WORKSAMPLES

GONGMING LIU

2009-2026 ACADEMIC + PROFESSIONAL

www.gongmingliu.com

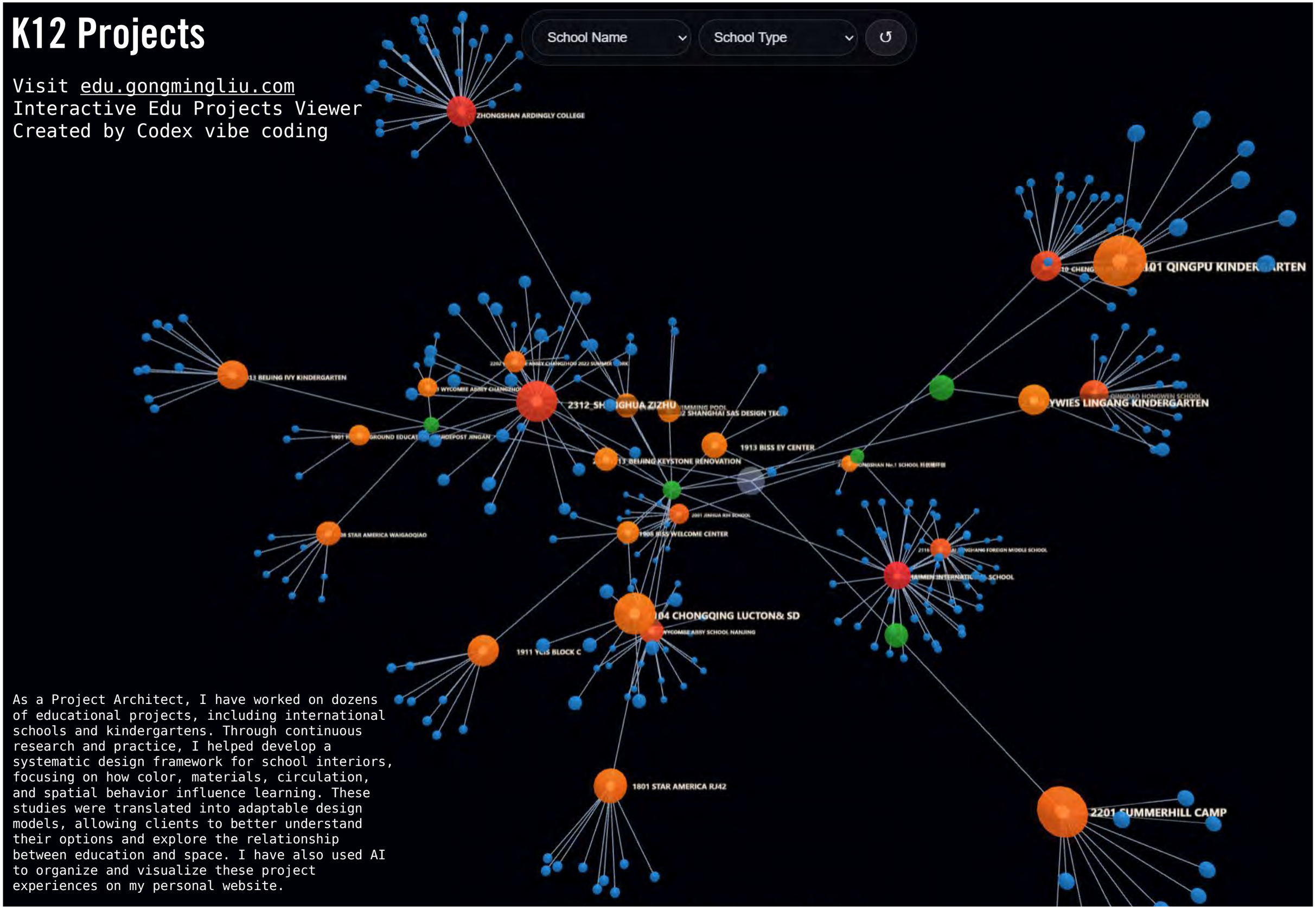
TABLE OF CONTENT

lgmtzz@gmail.com
+1 840 588 9940

Senior Design Manager
Project Architect
Architectural Designer

K12 Projects

Visit edu.gongmingliu.com
Interactive Edu Projects Viewer
Created by Codex vibe coding



As a Project Architect, I have worked on dozens of educational projects, including international schools and kindergartens. Through continuous research and practice, I helped develop a systematic design framework for school interiors, focusing on how color, materials, circulation, and spatial behavior influence learning. These studies were translated into adaptable design models, allowing clients to better understand their options and explore the relationship between education and space. I have also used AI to organize and visualize these project experiences on my personal website.

Research

During my five years with the firm, we won and delivered numerous school projects. I led the team in developing a systematic research framework for educational design, covering student-area ratios, operational efficiency, investment return, spatial standards, and teaching facility benchmarks. This helped standardize the design process, improve efficiency, support better client decision-making, and increase overall project quality and client satisfaction.

2.1 校舍规模及学位影响

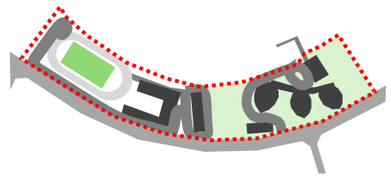
三亚海棠湾
Sanya Haitang Bay

用地面积：58355 m²
建筑面积：66455 m²
容积率：0.95

广州蓝谷学校
Guangzhou Bluevalley

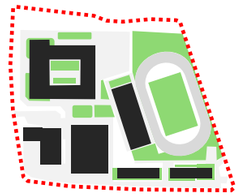
用地面积：45584 m²
建筑面积：102564 m²
容积率：1.5

双鱼岛国际学校
Shuangyu Island School



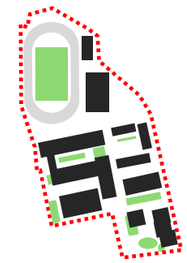
用地面积：19990m²
建筑面积：28300 m²
容积率：1.28

南京威雅学校
Nanjing Wycomby Abbey School



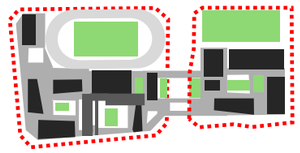
用地面积：82020 m²
建筑面积：111943 m²
容积率：1.2

淀山湖威雅
Dianshanhu WAS



用地面积：65184 m²
建筑面积：76707 m²
容积率：1.05

重庆十方界中学
Chongqing Shifangjie Campus



用地面积：46100 m²
建筑面积：62234 m²
容积率：0.93

中山阿丁莱
Zhongshan Ardingly College

用地面积：64962 m²
建筑面积：106192 m²
容积率：1.5

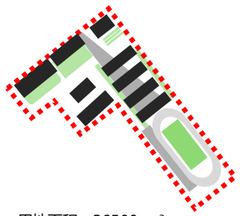
金华江南中学
Jinhua Jiangnan School

用地面积：78025 m²
建筑面积：62309 m²
容积率：0.8

深证市海岸学校
Shenzhen Haian School

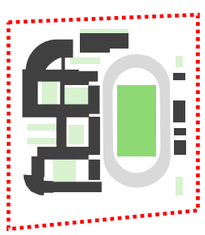
用地面积：26493 m²
建筑面积：52767 m²
容积率：1.21

卓越深圳威尔森学校
Shenzhen Zhuoyue Campus



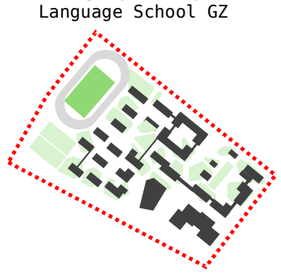
用地面积：36500 m²
建筑面积：41355 m²
容积率：0.9

育才三中
Yucai No.3 School



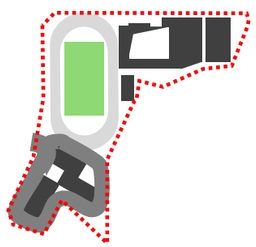
用地面积：22345 m²
建筑面积：50697 m²
容积率：1.53

北外广州校区
Beijing Foreign Language School GZ



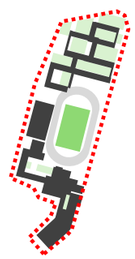
用地面积：106349 m²
建筑面积：137920 m²
容积率：1.08

深圳三十二高级中学
Shenzhen No.32 High School



用地面积：42057 m²
建筑面积：90000 m²
容积率：1.89

深圳第二十八中学
Shenzhen No.28 Middle School



用地面积：70031 m²
建筑面积：138100 m²
容积率：1.8

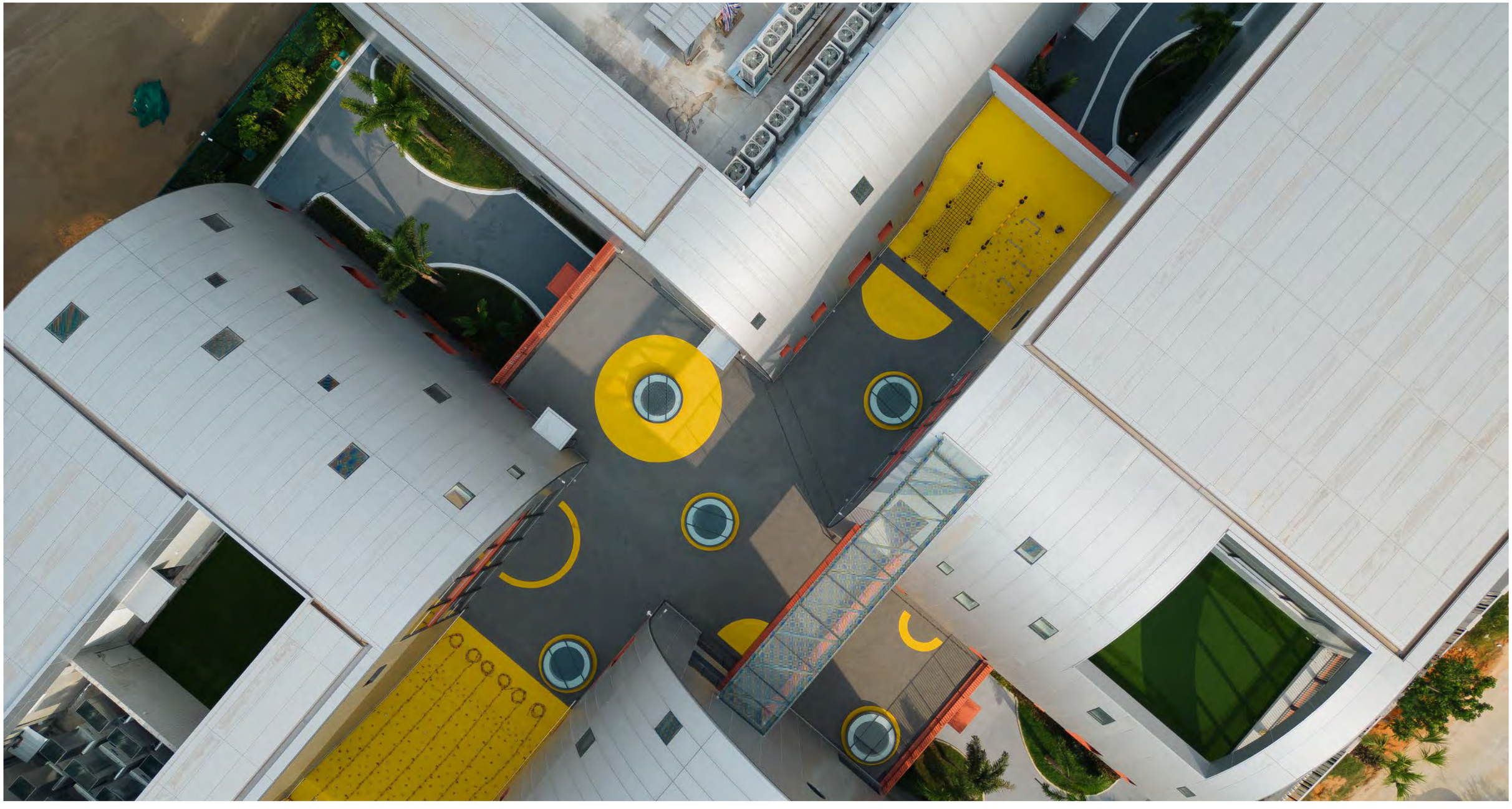
天津山峰
Jinhua Jiangnan School

用地面积：62064 m²
建筑面积：62614 m²
容积率：1.01

ARDINGLY INTERNATIONAL SCHOOL - KINDERGARTEN

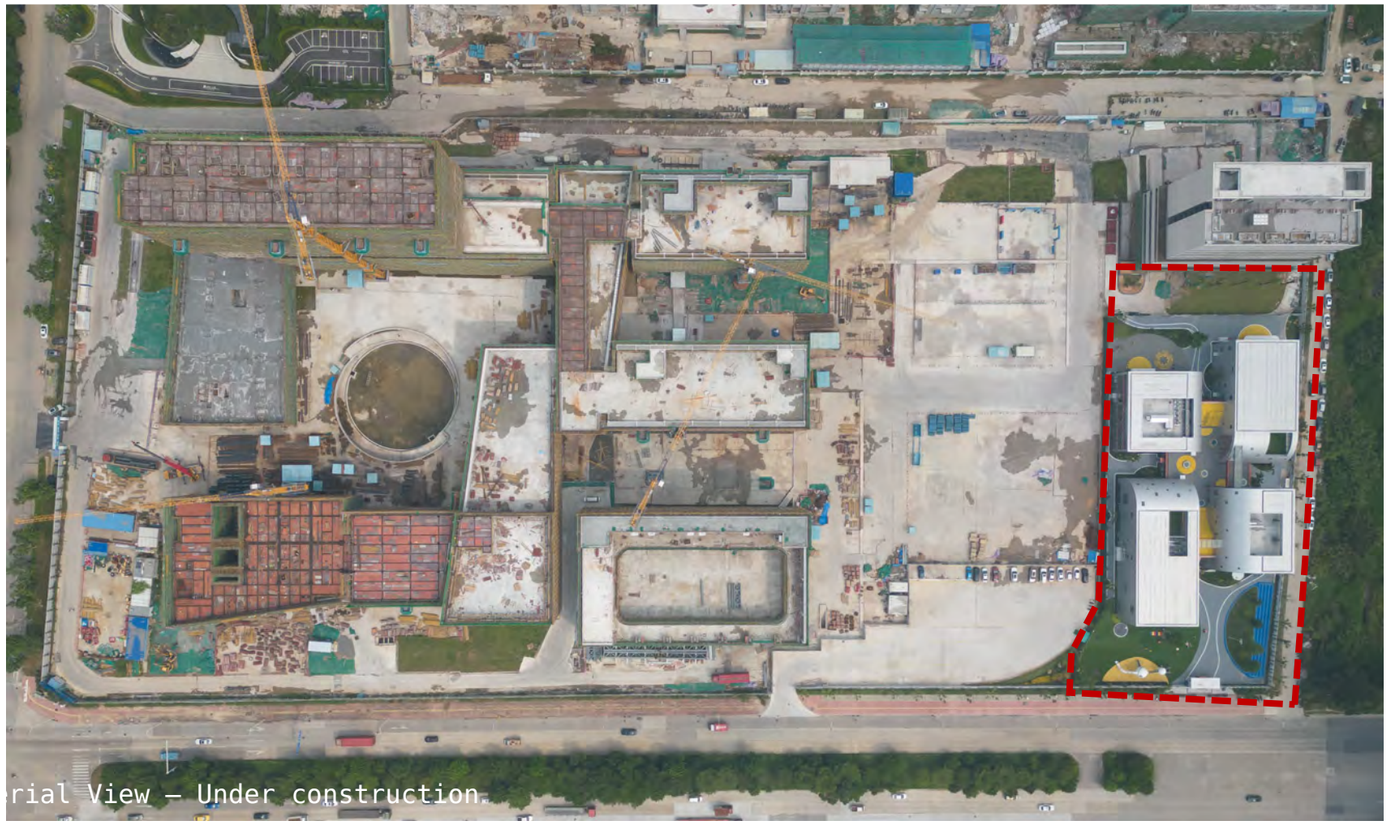
01

Typology: K-12 Educational
Location: Zhongshan, China
Year & Area: 2021 / 7,500 sqm in 120,000 sqm Campus
Scope: Architecture & Interior
Status: Planning SD DD CD CA / Complete
Role: Project Architect
Software: Revit / AutoCAD / Enscape Render



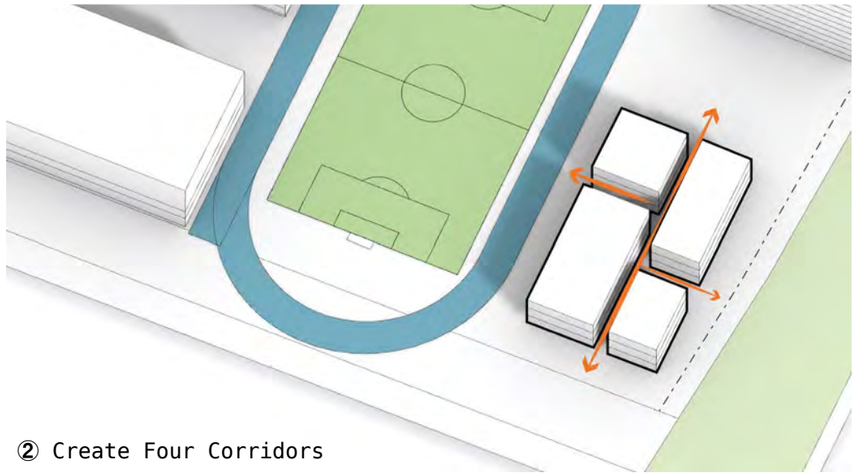
Nest

As part of a high-density K–12 campus, the kindergarten was designed as an independent and protected "nest" for young children. It has its own entrance and underground drop-off lobby, while sharing the main parking system with the primary and secondary schools through separated circulation. After completing the overall campus planning with the team, I independently led the architectural and interior design of the kindergarten. The key challenge was to create a safe, efficient, and playful children's environment within a compact campus framework.

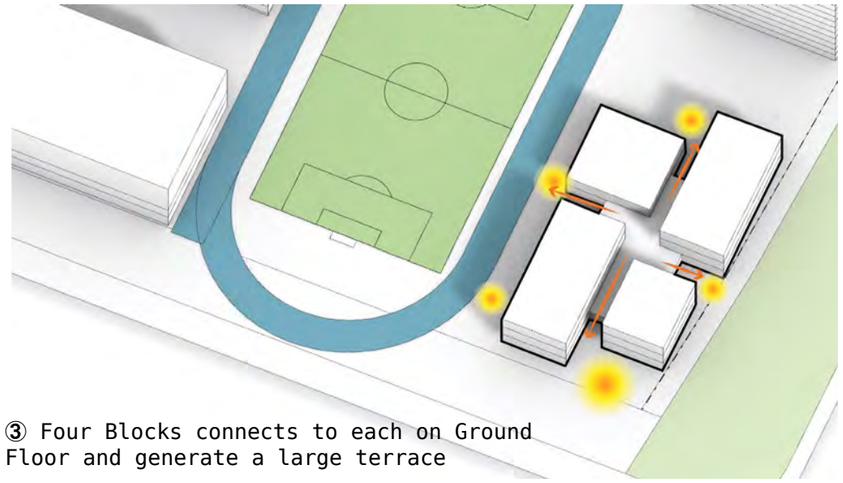


rial View – Under construction

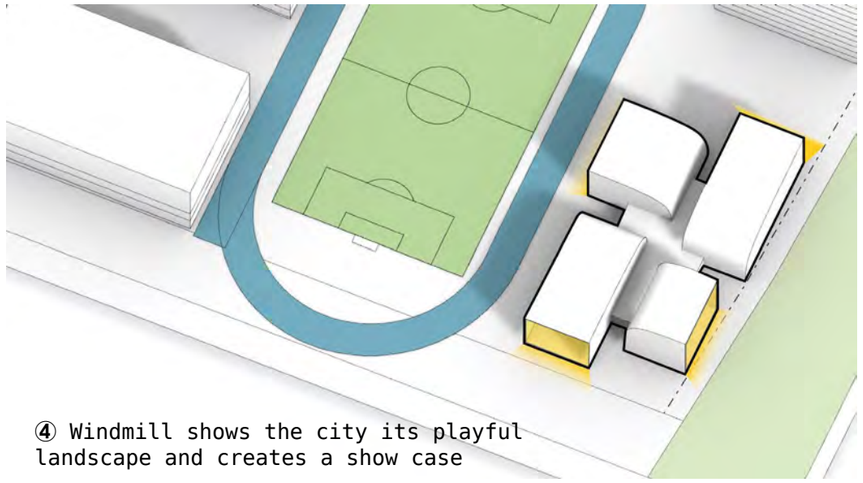
① Kindergarten Massing



② Create Four Corridors



③ Four Blocks connects to each on Ground Floor and generate a large terrace



④ Windmill shows the city its playful landscape and creates a show case

Windmill

The kindergarten design introduces the concept of a windmill as both an architectural form and a spatial narrative. The four-part massing, landscape layout, and interior organization are developed around this playful geometry, creating a clear identity for the children's campus. Within a dense urban school environment, the design aims to give preschool children a stronger sense of freedom, movement, and connection to nature. Architecture, landscape, and interior spaces work together to transform daily learning into a joyful and exploratory experience.

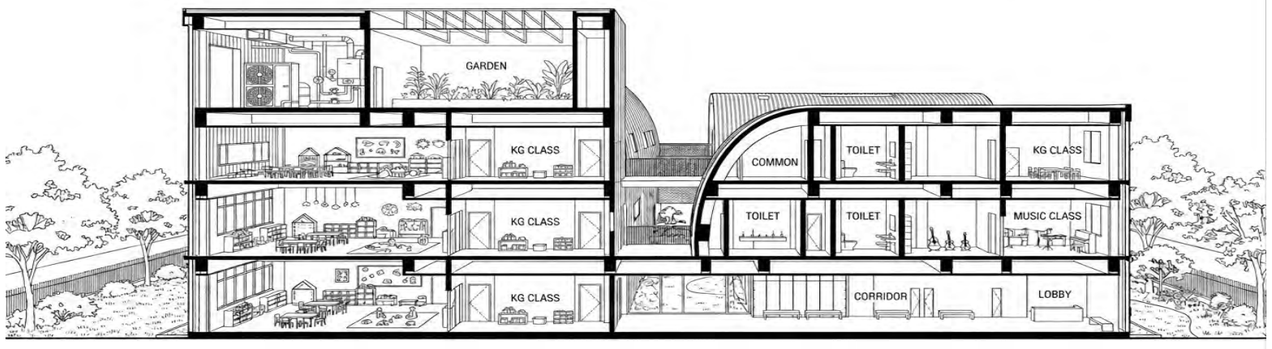
Ground Floor

Second Floor

Third Floor

The kindergarten becomes an exploratory playground where architecture, landscape, and play are closely integrated. Outdoor activity areas extend to the second-floor level, with climbing structures and slides encouraging movement, curiosity, and creativity. Light wells connect the indoor and outdoor spaces, softening the building boundary and creating a more open and playful learning environment.

Wonder

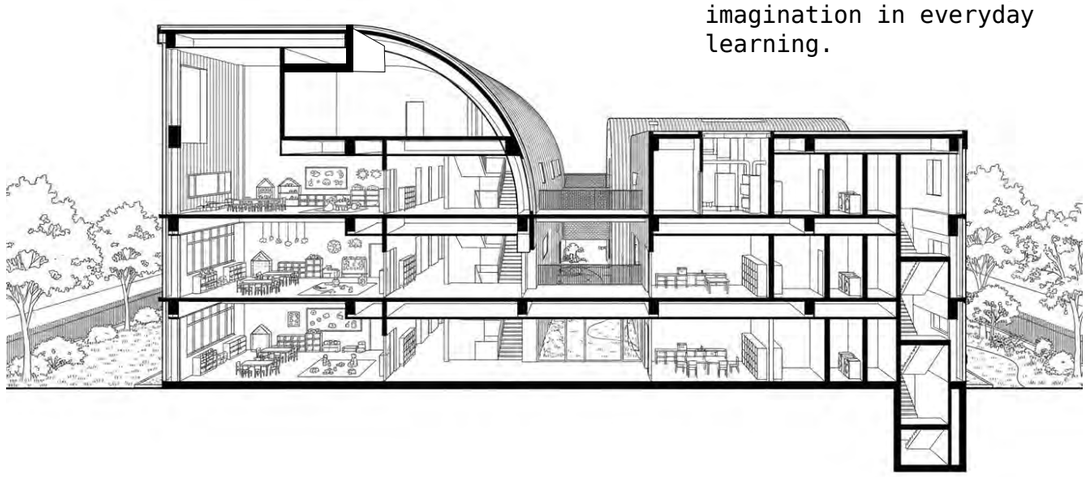


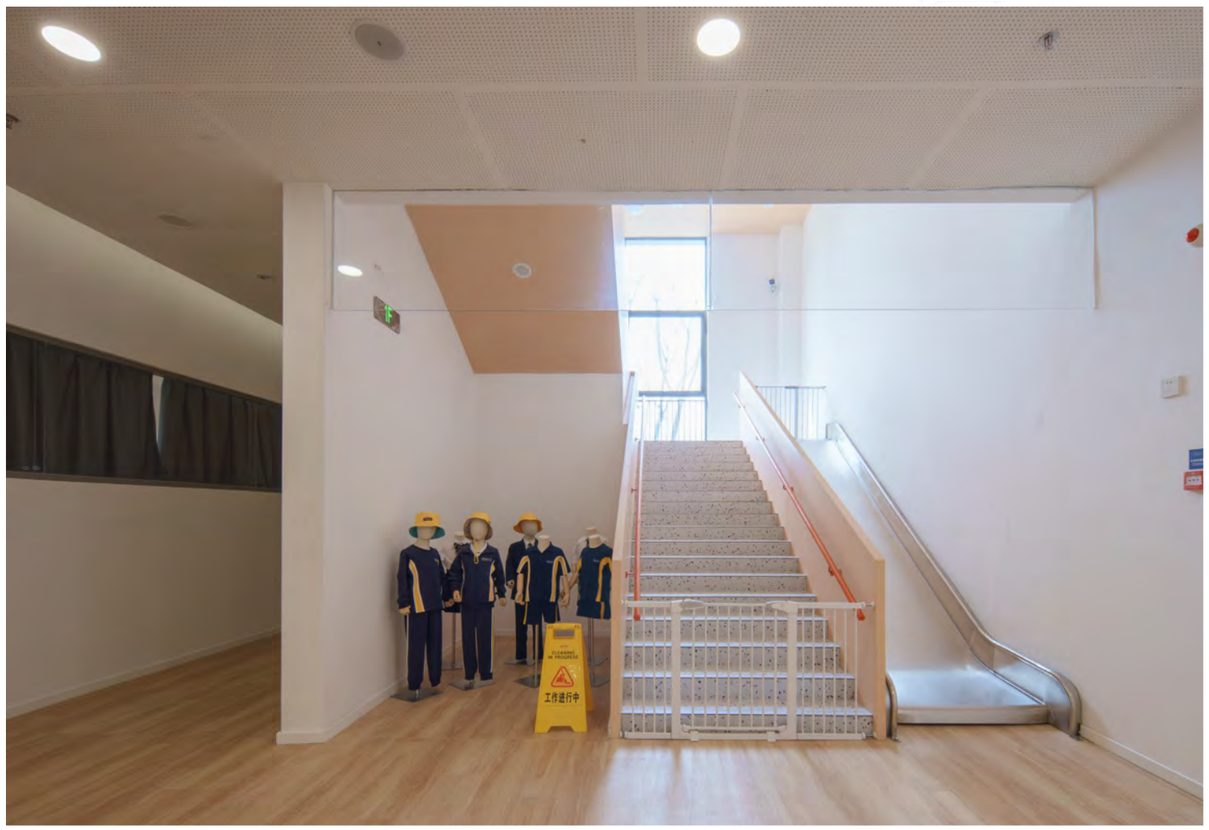
The outdoor landscape is designed as an everyday learning garden, providing each kindergarten class with generous space for play, movement, and discovery. The boundary between classrooms and outdoor areas is intentionally softened, allowing children to move naturally between inside and outside throughout the day. This creates a richer daily rhythm, with more outdoor time and direct contact with nature than most conventional schools and kindergartens in China.

Garden

Imagination

Color research was applied to the interior design to create a positive and socially engaging environment for children. Through balanced colors, playful forms, and child-scaled spatial elements, the kindergarten encourages interaction, curiosity, and imagination in everyday learning.





WYCOMBE ABBEY SCHOOL - PRIVATE INTERNATIONAL SCHOOL

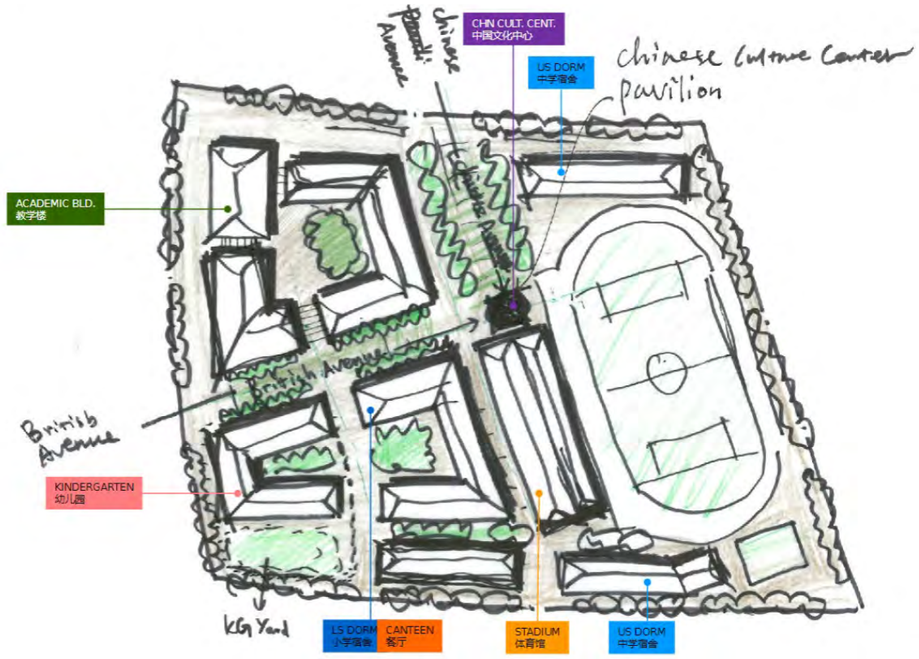
02

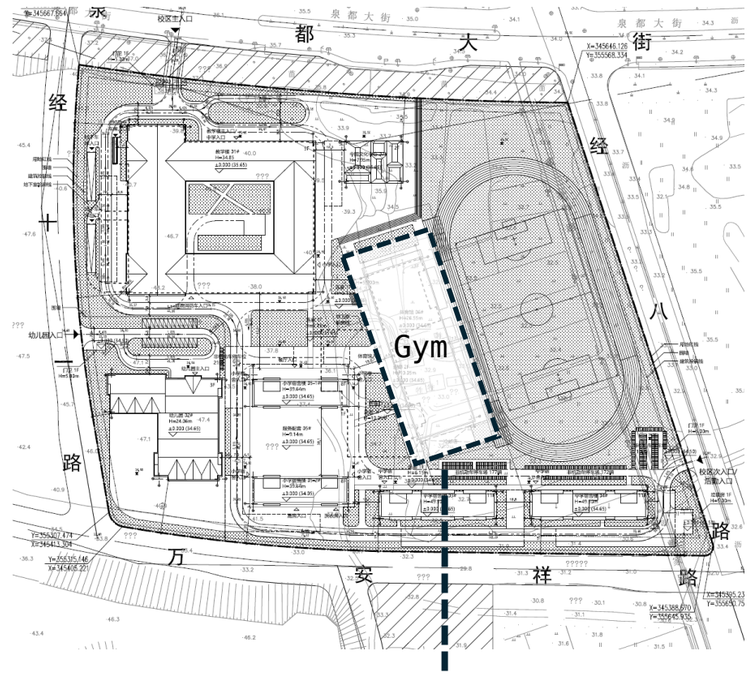
Typology: K-12 Educational
Location: Nanjing, China
Year & Area: 2019 - 2021 / 115,000 sqm
Scope: Architecture & Interior
Status: Concept DD CD CA / Complete
Role: Senior Architect
Software: Revit / AutoCAD / Lumion / Enscape

Wycombe Abbey School Nanjing was a milestone project for our team, covering site planning, architectural design, landscape, interior design, construction documentation, and project coordination through to the completion of interior works. The project also helped train and develop a group of young designers within the office. As a senior designer on the team, I was deeply involved across multiple stages, contributing to planning studies, architectural and interior design development, technical coordination, and project delivery.

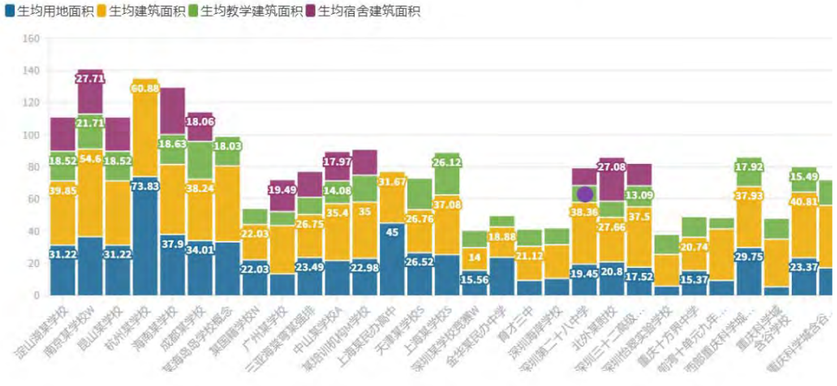
Programming

As project architect, I led the campus planning and functional programming, organizing academic, residential, sports, and public spaces around an efficient campus structure.
Based on the requirements from the MEP consultants and client, the central energy plant was placed within the gymnasium mezzanine at the heart of the campus, improving mechanical distribution efficiency.
The overall planning strategy was developed around energy-saving principles, compact circulation, and long-term operational performance.



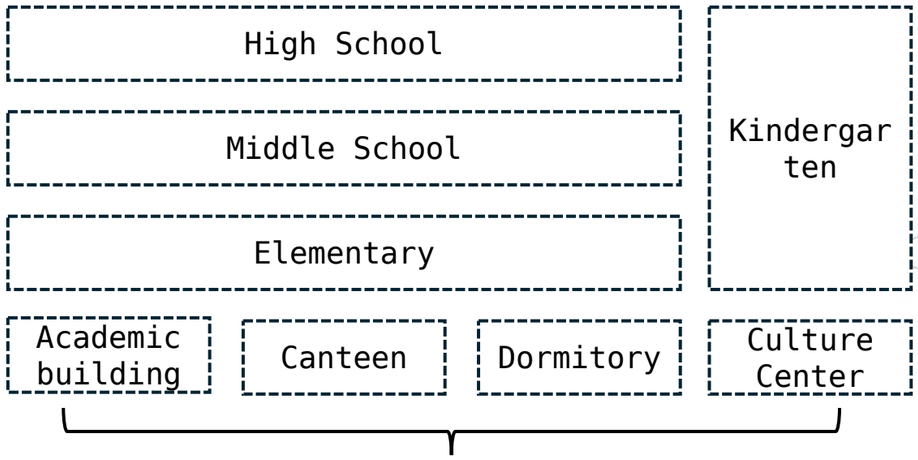


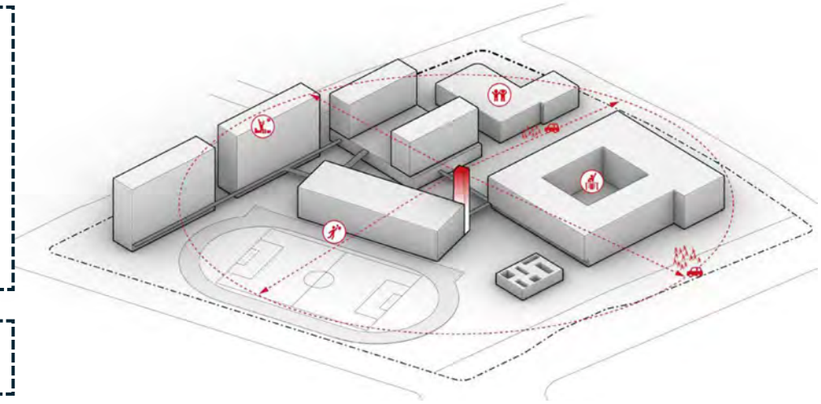
Keyword K12 EDU

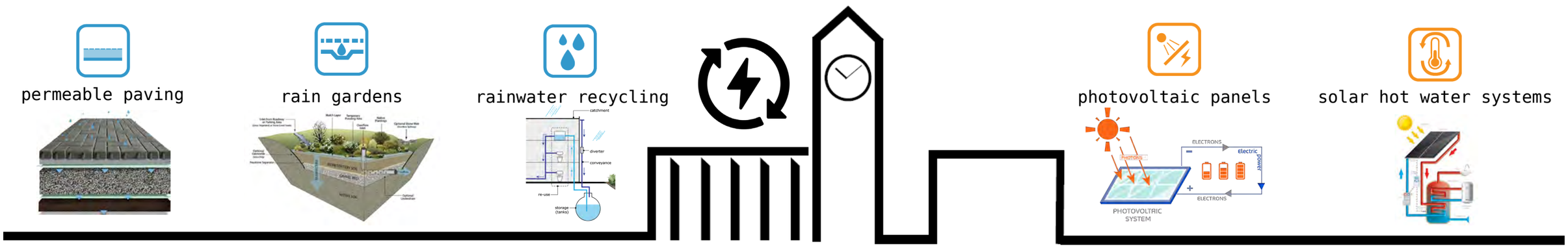


Spiritual Fortress

The central clock tower was designed as the spiritual landmark of the campus, strengthening the school’s international brand identity. A covered corridor system, integrated with MEP service routes, connects the main buildings and supports efficient daily circulation. Sustainable strategies such as permeable paving, sponge-city rain gardens, photovoltaic panels, solar hot water systems, and rainwater recycling were incorporated to improve environmental performance and long-term campus operation.

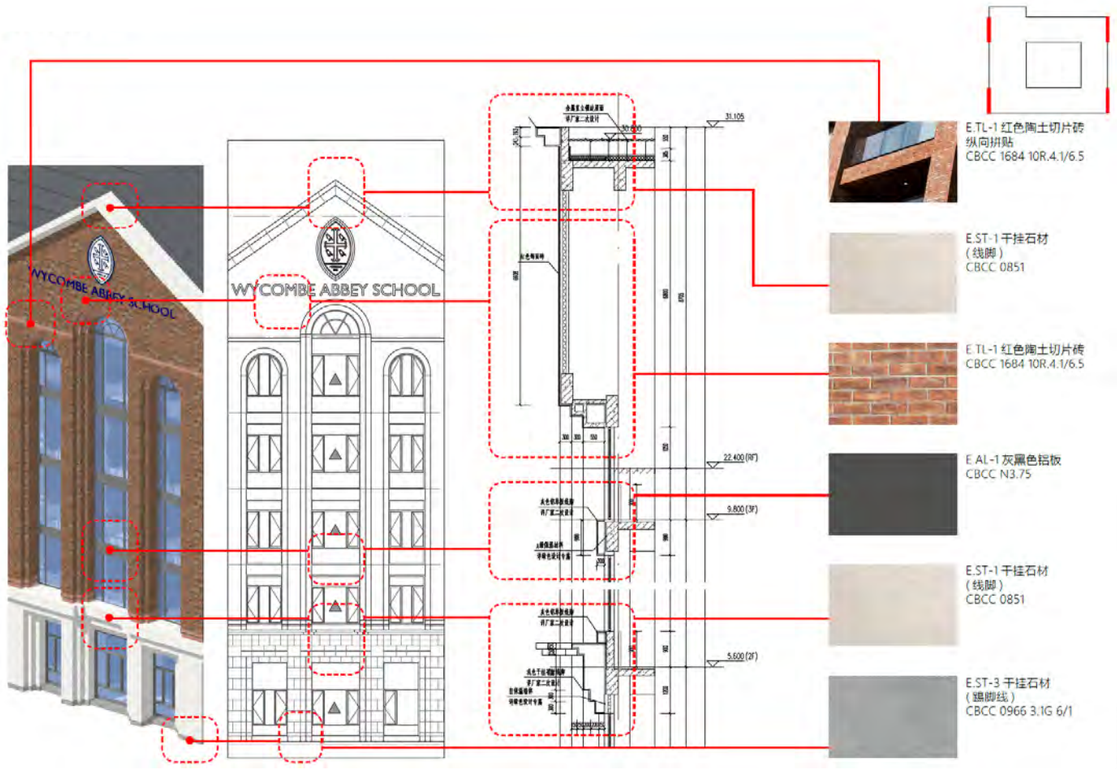


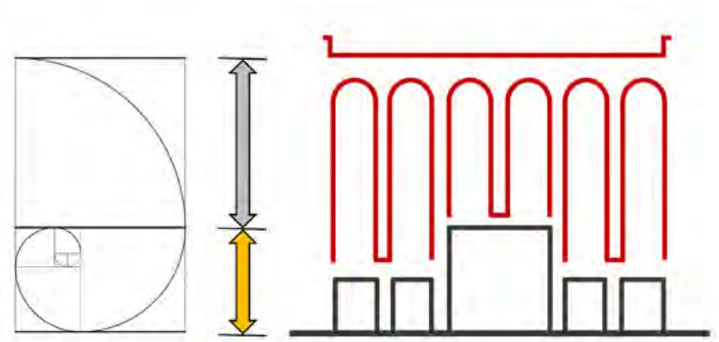


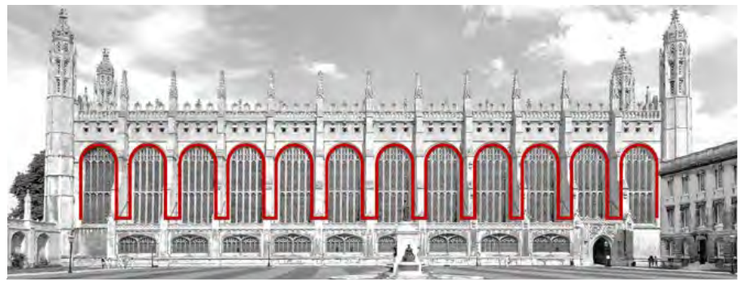


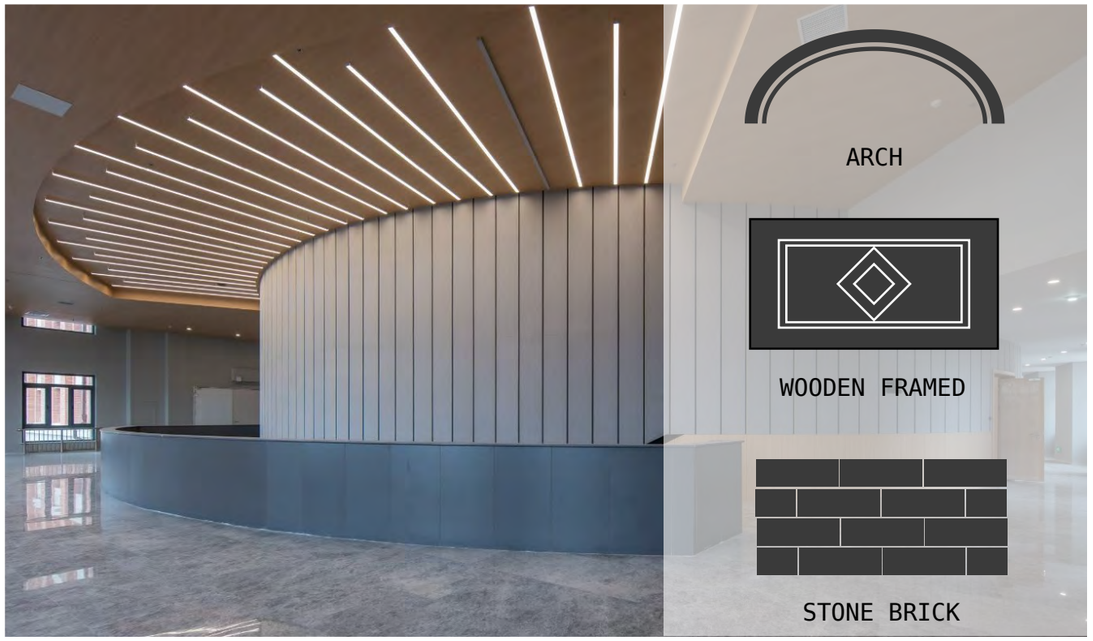
For the architectural and facade design, I led the team in developing a campus language inspired by the proportions, rhythm, and colonnades of traditional British academic architecture. We prepared a detailed construction guidance manual to ensure design consistency during implementation. Revit as BIM tool was adopted in design process for more accuracy calculation. During construction, the contractor was required to follow the wall-section details closely, reproduce the design intent at full scale, and prepare facade mock-up walls in advance for review. Based on the mock-up process, we further optimized construction methods, material application, and cost control while maintaining the intended architectural quality.

Façade









Performance Art

The designing of Performance Arts Center plays a central role within the campus, standing alongside the sports facilities as one of the key amenities of an international school. During the architectural design phase, our team worked closely with Theatreplan, the UK-based theatre design consultant, to coordinate the auditorium layout, stage planning, backstage functions, and audience experience. In the interior design and technical coordination stages, we also collaborated with professional acoustic consultants to guide material selection and define performance criteria for wall systems, doors, windows, and interior finishes. This multidisciplinary coordination helped ensure that the space met both educational and professional performance requirements while maintaining the overall architectural quality of the campus.

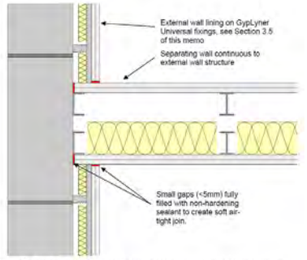


Figure 5 - PLAN: Typical junction between separating walls and external walls

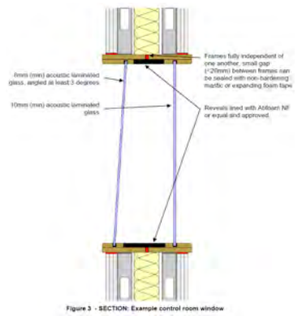


Figure 3 - SECTION: Example control room window

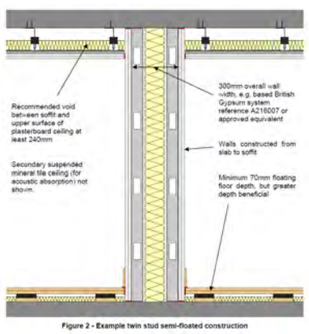
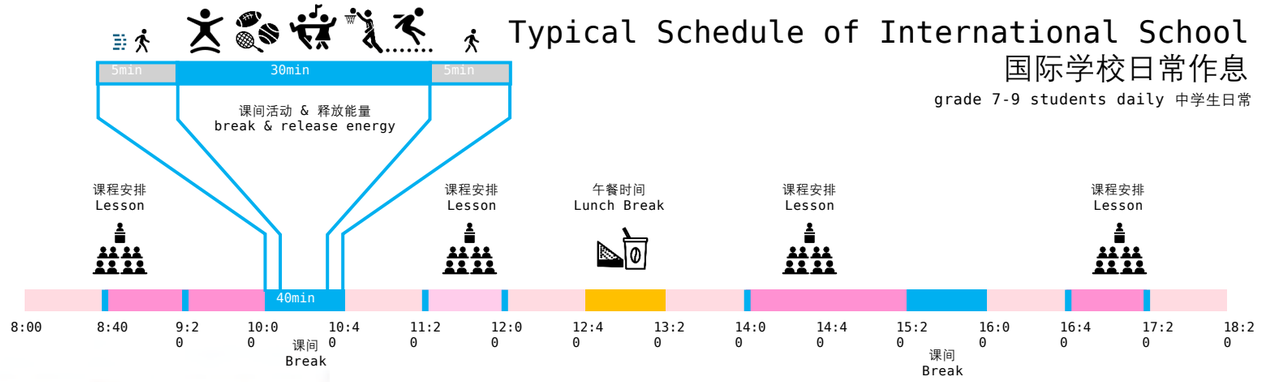
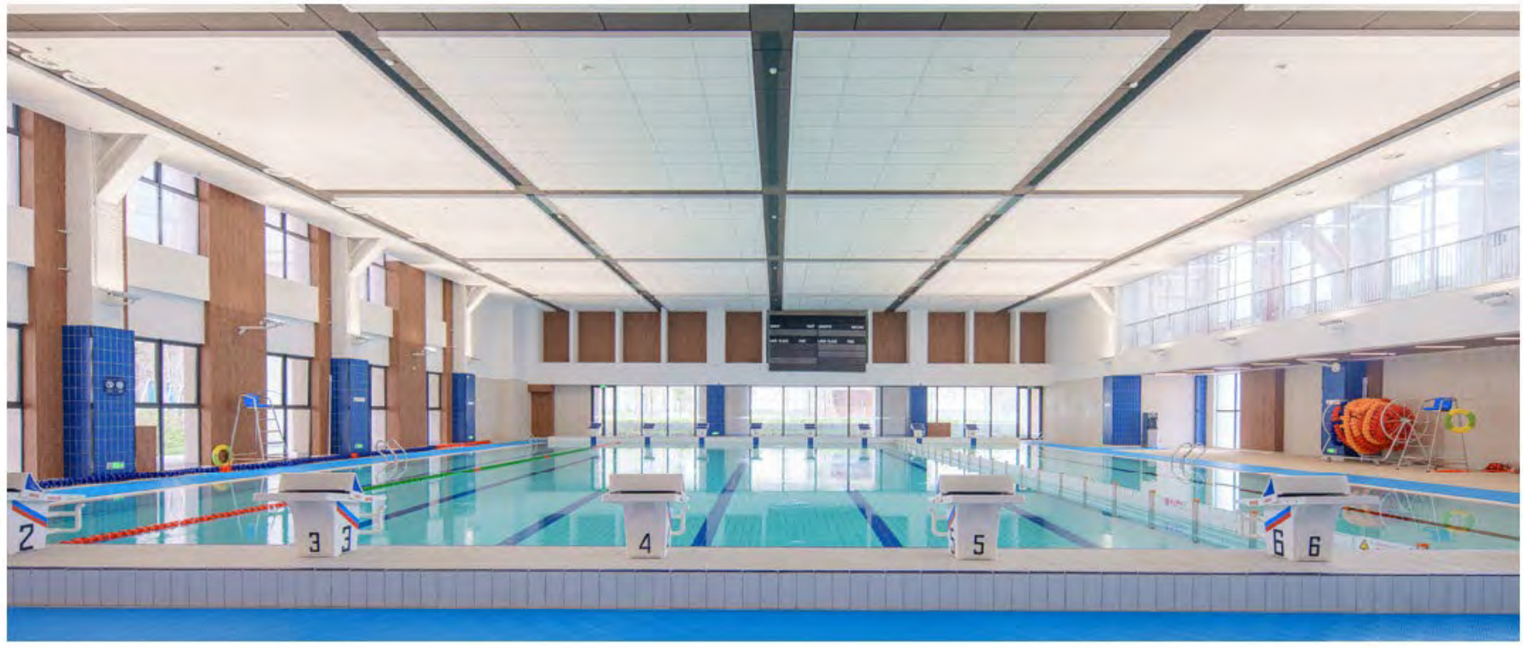


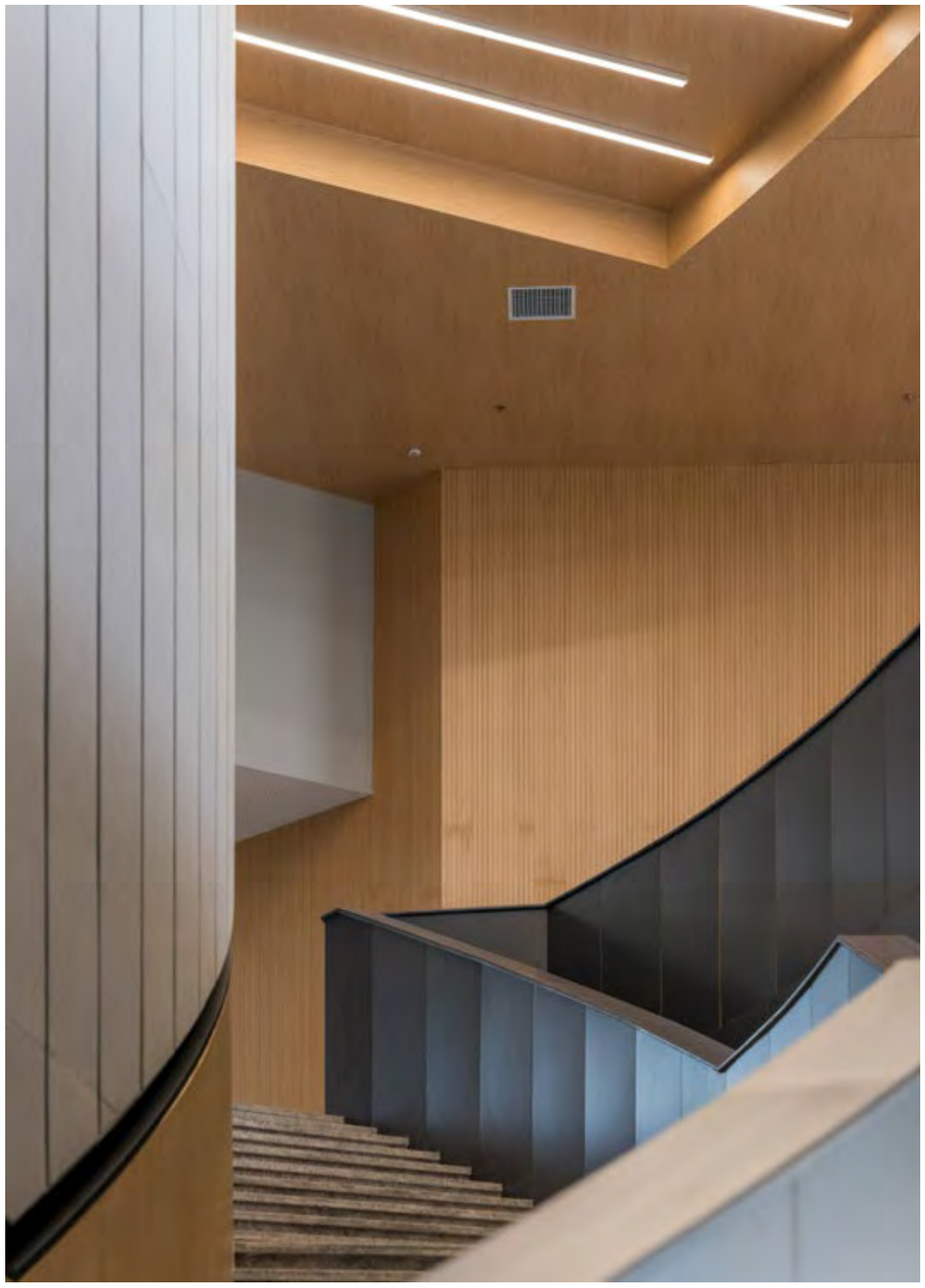
Figure 2 - Example twin stud semi-floated construction

Sports Stadium

We studied the curriculum structure and daily timetable of international schools to inform the design of sports, arts, and supporting facilities. The planning focused on aligning specialized spaces with teaching needs while organizing efficient circulation routes between classrooms, dormitories, athletic venues, and cultural facilities. This helped reduce travel time between classes and activities, improving campus efficiency and supporting a smoother daily experience for students and staff.





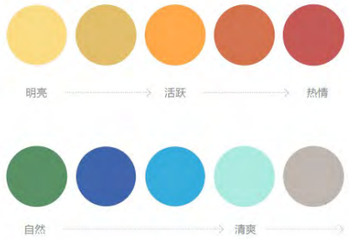


Library and STEM Lab

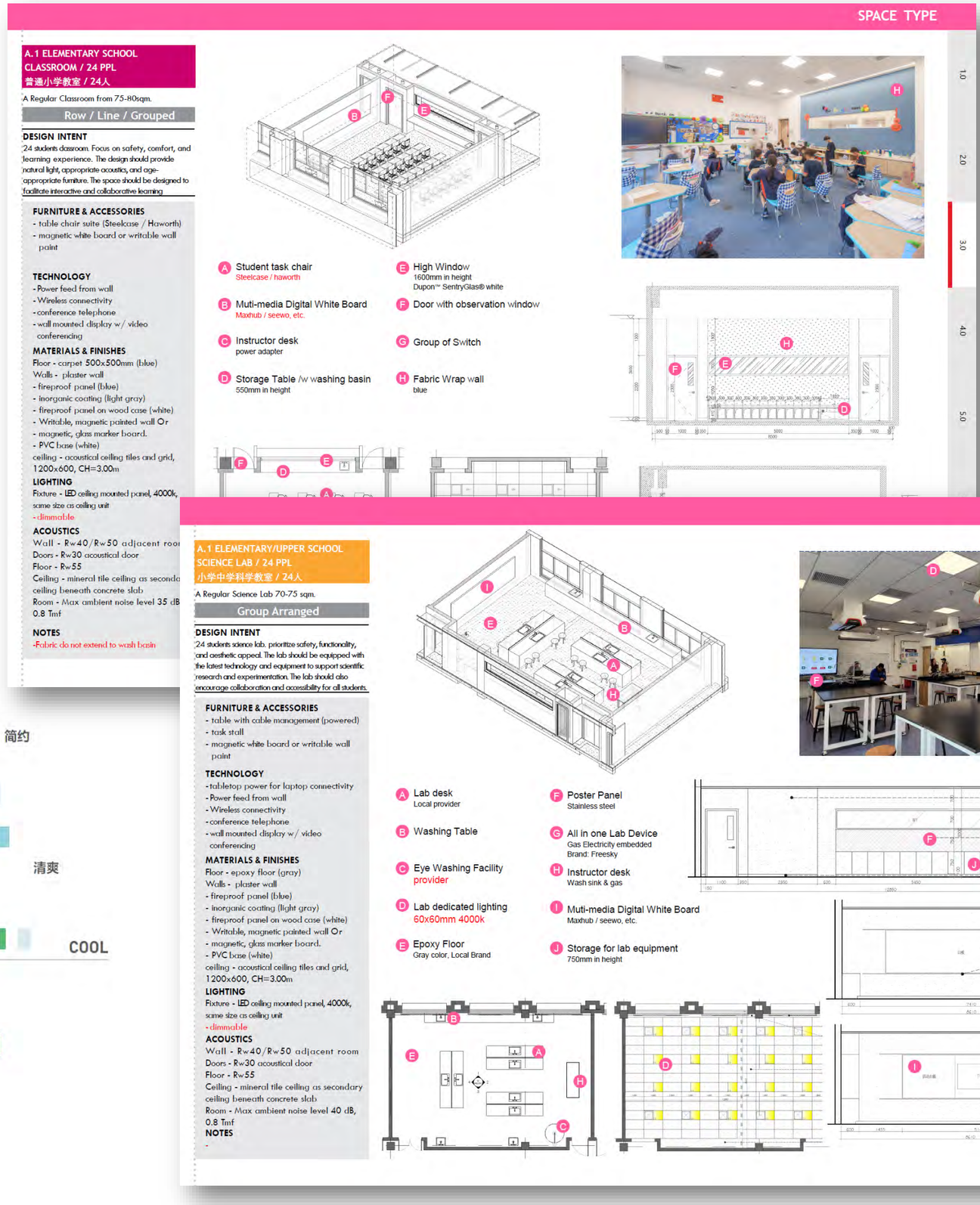
After the architectural design phase was completed, the interior design team joined the project. My role was to transfer the client's requirements, educational brief, and our previous research to the interior team, ensuring continuity between the architectural concept and interior strategy. I also coordinated the interface between interior design and specialist consultants, including acoustic and MEP consultants, to align spatial quality, technical performance, material selection, and construction feasibility throughout the design development process.

Research

We conducted long-term research into the relationship between education and spatial experience, focusing on how color, behavior, spatial organization, materials, and environmental quality influence learning outcomes. These research findings were translated into practical interior design strategies and documented in a spatial design manual for the client. The manual served as both a design deliverable and an operational reference, guiding the development of learning environments that are functional, engaging, and aligned with the school's educational philosophy.



Color

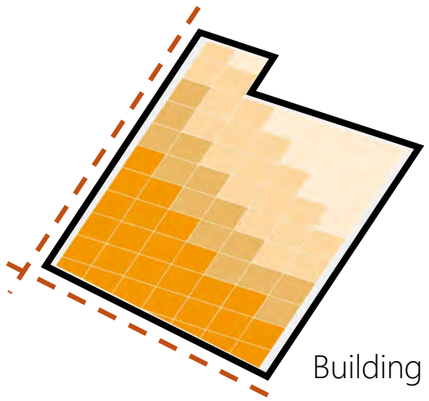


空间使用手册
SPACE USER BOOK

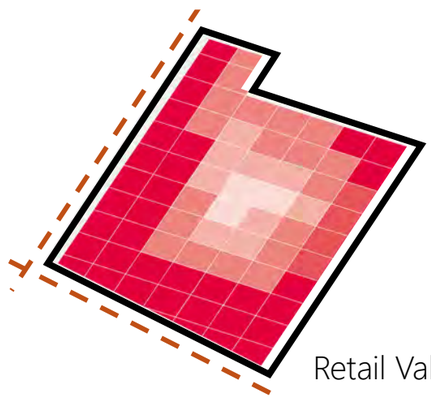
E-MOBILE PARK HQ

03

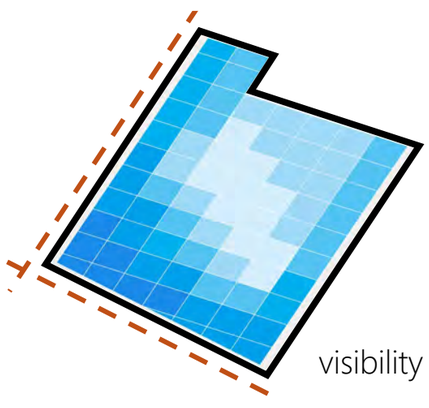
Typology: Office
Location: Shanghai, China
Year & Area: 2023 / 135,500 sqm
Scope: Architecture, Interior & Landscape
Status: SD DD CD CA / Complete
Role: Project Architect
Software: Rhino / V-ray / Enscape Render



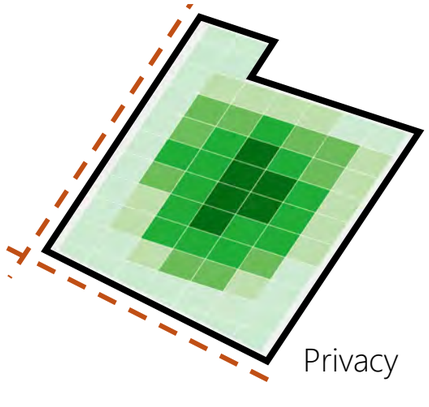
Building height control



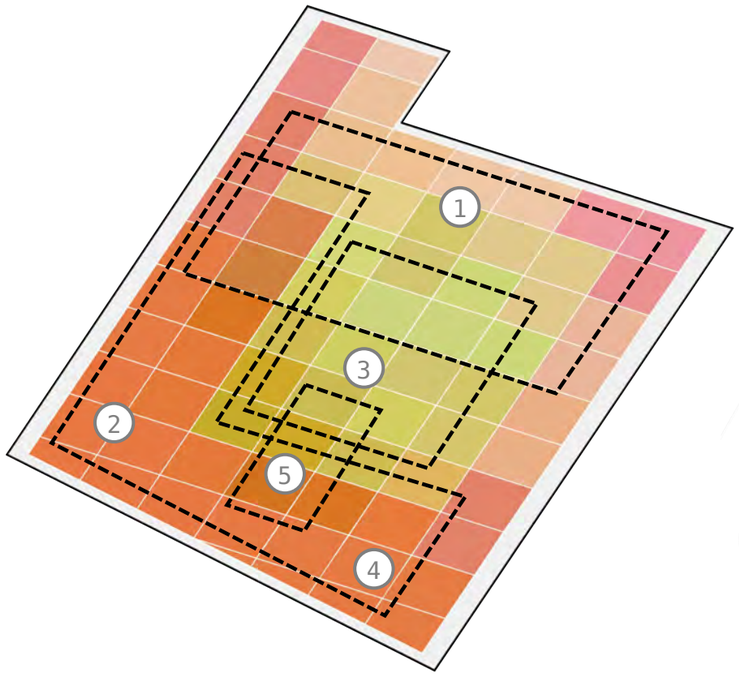
Retail Value



visibility



Privacy



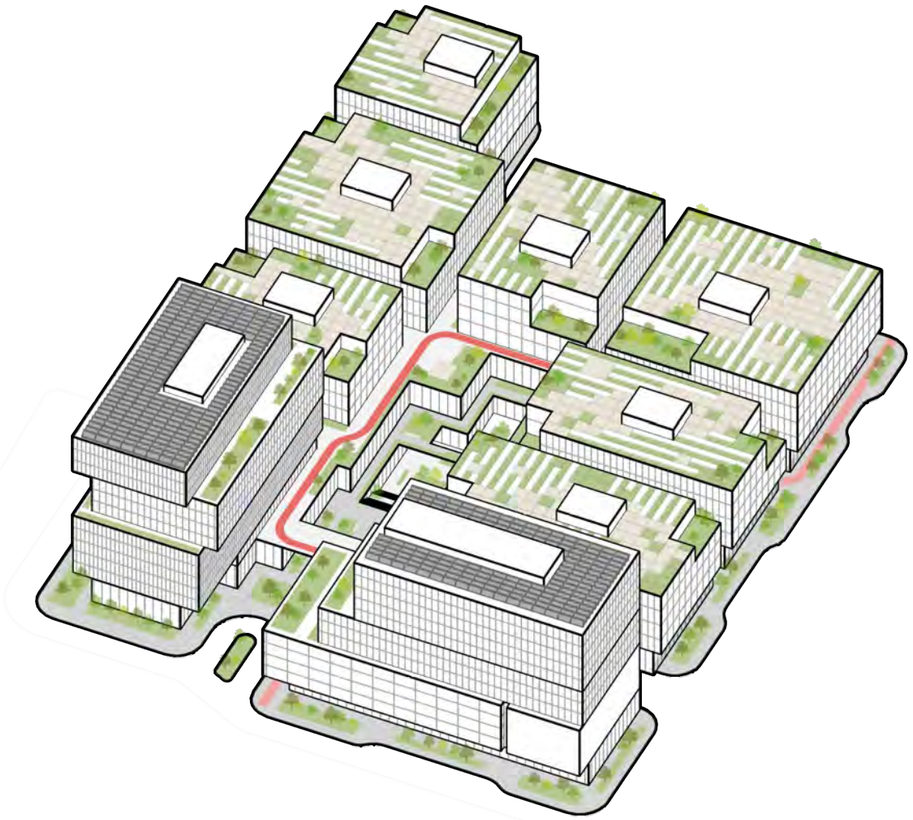
1.The property for sale is arranged on the north side, adjacent to the landscape lake area

2.The height of buildings in creasing from north to the south. Therefore to enhance the best view of branding display

3.The service compound should be placed at the center, making it easier to service adjacent office blocks.

4.The 50m high-rise is placed in the south west part of site, where it can access better convenient traffic and from landscape. It provides a better urban façade as well

5.The park exhibition center and party building exhibition hall are arranged in the south entrance area.



Context

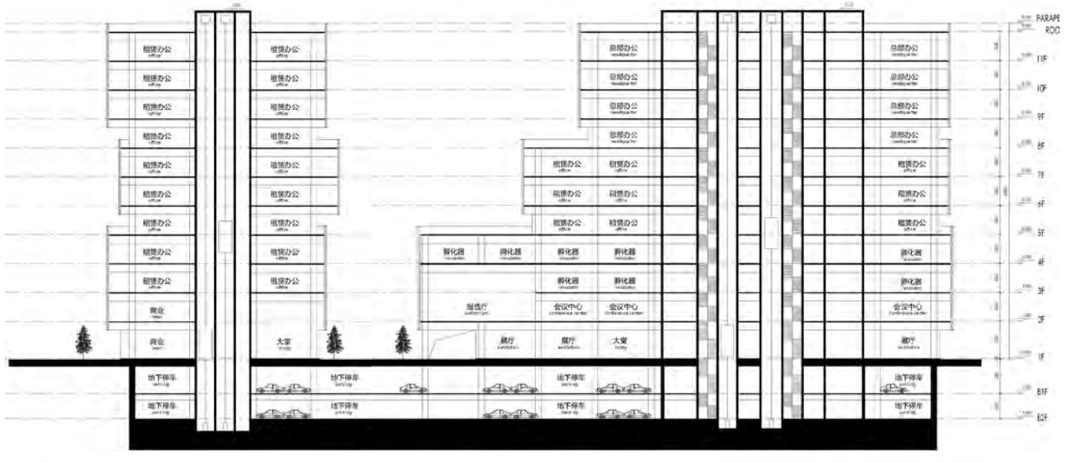
From the public tender stage, I led the team in analyzing the site’s commercial value, urban visibility, accessibility, privacy, and surrounding high-density context.

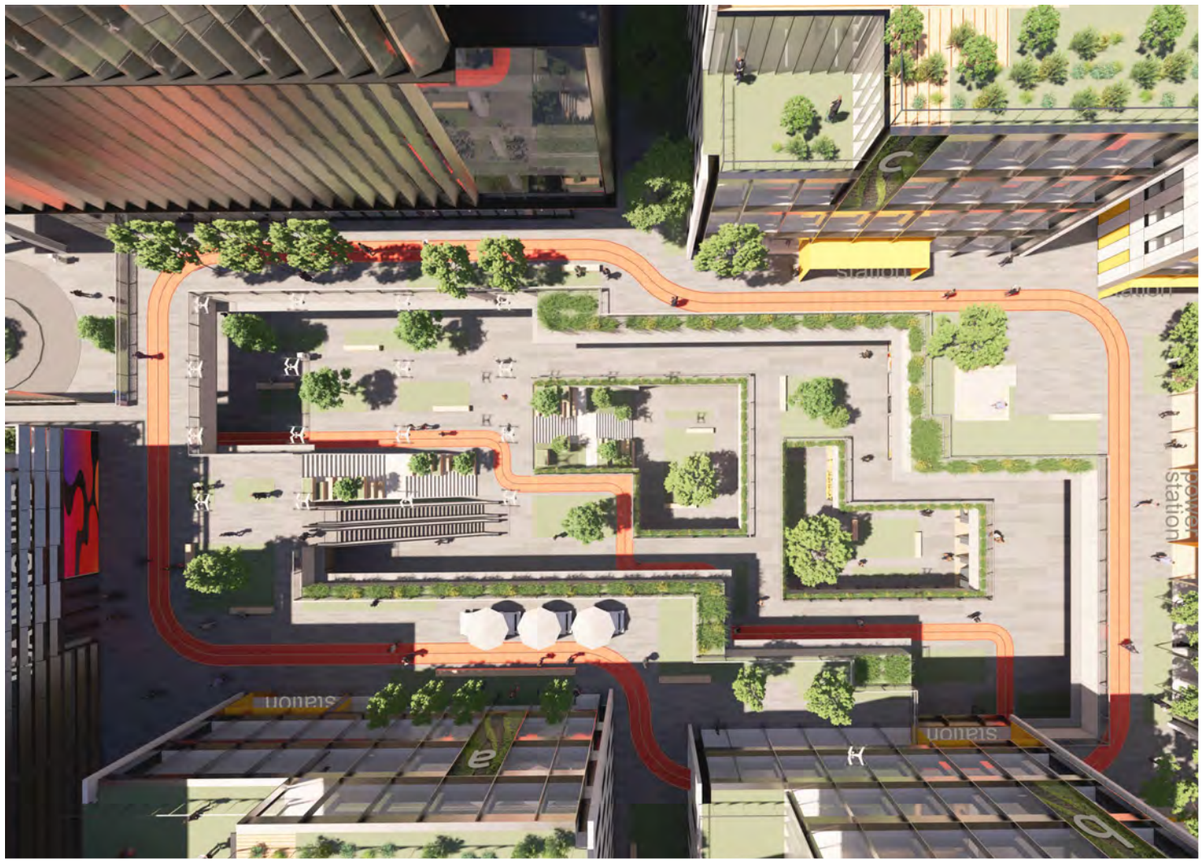
We also researched high-rise headquarters and premium office products to understand floorplate efficiency, core planning, leasing flexibility, and corporate image.

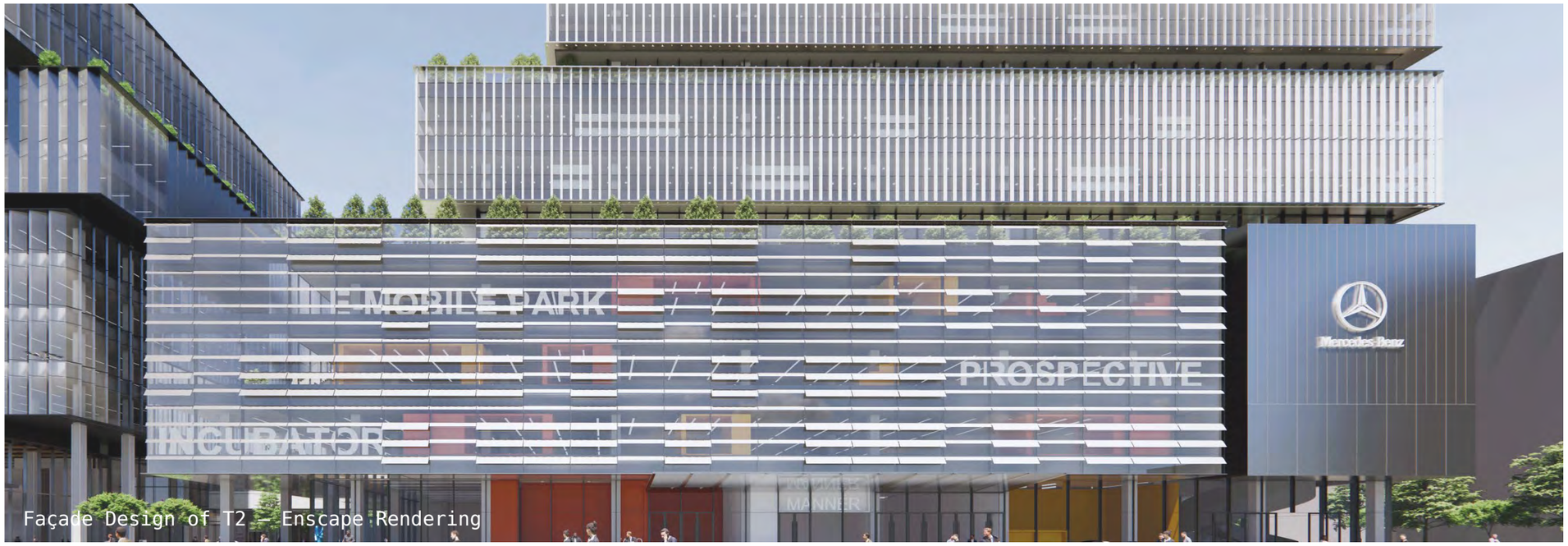
Using Rhino and Grasshopper, we translated site conditions and planning data into visual analytical diagrams, providing a clear, data-driven foundation for the design strategy.

Canyon

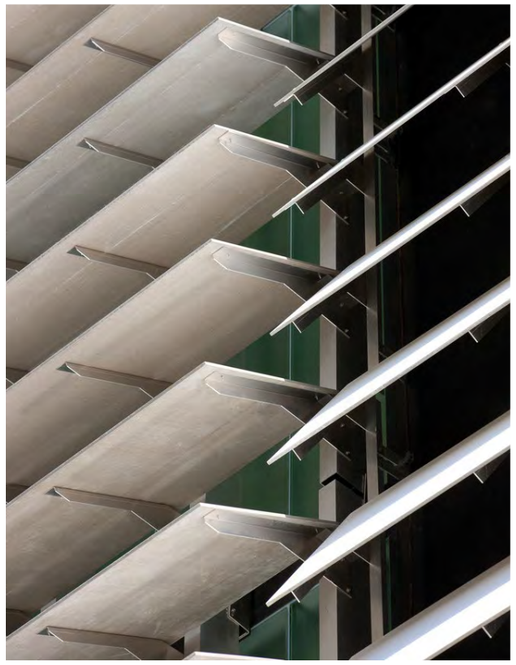
“Smart Canyon” was the core design concept developed during the tender stage, responding to the challenges of high site coverage and high floor area ratio. By carving a sunken plaza into the dense site and increasing the building’s folded surface, the design introduced more daylight, outdoor terraces, and spatial depth into the project.
This canyon-like strategy transformed the constraint of density into an opportunity to improve spatial quality, environmental performance, and the overall workplace experience.





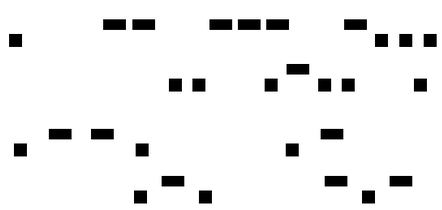


Façade Design of T2 – Enscape Rendering

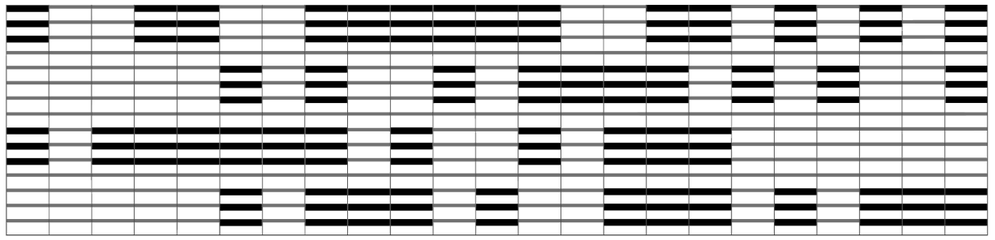


E-MOBILE PARK

Text



Morse Code



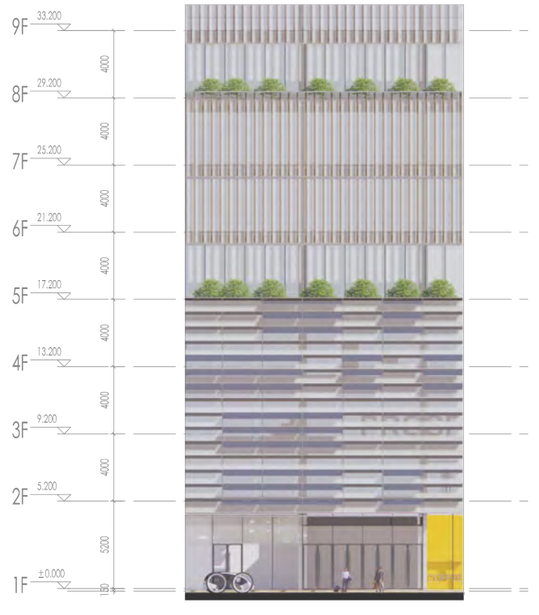
Facade

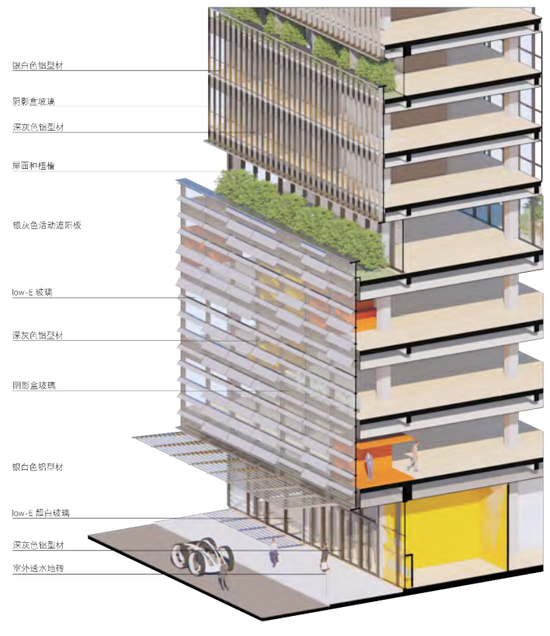
Signal

Responding to the client’s background in the telecommunications industry, we developed the façade concept from Morse code, transforming communication signals into an architectural language.

The shading louver system creates a rhythmic variation across the tower envelope, while also responding to the internal program of the enterprise incubator.

Behind the façade, the changing density and orientation of the louvers bring different qualities of light, privacy, and spatial atmosphere to the interior workspace.






长三角创新枢纽

Resilience

The sustainability strategy was developed with strong support from the client and aligned with Shanghai's policy framework for energy-efficient buildings, which provided a subsidy of RMB 100 per square meter to encourage high-performance green construction.

Targeting China's Three-Star Green Building Standard, the project integrated sustainability as both an environmental strategy and a measurable development value. Beyond the mandatory rooftop photovoltaic system, we worked with the client to enhance renewable energy use, improve envelope airtightness and thermal performance, introduce heat recovery systems, and optimize intelligent lighting control.

These strategies helped reduce operational energy demand while strengthening the project's long-term environmental performance, policy compliance, and commercial value as a resilient high-rise office development.

屋顶遮阳措施
ROOF TOP SUN SHADING

光伏发电系统
SOLAR PANEL SYSTEM

屋面绿植
ROOF GARDEN AND PLANTED TERRACE

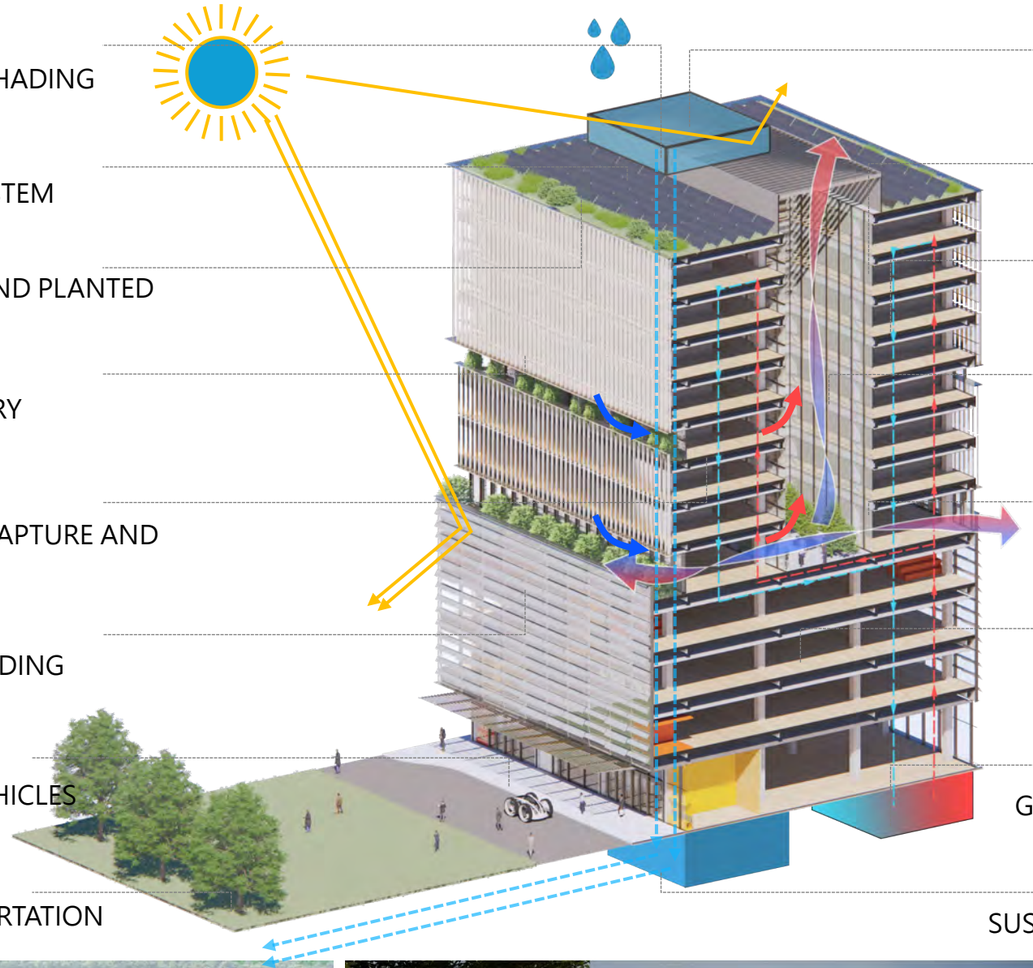
自然景观视野
VIEW TO GREENERY

余热再利用
WASTE ENERGY CAPTURE AND REUSE

立面遮阳措施
FAÇADE SUN SHADING

新能源交通
NEW ENERGY VEHICLES

公共交通
PUBLIC TRANSPORTATION



雨水收集
RAIN WATER CAPTURE

节能灯具照明
ENERGY SAVING LIGHTING FIXTURE

灰水收集
GREY WATER COLLECTION

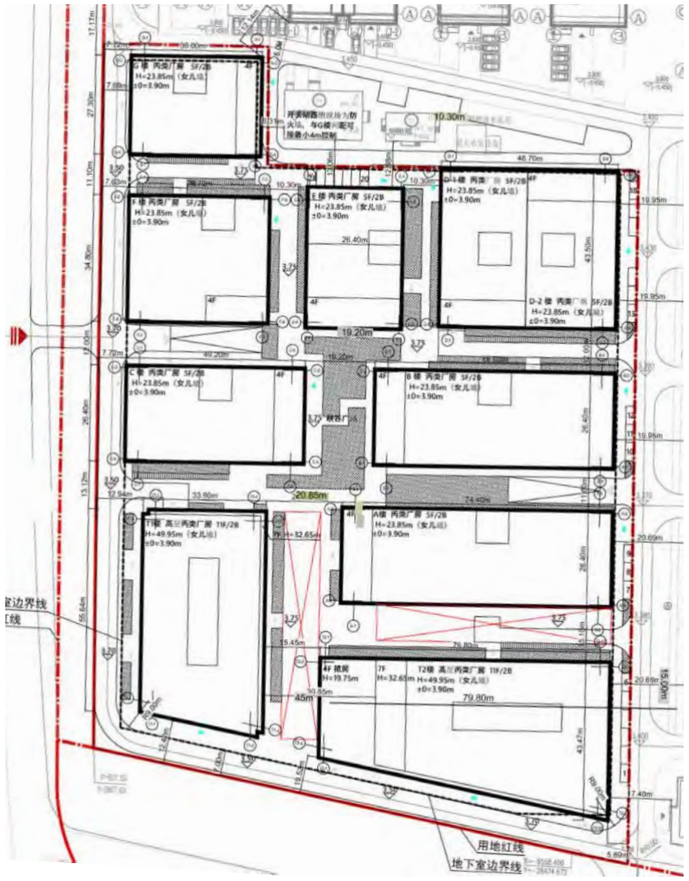
烟囱效应
CHIMNEY EFFECT

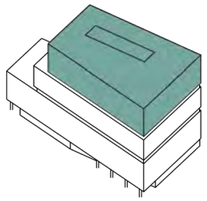
自然通风
PASSIVE VENTILATION

空气净化
AIR PURIFICATION

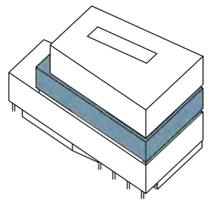
地源热泵
GROUND SOURCE HEAT PUMP

可持续城市排水
SUSTAINABLE URBAN DRAINAGE

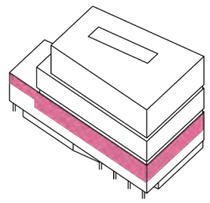




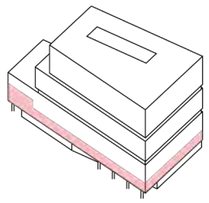
E-Mobile HQ
Typical Floor Area:2000 m2
No. Floors : 8-11



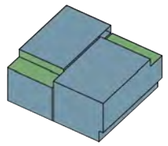
Rental Office
Typical Floor Area :2290 m2
No. Floors : 5-7



Incubator
Typical Floor Area:2240m2
No. Floors 3-4



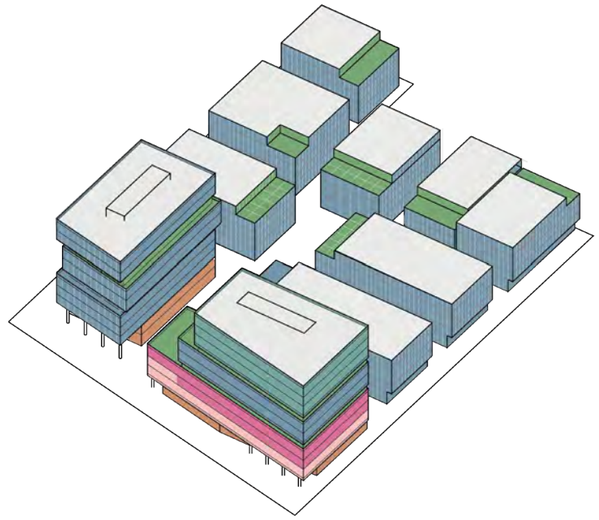
conference center
Typical Floor Area: 1800-1900 m2
No. Floors 2



Office Villa for Sale
Typical Floor Area:950-2000 m2
No. Floors : 1-5

Product Upgrade

During the schematic design stage, we worked closely with the client to refine the project’s office product strategy and commercial planning.
Within Tower T2, the program combined corporate headquarters, leasable office space, and an industrial technology incubator, allowing the building to support both self-use and market-oriented operation.
The standalone buildings on the site were planned as headquarters products for small and medium-sized companies, creating a diversified office portfolio and helping maximize the client’s long-term development value.



Lobby Design of T1 & T2 – Enscape Rendering

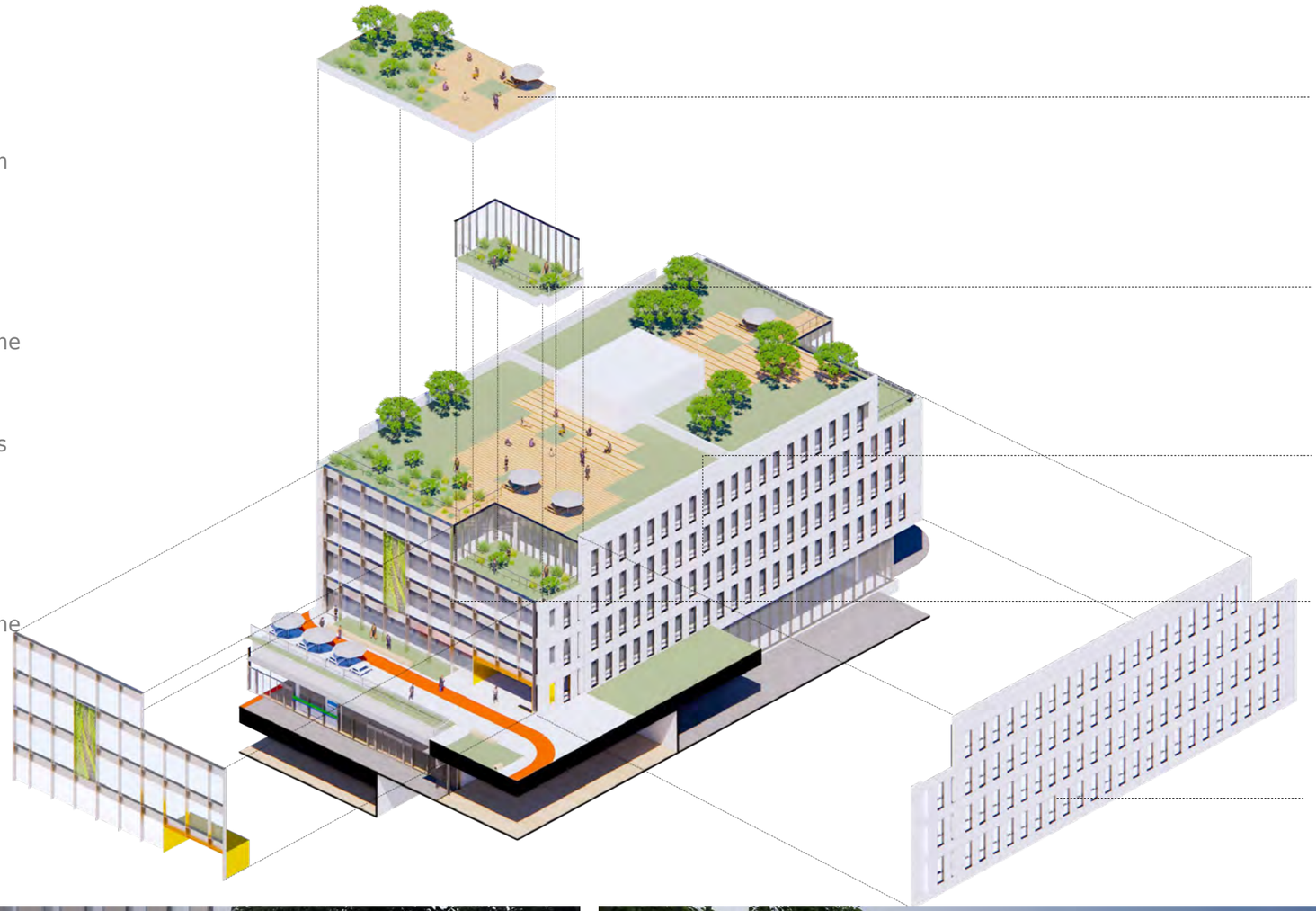
Cost Optimization

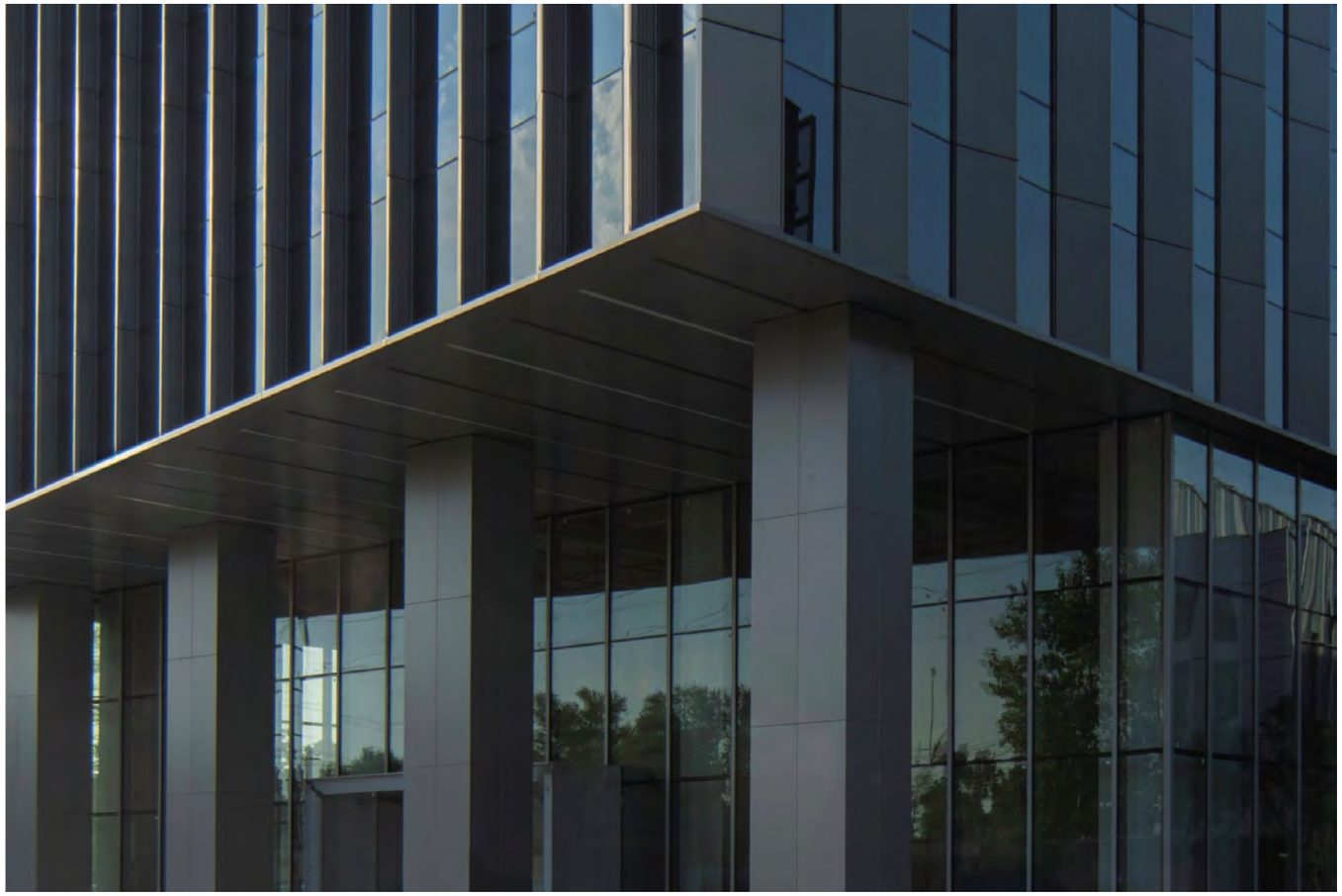
After winning the tender, we further optimized the façade design to balance architectural quality with construction cost.

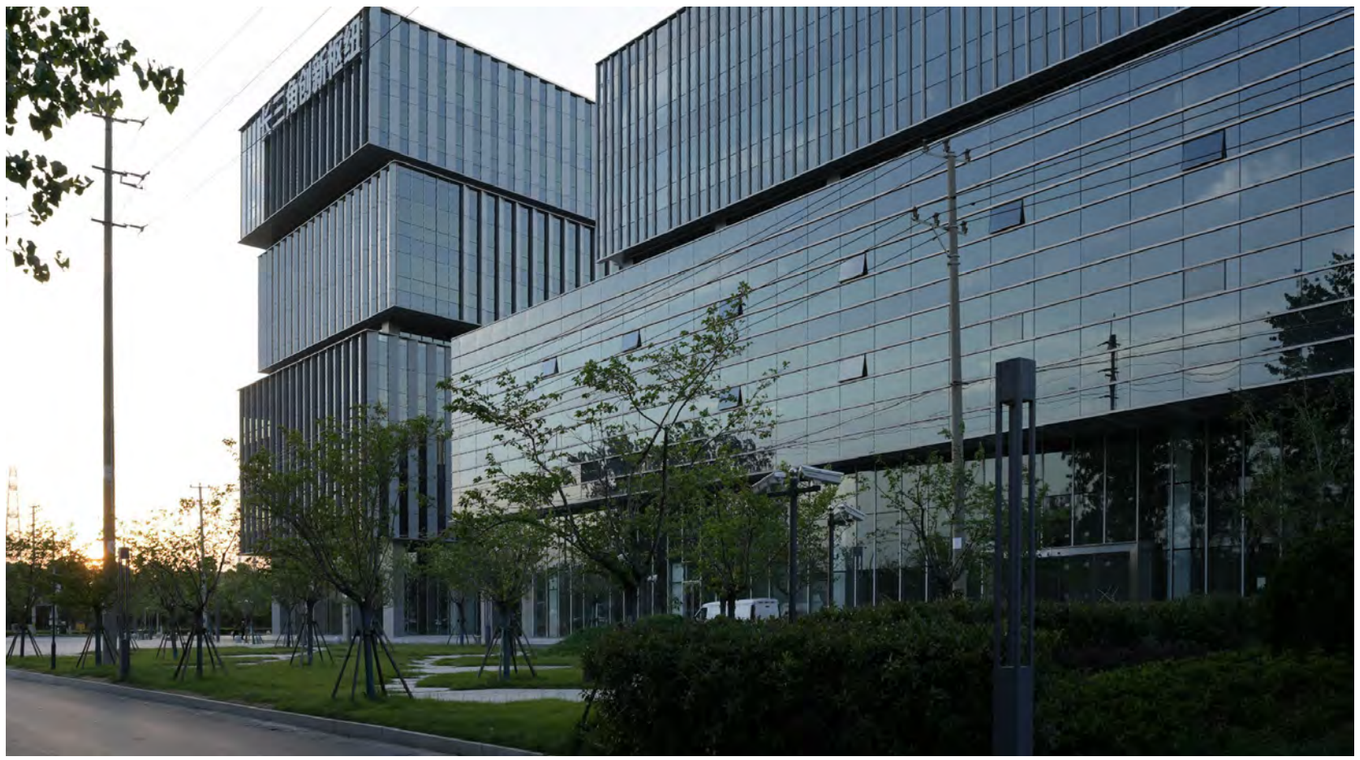
The primary commercial elevations were reinforced to maintain the project’s urban presence and brand visibility, while the secondary façades were simplified through coordination with the façade consultant.

During design development, the stepped roof terraces were preserved as much as possible to retain the spatial quality of the original concept.

At ground level, the façade was made more transparent, creating an open and visible showroom environment for the technology company and strengthening the building’s public interface.








长三角创新枢纽

JINAN CULTURE MEMORIAL PARK – VISITOR CENTER

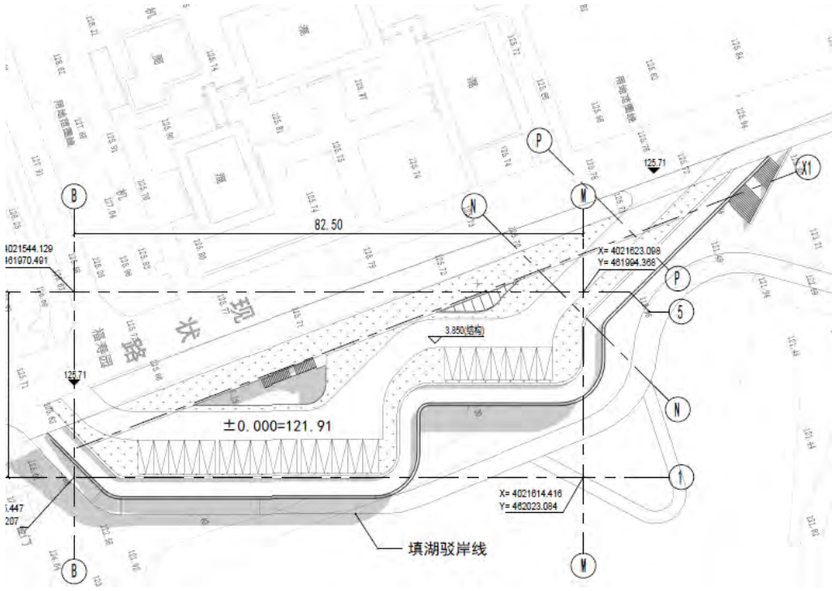
04

Typology: Cultural
Location: Jinan, China
Year & Area: 2022 / 1,200 sqm
Scope: Architecture, Interior & Landscape
Status: SD DD CD CA / Complete
Role: Project Architect
Software: Rhino / V-ray / Lumion / Enscape Render

Inhouse render with lumion render

Site Conditions

- The project is located along an artificial lake, with the existing reception building approximately 4.5 meters above the lower site level.
- The client requested a new parking deck to serve the reception center, while using the space beneath it as a visitor service and exhibition center with VIP reception areas.
- We used the level difference to connect the building with the lakeside landscape, opening a clear visual corridor toward the water and creating a layered relationship between architecture, landscape, and arrival experience.

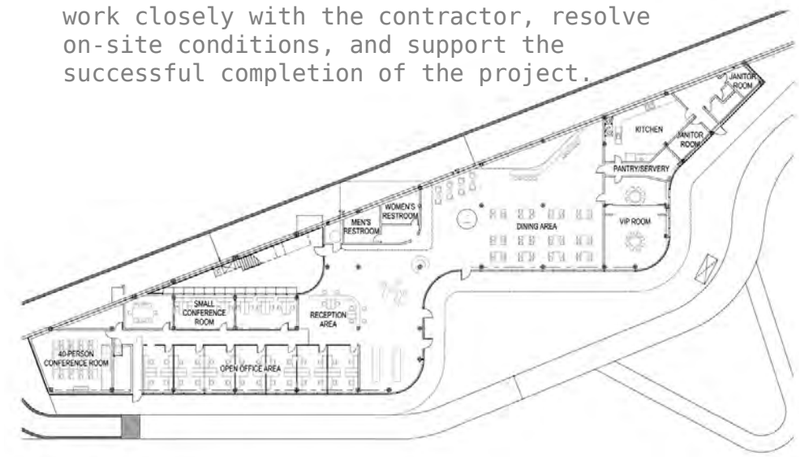


BEFORE

AFTER

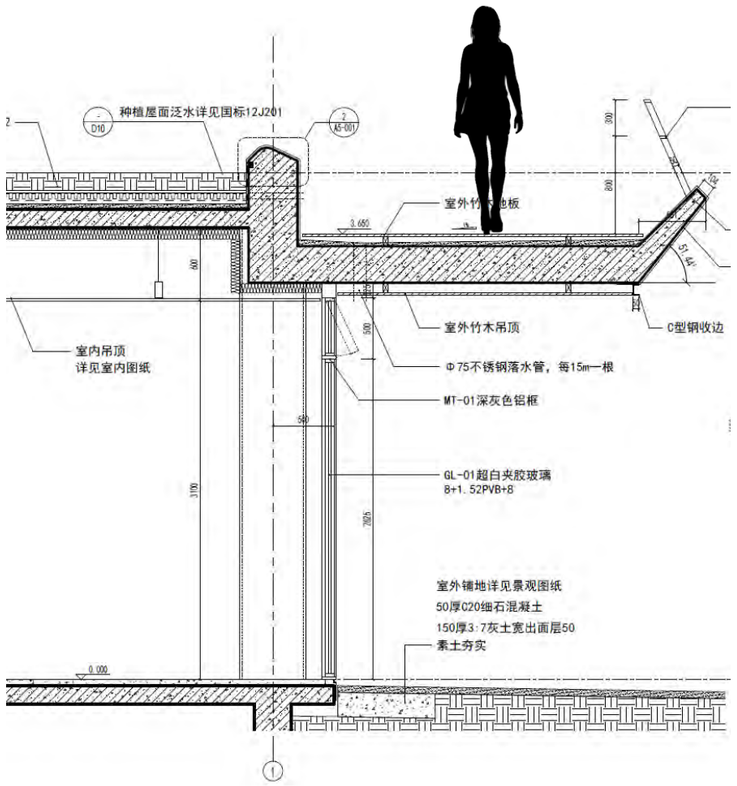
Construction

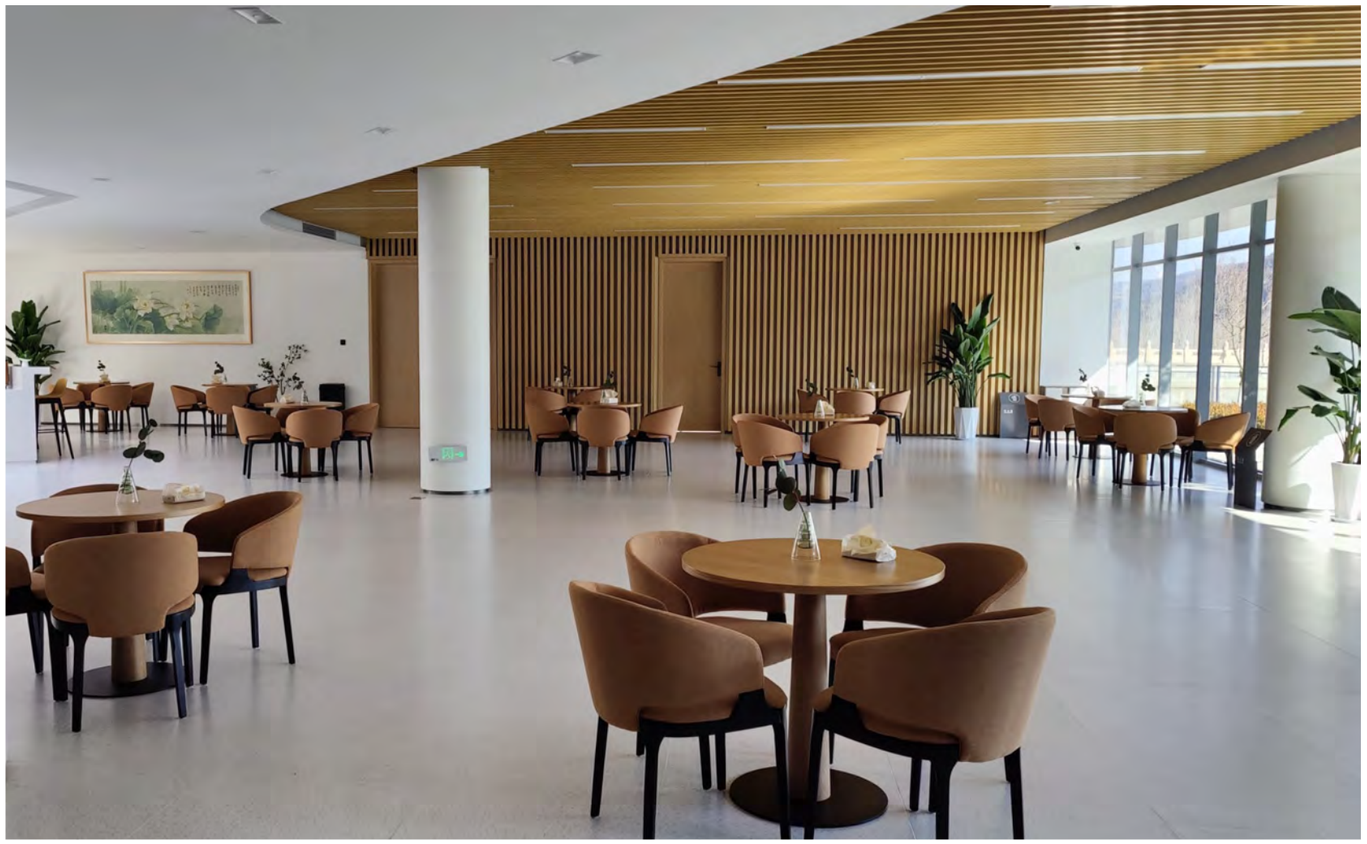
- Our scope covered the full design process, from concept design and design development to construction documentation, integrating architecture, interior design, and landscape disciplines.
- As the project lead, I was involved throughout the entire process, coordinating design decisions, technical documentation, and site implementation.
- The most challenging work involved rebuilding the site slope, reinforcing retaining walls, and reconstructing the lakeside landscape after the artificial lake was temporarily drained.
- We visited the site more than ten times to work closely with the contractor, resolve on-site conditions, and support the successful completion of the project.

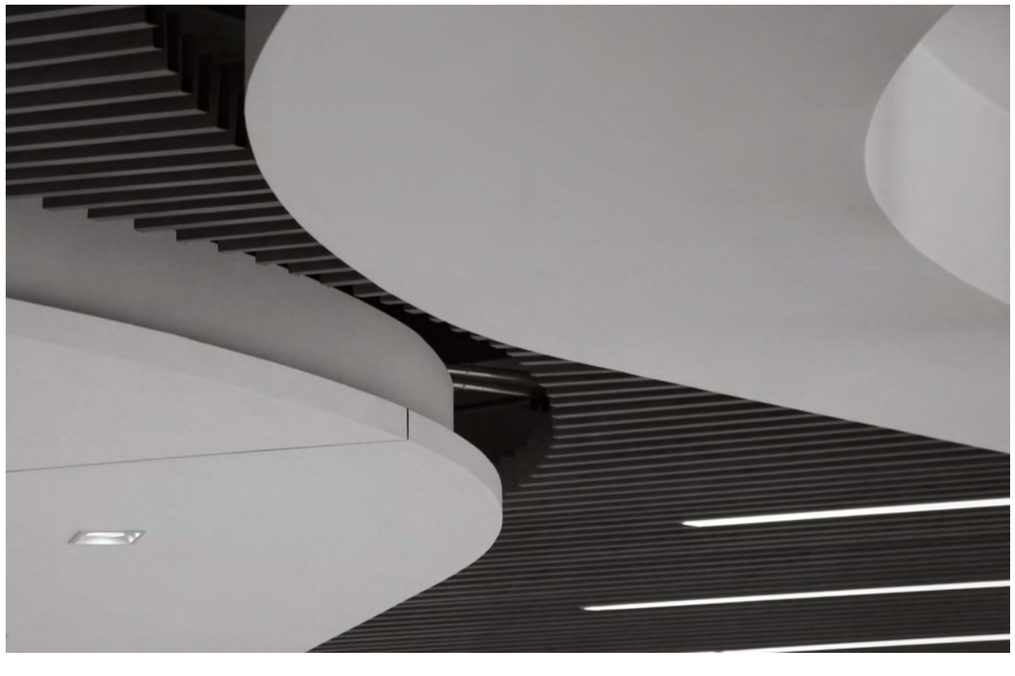


Challenges

- The building envelope was carefully detailed to support the roof level as both a parking access route and a viewing platform overlooking the artificial lake.
- The roof walkway required a complete drainage strategy. Rainwater was collected through an internal drainage system, guided down through integrated columns, and discharged at the lower building level before flowing back toward the lake.
- Interior ceiling design was coordinated with the exterior soffit to create a continuous visual language from inside to outside, strengthening the spatial connection between the visitor center and the lakeside landscape.
- At the same time, the extended roof edge functions as an architectural canopy, providing solar shading and improving comfort for the interior and semi-outdoor spaces.







YEW CHUNG INTERNATIONAL SCHOOL - RENOVATION

05

Typology: K-12 Educational
Location: Shanghai, China
Year & Area: 2022 / 1510 sqm
Scope: Architecture & Interior Renovation
Status: SD DD CD CA / Complete
Role: Project Architect
Software: Revit / Enscape Render

Renovation

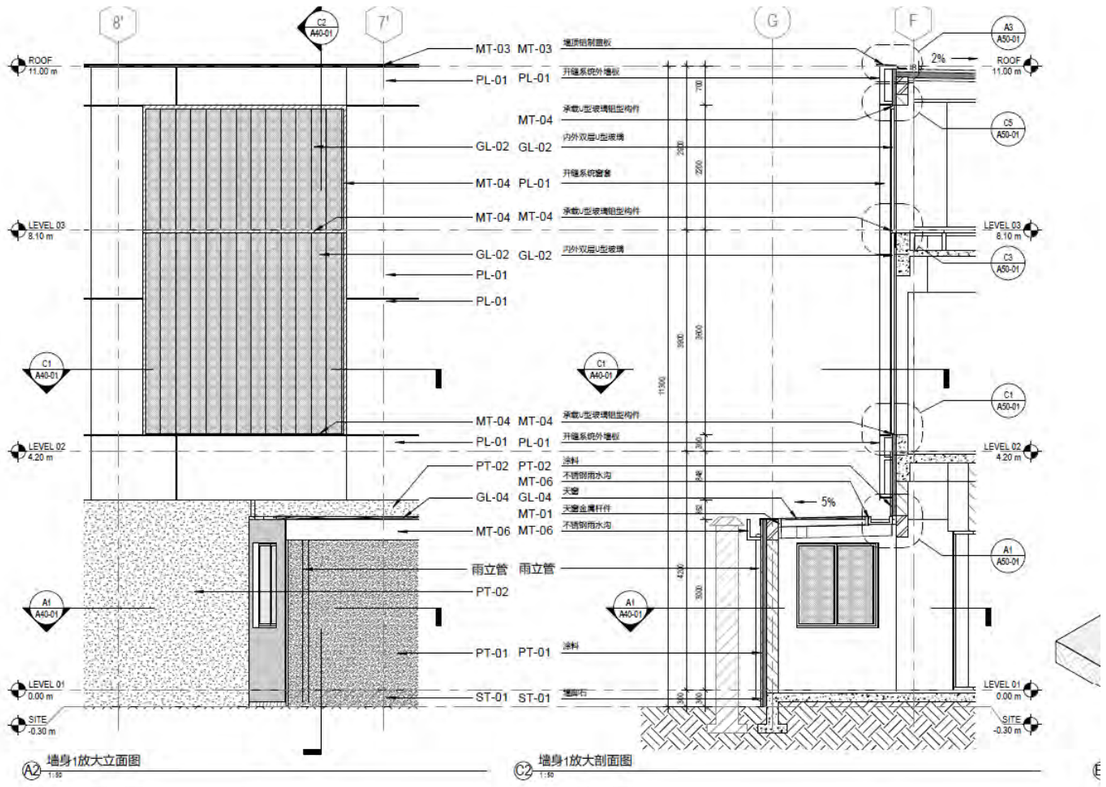
The original building was an international school academic building located within a residential neighborhood.

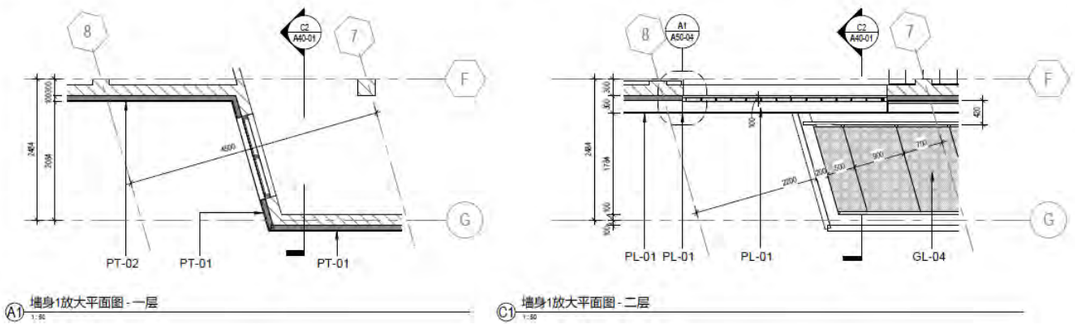
The client requested an additional floor above the existing structure, requiring a careful review of structural capacity, façade condition, and construction feasibility.

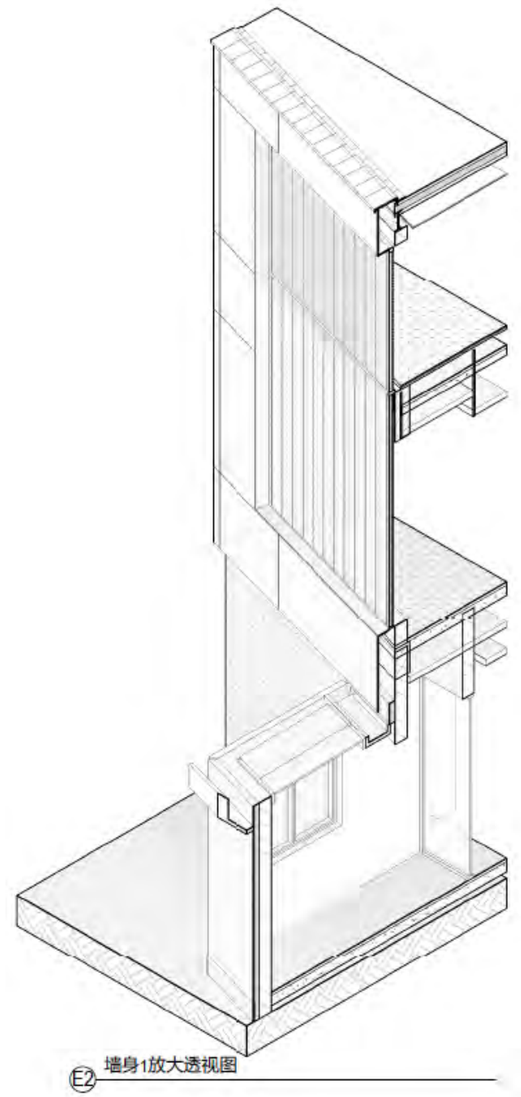
Following site investigation, we proposed structural reinforcement to support the vertical extension and improve long-term building performance.

Throughout the process, we used Revit-based BIM modeling to document the existing building, coordinate demolition and renovation works, and support design decisions from concept to construction documentation.

The renovation also required careful coordination with surrounding residents to manage construction impact and balance the school's operational needs with the neighborhood context.





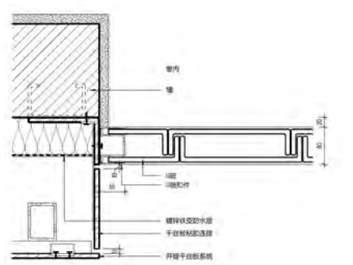


Facade

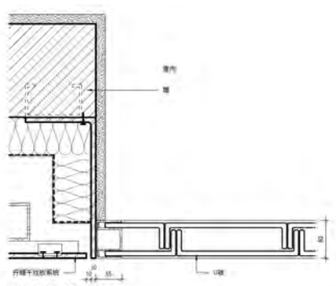
We tested multiple U-glass products from different manufacturers, comparing variations in color tone, translucency, surface texture, and light diffusion.

After several rounds of material review, frosted U-glass was selected to achieve the desired architectural effect.
The material allows abundant diffused daylight to enter the classrooms while maintaining a necessary level of privacy within the residential neighborhood.

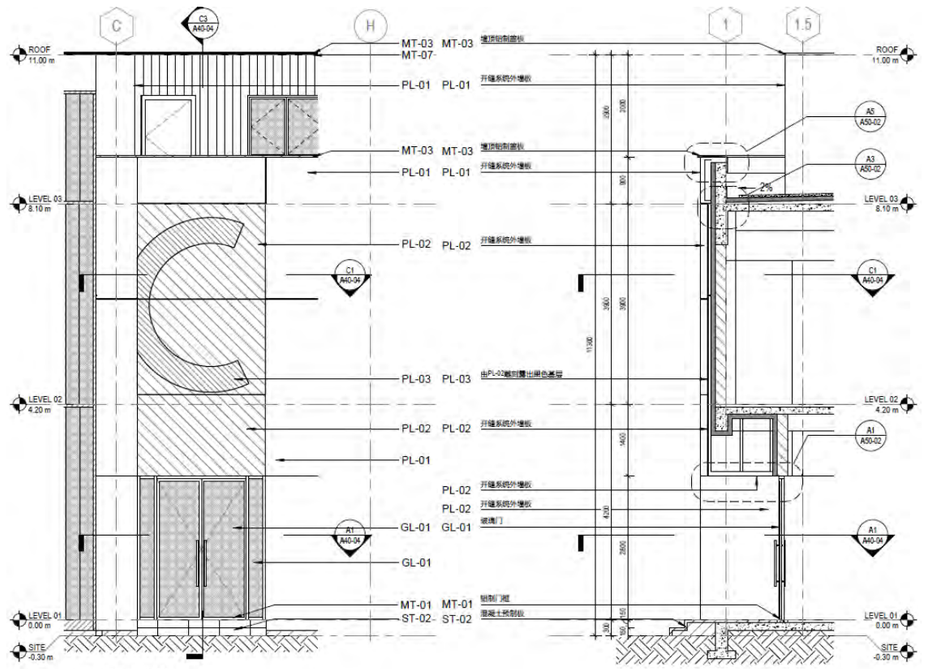
This strategy helps create a calm and focused learning environment, reducing external visual distractions and allowing students to remain engaged throughout the school day.



A3 干丝板与U玻侧节点2

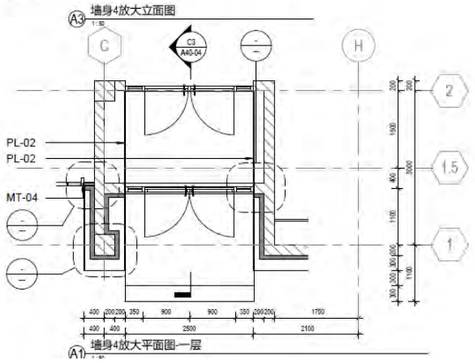


C3 干丝板与U玻侧节点3

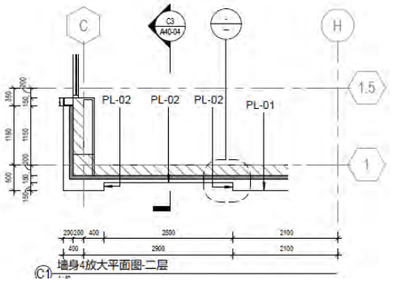


A3 墙身4放大立面图

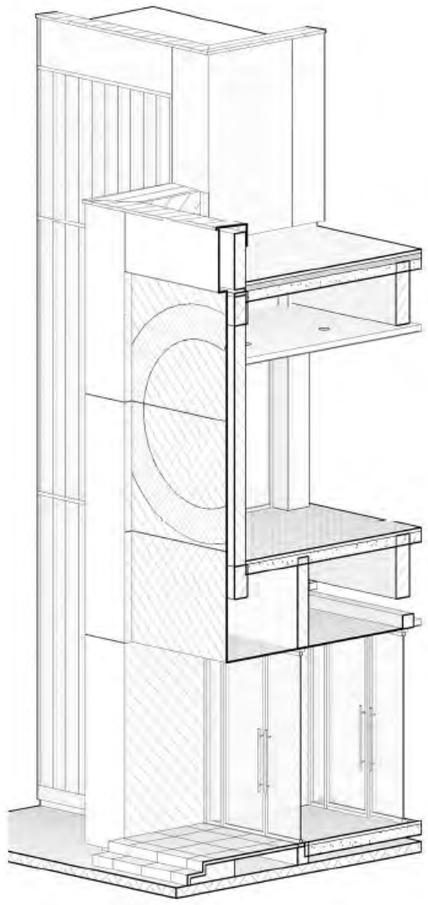
C3 墙身4放大剖面图



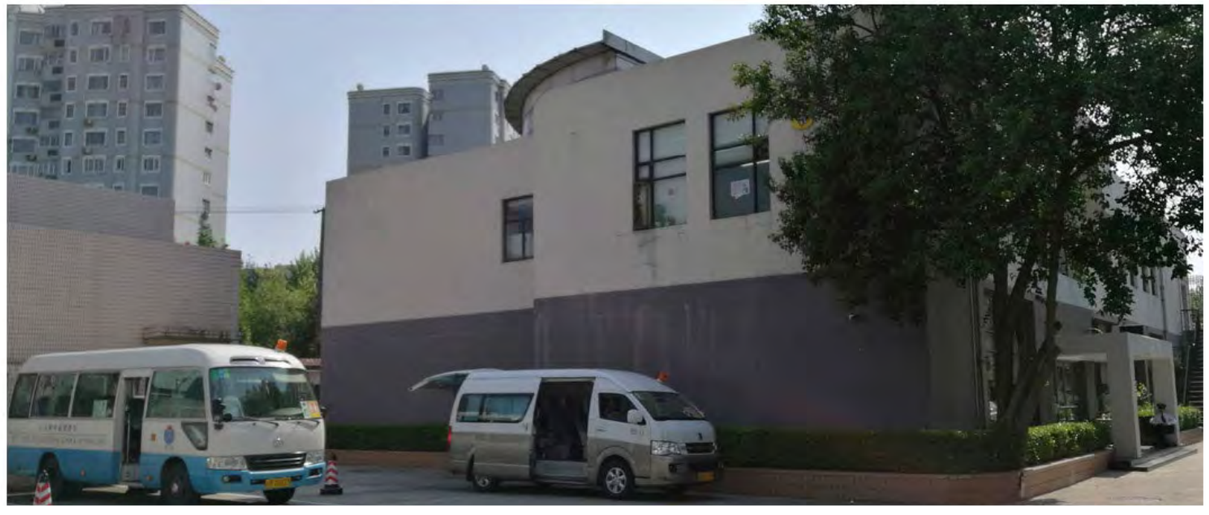
A1 墙身4放大平面图-一层



C1 墙身4放大平面图-二层

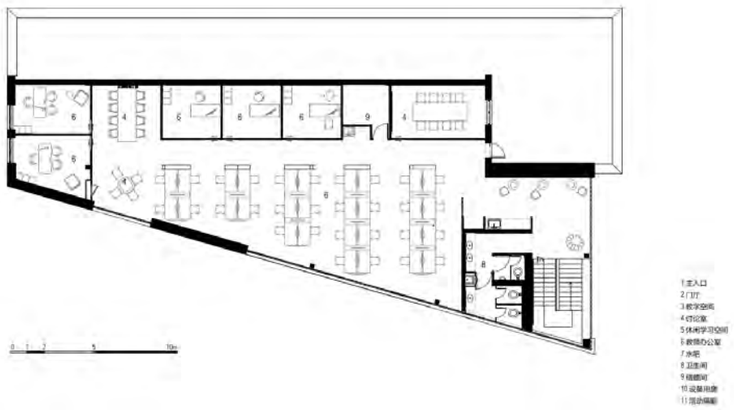


E2 墙身4放大轴测图

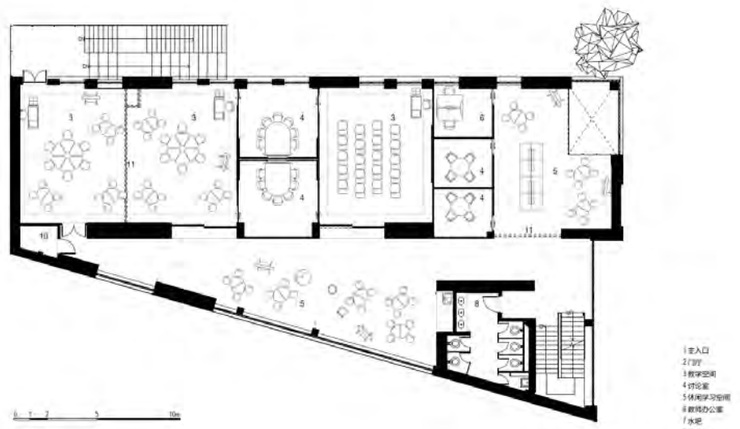


Interior Space

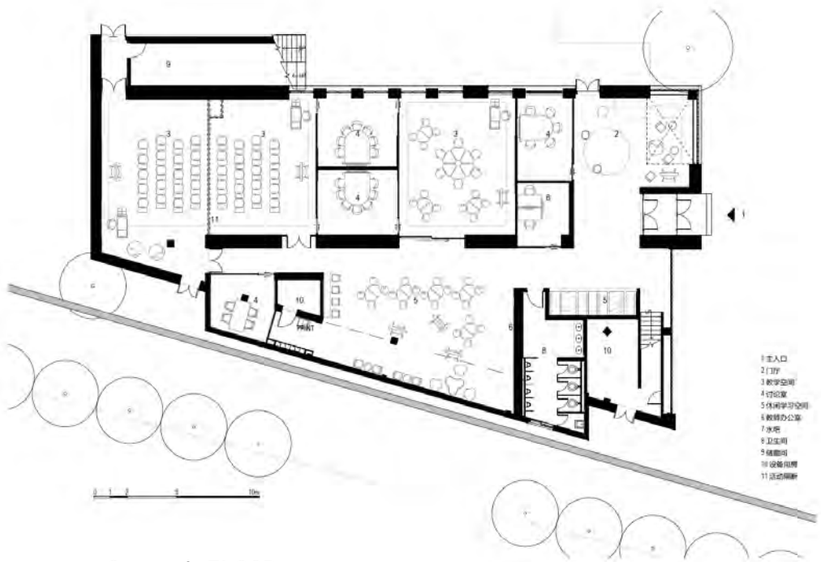
Through interior demolition and renovation, the previously narrow and enclosed teaching areas were opened into a series of continuous and flexible learning spaces.
By removing solid corridor walls, natural daylight from the exterior façade was able to penetrate deeper into the building, creating a brighter and more active educational environment.
The redesigned interior also introduced shared public spaces for student interaction, allowing informal communication and social activities to happen between classes.
This transformation turned the building from a conventional classroom layout into a more open, adaptable, and engaging learning environment.



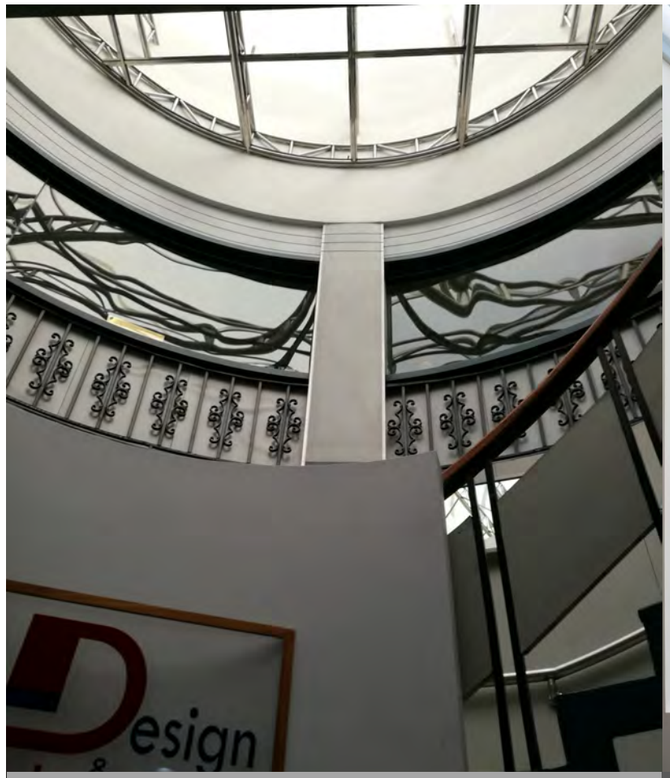
3RD FLOOR



2ND FLOOR



Ground FLOOR



BEFORE

AFTER

BEFORE

2022 上海耀中国际C楼改造项目

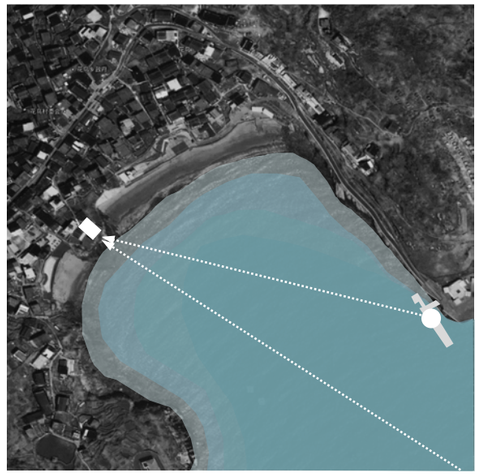
AFTER

ARTIST HOSTEL - HUANIAO ISLAND

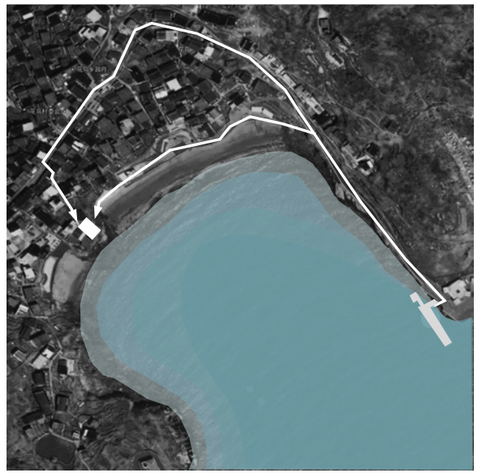
06

Typology: Hospitality
Location: Zhoushan, China
Year & Area: 2020 / 250 sqm
Scope: Architecture Interior & Landscape
Status: Concept SD CD CA / Complete
Role: Project Architect
Software: Revit / Lumion / Enscape Render

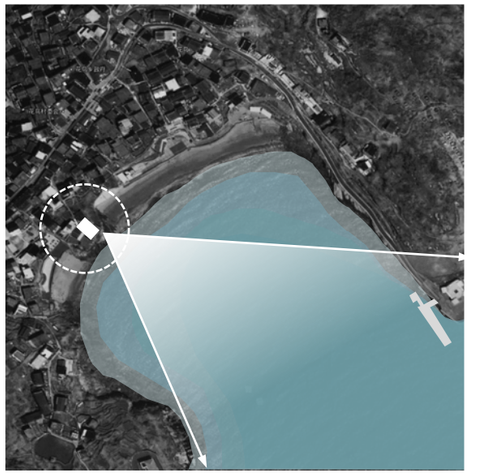
Inhouse render with Enscape



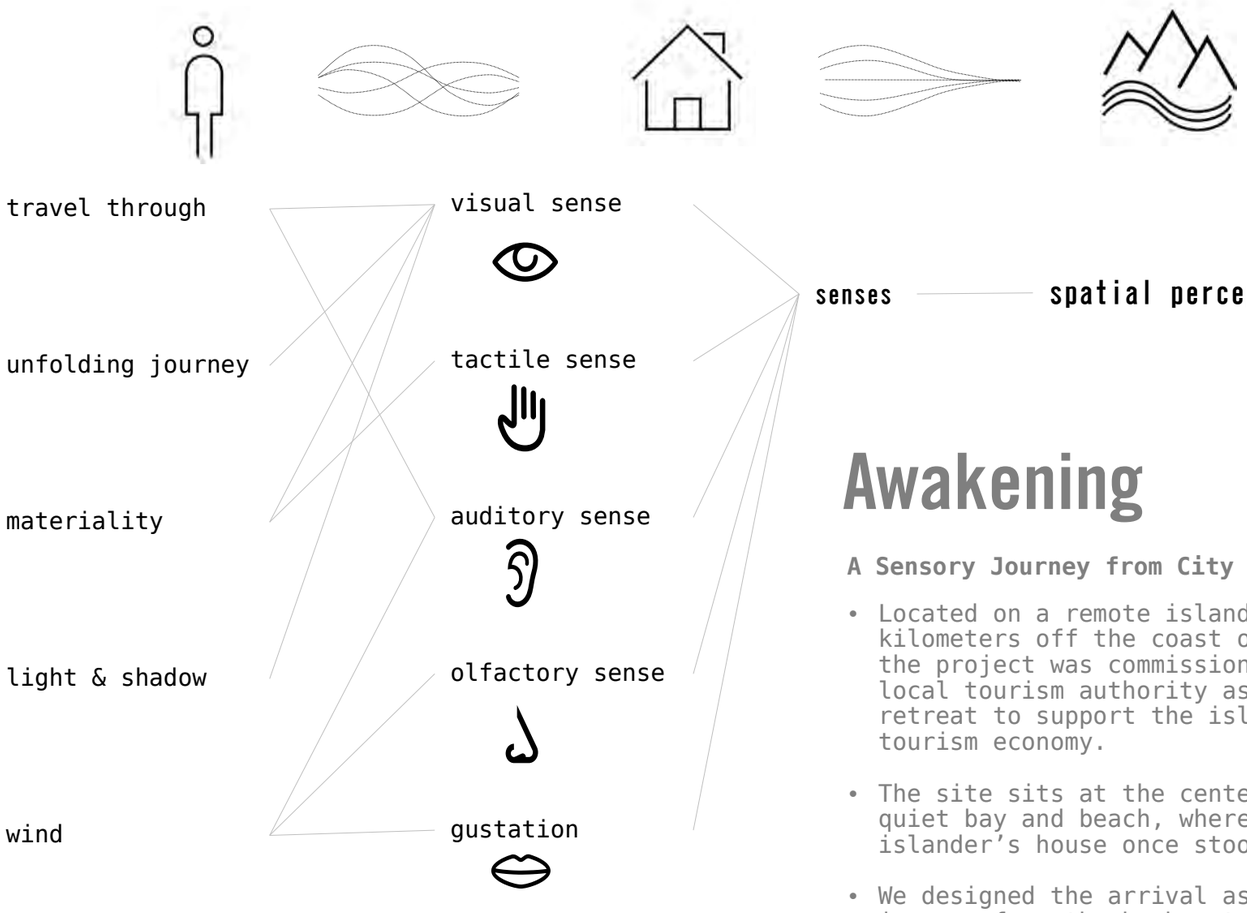
1.arriving to dock



2.explore the island



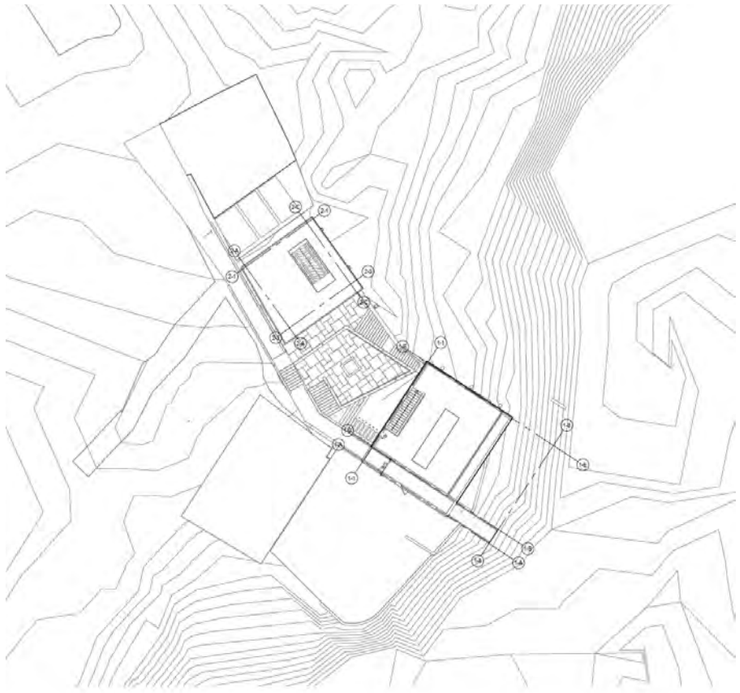
3.discover the house

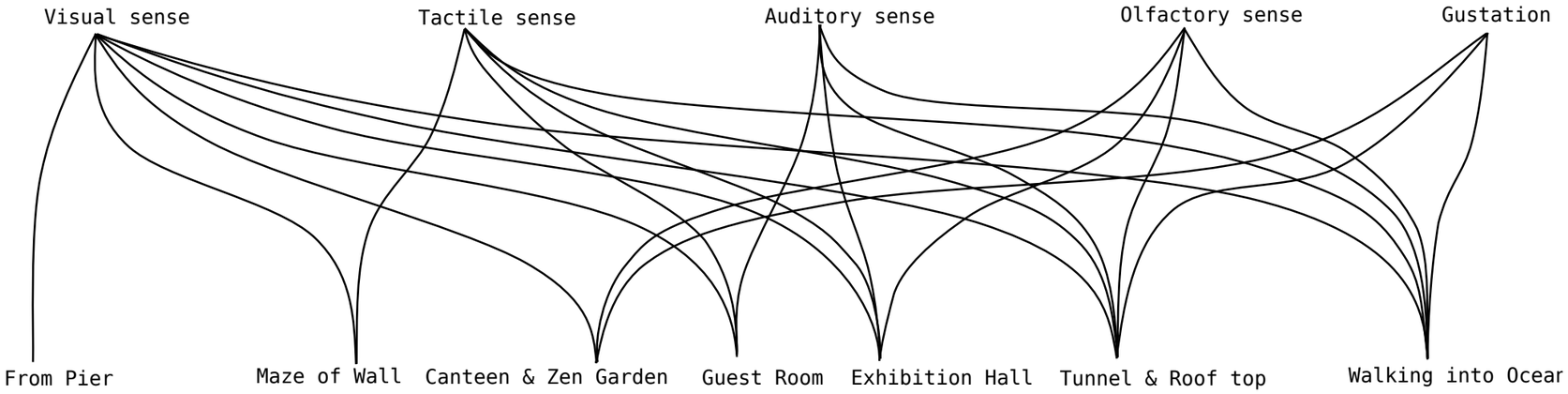


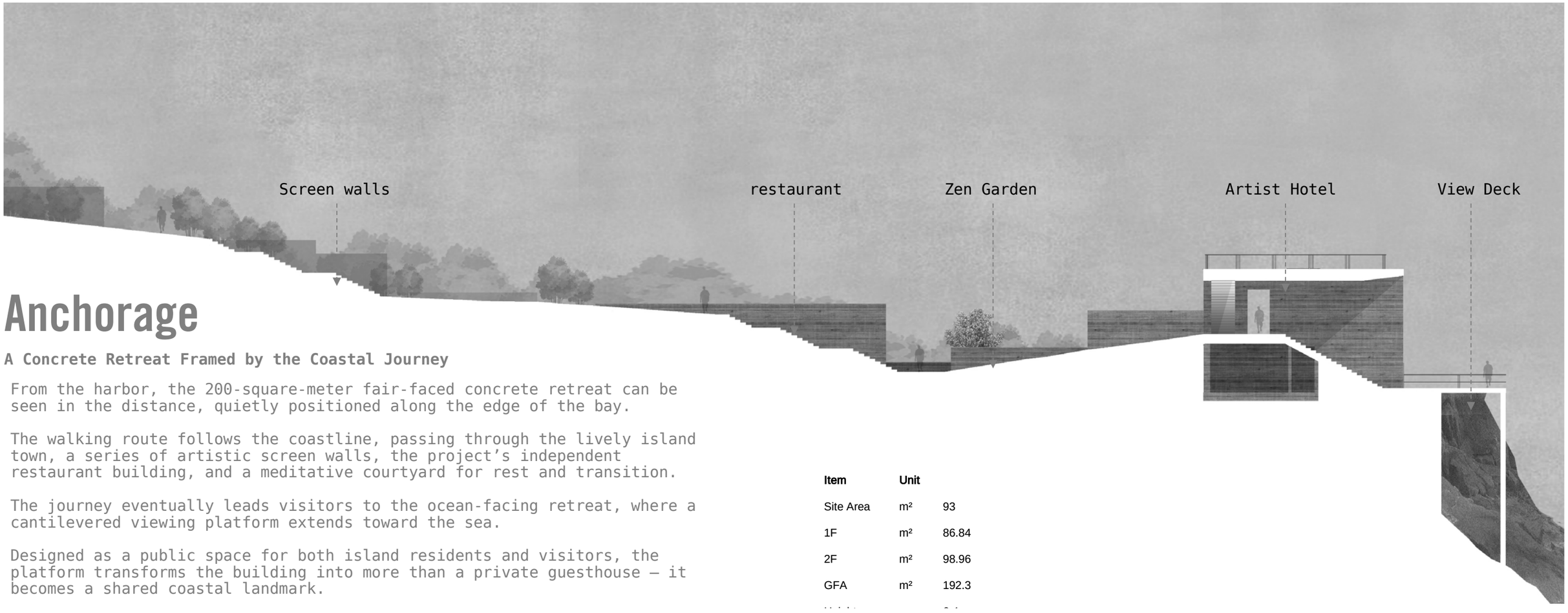
Awakening

A Sensory Journey from City to Island

- Located on a remote island 50 kilometers off the coast of Shanghai the project was commissioned by the local tourism authority as an artist retreat to support the island’s tourism economy.
- The site sits at the center of a quiet bay and beach, where an islander’s house once stood.
- We designed the arrival as a walking journey from the harbor to the retreat, allowing visitors to gradually leave behind the rhythm of Shanghai and enter the sensory world of the island — through views, sea breeze, sound, texture, and local flavors.







Anchorage

A Concrete Retreat Framed by the Coastal Journey

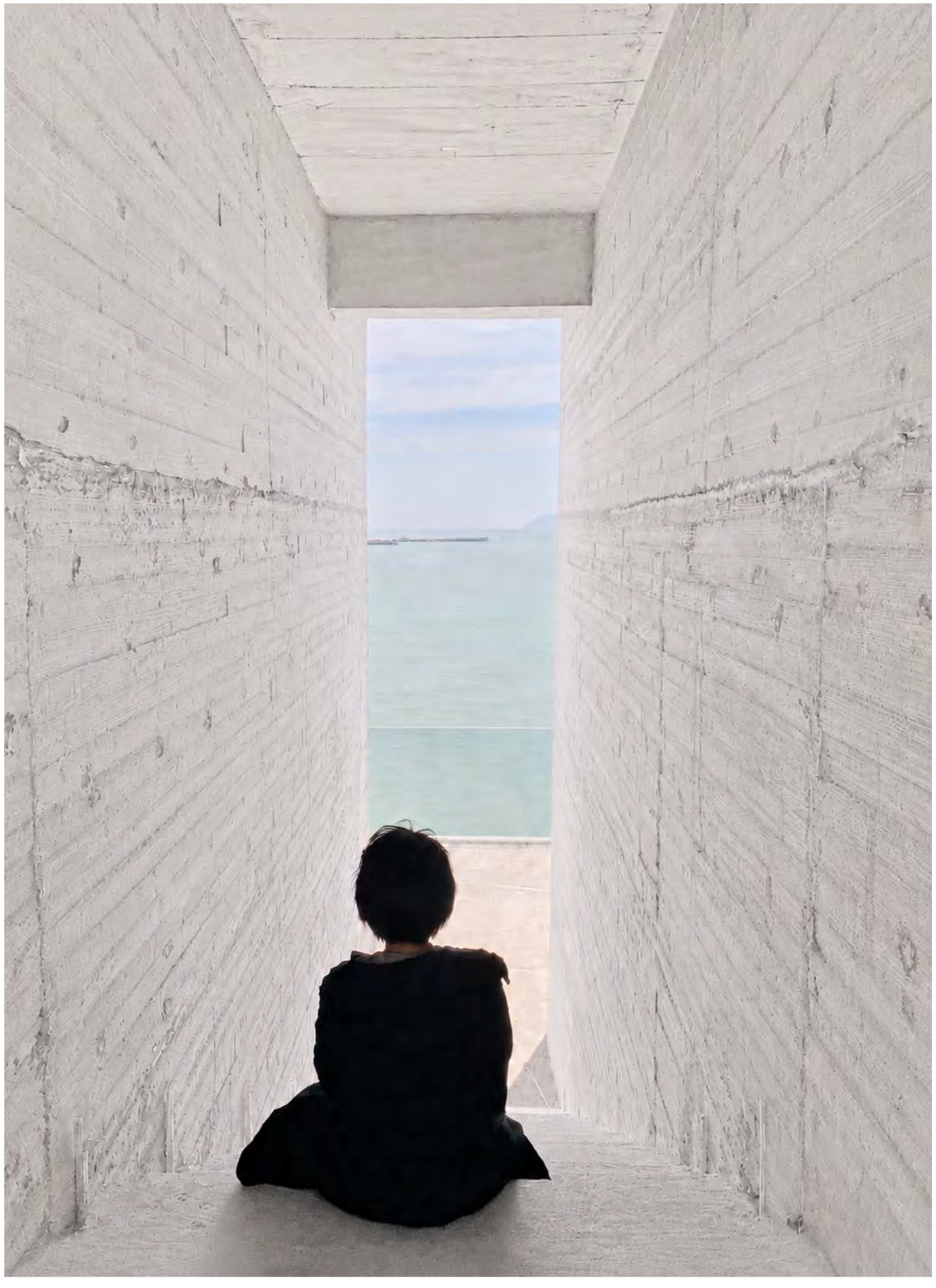
From the harbor, the 200-square-meter fair-faced concrete retreat can be seen in the distance, quietly positioned along the edge of the bay.

The walking route follows the coastline, passing through the lively island town, a series of artistic screen walls, the project’s independent restaurant building, and a meditative courtyard for rest and transition.

The journey eventually leads visitors to the ocean-facing retreat, where a cantilevered viewing platform extends toward the sea.

Designed as a public space for both island residents and visitors, the platform transforms the building into more than a private guesthouse — it becomes a shared coastal landmark.

Item	Unit	
Site Area	m²	93
1F	m²	86.84
2F	m²	98.96
GFA	m²	192.3



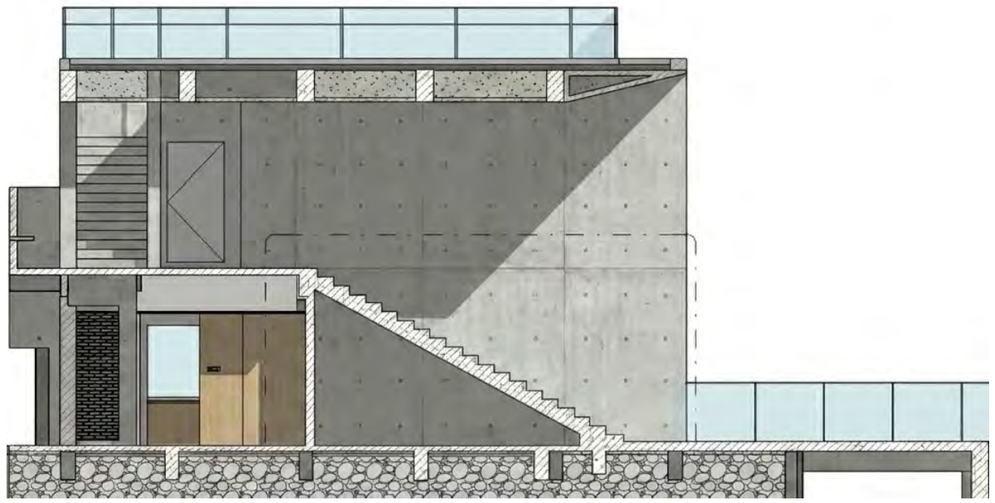
Horizon

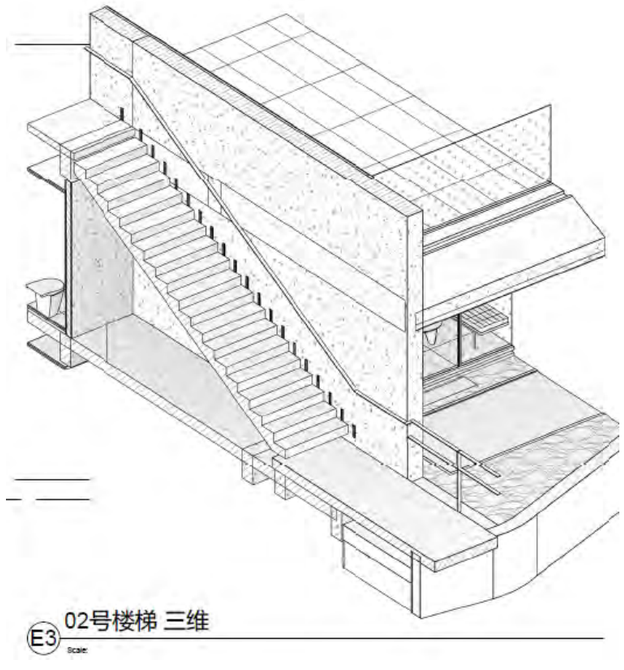
A Shared Platform for Sunrise and Sunset

The cantilevered viewing platform was designed for both hotel guests and island residents, creating a public place to watch the sunrise and sunset.

Through an independent circulation strategy, the platform connects directly with the outdoor route and becomes part of the island’s tourism experience.

This gesture turned the retreat into a recognizable coastal destination and one of the island’s most photographed hotels, with a reported room rate of around USD 300 per night and an annual occupancy rate of approximately 80%.

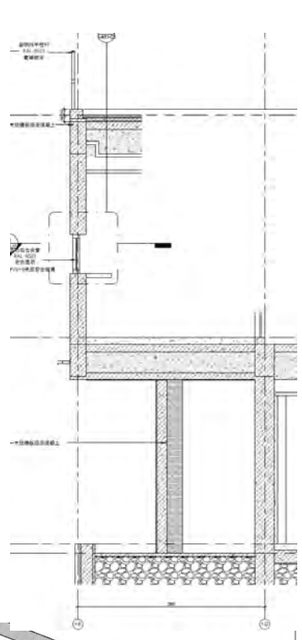


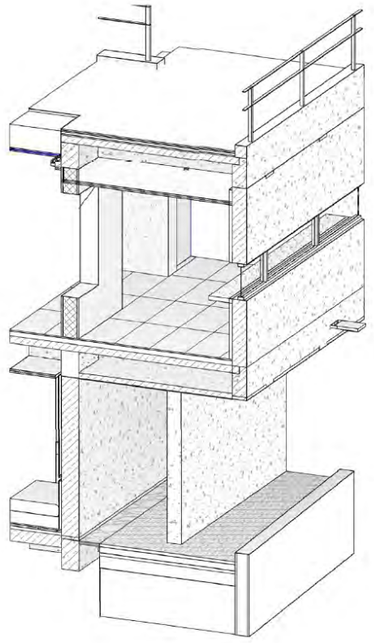


Mirage

Pool, Roof Deck, and the Illusion of Floating above the Sea

The outdoor pool and rooftop water deck create an uninterrupted visual connection between the hotel, the sky, and the ocean.
By extending the guest experience toward the water, the design gives the retreat a dramatic sense of openness and creates one of its most memorable spatial moments.
This unique setting turned the hotel into a popular photo destination and helped establish it as one of the most recognizable landmarks on Huaniao Island.





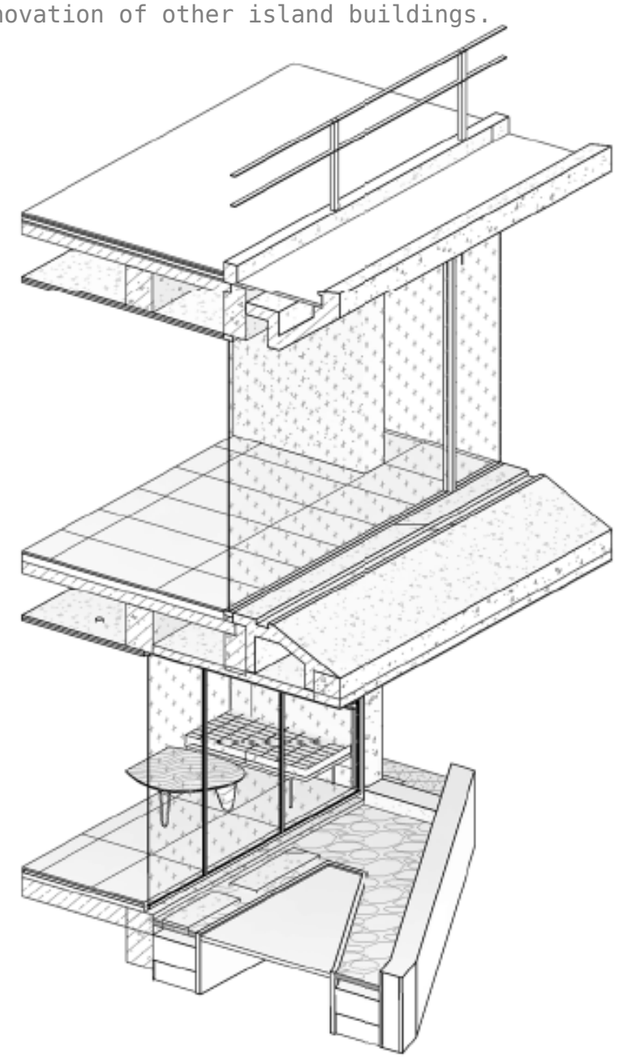
Shelter

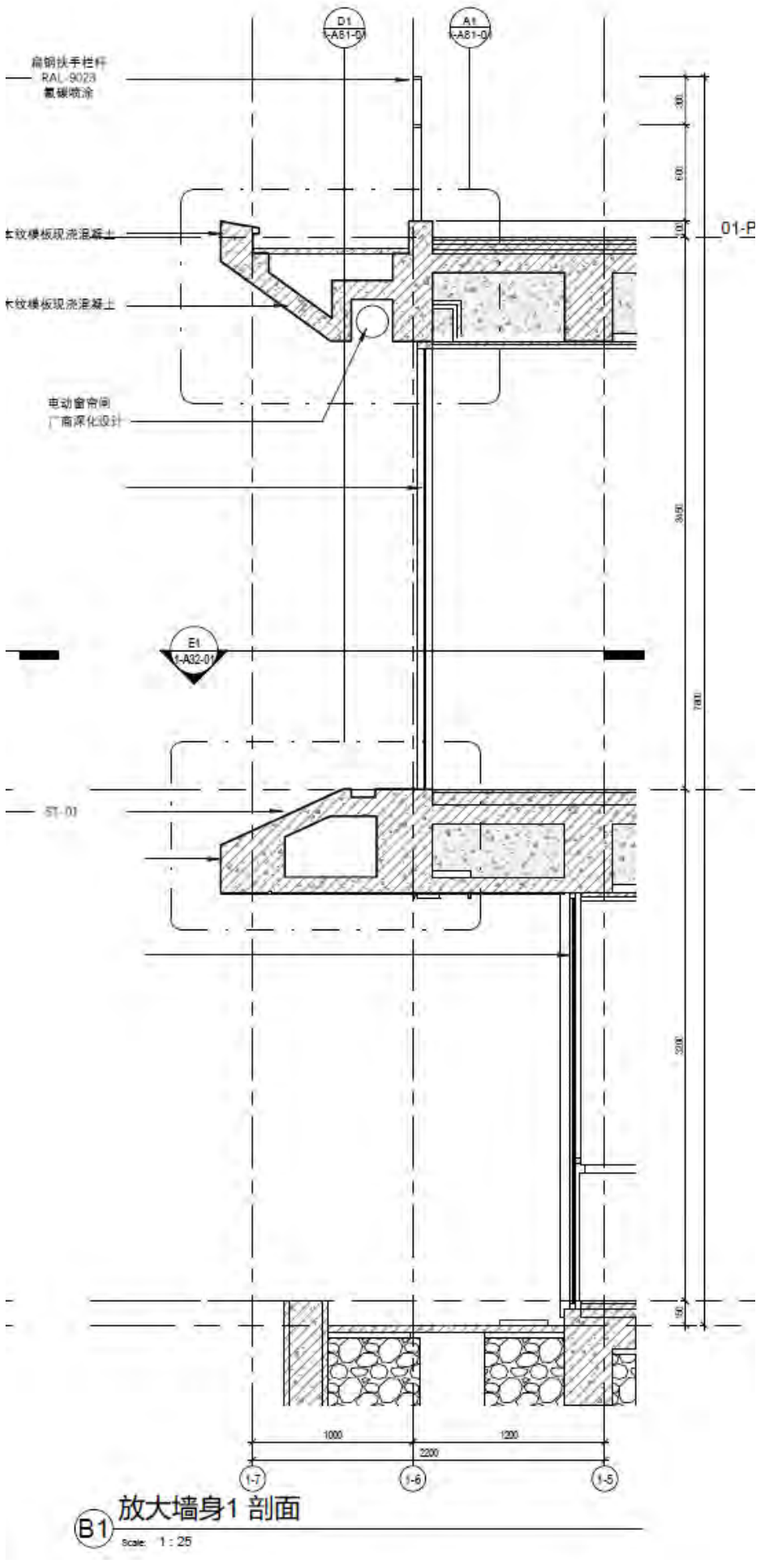
Framing the Sea, Protecting against the Storm

The façade was designed not only to maximize the ocean view, but also to protect the building during the island’s summer typhoon season.

Large openings frame the sea and bring the landscape directly into the guestroom experience, while concealed wind-resistant rolling shutters can be lowered when needed to provide additional protection.

Built with cast-in-place fair-faced concrete, the retreat forms a durable coastal structure and offers a prototype for the future renovation of other island buildings.





B1 放大墙身1 剖面

Scale: 1 : 25

SANJIANG FERRY TERMINAL

07

Typology: Hospitality
Location: Zhoushan, China
Year & Area: 2018 / 11,000 sqm
Scope: Architecture & Masterplan
Status: Planning SD / Unbuilt
Role: Project Architect
Software: Rhino / V-ray

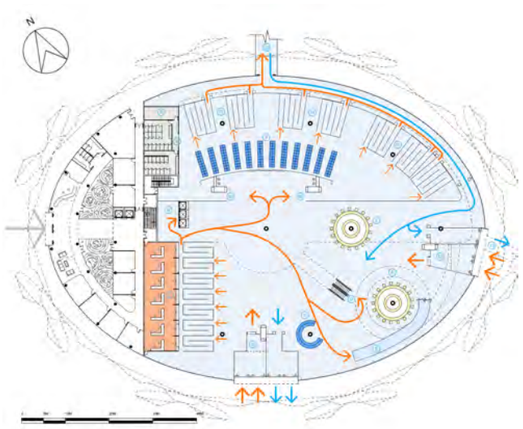
Inhouse render with V-ray / improved by AI

Design Translation

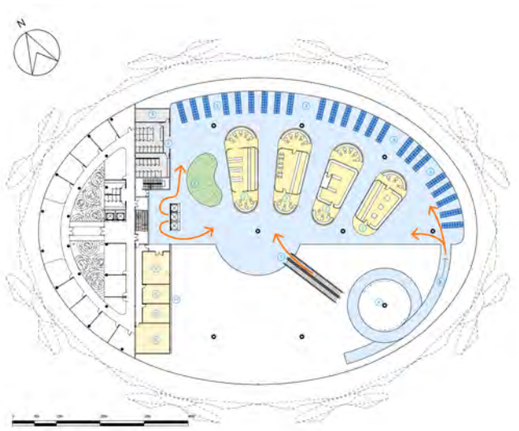
As the senior designer, I was responsible for translating the Design Director's "Lotus Ferry Terminal" concept into a buildable architectural proposal.

My work focused on developing the master plan, organizing the overall site layout, and producing the key architectural renderings that communicated the spatial vision of the project.

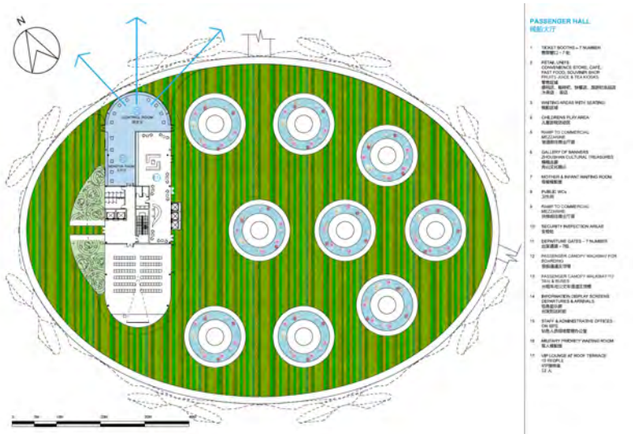
I also integrated the design drawings, visual materials, and narrative strategy into a coherent presentation package, supporting the final client presentation and helping clarify the project's architectural direction.



Terminal Ground Floor



2nd Floor



Roof Top

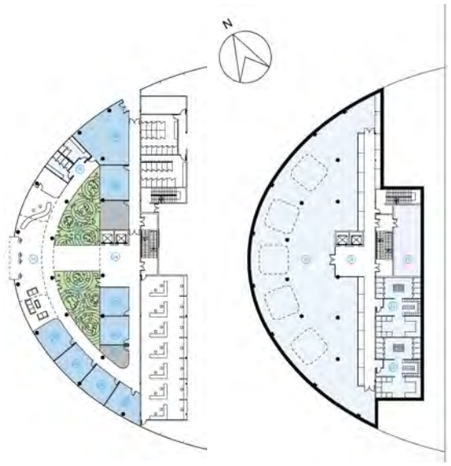
Inhouse render with V-ray / improved by AI

Parametric Façade

During the design process, I built a complete Rhino model of the main reception hall and used Grasshopper to develop the parametric metal mesh façade, translating the lotus pattern into a contemporary architectural envelope.

The terminal was organized with the ground floor serving as the primary transportation and passenger circulation level, while the second floor provided commercial functions and elevated public space.

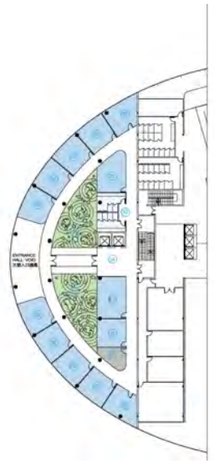
The office component was organized across five levels, with a dispatch control center located on the top floor to provide a commanding view over the surrounding sea.



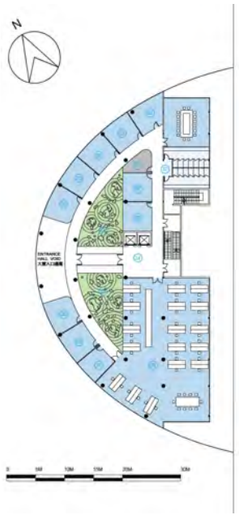
Office Bay
Ground Floor

2nd Floor

3rd Floor

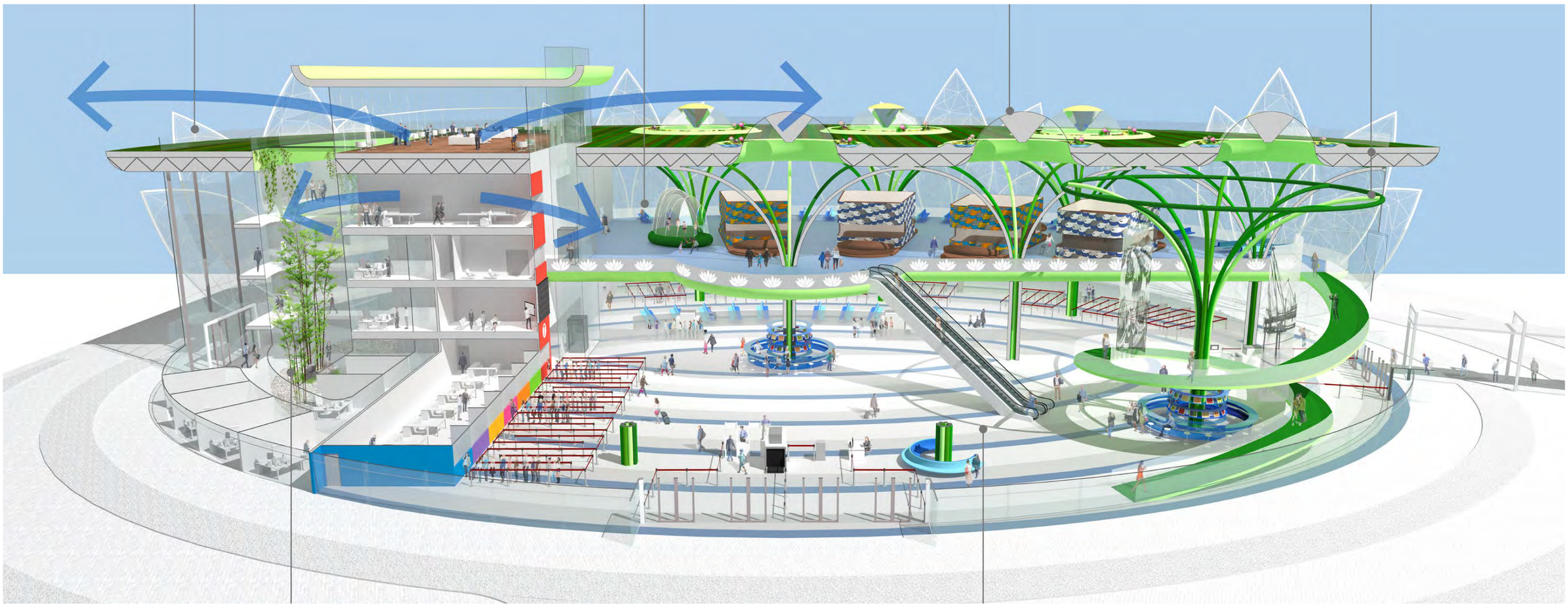


4th Floor



5th Floor

Roof Floor



Terminal Flow

The master plan had to accommodate both pedestrian ferry passengers and vehicle ferry circulation. In the car waiting area, we proposed solar charging devices to improve user comfort and support sustainable mobility.

At roof level, the “lotus seed” elements were designed to reflect sunlight into the interior, enhancing the quality of the reception hall with natural light and reinforcing the symbolic identity of the terminal.

MASTER PLAN FUNTIONS TABLE 总平面功能表	
1	SAN JIANG LOTUS – FERRY TERMINAL BUILDING 三江莲花 - 客运中心办公候船综合楼
2	VEHICLE WAITING AREA 待渡车辆等候区
3	PUBLIC TRANSPORT SYSTEM – BUSES & TAXIS 公共交通系统 - 公交车、出租车、长途客车
4	24 HOUR PASSENGER PARKING 24小时社会车辆停车区
5	ENTRANCE PLAZA 站前广场
6	PRIVATE OFFICE PARKING 办公停车场
7	BOATS RECEIVING VEHICLES & PASSENGERS ON FOOT 船只接收旅客与车辆
8	BOATS RECEIVING PASSENGERS ON FOOT ONLY 船只供旅客专用
9	OFFICE 办公区域
10	TICKET KIOSK & CONTROL POINTS 车辆入口及收费闸机
11	GREEN FOREST BOUNDARY SEPARATION WITH EXISTING RESIDENTIAL COMMUNITY 分隔现有居住区的绿地

	VEHICLE WAITING AREA 待渡车辆等候区	10,000 平方米
	24HR PASSENGER AND PRIVATE OFFICE PARKING 24小时社会车辆及办公用停车场	20,000 平方米
	PUBLIC TRANSPORTATION: BUS & TAXI AREA 公共交通：公交车、出租车、长途客车	12,000 平方米
	SITE AREA 基地面积	87,223 平方米
	GREEN RATIO 绿化率	20%

0 20M 40M 60M 80M 100M 200M

N

ADVANTAGES:
优势：

MEETS CLIENT REQUIREMENTS
可满足业主要求

DISADVANTAGES:
劣势：

PARKING COMES CLOSER TO BUILDING
停车场距离客运大楼较近

REFER TO RENDERS PROPOSING PEDESTRIAN FRIENDLY LANDSCAPE
采用对行人更为友好的景观设计，参考效果透视图

ROAD FOR VEHICLES DISEMBARKING + EXITING SITE
下船车辆出口

LANES TO PASSENGER VEHICLE WAITING AREA
候船车辆等候区车道

LANDMARK SIGN
地标式入口指示

ROAD TO PRIVATE OFFICE PARKING & VIP DROP OFF
通往办公停车场以及VIP下客区

ROAD TO 24hr PASSENGER PARKING
通往24小时客用停车场

VEHICLE ENTRY & EXITS ADJUSTED TO MERGE BETTER WITH DINGMA JUNCTION & YADONG ROAD
车辆出入口根据十字路口交通进行优化

EXIT ROADS FROM 24 HOUR PASSENGER PARKING & PRIVATE OFFICE PARKING
24小时客用停车场及办公停车场出口

ENTRY & EXIT ROADS FOR PUBLIC TRANSPORTATION: BUS & TAXI AREA
通往公共交通: 巴士 出租车 公交车

YA DONG LINE 鸭 东 线

DING MA LINE 定 马 线

Master Plan - Option 1 - Optimized Traffic System 总平面图 - 选项1 - 交通系统优化

FACADE SCREEN SOLAR SHADING
立面可提供遮阳

OCEAN VIEWS RE
SKYLIGHT JEWEL
珠宝上的天窗反射

23.400
18.400
16.800
12.600
8.400
4.200
0.000

VEHICLE ROAD
车道

PASSENGER BOARDING CANOPY
登船通道及顶棚

FIXED PIER
桥墩

FLOATING DOCK
码头

FERRY BOAT
渡船

SEVEN Al Hamra Theme Park - Interior

08

Typology: Theme Park
Location: Riyadh, Saudi Arabia
Year & Area: 2025 – Present & 168,000 sqm
Scope: Interior & Theme Contractor
Status: Concept SD CD CA / Complete
Role: Senior Design Manager & BIM Manager
Software: Revit / Autodesk Construction Cloud

Rendering provided by main contractor

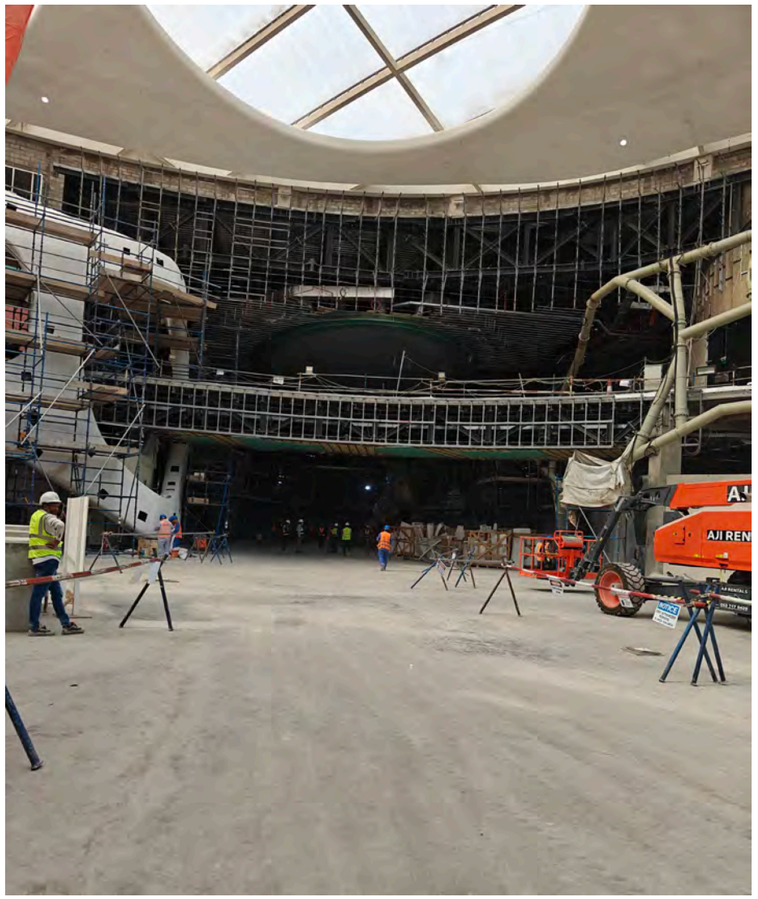
My Role

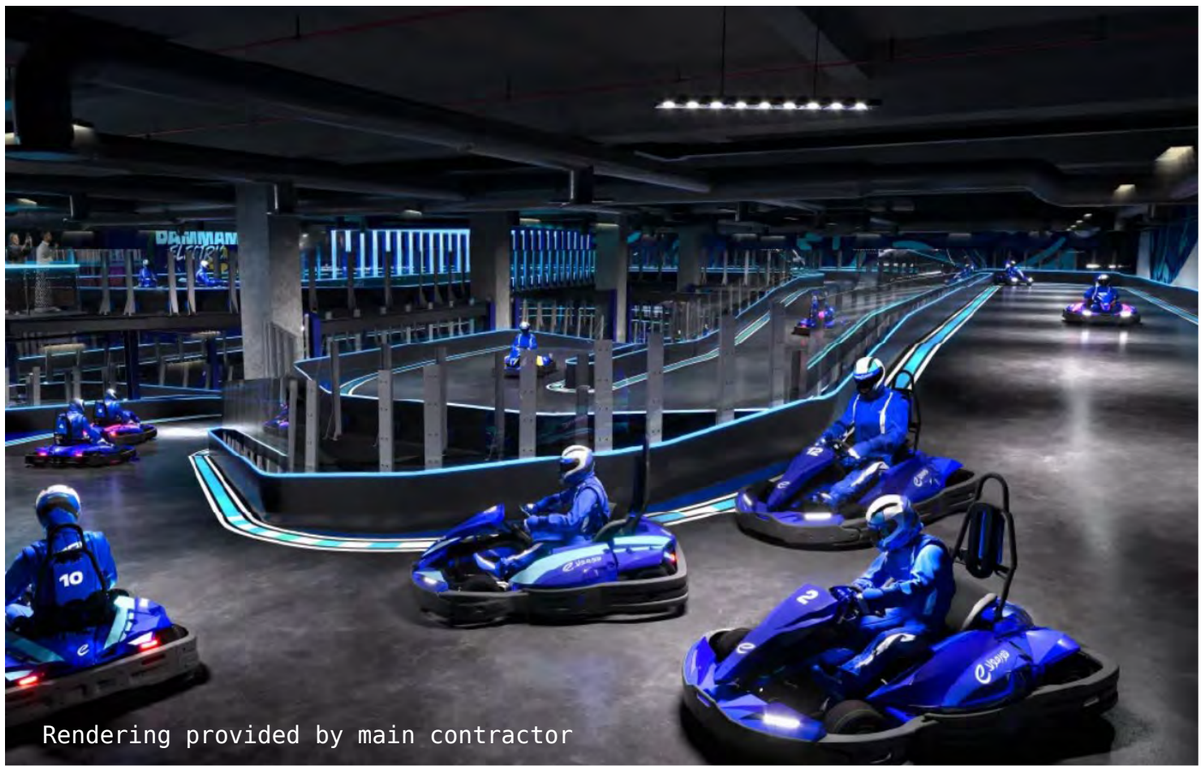
Our team was subcontracted to deliver design development and construction documentation for more than 5,000 square meters of indoor entertainment areas.

As Senior Design Manager and Site Coordination Manager, I acted as the key interface between the Beijing design team, the local project team, and the construction site.

My responsibility was to ensure that the drawings and BIM models met the required level of detail under local project requirements, including EU and US-based documentation standards.

At the same time, I coordinated closely with the site team to verify that construction works were aligned with the approved drawings, design intent, and buildability requirements.





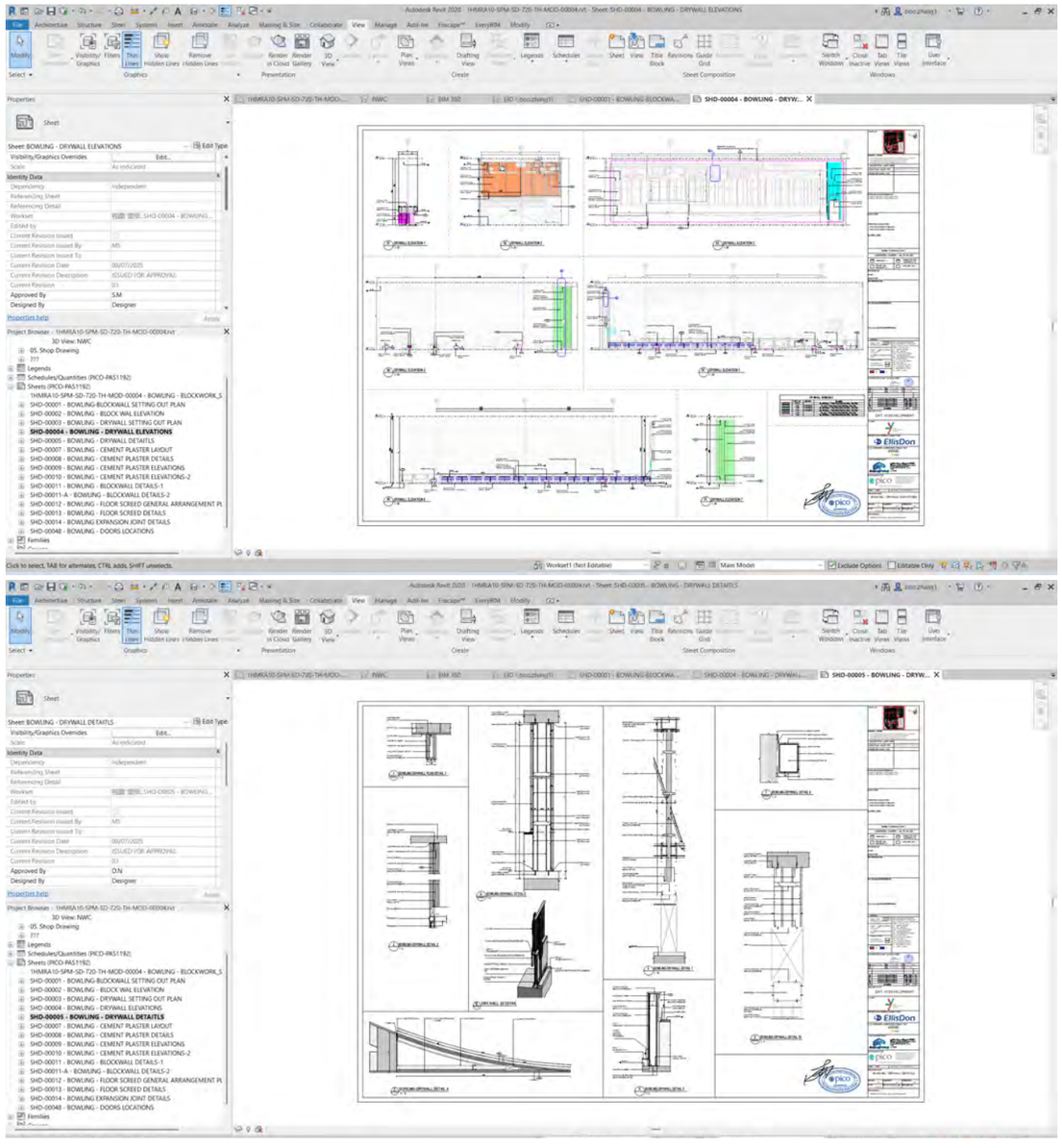
Documentation Delivery

Our Beijing team was responsible for developing the original design package from LOD 300 into LOD 400 construction-ready documentation.

During this process, I coordinated vendor information, material data, and technical inputs from the local market, then translated them into clear instructions for the China-based design team.

I also explained local construction methods, detailing requirements, and project-specific standards to ensure that the drawings were not only well documented, but also buildable on site.

In parallel, I coordinated design interfaces with MEP subcontractors and FF&E teams, reviewed required revisions, and managed drawing updates to maintain consistency between design intent, technical requirements, and site execution.



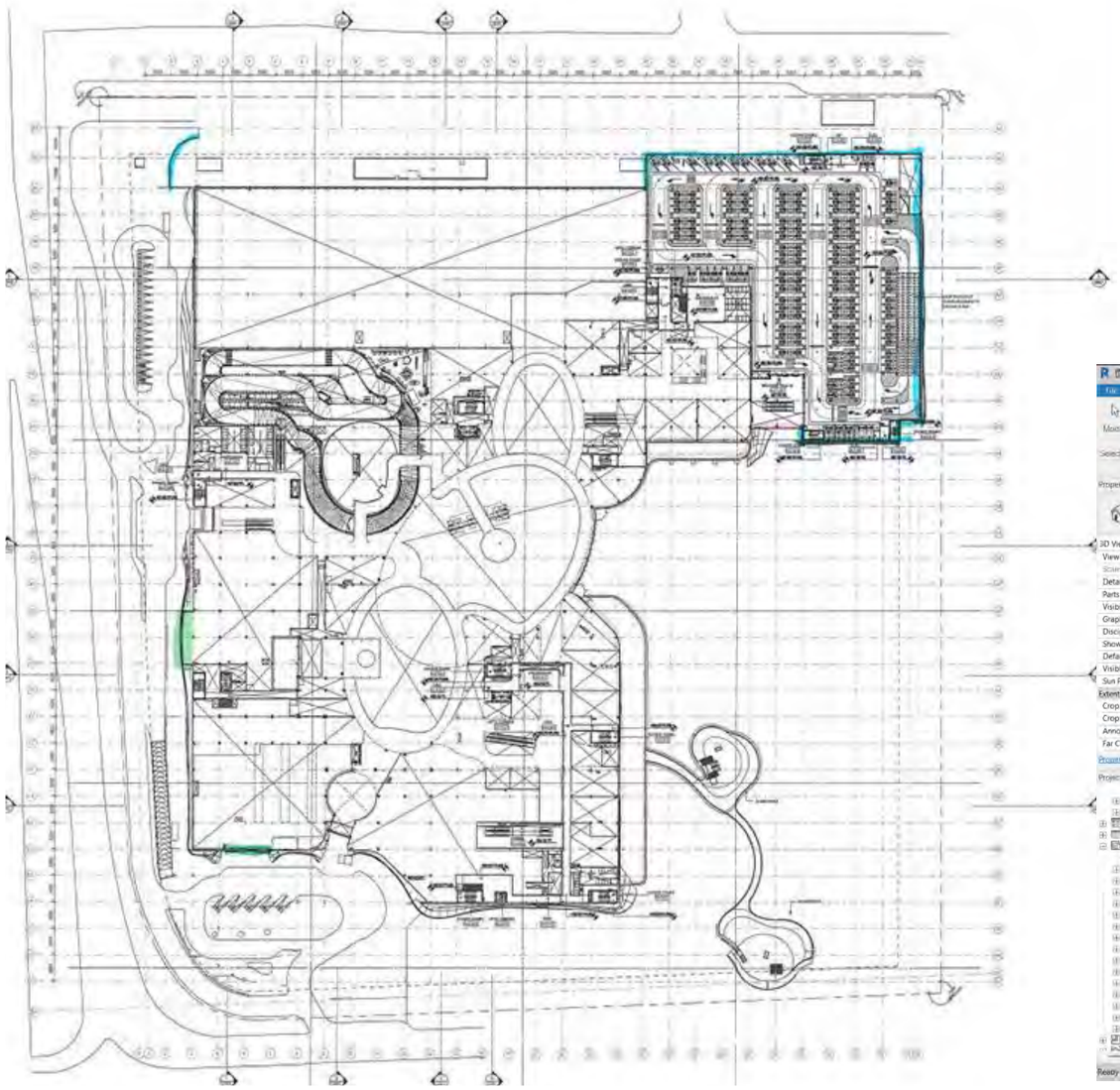
BIM Workflow

Each design package was fully developed in Revit, with all discipline models managed through Autodesk Construction Cloud as the common data environment.

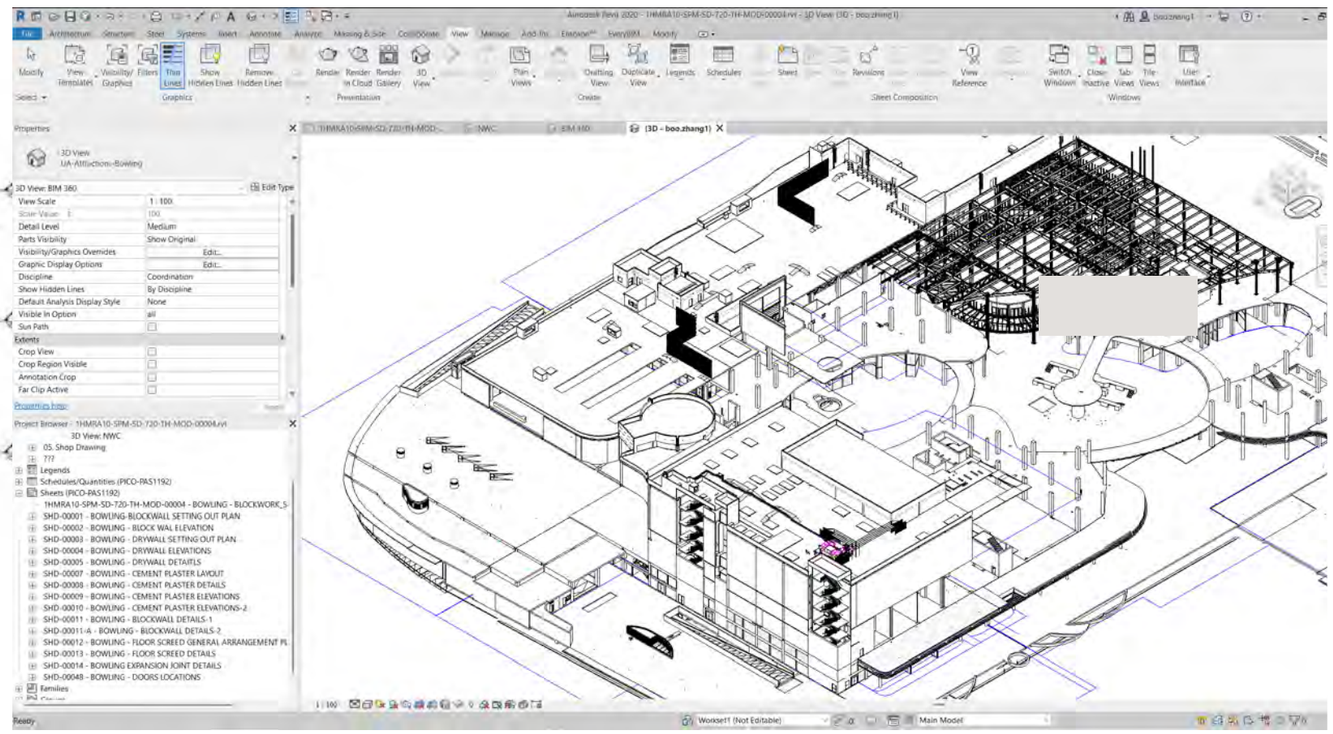
After each round of design development, the coordinated Revit models were exported and processed into Navisworks files for review by the main contractor and engineering team.

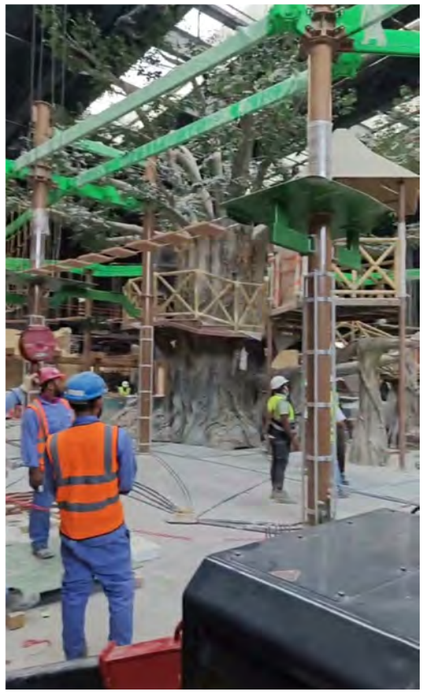
Drawing packages exported from the model were submitted through Aconex for formal version control, document tracking, and approval workflow.

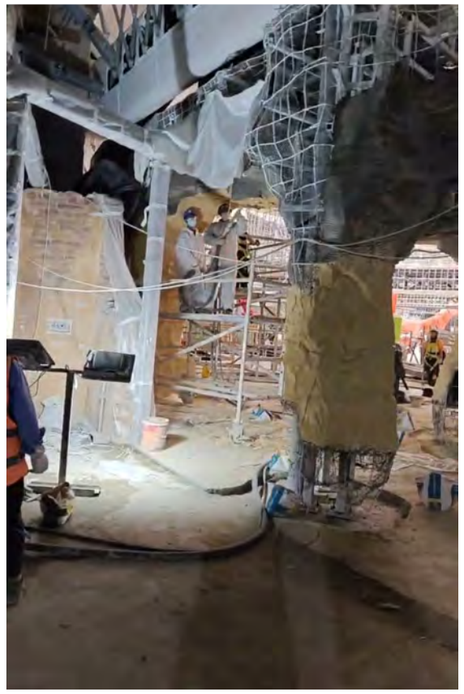
During the coordination process, technical issues were raised through RFIs, allowing the main contractor to provide clarification and enabling the design team to revise, update, and resubmit the drawings accordingly.



Aconex Construction Management by Oracle







Site Resolution

On-site work required coordination of construction workers, subcontractor workfronts, and installation responsibilities to maintain efficient progress.

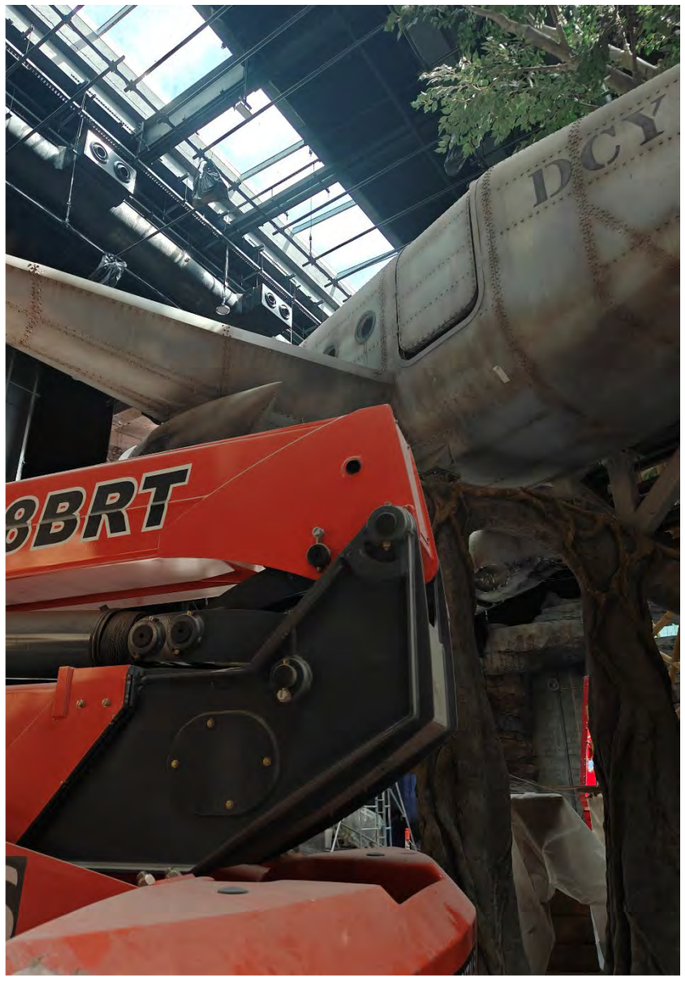
Approved drawings and design intent were explained directly to the workers, ensuring that key details, installation logic, and quality expectations were properly understood.

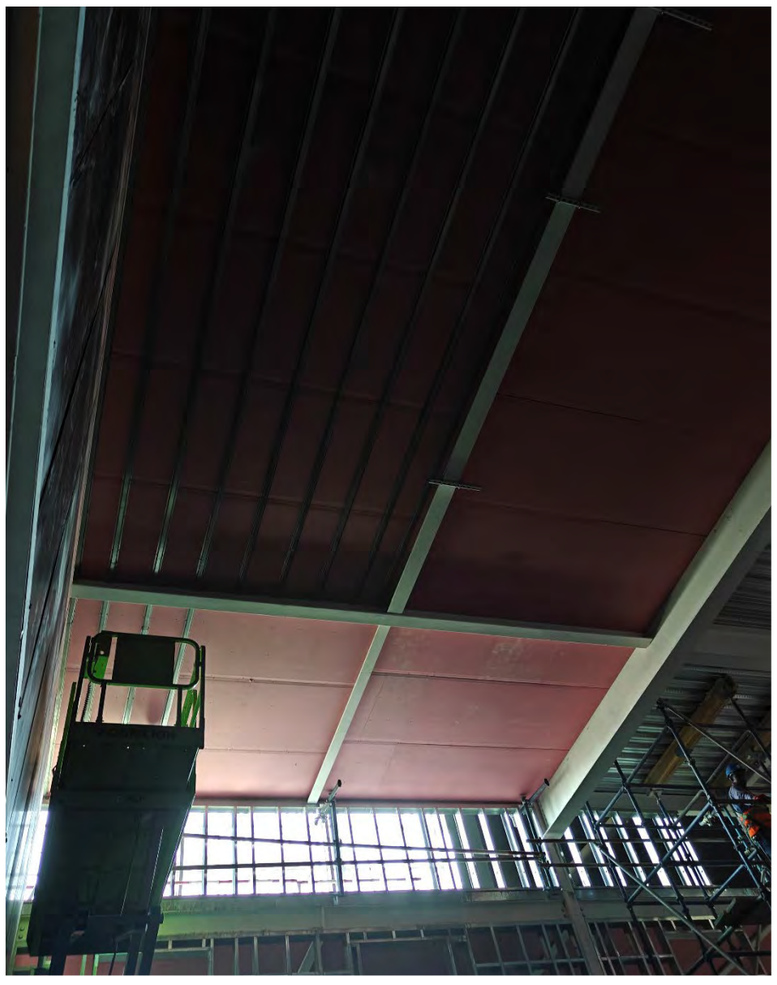
BOQ quotation, vendor coordination, procurement comparison, and cost control were also supported during the construction process.

Daily site coordination helped manage construction sequence, workmanship quality, schedule progress, and alignment between approved drawings and actual site execution.


ZOOMLION
JLG


JLG


DCY
8BRT



MEADOW HOUSE - LIMMERICK IRELAND

09

Typology: Residential
Location: Limerick, Ireland
Year & Area: 2017 – 2019 / 450 sqm
Scope: Architecture & Interior
Status: CD CA / Complete
Role: Project Designer
Software: Revit / Sketchup / AutoCAD / Lumion

My Role

Meadow House is a 450 sqm single-family residence located in Limerick, Ireland.

I joined the team after the concept design phase and supported the project through design development, construction documentation, and completion.

As a Senior Architect, my role focused on translating the approved design concept into buildable architectural information, including façade details, SIP wall and roof coordination, material interfaces, and interior fit-out details.

I also supported the team with daylight analysis and helped evaluate how the house responded to the local climate and site conditions.

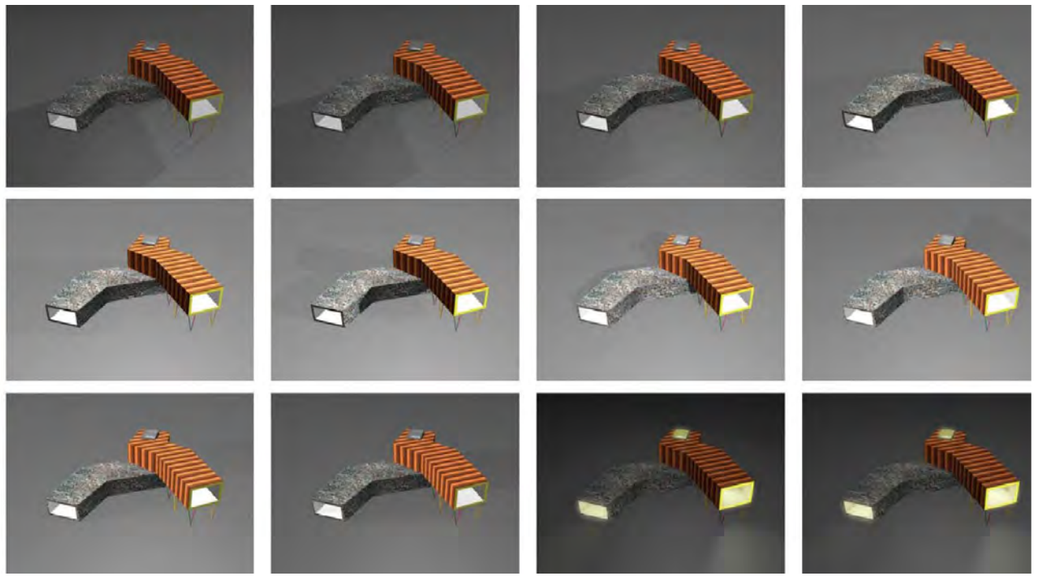
During my two-year involvement, I contributed to technical coordination, project delivery, and multimedia presentation materials, including an animation published on YouTube and ArchDaily.

Project Video: YouTube

https://www.youtube.com/watch?v=kO5_8Hjf2s8

Project Page On Archdaily:

https://www.archdaily.com/925538/meadow-dance-john-curran-architects



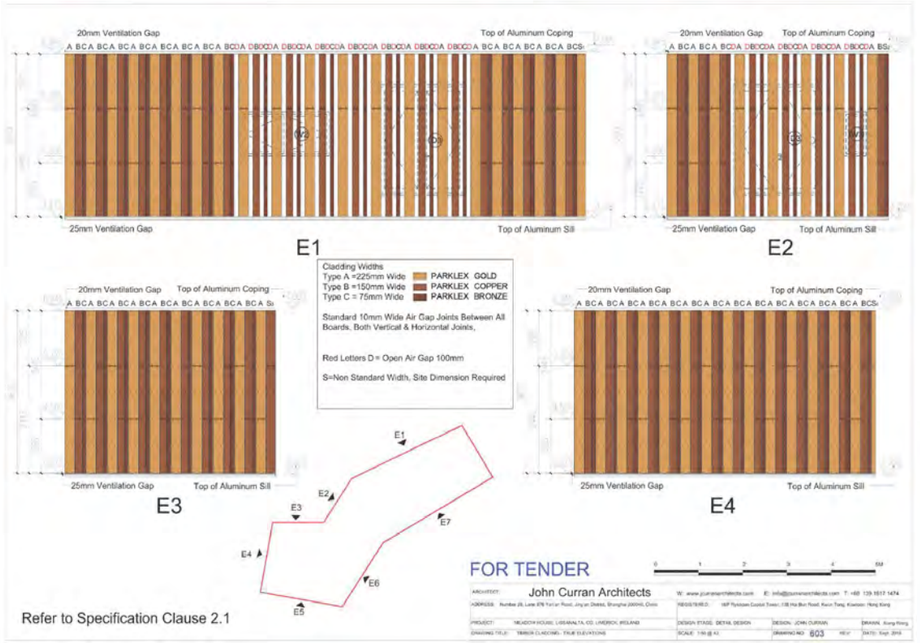
Façade Cladding

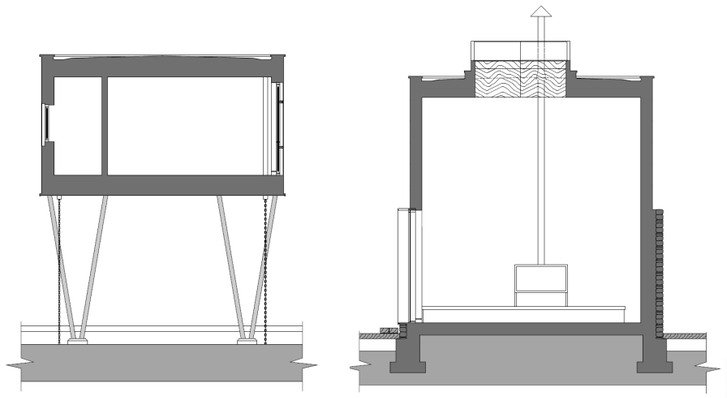
The architectural concept and façade design were developed to reflect the regional character of the Irish countryside.

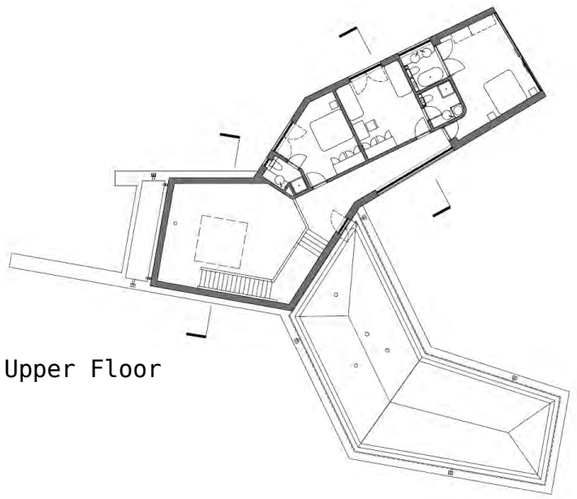
Two interwoven materials — stone at the ground level and Parklex timber cladding on the upper level — were selected to express both the local context and the client's personal preference.

For the timber façade, we carefully studied the color variation, panel rhythm, and installation pattern to create a more refined and dynamic elevation.

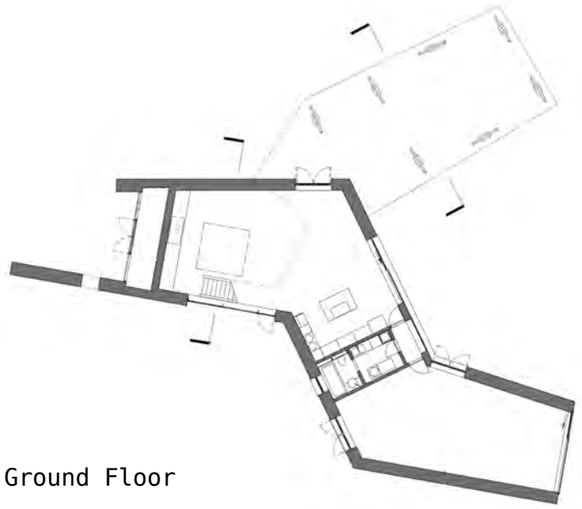
The stone base anchors the house to the site, while the lighter timber volume appears to float above the meadow, forming the core concept of "Dance of the Meadow."



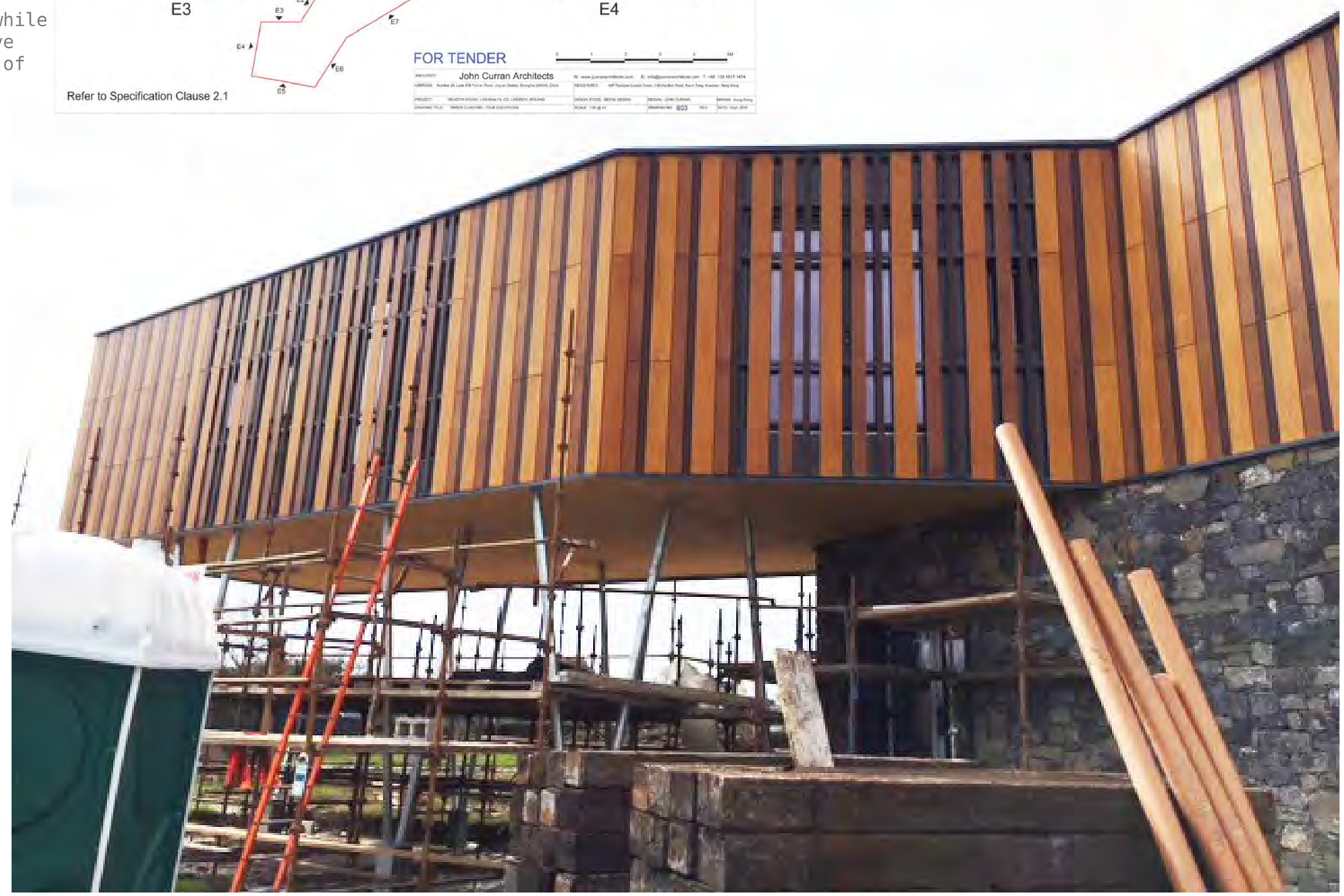




Upper Floor



Ground Floor



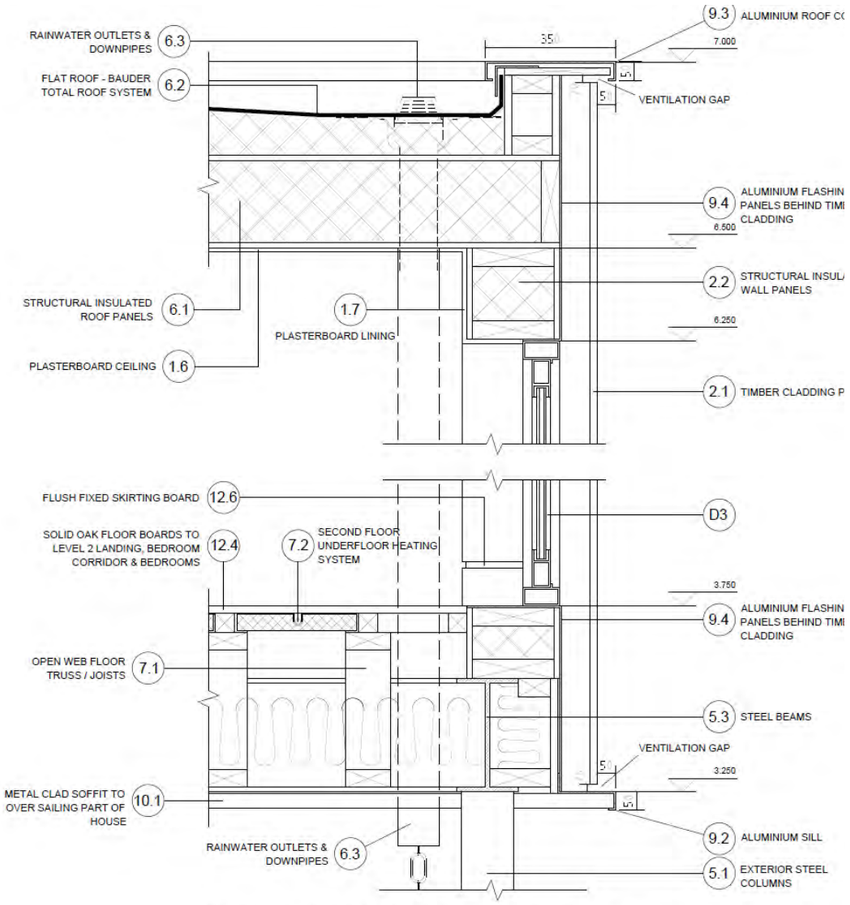
SIP Wall & Roof System

To help the client move into their dream modern home as early as possible, we adopted a SIP wall and roof system for the main building envelope.

This prefabricated system significantly accelerated the construction process while providing excellent thermal insulation performance.

Based on the supplier’s technical requirements, I developed detailed wall sections, roof build-ups, and key construction junctions.

I also coordinated design revisions according to the structural engineer’s drawings and on-site construction feedback, ensuring that the system remained accurate, buildable, and aligned with the original design intent.



D3 DOUBLE DOORS - DETAILS AT HEAD + SILL

Local Materials

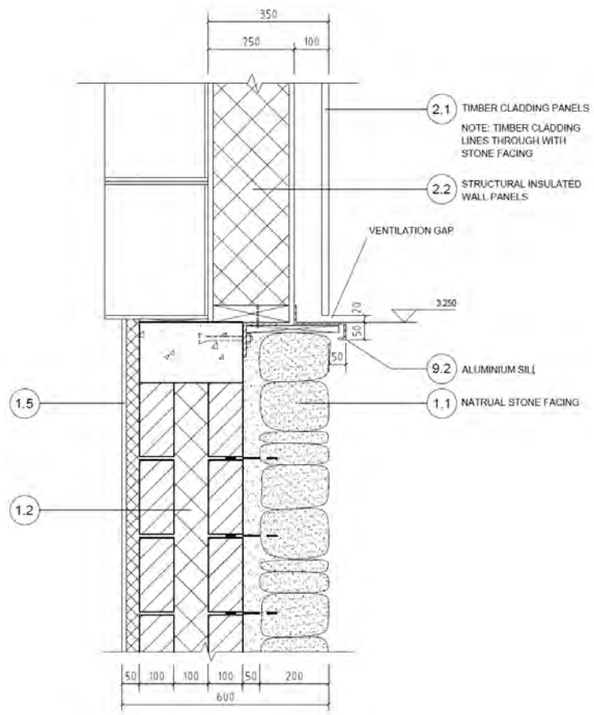
The material strategy of Meadow House was closely connected to the regional character of Ireland and the daily life of the client’s family.

The outdoor timber deck was designed as a relaxed summer living space, where the family could gather, drink, barbecue, and enjoy the surrounding meadow.

The timber used for the deck was reclaimed from abandoned railway sleepers, giving the platform a strong sense of memory, texture, and reuse.

The stone used on the walls was sourced from a local quarry in Limerick, Ireland, with a distinctive color and texture that differs from stone commonly found in other parts of Europe.

Together, the reclaimed timber and local stone created a raw, grounded, and regionally specific material expression for the house.



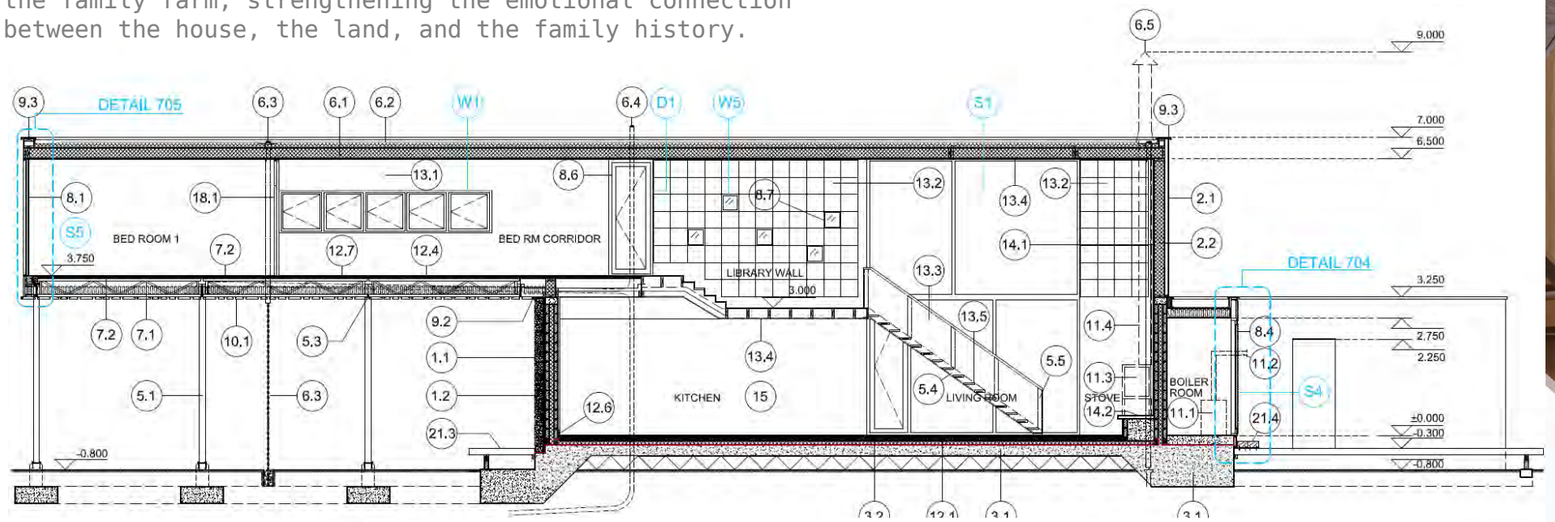
Interior

The interior space of Meadow House was designed with a clean and restrained architectural language, creating a calm domestic atmosphere within the rural landscape.

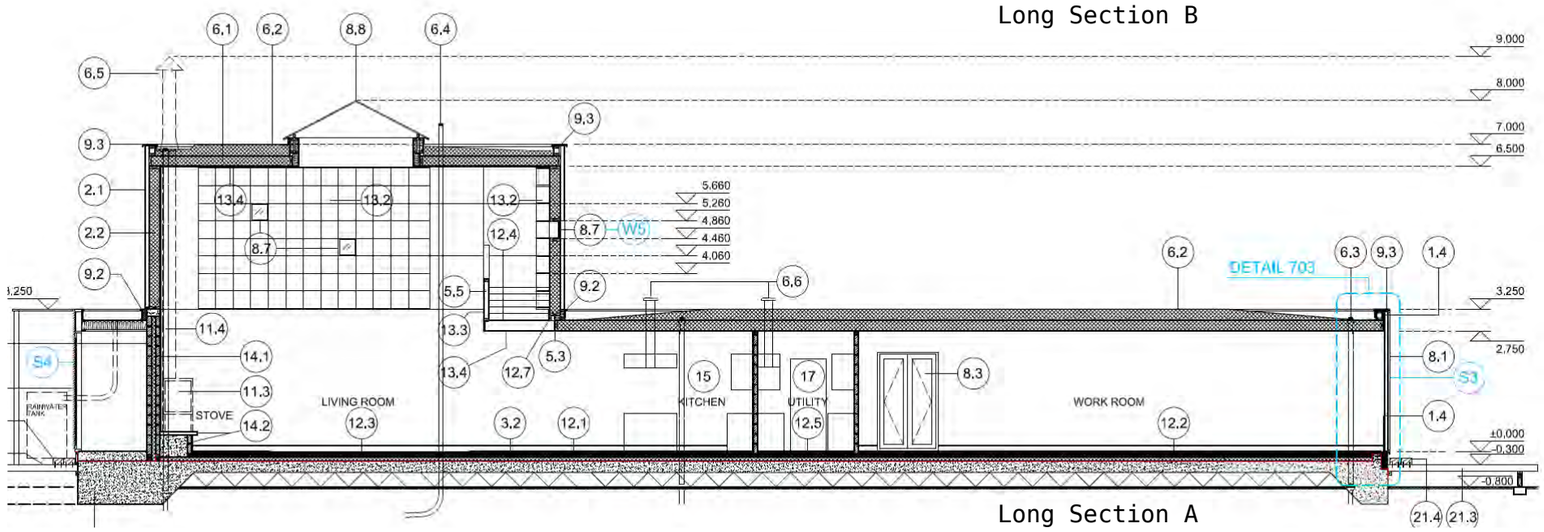
The ground floor and upper level are visually connected around a central family gathering space, where natural light, the fireplace, and the open living area allow the family to experience the changing atmosphere of the house throughout the day.

The ground floor uses a polished concrete floor with an integrated underfloor heating system, combining a simple material expression with thermal comfort for daily living.

The master bedroom on the upper level cantilevers above the meadow and, with its favorable orientation, overlooks the family farm, strengthening the emotional connection between the house, the land, and the family history.



Long Section B



Long Section A

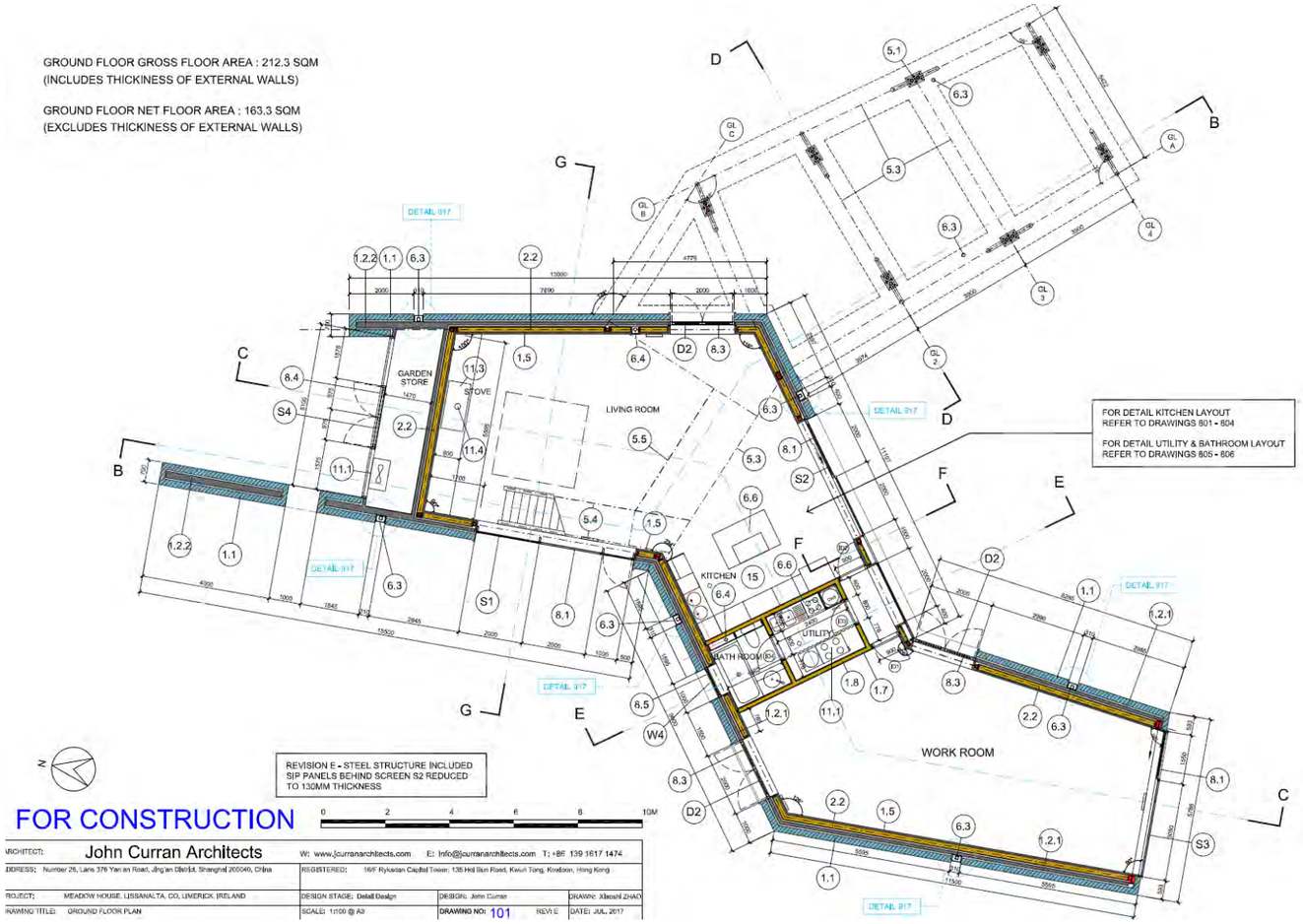
Energy & Ventilation

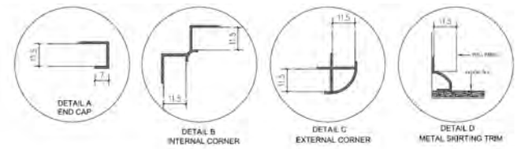
Ireland’s cool and damp climate creates challenges such as condensation, moisture build-up, and potential mold risk inside residential buildings.

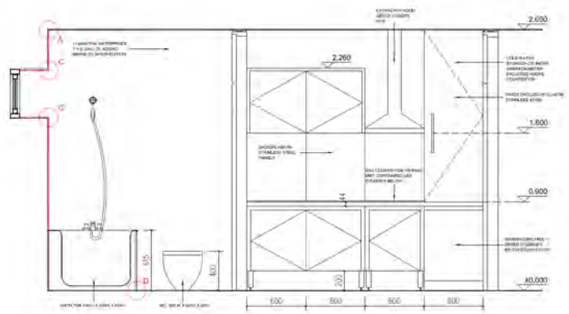
To improve indoor air quality and thermal comfort, Meadow House adopted a Nilan Compact P system, integrating MVHR(Mechanical Ventilation with Heat Recovery), heat pump, and domestic hot water production into one compact unit.

The system continuously extracts humid air from kitchens, bathrooms, and laundry areas, while recovering heat from the exhaust air to reduce energy loss.

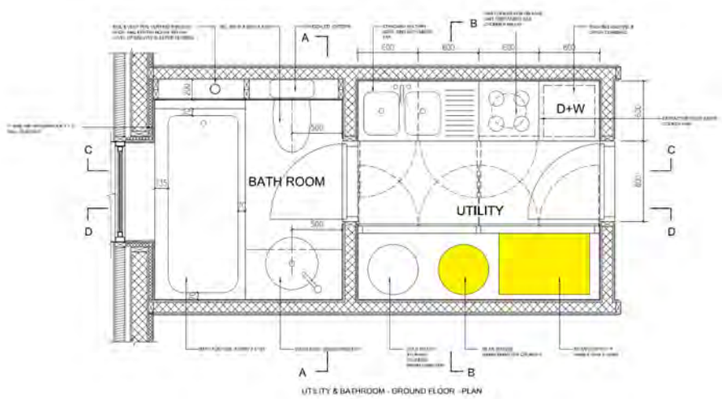
Combined with the SIP envelope, high insulation, and airtight window-wall system, this strategy supports a low-energy residential approach with stable indoor comfort throughout the year.







GROUND FLOOR UTILITY & BATHROOM -SECTION / ELEVATION E-E



UTILITY & BATHROOM - GROUND FLOOR - PLAN

SUSTAINABLE STUDIO 1 - UNIVERSAL SPACE

A Grasshopper-Based System for Large-Span Structural Generation

Prof. Peter Land

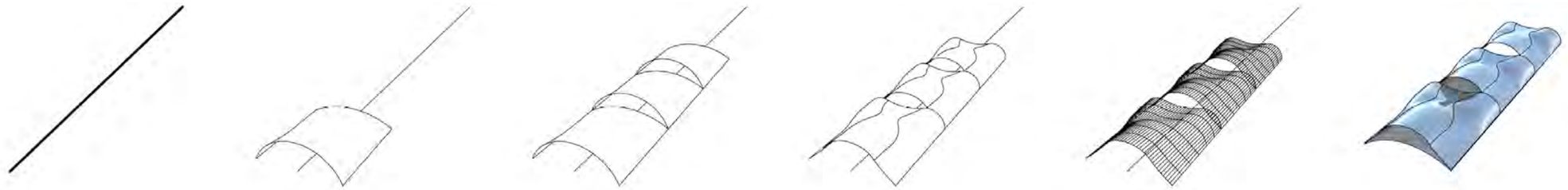
Horizontal Space - Spring of 2012

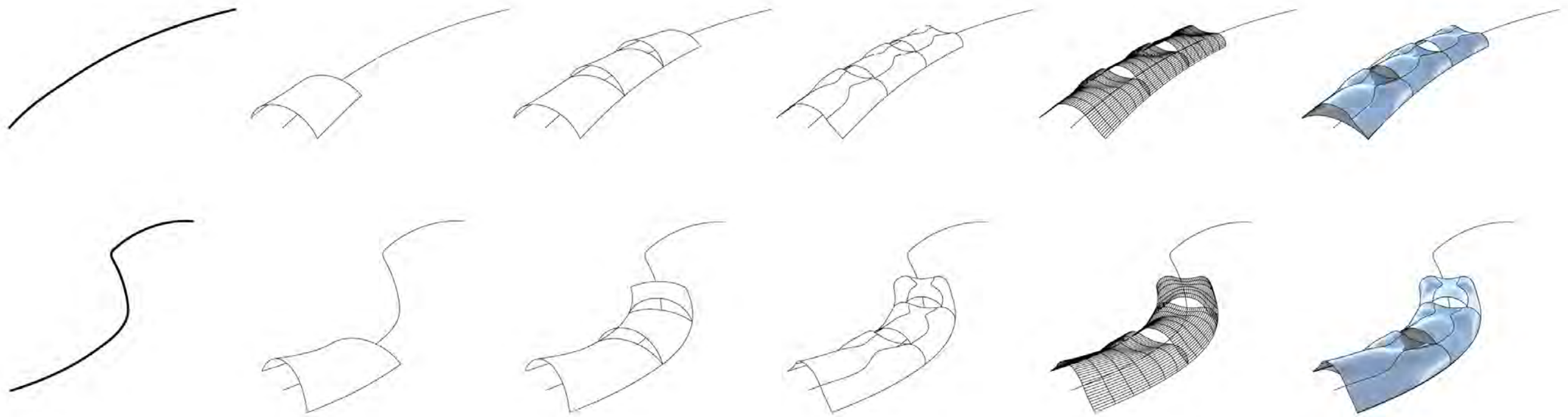
Click for Video

Using Grasshopper, I developed an adaptive structural module that can generate a large-span horizontal structure from any input planar curve.

The system is designed for flexible applications such as factories, railway stations, exhibition halls, and other public buildings requiring open-span space.

BIPV panels and wind turbines were integrated into the roof system, allowing the structure to function as both an architectural enclosure and a renewable energy platform.



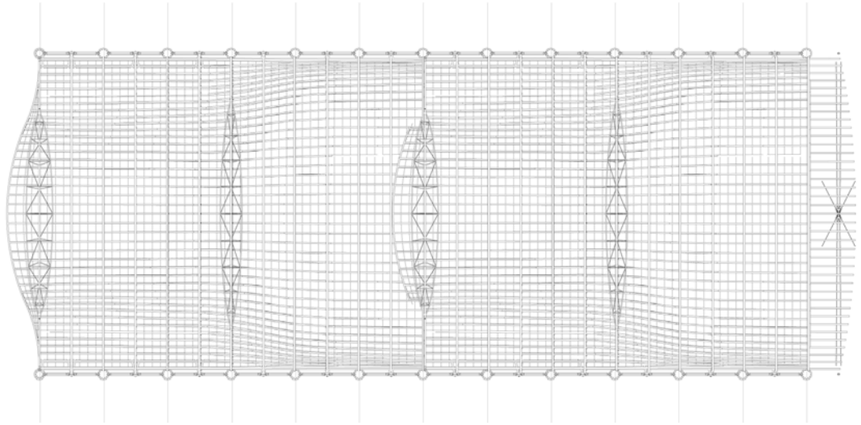


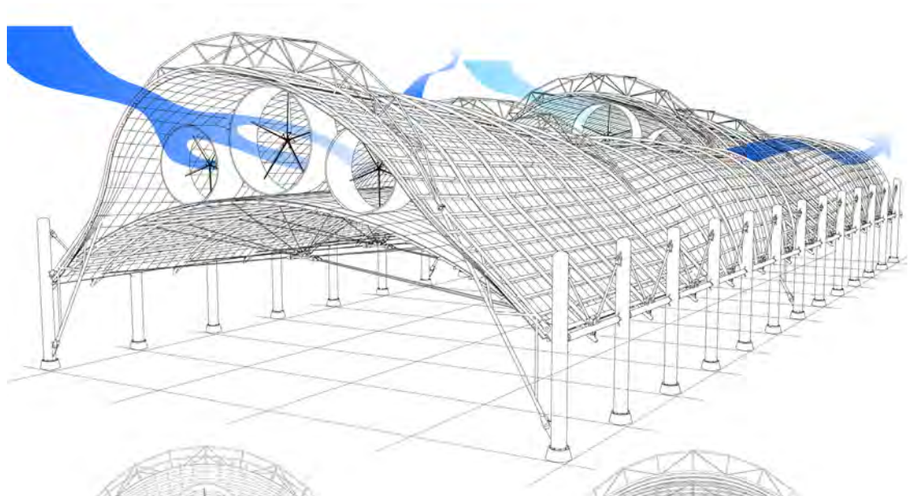
Simulation

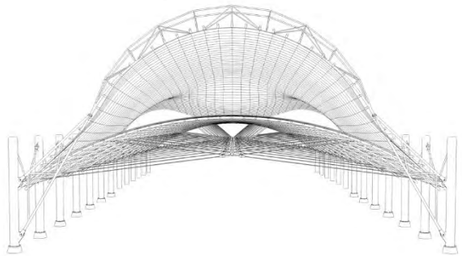
Ecotect, Vasari, and CFD simulations were used to test how different roof forms could improve solar exposure and accelerate wind flow across the structure.

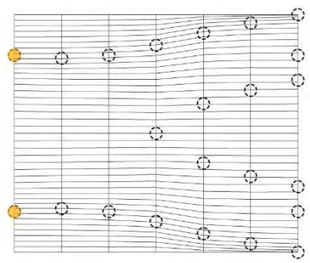
Based on the simulation results, the system was further developed with adaptive connection details and structural nodes.

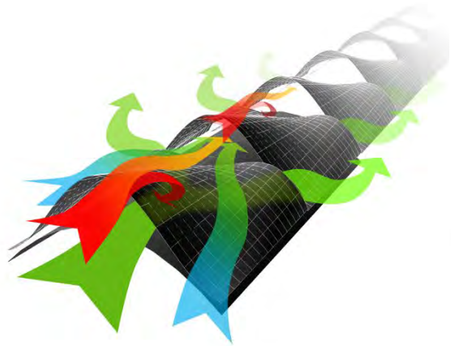
Using Grasshopper, each component could automatically adjust its angle, geometry, and connection type according to its position within the overall structural system.

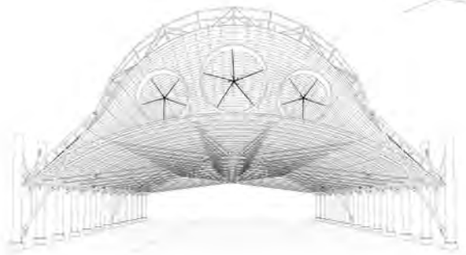


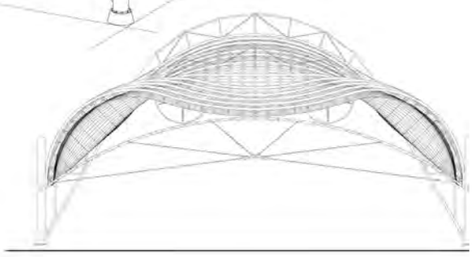


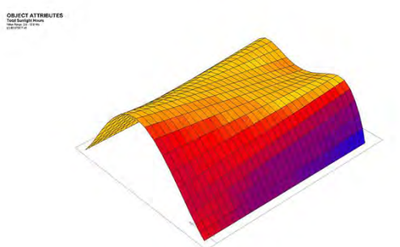


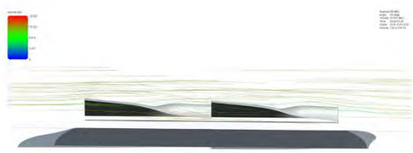


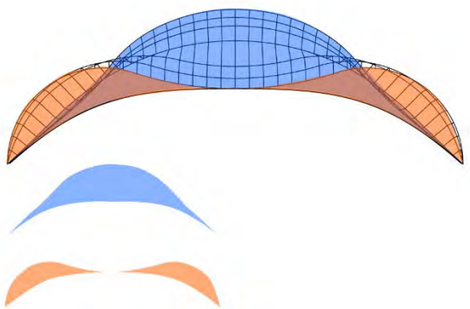


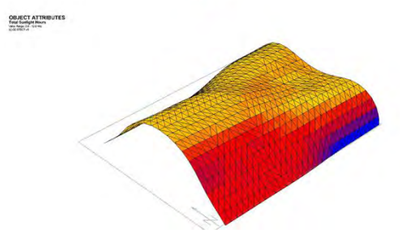


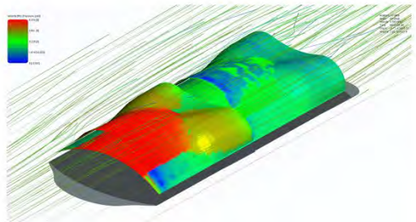


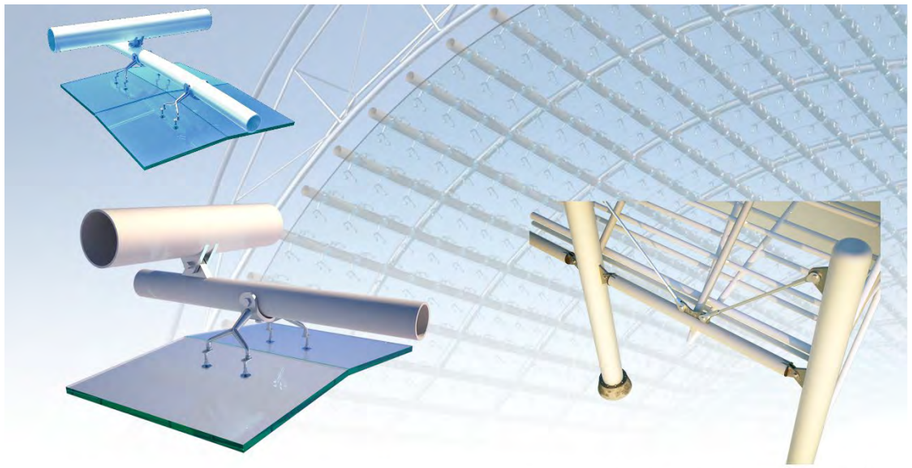


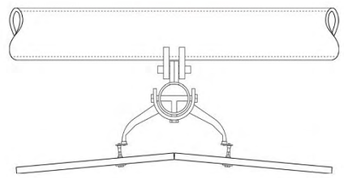


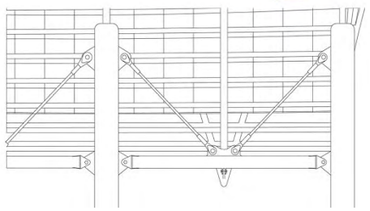












SUSTAINABLE STUDIO 2 - UNIVERSAL SPACE

Prof. Peter Land

Vertical Space - Fall of 2011

This studio explored the urban morphology of high-rise development in downtown Chicago and selected a specific site for sustainable tall building research.

Using Grasshopper, I developed a parametric supertall tower with a spiral geometry that responds to the vertical condition of the city and the environmental forces around the site.

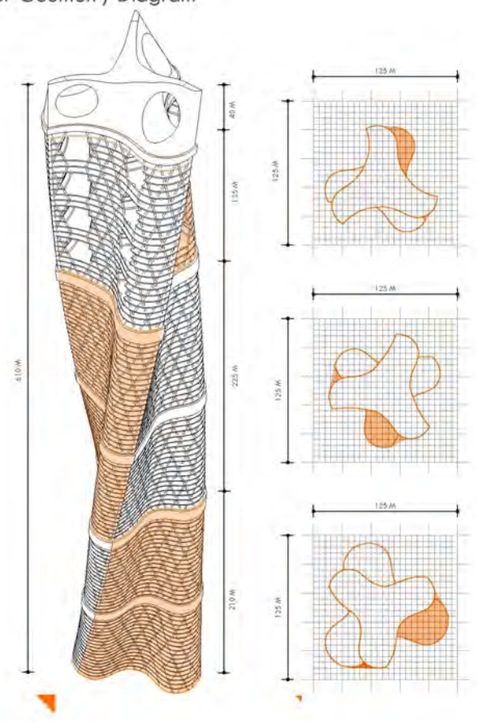
Aerial View Rendering with Fryrender

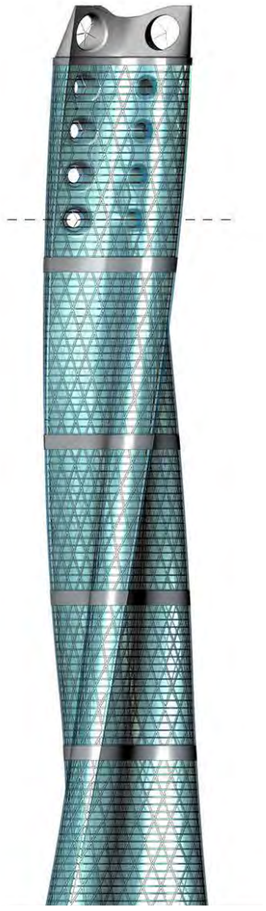
Shaping

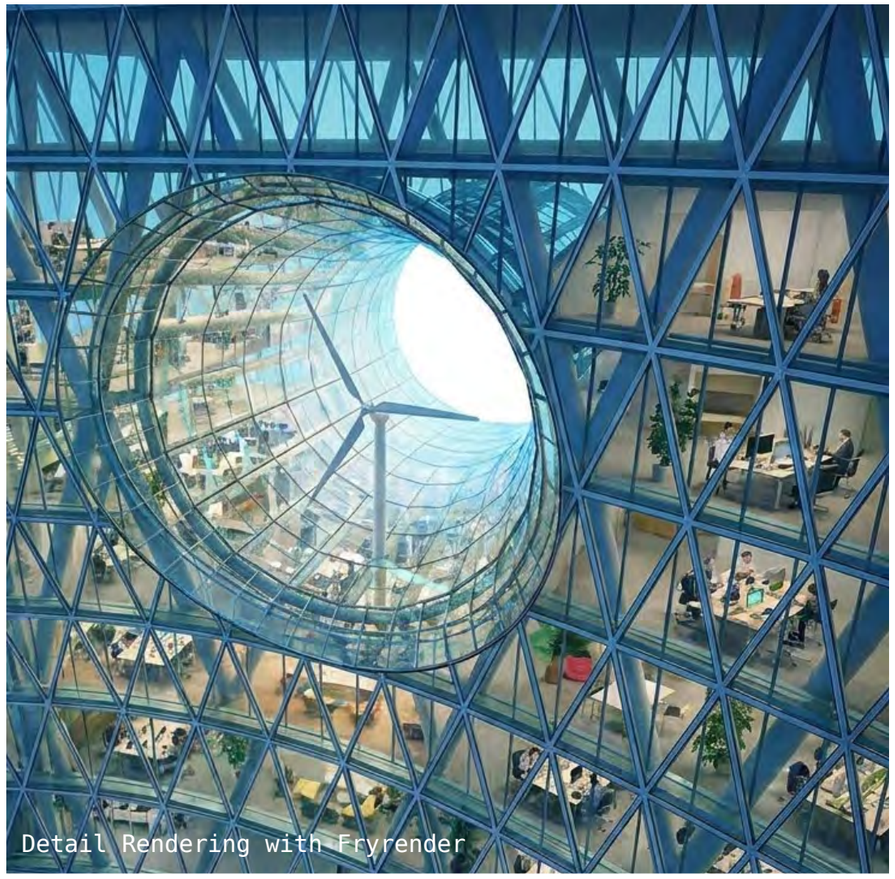
The tower form was designed to improve wind energy performance by guiding and accelerating airflow along the building surface, allowing the architecture to function as both an urban landmark and an environmental infrastructure.

Through parametric modeling, the project tested the relationship between tower massing, structural logic, façade variation, and renewable energy potential within a dense downtown context.

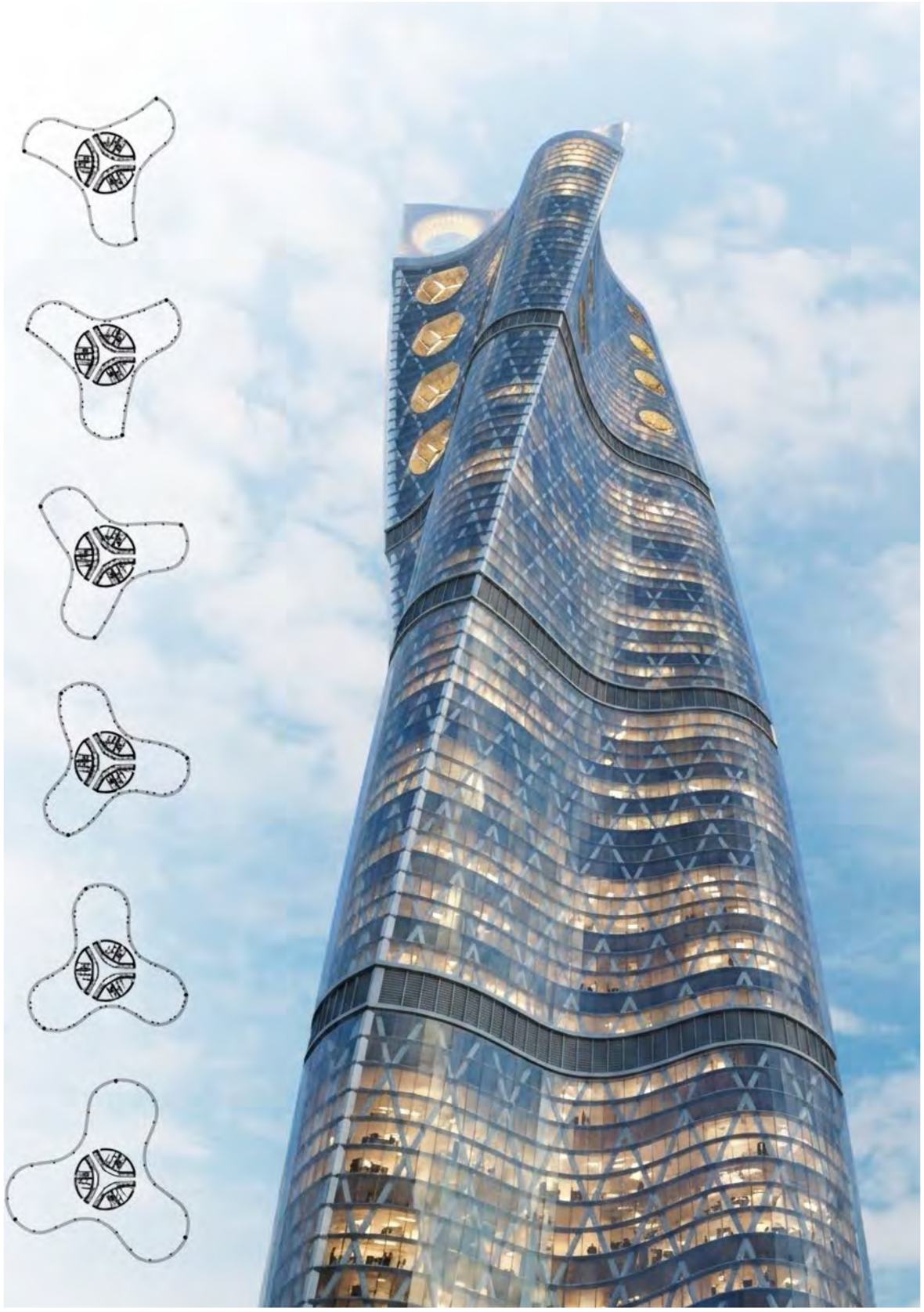
Tower Geometry Diagram

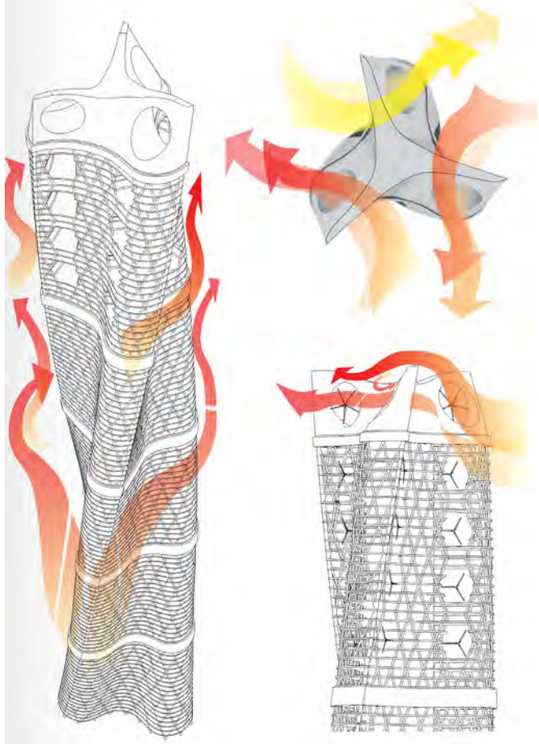


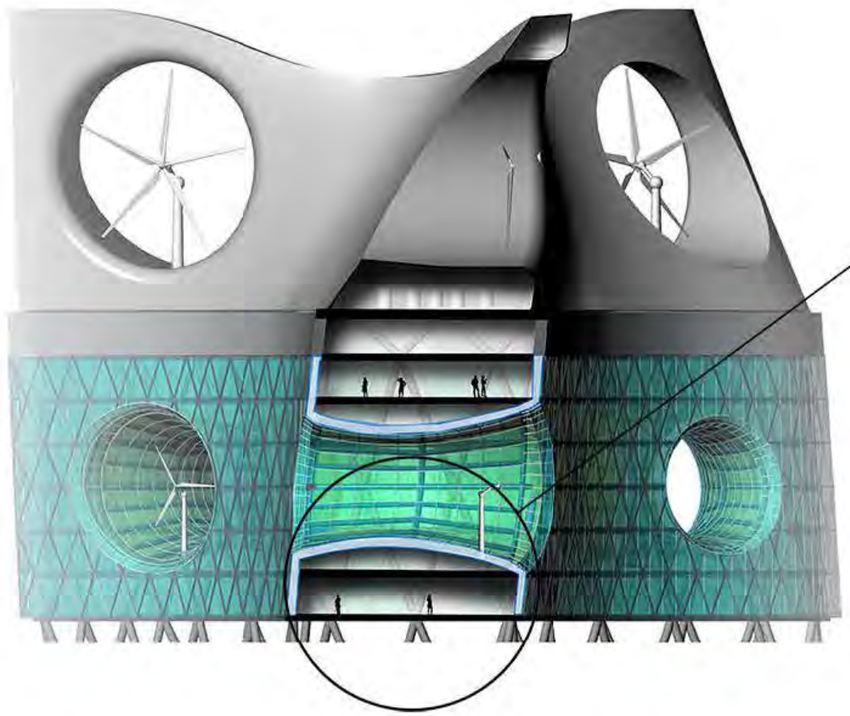


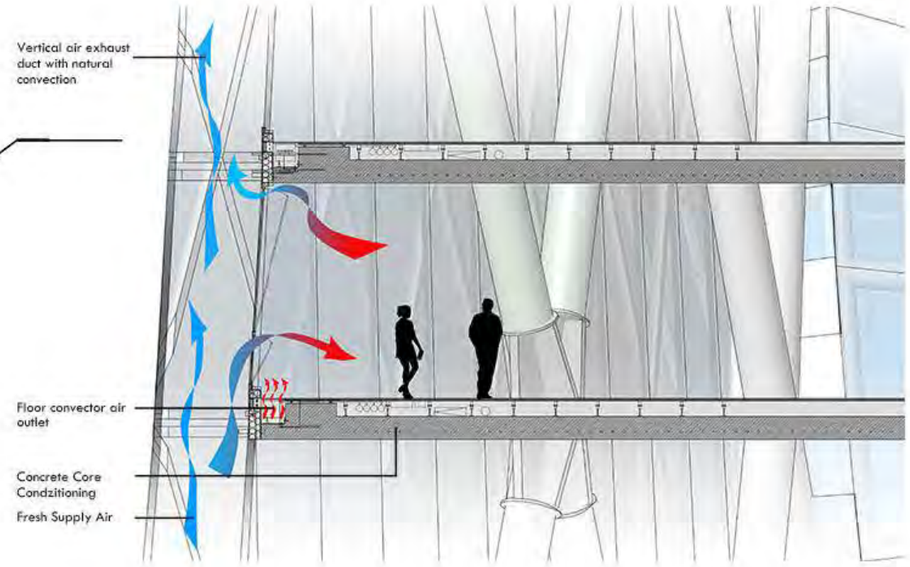


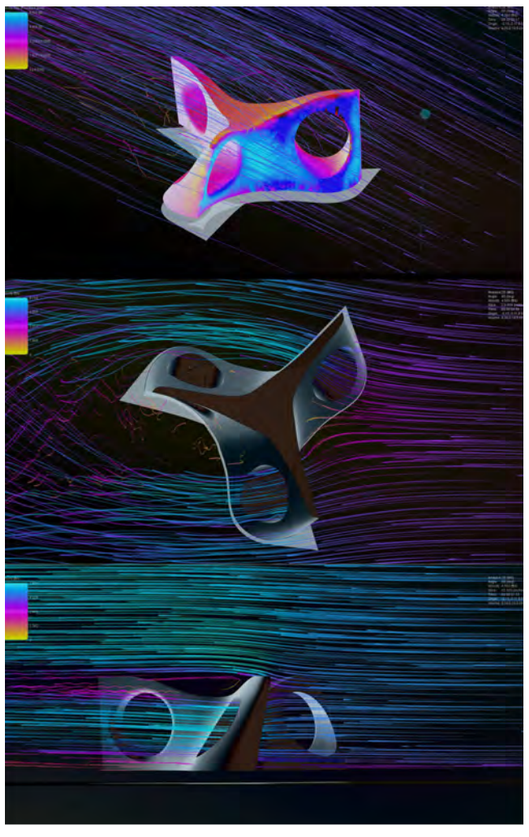
Detail Rendering with Fryrender

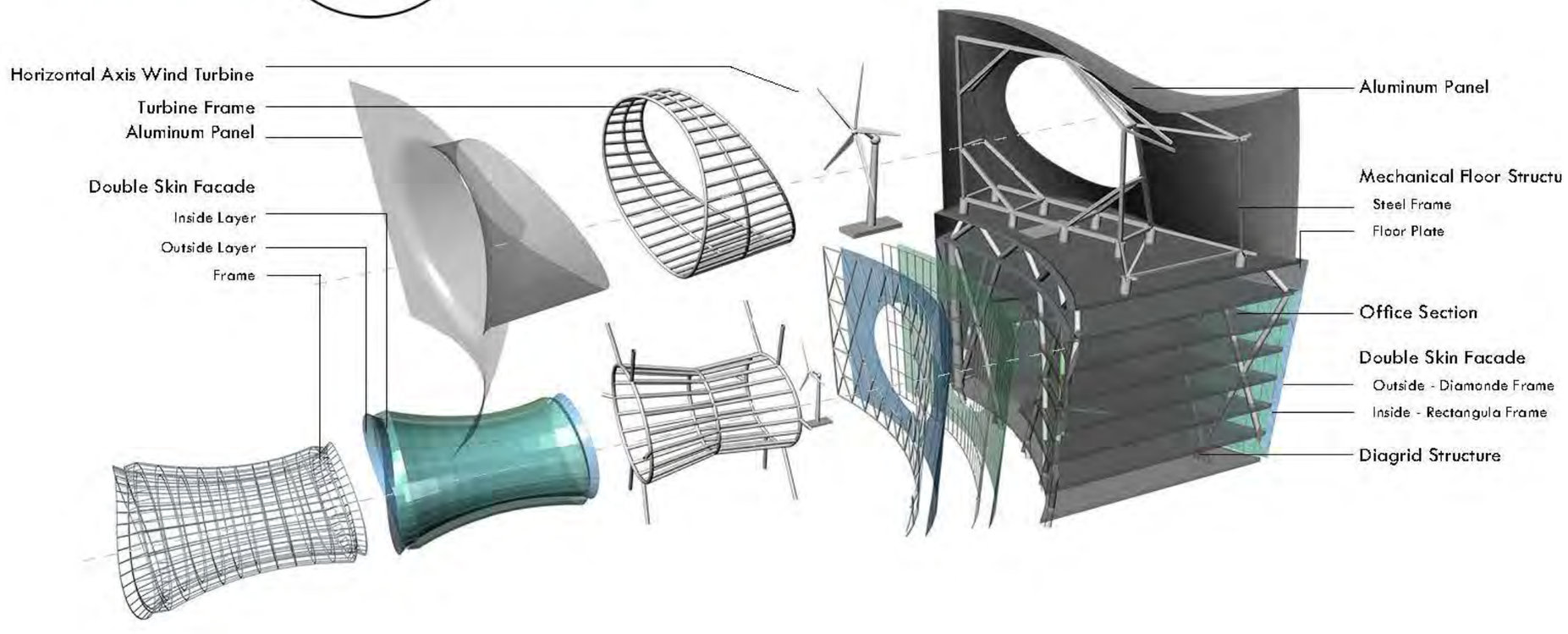







Vertical air exhaust duct with natural convection
Floor convector air outlet
Concrete Core Condzitioning
Fresh Supply Air




Horizontal Axis Wind Turbine
Turbine Frame
Aluminum Panel
Double Skin Facade
Inside Layer
Outside Layer
Frame
Aluminum Panel
Mechanical Floor Structu
Steel Frame
Floor Plate
Office Section
Double Skin Facade
Outside - Diamonde Frame
Inside - Rectangula Frame
Diagrid Structure

2022 - The proposal was recognized with the AIA Shanghai Beijing Unbuilt Project Citation Award, highlighting its experimental approach to parametric tall building design and sustainable urban research.

2024 - I was invited as a guest speaker and workshop leader at an international school construction conference, presenting our research and built-project experience in campus renovation, educational space design, and the future development of international school environments.

2023 - Joined Asia School Expo as a workshop speaker in collaboration with a furniture brand, sharing integrated design strategies for campus architecture, landscape, and learning spaces.

GONGMING LIU
lgmtzz@gmail.com
www.gongmingliu.com