the knowledge-based sector, it is differentiated enough that it will not siphon jobs and energy from the downtown. A station for the High Speed Rail link from Abu Dhabi will stop at both the existing and new higher-order centres.

The new major centres of the Gateway Transit Corridor are spaced appropriately for district shopping, and are connected to the adjacent Emirati neighbourhoods with a shuttle bus network. This overlay of local transit will provide even low-density neighbourhoods with a connection to the transit spine, and a whole set of mobility options other than the car.



6.1.1 GATEWAY TRANSIT CORRIDOR: LAND USE FRAMEWORK



- Mixed Use - General

Mixed Use - Office / Employment

Mixed Use - Hotel / Resort Focus

Government

Civic

University

Healthcare

Religious

School

High Density Residential

Medium Density Residential
- Low Density Residential

Palace

Oasis

Parks / Improved Open Space

Cemetery

Recreational / Amenity / Sports

Farms

Archaeological Site

Wadi

Infrastructure

Natural Open Space
1.

Al Ain Club and City Entry feature

2.

Urban Agriculture

3.

Al Maqam Mixed Use Centre

4.

Al Maqam District Schools

5.

Wadi Side Natural Open Space

6.

Tawam Hospital

7.

Landscape Boulevard Experience

8.

Equestrian Centre

9.

Asharej Central Business District

10.

Urban Farms

11.

Palace Land

12.

Utility Site

13.

University Special Use Zone

14.

University Main Entry

15.

Neighbourhood Mixed Use

16.

University Campus

17.

Palace Land
18.

Khaled bin Sultan St School District

19.

Al Muwajji Mixed Use Centre

20.

Al Ghazian Deer Park

21.

Wadi Side Recreational Walkway and Cycle Path

22.

High Density Housing - G+2 to G+4

23.

Archaeological Site

24.

Al Mutaredh Mixed Use Centre

25.

Safeer Retail Area

26.

High Density Residential Area

27.

Al Jimi Mall

28.

Government Offices and Departments

29.

University Campus

30.

Al Jimi Hospital

31.

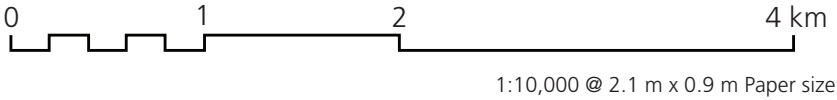
Al Mutaredh Oasis

32.

Palace Land - Celebration Ground

33.

Rotana Hotel

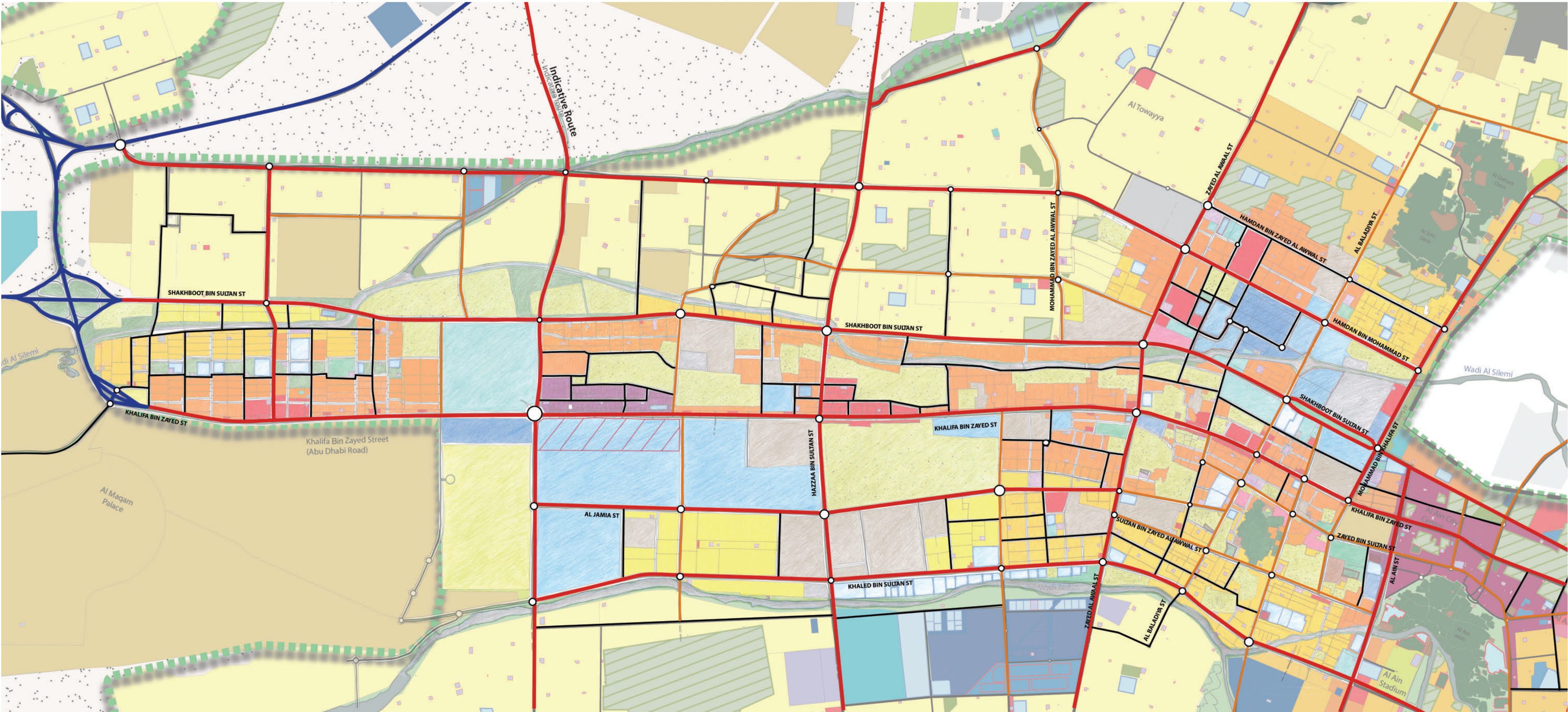


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6.1.2 GATEWAY TRANSIT CORRIDOR: TRANSPORTATION FRAMEWORK: ROADS



ROAD FRAMEWORK

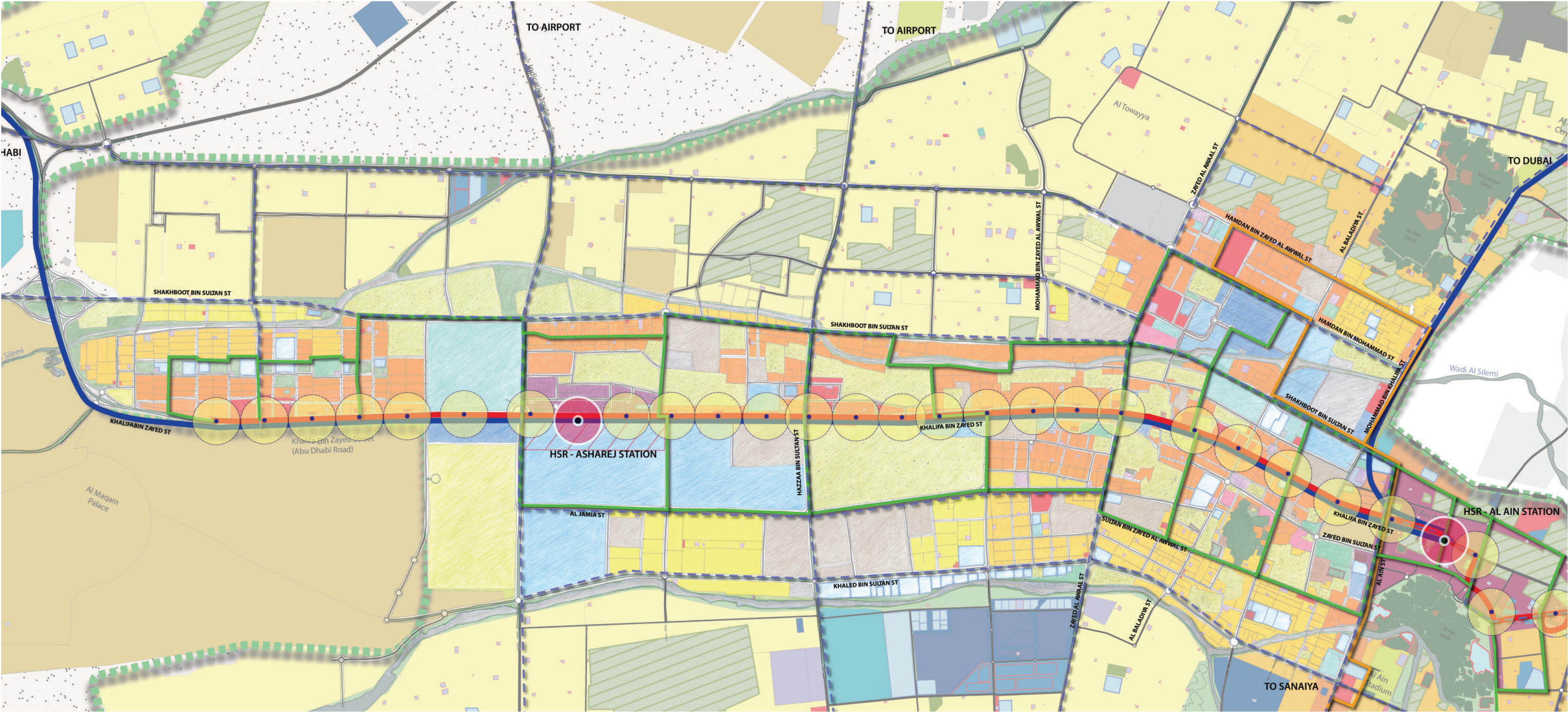
- Primary Arterial
- City Arterial
- District Distributor
- Collector Road

0 1 2 4 km  
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6.1.3 GATEWAY TRANSIT CORRIDOR: TRANSPORTATION FRAMEWORK: TRANSIT



TRANSIT FRAMEWORK

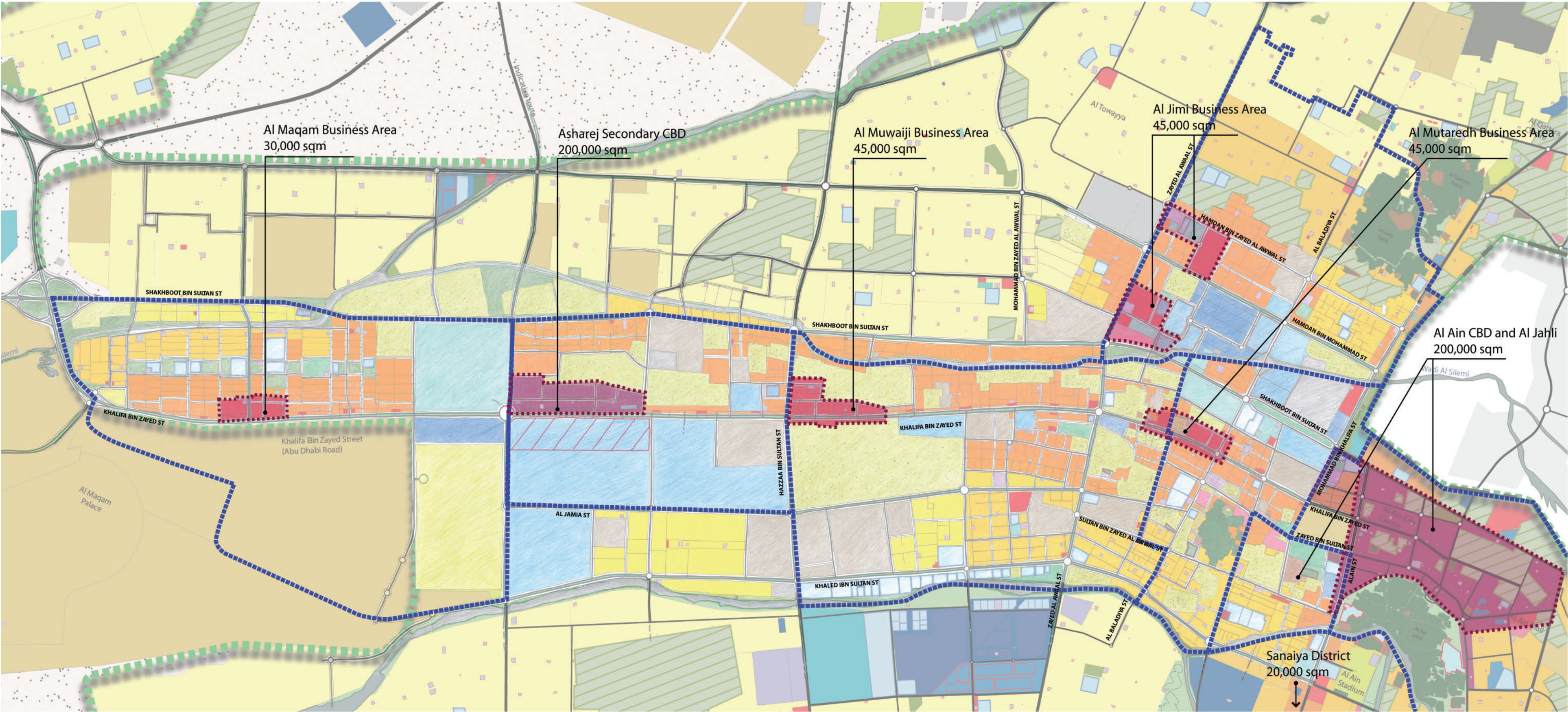
- High Speed Rail
- Tram System (600 m stops)
- Shuttle Bus Service
- Community Bus Route

0 1 2 4 km  
1:10,000 @ 2.1 m x 0.9 m Paper size

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6.1.4 GATEWAY TRANSIT CORRIDOR: OFFICE DISTRIBUTION (GFA)



Total office floor area in the transit corridor:  
Approximately 320,000 sqm (Excluding Central District, Al Mutawa'a and Al Jimi)

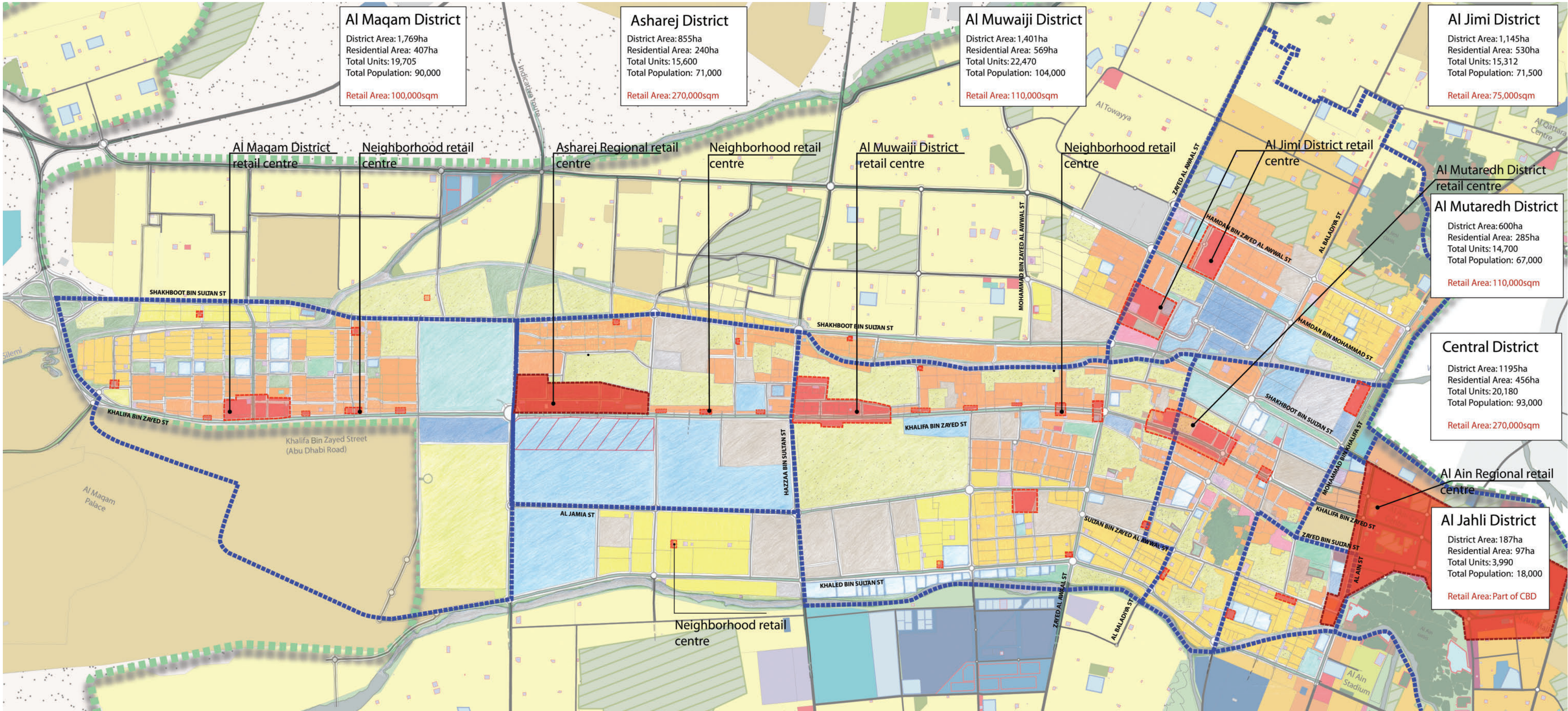
- Office Area
- Area District Boundary

0 1 2 4 km  
1:10,000 @ 2.1 m x 0.9 m Paper size

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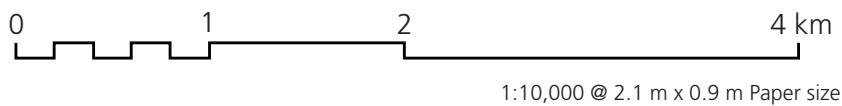


6.1.5 GATEWAY TRANSIT CORRIDOR: RETAIL DISTRIBUTION (GFA)



Total retail floor area in the transit corridor:  
Approximately 590,000 sqm (Excluding Central District, Al Mutawa'a and Al Jimi)

- Regional Retail
- District Retail
- Neighbourhood Retail
- Area District Boundary



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## 6.2 CENTRAL BUSINESS DISTRICT (CBD)

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The downtown of Al Ain is one of the most important districts in the city. Not only does it contain the highest density of residences and workplaces, it also provides the primary interface to the city's most iconic aspect – the oasis. Despite its many natural advantages, the downtown is currently beset by many problems, including large swathes of underused land, neglect of the built fabric, and a lack of resonance for Emirati citizens. This scheme for the downtown aims to revitalize it through introducing new density and uses and by building upon the garden city character that makes Al Ain such a pleasant respite from the hectic coastal metropolises.

The most fundamental step is to redevelop the many tracts of underused land currently lying idle in the downtown core. Filling this empty space with new residential and commercial density will add a whole new level of activity and vitality to the downtown. The proposed new buildings are of the same mixed-use G+4 typology that currently prevails.

Reorganizing the street network is a necessary accompaniment to downtown redevelopment. The flyover that currently cleaves the oasis from the downtown is being removed. The corridor left by the flyover is 66m wide and affords the opportunity to create a major world class shopping boulevard. In section, it can accommodate dedicated transit lanes, 2 carriageways in each direction, a local street and very wide sidewalks. The roundabouts that exuberantly express the city's character are retained at the periphery of the downtown, but are converted to signalized intersections in the core to normalize traffic flow and make it safer for pedestrians. No grade-separated or limited-access configurations are supported. The superblocks are overlaid with a fine-grain grid of smaller streets to increase their permeability to pedestrians, and create through-streets that can absorb traffic pressure from the boulevards.

The heart and soul of Al Ain are its oases. The Al Ain Oasis located in the downtown, in particular, is the city's foremost feature and amenity. Despite being adjacent to the core, the city effectively turns its back on it. A host of measures are proposed to reintegrate the oasis into the life of the city. View corridors are established that robustly ensure the oasis is visible down prominent axes. Precincts are established around the edge of the oasis to define its edge and prevent encroachment from inappropriate development. The programming of the oasis edge precincts focuses on culture and tourism, building on the key strengths of Al Ain's brand.



## Zooming In

Plan Al Ain 2030

Urban Structure Framework Plan

“Green fingers” are a connective tissue of planted pedestrian byways that emanate out from the oasis, carrying its theme through the city. They link parks, courtyards and public outdoor spaces into a continuous network of shaded pedestrian paths through the city, enhancing Al Ain’s garden city character. Green fingers run east-west along the wadi banks, culminating at the point where the oasis, wadis and mountain meet. This ensures pedestrian connectivity to the place where all the characteristic elements of Al Ain meet.

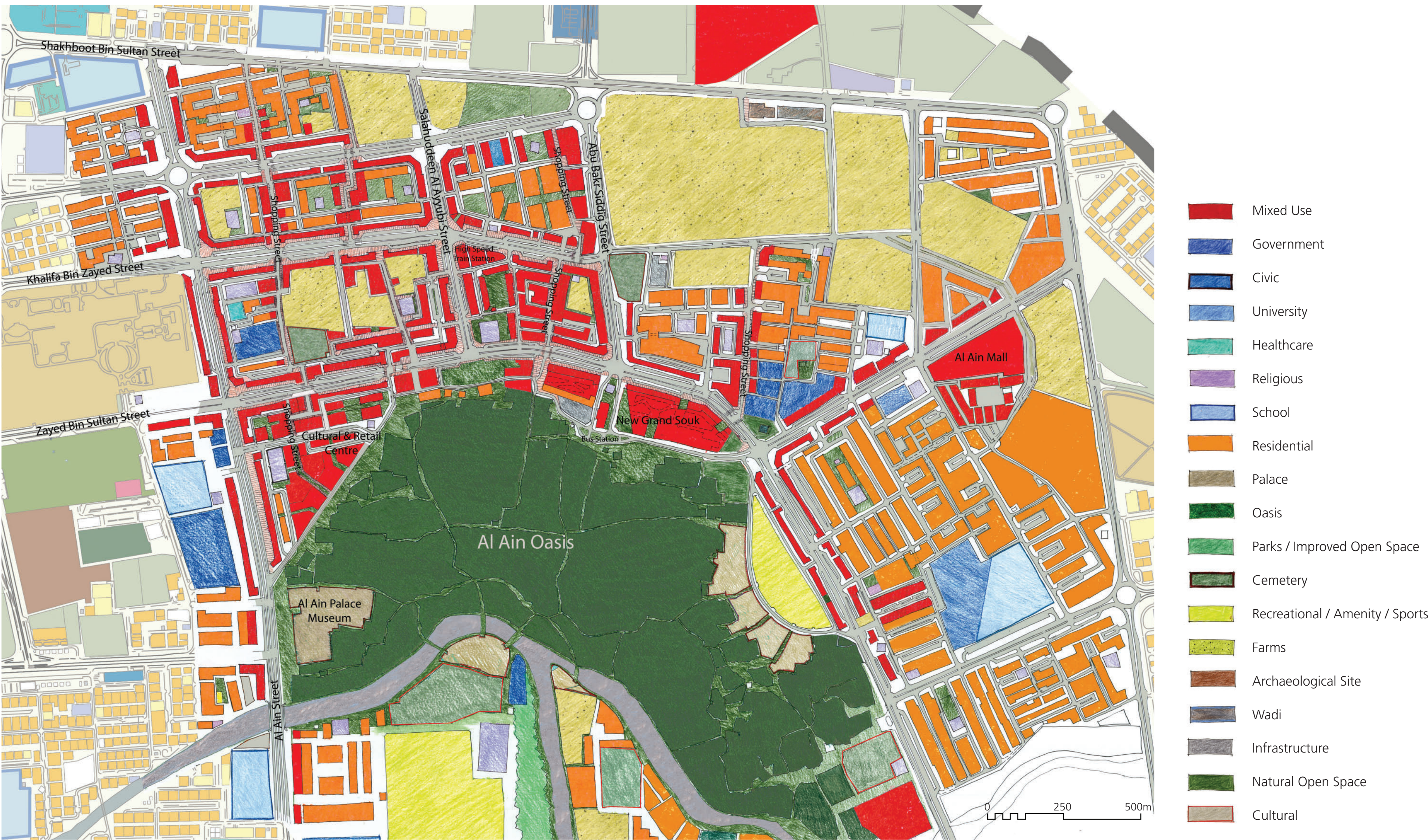
The rest of the public realm needs to be shaded as well in order to create the cool microclimate that pedestrian activity requires during the hot months. A host of shading devices are proposed, employing both traditional and contemporary motifs. These devices are expressed differently in different parts of the downtown and are an important orienting device.

Rather than dispersing retail uniformly throughout the downtown urban fabric, a legible retail district is proposed along three north-south streets spaced appropriately to be district shopping sites. North-south streets are considerably better protected from the sun than east-west streets, and that protection is enhanced through a system of shade devices that cover the streets creating a continuous shaded zone linking to the Main Souk at the edge of the oasis.

Other facilities should be distributed within the retail district to provide a mix of retail, business and services. Except where shown, the “green fingers” will not have frontage retail and will therefore not detract from the viability of the shopping streets.



6.2.1 CBD: LAND USE FRAMEWORK

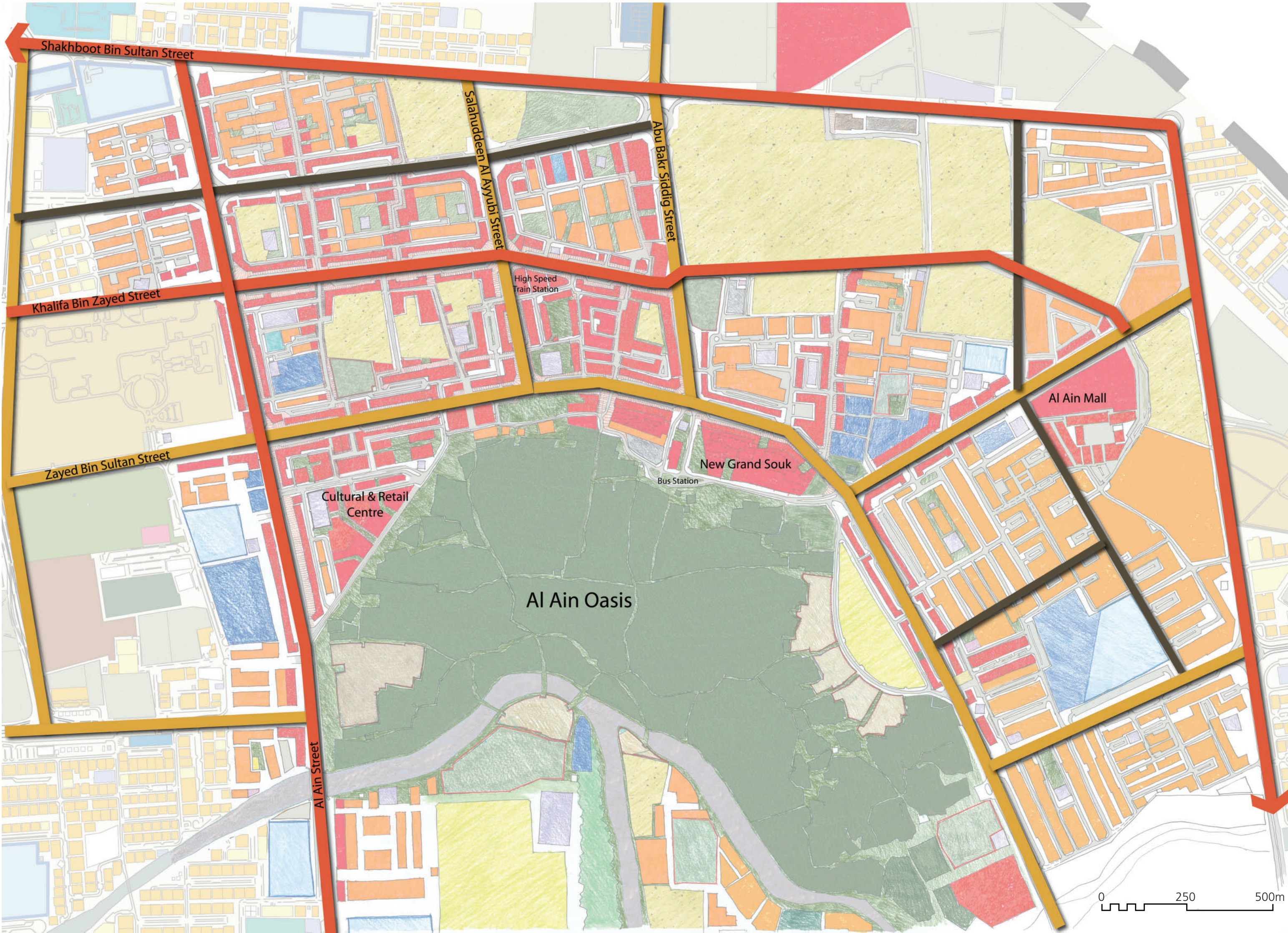


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6.2.2 CBD: TRANSPORTATION FRAMEWORK: ROADS



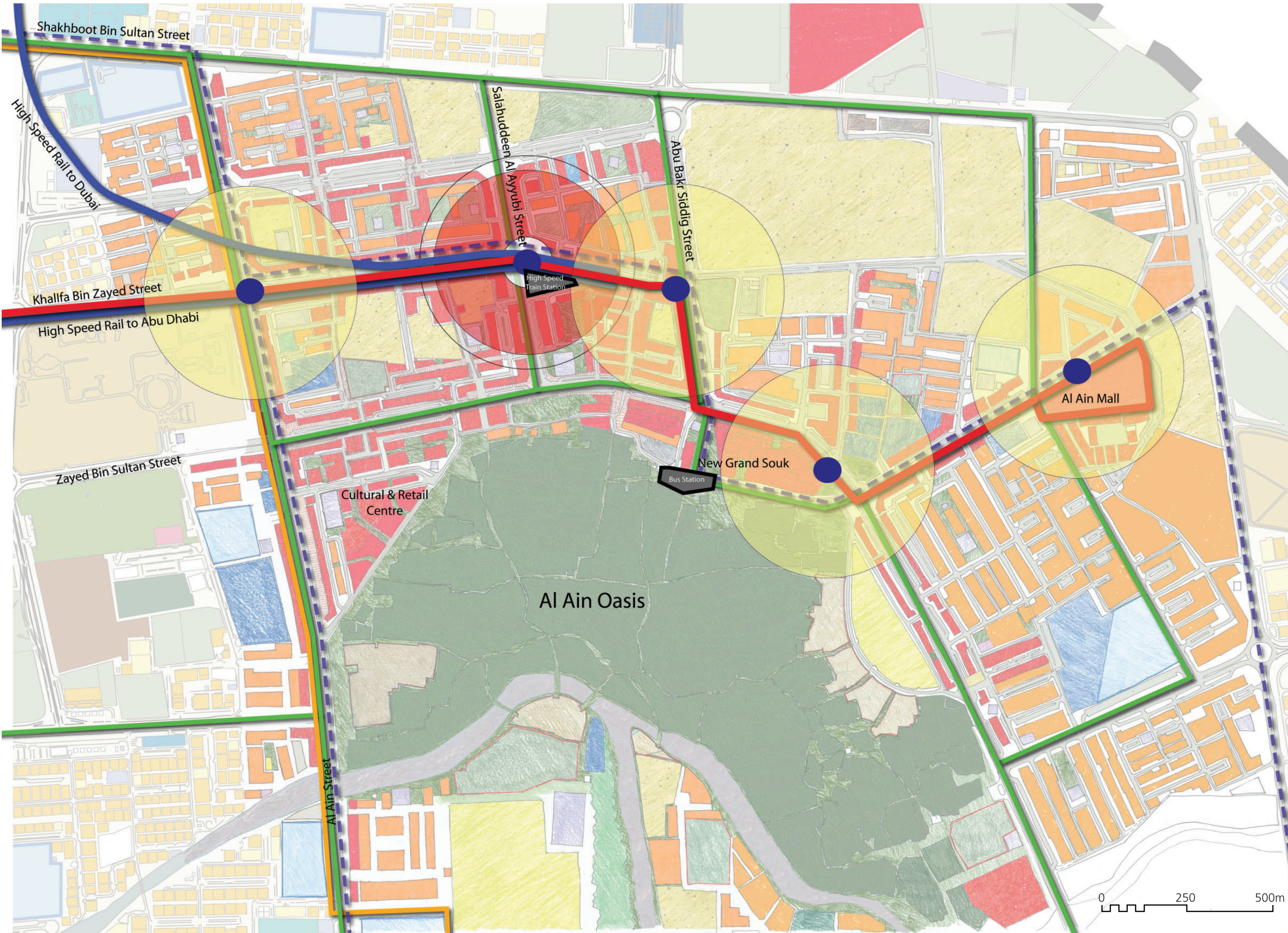
- Arterial
- Sub-arterial
- Collector

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6.2.3 CBD: TRANSPORTATION FRAMEWORK: TRANSIT

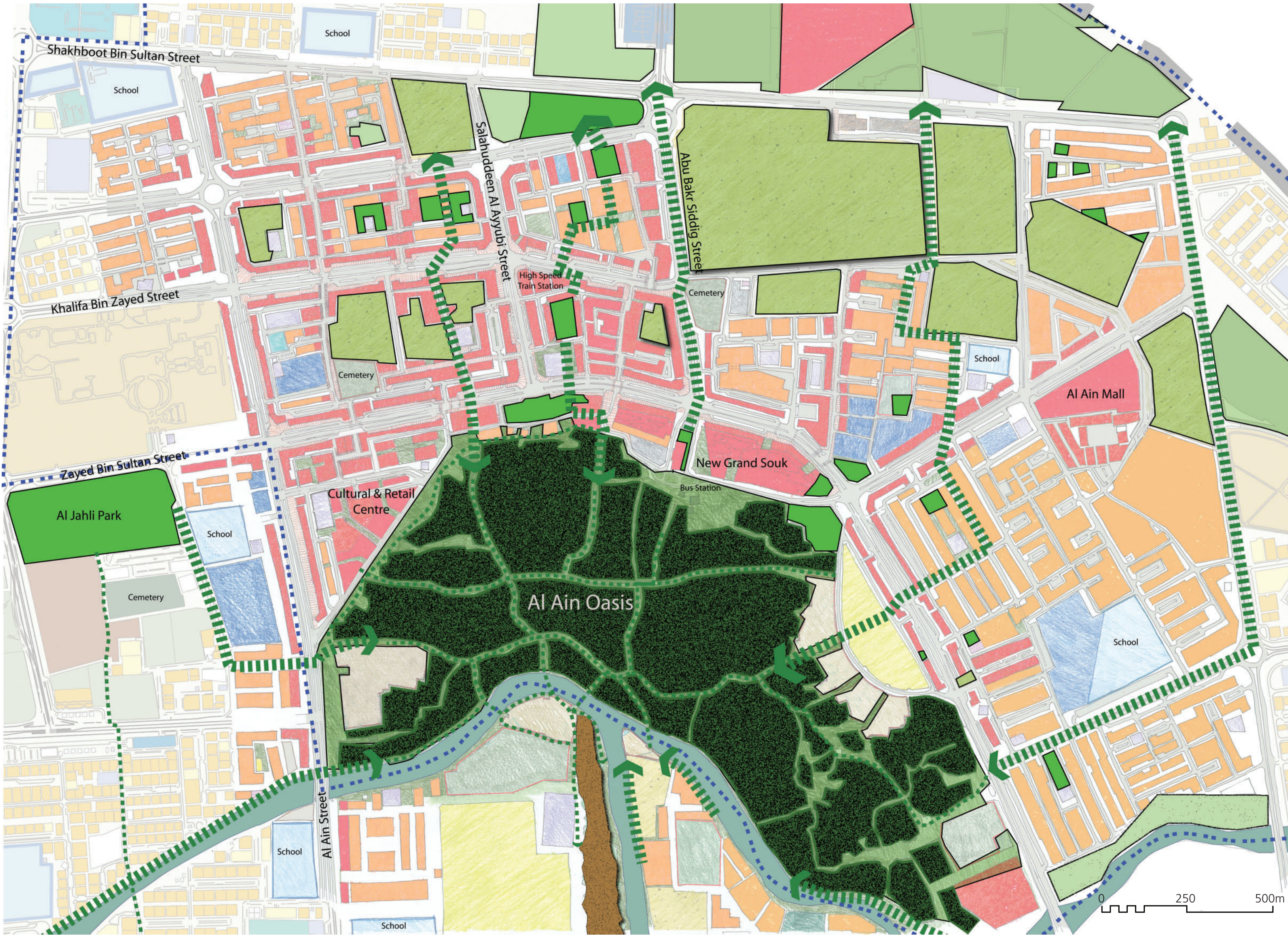


- Tram Stop (within 5 minute walking radius)
- High Speed Rail Line
- Tram Line
- Orange Line Shuttle Bus
- Green Line Shuttle Bus
- Community Bus
- Transit Hub

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6.2.4 CBD: OPEN SPACE FRAMEWORK

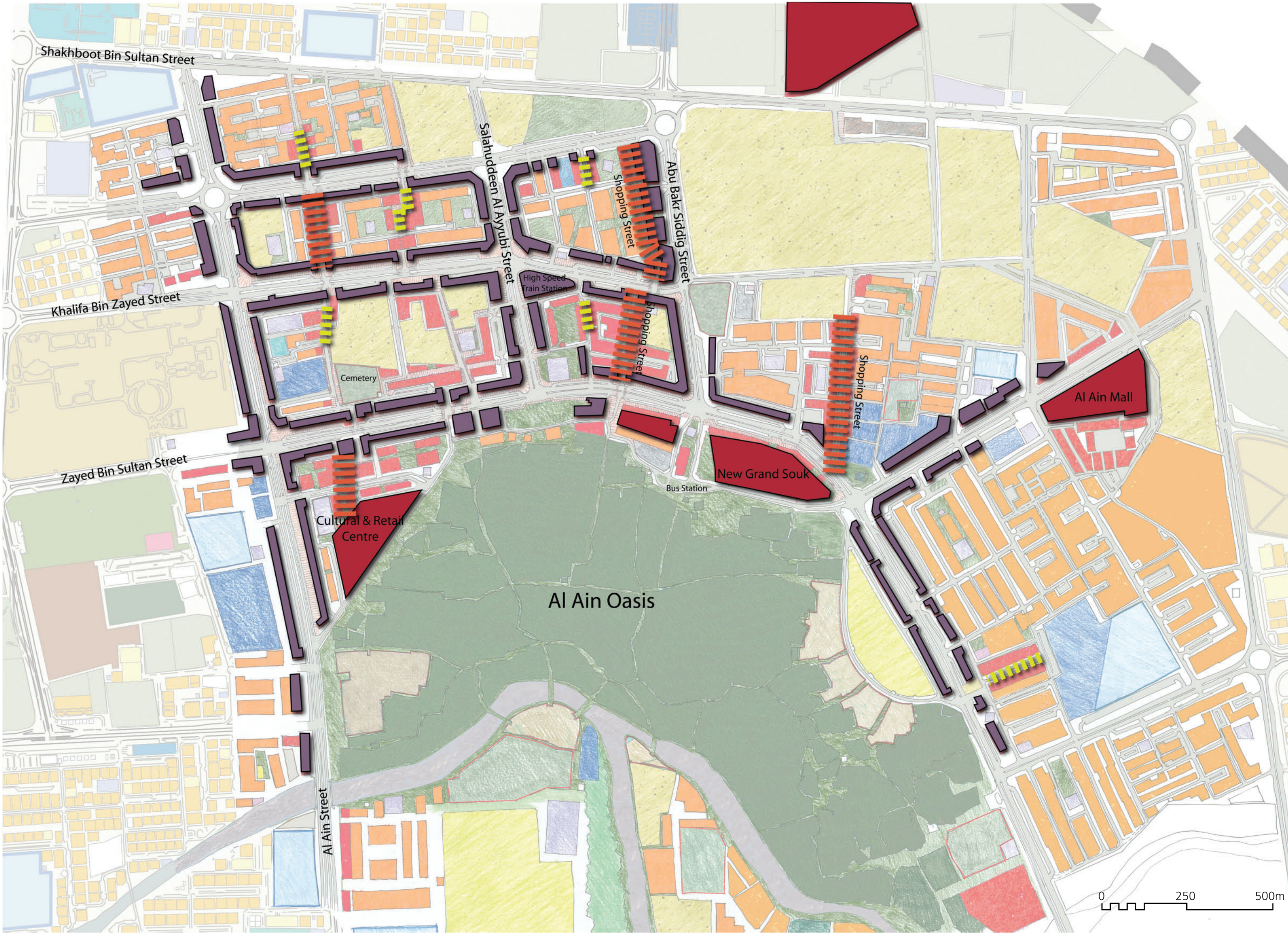


- Farm
- Oasis
- Park
- Greenways
- Central District Boundary

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6.2.5 CBD: RETAIL HIERARCHY



- Regional Retail
  - Al Ain Mall
  - New Grand Souk
  - New Cultural / Retail Centre
- Major Shopping Street
- Boulevard
  - Secondary Retail
  - New Grand Souk
- Neighbourhood Retail

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## 7.0 BUILDING BLOCKS

Overview

Oases

Emirati Communities

Al Mudheef Block

High Speed Rail Terminus

Streetscapes





## 7.1 OVERVIEW



The Main Souk incorporates solar panels for shading, fountains for evaporative cooling and solar chimneys to create breeze without using energy

The Urban Structure Framework Plans provide the broad strokes of the major themes of Environment, Land Use, Transportation, and Open Space. The Densities and Distributions provide hard numbers to give those broad strokes meaning. The Building Blocks are studies at a finer scale that illustrate how the major urban design strategies outlined in the Principles and Policies section can be applied.

The Building Blocks all focus on elements of the downtown, beginning with its most iconic aspect, the Al Ain Oasis. The various proposals serve as a model of how the other oases can be protected with appropriate development that enhances their strengths and preserves their heritage.

Emirati communities, the “Fareej”, are an important building block and is presented here as a prototype. The schematic design demonstrates the traditional organization of Emirati settlements which can be used to guide future planning.

The High Speed Rail Terminus is an important anchor in the downtown and the proposed scheme shows how the typical footprint of the platforms, underground parking and drop off facilities can be integrated into a mixed use complex with offices and hotels.



## Building Blocks

Plan Al Ain 2030

Urban Structure Framework Plan

The Al Mudheef Block is a set of studies that serves as a prototype for the downtown rehabilitation the Plan proposes. A derelict farm and unused guest house are transformed into a vibrant collection of small, pedestrian-friendly blocks with a variety of commercial and residential typologies. The main principles are to enhance the connectivity through the superblock by overlaying a fine-grained network of small through-streets and planted pedestrian byways, and to free up a large amount of space for real estate development with parking underground.

Lastly, a series of animated sections illustrate the concepts for a hierarchy of retail streets with distinctive character. Commercial boulevards, retail streets and retail passages offer a variety of outdoor shopping experiences protected from the sun and dust.

## 7.2 OASES

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Al Ain's oases are more than just palm plantations. They are cultural landscapes and marvels of ancient hydrology. They are the heart of the community and its most iconic aspect. They are living museums, providing insight into the past and also the future.

But unfortunately, the oases of Al Ain are not in an ecologically healthy condition. They are beset by a variety of challenges, including the loss of traditional agricultural practices, contamination with pesticides and fertilizers, encroachment by development, and the recent addition of non-traditional concrete walls. The Plan seeks to address these issues and restore the oases to health and prominence.

The first component of this is seeking designation of Al Ain as a UNESCO World Heritage Site. This designation will help to define the kind of protection the oases warrant, in the face of neglect and development pressures.

Al Ain's ancient ancestors devised the ingenious falaj system to bring mountain water down to the oases. Water is still crucial to their health and the health of the community. Water, particularly ground water, is severely constrained and needs new conservation measures to regulate it. This Plan proposes the formation of a public trust that will regulate and maintain ground water supplies. The trust will also be charged with maintaining the oases, bringing back the traditional agricultural practice of intercropping three crop spheres to ensure that this sustainable knowledge is not lost. The trust will preserve and maintain the oases, but it will not own them; the ownership structure will remain unchanged.

In order to illustrate the urban design measures that can be taken to preserve and enhance the oases, a scheme has been developed for the Al Ain Oasis. This oasis is one of the key features of the downtown, but the city turns its back on it. View corridors are proposed to ensure that visual connection is maintained from important points in the downtown. Recent additions have included high concrete walls at the periphery that are neither culturally appropriate, nor aesthetically pleasing. These should be removed and be replaced with adobe walls built with the traditional technique.

The edges of the oasis are currently ambiguously defined, allowing development to encroach upon it. The scheme proposes a series of well-defined precincts ringing the oasis to robustly define its edge and prevent encroachment. The north edge is the main interface with the downtown, and this is envisioned as a continuous shaded mixed-use Souk District, with cafes that provide views onto the oasis. The Main



## Building Blocks

Plan Al Ain 2030

Urban Structure Framework Plan

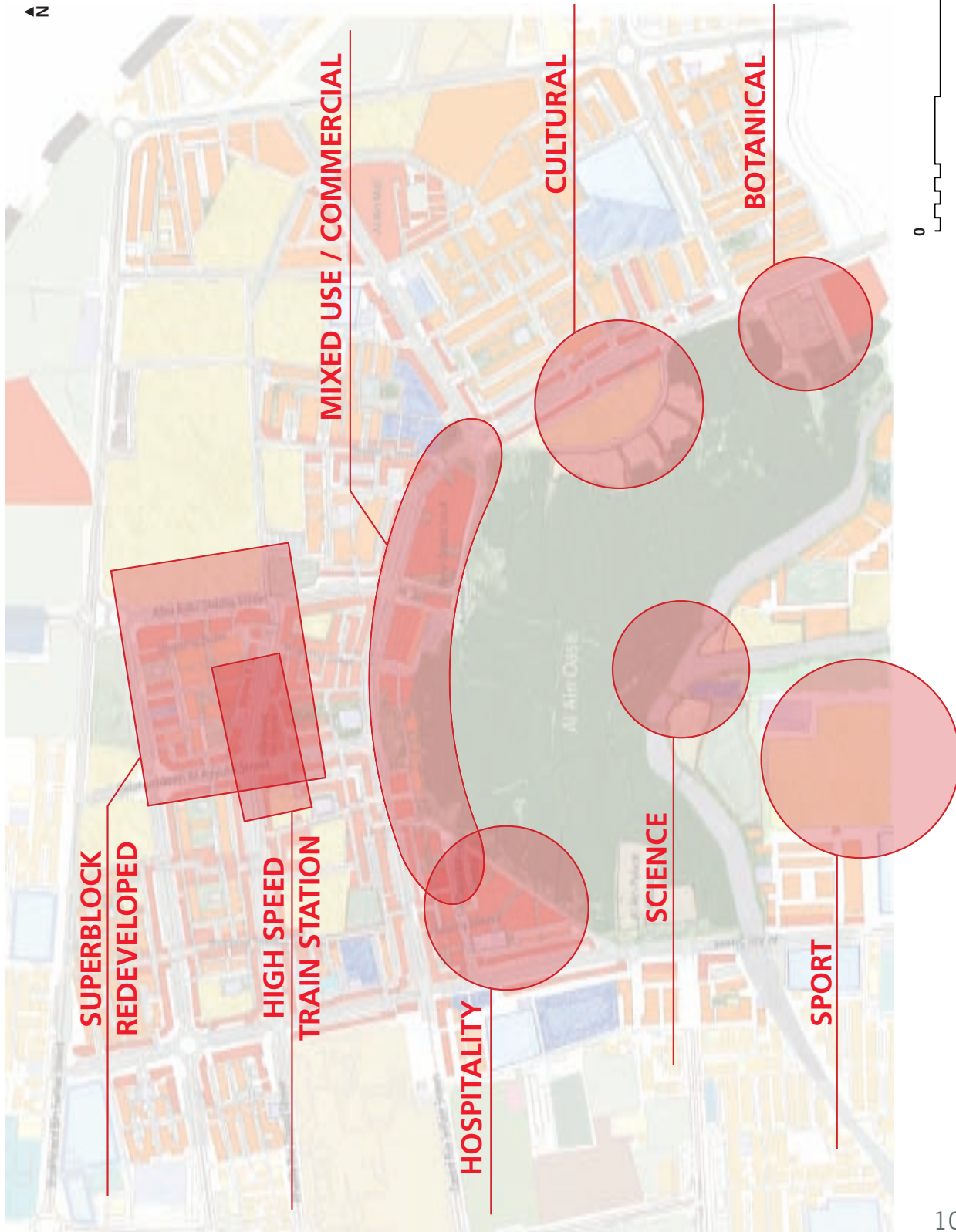
Souk is developed into a downtown destination with underground parking and greatly improved facilities incorporating passive cooling strategies such as thermal chimneys, wind towers, water features and many kinds of shading devices. It will present a hierarchy of walking options – some partially shaded and open, some completely shaded but open and some completely shaded and closed.

The east edge is envisioned as a new cultural complex, with new museums and interpretive centres around the existing Al Ain Museum. The potential scope and breadth of cultural programming is diverse and exciting: a falaj museum telling the story of this ancient engineering marvel, an adobe brickyard “working museum” ensuring the maintenance of the walls at the city’s forts and oases, a traditional agriculture interpretive centre, and an expansion to the Al Ain Museum focusing on Al Ain’s role as the cultural repository of the UAE.

The large open space at the southeastern corner of the oasis is an ideal place for a botanical garden, an amenity many world class cities enjoy. One of the most powerful points in the entire city is where the ridge finger and wadis intersect in the middle of the oasis’ south side. This very special place where the macro-features of the landscape meet the cultural landscape of the city, requires some very special programming. A natural history museum is proposed, that illuminates the landscape, geomorphology and climate of Al Ain, and its role in shaping the culture over the millennia.

Finally, the northwest corner of the oasis is a key interface with the city and a good point to introduce hospitality programming to make the oasis accessible to tourists. A hotel and resort complex is proposed, consistent with the current vision for that site.

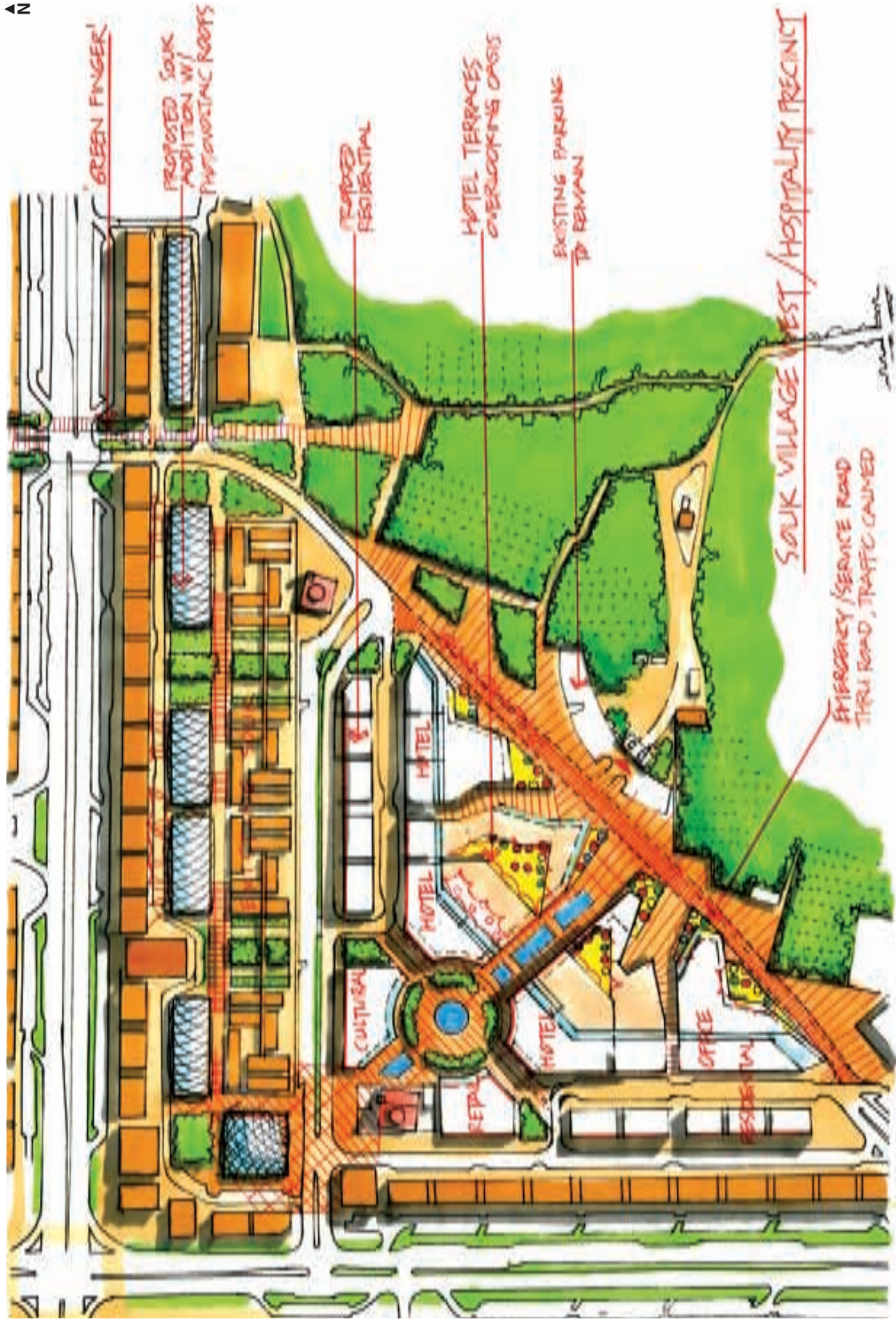
## 7.2.1 PRECINCTS AROUND THE OASIS



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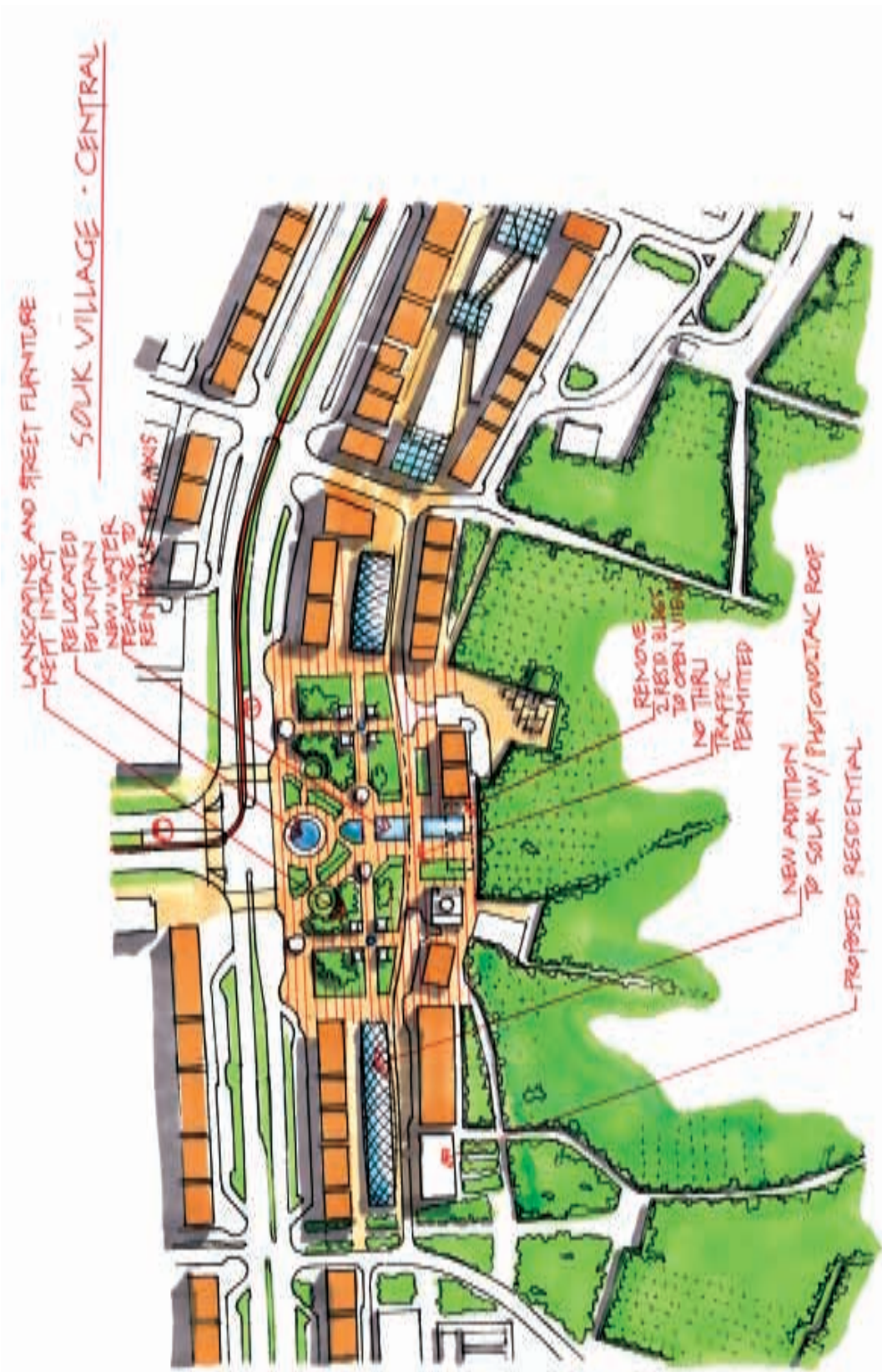




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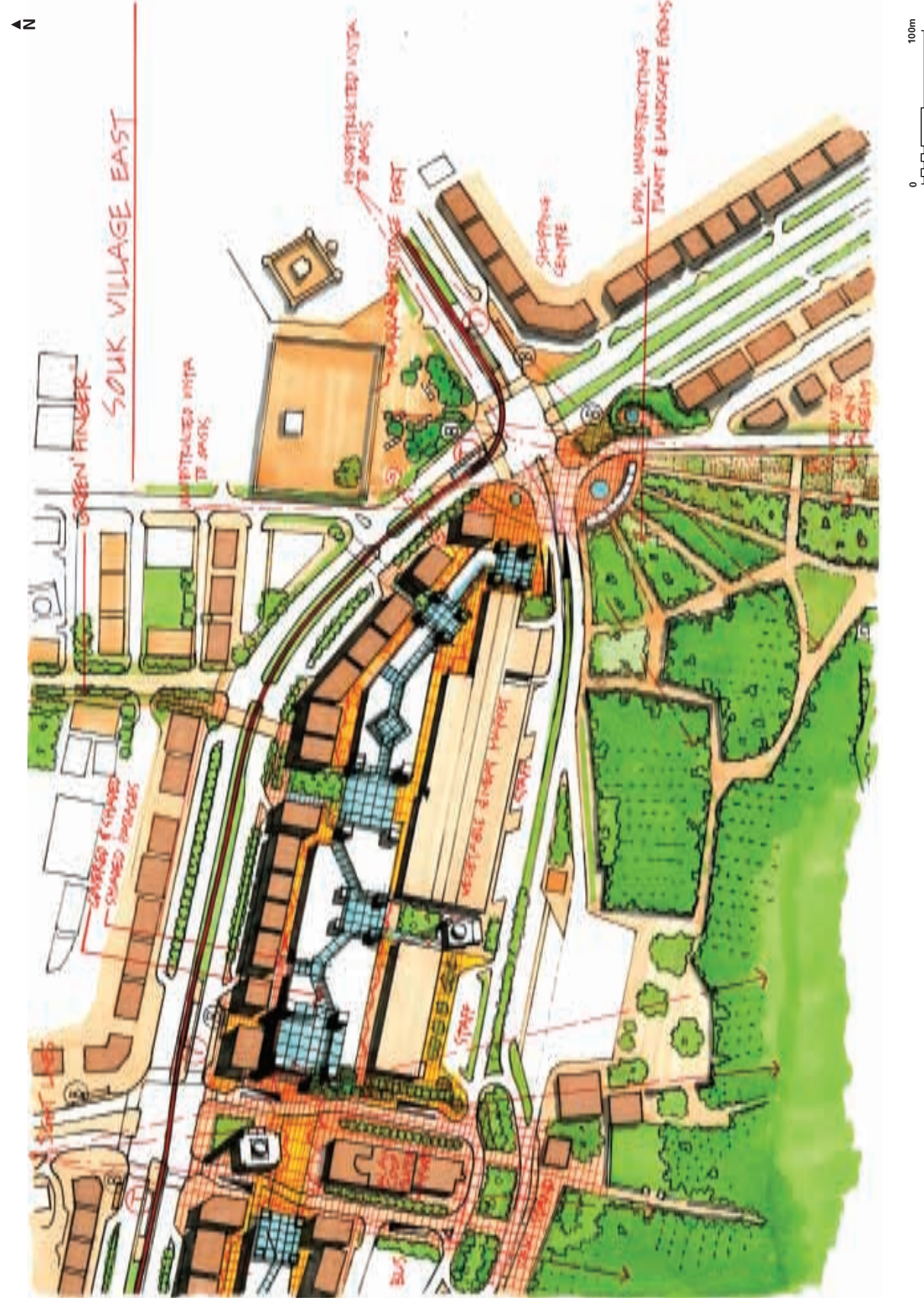
7.2.3 CEREMONIAL ENTRANCE ILLUSTRATIVE PLAN



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### 7.2.4 MAIN SOUK ILLUSTRATIVE PLAN



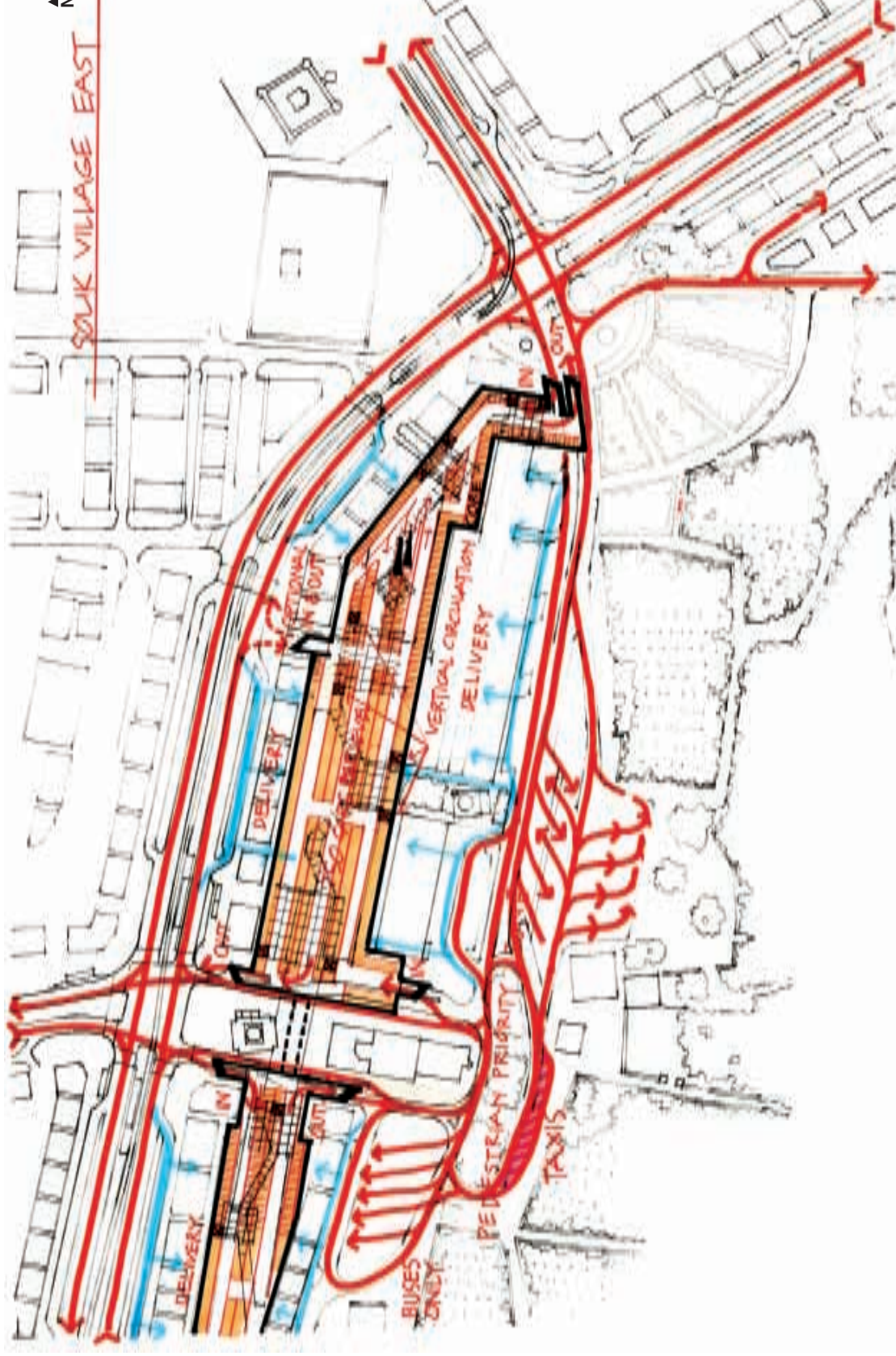
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## 7.2.4.1 MAIN SOUK (PARKING AND ACCESS DIAGRAM)

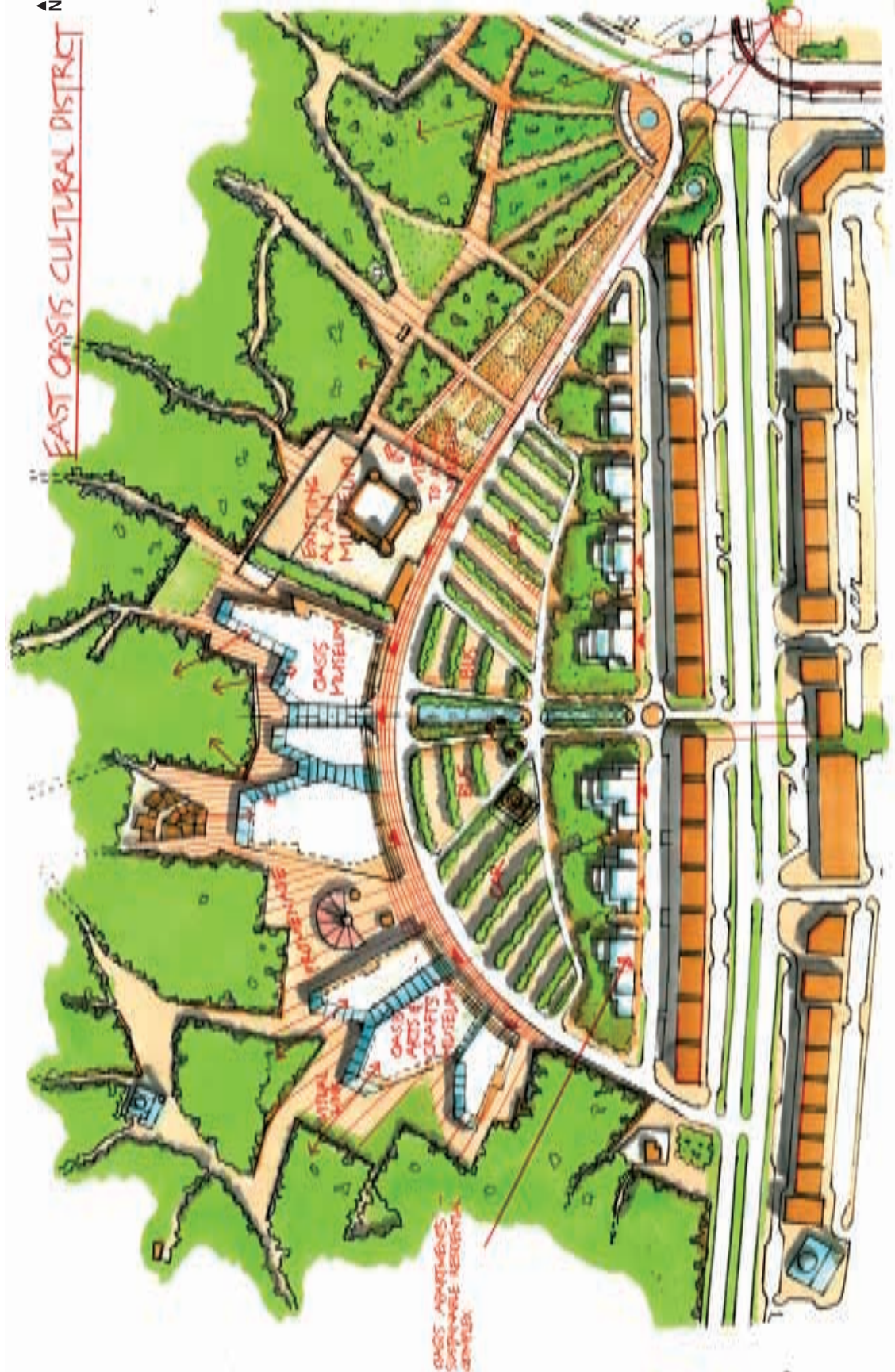


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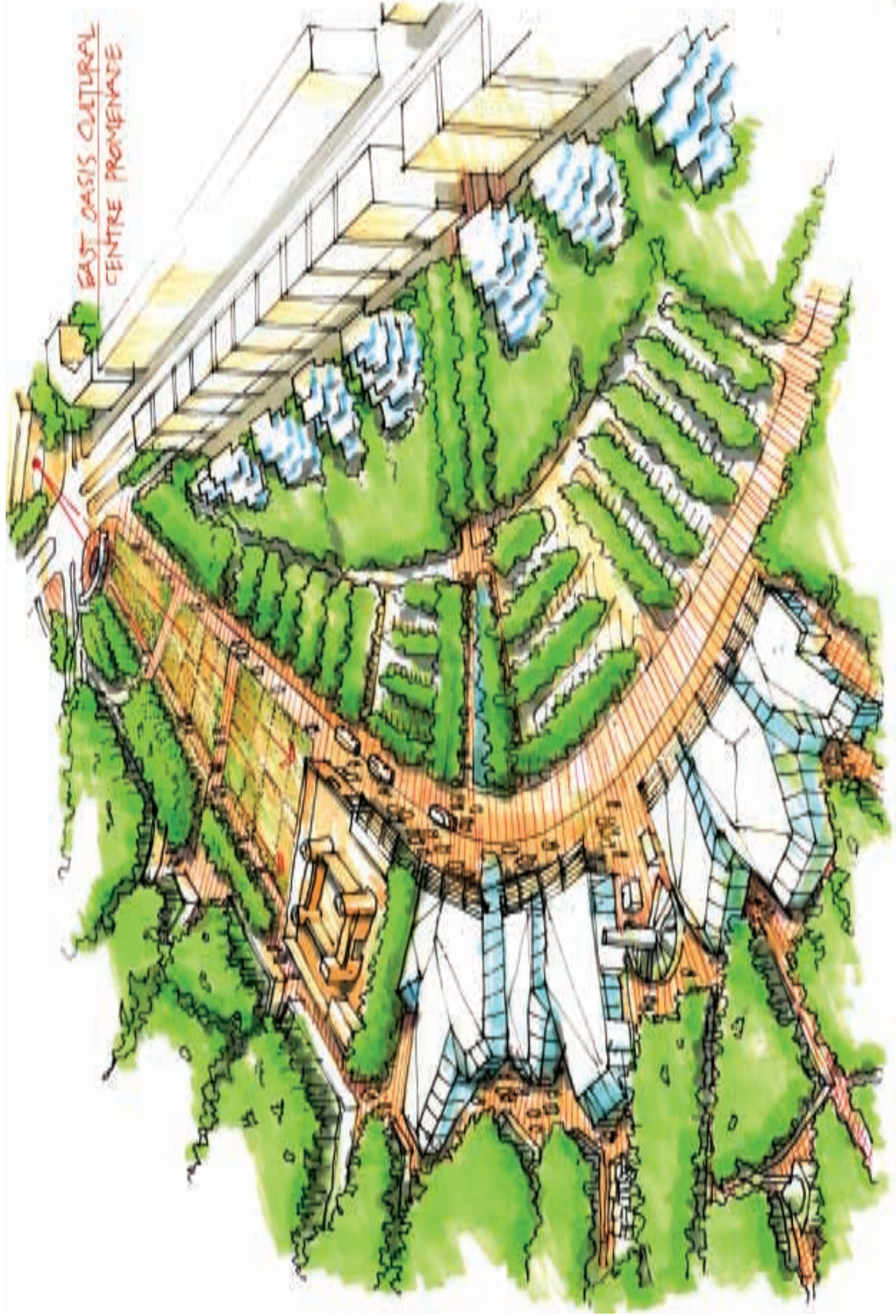




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## 7.2.6 CULTURAL DISTRICT PERSPECTIVE



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### 7.3 EMIRATI COMMUNITIES

The smallest unit of Emirati communities is the 'Fareej' (below) – a group of homes large enough to accommodate an extended Emirati family clustered around a courtyard or park. This pattern is based on the traditional organization of Emirati settlements and reflects the very high importance of family relationships. Plots can be allocated so that extended families share the central courtyard, giving them the proximity to one another that they need. Privacy is ensured by the cul-de-sac entrance, that keeps out through traffic. Narrow, shaded 'sikka' (walking paths) allow pedestrians, especially children, to move easily and safely from one courtyard to the next.

Fareejs are grouped together into 'Local Clusters' (next page, top) arrayed around a small central park complex. The catchment area is sufficient to support a kindergarten or child care facility, an outdoor playspace and a local mosque. All of the streets surrounding a cluster are local streets with traffic calming.

Local clusters are aggregated together into 'Neighborhoods' (next page, bottom) with a population of eight to ten thousand people. This is the catchment area for two single-sex primary schools, a Friday mosque, a park, and a women's center. Local shops and higher density housing round out the needs of the Neighborhood.

#### **Fareej (240m x 240m)**

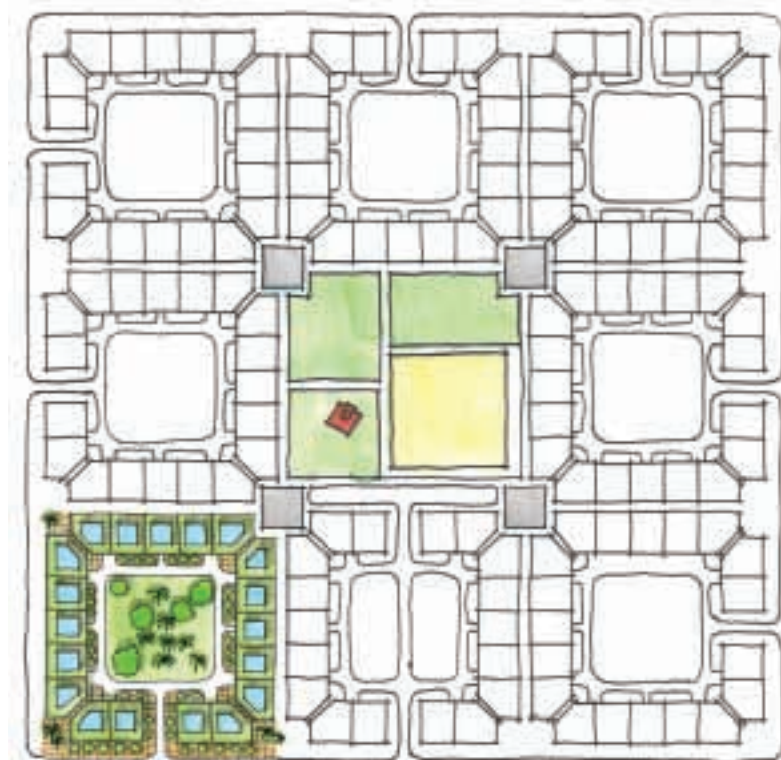
125 population

5.76 Ha

3.3 units / Ha

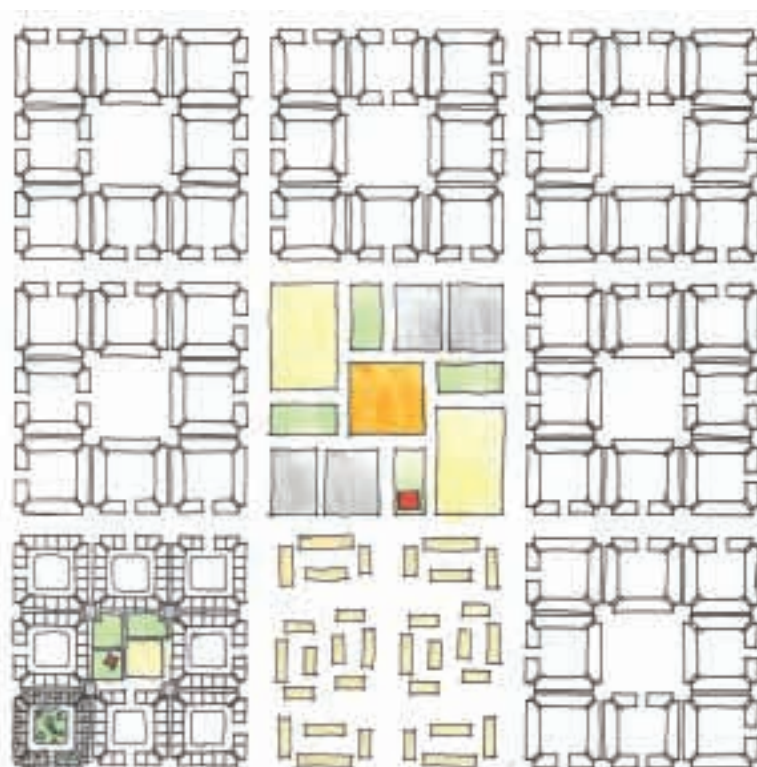
19 units





## Local Cluster (720m x 720m)

1,000 population  
50 Ha  
3.0 units / Ha  
150 units  
8.2 person / unit



## Neighbourhood (2.1km x 2.1km)

8,000 - 10,000 population  
450 Ha  
4.5 units / Ha  
2050 units  
Local family: 8.2 person / unit  
Expatriate family: 4.0 person / unit  
70% Local  
30% Expatriate



### 7.4 AL MUDHEEF BLOCK

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One of the dangers of developing a second major mixed-use core is that it will overshadow the existing downtown, relegating it to the status of backyard. To prevent this, a major revitalization program is proposed for the downtown hinging on the introduction of new mixed-use buildings, underground parking, and a host of measures to improve the public realm and pedestrian environment. This program of revitalization will ensure that the downtown remains one of the most vibrant and important districts in Al Ain.

In order to illustrate the urban renewal concepts proposed for the downtown, a superblock was chosen as a prototype for redevelopment. Known as the Al Mudheef block, it is centrally located and has already been slated for redevelopment. Two disused programs currently occupy most of the space – a derelict farm and an old VIP guest house complex. Redeveloping these unused spaces into a vibrant mixed-use district in the heart of the downtown is an excellent way to kick-start the revitalization process and to introduce the public realm improvements that will one day cover the whole city.

The biggest challenge to overcome in the downtown is the size of the blocks themselves. The blocks are far too big for pedestrian comfort and obligate motorists to travel out of their way to make a simple turn. The first move is therefore to introduce a finer grain of smaller streets to increase the permeability to pedestrians and motorists. The new fine grain streets will be much narrower, providing greater shading. They will also be fitted out with traffic calming measures to keep the speed lower than the nearby boulevards.

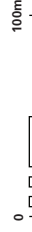
The next most pressing challenge is to deal with the amount of space taken up by cars. Surface parking dominates the interior spaces of the blocks, preventing the planting of shade trees and the wide sidewalks that would facilitate outdoor cafes and retail. Most seriously, surface parking destroys the microclimate as cars absorb the sun's energy and re-radiate it. All of the parking required for new residents of the block is therefore put underground, freeing up space and keeping parked cars cool. A limited amount of metred diagonal parking is retained to provide the very short term parking supporting the retail component of the block.

The main reason for redeveloping the block is to add new uses and density to the downtown. New infill buildings will be built on top of the underground parking structures, helping to pay for them. The new buildings will be mixed-use and adhere to the G+4 height maximum of the city. The central areas of the block will be predominantly residential buildings organized around planted courtyards. New office buildings

will be introduced at the eastern edge of the block, protecting the residential areas from the noise and pollution of the major boulevard. A retail street emanating from the Main Souk continues alongside these commercial buildings. Along the northern edge of the block, a new mosque is introduced to serve the community, and a hotel with good proximity to the shopping street has a prominent place on the northeast corner.

Comprehensive planting for shade is the final element that will keep the downtown competitive with the exciting new districts being developed elsewhere and enhance its character as a garden city. “Green Fingers” – which are planted pedestrian byways – link the courtyards to each other and to green open space in adjacent blocks.





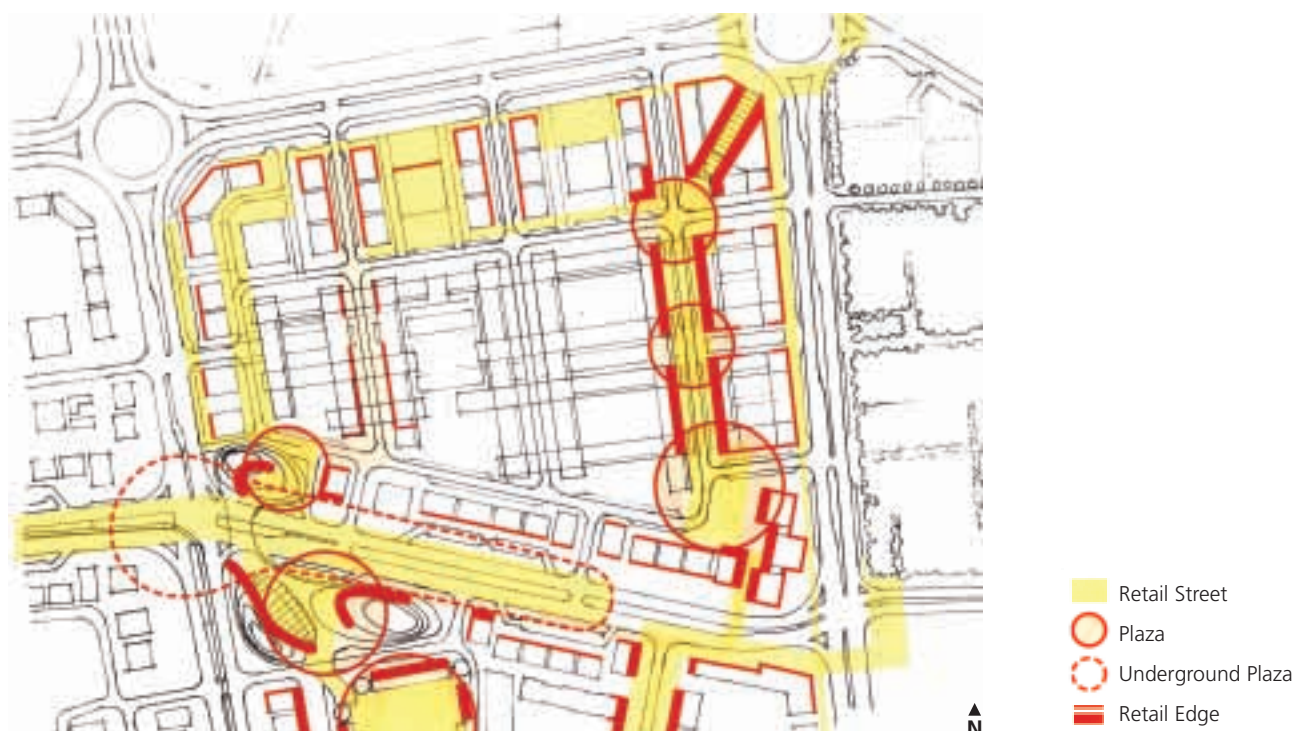
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## 7.4.2 AL MUDHEEF MOVEMENT



## 7.4.3 AL MUDHEEF RETAIL



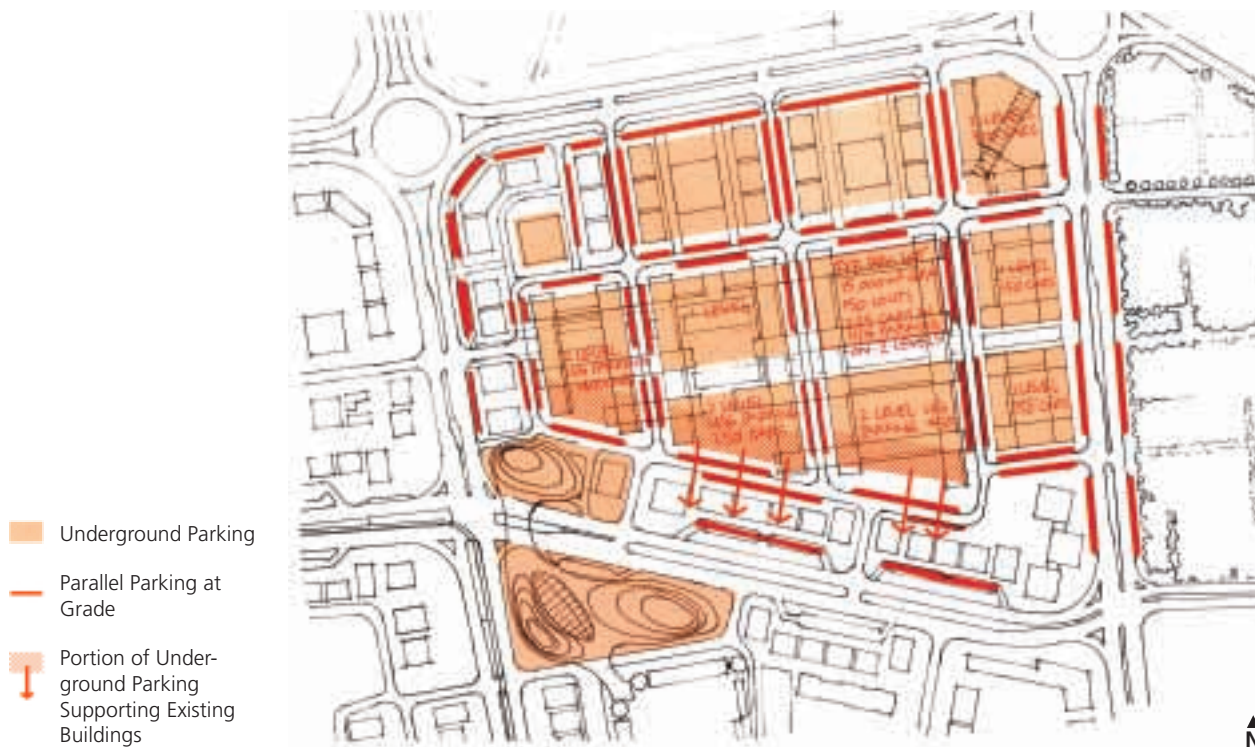


## Building Blocks

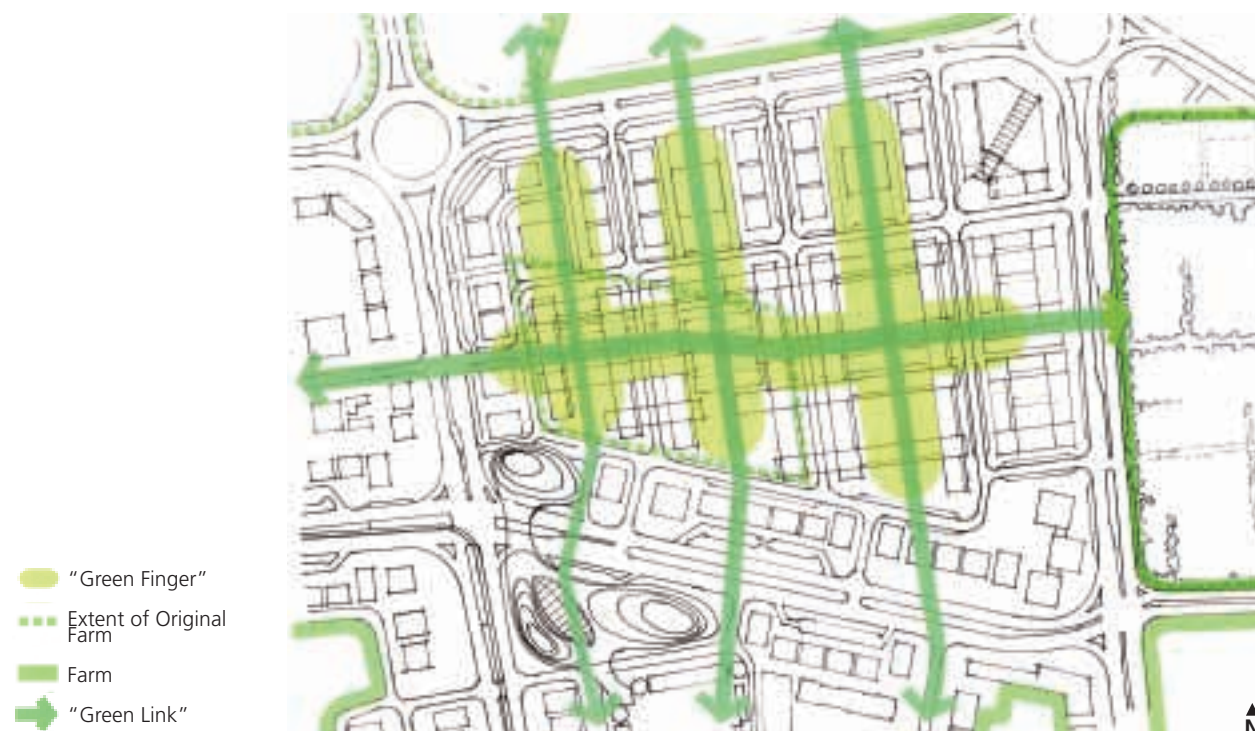
Plan Al Ain 2030

Urban Structure Framework Plan

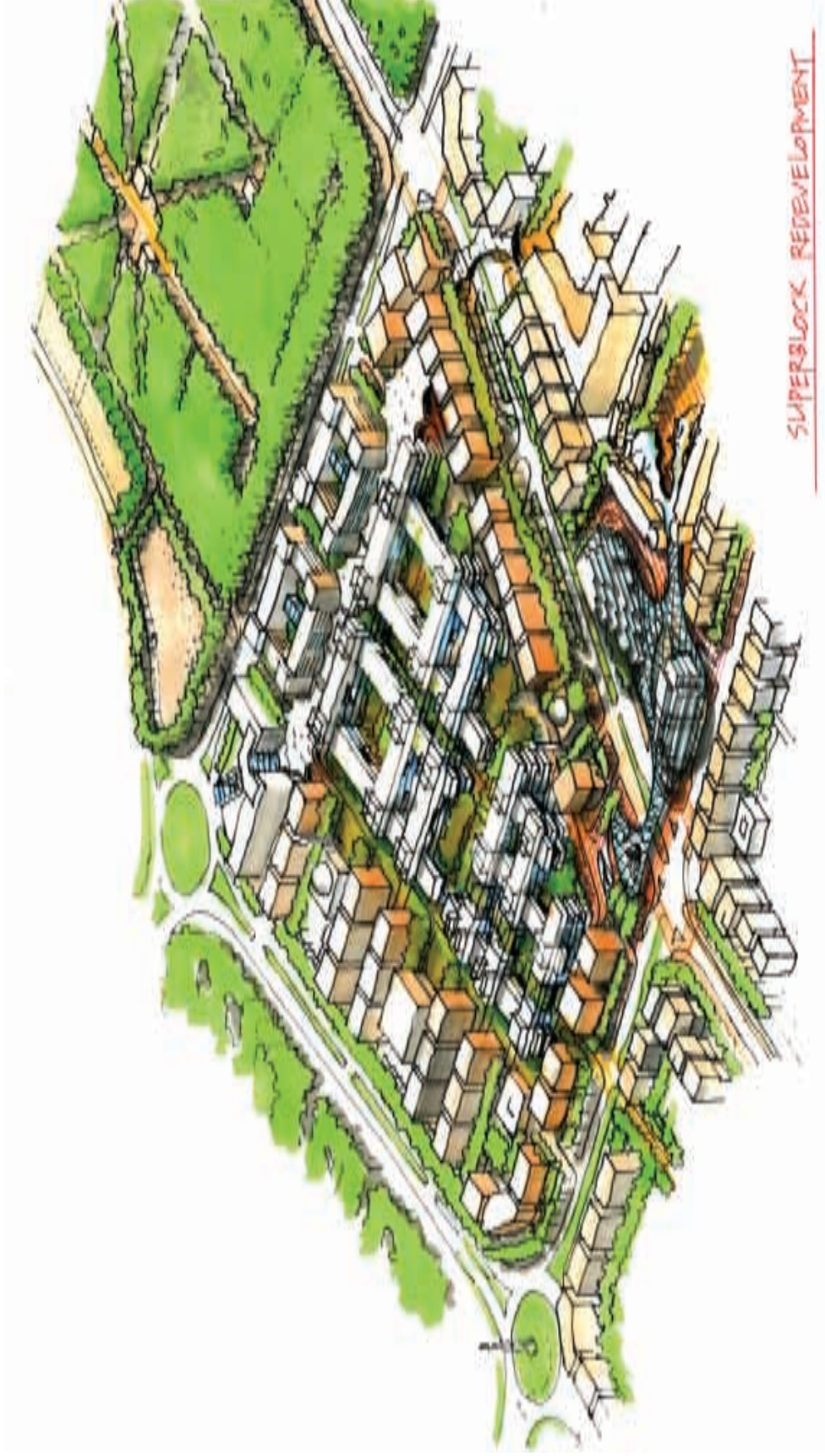
### 7.4.4 AL MUDHEEF PARKING



### 7.4.5 AL MUDHEEF “GREEN FINGERS”



## 7.4.6 AL MUDHHEEF PERSPECTIVE LOOKING NORTH EAST



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0 100m





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## 7.5 HIGH SPEED RAIL TERMINUS

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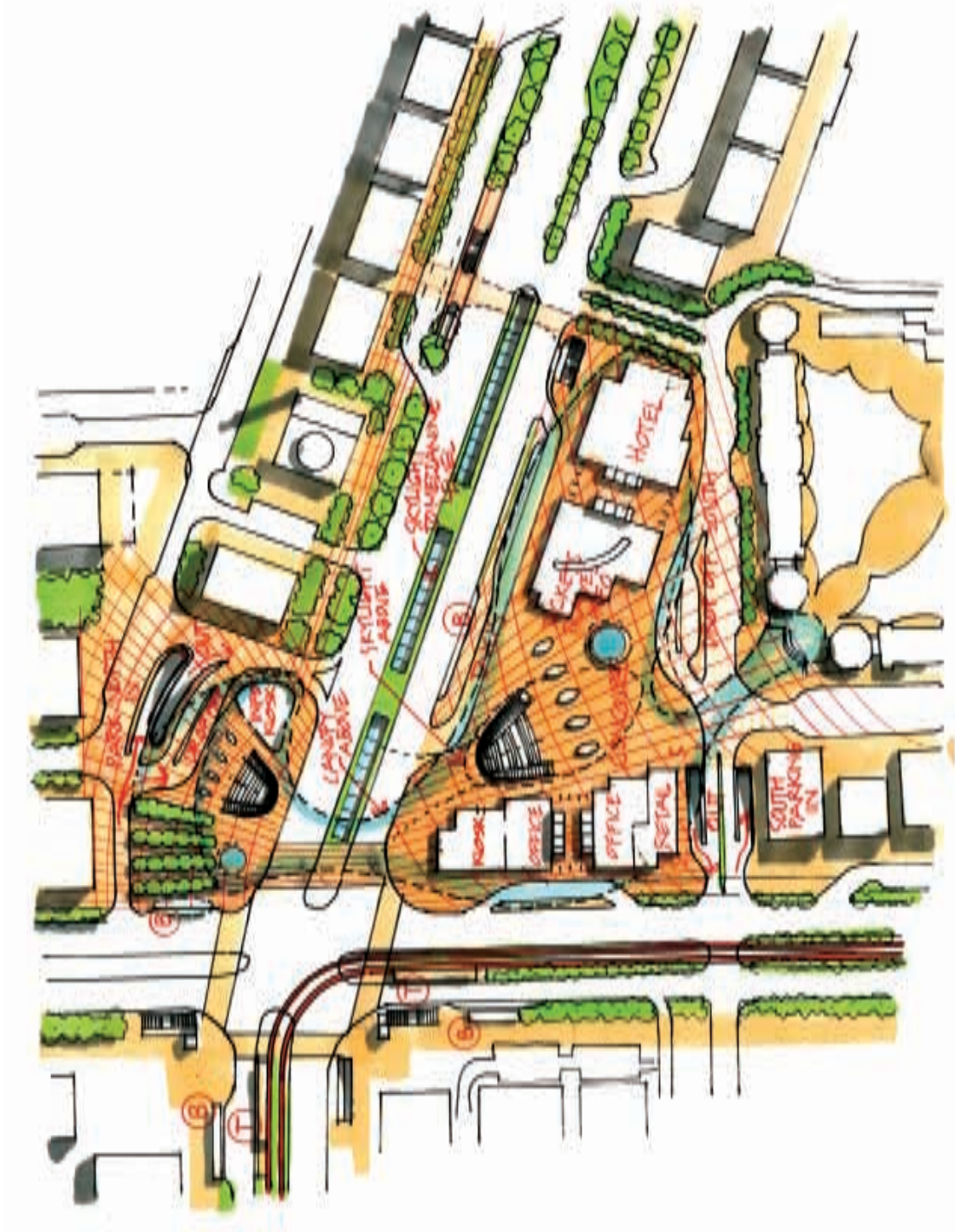
The centre piece of the transit framework and an important anchor in the downtown is the new High Speed Rail Terminus. The rail service will connect Al Ain to Abu Dhabi and eventually to Dubai. The station is a prominent presence in the downtown and a critical piece of urban infill, adding offices, retail and hotel programming to the core. While it enjoys a prominent above-ground expression, the important parts of the station are underground. Two 300m long platforms can accommodate inbound and outbound trains at the same time. The platforms follow the boulevard overhead to minimize the impact on the surrounding urban fabric. Two levels of parking are also underground, separated from the tracks by a glazed galleria.

Above grade, the station combines retail, restaurant, hotel and office programming into a complex consisting of three main volumes. The “North Concourse” has a presence on the Al Mudheef block and integrates a ticket counter and rail offices at grade, with an office complex above. The “South Concourse” is the largest volume of the station complex and includes the main ticket hall, as well as restaurants, shops and a hotel. Connecting the North and South Concourses is a mezzanine level that bridges over the boulevard to provide a continuous weather-protected pedestrian zone. There are egresses at both the east and west end of the platforms, providing abundant access opportunities to the platforms. Train stations have a constant procession of taxis, buses and cars dropping people off and picking people up. The connective tissue provided by the mezzanine level allows pedestrians to circulate throughout the complex without impacting this important automotive procession.

The station has a prominent presence on the open square that is now called Al Ain Town Centre. Despite its current status as an under-used shopping mall, with the new main mosque and train station built right onto the square, Al Ain Town Centre has the potential to become the main downtown public gathering place.

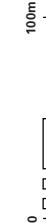
This scheme is indicative only; many issues remain to be resolved, including the exact location of the station, the number of tracks, the integration with other forms of transportation and the likely traffic volumes, both pedestrian and vehicle, in the vicinity of the station.



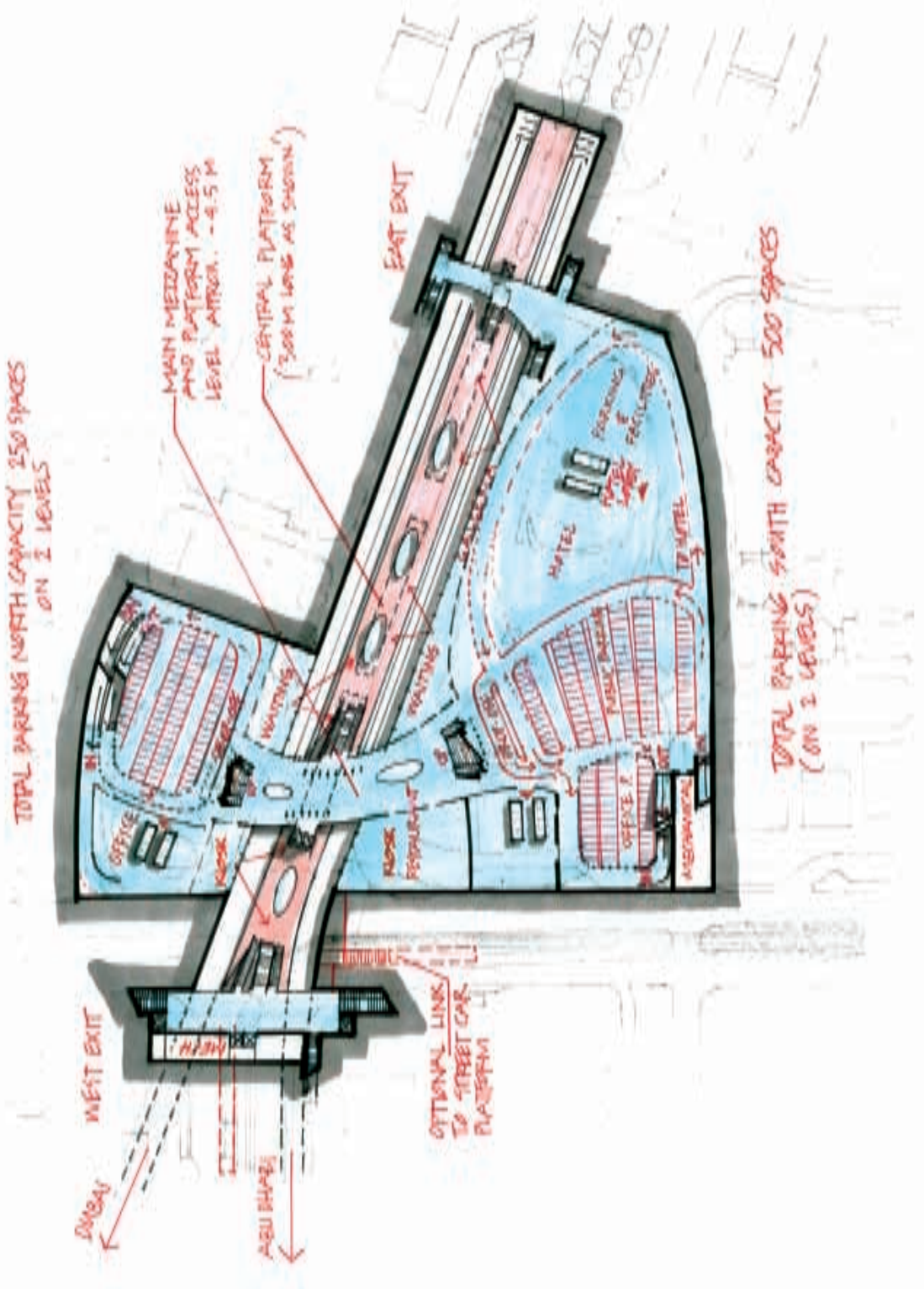


- Bus Stations
- Tram Stations

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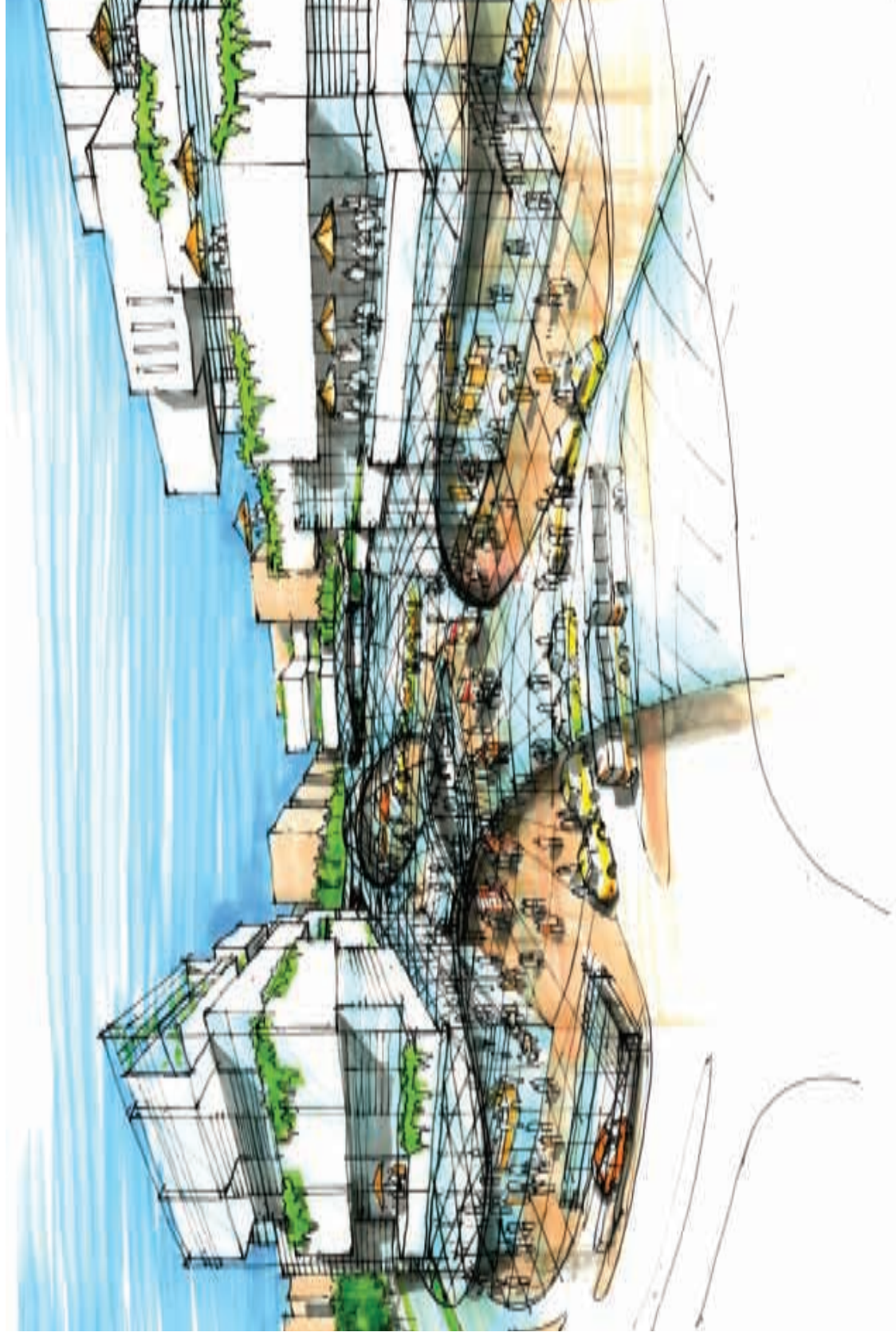


7.5.2 HIGH SPEED RAIL TERMINUS ILLUSTRATIVE PLAN: UNDERGROUND



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## 7.6 STREETSCAPES

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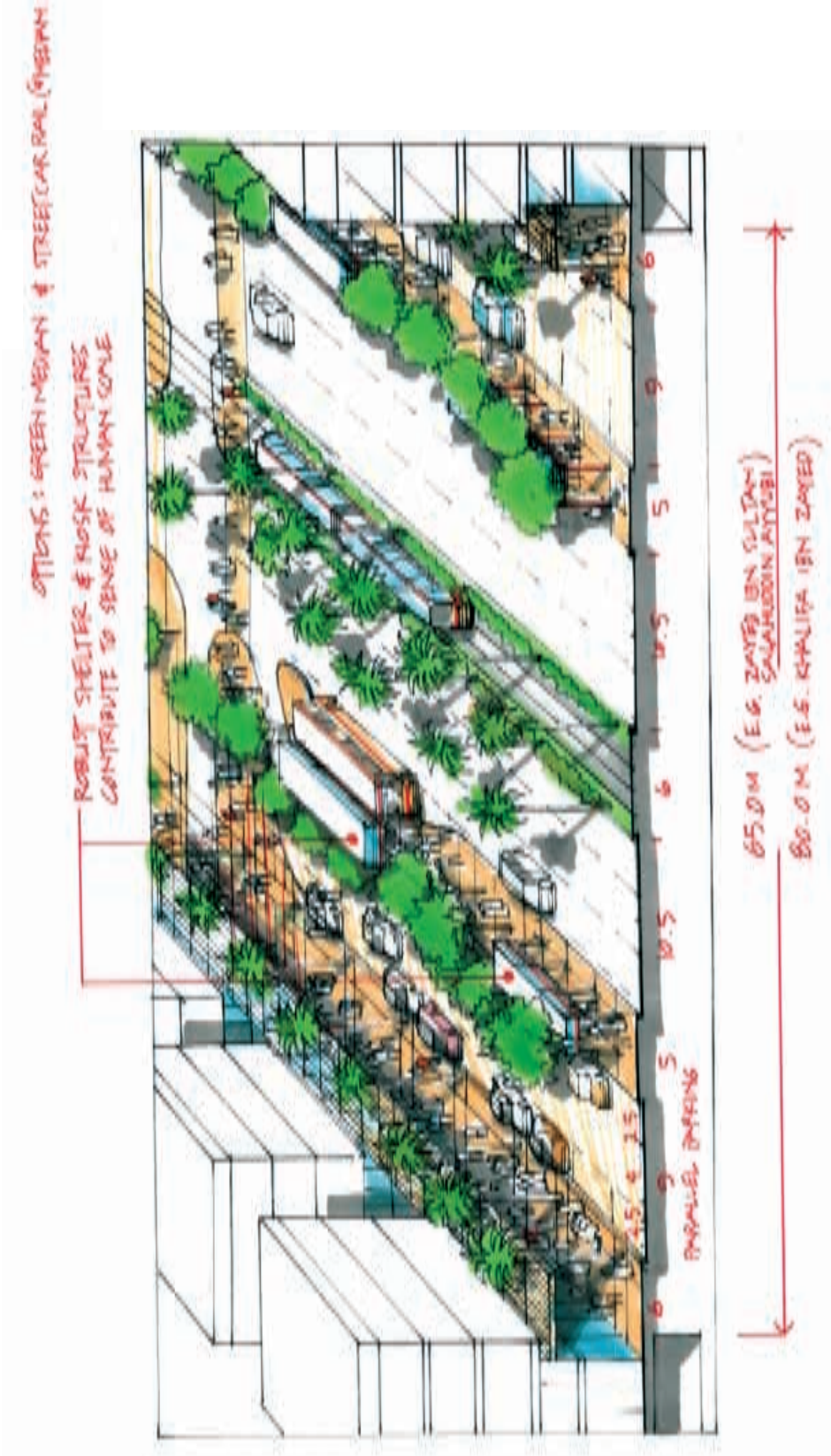
The economic forecasts for Al Ain call for a very large amount of retail development. Although commercial vitality is one of the hallmarks of a vibrant downtown, it is not desirable to have it on every single street. There is a need for some quiet streets that only serve residential uses in order to retain that important choice in the downtown area. In order to accommodate the large amount of retail area, a hierarchy of retail streets has been developed to channel it into a coherent framework.

The first component of the hierarchy is the Commercial Boulevards. These are the existing major boulevards of the Al Ain street grid, transformed using urban design devices, into pleasant, cool shopping streets. Currently the boulevards are configured only for the convenience of cars. On the plus side, they are extremely wide and able to accommodate a variety of different components. The sidewalks will be widened and plantings and shade devices introduced to cool the microclimate. The carriageways will be divided between local streets with parallel parking, two lanes of tramways with their associated shaded platforms, and three express lanes in either direction.

The second component is covered retail streets. These are much narrower than the boulevards and run in the north-south direction to minimize their exposure to the sun. The main concept is to create a legible shopping district in the downtown, linking to the Main Souk, that is continuous, shaded and pleasant for pedestrians. Iconic shading devices are proposed to cover these streets, so that it will be readily apparent where the district is. There are many different options for the design of the shading devices. There are also many solar panel strategies that can be integrated with them, such as photovoltaics, which convert sunlight into electricity, and solar thermal, which converts sunlight into hotwater for domestic supply.

The final component is retail passages. These are the smallest form of street and are not open to cars, only bicycles and pedestrians. They are also shaded with iconic shade devices, though of a different type than the covered retail streets. The shading devices are configured so as to permit plantings to rise through them, and can also be the platform for a host of integrated sustainable features.

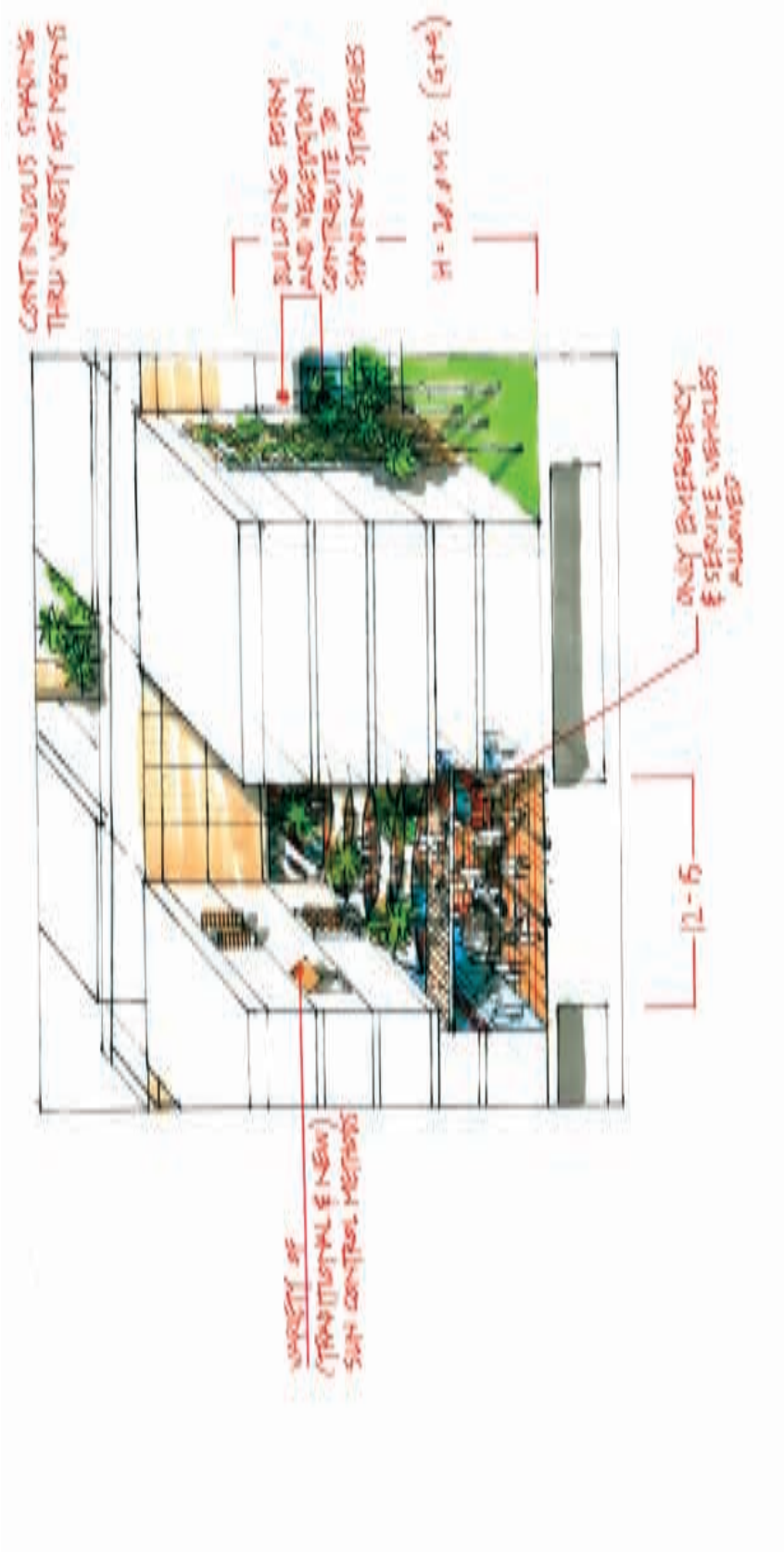




Note: These plans represent themes to be refined in further planning and design. Land uses, street patterns, and exact alignments in all areas are conceptual, and to be subjected to detailed evaluation and confirmation. Under no circumstances should these plans be construed as final directives for specific sites or areas.







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## 7.6.4 KHALIFA BIN ZAYED STREET SECTION



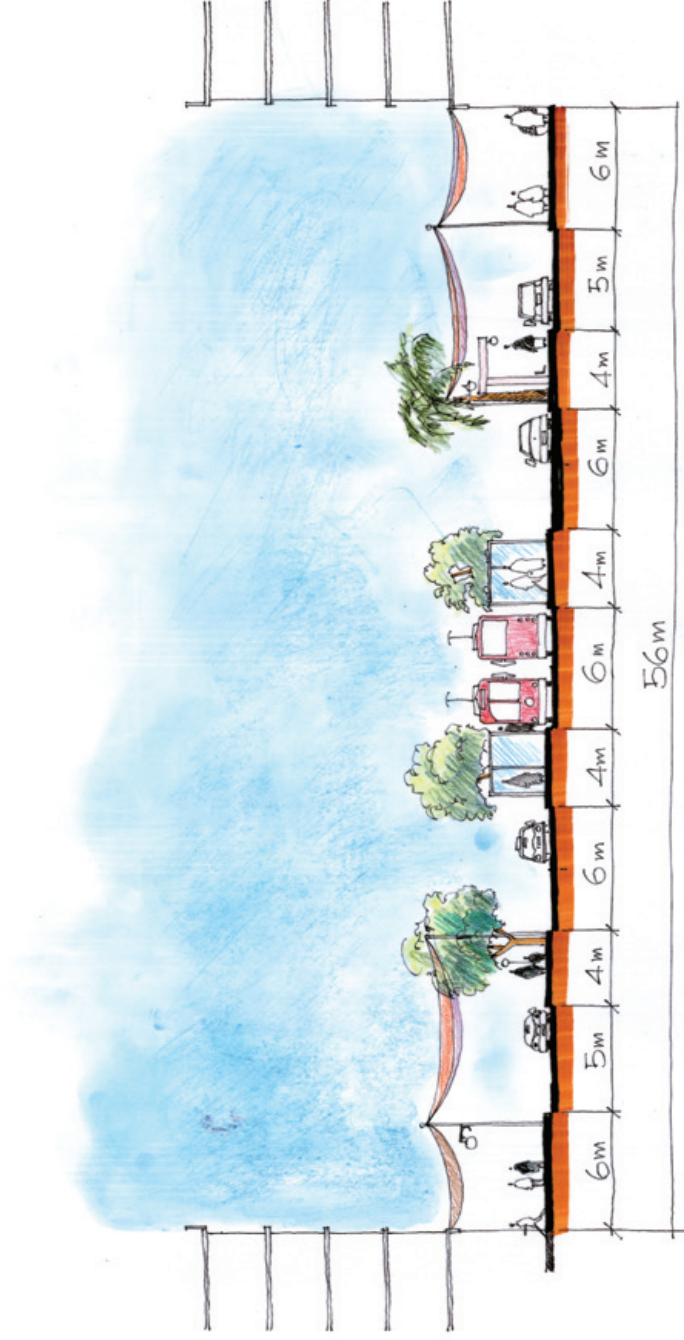
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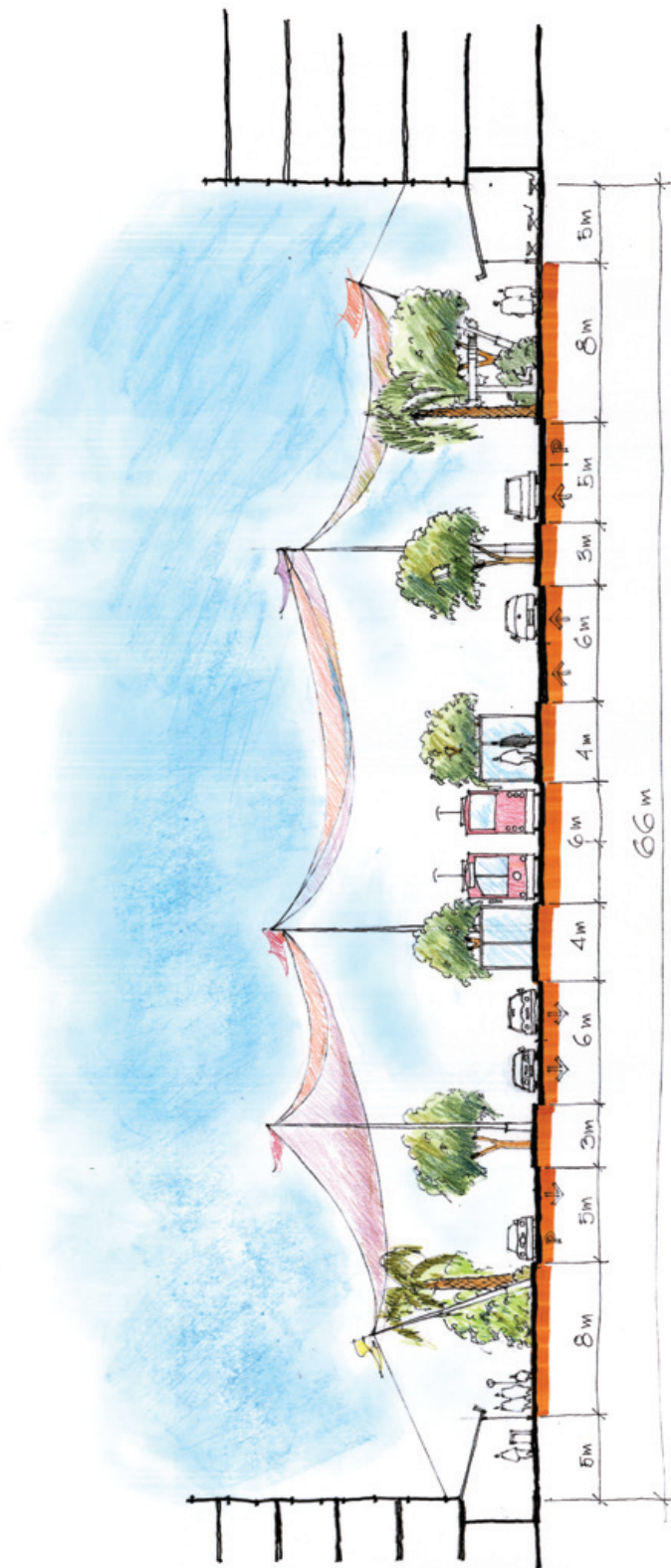


7.6.5 KHALIFA BIN ZAYED DOWNTOWN AREA STREET SECTION



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## 7.6.6 ZAYED BIN SULTAN STREET SECTION



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## 8.0 POLICY STATEMENTS

Introduction  
Environmental  
Oases  
Land Use  
Transportation  
Public Open Space  
Urban Design  
Building Blocks  
Social  
Infrastructure  
Economic Development  
Continuous Planning





## 8.1 INTRODUCTION



The emphasis is on creating cool microclimates that seamlessly integrate pedestrians, transit and the private car.

Principles guide the formulation of the Urban Structure Framework Plan. Drawings express the elements of it and provide a geographic illustration of the principles. Policies focus intentions for implementation of both the principles and the elements of the Plan. Each policy is a directive to guide actions. There are many different kinds of directives. Some directives set guidelines or recommend standards to be adopted based on international best practices. Other directives outline further actions that need to be undertaken, including additional studies and reporting and the establishment of regulatory bodies or protocols. Some directives outline specific actions and practices to achieve aspects of the Plan.

The following policies are intended to be as comprehensive as possible, although they are by no means exhaustive. They cover all aspects of the Plan, including (but not limited to):

Environment, Oases, Land Use, Transportation, Public Open Space, Urban Design, Building Blocks, Social, Infrastructure, Economic Development, and Continuous Planning.

As an initial vision setting the direction and conceptual framework for a full Comprehensive Plan for Al Ain, the Urban Structure Framework Plan is meant to set an agenda for further planning. These policies provide that agenda in addition to actions that can be taken immediately.



## 8.2 ENVIRONMENTAL

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- E-1** Establish the protection, enhancement and repair of the natural environment as a fundamental premise of Al Ain's planning and development.
- E-2** Undertake a full assessment to establish environmental parameters and carrying capacity of the dunes, wadis, oases, mountains and desert to accommodate new growth. From this assessment determine:
- protected environments;
  - urban development boundaries; and
  - limited development zones.
- E-3** Undertake an audit of all of Al Ain's water resources, including (but not limited to): rain water, storm water run-off, ground water, desalinated water, recycled industrial process water, recycled greywater, and recycled blackwater. Implement demand-side measures, such as water metering and true cost tariffs to conserve and protect this vital resource.
- E-4** Take the spring that gives Al Ain its name – Ain Al Fayda – into the public realm so that it may be enjoyed by all citizens of the UAE. Implement government measures to protect and manage this vital desert resource.
- E-5** Plan the city's expansion into the desert based on principles of environmental protection that preserve the most sensitive ecological areas while providing the appropriate level of access to the natural setting and the appropriate level of settlement in a desert context. Complete an environmental evaluation to define the specific parameters for this expansion.
- E-6** Implement the Estidama Program for design and construction of buildings and communities to respond to the local environment (e.g. solar orientation, alternative energy, xeriscaping, etc.).
- E-7** Pursue sustainable infrastructure technologies for managing energy, waste, and water. Develop sustainable wastewater and energy resource strategies.
- E-8** Pursue sustainable practices in all industrial activities.

- E-9** Promote Al Ain as a model environmentally responsible community, including its research, application of evolving best practices, eco-tourism, eco-business and education.
- E-10** Establish a network of environmental education programs and facilities throughout Al Ain (e.g. education centers, school programs, desert eco-adventure activities, sustainable building and living demonstrations, incentives for sustainable living choices such as public transit or photovoltaic installation).



### 8.3 OASES

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#### **I All Oases in Al Ain**

- O-1** Restore the traditional method of intercropping 3 crop spheres in the oasis to ensure this vital strategy does not die out.
- O-2** Ban the use of synthetic pesticides and fertilizers in favour of traditional methods of integrated pest control.
- O-3** Complete a set of Design Guidelines for the Oases that permit cultural buildings around the perimeter, with a soft gradient of planting transitioning to the historic boundaries of the oases.

#### **II Specific to Al Ain Oasis**

- O-4** Remove the perimeter concrete walls that have been recently added to Al Ain Oasis and replace them with adobe walls built with the traditional technique and at the traditional scale.
- O-5** Surround Al Ain Oasis with cultural installations, including a traditional adobe brickyard to ensure ongoing maintenance of the oasis.
- O-6** To solidify the edge of Al Ain Oasis, introduce new buildings, cultural programs depicting significant aspects of Al Ain's natural surroundings, heritage, traditional agriculture, and royal character.

## 8.4 LAND USE

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- L-1** Shape and direct most growth to densify the Central District, and to create relatively dense, mixed use, transit supported corridors along the western (Khalifa Bin Zayed Street) and southern (Al Ain Street) corridors. Anchor the outer ends of these corridors with new district centres at Asharej and to the south at Sanaiya, and provide a series of smaller centres of various sizes related to expected transit stations and catchment areas for typical community services. Growth must be managed so as not to be detrimental to the pre-eminence of the Central Business District.
- L-2** Foster compact growth while satisfying the lower density neighborhood pattern preferred by many Emiratis.
- L-3** Before proceeding with the expansion at the urban edge, complete development of urban infill sites; and do not expand the urban edge beyond the dunes and mountain edge (except where plot allocations have already been made to Emiratis), so as to preserve desert fingers into the city and easy access to the desert.
- L-4** Manage new development to extend incrementally out from existing settlement areas or designated new nodes in line with market demands, rather than occurring randomly in the region.
- L-5** Structure the city into coherent, identifiable neighborhoods or districts with varying scale, character and clearly identified town centres.
- L-6** For every neighborhood or district, provide a neighborhood center of facilities, amenities and services that fosters a balance of jobs to housing and community support facilities.
- L-7** Complete a Neighborhood Plan for each new Emirati neighborhood and allocate housing plots to enhance the preferred extended family and religious-oriented lifestyle of Emirati households (see Building Blocks: Model Emirati Neighborhood).
- L-8** Complete a Comprehensive Development Plan for the inner city linear gateway.



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- L-9** Undertake an Area Revitalization Plan for the existing areas of the Central District and proceed with one or more block revitalization pilot projects (See Section 7.4: Al Mudheef Block). Identify specific areas for model pilot projects in the vicinity of the Al Ain University, in one of the new suburbs, and the area adjacent to the Tawam Hospital.
- L-10** In the existing city, until new Area Plans and Comprehensive Development Plans are completed or until the new citywide Comprehensive Plan is completed, existing use designations and densities shall generally prevail, unless special dispensation has been secured prior to beginning site planning. Development will generally be linked to availability of transit.
- L-11** Support development of the following special districts:
- the desert edge
  - linear gateway
  - university area
  - hospital area
- L-12** Undertake an industrial study to determine the appropriate relocation of industry to a new industrial area and determine specific uses to make the area mixed use. The study should also identify small pockets within residential areas for city-serving industries, such as auto body shops and warehouses.
- L-13** Complete a Comprehensive Development Plan for the districts around the Al Ain Airport, and manage development until the plan is complete, so that:
- new uses will be airport-supporting or –supported (industry and commerce);
  - uses that would be impacted by the airport, particularly regarding noise, will be avoided, i.e. residential;
  - uses that impact the airport will be avoided;
  - uses that generate disruptions to traffic for airport access will be avoided.
- L-14** Undertake a Retail Study to confirm retail allocation by city sector. Until the study is completed, consider retail proposals with regards to the following parameters:

- provide a traditional livestock market and souks for fish, vegetables, meats, flowers and crafts;
- provide adequate daily goods and services for each city district so that day-to-day shopping can be done with minimal travel;
- provide higher-order/destination shopping in a minimum number of region-serving retail malls located at appropriate intervals and spaced geographically in a balanced pattern across the region, with priority given to maintaining the historic souks and develop compatible and supportive uses adjacent to them;
- avoid random placement of regional-serving retail malls and minimize the addition of malls in areas with limited access; and,
- except for regional malls and as animated ancillary uses in mixed use developments, avoid separated networks of retail, opting instead to orient retail toward streets and public ways.

**L-15** Coordinate land use designations with Special Investment Zones created by government from time to time.

**L-16** Cluster new university and health care facilities to maximize synergies among them and to facilitate the interchange of business between them.

**L-17** Support the retention of heritage architecture and archaeological and cultural sites, such as the museum, palaces and forts.

**L-18** Support the rural quality of the residential areas that are dispersed with farms and forested areas.

**L-19** In the development of the major university lands, allocate density and a mix of uses along Khalifa Bin Zayed Street to reinforce the major node in the Asharej district.

## **I Special Designations**

**L-20** Protect and conserve the farms in Al Ain as iconic open spaces integral to the cultural identity and lifestyle of the city.

**L-21** Preserve palace grounds for their long term open space potential.



## 8.5 TRANSPORTATION

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- T-1** Ensure that land use planning and development are fully integrated with the provision of multi-modal transportation networks linked to the larger urban structure.
- T-2** Complete a City-Wide Transportation Plan as soon as possible for multiple modes, the introduction of transit, full arrangements for goods movement, and roads with a finely distributed pattern of streets and automobile access.
- T-3** Provide a variety of inter-connected transportation choices as alternatives to the automobile (transit, buses, bicycle and pedestrian pathways). This layered system should form a functional and efficient network measured by the total number of person trips.
- T-4** Design and retrofit the accessible public spaces in transportation networks to prioritize and enhance the pedestrian realm (e.g. short blocks, wide and shaded sidewalks, medians, shaded seating at bus stops, active streets).
- T-5** Retain roundabouts where traffic volumes and urban design allow as part of Al Ain's unique character. Implement measures to improve pedestrian comfort and safety.
- T-6** Avoid highway and freeway expansion by providing an inter-connected, multiple route street network, including:
- many smaller streets permitting more traffic, transit, and pedestrians than larger streets and larger blocks;
  - permitted turning movements and pedestrian crossings to reduce travel distance and congestion;
  - in higher-density areas, provide multiple mode connections at key transfer points to maximize inter-connectivity;
  - wherever possible, avoid grade-separated ramps, slip lanes, and other high speed links in urban areas; and
  - emphasize and improve the existing interconnected street grid rather than creating a ring road.
- T-7** Avoid closing or trading of existing streets. All existing streets should remain as public right-of-ways.
- T-8** Provide a layered, inter-connected public transportation network consisting of:

- a localized bus system that can evolve into a more layered tram system as the city grows;
- a localized bus system within the Central Business District, connecting neighborhoods to service areas;
- a fast passenger train link to Abu Dhabi city; and
- reservations (surface and underground, as required) for future extensions of the fast passenger train network.

Ensure that any new development areas have a bus system to connect to other parts of the city.

- T-9** Design and configure transit so it will be attractive to use by a variety of people, including all level income earners, women, tourists, etc.
- T-10** Apply Transportation Demand Management measures to reduce traffic pressure on key routes throughout the city.
- T-11** Complete Parking Requirements and/or a market parking arrangement for the entire city with required parking to be provided within each development site or plot, underground or covered where practical, with street-side metered surface parking reserved for short term public use.
- T-12** Complete a Parking Plan for the Central Business District and manage parking to ensure adequate availability and limit congestion (e.g. metering, varying parking standards, limits of stay, and other market measures). Replace general surface private parking with underground or structured private parking in intensively developed areas, and provide covered private parking elsewhere.
- T-13** Confirm suggested goods movement (auto and rail) routes to minimize the intrusion into the inner city, and manage the movement of freight on the roadway network so as to minimize rush hour and neighborhood impacts.



## 8.6 PUBLIC OPEN SPACE

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- P-1** Complete a City-Wide Plan for parks and open space with an inter-connected hierarchy of spaces, including:
- wadis,
  - oases,
  - dunes,
  - mountains,
  - farms,
  - woodlands/shelter belts,
  - neighbourhood parks,
  - city parks, plazas and gardens, and
  - heritage sites.
- P-2** As the basis for the Plan, develop a set of parks and open space standards that respond to the Emirati lifestyle and Al Ain region. The standards should define the hierarchy, service area, facilities, and size of all public parks in accordance with international best practices. This should include regional, district, community, neighborhood and pocket park standards all interconnected via a public “green streets” program.
- P-3** Establish a desert and mountain conservation belt surrounding the city as a National Park, administered through a government commission.
- P-4** Establish mountain preservation zones to retain all mountains in public ownership and preserve them in their natural state.
- P-5** Protect and conserve the wadi edges as important pedestrian thoroughfares through the setback of development from the top of the wadi bank.
- P-6** Secure official park spaces from private development in perpetuity, including city parks in the care and custody of the Municipality.
- P-7** Design public open spaces and parks for active public use with hospitable provisions, including shade, sensitive use of water, xeriscaping, and public amenities such as places for prayers and public washrooms. Where possible, associate public open spaces with people-generating uses such as cafés and shops.

- P-8** Integrate Al Ain's oases into the Parks and Open Spaces Plan as an important part of the city's public realm and ensure these are sensitively managed to retain their unique character as the city's heart and soul.
- P-9** Develop a continuous network of "Green Fingers", emanating from the oasis, that connect the major green areas of the city. Ensure that the "Green Fingers" link enhance both physically and visually, the historic, cultural and natural assets of Al Ain in a planted pedestrian and cycle-oriented path.
- P-10** Integrate street rights-of-way, traffic-calmed crossings, planted courtyards of mixed-use inner-city blocks, and public parks as key components of the "Green Finger" network, with an aim to ensuring its continuity.
- P-11** In private development, create design guidelines and approval requirements. Include provisions for a landscaped interface between the private and public realm and its ongoing maintenance, as well as an allocation of private open spaces for every unit.
- P-12** Accommodate golf courses, where appropriate, as an integral part of private development.
- P-13** Implement landscaping with native desert and/or drought tolerant plants to reduce irrigation demands and water consumption.
- P-14** Outside of clearly defined green spaces, promote desert-scaping as a preferred alternative.



## 8.7 URBAN DESIGN

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### I Heights

- U-1** The maximum height of any new building in the city shall be the prevailing height of 20 metres, expressed in built form as a ground floor with a maximum of four floors above (including mezzanines, penthouses, architectural appurtenances, and mechanical), giving no more than five storeys above ground in total, with the exception of mosques.
- U-2** Complete a City-Wide Plan for building heights, and refine this plan on an ongoing basis with specific building heights below 20 metres confirmed as Comprehensive Development Plans and Area Plans are completed. Acknowledge that some districts may have lower maximum heights which can be confirmed through City-Wide and Area Plans.

### II Views

- U-3** Complete an inventory of key public views (from viewpoints to be established) of the natural setting, dunes, oases, mountains, landmarks, special buildings, etc. Manage development to preserve these public views in perpetuity.
- U-4** Complete a protocol for private view protection and manage development to preserve priority private views or portions of views.

### III Response to Climate

- U-5** Develop a program to create shaded north-south retail streets in the civic centre.
- U-6** Complete a protocol for maximizing cool shadowing and minimizing hot paving of public places and byways. Manage development to optimize sun and shadows and minimize reflected glare for best micro-climatic effect.
- U-7** Evaluate techniques, complete guidelines, and prepare a program to actively facilitate maximum natural cooling of public places through better public and private efforts.
- U-8** Complete guidelines for maximum natural cooling of buildings to augment and reduce pressure on mechanical systems.

**IV Streetscapes**

- U-9** Complete guidelines and undertake a program for urban design and embellishment of a hierarchy of streetscapes related to traffic management, pedestrian comfort, open space linkages, and visual coherence, extending the positive tradition of streetscaping already being practiced.
- U-10** Develop street configurations that enhance pedestrian comfort, safety and convenience while maintaining roundabouts where possible.
- U-11** Pursue a fine-grain and fine-scale pattern of public ways for optimal pedestrian and automobile access within the larger grid of commuter routes, and include pedestrian-only routes where practical.
- U-12** Minimize travel and parking lane widths, offer clearly marked pedestrian crossings, and where possible, use corner bulges to minimize pedestrian crossing distances and calm traffic.
- U-13** Maximize provisions for pedestrian comfort including footpaths on all streets (except limited access roads), attractive and consistent street furniture and pavings, level and safe surfaces, seating, shade provisions (e.g. trees, arcades, awnings, free-standing structures, transit shelters), animating adjacent at-grade uses, universal accessibility, light-colored surfaces to minimize heat absorption, and pedestrian-scale lighting.
- U-14** Plant trees as follows:
- with an emphasis on drought tolerant and desert species to minimize irrigation demands;
  - with a consistent block layout and species but varying patterns among areas for distinctiveness and species diversity;
  - with regard to the direction and arc of the sun, throughout the year, in each particular location;
  - with preference for planting along footpaths rather than center medians;
  - with close spacing for maximum shade;
  - within a healthy growing environment (generous tree wells or a continuous planting strip of properly prepared soil); and



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- with alignments for multiple modes along streets where possible.

**U-15** In new developments, and where possible through renovation of existing areas, minimize utility reservations to levels of common efficiency and locate utility easements/corridors so as not to unduly impact the pedestrian realm. Maximize footpath furnishing and planting provisions while keeping right-of-ways at a narrow pedestrian scale.

**U-16** Utilize differing street cross-sections and design standards to differentiate streets and to facilitate transit and pedestrian use, including:

- multi-way boulevards on major streets to reconcile local and through traffic while maximizing pedestrian areas;
- distinctive furniture and paving on commercial or primary streets; and
- narrow ways for pedestrian only alignments.

## **V Character**

**U-17** Finalize and implement a set of urban design and architectural guidelines which should be considered in the approval of all developments. These guidelines should facilitate the unique expressions of Al Ain culture and the unique climate and setting of the city.

**U-18** Identify key existing or potential character areas throughout the city and develop urban design and architectural guidelines to maximize such character and manage development to provide character enhancement. Areas to be included would be the vicinity of the oases, the souk, the university area, etc.

**U-19** Complete a set of guidelines and operational protocols to consolidate a positive city image for Al Ain in regard to:

- utility installations,
- garbage arrangements and tidy collection procedures,
- building maintenance, and
- the physical aspects of public realm civility.

## **VI Heritage**

- U-20** Complete an inventory of historical and archaeological sites and pursue the designation of Al Ain as a UNESCO World Heritage Site, in coordination with the work already being overseen by the Abu Dhabi Authority for Culture and Heritage.
- U-21** Develop a policy to articulate and enhance the history of the royal presence in Al Ain with respect to the palaces and other historic sites.
- U-22** Maintain the Emirate's commitment to the designation and protection of key historic and archaeological sites in line with world standards and practices, in coordination with the work already being overseen by the Abu Dhabi Authority for Culture and Heritage.

## **VII Building Utilities and Services**

- U-23** Develop guidelines for the placement of utility ducts, vents, transformers, HVAC, and other utility services to ensure they are architecturally screened or hidden and not placed within the public realm.
- U-24** Complete a set of guidelines to screen rooftop satellite dishes.

## **VIII Design for Safety**

- U-25** Complete a set of guidelines for crime prevention through building and landscape design. Manage development to facilitate the safest of environments and maintain Al Ain's excellent record for safety.
- U-26** Formulate guidelines for illumination of public spaces which address safety and security while avoiding light trespass on adjacent residential sites.

## **VIX Public Art**

- U-27** Establish and require a consistent standard of public art to be provided in every new development, over a pre-set value. This standard should build on the long tradition of public art in Al Ain and carry on with the tradition of public art in the roundabouts.



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### **X      Signage and Addressing**

- U-28** Complete a set of general guidelines for signage, including the need for significant signage to be approved. The guidelines should address:
- any City Image or Al Ain Municipality Studies or Policies;
  - how to manage development to moderate the impact of signage with priority given to identification and way finding; and
  - how to remove existing non-conforming signs and advertising structures.
- U-29** Implement a simple street addressing system, consistent with any City Image or Al Ain Municipality Studies or Policies.

## 8.8 BUILDING BLOCKS

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**B-1** In the process of completing Comprehensive Development Plans and Area Plans for various areas of the city, apply the following Building Blocks as a basis for development:

- neighbourhood centres for new Emirati neighbourhoods and when reconfiguring or revitalizing existing neighbourhoods, and
- block revitalization design strategies.

### **I Emirati Neighbourhoods**

**B-2** Apply the following general configurations to new Emirati neighbourhood subdivisions and, where possible, do a redesign of existing, newly subdivided but not yet occupied Emirati neighbourhoods, and revitalization of existing occupied neighbourhoods:

- a basic unit, or fareej, composed of a small cluster of housing and a common meeting and play space;
- a clustering of the fareej to support a local mosque and associated commercial and meeting space; and
- a further clustering of the fareej clusters to support a neighbourhood centre of services and facilities.

**B-3** Allocate Emirati plots to facilitate the co-location of extended family households.

**B-4** Allow for Emirati housing plots to accommodate more than one housing unit where possible while preserving family privacy. Permit a variety of housing types (e.g. multiple villas, courtyard housing, and infill units).

**B-5** Include in Emirati neighbourhoods a component of multi-family housing, particularly along commercial streets, and provide a range of housing options.

**B-6** Develop guidelines for multi-family housing in Emirati neighbourhoods that maximize privacy, security, natural lighting, ventilation and reduction of solar heat gain, and limit building heights to reduce impacts on lower-scale Emirati housing.



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- B-7** Develop guidelines for Emirati neighbourhoods for a hospitable interface between housing and the public realm, where public and private spaces are well defined. Include a sustainable approach to landscaping and design strategies to address parking and fence configuration.
- B-8** In Emirati neighbourhoods, create a network of village clusters including a mosque, playground and kindergarten, ideally within a five minute walking distance (400 m) for residents, connected by footpaths and pedestrian pathways. With each mosque, include an exterior gathering place.
- B-9** In Emirati neighbourhoods, provide a network of pedestrian-priority routes (or *sikkas*) to community services with traffic calming, safe crossings, and shade.

## II Neighbourhood Centres

- B-10** As part of the upcoming Comprehensive Plan, confirm standards for community supports related to population and catchment areas for (but not limited to):
- mosques;
  - open spaces, play spaces, parks;
  - schools and child care;
  - community centres, cultural centres, women's centres, youth centres and special services;
  - libraries; and
  - post offices, fire, civil defence and police stations.
- B-11** In new and existing neighbourhoods, where possible, develop mixed use Neighbourhood Centres. These should be located along an arterial high street, with gathering and people-generating uses and services based on population needs and the surrounding catchment area to serve children, youth and women.
- B-12** In addition to retail, accommodate traffic-generating institutional uses (e.g. clinics, high schools, libraries) and entertainment and recreational facilities on, or close to, the high street.

### III Central Business District Revitalization

- B-13** Initiate a program of block revitalization in the existing inner-city, undertaking at least one pilot project to inform the detailed development of this program and pursue the following measures:
- intensification of large blocks,
  - incorporation of north-south retail streets,
  - clustering of parking in underground lots, and
  - relocation of the majority of surface parking to grade separated parking structures (with the exception of metered street parking) to serve short-term local retail and visitors.
- B-14** When revitalizing core area blocks, complete an inner block network of new streetscapes and pedestrian routes linked to open spaces and landscaped secondary spaces along streets that are shaded, fully accessible, activated by local retail (e.g. markets, restaurants, cafes) where possible, and efficiently accessed by transit.
- B-15** Develop consistent, robust shading devices to delineate pedestrian rights-of-way in the inner-city. Configure the shading devices so that they may employ integrated photovoltaics and protect from wind-born dust. Utilize the shading devices to narrow the streets of the inner-city, leaving enough space for the efficient movement of traffic.
- B-16** Develop three N-S streets emanating from the Al Ain Oasis as retail streets to create a concentrated, continuous retail zone in the downtown.
- B-17** In revitalized core blocks, utilize redevelopment opportunities to provide community facilities needed in the area.



## 8.9 SOCIAL

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### I Affordable Housing

- S-1 Develop a range of housing types and an adequate supply of affordable housing to meet the needs of Al Ain's diverse population and lifestyles.

### II Social Services

- S-2 Where not already in place, complete a Comprehensive Plan and implementation program for community services (e.g. schools, health care, child care, seniors' services) including service standards and catchment areas in close coordination with relevant Government agencies.

### III Guest Worker Housing

- S-3 Develop comprehensive policies for the location and size of expatriate worker accommodation taking into account workers' and employers' needs, and immediate and long-term economic trends in the service, construction and manufacturing industries.
- S-4 In its Labour and Human Resource Policy, the Government of Abu Dhabi has outlined the development of dedicated low-cost residences that meet or exceed international benchmarks for guest worker accommodation, including living and communal space, leisure facilities, hygiene and safety. The Government's guest worker housing policy, when applied to this Urban Structure Framework Plan, produces the following guidelines:
- Where possible, locate housing for permanent service workers (e.g. hotel, retail, business) close to where they work.
  - Avoid housing a large number of temporary or permanent construction and manufacturing workers in a limited number of settlements by establishing a maximum worker settlement population of 10,000 people.
  - Where possible, locate temporary construction worker housing on, or near, large construction sites with appropriate services and facilities.
  - Provide small, localized nodes of permanent worker housing on, or near, industrial and manufacturing sites

with appropriate services and facilities and with access to larger service areas and transportation.

- In intensive job-generating areas, or to accommodate workers from remote construction sites or service industries, develop worker settlements of up to a generally preferred maximum of 5,000 people with a local service centre with religious, health, recreational and entertainment facilities.
- If larger worker settlements are developed, they should be located close to long-term job sites or on transportation routes and provide a full range of services and amenities (places of worship, health care, shops, entertainment, recreational facilities and emergency services).

## 8.10 INFRASTRUCTURE

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- I-1** Make the following explicit goals in any and all infrastructure decisions: high user comfort; high flexibility for future expansion; efficient utilization of natural resources; minimal environmental impacts.
- I-2** Pursue the integration of energy, water and waste infrastructure to capitalize on synergies between the processes used and the services produced, such as through generating biogas and clean water from treated sewage effluent.
- I-3** Establish an infrastructure planning data base to enable a standardized evaluation of tailor-made infrastructure concepts for urban areas with different demand densities.
- I-4** Develop, implement and monitor demand-side measures to reduce the infrastructure needs of communities by implementing:
- Awareness campaigns and education;
  - Technical measures, such as motion detection lighting, and advanced drip irrigation;
  - Cost-real tariffs for water, power, cooling, sewage and waste handling; and
  - Net-metering for user-produced clean energy sold back to the grid.
- I-5** Pursue district cooling for community developments with high demand density based on larger more efficient chiller units. Test different technologies for chillers, including absorption chillers and high-efficiency electric chillers.
- I-6** Pursue water recycling in Al Ain, such that potable water is cascaded through a series of uses before returning to the water table. Greywater from sinks and baths should be cleaned and recycled for toilet flushing, blackwater toilets and the kitchen sink should be cleaned and recycled for irrigation.



- I-7** Pursue and implement effective measures to relieve the critical groundwater condition in the Al Ain region and reduce desalinated water demand such as: user awareness, reduction of demand in the agricultural sector and the transition from forestry to less water consuming plants with additional harvesting benefits.
- I-8** Work with utility providers to reconcile utility easements with urban design priorities. Explore opportunities to create service laneways to help reduce the widths of street right-of-ways.
- I-9** Implement a pilot project to demonstrate the above-mentioned sustainable infrastructure approaches, by selecting a project that is under development to establish as a showcase.

### 8.11 ECONOMIC DEVELOPMENT

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- D-1** In releasing land for development and in approving development, calibrate growth with ongoing projections of market requirements for general stability.
- D-2** In approving development, base all decisions on end-user projections and requirements, and tie infrastructure requirements and community amenity contributions to end-user demands. Phase development approvals with the delivery of infrastructure and amenities so that services generally arrive before people. Prepare a Land Release Strategy and ensure it is well-coordinated with an Infrastructure Strategy.
- D-3** In releasing land for development and in approving development, give priority to key growth sectors identified as essential for Al Ain's economic vitality, including the health and education sectors.
- D-4** Create an Economic Development Strategy for Al Ain.

## 8.12 CONTINUOUS PLANNING

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- F-1** Prepare an Implementation Strategy for this Urban Structure Framework Plan.
- F-2** Complete a Comprehensive Plan for Al Ain to specify the land use and built form controls necessary to implement this Urban Structure Framework Plan which can ultimately be used to firmly ascertain infrastructure requirements, amenity needs and transportation demands.
- F-3** Develop and implement a pervasive Urban Development Regulation Decree as soon as possible, consistent with this Urban Structure Framework Plan and future Comprehensive Plan, and develop appropriate guidelines to shape development within the regulations.
- F-4** Prepare more detailed area plans (e.g. major development areas, corridor, sector, district, local structure and master plans) consistent with the Al Ain Urban Structure Framework Plan and in accordance with the Implementation Strategy.
- F-5** Make all plans, guidelines, and regulations accessible in both hard copy and over the internet, including related background information and explanatory commentary.







## APPENDIX: PLAN AL AIN 2030 PARTICIPANTS

Abu Dhabi Government

Abu Dhabi Urban Planning Council Members

Project Management and Professional Team





## ABU DHABI GOVERNMENT

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**H.H. Sheikh Mohammed bin Zayed Al Nahyan**  
Crown Prince of Abu Dhabi, Chairman of the Abu Dhabi Executive Council

**H.H. Sheikh Hamed bin Zayed Al Nahyan**  
Chairman of the Crown Prince's Court

**H.H. Sheikh Sultan bin Tahnoon Al Nahyan**  
Chairman of the Abu Dhabi Tourism Authority

**H.E. Mohammed Al Bowardi**  
Secretary General of the Abu Dhabi Executive Council

**H.E. Khaldoon Khalifa Al Mubarak**  
Chairman of the Executive Affairs Authority

**H.E. Dr. Joan Al Dhaheri**  
Chairman of the Department of Municipal Affairs

**H.E. Rashid Mubarak Al Hajri**  
Chairman of the Civil Service Department

**H.E. Hamad Al Hurr Al Suwaidi**  
Undersecretary of the Finance Department

**H.E. Nasser Ahmad Al Sowaidi**  
Chairman of the Planning and Economy Department

**H.E. Major General Saeed Obaid Al Mazroui**  
Chief of the Abu Dhabi Police General Headquarters

**H.E. Abdullah Rashid Khalaf Al Otaiba**  
Chairman of the Transportation Department

**H.E. Juma Al Junaibi**  
General Manager of the Abu Dhabi Municipality

**H.E. Ahmad Shareef**  
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Chairman of Western Region Municipal Council

**H.E. Humood Humaid Al Mansouri**  
General Manager of Western Region Municipality

**H.E. Awad Al Darmaki**  
General Manager of Al Ain Municipality

**Dr. Abdelrahman Makhoulf**  
Former Chief Planner for Abu Dhabi

## Appendix

Plan Al Ain 2030

Urban Structure Framework Plan

# ABU DHABI URBAN PLANNING COUNCIL MEMBERS

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**His Highness Sheikh Mohammed Bin Zayed Al Nahyan**

Crown Prince of Abu Dhabi, Chairman of the Executive Council,  
Chairman of the Abu Dhabi Urban Planning Council

**His Excellency Khaldoon Khalifa Al Mubarak**

Chairman of the Executive Affairs Authority,  
Deputy Chairman of the Urban Planning Council

**His Excellency Sheikh Sultan Bin Tahnoon Al Nahyan**

Chairman of Abu Dhabi Tourism Authority

**His Excellency Mohammed Ahmad Al Bawardi**

Secretary General of the Abu Dhabi Executive Council

**His Excellency Dr. Jouan Salem Al Dhaheri**

Chairman of Abu Dhabi Department of Municipal Affairs

**His Excellency Nasser Ahmed Al Suweidi**

Chairman of Abu Dhabi Department of Planning and Economy

**His Excellency Abdulla Rashid Al Otaiba**

Chairman of Abu Dhabi Department of Transport

**His Excellency Majid Al Mansouri**

Secretary General of Environment Agency, Abu Dhabi

## PROJECT MANAGEMENT AND PROFESSIONAL TEAM

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### ABU DHABI URBAN PLANNING COUNCIL STAFF TEAM

H.E. Falah Mohammed Al Ahbabi  
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Eng. Jamal Al Hosani, Executive Director

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## Appendix

Plan Al Ain 2030

Urban Structure Framework Plan

### PROFESSIONAL AND PRODUCTION TEAM

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