

Terms of Reference (ToR)

Selection of Consulting Firm

For Designing / Upgradation of Water Supply Network at GLK Institute of Engineering Sciences & Technology, Topi

Project Background

At the time of establishment of GIK Institute, the campus utility services, including water supply, electricity supply and sewerage systems, were planned according to the anticipated requirements of the institution. Over the past 30 years, the Institute has expanded considerably, with the construction of several new academic, residential and hostel buildings and a substantial increase in the campus population. Consequently, the existing water supply infrastructure, which was designed for the requirements prevailing at the time of establishment, has become marginal and requires comprehensive review and upgradation to meet both present and future requirements.

At present, the entire water supply requirement of GIK Institute is primarily served through an overhead water tank having a capacity of approximately **300,000 gallons**. Although the existing arrangement presently meets the normal water demand, it has little or no reserve capacity. Any malfunction or interruption in the existing water supply system may therefore affect the entire Institute.

Furthermore, with the increase in the number of buildings and residents, and the anticipated construction of additional hostels and other facilities, the water demand of the Institute is expected to increase substantially.

The existing system has also revealed hydraulic limitations due to the elevation of some newly constructed buildings. In particular, Hostel No. 11, Hostel No. 12, the New Academic Block and Hostel No. 08 are at elevations/heights where the available head from the existing overhead water tank is inadequate. This results in low water pressure and insufficient water supply, particularly at higher levels of these buildings.

In view of the above, GIK Institute intends to develop an enhanced and reliable water supply infrastructure that can serve as a **partial alternative/backup supply system**, address existing deficiencies, and cater to the projected future requirements of the Institute. The proposed additional arrangement is initially envisaged to supply **all boys' hostels exclusively**, while also having the capability of being interconnected with the main water supply system, where required.

Scope of Consultancy Services

The selected consultant shall, inter alia:

1. Conduct a comprehensive assessment and survey of the existing water supply infrastructure, including sources, storage facilities, pumping arrangements, distribution network and existing demand. Ground water assessment in detail.
2. Review the existing water consumption and assess current and projected water demand based on the present and anticipated future population and construction plans of the Institute.
3. Carry out hydraulic analysis of the existing water distribution network, including pressure and flow assessment at critical/high-elevation buildings.

4. Identify deficiencies, bottlenecks and critical points in the existing system and recommend appropriate remedial measures.
5. Develop and evaluate suitable options for enhancement/upgradation of the water supply infrastructure, including additional storage, pumping, transmission and distribution arrangements, as applicable.
6. Design a reliable additional/alternative water supply system primarily serving the boys' hostels, with provision for integration/interconnection with the main water supply system. Design of Water tank including review of tank location.
7. Incorporate adequate storage/reserve capacity and appropriate redundancy to improve reliability during breakdowns, maintenance or other interruptions.
8. Prepare detailed engineering designs, hydraulic calculations, layouts, drawings and technical specifications for the proposed works.
9. Prepare cost estimates, BOQs and tender/contract documents for implementation of the proposed system. Recommendations for bulk metering.
10. Recommend an economical, technically sound and sustainable solution considering present requirements as well as future expansion of the Institute.
11. Provide any other technical services reasonably required for finalization and implementation of the proposed water supply enhancement scheme.
12. General improvement recommendations.
13. Any other task related to the project as instructed by Director (Works & Projects)
14. Any tests / Survey required to be performed for the above scope of work.
15. Supervision of the work during implementation by Contractor.

Eligibility

Interested consultancy firms/consultants should have:

- Relevant experience in planning and designing water supply systems for large institutions, residential campuses, housing schemes or similar developments.
- Qualified and experienced engineers and technical staff with relevant expertise in water supply and hydraulic network design.
- Demonstrable experience in hydraulic modelling, design of pumping/storage systems and preparation of detailed engineering/tender documents.
- Adequate technical and financial capacity to undertake the assignment.

Submission of Proposals

Interested firms/consultants are invited to submit their **Technical and Financial Proposals**, along with company profile, details of relevant experience, CVs of key

personnel, list of similar assignments completed and in hand, client references and proposed methodology/work plan.

GIK Institute reserves the right to accept or reject any or all proposals in accordance with its applicable procurement rules and procedures.

The firm shall quote a fixed lump-sum fee (inclusive of taxes) for all design-related services required under the project.

For construction supervision and related services, the firm shall quote its professional fee as a percentage (%) of the total project cost (inclusive of taxes) . The applicable percentage shall cover all supervision and monitoring activities required during the construction period, including site inspections, quality control, verification of quantities, review of contractor submissions, monitoring of progress, checking of materials and workmanship, certification of work, coordination with the client and contractor, and preparation of progress and completion reports etc.

Payment Terms

Payment will be released upon submission of final design report including BoQ, Cost Estimate, drawings, hydraulic model summary and other relevant design documents.

Payment for Supervision: Payment for supervision services shall be released upon completion/execution of the project by the Contractor. The supervision fee may be quoted on a percentage basis of the total project cost, as mutually agreed.

Time of Completion

Time allowed for completion of the work / assignment shall be 4 weeks from the date of issuance of 'Work Order'.

After successful completion of the design work, the contractor will be selected through an open tendering process for execution of the work.

Technical Evaluation Criteria

Firm will be selected on quality and cost based selection i.e 70% technical and 30% Financial

S.No	Description	Total Marks
1	Registration with PEC	10
2	Similar nature projects completed in last 5 years	35
3	Similar nature projects currently in hand	35
4	HR Capability	20
	Total	100

Note:- The firm should obtain 60 marks out of 100. (Mandatory)