

Guwahati Smart City Limited

Development of Borsola Beel (Lake),
Guwahati, Assam

Request for Proposal

For

**Design, Construction, and Commissioning of
various Infrastructure and Landscaping Works
Including Operation and Maintenance for 5
Years**

Volume IV: Preamble to Bill of Quantities

DOCUMENT NO.: TCE.10477A-CV-3000-3101

Employer



Guwahati Smart City Limited, Guwahati-781005

Request for Proposal

For

Design, Construction, and Commissioning of various Infrastructure and Landscaping Works Including Operation and Maintenance for 5 Years

Volume I: Instructions to Bidders.

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Volume II: Technical Specifications and Schedules

Volume II A

- Part1. Project Description
- Part2. Submissions to be made on award
- Part3. Operation and Maintenance requirement

Volume II B:

- Part 1 Technical Specifications for Civil Works
- Part 2 Technical Specifications for Public Health Utilities
- Part 3 Technical Specifications for Landscaping Works
- Part 4 Technical Specification for Electrical Works
- Part 5 Specification for Leachate Protection Work
- Part 6 Technical Datasheet for Electrical Works

Volume II C:

- Part 1 Functional Guarantees

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Volume III : General Conditions of Contract

- Volume III A: Special Conditions of Contract.
- Volume III B: Appendix to Special Conditions of Contract

Volume IV : Preamble to Bill of Quantities

- Bill of Quantities (BOQ)

Volume V . Bid Drawings

PREAMBLE TO PRICE SCHEDULES

1. This bid is for " **Design, Construction, and Commissioning of various Infrastructure and Landscaping Works Including Operation and Maintenance for 5 Years**"
2. The bidder shall quote his firm and fixed price under this Contract, defined in more details in various sections of this bid document.
3. It will be entirely at the discretion of the Employer to accept or reject the bidder's proposal, without giving any reason whatsoever.
4. For the purpose of information, bidders shall furnish the details as per Part E 'Manpower during operation and maintenance of all landscaping & infrastructure works' and Part F 'List of Recommended spares, tools & tackles', the rates shall be quoted in INR in the given Proforma.
5. The rates and prices shall be submitted in the electronic formats only. Rates and prices received in any other formats will be rejected and the Bids will be disqualified.
6. No column in the Price Bid shall be left blank. In case the price is not quoted for any item, the bidder shall be deemed to have covered the cost of such items (according to the requirements of the bid document) elsewhere in the prices quoted for other items and no extra payment on this account will be made. For evaluation purpose the rate of such item will be considered zero (0) to sum up the price of that part.
7. Items not specifically listed in Price Bid , but required to be executed for satisfactory working of the system as specified, will not be separately paid for by the Employer when executed and shall be deemed to be already covered by other items and rates listed in the price sheets and total price quoted in 'Summary of Price'. No extra payment shall be given for any item which is required for successful completion and commissioning of the project.
8. Bidder shall give year wise break up of cost for Operation and Maintenance.

9. The quoted price by the bidder shall be evaluated as per 'Evaluation of Price Bid' under Volume-IV.
10. Payment Schedule given in Volume –IV, shall form the basis to work out schedule of Interim payments during construction period.
11. The bidder shall be deemed to have allowed in his bid proposal for all miscellaneous provisions, maintenance cost of equipments and establishments with final removal of all temporary works of whatsoever nature required for construction including temporary bunds, diverting water, pumping, de-watering etc for the proper execution of works. The rates shall also be deemed to have included any works and setting out that may be required to be carried out for laying of pipeline and construction of structures of all the works involved. The Bidder shall bear the travelling and TA/DA cost of GSCL/PMC personnel to factory site for inspection of material.
12. The Price Schedules are to be read in conjunction with the Conditions of Contract, the Specifications and other sections of these bid documents and these documents are to be taken as mutually explanatory of one another.
13. The bidder shall obtain available information / document/ data on survey work, soil investigation work and any other data required for his proposal at his own cost.
14. The prices quoted shall also include the cost of materials utilized for testing.
15. The bidder should acquaint himself with all the site conditions including but not limited to the access to Work site, HFL, High/low Tide Level as etc. The successful bidder shall have to make suitable access to work sites at his own cost. These accesses may be permitted for the use of the other contractors working for as per instruction of Engineer-in-charge.
16. The item descriptions in price schedule are for subject matter guidance only. The prices shall include all the equipments / materials / accessories , transportation costs and services required as per the specifications.
17. The Rate quoted shall be inclusive of Goods and Service Tax (GST) and applicable duties/taxes, if any

Schedule A of Price Bid –Design & Drawing		
Sr.No	Description	Quoted Price (INR)
1	Submission and approval of Surveys, Soil Investigations ,Designs, Working Drawings including all layout, sections, typical details, Shop Drawings, as Built drawings .etc complete for all components of works	To be quoted online as per schedule A
	Total Price of Part A	

Schedule B of Price Bid - Design Build works		
Sr.No	Description	Quoted Price (INR)
1	Consists of all works like Enabling works, Inlet works, Sewage diversion, cleaning works of the Beel, Site Grading , Ground improvement works, , Retaining wall, Bridge, Road , Sewage interception and Drain collection, Land scape, cable Trench, Liasoning work.etc as per Schedule B of Price Bid	To be quoted online as per schedule attached
	Total Price of Part B	

SCHEDULE C - OPERATION & MAINTENANCE SCHEDULE**SUMMARY**

The works of this schedule comprises of the supply of all manpower, s, electric power, spares, repairs and replacement as required and any other requirements for periodic upstream Desilting, transportation of silt, as well as for the smooth functioning of the developed landscape area, zorbing, boating, water sports etc., & all other tendered works with 5 years O & M period from the date of successful commissioning as shown in table below :

Table O & M –SUMMARY		
Sche dule	Description	Quoted Price (INR)
C1	Total of Table O & M – 1 st Year	To be quoted online as per schedule for Operation and Maintenance
C2	Total of Table O & M – 2 nd Year	
C3	Total of Table O & M – 3 rd Year	
C4	Total of Table O & M – 4 th Year	
C5	Total of Table O & M – 5 th Year	
	Total Price of Part C	

Note: The Prices quoted by Bidder shall be inclusive of all taxes, duties and prevailing GST as per government of India norm

**PART C/1
OPERATION & MAINTENANCE**

The works of this schedule comprises of the supply of all manpower, electric power, spares, repairs and replacement as required and any other requirements for periodic upstream Desilting, transportation of silt, as well as for the smooth functioning of the developed landscape area, zorbing, boating, water sports etc., & all other tendered works with 5 years O & M period during the First year from the date of successful commissioning as shown in table O & M-1 below:

TABLE O & M-1

Item no.	Description	Quoted Price (INR)
1	<p>Fixed Charges: It may include manpower charges, electric power charges, admin charges, and any other charges if required.</p>	To be quoted online as per schedule for Operation and Maintenance (Schedule C1)
	Total price for O & M for the First Year	

PART C/2**OPERATION & MAINTENANCE**

The works of this schedule comprises of the supply of all manpower, electric power, spares, repairs and replacement as required and any other requirements for periodic upstream Desilting, transportation of silt, as well as for the smooth functioning of the developed landscape area, zorbing, boating, water sports etc., & all other tendered works with 5 years O & M period during the Second year from the date of successful commissioning as shown in table O & M-2 below

TABLE O & M-2

Item no.	Description	Quoted Price (INR)
1	Fixed Charges: It may include manpower charges, electric power charges, admin charges, and any other charges if required.	To be quoted online as per schedule for Operation and Maintenance (Schedule C2)
	Total price for O & M for the Second Year	

**PART C/3
OPERATION & MAINTENANCE**

The works of this schedule comprises of the supply of all manpower, electric power, spares, repairs and replacement as required and any other requirements for periodic upstream Desilting, transportation of silt, as well as for the smooth functioning of the developed landscape area, zorbing, boating, water sports etc., & all other tendered works with 5 years O & M period during the Third year from the date of successful commissioning as shown in table O & M-3 below

TABLE O & M-3

Item no.	Description	Quoted Price (INR)
1	<p>Fixed Charges:</p> <p>It may include manpower charges, electric power charges, admin charges, and any other charges if required.</p>	<p>To be quoted online as per schedule for Operation and Maintenance (Schedule C3)</p>
	<p>Total price for O & M for the Third Year</p>	

**PART C/4
OPERATION & MAINTENANCE**

The works of this schedule comprises of the supply of all manpower, electric power, spares, repairs and replacement as required and any other requirements for periodic upstream Desilting, transportation of silt, as well as for the smooth functioning of the developed landscape area, zorbing, boating, water sports etc., & all other tendered works with 5 years O & M period during the fourth year from the date of successful commissioning as shown in table O & M-4 below

TABLE O & M-4

Item no.	Description	Quoted Price (INR)
1	<p>Fixed Charges:</p> <p>It may include manpower charges, electric power charges, admin charges, and any other charges if required.</p>	To be quoted online as per schedule for Operation and Maintenance (Schedule C4)
	Total price for O & M for the Fourth Year	

PART C/5**OPERATION & MAINTENANCE**

The works of this schedule comprises of the supply of all manpower, electric power, spares, repairs and replacement as required and any other requirements for periodic upstream Desilting, transportation of silt, as well as for the smooth functioning of the developed landscape area, zorbing, boating, water sports etc., & all other tendered works with 5 years O & M period during the fifth year from the date of successful commissioning as shown in table O & M-5 below

TABLE O & M-5

Item no.	Description	Quoted Price (INR)
1	Fixed Charges: It may include manpower charges, electric power charges, admin charges, and any other charges if required.	To be quoted online as per schedule for Operation and Maintenance (Schedule C5)
	Total price for O & M for the Fifth Year	

Schedule E**MANPOWER DURING OPERATION AND MAINTENANCE PROPOSED IN THE CONTRACT**

(To be quoted online as per attach Schedule)

Position	No. of Posts	Rate Per Month in Rs.	Total Cost in INR.
Supervisor	2	To be quoted online as per schedule for Operation and Maintenance (Schedule E)	
Security Guard	6		
Helpers	4		
Gardener	2		
Bidder shall quote only rates which he has considered as part of operation and maintenance amount			

PREAMBLE TO MODE OF PAYMENT

1. The contractor after approval of his detailed designs and drawings shall furnish to the Employer's Representative an initial bill of quantities of all items (to be reviewed and updated periodically). This bill of quantities will be used for assessment of percentage progress of any component at any stage.
2. Measurements jointly taken (for Turnkey works) by the Employer's Representative and the Contractor will be entered in the measurement books and signed jointly by both the parties which shall form the basis for such interim payments.
3. As mentioned in the preamble to price schedule, the provision of measurement will be applicable only for the assessment of value of work done and certified by Engineer-in-Charge
4. Payment for items as mentioned will be released as per provision for interim payment as given in schedule mentioned below.
5. Percentages are indicated in the Payment schedule breakup based on the Employer's best appreciation of the value of the component as related to the total costs of the concerned item as a whole. The percentage breakup as indicated in the Payment schedule breakup, may differ from that corresponding to the Bidder's scheme and bidder's design and he should take this into account while quoting his prices for the items specified
6. During O & M, the Contractor shall be paid at the quoted rates per month. The amount withheld against the O & M from the running bill of the contract shall be released as per direction of engineer in charge.
7. The total inflow mentioned in the tender documents is indicative and only for calculation purpose. Any change in the flow as per actual design shall not lead to extra financial implication to the Employer
8. It is clarified by way of abundant caution that contractor shall not claim any additional remuneration in the head of O & M.

Payment Schedule

Sr.no	Item	Weightage in % to the Contract Price	Stage for Payment	Percentage weightage	Remarks
1.01	Design & drawings	1%	Submission and approval of Surveys, Soil Investigations , Designs, Working Drawings including all layout, sections, typical details, Shop Drawings, as Built drawings.etc complete for all components of works	100%	Payment shall be released on Pro rata basis only after approval of working Drawings as per implementation schedule
1.02	Enabling Works- Temporary, Sheet Piling Works, Cleaning of Water Hyacinth, Dismantling of Existing STP, Walkway structure, Excavation of Sludge & refilling of the Beel, Transportation of Sludge to Boragaon Landfill Site 12 km away, Leachate Protection works at Boragaon landfill site	15%	Sheet Piling Works	20%	Payment to be done on Pro rata basis
			Dismantling of Existing STP, Walkway structure	1%	
			Completion of Excavation & refilling Works of Beel plus Transportation of Sludge to existing Boragaon Landfill Site 12 km away	40%	
			Leachate Protection works at Boragaon site	35%	
			On Completion of Miscellaneous Work	4%	
1.03	Sewage Diversion Works for Desilting of Beel and Emergency	3.0%	Construction of temporary Bund and laying of sewer line	80%	Payment shall be done after completion of each activity

Sr.no	Item	Weightage in % to the Contract Price	Stage for Payment	Percentage weightage	Remarks
			On completion of Miscellaneous works	10%	
			Completion of Installation works including testing & commissioning	10%	
1.04	Inlet works – Construction of Weir, U/S de-silting chamber & allied works	2.0%	On completion of Sub-Structural Works	40 %	Payment shall be done after completion of each activity
			On completion of Super-Structural Works	40%	
			On completion of all Mechanical works including sluice gate	10%	
			Completion of installation works including testing & commissioning	10%	
1.05	RCC Retaining wall, Viewing Decks, Entrance Gates and Compound Wall	45.0%	Piling and Foundation work	55%	Unit of measurement is linear length in km. Payment shall be made on pro rata basis on completion of a stage in a length of not less than 25 % (Twenty five per cent) of the total length.
			Construction upto Plinth level / finished level	35%	
			Construction up to Superstructure		
			Viewing Decks.& Entrance Gate	2%	

Sr.no	Item	Weightage in % to the Contract Price	Stage for Payment	Percentage weightage	Remarks
			Compound Wall	1%	
			Completion of all Necessary Work	7%	
1.06	Bridge across Beel	6.0 %	On Completion of Sub-Structural Work,	50%	Payment shall be done after completion of each activity
			On Completion of Super-Structural Work	40%	
			On inspection and satisfactory completion of all	10%	
1.07	Road	1.0%	Site Clearance & Earth Work up to top of the sub grade	15%	Payment shall be done after completion of each activity
			Sub-Base and Base Courses	50%	
			Bituminous works	25%	
			On inspection and satisfactory completion of all	10%	
1.08	Sewage interception and collection of drains	1 %	Earthwork Excavation Work, PCC work	40%	Payment shall be done after completion of each activity
			Construction of Brick Work	40%	
			Plastering and Finishing Work	10%	
			On inspection and satisfactory completion of all	10%	
1.09	Development of Landscape	10%	On completion of miscellaneous Civil works Guard room, Kiosk, Toilet block..etc	20%	Payment shall be done after completion of each activity
			On completion of hardscape works	25%	

Sr.no	Item	Weightage in % to the Contract Price	Stage for Payment	Percentage weightage	Remarks
			On Completion of Soft-scaping works	15%	
			On completion of all Mechanical and Electrical works,	30%	
			On satisfactory testing and commissioning of all works	10%	
1.10	Conversion of OH Line to UG Cable	5.0%	Construction of Civil and Allied Works for Cable Trench	30%	Payment shall be done after completion of each activity
			11Kv and 33Kv OH Line to UG Cable Conversion.	60%	
			Testing and Commissioning of all Works	10%	
1.11	Outlet Weir and Sluice Gate Arrangement	0.5%	On completion of Civil Works	50%	Payment shall be done after completion of each activity
			On completion of all Mechanical works including sluice gate	40%	
			Completion of installation works including testing & commissioning	10%	
1.12	Supply, Installation of Assets like Boat, Zorbing Ball, Life Jacket, Equipment for Horticulture.	0.5 %	On purchasing of all necessary assets	90%	Payment shall be done after completion of each activity
			On satisfactory testing and commissioning of all works	10%	
1.10	Operation and Maintenance for Five years	10%	For First Year	17%	Monthly Payment against Amount quoted for respective year
			For Second Year	18%	
			For Third Year	20%	
			For Fourth Year	20%	
			For Fifth Year	25%	

5.0 METHODOLOGY FOR FINANCIAL BID EVALUATION

Employer will first open the technical bid of all the bidders as per schedule given in the instruction to the Bidders in the presence of the bidders or their authorized representatives who choose to attend on the prescribed place, date and time in the bid for bid opening. After opening of the technical bid, Employer will first evaluate bids for qualification requirement stipulated in the bid document.

Prior to the detailed technical evaluation, the Employer will carry out a preliminary examination to determine whether they are complete, whether the required EMD have been furnished, whether the documents have been properly signed, and whether the Tenders are generally in order and whether Qualification criteria to the requirement of the bidding document are met.

The detailed technical bid evaluation of those bids, who are meeting the qualification requirement, will be carried out. The Price bid of the bidders who are not qualified for the bid, will not be opened and returned to the bidder on award of the contract.

Price-Bid will not be opened by Employer, until evaluation of Technical-bids submitted by the bidders is completed and any conclusion is made. In the evaluation of Technical-bid, all the drawings, details etc., submitted by the bidders will be scrutinized before opening of price bid.

In the process of evaluation of Technical-bid, if there are queries regarding the details, data, drawings etc., submitted by the bidders with their Technical-bid then the same will be raised to the bidders and the bidders will have to give the answers / submit more details etc. accordingly..

After complete evaluation of Technical-bids submitted by all the bidders and after any conclusion is made by Employer to its' own discretion, the price bid of technically responsive bidders will be opened. During the financial bid evaluation the bids shall be evaluated as per below formula to decide the lowest evaluated bid.

5.1. EVALUATION OF PRICE BID:

Procedure For Price Bid Evaluation			
S r. n o	Item Description	Schedule Reference	Updated Factors
a)	Total price for Survey, Soil Investigation, Working Drawings , Design	Schedule A	
b)	Total Price for Design Build works	Schedule B	
c)	Price quoted for Operation and Maintenance		
	Annual quoted price for 1 st year	C1	
	Annual quoted price for 2 nd year	C2	
	Annual quoted price for 3 rd year	C3	
	Annual quoted price for 4 th year	C4	
	Annual quoted price for 5 th year	C5	
	Total O&M Cost (C=C₁+C₂+C₃+C₄+C₅)	C	
	Total Cost (D=A+B+C)	D	
d)	The total price for Construction and Operation & Maintenance (O&M) for 5 years shall be evaluated on NPV method for each bidder. The following factors shall be considered:		
i)	Discounting factor applicable ' r ' = 10%	r	10%
ii)	Evaluation will be made by NPV method considering 3.0 years period for construction and 5 years of operation & maintenance.		
iii)	Cash out flow for construction cost = A+B		
iv)	n = no. of years for determining discounted cash flow for construction and operation period for NPV calculation		
v)	Discounted cash flow factors for years 1,2,3,....n are taken as d1, d2, d3,.....d _n where $d_n = \frac{1}{(1+(r/100))^n}$ Eg. $d_1 = \frac{1}{(1+(r/100))^{1.0}}$ whereas, n=1.0 for 1 st year n=2.0 for 2 nd year n=3.0 for 3 rd year	d1	0.91
		d2	0.83
		d3	0.75
		d4	0.68
		d5	0.62
		d6	0.56

Procedure For Price Bid Evaluation			
 n = n for n th year	d7	0.51
		d8	0.47
d)	Method of evaluation:		
	i. 1 st year cash out flow for construction cost= 0.25 (25% of construction cost) * (A+B) * d1	1 st Year (n ₁)	d1*(A+B)*25%
	ii. 2 nd year cash out flow for construction cost= (35% of construction cost)* (A+B) * d2	2 nd Year (n ₂)	d2*(A+B) *35%
	iii. 3 rd year cash out flow for construction cost= 0.40 (40% of construction cost)* (A+B) * d3	3 rd Year (n ₃)	d3 *(A+B) *40%
	iv. 4 th year cash out flow (i.e. 1 st year for O&M) = d4 * C ₁	4 th Year (n ₅)	d4 * C ₁
	v. 5 th year cash out flow (i.e. 2 nd year for O&M) = d5 * C ₂	5 th Year (n ₅)	d5 * C ₂
	vi. 6 th year cash out flow (i.e. 3 rd year for O&M) = d6 * C ₃	6 th Year (n ₆)	d6* C ₃
	vii. 7 th year cash out flow (i.e. 4 th year for O&M) = d7 * C ₄	7 th Year (n ₇)	d7 * C ₄
	viii. 8 th year cash out flow (i.e. 5 th year for O&M) = d8 * C ₅	8 th Year (n ₈)	d8 * C ₅
	Summation of Sl. No. i - viii discounted outflow (NPV) = N		
e)	Total evaluated price = The net present value of the construction cost and the O & M cost with discounted rate of 10% per year (N) The bidder with the lowest price based on the above evaluated price will be considered as L ₁ Bidder	Total Cost (NPV of Construction & O&M)	N
Total Evaluated Price			

Lowest bidder is decided based on the total evaluated bid value as obtained irrespective of agency's quoted rate subjected to overall technical qualification of the bid.

The Contract shall be awarded as per price quoted by the bidder in the price bid considering Total price consisting of summation of Schedule A, Schedule B & Schedule C

Following Requirements shall be considered for Technical Evaluation purpose

5.2. MINIMUM POWER REQUIREMENTS

1. The bidder shall have to submit the guaranteed energy consumption details in the Volume II (C). The details submitted on energy consumption will be used while bid evaluation and it will used to verify the same during actual operation.
2. Above minimum requirements are indicative purpose only, however, bidders are requested to provide requirement with detailed calculation of Power & Chemical, as per technology proposed for tender works.
3. Kindly indicate the cost of Spare Parts separately
4. Information relating to the examination, clarification, evaluation and comparison of bids and recommendations for the award of a contract shall not be disclosed to bidders or any other persons not officially concerned with such process until the award to successful bidder has been announced. Any effort by a bidder to influence the Employer's processing of tenders or award decisions may result in the rejection of his bid.
5. The Employer reserves right to select any offer or to reject any or all offers without assigning any reasons thereof. Employer does not bind itself to accept the lowest offer.

Signature of the Bidder (Stamp & Signature)

Date: