

# Gulf Construction

Reg No. 1 GC 027 • VOL 45 • No. 06 • JUNE 2024 • BD3.5 | KD3 | RO3.5 | QR35 | SR35 | Dh35

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**OMAN**



# BOOM ON HORIZON

**Oman's construction sector is poised for significant growth, driven by a robust economy, a dynamic real estate market, and major projects in renewable energy and infrastructure. With a \$33-billion pipeline of planned projects, the sector is integral to the sultanate's Vision 2040, which aims to diversify the economy beyond oil and gas.**

**F**UELLED by a surging economy, a vibrant real estate market, a renewed push for renewable energy, and the launch of a ground-breaking railway project, Oman is poised for a construction upsurge.

The construction industry must now gear itself to keep pace with an anticipated surge in development in the country, which is reported to have a pipeline of planned projects worth over \$33 billion.

The sultanate's economy has been gaining momentum, which has prompted S&P Global Ratings to revise its outlook for the country to positive from stable.

"The positive outlook reflects our view that the government's balance sheet will strengthen and the economic reform programme could lead to faster-than-ex-

pected deleveraging in many state-owned enterprises, without dampening economic growth outcomes. This would strengthen the economy's resilience to adverse oil price shocks," says the S&P Global in its overview.

The government's commitment to fiscal responsibility and economic diversification is laying the foundation for sustainable growth. In line with the Oman Vision 2040 plan, the government is exerting efforts to reduce its reliance on oil and gas by investing in non-hydrocarbon sectors like tourism, transportation, and utilities.

According to Cavendish Maxwell, a leading firm of independent property consultants in the Middle East, the role of real estate and construction, in realising the goals of Oman Vision 2040 is crucial. The

sector is a vital player in the economic diversification process, driving growth, and it also impacts other areas that Vision 2040 targets such as Special Economic Zones (SEZs), where building infrastructure is crucial. Here, a law change allows foreign investors who buy property in these zones to get residency visas, making investment more attractive. In building affordable housing, Oman has a law in place to facilitate public-private partnerships (PPPs).

In terms of propelling tourism numbers, building and expanding hotels and resorts is necessary to accommodate more tourists. This includes integrated tourism complexes and promoting luxury tourism, Cavendish Maxwell points out.

Driving growth in the urban and tourism development sectors are the Ministry



An artist's perspective of the \$1.3-billion Al Khuwair Downtown and Waterfront Development.

of Housing and Urban Planning (MoHUP) and Oman Tourism Development Company (Omran) respectively, each of which is spearheading several projects that continue to attract significant foreign investment. The MoHUP, in fact, has been much in the news recently by actively launching a string of awe-inspiring developments. These include the mega Sultan Haitham City, which was unveiled last

year, followed by the \$1.3-billion Al Khuwair Downtown and Waterfront Development and \$2.4-billion Omani Mountain Destination in quick succession. Omran is developing the massive Madinat Al Irfan (the latest project being the Business Park), Aida and The Sustainable City – Yiti, among others.

These projects are part of the structural plans for Greater Muscat under the Urban Strategy 2040 or Oman National Spatial Strategy 2040 (ONSS), which was approved by HM Sultan Haitham bin Tariq in March 2021 as the essential enabler for the implementation of Oman 2040 Vision and the broad framework to direct urban growth in the sultanate over the next two decades. The plans cover 14 other cities, including Greater Sohar, Greater Salalah and Greater Nizwa.

These ambitious developments promise growing prospects for the construction sector, which is already the largest employer in the private sector. According to the *Muscat Daily*, in 2023, the construction sector contributed RO3.5 billion (\$9 billion) to Oman's GDP – one of the largest contributors to non-oil GDP, accounting for 12.8 per cent of the total volume of non-oil activities in 2023 which was worth RO27.3 billion.

Development of these projects is largely being carried out in partnership with the private sector, having already attracted regional investors in some of the billion-dollar ventures that have been unveiled recently. The tourism projects, in turn, will necessitate the construction of air-



## The government's commitment to fiscal responsibility and economic diversification is laying the foundation for sustainable growth

port infrastructure, involving the expansion of Muscat International Airport and the development of regional airports – the Chairman of Oman's Civil Aviation Authority was recently reported to have stated that the sultanate will have six new airports by 2028-29.

In the industrial sector, one of the largest construction projects in Oman that was completed early this year was the \$9-billion refinery and oil storage project in Duqm. This project is expected to boost Oman's economy and reduce its dependence on imported refined petroleum products.

This apart, the sultanate aims to expand its green energy capacity to 1 GW by 2025 and reach 10 GW by the end of the decade. In line with this plan, it is driving substantial investments in solar and wind power projects, and more recently hydrogen potential. The sultanate plans to produce one million tonnes of green hydrogen per year by 2030., with a target to reach 3.75 million tonnes per year by 2040.

Meanwhile, a landmark project that will not only drive growth in the construction sector but will have a major impact on various economic sectors of the sultanate including trade and industry and increase commercial and investment opportunities for the private sector is the new Omani-Emirati railway network, work on which has just been flagged off.

### RAILWAY

Construction work has commenced on the \$3-billion Omani-Emirati railway network project, following the award of the civil works contract to a consortium of Trojan Construction Group (NPC) of the UAE and Galfar Engineering and Contracting of Oman.



The mega Sultan Haitham City was unveiled last year.

# JEWEL ON THE CROWN



**Omani Mountain Destination will take shape at a height of 2,400 m in the Jabal Al Akhdar mountain range.**

OMAN has recently unveiled plans for a stunning \$2.4-billion mixed-use project that stakes claim to being the sultanate's highest altitude development at a height of 2,400 m in the Jabal Al Akhdar mountain range.

The Omani Mountain Destination (OMD), as it is known, will be designed to be net zero carbon in operation, being totally powered by renewable energy, and built with a 40 reduction in embodied carbon.

Masterplanned by AtkinsRéalis and designed in consultation with local communities, it will include 2,527 residences and 2,000 hotel rooms and a purpose-built

health and wellness village, The Vessel.

The development will be 85 per cent pedestrianised with the provision of extensive cycleways and include a Dark Sky Zone. With a significant focus on social and environmental sustainability, alongside its residential, retail and hospitality offerings, the OMD will include a biodiversity centre for local and international research and development (R&D), dedicated health and wellness areas, a high-altitude sports training centre, amphitheatres, museum and parks and public spaces.

As part of its commitment to preserving the area's exist-

ing ecology, the development includes an escarpment walk in a remote wilderness area that has been legally protected as a National Scenic Reserve. This will ensure low light pollution to maintain the destination's Dark Sky Zone.

OMD aims to preserve and enhance biodiversity, protecting the existing 500-year-old native Juniper woodlands, Arabian Tahr and other animal populations, and ensuring more than 90 per cent of new plantings are native species. It will also include the new Wadi Al Harbi Park, comprising a new bridge, farming and agrotourism, family recreation activities, and mountain biking and extreme

sports facilities, including bungee jumping and rock climbing.

The destination will be serviced by a new cable car. Upgrading of other transport infrastructure in the area is already under way, including a new road from the north which will allow access for the two most populated governorates in the country, South and North Al Batinah.

On completion, OMD is expected to attract a resident population of more than 8,000 and an average of 2,350 overnight visitors and 2,000 daily visitors. Due to its high altitude, the area has a comfortable climate with an average temperature of 22 deg C. ■

A joint venture of Siemens and HAC signed another contract for the systems and integration of the railway network to equip the fleet with the latest rail technologies and advancements (see Page 22).

## AIRPORTS

The sultanate will build six new airports, most of which are expected to be operational by 2028-2029, Naif bin Ali Al Abri, Chairman of the Civil Aviation Author-

ity, was quoted as saying in a report in the *Oman Observer*.

The new airports are expected to ease access to tourism destinations such as Rass Al Hadd and Salalah, as well as industrial centres like Sohar and Quqm.

According to the report, a site has been chosen for the Musandam Airport, while tenders have been floated for site studies, masterplanning for airports at Jabal Akhdar, Masirah and Sohar.

Meanwhile, Asyad Group, Oman's global

integrated logistics provider, is developing the first phase of Muscat International Airport Free Zone, and has issued tenders for infrastructure works like site clearance and road construction. This zone aims to strengthen air freight logistics in Oman.

According to Asyad Group, the upcoming world-class development will boast state-of-the-art logistics facilities, ready-to-use warehouses and premium land plots.



**The \$9-billion OQ8 refinery and oil storage project in Duqm was inaugurated in February this year.**

## POWER & WATER

A number of projects are under way in the renewables sector including solar power plants. Among them is the Manah 1 Solar Plant, a 500-MW solar power plant under construction in Al Dakhiliyah Governorate. France's EDF Renewables and its consortium partner, Korea Western Power Company (Kowepo) are developing the photovoltaic (PV) solar power plant over a 7.8-sq-km area. The EDF consortium has already inked a sales purchase deal with Nama Power and Water Procurement (PWP). Expected to be operational in 2025, it will provide clean electricity to over 50,000 homes and reduce carbon emissions.

This apart, a 17-MWp solar farm has been commissioned in Sur to power the Sharqiyah Desalination Plant. Developed by global multi-energy company Total-

Energies and French water management specialist Veolia, the solar farm boasts an annual capacity of over 32,000 MWh of green electricity. The project is in line with Oman's National Energy Strategy, aiming to derive 30 per cent of electricity from renewable sources by 2030, as part of Oman Vision 2040.

In the green hydrogen sector, Hydrogen Oman (Hydrom) announced the winning bidder in the second round of the tendering process for a plant. A consortium comprising Actis, a leading investor in sustainable infrastructure, and Fortescue, an integrated green energy company, will develop the plant which could produce up to 200,000 tonnes of green hydrogen per year. (see *Regional News*, Page 47).

Meanwhile, Oman Electricity Transmission Company is undertaking \$474 million worth of projects to enhance the reliability of the electricity network across

Oman under its strategic scheme 'Rabt'.

## INDUSTRY

The \$9-billion refinery and oil storage project in Duqm, OQ8, a joint venture between OQ and Kuwait Petroleum International, was completed in early 2024. OQ8 expects to process about 230,000 barrels of crude oil per day.

Among the striking industrial projects under way in the sultanate is a \$1.3-billion polysilicon factory being built in the Sohar Port and Freezone by United Solar Holding. This will be the largest of its kind in the Middle East and is expected to be operational in 2025. The factory will contribute to Oman's industrial diversification and reduce solar panel costs.

The zone itself – which is home to various industries from 53 countries – is seeing a growth in industrial investment. ■

The total investment in Sohar Freezone in 2023 grew by 30 per cent and land occupancy grew by 19 per cent compared to 2022. With 85 per cent of Phase One fully leased, Phase Two is under way offering a total land area of up to 675 hectares.

## REAL ESTATE

In recent years, major real estate developments have been unveiled in the sultanate both by the government and the private sector. Among the most prominent government projects is the Sultan Haitham City, Phase One of which has already been launched by Oman's Ministry of Housing and Urban Planning. This phase will include over 7,000 residential units, a central park, healthcare facilities, educational institutions, and government buildings. ■

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**Construction work has been launched recently on the \$384-million Oman Cultural Complex (see online version).**

# OMAN AT A GLANCE

Package name	Owner	Status*	\$ Million **
Aida Mixed-use Development	Dar Global	Construction	1,600
Al Hafa Waterfront	Muscat National Development and Investment Company (Asaas)	Construction	400
Al Irfan Urban Development – Overview	Madinat Al Irfan Development Company	Construction	2,000
Al Mouj Muscat Mixed-use Development	Al Mouj Muscat	Construction	2,500
Al Nakheel Integrated Tourism Complex (ITC)	Alargan Towell Investment Company	E&P	688
Al Suwaiq ISTP	Oman Water and Wastewater Services Company (Nama)	Feasibility Study	1,000
Al-Sharqiyah Water Transmission System Reinforcement	Nama Water Services	Commissioning	350
Barka Medical City	Ministry of Health (Oman)	Feasibility Study	1,240
Barka Waste-to-Energy Plant	Oman Power and Water Procurement Company (OPWP)	Feasibility Study	800
Dhofar 2 Wind IPP (132 MW)	OPWP	EPC ITB	500
Diar Ras Al Hadd – Overview	Qatari Diar Ras Al Hadd Development Company	Construction	650
Dualisation of Bidbid-Sur Road – Section 2 (Alsharqiya Expressway)	Ministry of Transport Communications and Information Technology (MTCIT)	E&P	700
Duqm Cement Plant	Duqm Cement Projects International (DCPI)	E&P	435
Duqm Green Hydrogen Plant	Engie, Posco, PTT Exploration & Production, Samsung	Project Announced	6,700
Duqm Green Hydrogen Project	Amnah	Feasibility Study	6,000
Duqm Solar Power Project (Solar PV 2027)	OPWP	Feasibility Study	500
Green Hydrogen Ammonia Plant	Green Hydrogen and Chemicals	E&P	6,000
Hafeet Rail	Etihad Rail, Oman Rail Company (ORC)	E&P	3,000
Hay Al Wafa Residential Project	Al Abrar Real Estate	E&P	728
Ibri 3 Solar IPP	OPWP	EPC ITB	400
Integrated Tourism Complex (ITC)	Little India	Construction	748
Khasab-Diba Road and Link Road to Lima	MCTIT	Construction	400
Khazaen Economic City – Overview	Khazaen Economic City	Construction	500
Manah Solar Plant – 1000 MW – Overview	OPWP	Construction	780
Manah Solar Plant 1 (500 MW)	Wadi Noor Solar Power Company (WNSPC)	Construction	460
Manah Solar Plant 2 (500 MW)	Sembcorp Jinko Shine Company	Construction	390
Masirah Island Causeway	MTCIT	Design	1,500
National Leisure & Tourism Destination (Hayy Al Sharq) – Overview	Asaas	Construction	1,200
North-South Power Grids Interconnection – Phase 2 (MIS and Dhofar Power System) – Overview	Oman Electricity Transmission Company (OETC)	E&P	700
Omani Mountain Destination	Ministry of Housing and Urban Planning (Oman)	Project Announced	2,400
Polysilicon Factory	United Solar Holding	Design	1,352
Quriyat Integrated Tourism Complex – Overview	Quriyat Development Company	Construction	1,000
Ras Al-Hadd Airport – Overview	MTCIT	Project Announced	350
Rusayl-Bidbid Road Improvement	MTCIT	Construction	400
Sadah Wind IPP (99 MW)	OPWP	EPC ITB	500
Salalah Dams (Scheme/Program)	Ministry of Agriculture Fisheries and Water Resources	Construction	400
Sino-Oman Industrial City - Overview	Oman Wanfang	Construction	10,000
Steel Complex (Mega Hub)	Jindal Shadeed Iron and Steel	Construction	3,000
Steel Iron Metallics Solutions Plant	Kobe Steel, Mitsui	Feasibility Study	1,000
Sultan Haitham City (SHC) – Overview	Ministry of Housing and Urban Planning (Oman)	Construction	2,600
Sur Seaport	The Public Establishment for Industrial Estates (PEIE)	Project Announced	2,500
The Mandarin Oriental Muscat	Eagle Hills Muscat	Construction	351
The Sustainable City Yiti – Phase 1 (Mixed-use)	Sustainable Development and Investment Company (SDIC)	Construction	1,000
Yiti Integrated Tourism Development	Oman Tourism And Development Company (Omran)	Construction	2,000

\* E&P = Engineering and procurement; EPC ITB = Engineering, procurement and construction invitation to bid; FEED = Front-end engineering and design.



Consultant	Contractor	Start date	End date
-	Qurum Stone Development	2022-Q1	2028-Q2
-	-	2017-Q3	2026-Q4
-	-	2014-Q1	2030-Q4
Turner Construction International	Al Turki, Carillion Alawi, SNE	2006-Q1	2030-Q4
-	National Company for Construction Work	2017-Q2	2026-Q4
-	-	2020-Q1	2027-Q3
Khatib & Alami	China Geo Engineering Corporation (CGC), Hunan Construction Engineering Group	2017-Q4	2024-Q4
-	-	2013-Q2	2030-Q4
-	-	2017-Q4	2028-Q4
-	-	2018-Q4	2027-Q2
-	Al Jaber Engineering	2012-Q3	2027-Q2
Cowi and Partners, Hill International, Renardet SA Partners Consulting	Al Turkey Enterprises, Khalid Bin Ahmed and Sons, Larsen & Toubro (L&T)	2008-Q3	2025-Q1
-	Sinoma International Engineering	2020-Q4	2024-Q4
Posco	Samsung Engineering Company	2023-Q2	2030-Q2
-	-	2023-Q2	2030-Q2
-	-	2019-Q3	2027-Q4
Design Group Engineering Consultants	Cleantech Solutions, ThyssenKrupp Industrial Solutions	2021-Q1	2028-Q4
-	Galfar, Hassan Allam Construction, National Infrastructure Construction Company (NICC), Siemens AG, Tristar Engineering & Construction, Trojan Holding	2005-Q2	2027-Q1
-	Al Siyabi International Group	2024-Q1	2030-Q4
-	-	2020-Q4	2026-Q4
Semac and Partners	Al Duqm Global Construction	2017-Q1	2026-Q2
-	Al Sarooj Construction	2022-Q2	2027-Q2
-	Al Adrak Trading & Contracting Company, Galfar	2014-Q2	2030-Q4
-	EDF Energy, Jinko Solar, Kowepo, Korea Western Power Company, Sembcorp Utilities, Shanghai Electric Group Company	2017-Q4	2025-Q2
-	EDF Energy, Korea Western Power Company (Kowepo), Shanghai Electric Group Company	2017-Q4	2025-Q2
-	China Energy Engineering Company (CEEC), Shanxi Electric Power Engineering Company (SEPEC), Jinko Solar, Sembcorp Utilities	2017-Q4	2025-Q2
-	-	2013-Q1	2027-Q4
Kayan	Shaksy Engineering Services	2016-Q4	2027-Q4
Mott MacDonald	Bahwan Engineering Group, L&T, Oman National Engineering & Investment Company, Trade Links & Services, Zawawi Powertech Engineering	2022-Q3	2026-Q4
-	-	2022-Q3	
-	-	2024-Q1	2025-Q4
F & M Engeria	Adhi Oman	2017-Q1	2032-Q1
ADPI, Gulf Engineering & Consultants, Indra, Pryde Schropp McComb (PSMI), Thales Group	Desert Line Projects, Galfar	2004-Q2	2027-Q4
Parsons	Galfar	2017-Q3	2024-Q2
-	-	2018-Q4	2027-Q4
-	AZ Engineers, Premier International Projects	2019-Q1	2025-Q2
Ross Consultancy Engineering	Al Duqm Ningxia Construction Engineering and Investment, Global Engineering and Infrastructure	2016-Q1	2030-Q1
Danieli	Al Tasnim Enterprises, Technibuild Contracting Oman	2023-Q2	2027-Q1
-	-	2023-Q2	2027-Q1
-	Strabag Oman	2023-Q2	2045-Q4
-	-	2016-Q2	2027-Q4
-	L&T	2019-Q3	2024-Q2
Renardet SA Partners Consulting	Adhi Oman, Dawood Contracting Company, Galfar	2022-Q1	2025-Q4
-	Adhi Oman, Galfar	2020-Q3	2030-Q4

\*\* List includes projects worth over \$350 million only.

Source: DMS Projects



One of the districts  
of Sultan Haitham  
City.

# SULTAN HAITHAM CITY

## HUMAN-CENTRIC AND SMART

**E**NABLING works for Phase One of the ambitious Sultan Haitham City project in Muscat are well advanced, according to a key official of Oman's Ministry of Housing and Urban Planning (MoHUP), which is spearheading the project.

In an exclusive interview with *Gulf Construction's* Bina Goveas, Alhassan Al Shukairi, Architectural Engineer at MoHUP's Sultan Haitham City Technical Office, reveals: "The enabling works for Phase One are 70 per cent complete, with work on infrastructure due to start imminently."

The Sultan Haitham City project aims to pioneer a new paradigm of sustainable city building, blending the rich heritage of Muscat with contemporary urban planning principles. Embracing the ethos of organic growth and resilience, the city intends to address pressing challenges such as urban sprawl and climate change by

shifting towards human-centric ecosystems, Al Shukairi emphasises.

Sultan Haitham City is envisioned as a 21st-Century urban development, integrating sustainability and advanced city planning principles. The masterplan seeks to transform urban living by reducing reliance on private cars, promoting mixed-use developments, and enhancing public transport and walkability. The project will emphasise green spaces, efficient resource usage, and resilience to climate change.

Phase One of the four-phase project commenced this year and is slated for completion by 2030. This phase, which spans over 5.5 million sq m, includes six neighbourhoods with over 7,600 residential units. Key features include a major park spread over 1.64 million sq m, an experience centre, a public university, three school clusters, a health district, a cultural centre a youth centre, and a large mosque.

The development emphasises green areas, with 3 million sq m dedicated to parks and other green spaces.

A meticulously planned timeline outlines subsequent phases that stretch from 2024 to 2045.

The city's design incorporates numerous passive design strategies to enhance sustainability. These include compact urban forms to reduce heat island effects and strategic orientation to maximise natural cooling, he says. Additionally, the project aims to enhance citizen mobility through safe pedestrian walkways and extensive green spaces.

The project embraces cutting-edge technology in line with its vision to be a smart city. "The main goal in terms of smartness is to reach the Smart City 4.0, so the team is starting to develop the digital twin for the city," he affirms.

Enabling works are currently being car-



ried out by Austrian construction major Strabag and infrastructure development is poised to commence soon, Al Shukairi says.

Comprehensive studies during the design phase have helped mitigate risks, ensuring the project remains on track, he adds.

Despite minor hurdles, the project has largely adhered to its masterplan, thanks to pre-emptive risk assessments and swift resolution of issues, according to Al Shukairi.

Sultan Haitham City stands as a testament to Oman's commitment to progressive urbanisation, blending tradition with innovation to create a sustainable haven for generations to come.

*Excerpts of the interview with Alhassan Al Shukairi, Architectural Engineer at MoHUP's Sultan Haitham City Technical Office:*

**Can you provide an overview of the scope and objectives of the Sultan Haitham City project? What are the highlights of the project that would appeal to future residents and investors?**

The masterplan for Sultan Haitham City in Seeb presents a unique opportunity to develop a new model of sustainable, 21st Century city building. With this masterplan, Oman is rethinking current ways, anticipating the future, and learning from the



**Sultan Haitham City will comprise six neighbourhoods with over 7,600 residential units.**

past to create a place that truly resonates with people and place.

Muscat is one of the few – if not the only – major city on the Arabian Peninsula that has managed to preserve its historic core and architectural heritage while at the same time expanding into a modern metropolis.

In a way, that has translated the scale, character, and visual coherence of the past into a contemporary vocabulary of open spaces and built form. But, like many great

cities, Greater Muscat also suffers from urban sprawl and car-centric city planning.

The city of Muscat has grown over time in a sprawling and expansive way, with an urban population dependent on private cars for transport and focused on single family housing – driven by the local land allocation system, affordable fuel and the substantial lack of alternative modes of transport or housing.

In a society of changing aspirations and priorities, this model of urbanisation is no longer sustainable and not conducive to creating the type of city the citizens of tomorrow aspire to live in. It is not using the people's nor the planet's resources efficiently or responsibly and puts increasing strain on public finances.

The new city is intended to demonstrate an alternative way of city building.

Cities need to be organic, resilient, human-centric ecosystems that can adapt to the ever-evolving needs of society. Cities of the future will have to address a series of key challenges facing humankind as a whole, and the Middle East in particular. The global climate emergency is the most prominent of these challenges.

**Who is the lead consultant on the project?**

The Oman Ministry of Housing and Urban Planning's Sultan Haitham City Technical Office is supported by number of consultants including SOM, Kohler Architekten, Panter Hudspith Architects,



**Officials at the signing ceremony for Sultan Haitham City when a number of consultants were appointed on the project.**

Altavia, Renardet, Mace and Meinhardt.

### What is the scope of work envisaged under Phase One of the development?

The project is being developed over four phases. Phase One started this year and will be delivered by 2030. Its total area is more than 5.5 million sq m and it will contain six neighbourhoods comprising more than 7,600 residential units.

This part of the city is not only residential; it will include a major park with a total area with wadi of 1.64 million sq m, in addition to several spatial anchors including, but not limited to: an experience centre; public university; three school clusters; a health district; a culture centre; a youth centre and a large mosque.

### What construction contracts have been awarded for Sultan Haitham City?

A contract was awarded to Strabag for the enabling works for Phase One of Sultan Haitham City.

### What is the current status of Phase One of the project?

The enabling works are 70 per cent completed, with work on infrastructure due to start imminently.

### How is sustainability being incorporated into the design and construction of the city? What measures are being taken to ensure the preservation of green spaces within it?

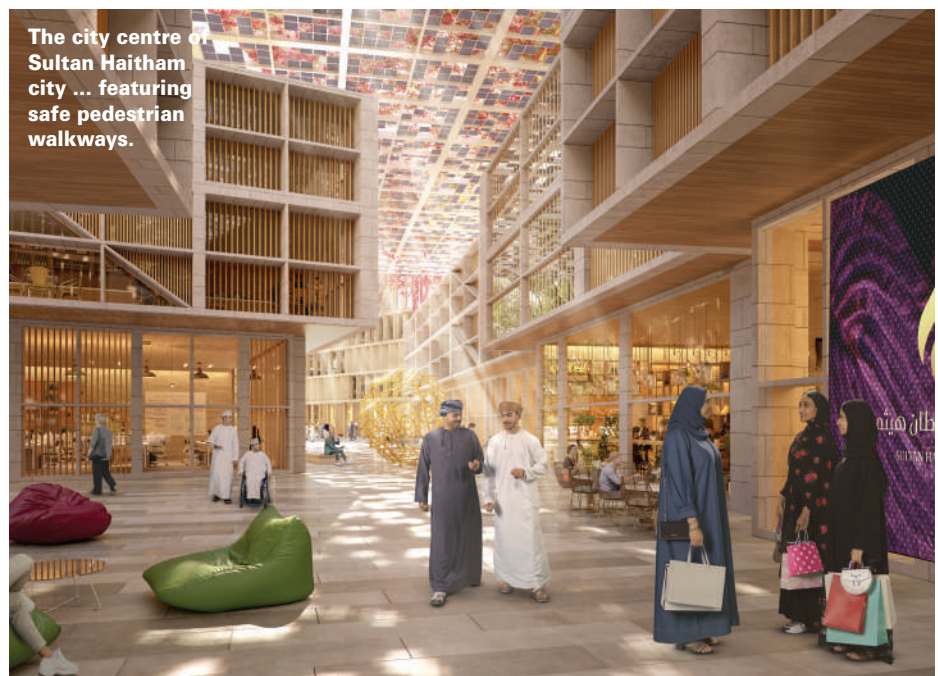
The city has 3 million sq m of green areas, which includes the 1.64-million-sq-m major park mentioned above.

In terms of the design, there are many passive design strategies. For example, the city is designed to be compact but comfortable in a way that reduces the direct sun heat and avoids heat island effects. The city is also orientated to the Northeast, which is a strategic decision to maximise the flow of low temperature air for a natural cooling effect.

Another key focus is enhancing citizen mobility and connectivity by providing safe pedestrian walkways.

### What challenges have been encountered to date in the development of Sultan Haitham City? How are these being addressed or mitigated?

During the design stage, the team under-



The city centre of Sultan Haitham city ... featuring safe pedestrian walkways.



Phase One includes major park with a total area of 1.64 million sq m.

took comprehensive studies to understand various risks and how to mitigate them. To date, almost everything has gone well and according to the project masterplan but like any construction project, there have been some minor challenges which have all been overcome in a short period.

### What measures have been introduced to ensure the safety and wellbeing of residents?

Safety and wellbeing are key considerations of the 12 attributes that the city design is based on. These are: accessible, compact, robust, healthy, affordable, inclusive, efficient, circular, smart, comfortable, safe,

and loveable.

### What is the timeline envisaged for the launch and completion of the project?

Phase One will be carried out from 2024 to 2030; Phase Two from 2028 to 2035; Phase Three from 2033 to 2040; and Phase Four from 2038 to 2045.

### How is technology being leveraged to create a more sustainable, functional, and resident-centric projects?

The main goal in terms of smartness is to reach the Smart City 4.0, so the team is starting to develop the digital twin for the city. ■



The design incorporates a mix of residential and commercial spaces to foster a 24-hour community atmosphere.

# NEW DOWNTOWN ON DRAWING BOARDS

By Bina Goveas

**T**HE Oman Ministry of Housing and Urban Planning (MoHUP) is forging ahead with the design of the \$1.3-billion Al Khuwair Muscat Downtown and Waterfront Development, a massive project that is set to redefine Muscat's urban landscape.

Spanning 3.3 million sq m in Muscat's northern Al Khuwair district, the project responds to the anticipated rapid growth of the capital both in terms of its resident population and the surge in tourist number. Hence, the masterplan design created by Zaha Hadid Architects (ZHA) will transform this existing administrative and industrial area of Muscat into a vibrant new urban district with an expected population of 64,500, according to the MoHUP.

"This visionary project will bring us another step closer to realising the Oman Vision 2040 and delivering a sustainable and prosperous future for the people of Oman,"

remarks Dr Khalfan Al Shueili, Minister of Housing and Urban Planning. "It will help shape the future of both Muscat and Oman more broadly, creating a new destination to welcome visitors from across the globe to our capital city. We trust this project will serve as an exemplar of our ambition to improve human and environmental well-being and our commitment to collaborate with leading international partners during this period of unparalleled development and growth for our nation."

In line with the project's focus on sustainability and resident well-being, the design incorporates a mix of residential and commercial spaces, including arts, cultural, and leisure facilities, fostering a 24-hour community atmosphere. Green spaces and public areas along the waterfront will feature destination dining, luxury retail, health and wellness amenities, and hotels.

The project is already attracting key partnerships. In an exclusive interview with *Gulf Construction*, Project Manager at Oman's MoHUP Kawther Al Lawati says:

"At present, we are actively engaging in discussions with numerous investors and developers. We are pleased to announce that we have signed an early agreement with the Tawoos Group for the development of a mixed-use building."

The masterplan incorporates five key areas:

- A marina serving residents, visitors, and tourists;
- A recreational waterfront with beaches and sports facilities;
- A canal walkway for leisure and pedestrian access;
- A dedicated cultural quarter; and
- A revamped Ministry Campus integrating existing buildings.

"The four design phases of the project are currently scheduled to be completed within 18 months, concluding with the detailed engineering design phase. Works are due to commence on site at the end of 2024," Al Lawati states.

While restoration of existing ministry buildings is under way, specifics regarding the number of marina berths, cultural quarter components, and other details are still being established. The project is currently in the data collection and analysis phase of the masterplan design, Al Lawati indicates.

MoHUP and ZHA have worked with global engineering, design and advisory

practice Buro Happold to implement a materials strategy with specific interventions to assist with climate and coastal resilience, including mitigating any ‘urban heat island’ effects, stormwater management and breakwaters. It prioritises material reuse, including recycling construction materials and responsible sourcing, and retrofitting and reusing buildings within the ministry campus through a programme of refurbishments.

Throughout the compact and walkable development, Transport-Oriented Development (TOD) principles encourage use of public transportation with good connections to transit services underpinning smart mobility, including light rail transit, bus rapid transit and water taxis. Pedestrian activity is encouraged by introducing passive shading and cooling to the public realm, alongside cycle infrastructure to improve the safety and usability of active transport modes, while capitalising on the carbon savings of minimising private vehicle use.

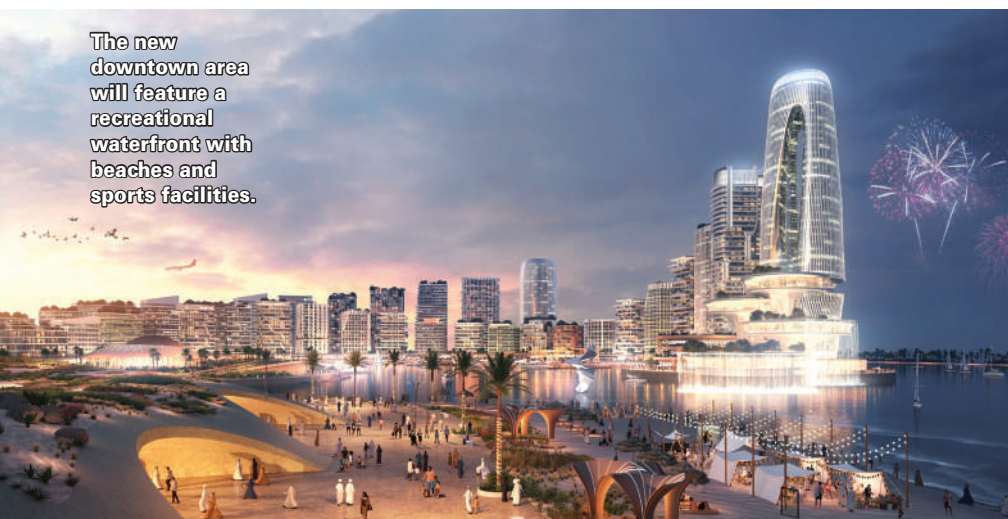
Onsite solar energy will be maximised alongside a passive design strategy to limit energy demand and reduce water use in buildings and landscaping. Additionally, the project is targeting a biodiversity net gain of 10 per cent while conserving and restoring native plant species.

*Excerpts of the interview with Kawther Al Lawati, Project Manager at Oman’s Ministry of Housing and Urban Planning:*

**Please provide a description of the project including location and architectural vision for the overall development.**

The Al Khuwair Downtown and Water-

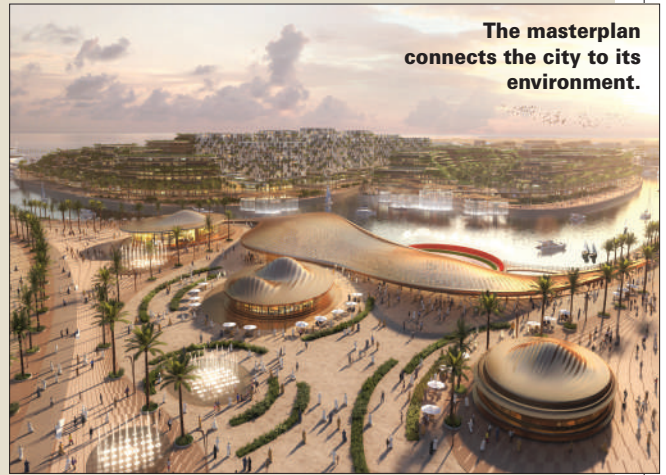
The new downtown area will feature a recreational waterfront with beaches and sports facilities.



# MUSCAT’S RING OF UNITY

IN response to Muscat’s booming population and tourism industry, Zaha Hadid Architects’s design for the transformative Al Khuwair Downtown and Waterfront Development aims to revitalise a 3.3-million-sq-m area in Muscat’s northern district, creating a vibrant new urban centre with a focus on sustainability and resident well-being.

Elaborating on aspects of the design, ZHA Associate Director Paolo Zilli, tells *Gulf Construction*: “The canal carved into the land – creating the reclaimed peninsula – forms a water ring along the coast. The ZHA team refers to this loop as ‘the ring of unity’, which celebrates three significant conjunctions materialising in this part of Muscat. Symbolically, it represents the union between the two distinct and opposite natures of Oman – the alpine and the maritime



The masterplan connects the city to its environment.

– both physically present in the area. Additionally, thanks to the Ministerial Campus, it signifies the bond between the government and the Omani population. Furthermore, (the presence of the) Embassy compound embodies Omani hospitality toward the international community. The overall masterplan’s design, seamlessly woven into the existing city fabric, serves as a link connecting the city to its environment, with sustainability at its core.”

front development in Muscat is centrally located in the northern part of Al Khuwair, across Sultan Qaboos Road. The project aims to revitalise an area of 3.3 million sq m by defining five key areas of the new downtown: a marina, a recreational waterfront lined with beaches and sports facilities, a canal walkway, a cultural quarter and

a ministry campus.

The sustainability-led design prioritises the well-being of residents and visitors, redefining urban living in Oman as Muscat’s population is anticipated to almost double from 1.5 million to 2.7 million inhabitants by 2040. The city is also increasingly popular with international visitors, welcoming over 3 million tourists last year. Responding to this rapid growth, the masterplan design of Zaha Hadid Architects will transform this existing administrative and industrial area of Muscat into a vibrant new urban district with an expected population of 64,500.

Incorporating residential areas alongside extensive mixed-use developments catering to government and commercial businesses, together with arts, culture, and leisure spaces, the district will be a thriving, environmentally resilient and sustainable development with a 24-hour community. Continuing Muscat’s rich tradition as a historic port city, the Al Khuwair development is informed by local culture, with

the marina acting as the cornerstone of the project, catering to residents, visitors, and tourists. It will feature a range of attractions while emphasising green spaces and public realm along the waterfront, including destination dining experiences, luxury retail outlets, health and wellness facilities, hotels, and residential spaces.

The masterplan vision is based on three primary principles: a grid-inspired vision, the Pearl of Muscat (a tribute to the Pearl of Arabia), and acting as a ring of unity for an inclusive coastal hub.

• **Grid inspired vision:** The proposal draws inspiration from the existing urban patterns, utilising a distorted grid that connects the existing streets to the marina and waterfront. Buildings near the city will be compact, promoting shade and intimate social spaces, while coastal buildings will offer breathtaking sea views and optimise natural airflow. This approach honours Oman's rich heritage and creates a dynamic, inviting urban environment.

• **Pearl of Muscat (a tribute):** The masterplan features special buildings scattered within the project paying homage to water, the coastline and pearls, in reference to Oman's nickname as the 'Pearl of Arabia'. Architecture by the waterfront adopts cooler-toned materials, inspired by the ocean's hue and fluid geometries, while inland buildings blend traditional Omani architecture with sandy finishes and warmer colours.

• **A ring of unity for an inclusive coastal hub:** The masterplan aims to integrate existing ministries and embassy buildings, while welcoming a diverse range of users from residents to tourists. The vision is to foster community, openness, and international outreach by creating a symbolic 'ring' that binds everyone. In harmony with Oman's tradition of hospitality, the project will become a focal point symbolising unity amidst diversity.

#### What are the existing buildings that will be restored?

The restoration of existing ministry buildings in the area is under way, with a vision to include them in a new Ministry Campus within the Ministry District.

**Provide details of the marina (number of berths), the recreational waterfront, canal walkway, a cultural quarter and**

## REDUCING CARBON FOOTPRINT

GLOBAL engineering firm Buro Happold is playing a key role in designing a sustainable future for the Al Khuwair Downtown development, working alongside the Ministry of Housing and Urban Planning and lead architects Zaha Hadid

Architects. Its focus is on crafting a climate-resilient and sustainable urban centre.

The firm's strategy prioritises responsible material use throughout the project. "We're exploring the circular use of on-site materials, with the potential to use material generated from the canal excavation for the offshore reclamation," Federico Cassani, Buro Happold's Partner and Director of Transport and Mobility tells *Gulf Construction*. "We are also looking at the opportunity to re-use the concrete armour units from the existing break-



A bird's eye view of Al Khuwair Muscat Downtown development.

water structures within the proposed scheme to reduce the carbon footprint of the marine works. Hard engineered marine structures will be balanced with nature-based solutions to maximise flood protection, whilst achieving ecological enhancements."

"Sustainable and innovative mobility solutions are the backbone of the masterplan. A fine-grained array of mobility solutions, promoting active travel, micromobility and new transit lines will redesign the Downtown as an active, vibrant and non-car-based community," he adds.

#### Ministry Campus.

We are currently in the early stages of the design process. Specific details, including numbers, will be defined in later stages.

#### Apart from Zaha Hadid Architects and Buro Happold, have any other consultants and contractors been appointed?

The main subconsultants Zaha Hadid Architects has appointed are: CBRE – strategic and financial consultant; Land – landscaping consultant; and Streetsense – placeshaping strategy and branding consultant.

#### What is the current status of design work?

The project outlines four design stages. We are currently in Stage One of the masterplan design, which is data collection and analysis. The four design phases of the project are currently scheduled to be completed within 18 months, concluding with the

detailed engineering design phase. Works are due to commence on site at the end of 2024.

#### Is the project being developed in partnership with the private sector? If so, have any partnerships been signed?

At present, we are actively engaging in discussions with numerous investors and developers. We are pleased to announce that we have signed an early agreement with the Tawoos Group for the development of a mixed-use building.

#### What innovative technology is being used in the design and construction of the project?

In addition to BIM (Building Information Modelling) and Digital Twin technology, we plan to incorporate various other programs and tools in the upcoming design stages to enhance project efficiency and effectiveness. ■

# Landmark railway gets greenlight



A construction site of the railway was visited by senior officials of stakeholders.

**P**REPARATORY works have commenced on a landmark railway linking Oman and the UAE, according to Hafeet Rail, which is overseeing the construction of this first-of-its-kind railway network in the sultanate.

A joint venture between Oman Rail and Etihad Rail, Hafeet Rail will operate the railway network linking Sohar Port to the UAE National Rail Network that extends to Abu Dhabi, involving a total project investment of \$3 billion.

This comes following the recent signing of the partnership agreement between the stakeholders – namely Etihad Rail, Oman Rail and Mubadala Investment – and the awarding of major contracts for the project to a UAE-Omani alliance comprising companies from both countries operating as one team.

The contract for the civil work has been awarded to a joint venture led by Trojan Construction Group of the UAE and Galfar Engineering and Contracting of Oman. The alliance will also include Tristar Engineering & Construction (TE&C) and National Infrastructure Construction Company (NICC).

The systems and integration contracts for the railway network have been assigned to a partnership between Siemens and HAC.

The trains will utilise the European Train

Control System (ETCS) Level 2, which is the most advanced system of its kind in the world. This ensures the highest levels of efficiency and safety in accordance with international standards and best practices. Therefore, the network's infrastructure will include full digital train control and tracking through GPS technology, enhancing the network's reliability.

Suhail bin Mohammed Al Mazrouei, the Minister of Energy and Infrastructure, comments: "The Hafeet Rail will connect two Gulf countries and align with the Gulf Railway, embodying a pioneering GCC vision. The project aims to be a fast

and efficient means of connection, reducing car traffic and carbon footprint."

The network is expected to significantly reduce travel distance compared to traditional routes and will enable both freight and passenger transportation.

The railway line extends from the existing network in the UAE, specifically from the Al Wathba area to the city and port of Sohar, passing through diverse geographical areas from desert to mountainous and valley regions, and running alongside Jebel Hafeet, a majestic mountain towering over the UAE-Oman border, which inspires the name of Hafeet Rail.

The passenger rail services will connect population centres, with trains reaching speeds of up to 200 km per hour, covering the distance between Sohar and Abu Dhabi in 100 minutes, and Sohar and Al Ain in 47 minutes. Each train can accommodate up to 400 passengers

The project involves the construction of 60 bridges, some reaching impressive heights of 34 m, alongside tunnels stretching 2.5 km. According to Hafeet Rail, cutting-edge rail technologies will be used and innovative engineering solutions designed to conquer the region's challenging terrain and weather conditions. Safety remains paramount, with the network adhering to the highest international standards, Hafeet Rails ays.

Late last month, the construction site of the railway was visited by senior officials from Oman's Asyad Group – parent company of Oman Rail – and Hafeet Rail's executive management team, along with project contractors and consultants. ■

Read more at [www.gulfconstructiononline.com](http://www.gulfconstructiononline.com)



The site visit showcased key locations where preparatory works are under way.