

临海前湾河桥

号景观桥

No.1 Landscape Bridge

工程可行性研究及方案设计等

工作任务书

Work Brief for Feasibility Study and Schematic Design, etc.
for the Linhai Qianwan River Bridge (No. 1 Landscape Bridge) Project

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QIANWAN RIVER BRIDGE

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一 项目背景及概况 I. Background and Overview of the Project

1.1 项目背景

1.1 Project background

2021年9月，中共中央、国务院印发《全面深化前海深港现代服务业合作区改革开放方案》（下文简称《前海深改方案》）。《前海深改方案》确立前海合作区全面深化改革创新试验平台和建设高水平对外开放门户枢纽两大战略定位，明确打造世界一流营商环境，建立与香港协同联动、市场互联互通、创新驱动支撑的发展模式，实施全球资源配置、建立创新策源地、不断增强协同发展能力。打造世界一流营商环境，需要建设与之相匹配的城市基础设施作为物质基础保障。高标准、高品质推动一流市政基础设施建设，是贯彻深改方案，建设国际化城市新中心的必然要求。

In September 2021, the Central Committee of the Communist Party of China ("CPC") and the State Council issued the Program for Comprehensively Deepening the Reform and Opening Up of Qianhai Shenzhen–Hong Kong Modern Service Industry Cooperation Zone (hereinafter referred to as the "Reform Program"). The Reform Program establishes two strategic positions of Qianhai Cooperation Zone: a pilot platform for comprehensively deepening reform and innovation, and a gateway and hub for opening up to the outside world at a high level. It makes it clear that it is necessary to create a world-class business environment, establish a development model supported by synergy with Hong Kong, market interconnection and innovation, implement global resource allocation, establish a curator of innovation, and continuously enhance the capacity for synergistic development. Creating a world-class business environment requires the construction of a matching urban infrastructure as a material foundation guarantee. Promoting the construction of first-class municipal infrastructure with high standards and quality is an inevitable requirement for implementing the deep reform program and building a new center of international city.

为进一步深化前海改革开放和探索深港合作，此次招标借鉴香港及国际工程建设模式和经验，旨在集思广益，征集具远见、富创意的方案，结合城发展与休闲的需求，以国际视野、前瞻性的发展理念研究临海前湾河桥的空间结构、规划布局、空间体量等，桥梁造型与周边建筑相协调，打造既满足交通功能需求，又能满足以人为本的景观性桥梁，成为前海滨海湾的景观廊道。同时，设计方案必须具有可实施性，能够为下一步方案深化与实施提供设计指引。

In order to further deepen the reform and opening up of Qianhai Shenzhen–Hong Kong Modern Service Industry Cooperation Zone and explore the cooperation between Shenzhen and Hong Kong, this tender draws on Hong Kong and international engineering and construction models and experience, and aims to brainstorm and collect visionary, creative programs, combining the needs of urban development and leisure with an international perspective and forward-looking development concept to study the spatial structure, planning layout, spatial volume, etc. of the Linhai Qianwan River Bridge. The bridge design is coordinated with the surrounding buildings to create a landscape bridge that meets both transportation functional requirements and people-oriented needs, becoming a landscape corridor for Qianhai Bay. Meanwhile, the design program must be implementable and provide design guidance for the further deepening and implementation of the program.

1.2 项目位置

1.2 Project location

临海前湾河桥（1号景观桥）项目位于前海深港现代服务业合作区前湾片区与妈湾片区交界处，连接规划的临海大道地面道路。

Linhai Qianwan River Bridge (No. 1 Landscape Bridge) is located at the junction of Qianwan and Mawan areas in the Qianhai Shenzhen-Hong Kong Modern Service Industry Cooperation Zone, connecting the planned coastal roads.



1.3 规模及投资

1.3 Scale and investment

全长200米（其中桥梁全长187米），红线宽54米，道路等级为城市主干路，双向八车道，设计时速50km/h。建设内容包括：桥梁工程、管线工程、景观绿化、电气照明工程、交通疏解工程、水土保持工程等。

Total length of 200 meters (including a bridge length of 187 meters), red-line width of 54 meters, designated as a city main road with eight lanes in each direction, and a design speed of 50 km/h. Construction includes: bridge engineering, pipeline engineering, landscaping, electrical lighting, traffic facilitation, soil and water conservation projects.

项目总投资约3.92亿元人民币，资金来源为财政性资金。

The total investment of the project is about RMB392 million, and the source of funds is treasury funds.



1.4 项目定位

1.4 Project positioning

前海深港现代服务业合作区位于深圳城市“双中心”之一的“前海中心”的核心区域，其功能定位为：深港合作先导区、体制机制创新区、现代服务业集聚区、结构调整区，将重点发展创新金融、现代物流、总部经济、科技及专业服务、通讯及媒体服务、商业服务六大领域。根据《前海深港合作区轨道与道路交通详细规划》，片区将构建“一高、三快、八主、十一次”及地下道路组成的骨干路网体系，形成“六纵十七横”的“扇形+方格网”结构。临海前湾河桥（1号景观桥）工程是临海大道上的节点工程，上跨前湾河。临海大道规划为城市主干路，设计速度为50km/h，双向八车道。临海前湾河桥（1号景观桥）工程可以完善现有的道路运输网，促进交通运输发展。

Qianhai Shenzhen-Hong Kong Modern Service Industry Cooperation Zone is located in the core area of “Qianhai Center”, which is one of the “dual centers” of Shenzhen city, and its functions are positioned as: Shenzhen-Hong Kong Cooperation Pilot Zone, Institutional Mechanism Innovation Zone, Modern Service Industry Clustering Zone, and Structural Adjustment Zone. It will focus on the development of six major areas: innovative finance, modern logistics, headquarters economy, technology and professional services, communication and media services, and business services. According to the Detailed Planning of Railway and Road Traffic in Qianhai Shenzhen-Hong Kong Cooperation Area, a backbone road network system consisting of “one expressway, three fast roads, eight main roads, and eleven branch roads” and underground roads, forming a “fan-shaped + grid” structure consisting of “six vertical and seventeen horizontal roads”. The Linhai Qianwan River Bridge (No.1 Landscape Bridge) Project is a node project on Linhai Avenue, crossing the Qianwan River. Linhai Avenue is planned as an urban trunk road with a design speed of 50 km/h and eight lanes in both directions. The Linhai Qianwan River Bridge (No.1 Landscape Bridge) Project can improve the existing road transportation network and promote transportation development.

1.5 设计目标

1.5 Design objectives

《前海深港现代服务业合作区综合规划》在前海水城的设计概念下提出“产城融合、特色都市、绿色低碳”三大策略。将前海深港现代服务业合作区定位为：以体制机制创新为突破，规划理念创新为先导，促进粤港现代服务业紧密合作和融合发展，重点发展金融、现代物流、信息服务、科技服务和其他专业服务。坚持生态、活力、健康、可持续发展的先进城市发展理念，以产城融合的城市发展模式，将前海合作区建设成为具有国际竞争力的现代服务业区域中心和现代化国际化滨海城市中心。

In the Comprehensive Plan of Qianhai Shenzhen-Hong Kong Modern Service Industry Cooperation Zone, three major strategies are proposed under the design concept of Qianhai Sea City: integration of industry and city, distinctive urbanization, and green and low-carbon. Qianhai Shenzhen-Hong Kong Modern Service Industry Cooperation Zone is positioned with the following characteristics: with institutional innovation as a breakthrough and planning concept innovation as a guide, it promotes close cooperation and integrated development of the modern service industry between Guangdong and Hong Kong, focusing on the development of finance, modern logistics, information services, technological services and other professional



services. Adhering to the advanced urban development concepts of ecology, vitality, health and sustainability, and with the urban development model of industry-city integration, the Qianhai Cooperation Zone will be built into a regional center of modern service industry with international competitiveness and a modernized and internationalized coastal city center.

项目位于粤港澳大湾区核心地带，以前湾河水廊道为载体，向西连通前海湾，向东南倚靠大南山，属于深圳山海连城的重要组成部分。项目以市政交通配套为核心，人文、科技、低碳、绿色生态为导向，深港合作为基础，融汇深港合作元素，建成具有标杆引领性、现代化的景观桥梁。

The project is conducted in the core area of Guangdong, Hong Kong and Macao Greater Bay Area, with the water corridor of Qianwan River as the carrier, connecting Qianhaiwan to the west and adjacent to the Dananshan Mountain to the southeast, which is an important part of the Mountain-Sea-City in Shenzhen. **The project takes municipal transportation support as the core, humanities, technology, low-carbon, green ecology as the guide, Shenzhen-Hong Kong cooperation as the basis, integrating Shenzhen-Hong Kong cooperation elements, and building a benchmark leading, modern landscape bridge.**

二 总体服务范围及期限 II. Overall Scope and Duration of Services

2.1 总体服务范围

2.1 Overall scope of services

为提升项目建设质量与交付水平，本项目借鉴香港及国际工程建设模式，推行总设计师制，以项目负责人（一级注册结构工程师或桥梁相关专业高级工程师及以上职称或境外同等资格的设计师）为主导的设计咨询团队，依托所在设计企业为牵头单位，在可研及方案设计过程中发挥主创设计师的主导作用，引导其他工程咨询的同步或共同实施，对建设项目全生命周期提供组织、管理、经济和技术等各有关方面的工程咨询。

In order to enhance the construction quality and delivery level of the project, this project draws on the Hong Kong and international engineering construction model to implement the chief designer system, and has a design consulting team led by the project leader (a first-class registered structural engineer or a senior engineer or an engineer with higher titles in bridge-related specialties, or an overseas designer with an equivalent qualification). The project leader relies on the design enterprise as the leading unit, plays the leading role of the chief designer in the feasibility study and schematic design process, guides the synchronous or joint implementation of other engineering consultations, and provides engineering consulting in various aspects such as organization, management, economy, and technology for the entire life cycle of the construction project.



总设计师协助委托人对项目从方案设计至竣工全过程进行管理，检查设计理念贯彻情况，及时纠偏纠错，保证设计方案落地。并对各联合体方工作进行检查、监督、督促、协调、资源统筹、技术指导等工作。根据合同约定和项目进度要求，结合自身资质条件，制订专业分包方案并向委托人报备，负责并统筹管理各专项专业设计及咨询单位工作。协助委托人管理施工承包单位，对施工承包单位所提交的资料样本（施工方案、材料样品及设备、变更等）审核并签署意见，供委托人签发工程指令。

The chief designer assists the client to manage the whole process of the project from schematic design to completion, checking the implementation of design concepts, correcting errors in time, and ensuring that the design solutions are implemented. He/she also inspects, monitors, supervises, coordinates resources and provides technical guidance on the work of the consortium parties. According to the contract agreement and project progress requirements, combined with his/her own qualification conditions, he/she formulates professional subcontracting program and report it to the client, and is responsible for the coordinated management of the work of each special professional design and consulting units. In addition, he also assists the client in managing the construction contracting unit, reviewing and signing opinions on the data samples (construction programs, material samples and equipment, changes, etc.) submitted by the construction contracting unit for the client to issue engineering instructions.

2.2 服务期限

2.2 Duration of services

本项目服务期限为：自合同签订之日起至配合项目整体完成结算审计工作之日止。

The service period of this project is from the date of contract signing until the completion of the settlement audit work for the project.

III. 工作任务书

III. Work Brief

3.1 方案设计

3.1 Schematic design

设计工作内容主要为景观桥梁方案设计，结合片区城市空间规划总体设计，提出景观桥梁设计，提供桥梁选型，平立剖效果图等。需针对与地下道路的关系专篇分析，并对已建、在建的其他工程项目的接口协调，包括但不限于以下内容：



The primary task of the schematic design is to create a landscape bridge that integrates with the overall urban spatial planning of the area. This involves proposing bridge designs, selecting bridge models, and providing plan, section and elevation effect drawings. A detailed analysis is required concerning the relationship with underground roads and coordination with existing and under-construction projects, which include, but are not limited to, the following elements:

1. 总体设计思路、概念及桥梁景观构想要求符合前海定位。上位规划、项目理解及边界条件分析要求充分，尤其对交通、河道、公园等规划的分析。总体设计思路、概念及构想要求符合前海定位。桥梁方案造型要求与周边景观、建筑及城市空间相协调。

1. The general design approach, concept, and bridge landscape ideas must match with the positioning of Qianhai. This includes comprehensive analysis based on higher-level planning, project understanding, and boundary conditions, especially in terms of traffic, waterways, and park planning. The general design approach, concept, and ideas must match with the positioning of Qianhai. The bridge design program should harmonize with the surrounding landscape, architecture, and urban space;

2. 桥梁方案造型要求与周边建筑相协调。结合片区景观总体设计，提出景观桥梁设计，提供桥梁选型，平立剖效果图等。设计内容包括桥梁主体工程，桥梁连接匝道，桥梁连接道路、桥梁结构（包括钢结构）及可能涉及的其他专业等。

2. The bridge design program must be coordinated with the surrounding buildings. The design of landscape bridge is proposed, and the bridge type selection and plan, section and elevation effect drawings are provided by combining the overall landscape design. The design scope includes the main bridge engineering, bridge access ramps, connecting roads, bridge structures (including steel structures), and other related specialties;

3. 采用的结构型式及尺寸合理，经济适用、安全可靠，可实施性强，施工简单。采用的结构型式及尺寸合理，经济适用、安全可靠，可实施性强，施工简单。满足使用功能，体现以人为本，考虑自行车及残疾人通行的需求，行人要求安全舒适。景观照明及绿化设计。阐述总体设计思路的图纸。提供桥梁结构的计算书。

3. The adopted structural type and size should be rational, economically viable, safe, reliable, and easy to implement. The adopted structural type and size should be rational, economically viable, safe, reliable, and easy to implement. The design must meet functional requirements, prioritize human-centered design, and consider the needs of cyclists and disabled individuals for safe and comfortable passage. This includes landscape lighting and greenery design. Detailed design drawings should articulate the overall design concept, along with structural calculations for the bridge;

4. 重点、难点分析及其应对措施。统筹分析桥梁与规划临海大道地面及地下道路空间管线，考虑地下道路远期建设条件，根据规划沿桥梁敷设市政管线近远期衔接方案。

4. Analysis of key challenges and response strategies. Comprehensive analysis of the bridge's coordination with the planned surface and underground road spaces along the Coastal Avenue, considering long-term construction conditions for underground roads and municipal pipeline layout programs near and far along the bridge.

5. 专项设计:

5. Specialized design:



（1）泛光照明专项设计，包括桥梁景观、桥梁夜景设计；包括照明平面设计、灯光立面设计、灯光效果设计、灯具设计，以及灯光色彩、灯光照度、光源选择等，配有灯具的选择建议。

(1) Specialized design of floodlight lighting includes bridge landscape, bridge night scene design; lighting graphic design, lighting facade design, lighting effect design, lighting design, lighting color, lighting illuminance, and light source selection, with lighting selection suggestions;

（2）标识专项设计: 含桥梁所有标识导视系统设计。

(2) Specialized signage design: Includes the design of all signage and guidance systems for the bridge.

6.设计成果需满足甲方提供的前海精细化设计要求。

6. The design results must meet the detailed design requirements provided by the client for the Qianhai area;

7.设计全过程三维设计技术应用，提供配套服务。

7. Design the whole process of 3D design technology application, and provide supporting services;

8.为了保证设计意图得到贯彻执行，主创设计师完成桥梁造型设计后需指导后续深化设计单位从方案落实到施工图设计工作。并对施工图设计图纸进行指导和审核。

8. To ensure the design intent is fully implemented, the lead designer, after completing the bridge model design, must guide subsequent detailed design firms from program realization to the construction drawing design phase. This includes overseeing and reviewing the construction drawing designs.

3.3 工程可行性研究报告

3.3 Engineering feasibility study report

根据项目建议书及方案核查审定的设计方案开展工艺技术方案、投融资方案、经济社会效益、项目必要性论证、建设管理模式、运营管理模式等研究，形成可行性研究报告等相关工作成果文件，具体参照《深圳市前海深港现代服务业合作区政府投资项目管理办法》。协助招标人组织专家评审会，承担深化研究报告以及政府主管部门审查批准而反复修改的工作责任，取得政府主管部门批文。文件深度必须达到国家及深圳市有关规定要求及招标人所需下一步工作要求。

Based on the project proposal and the approved design program, conduct research on process and technology schemes, investment and financing plans, economic and social benefits, project necessity, construction management models, and operational management models; produce feasibility study reports and other related outcomes in accordance with the Management Measures for Government Investment Projects in the Qianhai Shenzhen-Hong Kong Modern Service Industry Cooperation Zone. Assist the tenderer in organizing the expert review meeting, undertake the work responsibility of deepening the research report and the review and approval of the competent government departments, and obtain the written approval of the competent government departments. The depth of the document must meet the requirements of the relevant regulations of the State and Shenzhen City and the requirements of next work required by the tenderer.



1.就项目的建设理由、目标和定位、建设内容规模及方案论证、建设条件具备程度、环境保护及水土保持、投资估算等进行分析研究，并进行多方案对比，进一步论证项目的建设规模、标准、建设周期，研究项目的运作方案，提供景观、桥梁工程总投资估算，得出合理结论及建议，最终出具项目可行性研究报告。

1. Analyze and study the project's construction reasons, objectives and positioning, construction scale and program demonstration, eligible level of construction conditions, environmental protection and soil and water conservation, and investment estimation, and compare multiple programs to further demonstrate the project's construction scale, standards and construction cycle, study the project's operation plan, and provide the total investment estimation of landscape and bridge projects, draw reasonable conclusions and suggestions, and finally issue the project feasibility study report.

2.项目建设时序研究：考虑项目建成后运营需求，结合本项目周边环境，包括：景观、市政配套、交通条件、周边配套项目的建设时序，对本项目建设所需的内外部条件进行分析论证，对周边项目所需配合达到的条件进行研究，形成报告指导本项目的建设并统筹协调周边项目的建设时序。

2. Study of project construction schedule: Consider the operational needs after the completion of the project, combine with the surrounding environment of the project, including: Construction schedule of landscape, municipal facilities, traffic conditions, and surrounding supporting projects, to analyze and demonstrate the internal and external conditions required for the construction of the project, study the conditions required to cooperate with the surrounding projects, form a report to guide the construction of the project and coordinate the construction schedule of the surrounding projects.

3.其他按国家有关报告编制和设计规程规范要求应由设计单位完成的工作以及为配合招标人取得主管部门批复而进行的本项目相关工作及技术服务。

3. Other work that should be completed by the design unit according to the requirements of the relevant national report preparation and design manual and regulations, and work related to the project and technical consulting services to cooperate with the tenderer to obtain the approval of the competent departments.

3.4 方案阶段BIM技术应用

3.4 Application of BIM technology during the program stage

创建方案设计阶段BIM模型；依据模型开展设计冲突检测、接口协调、性能分析、三维可视化等工作，应用BIM技术对周边已建及在建项目接口分析，所有BIM模型成果最终需要整合至前海现有城市级数字基础模型中，并接受甲方现有的BIM建管平台统一管理。

Create BIM models during the schematic design phase; conduct design conflict checks, interface coordination, performance analysis, and 3D visualization using the BIM models. Analyze interfaces with surrounding existing and under-construction projects using BIM technology. All BIM model outcomes must ultimately be integrated into Qianhai's existing city-level digital base model and managed under the client's existing BIM construction management platform.



3.5 防洪影响评价

3.5 Flood impact assessment

本项目涉及前湾河河道管理范围，根据桥梁方案开展防洪影响评价分析，分析计算河道洪峰流量、洪水位、冲刷深度、壅水、桥梁允许最低梁底高程等，根据《中华人民共和国水法》第三十八条、《中华人民共和国防洪法》第二十七条和三十三条，以及《中华人民共和国河道管理条例》第十一条等要求规定，编制防洪评价报告并协助甲方通过主管部门审批。

This project involves the management scope of the Qianwan River. Conduct a flood impact assessment based on the bridge program, analyzing river peak flow, flood levels, scour depth, backwater, and the minimum permissible elevation of the bridge underside, and compile a flood assessment report following the provisions of Articles 38 of the Water Law of the People's Republic of China, Articles 27 and 33 of the Law of the People's Republic of China on Flood Control and Article 11 of the Regulations on River Channel Management of the People's Republic of China, and assisting the client in obtaining approvals from the competent authorities.

3.6 报批配合服务

3.6 Cooperation services for approval submission

按国家有关报告编制和设计规程规范要求应由设计单位完成的工作以及为配合发包人取得主管部门批复而进行的项目相关工作。

Work that should be completed by the design unit according to the requirements of the relevant national report preparation and design manual and regulations, and work related to the project to cooperate with the contract letting party to obtain the approval of the competent departments.

3.7 设计审核咨询服务

3.7 Design review and consulting services

配合初步设计及施工图设计单位深化设计；审核初步设计各专业的图纸，统筹把控项目的整体效果，为后续初步设计施工图设计提供设计要求和优化意见(具体以初步设计及施工图设计工期为准)。

Cooperate with the design unit of the preliminary design and construction drawings to deepen the design; review the drawings of each specialty of the preliminary design, coordinate and control the overall effect of the project, and provide design requirements and optimization suggestions for the subsequent preliminary design and construction drawing design (specifically, the duration of the preliminary design and construction drawing design shall prevail).



3.8 施工配合服务

3.8 Construction cooperation services

施工美学监督。包括设计材料样板确认，参与材料厂家生产材料过程品质控制，施工样板区效果及施工工艺等确认；巡查现场，并就施工效果是否达到设计要求形成质量报告。

Construction aesthetic supervision. They include confirmation of design material samples, participation in the quality control when material manufacturers producing materials, confirmation of the effect of construction sample areas and construction processes, inspection on the site and form of the quality report on whether the construction effect meets the design requirements.

四 工作周期安排

IV. Organization of the Work Cycle

4.1 服务期：合同签订之日起至配合完成结算审计工作。

4.1 Service period: From the date of signing the contract to the completion of the settlement audit.

4.2 前期咨询阶段：根据项目需求及甲方下达的任务委托书，编制工程可行性研究报告，自任务书委托书下达之日起20个日历天内提交工程可行性研究报告，完成专家评审、甲方内部审查后5个日历天内提交正式报批文件。

4.2 Pre-consultation stage: According to the project requirements and the assignment letter issued by Party A, prepare the engineering feasibility study report, submit the engineering feasibility study report within 20 calendar days from the date of the assignment letter, and submit the formal approval documents within five calendar days after completing the expert review and Party A's internal review.

4.3 设计阶段为方案设计（含估算、BIM模型）详细要求如下：

4.3 The design phase mainly involves schematic design (including estimation and BIM modeling). Detailed requirements are as follows:

(1) 中标通知书签发后7个日历天内提交工作大纲。

(1) Submit the work outline within seven calendar days after the issuance of the bid notification letter;



（2）设计阶段：方案设计阶段：自甲方下达任务委托书之日30个日历天内提交工程方案设计（送审稿），同步完成方案设计阶段的BIM模型（送审稿）编制，完成专家评审、甲方内部审查后10个日历天内提交正式报批文件。

(2) Design phase: schematic design phase: submit the engineering schematic design (draft for review) within 30 calendar days from the date of the letter of assignment issued by Party A; simultaneously complete the compilation of BIM model (draft for review) in the schematic design phase, and submit the formal approval documents within ten calendar days after completing the expert review and Party A's internal review;

（3）专项评估：自甲方下达任务委托书之日15个日历天内完成防洪评价报告编制。

(3) Specialized assessment: complete the preparation of the flood protection assessment report within 15 calendar days from the date of the assignment letter from Party A.

五 项目团队要求 V. Project Team Requirements

本项目由于桥梁景观对影响项目具体方案，因此，项目负责人要求为一级注册结构工程师或桥梁相关专业高级工程师及以上职称或境外同等资格的设计师，主持过同类型景观桥梁设计。项目涉及应配备不少于12人的项目团队，要求配备专业包括道路、交通、结构、岩土、给排水、电气（含照明和监控）、景观及绿化、通信、造价等，其中结构、岩土、造价专业负责人需具有国家住房和城乡建设部颁发的注册执业资格或境外同等资格的工程师。

Due to the impact of bridge landscape on the specific project program, the project leader is required to have a first-class registered structural engineer qualification or a senior engineer title or higher in bridge-related specialties or overseas equivalent qualifications of designers, who has been responsible for the design of landscape bridges of the same type. The project requires a project team of no less than 12 members, with expertise including but not limited to road and traffic engineering, structural engineering, geotechnical engineering, water supply and drainage, electrical engineering (including lighting and monitoring), landscaping and greening, telecommunications, and cost estimation. The leaders of the structural engineering, geotechnical engineering, and cost estimation must have registered professional qualifications issued by the Ministry of Housing and Urban-Rural Development of China or equivalent qualifications overseas.

六 成果提交要求 VI. Requirements for the Submission of Results

6.1 提交的设计文件应符合国家颁发的法律法规、规范、规定、规程和标准；达到住房和城乡建设部《市政公用工程设计文件编制深度规定》有关规定及其他设计标准、规范、规程、定额和办法的要求，并通过业主和相关政府部门的审查。

6.1 The design documents submitted shall comply with the laws, regulations, norms, rules, protocols and standards issued by the State, meet the relevant provisions of the Provisions on the Depth of Preparation of Design Documents for Municipal Public Works of the Ministry of Housing and Urban-Rural Development as well as the requirements of other design standards, specifications, regulations, quotas and methods, and shall pass the review of the owners and the relevant government departments.

6.2 提交的各阶段成果格式包括纸质和电子版格式，数量要求不少于20份；根据甲方要求提供效果图及展板。

6.2 The format of the submitted results for each phase includes both paper and electronic formats, with a minimum quantity of 20 copies required; renderings and display boards shall be provided according to the requirements of Party A.

6.3 提交的BIM设计应用成果：

6.3 Submitted BIM design application results:

(1) BIM模型（原生建模格式、ifc中性模型、模型属性表及相关依赖环境、材质等）。

(1) BIM model (native modeling format, IFC-neutral model, model attribute table and related dependent environments, materials, etc.);

(2) 各应用说明及应用报告。

(2) The application description and application report;

(3) 甲方所需相关bim模型及相关应用成果。（包括整合的模型场景、视频、图片等）

(3) Relevant BIM models and related application results required by Party A. (including integrated modeling scenarios, videos, and pictures.)

设计阶段BIM相关成果应达到深圳市以及前海有关BIM技术应用需求、交付标准，且与工程设计文件一致。提交成果经BIM负责人核对提交清单，并提交给甲方审核部门或甲方委托的BIM全过程咨询单位进行BIM模型评审，确保设计阶段BIM模型成果符合阶段模型细度要求及项目制定的BIM模型标准要求，确认完整无误后方可完成提交。

The BIM-related results in the design phase shall meet the requirements and delivery standards of Shenzhen and Qianhai for the application of BIM technology and be consistent with the engineering design documents. The submitted results shall be verified by the responsible person of BIM and submitted to the review department of the client or the BIM whole process consulting unit commissioned by the client for BIM model review, to ensure that the BIM model results in the design phase meet the requirements of the stage model fineness and the BIM model standard requirements formulated in the project. The submission can only be completed after the results are confirmed to be complete and correct.