



Government of West Bengal
Irrigation & Waterways Directorate
Office of the SUPERINTENDING Engineer
MAYURAKSHI CANAL CIRCLE
SURI, BIRBHUM PIN-731101
Ph: - (03462) 255213, e-mail:- semccsuri@gmail.com

Notice Inviting "EXPRESSION OF INTEREST" from reputed Firm having vast knowledge of Soil Grouting of Dam / Barrage to provide budgetary quotes for the following special work.

Name of the work:- "Soil grouting below impervious floor of downstream of Tilpara Barrage under Mayurakshi Head Quarters Division of Mayurakshi Canal Circle District- Birbhum."

(EOI No. WBIW/SE/MCC/EOI-01/2024-25)

Superintending Engineer
Mayurakshi Canal Circle



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Memo No.817EOI/24-25

Date:06.11.2024

NOTICE INVITING-E.O.I
EOI No. WBIW/SE/MCC/EOI-01/2024-25

Name of work: - "Soil grouting below impervious floor of downstream of Tilpara Barrage under Mayurakshi Head Quarters Division of Mayurakshi Canal Circle District- Birbhum."

The Superintending Engineer, Mayurakshi Canal Circle, Suri, Birbhum, (Irrigation & waterways Directorate-West Bengal), on behalf of the Governor of West Bengal, hereby, invites expression of interest proposals from experienced and reputed contractor, bidders having desired Prequalification eligibility credential for execution of works of similar nature and requisite financial capability to provide Methodology, specification, quantification and subsequent erection Services for the mentioned work.

Intending consultants/bidders desirous of participating in the e-EOI are may apply via **offline mode** required to submit to the office of the The Superintending Engineer, Mayurakshi Canal Circle, Suri, Birbhum. They may also visit the official website of Irrigation & Waterways Department, Government of West Bengal www.wbiwd.gov.in for details.

SECTION-1: BRIEF ABOUT OBJECTIVES AND SCOPE OF WORK

- 1) **Project background:-** Tilpara Barrage which is situated at about 40 KM away on downstream of Massanjore Dam over Mayurakshi River is one of the major hydraulic structures of Mayurakshi reservoir project. Its construction was completed in 1951 and NH-14 is now passing over this barrage. Barrage is 308.76 m length having 15 no's of equal bays including 8 no's under sluice, 4 no's each in each side and 7 no's central weir. Design discharge of the barrage is 8490 Cumec. It is utilised as diversion structure for distribution of irrigation water over a command area of 5,60,000 Acres within district Birbhum,. East Burdwan (partly), Murshidabad (partly). Apart from, it plays a significant role on flood management and protect the low land area situated at downstream of Tilpara Barrage, from being submerged. Additionally, it has some other great aspects like provision of supply of water to Bakreswar thermal power plant and supplying drinking water to Md Bazar, Bolpur during severe draught period of summer season depending on the availability of water at Massanjore Dam. In a nutshell, Tilpara Barrage has its impact on every aspects of public welfare in Birbhum district mainly.

Salient features of Tilpara Barrage :

This Barrage is located over river Mayurakshi 23° 56' 32.56" N, 87° 31' 22.53" E, Suri, District- Birbhum

This Barrage was constructed in 1951.

• Total width between abutment	: 308.76 M (1013' - 0")
• No. of Bays	: 15 (8 nos under sluices, 7 nos spillway)
• Width of each under sluices under bay	: 18.29 M (60 ft.)
• Crest with of under sluice	: 1.83 M (6 ft)
• Crest level of under sluice	: 58.06 R.L.(190.50 R.L.)
• Width of each weir bay	: 18.29 M (60 ft 0'')
• Crest width of weir	: 1.83 M (6 ft 0'')
• Crest level of weir	: 58.98 R.L. (193.50 R.L.)
• No. of head regulators bays	: 5 (right) 5 (left)
• Width of each head regulators bay	: 6.09 M (20 ft.) 6.09 M (20 ft.)
• Crest Width of head regulator	: 4.34 M (14 ft. 3'') 4.34 M (14 ft. 3'')
• Crest level of head regulator	: 60.58 R.L. (198.75 R.L.) 60.58 R.L. (198.75 R.L.)
• Design discharge	: 8490 Cu. M/Sec (300,000 c.f.s.)
• Design Discharge through canals	: 99.05 Cu. M/Sec (3500 c.f.s.)

Problem : As the downstream floor of Tilpara Barrage was in damaged condition in the year 2023, a PST was prepared and submitted under DRIP through DSO/I&WD. Due to some uncertainty regarding availability of fund under DRIP-II as well as delay in response from CPMU/World Bank and considering the dilapidated condition of Tilpara Barrage, it was decided that rehabilitation of Tilpara Barrage will be taken up with State Budget. Accordingly, on 13.06.24 the Departmental Screening Committee (DSC) recommended the scheme (with some modification of name of work and some attachment within scheme booklet) with estimated cost of Rs 10.63 crore After this monsoon the downstream blocks in Central and right bay subsided and the sheet pile exposed. Immediate measures have already been taken up to cover the exposed sheet pile. The CDO team visited the site on 30/10/2024 and observed that mostly all the blocks in the central bay and right bay dislocated and depth of scouring on and average 3.00M. It is also observed that the cavity formed below the pucca floor behind the sheet pile. The Director, CDO opine for grouting below the pucca floor to fill up the cavity.

During inspection it is noticed around 400 feet length of sheet pile has been exposed due to flow out of grain particle because of pore pressure thereby exposing bottom of sheet pile. Length of each sheet pile from bottom of pile cap is 14 feet so it is imperative to restrain the soil particles by pressure grouting of sand with additives. It also resulted in cracks in the impervious floor which is increasing alarmingly.

Scope of work:

1. Strengthening the base of the sheet pile with 1:2:4 concrete (with quick setting compounds) to act as base.
2. Sealing the gap of the sheet pile and concrete with polyurethane foam to prevent the outflow of sand during sand grouting.
3. Making cutout of required nos. in the existing sheet pile below pile cap to accommodate pipes for grouting.
4. Grouting of sand under pressure to fill up the void below impervious floor and sheet pile.

5. Subsequent grouting from top with silver sand and cement with special additives to facilitate the flow through perforated pipe to fill up the gap between impervious floor bottom up to sand filling up to the bottom of the pile cap.
6. The top layer up to the bottom of the impervious layer to be filled with silver sand admixed with cement and additives.
7. The surface cracks to be grouted with epoxy grouting.
8. Simultaneous filling both inside and outside sheet pile to be done as sheet pile is not acting as a retaining wall. The outside filling will however be done with available river bed material.

As it is a very complicated work & without proper methodology it cannot be done, so specialized devoted engineer with supported technical person is needed who can handle this kind of job. So, agencies having sufficient experience Engineers, technical hands with lot of technical knowledge regarding this field have to be engaged.

2) Deliverables:

Deliverables of the present assignment are:

- i. The interested companies will conduct site visit and followed by discussion with departmental engineers for analyzing actual site condition and identification of difficulties associated with work and assessment of methodology of soil grouting below impervious floor of downstream of Tilpara Barrage considering above mentioned site condition.
- ii. Based on understanding & technical feasibility, the companies will suggest a suitable methodology of construction which inter alia may include specification of any special item. Based on the inputs, suggestion received from bidders through EOI, the RFP (Request for Proposal) will be finalized.
- iii. Brief description of the problem and narrative of challenges.
- iv. Suggesting for specific Quality assurance plan for proper implementation of the project.
- v. Highlighting risks and safety measures considered during the work.
- vi. The bidders are requested to provide the budgetary quotes for the special work considering all aspects.
- vii. Rough cost estimate of the proposed work has to be submitted

SECTION2: INSTRUCTIONTOBIDDER

1) Submission of EoI:

The intending agencies should submit their most competitive budgetary quotes, as per current market price in plain paper or official letter head pad along with rough cost estimate in the manner deemed applied in an offline sealed envelope super scribing on the top EOI for the budgetary quotes for the work "Soil grouting below impervious floor of downstream of Tilpara Barrage under Mayurakshi Head Quarters Division of Mayurakshi Canal Circle District- Birbhum." in the tender box to be available at-the following offices: The Superintending Engineer, Mayurakshi Canal Circle, Suri, Birbhum.

The interested companies will conduct site visit and followed by discussion with departmental engineers for analyzing actual site condition and identification of difficulties associated with the work, a suitable methodology of the work in under water condition have to be suggest with detailed justification along with rough cost involvement.

Since, the Notice Inviting Expression of Interests (EoIs) is being made to assess the value of the work, no work order will be issued in favour of any agency against the EoIs.

- 2) EOI documents :The EOI comprise of Notice inviting "Expression of Interest", project Background broad scope of work, time schedule, instruction to Bidders.
- 3) Receipt of proposal: All sealed proposals should be submitted to the office of The Superintending Engineer, Mayurakshi Canal Circle, Suri, Birbhum date Mentioned in this notification. Mode of bid submission will be offline with technical & financial folder without any EMD.
- 4) For any queries and clarification, interested contenders may visit the site and may contact the Superintending Engineer, Mayurakshi Canal Circle, Suri, Birbhum. (Irrigation & Waterways Directorate -WB at the address mentioned at para below).
- 5) Address for Communication: The Superintending Engineer, Mayurakshi Canal Circle, Suri, Birbhum..
- 6) Interested bidders may consult the departmental web portal mentioned above regularly to see Corrigenda/Addenda which may be issued by Notice Inviting Authority from time to time prior to submission of the proposal as given in para 8. As pre-bid of EoI meeting will be conducted to clear any doubt on 14.11.2024 in the office at the office chamber of the Superintending Engineer, Mayurakshi Canal Circle, Suri, Birbhum.
- 7) Accepting authority reserves the right to accept /reject any or all proposals without assigning any reason thereof.
- 8) **Inspection of site and its premises before submission of EoIs:**

Before submitting EoI's, the intending agencies may make themselves acquainted thoroughly with the exact requirement of works and details of existing structures accompanied with the official/representative of the The Superintending Engineer, Mayurakshi Canal Circle, Suri, Birbhum., having its office at the Irrigation Colony, Suri, Birbhum, PIN-731101, West Bengal during any working day between 11.30 hours and 17.00 hours prior to the date of submission of proposal.

9) Pre Bid Meeting:

Pre bid meeting will be held at the office chamber of the The Superintending Engineer, Mayurakshi Canal Circle, Suri, Birbhum., having its office at the Irrigation Colony, Suri, Birbhum, PIN-731101 on the following dates and interested agencies may attend the meeting for technical discussions.

EoIs so received in sealed covers will be opened in the chamber of the Superintending Engineer, Mayurakshi Canal Circle in presence of the intending agencies those who will be present at that time.

Schedule of Dates for EOI:

Sl no	Activity	Date & Time
1.	Publishing Date	7.11.2024 at 11.00 Hrs
2.	Pre Bid Meeting	14.11.2024 at 12.00 Hrs
3.	E.O.I submission end date	20.11.2024 at 15.00 Hrs
4.	Date of E.O.I opening	20.11.2024 at 15.30 Hrs

SECTION 3.PRE-QUALIFICATION CRITERIA

1.Qualification of theBidder:

Only the renowned firms having vast knowledge of Dam /Barrage grouting may apply:-

Satisfactorily completed in the last 5 financial years, as a prime contractor or as joint venture, at least one similar work of value not less than amount of Rs.50 lakh since government/public sector at national level, having the Construction / Rehabilitation /special repair of Grouting work of Barrage/ Dam.

2. Documents to be submitted:

- (a) Completion certificates along with Work Order & BOQ/SoR duly signed by client stating the rein the broad scope of work of similar nature.

3. Tender Inviting Authority reserves the right to consider acceptance of qualifying criteria of the proposal having min or deficiency from the prescribed limits if the situations so demands.

4. **No bid fees or security** is required during submission of EOI by the intending firm however the bidder will prepare their EOI at their own cost.

5. The firm shall submit payment terms along with his proposal.


Sd/-
Superintending Engineer,
Mayurakshi Canal Circle,
Suri, Birbhum

Memo No: 817/1(7)/EOI/24-25

Dated: 06.11.2024

Copy submitted for favour of kind information to :

- 1) The Secretary, Govt. of West Bengal, Irrigation & Waterways Department, Jalasampad Bhawan, Salt Lake, Kol-91.
- 2) The Chief Engineer, (North), I&W Directorate, Green Park, Mokdompur, Malda-732103
- 3) The Joint Secretary (Works) to the Govt. of West Bengal, I&W Department.
- 4) The Financial Adviser, Irrigation & Waterways Department.
- 5) The Deputy Secretary (Works) to the Govt. of West Bengal, I&W Department.
- 6) The Director, Central Design Office, Jalasampad Bhawan, Salt Lake, Kol-91.
- 7) The Director, Dam Safety Organisation, Jalasampad Bhawan, Salt Lake, Kol-91.


Superintending Engineer,
Mayurakshi Canal Circle,
Suri, Birbhum


etc.

Memo No: 817/1(7)/1(6)/EOI/24-25

Dated: 06.11.2024

Copy forwarded for favour of kind information to:

- 1) The Executive Engineer, DVC study cell for wide publication.
- 2) The Executive Engineer, Mayurakshi Head Quarters Division
- 3) The Executive Engineer, Mayurakshi South Canals Division, Bolpur, Birbhum.
- 4) The Executive Engineer, Mayurakshi North Canals Division, Rampurhat, Birbhum.
- 5) The Estimating Section, Mayurakshi Canal Circle, Suri, Birbhum.
- 6) Notice Board.


Superintending Engineer,
Mayurakshi Canal Circle,
Suri, Birbhum

etc.