STRUCTURA GLOBAL

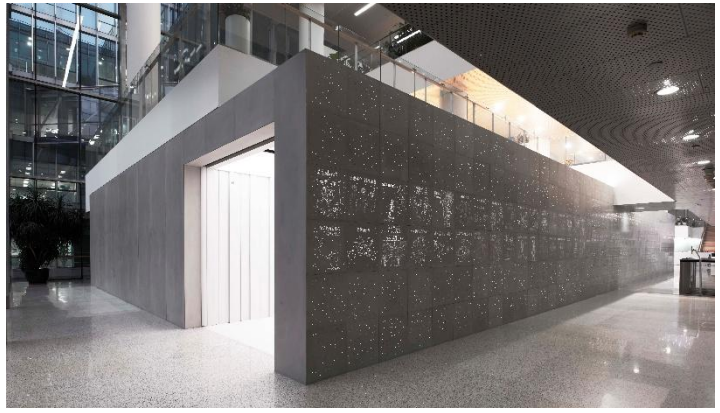


About Structura Global



International Project Partner for GFRC (GRC), UHPC and GFRG Architectural Solutions
Structura Global is the dedicated international business development and project delivery arm of a long-established architectural concrete manufacturer, specializing in design-led GFRC (GRC), UHPC and GFRG architectural solutions.
We support international partners across façade, exterior, urban furniture, public-realm and custom architectural applications, connecting proven manufacturing capability with overseas project requirements.
Our role covers product positioning, project communication, targeted market development, sample coordination, technical documentation, quotation support and partnership development - helping overseas clients move projects forward through clear communication, direct manufacturing coordination and practical technical support.

Our Background
The team behind Structura Global has experience across architectural art products, international business development, real estate development and cross-border market expansion. This background gives us a practical, project-oriented perspective when working with architects, façade specialists, contractors, developers, hardscape suppliers and international partners.
We understand that successful architectural products must satisfy more than visual design. They need to respond to project feasibility, installation logic, durability, logistics, stakeholder coordination and long-term asset performance.



Manufacturing Foundation
Our manufacturing team is experienced in large-scale facade, architectural feature, interior architectural and public-realm projects. We have delivered GFRC, UHPC and GFRG components for demanding applications across theme parks, transport infrastructure, cultural buildings, commercial developments and interior feature environments. Core capabilities include mold development, complex geometry fabrication, refined surface finishing, quality-control inspection and project documentation for international project requirements. We work closely with project stakeholders to coordinate design intent, sample development, technical communication and project delivery from early-stage review through production and shipment.

www.structura-global.com

Our Manufacturing Capability

We support projects requiring a broad range of architectural concrete and decorative building products, including:

- GFRC (GRC) architectural components
- UHPC façade and exterior elements
- GFRG decorative interior systems
- Architectural art concrete
- Urban furniture and public-space elements
- Selected UHPC and composite concrete public-realm infrastructure components, including safety-focused access covers, drainage-related elements and streetscape protection pieces
- Custom moulded and sculptural components
- Bespoke finishes, 100% replication of custom molded textures, acid-washed, fair-faced industrial concrete, and stone-like exterior surfaces.







Our International Focus

Structura Global is focused on selected project-driven international markets, with priority pathways in North America and Australia.
We are particularly interested in high-specification projects where specialist GFRC (GRC), UHPC, GFRG and public-realm solutions can support façade design, exterior performance, urban furniture, transport environments, hospitality developments and civic public spaces.
For selected government, transport, hospitality and public-realm projects, we also explore international opportunities where project quality, durability and long-term material performance are valued.

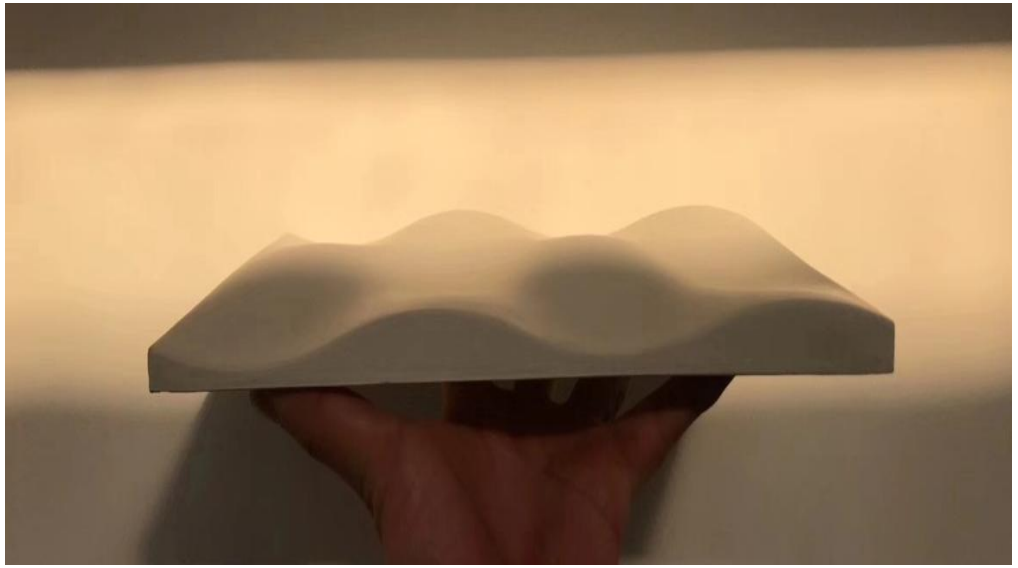
Our Position

We connect proven manufacturing capability with selected international projects through clear communication, technical coordination, and practical project support.

Green & Low-Carbon Prefabricated Architectural Materials

As a sustainable inorganic composite engineered with German technical expertise, this green and low-carbon prefabricated material boasts superior physical properties and exceptional aesthetic expressiveness. With virtually no limitations on geometric form or color consistency, it liberates architectural imagination—empowering designers to craft unique textures and bespoke structures, while unlocking endless possibilities for architectural innovation.

- **High Compressive & Flexural Strength**
- **Low Energy Consumption**
- **High Durability**
- **High Ductility / Crack Resistance**
- **German Engineering & Technology**
- **Manufactured in China**





Core Key Features

I. **Green / Eco-Friendly:** Tested by national authorities, it releases zero formaldehyde, ammonia, or harmful radioactive substances, remaining non-toxic, odorless, radiation-free, and pollution-free. It serves seamlessly both as a core structural material and as a premium, ready-to-install finish.

II. **Low-Carbon:** By utilizing crushed and recycled construction waste and material byproducts, it generates no environment-polluting waste. It qualifies as a safe, sustainable, and low-carbon architectural material.

III. **Versatility:** It serves as an advanced alternative to traditional building materials such as conventional cement, timber, clay bricks, and ceramic tiles. This alternative conserves natural resources and energy while strictly curtailing the discharge of industrial waste (solid waste, wastewater, and exhaust gas).

IV. **Aesthetics:** It offers boundless geometric plasticity alongside superior ecological and aesthetic advantages. It offers boundless geometric plasticity alongside superior ecological and aesthetic advantages.

V. **Fire Resistance & Retardancy:** Certified by the National Centre for Test of Building Materials, our advanced materials have undergone on-site flame tests exceeding 1,000°C, proving to be completely non-combustible. It delivers outstanding fire-rated performance, achieving a top-tier Class A fire-retardancy rating.

VI. **Waterproofing & Moisture Resistance:** Engineered with superior hydrostatic sealing performance, it exhibits zero deformation, zero swelling, zero shrinkage, and zero degradation even under long-term water submersion.

VII. **Weathering Resistance:** It offers exceptional climate durability with robust resistance against extreme heat, freezing conditions, and UV radiation. Specifically, it withstands 25 severe freeze-thaw cycles with absolutely no delamination, surface peeling, or micro-cracking.

VIII. **Comprehensive Physical Properties:** High flexural, compressive, and tensile strength. Excellent machinability allows it to be easily sawn and nailed on-site.

GFRC supplied for Universal Studios Beijing and Shanghai Disney Resort underwent project-specific third-party testing and met the applicable U.S. standard requirements for those projects.

Our GFRC Reference Data vs. Applicable Chinese Standard Requirements

The values below are reference data and are not the project-specific test results for the projects noted above.

Density: 2.2 g/cm³ (137 lb/ft³)	Standard Requirement ≥1.8 g/cm³ (112 lb/ft³)	Fire Rating Class A	Standard Requirement Class A
Flexural Strength Limit ≥24 MPa (3,480 psi)	Standard Requirement ≥18 MPa (2,610 psi)	Tensile Strength 8 MPa (1,160 psi)	Standard Requirement ≥5 MPa (725 psi)
Water Absorption 1.3%	Standard Requirement ≤14%	Compressive Strength 90 MPa (13,050 psi)	Standard Requirement ≥40 MPa (5,800 psi)

GFRC / HPC / UHPC Material Comparison

Characteristics	GFRC	HPC	UHPC
Compressive Strength (typical range)	50 – 90 MPa (7,300 – 13,100 psi)	50 – 120 MPa (7,300 – 17,400 psi)	120 – 200+ MPa (17,400 – 29,000+ psi)
Flexural Strength (MOR) (typical range)	6 – 19 MPa (870 – 2,760 psi)	8 – 20 MPa (1,200 – 2,900 psi)	20 – 40 MPa (2,900 – 5,800 psi)
Elastic Modulus (typical range)	10 – 25 GPa (1,450 – 3,600 ksi)	25 – 40 GPa (3,600 – 5,800 ksi)	40 – 60 GPa (5,800 – 8,700 ksi)
Reinforcement Material	Alkali-resistant (AR) glass fiber	Conventional steel reinforcement and/or fibers (as required)	Synthetic, steel or stainless-steel fibers; AR-glass reinforcement may be used for selected spray-formed elements
Aggregate Type	Fine silica sand	Graded sand and coarse aggregate	Optimized fine aggregate system; typically little or no conventional coarse aggregate
Water-Binder Ratio (w/b)	0.32 – 0.45	0.30 – 0.40	< 0.25 (typically 0.16 – 0.24)
Water Absorption (tested/reference range)	0.9% – 1.5%	3% – 5%	0.2% – 1.5%
Bulk Density (kg/m³)	2,000 – 2,300 (125 – 144 lb/ft³)	2,300 – 2,400 (144 – 150 lb/ft³)	2,200 – 2,500 (137 – 156 lb/ft³)
Typical Architectural Cladding Thickness	15 – 30 mm (5/8” – 1 3/16”)	50 mm+ (2”+, project dependent)	10 – 30 mm (3/8” – 1 3/16”)
Durability / Service-Life Potential	Good (project dependent)	High (project dependent)	Very high (project dependent)
Formability & Aesthetics	Excellent (Complex curves, faux stone finishes)	Standard (Primarily planar and simple forms)	Excellent (Complex geometries, intricate profiles)
Relative Material / Fabrication Cost (general indication)	Generally economical	Moderate	Generally premium

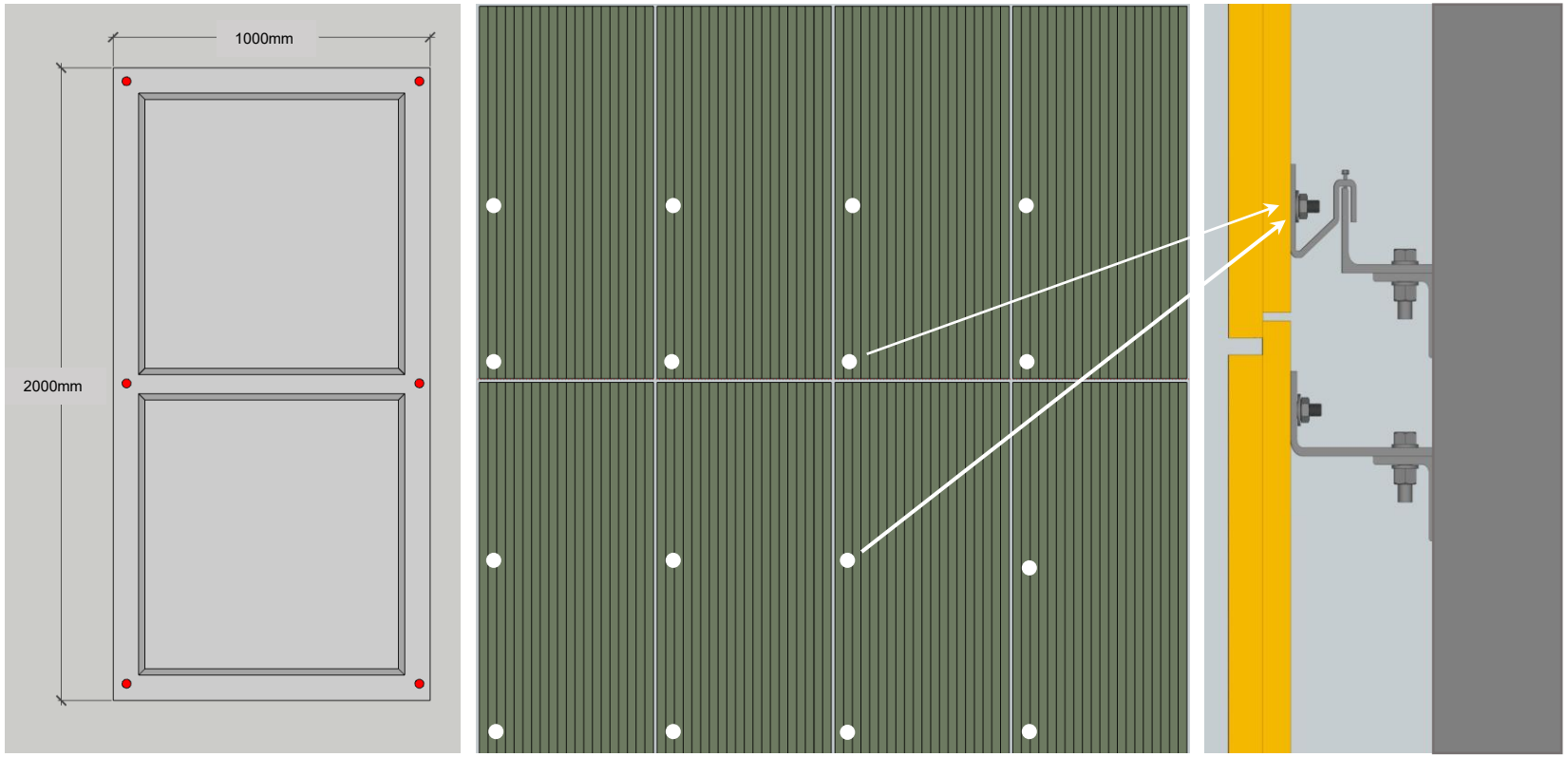
Proprietary Technology #1

Proprietary In-House Developed Embedded Anchors

Cast-in-place integration: Anchors are securely embedded directly into the matrix during the material fabrication process.
The ultimate single-point pull-out capacity reaches 7.4 kN. With four anchoring points engineered per square meter, the system delivers a structural safety factor equivalent to 50 times its dead weight.



Anchor Layout Diagram



Technical Information

Typical GFRC Facade Installation Details

① Architectural GFRC Cladding Panel

② M10*30 HDG Embedded Insert

③ M10*65 HDG Bolt

④ 50*70*5 HDG Steel Angle Bracket

⑤ M10*30 HDG Bolt

⑥ L50*5 HDG Steel Angle

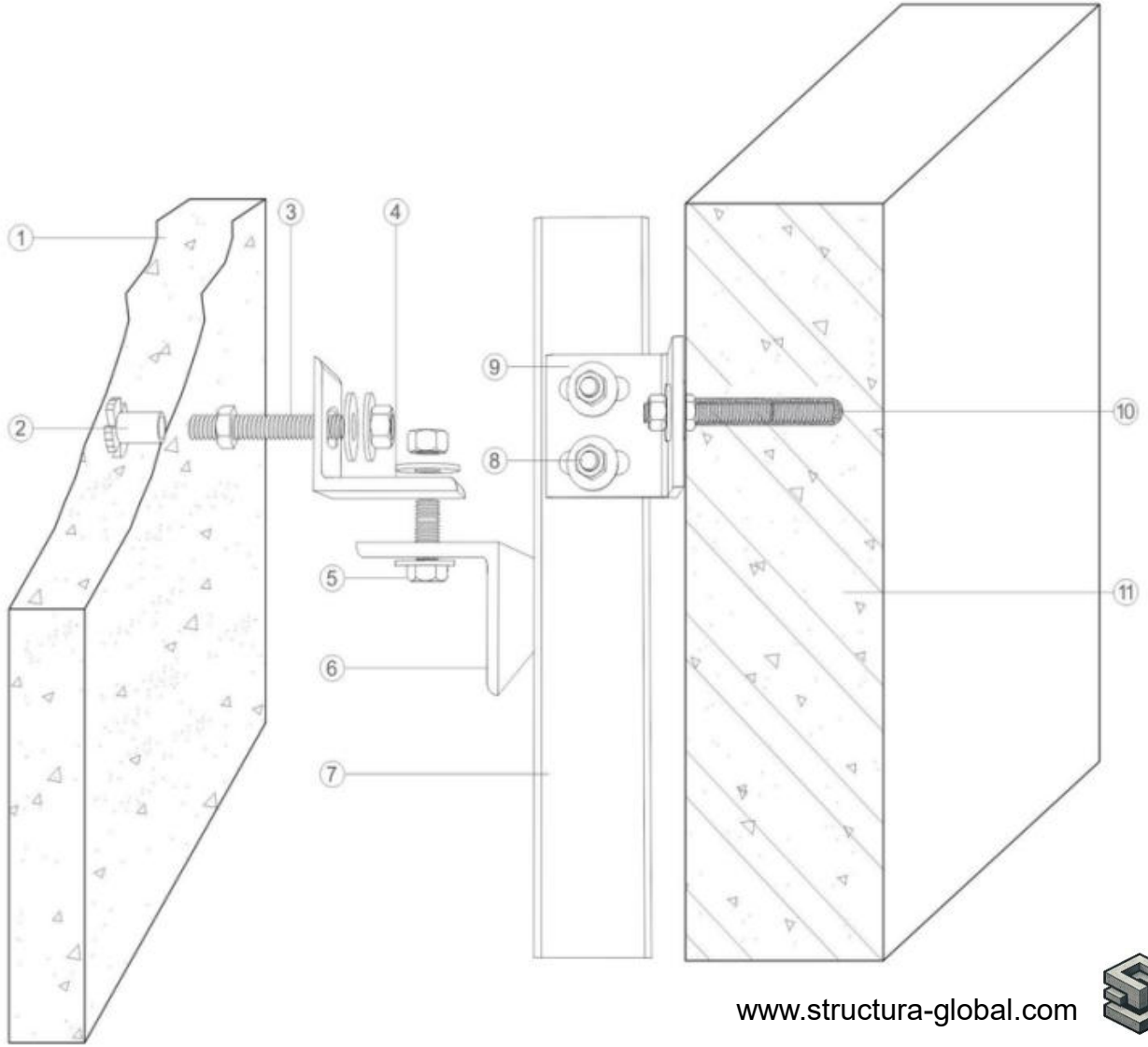
⑦ 60*80*4 HDG Rectangular Steel Tube (RHS)

⑧ M10*90 HDG Bolt

⑨ L100mm*50mm*5 HDG Steel Connector

⑩ M12*130 Chemical Anchor Bolt

⑪ Wall Substructure



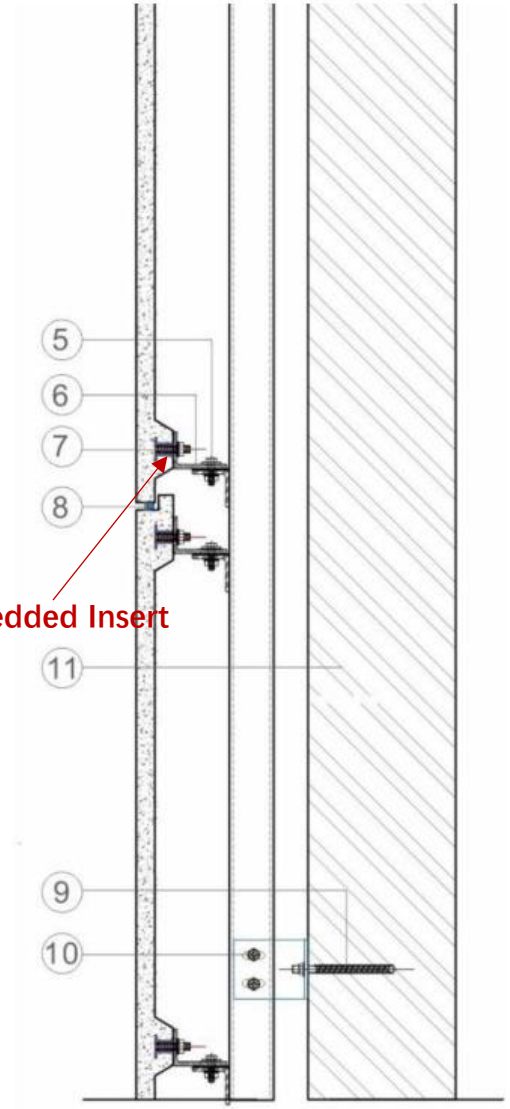


FIGURE 01: Vertical Section Detail

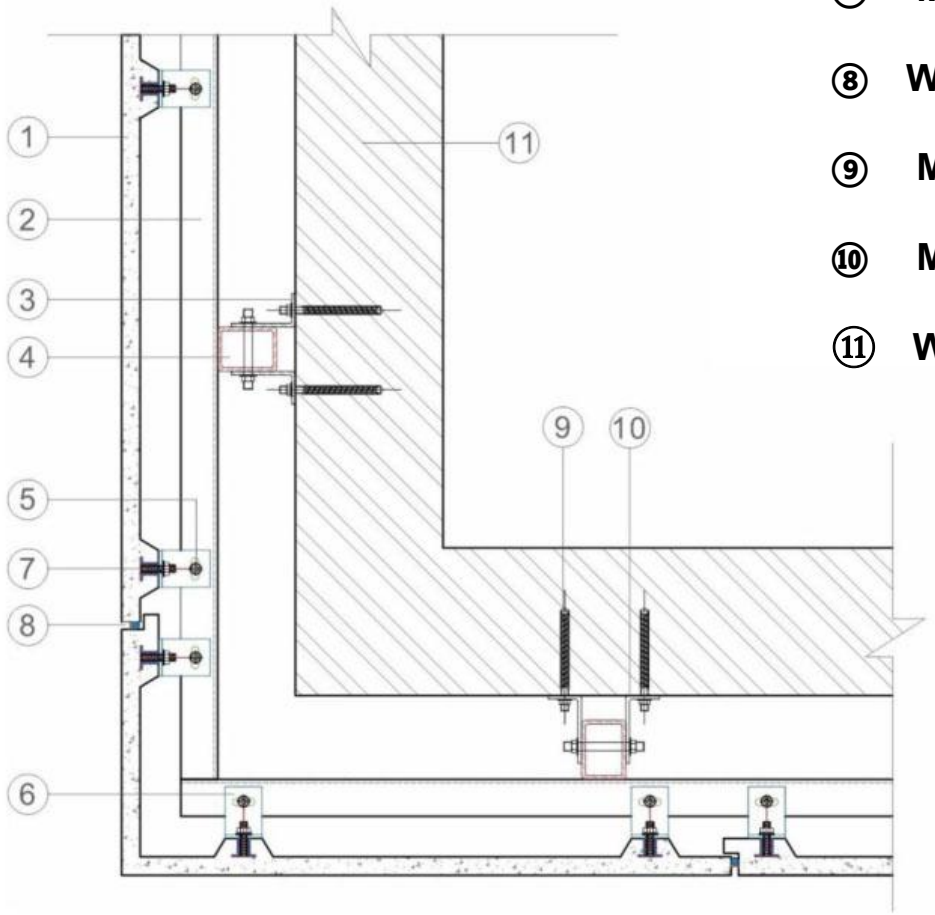


FIGURE 02: Horizontal Section Detail

⑤ M10*30 HDG Bolt

⑥ L50*5 HDG Steel Angle Bracket

⑦ M10*90 HDG Bolt

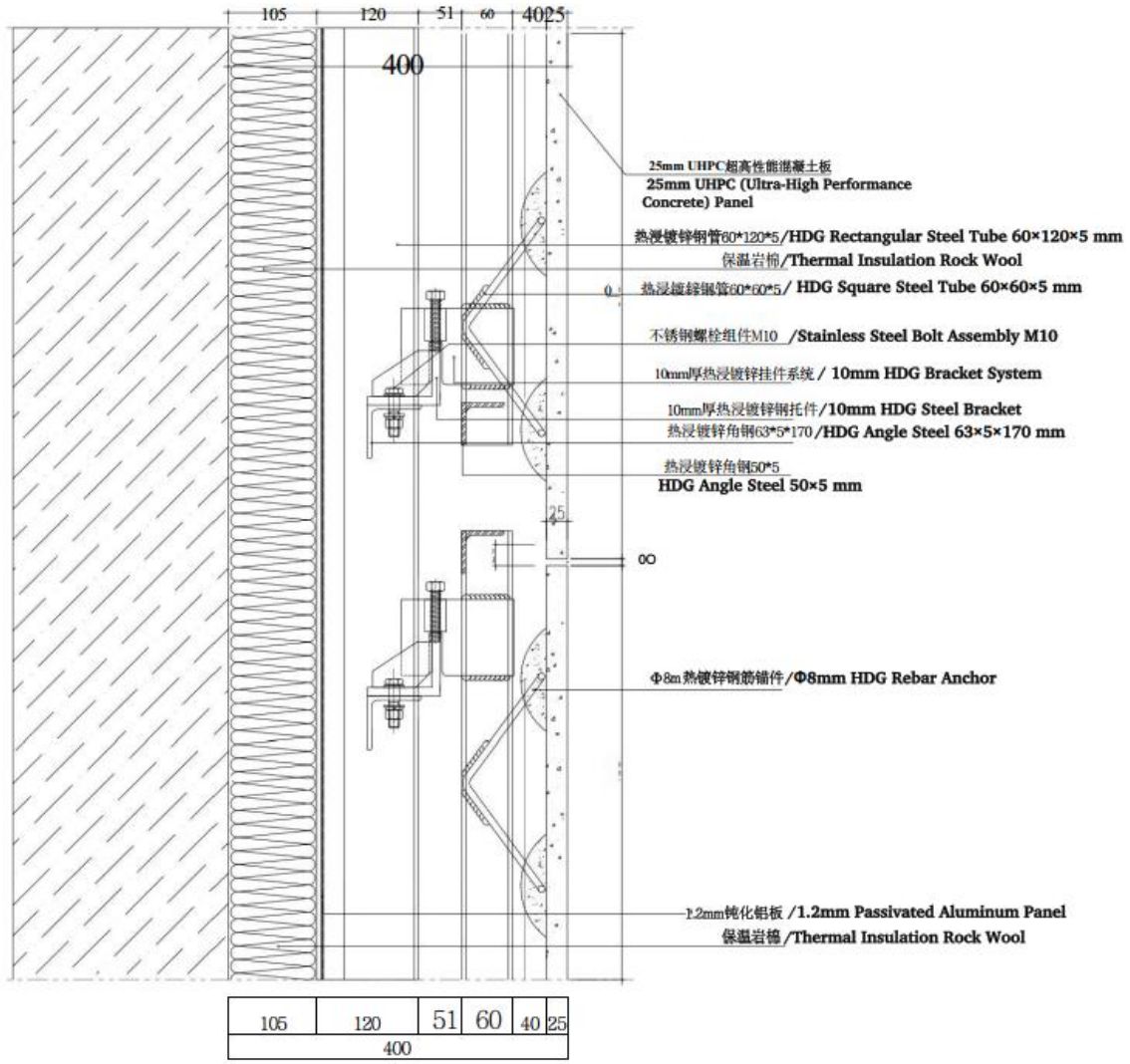
⑧ Weatherproof Silicone Sealant

⑨ M12*130 Chemical Anchor Bolt

⑩ M10*90 HDG Bolt

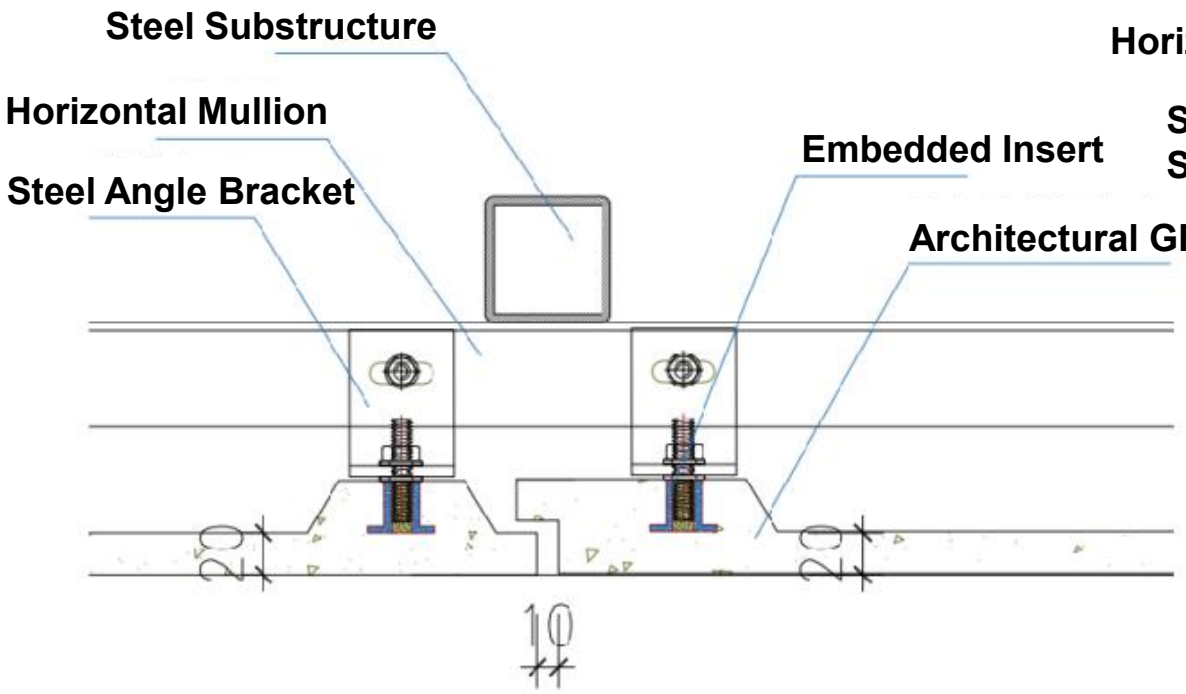
⑪ Wall Substructure

Technical Information

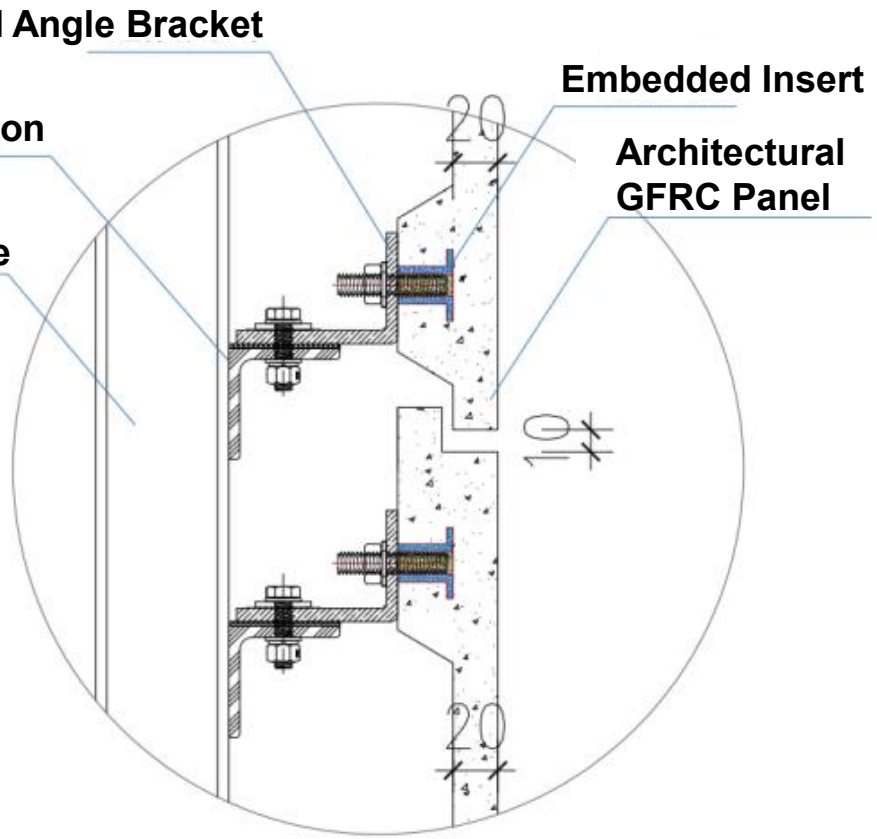




Technical Information



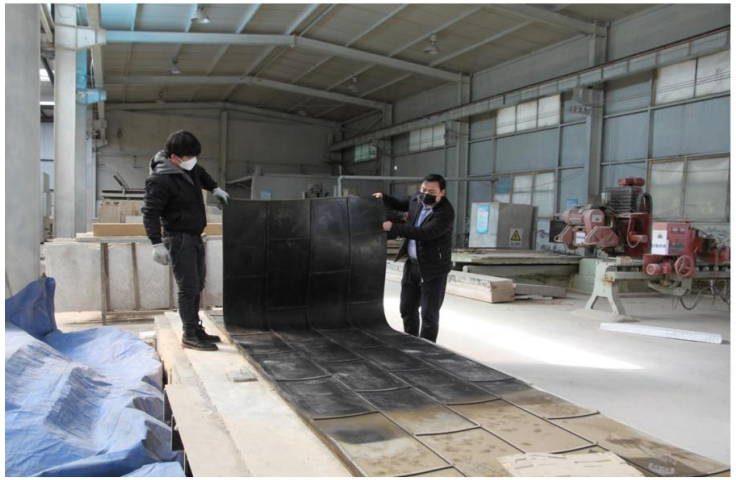
Vertical Joint Detail (Horizontal Section)

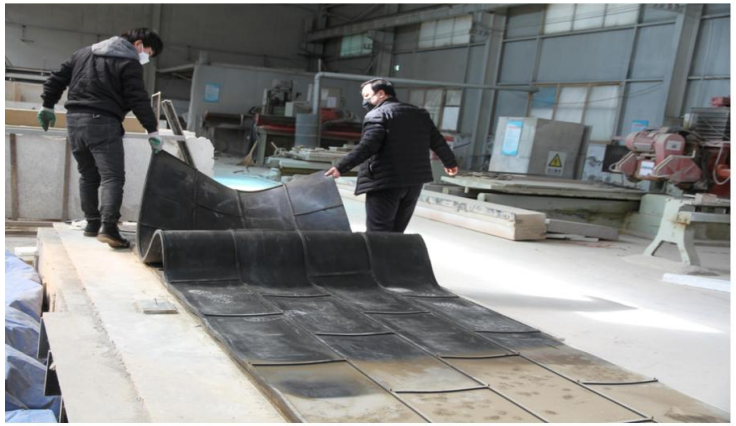


Horizontal Joint Detail (Vertical Section)

Proprietary Technology #2

Utilizing proprietary, in-house developed molds crafted from recycled end-of-life tires (ELTs), this technology is engineered for municipal infrastructure applications, including river channels and slope protection.

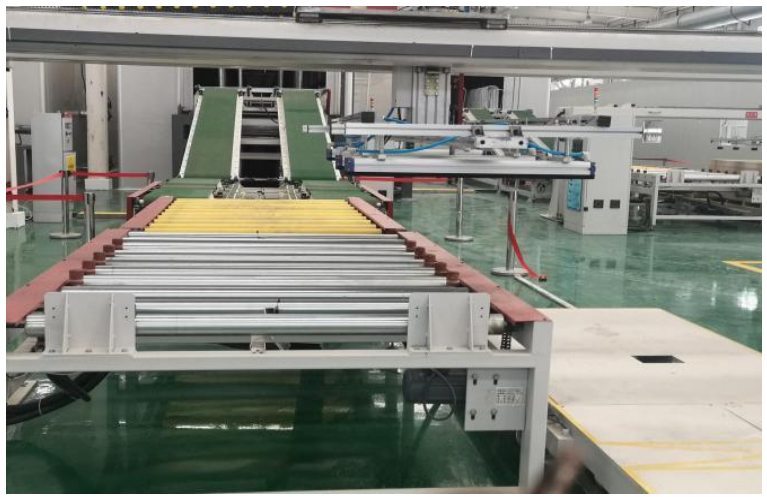




Proprietary Technology #3

Proprietary smart-manufacturing lines and advanced production equipment



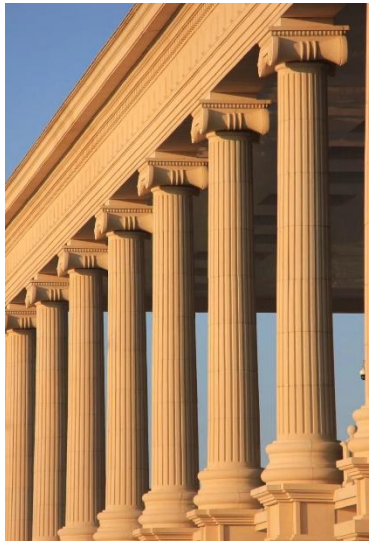




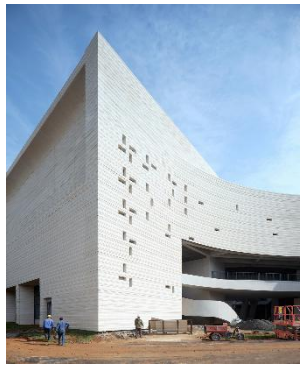
Selected Project References

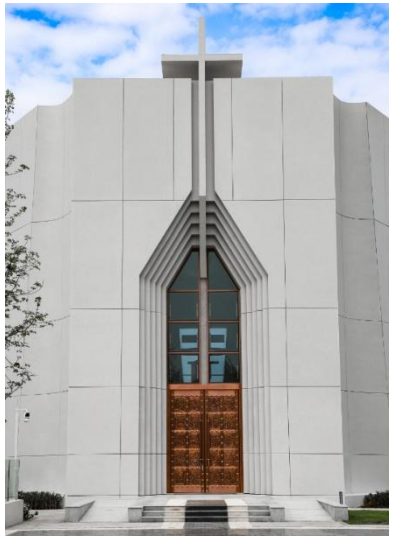
Experience in Large-Scale Public, Cultural, Airport, Entertainment and Commercial Projects

Our materials have been applied in demanding project environments where durability, visual expression, custom forms and long-term performance are important. Project references may include applications across airport terminals, cultural buildings, public libraries, museums, theme parks, commercial projects and urban public spaces.

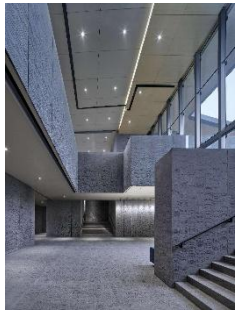
















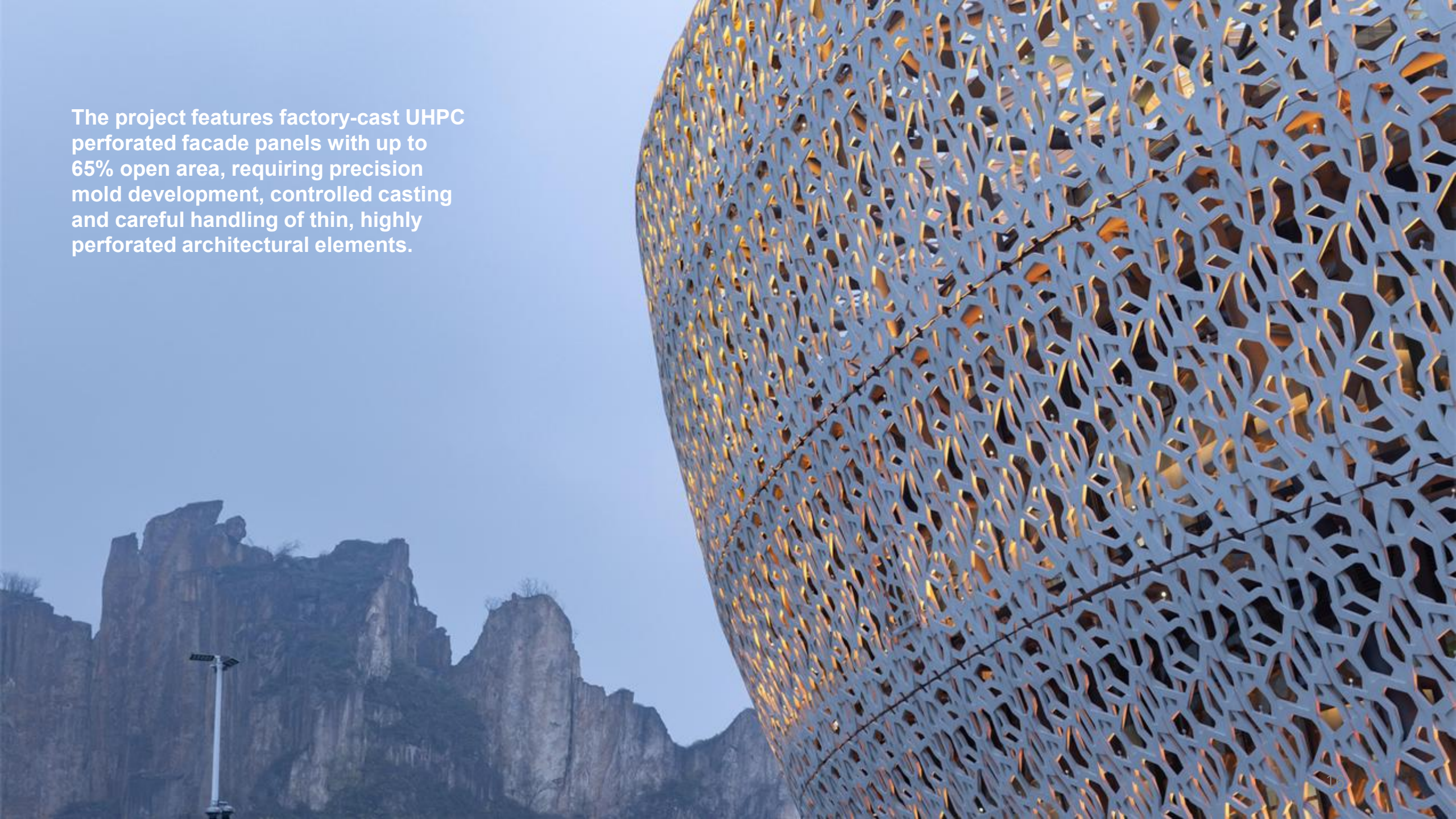


Hangzhou Asian Games Sport Climbing Venue

Application: High-perforation UHPC façade and screen elements for a landmark sports venue
Material: UHPC architectural concrete
Project Value: Delivered technically demanding UHPC façade / screen elements with a 65% perforation ratio on each panel, creating a landmark sports venue application that combines high open-area design, structural precision, lightweight visual expression and durable architectural performance.
Total Facade Area: 7000㎡

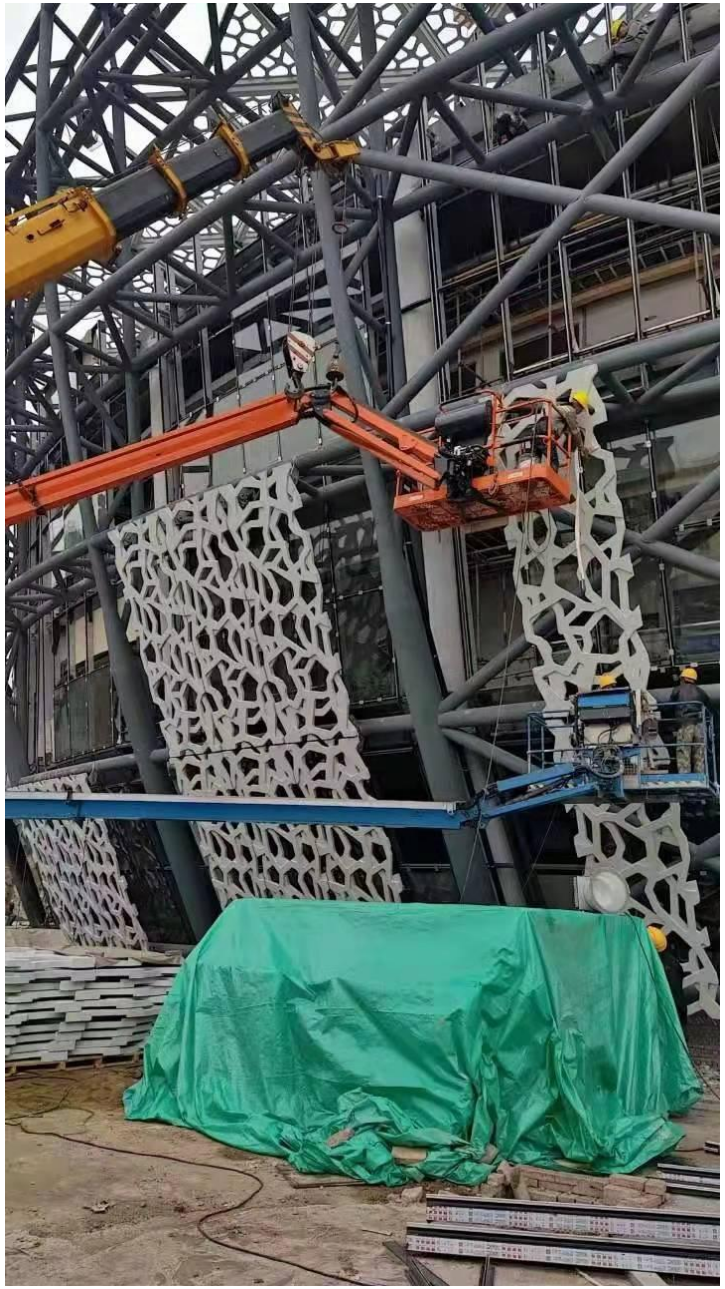


The project features factory-cast UHPC perforated facade panels with up to 65% open area, requiring precision mold development, controlled casting and careful handling of thin, highly perforated architectural elements.

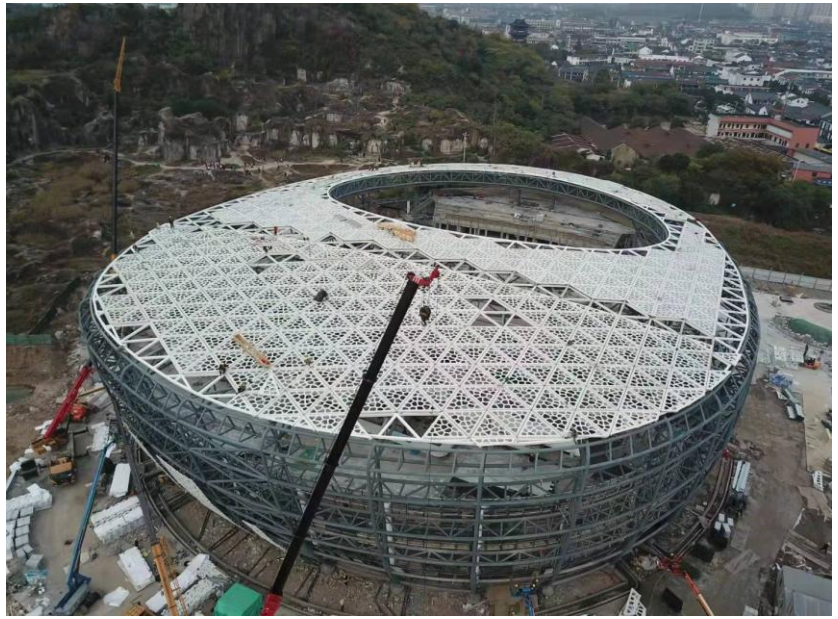



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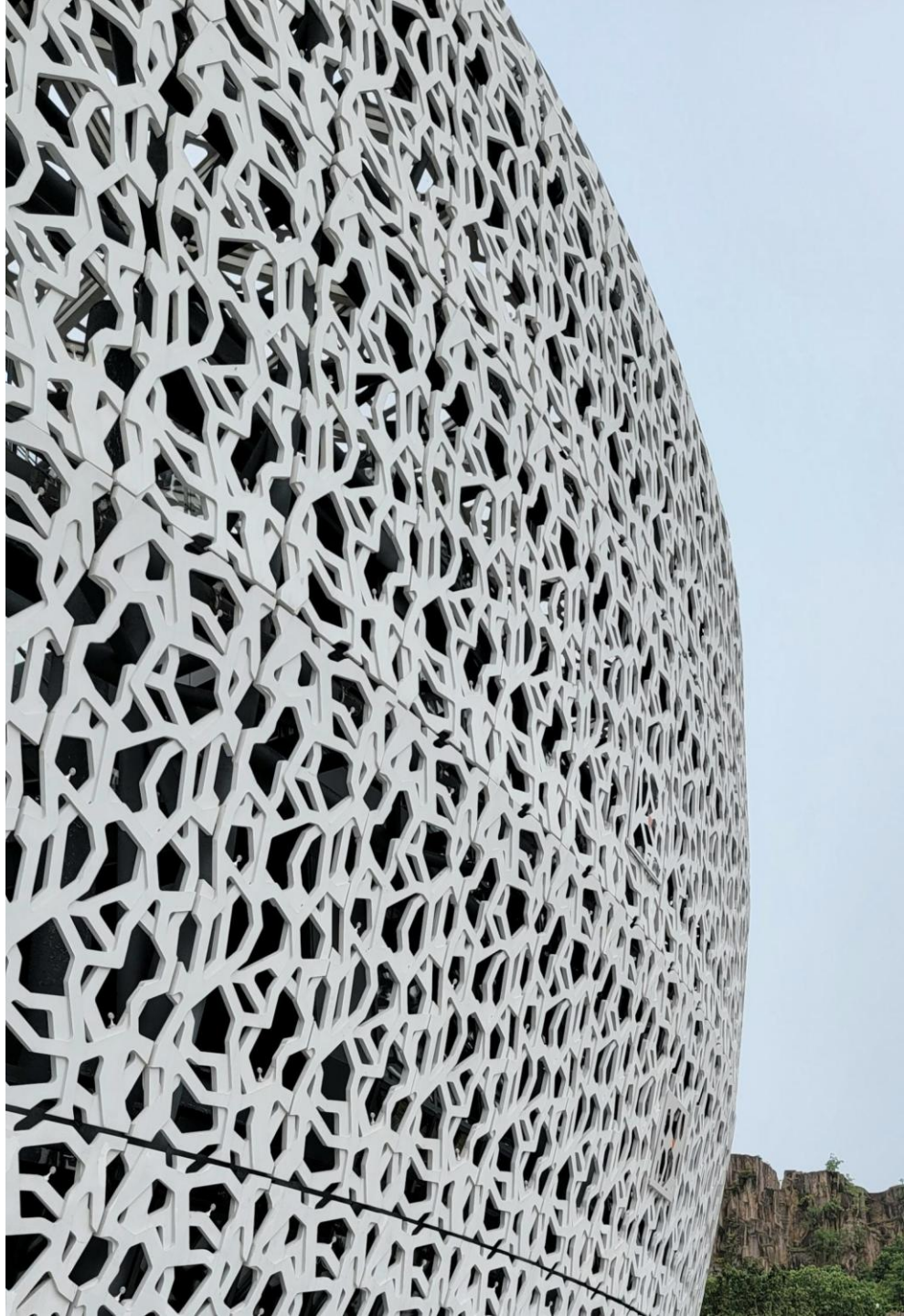








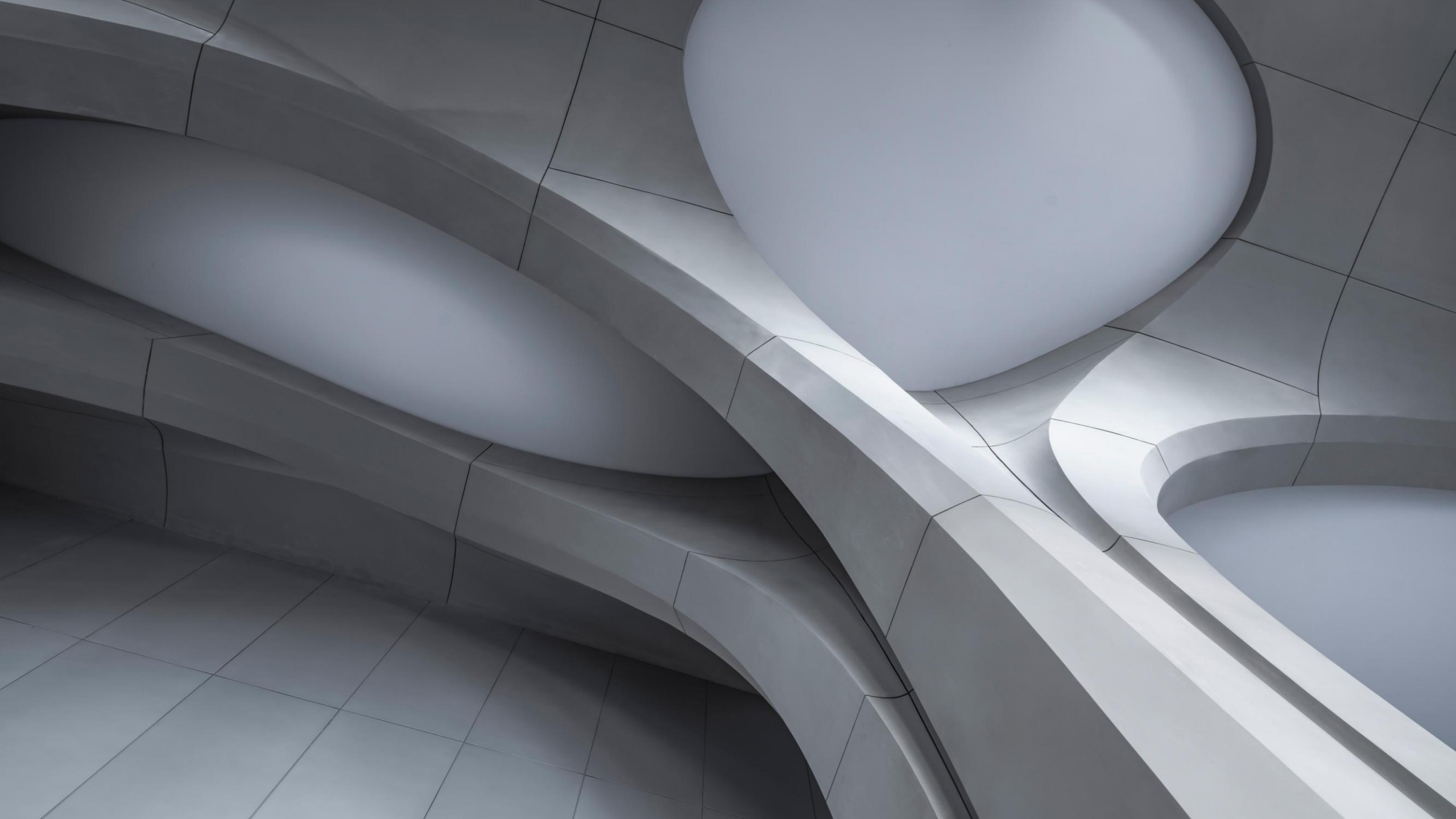




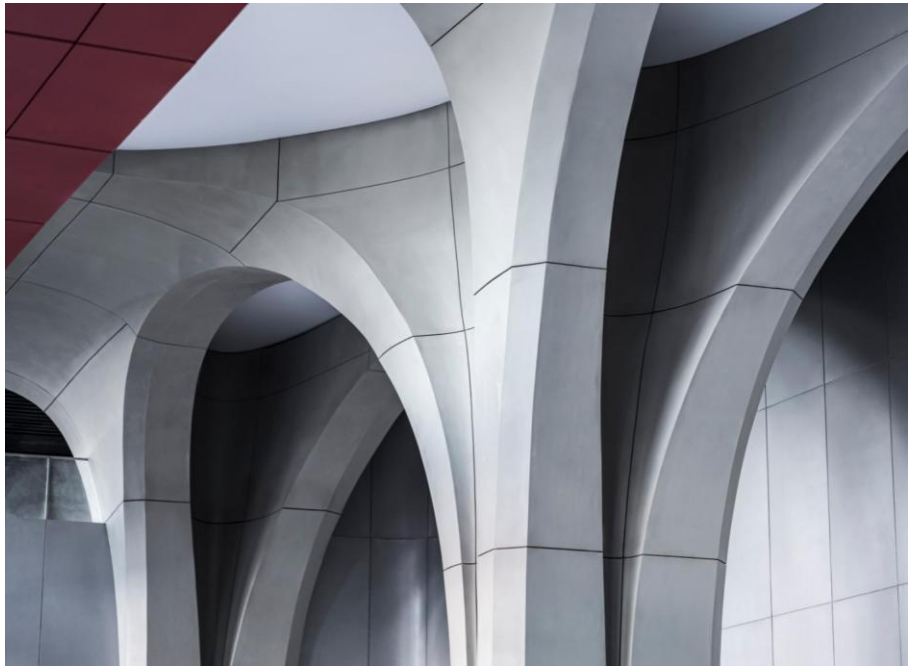
Xi'an International Football Centre - Zaha Hadid Architects

Application: Custom architectural components for a 60,000-seat football stadium designed by Zaha Hadid Architects
Material: GFRC (GRC) architectural concrete, sculptural architectural components
Project Value: Demonstrates the ability to support complex curved forms and fluid architectural expression in a major sports venue, where geometry, visual continuity and precise fabrication are central to the design intent.













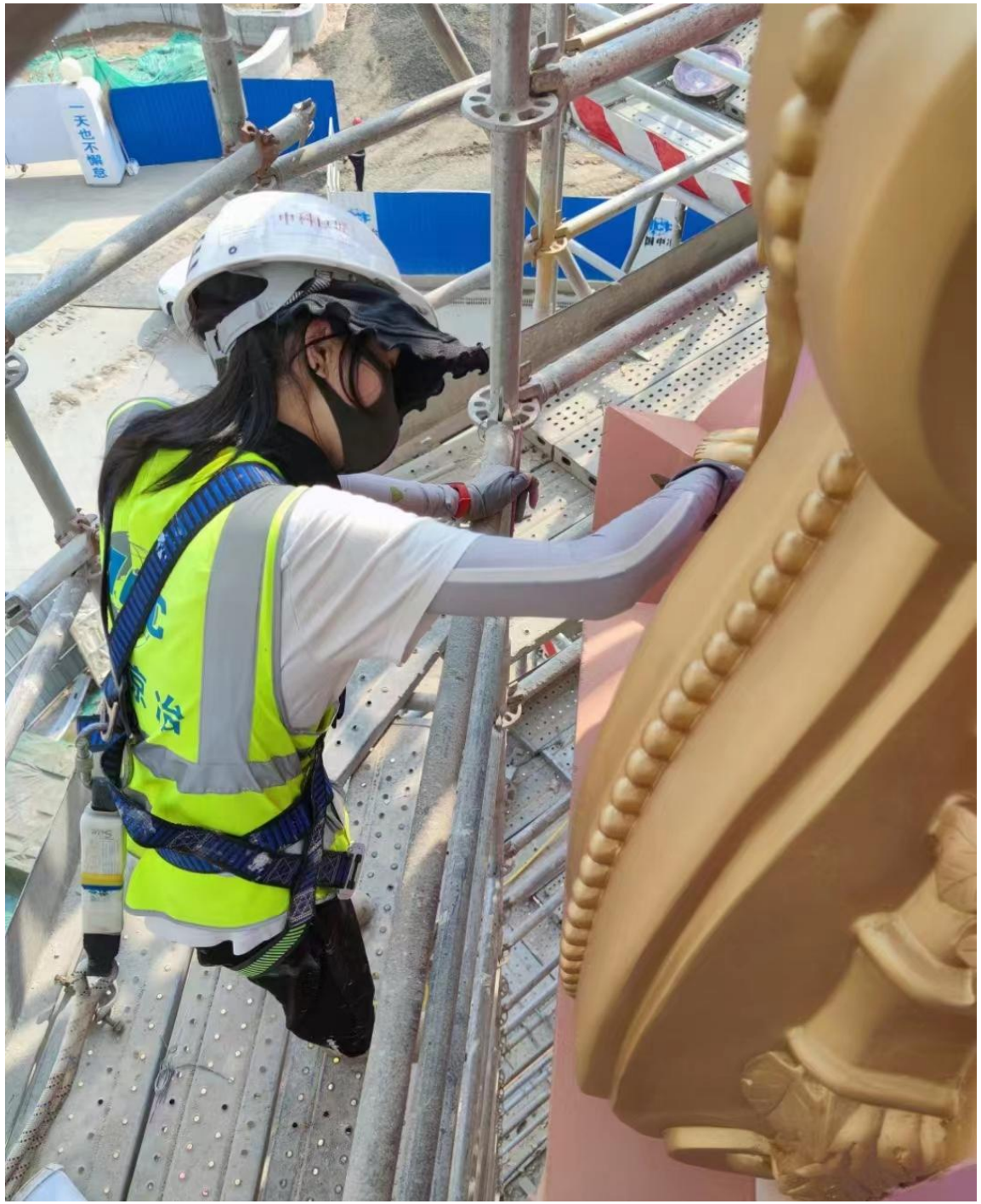
OVERSIZED COMPONENT
Mold Dimensions: 3.6m (Height) × 5.2m (Width) × 26.0m (Length)

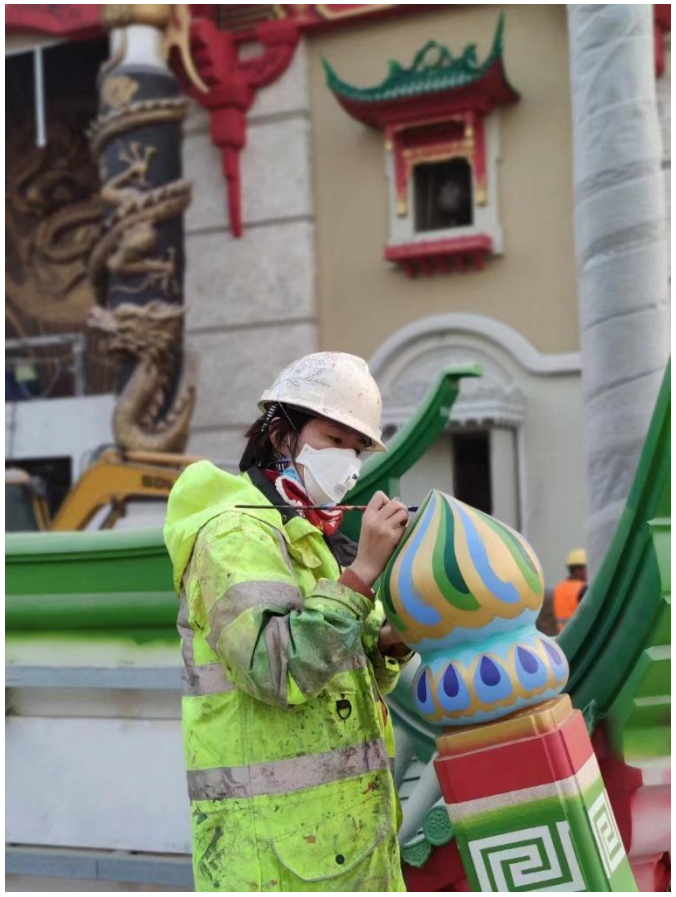
Universal Studios Beijing

Application: Themed façades, stone-effect exterior elements, GFRG interior ceiling systems
Material: GFRC (GRC) architectural concrete / TCP themed rockwork / GFRG interior systems
Project Value: Delivered high-detail themed architectural and landscape elements for a world-class entertainment destination, requiring complex forms, naturalistic textures, durable performance and consistent visual quality in a high-traffic visitor environment.



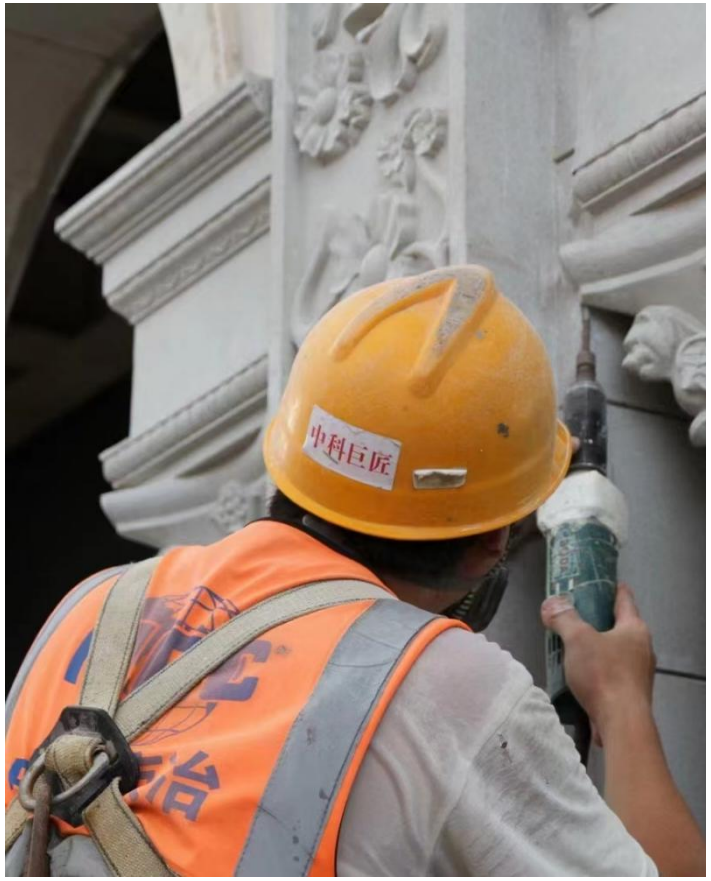

Hotel
BEVERLY
WILSHIRE
UNIVERSAL
UNIVERSAL
FUN LAND


一天也不懈怠








中科巨匠


PANTAGES
PANTAGES
STARRING
张艺谋
ZHANG YIMOU
PRESENTING
灯光摄像开拍!
LIGHTS CAMERA ACTION!
STARRING
斯皮尔伯格
STEVEN SPIELBERG
STARRING
ZHANG YIMOU
STEVEN SPIELBERG
PED XING
E.T.




TOOTHSOME
CHOCOLATE
EMPORIUM
UNIVERSAL CITYWALK
巧克力餐厅
Candy Smith
糖果店






消防通道
FIRE EXITS

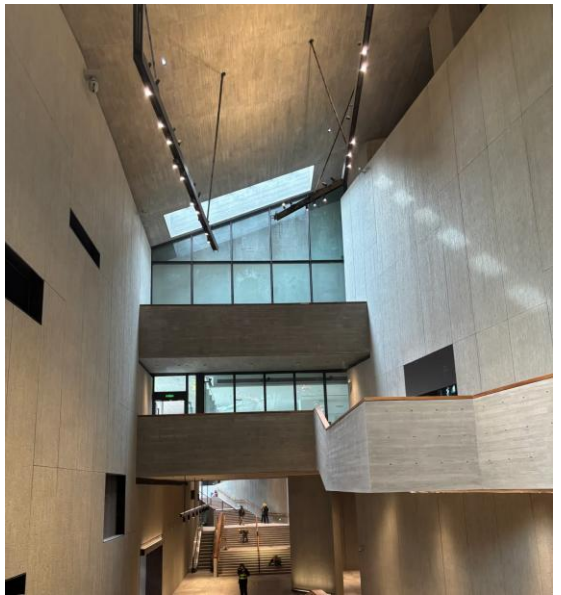
Future of the Eye - Xi'an Grand Theater

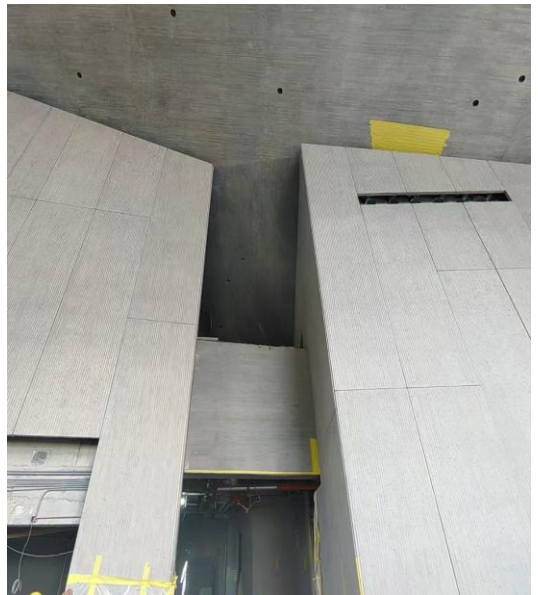


Application: Performing arts architecture / sculptural interior and exterior feature components
Material: GFRC (GRC) architectural concrete
Project Value: Enables expressive architectural geometry and immersive spatial experience for a landmark cultural and performance venue.







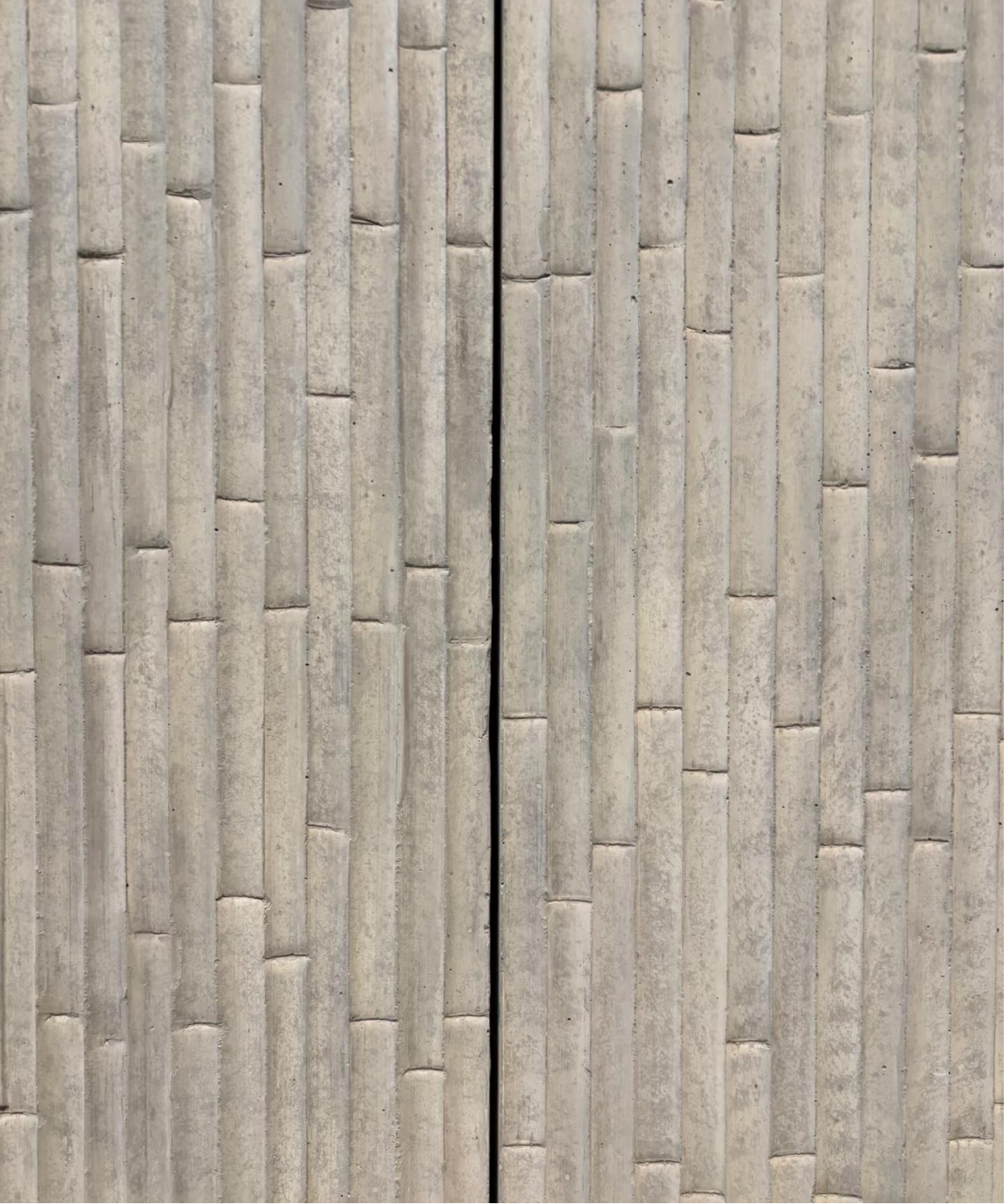


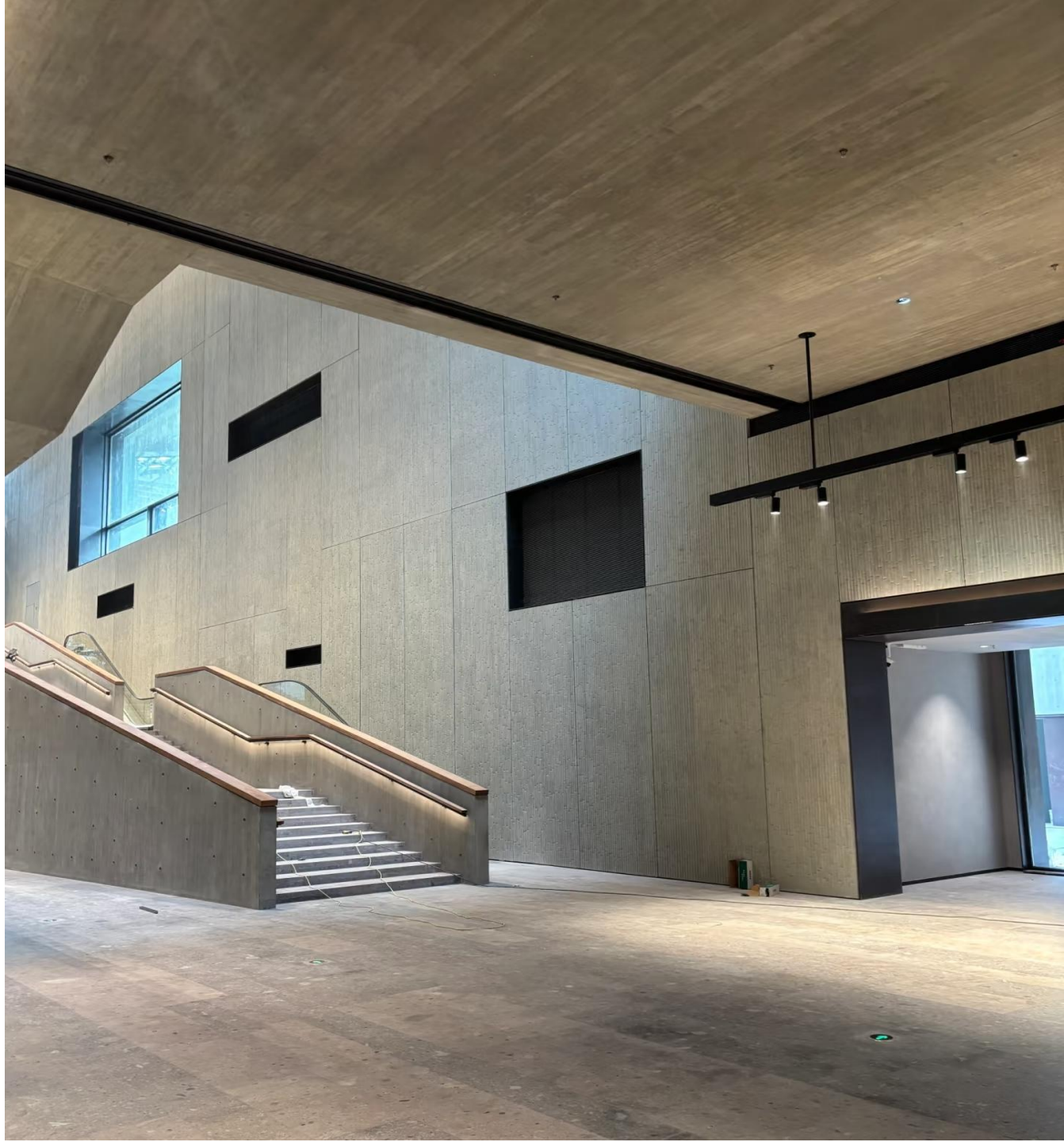














Harbin Taiping International Airport

Application: Large-scale GFRC architectural columns, bases and balustrade elements with sandstone-effect finish for an airport terminal environment
Material: Sandstone-effect GFRC (GRC) architectural concrete
Project Value: Delivered durable large-format GFRC (GRC) architectural elements for a cold-climate transport hub, supported by extensive freeze-thaw testing and requiring consistent visual quality, custom detailing and long-term performance.

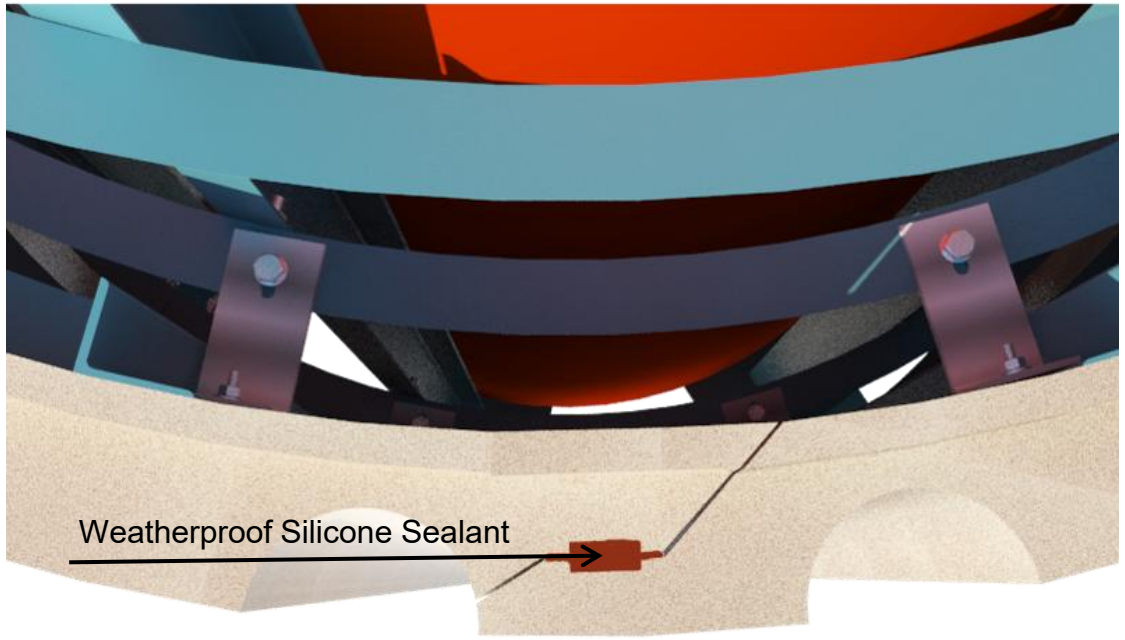


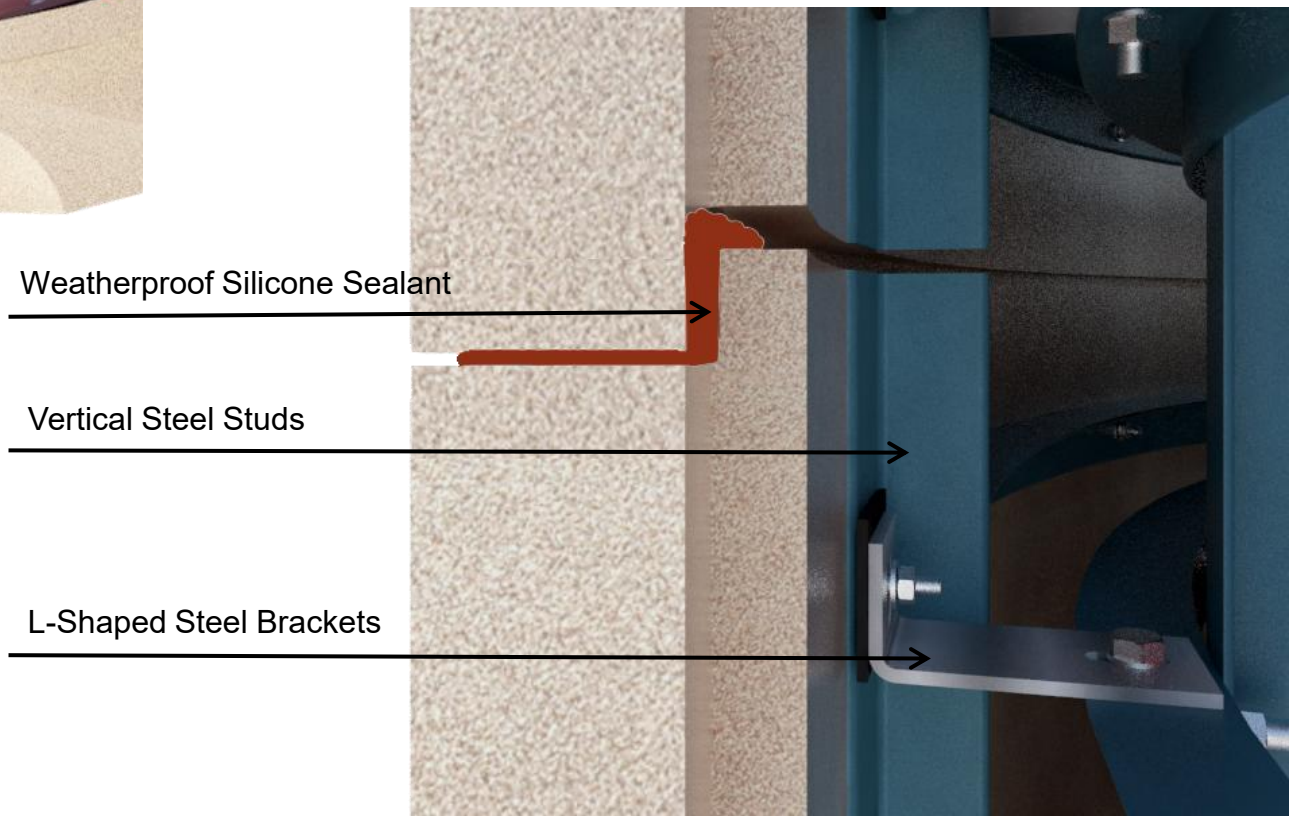




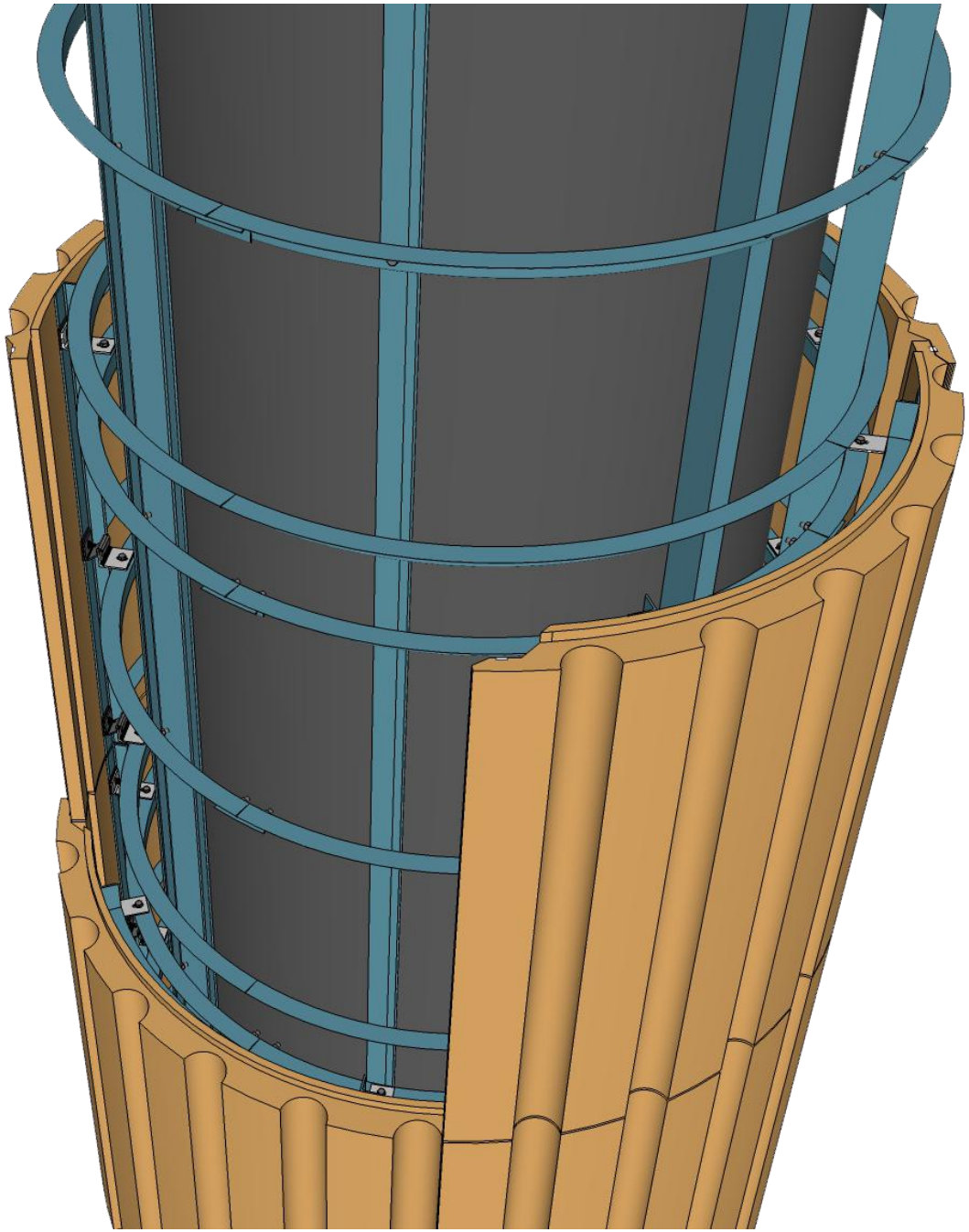


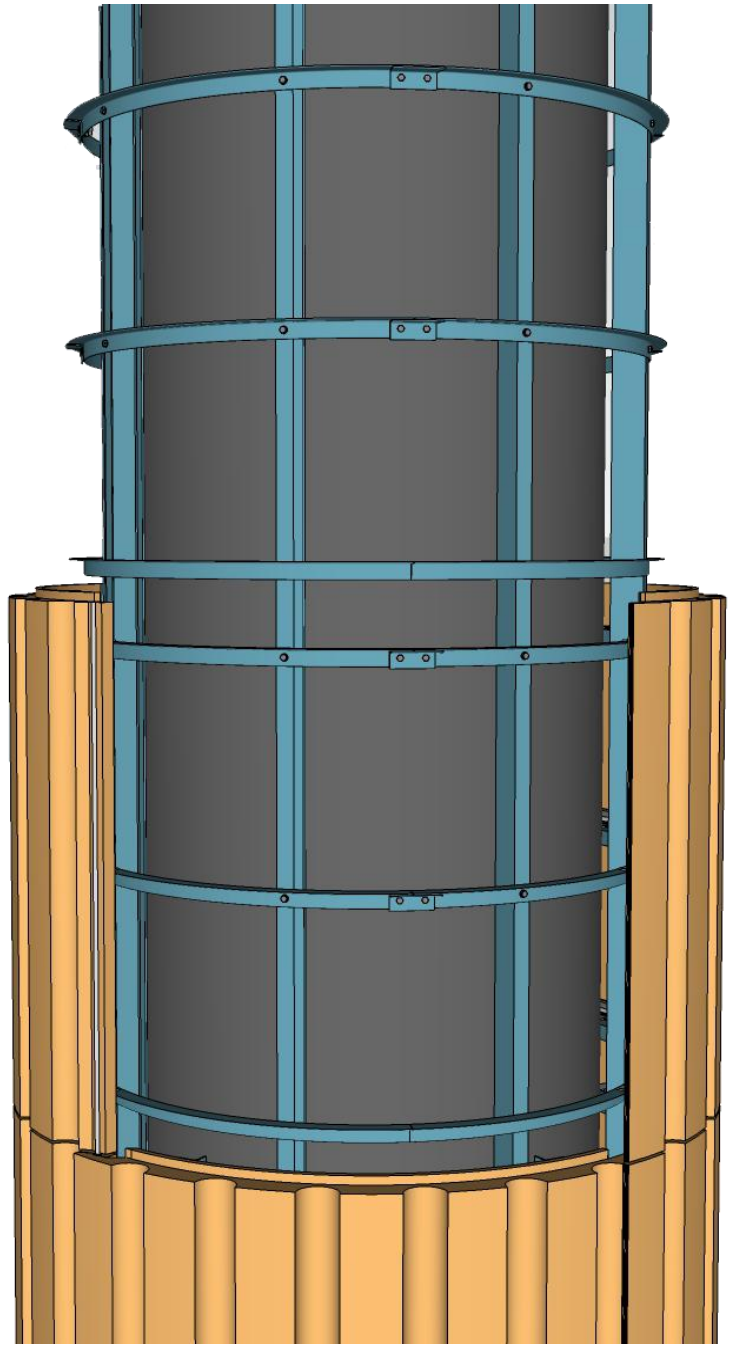






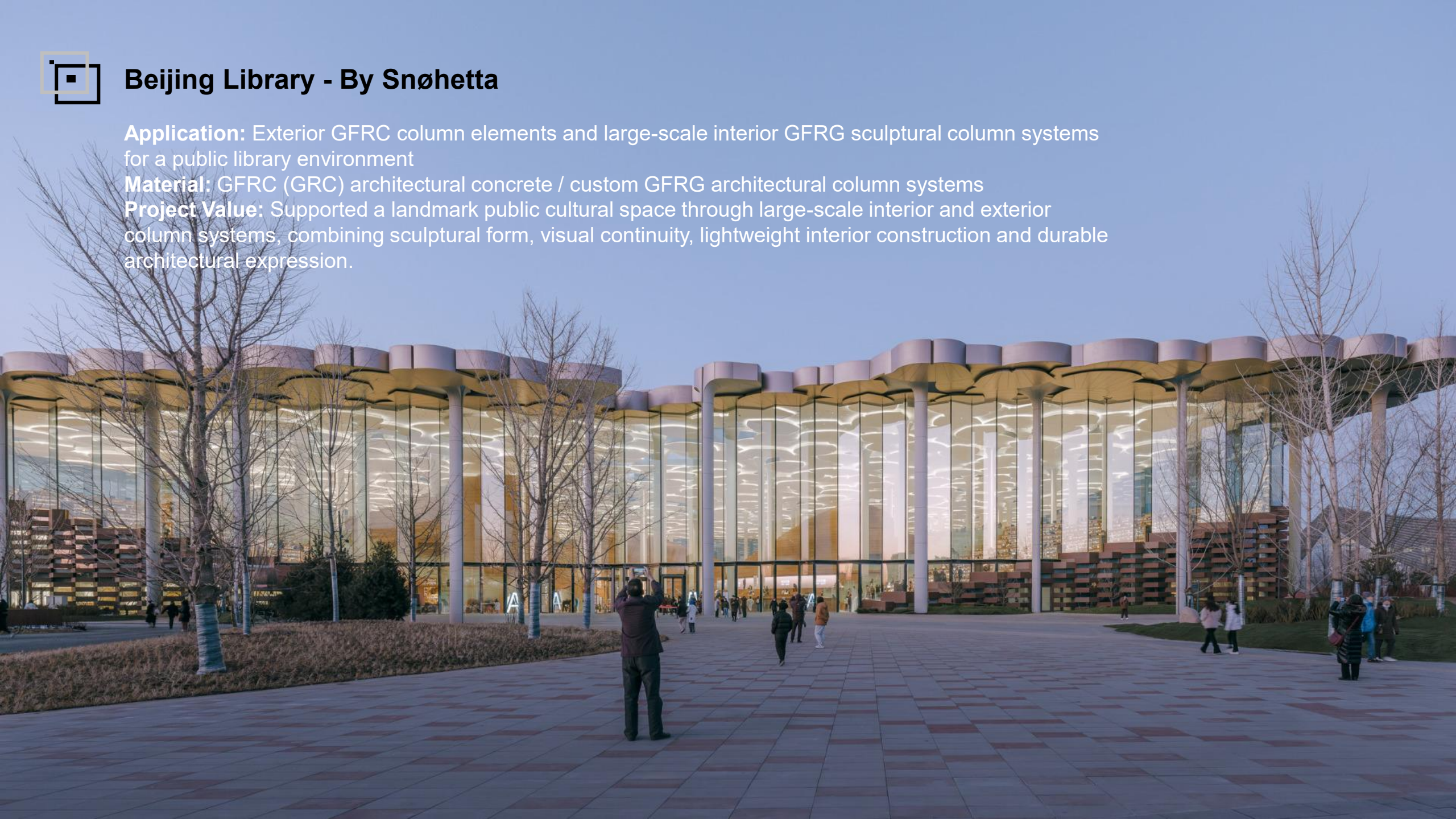
Provide expansion joints between panels, filled with flexible weatherproof silicone sealant to accommodate thermal and structural movement.



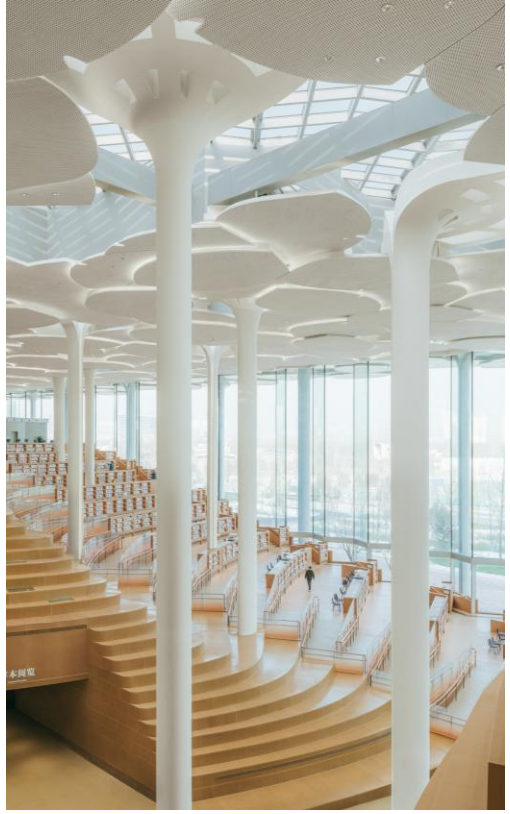


Beijing Library - By Snøhetta

Application: Exterior GFRC column elements and large-scale interior GFRG sculptural column systems for a public library environment
Material: GFRC (GRC) architectural concrete / custom GFRG architectural column systems
Project Value: Supported a landmark public cultural space through large-scale interior and exterior column systems, combining sculptural form, visual continuity, lightweight interior construction and durable architectural expression.











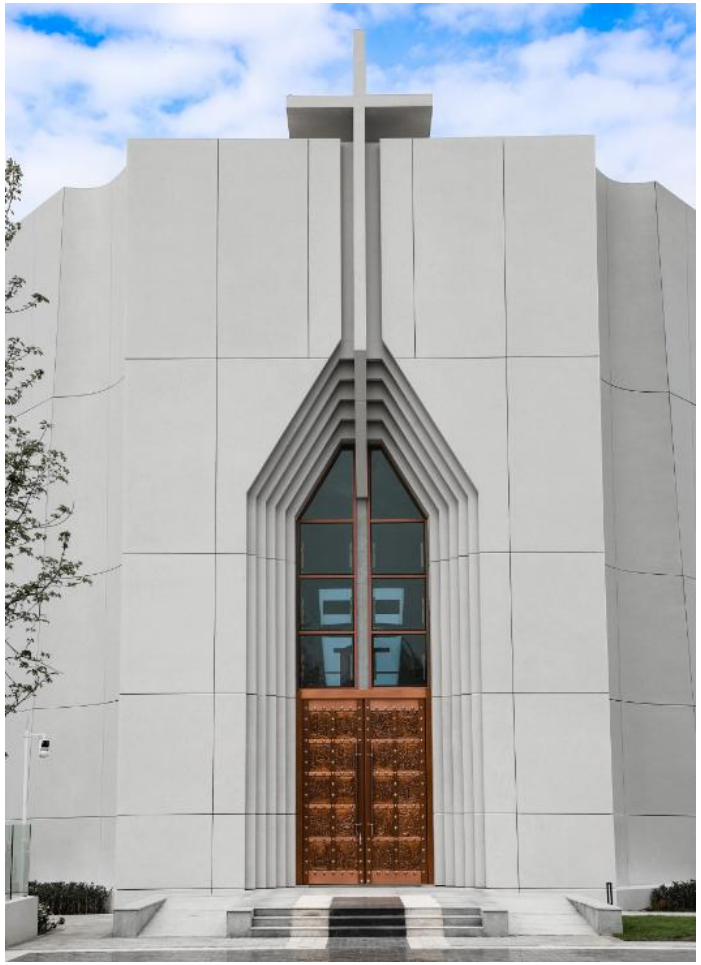

propre lecteur de soi-même.
, Tis the good reader that makes the good book.



Kunming Church



Application: Curved UHPC architectural elements and symbolic interior / exterior features for a religious space
Material: Custom UHPC architectural concrete formed with double-sided molds
Project Value: Created a calm, refined and symbolic architectural environment through complex curved UHPC forms, precise double-sided molds casting and custom material expression for a contemporary religious space.





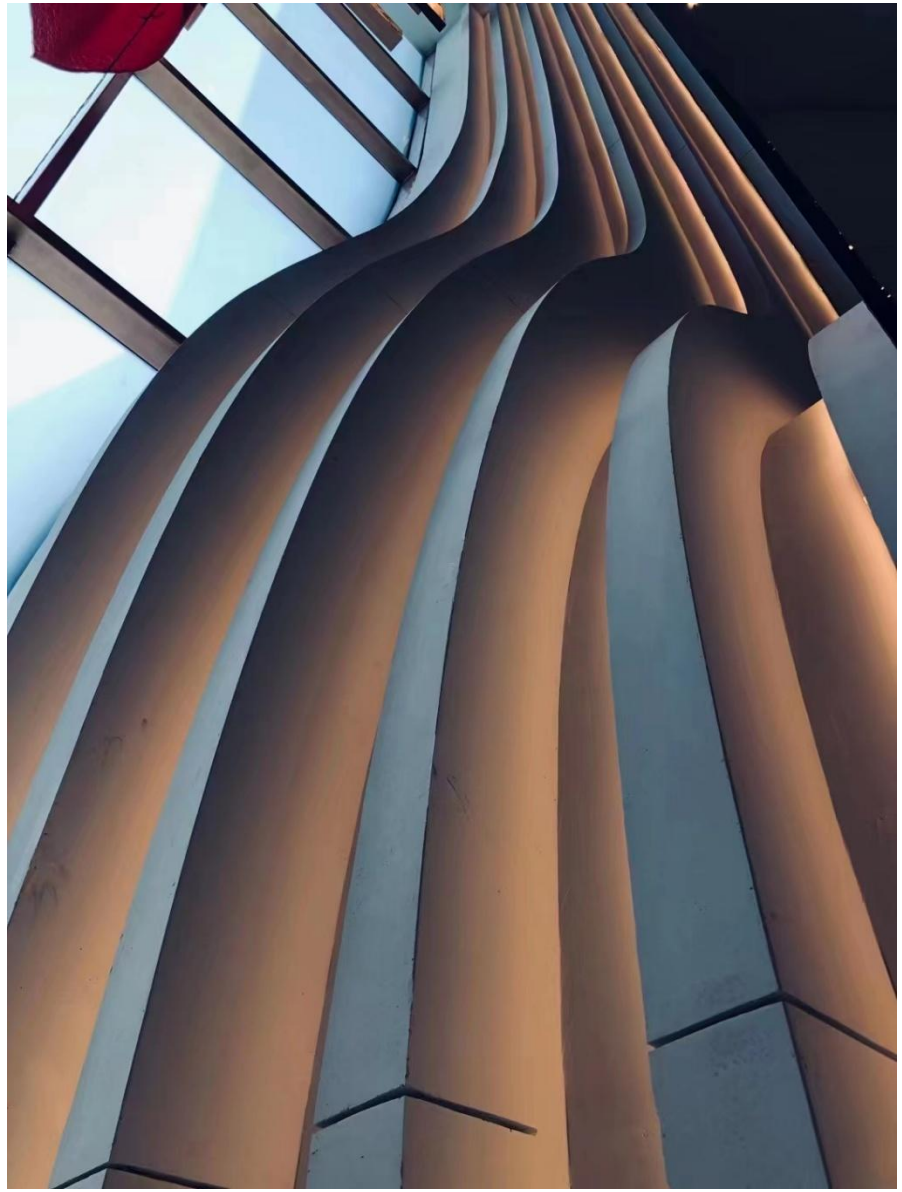
Main Entrance Cross
Approx. 36 ft H × 7 ft 10 in W × 10 in thick (11.0 m H × 2.4 m W × 250 mm thick)
Process: Factory-cast UHPC using double-sided precision molds to achieve refined geometry and surface detail.

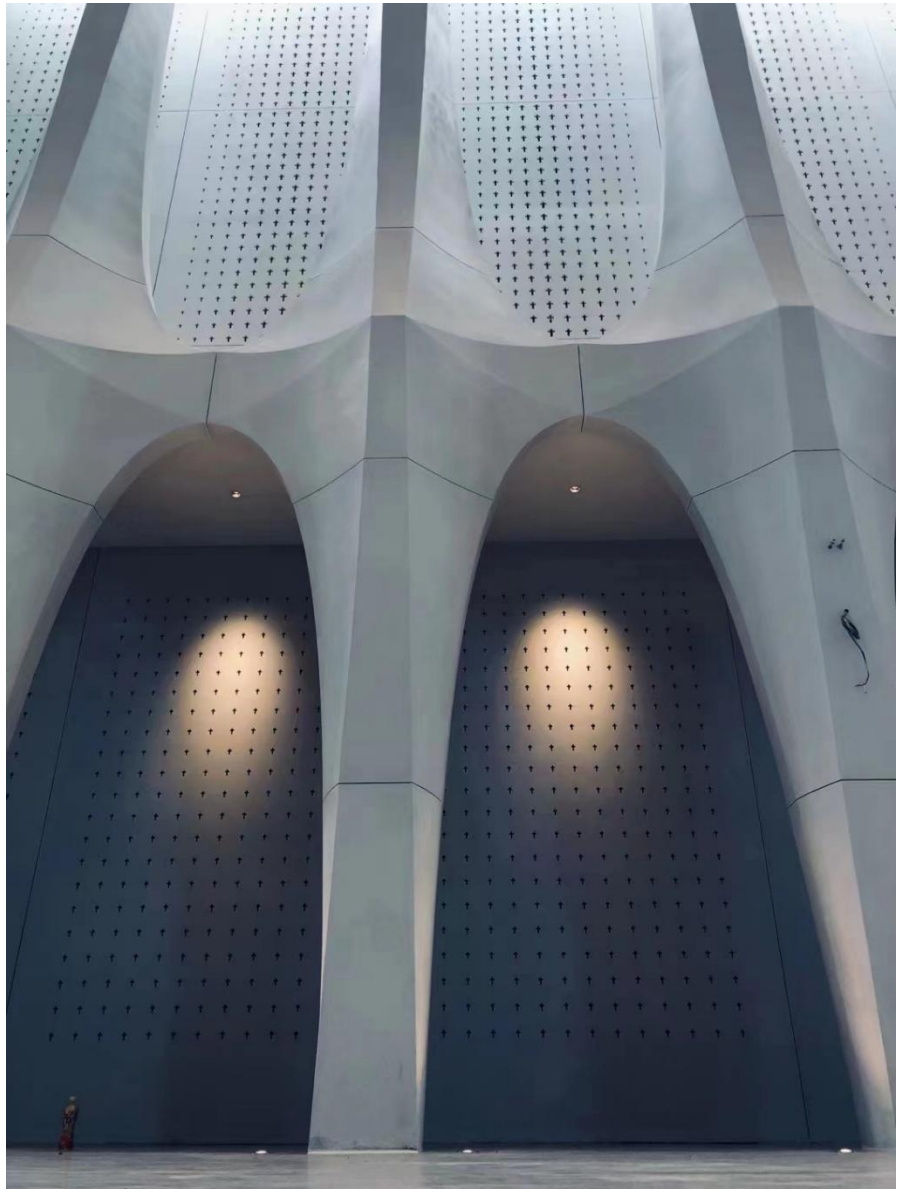

Genie




宣仁宣義拿昭經濟大權衛
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Urban Furniture Collection - Public Realm Landscape Elements

Application: Integrated modular seating, architectural planters, combined tree-surround benches, custom outdoor tables, stools, and sculptural urban art for high-end landscape and public-space environments.
Material: Architectural concrete / GFRC (GRC) / UHPC with high-precision fair-faced finishes, featuring seamlessly integrated structural and decorative surfaces.
Collection Value: This versatile public-realm furniture system leverages high-performance architectural concrete to deliver durable, low-maintenance, and visually distinctive landscape elements. The comprehensive collection spans straight and curved seating modules, integrated planter-bench configurations, customized tree surrounds, geometric tables, block stools, and bespoke urban sculptures, allowing designers absolute freedom to adapt the system to diverse spatial layouts.
This portfolio fully demonstrates our advanced custom moulding capability, impeccable surface finishing, off-site modular fabrication, and the engineering expertise to unify functional civic amenities with highly expressive, sculptural landscape art.



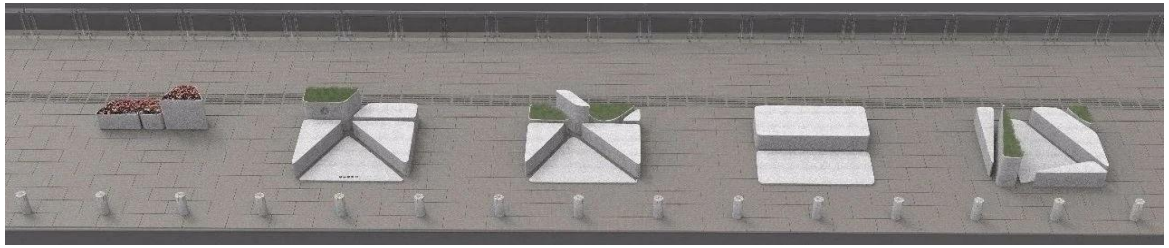



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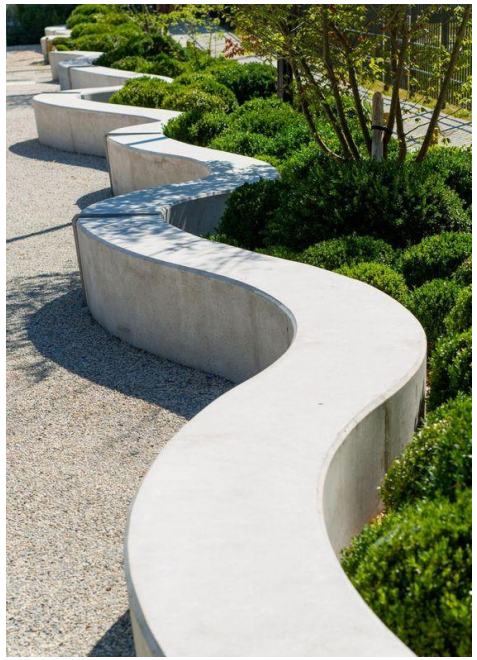






















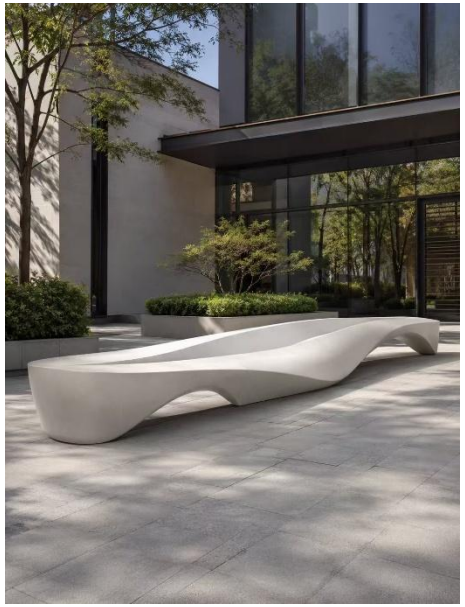




OCEAN'S EDGE








Gelt store



BESPOKE SURFACE FINISHES









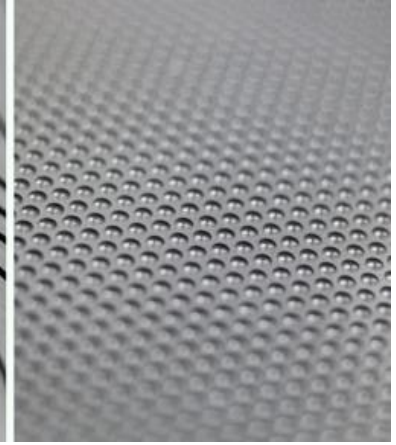
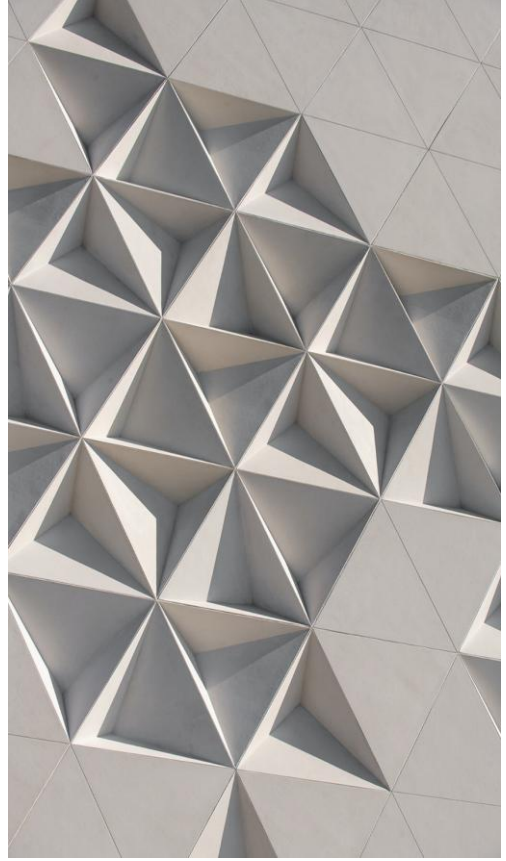






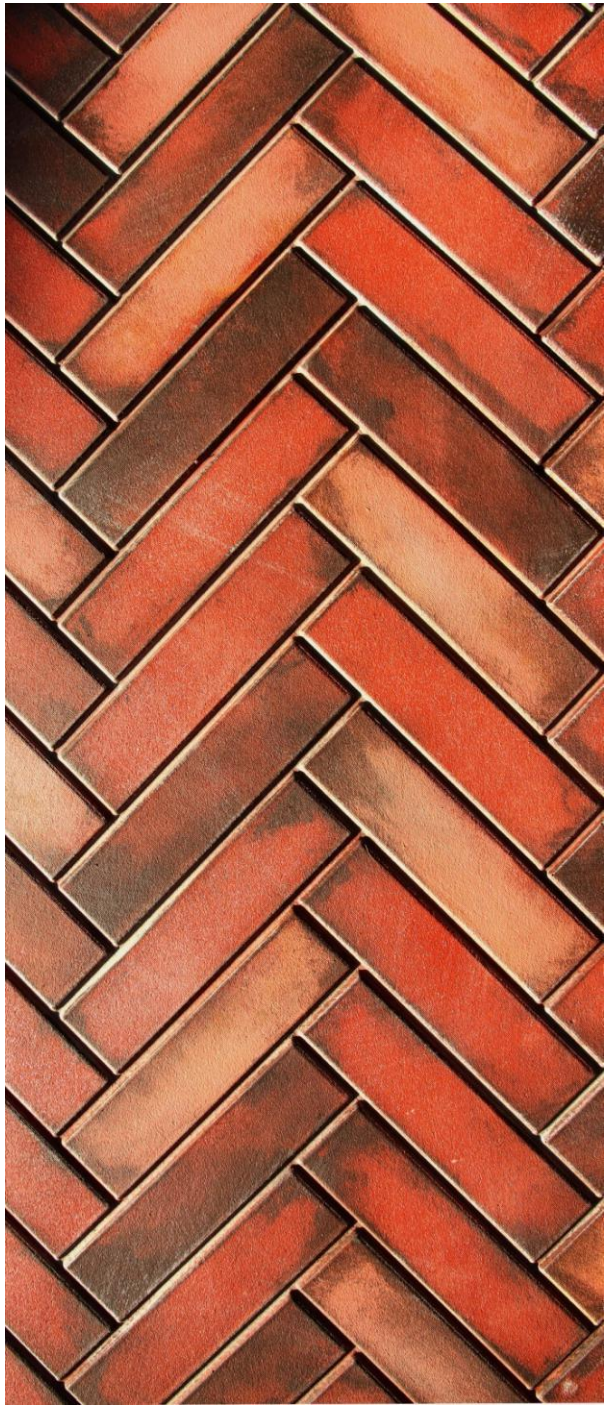
Every iconic project in this catalogue stems from our advanced molding capabilities. In terms of color, texture, and geometry, our architectural expression is virtually limitless. The finishes shown here are merely a representative selection designed to inspire, not to restrict. From ultra-smooth fair-faced concrete to complex bespoke textures, we develop custom molds and tailormade mix designs to bring any architectural vision to life.









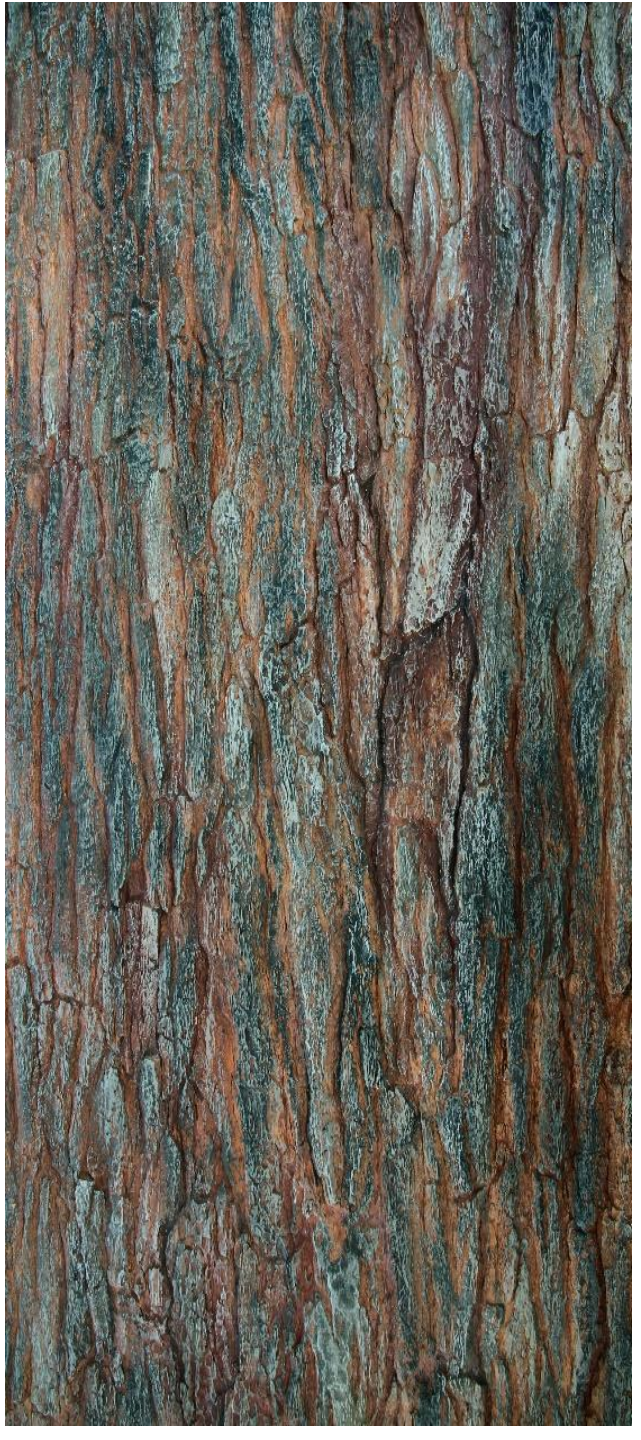








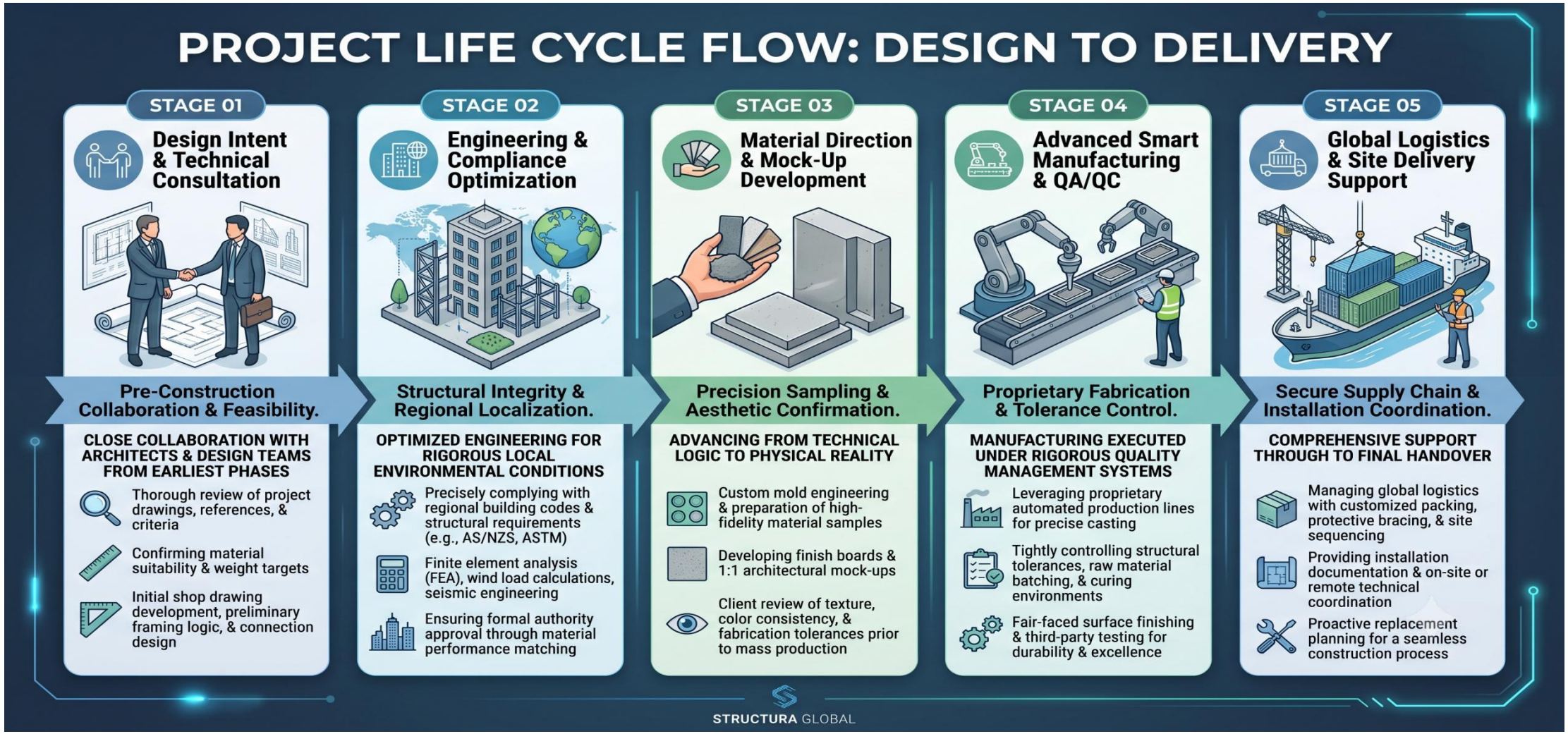





From Concept to Completion

Our End-to-End Project Delivery System

To seamlessly bridge the gap between global manufacturing and local architectural execution, Structura Global delivers a fully integrated, five-stage workflow. We translate your design intent into precision-engineered reality, ensuring absolute structural integrity, regional compliance, and flawless finishing.



RESHAPING ARCHITECTURAL BOUNDARIES
EMPOWERING URBAN AESTHETICS



NOTICE: *All technical specifications, drawing details, and performance metrics contained in this catalogue are based on our current research and standard testing protocols. Due to the bespoke nature of architectural engineering, actual project parameters may vary depending on specific design requirements. Structura Global reserves the right to modify or update product specifications at any time without prior notice.*

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