

ARCHITECTURE PORTFOLIO • 2026

Mohammad Taqi Hussein

محمد تقي حسين

Architect · Baghdad. Healthcare and mixed-use design,
BIM and AI tools for architecture.





P-01 · MOHAMMAD TAQI

1:1

The work is the courtyard.

I am an architect from Baghdad. I studied architecture at **Al-Nahrain University, College of Engineering**, where my studio work ranged from a hospital organised like the human spine to a mixed-use landmark that reads time as a journey from past to future.

Architecture taught me how buildings actually go together; code taught me how to make that knowledge executable. I design in Revit, SketchUp and 3ds Max — and I build tools that let Revit take a brief written in plain language and draw a buildable plan from it.

MHMDTAQI.ME
MDTQI2P@GMAIL.COM
GITHUB.COM/MHMDTAQI-CODE
BAGHDAD · IRAQ

EDUCATION

B.Sc. Architecture

Al-Nahrain University · College of Engineering · Architectural Department

DESIGN & VISUALISATION

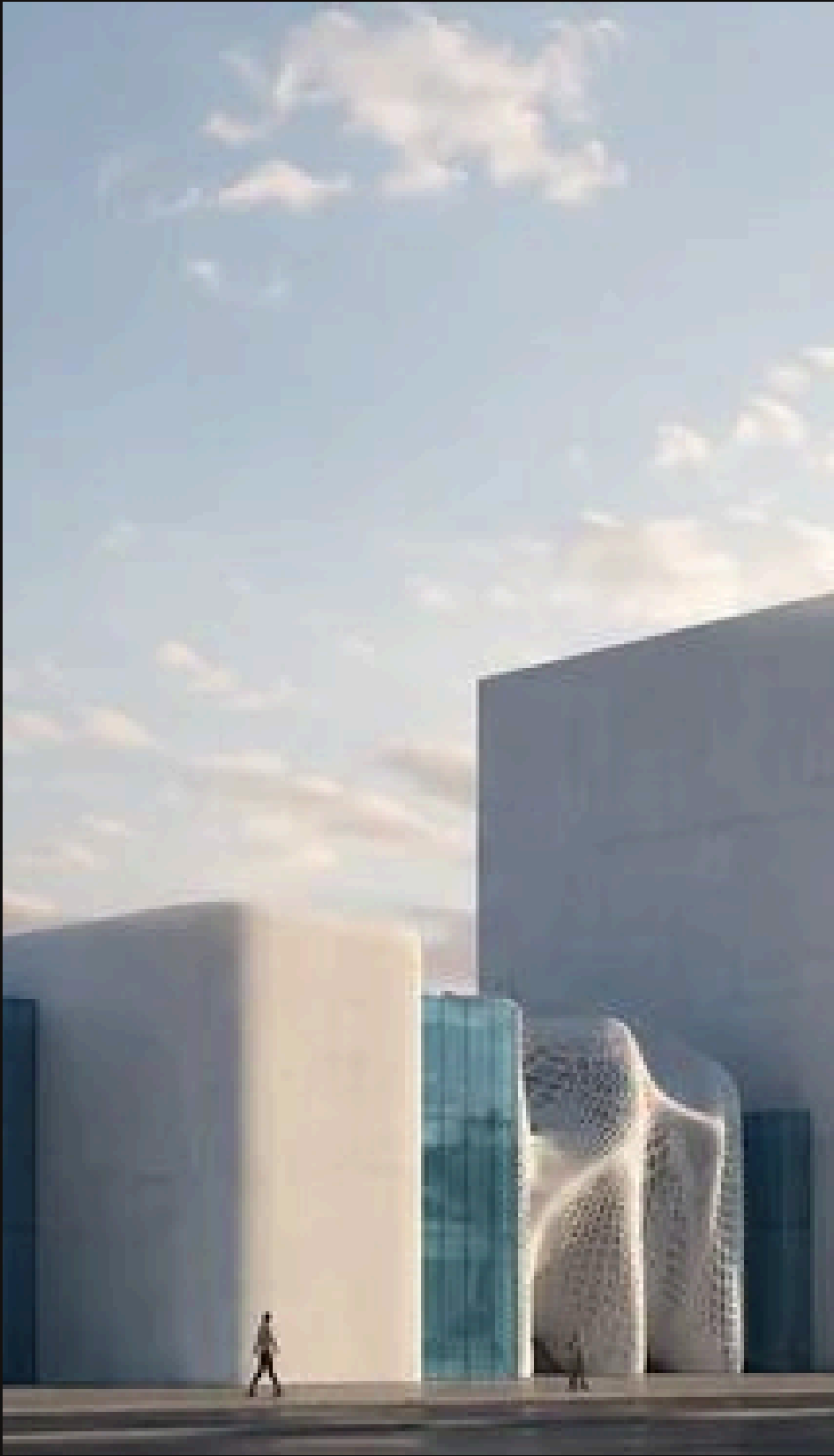
- REVIT
- SKETCHUP
- 3DS MAX
- ADOBE INDESIGN

BIM & COMPUTATION

- REVIT API
- PYREVIT
- PYTHON
- MCP
- LLM + RAG
- THREE.JS

LANGUAGES

Arabic — native
English — working proficiency

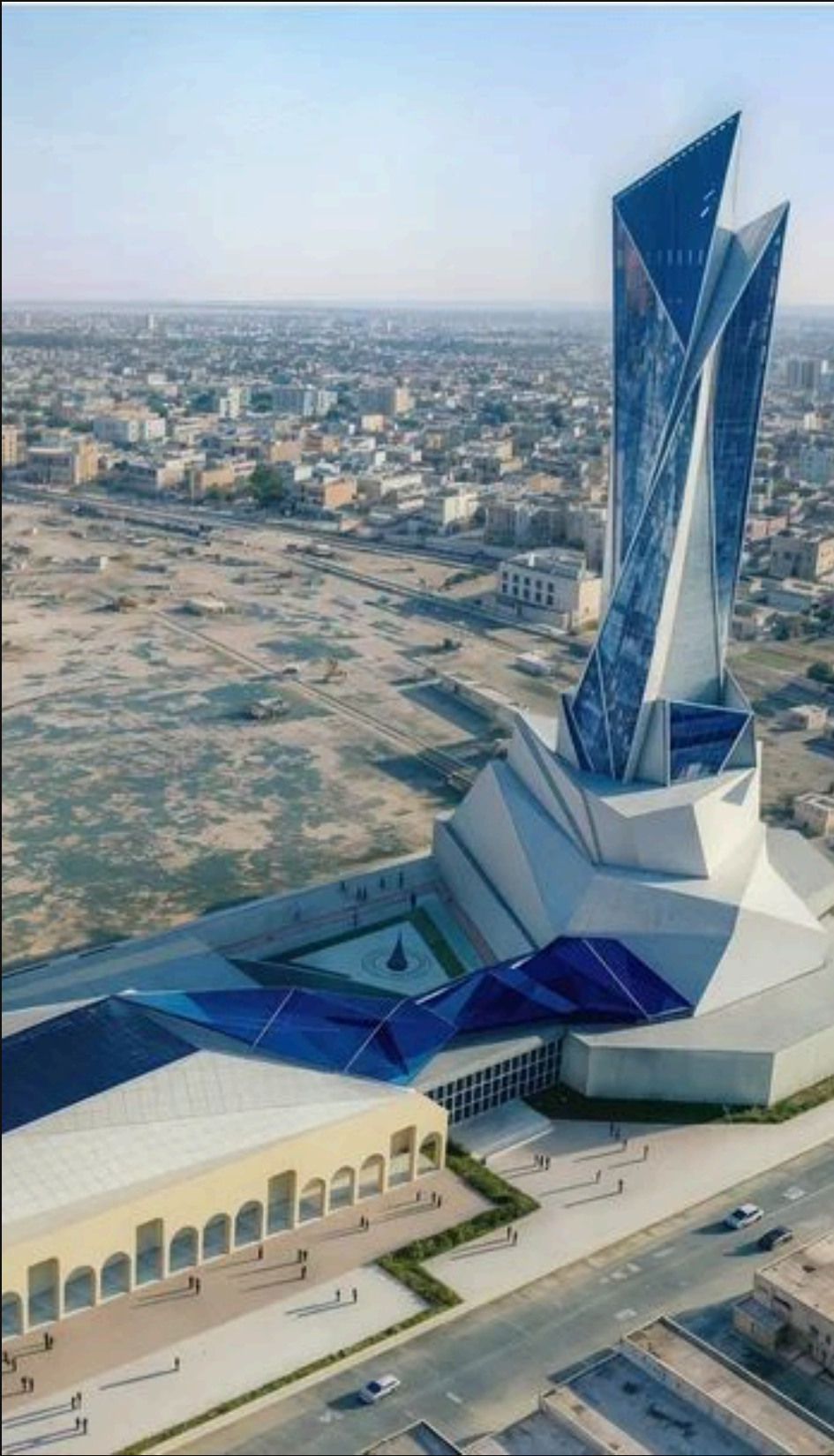


01 The Spine Hospital

Healthcare · 2026 · Revit, 3ds Max

SHEETS A-100 → A-109

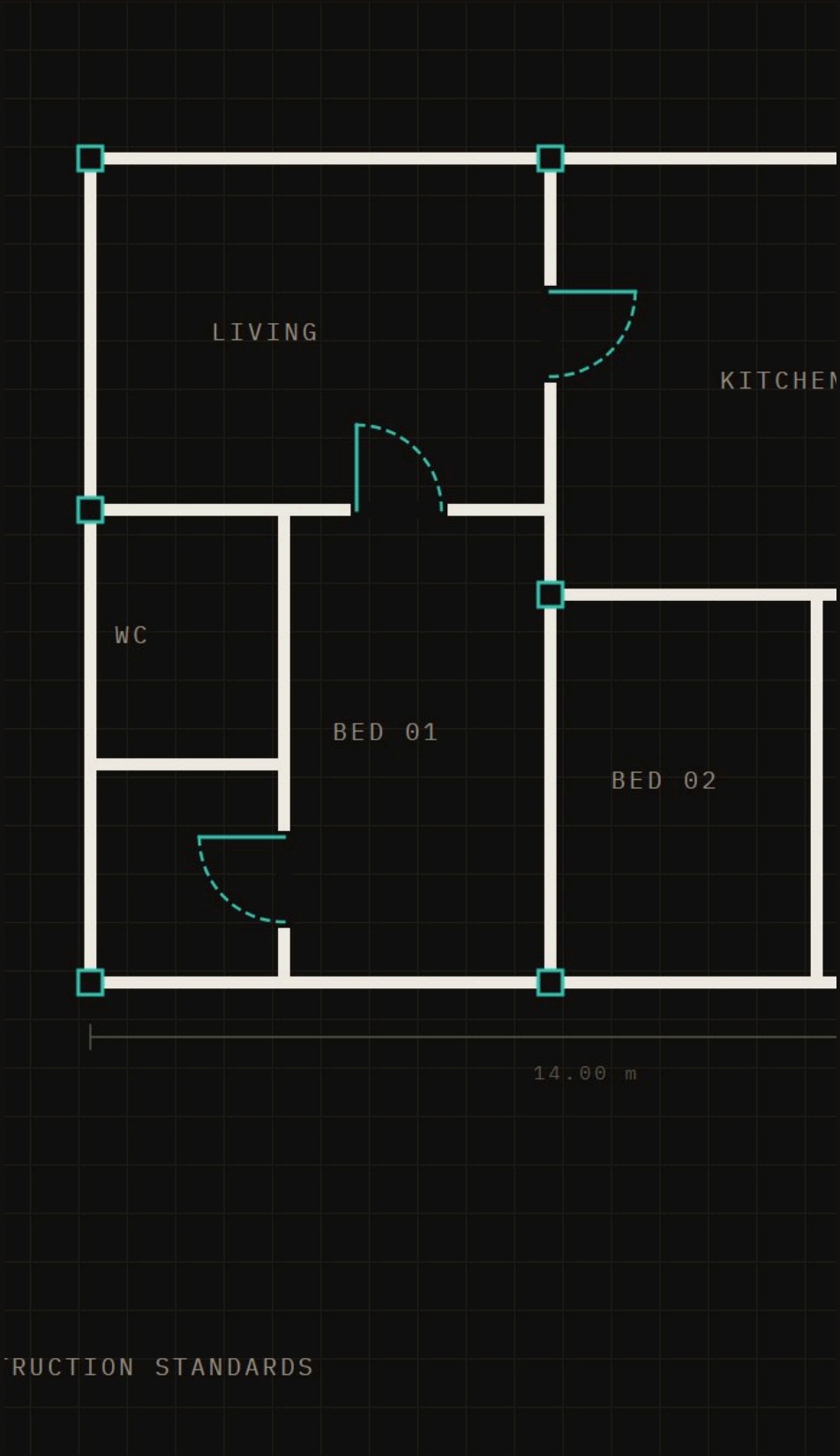
Contents



02 Spire of Time Tower

Mixed use / high rise · 2026 · Revit, SketchUp

SHEETS A-200 → A-207



03 TarkeebAI

BIM automation · 2026 · Python, Revit API, MCP

SHEET A-300

Three projects: two buildings and the tool that draws them.



01

The Spine Hospital

مستشفى العمود الفقري

A healing building organised like the human spine.

A general hospital read as a body. One continuous circulation spine carries every department the way the spinal column carries the body: solid rectilinear blocks — the vertebrae — hold the clinical programme and express stability, while sculpted organic links between them carry movement, daylight and flexibility.

YEAR

2026

LOCATION

Baghdad, Iraq

TYPE

General hospital

STUDIO

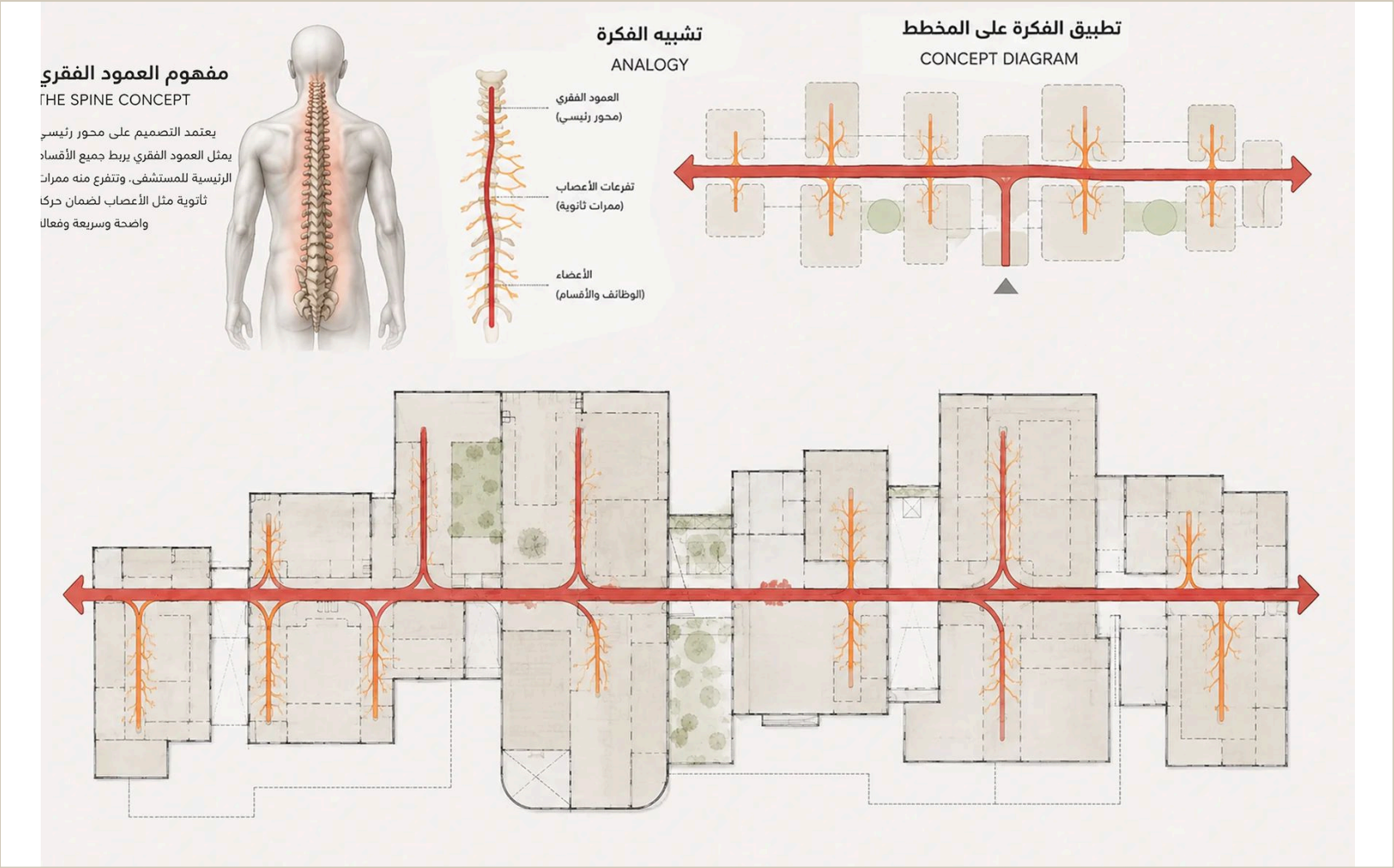
Al-Nahrain University

■ REVIT

■ 3DS MAX

■ HEALTHCARE

■ CONCEPT DESIGN



ANALOGY → CONCEPT DIAGRAM → PLAN



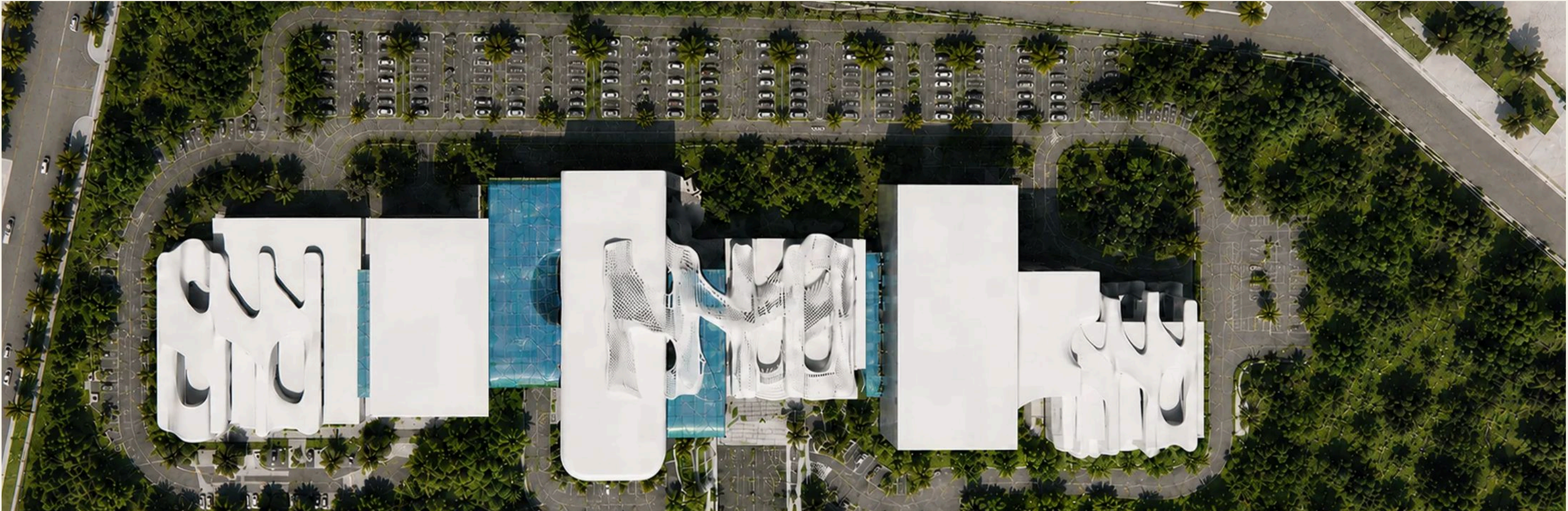
FORM EVOLUTION IN SIX MOVES

Concept — the spine



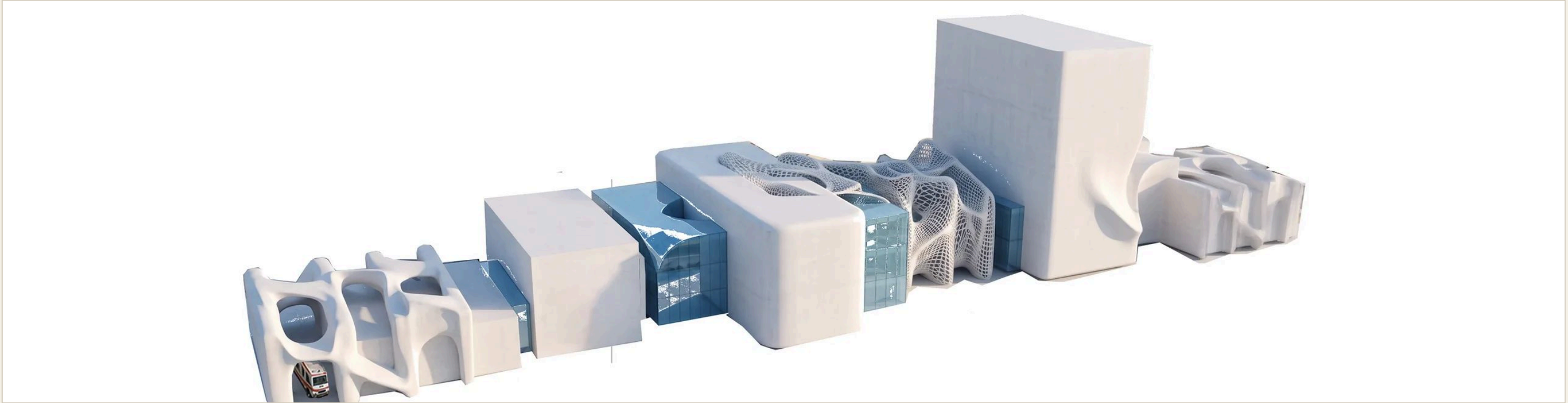
FROM SPINE TO PLAN

Solid masses express stability; organic forms reflect flexibility and connection; natural light supports patient comfort.



SITE · 1:1000

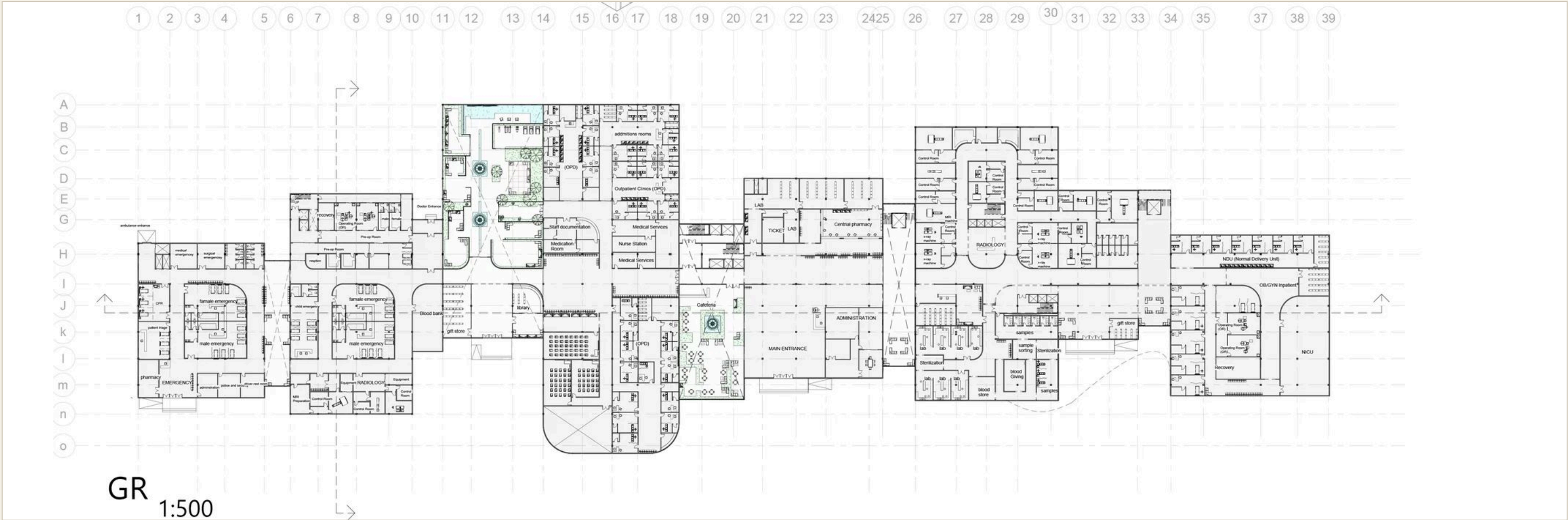
N ↑



THE SPINE, END TO END

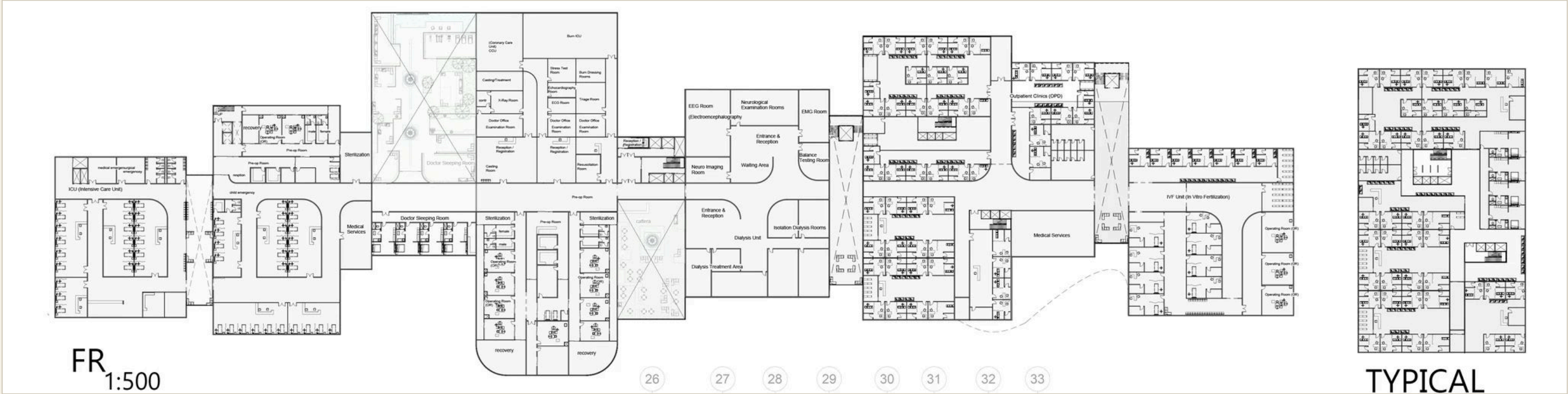
Site and massing

A single linear building set in a planted ring road, parking to the north, the main entrance on the southern axis.



GROUND FLOOR

1:500

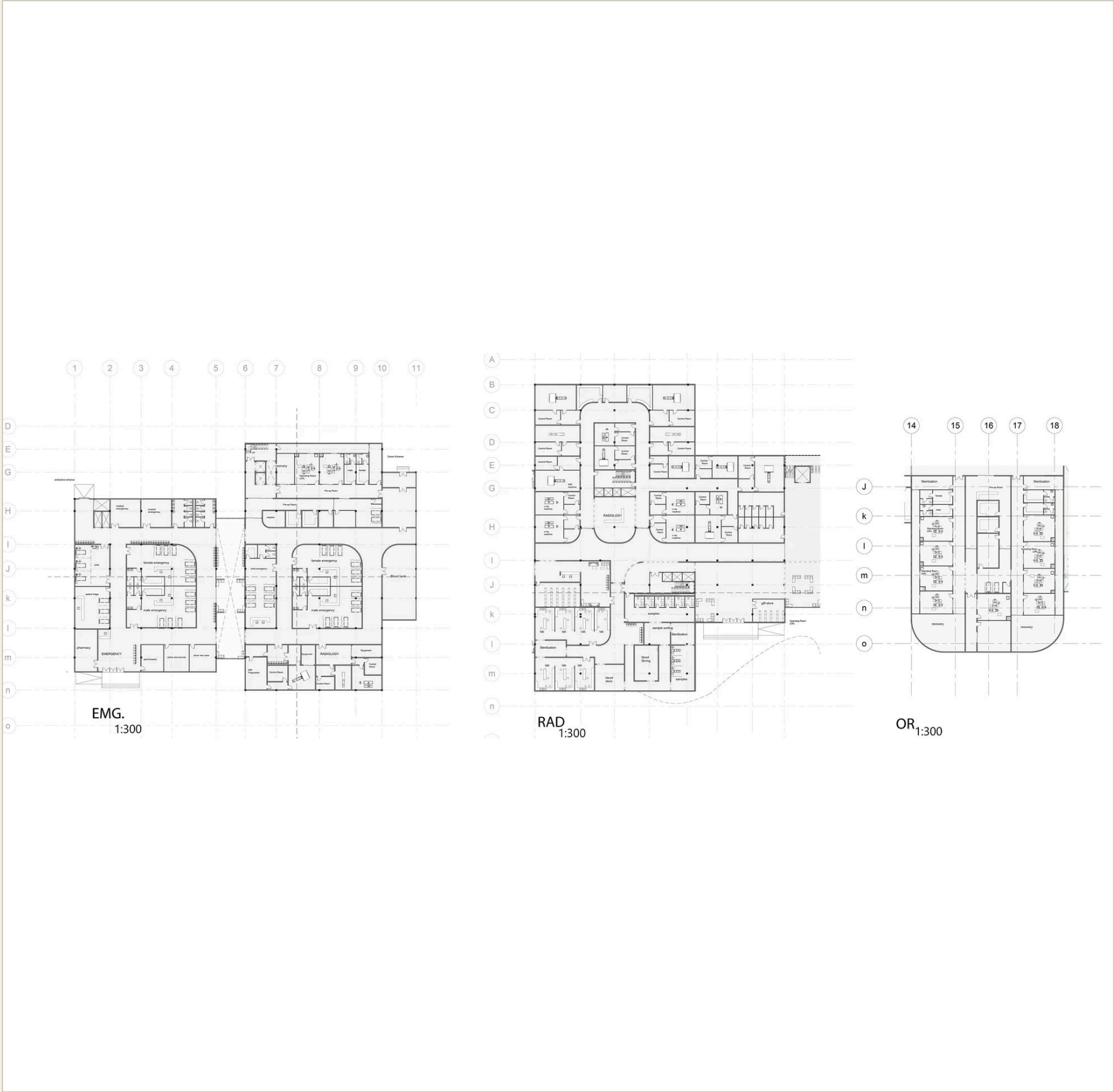


FIRST FLOOR · TYPICAL WARD FLOOR

1:500

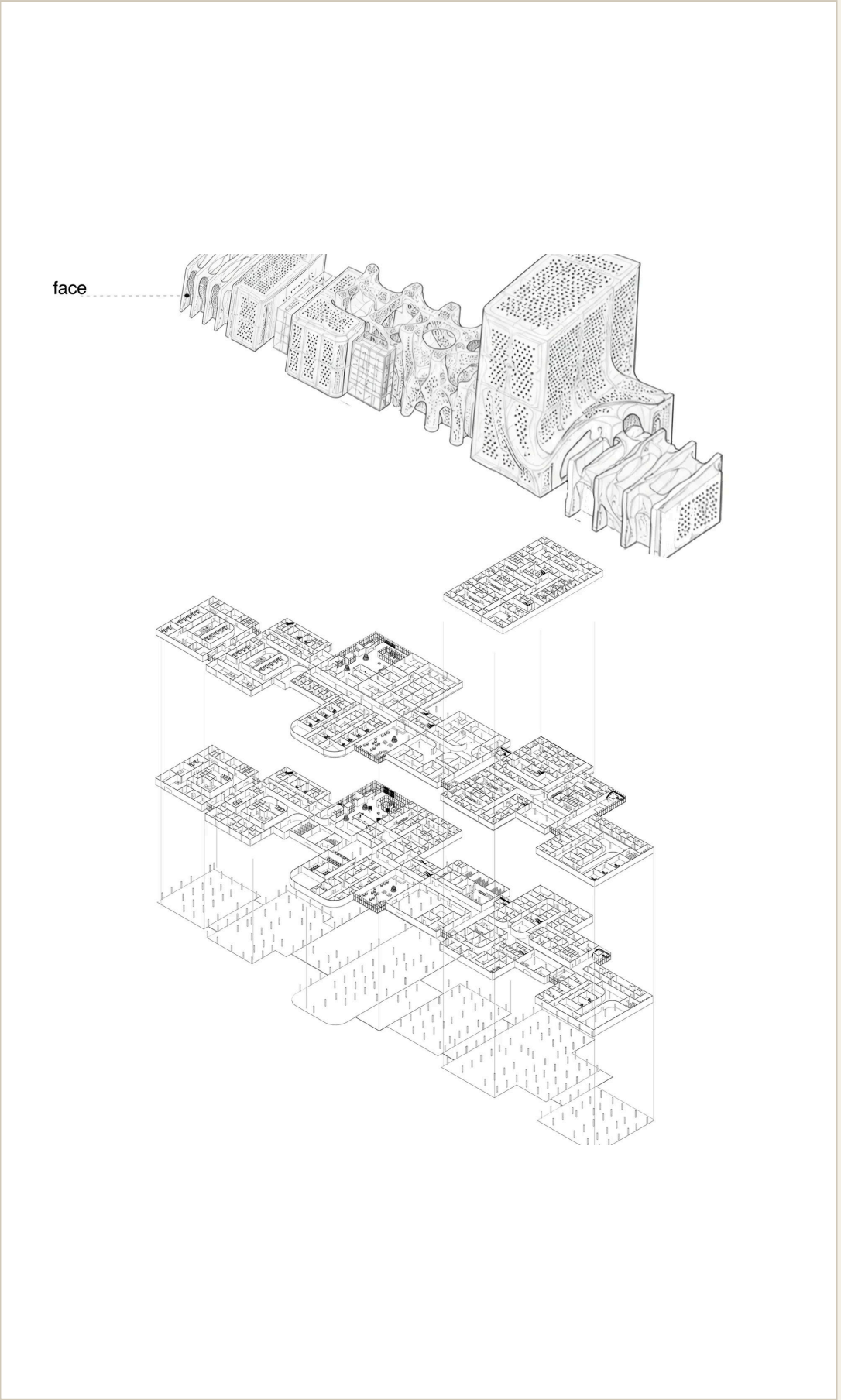
Plans

Departments hang off one public spine: emergency, diagnostics and outpatients on the ground floor; wards stacked above.



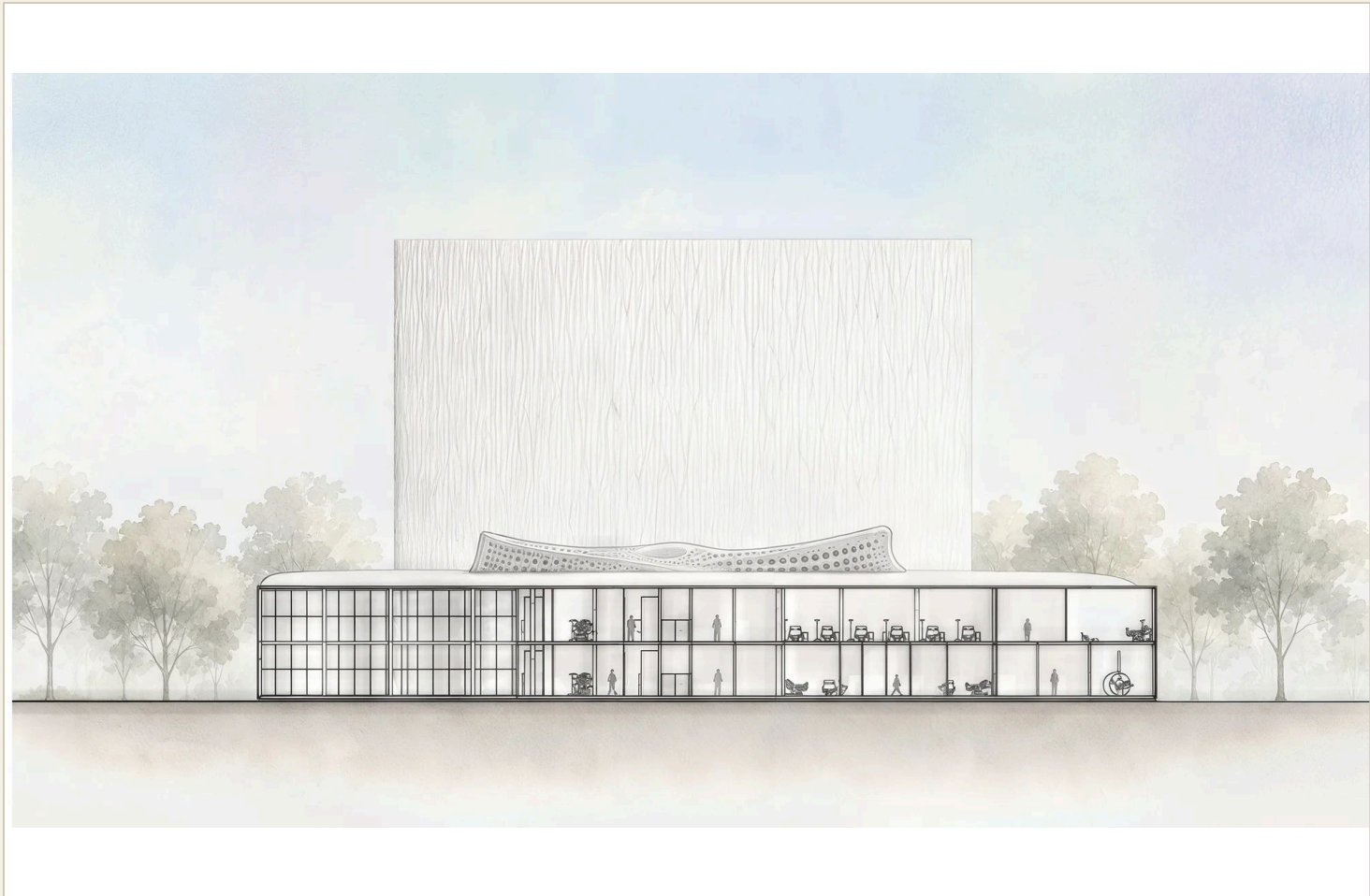
EMERGENCY · RADIOLOGY · OPERATING THEATRES

Departments



1:300 EXPLODED AXONOMETRIC

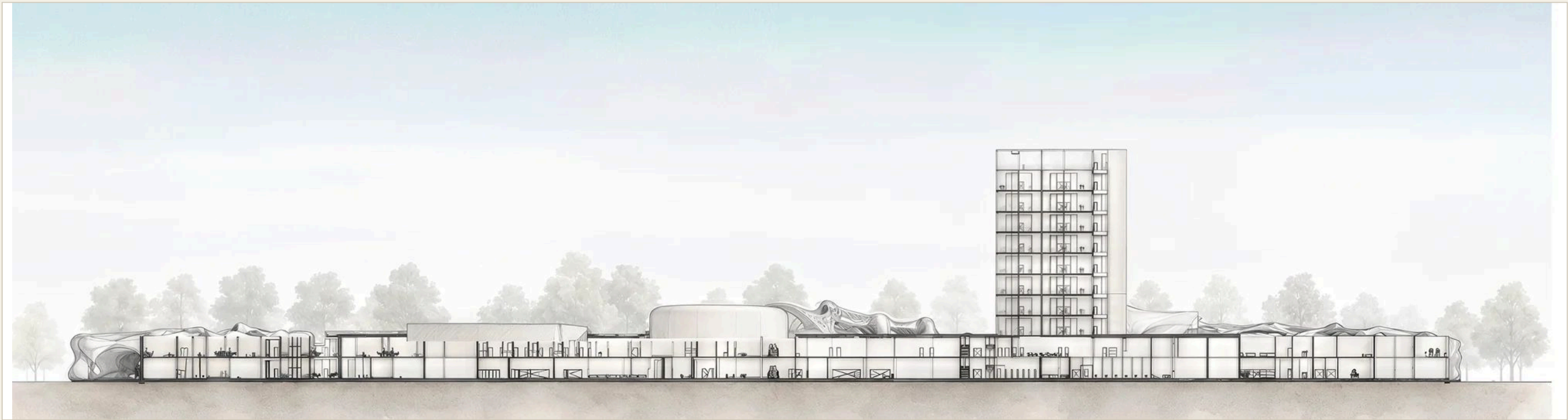
The clinical cores — emergency, radiology and surgery — planned at 1:300 around their own sterile and service routes.



SECTION THROUGH THE WARD TOWER



STREET ELEVATION



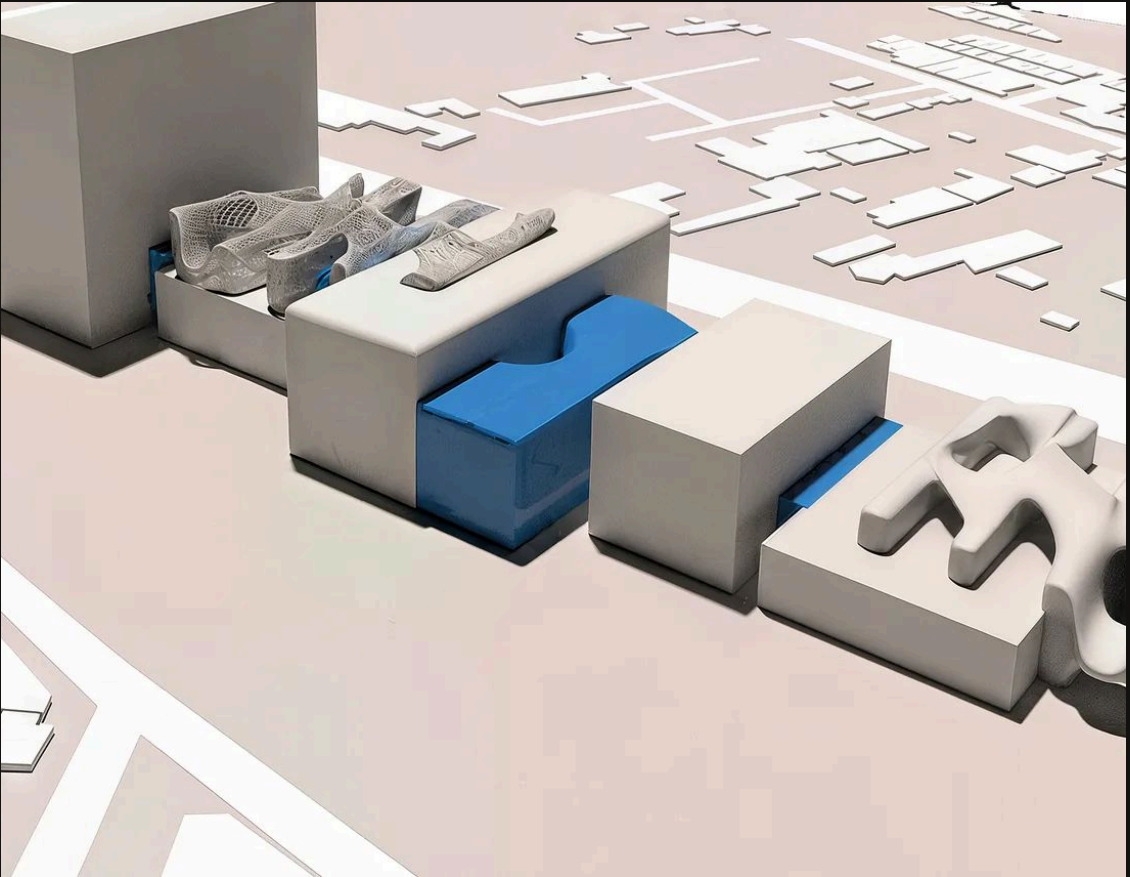
LONG SECTION

Sections and elevation

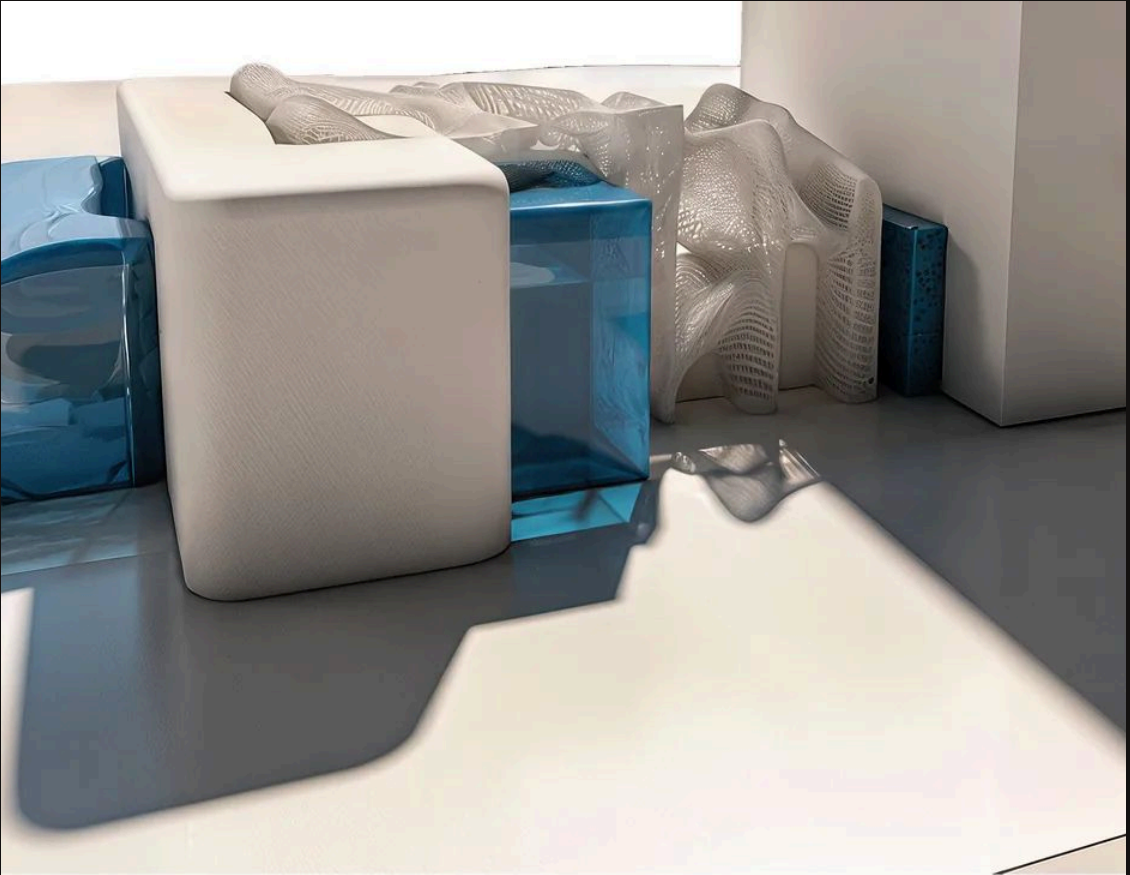


MAIN APPROACH

Exterior



IN ITS CONTEXT



VERTEBRAE AND LINKS

White sculpted links between rectilinear blocks, blue glazing where daylight enters the spine.



RECEPTION

Interiors



MRI SUITE

The organic language continues inside — soft light, rounded surfaces, calm materials.



COURTYARD · WATER AND SHADE

Healing courtyards



COURTYARD · PERGOLA

Planted courtyards with water channels give patients and families somewhere calm to recover.

Architectural Department

Hospital project

2026/5/14

Designed By
mohammadTaqi Hussein

Supervised by
Dr. Dheah H. Basee
Asst.Lect. Marwa Muwafaq
Asst.Lect. Ahmed Makki
Asst.Lect. Mohamed Hazim
Asst.Lect. Mariam A.Alrahman
Asst.Lect. Russi Sami
Asst.Lect. Hamsa A.Alrahman
Ms. Mariam Raad

CONCEPT ANALYSIS

****Concept | الكونسبت****

مستوحى من العمود الفقري الإنساني
يرمز للتوازن والدعم والحركة
الكتل الصلبة تعبر عن الاستقرار
العناصر العضوية تعكس المرونة والتكيف
الضوء الطبيعي يعزز الراحة النفسية
تصميم علاجي بهوية معمارية مستقبلية

Inspired by the human spine
Symbolizing
balance, support, movement
Solid masses express stability
Organic forms
reflect flexibility, connection
Natural
light enhances patient comfort
A healing futuristic
architectural identity

المفهوم العمود الفقري
THE SPINE CONCEPT
يتمثل التصميم في خلق هوية معمارية مستوحاة من العمود الفقري الإنساني، حيث يعكس التصميم توازنًا بين الكتل الصلبة العضوية التي تعبر عن الاستقرار والدعم، والعناصر المنحنية التي تعكس المرونة والحركة. يهدف التصميم إلى توفير بيئة علاجية مستدامة تعزز الراحة النفسية للمرضى.

تشبيه الفكرة
ANALOGY
تشبيه العمود الفقري
العمود الفقري
العمود الفقري
العمود الفقري

تطبيق الفكرة على المخطط
CONCEPT DIAGRAM

مخطط الموقع
SITE
1:1000

مخطط الكونسبت
من الكونسبت إلى الشكل - مخطط الكونسبت المعماري

GR 1:500

FR 1:500

EMG 1:300

RAD 1:300

OR 1:300

TYPICAL 1:500

مفكرة التصميم: استلهام العمود الفقري

أسلوبهم تشكيل التشابك من بنية العمود الفقري، حيث يعكس التصميم توازنًا بين الكتل الصلبة العضوية التي تعبر عن الاستقرار والدعم، والعناصر المنحنية التي تعكس المرونة والحركة. يهدف التصميم إلى توفير بيئة علاجية مستدامة تعزز الراحة النفسية للمرضى.

AL-NABHAIN UNIVERSITY COLLEGE OF ENGINEERING



02

Spire of Time Tower

برج نبض الزمن

A journey from past to future — with City Center Mall.

Time read as an architectural journey. An arcaded, courtyarded mass holds the past; a faceted volume between them is the present; a crystalline tower is the future. Three masses, one continuous move — a mall, a public plaza and a landmark spire on one site beside the mosque.

YEAR

2026

LOCATION

Baghdad, Iraq

TYPE

Mall · plaza · tower

TOOLS

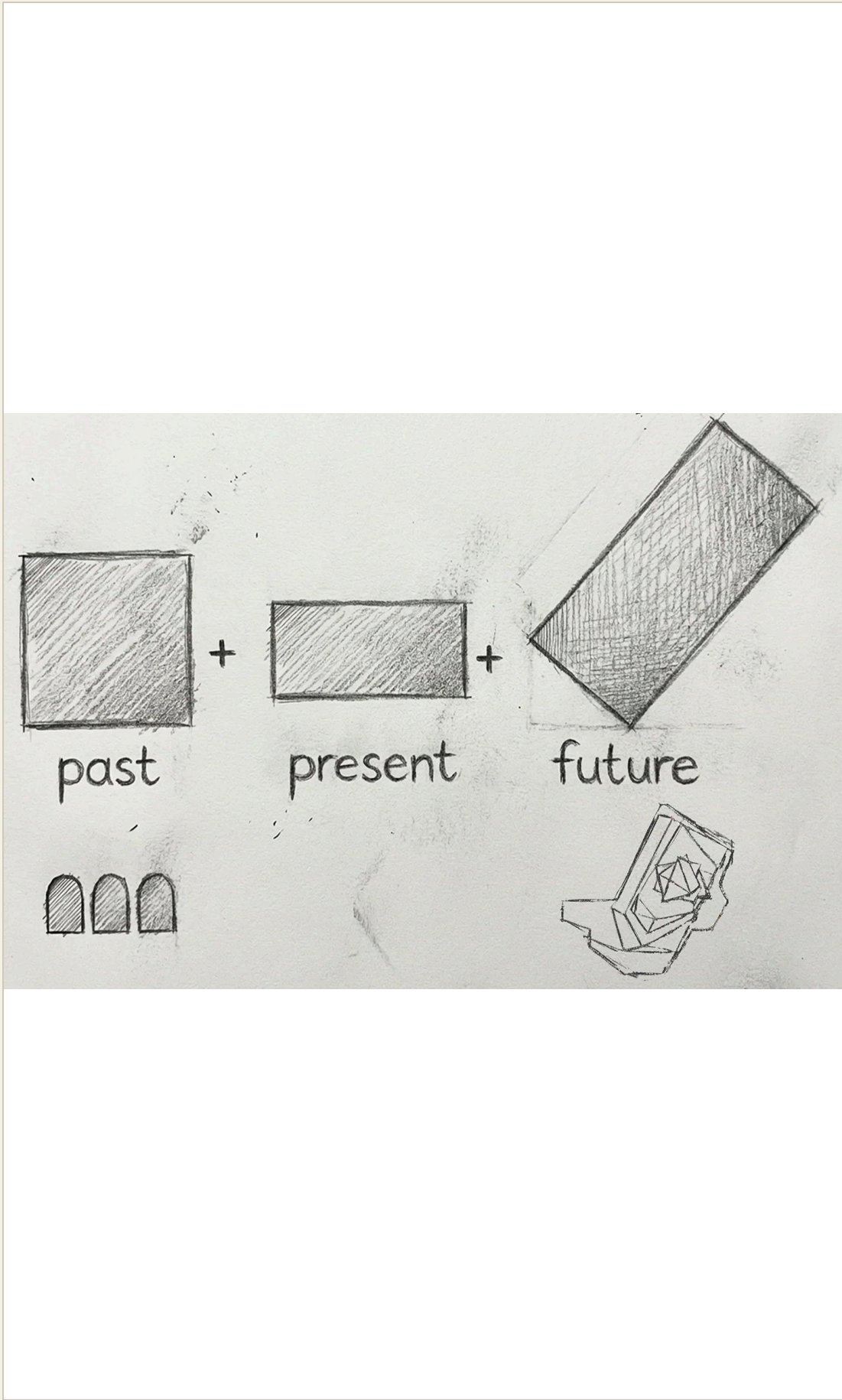
Revit · SketchUp

■ REVIT

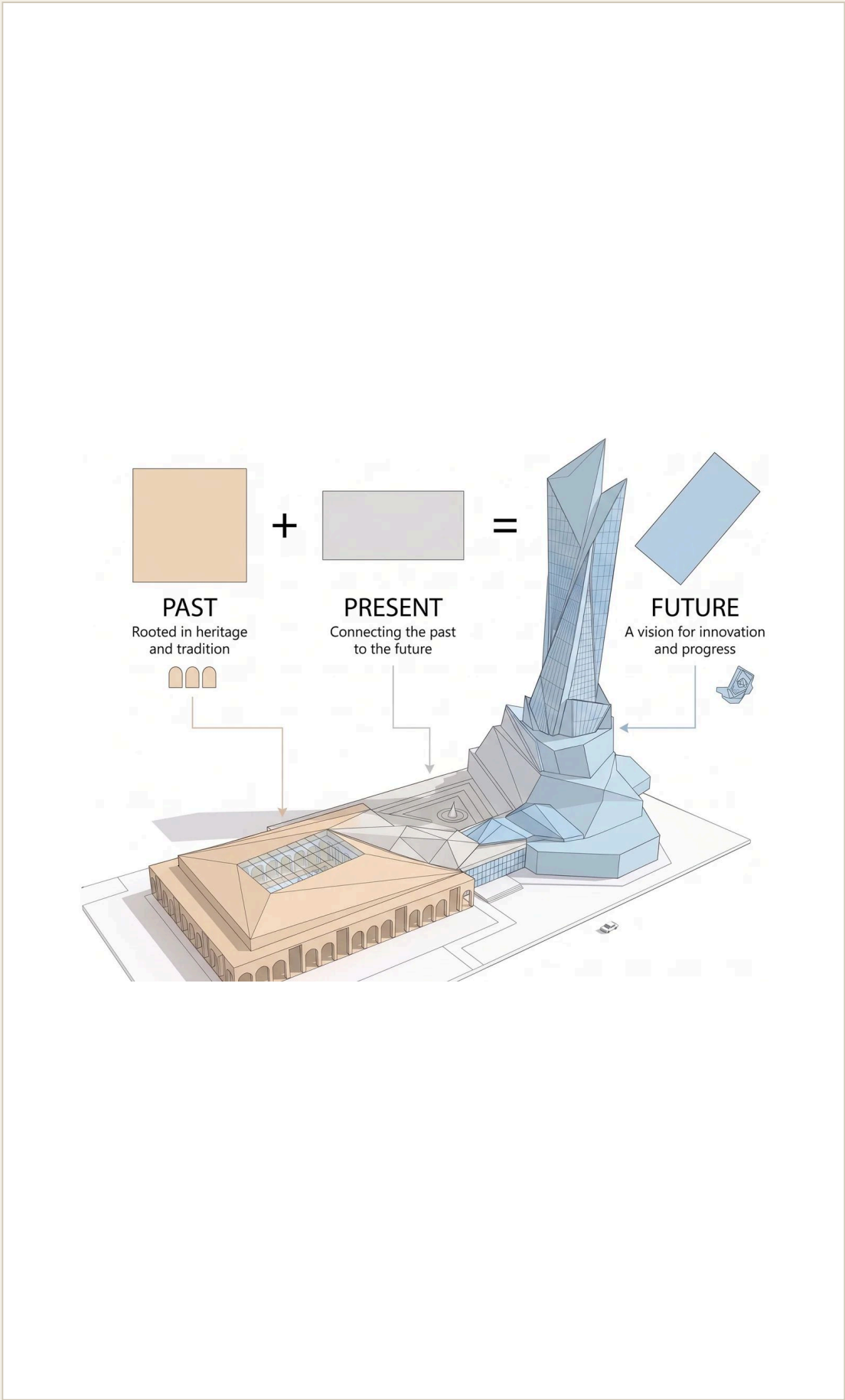
■ SKETCHUP

■ MIXED USE

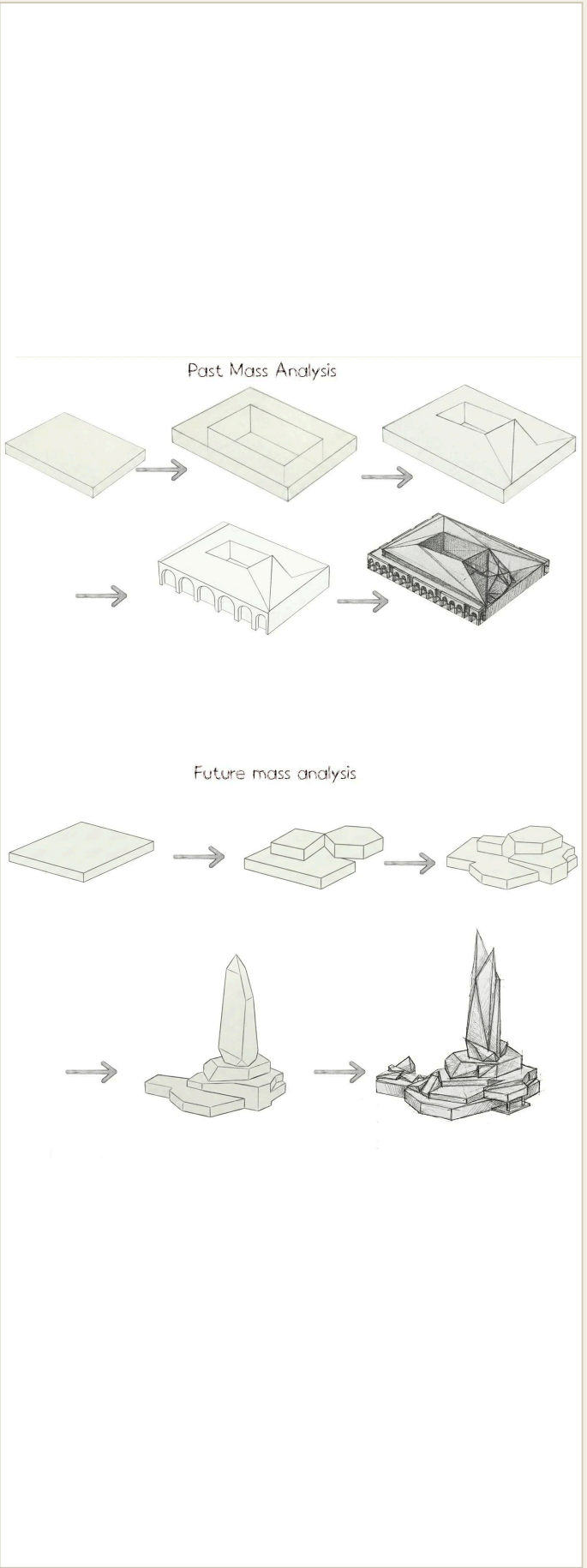
■ HIGH RISE



FIRST SKETCH



PAST + PRESENT = FUTURE



MASS ANALYSIS

Concept — past + present = future

Arches for heritage, a connecting volume for the present, a crystalline spire for the future.



THE SPIRE IN ITS DISTRICT



SITE FROM ABOVE

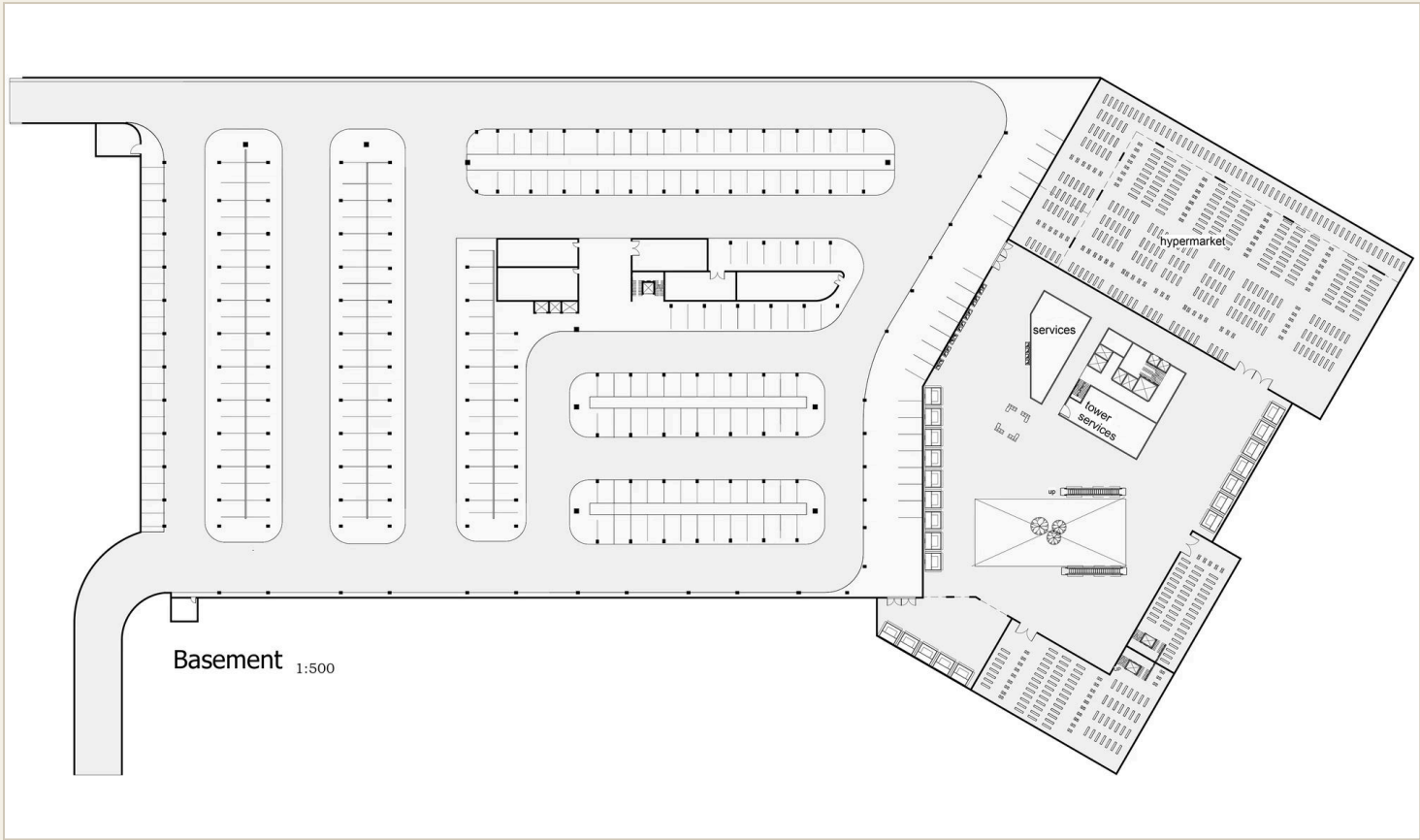


SITE PLAN

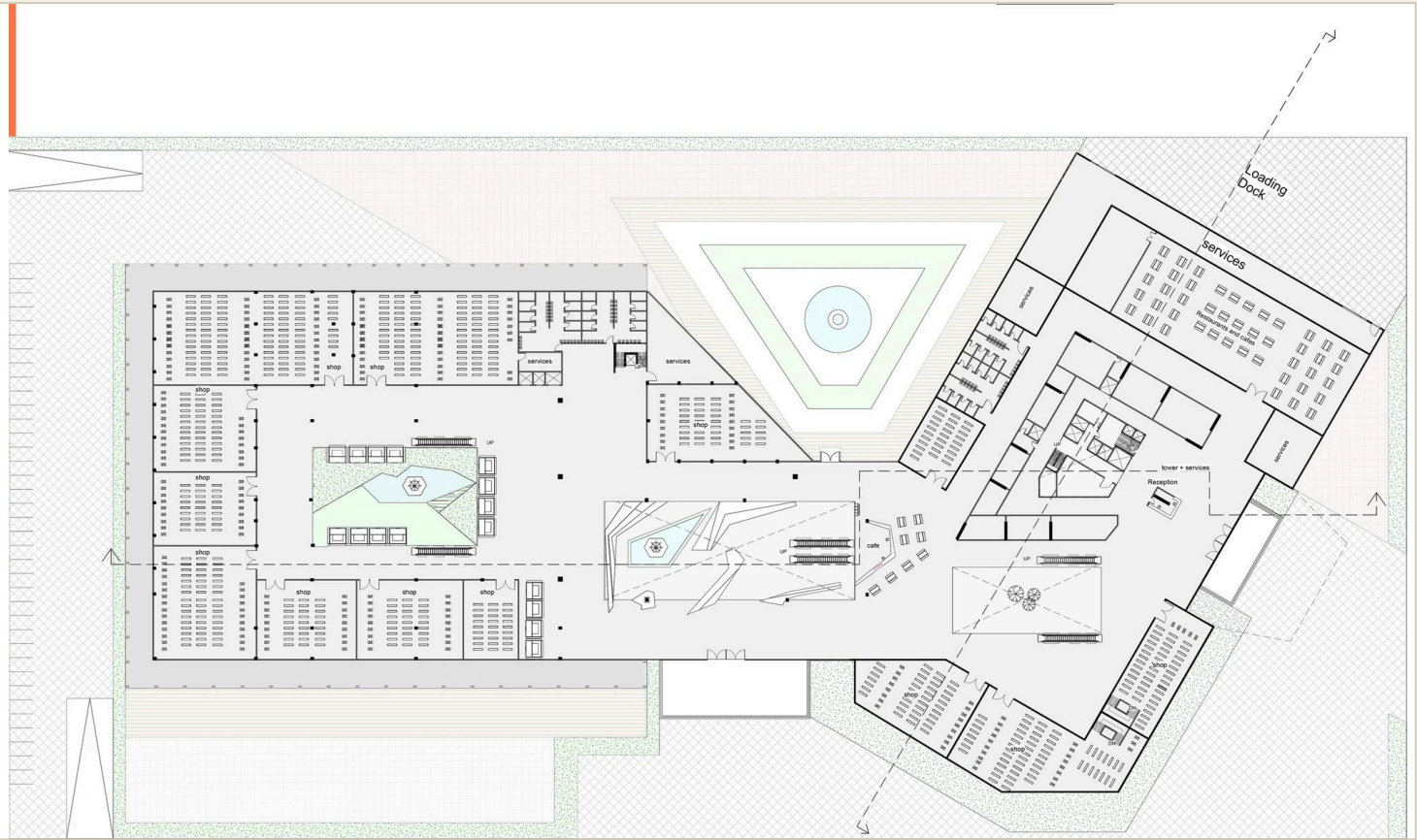


Site

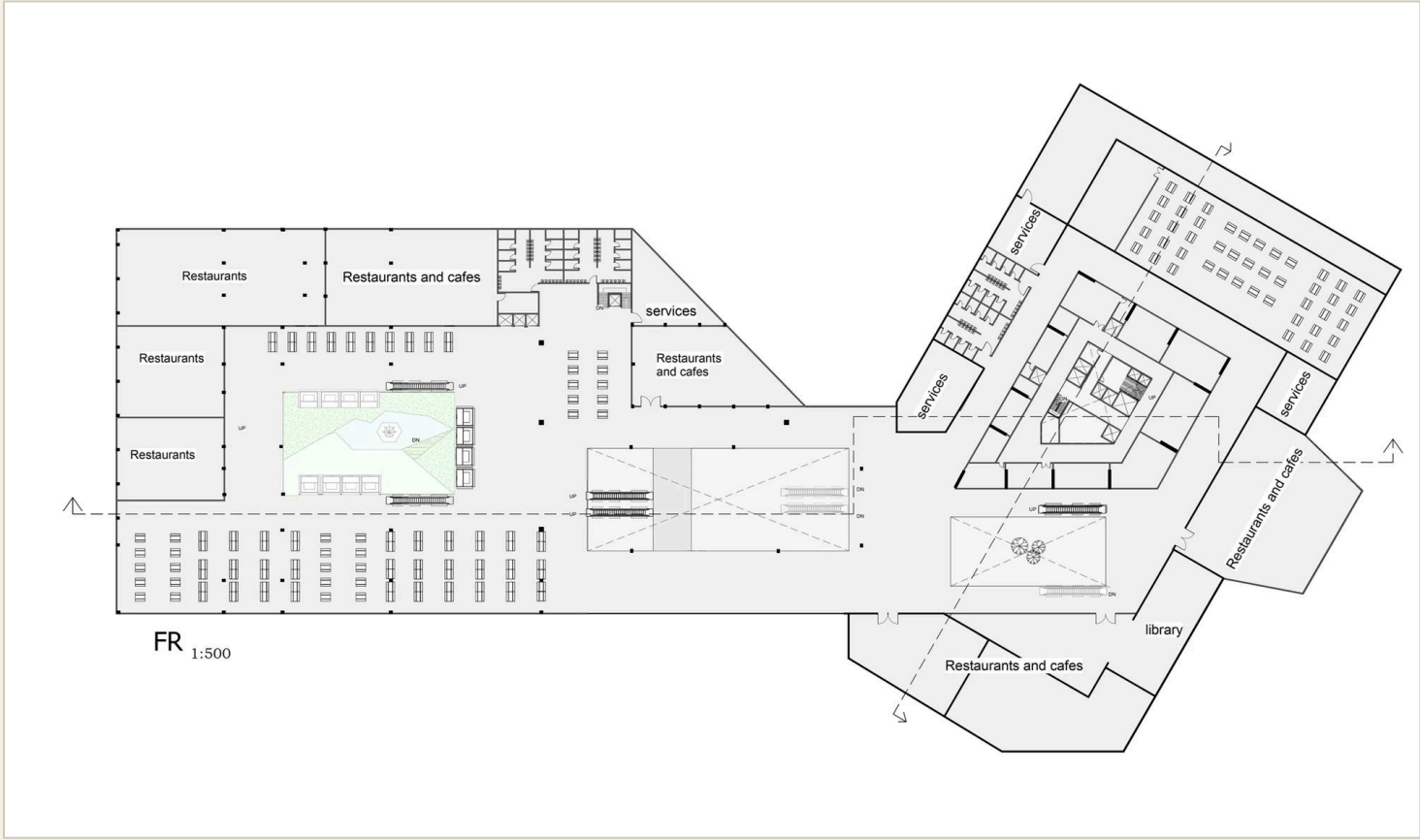
A corner site beside the mosque: the mall holds the street edge, the plaza opens to the mosque, the spire marks the district.



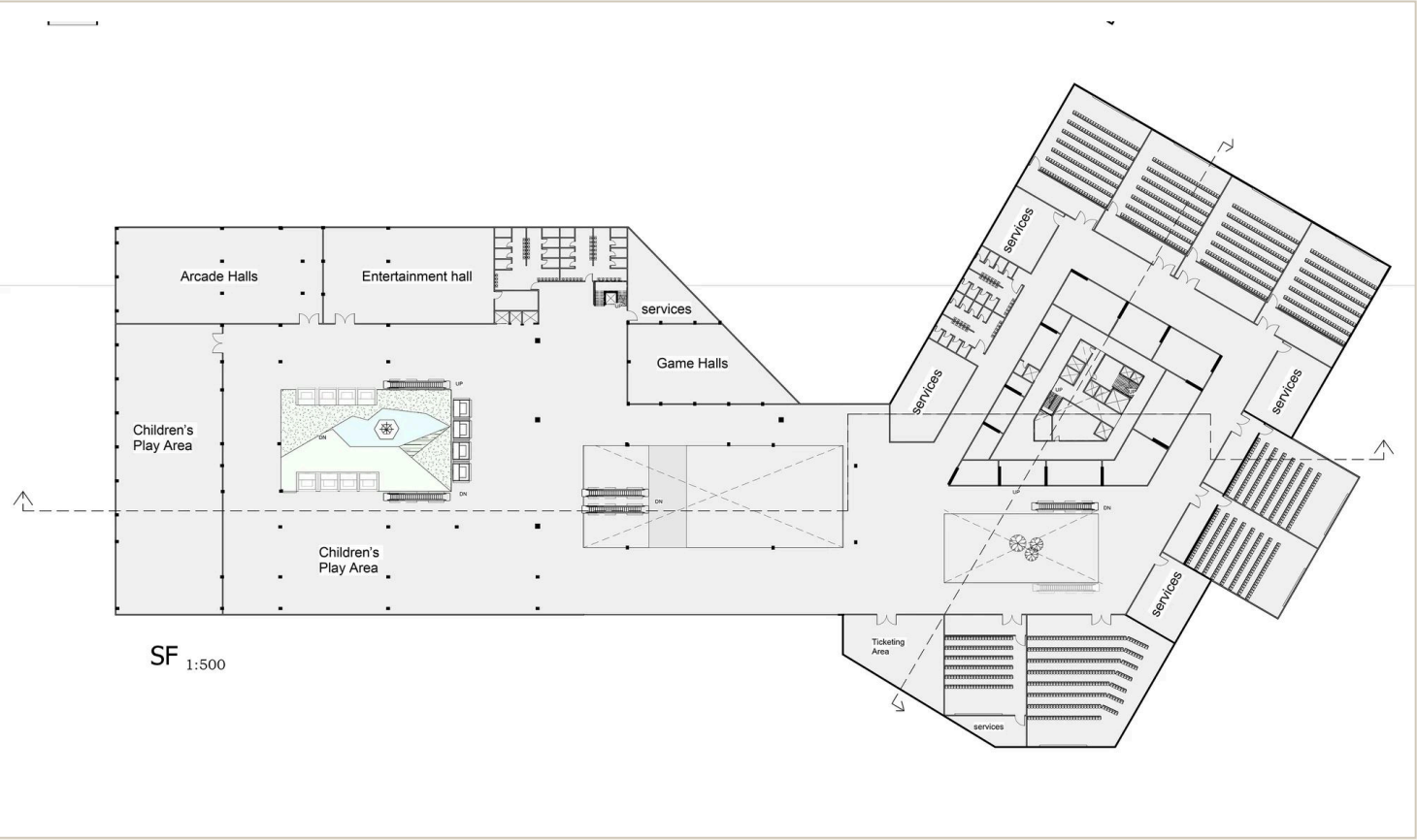
BASEMENT · PARKING



GROUND FLOOR



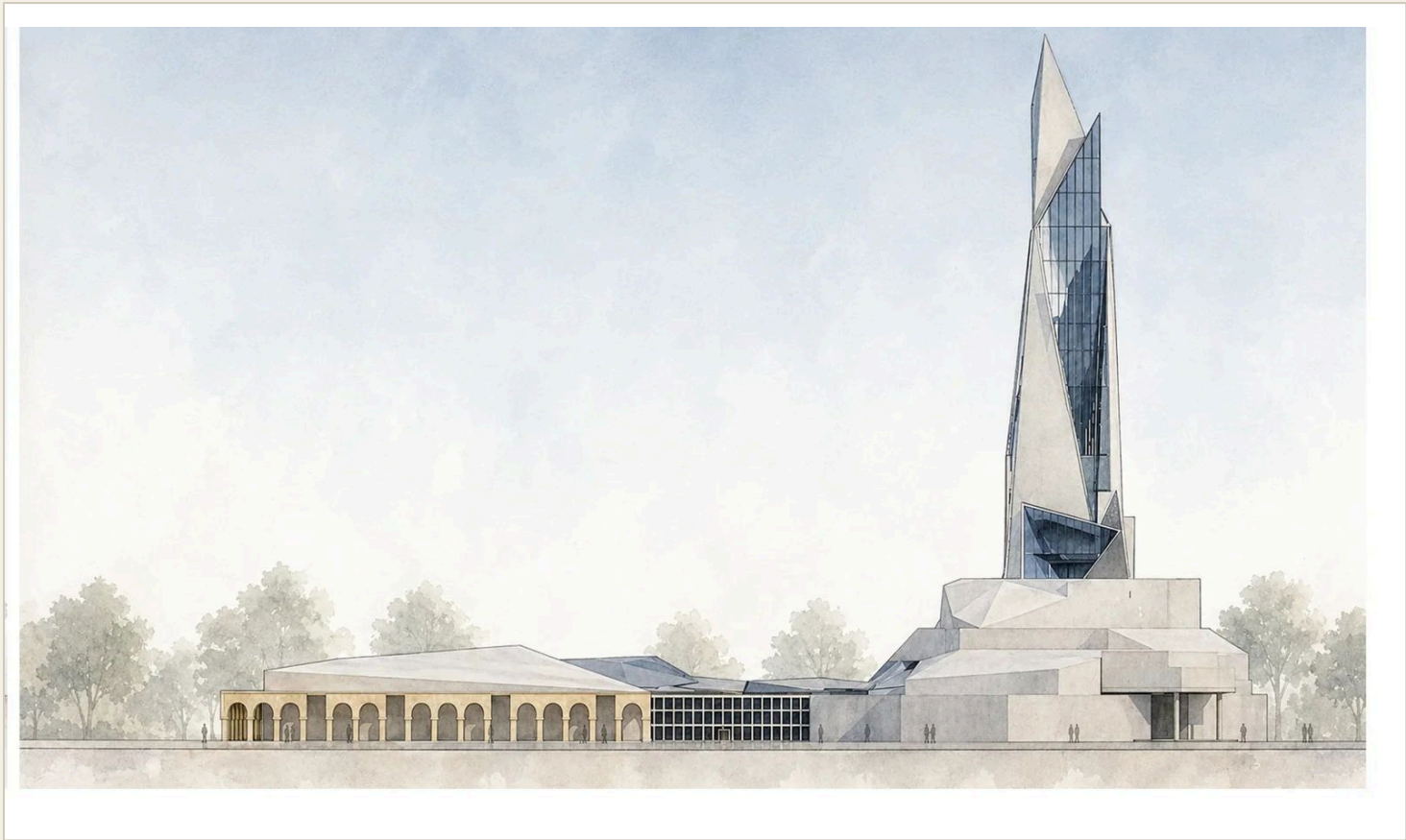
FIRST FLOOR



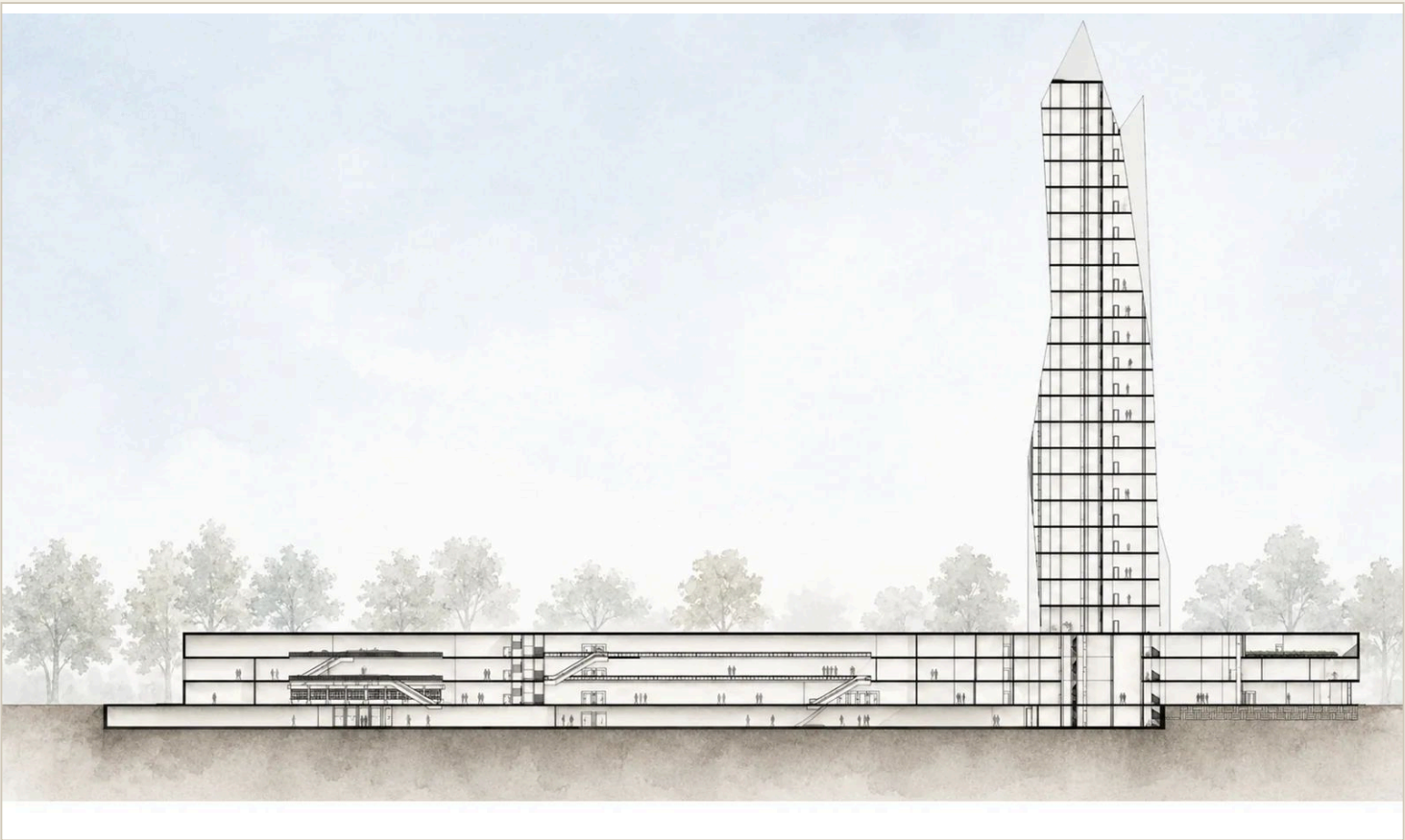
SECOND FLOOR

Plans

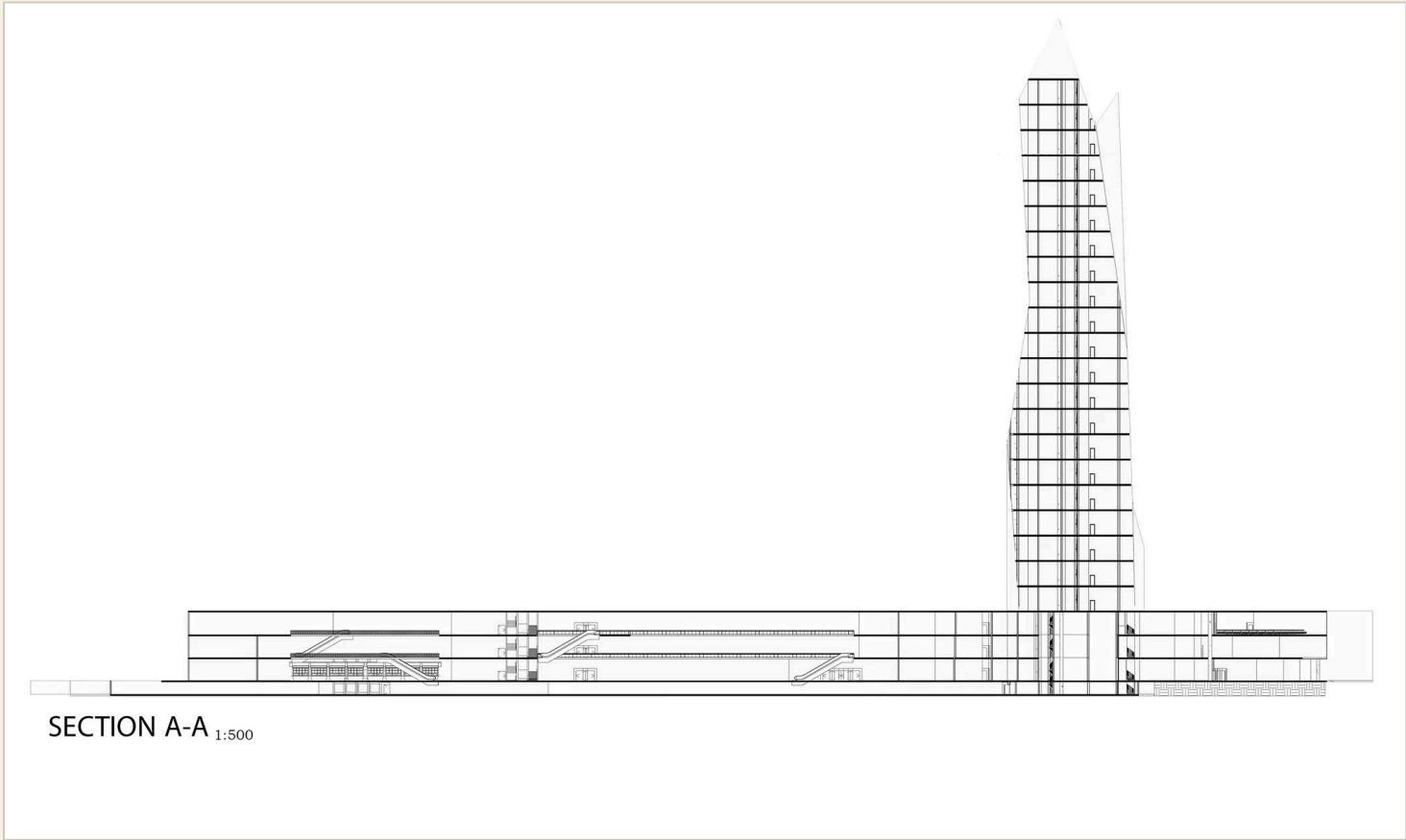
Parking below; the mall wraps the atrium on three levels; the tower rises from the faceted corner.



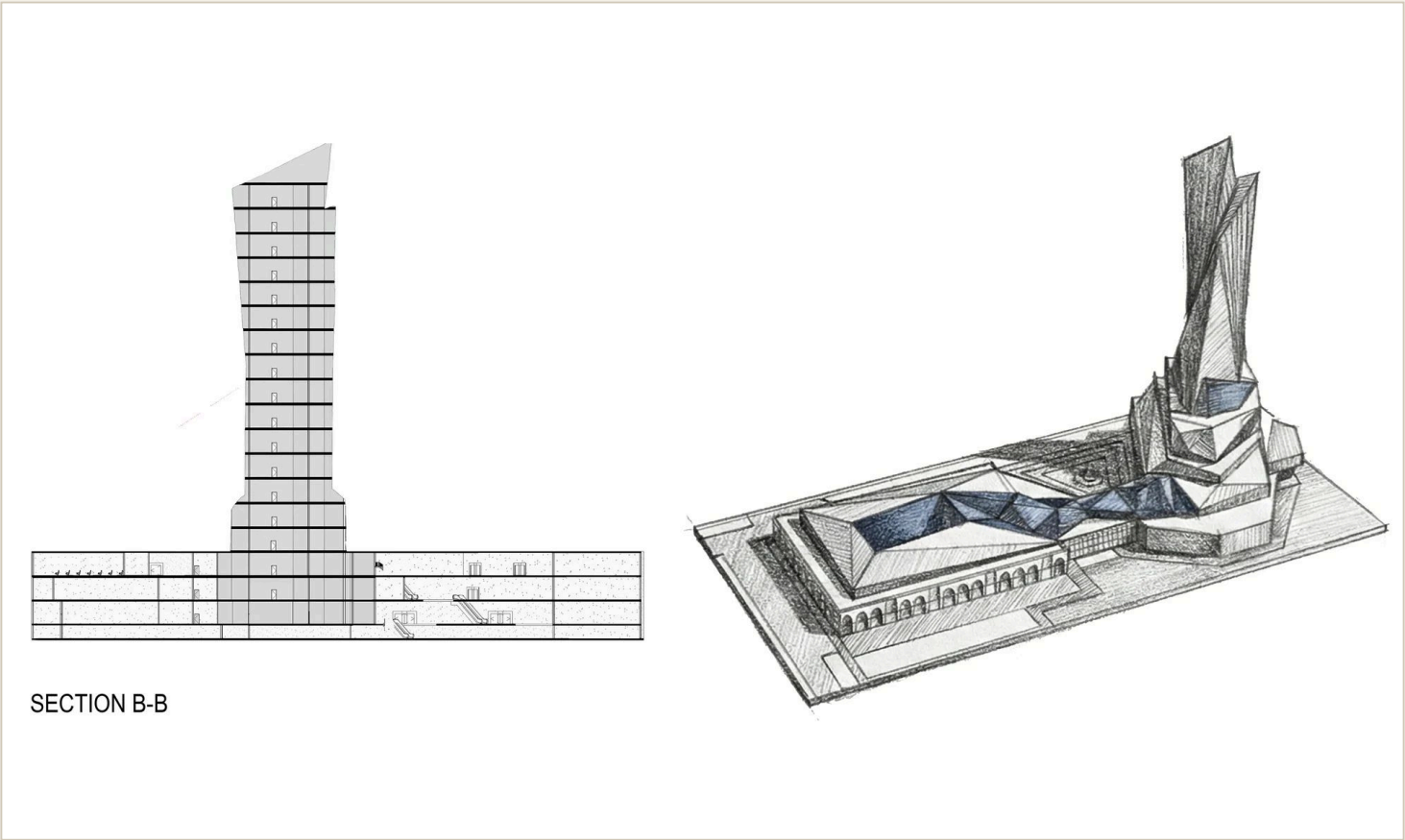
SIDE ELEVATION



FRONT ELEVATION

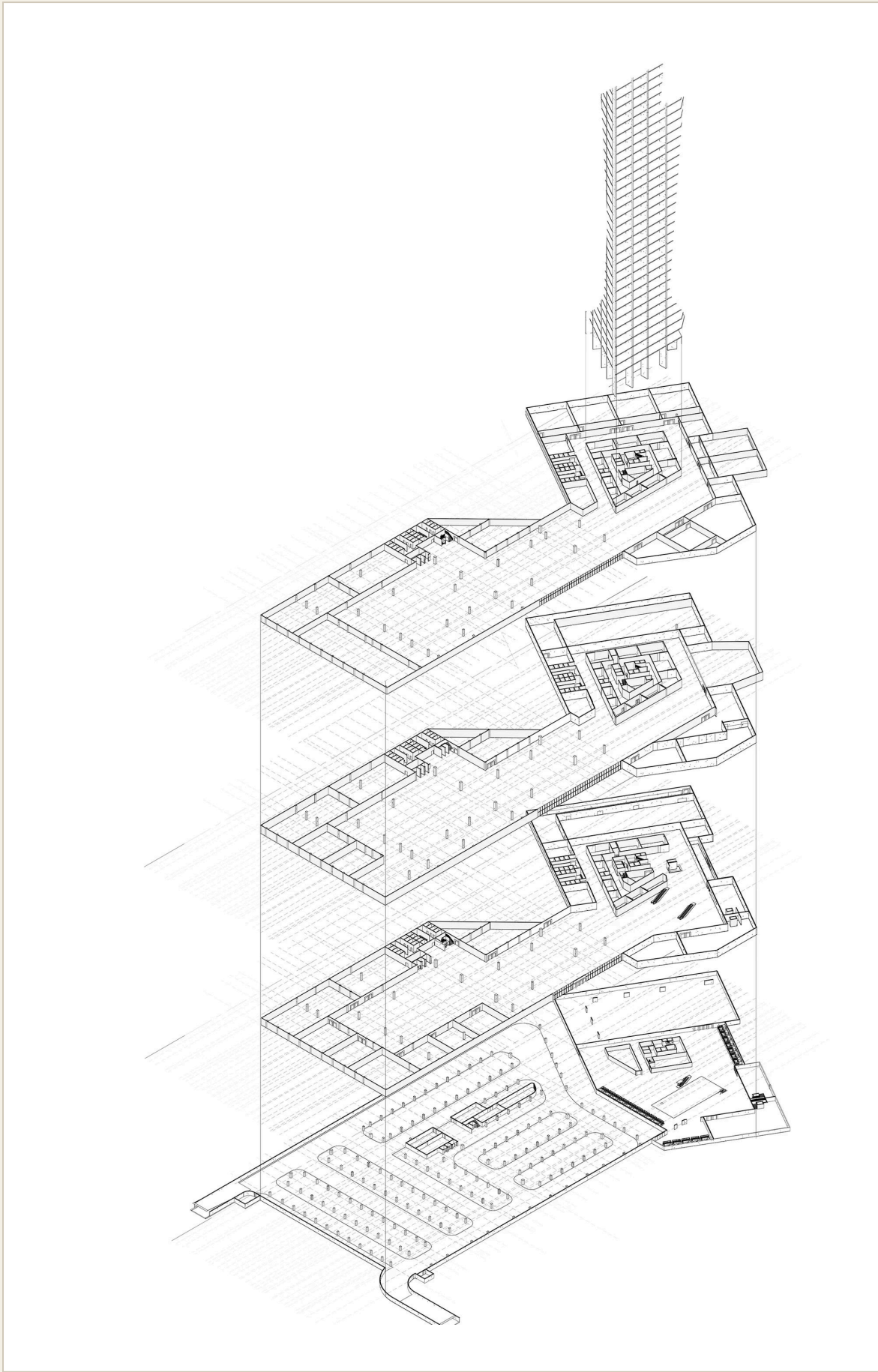


SECTION A-A



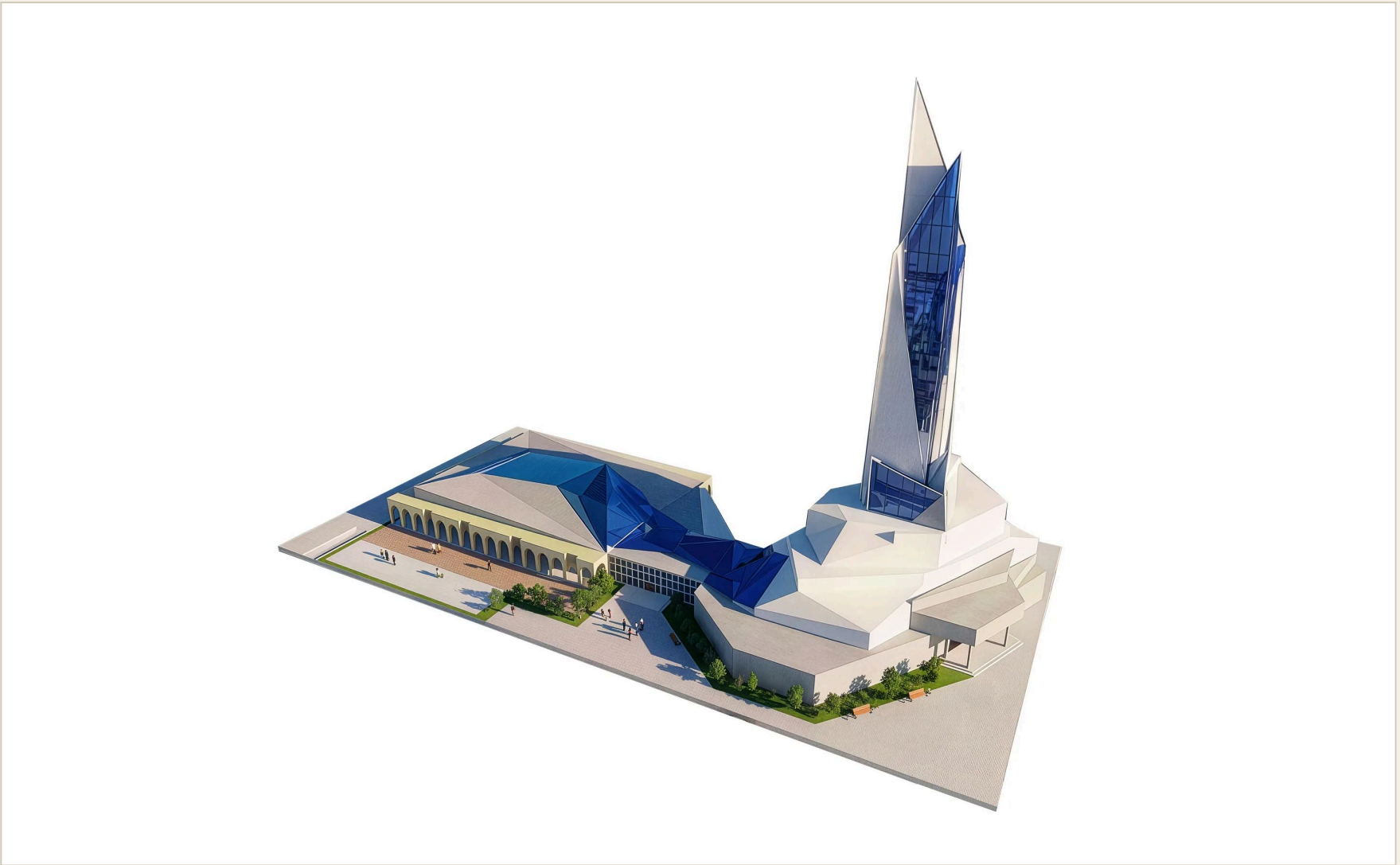
SECTION B-B

Elevations and sections

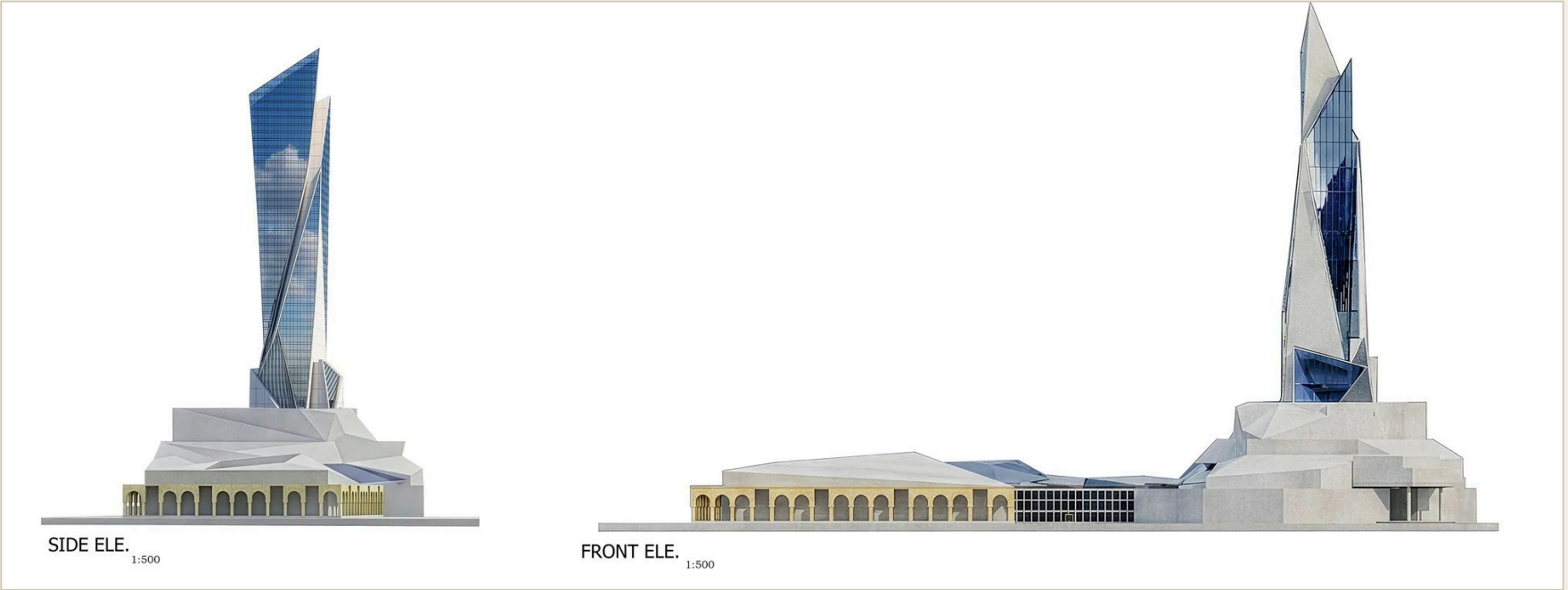


STRUCTURAL ISOMETRIC

Structure and massing



MASSING MODEL



SIDE AND FRONT



MALL ATRIUM



RESTAURANT, CITY EDGE



CAFÉ BENEATH THE STRUCTURE



CINEMA



AERIAL OVER THE DISTRICT

The spire over Baghdad

Architectural **DepArtment**

Designed By
mohammadTaqi Hussein

Supervised by
Dr. Dheah H. Basee
Asst.Lect. Marwa Muwafaq
Asst.Lect. Mohamed Hazim
Asst.Lect. Mariam A.Abrahman
Asst.Lect. Russel Sami
Asst.Lect. Hamsa A.Abrahman
Ms. Mariam Raad

CONCEPT ANALYSIS
The design is based on interpreting time as an abstracted tower, where the structure represents time's passage. The tower's form is inspired by the concept of time's flow, with its base representing the present and its spire representing the future. The design is a response to the need for a modern architectural landmark in Baghdad, one that reflects the city's rich history and cultural heritage while embracing the future. The tower's form is a blend of traditional and modern architectural styles, with its base inspired by the city's historical architecture and its spire representing a new, modern architectural language. The design is a response to the need for a modern architectural landmark in Baghdad, one that reflects the city's rich history and cultural heritage while embracing the future.

Post-Modern Analysis
The design is a response to the need for a modern architectural landmark in Baghdad, one that reflects the city's rich history and cultural heritage while embracing the future. The tower's form is a blend of traditional and modern architectural styles, with its base inspired by the city's historical architecture and its spire representing a new, modern architectural language. The design is a response to the need for a modern architectural landmark in Baghdad, one that reflects the city's rich history and cultural heritage while embracing the future.

Future Vision Analysis
The design is a response to the need for a modern architectural landmark in Baghdad, one that reflects the city's rich history and cultural heritage while embracing the future. The tower's form is a blend of traditional and modern architectural styles, with its base inspired by the city's historical architecture and its spire representing a new, modern architectural language. The design is a response to the need for a modern architectural landmark in Baghdad, one that reflects the city's rich history and cultural heritage while embracing the future.

AL-NARAIN UNIVERSITY
COLLEGE OF ENGINEERING

Baghdad Tower & City Center Mall

2-2-2026

The presentation board contains a variety of architectural drawings. At the top left is a site plan showing the building's location within the city grid. Below it are several floor plans, including a 'Basement' and 'SF' (Site Plan) showing the building's footprint and internal layout. To the right of the floor plans are two sections, 'SECTION A-A' and 'SECTION B-B', showing the building's vertical profile and internal structure. Below the sections are several elevations, including 'SIDE ELEV.', 'BACK ELEV.', and 'FRONT ELEV.', showing the building's exterior from different angles. There are also two 'Typical' floor plans and a 'STRUCTURE ISO' (Isometric) drawing. At the bottom right, there are two small images showing the building's interior, including a 'post' (column) and a 'future' (ceiling) view.

PRESENTATION BOARD

03

TarkeebAI

Describe a house in plain language, get it modelled in Revit.

An open-source pipeline that turns a written brief into real Revit geometry. Three MCP servers work together, so what it draws is buildable, not just plausible. It exists because drawing sets and data models are the same language.

KNOWN LIMITATION

Curved walls are approximated by straight segments.

- PYTHON
- MCP
- REVIT API
- PYREVIT
- RAG
- LLM

BIM automation

01

Brief

A house described in plain Arabic or English: plot size, rooms, floors.

02

Plan server

An MCP server invents the floor plan as structured JSON.

03

API knowledge

A second server looks up exact Revit 2026 API semantics from a local vector database (RAG).

04

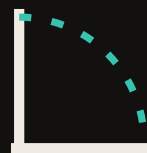
Revit

A third server drives Revit through pyRevit and builds walls, doors and windows.

05

Model

Iraqi construction standards built in — multi-layer walls, 25 cm plot perimeter, column joins.



Let's build something.

Open to architecture roles, design collaborations and BIM automation work.

[MHMDTAQI.ME](https://mhmdtaqi.me)

MDTQI2P@GMAIL.COM

[GITHUB.COM/MHMDTAQI-CODE](https://github.com/mhmdtaqi)