

File No: 2022-IWAI-356200-MN-RFQ

Date: 24/11/2022

NOTICE FOR PROPOSALS/BUDGETARY OFFERS FOR REPAIRING OF BULKHEAD GATES & RADIAL GATES OF EXISTING NAVIGATION LOCK AT FARAKKA.

Subject:-Submission of Budgetary offer/proposals for Repairing of Bulkhead Gates & Radial Gates of Existing Navigation Lock at Farakka-reg.

IWAI invites application from reputed repairers having experience in Repairing works related to Navigation Lock or similar hydro-mechanical structures for carrying out the work “**Repairing of Bulkhead Gates & Radial Gates of Existing Navigation Lock at Farakka**”. The detailed scope of work, terms and conditions are enclosed as Annexure-I of this notice. The Bill of Quantities is enclosed as Annexure-II.

You are requested to inspect the site at Existing Navigation Lock premises, Farakka Barrage Township, Farakka, Murshidabad, West Bengal-742212 and submit your best offer for the work as per the details furnished above within 7(Seven) days from the date of issue of this notice i.e. 01/12/2022.

In case of any clarification Sh. Sudhir Sharma, Deputy Director, IWAI, Kolkata (Mob-9771435666) or Sh. Sanjeeva Kumar(Mob-8789920659), Asst. Director & OIC/Sh. Vineet Pandey(Mob-9009552810), Assistant Director, IWAI, Farakka may be contacted. Budgetary quotes may be submitted to email id: iwaifarakka@iwai.gov.in with a copy to dirkol@iwai.gov.in .

Sd/-

(Arvind Kumar)

Director(I/c)

Annexure-I

Scope of work for Repairing of Bulkhead Gates & Radial Gates of Existing Navigation Lock at Farakka

As per various inspections, it has been noticed that all four Radial Gate structures are damaged to some extent/severely damaged and needs immediate repairing to keep the Navigation Lock operational. The authority intends to carry out the repair work by engaging competent agency on open tender basis. The repairers are suggested to visit the site and submit their techno commercial offer with detailed methodology to execute the work. However, the broader scopes of works are listed below (for reference purpose only):-

1. The Radial Gates are currently submerged except 60% portion of D/s Radial gates which may be visible once downstream water level is on lesser side in lean season.
2. The Bulkhead Gates are currently in non-functional condition. Four set of Bulkhead Gates(Eight Nos.) i.e. two set on each bank to be made fully functional by carrying out all the repairing works such as replacement of worn out seals, the guide wheels bearing servicing/replacement, lowering hook servicing/replacement and equalizing valve repairing/replacement. Painting of the gate as per applicable IS standards and/or norms is to be also done.
3. All eight Bulkhead lowering grooves(submerged) are to be made obstruction free, the gate seating area/embedded parts are to be cleaned/ serviced as applicable and watertight seating of Bulkhead gates are to be ensured in each grooves (eight nos.).
4. The area between Bulkhead grooves in Radial Gate Chamber/Tunnel is to be dewatered and demonstrated for water tightness after installing the Bulkhead Gates. This is to be done for all four Radial Gate Chamber/Tunnel.
5. All four Radial Gates are to repaired/serviced by replacement of all worn-out structural members, rubber seals, skin plates, trunnion assembly etc. and made fully operational.
6. All the detailed drawings/sketches (available) are enclosed for reference purpose only. However, the bidders may rely on their site inspection and quote the rates accordingly. Any claims based on the mismatch of drawing & actual site situation will not be accepted by the authority.

Terms and Conditions: -

1. The budgetary offers must accompany detailed methodology for the work and stage-wise schedule for completion of the work.
2. The prices shall be quoted excluding GST but including of all other taxes, duties, labor charges, statutory dues, consumables etc.
3. The completion period for the above work shall be 60 days from the date of site clearance for commencement of work (after receipt of work order). The work shall be completed in all respect with the above-mentioned period to the satisfaction of the authority.
4. 90% payment will be made by cheque/RTGS within 15 days from the date of completion of the work and certification of the bill by the officer concerned after deduction of the statutory dues and balance amount of 10% shall be released after defect liability period i.e. one year on satisfactory completion of the guaranty period and duly certification by concern officer.
5. Liquidated Damage: - 0.5 % per week (or part thereof) delay on the contract value subject to maximum 10 % in case the work is not completed satisfactorily with the completion period.
6. *Security Deposit: -The Selected Bidders' EMD will be converted into Security Deposit (SD) and the Selected Bidder has to remit balance amount of Security Deposit (i.e. Total 3% of the awarded value of work as Security Deposit, deducting EMD submitted with Technical Bid) in IWAI Fund through RTGS as per the tender conditions. Bank guarantee will not be accepted as Security Deposit. The Selected Bidder shall have to also deposit an amount equal to 3% of the awarded value of the work as Performance Guarantee in the form of irrevocable bank guarantee from nationalized / schedule bank in India with validity of 180 days beyond the contract completion period. This Security deposit and performance bank guarantee shall be submitted within 15 days after the issuance of LOA. SD & Performance Guarantee will be refunded without any interest after successful completion of the guarantee period of one year.*
7. The contractor shall make good at his own expenses of all the defects due to faulty materials and workmanship which may develop during the period of one year from the date of satisfactory completion of the work.
8. Personal Protective Equipment: -Personnel deployed by the successful bidder should have PPE as would be necessary for the given working condition.
9. Any required insurance coverage for the working manpower & labor license shall have to be arranged by successful bidder at his own cost & liability. Any other statutory obligations shall be also taken care by successful bidders at their risk and cost.
10. Electrical power at one point will be provided for work at free of cost.
11. All the tools and tackles, necessary fixtures and any other arrangements as would be felt necessary by the contractor to carry out the work shall have to be arranged by them at their own cost and liability.

12. Gate pass has to be arranged by contractor from CISF. The department will provide all the required assistance in same.
13. Claim / claims for damages or loss of materials and life due to accident or otherwise either natural calamity or other reasons whatsoever shall not be entertained by the Department. The contractor shall indemnify the department for any such losses. However, Departmental assistance can be extended in case of salvaging purpose at the rate(s) fixed by the Department where it is susceptible if such facilities exist.
14. Responsibility of safety and security of work during repairing works over land as well as in the water i.e. in the river will entirely rest with the supplier. Necessary compensation in case of any accident will have to be paid by the supplier as per rule. IWAI will not be held responsible for any such unforeseen events and no compensation shall be paid by IWAI.
15. E-Payment will be made after submission of pre-receipted bills in triplicate by the supplier. No advance payment is admissible.
16. The undersigned reserves the right to reject any part or whole of the quotation without assigning any reason whatsoever.
17. The rates offered shall remain open for acceptance by the Department for the period of 120 (One hundred twenty) days .
18. Cost of spares (if any) shall be paid on actual bill + 10 % on basic value of the spares on submission of original GST bills with TC/Guarantee Certificate (as applicable).So, the bidder may quote their rates in two part for each work separately i.e.
 - a) Labour Cost and other costs other than the cost of spares.
 - b) Tentative Cost of Spares (on actual bill + 10 % on basic value of the spares) for estimation purpose only.

Bill of Quantities

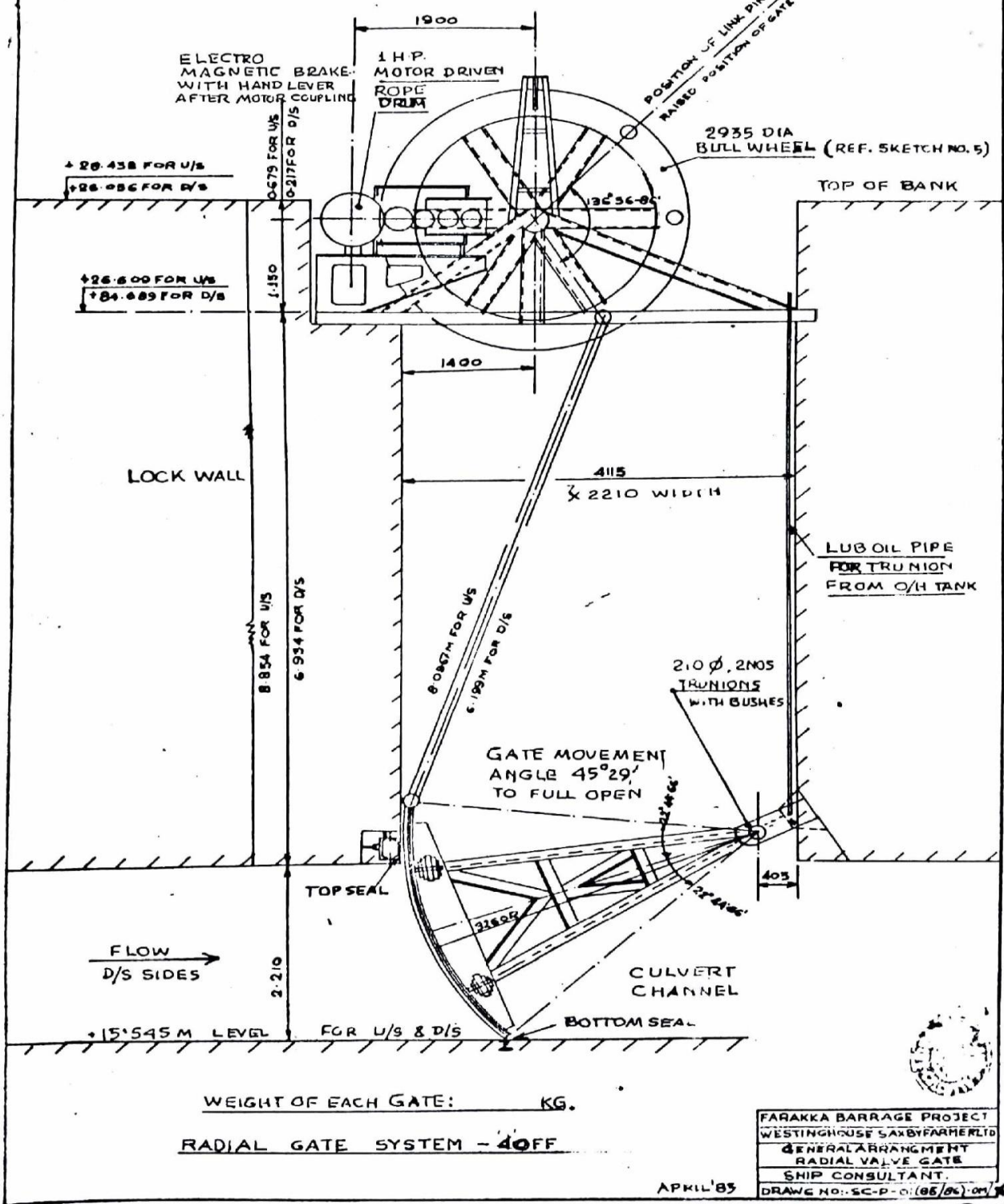
| Sl. No. | Description of work | Unit | Qty | Rate | Amount |
|----------------|---|-------------|------------|-------------|---------------|
| 1 | The Bulkhead Gates are currently in non-functional condition. Four set of Bulkhead Gates(Eight Nos.) i.e. two set on each bank to be made fully functional by carrying out all the repairing works such as replacement of worn out seals, the guide wheels bearing servicing/replacement, lowering hook servicing/replacement and equalizing valve repairing/replacement. Surface preparation & painting of the gate at per applicable IS standards and/or norms | | | | |
| a) | Labour Charges | Nos | 8 | | |
| b) | Cost of spares (if any) shall be paid on actual bill + 10 % | | At Actual | | |
| 2 | All eight Bulkhead lowering grooves are to be made obstruction free, the gate seating area/embedded parts are to be cleaned/serviced as applicable and watertight seating of Bulkhead gates are to be ensured in each grooves (eight nos.). | | | | |
| a) | Labour Charges | Nos | 8 | | |
| b) | Cost of spares (if any) shall be paid on actual bill + 10 % | | At Actual | | |
| 3 | The area between Bulkhead grooves in Radial Gate Chamber/Tunnel is to be dewatered and demonstrated for water tightness after installing the Bulkhead Gates. This is to be done for all four Radial Gate Chamber/Tunnel. | | | | |
| a) | Labour Charges | Job | 1 | | |
| b) | Cost of spares (if any) shall be paid on actual bill + 10 % | | At Actual | | |

| | | | | | |
|----|--|-----|-----------|--|--|
| 4 | All four Radial Gates are to repaired/serviced by replacement of all worn-out structural members, rubber seals, skin plates, trunnion assembly etc. and made fully operational. The quoted rates must also include dismantling/re-erection of operating level platforms for movement of operating near electro-mechanical winch system. Surface preparation & painting of the gate at per applicable IS standards and/or norms. | | | | |
| a) | Labour Charges | Nos | 4 | | |
| b) | Cost of spares (if any) shall be paid on actual bill + 10 % | | At Actual | | |
| 5 | Servicing of wire rope based electro-mechanical winch type operating System of Radial Gates consisting of two hp motorized mechanism having primary gearbox and secondary gear box, drum brake etc and make operation without any oil/lubricant leakages. | | | | |
| a) | Labour Charges | Nos | 4 | | |
| b) | Cost of spares (if any) shall be paid on actual bill + 10 % | | At Actual | | |

*GST Extra as applicable

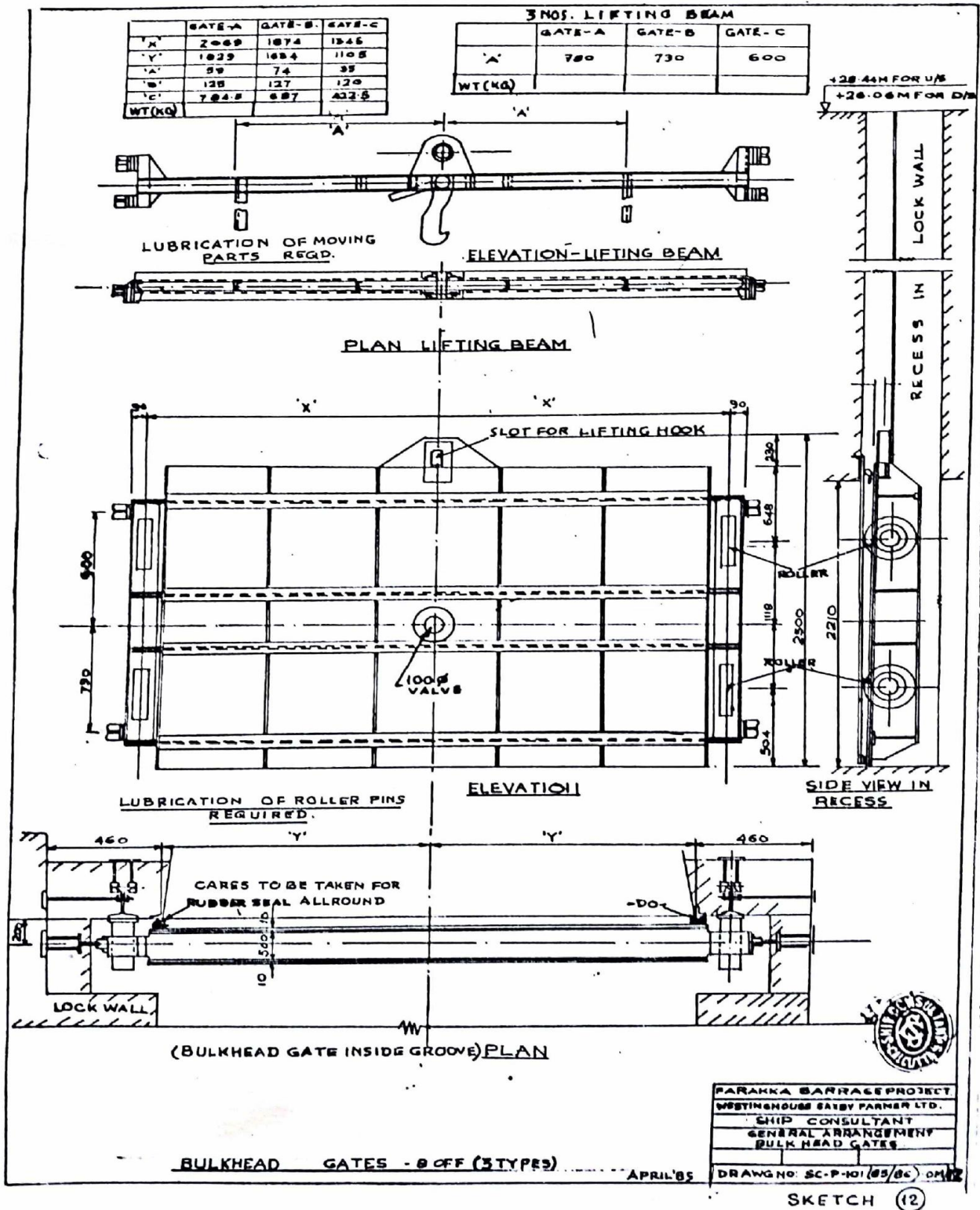
Note: -Cost of spares (if any) shall be paid on actual bill + 10 % (on basic value of the spares) basis on submission of original GST bills along with MTC/Guarantee Certificate (as applicable).

REF. DRAWG NO. SC-P-01 (85/86) -OM/5 FOR GEARING SYSTEM

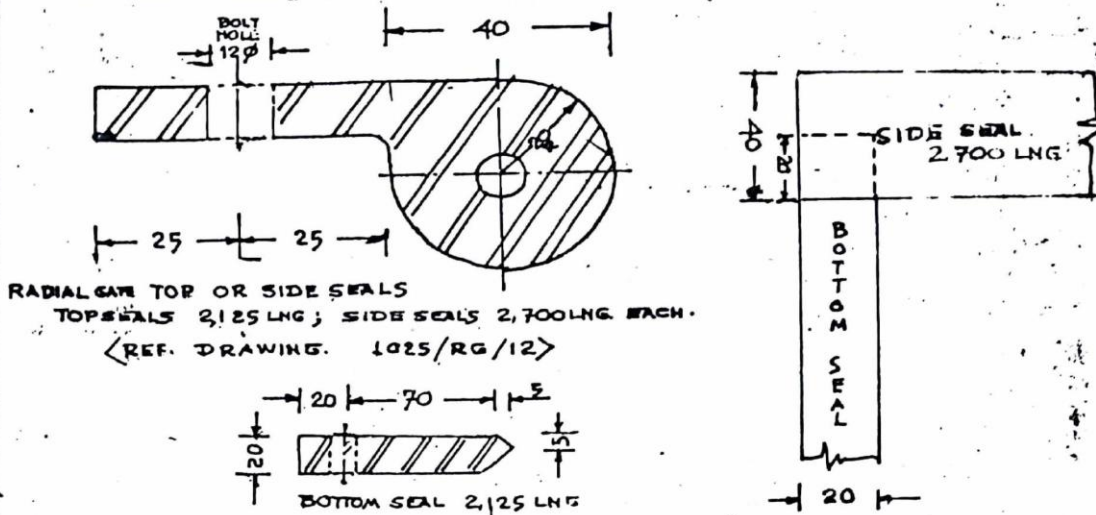


SKETCH 4

RADIAL GATE SYSTEM SCHEMATIC DRAWING

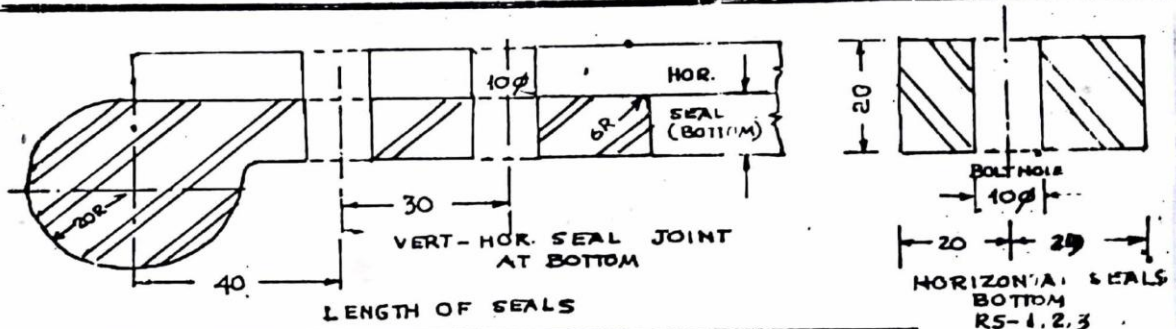


BULKHEAD GATE SYSTEM SCHEMATIC DRAWING



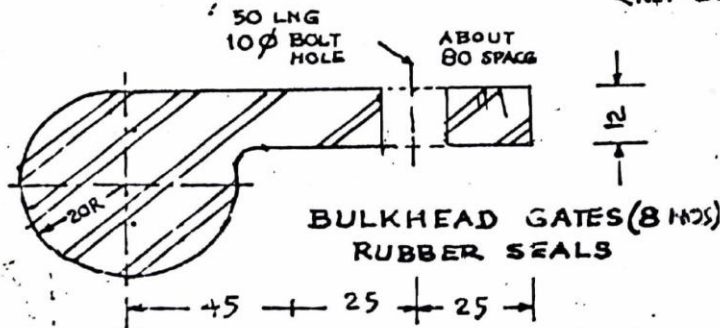
RADIAL GATE TOP OR SIDE SEALS
 TOP SEALS 2,125 LNG; SIDE SEALS 2,700 LNG EACH.
 <REF. DRAWING. 1025/RG/12>

RADIAL GATES (4 SETS) SEALS



| LOCATION | TYPE | GATE 'A' | GATE 'B' | GATE 'C' |
|-------------------|------------|----------|----------|----------|
| HORIZONTAL BOTTOM | RS-1,2,8,3 | 3620 | 3230 | 2170 |
| HORIZONTAL TOP | RS-4,5,8,6 | 3800 | 8410 | 2350 |

<REF. DRAWING 1025/BG/16>



TYPE (RS-7) ALSO (RS-4,5,6) 2250 LNG, VERTICAL SEALS (EACH SIDE)
 HORIZONTAL TOP SEALS

DETAILS OF SEALS - SHEET-2
 FARAKKA BARRAGE
 NAVIGATION LOCK
 WESTINGHOUSE SAXBY FARMER & CO
 SHIP CONSULTANTS
 SKETCH NO. SC-P-01(85/84)-0M/14



Annexure-II

Scope of work for Repairing of Mitre Gates(4 nos.) of Existing Navigation Lock at Farakka

As per various inspections, it has been noticed that all four Mitre Gate structures are damaged to some extent/severely damaged and needs immediate repairing to keep the Navigation Lock operational. The authority intends to carry out the repair work by engaging competent agency on open tender basis. The repairers are suggested to visit the site and submit their techno commercial offer with detailed methodology to execute the work. However, the broader scopes of works are listed below (for reference purpose only):-

1. The major portion of Mitre Gates(60%) are currently submerged.
2. The Gates are currently in operational condition however, preventive maintenance is to be carried out to avoid any unforeseen breakdown.
3. The wooden fenders on both leaves (i.e. middle portion of the U/S & D/S Mitre Gate) are damaged and needs to be replaced. All damaged rubber seals(bulb note type) also needs to be replaced. The damaged structural parts of the gates such as plates, ISMC sections & other rolled sections may be replaced with existing size of such plates, ISMC sections and other rolled sections to strengthen the structure as required for replacement of the seals and is within the scope of work.
4. The top hinge of three leaves of the U/S & D/S Mitre Gate have abnormal sound (except D/S Left Bank side leaf) and needs to be dismantled, both pin and bush are to be check for any damages, to be reinstalled/replaced as required, proper locking of the pin at top and bottom is to be done by providing necessary collars, bearings etc. as required. The fourth top hinge of D/S Left Bank side leaf is also to be serviced as required.
5. Surface cleaning and painting of the structure may be done for exposed portion.
6. Servicing of wire rope based electro-mechanical winch type operating System of Mitre Gates consisting of two hp motorized mechanism having primary gearbox and secondary gear box, drum brake etc and make operation without any oil/lubricant leakages. The system is operational with minor problems such as leakages etc.
7. All the detailed drawings/sketches (available) are enclosed for reference purpose only. However, the bidders may rely on their site inspection and

quote the rates accordingly. Any claims based on the mismatch of drawing & actual site situation will not be accepted by the authority.

Terms and Conditions: -

1. The budgetary offers must accompany detailed methodology for the work and stage-wise schedule for completion of the work.
2. The prices shall be quoted excluding GST but including of all other taxes, duties, labor charges, statutory dues, consumables etc.
3. The completion period for the above work shall be 60 days from the date of site clearance for commencement of work (after receipt of work order). The work shall be completed in all respect with the above-mentioned period to the satisfaction of the authority.
4. 90% payment will be made by cheque/RTGS within 15 days from the date of completion of the work and certification of the bill by the officer concerned after deduction of the statutory dues and balance amount of 10% shall be released after defect liability period i.e. one year on satisfactory completion of the guaranty period and duly certification by concern officer.
5. Liquidated Damage: - 0.5 % per week (or part thereof) delay on the contract value subject to maximum 10 % in case the work is not completed satisfactorily with the completion period.
6. *Security Deposit: -The Selected Bidders' EMD will be converted into Security Deposit (SD) and the Selected Bidder has to remit balance amount of Security Deposit (i.e. Total 3% of the awarded value of work as Security Deposit, deducting EMD submitted with Technical Bid) in IWAI Fund through RTGS as per the tender conditions. Bank guarantee will not be accepted as Security Deposit. The Selected Bidder shall have to also deposit an amount equal to 3% of the awarded value of the work as Performance Guarantee in the form of irrevocable bank guarantee from nationalized / schedule bank in India with validity of 180 days beyond the contract completion period. This Security deposit and performance bank guarantee shall be submitted within 15 days after the issuance of LOA. SD & Performance Guarantee will be refunded without any interest after successful completion of the guarantee period of one year.*
7. The contractor shall make good at his own expenses of all the defects due to faulty materials and workmanship which may develop during the period of one year from the date of satisfactory completion of the work.
8. Personal Protective Equipment: -Personnel deployed by the successful bidder should have PPE as would be necessary for the given working condition.

9. Any required insurance coverage for the working manpower & labor license shall have to be arranged by successful bidder at his own cost & liability. Any other statutory obligations shall be also taken care by successful bidders at their risk and cost.
10. Electrical power at one point will be provided for work at free of cost.
11. All the tools and tackles, necessary fixtures and any other arrangements as would be felt necessary by the contractor to carry out the work shall have to be arranged by them at their own cost and liability.
12. Gate pass has to be arranged by contractor from CISF. The department will provide all the required assistance in same.
13. Claim / claims for damages or loss of materials and life due to accident or otherwise either natural calamity or other reasons whatsoever shall not be entertained by the Department. The contractor shall indemnify the department for any such losses. However, Departmental assistance can be extended in case of salvaging purpose at the rate(s) fixed by the Department where it is susceptible if such facilities exist.
14. Responsibility of safety and security of work during repairing works over land as well as in the water i.e. in the river will entirely rest with the supplier. Necessary compensation in case of any accident will have to be paid by the supplier as per rule. IWAI will not be held responsible for any such unforeseen events and no compensation shall be paid by IWAI.
15. E-Payment will be made after submission of pre-receipted bills in triplicate by the supplier. No advance payment is admissible.
16. The undersigned reserves the right to reject any part or whole of the quotation without assigning any reason whatsoever.
17. The rates offered shall remain open for acceptance by the Department for the period of 120 (One hundred twenty) days .
18. Cost of spares (if any) shall be paid on actual bill + 10 % on basic value of the spares on submission of original GST bills with TC/Guarantee Certificate (as applicable).So, the bidder may quote their rates in two part for each work separately i.e.
 - c) Labour Cost and other costs other than the cost of spares.
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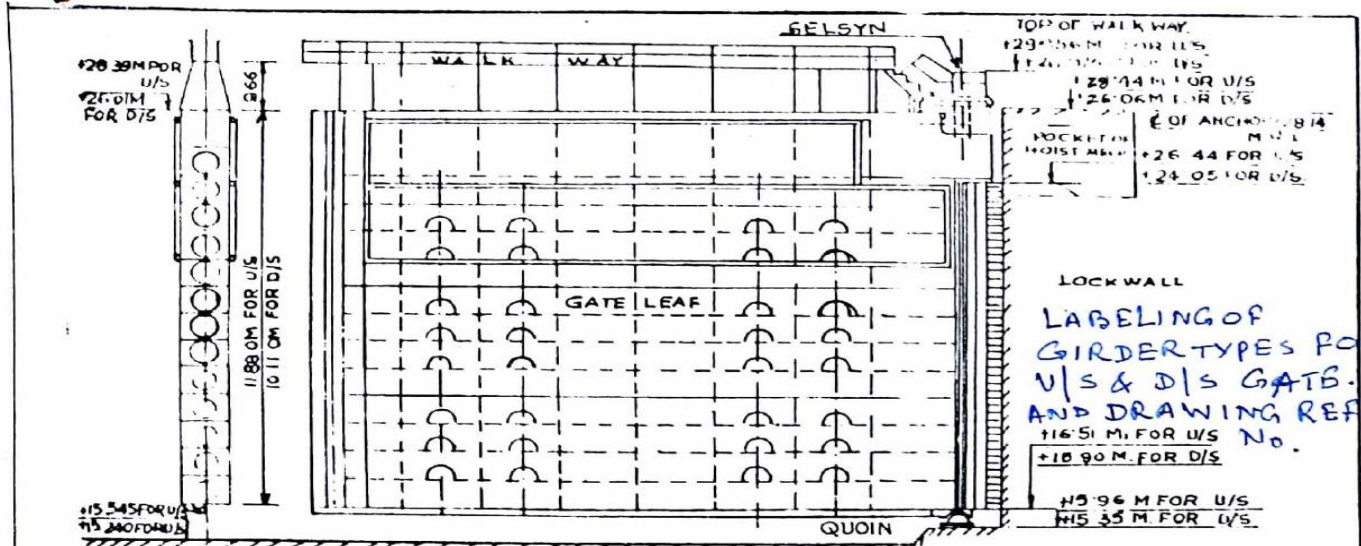
Bill of Quantities

| Sl. No. | Description of work | Unit | Qty | Rate | Amount |
|----------------|--|-------------|------------|-------------|---------------|
| 1 | The wooden fenders on both leaves (i.e. middle portion of the U/S & D/S Mitre Gate) are damaged and needs to be replaced. All damaged rubber seals (bulb note type) also needs to be replaced. The damaged structural parts of the gates such as plates, ISMC sections & other rolled sections may be replaced with existing size of such plates, ISMC sections and other rolled sections to strengthen the structure as required for replacement of the seals as per direction of EIC | | | | |
| a) | Labour Charges | Set | 4 | | |
| b) | Cost of spares (if any) shall be paid on actual bill + 10 % | | At Actual | | |
| 2 | The top hinge of three leaves of the U/S & D/S Mitre Gate have abnormal sound (except D/S Left Bank side leaf) and needs to be dismantled, both pin and bush are to be check for any damages, to be reinstalled/replaced as required, proper locking of the pin at top and bottom is to be done by providing necessary collars, bearings etc. as required. The fourth top hinge of D/S Left Bank side leaf is also to be serviced as required. | | | | |
| a) | Labour Charges | Nos | 4 | | |
| b) | Cost of spares (if any) shall be paid on actual bill + 10 % | | At Actual | | |
| 3 | Surface preparation and painting of the cstructure may be done for (exposed portion only) as per applicable IS standards and/or norms. | | | | |
| a) | Labour Charges | Job | 1 | | |
| b) | Cost of spares (if any) shall be paid on actual bill + 10 % | | At Actual | | |

| | | | | | |
|----|--|-----|-----------|--|--|
| 4 | Servicing of wire rope based electro-mechanical winch type operating System of Mitre Gates consisting of two hp motorized mechanism having primary gearbox and secondary gear box, drum brake etc and make operation without any oil/lubricant leakages. The system is operational with minor problems such as leakages etc. | | | | |
| a) | Labour Charges | Nos | 4 | | |
| b) | Cost of spares (if any) shall be paid on actual bill + 10 % | | At Actual | | |

*GST Extra as applicable

Note: -Cost of spares (if any) shall be paid on actual bill + 10 % (on basic value of the spares) basis on submission of original GST bills along with MTC/Guarantee Certificate (as applicable).

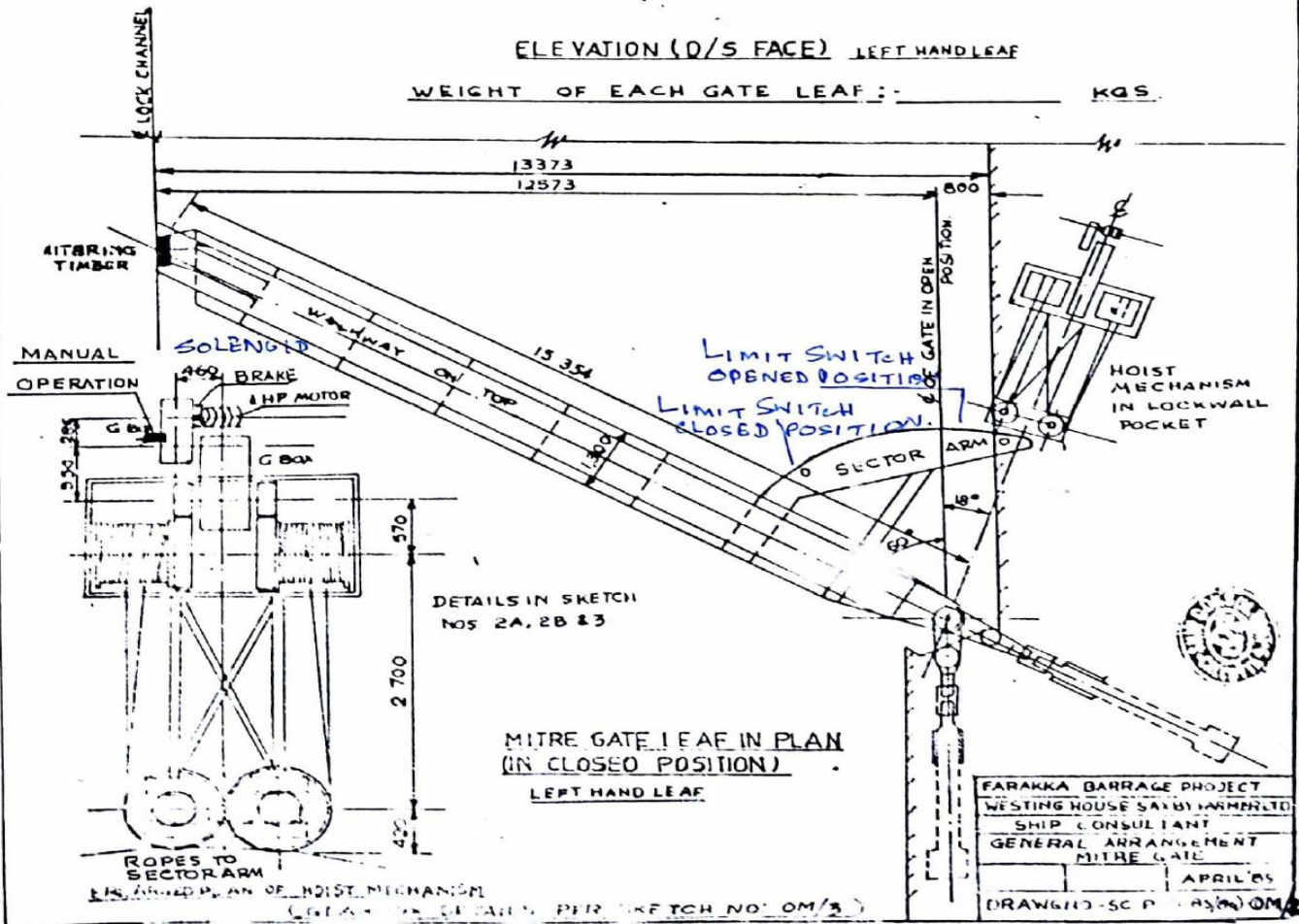


LABELING OF GIRDER TYPES FOR U/S & D/S GATE. AND DRAWING REF No.

SECTIONAL ELEVATION

ELEVATION (D/S FACE) LEFT HAND LEAF

WEIGHT OF EACH GATE LEAF :- _____ KGS.

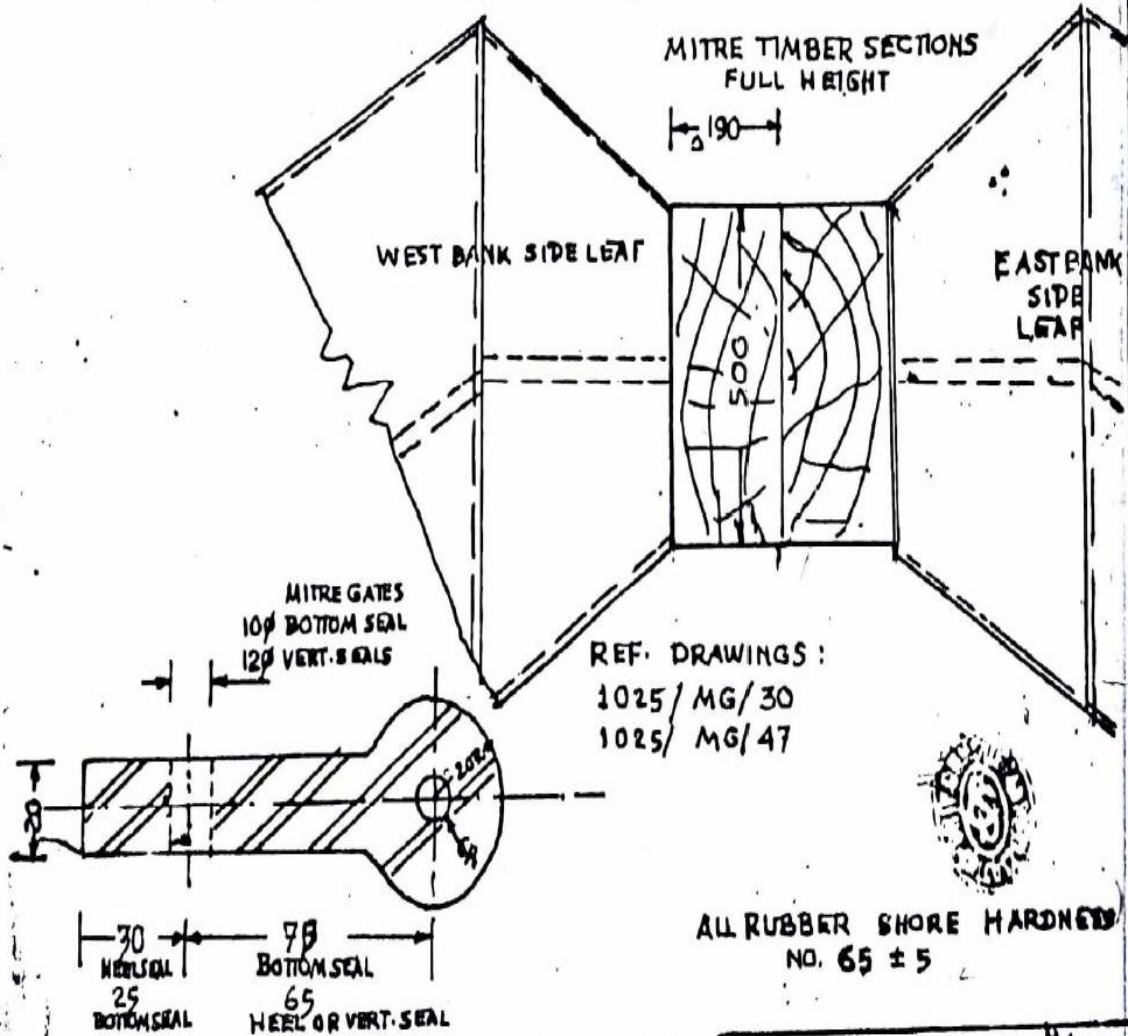


| | |
|------------------------------|-------|
| FARAKKA BARRAGE PROJECT | |
| WESTING HOUSE S&B/HARMER LTD | |
| SHIP CONSULTANT | |
| GENERAL ARRANGEMENT | |
| MITRE GATE | |
| APRIL '65 | |
| DRAWING - SC P | AS/OM |

SKETCH (2)

MITRE GATE & OPERATING SYSTEM SCHEMATIC DRAWING

MITRE GATES (4 LEAVES) WOODEN, RUBBER SEALS.



REF. DRAWINGS:
1025/ MG/30
1025/ MG/47

ALL RUBBER SHORE HARDNESS
NO. 65 ± 5

LENGTH OF SEALS

| GATE TYPE | HEEL SEAL | BOTTOM SEAL |
|-------------------------|-----------|-------------|
| UPSTREAM EACH GATE LEAF | 10.01 m | 14.75 m |
| DOWNSTREAM -DO- | 8.55 m | 14.75 m. |

DETAILS OF SEALS - SHEET 6

**FARAKYA BARRAGE
NAVIGATION LOCK**

WESTINGHOUSE SAXBY FARMER LTD
SHIP CONSULTANTS
CALCUTTA

SKETCH NO. SC-P.01(85/86)-04/15

MITRE GATE SEALS SCHEMATIC DRAWING