

A

*Sustainable Architecture that
withstands the test of time.*



ARRAY INTERNATIONAL ARCHITECTS INC.

ARCHITECTS | PLANNERS | DEVELOPMENT CONSULTANTS


CANADA | USA | EGYPT | JORDAN | SAUDI ARABIA

COMPANY'S PROFILE + Operational Model

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WHO WE ARE



Architects
Planners
Development Consultants
Designers
Business Consultants
Project Finance
Construction

Residential and mixed use
Tourism, hotels and recreational
Commercial
Healthcare
Cultural and community
Institution and academic
Interior design
Master planning and urban design
Landscape and Site Planning
Transportation and Public Transit

Array International Architects Inc. is a Canadian Firm of Architects, Planners and Development Consultants, with associates and affiliated offices providing services to various parts of the world. Since 1984 we have been committed to serving our clients across the globe.

Our core principles: **integrity, creativity, excellence, and passion** are our foundation. We approach projects with the best and most strategic approach to ensure design excellence, quality service and experience for our clients. Creating progressive, profitable, sustainable designs using innovative, green, and modern construction methods that create projects that withstand the test of time.

We have been involved in a wide variety of projects, some of which have received awards and recognition. Our vision is one that transcends nations and focuses on the unity of the world as people, our understanding of communities and cities allows us to continuously come up with designs that enhance our cities in every element.

Array International Architects Inc. offers a wide variety of services, with clean and ecological practices involved in each. Our Mission is to provide a humanistic architecture that is well related to its surrounding area. Character, quality and functional requirements of the client and the end user are essential ingredients that give rise to form, planning, and choice of materials. In order to do so we also provide Design Build Finance services to ensure optimal project success.

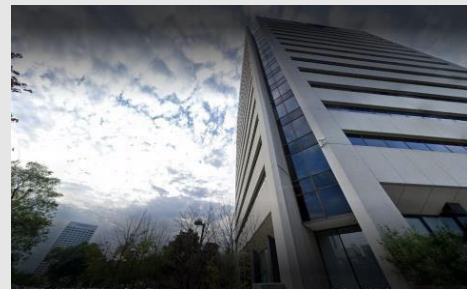
When implemented, not only our landscape changes but it changes how we interact with spaces and people, to ultimately promotes a happier, healthier way of life.

OFFICES

Array International Architects Inc. has an international design team of more than 170 Architects in Canada, USA, Egypt, Jordan and Saudi Arabia.

5 Offices Worldwide
170 Staff Members

40 Years of Experience
30 Years in the Middle East



Main Office in Toronto, ON, Canada



CANADA | USA | EGYPT | JORDAN | SAUDI ARABIA

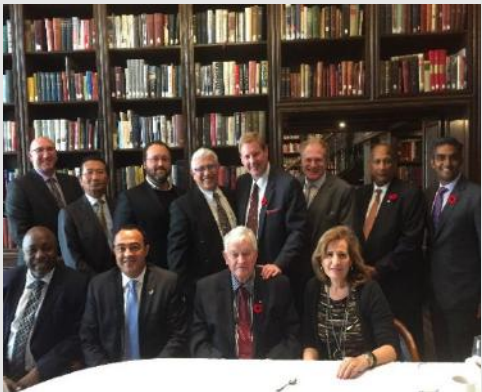
Owner's Information

LEAD CONSULTANT

Array International Architects Inc. was founded in 1984 by Architect NED ALLAM who chairs Array's board to this day. With over 40 years of both national and international experience, the firm has expanded the design team to service Canada, USA, Jordan, Egypt, and Saudi Arabia.

Array International Architects is one of Canada's leading architectural firms that is known for its multi disciplinary approach to Architecture and Urban Planning , enabling Array to do its projects in an innovative contextual approach.

Array's International experience, particularly in the Middle East, made us a diverse and multicultural team where we are creative and able to react swiftly, and communicate effectively and able to offer our clients efficient and decisive project designs.



Our core principles: “integrity, creativity, and excellence, are our foundation.”

-NED ALLAM



ASSOCIATIONS

MEMBERSHIPS

- The Royal Architectural Institute of Canada (RAIC)
- The Ontario Association of Architects (OAA)
- The American Institute of Architects (AIA)
- OAA Committee on the Environment (COTE)
- International Association of Amusement Parks & Attractions (IAAPA)
- Association of Registered Interior Designers of Ontario (ARIDO)
- Royal Ontario Museum (ROM)
- The Board of Trade of Metropolitan Toronto
- Canadian Federation of Independent Business (CFIB)
- Project Management Professional (PMP), Project Management Institute (PMI)
- Leadership in Energy and Environmental Design (LEED AP), US Green Building Council (USGBC)



CLIENTS

- The American University in Cairo (AUC)
- Bank of Canada (RDH)
- Barrier Free Design Centre, Toronto
- Bell Canada
- Cadillac Fairview
- Cambridge Shopping Centres Inc.
- Canadian Imperial Bank of Commerce (CIBC)
- City of North York Hydro (RDH)
- Crystal Beach Resort, Ontario
- Defense Canada
- Dreamland Developments, Egypt
- Egyptian Government Organization for Tourism & Hotels (PPAL)
- Egyptian National Railways (RDH)
- El Chark Insurance Company (ADC)
- First Canadian Place (O&Y Developments)
- Forrec Ltd.
- Half Moon Bay Hotel, Antigua (HNJ)
- Ministry of Urban Planning
- PI Hotels
- Royal Commission for Jubail & Yanbu
- SGI Culture Centre, Toronto
- SGI Culture Centre, Montreal
- SGI Centre for Culture & Education
- Sports Training & Rehabilitation Centre (BMW)
- Southern Pacific Properties (PPAL)
- Toronto Terminal Railways (RDH)
- Trilea Centres Inc.
- Women's College Hospital (RDH)
- University of Toronto
- 786 Indopak Inc.
- Shahin Motors
- Sunsplash
- Awan Group Developers
- Elements Toronto
- Lube Express
- Doha Airport
- Province of Ontario
- Defense Canada Construction
- Government of Qatar
- Government of Iraq
- Government of Saudi Arabia
- Government of Egypt
- Government of Oman

OUR EXPERTISE



PLANNING & ARCHITECTURE

Site Selection
Development Consulting
Master Planning
Urban Planning
Town Planning
Project Master Planning
Rezoning
Official Plan Amendments
Architectural Design
Design for Sustainability
Heritage Planning & Conservation
Restoration & Renovation
Visual Impact Assessment
Development Guidelines
Analysis & Program Development
Facility Evaluation & Planning
Subdivision Planning
Security Buildings Design
Landscape Design
Traffic Consulting
+ More



DEVELOPMENT CONSULTING

Market Research & Assessments
Identify Project Approach
Project Assessments
Investor Packages
Feasibility Studies
Consulting (General & Various)
Mega Developments
+ More



CONSTRUCTION

Project Management
Construction Strategy Planning
Construction Administration
Engineering Coordination
Scheduling & Logistics Planning
Operation & Maintenance Consulting
Design – Build Project Delivery Method
Integrated Project Delivery (IPD) Method
Construction
+ More

FINANCE FACILITATION

Equity Partnership
Pre-Sales Construction
Finance Investors
+ More



ADDITIONAL CONSULTANTS & SERVICES

Additional Consultants are selected based on project requirements when and if needed, to be determined. Array partners with various global consultants on a project-by-project basis to accomplish project requirements and objectives.

EXPERIENCE

PROJECT TYPOLOGIES

Array Architects is specialized in the design of architecture that is innovative, functional, beautiful and sensitive to the community it serves. Over the years Array Architects has developed a reputation for being specialists in the design of many building types and has had the privilege of working on a wide range of high-profile projects across all sectors for many governmental and reputable private clients.

- Residential and mixed use
- Tourism, hotels and recreational
- Commercial
- Healthcare
- Cultural and community
- Institution and academic
- Interior Design
- Master planning and urban design
 - Landscape and Site Planning
 - Transportation and Public Transit



Cultural and community



Commercial



Institution and academic



Healthcare



Residential and mixed-use



Tourism, hotels and recreational



Interior Design



Master planning and urban design

MASTER PLANNING & DESIGN

We are proud to introduce ourselves as Architects, engineers, Planners and Project Development Consultants that have been in business since 1989.

Over the past 25 years, we have continuously grown and advanced integrating all aspects of professional practice. We now provide not only Architectural Design, for individual buildings and complexes, but we also include extensive Urban Planning and Design of Eco Systems and environmentally friendly projects for sustainability.

The Principals in our Group:

Architecture over 35 years of experience

Urban Planning and Project Management 40

Structural and Engineering 35

Landscape 30

Ecological and Biological Design 35

Our team includes, Architects, Planners, Engineers and Designers with diverse backgrounds.



MASTER PLANNING & DESIGN

We have designed over 100 projects for various types of housing from high-end single-family residences to multi-story and mix-used buildings. Our current emphasis is on sustainability and incorporating various “green” technology techniques into our projects, to save our future. This is being well received by both clients and municipal authorities.

In addition to our Urban Planning, Residential and Mixed-Use work, we have designed offices, both professional and medical, industrial buildings and various specialty and Institutional buildings, as well as places of worship and schools for various groups.

Our overseas Master Planning work in large urban centres includes a major Theme Park in Egypt, which was the focal point of a 2,200 acres mixed use development, and new city of 24,000 people in Saudi Arabia. The Saudi city incorporates a biological component which will enable an oasis of tropical green vegetation and trees to be the focus of the design, together with a self-sustaining wastewater and irrigation system.



DESIGN APPROACH & PHILOSOPHY

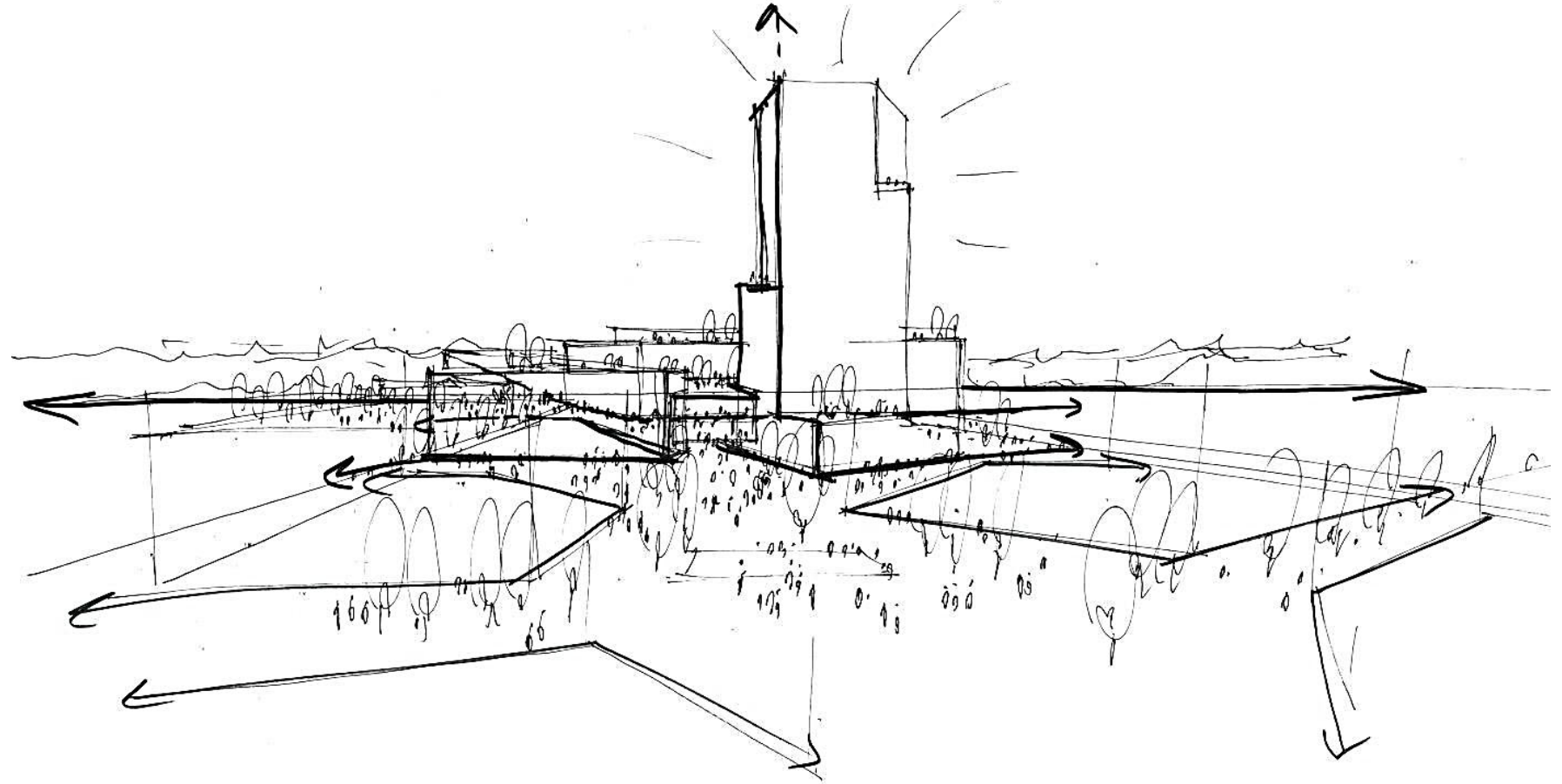
Our Mission is to provide a humanistic architecture that is well related to its surrounding area. Character, quality and functional requirements of the clients and the end users are essential ingredients that give rise to form, planning, and choice of materials.

Hierarchy of spaces and a balance of open and closed spaces, while maintaining visual interest, are essential planning design ingredients.

Contrast with light, texture, the marriage of interior and exterior spaces, along with good details, are characteristics of our work.

We believe that modernism, originality, as well as respect for heritage and local tradition, are equally important parts of the language of architecture.

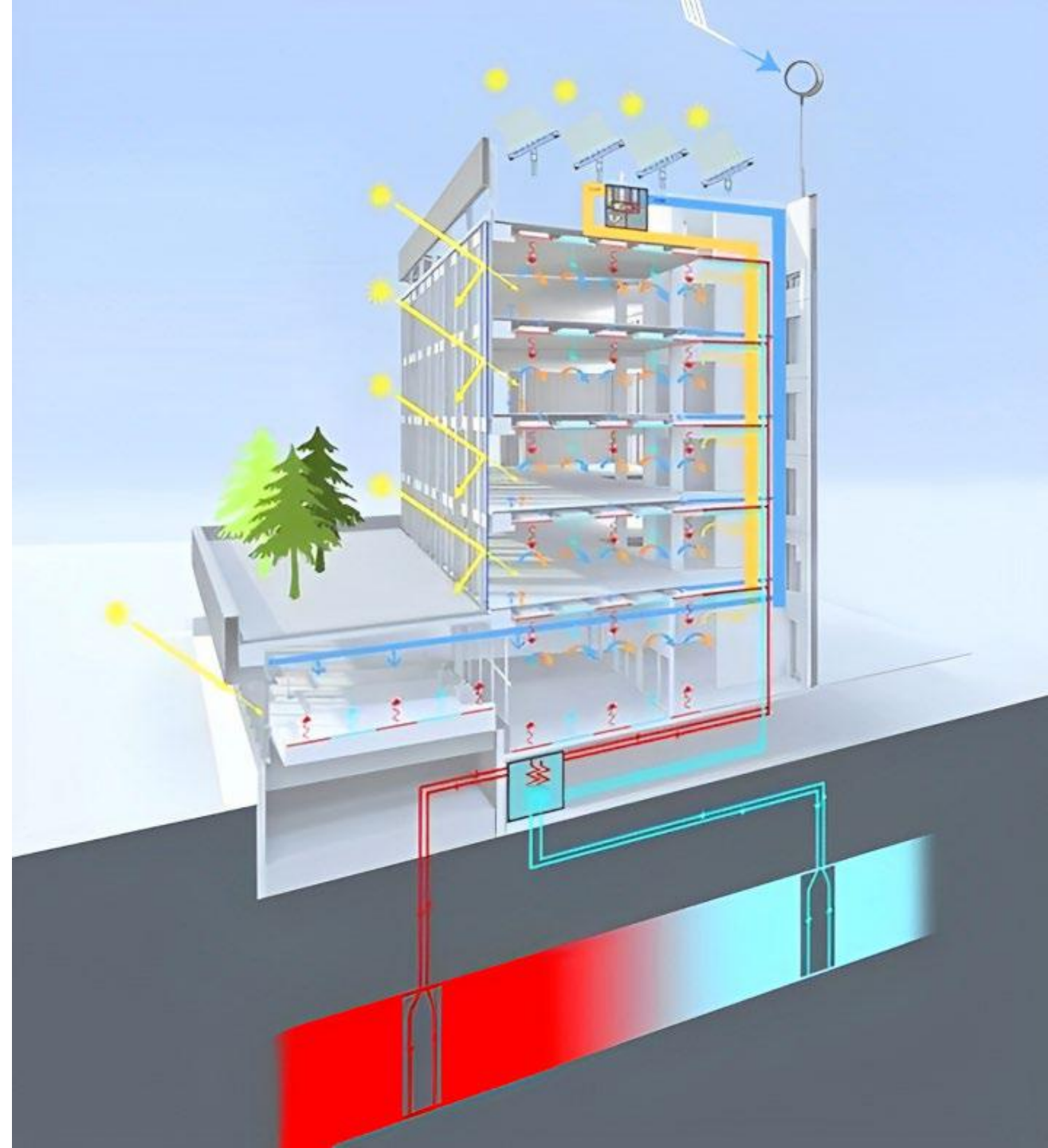
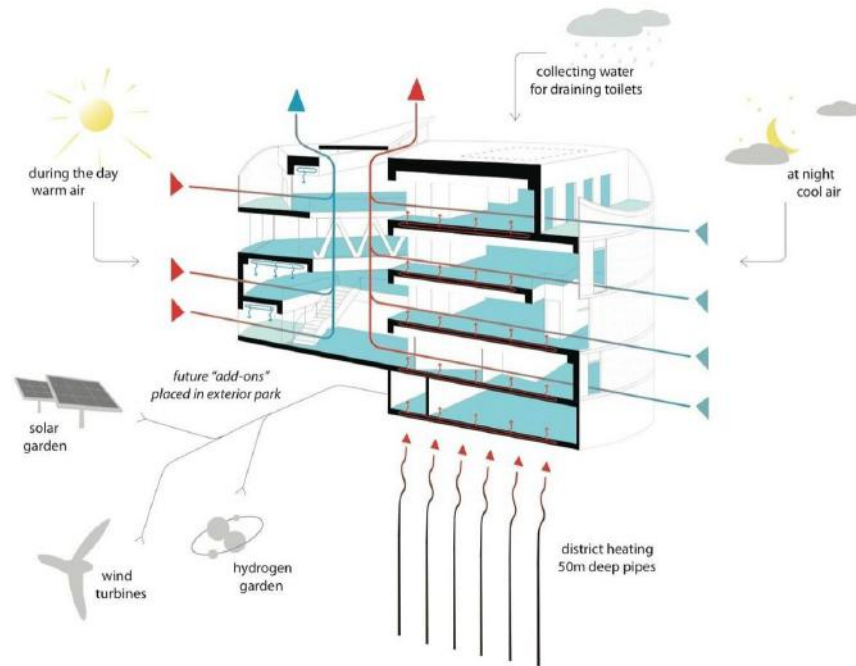
These ingredients, combined with simplicity, practicality and good economic sense, together give birth to ... "Sustainable development that withstands the test of time."



SUSTAINABLE LIVING

Array has, over the years developed sustainable approaches to Development Projects and building design, tailored to suit various environments and climates. This includes:

- Water supply reuse and wastewater management approaches
- Renewable energy
- Smart Building and Control Systems
- Sustainable Building Technologies and Prefabrication Systems
- Economic sustainability, Carbon Credits and Incentives Programs
- Community and Social Health and Welfare through design



URBAN DESIGN & ENGINEERING INTEGRATION

As part of our search for self sustaining Neighborhood and Master Plan Infrastructure Design, we have developed a drainage system using a proprietary localized wastewater treatment system. This will enable us to design inner city blocks or new subdivisions independent of traditional wastewater treatment plants, served by long and expensive pipe systems. Each Neighborhood or Planning area can treat its own wastewater. The treated water is then distributed in channels for irrigation to create a lush, beautiful local environment, where it will be a pleasure to live or work. The water can be further treated for human consumption. Because there is no expenditure on massive infrastructure for wastewater treatment, our approach is not only economical, but enables each Neighborhood or Master Plan area to be built independently, at a time which suits the owners of the property. We bring to new projects:

- A team approach to our designs, including architectural and interior design, urban design and planning, infrastructure design, structural design and project management.
- A self-sustaining biological component to bring trees and living vegetation to inner cities
- Whole project thinking and management, from design to construction
- Designs which are an amalgam of Urban Contextual thinking as well as an understanding and sensitivity to an end user needs and aspirations.



PROJECT PLANNING

Work Planning

Step-1

Create a preliminary project outline and context

Step-2

Establish Multidisciplinary Team Members

Step-3

Establish Client approved Project Outline

Step-4

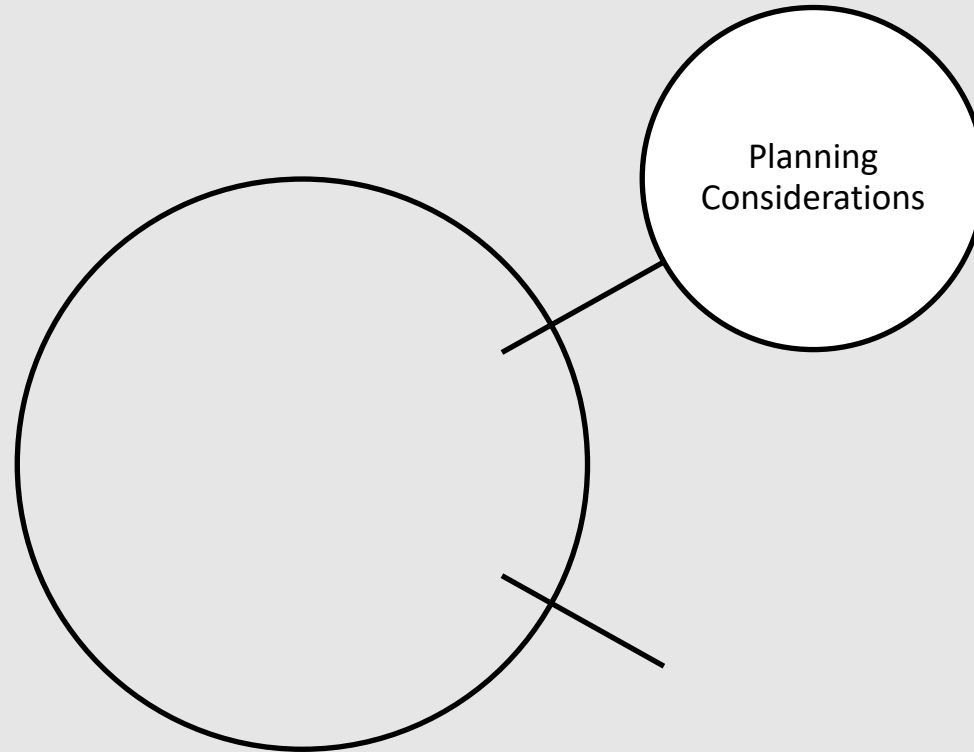
Establish the Work Plan

Step-5

Detailed Work Plan

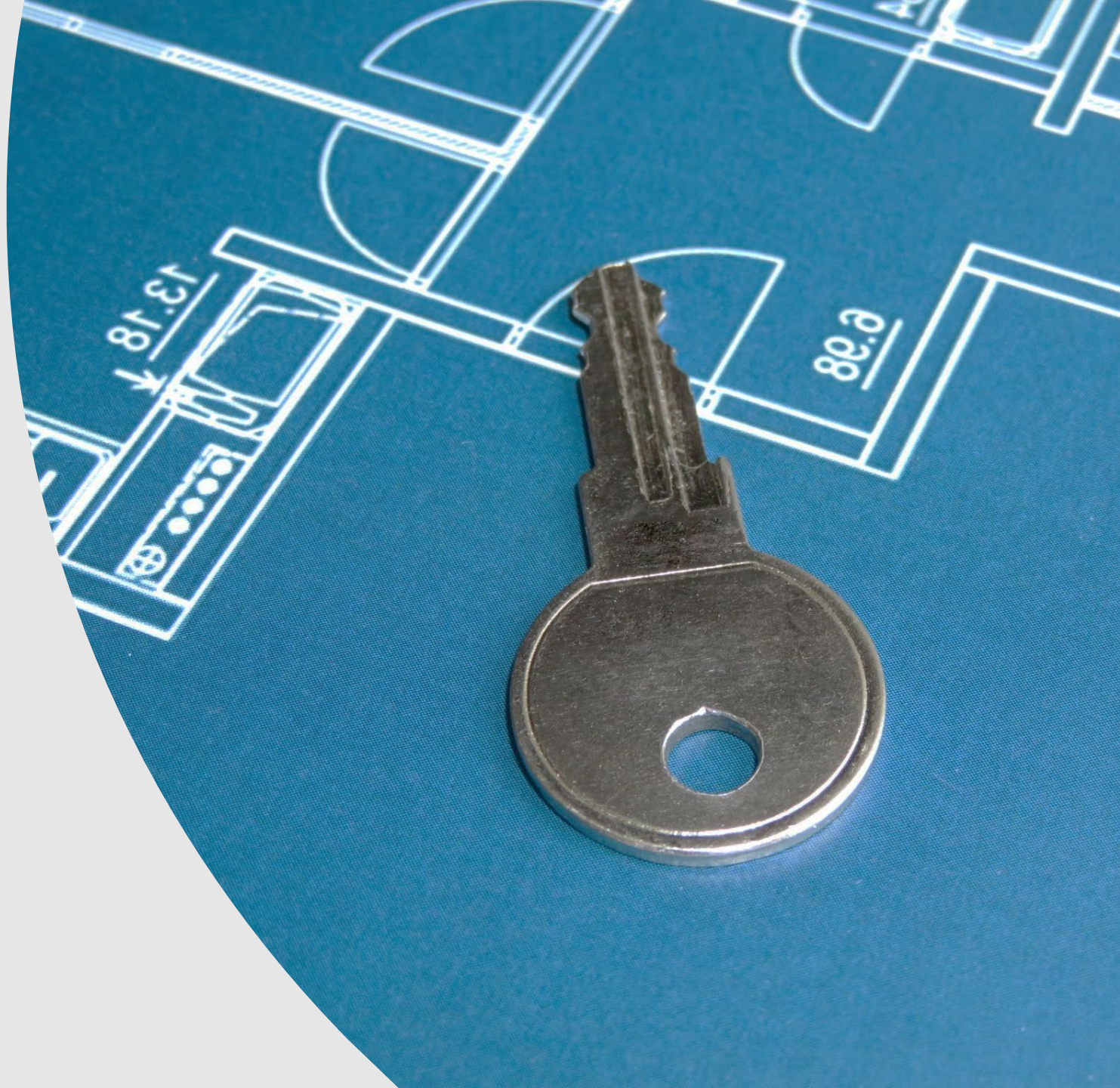


PROJECT APPROACH



KEY PROJECT DELIVERY TOOLS

- 1) *BIM usage throughout various stages of the project*
 - 2) *Passive environmental design and energy conservation*
 - 3) *Proactive technology environmental design energy conservation*
 - 4) *Construction detailing including appropriate selection of construction methods*
 - 5) *Project budgeting and cost control*
 - 6) *Lifecycle Costing*
 - 7) *Construction stage project delivery approaches*
- ***Conventional methods CCDC approach***
 - ***Construction management delivery approach***
 - ***Integrated project delivery approach IPD***





IPD could save 10 to 15% of construction cost and 15 to 20% on delivery time



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KEY PROJECTS
HIGH RISE, MIXED USE

TOWER STUDIES

Dubai, UAE

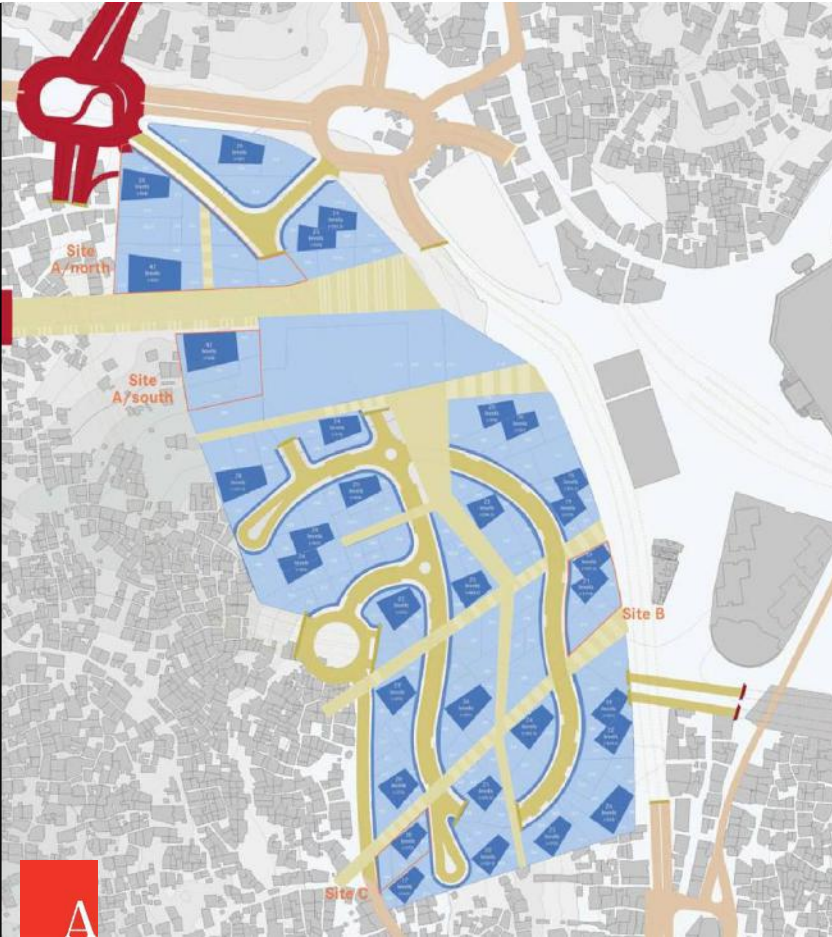
Designed by Ajon Moriyama / MTA

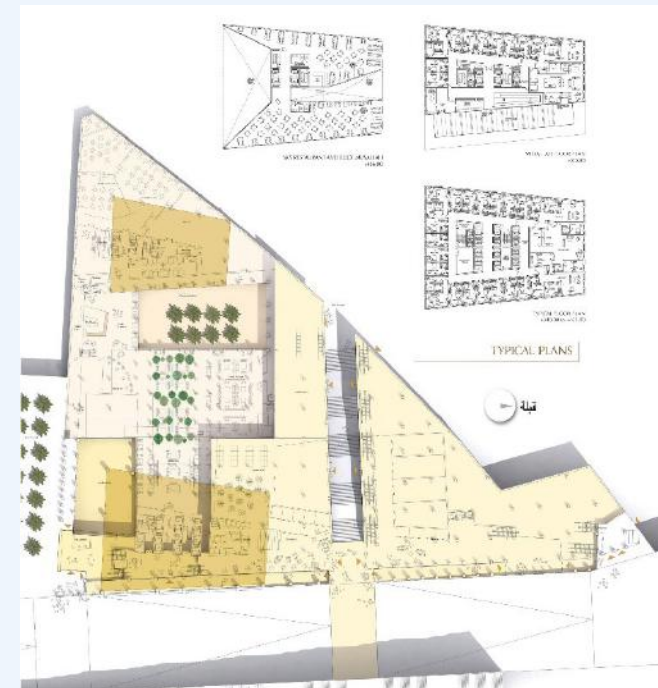


JABAL OMAR DEVELOPMENT

Mecca, Saudi Arabia
Designed by Ajon Moriyama at MTA

- Create the gateway to Mecca
- 3,000,000sf of development
- Prototypes for: 5 star hotels, condos and retail
- Design to the highest level of environmental building performance
- Include prayer spaces





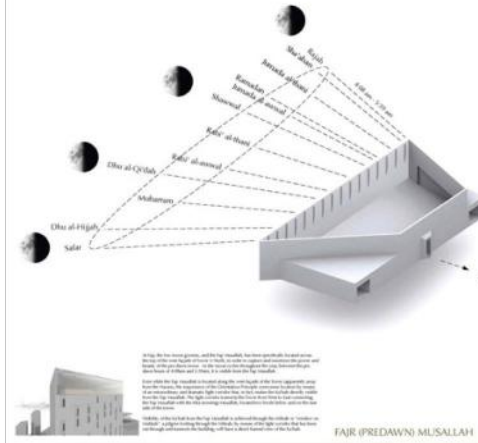
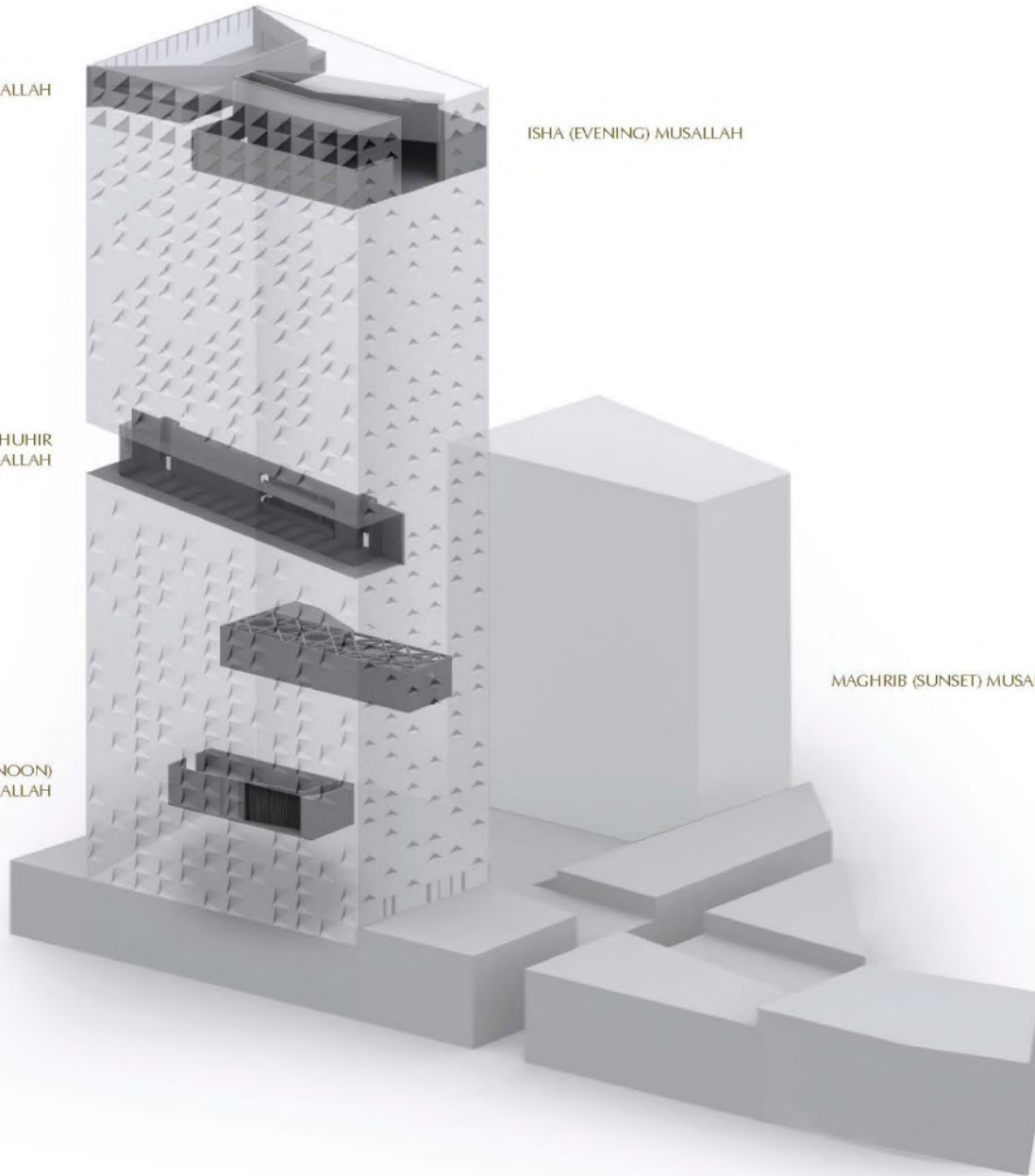
FAJR (PREDAWN) MUSALLAH

ISHA (EVENING) MUSALLAH

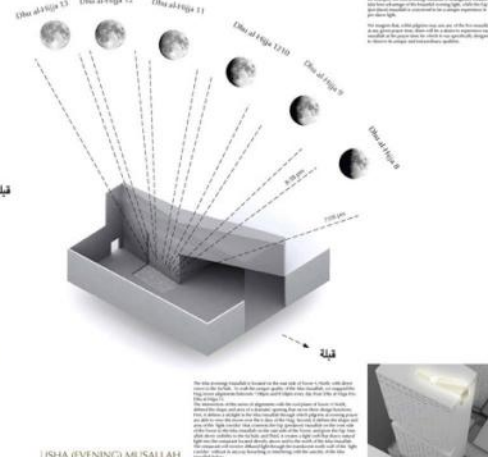
DHUHIR (EARLY AFTERNOON) MUSALLAH

MAGHRIB (SUNSET) MUSALLAH

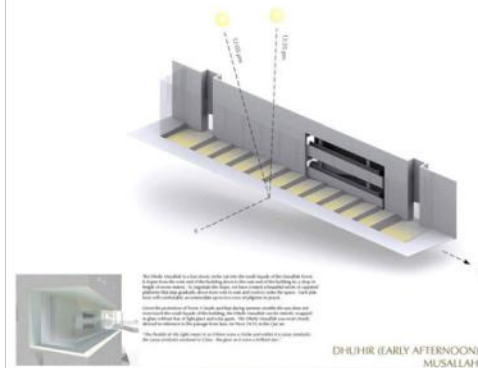
'ASR (LATE AFTERNOON) MUSALLAH



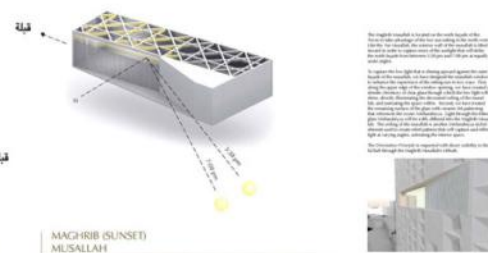
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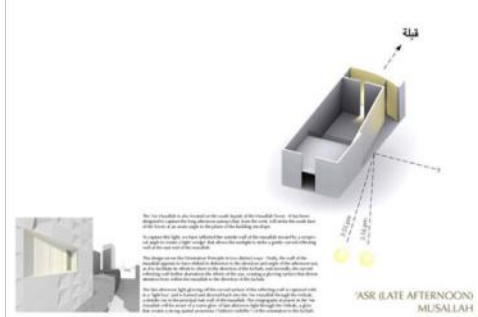
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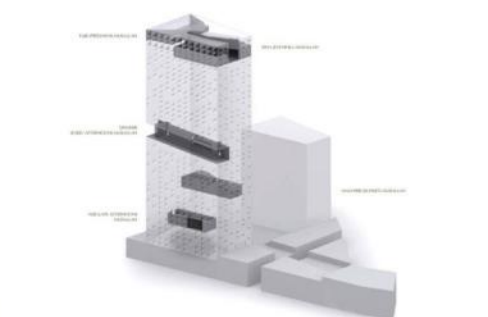
DHUHIR (EARLY AFTERNOON) MUSALLAH



MAGHRIB (SUNSET) MUSALLAH



'ASR (LATE AFTERNOON) MUSALLAH



UTILIZATION - MUSALLAHS

During the month of Ramadan, the mosque is used for prayer and other activities. The mosque is a place of worship and a place of community. The mosque is a place of learning and a place of growth. The mosque is a place of hope and a place of faith. The mosque is a place of love and a place of peace. The mosque is a place of unity and a place of strength. The mosque is a place of justice and a place of equity. The mosque is a place of compassion and a place of mercy. The mosque is a place of kindness and a place of generosity. The mosque is a place of humility and a place of modesty. The mosque is a place of patience and a place of perseverance. The mosque is a place of courage and a place of bravery. The mosque is a place of honor and a place of respect. The mosque is a place of dignity and a place of pride. The mosque is a place of honor and a place of respect. The mosque is a place of dignity and a place of pride. The mosque is a place of honor and a place of respect. The mosque is a place of dignity and a place of pride.

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875 KINGSTON RD

PICKERING, ON, CANADA

Client: Private
Category: Sustainable, Residential Mixed-Use
Area: 5.74 Acres

Sustainable Residential Mixed Use Development, recognized by the City of Pickering and Internationally for its sustainable design approach.

Origin

The property is an inconspicuous parcel of land sloping from Kingston Road towards Highway 401. The property failed a number of attempts in the past to develop it into a strip plaza. Working closely with the Municipality's planning department, we examined the official plan, the zoning by-laws, and the design guidelines that they had developed for the area, we realized that is actually a wonderful opportunity for a developer with an open mind.

The proposal was made for a mixed-use development, as a 10 storey 200-unit residential development, with a commercial and recreational mixed-use development.

The site is at an excellent location in the town of Pickering in close proximity to the GO Train, allowing residents to be in downtown Toronto in just 20 minutes. This unique location presented us with an opportunity to develop both the front and back end of the property, which will now become part of the characteristic skyline of Pickering as you drive along Hwy 401 and Kingston Road.

Green Roof System



WATER EFFICIENCY:
- Minimize storm water run off.
- filters water from pollutants.

ENERGY CONSUMPTION:
- Acts as roof top thermal insulation.
- Deflects solar radiation.
- Cools the Air above roof.

MATERIALS AND RESOURCES:
- Protects roof membranes from ironing caused by temperature instability.
- Sound insulation

ENVIRONMENT:
- reduction of air pollution including greenhouse gases
- Oxygen production
- Increased biodiversity
- Contributes to the Aesthetics of the City

Solar Energy System



ENERGY CONSUMPTION:
- Reduces the cost of power consumption.

ENVIRONMENT:
- reduces pollution caused by conventional power generation methods.

Azure Low-E Glass



ENERGY CONSUMPTION:
- Allows for natural day lighting.
- Reflects UV and Solar Heat



InvisibleStructure Paving System



WATER EFFICIENCY:
- Minimize storm water run off.
- filters water from pollutants.
- Allows for recycling grey water.



Sustainable Smart Development

The project is designed to have a soft footprint on the environment. With environmentally friendly features, including green roofs, water conservation, storm water management measures. Also having energy conservation technology and the use of solar energy for power generation offering a reduction of about 15% is electrical cost. And the geothermal system for heating and cooling. Reducing heating and cooling cost by up to 40% over traditional systems and with today's energy costs this feature offers a great alternative lifestyle.

Array's mixed use concept also reduces the impact of vehicular dependency. On the ground floor of the development there is a commercial indoor plaza/shopping mall, a very attractive community space in which residents can fulfill many of their immediate needs ,without using their cars. Commercial space is available for people who want to have an office within their home building, but not necessarily right inside their personal living space. Residents can commute to the second floor where they will find beautiful and modern office suites outfitted with the latest technology, in step with today's information age. There is also a fitness center, and on the top floor there is a common party room that opens not o the green roof garden. This provides people with additional living space.

Stunning Views

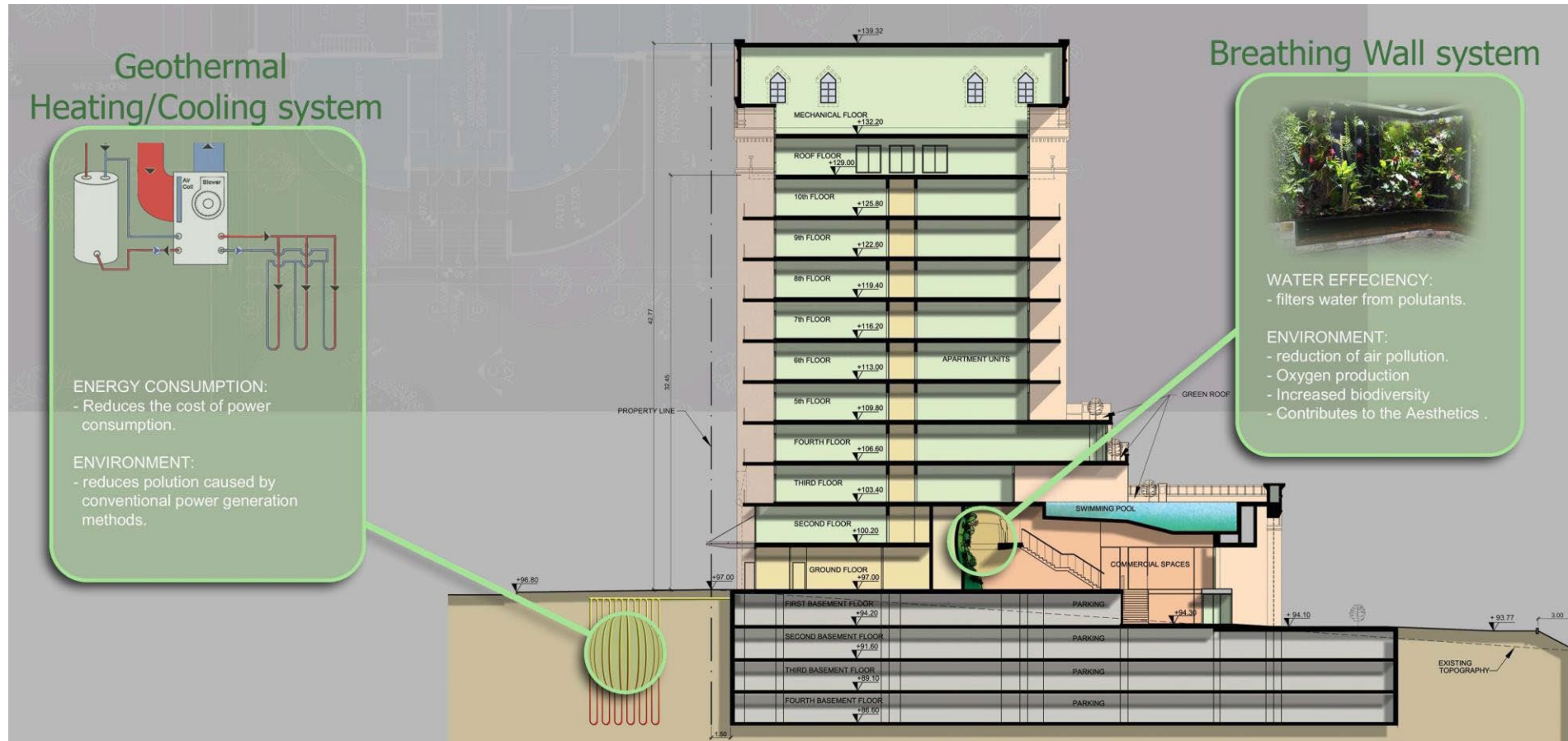
The overall design is based on a green terrace concept, stepping down towards the rear of the property, which faces Highway 401. The commercial component on the first two floors and two levels of the parking structure backing onto 401 offer a mass that forms a buffer for noise and allow the residential portions to be at a higher level. This leaves residents to enjoy stunning views of the Lake Ontario and Frenchman's Bay shoreline to the south and the rolling landscapes of the Oak Ridges Moraine to the north.

The project unanimously approved by Municipal Council. We received wonderful words of commendation and encouragement from the Mayor and from Councillors, and we really appreciate and enjoy working together with the municipality and their staff. In brief, this project has been success stories. We are working together with a very happy client to realize a final product that will ultimately benefit the end users and community.

Higher Returns

Residents higher up on this property will have views of Frenchman's Bay and Lake Ontario. For that reason we felt it was important to go to a higher density to share these views with more residents, and to yield a higher return for the development. This allowed us to persuade our client to develop a sustainable scenario for the development which was met with enthusiastic and unanimous approval of this project by the municipality.

The Principals serving the Town of Pickering is very keen on reinventing and transforming itself into a sustainable community. This topic is a favourite with Array with one of the Steering Committee for the Environment of the OAA (Ontario Association of Architects), as one of the initiators of the sustainable development concept, we have eagerly anticipated the opportunity to work with a developer with an open mind to this subject.



CONCEPTUAL EXPRESSION

Designed by Ajon Moriyama with Peter Vishnovsky



DESMARAIS MULTI-DISCIPLINARY BUILDING

UNI. OF OTTAWA, ONTARIO

Designed by Ajon Moriyama / MTA



PROGRESS AVENUE DEVELOPMENT

SCARBOROUGH, ONTARIO
Designed by Ajon Moriyama / MTA



GEORGE VARI ENGINEERING & COMPUTING CENTRE

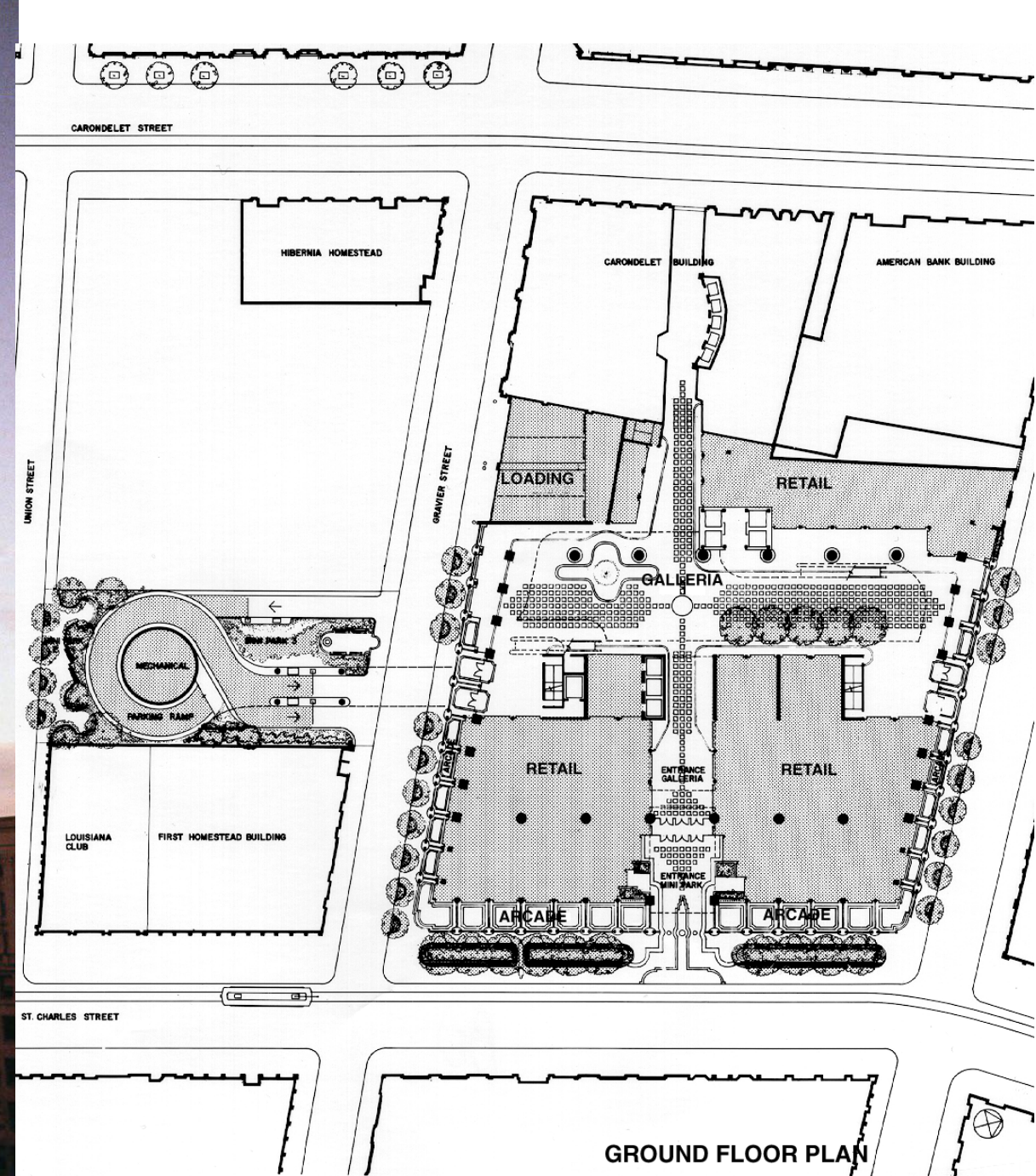
RYERSON UNI., TORONTO, ONTARIO
Designed by Ajon Moriyama / MTA

Client – Ryerson University
Size of project- 260,000 sf
Value- \$ 52 MILLION



PLACE ST. CHARLES

NEW ORLEANS, LOUISIANA, USA
Designed by Ajon Moriyama / MTA



GROUND FLOOR PLAN



CANADIAN EMBASSY RESIDENCY & RECREATIONAL CENTRE

TOKYO, JAPAN

Designed by Ajon Moriyama / MTA



BROCK UNIVERSITY

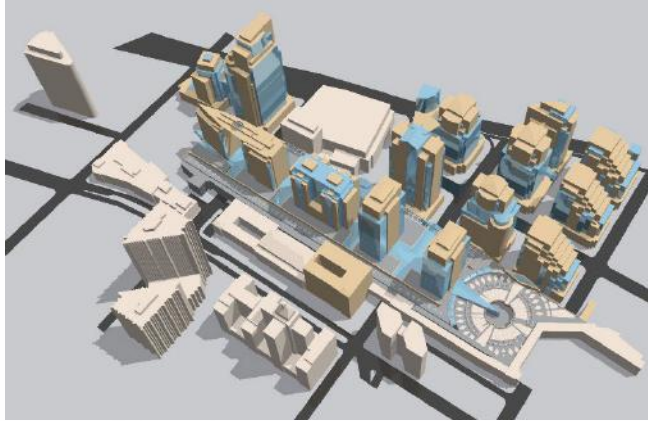
ST. CATHERINES, ON

Designed by Ajon Moriyama / MTA



INTERNATIONAL COLLABORATIONS

Designed by G.S. Dan Voicu



KEY PROJECTS

Major Transportation Facilities - Airports
Toronto, Kenya, Barbados, Oman, Nova Scotia

7+ Various International and Local Airports (\$100 mill +)

Palaces, Hotels, High-Rise, Recreational, Commercial
Toronto, Burlington, Qatar, UAE, Panama, Austria, Romania

Various Hotels, VIP Lounges, Shopping Centers (\$100 mill +)

MIXED USE DEVELOPMENT

Plots H1a & H1b

SINGAPORE

Design Gabriel Oproescu



10 SOUTH LASALLE

CHICAGO, ILLINOIS, USA

Designed by Ajon Moriyama / MTA



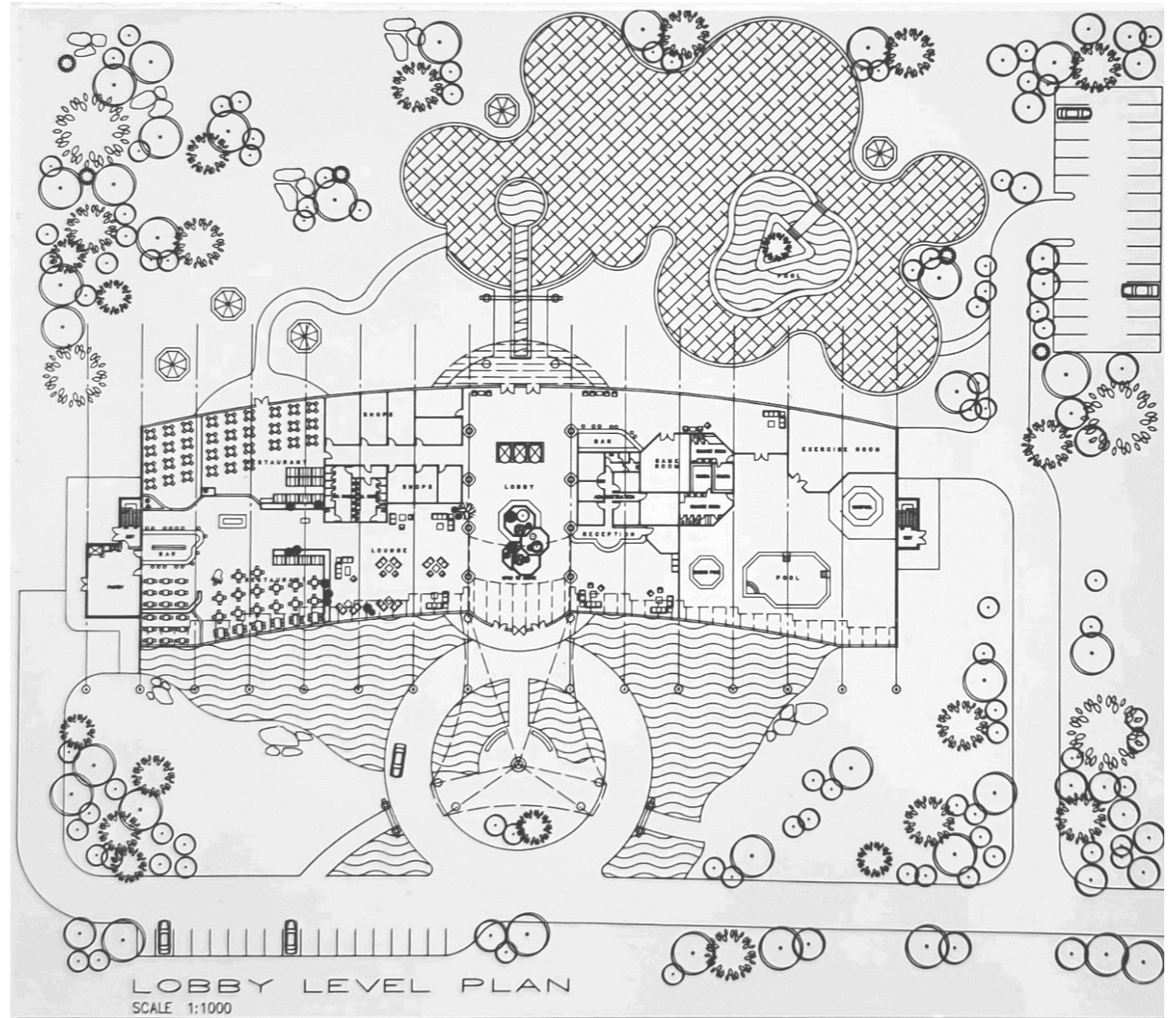


KEY PROJECTS
HEALTHCARE & HOSPITALITY

CRYSTAL BEACH HOTEL

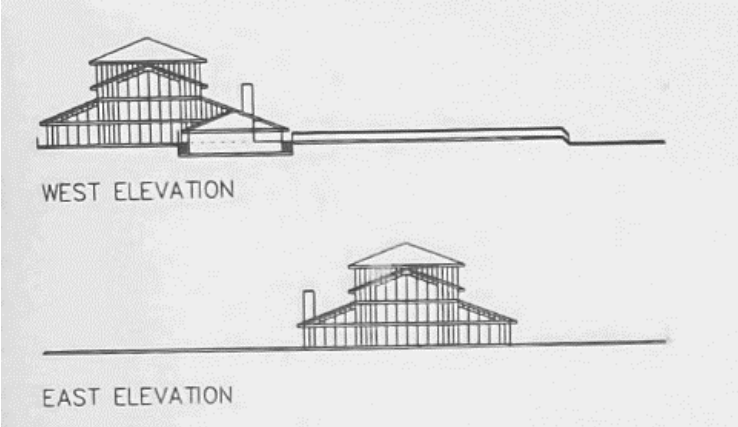
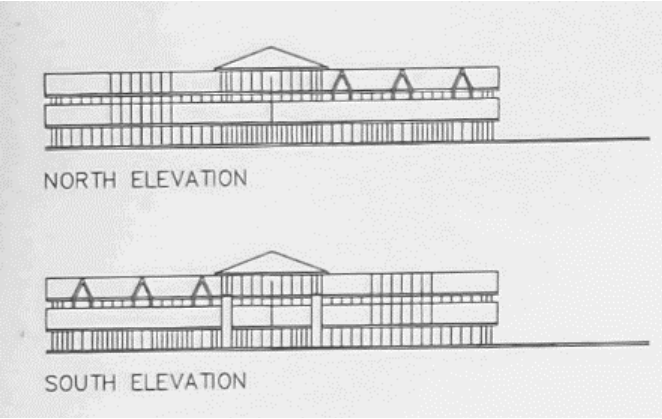
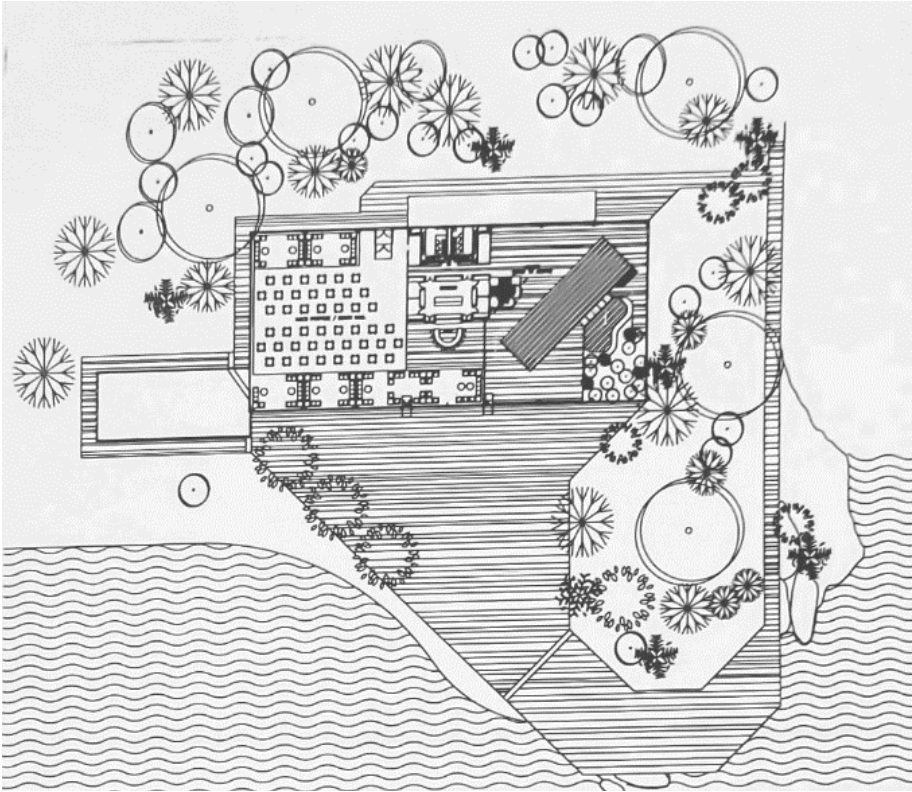
ONTARIO, CANADA

LOBBY LEVEL PLAN



PROPOSED CLUB HOUSE ADDITION

CRYSTAL BEACH
ONTARIO, CANADA



HALF MOON BAY

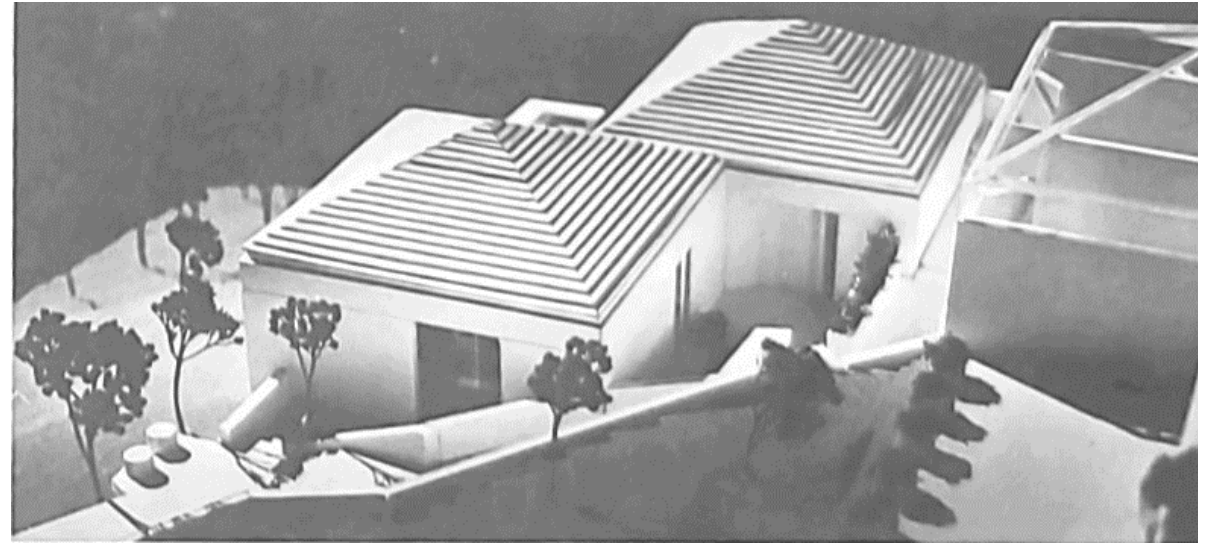
ANTIGUA., WEST INDIES

The office of Hugh Newell Jacobsen has designed a forty-room addition to the existing hotel at Half Moon Bay, seventy-five condominium houses and produced a master plan encompassing the above projects as well as a cultural and convention center, discotheque, and supper club. The seventy-five houses are arranged in a pedestrian hill town on the side of the mountain overlooking the sea each house has two bedrooms. Three baths, living room, and kitchen each commanding an independent view of the sea, individual private gardens and patios connect houses to a winding pedestrian street a 'Hilltown' atmosphere a complete visual package of graphics signs, uniforms and accessories has been designed.

Completed analysis of all utilities required to serve the entire developed site was worked out by this office with the firm of Dubin Mindell, Bloome Associates of New York. The remodeling of the present sixty room hotel has been completed the work on hotel addition is now in progress.

Consultants: Mechanical – Dubin, Mindell, Bloome Associates, New York

Structural – KRAAS & MOK, Washington, D.C.



TIDESFALL

COLUMBIA, MD

AWARDS:

Award for Excellence in Architecture, Metropolitan Board of Trade 1971

Merit Award, American Institute of Architects, Middle Atlantic Regional Conference 1971

Award in Excellence in Apartment Design, Architectural Record 1971

PUBLISHED:

Architectural Record 5, 71 P. 92-3

New York Times 12.26.71 P. 18

New York Times Sunday Magazine 1.10.71 PP. 68-69

Washington Evening Star 11.19.71

Washington Post 9.6.69. 2.14.71. 3.8.71.



VEST RESIDENCE

ST.CROIX, VIRGIN ISLANDS

AWARD:

First honor Award, American Institute of Architects with American Home and House and Home – Homes for Better Living Program 1972

PUBLISHED:

House and Garden 12.71

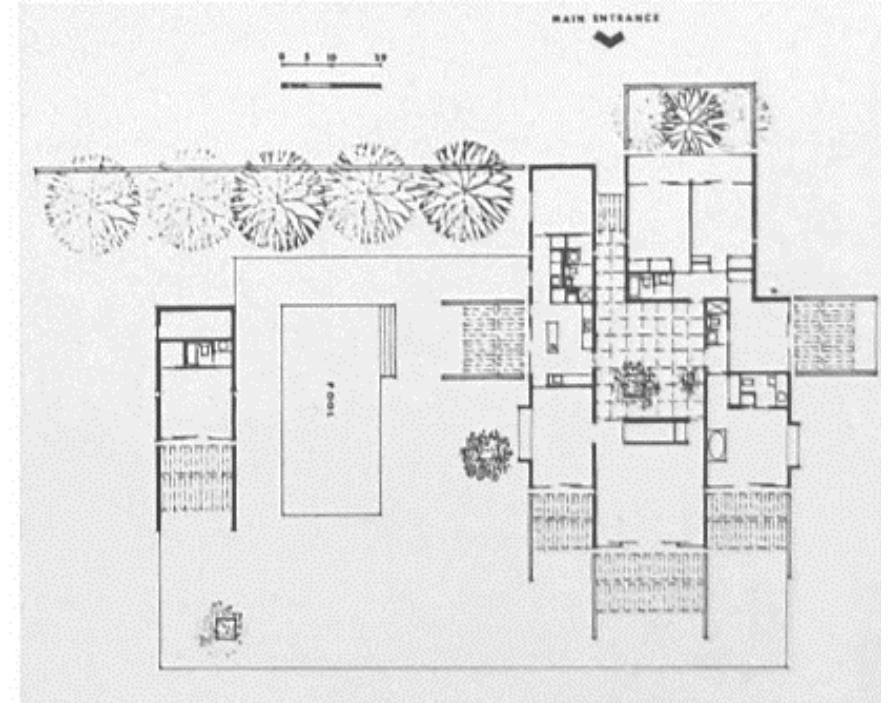
House and Garden British Edition 4.72

House and Home 6.72

Casa Yogue 7.72 PP. 36-39

Washington Post 7.9.72

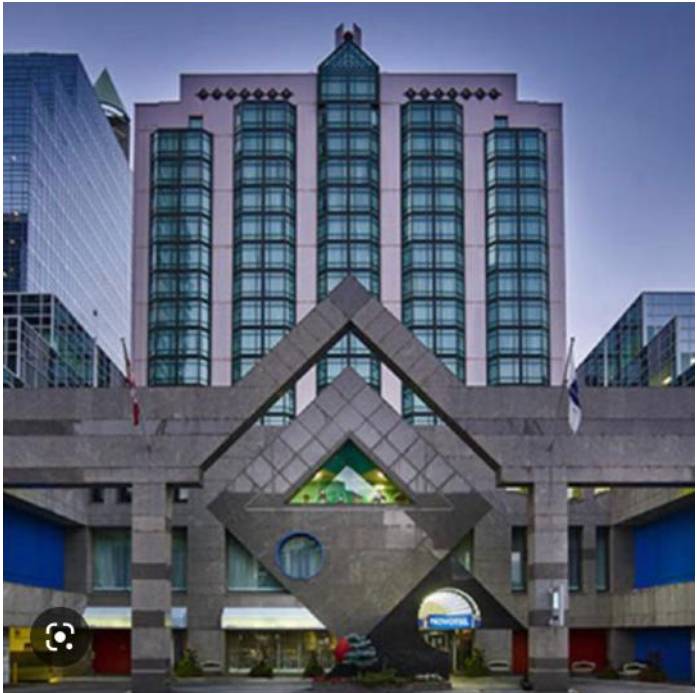
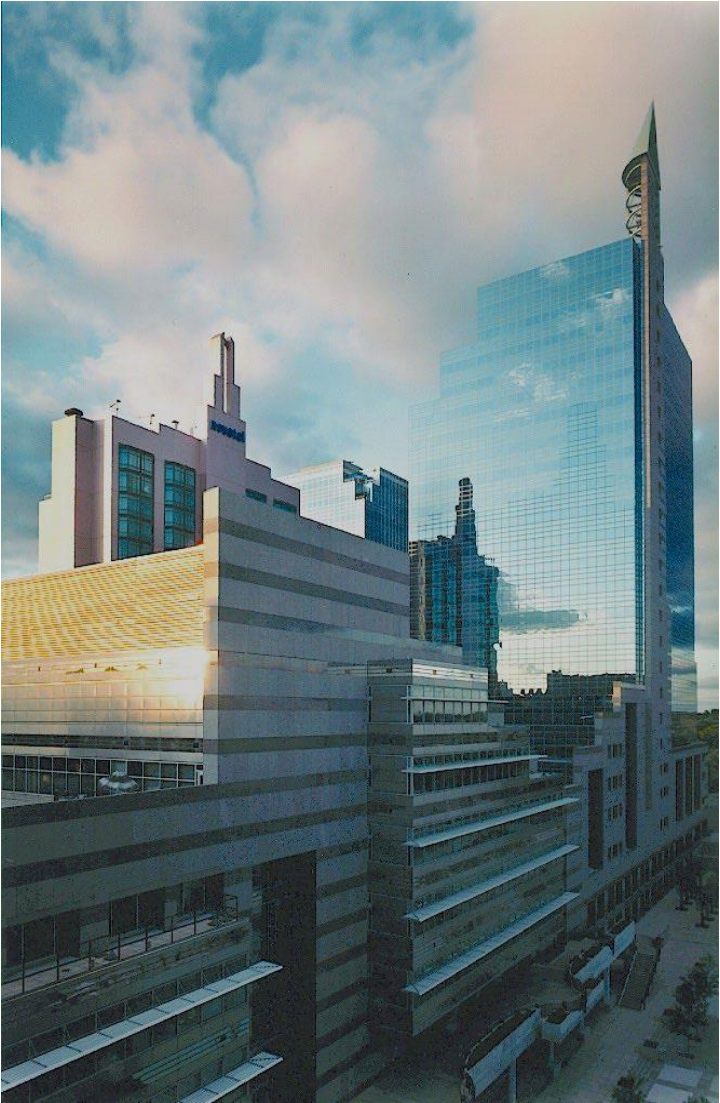
American Home 9.72



NORTH YORK CITY CENTRE + NOVOTEL HOTEL

NORTH YORK, ONTARIO

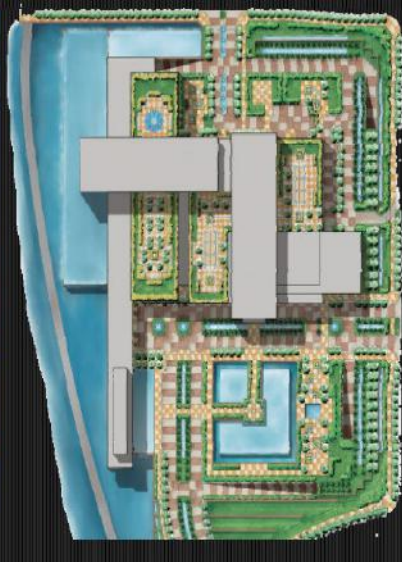
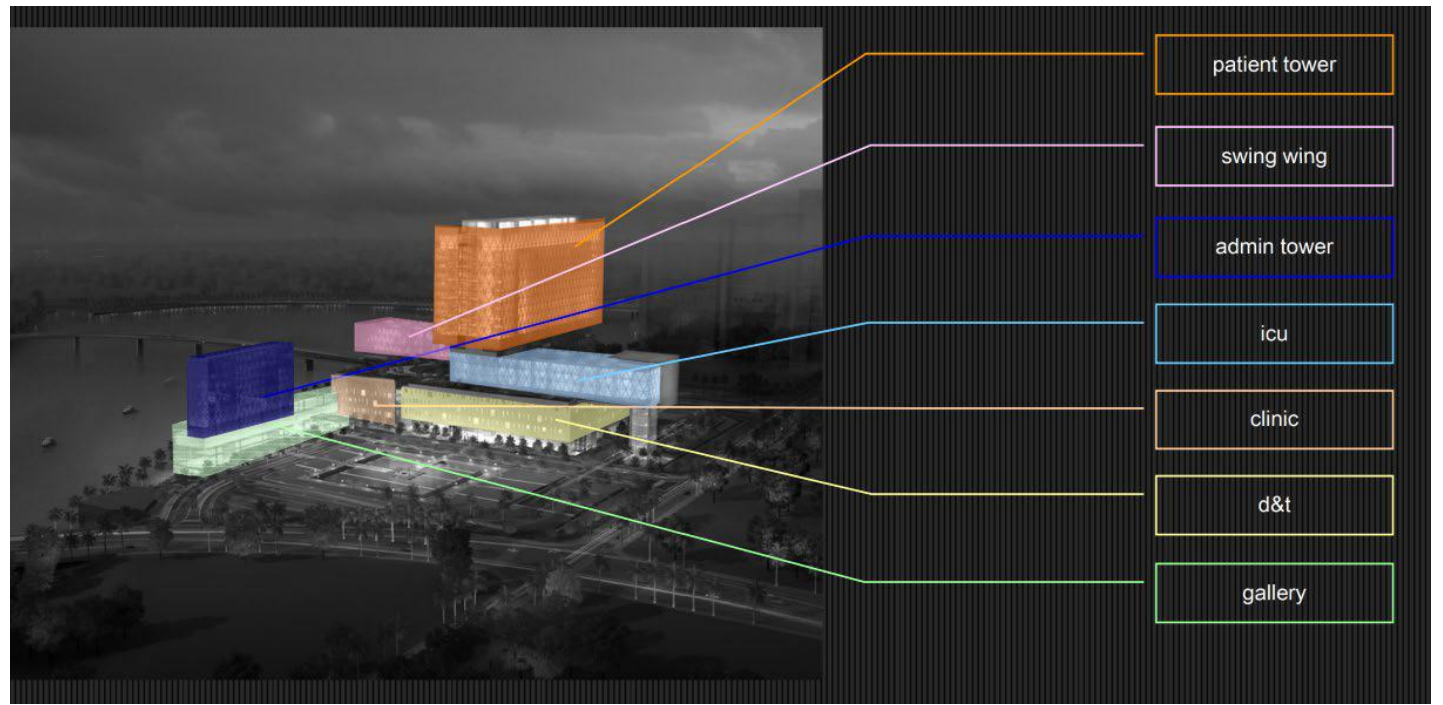
Designed by Ajon Moriyama / MTA



CLEVELAND HOSPITAL

ABU DHABI, UAE

Designed by Gabriel Oproescu



PANTAY HOSPITAL

MALAYSIA

Designed by Gabriel Oproescu



GLENEAGLES SHANGHAI INTERNATIONAL HOSPITAL

SHANGHAI, CHINA
Designed by Gabriel Oproescu



GENEANGLEN-INGEN HOSPITAL

MALAYSIA

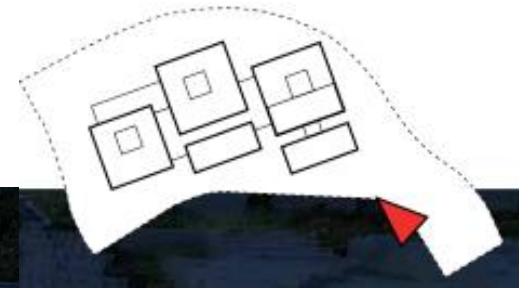
Designed by Gabriel Oproescu



TAIKANG CANCER CENTRE

CHINA

Designed by Gabriel Oproescu



Taikang Nanjing International Medical Center | 泰康南京国际医学中心项目

B+H

CHILDREN'S HOSPITAL

LONDON, UK

Designed by Gabriel Oproescu



ELEMENTS SPA & MEDICAL

TORONTO

Client: Elements Toronto
Category: Medical, Spa
Status: Completed



GAZA HOTEL

CANADA





KEY PROJECTS

RECREATION & THEME PARKS



DREAMLAND THEME PARK

EGYPT

A 200 acres Theme Park part of a 2200 acres mixed use development.

Attendant capacity 2000 visitors per day.

Project comprising:

Recreational

Retail

Main entrance gate and miniature train station

Main plaza

Mountain and waterfall

Movie adventure (Teens)

Ancient wonders (Families)

Fairytales of the word (Children)

AWARDS

Commendations from the client and the Egyptian Government were received & the project was well acclaimed by the media & the community at large. Two television stations were started on the strength of publicity from the development. Dream 1 & Dream 2 are pay TV stations were established and have proven to be major revenue sources in their own right.

DREAMLAND THEME PARK, EGYPT



DREAMLAND THEME PARK & MOUNTAIN TOP VIP GUEST FACILITY WITH WATERFALL

EGYPT

Client: Dreamland Theme Park

Category: Theme Parks & Entertainment

Area: 9.2 sq km

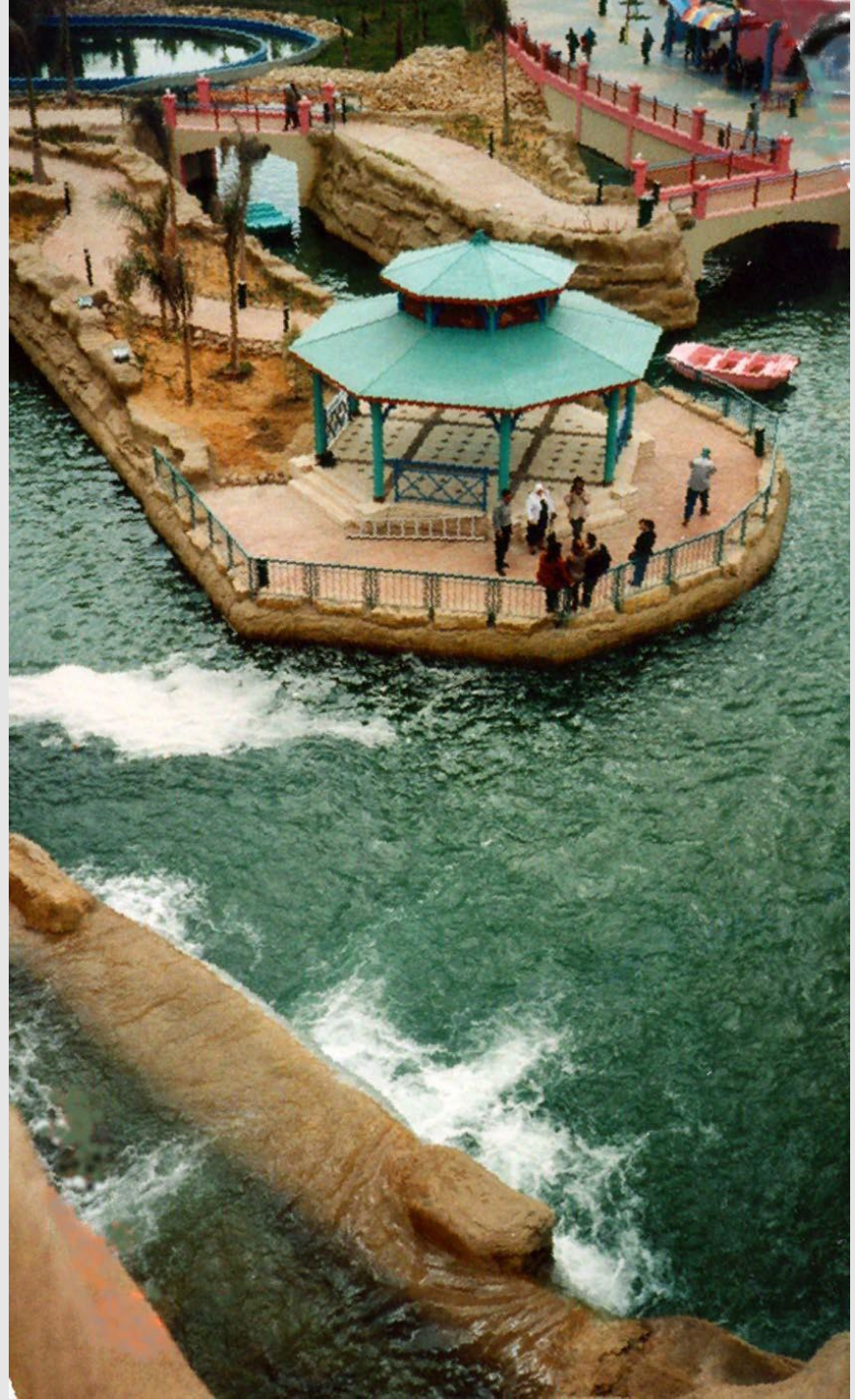
Status: Completed

Dream-Land is a mixed use development desert parcel of land over 2200 Acres, (9.2 sq. KM.) located 10 KM West of Cairo and adjacent to the "Sixth of October City". The project accommodates 20,000 Visitors / day. The Project consisting of mixed use Residential, Commercial, Institutional & Recreational Development.

Array International Architects Inc. was engaged for the development of Master Plan, evaluation of initial concept & generation of different ideas for the development stages.

We further developed design development & implementation of the theme park & recreational retail part of the development which together with the golf course & Hotel acted as the nucleus that kick started the development and attracted perspective purchasers into the development site.







KEY PROJECTS

MASTER PLANNING



MAKKAH MASTER PLAN



KINGDOM OF SAUDI ARABIA

Client: Kingdom of Saudi Arabia

Category: Master Planning

Overview

The Comprehensive Master Plan responds to the growing pressures from accelerated development for accommodating the millions of pilgrims journeying to Islam's holiest cities in Saudi Arabia. It proposes to strike a balance between urbanism and protecting sacred and natural features to preserve the setting in which the rituals have been performed since the time of the Prophet Mohammad (PBUH).

Forty-two inter-disciplinary reports describe a coordinated and sustainable approach to urban development, transportation-infrastructure as well as environmental stewardship while maintaining focus on the sacred rituals of pilgrims. The planning strategies, developed by Moriヤマ & Teshima / MMM Group, were presented to the Development Commissions of Makkah and Madinah and reviewed by international experts from the United Nations Development Programme (UNDP). In August 2012, His Royal Highness, King Abdullah of Saudi Arabia and his Council of Ministers endorsed the Comprehensive Master Plan. Since then various agencies have been working towards implementation of this \$227 billion project.

By MTA & MTP

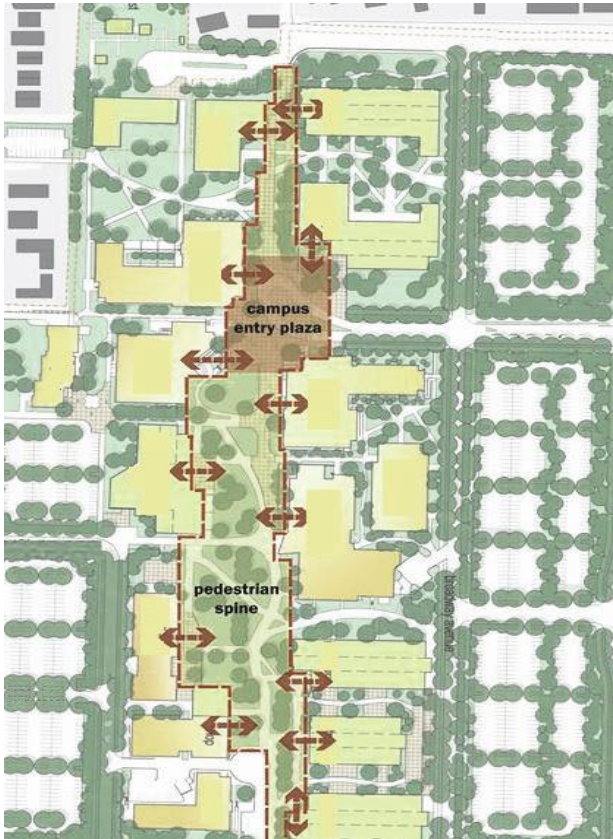
KING ABDULAZIZ UNIVERSITY

Client: Kingdom of Saudi Arabia

Category: Master Planning, Institutional

Project Planning Associates Ltd.

The Principal of Array worked on this project while working as a consultant for Project Planning Associates Ltd. (PPA Ltd.)



MUSCAT CITY STARS

OMAN

Medical Resort.

[\(21\) Muscat City Star – YouTube](#)

Client: Private

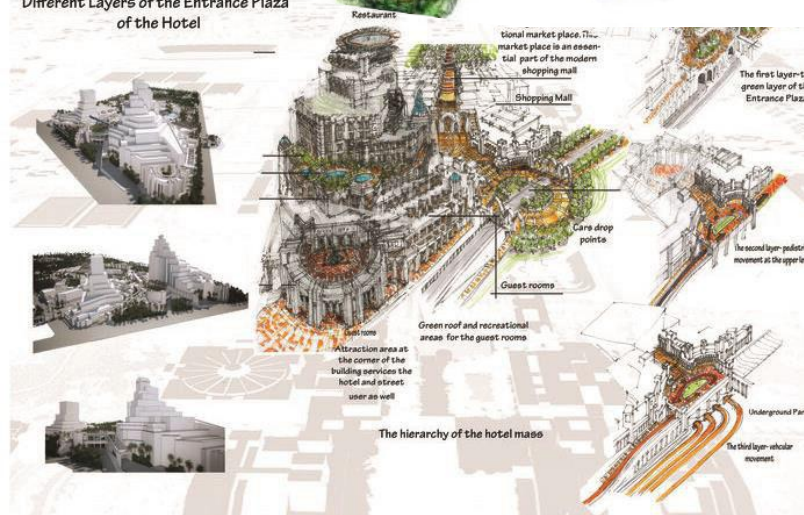
Category: Master Planning, Mixed Use

Origin

Mixed use, 6-star hotel, SOHA apartments, 7-star shopping Centre (indoor mall), with a medical function, indoor mall interacted with the exclusive community sporting club.



Different Layers of the Entrance Plaza of the Hotel





OAK HILLS ESTATE

FLORIDA, USA

Client: Private

Category: Master Planning Mixed Use Development

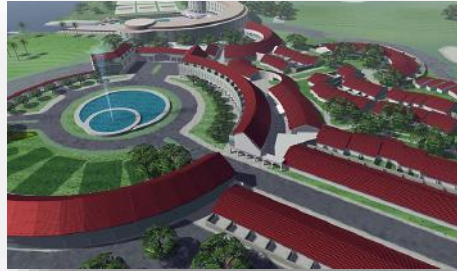
Area: 2200 Acre

Multi Billion Mixed Use Development 15 minutes away from Walt Disney World Resort.

Oak Hills was a 2200-acre Mixed use, Commercial, Residential / Time share, Golf and Tennis resort to be built on land that Array International Architects Inc. had acquired. (Array International Architects Inc. is the development arm of Array Architects Inc.). The property was 15 minutes away from the gates of Disney world in Orlando Florida. Part of it was natural wetlands and mitigation areas for development. And part of it was beef ranch and farmland.

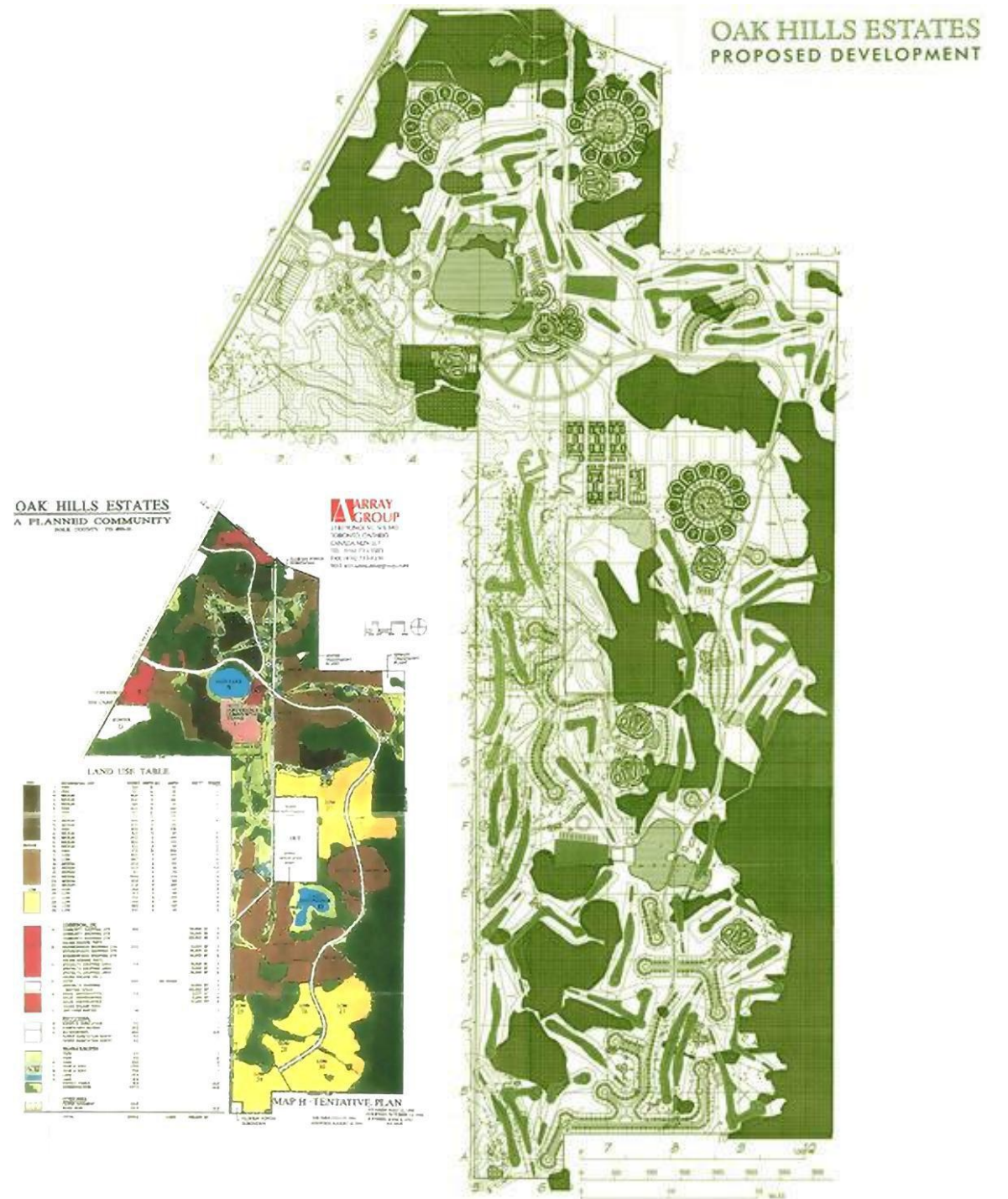
Phase I was budgeted for \$125,000,000 USD including the land acquisition costs. This project was designed primarily for the baby boomers, the largest segment of the North American market, we proposed 2 international tournament style golf courses and an 18 holes executive course. These 3 courses were scheduled to be designed by an internationally renowned golf course designer. Array created a comprehensive plan to optimize the attractive features of the golf courses and to provide a nucleus for the development.

The focal point was a 150 rooms hotel surrounded by a small-town Centre concept with retail, coffee shops, wellness spas and various types of recreational facilities. We also developed a concept for a miniature train to tie the entire development together, allowing visitors to move easily from the center to any one of the different modules.



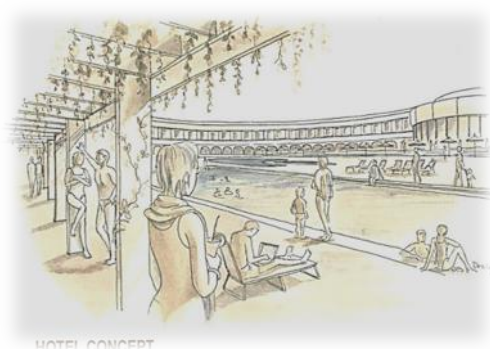
SUSTAINABILITY

The project was designed based on sustainable concepts to reduce its impact on the natural environment and wildlife, (deer, Turkey, Crows and other unique birds, alligators and turtles) that was a primary feature of the development. A small scale, quiet train provided a quiet transportation link providing access while reducing traffic impact on the wildlife and residents. The project had its own wastewater treatment plant that was designed to expand as needed to meet the requirements of the growing community.



OAK HILLS ESTATE

FLORIDA, USA



HOTEL CONCEPT



TOWN CENTER CONCEPT

PYRAMIDS OASIS

EGYPT

Client: Private

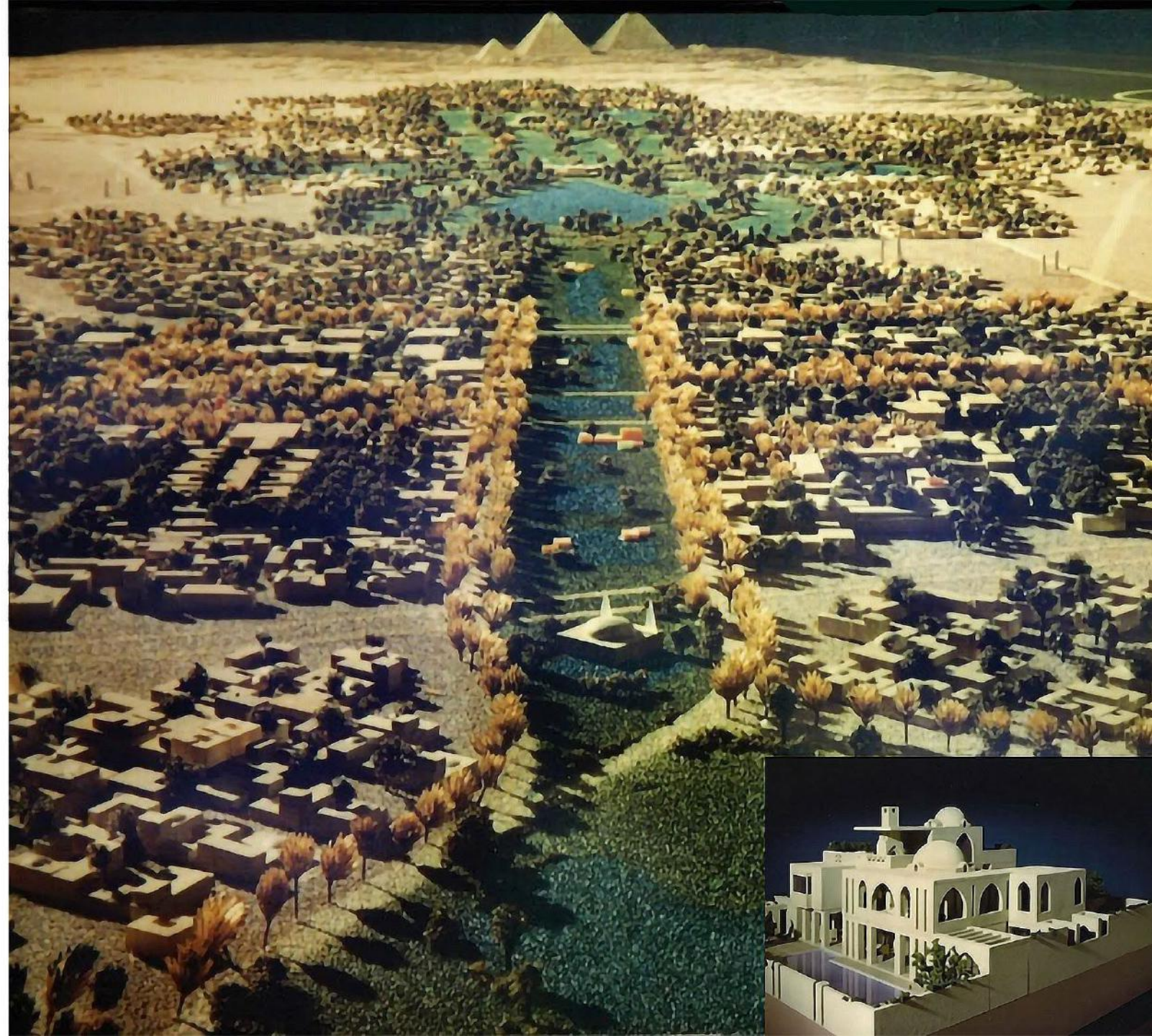
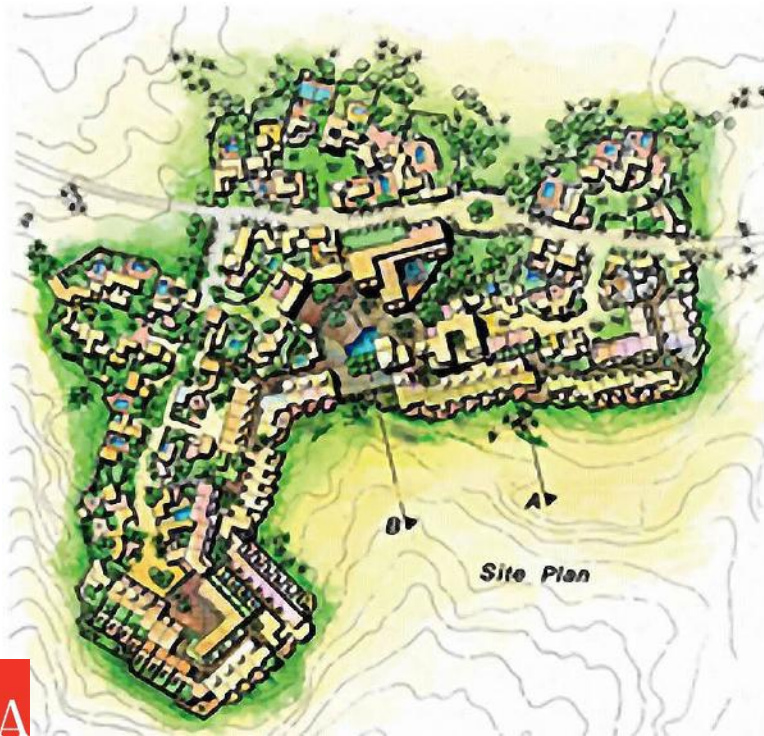
Category: Master Planning

Area: 25,000 Acre

Project Planning Associates Ltd.

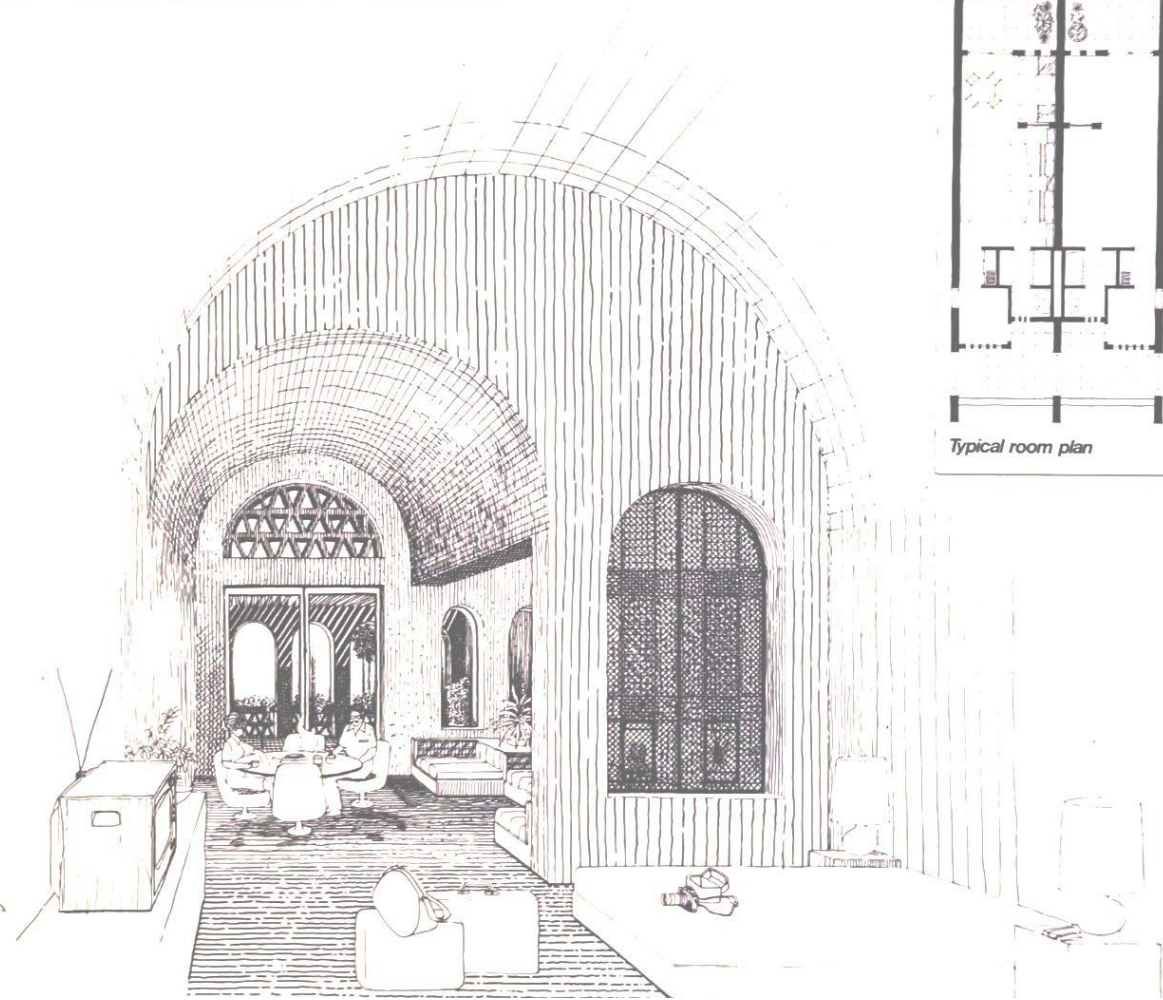
The Principal of Array was the design consultant working for Project Planning Associates Ltd. (PPA Ltd.)

Project is located near the great pyramids of Giza in Egypt. In addition to a large hotel complex, it entailed a 25,000-acre conservation area. Strict guidelines were required to maintain purity of the environment and the cultural setting of the pyramids. The urban part of the development was 3.5 k away from the pyramids in an area carefully selected so as not to impact the view.

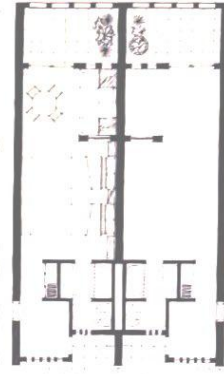


PYRAMIDS OASIS

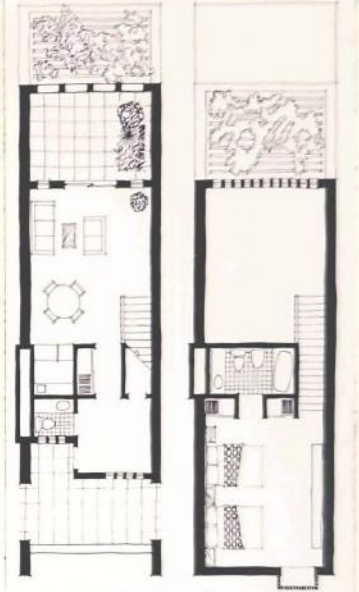
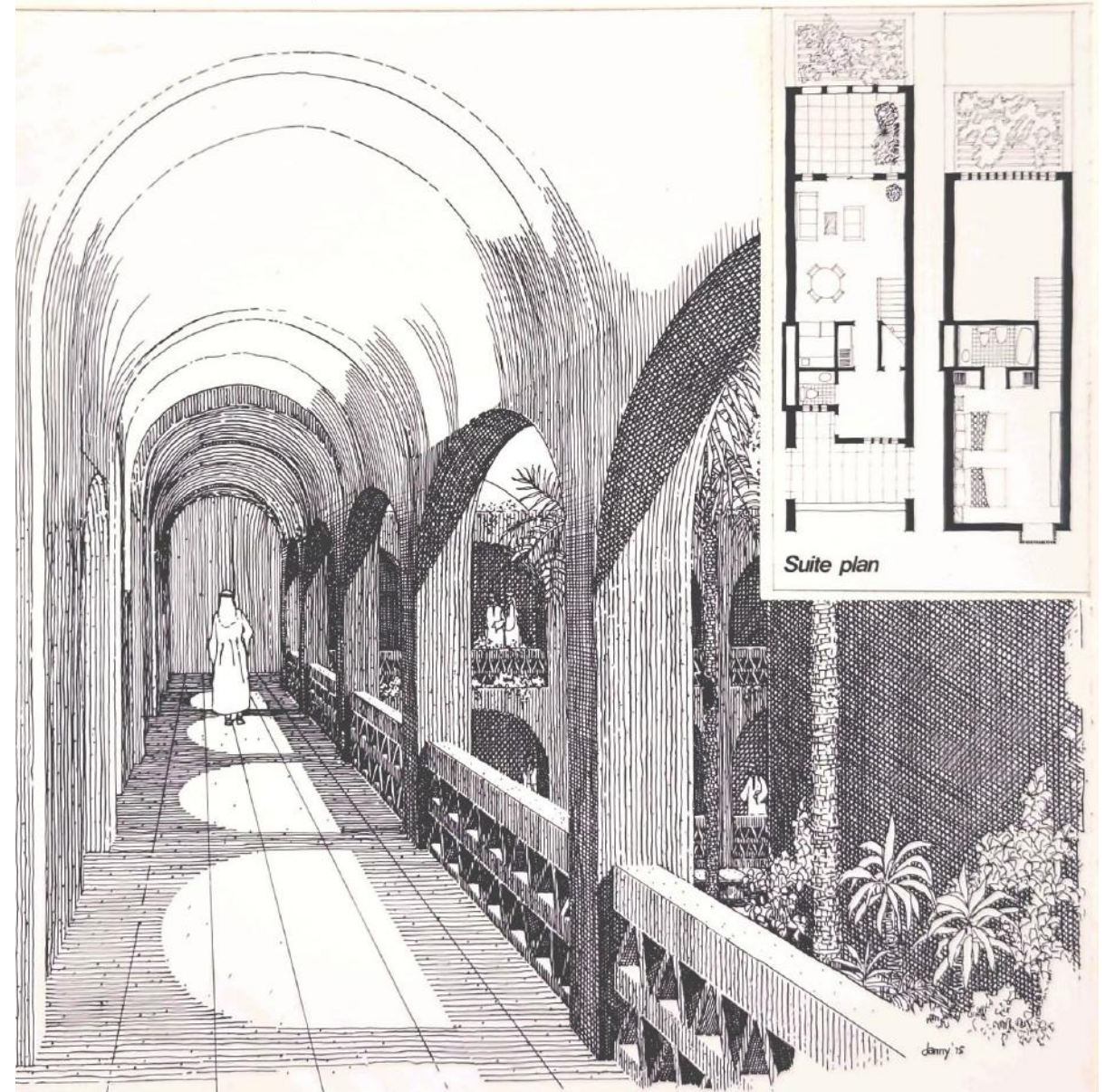
EGYPT



Perspective of the room



Typical room plan



Suite plan

Perspective of the Corridor

denmy 15



PAOJIANG, CHINA

CHINA

Client: Private

Category: Master Planning, Mixed Use

Origin

The project site is located in Shaoxing, a rapidly expanding town about 350 km. south-west of Shanghai. The property comprises a 'super block'; it is 16.5 hectares in area and fronts on two main streets and is delineated by an extensive riverfront and includes a small island.

Total building area is 243,990 sq. m. of which 215,095 are Residential and 21,084 are commercial. Once completed, it will accommodate approximately 6,000 persons. The overall concept for the Shaoxing Qin Qin Garden pays tribute to the riverfront on the west, which is the dominating landscape and visual amenity. A central north-south spine road bisects the site into loosely defined east and west halves and connects to the island on the north side. High-rise buildings occupy the eastern half while the western half accommodates low rise Garden Houses. This vertical assemblage is sensitive to the riverside amenity/park and to the human scale.

The island on the north is the smallest land parcel hence it appropriately accommodates the lowest buildings and thus is dominated by townhouses. Canal walks, courtyards and waterfront belvederes are reminiscent of similar Venetian or Dutch settlements.



BLOCK CONCEPT

The street tends to define blocks or neighborhoods with buildings set along the periphery, and open spaces, courtyards, pedestrian linkages and recreational amenities at their cores. These patterns have created at least 9 distinctive neighborhoods throughout the larger community. Five (5) Garden Home neighborhoods that connect directly to the riverfront, three (3) High-rise Neighborhood Parks that occupy the central open spaces and one (1) High-rise Pedestrian Promenade/Avenue on the south-East that connects to the commercial street (Paozhong Rd.).

The road and street patterns provide a mix of straight and curvilinear alignments to soften the often rigidity of the east-west alignment of buildings. The central spine road and fire route crisply form the shape of the feature landscape, Central Park and add an attractive sinuous, curvilinear pattern to the road geometry.



URBAN DESIGN

CHINA

Client: Private

Category: Master Planning, Mixed Use, Residential, Commercial, Various

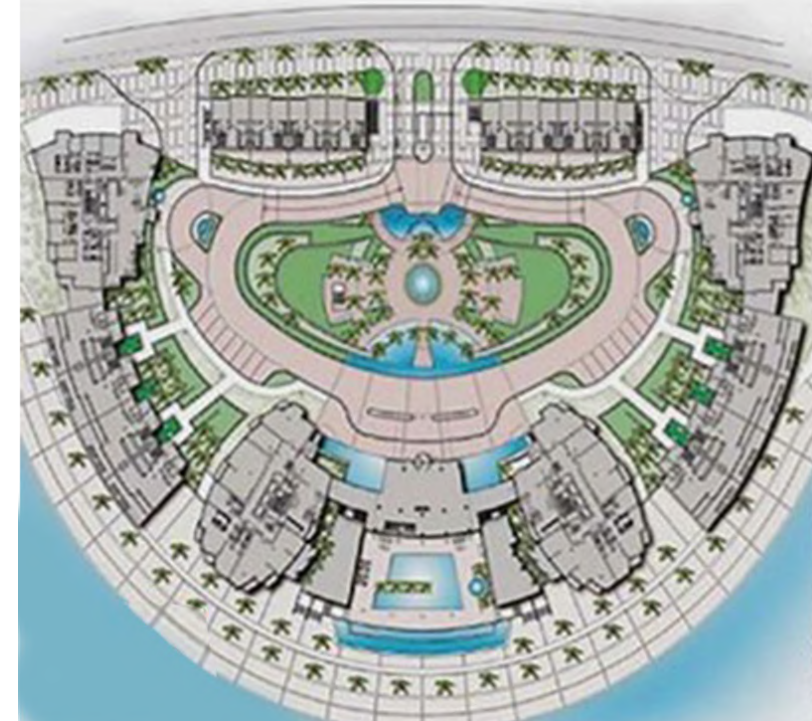
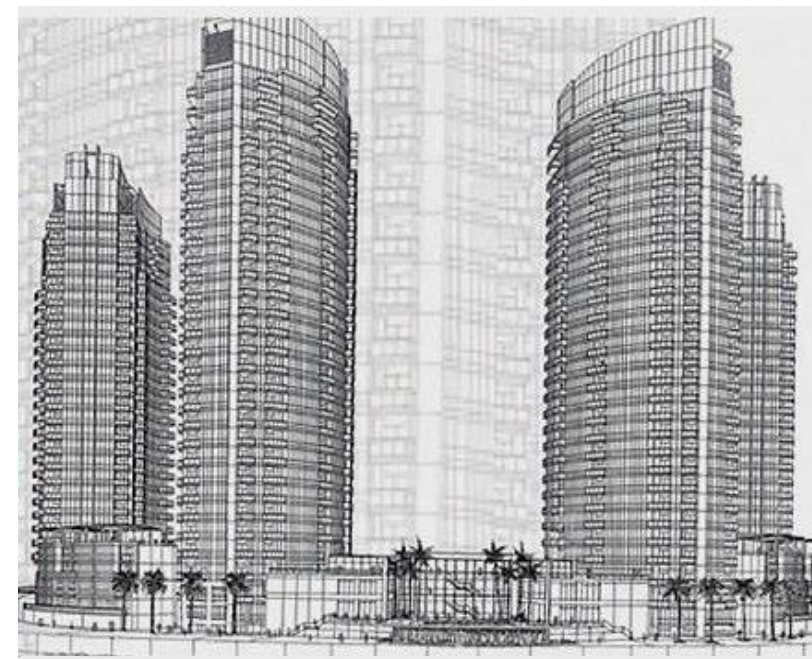


URBAN DESIGN

DUBAI, UAE

Client: Private

Category: Master Planning, Mixed Use, Residential, Commercial, Various

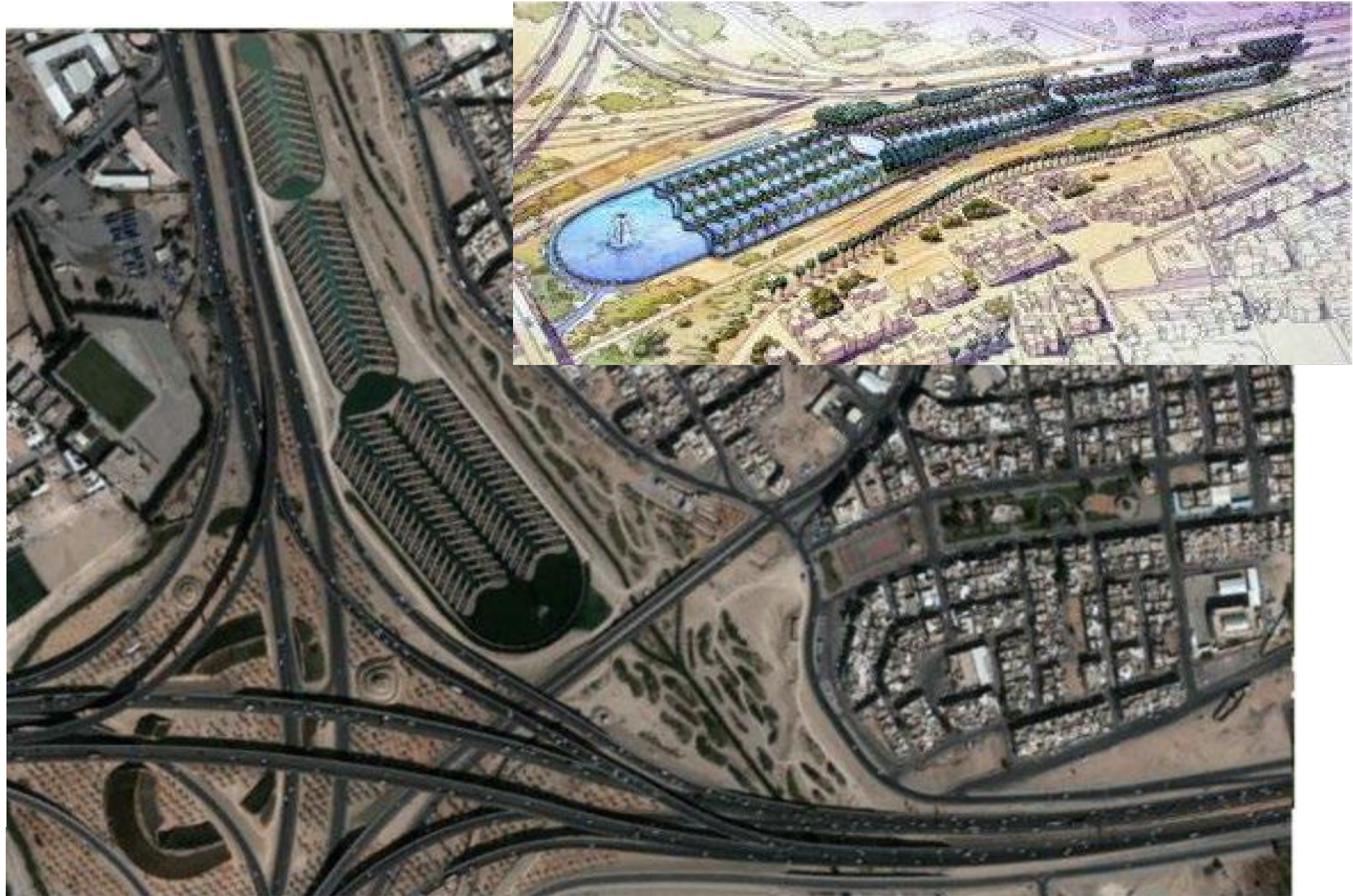


WADI HANIFAH

RIYADH, SAUDIA ARABIA

Designed by Ajon Moriyama / MTA & MTP

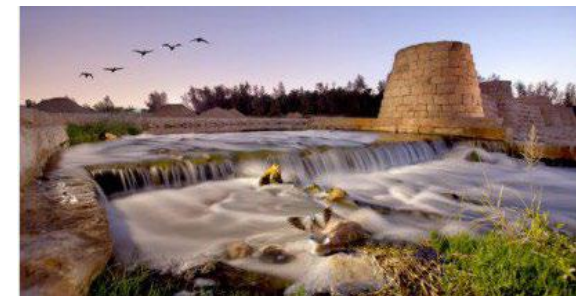
The Wadi Hanifah river system running through the heart of Riyadh, an expanding urban centre of 5 million people and capital of the Kingdom of Saudi Arabia, represents a new kind of waterfront prevalent in cities throughout the world. Most of these water-centered environments are so dysfunctional as urban sewers that they create health problems and limit the social and economic opportunities for the people living along them. An oasis in the heart of the Arabian desert, the water, land and resources of the Wadi Hanifah watershed system provide sustenance for the communities along its 120 km length. For centuries a balance prevailed between the Wadi and the people who lived along it, between natural processes and human interventions. With unprecedented growth and rapid urbanization the regenerative capacity of the Wadi has been severely eroded. In 2001 the High Commission through the Arriyadh Development Authority initiated a process for a comprehensive development plan for Wadi Hanifah to address uncontrolled expansion of the City and continued misuse of the valuable Wadi. Our overall concept was of a Living Wadi brought to health and sustainability through ground-breaking natural bio-remediation processes that filter, clean and recycle 1 million cubic metres per day of urban water from the City to progressively rehabilitate indigenous flora and fauna, fully restoring the eco-system within a 4500 square km catchment area. The greening programs and projects throughout the watershed will make a significant



WADI HANIFAH

RIYADH, SAUDIA ARABIA

Designed by Ajon Moriyama / MTA & MTP



AL FAREEDA - SAUDI ARABIA

NORTH OF JEDDAH

Mixed use Comprehensive
Residential community development
for population of 24,000 Residents
on a 1.1 Million M2 Site.









KEY PROJECTS

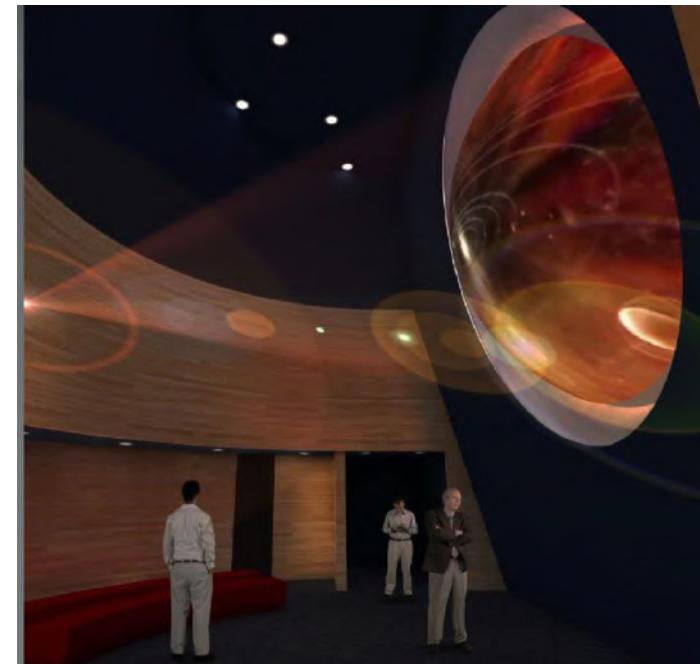
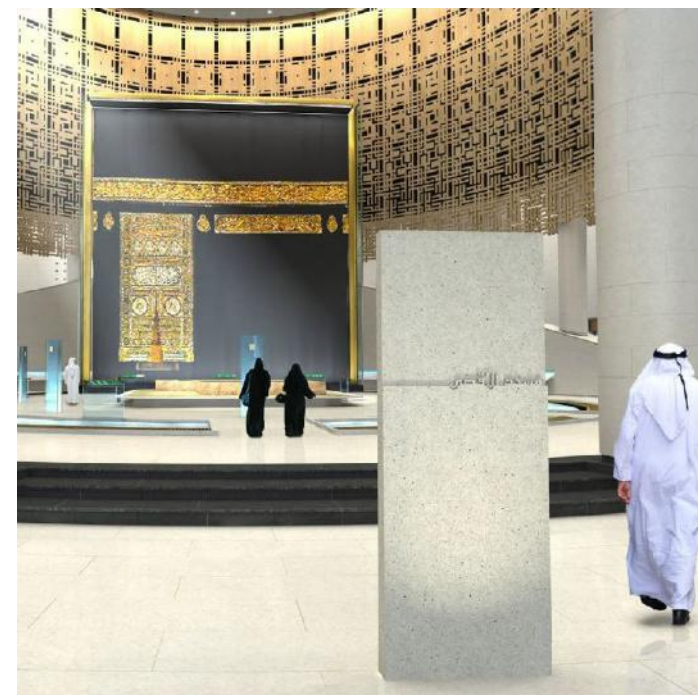
CULTURAL & SUSTAINABILITY PROJECTS

SEERA MUSEUM

KUWAIT

Client: Private
Category: Museum

Terry Heard Design
Hesham El-Tayeb was the key consultant on this project
for Terry Heard Design.



Saudi Arabian National Museum

Riyadh, Saudi Arabia

Designed by Ajon Moriyama / MTA



UNIVERSITY OF TORONTO i2C

TORONTO

Client: University of Toronto

Category: Institutional

Status: Completed



AMERICAN UNIVERSITY OF CAIRO

Egypt

Client: AUC

Category: Institutional

Status: Completed

Origin

The firm was initially retained By the American University in Cairo, initially in November 1994 to undertake a planning study evaluate the University's expansion needs In that part of their Campus, known as the Greek campus, near Tahrir square in Cairo.

This Part of the University was the location several departments:

1. Library of The University's Downtown campus
2. The Department of Business Administration
3. The Department of Economics
4. The Department of Sociology and Political Sciences
5. The Department of Journalism and Mass Communications
6. The Department of Adult Continuing Education

Since Mr. Allam was involved in the design of the existing library, while working with the Office of Hugh Jacobsen in Washington D.C. completed in 1975, our firm was assigned to conduct this feasibility study with the objective of reaching a number of expansion alternates over the existing library and/or the Wallace Theatre site adjacent to the library and establishing a building program for this expansion.

As a result of this study an expansion to the library building was undertaken, along with the creation of new Elevators and stairs links to facilitate easier student movement to new classrooms and computer labs above the library building and creation of roof terraces to increase student assembly space on the roofs of the existing buildings and take the pressure off the already congested main assembly area and movement space on the street and ground levels. The project was completed in 1998, and Array received commendation from AUC for this undertaking.



TORONTO LESTER B. INTERNATIONAL AIRPORT

TORONTO

Yolles

Two Array Principal Engineering Designers worked on this project as consultants for Yolles, Toronto.

Client: Greater Toronto Airport Authority

Category: Transportation

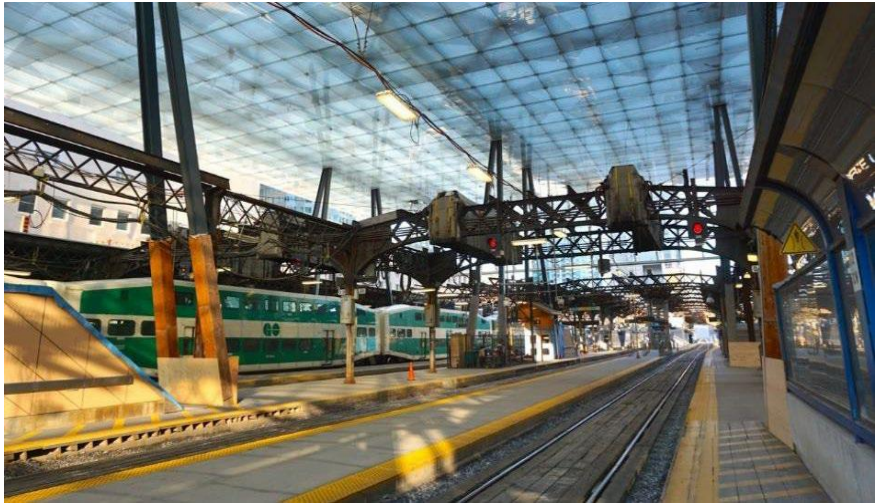
- Lateral system design of three terminal buildings.
- Designed 150 ft span feature roof of hammerhead.
- Redesigned detour through main Central Processor Building to facilitate construction.
- Designed retrofit work required for the composite floor construction.
- Developed the design and construction details for feature masonry wall.
- Conceptual design and massing for the building.
- Design Interface & Coordination with Structural, Electrical, and Mechanical engineers.



TORONTO UNION STATION

TORONTO, ON CANADA

Client: Private
Category: Transportation



KEY TEAM MEMBERS

PROFILES

ARRAY INTERNATIONAL ARCHITECTS INC.

ARRAY GROUP INC.



ARRAY INTERNATIONAL ARCHITECTS INC.



ONCE SELECTED AND AT THE AWARD STAGE OF THE PROJECT, ADDITIONAL MEMBERS WILL BE SELECTED AND A DETAILED LISTING OF THE TEAMS CAN BE PROVIDED FOR THIS UNDERTAKING.

KEY MEMBERS LISTED ONLY

FOUNDER & PRESIDENT



NED ALLAM

OAA, OAQ, MRAIC, AIA

ARRAY INTERNATIONAL ARCHITECTS INC.

ARRAY GROUP INC.

Mr. Allam has a progressive and rich background in all aspects of Architecture and Urban Planning. He is the Founding Principal of the firm and plays a key role managing and completing large-scale architectural projects, including construction implementation of various types of Mixed-Use and Residential, Commercial, Retail, Hotel buildings, Educational, Healthcare, Historical Renovations and more. He brings to projects proven expertise in Master Planning Design, Sustainable, exosystemic project approaches, Real Estate Development, Analytical Strategies. Mr. Allam has a progressive and rich background in all aspects of Architecture and Urban Planning. Mr. Allam is adept at identifying and isolating business challenges, as well as devising solutions to resolutely mitigate complex relations.

PRIZES & AWARDS

2014	URBAN DESIGN AWARD City of Oshawa
2006	EXCELLENCE TEAM AWARD
2005	CMC CAPITAL GROUP INC.
1996	THE SEIKO CULTURE AWARDS Presented by Soka Gakki International for Architectural Design of the Japanese Cultural Centre in Montreal
1994	SGI Caledon Centre for Culture & Education
1992	Toronto Culture Centre

HIGHLIGHTS OF EXPERTISE

- Project Innovation & Program Management
- Bids & Contract Negotiation
- Cost Optimization & Budget Control
- Building Codes & Regulations
- On-Site Safety & Security Procedures
- Strategic Initiatives & Implementation
- Real Estate Business Planning
- Mixed-Use Portfolio Management
- Construction Facilities Management

MEMBERSHIPS & AFFILIATIONS

- Practicing Member of the Ontario Architects' Association (OAA)
- Founding Member of the OAA's Committee for the Environment (1992-1997)
- Durham College School of Architecture, Professional Advisory Committee since 2008
- Practicing Member of the Royal Architecture Institute of Canada
- Member of the Board of Trade of Metropolitan Toronto since 1989
- Affiliate of the Arab and Egyptian-Canadian Business Council, 1995



FOUNDER & PRESIDENT

NED ALLAM

OAA, OAQ, MRAIC, AIA

ARRAY INTERNATIONAL ARCHITECTS INC.

ARRAY GROUP INC.

KEY PROJECTS

ALFAREEDA DEVELOPMENT

Jeddah, KSA – 2007 - 2010

New Town Planning and development of Architectural Style for a community of 24,000 population including comprehensive town amenities, schools, healthcare facilities, services and sustainable infrastructure systems based on an eco-systemic approach in a central green spine. This project was designed to qualify for LEED Platinum standards. Follow up proposals for the Jazan Area project.

MUSCAT CITY STAR

Oman

A Mixed -Use Development, comprising a 5 Star Hotel, 6 Star Indoor Mall and high standard Recreational Country Club.

DREAMLAND

Egypt

Theme Park, Egypt, 1999. A \$225-million, 250-acre Recreational facility which is part of a 2,200-acre Development just outside Cairo. Helped organize art oriented in-school events.

OAK HILLS ESTATES

Orlando, Florida

A 2200-acre Development with 3 Golf Courses, Tennis and Wellness Resort, 15 minutes from Disney World.

875 KINGSTON RD

Ontario, Canada

Mixed use Residential and Commercial Development designed to a LEED Gold standard.

363 OLD KINGSTON RD

Pickering, Ontario, Canada

Mixed-Use Residential Commercial Development designed to Green Development standards.

ELEMENTS TORONTO

Ontario, Canada

A Cosmetic Surgery Hospital and Health and Wellness Spa.

SGI ACADEMY OF CANADA

Caledon, Ontario, Canada

A 137-acre campus with convention center, guest facilities, and nature research center.

HALFMON BAY HOTEL

Antigua, West Indies

Expansion and Resort Development.

CUESTA BLANCA

Tijuana, Mexico

Master Planning for Development of a Residential Community for the Economic Development Agency of Canada.

THE AMERICAN UNIVERSITY IN CAIRO

Cairo, Egypt

Extension to old Campus Library and School of Social Sciences, Economics, and Business Development program. Also, a feasibility study for the Cairo Campus Expansion.

CITY OF TANTA HOUSING

Tanta, Egypt

Seconded by the United Nations as part of a team to develop a master plan to replace squatters' housing.

CARLIN MEDICAL SUITES

New York, USA

Design of 32 Medical and Dental Suites

WOMEN'S COLLEGE HOSPITAL

Toronto, Ontario, Canada

Associate at RDH, designed facilities according to the client's brief, to achieve a humane Health inducive atmosphere while retaining institutional efficiencies. Work included: Urgent Care Facility, Admitting and Central Administration, Communications and Data Processing facility, Radiology and Operating Room, Medical Day Care Centre, Women's Health Centre.



ARRAY INTERNATIONAL ARCHITECTS INC.

REGIONAL DIRECTOR, MIDDLE EAST



HASAN HAMDAN

MA (Hons Arch), AIA, PMP, LEED AP

ARRAY INTERNATIONAL ARCHITECTS INC.

ARRAY GROUP INC.

An enthusiastic, dynamic, diligent, and result-oriented professional (architect), with over than 25 years of combined academic and practical experience in various projects and constructions. For the past 15 years, Hasan has been employed in a hectic managerial role, where he was required to manage and supervise the work through the different stages for the multi-disciplinary design projects. He has had notable success at delivering projects to measurable KPIs including budget, quality, schedule, and to the highest levels of client satisfactions. Hasan has strong understanding of the work process and have experienced a wide range of projects, within different kinds of building typologies in several locations mainly in the GCC, Africa, Middle East, and Canada.

PRIZES & AWARDS

2012	INSTITUTE HONOR AWARD Regional & Urban Design of the Dead Sea Development Zone (Dead Sea, Jordan)
1999	2nd Place International Competition for the Design of the Museum of Islamic Arts Doha, Qatar
1997	Agha Khan Award – King Abdul Aziz Mosque Al-Kharj, SA

HIGHLIGHTS OF EXPERTISE

- Architecture & Urban Planning Design (AIA)
- Project Management Professional (PMP)
- Engineering Consultancy
- Contract Administration
- Construction Management
- Building Codes & Regulations
- High-Profile & Large-Scale Projects
- Strategic Planning
- Business Awareness
- Architectural Development
- Gas & Oil Industry Experience



REGIONAL DIRECTOR, MIDDLE EAST

HASAN HAMDAN

MA (Hons Arch), AIA, PMP, LEED AP
ARRAY INTERNATIONAL ARCHITECTS INC.
ARRAY GROUP INC.

KEY PROJECTS

ARAMCO SOUTH DHAHRAN HOME OWNERSHIP PROJECT

Al-Dhahran, KSA

1.5 mill sqm

SHARJAH CITY FOR HUMANITARIAN SERVICES (PHASE 1 & 2)

Sharjah, UAE

108,000 sqm

THE DEAD SEA DEVELOPMENT ZONE – PHASE 1 MASTER PLAN

Dead Sea, Jordan

40 km²

SARAYA AQABA RESORT – JUMEIRAH HOTELS

Aqaba, Jordan

3 Five Star Hotels. Castle Beach & Boutique. 115,000 sqm

MUSSULO ISLAND RESORT

Luanda, Angola

19,500 sqm

BUSINESS PACKAGE OF AL KHAFJI MASTER PLAN

Al Khafji, SA

320,000 sqm

CARLIN MEDICAL SUITES

New York, USA

Design of 32 Medical and Dental Suites

KING FAISAL UNIVERSITY MEDICAL COLLEGE COMPLEX

Al-Ehsa, KSA

290,000 sqm

AL OTHAIM MALL

Al Jubail, KSA

115,000 sqm

KING HUSSEIN CANCER CENTER

Amman, Jordan

85,000 sqm

SAMARAH DEAD SEA GOLF & BEACH RESORT (HILLSIDE)

Dead Sea, Jordan

84,000 sqm

ESSA VOCATIONAL CENTER

Luanda, Angola

28,500 sqm

ABQAIQ OFFICE BUILDING & BEAUTIFICATION OVERALL SITE PLAN

Al Ehsah SA

16,000 sqm

SULTAN BIN ABDULAZIZ CITY FOR HUMANITARIAN SERVICES

Riyadh, SA

110,000 sqm



PRINCIPAL, HEALTHCARE DIVISION

INTERNATIONAL COLLABORATIONS



HONG KIM

B.Arch, Eng.

ARRAY INTERNATIONAL ARCHITECTS INC.

ARRAY GROUP INC.

Hong Kim has worked on an array of large and complex building projects in his career.

With over 50 years of experiences, he has managed to bring all design disciplines and specialty consultants from the concept of a building to the final product of the built form. His success lies on his extensive knowledge and depth of understanding of the building systems, structural and mechanical/electrical infra-structure along with the building safety system governed by the code. His innate ability to foresee all aspects of a complex building project and its components helps to set the design concept on the right track at the early planning stage, thus meeting program requirement while preventing unnecessary overrunning of project budget and resources.

KEY PROJECTS

ST. MICHAEL'S HOSPITAL – SATELLITE DIALYSIS CLINIC

Consultant – NORR
Toronto, ON

The Dialysis Unit services pre-dialysis, hemodialysis and peritoneal dialysis patients requiring access creation or revision. 1,784 sm, \$8.4 M.

PETER GILGAN PATIENT CARE TOWER REDEVELOPMENT

Formerly known as the St. Michael's Hospital Redevelopment Project, Partner FPA / Consultant – NORR
Toronto, ON

DBF Consortium; 17-storey patient care tower and the renovation to regional trauma centre. Including medical-surgical intensive care unit, 5 new operating rooms, enlarged, inpatient facilities for orthopedic surgery, oncology and respirology, the cystic fibrosis program and the critical care space for the coronary and medical-surgical units and emergency department. 41, 806 sm, \$300 M.

COLCHESTER EAST HANTS HEALTH CENTRE

Partner, FPA (In partnership with WHW Architects Ltd.)
Truro, Nova Scotia

124-bed facility, that will serve more than 73,000 residents providing surgical, medical, mental health, intensive care, maternal child services, diagnostic and treatment services, emergency and ambulatory care services. \$130 M.

BLUEWATER HEALTH

Partner, FPA (In association with Stantec, Vancouver)
Sarnia, Ontario

Addition of 300,000 sf of new construction and 200,000 sf of renovated space to the main hospital site, and master planning and renovations to a satellite hospital's site in the nearby town of Petrolia. LEED Certified, \$140 M.

BRIDGEPOINT HOSPITAL PURSUIT

Partner, FPA
Toronto, Ontario

DBFM consortium pursuit. A "campus of care," integrating patient care, research and teaching in complex chronic disease and disability. \$622 M.

INTEGRATED HEALTH CENTRE AND WORKERS' HOSPITAL

Partner, FPA
Doha, Qatar

The first workers' hospital in an industrial area where many small manufacturing units and labour camps are situated. The hospital consist of an outpatient clinic, ambulance service, surgery, X-ray facility and laboratory in addition to an attached health centre and medical commission unit. 61,747 sm.



ARRAY INTERNATIONAL ARCHITECTS INC.

PRINCIPAL, HEALTHCARE DIVISION

INTERNATIONAL COLLABORATIONS

HONG KIM

B.Arch, Eng.

ARRAY INTERNATIONAL ARCHITECTS INC.

ARRAY GROUP INC.



ST.MICHAEL'S HOSPITAL



SUNNYBROOK HEALTH SCIENCES CENTRE



INTEGRATED HEALTH CENTRE AND WORKERS' HOSPITAL



BLUEWATER HEALTH HOSPITAL



NATIONAL ONCOLOGY CENTRE



CORNER BROOK ACUTE CARE



COLCHESTER EAST HEALTH CENTRE

CREDIT VALLEY HOSPITAL & CARLO FIDANI PEEL REGIONAL CANCER CENTRE

Partner, FPA
Mississauga, Ontario

Cancer Care and Ambulatory Care facility includes Complex Continuing Care, Rehabilitation, Maternal Child Care, Laboratory Services and Emergency Room renovations.
Phase one and two of a three-phase 320,000 sf, \$349 M project.

THUNDER BAY REGIONAL HEALTH SCIENCES CENTRE

Project Manager, FPA
Thunder Bay, Ontario

375 acute care bed regional trauma centre. Features include ambulatory care, critical care, integrated cancer care with a high dose brachytherapy operating room, inpatient oncology unit, and a developed supportive regional program, diagnostic, emergency, palliative care, surgical and mental health units.
\$340 M.

NATIONAL ONCOLOGY CENTRE

Partner, FPA
Port-of-Spain, Trinidad and Tobago

Three- storey structure with four radiation treatment bunkers linked to the existing Eric Williams Hospital via walkways and 'therapy gardens' landscaping create a 'village gathering place' for cancer patients and their families.

ST. JOHN'S REHABILITATION HOSPITAL (now the John C. and Sally Horsfall Eaton Centre for Ambulatory Care)

Partner, FPA (In partnership with MSAI)
Toronto, Ontario

49,000 sf addition brings together the hospital's outpatient services, including a new therapy pool, suites to practice activities. \$14 M.

KENSINGTON EYE INSTITUTE

Partner, FPA
Toronto, ON

Prototype for future clinics, offers ophthalmic surgical services and resident training within a "spa-like" environment 10,000 sf.

WELLESLEY CENTRAL PLACE – THE REKAI CENTRE

Partner FPA
Toronto, Ontario

Long term care and outpatient facility is designed to resemble a small village, with a town square, main street, internal neighborhoods and outdoor courtyards. A green roof and the outdoor courtyards provide a tranquil place for respite and healing for patients and staff alike.
100,000 sf.



ARRAY INTERNATIONAL ARCHITECTS INC.

PRINCIPAL, URBAN DESIGN & ARCHITECTURE

INTERNATIONAL COLLABORATIONS



AJON MORIYAMA

Arch, OAA, AAA, AIBC, FRAIC, LEED AP Principal.
ARRAY INTERNATIONAL ARCHITECTS INC.
ARRAY GROUP INC.

An accomplished and award-winning designer. He was the Managing Partner at Moriyama & Teshima Architects for over a decade before founding Ajon Moriyama Architect in 2013. Prior to working at Moriyama & Teshima, Ajon worked with Arata Isozaki & Associates in Tokyo.

Over the last 30 years, he has worked on numerous esteemed national and international projects, design competitions, large scale planning and comprehensive master plan projects. They include the Canadian Embassy in Tokyo and lead designer for the Canada Court, National Museum of Saudi Arabia, Makkah Comprehensive Master plan, winner of the Jabal Omar Development Competition, Wadi Hanifah Restoration Project, Canadian War Museum, Bata Shoe Museum, River Run Performing Arts Centre in Guelph, Library and Library Renewal projects, Post Secondary and University projects, numerous Residential projects, Residential and Residential Development projects and Commercial projects including Nokia and the Bank of Montreal.

KEY PROJECTS

CANADIAN EMBASSY,
Tokyo, Japan

CANADIAN EMBASSY RESIDENCE AND RECREATION CENTRE,
Tokyo, Japan

CANADIAN EMBASSY IN BERLIN COMPETITION,
Berlin, Germany

SHEIKH ZAYED KNOWLEDGE CENTRE COMPETITION,
Abu Dhabi, UAE

SHEIKH ZAYED MUSEUM COMPETITION,
Abu Dhabi, UAE

NATIONAL MUSEUM OF SAUDI ARABIA,
Riyadh, Saudi Arabia

**COMPREHENSIVE MASTER PLAN FOR MECCA, MEDINA AND AL MASHAER
JABAR OMAR DEVELOPMENT AND MASTERPLAN
COMPETITION WINNER,**
Makkah, Saudi Arabia

QATAR SUPREME COURT COMPETITION,
Qatar

KUWAIT UNIVERSITY MASTER PLAN,
Kuwait

KUWAIT UNIVERSITY INFRASTRUCTURE BUILDINGS X 4,
Kuwait

AGA KHAN DELEGATION BUILDING,
Ottawa, Ontario

US CONSULATE PLANNING STUDY,
Toronto, Ontario

**TORONTO TRANSIT COMMISSION, COLLEGE STATION
RENOVATION,**
Toronto, Ontario

TORONTO TRANSIT COMMISSION, LESLIE SHEPHERD STATION,
Toronto, Ontario

PEACE BRIDGE BORDER CROSSING BUILDING,
Fort Erie, Ontario

PEACE BRIDGE BORDER CROSSING BUILDING,
Fort Erie, Ontario

CANADIAN WAR MUSEUM,
Ottawa, Ontario

BATA SHOE MUSEUM,
Toronto, Ontario

ROYAL ALBERTA MUSEUM COMPETITION,
Edmonton, Alberta



HEALTHCARE DIRECTOR, HOSPITAL PLANNER

INTERNATIONAL COLLABORATIONS



GABRIEL OPROESCU

M.Arch., Architect AIBC, MRAIC, AIA Int'l, EDAC

ARRAY INTERNATIONAL ARCHITECTS INC.

ARRAY GROUP INC.

Over 30 years of extensive international healthcare design and healthcare experience across the US, Canada, Europe, Middle East and Asia. He believes that good healthcare design needs to be honest, well conceptualized and fully structured. He champions full team engagement, believes that the strength of any planning solution comes straight from the collaboration dialogue with users, and has a proven record of pragmatic, very efficient, and innovative solutions that meet current needs and anticipate emerging health care trends. Gabriel has completed feasibility studies, master plans, and complex healthcare planning for over 50 healthcare projects including various size full scope, specialty and large university teaching hospitals, diagnostic and treatment facilities, rehabilitation hospitals, cancer centres, outpatient clinics and ambulatory surgery centres, children's and women's centres, behavioral and mental health facilities, as well as healthcare support within correctional facilities.

KEY PROJECTS

PROJECTS UNDER PROGRESS

MEDICAL CENTRE/CLINICS AT CHANGI GENERAL HOSPITAL,
Singapore, Singapore

NATIONAL SKIN CENTRE COMPETITION,
Singapore

TROPICANA MEDICAL CENTRE DEVELOPMENT COMPETITION,
Kuala Lumpur, Malaysia

PANTAI HOSPITAL AYER KEROH COMPETITION,
Malacca, Malaysia

COMPLETED PROJECTS

BEIJING INTERNATIONAL CHILDREN HOSPITAL, FEASIBILITY STUDY,
Beijing, China

SK GENERAL AND REGIONAL HOSPITALS (COMPETITION),
Singapore

CDCR STOCKTON HEALTHCARE FACILITY,
Stockton, CA (Design-Built/ Winning Team)

CEDARS-SINAI MEDICAL CENTRE - CARDIAC CATHETERIZATION / RESPIRATORY THERAPY SUITE,
Los Angeles, CA

MCGIL UNIVERSITY HEALTH CENTRE – CANCER CENTRE,
Montreal, QC (P3, Winning Team)

KAISER PERMANENTE, BEHAVIORAL HEALTH CENTRE,
Santa Clara, CA

CLEVELAND CLINIC ABU DHABI HOSPITAL,
Abu Dhabi, UAE

KAISER PERMANENTE, ONTARIO VINEYARD MEDICAL CENTER,
Ontario, CA



PRINCIPAL, URBAN & MUSEUMS DESIGN

INTERNATIONAL COLLABORATIONS



HESHAM EL-TAYEB

B.Arch Science

ARRAY INTERNATIONAL ARCHITECTS INC.

ARRAY GROUP INC.

A designer with a great deal of experience in Museum Exhibits Design and Islamic Museum writing and research, an early leadership in using 3D modelling in the design industry resulted in a unique well-rounded experience in architecture, urban design, and planning. From leading teams to presenting to stakeholders, Hesham is an excellent communicator in Arabic and English, and brings a perfect mix of objectivity, passion to Islamic museum scenario and script writing, while looking for the human plural angle with global appeal.

KEY PROJECTS

HOLY CITY OF MAKKAH MASTER PLAN

In-Country Senior Project Architect – Moriyama and Teshima Architects & MMM Planning
Toronto, ON

- Conduced street to street photo surveying for the downtown core of the city and the holy Mosque, to have a full account of existing condition of the city;
- Built a full 3D map of the city and its complex topography, using geographic information systems to produce a complete 3D record of the city, its buildings and mountains;
- Lead digital coordination with the city GIS department (geographical Information System), to import data from the city and to feed back 3D record of the master plan and its urban design guidelines;
- Presented in workshops to Saudi high-level officials and the UN evaluation panel, to make the case better public access, lower density and more open space for crowded movement in the city core, instead towers;
- Coordinated with Various planning teams around the world, from transportation planning to city and urban planning, feeding surveyed data and importing their work into the master plan;
- Developed street sections, open space and height strategies for the final urban design guidelines; and
- Coordinated with environmental planning team to produce a full 3D map of the environmental plan

SEERA MUSEUM

Museum Consultant – Terry Heard Design
Kuwait

- Researched storyline and interpretive plan resulting a graphical timeline of life of the prophet that served a guide throughout the design process;
- Coordinated concept development, working with Terry Heard, and through testing ideas within the architectural space in 3D, presenting the story in a memorable and effective message;
- Researched the museum story line to help the interpretive writers produce the scenario and the script of the museum, and guided the writing through different historic and religious events to shape an accurate story line; and
- Presented scenario and design, in Arabic and English, to religious scholars as well as other stakeholders in Beirut, Istanbul, Kuwait city and London, UK.



ARRAY INTERNATIONAL ARCHITECTS INC.

ENVIRONMENTAL MASTER PLANNING CIVIL ENGINEERING

Urban infrastructure For Sustainable cities



NADINE IBRAHIM

Ph.D. CPO Civil Engineering, MSc, Certificate in Preventive Engineering and Social Development, BSc. (honors) Civil Engineering (Collaborative Environmental Option)

ARRAY INTERNATIONAL ARCHITECTS INC.

ARRAY GROUP INC.

Nadine is a Lecturer in the Department of Civil and Environmental Engineering and holds the Turkstra Chair in Urban Engineering. She comes from a cross-section of industry and academia in the areas of urban infrastructure, sustainable cities, and sustainable development, in addition to engineering education scholarship and pedagogy.

She has leveraged her industry experience to expand her inquiry into cities through urban and environmental projects in Canada and abroad. In Canada, she worked with municipalities in Southern Ontario on asset management, risk assessment, infrastructure planning, and capital budgeting. Her exposure to municipal engineering leadership and global industry best practices imparts transferable skills that she has excelled at and applies them in academia to generate and seek collaborative opportunities to bring real world engineering leadership examples into the classroom and with other disciplines interfacing with engineering. Abroad, in the Middle East and North Africa, she worked in international development on high profile and large-scale projects for clients including the World Bank and the Global Environment Facility.

KEY PROJECTS

ASSET MANAGEMENT & SUSTAINABLE URBAN & ENVIRONMENTAL MANAGEMENT

York Region

- Environmental Services 2013 State of the Infrastructure Report (SOIR), York Region.
- Development of a Comprehensive Asset Management Strategy & Plan, Town of Ingersoll.
- Long-term capital plan for waste management facilities, York Region.
- Asset Management Program Scoping for Water and Wastewater Facilities, City of Hamilton.
- Gap Analysis and Risk Assessment for Water & Wastewater Infrastructure, Halton Region.
- Brantford Power Asset Management Program, Brantford Power Inc.
- Drinking Water Quality Management System, Infrastructure Review, City of Hamilton.
- York Service Delivery Review for Water, Wastewater and Solid Waste, York Region.
- Peel Corporate Asset Management System, Peel Region.

ECOCONSERV ENVIRONMENTAL SOLUTIONS

Senior Environmental Manager & Business Development Manager

Middle East & North Africa Region

- Led and managed environmental, developmental and social projects contracted by development assistance, international financial aid organizations, and local sponsors from tendering stage to closeout.
- Negotiated contracts with bilateral and multilateral development organizations.
- Managed projects in countries with diverse environmental challenges including Egypt, Yemen, Syria, Libya, Ethiopia, and Saudi Arabia.
- Formed consortiums and joint ventures with international companies to ensure expertise and cost-effectiveness of bids, while retaining the local knowledge.
- Served as the main point of contact for national and international clients.
- Provided strategic advice on the expansion of the company's portfolio, and took a key role in implementing the strategy to remain competitive.
- Prepared technical and financial proposals including subject matter experts' qualifications, corporate experience, methodology, schedules, and budgets.
- Built and maintained relationships with financing institutions, clients, local institutions and agencies, partners, stakeholders, and subject matter experts to create work efficiencies.



ARRAY INTERNATIONAL ARCHITECTS INC.

ENVIRONMENTAL MASTER PLANNING CIVIL ENGINEERING

INTERNATIONAL COLLABORATIONS

NADINE IBRAHIM

Ph.D. Civil Engineering, MSc, Certificate in Preventive Engineering and Social Development, BSc (honors) Civil Engineering (Collaborative Environmental Option)

ARRAY INTERNATIONAL ARCHITECTS INC.
ARRAY GROUP INC.

PROJECTS IN CLIMATE CHANGE

- Clean Development Mechanism (CDM) projects for the Egyptian-Danish Business-to Business collaboration for climate change, Royal Danish Embassy.
- Sector Review on Environment and Energy for the Egyptian-Danish Business-to-Business collaboration for climate change, Royal Danish Embassy.
- Clean Development Mechanism (CDM) projects in partnership with Perspectives Germany, European Carbon Fund.

PROJECTS IN ENERGY

- Proposals for renewable energy project (solar and wind) for the European Mediterranean Partnership under the Sarkozy Initiative “Plan Solaire”.
- Environmental and Social Impact Assessments Training for the hydroelectric power projects for the Ethiopian staff at the Eastern Nile Technical Regional Office (ENTRO), Nile Basin Initiative.
- Environmental and Social Impact Assessment for the Greater Cairo Natural Gas Connections, including Quantitative Risk Assessment, and Resettlement Policy Framework, World Bank.
- Environmental Impact Assessment for 60 MW Wind Park at Al Mokha, Yemen. World Bank.
- Site Assessment of Halliburton sites in Libya, TAUW Environment, COW

PROJECTS IN WASTE MANAGEMENT

- Solid Waste Management for Idku City, Beheira Governorate, Egyptian LNG (as a Corporate Social Responsibility Project).
- Development of National Healthcare Waste Management Guidelines, Yemen.
- Integrated Solid Waste Management in Fayoum Governorate, Royal Netherlands Embassy.
- Feasibility Study on Enabling the Informal Sector in Solid Waste Management, National Program for Privatization of Solid Waste Management, GTZ.
- Socio-Economic Evaluation of Community Based Waste Management Initiative, CENACT with Cowater International, Canadian International Development Agency (CIDA).
- Analysis and Recommendations on Municipal Solid Waste Management in Rural Areas in Egypt, Regional Solid Waste Management Project in Mashreq & Maghreb Countries, Mediterranean Environmental Technical Assistance Program (METAP), World Bank.
- Dissemination Workshop for projects under the Environmental Enterprise Fund, in waste recycling projects including plastic, oil, animal and agricultural waste, Environmental Initiative Fund and Roche International, funded by Canadian International Development Agency (CIDA).

PROJECTS IN ENVIRONMENTAL ASSESSMENT & EVALUATION

- Country Portfolio Evaluation for Egypt and Syria on biodiversity, climate change, international waters, persistent organic pollutants and land degradation, Global Environment Facility (GEF).
- Coordination of capacity building for local technical staff on environmental management for the Sana’a Basin Water Management Project, Ministry of Water and Environment, Yemen.
- Training needs assessment for the implementation of an environmental mainstreaming program for the integration of the environment as a cross-cutting issue into the European Commission External Aid. AGRECO-Belgium.
- Pilot Project Supporting Decentralization of Environmental Management in Governorates and Environmental Management Units, Environmental Sector Programme, DANIDA (Danish Development Assistance program).
- Organization of a national public consultation workshop for the Country Environmental Analysis in Egypt (1992-2002), World Bank.
- Survey of Donors Assistance to Egypt in Environment (1993-2003), Friedrich Ebert Stiftung.



SENIOR DESIGNER & PROJECT MANAGER

INTERNATIONAL COLLABORATIONS



G.S.DAN VOICU

Dipl. Arch.

ARRAY INTERNATIONAL ARCHITECTS INC.

ARRAY GROUP INC.

25+ years of experience on various projects with a background in technical knowledge, project development, legal compliance and more. Significant experience in Europe, North America, and the Middle East. He is well experienced in the field of Airport and Aviation projects. Progressive and rich background in managing and completing large-scale architectural projects, including construction of Hotels, Airports, High-rise buildings, Retirement residences, historical renovations and more. Proven expertise in master design planning, project portfolio management, and real estate development.



- Process Improvement & Innovative Solutions
- Management & Oversight
- Architecture & Urban Planning
- High-Profile Large-Scale Projects
- Construction Stage Management
- Advanced knowledge of Architecture Theory, Principles in Design, Project Coordination, Master Planning, Programming and Budgeting, Site Review, Client Business Requirements & Procedures, Defining Best Practices

KEY PROJECTS

Major Transportation Facilities - Airports
Toronto, Kenya, Barbados, Oman, Nova Scotia

7+ Various International and Local Airports (\$100 mill +)

Palaces, Hotels, High-Rise, Retirement Residences, Recreational, Commercial
Toronto, Burlington, Qatar, UAE, Austria, Panama, Romania

Various Hotels, VIP Lounges, Shopping Centers (\$100 mill +)

HOSPITALITY AND HOTEL OPERATIONS AND MANAGEMENT CONSULTANT

INTERNATIONAL COLLABORATIONS



JOHN CHEUNG

HOSPITALITY & TOURISM MANAGEMENT
Toronto Metropolitan University
Social Media Marketing Cornell Certificate Program

ARRAY INTERNATIONAL ARCHITECTS INC.
ARRAY GROUP INC.

Experienced hotelier with over 30 years in development, finance & operations.
Strong expertise in revenue maximization, control, strategic planning, budget, forecasting, administration, operations & marketing.
Highly developed analytical skills, in-depth knowledge of the hospitality industry.
Dynamic senior hotel executive specializing in multi unit's operations, timeshare complex, project management & pre-opening experience.
Lead, develop and train teams to achieve outstanding results, heighten work spirit and performance.
Prepare, review & analyze monthly/annual hotel operations performance.
Strong analytical, negotiation & people skills.
Highly experienced within a corporate & franchised environment.
Exceptional skills in cash flow planning as well short & long term forecasting.
Extremely motivated, hardworking & a visionary hotel executive.

ACHIEVEMENTS & AWARDS

- Executive of the Year in 2000 awarded by Holiday Inn of Canada.
- Best hotel development "Project of the Year" awarded by AOKI Corporation.
- Rising Hotel Executive under 40 awarded by Hotelier Magazine.



ARRAY INTERNATIONAL ARCHITECTS INC.

ASSOCIATE, LANDSCAPE ARCHITECT INTERNATIONAL COLLABORATIONS



FREDRIC FRANCIS

D.P.L.G (Belgium)

P.T.S.A (France)

ARRAY INTERNATIONAL ARCHITECTS INC.
ARRAY GROUP INC.



ARRAY INTERNATIONAL ARCHITECTS INC.

Frederic Francis is a landscape architect who has chosen this very particular profession out of deep passion and respect for nature, feelings that extend back to early childhood. His creative landscapes express harmony and serenity that provides a real enchantment for the soul.

After earning a Landscape Design degree in France in 1988, Frederic Francis graduated in Belgium as a landscape architect in 1992. Since his return to Lebanon in 1993, he has been managing Francis Landscapes s.a.l. Offshore which was established in 1987.

Frederic Francis has won numerous competitions for projects in Lebanon and abroad over the years, earning him a wide reputation. Among the completed projects are urban, leisure, sports, educational projects, mountain, beach resorts, public parks and hotels. In collaboration with high profile international architectural firms, Frederic Francis is currently working on large-scale projects across the Middle East, Africa and Europe located in Lebanon, Egypt, Jordan, Syria, Saudi Arabia, U.A.E, Kuwait, Nigeria, Algeria, Morocco, Tajikistan, India, France, Belgium and England.

.SHORTLISTINGS

- 2016 AGHA KHAN AWARD FOR ARCHITECTURE- GENEVA- NOMINATED FOR ZEN SYMMETRY PROJECT, BEIRUTLEBANON
- 2014 PISCINA BARCELONA AWARDS- BARCELONA- SHORTLISTED FOR A MAGICAL SETTING PROJECT, ALEYLEBANON
- 2012 CHICAGO ATHENAEUM AWARD- CHICAGO- SHORTLISTED FOR SKYGATE PROJECT, BEIRUT- LEBANON
- 2011 WORLD ARCHITECTURE FESTIVAL- BARCELONA- WAF SHORTLISTED/CATEGORY FUTURE PROJECTS,
- LANDSCAPE FOR SKYGATE PROJECT, BEIRUT- LEBANON
- 2011 WORLD ARCHITECTURE FESTIVAL- BARCELONA- WAF SHORTLISTED/COMPLETED BUILDINGS, LANDSCAPE
- FOR THIS IS NOT A FRAMED GARDEN PROJECT, BSALIM- LEBANON
- 2011 WORLD ARCHITECTURE FESTIVAL- BARCELONA- WAF ONCE PRIZE SHORTLISTED/ SKYGATE PROJECT, BEIRUTLEBANON

COMPETITIONS

- 2014 NOBLE QUR'AN OASIS, AL MADINAH AL MUNAWARAH - KSA
- 2014 AMBASSY OF KUWAIT, TIRANA - ALBANIA
- 2012 GRAND LYCEE FRANCO-LIBANAIS DE BEYROUTH, BEIRUT - LEBANON
- 2010 KING ABDULLAH MONUMENT PARK, THUWAL - KSA
- 2007 HH SHEIKH SAEED BIN ZAYED AL NAHYAN, RABAT - MOROCCO
- 2003 PORT D'AMOUR BEACH RESORT, DAMOUR - LEBANON
- 1995 PINE FOREST IN BEIRUT WITH JAQUES SGARD, PARIS – FRANCE

AFFILIATIONS

- MEMBER OF THE “BELGIAN ASSOCIATION OF LANDSCAPE ARCHITECTS” (A.B.A.J.P.)
- MEMBER OF THE “AMERICAN SOCIETY OF LANDSCAPE ARCHITECTS” (A.S.L.A.)

AWARDS

- 2014 ARABIAN PROPERTY AWARDS / WINNER IN THE RESIDENTIAL LANDSCAPE ARCHITECTURE CATEGORY, MOROCCAN TOUCH, DOHA - QATAR
- 2014 POOL VISION MIDDLE EAST WITH ARCHI-EUROPE / ARCHIWORLD, 1ST PRIZE WINNER IN THE PRIVATE POOL CATEGORY, A MAGICAL SETTING, FAQRA - LEBANON
- 2014 POOL VISION MIDDLE EAST WITH ARCHI-EUROPE / ARCHIWORLD, 1ST PRIZE WINNER IN THE PRIVATE SPA CATEGORY, MOROCCAN TOUCH, DOHA - QATAR
- 2013 BLUE STONE AWARDS IN COLLABORATION WITH ARCHI-EUROPE / ARCHIWORLD, 1ST PRIZE WINNER IN THE LANDSCAPE CATEGORY, HARBOUR TOWER PROJECT, BEIRUT – LEBANON
- 2013 DESIGN AWARDS - ARCHITECTURE MERIT AWARD BY THE AMERICAN INSTITUTE OF ARCHITECTS, AL HAMRA TOWER, KUWAIT CITY – KUWAIT
- 2012 THE CHICAGO ATHENAEUM MUSEUM OF ARCHITECTURE & DESIGN, 2012 GREEN GOOD DESIGN AWARD IN
- THE GREEN URBAN PLANNING / LANDSCAPE ARCHITECTURE CATEGORY FOR FEAD AND IRANI OXY ENGINEERING COMPLEX, AMERICAN UNIVERSITY OF BEIRUT IN COLLABORATION WITH NABIL GHOLAM ARCHITECTS, BEIRUT - LEBANON

ACHIEVEMENTS & AWARDS

- 2012 ARCHITIZER POOL VISION, 2ND PRIZE WINNER, THIS IS NOT A FRAMED GARDEN , BSALIM - LEBANON

- 2012 B.I. D AWARDS FOR GOLD CATEGORY IN WORLD QUALITY COMMITMENT



SENIOR ARCHITECT
SAM A. SHUKOR

OAA, AIBC, AAA, RIBA, MRAIC, PH
 CERTIFIED DESIGNER

A highly creative & progressive Senior Architect. 25+ years of experience on various projects with a background in technical knowledge, project development, legal compliance and more. Significant experience in Mixed Use, Residential, Retail and Entertainment Developments on various scales. Certified for sustainable and passive design projects. Effective in surprising design and production teams within budget & time.

- Strong Building Envelope Design knowledge and Expertise
- Best Design Prizes from Canadian Professional Institutions
- 3D Sketching & Conceptual Design
- Commercial & Residential Buildings

KEY PROJECTS

DUFFERIN MALL - RETAIL
 Toronto, ON, Canada

Designer

MIXED USE DEVELOPMENT
 Erbil, Iraq

20 Storey Office Tower

THE COLOSSUS MOVIE THEATRE - ENTERTAINMENT
 Vaughn, ON, Canada

Designer

ROYALE HOTEL (5 STAR)
 Beirut, Lebanon

23.5 Acre (\$105 mill)



BIM MANAGER
ALI AL AJDAA

Dipl. Arch, CPM

15+ years of experience with Residential, Commercial, Mixed-use and High-End Hospitality projects both in North America and Middle East, makes him highly versatile and adaptable to working on a variety of projects both in Design and Project Leadership. Extensive experience in design of large-scale architectural projects including High-rise residential (multi-units residential buildings (MURBs) and Mixed-use projects.

- Architecture & Urban Planning
- Project Management and Administration
- High-Profile Large-Scale Projects
- Experienced in planning, facility programming and all phases of architectural design from conceptual design development to detailed design

KEY PROJECTS

MIXED-USE DEVELOPMENT (3 RESIDENTIAL TOWERS)

Toronto, ON, Canada

124,000 sm

MIXED USE DEVELOPMENT (COMMERCIAL/RESIDENTIAL)

Toronto, ON, Canada

108,000 sqm

MIXED USE DEVELOPMENT PARKSIDE VILLAGE

Mississauga, ON, Canada

45,000 sm


DUBAI INVESTMENT PARK HOSPITAL

Dubai, UAE

107,000 SQFT – 60 Bed



ABOUT US



Persistence and diligence have solidified JAIN's position in the field of engineering consultancy services at an international level. A Toronto based company with offices located in Dubai, Morocco, New Delhi, Port of Spain, Toronto, JAIN boasts a high caliber staff providing a solid platform for superior project delivery.

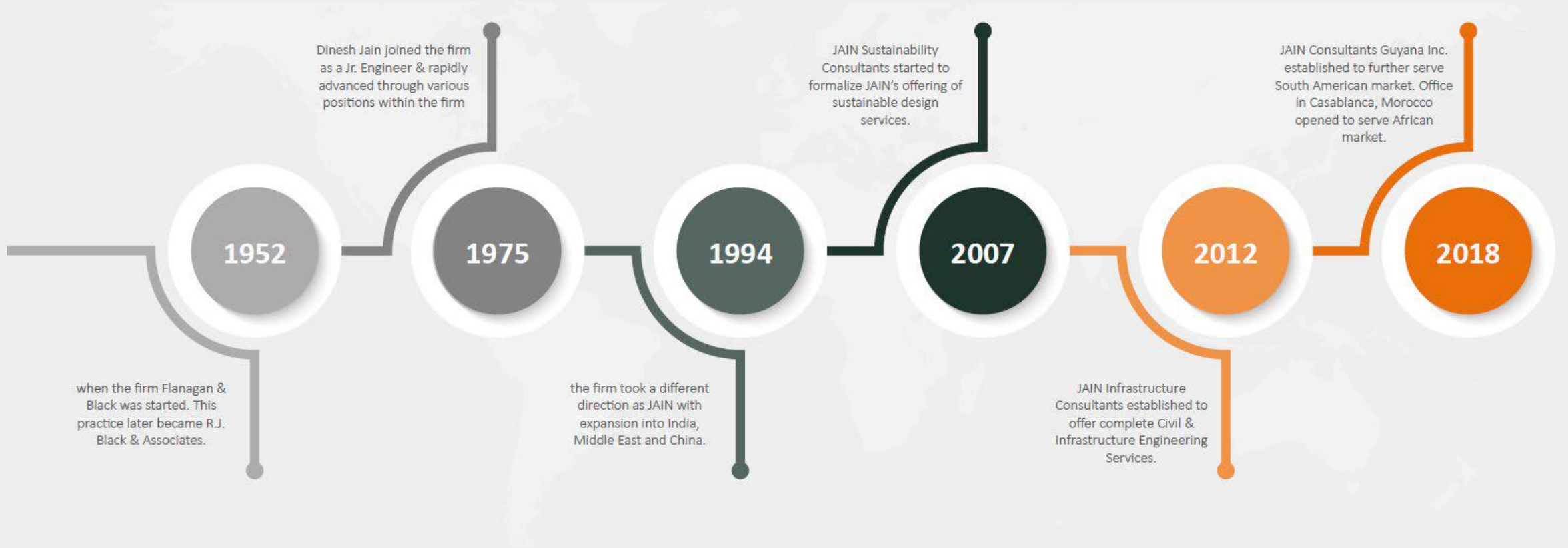
For almost 60 years, JAIN has been providing professional services to its clients in the public and private sector. JAIN's experience includes a variety of project types including commercial, high-rise residential, hospitality, education, health care, post-secondary, recreation, emergency, government, religious facilities and municipal infrastructure. JAIN firmly believes that an engineering firm must adapt to the project type and produce designs based on core principals that do not change with the type of project. It is accurate application of these principals that makes a firm dynamic and suitable for any project type.

JAIN takes pride in its experience and passion in sustainable design. The firm's main principals, Dinesh & Anish Jain, are both LEED® Accredited Professionals and Certified Energy Managers. They are supported by several other Professional Engineers and LEED® Accredited Professionals that make sustainability the main motivation of all design decisions. JAIN has won many awards and international competitions for innovative design and is constantly looking for new ways to make their designs more sustainable while keeping them simple. Projects including on-site renewable energy and netzero classification are becoming more common in JAIN's portfolio.

Constant professional development of their staff and investment in technology allow JAIN to remain at the leading edge of engineering practices. Tools for building information modeling, energy analysis, daylight simulation, lighting design and other activities are used in JAIN's offices worldwide.

We invite you to learn further about why Developers and Architects around the world have made JAIN their engineers of choice. Our 60 year history speaks for itself.

OUR JOURNEY



GLOBAL PRESENCE



Countries we have worked in:

- ⊗ Canada
- ⊗ USA
- ⊗ Anguilla
- ⊗ Antigua
- ⊗ Dominica
- ⊗ St. Kitt's
- ⊗ Trinidad
- ⊗ Guyana
- ⊗ Iran
- ⊗ Jordan
- ⊗ Kuwait
- ⊗ Oman
- ⊗ Qatar
- ⊗ Saudi Arabia
- ⊗ United Arab Emirates
- ⊗ Chad
- ⊗ Kenya
- ⊗ Libya
- ⊗ Nigeria
- ⊗ Sudan
- ⊗ Azerbaijan
- ⊗ Afghanistan
- ⊗ Bangladesh
- ⊗ China
- ⊗ India
- ⊗ Kazakhstan
- ⊗ Myanmar
- ⊗ Pakistan
- ⊗ Tajikistan

OUR SERVICES

JAIN provides complete mechanical and electrical consulting services in the following areas:

- HVAC
- Plumbing and Drainage
- Fire Protection
- Power Distribution
- Lighting Design
- Communication Systems
- Vertical Transportation
- Environmental Engineering & Impact
- District Cooling/Heating

The following are the types of services we offer in the above disciplines:

- Building Condition Assessment
- Feasibility Studies
- Preparation of drawings and specifications for tender/construction
- Site review during construction
- Assistance in commissioning
- Value Engineering and Peer Review
- Project Management
- Energy Audits
- LEED Certification
- Energy Performance & Daylight Modeling
- BIM

We also provide comprehensive services for municipal infrastructure. The following typical components of municipal infrastructure are offered:

- Site Servicing Design for Site Plan Applications
- Grading & Earthworks Design
- Site Servicing Design
- Storm Water Management Reports
- Sewage Treatment Plants

Stormwater Management:

- Flood Control & Drainage Planning
- Flood Plain Studies & Management
- Stormwater Management
- Detention & Retention Facilities
- Water Reuse and Infiltration Design

Municipal Infrastructure:

- Urban Stormwater Drainage Systems
- Neighborhood Improvement Projects
- Water Transmission Systems
- Urban Roadway Improvements
- Rural Water Supply Systems
- Pipeline Rehabilitation
- Network Hydraulic Modeling
- MESP studies

Pump Stations:

- Sewage Lift Stations and Pump Stations
- Stormwater Pump Stations & Outfalls

Construction Support:

- Preparation of Construction Drawings
- Contract Specifications and Tender Documents
- Approvals and Permits
- Contract Administration
- Site Inspection and Acting as Clients Representatives



SUSTAINABILITY/LEED

JAIN's primary focus is innovation in the built environment. Our team of engineers, technologists, energy analysts and LEED® facilitators ensure that every building we are involved with is as green as possible, while remaining conscious of functional and financial impacts that sustainability may have on the project. Occupant comfort and performance are primary considerations, as are public interest and engagement.

Our firm includes several staff members that are well versed in the LEED® Certification process and thus are able to facilitate green design and construction practices, from leading design charrettes to ensuring specifications are written with green building in mind. We are continuously attending conferences, obtaining literature and conducting research regarding the latest in green building technologies and sustainable materials.

Our team uses a variety of software to perform energy modeling, daylight modeling, and most recently whole-building performance simulation. Depending on the goal (design decision-making, LEED® compliance, government incentives, etc.) the appropriate method of modeling will be selected.

LEED® Projects

• Plaza 2006 Brock University Building, St. Catharines, Canada • Guelph Hydro, Phase 2, Guelph, Canada • Milton Town Hall Expansion, Milton, Canada • Innisfil Public Library, Cookstown Branch, Canada • DSSAB Office Building, Parry Sound, Canada • Scotiabank Convention Centre, Niagara Falls, Canada • Newmarket Operations Centre, Newmarket, Canada • Sunnyside Supportive Housing, Kitchener, Canada • Markham Museum Collections Building, Markham, Canada • Fire Station 8-6, Richmond Hill, Canada • North Wentworth Twin Pad Arena, Hamilton, Canada • Pickering GO Transit Station, Pickering, Canada • St. Mildred's Lightbourn School, Oakville, Canada • Ontario Power Generation Offices Pickering, Canada • Guelph South End Emergency Services Station, Guelph, Canada • Guelph Civic Museum, Guelph, Canada • Peel Regional Police Fleet Services Facility, Brampton, Canada • Scugog Memorial Public Library, Port Perry, Canada • Campbellville Community Centre, Campbellville, Canada • Caledon East O.P.P. Detachment, Caledon, Canada • 610 Applewood Office Building, Vaughan, Canada • Fire Station #99, Markham, Canada • Thorncliffe Park Elementary School, Toronto, Canada • W. Ross MacDonald Senior Student Residence, Brantford, Canada • Parkway Forest Community Centre, Toronto, Canada • Markham Pool & Field House (Pan-Am Games Venue), Markham, Canada • Artillery Park Community Centre, Kingston, Canada • Kingston Transit- Bus Storage Facility, Kingston, Canada • GO Union Operational Support Building, Toronto, Canada • Canadian Forces School of Electrical and Mechanical Engineering Canadian Forces Base Borden, Canada • Milton Operations Centre, Milton, Canada • MNR Fire Management Facility, North Bay, Canada • MNR Fire Management Facility, Haliburton, Canada • GO Long Branch Station, Toronto, Canada • 2015 Pan Am Games Venues (Compliance), Greater Toronto Area, Canada • GO Gormley Station, Markham, Canada • GO Hamilton Bus Facility, Hamilton, Canada • No.1 Park Avenue, DIFC, UAE • Element Hotel, Vaughan, Canada • Tower Parcels 5.07 and 5.08, KAFCO, Riyadh, KSA

Award Winning Projects

We have won many awards for the design of energy-efficient buildings since 1975. Our designs have included:

- Geothermal heat pump systems
- Solar hot water and Photovoltaic Systems
- Thermal water, ice and rock storage systems
- Solar air-conditioning systems
- Rainwater harvesting systems
- Biological treatment systems
- Passive cooling and heating systems
- Daylighting systems
- Chilled Beam Systems
- Termodeck®



BUILDING DESIGN METHODOLOGY

JAIN endeavours to follow an Integrated Design Process on every project we complete. Involvement of the Building Services Engineers in the early stages of Schematic Design can help ensure that the following occurs:

- Building Envelope is optimized to balance capital and operating costs of the building
- Passive features such as Natural Ventilation & Daylighting are suitably incorporated
- MEP Spaces are allocated to ensure good engineering practices may be followed in the detailed design
- The Building Owner's preferences of building systems are obtained in a timely manner such that any impacts on design may be incorporated early on.

Building Information Modeling

JAIN has always been at the forefront of technology adoption, being amongst the first MEP engineering firms in Toronto to integrate CAD in the late 1980's.

All of JAIN's offices have staff well-versed in BIM software. We have found that the BIM process exponentially reduces the time required for coordination and the model that is developed can be used for many purposes such as the following:

- Production of detailed layouts, sections and shop drawings
- Clash analysis
- Work scheduling (4D Modeling)
- Quantity take-offs
- Calculations such as load estimation, photometrics, etc.
- Energy simulation
- Facility management

During the Design Development stage, JAIN ensure that the systems being implemented in the building are well understood by all members of the project team and are most appropriate for the project. For example, energy modeling is used to optimize equipment sizes and ensure that operational costs of the mechanical system are verified prior to moving into detailed design. Coordination with Utilities and Service Providers also occurs at this stage. Lighting is selected in consultation with the Architect and cut sheets are presented for everyone's input and review. Throughout design, meetings are held both internally and with the project team to ensure that adequate coordination takes place. JAIN has found that in projects implementing BIM, the coordination process is almost seamless and reduces the need for meetings and changes later on.



Infrastructure





Dubai Promenade Towers and Infrastructure - Dubai, UAE

JAIN was part of the team that won the international design competition for this landmark project at Dubai Marina. The 5.8 million sq.ft. in our scope included five residential towers, a commercial/retail base, waterfront promenade, private beach, dune gardens and a parking podium for 6000 cars. JAIN was contracted to design all infrastructure and MEP Systems for the development. The project aimed to achieve LEED® Gold Certification.

Ashghal Expressway Programme Groups 2 & 9 - Doha, Qatar

JAIN were retained to design the MEP Systems for several road tunnels and underpasses to be constructed as part of ASHGHAL'S Expressway Programme.

The project includes the following:

- A-Ring Road Tunnel (3.2 km)
- Mohamed Bin Thani Tunnel (3.3 km)
- C-Ring Road Tunnel (1.6 km)
- Ahmed Bin Ali Tunnel (800 metres)
- 9 Underpasses (65 to 180 metres)

JAIN's scope involved the design of complete MEP Systems for the structures including ventilation, fire protection, normal and emergency power distribution, lighting, fire alarm and detection, public address, video surveillance and all required control systems. Jain were also responsible for performing quantitative risk assessment, life safety analysis, CFD modeling, acoustic analysis and coordination with local authorities





Cabrits Resort Kempinski, Dominica

This project includes 101 guestrooms/suites and 60 apartments spread out amongst various amenity buildings and lagoons. JAIN are the MEP, ELV & Infrastructure Consultants for this 5-star property.

Rosemont Hotel & Residences Dubai, UAE

Located prestigiously off Sheikh Zayed Road, the combined site of this development extends approximately 13,000 m² with a total built-up area of 170,000 m². The development consists of two 47-storey towers: a 450-key hotel and a 280-key serviced apartments tower.

JAIN provided MEP design services for this project.



Strategic Food Secure Facility - Doha, Qatar

JAIN's role as lead consultant on the project included complete infrastructure, MEP and process engineering including wet utilities, dry utilities, pumping stations and all buildings.

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Dukhan Central Tunnel - Doha, Qatar

JAIN have performed the MEP design for this 900 metre tunnel which is being constructed as part of the Rawdat Rashed Interchange near Mall of Qatar.

JAIN's scope included risk assessment, life safety analysis, CFD Modeling and design of the following systems: ventilation, fire protection, lighting, power distribution, fire alarm and detection, public address and voice evacuation, video surveillance and all required control systems.

JAIN has secured approval of the life safety scheme and ventilation design from Qatar Civil Defense and are in the final stages of obtaining approval of the fire protection and fire alarm systems as well.

JAIN are also working closely with the Programme Delivery Managers, KBR, and have been successful in responding to their queries regarding the design.

ONE Simulations are the ventilation specialists working with JAIN and have validated the design via CFD Modeling.



Al Hail Mixed Use Development

This is a 39,000 m2 mixed use development including middle class residential units, commercial buildings and community amenities.

JAIN was retained to provide complete infrastructure and MEP Design for the development. Scope included potable, fire, foul, storm and irrigation network design along with MEP and ELV for all buildings.

JAIN assisted the client in developing the schematic design for the entire development; our scope included design for infrastructure utilities as well as coordination with relevant authorities.





Al Ghubra North Muscat, Oman

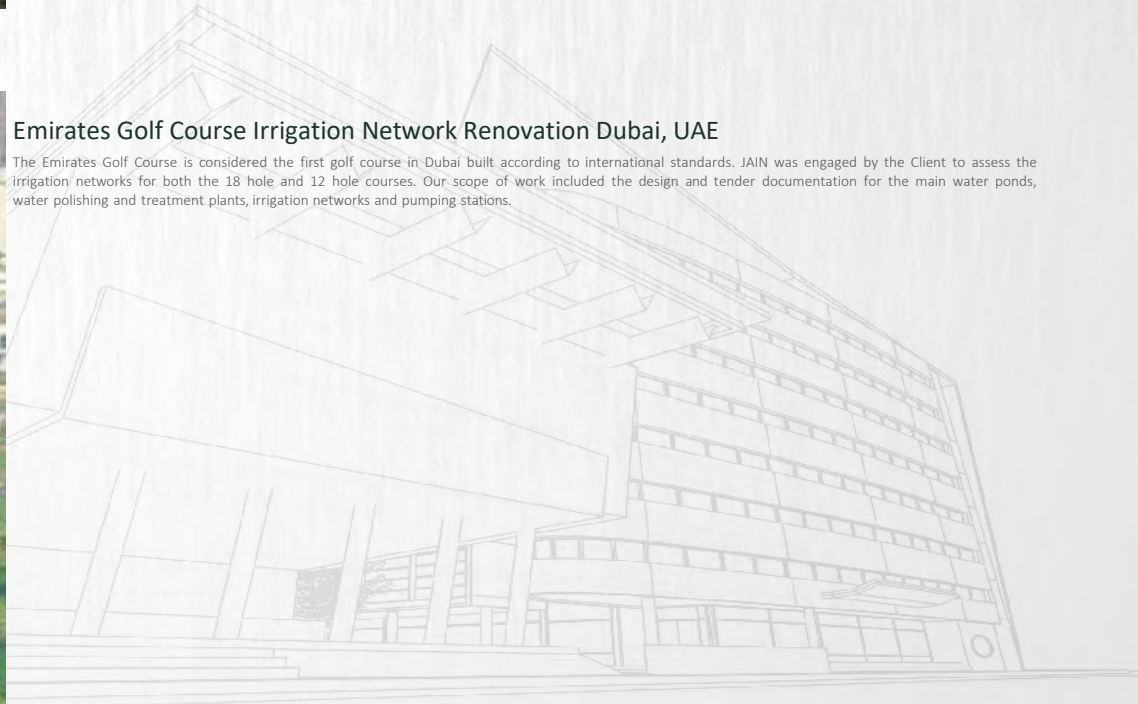
This is a mixed used development master plan in the Al Ghubra Area in Muscat, Oman. With a land area of around 200,000 m², Al Ghubra Development is well designed to provide middle income housing solutions to the citizens of Oman.

JAIN completed the design of infrastructure services including the sewage and storm water networks, potable water network, power and communication networks. JAIN was also involved in the MEP systems and building services design for the entire development.



Emirates Golf Course Irrigation Network Renovation Dubai, UAE

The Emirates Golf Course is considered the first golf course in Dubai built according to international standards. JAIN was engaged by the Client to assess the irrigation networks for both the 18 hole and 12 hole courses. Our scope of work included the design and tender documentation for the main water ponds, water polishing and treatment plants, irrigation networks and pumping stations.



Al Janoub Stadium, Doha 2022 - Qatar

This is a 40,000 Spectator Stadium designed to international standards to serve as one of the Stadiums for World Cup 2022.

Jain has been engaged with a Consortium of World Class Contractors on the MEP design, engineering, BIM modeling, clash resolution and shop drawings for the MEP services of the 40,000 seats Stadium in Qatar.



Al Thumama Stadium - Doha 2022 - Qatar

This is a 40,000 Spectator Stadium designed to international standards to serve as one of the Stadiums for World Cup 2022.

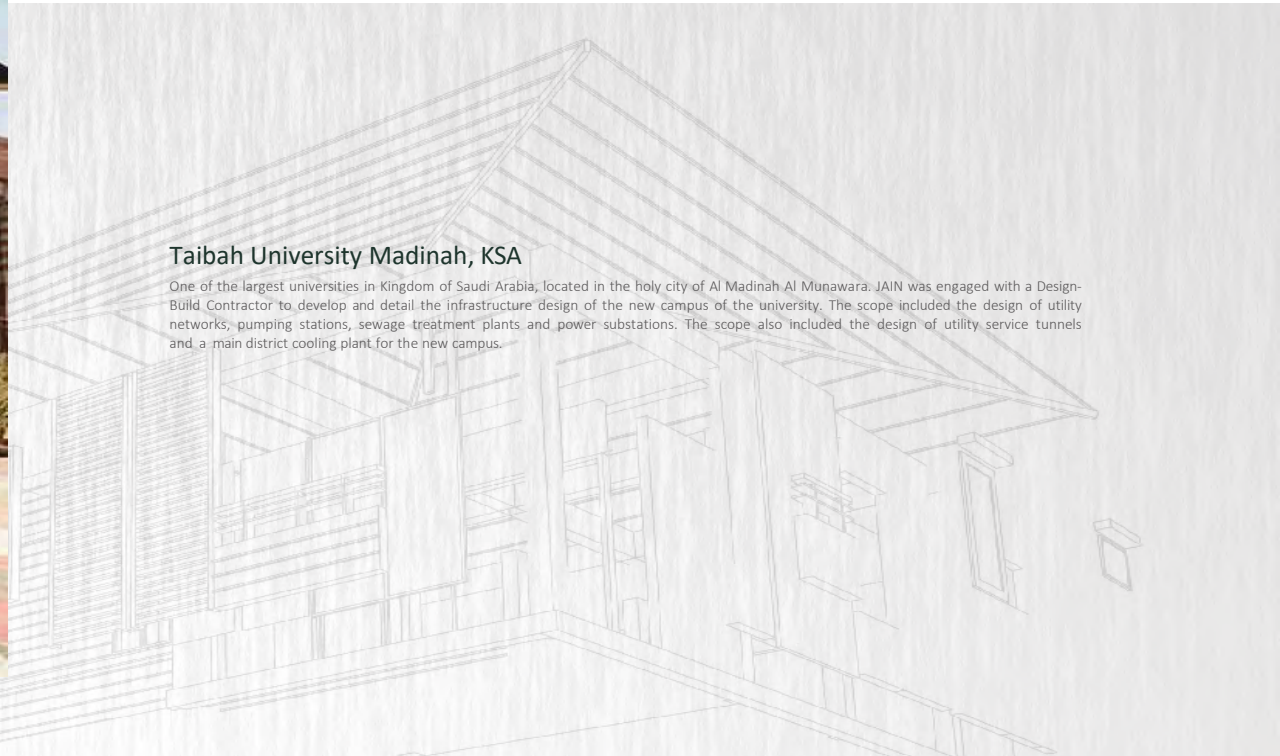
Jain has been engaged with a Consortium of World Class Contractors on the MEP design, engineering, BIM modeling, clash resolution and shop drawings for the MEP services of the 40,000 seats Stadium in Qatar.





Taibah University Madinah, KSA

One of the largest universities in Kingdom of Saudi Arabia, located in the holy city of Al Madinah Al Munawara. JAIN was engaged with a Design-Build Contractor to develop and detail the infrastructure design of the new campus of the university. The scope included the design of utility networks, pumping stations, sewage treatment plants and power substations. The scope also included the design of utility service tunnels and a main district cooling plant for the new campus.



Fujairah Resort Development - Fujairah, UAE

Located between the Hajar Mountains and the Indian Ocean, Fujairah Resort contains a 200 room hotel and 150 residential apartments, as well as a diverse range of world class leisure facilities and a grand banquet hall.

JAIN performed the design of all infrastructure services for the development including sewage, water, power, and telecommunication utilities. District cooling and sewage treatment plants were also included to serve the development.



thinking globally, delivering locally



Francis Landscapes

Landscape Architecture & Urban Planning



ARRAY INTERNATIONAL ARCHITECTS INC. TEAM

FIRM PROFILE //

Francis Landscapes is an international firm comprised of landscape architects, architects, interior architects and planners.

Founded in 1987, the firm provides full planning, design and supervision services in landscape architecture, environmental planning and urban design.

The firm's national and international projects are spread out in the Middle East, Africa and Europe and are located in numerous countries. They include a wide range of mountain and beach resorts, public parks, hotels, university campuses, sports clubs, office buildings and mixed-use developments as well as state-of-the-art residences, palaces and government buildings.

The firm has extensive experience in all facets of design, demonstrating competency regardless of the complexities of different climates, geographical locations, social situations and the variety of client expectations with the overriding goal of providing excellence and timeless design.

PHILOSOPHY //

The firm embodies a commitment to creative solutions that meld with cultural desires and functionality. The work is characterized by a philosophy of strong, simple design that incorporates cultural and environmental forces that are unique to each site.

This design philosophy is integrated with a clear understanding of costs, current construction techniques and scheduling and guided by the ever important emphasis on the client's needs and goals.

Exploring the relationship between art and culture, Francis Landscapes challenges traditional concepts of design. The firm's successful and innovative work results from balancing knowledge of history and tradition with sympathy for contemporary needs, while exploiting a clear understanding of both conceptual and material processes expressed through a mastery of construction and detail.

PRINCIPAL //

Frederic Francis is a landscape architect who has chosen this very particular profession out of deep passion and respect for nature, feelings that extend back to his early childhood. His creative landscapes express harmony and serenity that can provide a real enchantment for the soul.

After earning a Landscape Design degree in France in 1988, Francis graduated in Belgium as a landscape architect in 1992. Since his return to Lebanon in 1993, he has been managing Francis Landscapes.

Frederic Francis has won numerous competitions for projects in Lebanon and abroad during these years, earning him a wide reputation.





Mixed Use + Office Buildings

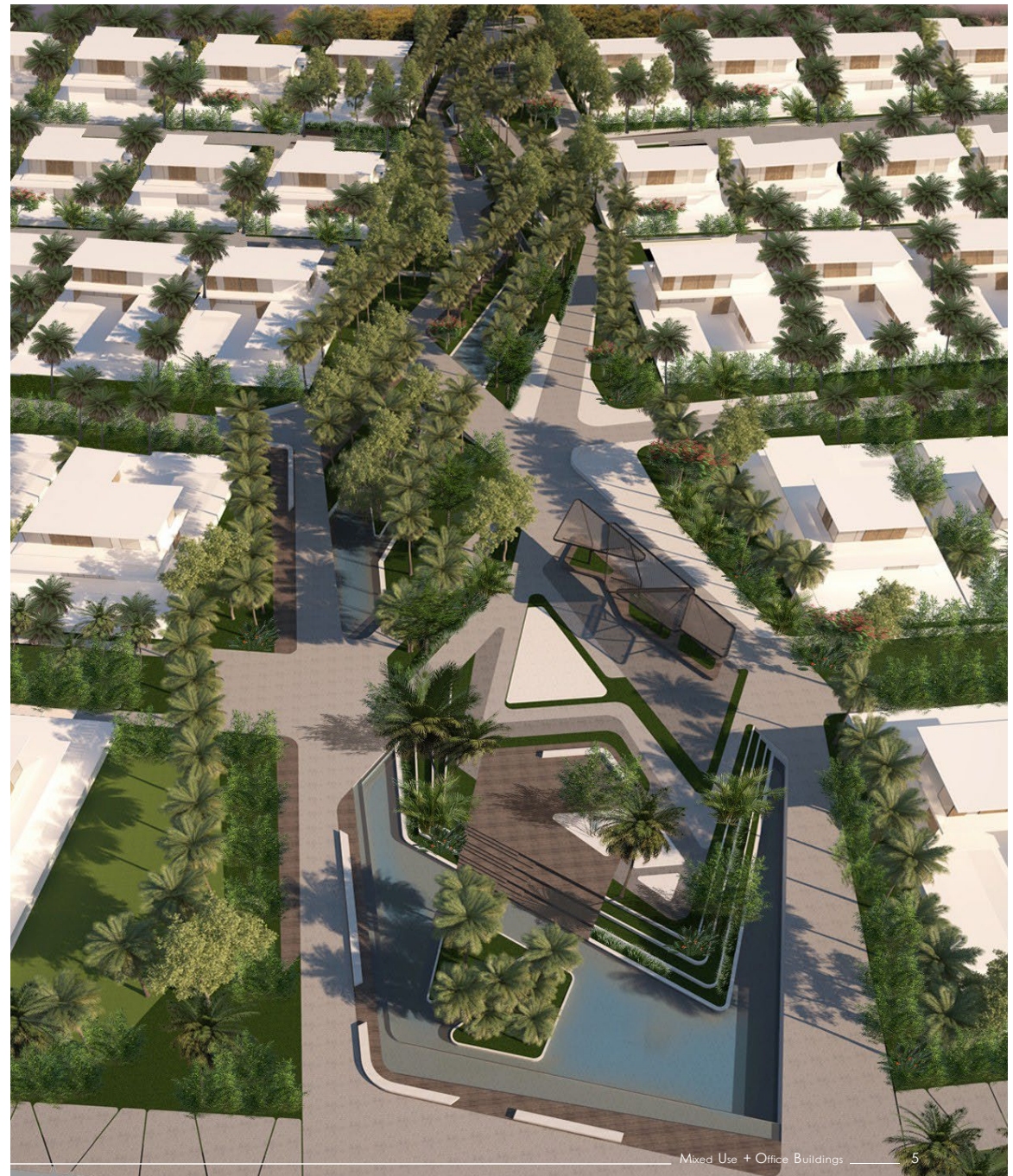
La Marina// Assinie, Côte d'Ivoire

Category Mixed Use Development
Date 2021- Ongoing
Area 17,000 m²
Architect Ateliers M-Raud



La Mangrove // Assinie, Côte d'Ivoire

Category Mixed Use Development
Date 2021- Ongoing
Area 130,000 m²
Architect Ateliers M-Raud



The H Residence // Dubai, UAE

Category Mixed Use Development
Date 2019 - Ongoing
Area 3,000 m²
Architect TKDP



Cuore Verde // Montenegro

Category Mixed Use Development
Date 2019
Area
Architect Architecture Studio





ALJADA MASTERPLAN // SHARJAH, U.A.E.

Category Mixed Use Development
Date 2018 - Ongoing
Area 200,000 m²
Architect Zaha Hadid Architects



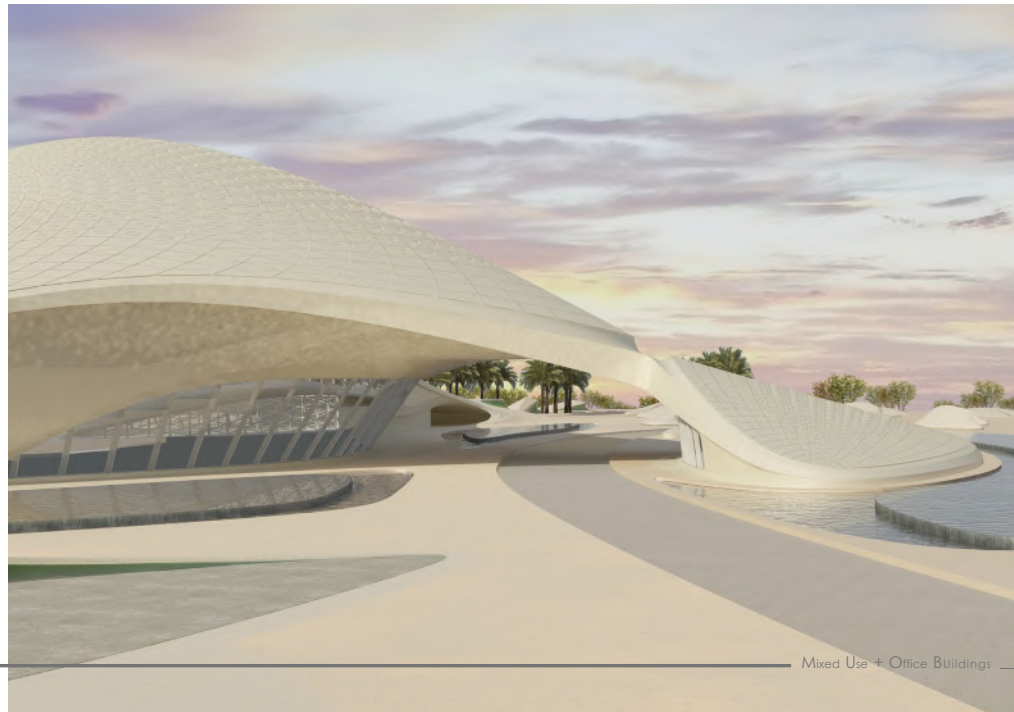




BEE'AH HEADQUARTERS // SHARJAH, U.A.E.

Category Office Building
Date 2013
Area 92,000 m²
Architect Zaha Hadid Architects







Private Residences



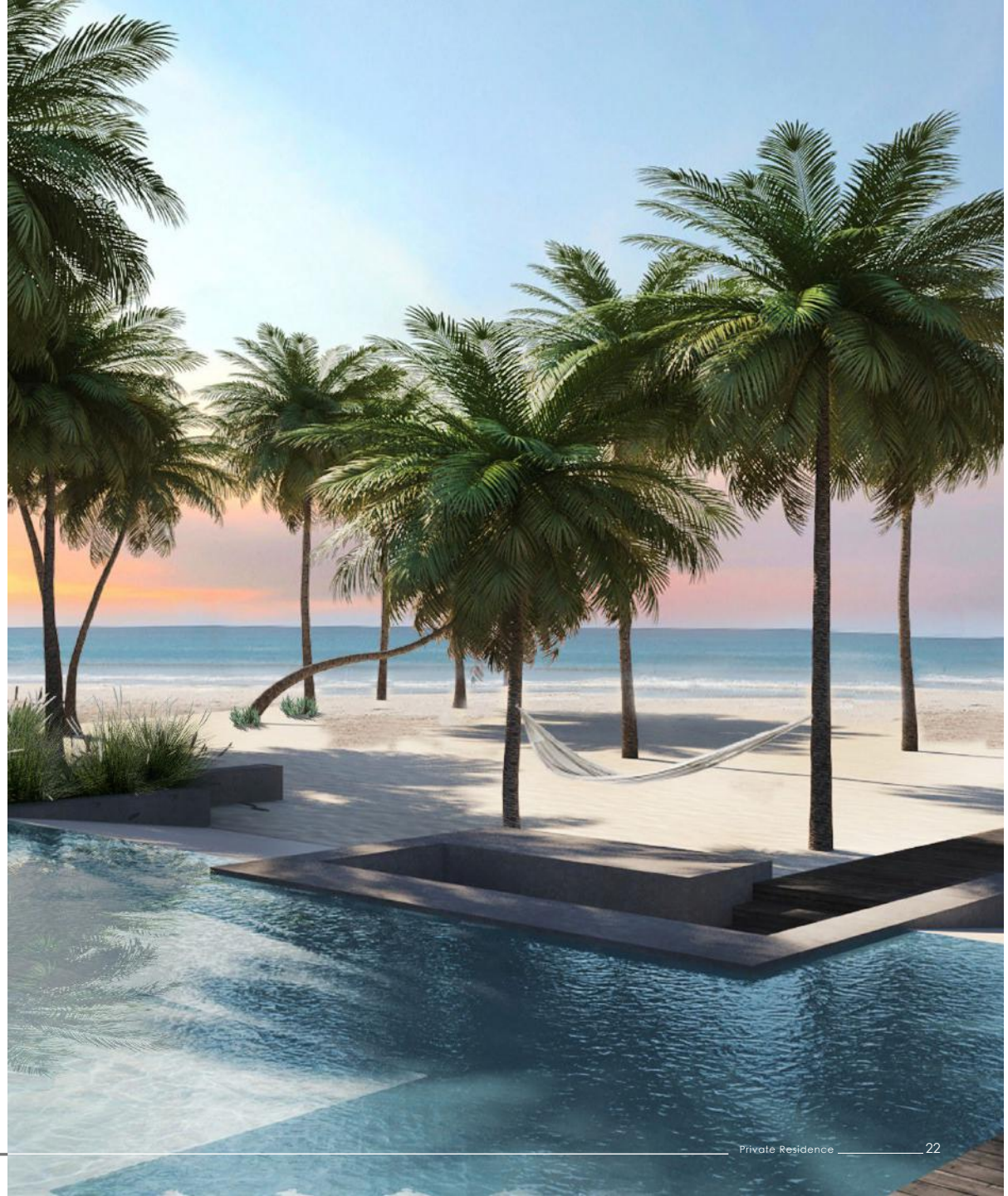
PRIVATE RESIDENCE // Dubai, UAE

Category Inland Residence
Date 2021 - Ongoing
Area 4,000 m²
Architect MK Design



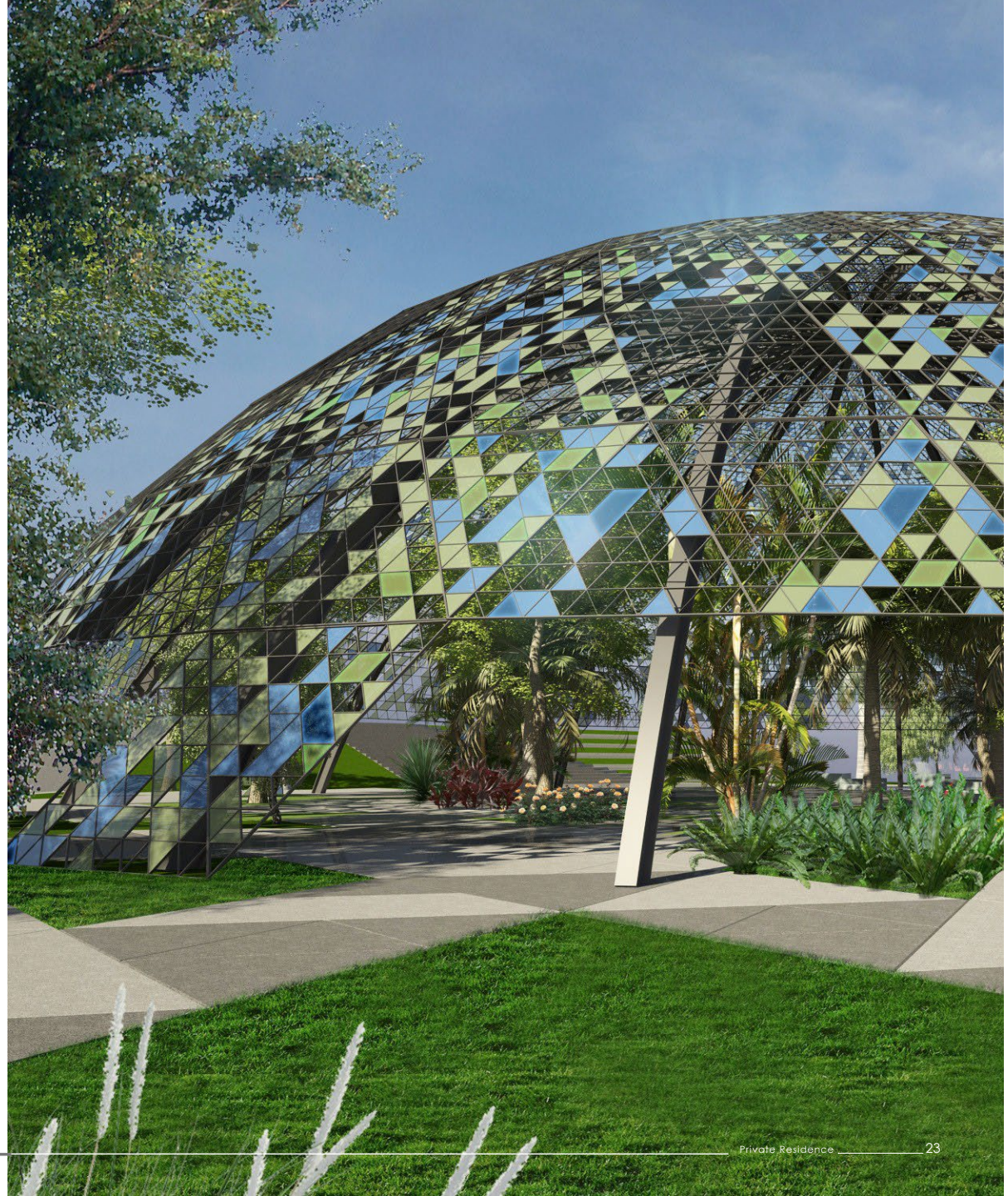
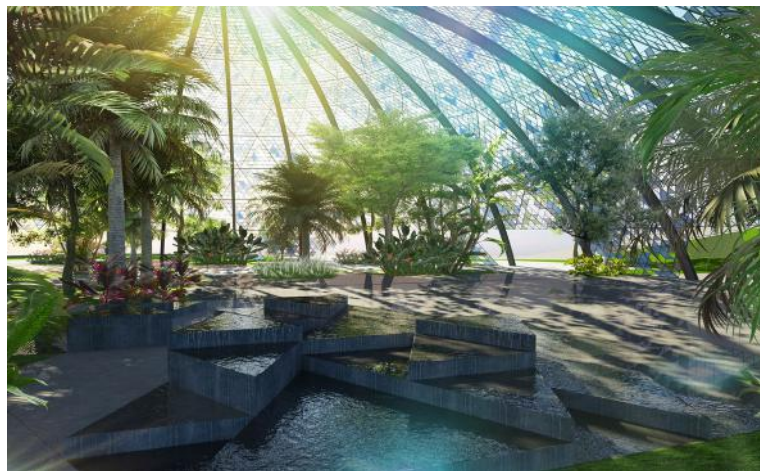
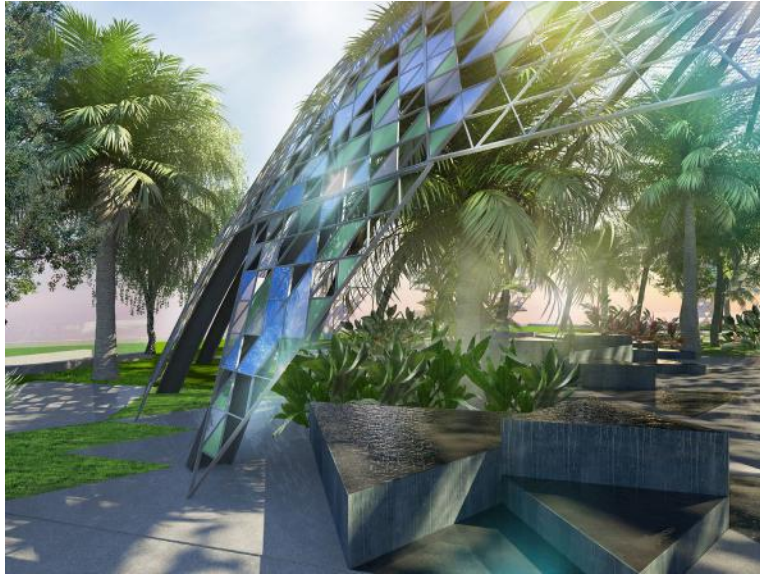
PRIVATE RESIDANCE//Assinie, Côte d'Ivoire

Category Seaside Residence
Date 2021 - Ongoing
Area 3000 m²



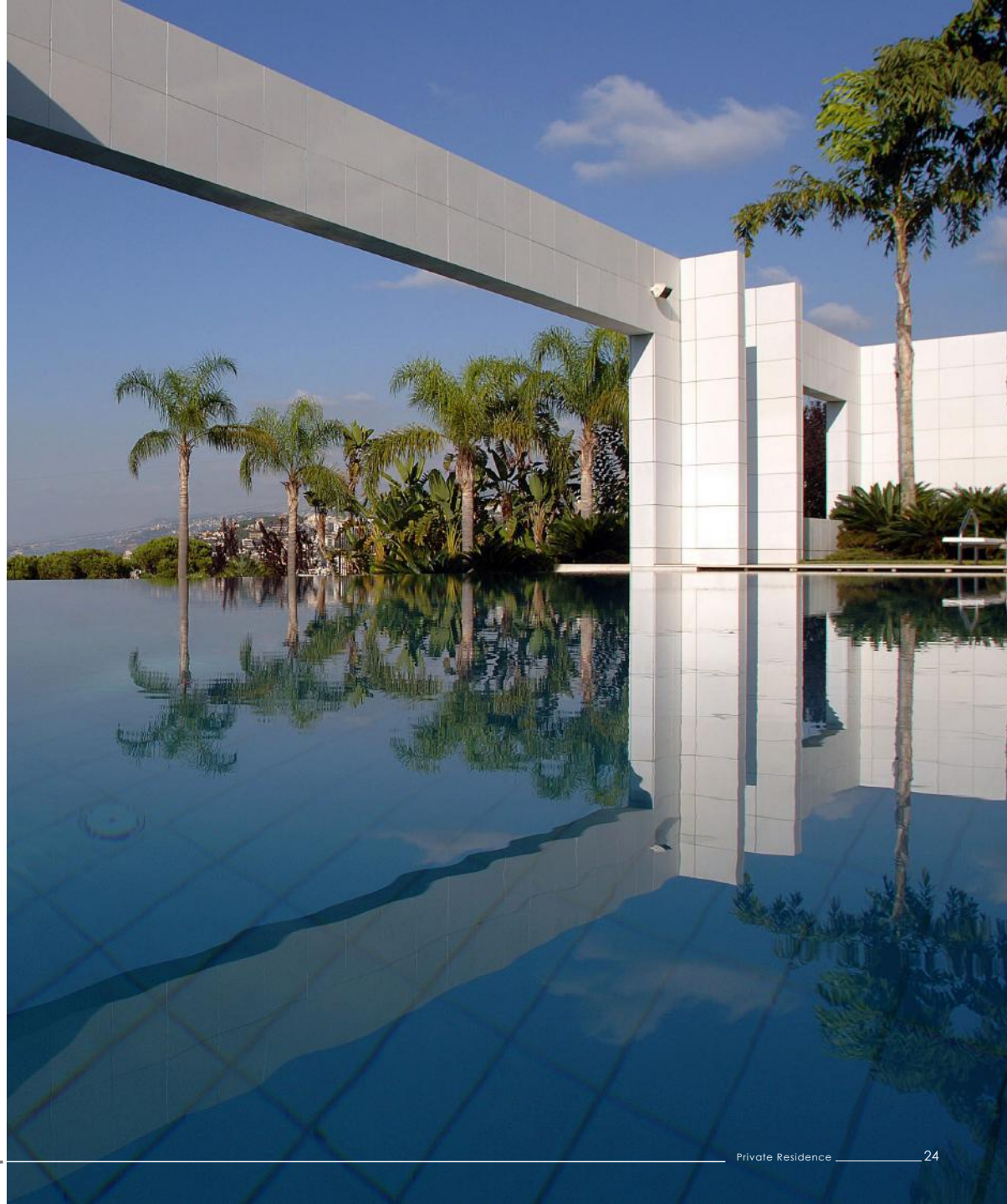
Private Residence // AMMAN, JORDAN

Category Inland Residence
Date 2017 - Ongoing
Area 5,000 m²



Private Residence// BASLIM, LEBANON

Category Inland Residence
Date 1997 - 1999 / Rehabilitated in 2011
Area 6,000 m²
Architect Pierre Khoury Architects



Private Residence // AMMAN, JORDAN

Category Inland Residence
Date 2013
Area 10,000 m²





Private Residence // DOHA, QATAR

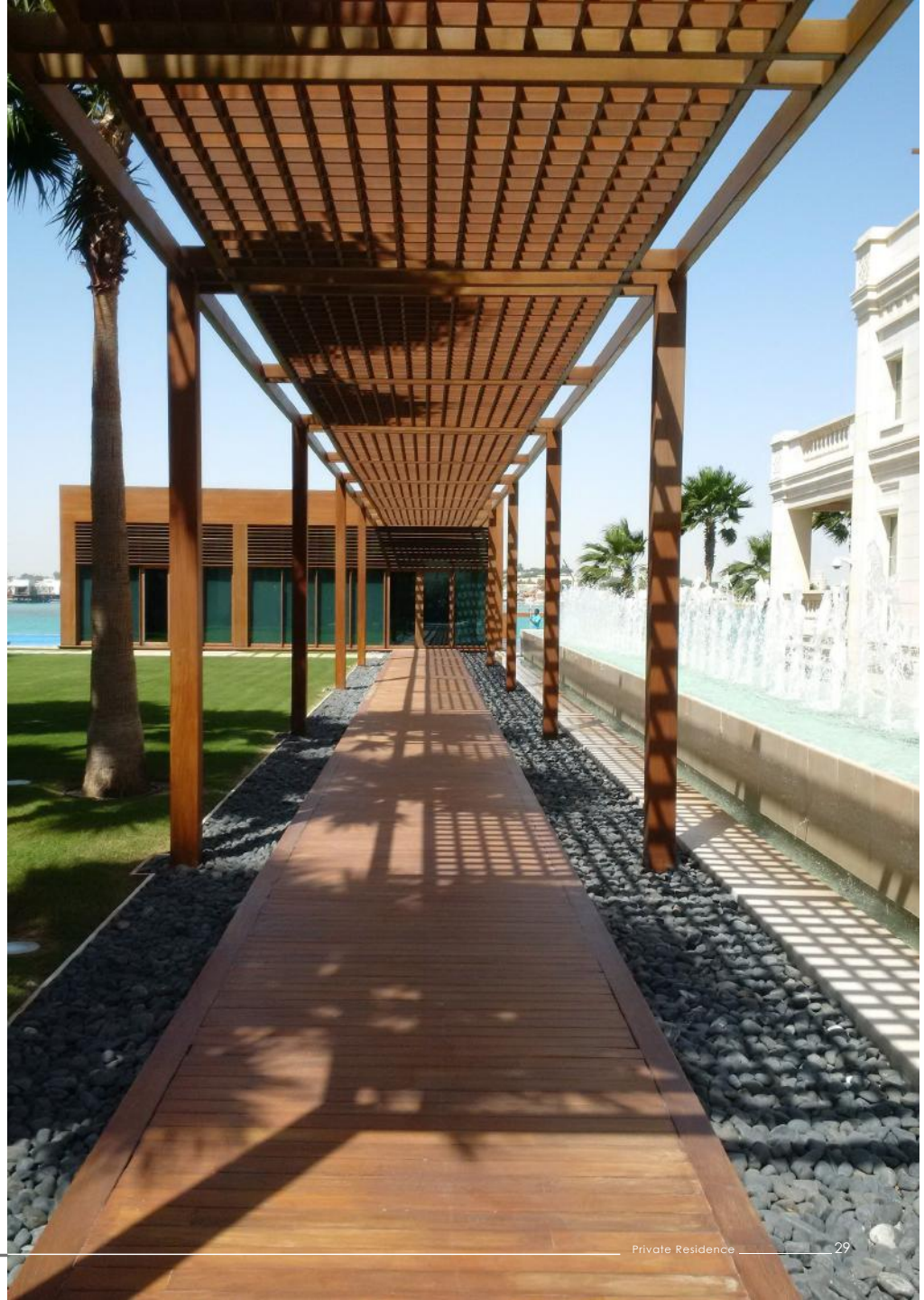
Category Seaside Residence
Date 2006 - 2009
Area 8,000 m²
Architect M. Harasani Architects



Private Residence // DOHA, QATAR

Category Seaside Residence
Date 2010
Area 6,000 m²





Private Residence // BYBLOS, LEBANON

Category Seaside Residence
Date 2017 - Ongoing
Area 2,000 m²

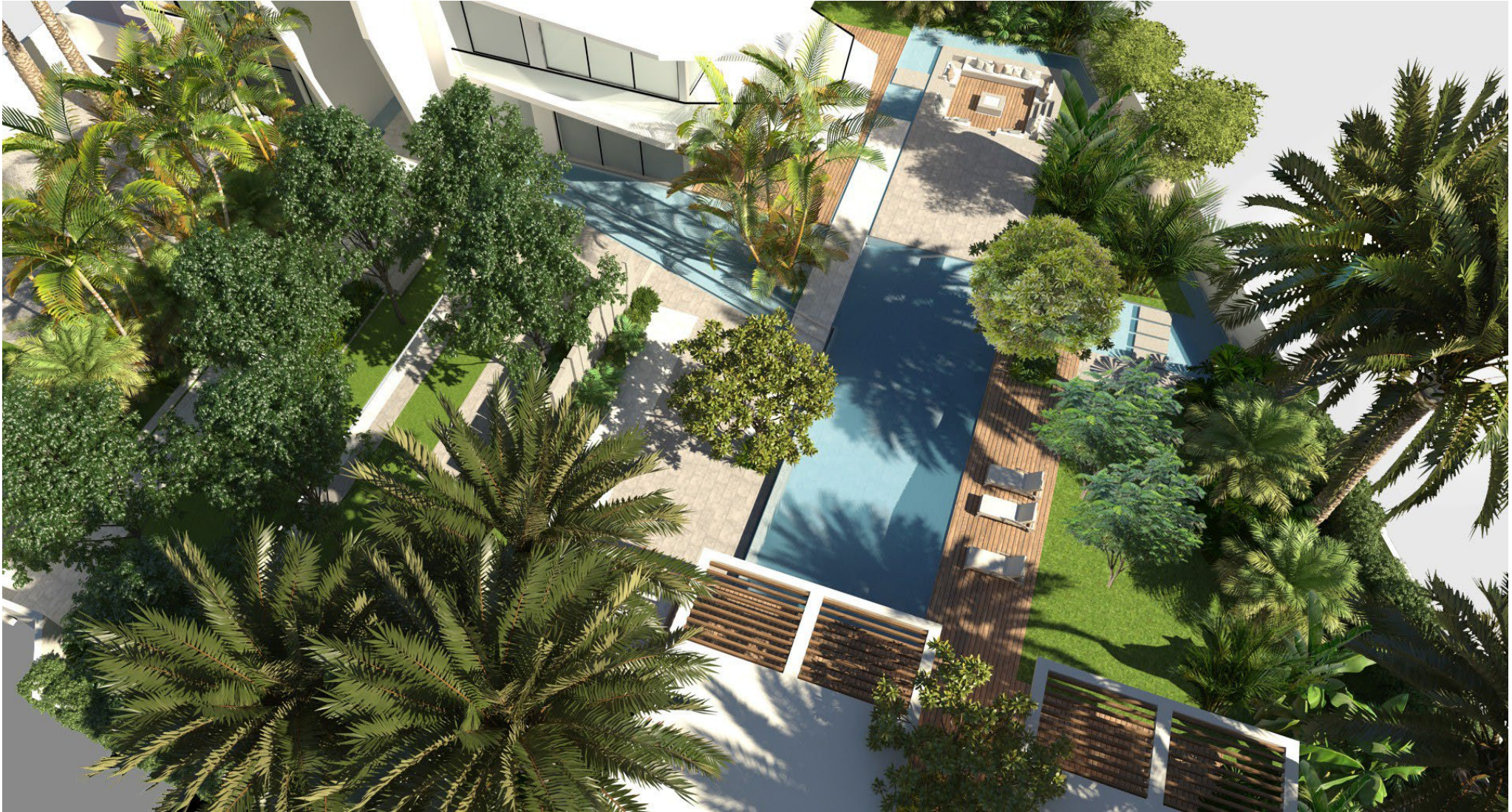




PRIVATE RESIDENCE // ABIDJIAN, COTE D'IVOIRE

Category Seaside Residence
Date 2019- Ongoing
Area 3,000 m²





Private Residence // DOHA, QATAR

Category Seaside Residence
Date 2009 - 2013
Area 15,000 m²





Private Residence // ALEY, LEBANON

Category Mountain Residence
Date 2004 - 2005
Area 12,000 m2
Architect BATIMAT Architects



Private Residence // CEDARS, LEBANON

Category Mountain Residence
Date 2008
Area 3,000 m²







Hotels + resOrts



Scarlet Resort// Petrothalassa, Greece

Category Resort
Date 2020 - Ongoing
Architect Archgroup







THE RITZ-CARLTON GRAND CANAL // ABU DHABI, U.A.E.

Category Hotel
Date 2006
Area 220,000 m²





BYBLOS SUD II // BYBLOS, LEBANON

Category Beach Resort
Date 2011 - Ongoing
Area 15,000 m²
Architect Jad Tabet & Karl Zoueïn





BATROUN BEACH RESORT // BATROUN, LEBANON

Category Beach Resort
Date 2013
Area 15,000 m²
Architect GM Architects

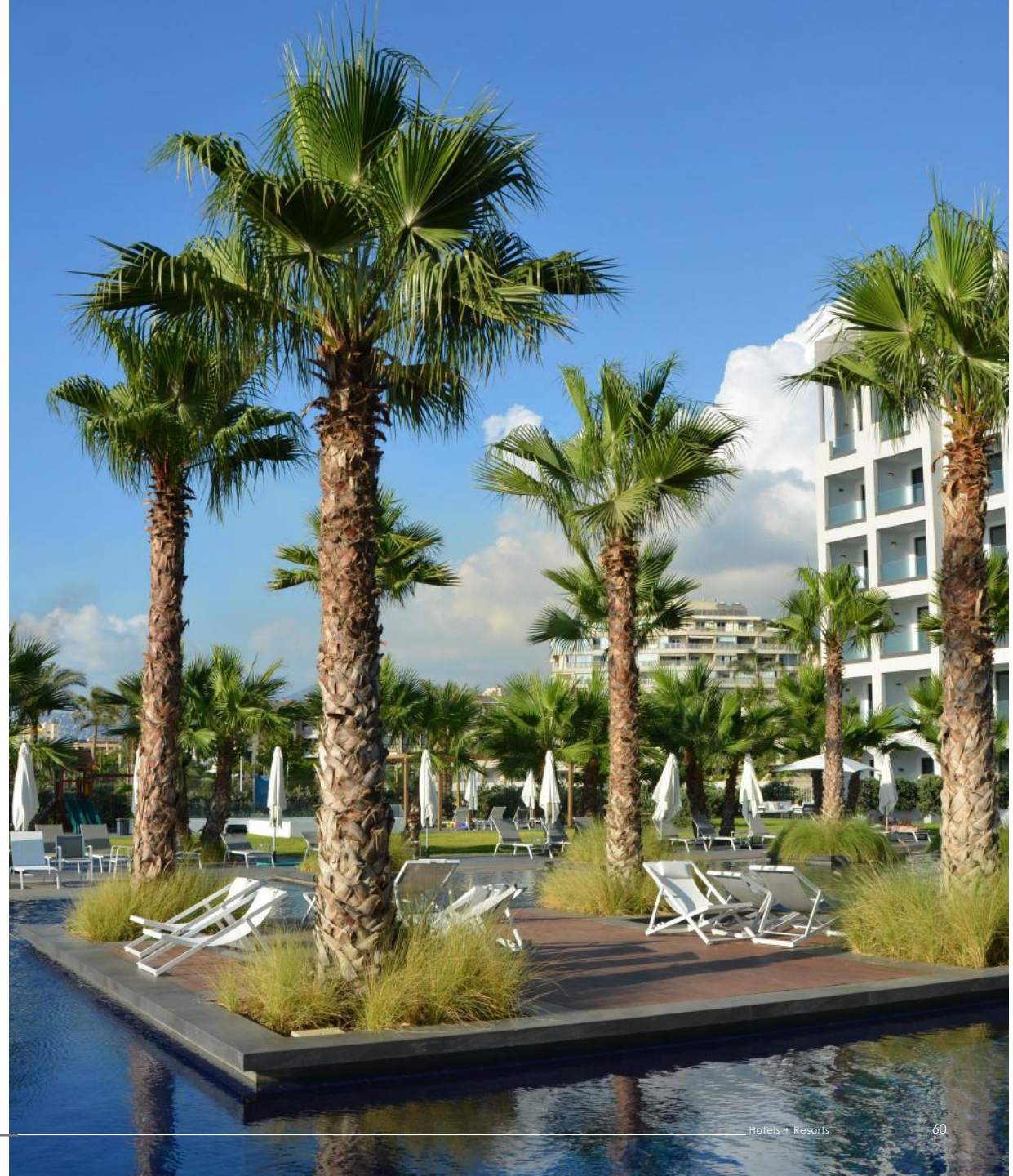






RIVER AND SEA // NAHR EL KALB, LEBANON

Category Beach Resort
Date 2017 - Ongoing
Area 13,500 m²





KYE BEACHFRONT RESORT // TABARJA, LEBANON

Category Beach Resort
Date 2015
Area 70,000 m²

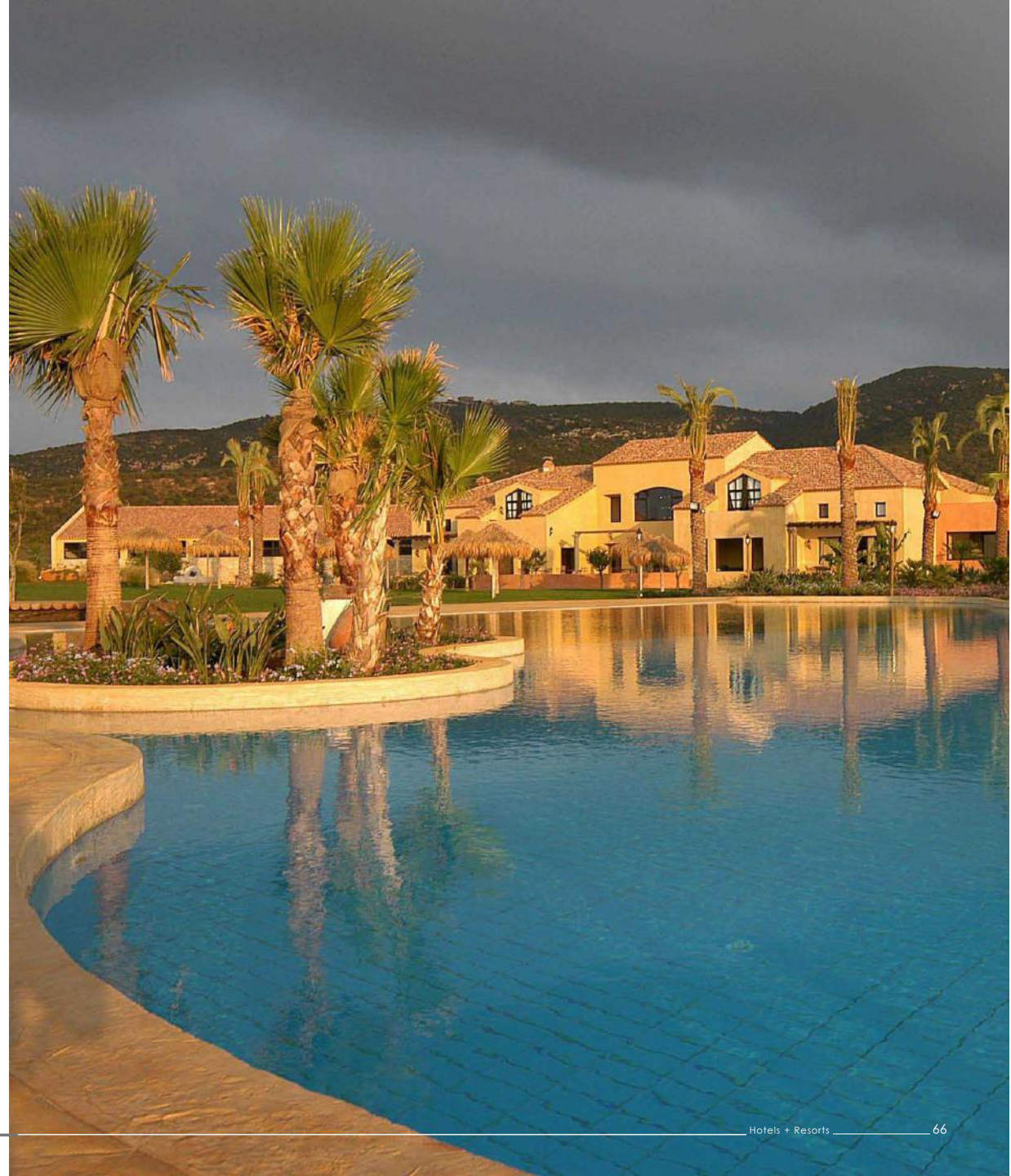






BATROUN VILLAGE CLUB // BATROUN, LEBANON

Category Resort
Date 2000 - 2005
Area 120,000 m²
Architect HECATE





MOZOON TOWERS // DOHA, QATAR

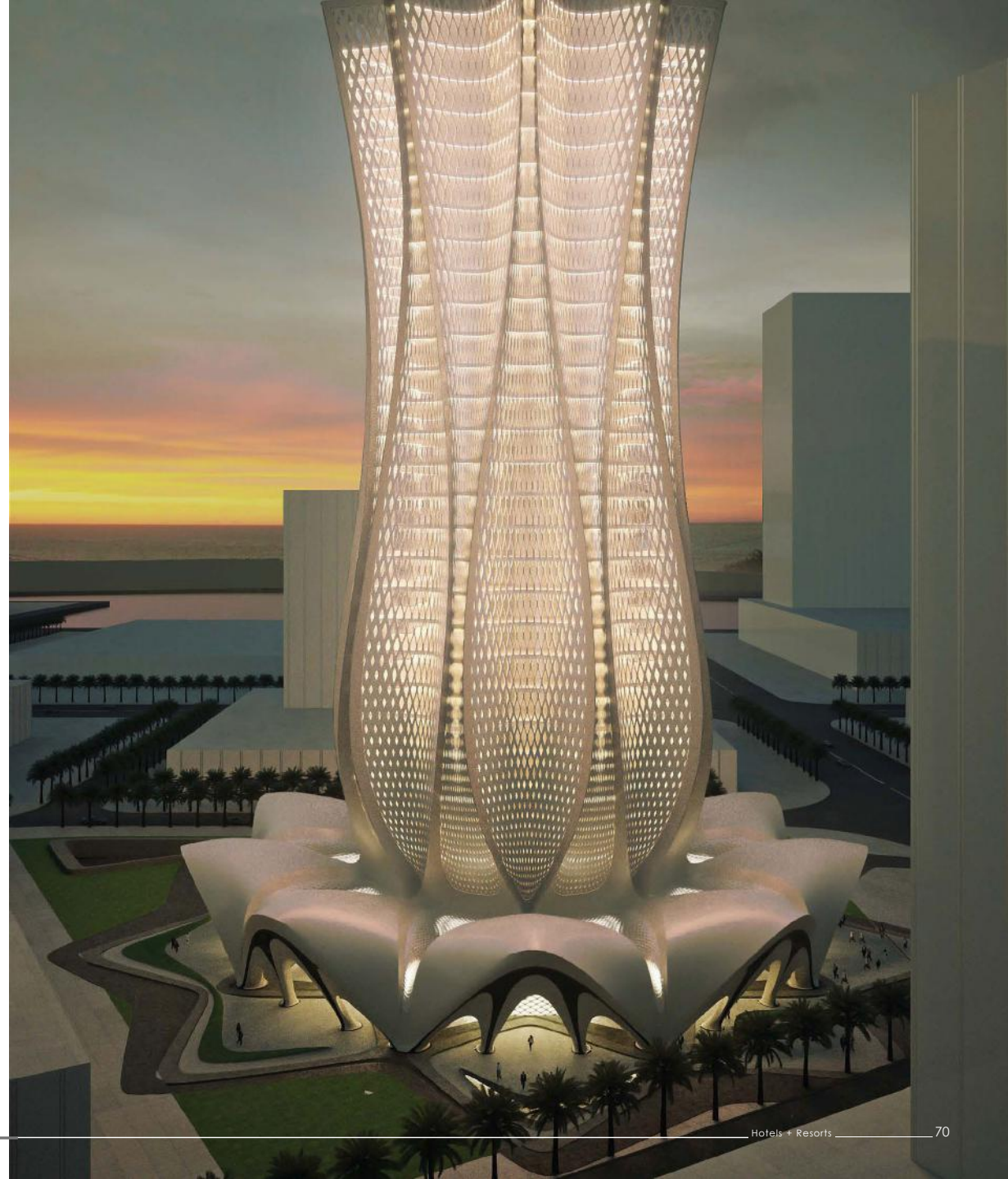
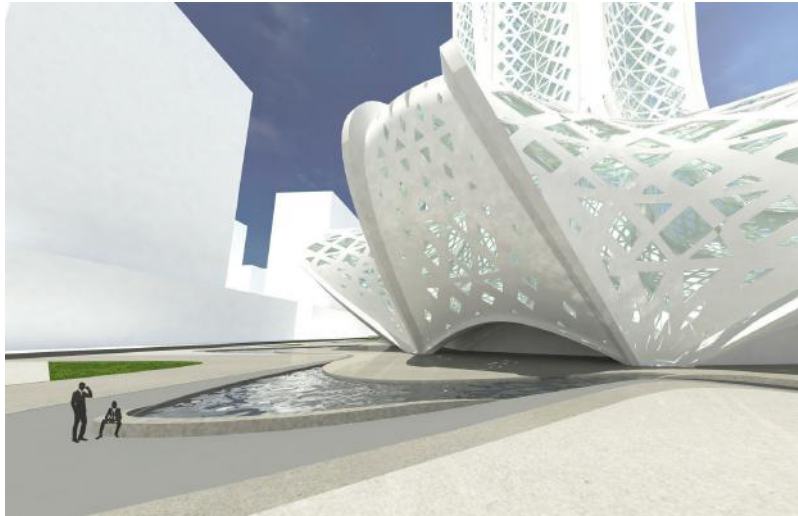
Category Hotel
Date 2016 - Ongoing
Area 23,000 m²
Architect MZP Architects





LUSAIL HOTEL TOWER // LUSAIL CITY, QATAR

Category Hotel
Date 2015 - Ongoing
Area 4,000 m²
Architects Zaha Hadid Architects



AL QASR HOTEL // AQABA, JORDAN

Category Hotel
Date 2008
Area 30,000 m²
Architect Khatib & Alami

