**REQUEST FOR PROPOSAL  
TERMS OF REFERENCE FOR CONSULTING SERVICES  
TEMPLATE FOR NARRATIVE PROPOSAL**

**Procurement No:** **50-CS001-22**

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## Description of the Services

Scope of services covers the following stages:

* planning
* schematic design,
* tender documentation / detailed design,
* factory inspections
  1. **BIM Execution & Online Collaboration**

The project will be delivered using BIM.

Indochine use BIM software included Revit (any agreed year) for build model and associated systems such as BIM 360 for online collaboration.

Indochine will develop our models as early as possible, starting with concept if the models are available at this stage.

For reference, our detailed designs will be achieve LOD300. Note that LOD400 will be the contractors working/ fabrication drawings and LOD500 the as-built.

Further we will be proposing to establish an online collaboration system based upon Teams + Trello.

* 1. **Planning and Building Layout**

The electrical engineering plan will need to be completed including current, temporary and future SLDs, and information on the individual components including generators, fuel, transformers, switchgear/RMUs, synchronization etc.

The site constraints will need to be identified, and documented, and planning prepared for what the future site will look like and how this will be achieved.

Indochine propose to attend, contribute and guide as necessary such discussions.

* 1. **Schematic Design Phase (Basic Design)**

The engineering schematic stage allows for the engineering systems required to be visualized and documented schematically to allow the project team to understand the requirements of the individual systems.

***Preparation of building layouts for discussion.***

***Prepare and analyse options for onsite and offshore prefabrication. Guide the client on key design decisions.***

The types of systems that will be required and the approximate sizing of these systems will be prepared.

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| **Building Services Activities** | **Structural Activities** |
| * Study, understand and analyse power engineering design. * Outline designs and space planning requirements associated with the mechanical and electrical systems, including locations and approximate sizes of plant rooms, major items of plant, major ducts, and service routes. * Functional and economical system analysis of options. * Provide types and quality concepts for materials, equipment, and systems. * Provide basic design documents for local authority applications. | * Input loads to the structural model:   + Vertical loads (dead loads, live loads).   + Lateral loads (wind load, earthquake load). * Preliminarily define the dimensions of all structural elements:   + Foundation structure.   + Superstructure: sizes of columns, shear walls, beams, slabs, etc. * Provide basic design documents for local authority applications. * Provide pile test design documents. |

These activities would include space allocations, preliminary loading calculations, system schematics, system descriptions, collection and selection of appropriate standards, and preliminary co-ordination with structural members and architectural features. These activities involve a high level of conceptual planning and co-ordination with the architect.

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| **Building Services Deliverables** | **Building & Structural Deliverables** |
| * Building Services schematic report * Updated lift/vertical transport report as required * Engineering schematic drawings of systems, * plus the utility connection layout for basic design submission | * Building Layouts * Structural schematic report * Engineering schematic drawings set * Foundation design documents |

* 1. **Tender Documentation/ Detailed Design Stage (Construction Drawings Design)**

The engineering detailed design stage is a focused stage, where the engineering designs are documented sufficiently for local contractors to tender upon them. This may be the same as tender documents for the architect or for the structural engineer.

In preparing tender drawings and specifications, the following activities will occur:

* + - design systems in conformance with relevant regulations and standards, good engineering practices and the approved design criteria;
    - select appropriate equipment to meet design criteria and the results of the calculations performed;
    - cooperate with other design professionals during design of the systems, and make known to them, through the prime consultant, any functional or aesthetic aspects of the systems that may affect the design of their systems. In addition, engineers should take into account design requirements of other design professionals. In particular, engineers should notify other design engineers of points of interface among the disciplines and determine as soon as possible the horsepower and other electrical requirements of all mechanical loads and the potential conflicts between the electrical and mechanical riser locations and distribution strata, sprinkler piping, etc.;
    - submit progress reports, drawings and draft specifications, as agreed with the client or prime consultant

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| **Building Services Deliverables** | **Building & Structural Deliverables** |
| * Tender Drawings * Technical schedule * Specifications | * Tender/ procurement drawings * Specifications |

1. **3.4.1. Clarification with respect to contractor’s responsibilities**

The specifications shall advise that coordinating contractors or, where none are designated, individual contractors should:

* faithfully follow the engineer's design principles and requirements in preparing the construction/installation drawings and carrying out the construction;
* prepare the construction/installation drawings, considering the needs of all other project contractors.
  1. **Tender Stage**

The tender stage includes:

* + - Bills of quantities
    - Commercial conditions (possibly tabled by PUB and modified by IEV)
    - Tender invitations (nominally Vietnam for prefab but could be elsewhere eg Fiji or China)
    - Review of tender submissions
    - Interviews with vendors
    - Tender review report and recommendations
  1. **Factory Inspections**

The factory visit stage includes:

* + - Review of vendor submissions
    - Factory inspections to verify compliance

## Team Composition and Task Assignments

The team composition and make is subject to the Tenderers assessment of skills and resources required to undertake the scope of services.

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| 1. **Submission of Deliverables**   **As per scope of services**  **BIM Model and drawings suitable to Enable PUB tender for Fabrication and Construction** |

## technical and knowledge capability

Please, provide evidence of your suitability for the project, e.g. as below, and to meet the competence requirements as stated in the Terms of Reference

## Curriculum Vitae (CV) for Proposed Professional Staff

## Tenderer’s References

**Relevant Services Carried Out in the Last Five Years**

**That Best Illustrate Qualifications**

Using the format below, provide information on each assignment for which your firm/entity, either individually as a corporate entity or as one of the major companies within an association, was legally contracted.

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| Assignment Name: | | Country: |
| Location within Country: | | Professional Staff Provided by Your Firm/Entity(profiles): |
| Name of Client: | | No of Staff: |
| Address: | | No of Staff-Months; Duration of Assignment: |
| Start Date (Month/Year): | Completion Date (Month/Year): | Approx. Value of Services (in Current AU$): |
| Name of Associated Consultants, If Any: | | No of Months of Professional Staff Provided by Associated Consultants: |
| Name of Senior Staff (Project Director/Coordinator, Team Leader) Involved and Functions Performed: | | |
| Narrative Description of Project: | | |
| Description of Actual Services Provided by Your Staff: | | |

Tenderer’s Name: