

INVITATION FOR BIDS

CONTRACT

- 1 The Municipal Commissioner, for and on behalf of BMC, invites e-tenders consisting of three packets (Technical i.e. packet A & B and Price Packet on Design-Build basis for construction of approx. 152 m deep shaft at Ghatkopar WWTF & further construction of approximately 8.485 km (\pm 5 metres) long reinforced concrete in-situ lined tunnel of 2.7 metres finished diameter up to approx. 144 m deep shaft at Dharavi WWTF, using full face rock tunnel boring machine and allied works, under National competitive bidding on least cost basis, from reputed contracting firms who meet the eligibility requirements and fulfil the qualifying criteria stipulated in the bidding document.

- 2 The scope of the captioned work, in brief, includes the following:
 - a) Design and construction of 3500mm bored diameter tunnel by full face rock tunnel boring machine from proposed shaft at Ghatkopar WWTF to the proposed shaft at Dharavi WWTF of approximate length 8.485 km (\pm 5 metres).
 - b) Design and construction of in-situ RCC tunnel lining of 400mm throughout the length of the tunnel.
 - c) Design and construction of vertical pipe using plates conforming to IS 2002 and RCC encasement of 400mm thick to a size of 2200mm finished diameter in both shafts interconnecting with in-situ RCC tunnel lining.
 - d) Design and construction of Vertical shaft of finished diameter of 14 m and depth of about 152m by drilling and by controlled blasting method with reinforced concrete supporting arrangement such as circular well/secant piling etc. to enable construction of shaft including RCC shaft lining of at least 400 mm thickness at Ghatkopar WWTF. It also comprises of design and construction of Tail and Assembly tunnel at shaft by drilling and controlled blasting method.
 - e) Design and construction of Vertical shaft of finished diameter of 10m and depth of about 144 m by drilling and by controlled blasting method with reinforced concrete supporting arrangement such as circular well/secant piling etc. to enable construction of shaft including RCC shaft lining of at least 400 mm thickness at Dharavi WWTF. It also comprises of design and construction of Tail and Assembly tunnel at shaft by drilling and controlled blasting method. Considering the safety of existing adjoining structures of Treatment facility, the controlled blasting of shaft and Tail & Assembly tunnel shall be designed to have maximum peak particle velocity of 1 mm/s at nearest point of proposed shaft under this contract.

- f) Steel pipes and specials of 600mm diameter for dewatering within shaft lining using plates conforming to IS 2062 and concrete encasement.
- g) Design and construction of connection of proposed watermain of dia 2200 mm from shaft pipe of Dharavi WWTF to existing pipe from Tertiary Treated Water Tank of WWTF with steel pipes using plates conforming to IS 2062 and RCC encasement.
- h) Design and construction of connection of proposed watermain of dia 2200 mm from shaft pipe of Ghatkopar WWTF to existing pipe from Tertiary Treated Water Tank of WWTF with steel pipes using plates conforming to IS 2062 and RCC encasement.
- i) Design and construction of reinforced concrete anchor blocks, thrust blocks, encasement, chambers etc. at all shafts.
- j) Design, supply and erection of butterfly valves (01 Nos of 2200mm dia), air valves, scour valves, dismantling joints, flow meter etc. at Ghatkopar WWTF shaft location.
- k) Design, supply and erection of butterfly valves (01 Nos of 2200mm dia), air valves, scour valves, dismantling joints, flow meter etc. at Dharavi WWTF shaft location.
- l) Construction of control room at all shaft locations.
- m) Conducting geotechnical investigation along with all the necessary tests by taking boreholes at the locations to the extent possible at every 500 m along the alignment of the proposed tunnel at a distance of not more than 20m from the centerline of proposed tunnel. The depth of PQ size borehole shall be at least 10m below invert level of proposed tunnel. If required, the successful contractor, at his own cost, shall take additional boreholes / geotechnical investigations. Preparation of inferences and geological mapping of entire section, Installation of piezometric tubes at suitable locations suggested by the engineer (minimum two locations) along alignment of tunnel to monitor ground water table.
- n) Conducting survey including tunnel alignment survey comprising proposed shafts and including availing all necessary permissions from various authorities and payment thereof.
- o) Construction of workshop and office including all existing facilities at all shaft locations.
- p) Providing and applying, 2-component, solvent free, highly chemical resistant, moisture tolerant, crack bridging, liquid applied membrane applied using rollers in three coats at an average consumption of 0.40 Kg/Sq.m./Coat (total consumption 1.2kg per sqm) with a re-coating interval of 8 hours at ambient temperature, to achieve a minimum DFT of 1.0 mm including the primer coat. The materials shall be of approved make and to be applied to the inner surface of

RCC Lining of Tunnel and the inner surface of Liner/Piping as per specification in Shaft and Tunnel and interconnection pipes considering all specials.

- q) Identification and protection or diversion of all utilities (including communications, electrical HV and LV cables/chambers, water mains, sewerage water/ storm water drainage channels and pipelines etc) within each work site and at the location of interconnection as required.
- r) Seeking and obtaining permissions such as CRZ, MCZMA, MMRDA, Forest, Environmental and any other necessary clearances, permissions, licenses, permits, NOCs etc.
- s) Provision of temporary power required for construction, tests on completion, including all commissioning at all shaft locations and payment of bills thereof.
- t) Provision of temporary/construction water connection and payment of related connection charges, deposits etc.
- u) Demolition and restoration of structures, compound walls, pavements etc at work sites. The scrap generated from such demolition is property of corporation and the contractor shall arrange to handover at the location indicated by the Engineer.
- v) Conducting all tests on completion in accordance with these Employer`s requirements.
- w) Submission of as-built documentation and any other documents as required by the contract.
- x) Handover of the completed works to the employer as directed by Engineer In Charge.
- y) Design, supply and erection/provision of all temporary and permanent supports, grouting, shotcreting, rock bolting etc., or any other methodology required during execution of work.

3 The detailed Qualification criteria is described in IT.5 is as under;

Bids are invited from well-established domestic contracting companies ("the bidder") who possess following technical capacity (A) during last 07 financial years, as single entity or as Lead Partner or member of JV having 50% or more share in Joint Venture in previous projects and shall meet the financial capacity (B) specified herein under.

In case of 50:50 JV/ consortium of Indian Companies, for both the partners 100% work experience shall be considered for evaluation i.e. both technical and financial experience and in case of lead partner having share more than 50% in JV, 100% work experience i.e. both technical and financial shall be considered for evaluation of lead partner.

The cited clause is applicable to encourage bidders from the Indigenous country if the qualifying works were executed by an Indian bidder in JV / Consortium with Foreign Bidder with 70% or more participation of the Indian Bidder Company, then 100% value of work/Financial Capacity/Technical Capacity for Indian Bidder shall be considered i.e., full work experience for the evaluation. For less than 70% share of the Indian Bidder Company in JV / Consortium with Foreign Bidder, then the value of work/Financial Capacity/Technical Capacity for Indian Bidder shall be considered proportionately based on the percentage of the participation in the JV / Consortium.

- Joint Venture will not be permitted.

(A) Technical Capacity

- i. The bidder or its Subsidiary should have experience of Tunnelling Sector in which they should have experience of at least one completed or ongoing Tunnel Project.

If a Parent company's credentials are used in order to meet the qualifying criteria by Subsidiary company, then registered undertaking from parent company to that effect shall be provided. If the parent company is using the credentials of subsidiary company to meet qualification criteria, then both the parent company and subsidiary company certificates shall be submitted.

In such case the successful bidder along with its subsidiary company shall be jointly and severally liable to the Employer for the performance of the contract and shall signify in writing that they agree to be so bound.

- ii. On Bid due date, the bidder should have successfully completed at least one contract comprising tunnel/s of minimum finished diameter of 2.2 meter or equivalent cross-sectional area and minimum length of 6.78 KM by TBM / NATM technology certified by competent authority in the last 07 years before due date in the Indian environment.
- iii. The bidder on due date, in the last 07 years, in Indian environment, should have successfully completed in single contract at least:

One vertical shaft of diameter not less than 10 m and depth not less than 91 m or One underground cavern of minimum size 40 m (Length) x 20 m (Width) x 10 m (Height) or One vertical shaft of any size and shape with minimum excavated quantity of 8000 Cum.

- iv. The Bidder shall have laid / executed in-situ RCC Concrete lining for the Tunnel of minimum quantity of 23000 cum in single contract in the span of 2 years during last 07 years.
- v. Bidder shall possess design experience of the works stipulated in points (ii), (iii) & (iv) and submit such credential with the bid. If the bidder does not possess such design experience, then the design

consultant possessing the sought experience shall be proposed and their credentials shall be submitted with the bid.

vi. Construction Experience in Key Activities

The Bidder, on bid due date, should have successfully completed similar work in the last 07 years in the Indian environment as follows:
One similar work of cost not less than Rs. 1200 Crore.

Or

Two similar works cost of each not less than Rs. 800 Crore.

Or

Three similar works cost of each not less than Rs. 600 Crore.

Similar work shall mean the Tunnelling work by TBM / NATM technology in Water supply / Sewerage / Road / Metro / Rail / Hydro projects in the Indian environment.

The value of executed works shall be brought to current costing level by enhancing the actual value of work at compound rate of 10% per annum, calculated from date of completion to last date of submission of bids.

vii. Relevant Construction Experience:

The bidder should have executed the work of Tunnel / bridge / flyover / Elevated Metro in MMR region of minimum Rs. 400 Crore in the ongoing or completed work in last five years in single contract.

(B) Financial Capacity

1) The bidder shall have achieved average annual financial turnover (in all classes of civil engineering construction works) equal to Rs.600 Crore in last 3 financial years ending March 2023 and should not be a loss-making entity in last two (2) years (i.e. 2021- 2022 & 2022- 2023).

2) The bidder shall demonstrate availability of cash / credit lines facility exclusively for this work of not less than Rs. 70 crore.

Even though the Bidder meets the above qualifying criteria, he will be disqualified, if in last 5 years till bid due date, it is observed that:

i. Made misleading or false representation in the forms, statements and attachments submitted in proof of the qualification requirements;

and / or

ii. Record for poor performance such as abandoning the works, Termination by the client due to non-performance;

and / or

iii. The Bidder shall either have obtained / applied for / undergone or be in the process of any type of debt restructuring in the immediately preceding Five (5) years from the Bid Submission deadline.

and / or

iv. Bidder shall have any ongoing proceedings before NCLT.

and / or

v. **History of Collapse:** The Bidder should not have any history for collapse due to failure of superstructure / substructure of Bridge / Flyover / Tunnel / Viaduct / Metro / Rail work during the construction in last 03 years.

If the bidder does not fulfil the criteria as specified in (A) Technical Capacity (ii, iii, iv, v, vi, vii), the bidder is allowed to join hands with domestic Associate Company having technical credentials mentioned in (A) Technical Capacity (ii, iii, iv, v, vi, vii) as an Associate Tunnelling Company (ATC). The said ATC fulfilling the criteria as a whole of (ii, iii, iv, v, vi, vii) shall be allowed to enter into the Pre-Tender Agreement with the prospective bidder.

Once the ATC enters into the Pre-Tender Agreement with the bidder, it shall be binding on ATC and shall be valid till completion of the project.

The bidder shall be allowed to join hands with not more than one ATC to fulfil the aforesaid requirement.

The experience criteria mentioned in Technical Capacity (A) (vi) will not be permitted to be shared in part in-between bidder and ATC.

The ATC shall be permitted to join any number of bidders.

Once the contracting firm enters as ATC member with bidder, then ATC shall not be permitted to bid as an independent bidder for the project.

The financial capacity (B) shall be mandatorily fulfilled by the main bidder, the financial capacity of the ATC shall not be considered for the evaluation.

IT 5.4 Joint Venture will not be permitted.

- 4 Bidders may obtain further information from the following located office at:
- Office of the Deputy Chief Engineer (Water Supply Projects),
MV-II,
BRIHANMUMBAI MUNICIPAL CORPORATION,
Old Agra Road,
Balkum Naka, Thane West, 400 608.
Telephone No.:Direct: 022-2543160
Email: eec2civil01.wsp@mcm.gov.in ; dtgtunnel2024@gmail.com
- 5 Contract Period is 93 months (Ninety-Three months) inclusive of monsoon period from the date of receipt of Order of Commencement of the Works.
- 6 a) A soft copy of complete set of bidding documents (each set consists of Volumes ITB, I, IIA, IIB, and III may be downloaded online by interested bidders. For downloading the Tender documents, the bidders will have to get registered with e-tender portal (<https://mahatenders.gov.in>) for the e-tendering process and obtain login credentials to participate in the online Tender process. The details of the same are available on <https://mahatenders.gov.in>. For registration, enrolment for digital signature certificates and user manual, please refer to respective links provided in e-tendering tab on <https://mahatenders.gov.in>.
- b) For registration enrolment for digital signature certificates and user manual, please refer to respective links provided in e-tendering tab. Vendors can get digital signature from any one of the Certifying Authorities (CA) licensed by controller of certifying authorities namely Safe crypt, IDRBT, National Informatics Centre, TCS, CUSTOMS, MTNL, GSFC and e-Mudhra CA.
- c) Blank Bidding documents shall be downloaded from portal (<http://mahatenders.gov.in>) from 08/08/2024 at 6.00 P.M. to 28/08/2024 up to 01:00 P.M by e-tendering process.
- d) The bidders shall pay scrutiny fees of Rs. 27500/- plus applicable GST charges, at Citizen Facility Centres of BMC, within 7 days after opening of technical packets A & B but before opening of packet C. In case the bidder fails to pay the requisite scrutiny, fee and submit receipt thereof to this office within the above-mentioned period, then the scrutiny fee will be recovered from EMD paid in the form of DD or the BG issued against EMD by the bidder will not be released till payment of requisite scrutiny fee is received.
7. The Bids must be accompanied by the bid security of ₹19.90 crore. Of this ₹19.90 crores, ₹1.99 crores shall be paid through online payment gateway (before submission of bid) and the balance ₹17.91 crores shall be paid through bankers guarantee (BG) valid for not less than 365 days from the date of submission in the format attached before the time and date mentioned in the Header Data. The employer shall accept BG only as per format and from any of the bank provided in the list of banks included in the tender. Any bid not accompanied with bid security shall be rejected by the employer. All processing

charges for the bank guarantee along with the stamp duty as applicable shall be borne by the bidder. The bidders shall physically submit the original copy of BG for bid security (E.M.D.) before opening of packet A, at the office of Deputy Chief Engineer (WSP) MV-II.

8. The Applicant should upload the documents in readable form, He should take trial of uploads by taking printout. The unreadable documents will be treated as null & void. The remaining documents will be evaluated. The decision of opening Authority regarding this will be binding to all applicants.
9. The Municipal Commissioner reserves the right to reject all or any of the e-tender(s) without assigning any reasons at any stage. Those bids without the prescribed bid security will be summarily rejected.
10. The BMC reserves the right to cancel the e-tenders before submission/opening of e-tenders, postpone the e-tenders submission/opening dates and to accept/reject any or all e-tenders without assigning any reason thereof.
11. This tender document is not transferable.
12. Tenderers are requested to submit and upload the tenders in time on or before the stipulated day so as to avoid rush at the closing hours. BMC will not be responsible for poor connectivity of network / internet services / connectivity of servers / snag in system /breakdown of network / or any other interruptions. If any online information uploaded but not received by Bid creator (BMC) within stipulated time limit, BMC will not be held responsible at any cost and such bids cannot be validated. Any online intimation / information asked to be submitted by Bidders /Contractors or sent to bidders/ Contractors, if not receiving or bounced back at the receiving end due to any problem in the server or connectivity, BMC will not be held responsible.
13. E-tenders shall be uploaded up to 1.00 P.M. on 28/08/2024 and Packet 'A' & 'B' of bids will be opened on the next working day at 02.00 P. M.
14. The Packet 'A' & 'B' shall contain all duly certified credential documents, filled up forms& schedules, undertakings and other information etc. required as stipulated in the tender as per e-tendering process and Packet ;'C' shall contain only single lump sum amount to be quoted online by the Bidder. Only the technical packets 'A' & 'B' will be opened on above mentioned portal in the office of The Chief Engineer (Water Supply Projects), (Worli) at address mentioned at Clause No.4 above at 2.00 P.M. on 29/08/2024 in the presence of bidder's authorised representatives who choose to attend. The Packet C shall be opened on a date which will be intimated to bidders if bid submission in Packet A & B satisfies/includes all the requirements and same are found acceptable to the Authority during technical evaluation.

In the event of specified date of opening of bids being declared as holiday for the BMC, bids shall be opened on next working day.

15. Bidders should note that timing of downloading/submission/opening of tender shall be considered as per BMC web time only. The BMC will arrange a site visit to the proposed shaft locations. The site visit will be at 11.00 AM on 12/08/2024- starting from Dharavi WWTF shaft location inside Dharavi WWTF. The pre-bid meeting will be held in the Office of Additional Municipal Commissioner (Projects)'s conference room, 2nd floor, Annex Building, Municipal Head Office, Mahapalika Marg, Fort, Mumbai – 400 001, INDIA on 14/08/2024 at 11.30 AM.
 16. Bids shall remain valid for a period of 180 days after the date of opening of technical bid.
 17. The BMC reserves the right to cancel the e-tenders before submission/opening of e-tenders, postpone the e-tenders submission/opening dates and to accept/reject any or all e-tenders without assigning any reason thereof.
 18. The bids from the joint Venture will not be allowed.
 19. The details are available on portal (<http://mahatenders.gov.in>).
- Tender id: 2024_MCGM_1067167_1
20. Payment in Indian Rupees only.

**Sd/-
Chief Engineer
(Water Supply Projects)**

HEADER DATA

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| Tender Document No | 2024_MCGM_1067167_1 | | | | | | | | | | | | | | | | | | | |
| Name of Organization | BRIHANMUMBAI MUNICIPAL CORPORATION | | | | | | | | | | | | | | | | | | | |
| Subject | Design and Construction of Tertiary Treated Water Conveyance Tunnel from Dharavi WWTF to Ghatkopar WWTF | | | | | | | | | | | | | | | | | | | |
| Cost of Tender Scrutiny Fee | Rs: 27500/- + 18% GST | | | | | | | | | | | | | | | | | | | |
| Bid Security Deposit/ EMD | 1. Rs.1.99 Crores (Online on www.mahatenders.gov.in) 2. Rs. 17.91 Crores through bankers guarantee (BG) valid for not less than 365 days from the date of submission in the format attached & submit original B.G. in the office of DyChE(WSP) before opening of packet A. i.e. Total EMD of Rs.19.90 Crores | | | | | | | | | | | | | | | | | | | |
| Date of issue and sale of tender | 08/08/2024 from 06:00 pm | | | | | | | | | | | | | | | | | | | |
| Last date & time for sale of tender & payment of online Bid Security. | 28/08/2024 up to 01:00 pm | | | | | | | | | | | | | | | | | | | |
| Submission of Packet A, B & C (Online) | 28/08/2024 up to 01.00 pm | | | | | | | | | | | | | | | | | | | |
| Site Visit | 12/08/2024 at 11.00 am | | | | | | | | | | | | | | | | | | | |
| Pre-Bid Meeting | Hon. Additional Municipal Commissioner (Project)'s Office, Brihanmumbai Municipal Corporation 2 nd Floor, Annex Building, Mahapalika Marg, Mumbai, Maharashtra 400001 Date: - 14/08/2024, Time 11:30 am. | | | | | | | | | | | | | | | | | | | |
| Opening of Packet A | 29/08/2024, Time 02:00 pm | | | | | | | | | | | | | | | | | | | |
| Opening of Packet B | 29/08/2024, Time 02:10 pm | | | | | | | | | | | | | | | | | | | |
| Address for communication | Office of the: - Ch.E. (WSP)'s office BMC, 1 st floor, Engineering Hub Building, Dr. E. Moses Road, Worli Naka, Worli, Mumbai 400 018 | | | | | | | | | | | | | | | | | | | |
| Venue for opening of bid | Online in Ch. Engg. (WSP)'s office located at above address. | | | | | | | | | | | | | | | | | | | |
| Email Id | eec2civil01.wsp@mcgm.gov.in dtgtunnel2024@gmail.com | | | | | | | | | | | | | | | | | | | |
| Bank Account Details | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;"><u>A/C Name</u></td> <td>BMC WATER AND SEWERAGE ACCOUNT</td> </tr> <tr> <td style="text-align: center;"><u>Bank Name</u></td> <td>State Bank of India</td> </tr> <tr> <td style="text-align: center;"><u>A/C No.</u></td> <td>10996680907</td> </tr> <tr> <td style="text-align: center;"><u>IFSC</u></td> <td>SBIN0000300</td> </tr> <tr> <td style="text-align: center;"><u>MICR</u></td> <td>400002010</td> </tr> <tr> <td style="text-align: center;"><u>BRANCH CODE</u></td> <td>300</td> </tr> <tr> <td style="text-align: center;"><u>BRANCH PHONE NO.</u></td> <td>22661765</td> </tr> <tr> <td style="text-align: center;"><u>TYPE OF A/C</u></td> <td>CURRENT</td> </tr> <tr> <td style="text-align: center;"><u>ADDRESS</u></td> <td>Mumbai Main Branch, Mumbai Samachar Marg, Harniman Circle, Fort - 400001</td> </tr> </table> | | <u>A/C Name</u> | BMC WATER AND SEWERAGE ACCOUNT | <u>Bank Name</u> | State Bank of India | <u>A/C No.</u> | 10996680907 | <u>IFSC</u> | SBIN0000300 | <u>MICR</u> | 400002010 | <u>BRANCH CODE</u> | 300 | <u>BRANCH PHONE NO.</u> | 22661765 | <u>TYPE OF A/C</u> | CURRENT | <u>ADDRESS</u> | Mumbai Main Branch, Mumbai Samachar Marg, Harniman Circle, Fort - 400001 |
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| <u>IFSC</u> | SBIN0000300 | | | | | | | | | | | | | | | | | | | |
| <u>MICR</u> | 400002010 | | | | | | | | | | | | | | | | | | | |
| <u>BRANCH CODE</u> | 300 | | | | | | | | | | | | | | | | | | | |
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| <u>TYPE OF A/C</u> | CURRENT | | | | | | | | | | | | | | | | | | | |
| <u>ADDRESS</u> | Mumbai Main Branch, Mumbai Samachar Marg, Harniman Circle, Fort - 400001 | | | | | | | | | | | | | | | | | | | |

- Changes if any in the above scheduled dates will be published on www.mahatenders.gov.in
- Bidder should note that the Tender Scrutiny fee of Rs. 27500/- + 18 % GST will be payable within 7 days after opening of Packet A & B in any of the Ward Citizens Facilitation Centers (CFCs) as per Circular No. CA/FRG/18 dt. 27.02.2024.