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THROMDE ADMINISTRATION
SAMDRUP JONGKHAR



TERMS OF REFERENCE (TOR)



**“DESIGN AND CONSTRUCTION OF STADIUM and VVIP
GALLERY/PAVILION @ S/JONGKHAR, LAP-II – SPORTS CENTER”**

(FEBRUARY 2020)

SAMDRUP JONGKHAR THROMDE ADMINISTRATION



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A. BACKGROUND

Samdrup Jongkhar Thromde is declared as one of the four class A municipalities of Bhutan along with Thimphu, Phuntsholing and Gelephu after including Dewathang extended areas within its limits by an act of parliament in 2010. The Thromde administration was delinked from dzongkhag administration in 2011. Since then Thromde has been functioning as a municipal local government. The Thromde has urban development plan in place which is a guiding document for any developmental activities. Out of 8 LAPs, 7 LAPs are approved and are under implementation stage.

The UDP has proposed to establish a major sports center at S/Jongkhar based on which 8 acres of land was allotted to BOC to construct an artificial football turf and an indoor sports complex. However, construction of a football stadium (first in Bhutan) is in pipeline.

II. ELIGIBILITY of BIDDERS:

The large construction companies, W3 and W4 category, registered with Construction Development Board (CDB) of Bhutan in association with consultancy firm (national or international) registered under C1, C4, C5, E7, A1, A3 and S2 is eligible to participate in the tender. If the association is with the national consultancy firm, then either of the party can be the lead partner. The national consultancy firm should be registered with the CDB. The international consultancy firm should produce legal evidence of its establishment. Further, the consultancy firm should prove that they have experience in similar projects. For the successful completion of works, the consulting firms involved in design, drawings and quantity will supervise the work.

III. CLIENT/EXECUTING AGENCY:

The Thromde administration, Samdrup Jongkhar is client or executing or procuring agency of this particular work.

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IV. SCOPE OF WORK:

The Bidder is required to Design and construct the football stadium and VVIP pavilion/gallery including architectural, structural, electrical, telecommunication, plumbing and sanitation utility services as specified in the technical specifications. The expected budget limit for the project is Nu. 50 million for both construction and consulting services.

In this context, the following tasks shall be carried out by the Bidder:

- a. Survey and inspect the site for furnishing appropriate data and information before designing the project.
- b. Produce architectural designs and detailed working drawings as per the specification provided;
- c. Produce detailed structural drawings as per the specifications;
- d. Produce electrical and telecommunication network drawings as per the specifications;
- e. Produce plumbing and sanitary drawings as per the specifications;
- f. Develop detailed BoQ with Technical specifications for all works included in the scope and their cost estimates. The BoQ should include all the items as per the drawings and no deviations/corrections shall be entertained after the award of work at site.
- g. The successful bidder shall construct at site as per approved drawings (architectural, structural, electrical & LAN and plumbing & sanitary) by the client after the issuance of work order by the client.

V. TECHNICAL SPECIFICATIONS:

Before designing and quoting, the Bidder must inspect and produce topo-survey the site to fully acquaint himself about the conditions and technical parameters. No claims of deviations in design and execution shall be entertained by the Employer in any circumstances. Any queries and clarifications must be sought before designing from client.



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1. Architecture.

1. The stadium will be a 2-level structure with seats on upstairs and other functions on the lower level. The stadium will be fully covered by roof. Should incorporate traditional architectural components to complement Bhutanese context at this border town.
2. The stadium shall be covering around till the half of the football pitch and shall face the existing indoor sports complex.
3. The total seating capacity will be 2000 at one time. The width of the stadium shall be minimum 10m.
4. The gap between football pitch (line) and stadium edge will be 8m minimum.
5. The minimum clear height of first riser/step at the front will be 2.8 m above ground level. However, the minimum headroom will be 2.2m high.
6. There will be railings on lowest step for safety of spectators.
7. There must be minimum of 4 separate entrances for spectators from behind; and a separate entrance shall be provided for players, staff and VIP from the front. Each entrance shall be 2m wide and any entrance door shall be 2m high. The clear width of each leg of stairs is min. 2m. The aisles width will be min. 2m. The riser height will be max 150mm. and tread width will be 300mm. in addition, there should be a ramp access for differently abled people.
8. The height of seat will be 450mm and width will be 900mm.
9. There will be a VIP gallery within the stadium at the center with separate VIP toilets below it. The VIP gallery will have access from front side of the stadium. The VIP toilet as mentioned above should have a restroom/lobby, handwash space with looking mirror, and a wc each for male and female separately.
10. The entry and exit for players to field to play match will be at the center of the ground under the VIP gallery. This entrance will be 3m wide.
11. The stadium flood lights shall be behind the stadium at four corners.
12. The lower level will have following functions or spaces:
 1. Male toilets (5 wc, 5 urinals, rest room with wash basins with mirror) and female toilets (5 wc, rest room with wash basins with mirror) at 2 different locations; at-least one toilet for differently abled people near ramp access;
 2. There will be 4 separate sections for 4 different teams. Each section will have: 1 lobby (35sq.m); 1 tv room (35sq.m); 1 changing room (35sq.m); toilets with 3 wc, 3 shower, 4 urinals and space for wash basins with mirror;
 3. 1 Medical room (50sq.m) with 2 wcs, 1 shower, and a basin;
 4. 1 doping room (50sq.m) with 2wcs, 1 shower and a basin;
 5. Media center: 1 common lobby (30sq.m); 1 room for media officer (12sq.m); 1 press conference room (30sq.m); 1 media conference room (30sq.m); male and female toilets with 2 wcs each;



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6. Match administration part: 1 room for match commissioners (20sq.m with attached toilet); 1 room for match officials (30sq.m); 1 room for administration (15sq.m); 1 store room (15sq.m) and male and female toilets with 2 wcs each;
13. The VVIP gallery/pavilion will be aligned through the center line of the football pitch between football pitch and the existing indoor sports complex. The gap between football pitch and the pavilion will be 6m minimum.
14. The VVIP gallery will be of three parts – the central; left side and right side. Each part will have a semi-open gallery at the front and rest rooms at the back (male and female separately).
15. The plinth area of the gallery/pavilion will be 200 sq.m.
16. The VVIP gallery shall be raised 1200mm above the ground level; however central part will be 300mm higher than rest of the parts.
17. The VVIP gallery shall fully incorporate traditional architectural components. The roofing material for pavilion will be CGI sheet and slate over it.

Note 1: any left-over space shall be kept empty at one side in stadium;

Note 2: all the cornices and traditional architectural components will be in FRR for both stadium and pavilion.; no timber shall be used.

Note 3: The bidders may refer pavilion at Changlingmethang stadium;

Note 4: cadastral data of site boundary is available in auto cad format with mr. Dorji Wangdi (17541325) and Sonam Wangchuk (17454558). The same auto cad file will be uploaded on website. However, there is no detailed topo map of the site which the bidders need to produce before designing.

2. Structure

Design of structure to be as per latest versions of applicable codes used in Bhutan. The bidder shall clearly specify the design codes considered by him in preparing his offer.

3. Electrical

1. Design to be as per latest versions of applicable standards used in Bhutan. The bidder shall clearly specify the design codes considered by him in preparing his offer; all luminaries should be LED based and specific control switchgears selection should be done for protection for communication devices.
2. LAN – Layout plan of location of internet points and U-racks; Layout plan showing the location of server.
3. Telephone and Television layout plans.
4. CCTV layout plan with the location of server and cameras.
5. HVAC and firefighting design.



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6. Design of stadium flood lights at four corners with switchgears controller.

1. Plumbing and sanitations

1. Design to be as per latest versions of applicable standards used in Bhutan. The bidder shall clearly specify the design codes considered by him in preparing his offer;
2. Size of septic tanks shall be min. 150 users;
3. Water requirements shall be worked by consultant and storage shall be designed as per the requirement.

VI. Deliverable Schedule.

The bidders shall submit following on 4th May, 2020 before 11.00 AM:

1. Bidders shall submit final architectural designs and drawings (site plans, floor plans, roof plans, elevations, sections (3 min at different parts), 3d images, reflected ceiling plans, schedule of openings, details, finishing specifications and details). Should also submit 2d and 3d working files.
2. Bidders shall submit final structural designs and drawings (column layout plans, beam layout plans, truss layout plans, truss details, lintel details, analysis files (software working files), foundation details, slab plans and details.
3. Bidders shall submit final electrical, telecommunication, stadium flood light, HVAC and firefighting designs and drawings.
4. Bidders shall submit final plumbing and sanitary drawings.
5. Bidders shall submit final detailed BoQ and estimates for both civil and electrical.
6. In addition to above submissions, the bidders shall make a design presentation on **5th May, 2020 in thromde office.**

Note: all the drawings will be in understandable and readable scales.

VII. EVALUATION AND COMPARISON OF BIDS:

- 1) The evaluation will have two stages.
- 2) Stage 1 for evaluation of consultant which shall be technical as well as design based evaluation which will be done during design presentation on 5th May, 2020. The technical part will be converted into 30% and design evaluation will be 70% of the



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total 100%. The total of these two will be converted to 50%. Only top three designs will be selected for the evaluation of contractor (**envelope B**).

3. Stage 2 for evaluation of contractor which shall be both technical and financial. Total score shall be scaled down to 50%. However, as per evaluation guidelines, only bidders who obtain 70 points and above shall be qualified for financial stage.

- 4) The tender will have two bids in separate envelope for services (**Envelope A**) and works (**Envelope B**).
- 5) The bid of services and works is to evaluate the consultant and contractor respectively.
- 6) **Envelope A** will have technical proposal only.
- 7) **Envelope B** will have both the technical and financial proposal.
- 8) The **Envelope B** will be evaluated through point base system using e-tool.
- 9) The lowest evaluated bidder (**H1**) combined of stage 1 and stage 2 will be given the letter of intent and if accepted, the work will be awarded to it.
- 10) The Financial proposal shall be evaluated for any arithmetical errors and for the purpose of comparison, all the cost shall be converted to a single currency i.e. Ngultrum.
- 11) While the winner will be awarded the contract work, the other non-awardees will be awarded cash prizes for making effort in participating in the tender.

The Technical Proposal should contain the following information:

1. Bidder's technical capabilities & experience records.
2. Detailed Curriculum Vitae of the proposed;
 - a. Architect
 - b. Structural Engineer
 - c. M.E.P Engineer and
 - d. Civil Engineer should be attached.

Handwritten signature or mark in blue ink.



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3. The CV should be supported by Academic & Experience Certificates.
4. Signed letter of commitment from the:
 - a. Architect
 - b. Structural Engineer
 - c. M.E.P Engineer
 - d. Project/Supervision Engineer stating his/her availability and commitment for the job.

XIII. RESPONSIBILITY FOR ACCURACY OF THE WORK:

For the inaccuracies in the design, drawings, Bills of Quantities, cost estimates etc., submitted by the Bidder as a part of the consultancy service, the Bidder shall indemnify the Client as follows:

- 1) For design, drawings, estimates and BoQ, the penalty shall apply if the errors cause to deviate the quantity in the BoQ. The designs, drawings and estimates shall be corrected by the Bidder at their own cost. Furthermore, the bidder shall be fully liable and accountable for the extra deviated amount during the construction stage.
- 2) For major lapses or over sights in the analysis and/or design of the structures such that it results in the part or total failure of the structure or that the structure is rendered unserviceable during its intended service life and if it can be proven beyond sufficient doubt that the failures are attributable to the Design consultant, the Bidders shall be **fully** liable for the repayment of all the costs and making good any other eventualities resulting from the failure of the structure(s).

VIII. FINANCIAL PROPOSAL:

The Financial proposal shall include all the expenses required to carry out the Services and works as per the Terms of Reference & other relevant clauses in the Contract Agreement.

IX. COMMENCEMENT AND DURATION OF CONTRACT:



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The contract shall come in effect from the date of signing of contract and the duration for the completion of works is 18 months from the date of signing of contract. However, the defect liability period shall be 2 years after handing taking of works.

X. KEY TECHNICAL PERSONNEL:

All the experts who have a crucial role in implementing the contract are referred to as key experts and detail profiles of these key experts required for this assignment are given below. Overall, the Bidder shall provide a suitably qualified team to carry out the detailed studies.

1. Key Experts:

The Bidder shall engage the following key personnel apart from other support staff to carry out the services.

- a. Architect
- b. Structural Engineer
- c. M.E.P Engineer
- d. Site Engineer

2. Qualification and Experience Requirements:

The key personnel shall meet the following minimum eligibility requirements:

- a. Architect:
 - i. Must have at least Bachelors Degree in architecture from a reputed University.
 - ii. Must have at least 7 years of professional experience.
 - iii. Should be familiar with 2D and 3D architectural softwares.
 - iv. Should be able to prepare and finalize design concepts and design criteria and do the presentation.
 - v. Should be able to prepare detailed Architectural drawings.
 - vi. Should be familiar with specifications of materials for construction of stadium.



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- vii. Should have good presentation skill.
- viii. Should be able to carry out design supervision at site.

b. **Structural Engineer:**

- i. Must have at least Bachelors Degree in Civil Engineering with specialization in structures from a reputed University.
- ii. Must have at least 7 years of similar experience in structural analysis, design and construction.
- iii. Should be familiar with structural analysis and design software like SAP2000, MIDAS Civil, MIDAS Gen, STAAD, etc.
- iv. Should have adequate knowledge and experience in material testing and result interpretation.
- v. Prepare and finalize structural designs in close consultation with the Architect.
- vi. Should be able to carry out structural design supervision at site.

c. **Site Engineer:**

- i. At least Bachelors Degree in Civil engineering from a reputed University with 5 years of similar work experience OR Diploma in Civil engineering with minimum of 8 years of similar work experience.
- ii. Responsible for overall supervision of all the works.
- iii. Review design drawings for completeness or consistency before commencement of Contract works.
- iv. Construction progress monitoring and evaluation.

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- v. Material testing and certification of quality.
- vi. Ensure safety working procedures and enforce them.
- vii. Overall quality control and quality administration/ assurance.
- viii. Work in close coordination with Project Manager/Engineers of client and contractor(s).
- ix. Prepare a final report and present to a forum of stakeholders.

d. **M.E.P Engineer:**

- i. Bachelor Degree in Electrical Engineering from a reputed University with at least 5 years of similar professional experience in electrical, HVAC and fire fighting mechanism.
- ii. Diploma in Electrical Engineering with at least 7 years of similar professional experience in electrical, HVAC and fire fighting mechanism.
- iii. Should be familiar with CAD software like AutoCAD.
- iv. Prepare and finalize design concepts and design criteria in close consultation with the Team Leader.
- v. Prepare detailed engineering drawings.

The task and responsibilities specified above are generic in nature and the experts will have to undertake all the activities required for them to complete the project as defined in the detailed scope of work. Preference shall be given to experts having experiences in similar works. Supporting document for key personnel's /training certificate(s) from the reputed



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training institutions is required. Similarly, the qualifications/ experiences shall be supported by academic qualification and experience certificates (in English).

Non submission of the evidences for the qualification shall have an effect on your technical score. Translations in English must be submitted along with the copy of original if the certificates are not in English.

XI. MODE OF PAYMENT:

The mode of payments shall be in the Account payee cheques drawn in favour of the Bidder's firm. The payments shall be made in local currency, that is, in Bhutanese Ngultrum only. The Bidder shall submit bills in original while claiming for release of payments. The Executing Agency shall properly scrutinize the bills, verify and submit for release of payments. The client shall plan and release payment as per the payment schedule submitted by the bidder depending on the progress of works achieved at site.

The payment schedule payable to the Bidder for performing the work within the scope of works shall be released as follows:

Sl no.	Activity	Amount to be released	Remarks
1	Signing of contract	15%	Percentage of initial contract price. However, from every bill, 10% (ten percent) shall be deducted as retention money.
2	Completion of Work till plinth level	20%	
3	Completion of Super structure including roofing	25%	
4	Completion of electrical, plumbing, sanitation and utility services	20%	
5	Completion of finishing	10%	



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6	Completion and handing taking of work.	10%	
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XII. RETENTION MONEY:

From every bill, **10% (ten percent)** shall be deducted as retention money. The retention money would be released only after completion of defect liability period.