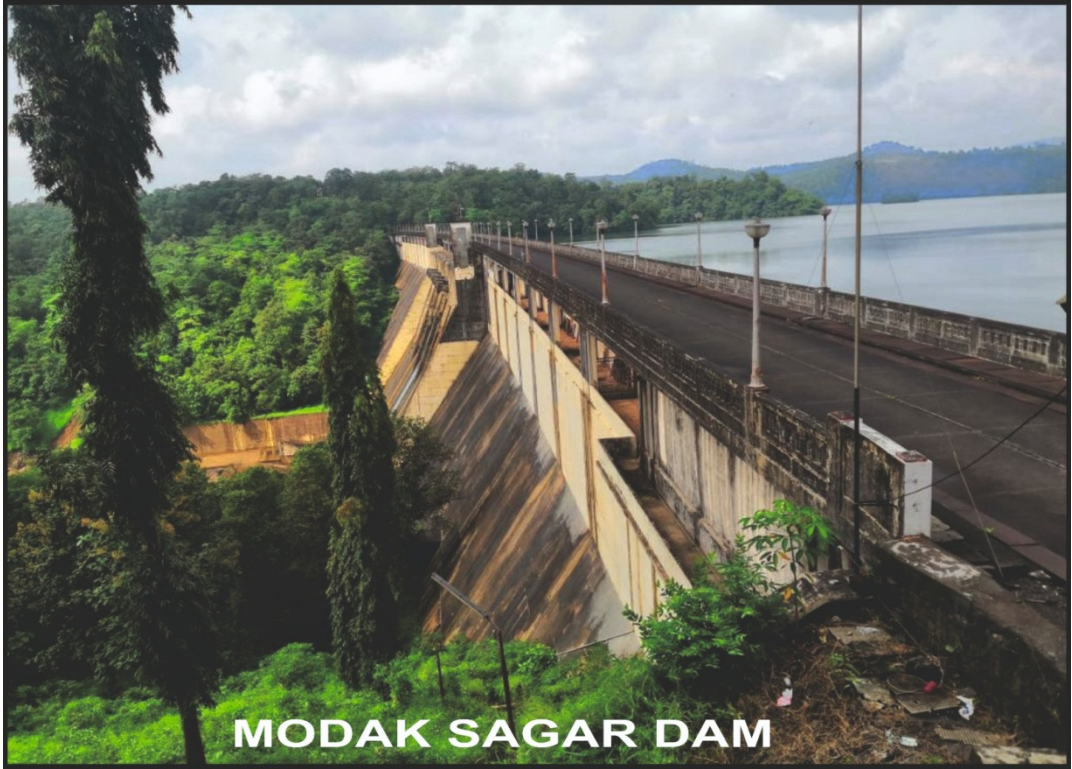




# बृहन्मुंबई महानगरपालिका





**BRIHANMUMBAI MUNICIPAL CORPORATION**

**Hydraulic Engineer's Department**

e-TENDER DOCUMENT  
FOR

**NAME OF WORK**

“Part A: Construction of retaining structure along approach road at Middle Vaitarna Dam in O.C. Division and Part B: Providing landslide protection measures to land slopes near lower gallery of Vaitarna Dam in O.C Division.”

Website:[www.mahatenders.gov.in](http://www.mahatenders.gov.in)

[Due Date : 21.11.2023](#)

Dy. Hydraulic Engineer (Operations),  
BMC Water Works Yard, Kapurbawdi,  
Thane (West) – 400607

**Sd/-  
S.E. (Const.)**

**Sd/-  
S.E. (Const.)**

**Sd/-  
A.E. (Const.)-I**

**Sd/-  
E.E.(Construction)**

**Sd/-  
Dy.H.E.(Operations)**

**Sd/-  
Hydraulic Engineer**



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**SECTION 1**  
**e-TENDER NOTICE**



**BRIHANMUMBAI MUNICIPAL CORPORATION**  
**H.E.'s Department /O.C. Division**

Dy.H.E./(Operation)/4723 dt.30.10.2023

**E-TENDER**

Sub:- Part A: Construction of retaining structure along approach road at Middle Vaitarna Dam in O.C. Division and Part B: Providing landslide protection measures to land slopes near lower gallery of Vaitarna Dam in O.C Division.”

Brihanmumbai Municipal Corporation (BMC) invites e-tender to appoint Contractor for the aforementioned work from reputed, multidisciplinary engineering organizations i.e. eminent firms, Proprietary/Partnership Firms/ Private Limited Companies/ Public Limited Companies/Companies registered under the Indian companies' act 2013 who are registered with the Brihanmumbai Municipal Corporation (BMC) as contractor in **Civil Category in class I(A) as per Rules of registration of contractors 2015/2016 as well as** from the contractors/firms registered in equivalent or superior classes with Central or State Government/Semi Govt. Organization/Central or State Public Sector Undertakings. In case of award of contract to bidder who is not registered with BMC, the bidder will have to apply for registering his firm with BMC as per rules of registration of contractors 2015/2016 within three months from the award of contract, otherwise its Bid Security i.e. E.M.D (Earnest Money Deposit) will be forfeited/recovered and an amount equal to Registration Fee of respective class will be recovered as penalty.

**Bidding Process will comprise of THREE stages.**

The application form can be downloaded from e-procurement system of Government of Maharashtra (Mahatenders) (<http://mahatenders.gov.in>). The applicants not registered with BMC are mandated to get registered (Vendor Registration) with BMC for e-tendering process & obtain login credentials to participate in the online bidding process..

To download the application form, for those applicants not having vendor registration, need to apply first for vendor registration at the office of Account Officer (FAR), 3rd floor, Municipal Headquarter.

For e-Tendering registration, enrollment for digital signature certificates and user manual, please refer to respective links provided in 'Tenders' tab. Vendors can get digital signature from any one of the Certifying Authorities (CA's) licensed by controller of certifying authorities namely, Safes crypt, IDRBT, National informatics center, TCS, USTOMS, MTNL, GNFC and e- Mudhra,CA.

Tender No.	Name and location of work	Contract period	Estimated Cost of Project
<b>2023_MCGM_958057</b>	Part A: Construction of retaining structure along approach road at Middle Vaitarna Dam in O.C. Division and Part B: Providing landslide protection measures to land slopes near lower gallery of Vaitarna Dam in O.C Division.	12 Months (Exclusive of monsoon)	Rs. 38,06,69,878.00

In terms of the **3** stage system of e-tendering, a Bidder will be required to deposit, along with its Bid, an Earnest Money Deposit of **Rs 38,06,700.00/- (Rupees Thirty Eight Lakhs Six Thousand Seven Hundred only)** (out of which 50% i.e. Rs.19,03,350.00 by way of D.D. payable to



BMC and remaining 50% i.e. Rs. 19,03,350.00 to be payable through online payment gateway). The "EMD", is refundable in accordance to the relevant clause of bid document, except in the case of the selected Bidder whose Bid Security/EMD shall be retained. The Bid shall be summarily rejected if it is not accompanied by the Earnest Money Deposit. The e-tender is available on e-procurement system of Government of Maharashtra (Mahatenders) (<http://mahatenders.gov.in>) as mentioned in the Header Data of the tender.

As per Three Packet systems, the document for Packet A, B & C is to be uploaded by the bidder in vendors' document online in Packet A, B & for Packet C, bidder fill in data in item data tab in service online item via details and quotes his percentage figure variation. Packet A,B& C shall be opened on dates as mentioned in header data. All the responsive and eligible bidders if they so wish can be present at the time of opening of bids, in the office of **Dy. Hydraulic Engineer (Operations)**. The Packet C shall be opened if bids submission in Packet A, B satisfies/includes all the requirements and same are found acceptable to the Authority.

The Municipal Commissioner reserves the right to reject all or any of the e- tender(s) without assigning any reasons at any stage.

The dates and time for submission and opening the bids are as shown in the Header Data. If there are any changes in the dates the same will be displayed on e-procurement system of Government of Maharashtra (Mahatenders) (<http://mahatenders.gov.in>)

**The Applicants interested for the above referred works may contact the Executive Engineer (Construction)** at the following address on any working day during office hours.

Office of the,  
**Dy Hydraulic Engineer (Operations)**  
BMC Water Works Yard, Kapurbawdi,  
Thane (West) – 400607.  
Email : [ee01constocdiv.he@mcmgm.gov.in](mailto:ee01constocdiv.he@mcmgm.gov.in)  
Website: <http://mahatenders.gov.in>

The applicants are advised to visit site before submitting the bid.

BMC reserves the rights to accept any of the application or reject any or all the application received for above works, without assigning any reasons thereof. The information regarding above subject matter is available on e-procurement system of Government of Maharashtra (Mahatenders) (<http://mahatenders.gov.in>).

Bidders are also advised to refer "Bidders Manual Kit" available at <https://mahatenders.gov.in/nicgep/app?page=BiddersManualKit&service=page> for further details about the e-tendering process.

For any help, in the e-Tendering process, can be availed by dialling help-desk number 022-22046934/22837339 from 11.30 AM to 5.00 PM on all working days. Email: [support-eproc@nic.in](mailto:support-eproc@nic.in)

SPECIAL NOTE: TENDERERS ARE REQUESTED TO GO THROUGH THE e- TENDER GUIDELINES ON NIC PORTAL (<https://mahatenders.gov.in>). For registration, enrolment for digital signature certificate & user manual, please refer to respective links provided in e-tendering tab. The vendors can get digital signature from any one of the Certifying Authorities (CA's) licensed by the Controller of Certifying Authorities namely Safes crypt, IDRBT, National Informatics Centre, TCS, Customs, MTNL, GNFC and e- Mudhra.

**Sd/-  
Dy. H.E. (Operations)**



## Header Data

Tender Document No	<b>2023_MCGM_958057</b>
Name of Organization	<b>BRIHANMUMBAI MUNICIPAL CORPORATION</b>
Subject	Part A: Construction of retaining structure along approach road at Middle Vaitarna Dam in O.C. Division and Part B: Providing landslide protection measures to land slopes near lower gallery of Vaitarna Dam in O.C Division."
Cost of E-Tender(Estimated Cost)	Rs .38,06,69,878.00( <b>Excluding GST</b> )
Bid Security Deposit/ EMD	Total EMD of Rs. 38,06,700.00/- Out of it, Rs. 19,03,350.00 (Demand Draft in favour of BMC & submit original DD in the office of Dy.H.E.(Operations) Rs. 19,03,350.00 (Online on <a href="http://www.mahatenders.gov.in">www.mahatenders.gov.in</a> )
Online Tender sale	From 01.11.2023 at 13.00 Hrs. to 21.11.2023 up to 12.00Hrs
Submission of Packet A, B & Packet C (Online)	21.11.2023 up to 12:00 hrs
Pre-bid Meeting	07.11.2023 At 11.30 A.M. Address :-Office of the H.E.Worali Engineering Hub, First Floor, Dr. E. Moses Road, Worali Naka, Worali-15
Opening of Packet A	24.11.2023 after 11.00 hrs
Opening of Packet B	24.11.2023 after 11.00 hrs
Opening of Packet C	05.12.2023 after 11.00 hrs
website	<a href="http://www.mahatenders.gov.in">www.mahatenders.gov.in</a>
Contact person's name	Shri. Prakash k. Jadhav, Executive Engineer (Construction) Mob No. 9920524832
e-MAIL ID	email ID : ee01constocdiv.he@mcmgm.gov.in

The detailed tender notice is available on ([www.mahatenders.gov.in](http://www.mahatenders.gov.in))

**This tender document is not transferable.**

The BMC reserves the rights to accept any of the application or reject any or all the application received for above subject without assigning any reason thereof.

Sd/-  
**Dy.H.E.(Operations)**



# **SECTION 2**

# **ELIGIBILITY CRITERIA**



## For Regular, Routine and Maintenance works:

Name of the Deptt.	Details of project works
City Engineer/HIC	New buildings for staff quarters /markets /school / offices etc. All dispensaries, health centers/ cemeteries
Bldg. Maintenance	All bldg. repair works, demolition works. New construction such as sheds.
Road & Traffic	Pothole repairs, trenches, asphaltting of minor and major roads, repairs to footpaths, Improvisations of junctions. / new C.C.roads.
Sewage Project	Replacement of sewer lines, laying of new sewer lines for short stretches upto 500m
Sewerage Operation	Remedial works of all sewer lines
S.W.D.	Repairs and rehabilitation of SWD, rehabilitation of culverts on minor roads, repairs to minor nallas, remodeling of SWD system, repairs to roadside drains, training of minor drains/nallas, reconstruction of collapsed walls. NewR.C.C.box culverts across minor or major roads, desilting of nallas.
H.E.	Routine laying of pipeline works up to 1200mm dia .rehabilitation of distribution system, Replacement of household connections and other minor works related to the dept.
Bridges	All maintenance/minor repairs and repairs to bridges, new bridge over major nalla, etc
Garden Department	All Civil works related to Landscaping such as pergolas, gazebos, etc and horticulture works

### 1.1 Technical Capacity:

The tenderers in their own name should have satisfactorily completed the work of similar nature in BMC/ Semi Govt./ Govt. and Public Sector Organizations during **last seven (7) years** ending last day of month previous to the one in which bids are invited as a prime Contractor (or as a nominated sub-contractor, where the subcontract had involved similar nature of work as described in the scope of works in this bid document, provided further that all other qualification criteria are satisfied)

#### **A. In case of the contractor offering bids without MOU with contractor engaged in hill stabilization work.**

- Three similar completed works of similar nature each costing 30% of estimated cost. i.e. Rs. 11,42,00,964/- each.
- Two similar completed works of similar nature each costing 35% of estimated cost i.e. Rs. 13,32,34,458/- each.
- One completed work of similar nature of aggregate 50% of estimated cost i.e. Rs. 19,03,34,940/-



**B. In case of the contractor offering bids with MOU with contractor engaged in hill stabilization work.**

Out of total estimated cost Rs. 38,06,69,878/-, 40% cost i.e. 15,22,67,952/- will be considered to work out eligibility criteria of main contractor and 60% cost i.e. Rs. 22,84,01,927/- will be considered to work out eligibility of hill stabilization criteria with whom MOU done.

- a) Three similar completed works each costing 30% of Rs.15,22,67,952 i.e. Rs.4,56,80,386/- for regular, routine works and 30% of Rs.22,84,01,927 i.e. 6,85,20,579/- for hill stabilization works.
- b) Two similar completed works each costing 35% of Rs.15,22,67,952 i.e. Rs.5,32,93,784/- for regular, routine works and 35% of Rs.22,84,01,927 i.e. Rs.7,99,40,675/- for hill stabilization works.
- c) One similar completed works each costing 50% of Rs.15,22,67,952 i.e. Rs.7,61,33,976/- for regular, routine works and 50% of Rs.22,84,01,927 i.e. Rs.11,42,00,964/- for hill stabilization works.

The value of completed works shall be brought to current costing level by enhancing the actual value of work at compound rate of 10 % per annum; calculated from the date of completion to the date of issue of tenders.

**In case of ongoing works to be considered, the bidder must have received payment of bills of 80% of contract sum of the work / works executed till last day of month previous to the one in which bids are invited.**

The tenderer shall upload scanned copies of necessary satisfactory performance certificate along with the work order regarding works carried out as stated above at sr. no. I. The certificate shall be issued by the competent authority of the organization complete with the details of Name of work, Contract Cost, Work Order No. & Date of completion, Contract Period & satisfactory completion remarks etc. as per the Post Qualification Criteria mentioned above.

**1.2 Financial Capacity:**

Achieved an average annual financial turnover as certified by 'Chartered Accountant' (in all classes of civil engineering construction works only) equal to **30%** of the estimated cost of work in **last Three (03) financial years** immediately preceding the Financial Year in which bids are issued.

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 the date of completion to the date of issue of tenders.

**1.3 Similar Experience:**

a. Eligibility criteria for this work

"The bidder must possess experience in the work of drilling and grouting/ soil nailing/ rock bolting/ anchoring/ shot-creting/ gunting and gabion structures concerning to hill slope protection/ strengthening/ stabilization works".



Or

“For assessing the technical capacity of Regular, Routine and Maintenance works; Similar work shall mean, the completed or ongoing works in Building Construction OR Building Maintenance such as repairs/retrofitting /structural repairs OR construction/repairs of Asphalt/ Concrete roads OR laying/rehabilitation of sewer lines along with allied components OR laying/rehabilitation of water pipe lines in Cast Iron/ M.S. pipes / HDPE/ MDPE pipes OR repairs/maintenance/ construction of culverts over nallah” or any civil engineering work AND should have entered in to MoU (Memorandum of Understanding) with a contractual agency having experience of completed works of drilling and grouting/ soil nailing/ rock bolting/ anchoring/ shotcreting/ guniting and gabion structures concerning to hill slope protection/ strengthening/ stabilization works executed in last 7 years.

Note:- 1) Contractual agency with whom MoU has been executed has to produce the experience certificate issued by officer not below the rank of executive engineer or equivalent designation from Central or State Government/Semi Govt. Organization/Central or State Public Sector Undertakings works.

2) The bidder shall note that, the bidders are not allowed to enter in MoU with the agency which already has entered in MoU with another bidder for proposed tender.

3) The bidder shall note that, if the bidder participated in the tender in individual capacity then said bidder not allowed to sign MoU with another bidder for proposed tender work.

#### **b. Equipment Capability Criteria as required for this work**

The bidder will ensure his commitment to make the arrangements of the required equipment on the day of commencement or with respect to the progress of the work in phases, as per the instructions of site in charge on an undertaking on Rs. 500 stamp paper to be submitted along with the bid in Packet B.

#### **2. For Original and New construction: (This clause is not applicable for this tender)**

Name of the Dept.	Details of project works
City Engineer/HIC	Housing colonies for staff quarters/Markets admeasuring more than 20000.00 sq.mts .etc. Or High Rise Buildings Or Buildings for major hospital more than 200beds
Road&Traffic	Asphalting/concreting of major roads in long stretches(singleroad more than 5000 m) and costing more than Rs.100.00 crores
SewageProject	laying of new sewer lines for long stretches i.e.beyond500m
Sewage Operation	New pumping stations etc
S.W.D	New pumping stations etc
H.E.	Laying of pipe lines more than 1200mm dia., Trunk mains etc. Pumping stations etc
Bridges	New bridges over roads, rivers, etc



**2.1 Technical Capacity (Project Experience): (This clause is not applicable for this tender)**

The tenderer(s) in their own name should have satisfactorily completed the work of similar nature BMC /Semi Govt. /Govt. & Public Sector Organizations during **last seven (7) years** ending last day of month previous to the one in which bids are invited as a prime Contractor (or as a nominated sub-Contractor, where the subcontract had in- volved similar nature of work as described in the scope of works in this bid document, provided further that all other qualification criteria are satisfied)

**a) Three similar completed works of similar nature each costing 30% of estimated cost.\* i.e Rs. -----each.**

**OR**

**b) Two similar completed works of similar nature each costing 40% of estimated cost.\* i.e Rs. ----- each.**

**OR**

**c) One completed work of similar nature of aggregate 60% of estimated cost.\* i.e Rs. -----**

The value of completed works shall be brought to current costing level by enhancing the actual value of work at compound rate of 10 % per annum; calculated from the date of completion to the date of issue of tenders.

**2.2 Financial Capacity : (This clause is not applicable for this tender)**

Achieved an average annual financial turnover as certified by ‘Chartered Accountant’ (in all classes of civil engineering construction works only) equal to **30%** of the estimated cost of work in last three (3) financial years immediately preceding the Financial Year in which bids are issued.

- To ascertain this, tenderer(s) shall furnish /upload the financial statement (Audited balance sheet) duly certified by Chartered Accountant.
- The turnover can be enhanced by 10% every year to bring the present level.

**2.3 Similar experience : (This clause is not applicable for this tender)**

Similar experience is spelt in definite sense, suchas-

**For-Building Construction**

Nosofstories	Experience of construction
Up to4stories	No special experience
From 5 to10stories	Minimum 5stories
From 11 to15stories	Minimum 8stories
From 15+ stories	Minimum 10stories
In caseofbasement	Minimum 1basement

\*The contractors having experience of Retro-fitting (Jacketing of columns, recasting of structural members, polymer grouting, etc) works can also be eligible for Building Construction works.



### C) Bid Capacity:

The bid capacity of the prospective bidders will be calculated as under:

$$\text{Assessed Available Bid Capacity} = (A \times N^2 - B)$$

Where,

**A** = Maximum value of Civil Engineering works completed in any one year (year means Financial year) during **the last five years** (updated to the price level of the Financial year in which bids are invited at a compounded rate of 10% per year) taking into account the completed works.

**Turnover of 2018-19 x 1.61**

**Turnover of 2019-20 x 1.46**

**Turnover of 2020-21 x 1.33**

**Turnover of 2021-22 x 1.21**

**Turnover of 2022-23 x 1.1**

**N** = Number of years prescribed for completion of the Project/Works, **excluding monsoon period**, for which these bids are being invited. (E.g. 12 months = 12/12 year). For every intervening monsoon 0.33 shall be added to N. **(For this e-Tender, N = 1.33)**

**B** = Value of existing commitments (only allotted works) on the last date of submission of bids as per bidding document and on-going works to be completed during the period of completion of the Project/Works for which these bids are being invited.

Note: The statement showing the value of existing commitments and on-going works as well as the stipulated period of completion remaining for each of the works listed should be attached along with certificates duly signed by the Engineer-in Charge, not below the rank of an Executive Engineer or equivalent.

**Even though the bidders meet the above qualifying criteria, they are subject to be disqualified if they have:**

- made misleading or false representation in the forms, statements and attachments submitted in proof of the qualification requirements; and/or
- Record for poor performance such as abandoning the works, not properly completing the contract, inordinate delays in completion, litigation history, or financial failures etc.



# **SECTION 3**

# **DISCLAIMER**



## **DISCLAIMER**

The information contained in this e-tender document or provided to Applicant(s), whether verbally or in documentary or any other form, by or on behalf of the BRIHANMUMBAI MUNICIPAL CORPORATION (BMC), hereafter also referred as “The Authority “, or any of its employees or advisors, is provided to Applicant(s) on the terms and conditions set out in this e-tender and such other terms and conditions subject to which such information is provided.

This e-tender includes statements, which reflect various assumptions and assessments arrived at by the BRIHANMUMBAI MUNICIPAL CORPORATION (BMC) in relation to the Project. Such assumptions, assessments and statements do not purport to contain all the information that each Applicant may require. This e-tender may not be appropriate for all persons, and it is not possible for the BRIHANMUMBAI MUNICIPAL CORPORATION (BMC), its employees or advisors to consider the investment objectives, financial situation and particular needs of each party who reads or uses this e-tender. The assumptions, assessments, statements and information contained in this e-tender may not be complete, accurate, adequate or correct. Each Applicant should therefore, conduct its own investigations and analysis and should check the accuracy, adequacy, correctness, reliability and completeness of the assumptions, assessments, statements and information contained in this e-tender and obtain independent advice from appropriate sources.

Information provided in this e-tender to the Applicant(s) is on a wide range of matters, some of which may depend upon interpretation of law. The information given is not intended to be an exhaustive account of statutory requirements and should not be regarded as a complete or authoritative statement of law. The BRIHANMUMBAI MUNICIPAL CORPORATION (BMC) accepts no responsibility for the accuracy or otherwise for any interpretation or opinion on law expressed here.

The BRIHANMUMBAI MUNICIPAL CORPORATION (BMC), its employees and advisors make no representation or warranty and shall have no liability to any person, including any Applicant or Bidder, under any law, statute, rules or regulations or tort, principles of restitution or unjust enrichment or otherwise for any loss, damages, cost or expense which may arise from or be incurred or suffered on account of anything contained in this e-tender or otherwise, including the accuracy, adequacy, correctness, completeness or reliability of the e-tender and any assessment, assumption, statement or information contained therein or deemed to form part of this e-tender or arising in any way with pre-qualification of Applicants for participation in the Bidding Process. The BRIHANMUMBAI MUNICIPAL CORPORATION (BMC) also accepts no liability of any nature



whether resulting from negligence or otherwise howsoever caused arising from reliance of any Applicant upon the statements contained in this e-tender.

The BRIHANMUMBAI MUNICIPAL CORPORATION (BMC) may, in its absolute discretion but without being under any obligation to do so, update, amend or supplement the information, assessment or assumptions contained in this e-tender.

The issue of this e-tender does not imply that the BRIHANMUMBAI MUNICIPAL CORPORATION (BMC) is bound to select and short-list pre-qualified Applications for Bid Stage or to appoint the selected Bidder or Concessionaire, as the case may be, for the Project and the BRIHANMUMBAI MUNICIPAL CORPORATION (BMC) reserves the right to reject all or any of the Applications or Bids without assigning any reasons whatsoever.

The Applicant shall bear all its costs associated with or relating to the preparation and submission of its Application including but not limited to preparation, copying, postage, delivery fees, expenses associated with any demonstrations or presentations which may be required by The BRIHANMUMBAI MUNICIPAL CORPORATION (BMC) or any other costs incurred in connection with or relating to its Application. All such costs and expenses will remain with the Applicant and the BRIHANMUMBAI MUNICIPAL CORPORATION (BMC) shall not be liable in any manner whatsoever for the same or for any other costs or other expenses incurred by an Applicant in preparation or submission of the Application, regardless of the conduct or outcome of the Bidding Process.



# **SECTION 4**

# **INTRODUCTION**



## **INTRODUCTION**

### **Background:**

The BRIHANMUMBAI MUNICIPAL CORPORATION covers an area of 437.71sq.kms.with a population of 1.24 Crores as per census of 2011. The metropolis accounts major portion of India's international trade and government's revenue, from being one of the foremost centers of education, science and technological research and advancement.

The Mumbai Metropolis has historic tradition of strong civic activism dedicated to the cause of a better life for all its citizens. And it is the BRIHANMUMBAI MUNICIPAL CORPORATION (BMC), hereafter called the "corporation", is the primary agency responsible for urban governance in Greater Mumbai.

BMC (The Authority) is one of the largest local self-governments in the Asian Continent. In observance of historic traditions of strong civic activism, with the change in time and living conditions to match with the urbanization, BMC has mainly focused in providing almost all kinds of engineering services viz., Hydraulics, storm water drain, sewerage, water supply projects, roads, bridges, solid waste management, and environmental services. Beside this, the BMC is also providing dedicated services in various segments such as Health, Primary Education as well as the construction and maintenance of Public Markets and Slaughter Houses.

### **Scope of Work:**

## **GABION FACIA REINFORCED EARTH RETAINING STRUCTUTRE**

This works shall consists of Reinforced Fills Structures with suitable reinforcing elements, gabion facia, polymeric compound reinforcement and back fill materials in accordance with the Indian / international specifications and in reasonably close conformity with the lines, grades design and dimension shown on the approved drawings.



The work shall be done in conformity to these specifications. The detailed design & drawings of the work shall be done in accordance with these specification and guide lines contained in the IRC highway research board, Section 3100 of 5th Revision of MORTH, specifications shall be applicable wherever relevant only. The guidelines in BS 8006 (latest version) shall be referred whenever corresponding Indian literature is not formulated.

The design and drawings shall be subject to the approval from the project management consultant, whenever appointed or from engineers in-charge before execution of work.

Wherever a patented process is used, the Contractor shall make his own arrangements to secure the supplies and services needed and pay for the license fees thereof directly. Owner shall be indemnified from any claims arising out of such patented product or methods of construction adopted at site.

### **Reinforcing Element**

The reinforcing element shall be of synthetic geogrids.

### **Geogrid Reinforcement:**

The flexible Geogrid shall be manufactured from high modulus Polyester yarns coated with suitable environmentally inert polymer protective coating or high strength polymer grids of high density polyethylene and polypropylene extruded sheets with low creep and resistant to UV light and all micro organism and chemicals, naturally occurring in the soil and temperature resistant up to 45<sup>0</sup> C.

Geogrids shall be of the type as shown on the approved drawing.

The long term design strength of Geogrid reinforcement shall not be less than 50 % of the Ultimate geogrid strength.

European standards like EN by both intent and quality assurance testing and external quality control and assurance by an independent authorized and accredited laboratory. Tensile strength and strain of the geogrid shall be tested in accordance with EN ISO 10319.

The geogrid to be supplied at site shall accompany test certificates carried out on representative sample taken from the consignment. The marking on Geogrid shall be of international standard and in English version and also in picture form including date of manufacturing and batch number.

Additional Third Party testing in Bombay Textile Research Association, Mumbai shall be conducted on minimum Two samples from the lot.

The geogrid shall be from approved manufacturer produced in factory carrying ISO 9000 Certification, but all the testings shall be done in presence of PMC / Engineer-in-charge.



The tail pieces of geogrid shall be wound in to a roll and tied. It must be ensured that geogrid is not damaged during handling stacking and transportation.

**Filter material:**

Filter material (Drainage) placed between facia and earth fill shall consist of sound, tough, hard, durable particles of free draining sand-gravel material or crushed stone and shall be free of organic material, clay balls or other deleterious material. Unless the contract specifies any particular grading for the filter material or requires these to be designed on inverted filter criteria for filtration and permeability to the approval of the engineer, the filter material shall be provided with following grading.

<b>Sieve size</b>	<b>percent passing by weight</b>	
53 mm		100
45 mm	97-100	
26.5 mm	-	
22.4 mm	58-100	
11.2 mm		20-60
5.6 mm	4-32	
2.8 mm	0-10	
1.4 mm	0-5	

**Facia material**

Gabion boxes shall be used for facia element. Such element shall conform to the details and dimension shown on the approved drawing. The opening , lacing and filling of the boxes shall be as per following guidelines

Gabions: Installation Manual

Zn + PVC Coated Gabions shall manufactured from heavily galvanized steel wire Nettings. These nettings have a hexagonal mesh with double twisting. The size of Hexagonal double twisted wire mesh shall be 100 x 120 mm. The thickness of the wire shall not less than 2.30mm.

**Stone fill**

The stones used for Gabion filling should be natural hard and durable. As far as possible stones with flat faces should be packed at the exposed faces of the gabions to achieve a smooth surface of the gabion wall facing. A general guideline for minimum and maximum stone size recommended for filling of the gabions for different mesh types is as mentioned below,

Mesh Type	100 x 120 mm
Minimum stone dimension	150 mm



Maximum Stone dimensions                      280 mm

### **INSTALLATION GUIDELINES**

The following installation guidelines should be followed as a Guide to good practice to construct structures using Zn Or Zn + PVC Coated gabions.

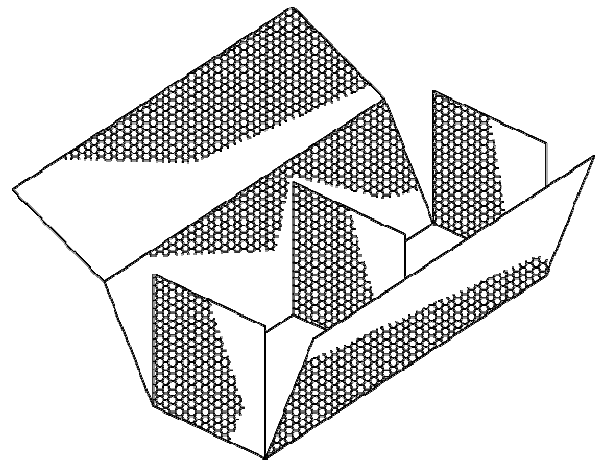
#### **1. Foundation Preparation:**

The ground surface over which the gabions are to be laid should be inspected for any irregularities or weak pockets. It is recommended that the surface over which the gabions or filter cloth is placed should be even and firm. In case any irregularities or weak pockets are observed, they must be rectified by removing the weak soil and replacing by good granular material.

Where the surface is very uneven or soft, a layer of sand or gravel of about 200mm thk. Or as shown in drawing is recommended to provide a firm and even surface. Grade and compact the formation to correct line and level to the satisfaction of the Engineer In charge.

#### **2. Assembling of the Gabions:**

For the purpose of easy transportation and handling during transportation, the Gabions are bundled and packed in a flat folded manner. Each box should be carefully opened out, laid flat and straightened out so that all the kinks and creases are removed. The sides and the diaphragm are then lifted vertical and laced together to form a box like



structure.



(Refer Fig.1).

(i) Gabion Mesh straightened and laid flat (ii) The sides and diaphragm folded vertical to form a Gabion box.

### **3 . Lacing:**

The sides and the diaphragms are laced together using the lacing wire provided, to form a gabion box. A lacing wire is a metallic coated steel wire or metallic coated steel wire with PVC coating, used to assemble and interconnect empty units, to close and secure stone filled units and for internal stiffeners. (ASTM A 975).

The selvedge wire along each edge is laced to the adjacent selvedge wire to give a continuous joint. A selvedge wire is defined as the terminal wire used to edge the wire mesh perpendicular to the double twist, by mechanically wrapping the mesh wires around it at least 2.5 times or by inserting it throughout the twists and folding one mesh length. (ASTM A 975).

The lacing should be done with single loops and double loops alternately at intervals of one mesh length. Secure the ends of the lacing wire in triple loops and turn the ends of the wire into the box. Several boxes can be laced together and then moved to place.

### **4.Laying of Gabions:**

The adjoining gabions shall be firmly wired together to give a continuous joint along all edges. The lacing should be selvedge wire to selvedge wire along adjoining edges and selvedge to mesh wire otherwise. The lacing should be done in similar manner as for lacing of the edges and diaphragms i.e. alternate single and double loops at one mesh length interval. The ends of the lacing wire should end in triple loop and turned into the gabion. The lacing should be continuous and not in individual loops. It is easy to lace the gabions when they are empty.

Every box should be laced to the box below and behind it, so that the whole structure is interconnected. All adjoining empty gabion units shall be laced along the perimeter of contact surfaces to obtain a monolithic structure.

The empty mesh assembly is then tensioned to remove all kinks so that each panel is square and correct to its shape.

The placing of the gabions should be such that the vertical joints are not continuous but staggered. Where the structure is more than one gabion thick, the gabions should be placed on headers and stretchers in alternate courses.

### **5. Filling of Gabions:**

Before filling, the gabions should be accurately placed in required position, tensioned and straightened to remove all kinks. The gabions can be hand packed or mechanically packed. The stones should be tightly packed so as to achieve maximum density and minimum voids. Maximum density can be achieved by using well graded stone fill and



by hand packing of the stone fill. If packed mechanically, care should be taken to ensure that the stones are not dropped from a height greater than 1m. Also care should be taken not to damage the mesh particularly due to sharp stones.

The difference in the level of stone fill between adjacent units shall not exceed 0.3m. (Refer Fig. 2)

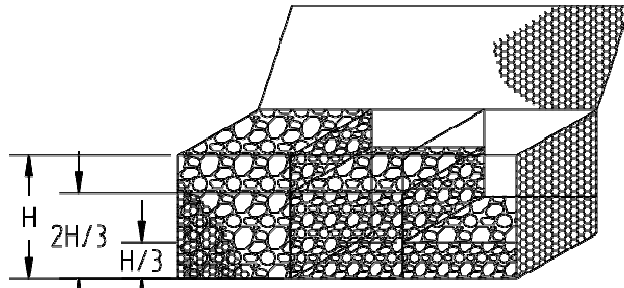


Fig.2 Filling of Gabions (Level difference in adjacent cages should not be more than 0.3m)

### 6. Bracing:

Gabions should be braced when filled to 1/3 rd and 2/3 rd of their height. The bracing should be done with lacing wire forming as per drawing. Twisting of the bracing wire should be done so as to tension the faces. The loop of the brace should pass through the face of the gabion for atleast two mesh lengths.

For greater rigidity where more than one face is exposed bracing can be fixed to all four vertical faces. For 0.5m height gabions, bracing will be done at half height.

### 7. Closing of Lids:

The gabions should be over filled by about 25 to 50mm before closing to allow for settlement. The lids are then stretched over the stone fill and laced down. The corners of the lids are secured first. Over stretching of the mesh should be avoided. Removing or redistributing of some stones on the top will be required while closing of the lids. The lids are then laced down securely. Lace selvedge wire to selvedge wire using the same procedure as mentioned earlier.

### Quality

Manufactured test certificate shall submitted along with material. The third party testing shall be conducted on minimum two samples for its wire tensile strength and wide width tensile strength as per codal provision.



## **Guidelines for selecting the supplier**

### **Minimum eligibility criteria for contractor to procure material: -**

The Bidder shall procure material required for this work from single source as per product specification stipulated in tender & confirming to following condition.

The Bidder shall procure material from, Any Indian manufacturer or supplier of Mechanically Woven DT mesh Gabion & Geogrid having ISO 9001 certified company. Any Indian manufacturer or supplier shall have experience of supplying product to similar work .

Any Indian Manufacturer or supplier shall have in house facility to test properties of Gabion and Geogrid as per specification. The In house testing facility shall be NABL or equivalent accreditation. In case of nonexistence of NABL facility each lot of the material shall be tested in NABL certified laboratory.

All the ancillary work like concrete, Shotcrete, filling etc. shall be conducted as per MCGM Specification and guidelines by MORTH 5<sup>th</sup> Revision.

## **2.00 GROUTED SOIL NAIL WALL WITH**

### **SHOTCRETE FACIA Soil Nailing**

Typical construction sequence of soil nails shall be as follows:

#### **1. Initial excavation**

This initial excavation will be carried out by trimming the original ground Profile to the working platform level where the soil nails can be practically installed. The pre-requisite of this temporary excavation shall be in such a way that the trimmed surface must be able to self-support till completion of nail installation. Sometimes, sectional excavation can be carried out for soil with short self-support time. The condition of the trimmed surface shall be of the satisfactory quality to receive the Shotcrete.

#### **2. Drilling of holes**

Drilling shall be done by either air-flushed percussion drilling, augering or rotary boring drilling depending on ground condition. The hole size Shall be minimum 125 mm. In order to contain the grout, the typical inclination of the drill hole is normally tilted at 10° downward from horizontal.





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IS Sieve Designation	Percent passing the sieve
4.75 mm	95-100
2.36 mm	65-90
1.18 mm	45-75
600 microns	30-50
300 microns	10-22
150 microns	2-8

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3. Aggregate: For thick sections it may be advantageous to incorporate coarse aggregate in the mix provided adequate shotcreting equipment is available. Coarse aggregate when used shall conform to grading given in Table I of IS:9012. The percentage of coarse aggregate may normally be kept as 20 to 40 percent of the total aggregate and the mix shall be suitably designed. Grading of aggregate shall conform to the nominal maximum size of 10mm.
4. Water/Cement ratio for shotcreting shall fall within the range 0.35 to 0.50 by mass, wet enough to reduce the rebound. Drying shrinkage may be between 0.06 percent to 0.10 percent. The quick setting compound shall be added at the nozzle with water just before shotcreting.
5. Water: Water used for shotcrete should be portable drinking water conforming to IS :456-2000.
6. Admixtures: If used shall meet requirements of IS: 456-2000.
7. Mix design: Suitable mix design as per IS shall be followed.

**Application of Shotcrete:**

- The cement and sand shall be batched and mixed and conveyed through a hose pipe with the help of compressed air. A separate line shall bring the water under pressure. The cement, sand and water mix shall be passed through and intimately mixed in a special manifold and then projected at high velocity to the surface being repaired. The density of shotcrete shall not be less than 2000kg/cum. The strength of shotcrete shall not be less than 25 MPa. For effective shotcreting, the nozzle shall be kept 60 to 150 cm away from the surface.
- Shotcrete of total 75 mm thickness shall be placed in one layer.



- Prior to application of shotcrete facing all surfaces should be free of loose material, mud and rebound from the previously placed shotcrete and other foreign material which will prevent bond of shotcrete. Wooden pegs shall be placed at suitable spacing to act as guide for shotcreting thickness and level.
- During the placement of shotcrete, weep holes should be protected.
- Place DT wire mesh of 100 mmx 100 mmx 8 mm over the soil nailed excavated face. Weld the soil nail to the wire mesh at all the points of contacts of mesh.
- Corrosion resistance paint should be apply to the bearing plate.
- 
- Wire mesh shall be lapped by 2 squares in all the directions. As it is temporary wall, no break/ construction joint in shotcrete surface is suggested.
- Shotcrete the face by keeping the nozzle in horizontal position. In order to achieve required thickness of shotcrete, markers shall be placed. Before proceeding with subsequent excavation lifts, the shotcrete must have cured for at least 72 hours and have attained at least the specified 3-day compressive strength (typically 15 MPa).
- Test panels simulating actual field conditions shall be fabricated for conducting pre construction testing. The procedure for testing the cubes or cylinders taken from the panels stipulated in clause 6 of IS:9012 shall be followed.
- It should be ensured from the test that a strength of about 25 MPa at 28 days is available for the mortar/concrete mix.
- The exposed reinforcement shall be thoroughly cleaned free of rust, scales etc.
- The quality of Shotcreting shall be such that the percentage of rebound mentioned in IS: 9012 can be adhered to.

The sequential operation of Cutting the bench, installing the nail, shotcreting of the area can be altered based on the suggestions given by experience Geotechnical engineer during the actual work execution.

### **QUALITY OF SHOTCTRTE**

Characteristic compressive strength of shotcrete shall be checked by using 15cm x15 cmx 15 cm cube mould on daily basis. Viscosity test to be carried out at site to conform the plasticity of grout. Core crushing strength through shotcrete is also specified for every 500 sqm of face shotcrete.

Contractor shall submit detail methodology for excavation, Soil Nail and shotcrete before commencement of work

### **3.00 DRAINAGE PIPE**

50 MM DIA Perforated PVC pipe wrapped with Nonwoven Type 1 geotextile as per MoRTH 5th Revision shall be provided for a depth of 3 m length as shown in drawing at every 16 sqm face area. The drainage pipe shall be of minimum 4 kg/cm<sup>2</sup> capacity.



#### **4.00 Micropiles**

The Micropiles shall be installed by rotary percussion drilling method . MS Chisel shall not introduce for drilling operation. The MS casing shall be provided in case of collapsible strata. Cement sand grout of w/c ratio 0.50 is specified for the bonding. The cube shall be casted and tested for 28 days Characteristic Compressive strength.

Steel used for Micropiles shall be of FE 500 D grade.

One Initial Vertical pile load test shall be conducted as IS 2911 ( Part 4).

Pile measurement shall be payable from Pile cutoff level to the tip of the Micropile.

**Detail methodology of the entire work with quality checks and schedule shall be submitted prior to commencement of execution. Same shall get approved from the Geotechnical Department , VJTI, Mumbai.**

#### **5.00 DT Mesh**

Zn + PVC Coated wire mesh shall manufactured from heavily galvanized steel wire Nettings. These nettings have a hexagonal mesh with double twisting. The size of Hexagonal double twisted wire mesh shall be 100 x 120 mm. The thickness of the wire shall not less than 2.30mm.

##### **Safety Precautions and general guidelines: -**

- 1) Please note before commencement of work contractor shall remove all the landslide debris observed in the premises of dam/rivers and all locations at his own cost.**
- 2) The providing of all required arrangement of concrete/ scaffolding/ safety belts/ helmets/ life jackets and other safety equipments, etc complete with plants and machinery like welding, generator, DG set, electric cables, ropes, electric power tools and tackles, etc. for satisfactory completion work strictly as per BMC specification and requirements mentioned in the Tender.
- 3) Necessary safety precautions should be strictly provided to avoid any mishap/ accident on site.
- 4) The location of proposed landslide protection and allied works will be carried out at two locations at Modak Sagar Dam and One location is Middle Vaitarna Dam.
- 5) The proposed sites are located about 90 km to 130 Km approx away from Kapurbawdi (Thane ) office and about 20 kms from Khardi Railway station and 30 Km from Kasara railway station on central railway line.



- The above is general description of the scope of work, technical specification & actual work shall be governed by B.O.Q. and as directed by Engineer in charge.

**Note:**

--- Bidders are advised to inspect the site before submission of tender.

.- Any other material tests during execution of work suggested by consultant / Engg. In charge should be carried by the contractor at their own cost.



# **SECTION 5**

## **E-TENDERING ONLINE**

### **SUBMISSION PROCESS**



## **E-TENDERING ONLINE SUBMISSION PROCESS**

1.	The e-Tendering process of BMC is enabled through NIC's Mahatender Portal <a href="https://mahatenders.gov.in/nicgep/app">https://mahatenders.gov.in/nicgep/app</a>
2.	All the tender notices including e-Tender notices will be published on NIC's Mahatender portal <a href="https://mahatenders.gov.in/nicgep/app">https://mahatenders.gov.in/nicgep/app</a>
3.	All the information documents are published under the NIC's Mahatender portal.
4.	All the interested vendors are required to be registered with NIC's Mahatender portal for e-Tendering process. Vendors not registered with NIC's Mahatender portal can apply online by clicking the link online registration section of NIC's Mahatender portal. " <a href="https://mahatenders.gov.in/nicgep/app?component=%24WebHomeBorder.%24WebRightMenu.%24DirectLink&amp;page=Home&amp;service=direct&amp;session=T">https://mahatenders.gov.in/nicgep/app?component=%24WebHomeBorder.%24WebRightMenu.%24DirectLink&amp;page=Home&amp;service=direct&amp;session=T</a> "
5.	Manual offers sent by post/Fax or in person will not be accepted against e-tenders even if these are submitted on the Firm's letter head and received in time. All such manual offers shall be considered as invalid offers and shall be rejected summarily without any consideration.
6.	Please read the tender document carefully "Instructions and Articles of Agreement" for supply of general items. All documents that are required to be submitted as part of eligible & technical bid, need to be uploaded in the Packets provided for this purpose and commercial bid need to be filled online.
7.	This document (Instructions to vendors) and the 'Articles of Agreement' document which are available in the tender document make part of all tender documents unless stated otherwise in the tender document
8.	Affixing of digital signature for the bid document while submitting the bid, shall be deemed to mean acceptance of the terms and conditions contained in the tender document as well as confirmation of the bid/bids offered by the vendor which shall include acceptance of special Directions / terms and conditions if any, incorporated.
9.	All the documents and data submitted by vendors online shall be digitally signed. The system will prompt for digital signature certificate. It is mandatory for the vendors willing to participate in tender process to procure digital signature certificate of class-2/class-3 and Company Type.
10.	Digital Signature Certificates: Vendors can procure digital signature certificate from any of the certifying authorities (CA) in India. However, for the convenience of the vendors, a team from one of the certifying authorities is made available to help them for obtaining digital signature certificates. Interested vendors may approach helpdesk for details.
11.	The browser settings required for digitally signing the uploaded documents are listed in the link " <b>Site Compatibility</b> " available on Mahatender Portal



<b>12.</b>	In order to participate in the tender process , the registered vendors need to follow the steps given in the section “ Guidelines for hassle free Bid submission” and “Bidders Manual Kit - Open Source Software Link” available on Mahatender portal
	Open the e-Tendering application by clicking the link available in on <a href="https://www.mahatenders.gov.in/">https://www.mahatenders.gov.in/</a>
	Make the Browser Settings as per the guidance available in “ <b>Site Compatibility</b> ” section. Carry out the necessary settings and root certificates installation as mentioned in the document. Vendors to note that the computer user should have administrative rights to the computer to be able to work with e-Tendering application.
	Login to the application with your credentials and follow the instructions given in the document “User Manual for Vendors - Bidding Process” which is available in the “For Partners” section of Mahatender Portal.
	Make payment of tender price online and download the tender document and other relevant information documents.
	Pay EMD and other charges, where applicable, as per the instructions given in the Tender Notice and / or Tender Document.
	Upload the administrative & technical bid documents. System will prompt for digital signature certificate while uploading the document.
	Ensure that documents are uploaded properly by downloading them after uploading.
	Submitting the commercial bid by filling in the values on the screen. All the inputs given on this screen need to be digitally signed.
	The administrative, technical and commercial bids can be submitted only online on or before the due date and due time mentioned for submission of bids.
	The bids can be modified till the end date and time for bid submission. However, if a new version of a document is to be uploaded, please ensure to delete the old version.
	Ensure that bid is submitted by ensuring that the “status” of the bid in the initial bids listing screen is “Bid submitted”.
<b>13.</b>	Vendors should ensure to submit their bids well in advance before the due date and due time. Vendors trying to submit the bid at last moment just before due date and due time and failing to do so due to system problems at their end, internet problems, User Id locking problems etc. shall note that no complaints in this regard will be entertained.
<b>14.</b>	It is the responsibility of the vendors to maintain their computers, which are used for submitting their bids, free of viruses, all types of malware etc. by installing appropriate anti-virus software and regularly updating the same with virus free signatures etc. Vendors should scan all the documents before uploading the same.
<b>15.</b>	The administrative, technical and commercial evaluation documents will be available for all the participating vendors after completion of the evaluation.
<b>16.</b>	Additional information can be availed by referring to FAQs in the e-Procurement section of Mahatender portal.



17.	For any help, in the e-Tendering process, can be availed by dialing help-desk number 022-24811275/76 (BMC IT Cell) from 10.30 AM to 6.00 PM on all working days of BMC.
	Email support- Working hours 10.00 AM to 6.00 PM (Monday to Friday) Tele Support- Working hours 10.00 AM to 6.00 PM (Monday to Friday) NOTE- Support will not be available on Public Holiday & Saturday-Sunday

**SPECIAL NOTE :**

In order to participate in the tender process , the registered vendors need to follow the steps given in the section “ Guidelines for hassle free Bid submission” and “Bidders Manual Kit - Open Source Software Link” available on Mahatender portal

**For registration, enrolment for digital signature certificate & user manual, please refer to respective links provided in e-tendering tab. The vendors can get digital signature from any one of the Certifying Authorities (CA"s) licensed by the Controller of Certifying Authorities namely Safes crypt, IDRBT, National Informatics Centre, TCS, Customs, MTNL, GNFC and e- Mudhra.**



**SECTION 6**  
**INSTRUCTIONS TO**  
**APPLICANTS**



## INSTRUCTIONS TO APPLICANTS

### Scope of Application

The Authority wishes to receive Applications for Qualification in order to select experienced and capable Applicants for the Bid Stage.

### Eligibility of Applicants

Brihanmumbai Municipal Corporation (BMC) invites e-tender to appoint Contractor for the aforementioned work from reputed, multidisciplinary engineering organizations i.e. eminent firms, Proprietary/Partnership Firms/ Private Limited Companies/ Public Limited Companies/Companies registered under the Indian companies' act 2013 who are registered with the Brihanmumbai Municipal Corporation (BMC) as contractor in **Civil Category in class I(A) as per Rules of registration of contractors 2015/2016 as well as** from the contractors/firms registered in equivalent or superior classes with Central or State Government/Semi Govt. Organization/Central or State Public Sector Undertakings. In case of award of contract to bidder who is not registered with BMC, the bidder will have to apply for registering his firm with BMC as per rules of registration of contractors 2015/2016 within three months from the award of contract, otherwise its Bid Security i.e. E.M.D (Earnest Money Deposit) will be forfeited/recovered and an amount equal to Registration Fee of respective class will be recovered as penalty.

To be eligible for pre-qualification and short-listing, an Applicant shall fulfill the following conditions of eligibility:

#### 1. For Regular, Routine and Maintenance works:

<b>ame of the Deptt.</b>	<b>Details of project works</b>
<b>City Engineer/HIC</b>	New buildings for staff quarters /markets /school / offices etc. All dispensaries, health centers/ cemeteries
<b>Bldg. Maintenance</b>	All bldg. repair works, demolition works. New construction such as sheds.
<b>Road &amp; Traffic</b>	Pothole repairs, trenches, asphaltting of minor and major roads, repairs to footpaths, Improvisations of junctions./ new C.C.roads.
<b>Sewage Project</b>	Replacement of sewer lines, laying of new sewer lines for short stretches upto 500m
<b>Sewerage Operation</b>	Remedial works of all sewer lines
<b>S.W.D.</b>	Repairs and rehabilitation of SWD, rehabilitation of culverts on minor roads, repairs to minor nallas, remodeling of SWD system, repairs to roadside drains, training of minor drains/nallas, reconstruction of collapsed walls. New R.C.C. box culverts across minor or major roads, desilting of nallas.
<b>H.E.</b>	Routine laying of pipeline works up to 1200mm dia .rehabilitation of distribution system, Replacement of household connections and other minor works related to the dept.
<b>Bridges</b>	All maintenance/minor repairs and repairs to bridges, new bridge over major nalla, etc
<b>Garden Department</b>	All Civil works related to Landscaping such as pergolas, gazebos, etc and horticulture works



## 1.2 Technical Capacity:

The tenderers in their own name should have satisfactorily completed the work of similar nature in BMC/ Semi Govt./ Govt. and Public Sector Organizations during **last seven (7) years** ending last day of month previous to the one in which bids are invited as a prime Contractor (or as a nominated sub-contractor, where the subcontract had involved similar nature of work as described in the scope of works in this bid document, provided further that all other qualification criteria are satisfied)

### **C. In case of the contractor offering bids without MOU with contractor engaged in hill stabilization work.**

- d) Three similar completed works of similar nature each costing 30% of estimated cost. i.e. Rs. 11,42,00,964/- each.
- e) Two similar completed works of similar nature each costing 35% of estimated cost i.e. Rs. 13,32,34,458/- each.
- f) One completed work of similar nature of aggregate 50% of estimated cost i.e. Rs. 19,03,34,940/-

### **D. In case of the contractor offering bids with MOU with contractor engaged in hill stabilization work** out of total estimated cost Rs. 38,06,69,878/-, 40% cost i.e. 15,22,67,952/- will be considered to work out eligibility criteria of main contractor and 60% cost i.e. Rs. 22,84,01,927/- will be considered to work out eligibility of hill stabilization criteria with whom MOU done.

- d) Three similar completed works each costing 30% of Rs.15,22,67,952 i.e. Rs.4,56,80,386/- for regular, routine works and 30% of Rs.22,84,01,927 i.e. 6,85,20,579/- for hill stabilization works.
- e) Two similar completed works each costing 35% of Rs.15,22,67,952 i.e. Rs.5,32,93,784/- for regular, routine works and 35% of Rs.22,84,01,927 i.e. Rs.7,99,40,675/- for hill stabilization works.
- f) One similar completed works each costing 50% of Rs.15,22,67,952 i.e. Rs.7,61,33,976/- for regular, routine works and 50% of Rs.22,84,01,927 i.e. Rs.11,42,00,964/- for hill stabilization works.

The value of completed works shall be brought to current costing level by enhancing the actual value of work at compound rate of 10 % per annum; calculated from the date of completion to the date of issue of tenders.

**In case of ongoing works to be considered, the bidder must have received payment of bills of 80% of contract sum of the work / works executed till last day of month previous to the one in which bids are invited.**

The tenderer shall upload scanned copies of necessary satisfactory performance certificate along with the work order regarding works carried out as stated above at sr. no. I. The certificate shall be issued by the competent authority of the organization complete with the details of Name of work, Contract Cost, Work Order No. & Date of completion, Contract Period & satisfactory completion remarks etc. as per the Post Qualification Criteria mentioned above.



### 1.2 Financial Capacity:

Achieved an average annual financial turnover as certified by 'Chartered Accountant' (in all classes of civil engineering construction works only) equal to **30%** of the estimated cost of work in **last Three (03) financial years** immediately preceding the Financial Year in which bids are issued.

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 the date of completion to the date of issue of tenders.

### 1.3 Similar Experience:

#### b. Eligibility criteria for this work

"The bidder must possess experience in the work of drilling and grouting/ soil nailing/ rock bolting/ anchoring/ shot-creting/ guniting and gabion structures concerning to hill slope protection/ strengthening/ stabilization works".

Or

"For assessing the technical capacity of Regular, Routine and Maintenance works; Similar work shall mean, the completed or ongoing works in Building Construction OR Building Maintenance such as repairs/retrofitting /structural repairs OR construction/repairs of Asphalt/ Concrete roads OR laying/rehabilitation of sewer lines along with allied components OR laying/rehabilitation of water pipe lines in Cast Iron/ M.S. pipes / HDPE/ MDPE pipes OR repairs/maintenance/ construction of culverts over nallah" or any civil engineering work AND should have entered in to MoU (Memorandum of Understanding) with a contractual agency having experience of completed works of drilling and grouting/ soil nailing/ rock bolting/ anchoring/ shotcreting/ guniting and gabion structures concerning to hill slope protection/ strengthening/ stabilization works executed in last 7 years.

Note:- 1) Contractual agency with whom MoU has been executed has to produce the experience certificate issued by officer not below the rank of executive engineer or equivalent designation from Central or State Government/Semi Govt. Organization/Central or State Public Sector Undertakings works.

2) The bidder shall note that, the bidders are not allowed to enter in MoU with the agency which already has entered in MoU with another bidder for proposed tender.

3) The bidder shall note that, if the bidder participated in the tender in individual capacity then said bidder not allowed to sign MoU with another bidder for proposed tender work.

#### **b. Equipment Capability Criteria as required for this work**

The bidder will ensure his commitment to make the arrangements of the required equipment on the day of commencement or with respect to the progress of the work in phases, as per the instructions of site in charge on an undertaking on Rs. 500 stamp paper to be submitted along with the bid in Packet B.



## 2. For Original and New construction: (This clause is not applicable for this tender)

Name of the Dept.	Details of project works
City Engineer/HIC	Housing colonies for staff quarters/Markets admeasuring more than 20000.00 sq.mts .etc. Or High Rise Buildings Or Buildings for major hospital more than 200beds
Road&Traffic	Asphalting/concreting of major roads in long stretches(singleroad more than 5000 m) and costing more than Rs.100.00 crores
SewageProject	laying of new sewer lines for long stretches i.e.beyond500m
Sewage Operation	New pumping stations etc
S.W.D	New pumping stations etc
H.E.	Laying of pipe lines more than 1200mm dia., Trunk mains etc. Pumping stations etc
Bridges	New bridges over roads, rivers, etc

### 2.1 Technical Capacity (Project Experience): (This clause is not applicable for this tender)

*The tenderer(s) in their own name should have satisfactorily completed the work of similar nature BMC /Semi Govt. /Govt. & Public Sector Organizations during **last seven (7) years** ending last day of month previous to the one in which bids are invited as a prime Contractor (or as a nominated sub-Contractor, where the subcontract had in- volved similar nature of work as described in the scope of works in this bid document, provided further that all other qualification criteria are satisfied)*

**a) Three similar completed works of similar nature each costing 30% of estimated cost.\* i.e Rs. -----each.**

**OR**

**b) Two similar completed works of similar nature each costing 40% of estimated cost.\* i.e Rs. ----- each.**

**OR**

**d) One completed work of similar nature of aggregate 60% of estimated cost.\* i.e Rs. -----**

*The value of completed works shall be brought to current costing level by enhancing the actual value of work at compound rate of 10 % per annum; calculated from the date of completion to the date of issue of tenders.*

### 2.2 Financial Capacity : (This clause is not applicable for this tender)

Achieved an average annual financial turnover as certified by 'Chartered Accountant' (in all classes of civil engineering construction works only) equal to **30%** of the estimated cost of work in last three (3) financial years immediately preceding the Financial Year in which bids are issued.

- To ascertain this, tenderer(s) shall furnish /upload the financial statement (Audited balance sheet) duly certified by Chartered Accountant.
- The turnover can be enhanced by 10% every year to bring the present level.



### 2.3 Similar experience : (This clause is not applicable for this tender)

. Similar experience is spelt in definite sense, such as-

#### **For-Building Construction**

Nos of stories	Experience of construction
Up to 4 stories	No special experience
From 5 to 10 stories	Minimum 5 stories
From 11 to 15 stories	Minimum 8 stories
From 15+ stories	Minimum 10 stories
In case of basement	Minimum 1 basement

\*The contractors having experience of Retro-fitting (Jacketing of columns, recasting of structural members, polymer grouting, etc) works can also be eligible for Building Construction works.

#### **C) Bid Capacity:**

The bid capacity of the prospective bidders will be calculated as under:

Assessed Available Bid Capacity =  $(A * N^2 - B)$

Where,

**A** = Maximum value of Civil Engineering works completed in any one year (year means Financial year) during **the last five years** (updated to the price level of the Financial year in which bids are invited at a compounded rate of 10% per year) taking into account the completed works.

**Turnover of 2018-19 x 1.61**

**Turnover of 2019-20 x 1.46**

**Turnover of 2020-21 x 1.33**

**Turnover of 2021-22 x 1.21**

**Turnover of 2022-23 x 1.1**

**N** = Number of years prescribed for completion of the Project/Works, **excluding monsoon period**, for which these bids are being invited. (E.g. 12 months = 12/12 year). For every intervening monsoon 0.33 shall be added to N. **(For this e-Tender, N = 1.33)**

**B** = Value of existing commitments (only allotted works) on the last date of submission of bids as per bidding document and on-going works to be completed during the period of completion of the Project/Works for which these bids are being invited.

Note: The statement showing the value of existing commitments and on-going works as well as the stipulated period of completion remaining for each of the works listed should be attached along with



certificates duly signed by the Engineer-in Charge, not below the rank of an Executive Engineer or equivalent.

**Even though the bidders meet the above qualifying criteria, they are subject to be disqualified if they have:**

- made misleading or false representation in the forms, statements and attachments submitted in proof of the qualification requirements; and/or

- Record for poor performance such as abandoning the works, not properly completing the contract, inordinate delays in completion, litigation history, or financial failures etc.

#### **D. Equipment Capabilities as required for this work**

##### **a) Regular and Routine works:**

The successful bidder will make the arrangements of the required equipment on the day of commencement or with respect to the progress of the work in phases, as per the instructions of site in charge. The successful bidder and, to that effect he will ensure commitment on an undertaking on Rs.500 stamp paper to be submitted along with the Bid in Packet B. However, this condition in no way shall dilute the respective condition in Registration Rules of BMC.

##### **b) New and Original Works: (Not applicable for this tender)**

The bidder should, undertake their own studies and **furnish with their bid**, a detailed construction planning and methodology supported with assessment study of requirements of equipment/plants & machineries to allow the employer to review their proposal. The bidder will ensure his commitment to make the arrangements of the required equipment on the day of commencement or with respect to the progress of the work in phases, as per the instructions of site in charge on an undertaking on Rs.500 stamp paper to be submitted along with the Bid in Packet B. However, this condition in no way shall dilute the respective condition in Registration Rules of BMC.

##### **c) Special Works:**

The concerned Ch.Eng. shall enlist the equipments in the tender document justified for the project and ensure the capacity of the bidder for the same with the approval of concerned AMC.

##### **Note:**

**1. Bidders shall submit the undertaking for equipment capability and other undertakings as such on a single Rs.500/- stamp paper.**

**2. Insistence of availability of equipments/plants at a particular distance from site should not be made in the tender document.**

#### **E. Technical Personnel**

The contractor and/or its managerial staff should have qualification/experience appropriate to the function they fulfill. The minimum standard shall be increased by asking that at least one number or more of the contractor or its managerial staff have acquired qualifications or work experience to the needs of the contract. The minimum standard may also state that the person or persons responsible for managing the works must have a minimum of no's of years' experience working on similar nature of projects.



For fixing requirement of Technical Staff as required for this work.

(A) General Guidelines for Fixing Requirement of Technical Staff

Cost of work (Rs in Lakhs)	Requirement of Technical Staff		Minimum Experience (year)
	Qualification	Number	
Upto 30	<b>Not Required</b>		
Above 30 to 90	Diploma Engineer	1	
Above 90 to 300	Graduate Engineer (BE)	1	2
	<b>OR</b> Diploma Engineer	1	5
Above 300	1) Graduate Engineer (BE)	1	5
	2) Graduate Engineer (BE)	1	2
	<b>OR</b> 2) Diploma Engineer	1	5

**Notes-**

1 "Cost of work", in table above, shall mean the agreement amount of the work.

2. Rate of recovery in case of non-compliance of the clause be stipulated at following rates:-

Sr.No	Qualification	Experience(years)	Rate of Recovery
1	Graduate Engineer	5	Rs.25000/-p.m.
2	Graduate Engineer	2	Rs.15000/-p.m.
3	Diploma Engineer	5	Rs.15000/-p.m.

3. Nothing extra need to be added while preparing market rate justified amount of the work if stipulation is made as per above recommended scale of technical staff.

4. Requirement of technical staff and their experience can be varied depending upon nature of work by competent authority i.e. Chief Engineer with recorded reasons.



## **F. TIME PERIOD OF THE PROJECT:**

Entire project should be completed and delivered within **12 Months (Exclusive of monsoon)** from the date of award of contract.

The time allowed for carrying out the work as entered in the Tender shall be strictly observed by the Contractor and shall be reckoned from the date on which the Work Order is given to the Contractor. The work shall throughout the stipulated period of the Contract be proceeded with all due diligence as time being deemed to be the essence of the contract on the part of the Contractor. On failing to do so, the Contractor shall pay as compensation an amount which shall be governed as per Clause - 8(e) of Standard General Conditions of Contract.

The Contractor should complete the work as per phase given below :

¼ of the work in .. ¼ of the time

½ of the work in .. ½ of the time

¾ of the work in .. ¾ of the time

Full of the work in .. Full of the time

Full work will be completed in **12 Months (Exclusive of monsoon)**.

The above programme is indicative and need to be worked out for every project for major activities) with respect to parameters such as labour, machineries, settling time, procurement and transportation of materials etc. The Dy.H.E.(Operation) shall approve the phase programme of the project in the Tender Document.

The programme for completion of work shall be a part of the Contract Document in the form of Bar Chart / GANTT Chart. The Contractor is supposed to carry out the work and keep the progress as per Bar Chart/GANTT Chart. The Contractor shall complete the work as per the Schedule given in the Contract and the programme submitted by the Contractor.

## **G. Contract Execution**

All required documents for execution of the contract shall be submitted within 30 days from the date of issue of letter of acceptance. If the documents are not submitted within the stipulated time, a penalty of Rs 5000/- per day will be applicable to the contractor.

All contract documents need to be duly affixed with stamp duty properly signed along with evidence/proof of payment of security/contract deposit/ within 30 days from the date of letter of acceptance received by him

H. If the amount of the Contract Deposit to be paid above is not paid within 30 days from the date of issue of Letter of Acceptance, the Tender / Contractor already accepted shall be considered as canceled and legal steps be taken against the contractor for recovery of the amounts.

I. The amount of Security Deposit retained by the BMC shall be released after expiry of period up to which the contractor has agreed to maintain the work in good order is over. In the event of the contractor failing or neglecting to complete the rectification work within the period up to which the contractor has agreed to maintain the work in good order, the amount of security deposit retained by BMC shall be adjusted to-wards the excess cost incurred by the Department on rectification work.

## **J. Action when whole of security deposit is forfeited:**

In any case in which under any Clause of this contract, the contractor shall have rendered himself liable to pay compensation amounting to the whole of this security deposit whether paid in one sum or deducted by



installments or in the case of abandonment of the work owing to serious illness or death of the contractor or any other cause, the Engineer on behalf of the Municipal Commissioner shall have power to adopt any of the following process, as he may deem best suited to the interest of BMC -

(a) To rescind the contract (for which recession notice in writing to the contractor under the head of Executive Engineer shall be conclusive evidence) and in that case, the security deposit of the contract shall stand forfeited and be absolutely at the disposal of BMC.

(b) To carry out the work or any part of the work departmentally debiting the contractor with the cost of the work, expenditure incurred on tools and plant, and charges on additional supervisory staff including the cost of work-charged establishment employed for getting the un-executed part of the work completed and crediting him with the value of the work done departmentally in all respects in the same manner and at the same rates as if it had been carried out by the contractor under the terms of his contract. The certificate of the Executive Engineer as to the costs and other allied expenses so incurred and as to the value of the work so done departmentally shall be final and conclusive against the contractor.

(c) To order that the work of the contractor be measured up and to take such part thereof as shall be un-executed out of his hands, and to give it to another contractor to complete, in which case all expenses incurred on advertisement for fixing a new contracting agency, additional supervisory staff including the cost of work charged establishment and the cost of the work executed by the new contract agency will be debited to the contractor and the value of the work done or executed through the new contractor shall be credited to the contractor in all respects and in the same manner and at the same rates as if it had been carried out by the contractor under the terms of his contract. The certificate of the Executive Engineer as to all the cost of the work and other expenses incurred as aforesaid for or in getting the un-executed work done by the new contractor and as to the value of the work so done shall be final and conclusive against the contractor.

In case the contract shall be rescinded under Clause (a) above, the contractor shall not be entitled to recover or be paid any sum for any work therefor actually performed by him under this contract unless and until the Executive Engineer shall have certified in writing the performance of such work and the amount payable to him in respect thereof and he shall only be entitled to be paid the amount so certified. In the event of either of the courses referred to in Clause (b) or (c) being adopted and the cost of the work executed departmentally or through a new contractor and other allied expenses exceeding the value of such work credited to the contractors amount of excess shall be deducted from any money due to the contractor, by BMC under the contract or otherwise, howsoever, or from his security deposit or the sale proceeds thereof provided, however, the contractor shall have no claim against BMC even if the certified value of the work done departmentally or through a new contractor exceeds the certified cost of such work and allied expenses, provided always that whichever of the three courses mentioned in clauses (a), (b) or (c) is adopted by the Executive Engineer, the contractor shall have no claim to compensation for any loss sustained by him by reason of his having purchase or procured any materials or entered in to any engagements or made any advance on account of or with a view to the execution of the work or the performance of the contract.

**K. Contract may be rescinded and security deposit forfeited for bribing a public officer or if contractor becomes insolvent**

If the contractor assigns or sublets his contracts or attempt so to do, or become insolvent or commence any proceeding to get himself adjudicated and insolvent or make any composition with his creditors, or attempt so to do or if bribe, gratuity, gift, loan, perquisite, reward or advantage, pecuniary or otherwise, shall either directly or indirectly be given promised or offered by the contractor or any of



his servants or agents through any public officer, or person in the employ of BMC/Govt. in any way relating to his office or employment, or if any such officer or person shall become in any way directly or indirectly interested in the contract the Engineer In-charge may thereupon, by notice in writing rescind the contract and the Security Deposit of the Contractor shall thereupon stand forfeited and be absolutely at the disposal of BMC and the same consequences shall ensue as if the contract had been rescinded under above clause J hereof; and in addition the contractor shall not be entitled to recover or be paid for any work therefore actually performed under the contract.

**Categories and classes available for Civil Contractors.**

A. New registration. (2016)

**Minimum Financial requirements for Civil Engineering Discipline (Rs. In Lakh)**

Class	Amounts upto which work can be taken up	Minimum Solvency	Average turnover of work done during last 3 years	Estimated cost of work in hand during current year
I(A)	Without Limit	150	300	450
I(B)	2500			
I(C)	1500			
II	750	75	200	300
III	300	30	90	150
IV	150	15	60	80
IV(A)	90	9	40	60
V	50	5	25	30
V(A)	30	3	15	10
VI	15	2	7.5	10
VII	7	1	1.5	3
VIII	3	0.5	1	1.5
IX	2	0.25	0.5	1



## **Submission of Tenders**

### **PACKET – A**

The Packet 'A' shall contain scanned certified copies of the following documents

Scrutiny of this packet will be done strictly with reference to only the scanned copies of Documents uploaded online in packet 'A'

- a) Valid Registration Certificate.
- b) Valid Bank Solvency Certificate of Minimum Solvency amount as governed by Registration Rules in force for respective Class of Contractor for Civil and M&E works.
- c) A document in support of Registration under GST Act.
- d) Certified copies of valid 'PAN' documents and photographs of the individuals, owners, Karta of Hindu undivided Family, firms, private limited companies, registered co-operative societies, partners of partnership firms and at least two Directors, if number of Directors are more than two in case of Private Limited Companies, as the case may be. However, in case of Public Limited companies, Semi Government Undertakings, Government Undertakings, no 'PAN' documents will be insisted.
- e) Latest Partnership Deed in case of Partnership firm duly registered with Chief Accountant (Treasury) of BMC.
- f) Affidavit / undertakings as per enclosed formats.
- g) ) The bidder shall pay 50% of EMD/Bid security through payment gateways of GOM on URL [https:// mahatenders.gov.in](https://mahatenders.gov.in) & the remaining 50% of EMD/Bid security by way of D.D. payable to BMC. The bidders shall upload the screen shot of receipt of online payment (i.e.50% EMD) & scanned copy of D.D.(i.e.50% EMD) along with the bid submission, more particularly as a part of packet A. After submission of bid, the bidders shall submit the original D.D. for 50% EMD in the office of Deputy Hydraulic Engineer (Operations), at least one day prior to the date of opening of packet A, failing which bidder will be considered as non-responsive & 10 % EMD will be forfeited. The scrutiny fee, any other charges and penalties that may become applicable will be recovered from the 50% EMD/Bid security paid to BMC by way of DD and balance amount will be refunded after opening of C packet.
- h) All the bidders who have participated in the tendering process shall pay the applicable scrutiny fee after opening of Packet 'A' & "B", but before the date of opening of Packet 'C' after receipt of intimation in this respect from department.(CA/FRG/10 dtd 19.10.2023)

**The bidders shall categorically provide their Email-ID in packet 'A'.**

**NOTE:** If the tenderer(s) withdraw tender offer during the tender validity period, his entire E.M.D shall be forfeited. If it is found that the tenderer has not submitted required documents in Packet "A" then, the shortfalls will be communicated to the tenderer through e-mail only and compliance required to be made within a time period of three working days otherwise they will be treated as non-responsive.



## **PACKET – B**

### **The Packet 'B' shall contain scanned certified copies of the following documents**

**a)** The list of similar type of works as stated in para 'A' of Post qualification successfully completed during the last five years in prescribed proforma, in the role of prime contractor. Information furnished in the prescribed proforma (Proforma – I & III) shall be supported by the certificate duly self-attested. Documents stating that it has successfully completed during the last five years at least one contract of similar works as stated in para 'A' of Post qualification.

**b)** Annual financial turnover for **preceding three financial years as certified by Chartered Accountant** preceding the Financial Year in which bids are invited. **Copies of Applicants duly audited balance sheet and profit and loss account for the preceding three financial years preceding the Financial Year in which bids are invited.** (Proforma – II)

**c)** Documents stating that, it has access to or has available liquid assets, unencumbered assets, lines of credit and other financial means (independent of any contractual advance payment) sufficient to meet the construction cash flow requirements for the subject contract in the event of stoppage, start-up, or other delay in payment, of the minimum 15% of the cost of the work tendered for, net of the tenderer's commitment of other contracts (Certificate from Bankers / C.A./Financial Institution shall be accepted as a evidence).

**d)** The bidder shall give undertaking on Rs 500/-stamp paper that it is his/their sole responsibility to arrange the required machineries either owned/on lease or hire basis, at site before start of the work

**i) Regular and Routine works:** The successful bidder shall make the arrangements of the required equipment on the day of commencement or with respect to the progress of the work in phases, as per the instructions of site in charge. The successful bidder and, to that effect he will ensure commitment on an undertaking on Rs.500 stamp paper to be submitted along with the Bid in Packet B. However, this condition in no way shall dilute the respective condition in Registration Rules of BMC.

**ii) New and Original Works:** The bidder should, undertake their own studies and **furnish with their bid**, a detailed construction planning and methodology supported with assessment study of requirements of equipment/plants & machineries to allow the employer to review their proposal. The bidder shall ensure his commitment to make the arrangements of the required equipment on the day of commencement or with respect to the progress of the work in phases, as per the instructions of site in charge on an undertaking on Rs.500 stamp paper to be submitted along with the Bid in Packet B. However, this condition in no way shall dilute the respective condition in Registration Rules of BMC. **(Not applicable for this tender)**

**iii) Special Works:** The concerned Ch.Eng. shall enlist the equipments in the tender document justified for the project and ensure the capacity of the bidder for the same with the approval of concerned AMC. **(Not applicable for this tender).**

**e)** Details of works in hand (Proforma VI-A & VI-B) (original), along with copies of work orders & attested copies of percentage of works completed or part thereof.

**f)** Statement showing assessed available Bid Capacity.

**g)** The undertaking of Rs.500/- stamp paper as per the proforma annexed in 'Annexure B, C & E'



**Note: Bidders shall submit the undertaking for equipment capability and other undertakings as such on a single Rs.500/- stamp paper.**

h) The tenderers shall upload work plan as per the following outline:

i) Details of Litigation History on bidder's letter head.

1. GANTT chart/ PERT/ CPM chart showing the completion of work within prescribed time period, considering major activities.

2. Organizational set up envisaged by the contractors.

3. Plant & equipment proposed to be deployed for this work.

4. Site Offices and Laboratories proposed to be set up.

5. A note on how the whole work will be carried out (work plan including methodology).

6. Quality management plan.

7. All the activities included in the Scope of Work shall be covered in the work plan.

**Note:**

i). The Electrical / Mechanical work shall be got carried out by the civil contractors through the contractors registered with BMC. In class 'A' in Electrical Category. Information about the registered contractors shall be obtained from the office of the Ch.E. (M&E)/ E.E. (Monitoring & Registration Cell). Attested scanned copy of the valid registration certificate in Electrical Category shall be uploaded with the tender along with the undertaking from the registered Electrical Contractor stating his willingness to carry out the tender work.

ii). The successful bidder **shall submit valid registration certificate under E.S.I.C., Act 1948, if** the tenderer has more than 10 employees /persons on his establishment (in case of production by use of energy) and 20 employees/persons on his establishment (in case of production without use of energy) to BMC as and when demanded. In case of less employees/persons mentioned above then the successful bidder has to submit an undertaking to that effect on Rs. 200 stamp paper as per circular u/no. CA/FRD/I/65 of 30.03.2013.

iii) The successful bidder **shall submit valid registration certificate under E.P.F. & M.P., Act 1952, if** tenderer has more than 20 employees/persons on his establishment, to BMC as and when demanded. In case if the successful bidder has less employees/persons mentioned above then the successful bidder has to submit an undertaking to that effect on Rs. 200 stamp paper as per circular u/no. CA/FRD/I/44 of 04.01.2013.

**Note:** If it is found that the tenderer has not submitted required documents in Packet "B" then, the shortfalls will be communicated to the tenderer through e-mail only and compliance required to be made within a time period of three working days otherwise they will be treated as non-responsive.

#### **PACKET – C**

a. Online tender filled in either percentage plus or minus (above or below), or at par. (There is no separate provision to quote % in physical form, this is a part in Header Data of online Tendering). For Packet 'C' tenderer(s) will fill data in 'Item Data Tab' in Service Line Item via Details and quotes his



percentage variation figures. (If entered '0' it will be treated as 'at par'. By default, the value is zero only).

**Note: 1) In case of rebate/premium of 15% and above as quoted by the tenderer, the rate analysis of major items shall be submitted by L1 and L2 bidder after demand notification by e-mail to bidders by concerned Dy.H.E.(Operation) The format for rate analysis is annexed at Annexure D.**

**2) Rate analysis in prescribed format shall be submitted online to the Engineer in-charge within 3 working days from the date of communication on e-mail. Failing which EMD will be forfeited and the bid will be rejected and next successful / responsive bidder will be considered. Thereafter, negotiation will be done with the said successive / responsive bidder with respect to his quoted rate.**

### **BID SECURITY OR EMD**

1) The Bidder shall furnish, as part of the Bid, Bid Security/EMD, in the amount specified in the Bid Data Sheet. This bid security shall be in favor of the authority mentioned in the Bid Data Sheet and shall be valid till the validity of the bid.

2) The tenderers shall pay 50% amount of EMD by way of D.D. payable to BMC & remaining 50% amount of EMD through online.

3) Any bid not accompanied by an acceptable Bid Security and not secured as indicated in sub-clause mentioned above, shall be rejected by the Employer as non-responsive.

4) The Bid Security of the successful Bidder will be discharged when the Bidder has signed the Agreement and furnished the required Security Deposits.

5) The Bid Security / EMD of L-2 and downward bidders shall be refunded immediately after opening of financial bid or as per the latest circular in force.

6) In case, the successful bidder becomes non-responsive or successful bidder withdraws the bid or is unwilling to extend the bid validity period, in such circumstances, if L-2 bidder is agreeable to extend bid validity period and ready to deposit the requisite amount of bid security/EMD and ASD to the department within the stipulated time period i.e.15 days, the department will process further as per normal procedure.

7) EMD shall be paid online at the time of bidding and the submission will be insisted as per SBD conditions

8) The Bid Security may be forfeited:

a) If the Bidder withdraws the Bid after bid opening (opening of technical qualification part of the bid during the period of Bid validity;

b) In the case of a successful Bidder, if the Bidder fails within the specified time limit to:

i. Sign the Agreement; and/or

ii. Furnish the required Security Deposits.

1. The cases wherein if the shortfalls are not complied by a contractor, will be informed to Registration and Monitoring Cell. Such non-submission of documents will be considered as 'Intentional Avoidance' and if three or more cases in 12 months are re-reported, shall be viewed seriously and



disciplinary action against the defaulters such as banning / de-registration, etc. shall be taken by the registration cell with due approval of the concerned AMC.

2. In case of curable / non-curable defects due to non-fulfillment of requirement of BMC as prescribed and in the event, the bidder becomes non-responsive and the **10% EMD** will be forfeited and bid will be rejected. This shall be in addition to any forfeiture of proportionate EMD for curable defects as per other relevant clauses of the tender documents, if applicable.

**3. In case of non-workable rate analysis and misleading information submitted by the bidder, EMD shall be forfeited and bid will be rejected.**

**Note:**

**A) Curable Defect shall mean shortfalls in submission such as:**

**a. Non-submission of following documents,**

**i. Valid Registration Certificate**

**ii. Valid Bank Solvency**

**iii. GST Registration Certificate**

**iv. Certified Copies of PAN documents and photographs of**

**individuals, owners, etc**

**v. Partnership Deed and any other documents**

**vi. Undertakings as mentioned in the tender document.**

**vii. Wrong calculation of Bid Capacity,**

**NOTE:- In packet 'A' as well as packet 'B', 02 nos. of shortfall in curable defects will be allowed & 2% EMD will be forfeited for each shortfall thereafter.**

**B) Non-curable Defect shall mean (As per circular No. CHE/BM/019919/IIDtd. 07.01.2019)**

**a. Inadequate submission of EMD/ASD amount,**

**b. In-adequacy of technical and financial capacity with respect to eligibility criteria as stipulated in the tender.**

**c. No proper submission of experience certificates and other documents, etc.**

**BID VALIDITY**

- Bids shall remain valid for a period of not less than one eighty (180) days after the deadline date for bid submission specified in Bid Data Sheet. A bid valid for a shorter period shall be rejected by the Employer as non-responsive.
- In exceptional circumstances, prior to expiry of the original time limit, the Employer may request that the bidders may extend the period of validity for a specified additional period. The request and the bidders' responses shall be made in writing or by cable. A bidder may refuse the request without forfeiting his Bid Security. A bidder agreeing to the request will not be required or permitted to modify his bid, but will be required to extend the validity of his bid security for a period of the extension.



### **DEFECT LIABILITY PERIOD (DLP)**

1. The Contractor is expected to carry out the construction work in Workmen like manner so as to meet the requirement and specification for the project. It is expected that the Workmanship and materials will be reasonably fit for the purpose for which they are required.

2. Defects or defective work is where standard and quality of workmanship and materials as specified in the contract is deficient. Defect is defined as a failure of the completed project to satisfy the express or implied quality or quantity obligations of the construction contract. Defective construction works are as the works which fail short of complying with the express descriptions or requirements of the contract, especially any drawings or specifications with any implied terms and conditions as to its quality, workmanship, durability, aesthetic, performance or design. Defects in construction projects are attributable to various reasons.

3. Some of the defects are structural defects results in cracks or collapse of faulty defective plumbing, inadequate or faulty drainage system, inadequate or faulty ventilation, cooling or heating systems, inadequate fire systems etc. The defects could be various on accounts of different reasons for variety of the projects.

4. The Engineering In charge/Project Officer shall issue the practical completion certificate for the project. During the Defect Liability Period which commences on completion of the work, the Engineering In charge shall inform or the contractor is expected to be informed of any defective works by the Employer's representative of the defects and make good at contractor's cost with an intention of giving opportunity to the contractor of making good the defects appeared during that period. It is the contractor's obligation under the contract to rectify the defects that appear during Defect Liability Period and the contractor shall within a reasonable time after receipt of such instructions comply with the same at his own cost. The Engineering In charge/Project Officer shall issue a certificate to that effect and completion of making good defects shall be deemed for all the purpose of this contract to have taken place on the day named in such defect liability certificate.

5. If defective work or workmanship or design have been knowingly covered-up or concealed so as to constitute fraud, commencement of the Defect Liability Period may be delayed. The decided period may be delayed until **discover** actually occurs on at least the defect could have been discovered with reasonable diligence, whichever is earlier.

#### **6. The DLP shall be as below:**

<b>Dept</b>	<b>Type of works</b>	<b>DLP</b>
Roads / Bridge	For Cement Concrete Road having thickness 280 mm and more, defect liability period is 10 years and 5 years for all other components of the road i.e. side strip, footpath, SWD, thermoplastic paint, kerb stones, water tables, street furniture, signboards etc	10 years
	Asphalt work	5 years
	Structural work	5 years
	General works	5 years
BM/SIC/HIC	General works	3 years
	Structural work	5 years
	Waterproofing works	5 years
Ward Works	All ward level works	2 years
Other Works	Pot holes and pre-monsoon bad patch repair work	1 years
For other departments	HE, WSP, SP, SWD, Garden	3 years



**❖ In case of any type of work not covered above or any change in DLP, the concerned Chief Engineer shall stipulate DLP with approval of concerned DMC/AMC.**

7. Also, in case of defect, the Engineer shall give notice to the Contractor of any Defects before the end of the Defects Liability Period, which begins at. The Defects Liability Period shall be extended for as long as Defects remain to be corrected. Every time notice of Defect/Defects is given, the Contractor shall correct the notified Defect/Defects within the duration of time specified by the Engineer's notice. The Engineer may issue notice to the Contractor to carry out removal of defects or deficiencies, if any, noticed in his inspection, or brought to his notice. The Contractor shall remove the defects and deficiencies within the period specified in the notice and submit to the Engineer a compliance report.

8. It is the Completion Stage when the contractor has completed all of the works and fixed all of the defects that were on the list of issue by Engineer-in-charge. When this happens, the engineer must issue a 'Certificate of Completion'. On the issue of 'Certificate of Completion', the 'Defect Liability Period' starts. The contractor also must issue a 'Certificate statement' as an acknowledgment to the engineer not later than 14 days after the 'Certificate of Completion' has been issued. During the 'Defect Liability Period', the contractor has to obey all written instructions from the engineer to carryout repairs and fix any defects which appear in the Permanent Works. If the contractor does not ,due to his own faults finish the repair works or fix the defects by the end of 'Defect Liability Period', the 'Defect Liability Period' will continue until all works instructed by engineer is done.



## SECURITY DEPOSIT AND PERFORMANCE GUARANTEE

### A. Security Deposit

The security deposit shall mean and comprise of

- I) Contract Deposit and
- II) Retention Money.

I) **Contract Deposit** – The successful tender, here after referred to as the contractor shall pay an amount equal to **two (2)** percent of the contract sum shall be paid within thirty days from the date of issue of letter of acceptance. **The said Contract Deposit shall be paid in the form of Demand Draft (D.D.) only.**

II) **Retention Money** – The retention money equal to 15% of the Contract sum will be recovered from the contractor's every bill i.e. interim / running / final bill. The clause of retention money will not be applicable M. & E. Department.

### B. Additional Security Deposit

The additional security deposit shall be applicable as under:-

Rebate quoted by Contractor	ASD Applicable
Up to 12% rebate	No ASD
Rebate above 12.0% on estimated cost	At 2.00% of Estimated cost for each % rebate and part thereof in D.D. only.

Additional security deposit =  $2(X/100) \times$  office estimated cost,

Where X=percentage rebate quoted above 12%

The bidders shall submit the ASD as applicable in the form of Demand Draft, which is to be submitted during office hours minimum one day before opening of packet 'C' to respective Head Clerk (Expenditure) of the Engineer in-charge of the HE Division in sealed envelope. If A.S.D. is not applicable then the bidders shall submit sealed envelope mentioning on their letter head 'ASD is not applicable'.

If the bidders fails to submit the sealed envelope as mentioned above at least one day before opening of packet 'C' within office hours then the EMD of the respective bidders will be forfeited and the company with their Directors / Partners and other companies with the said directors / partners will be further debarred from any tendering process for the period of at least 2 years.

### C. Performance Guarantee

The successful tenderer, here after referred to as the contractor shall pay in the form of "Performance Guarantee" at different rates for different slabs as stated below:

Offer	PG applicable %
For premium, at par and rebate from 0 % to 12%	PG= 0.92% x contract sum <b>applicable for rebate of 12%</b>
For rebate more than 12 %	P.G. = {0.92% x contract sum applicable for rebate of 12%} +(X) x contract sum where X= percentage rebate quoted more than 12%



**Note: Contract sum shall mean amount after application of rebate/premium as quoted by the contractor with contingencies only and excluding price variation.**

**The PG shall be paid in one of the following forms.**

- I) Cash (In case guarantee amount is less than Rs.10,000/-)
- II) Demand Draft (In case guarantee amount is less than Rs.1,00,000/-)
- III) Government securities
- IV) Fixed Deposit Receipts (FDR) of a Schedule Bank.

V) An electronically issued irrevocable bank guarantee bond of any Schedule bank or in the prescribed form given in Annexure.

Performance Guarantee is applicable over and above the clause of Security Deposit. Performance Guarantee will have to be paid & shall be valid till the defect liability period or finalization of final bill whichever is later.

This deposit will be allowed in the form of I to V as mentioned above and shall be paid within 15 days after receipt of Letter of Acceptance.

**Note:** Following exceptions shall be adopted for 'Demolition Tenders':

- Irrespective of the offer (Rebate/ at par/ premium), ASD shall be differed and only PG of 10% of contract sum be taken from the successful bidder on award of contract only.

- BMC departments shall ensure to incorporate specific condition regarding above in bid document and e-tender notice.

#### **D. Refund of Security Deposit**

##### **I. Refund of Contract Deposit**

The Contract Deposit shall be released within 30 days after completion of 3rd year of DLP (in case of 5 years DLP) and after issue of 'Defect Liability Certificate' (in case of 1 or 2 or 3 years DLP) subject to no recoveries are pending against the said work, provided that the Engineer is satisfied that there is no demand outstanding against the Contractor. No claim shall be made against the Balance Contract Deposit after the issue of Defects Liability Certificate.

##### **II. Refund of Retention Money**

The retention money will be refunded after completion of defect liability period and after issue of "Defect Liability Certificate" provided that the Engineer is satisfied that there is no demand outstanding against the Contractor. In the event of different Defects Liability Periods have been specified or become applicable to different sections or parts of the permanent works, the said money will be released within 30 days on expiration of such Defects Liability Periods. In the event, the Engineer issues a Taking-over certificate for a section or part of the permanent works, only such proposition thereof as the Engineer determines (having regard to the relative value of such section or part of the works) shall be considered by the Engineer for payment to the Contractor.



### III. Refund of Additional Security Deposit

One half (50%) of the Additional Security Deposited (ASD) shall be released after the completion of 50% financial progress of the work.

The balance ASD shall be released within 30 days of issue of 'Certificate of Completion' with respect to the whole of the Work. In the event the Engineer issues a Taking-over Certificate for a section or part of the Permanent works, only such proposition thereof as the Engineer determines (having regard to the relative value of such section or part of the Works) shall be considered by the Engineer for refund of ASD to the Contractor.

### IV. Refund of Performance Guarantee.

The Deposit on account of performance guarantee shall be released within 30 days of completion of Defects Liability Certificate subject finalization of final bill whichever is later and no recoveries are pending against the said work, provided that the Engineer is satisfied that there is no demand outstanding against the Contractor.

□ Summary of time of Refund of deposit is tabulated as follows:

#### a) Time of Refund for works having DLP of 5 years and more:-

Deposits refunded after completion of 50% financial progress of work	Deposits refunded after completion	After 3 yrs of DLP	After Completion of DLP
50% ASD	Balance 50% ASD	CD	PG + RM

#### b) Time of Refund for works having 1 or 2 or 3 years DLP

Deposits refunded after completion of 50% financial progress of work	Deposits refunded after completion	After Completion of DLP
50% ASD	Balance 50% ASD	CD+ RM+PG

#### \*Note:

a) It shall be clearly mentioned that the BG shall be applicable for individual work/contract and clubbing of various contracts of the said contractor will not be allowed. In case of obtaining Bank Guarantee, it is necessary to mention that the same shall be valid further 6 months from the completion of defect liability period/ warranty period.

b) It shall be the responsibility of the bidder to keep the submitted B.G. "VALID" for the stipulated time period in the tender & in case of its expiry it will attract penalization.

c) Bank Guarantee should be issued by way of General Undertaking and Guarantee issued on behalf of the Contractor by any of the Nationalized or Scheduled banks or branches of foreign banks operating under Reserve Bank of India regulations located in Mumbai upto Virar & Kalyan. List of approved Banks is appended at the end of Instructions to Bidders (ITB). The Bank Guarantee issued by branches of approved Banks beyond Kalyan and Virar can be accepted only if the said Bank Guarantee is countersigned by the Manager of a Regional Branch of the same bank within the Mumbai City Limit categorically endorsing thereon that the said Bank Guarantee is binding on the endorsing Branch of the Bank or the Bank itself within Mumbai Limits and is liable to be enforced against the said Branch of the Bank or the bank itself in case of default by the Contractors furnishing the Bank Guarantee. The Bank Guarantee shall be renewed as and when required and/or directed from time to time until the Contractor has executed and completed the works and remedied any defects therein.



**E. Legal + Stationary Charges: (As per applicable circular enforce at the time )**

Successful tender shall pay the Legal Charges +Stationary charges as per Circular no 10539 dtd 28.03.2023

Sr. No.	Contract Value in Rs.	Legal + Stationery Charges in Rs. (Plus applicable GST)
1	Upto Rs. 50,000/-	Nil
2	From Rs. 50,001/- to Rs. 1,00,000/-	Rs. 6,920/-
3	From Rs. 1,00,001/- to Rs. 3,00,000/-	Rs. 11,420/-
4	From Rs. 3,00,001/- to Rs. 5,00,000/-	Rs. 13,720/-
5	From Rs. 5,00,001/- to Rs.10,00,000/-	Rs. 15,970/-
6	From Rs. 10,00,001/- to Rs. 20,00,000/-	Rs. 18,230/-
7	From Rs. 20,00,001/- to Rs. 40,00,000/-	Rs. 20,530/-
8	From Rs. 40,00,001/- to Rs. 1,00,00,000/-	Rs. 22,800/-
9	From Rs. 1,00,00,001/- to Rs. 10,00,00,000/-	Rs. 26,900/-
10	From Rs. 10,00,00,001/- to Rs. 20,00,00,000/-	Rs. 31,050/-
11	From Rs. 20,00,00,001/- to Rs. 30,00,00,000/-	Rs. 35,180/-
12	From Rs. 30,00,00,001/- to Rs.40,00,00,000/-	Rs. 39,320/-
13	From Rs. 40,00,00,001/- to Rs.50,00,00,000/-	Rs. 43,420/-
14	From Rs. 50,00,00,001/- to Rs. 1,00,00,00,000/-	Rs. 51,700/-
15	From Rs. 1,00,00,00,001/- to Rs.2,00,00,00,000/-	Rs. 64,100/-
16	From Rs. 2,00,00,00,001/- to Rs. 3,00,00,00,000/-	Rs. 72,350/-
17	From Rs. 3,00,00,00,001/- to Rs. 4,00,00,00,000/-	Rs. 82,640/-
18	From Rs. 4,00,00,00,001/- to Rs. 5,00,00,00,000/-	Rs. 92,970/-
19	From Rs. 5,00,00,00,001/- to any amount	Rs. 1,03,320/-

The tenderers are requested to note that stationary charges as given in the table above will be recovered from the successful tenderer for supply of requisite prescribed forms for preparing certificate bills in respect of the work.

**F. Stamp Duty: (As per applicable circular enforce at the time)**

**Circular No. ChE/BM/17800/II dt 07.01.2016**

It shall be incumbent on the successful tenderer to pay stamp duty on the contract.



i. As per the provision made in Article 63, Schedule I of Bombay Stamp Act 1958, stamp duty is payable for “works contract” that is to say, a contract for works and labour or services involving transfer of property in goods (whether as goods or in some other form) in its execution and includes a sub-contract, as under :

(a)	Where the amount or value set forth in such contract does not exceed rupees ten lakh.	Five Hundred rupees stamp duty
(b)	Where it exceeds rupees ten lakhs	Five hundred rupees plus 0.10% of the amount, above rupees ten lakh subject to the maximum of rupees twenty five lakhs.
(c)	Bank Guarantee : As per the article 54 read with 40 (b) of stamp duty act, stamp duty of 0.5% will be applicable to the all bank guarantee submitted also which are required to be renewed after expiry of time period.	0.5%

ii. The successful bidder within 30 days from the date of issue of work order for executing the contract work under reference shall enter into a contract agreement with the BMC. by submitting the necessary/ required documents to the satisfaction of the concerned Executive Engineer & Account Officer. The Contract agreement shall be adjudicated for payment to stamp duty by the successful bidder and accordingly the successful bidder shall pay the stamp duty on the contract agreement within such time so as to ensure the contract agreement is executed within the stipulated period as aforesaid. The cost worked out after adding physical and cost contingencies shall be considered for computing the stamp duty charges to be paid for the contract agreement.

iii. Further shortfall if any, in amount of stamp duty paid as against prescribed amount for the documents executed in Mumbai City & Mumbai Suburban District be recovered from the concerned work contractors and to deposit the deficit or unpaid Stamp Duty and penalty by two separate Demand Draft or Pay Order in favour of “Superintendent of Stamp, Mumbai” within 15 days from intimation thereof.

iv. All legal charges and incidental expenses in this respect shall be borne and paid by the successful tenderer.

#### **IMPORTANT DIRECTIONS**

1. All the information uploaded shall be supported by the corroborative documents in absence of which the information uploaded will be considered as baseless and not accepted for qualification criteria. All the documents shall be uploaded with proper pagination. The page No. shall be properly mentioned in the relevant places.

The information shall be uploaded in the sequence as asked for with proper indexing etc. The Bidder shall be fully responsible for the correctness of the information uploaded by him.

2. Applicants/Bidders shall refer [portal.mcgm.gov.in/tenders](http://portal.mcgm.gov.in/tenders) for “The Manual of Bid-Submission for Percentage Rate/Item Rate Tender Document.” The detail guidelines for creation and submission of bid are available in the referred document.

Any queries or request for additional information concerning this TENDER shall be submitted by e-mail to [dyheoperations.he@mcgm.gov.in](mailto:dyheoperations.he@mcgm.gov.in). The subject shall clearly bear the following identification/ title: “**Queries/ Request for Additional Information: tender for subject work**”. Any changes in mail ID will be intimated on the portal.

3. In case of **Equal Percentage** of lowest bidders (L1), the allotment of work shall be done by giving 48 hrs (**2 working days**) from the day of opening of packet C **on same BID-Document number for re-quoting** and such



development needs to done by IT department in BMC's SRM system. **Till such development is made; 'Sealed Bids' shall be called from the bidders quoting the same rates i.e. L1.**

In case of equal percentage of lowest bidders is obtained even after re-quoting, then the successful bidder will be decided by lottery system by H.E.

**Also, the Performance Guarantee shall be paid in 15 days after receipt of Letter of Acceptance.**



# **SECTION 7**

# **SCOPE OF WORK**



## **INTRODUCTION**

### **Background:**

The BRIHANMUMBAI MUNICIPAL CORPORATION covers an area of 437.71sq.kms.with a population of 1.24 Crores as per census of 2011. The metropolis accounts major portion of India's international trade and government's revenue, from being one of the foremost centers of education, science and technological research and advancement.

The Mumbai Metropolis has historic tradition of strong civic activism dedicated to the cause of a better life for all its citizens. And it is the BRIHANMUMBAI MUNICIPAL CORPORATION (BMC), hereafter called the "corporation", is the primary agency responsible for urban governance in Greater Mumbai.

BMC (The Authority) is one of the largest local self-governments in the Asian Continent. In observance of historic traditions of strong civic activism, with the change in time and living conditions to match with the urbanization, BMC has mainly focused in providing almost all kinds of engineering services viz., Hydraulics, storm water drain, sewerage, water supply projects, roads, bridges, solid waste management, and environmental services. Beside this, the BMC is also providing dedicated services in various segments such as Health, Primary Education as well as the construction and maintenance of Public Markets and Slaughter Houses.

### **Scope of Work:**

## **GABION FACIA REINFORCED EARTH RETAINING**

### **STRUCTUTRE**

This works shall consists of Reinforced Fills Structures with suitable reinforcing elements, gabion facia, polymeric compound reinforcement and back fill materials in accordance with the Indian / international specifications and in reasonably close conformity with the lines, grades design and dimension shown on the approved drawings.

The work shall be done in conformity to these specifications. The detailed design & drawings of the work shall be done in accordance with these specification and guide lines contained in the IRC highway research board, Section 3100 of 5th Revision of



MORTH, specifications shall be applicable wherever relevant only. The guidelines in BS 8006 (latest version) shall be referred whenever corresponding Indian literature is not formulated.

The design and drawings shall be subject to the approval from the project management consultant, whenever appointed or from engineers in-charge before execution of work.

Wherever a patented process is used, the Contractor shall make his own arrangements to secure the supplies and services needed and pay for the license fees thereof directly. Owner shall be indemnified from any claims arising out of such patented product or methods of construction adopted at site.

### **Reinforcing Element**

The reinforcing element shall be of synthetic geogrids.

### **Geogrid Reinforcement:**

The flexible Geogrid shall be manufactured from high modulus Polyester yarns coated with suitable environmentally inert polymer protective coating or high strength polymer grids of high density polyethylene and polypropylene extruded sheets with low creep and resistant to UV light and all micro organism and chemicals, naturally occurring in the soil and temperature resistant up to 45<sup>0</sup> C.

Geogrids shall be of the type as shown on the approved drawing.

The long term design strength of Geogrid reinforcement shall not be less than 50 % of the Ultimate geogrid strength.

European standards like EN by both intent and quality assurance testing and external quality control and assurance by an independent authorized and accredited laboratory. Tensile strength and strain of the geogrid shall be tested in accordance with EN ISO 10319.

The geogrid to be supplied at site shall accompany test certificates carried out on representative sample taken from the consignment. The marking on Geogrid shall be of international standard and in English version and also in picture form including date of manufacturing and batch number.

Additional Third Party testing in Bombay Textile Research Association, Mumbai shall be conducted on minimum Two samples from the lot.

The geogrid shall be from approved manufacturer produced in factory carrying ISO 9000 Certification, but all the testings shall be done in presence of PMC / Engineer-in-charge.

The tail pieces of geogrid shall be wound in to a roll and tied. It must be ensured that geogrid is not damaged during handling stacking and transportation.



**Filter material:**

Filter material (Drainage) placed between facia and earth fill shall consist of sound, tough, hard, durable particles of free draining sand-gravel material or crushed stone and shall be free of organic material, clay balls or other deleterious material. Unless the contract specifies any particular grading for the filter material or requires these to be designed on inverted filter criteria for filtration and permeability to the approval of the engineer, the filter material shall be provided with following grading.

<b>Sieve size</b>	<b>percent passing by weight</b>
53 mm	100
45 mm	97-100
26.5 mm	-
22.4 mm	58-100
11.2 mm	20-60
5.6 mm	4-32
2.8 mm	0-10
1.4 mm	0-5

**Facia material**

Gabion boxes shall be used for facia element. Such element shall conform to the details and dimension shown on the approved drawing. The opening , lacing and filling of the boxes shall be as per following guidelines

Gabions: Installation Manual

Zn + PVC Coated Gabions shall manufactured from heavily galvanized steel wire Nettings. These nettings have a hexagonal mesh with double twisting. The size of Hexagonal double twisted wire mesh shall be 100 x 120 mm. The thickness of the wire shall not less than 2.30mm.

**Stone fill**

The stones used for Gabion filling should be natural hard and durable. As far as possible stones with flat faces should be packed at the exposed faces of the gabions to achieve a smooth surface of the gabion wall facing. A general guideline for minimum and maximum stone size recommended for filling of the gabions for different mesh types is as mentioned below,

Mesh Type	100 x 120 mm
Minimum stone dimension	150 mm
Maximum Stone dimensions	280 mm



## **INSTALLATION GUIDELINES**

The following installation guidelines should be followed as a Guide to good practice to construct structures using Zn Or Zn + PVC Coated gabions.

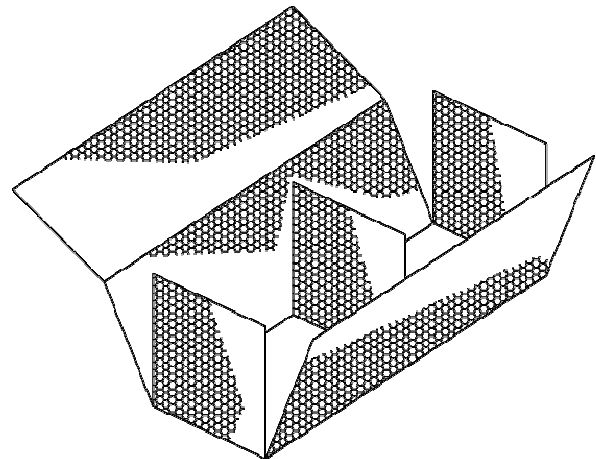
### **3. Foundation Preparation:**

The ground surface over which the gabions are to be laid should be inspected for any irregularities or weak pockets. It is recommended that the surface over which the gabions or filter cloth is placed should be even and firm. In case any irregularities or weak pockets are observed, they must be rectified by removing the weak soil and replacing by good granular material.

Where the surface is very uneven or soft, a layer of sand or gravel of about 200mm thk. Or as shown in drawing is recommended to provide a firm and even surface. Grade and compact the formation to correct line and level to the satisfaction of the Engineer In charge.

### **4. Assembling of the Gabions:**

For the purpose of easy transportation and handling during transportation, the Gabions are bundled and packed in a flat folded manner. Each box should be carefully opened out, laid flat and straightened out so that all the kinks and creases are removed. The sides and the diaphragm are then lifted vertical and laced together to form a box like



structure.

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(Refer Fig.1).

(i) Gabion Mesh straightened and laid flat (ii) The sides and diaphragm folded vertical to form a Gabion box.

### **3 . Lacing:**

The sides and the diaphragms are laced together using the lacing wire provided, to form a gabion box. A lacing wire is a metallic coated steel wire or metallic coated steel wire with PVC coating, used to assemble and interconnect empty units, to close and secure stone filled units and for internal stiffeners. (ASTM A 975).

The selvedge wire along each edge is laced to the adjacent selvedge wire to give a continuous joint. A selvedge wire is defined as the terminal wire used to edge the wire mesh perpendicular to the double twist, by mechanically wrapping the mesh wires around it at least 2.5 times or by inserting it throughout the twists and folding one mesh length. (ASTM A 975).

The lacing should be done with single loops and double loops alternately at intervals of one mesh length. Secure the ends of the lacing wire in triple loops and turn the ends of the wire into the box. Several boxes can be laced together and then moved to place.

### **4.Laying of Gabions:**

The adjoining gabions shall be firmly wired together to give a continuous joint along all edges. The lacing should be selvedge wire to selvedge wire along adjoining edges and selvedge to mesh wire otherwise. The lacing should be done in similar manner as for lacing of the edges and diaphragms i.e. alternate single and double loops at one mesh length interval. The ends of the lacing wire should end in triple loop and turned into the gabion. The lacing should be continuous and not in individual loops. It is easy to lace the gabions when they are empty.

Every box should be laced to the box below and behind it, so that the whole structure is interconnected. All adjoining empty gabion units shall be laced along the perimeter of contact surfaces to obtain a monolithic structure.

The empty mesh assembly is then tensioned to remove all kinks so that each panel is square and correct to its shape.

The placing of the gabions should be such that the vertical joints are not continuous but staggered. Where the structure is more than one gabion thick, the gabions should be placed on headers and stretchers in alternate courses.

### **5. Filling of Gabions:**

Before filling, the gabions should be accurately placed in required position, tensioned and straightened to remove all kinks. The gabions can be hand packed or mechanically packed. The stones should be tightly packed so as to achieve maximum density and minimum voids. Maximum density can be achieved by using well graded stone fill and



by hand packing of the stone fill. If packed mechanically, care should be taken to ensure that the stones are not dropped from a height greater than 1m. Also care should be taken not to damage the mesh particularly due to sharp stones.

The difference in the level of stone fill between adjacent units shall not exceed 0.3m. (Refer Fig. 2)

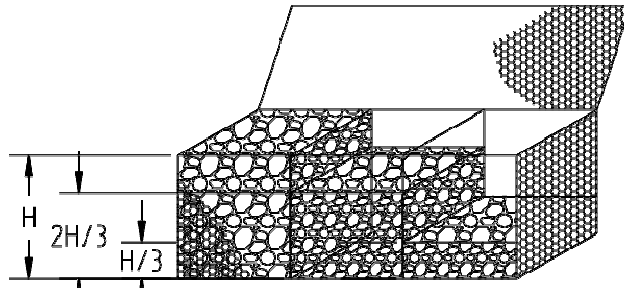


Fig.2 Filling of Gabions (Level difference in adjacent cages should not be more than 0.3m)

#### **6. Bracing:**

Gabions should be braced when filled to 1/3 rd and 2/3 rd of their height. The bracing should be done with lacing wire forming as per drawing. Twisting of the bracing wire should be done so as to tension the faces. The loop of the brace should pass through the face of the gabion for atleast two mesh lengths.

For greater rigidity where more than one face is exposed bracing can be fixed to all four vertical faces. For 0.5m height gabions, bracing will be done at half height.

#### **8. Closing of Lids:**

The gabions should be over filled by about 25 to 50mm before closing to allow for settlement. The lids are then stretched over the stone fill and laced down. The corners of the lids are secured first. Over stretching of the mesh should be avoided. Removing or redistributing of some stones on the top will be required while closing of the lids. The lids are then laced down securely. Lace selvedge wire to selvedge wire using the same procedure as mentioned earlier.

#### **Quality**

Manufactured test certificate shall submitted along with material. The third party testing shall be conducted on minimum two samples for its wire tensile strength and wide width tensile strength as per codal provision.



## **Guidelines for selecting the supplier**

### **Minimum eligibility criteria for contractor to procure material: -**

The Bidder shall procure material required for this work from single source as per product specification stipulated in tender & confirming to following condition.

The Bidder shall procure material from, Any Indian manufacturer or supplier of Mechanically Woven DT mesh Gabion & Geogrid having ISO 9001 certified company. Any Indian manufacturer or supplier shall have experience of supplying product to similar work .

Any Indian Manufacturer or supplier shall have in house facility to test properties of Gabion and Geogrid as per specification. The In house testing facility shall be NABL or equivalent accreditation. In case of nonexistence of NABL facility each lot of the material shall be tested in NABL certified laboratory.

All the ancillary work like concrete, Shotcrete, filling etc. shall be conducted as per MCGM Specification and guidelines by MORTH 5<sup>th</sup> Revision.

## **2.01 GROUTED SOIL NAIL WALL WITH**

### **SHOTCRETE FACIA Soil Nailing**

Typical construction sequence of soil nails shall be as follows:

#### **1. Initial excavation**

This initial excavation will be carried out by trimming the original ground Profile to the working platform level where the soil nails can be practically installed. The pre-requisite of this temporary excavation shall be in such a way that the trimmed surface must be able to self-support till completion of nail installation. Sometimes, sectional excavation can be carried out for soil with short self-support time. The condition of the trimmed surface shall be of the satisfactory quality to receive the Shotcrete.

#### **2. Drilling of holes**

Drilling shall be done by either air-flushed percussion drilling, augering or rotary boring drilling depending on ground condition. The hole size Shall be minimum 125 mm. In order to contain the grout, the typical inclination of the drill hole is normally tilted at 10° downward from horizontal.



Flushing with air or water before nail insertion is necessary in order to remove any possible collapsed materials, which can potentially reduce the grout-ground interface resistance.

### 3. Insertion of nail reinforcement and grouting

Steel used for Soil Nailing shall be of FE 500 D grade.

The nail shall be prepared with adequate PVC centralizers at appropriate spacing and for proper grout cover for first defense of corrosion protection.

A grouting pipe is normally attached with the nail reinforcement during inserting the nail into the drilled hole. The grouting material shall be neat cement as IS 269 with non shrink admixture ( CEBEX 100 or equivalent. The grouting is from bottom up until fresh grout return is observed from the hole. The normal range of water/cement ratio of the typical grout mix is from 0.45 to 0.5.

The grout cube of 75 mm x 75 mm x 75 mm size shall be filled for every day and tested for its crushing strength.

Following properties of the soil shall be verified prior to installation

of soil Nail. Effective friction angle 30<sup>0</sup>

Cohesion 10 kPa

Unit weight (kN/m<sup>3</sup>) 19

Bond strength value of 75kpa to be verified by geo technical engineer prior to start of work. Pull out test shall be conducted, for 1.1 times of the working load.

### Shotcreting in two layers along with wire mesh (200 mm thick Shotcrete)

Shotcrete is a mixture of cement, sand and water. It comprises 100 parts by weight of cement, 300 parts by weight quartz sand, 35-50 parts by weight water and 2 parts by weight approved quick setting compound.

Materials to be used:

8. Cement: Ordinary Portland cement conforming to IS 269: 1976 shall be used. Shotcrete mixtures have high content typically 350-400k of cement per cubic metre of mixture.
9. Sand: Sand for Shotcreting shall comply with the requirements stipulated in IS 383-1970 OR Manmade sand (crushed aggregate). It shall be graded evenly from fine to coarse as per Zone II and Zone III. In general, sand should never be too coarse to increase the rebound nor too fine to increase the slump. It should preferably have moisture content between 3 to 6 percent. The grading of sand shall lie within the limits given below:



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IS Sieve Designation	Percent passing the sieve
4.75 mm	95-100
2.36 mm	65-90
1.18 mm	45-75
600 microns	30-50
300 microns	10-22
150 microns	2-8

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10. Aggregate: For thick sections it may be advantageous to incorporate coarse aggregate in the mix provided adequate shotcreting equipment is available. Coarse aggregate when used shall conform to grading given in Table I of IS:9012. The percentage of coarse aggregate may normally be kept as 20 to 40 percent of the total aggregate and the mix shall be suitably designed. Grading of aggregate shall conform to the nominal maximum size of 10mm.
11. Water/Cement ratio for shotcreting shall fall within the range 0.35 to 0.50 by mass, wet enough to reduce the rebound. Drying shrinkage may be between 0.06 percent to 0.10 percent. The quick setting compound shall be added at the nozzle with water just before shotcreting.
12. Water: Water used for shotcrete should be portable drinking water conforming to IS :456-2000.
13. Admixtures: If used shall meet requirements of IS: 456-2000.
14. Mix design: Suitable mix design as per IS shall be followed.

**Application of Shotcrete:**

- The cement and sand shall be batched and mixed and conveyed through a hose pipe with the help of compressed air. A separate line shall bring the water under pressure. The cement, sand and water mix shall be passed through and intimately mixed in a special manifold and then projected at high velocity to the surface being repaired. The density of shotcrete shall not be less than 2000kg/cum. The strength of shotcrete shall not be less than 25 MPa. For effective shotcreting, the nozzle shall be kept 60 to 150 cm away from the surface.
- Shotcrete of total 75 mm thickness shall be placed in one layer.



- Prior to application of shotcrete facing all surfaces should be free of loose material, mud and rebound from the previously placed shotcrete and other foreign material which will prevent bond of shotcrete. Wooden pegs shall be placed at suitable spacing to act as guide for shotcreting thickness and level.
- During the placement of shotcrete, weep holes should be protected.
- Place DT wire mesh of 100 mmx 100 mmx 8 mm over the soil nailed excavated face. Weld the soil nail to the wire mesh at all the points of contacts of mesh.
- Corrosion resistance paint should be apply to the bearing plate.
- 
- Wire mesh shall be lapped by 2 squares in all the directions. As it is temporary wall, no break/ construction joint in shotcrete surface is suggested.
- Shotcrete the face by keeping the nozzle in horizontal position. In order to achieve required thickness of shotcrete, markers shall be placed. Before proceeding with subsequent excavation lifts, the shotcrete must have cured for at least 72 hours and have attained at least the specified 3-day compressive strength (typically 15 MPa).
- Test panels simulating actual field conditions shall be fabricated for conducting pre construction testing. The procedure for testing the cubes or cylinders taken from the panels stipulated in clause 6 of IS:9012 shall be followed.
- It should be ensured from the test that a strength of about 25 MPa at 28 days is available for the mortar/concrete mix.
- The exposed reinforcement shall be thoroughly cleaned free of rust, scales etc.
- The quality of Shotcreting shall be such that the percentage of rebound mentioned in IS: 9012 can be adhered to.

The sequential operation of Cutting the bench, installing the nail, shotcreting of the area can be altered based on the suggestions given by experience Geotechnical engineer during the actual work execution.

### **QUALITY OF SHOTCTRTE**

Characteristic compressive strength of shotcrete shall be checked by using 15cm x15 cmx 15 cm cube mould on daily basis. Viscosity test to be carried out at site to conform the plasticity of grout. Core crushing strength through shotcrete is also specified for every 500 sqm of face shotcrete.

Contractor shall submit detail methodology for excavation, Soil Nail and shotcrete before commencement of work

### **3.00 DRAINAGE PIPE**

50 MM DIA Perforated PVC pipe wrapped with Nonwoven Type 1 geotextile as per MoRTH 5th Revision shall be provided for a depth of 3 m length as shown in drawing at every 16 sqm face area. The drainage pipe shall be of minimum 4 kg/cm<sup>2</sup> capacity.



#### **4.00 Micropiles**

The Micropiles shall be installed by rotary percussion drilling method . MS Chisel shall not introduce for drilling operation. The MS casing shall be provided in case of collapsible strata. Cement sand grout of w/c ratio 0.50 is specified for the bonding. The cube shall be casted and tested for 28 days Characteristic Compressive strength.

Steel used for Micropiles shall be of FE 500 D grade.

One Initial Vertical pile load test shall be conducted as IS 2911 ( Part 4).

Pile measurement shall be payable from Pile cutoff level to the tip of the Micropile.

**Detail methodology of the entire work with quality checks and schedule shall be submitted prior to commencement of execution. Same shall get approved from the Geotechnical Department , VJTI, Mumbai.**

#### **5.01 DT Mesh**

Zn + PVC Coated wire mesh shall manufactured from heavily galvanized steel wire Nettings. These nettings have a hexagonal mesh with double twisting. The size of Hexagonal double twisted wire mesh shall be 100 x 120 mm. The thickness of the wire shall not less than 2.30mm.

##### **Safety Precautions and general guidelines: -**

- 6) Please note before commencement of work contractor shall remove all the landslide debris observed in the premises of dam/rivers and all locations at his own cost.**
- 7) The providing of all required arrangement of concrete/ scaffolding/ safety belts/ helmets/ life jackets and other safety equipments, etc complete with plants and machinery like welding, generator, DG set, electric cables, ropes, electric power tools and tackles, etc. for satisfactory completion work strictly as per BMC specification and requirements mentioned in the Tender.
- 8) Necessary safety precautions should be strictly provided to avoid any mishap/ accident on site.
- 9) The location of proposed landslide protection and allied works will be carried out at two locations at Modak Sagar Dam and One location is Middle Vaitarna Dam.
- 10) The proposed sites are located about 90 km to 130 Km approx away from Kapurbawdi (Thane ) office and about 20 kms from Khardi Railway station and 30 Km from Kasara railway station on central railway line.



- The above is general description of the scope of work, technical specification & actual work shall be governed by B.O.Q. and as directed by Engineer in charge.

**Note:**

--- Bidders are advised to inspect the site before submission of tender.

.- Any other material tests during execution of work suggested by consultant / Engg. In charge should be carried by the contractor at their own cost.



# **SECTION 8**

# **BILL OF QUANTITIES**



**BRIHANMUMBAI MUNICIPAL CORPORATION**

H.E.' S DEPARTMENT (O.C.DIVISION)

**Subject :Part A Construction of retaining structure along approach road at Middle Vaitarna Dam in O.C. Division and part B: providing landslide protection measures to land slopes near lower gallery of Vaitarna Dam in O. C. Division.**

STABILITY MEASURES FOR MIDDLE VAITARNA, MODAK SAGAR LOWER GALLERY (PH. I) & MODAK SAGAR DAM ENTRANCE (PH. II)

**ABSTRACT**

SR. NO.	ITEM NO.	DESCRIPTION	QUANTITIES			TOTAL QTY	RATE	UNIT	TOTAL AMOUNT
			MIDDLE VAITARNA	MODAK SAGAR LOWER GALLERY (PH. I)	MODAK SAGAR DAM ENTRANCE (PH. II)				
1	R3-CS-DD-85	<b><u>CUTTING DOWN TREES</u></b> including trunks and branches with girths above 30cm to 60cm and stacking the materials neatly with all lifts and lead of 1000m as directed and earth filling in the depression /pit if any.							
		Dia. of Girth over 300 mm	12.00	14.00	20.00	46.00	1855	PLANT	85,330.00



2	<b>R3-CS- EW-16</b>	<p><b>EXCAVATION</b> over areas for basements, roads, land/plot developement in soft/disintegrated rock, sandstone, stiffclay, gravel,cobble stone,hard laterite, waterbound macadam,wetmix macadam, pitching, soling, paths and hardcore, limeconcrete, plain cement concrete, stone masonry and all types of brick/block masonry below ground level, rock boulders, etc. for all depths/lifts including manual dewatering, filling the selected excavated earth at the locations as directed, in layers not more than 200mm thickness, watering, consolidating, compacting to achieve not less then 97% Modified Proctor density conforming to relevant IS, stacking the selected material in measurable heaps for future use within owners space or disposing within an initial lead of 150m as directed, loading, unloading, leveling excluding shoring, strutting etc.complete as directed by Engineerg in Charge.</p> <p>Note :</p> <p>1) The rate includes the handling/supporting the existingutilitiessuchascables, drains, pipes, water mains etc.</p> <p>2) It also includes the royalty and other taxes if any.</p>	31,769	441	853	3306 3	419	CUM	138,53,397
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3	R3-CS-EW-4	<p><b>EXCAVATION BY CHIESELING</b>  by manual operations, pneumatic breaker, hammer, drilling, compressor breaker, jack hammer etc. for foundations, substructures, basements, tanks, sumps, walls, chambers, manholes, poles, pits &amp; general building works in hard rock, reinforced concrete, Bituminous macadam for depths/lifts upto 1.5 M, including dressing/trimming the sides, leveling of bottoms, manual dewatering, removing rank vegetation, backfilling in layers not more than 200mm thickness, watering, consolidating, compacting to achieve not less than 97% Modified Proctor density conforming to relevant IS, stacking in measurable heaps for future use within owners space or disposing within an initial lead of 150m as directed, unloading, leveling excluding shoring, strutting etc. complete as directed by Engineer-in-Charge, loading. Note: 1) The rate includes the handling/supporting the existing utilities such as cables, drains, pipes, water mains etc. 2) It also includes the royalty and other taxes if any. As per specification USOR - 2018 - VOL II Common &amp; Building Const. work Specifications Clause - 09 to 13 Page no 18 to 22</p>	14,530	1685	5927	2214 2.	1347	CUM	298,25,274
4	R3-CS-EW-7-i	<p><b>EXTRA</b> over the items CS-EW-03 to CS-EW-06 for lift from 13.5m to 15.0 m</p>							-
		Required for PART B & C of item no.4	2,250	740.00	1165.00	4155	1201	CUM	49,90,155
5	FAIR ITEM NO. 1	<p>Providing and construction of <b>MICROPILES</b> of 200 mm dia for the depth of 10m with MS Casing, reinforcement etc complete as per the design</p>	1,600	0.00	0.00	1600	7309	RMT	116,94,400



		and drawings. Specifications as per Sub Estimate and Rate analysis.							
6	R3-CS-CW-35-c	Providing and fixing in position <b>STEEL BAR REINFORCEMENT</b> of various diameters for R.C.C. pile, pilecaps, footings, raft, retaining wall, shear wall, lift wall, foundations, slabs, beams, columns, canopies, staircases, newels, chajjas, lintels, pardies, coping, fins, arches, etc. as per detailed designs, drawings and bar bending schedules, including straightening, cutting, bending, hooking the bars, binding with wires or tackwelding, supporting as required etc. all complete at all levels. Thermo - Mechanically - Treated Steel bars (TMT) Fe - 500 D. As per specification USOR - 2018 - VOL II Common & Building Const. work Specifications Clause - 12 Page no 58	4.00	0.00	0.00	4.00	8008	TON	3,20,320
7	R3-BW-2-22-b	Providing and placing in position controlled cement concrete of <b>M-30 GRADE</b> for foundation work with minimum cement 400 kg./cum. and water cement ratio not exceeding 0.4 for PCC raft foundation slab with V notches Sloped / flat / strlp footings, pile caps tie beams to required lines / levels including leveling, compacting by vibrators, curing including shuttering, centering as necessary and required etc. complete as specified and as directed.	40.00	0.00	0.00	40.00	7181	CUM	2,87,240



8	R3-CS-CH-2	Providing and erecting two legged metal tubular <b>SCAFFOLDING</b> (cup locktype) of width 1200 to 1500mm largely free standing using H frames of tubular pipes of minimum 40mm diameter, with base plates fixed or adjustable with necessary clamps, coulders, brackets for projections, joint pins, pulleys and other accessories including steel angle or tubular pipe bracings at adequate intervals, access platforms of metal or timber planks of span not exceeding 1.5 metre centre to centre, horizontal & vertical tubes joint with cup & lock system with M.S.Tubes, M.S. tube challis, M.S. clamps and staircase system in the scaffolding for working platform etc. and maintaining it in a serviceable condition for execution of work including provision of rubber inserts to pipe ends at point of contact with structure to avoid damage, including ccess ladders with intermediate platforms. the scaffolding to be suitably braced and anchored to to the building using support systems created temporarily at the opening in walls using verticl and horizontal adjustable propson the exterior side of building structure, upto 25 metre height, above ground level . The rate includes provision of high density plastic sheets covering to protect architectural details on the entire building face a nylon net to prevent all dbris falling onto the pavement required and the safety platform at ground level coevering the pedestrain walkways. etc.complete.(The	14,938	525	4515	1997 8	325	SQM	64,92,850
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		elevational area of the scaffolding shall be measured for payment purpose.)The payment will be made once only for execution of all items for such works.							
9	FAIR ITEM NO. 2	<b>GROUTED NAILS TYPE A 32 MM DIA. BAR :</b> Providing and drilling hole of 150 mm diameter of required depth , spacing and inclination as shown in the drawing. Inserting the spacer and rebar of specified diameter into these holes and grouting the annular spaces using cement slurry, M30 grade grout, as per shown in the drawing. ( Holes shall be drilled using Wagon Drill Machine) including cost and convenience of all materials to site of work , scaffolding chrages, fabrication charges, labour charges, etc., complete for finished item of work.	32,761	0.00	320.00	3308 1	5038	RMT	1666,62,078
10	FAIR ITEM NO. 3	<b>GROUTED NAILS TYPE B 32 MM DIA. BAR :</b> Providing and drilling hole of 100 mm /150 mm diameter of required depth , spacing and inclination as shown in the drawing. Inserting the spacer and rebar of specified diameter into these holes and grouting the annular spaces using cement slurry, M30 grade grout, as per shown in the drawing. ( Holes shall be drilled using Wagon Drill Machine) including cost and convenience of all materials to site of work , scaffolding chrages, fabrication charges, labour charges, etc., complete for finished item of work.	-	735.00	0.00	735	5592	RMT	41,10,120



11	FAIR ITEM NO. 4	Carrying out <b>PULL OUT TEST</b> on Grouted Nails , Rock Anchors , Rock Nails , Self Driven Anchors etc. for Design capacity with all necessary accesories such as Hydraulic Jack of required capacity , Hydraulic Pump ,Pressure gauge , Dial gauges including M.S. Plate of 300*300*25 mm in size 2 nos. , Detum Bar including all tools , tackles , Lubricants , manpower , technician etc. including preparation of detail report etc. complete.	20.00	5.00	12.00	37.00	29761	NOS	11,01,157
12	FAIR ITEM NO. 5	Providing & fixing <b>CONTINUOUS THREADED ANCHOR (CTA) of 32 / SDA</b> mm diameter , yield load more than 400 KN , hexagonal nut , washer plate 200 * 200 *10 mm size , coupler for connecting bars , and full length grouting including all ancillary work for top , bottom anchoring including all ancillary material , machinery , labour etc. complete and as directed by Engineer-in -charge.	-	0.00	1600.00	1600	6111	RMT	97,77,600
13	FAIR ITEM NO. 6	<b>DRAINAGE PIPES:</b> Providing and fixing 50 mm. diameters long perforated CPVC Pipes with cut and closure filled with 150 gsm geofabric ( roll made up of geotextile memmbrane to specification) placed in staggrered manner in the drilled holes of 100 mm dia as shown in the drawing to excavated slope surface at 3 .0 mtrs center to center at different levels as shown in the drawing to collect subsoil water.	1,320	221.00	0.00	1541	4266	RMT	65,73,906
14	FAIR ITEM NO. 7	Providing & Fixing <b>MECHANICALLY WOVEN DOUBLE TWISTED HEXAGONAL SHAPED STEEL WIRE MESH</b> Netting Roll, Zinc + PVC Coated , Mesh size 100 mm * 120 mm , Mesh wire	-	617.00	3929.00	4546	222.00	SQM	10,09,212



		2.70/3.270 mm (ID/OD) selvage wire 3.40/4.40 (ID/OD) , Lacing Wire 2.20/3.20 mm (ID/OD) Including Transportation.							
15	R3-BW-7-4	Providing and inserting <b>NIPPLES</b> with approved fixing after drilling holes for grouting as per technical specifications including subsequent cutting removal and sealing of the hole as necessary of nipples after completion of grouting with cement/epoxy. Sealing of cracks porous concrete by enjection process through ,neeples grouting complete as per technical specifications.	-	750.00	0.00	750	215.00	NOS	1,61,250.00
16	FAIR ITEM NO. 8	It is ready to use inorganic, bio compatible, low viscosity, non hazardous, soil stabilizing two component colloidal silica base <b>CHEMICAL GROUT</b> Providing and carrying out this grouting to stabilize the strata above the tunnel, foundations, cutting slope stabilization and sub structuresby using ultimate fine Nano grout as approved by Engineer in charge. Drill injecting holes to required depth in loose soil strata. Fix the grouting pipes. Grout must be continuously stirred during addition of accelerator and fully mixed to transparent solution prior to grouting into the soil/strata. No white precipitates should remain in the grout mix. This is ultimate fine grouting can be completed by Nano grout. Solvent Free, Inorganic, Hydrophilic, Non hazardous, Low Viscosity Chemical Grout for Stabilization and Consolidation of Sandy/Silty Soil should have following minimum properties: Grout: (Rate for fixing nozzle	-	6750	0.00	6750	640.00	KG	43,20,000



		<p>is not included in this item).</p> <p>1) Specific Gravity: <math>1.2 \pm 0.1</math>  2) pH: <math>11.3 \pm 0.1</math>  3) Viscosity in B4 Ford cup at 28°C: 12-15 sec. Accelerator</p> <p>1) Specific Gravity: <math>1.07 \pm 0.01</math>  2) pH: <math>7.0 \pm 0.1</math>  3) Viscosity in B4 Ford cup at 28°C: 10-12 sec</p> <p>SungeogROUT Mix: 1) Specific Gravity: <math>1.2 \pm 0.1</math>  2) Viscosity in B4 Ford cup at 28°C: 12-15 sec</p> <p>It shall be applied as per manufacturer's specification. (If scaffolding is required, same shall be provided and will be paid under relevant item)</p>							
17	<b>FAIR ITEM NO. 9</b>	<p><b>SHOT-CRETING:</b> Clearing and grubbing providing 150 mm thk 1:2:1 shotcreting using 6 mm down size aggregates with the maximum water to cement ratio of 0.4, including fasten 150x150x8 mm weld mesh to the nails as shown in the drawing including cost and convenience of cement, weld mesh, scaffolding charges, labour charges for fixing etc., complete for finished item of work.</p>	10,901	478	575.00	1195 4.	2752	SQM	328,97,408
18	<b>R3-CS-CW-3-b-1</b>	<p>Providing and laying in position <b>READY MIX PLAIN CEMENT CONCRETE</b>, with cement content as per approved design mix by Engineer-in-charge and manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for plain cement concrete work, including pumping of R.M.C. from transit mixer to</p>	358.00	259.00	278.00	895	7865	CUM	70,39,175



		site of laying and curing, including the cost of centering, shuttering and finishing, including cost of curing, admixtures in recommended proportions as per IS : 9103 to accelerate/retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in - Charge. All works above Plinth <b><u>M-20 GRADE PLAIN CEMENT CONCRETE</u></b> (cement content considered @ 260 kg/cum as per IS 456 table showing minimum cement content)							
19	FAIR ITEM NO. 10	Supply and placing of <b><u>GEOMEMBRANE</u></b> 0.50 mm thick with grass turving ( Mulching ), with minimum weight shall be 200 gsm and shall be as per the specification and drawing .	2,000	0.00	0.00	2000	295	SQM	5,90,000
20	R3-CS-CW-2-a-2	Providing and laying in position <b><u>READY MIXED PLAIN CEMENT CONCRETE</u></b> , using fly ash and cement content as per approved design mix from Engineer-in-charge and fly ash conforming to grade I of IS 3812 (Part-1) only be used as part replacement of OPC as per IS 456 and uniform blending with cement is to be ensured in accordance with clauses 5.2 and 5.2.1 of IS: 456- 2000 in the items of ready mixed concrete and manufactured n fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for plain cement concrete work, including pumping of R.M.C. from transit mixer to site of laying and curing, including the cost of centering, shuttering and	423	165.00	81.00	669	6002	CUM	40,15,338



		finishing, including cost of curing, admixtures in recommended proportions as per IS : 9103 to accelerate/retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in - charge. <b>M-15 GRADE</b> plain cement concrete (cement content considered @ 240 kg/cum							
21	FAIR ITEM NO. 11	Providing and Constructing <b>GABION STRUCTURE</b> 1 M HIGH or required section made up of soft mechanically woven hexagonal shaped G.I. wire conforming to IS 16014:2012 having zinc plus PVC coating of overall diameter of 3.7 mm and tying lacing wire of 3.2 mm with edge wire conforming to overall diameter 4.4 mm edges being mechanically selvedge including placing in position, fitting neatly with trap stone rubble (15 to 23 cm) all loose ends to be securely tied (Excluding transportation) etc. complete. ( In Dry condition and for under water installation extra cost to be considered) As per specification MORTH SECTION - 700 & 2503	3,910	0.00	0.00	3910	4309	CUM	168,48,190
22	FAIR ITEM NO. 12	Providing of Stone Boulders of size 230-150-100 mm in the gabion facia . The one face of the stone should be preferably vertical or plain , the material is also inclusive of providing the stones of size 40 – 50 mm for filling the gaps . The dressing to the stone is required to maintain the vertical gabion facia. Shifting the stones to the	3,910	0.00	0.00	3910	3074	CUM	120,19,340



		desired site location etc. Complete. The item is inclusive of transport, material loading, unloading etc. (Note : The rate includes the royalty and other taxes if any)							
23	FAIR ITEM NO. 13	Providing and laying CE Marked Needle Punched and Mechanically Bonded <b>NONWOVEN GEOTEXTILE</b> (TechGeo) indigenously manufactured from high quality polypropylene staplefibres (continuous filament will not be accepted) of Techfab India on the prepared subgrade for separation, drainage & filtration application with necessary overlaps as per drawing etc.complete. (Specification: MORTH Section-700) with prior approval of concerned Engineer - in - Charge. As per specification MORTH SECTION - 700	3,602	0.00	0.00	3602	151.00	SQM	5,43,902.00
24	FAIR ITEM NO. 14	Providing and laying of <b>FILTER MEDIA</b> with granular materials/ stone crushed aggregates satisfying the requirements laid down in clause 2504.2.2 of MoRTH specifications to a thickness of not less than 600 mm with smaller size towards the soil and bigger size towards the wall and provided over the entire surface behind abutment, wing wall and return wall to the full height compacted to a firm condition as per drawing and technical specifications etc.complete. As per specification MORTH 2220 & 710.1.4 of IRC 78	276.00	0.00	0.00	276	1212	CUM	3,34,512.00



25	FAIR ITEM NO. 15	Providing and laying CE Marked knitted and PVC coated Polyester <b>UNIAXIAL GEOGRID</b> (Techgrid) indigenously manufactured from selected high tenacity polyester yarn with highmolecular weight of Techfab India (> 25000 g/mol), and low carboxyl end group (<30 mmol /Kilogram) (extruded PP geogrid & Polyester strip & Geostrip, steel strips not allowed& not accepted ) with granular fill as per design prepared by technical provider of reinforcedearth wall and slope. The reinforced earth wall and slope should have 100% coverage of 5mwidth knitted and PVC coated Polyester geogrid. (Coating of Geogrid/Reinforcing geosynthetic material with LDPE, Latex, Bitumen and any other coating will not be allowedand will not be accepted) for reinforced soil wall and reinforced slope application, etc.complete (Specification: MORTH Section-3100).with prior approval of concerned Engineer - in - Charge. As per specification MORTH SECTION - 3100	6,720	0.00	0.00	6720	202.00	SQM	13,57,440
26	FAIR ITEM NO. 16	Providing and fixing square/ <b>RHOMBOIDAL SHAPED</b> or (equivalent) cable panel/netting of 10 millimeter diameter of steel wire rope of grade 1770 mpa and size 250millimeter X 250 millimeter with suitable connections at each intermediate and end junctions having minimum tear resistance of kn meeting the minimum requirements.1.Tensile strength of square cable/net: min. 315 kn/m Punch	-	0.00	3929.00	3929	3500	SQM	137,51,500



		<p>strength of square cable (or equivalent panel/net: 360 kn with max. Displacement of 35 cm</p> <p>2.Each square/rhomboidal shaped cable (or equivalent) panel / net shall be made of one single cable including top and bottom support rope, lacing wire or rope required to connect the nets and all accessories such as u-clamps, thimbles, including safety, all other ancillary Works, material, machinery, labour etc. Complete as per technical specifications attached and as directed by engineer-in -charge.</p> <p>3. Square Rhombodial shaped cable (Equvalant) cable Panel/Netting shall have hanged portions suiting to the site conditions with minimum length of 3m.</p> <p>4.Drilling grouting and anchoring at top, side and bottom shall be paid seperately .</p>							
27	R3-CS- EW-21	<p><b>FILLING IN EMBANKMENT</b></p> <p>and/or low laying ground with contractors murum in layers not exceeding 200 mm including breaking of clods and dressing to the required lines, curves and sections, watering , consolidating each layer in filled up area by rolling and compacting with vibro roller not less than 10 MT and using other compacting equipment as required to achieve field CBR not less than 4 in soaked condition etc. complete as directed by engineer in charge. The rate includes necessary soil testing charges at laboratory and field as per relevant I.S. codes, royalty, octroi and other taxes if any. (Note : 1) Borrow areas selected by contractor shall</p>	9,356	0.00	959.00	1031 5	1231	CUM	126,97,765



		be got approved from Engineer-in - charge before executing the work. 2) The rates includes the royalty and other taxes if any ) As per specification USOR - 2018 - VOL II Common & Building Const. work Specifications Clause - 15 Page no 22 to 24							
28	R3-CS-EW-25	Providing and Laying <b>230 MM THICK RUBBLE STONE FOR PITCHING</b> on sloping ground or wherever directed, properly arranging and placing the rubble stones to achieve a plane top surface, set in regular line & slope, including breaking laying gravel, quarry spells underneath and manually packing the voids with rubble chips, tuck pointing with cement mortar 1:2 up to 25mm deep, etc. complete as specified & as directed. (Note: The rate includes the royalty and other taxes if any)	8,500	1035.00	12000.00	2153 5	699.00	SQM	150,52,965
29	R3-CS-MW-18	<b>UNCOURSED RUBBLE MASONRY</b> with hard stone in foundation and plinth including levelling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20mm nominal size) upto plinth level with :	-	0.00	113.00	113	5083	CUM	5,74,379
30	R3-CS-MW-19	<b>RANDOM RUBBLE MASONRY</b> with hard stone in superstructure above plinth level , including leveling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20mm nominal size) at window sills, ceiling level and the like. Cement mortar 1:6 (1 cement : 6 coarse sand)	-	0.00	154.00	154	6503	CUM	10,01,462
31	R3-CS-PL-39	Providing <b>RAISED AND CUT POINTING</b> to any kind of stone masonry work at all heights and locations in cement mortar 1:2, including	-	0.00	1125.00	1125	480.00	SQM	5,40,000.00



		raking of joints upto the depth of 20mm, finishing, curing, cleaning the surface etc. complete as directed by Engineer In Charge.							
32	R3-CS-EW-22	<b>REBATE FOR STONES</b> available from the hill cutting, excavation, loose boulders including carting away the same as directed and making the site clean and neat as directed by Engineer-in-Charge. (The payment will be made on the basis of depot measurements of broken stones, taking average depth of depot by deducting 40% for voids)	-	0.00	104	104	190.00	CUM	- 19,760.00
33	R3-CS-PS-168-d	Providing and laying non-pressure <b>NP2 CLASS (light duty) R.C.C. PIPES</b> with collar jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete.	-	0.00	50.00	50.00	900.00	RMT	45,000.00
34	R3-CS-RW-16-c	Providing and fixing UV resistant selffit <b>UPVC PIPES</b> of approved make for Rainwater downtakes confirming to IS 13592:1992 Type A suitable for 4kg/sqcm pressure for following pipe diameters including rain water receiving recess with pvc plug bend necessary fittings such as offsets shoes, fixing the pipes on wall with clips filling the joints with solvent/cement and necessary scaffolding etc. complete as directed by Engineer In Charge.	-	0.00	35.00	35.00	603.00	RMT	21,105.00



35	R3-CS-PS-169-a-2	Constructing brick masonry <b>INSPECTION CHAMBER</b> in cement mortar 1:4 (1 cement : 4 coarse sand ) with R.C.C. top slab with 1:2:4 mix (1cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominalsize), foundation concrete 1:4:8 mix (1 cement : 4 coarse sand : 8graded stone aggregate 40 mm nominal size), inside plastering 12 mmthick with cement mortar 1:3 (1 cement : 3 coarse sand) finished withfloating coat of neat cement and making channels in cement concrete1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mmnominal size) finished with a floating coat of neat cement complete asper standard design :							-
		Inside size 90x80 cm and 45 cm deep including C.I. cover with frame (li ght duty) 455x610 mm internal dimensions, total weight of cover and frame to be not less than 38 kg (weight of cover 23 kg and weight offrame 15 kg.	-	0.00	5.00	5.00	10086	NOS.	50,430.00
36	R3-CS-SS-01	<b>PROVIDING , DETAILING , FABRICATING</b> and fixing at desired location using hot rolled sections and MS Plates of grade Fe 250 as per specifications and approved fabrication drawings (which are to be prepared by Contractor and got approved from Engineer), transporting to site and erecting structural steel members for all heights & at all levels including provision of necessary erection bolts, fixing bolts, nuts, washers, cleats, stiffeners, gussets, base plate, and all necessary fixtures and operations likepreheating as per specifications,	-	0.00	0.50	0.50	90876	TON	45,438.00



		straightening, bending, cutting, drilling, grinding, machining if specified, welding, grinding and removing the welding burr and preparing surface for painting with wire brush cleaning and applying two coats of epoxy red oxide zinc phosphate primer of 30 microns each and two coats of Epoxy Corrosion Resistant Enamel paint of 30 microns after fabrication including touching up with spray painting after erection etc complete as directed by Engineer In Charge. (The qty. for this item shall be measured for gusset plates, base plates, bolts in M.T.)							
		<b>COST OF WORK</b>							₹ 3806,69,878

**Rupees Thirty Eight Crores Six Lacs Sixty-nine Thousand Eight Hundred Seventy eight Only.**



**SECTION 9**  
**GENERAL**  
**CONDITIONS OF**  
**CONTRACT**



## General Conditions of Contract

### **A. General**

#### **1. Definitions**

1.1 Terms which are defined in the Contract Data are not also defined in the Conditions of Contract but keep their defined meanings. Capital initials are used to identify defined terms.

**The “Contract”** shall mean the tender and acceptance thereof and the formal agreement if any, executed between the Contractor, Commissioner and the Corporation together with the documents referred to therein including these conditions and appendices and any special conditions, the specifications, designs, drawings, price schedules, bills of quantities and schedule of rates. All these documents taken together shall be deemed to form one Contract and shall be complementary to one another.

**The Contract Data** defines the documents and other information which comprise the Contract.

**The “Contractor”** shall mean the individual or firm or company whether incorporated or not, whose tender has been accepted by the employer and the legal successor of the individual or firm or company, but not (except with the consent of the Employer) any assignee of such person.

**The Bidder** is a person or corporate body who has desired to submit Bid to carry out the Works, including routine maintenance till the tender process is concluded.

**The Contractor’s Bid** is the completed bidding document submitted by the Contractor to the Employer.

**The “Contract Sum”** means the sum named in the letter of acceptance including Physical contingencies subject to such addition thereto or deduction there-from as may be made under the provisions hereinafter contained.

Note : The contract sum shall include the following –

- In the case of percentage rate contracts the estimated value of works as mentioned in the tender adjusted by the Contractor’s percentage.
- In the case of item rate contracts, the cost of the work arrived at after finalization of the quantities shown in schedule of items / quantities by the item rates quoted by the tenderers for various items and summation of the extended cost of each item.
- In case of lump sum contract, the sum for which tender is accepted.
- Special discount / rebate / trade discount offered by the tenderer if any and accepted by the Corporation.
- Additions or deletions that are accepted after opening of the tenders.

**The “Contract Cost”** means the Contract Sum plus Price Variation. This cost shall be included in the letter of acceptance.

**A Defect** is any part of the Works not completed in accordance with the Contract.



**The Defects Liability Certificate** is the certificate issued by the Engineer, after the Defect Liability Period has ended and upon correction of Defects by the Contractor.

Drawings means all the drawings, calculations and technical information of a like nature provided by the Engineer to the Contractor under the Contract and all drawings, calculations, samples, patterns, models, operation & maintenance manual and other technical information of like nature submitted by the Contractor and approved by the Engineer.

**The Authority** shall mean BRIHANMUMBAI MUNICIPAL CORPORATION (BMC)

**The “Employer”** shall mean the Municipal Corporation for Greater Mumbai / Municipal Commissioner for Greater Mumbai, for the time being holding the said office and also his successors and shall also include all “Additional Municipal Commissioners, Director (Engineering Services & Projects)” and the Deputy Municipal Commissioner, to whom the powers of Municipal Commissioner, have been deputed under Section 56 and 56B of the Mumbai Municipal Corporation Act.

**The Engineer in-charge** shall mean the Executive Engineer in executive charge of the works and shall include the superior officers of the Engineering department i.e. Dy.H E/H E. and shall mean and include all the successors in BMC

**The Engineer’s Representative** shall mean the Assistant Engineer, Sub. Engineer/Jr. Engineer in direct charge of the works and shall include Sub Eng./ Jr. Eng of Civil section/ Mechanical section/ Electrical section appointed by BMC.

**The “Engineer”** shall mean the City Engineer / the Hydraulic Engineer / the Chief Engineer / the Special Engineer, appointed for the time being or any other officer or officers of the Municipal Corporation who may be authorized by the commissioner to carry out the functions of the City Engineer / the Hydraulic Engineer / the Chief Engineer / the Special Engineer or any other competent person appointed by the employer and notified in writing to the Contractor to act in replacement of the Engineer from time to time.

**Contractor’s Equipment** means all appliances and things of whatsoever nature required for the execution and completions of the Works and the remedying of any defects therein, but does not include plant material or other things intended to form or forming part of the Permanent Works.

**The Initial Contract Price** is the Contract Price listed in the Employer’s Letter of Acceptance.

**The Intended Completion Date** is the date on which it is intended that the Contractor shall complete the construction works. The Intended Completion Date is specified in the Contract Data. The Intended Completion Date may be revised only by the Engineer by issuing an extension of time.

**Materials** are all supplies, including consumables, used by the Contractor for incorporation in the Works and works of routine maintenance.

**Plant** is any integral part of the Works that shall have a mechanical, electrical, electronic, chemical, or biological function.

**Routine Maintenance** is the maintenance of activities of the completed structure for five years as specified in the Contract Data.

**The “Site”** shall mean the land and other places including water bodies more specifically mentioned in the special conditions of the tender, on, under in or through which the permanent works or temporary



works are to be executed and any other lands and places provided by the Municipal Corporation for working space or any other purpose as may be specifically designated in the contract as forming part of the site.

**Site Investigation Reports** are those that were included in the bidding documents and are reports about the surface and subsurface conditions at the Site.

**“Specification”** shall mean the specification referred to in the tender and any modification thereof or addition or deduction thereto as may from time to time be furnished or approved in writing by the Engineer.

**The Start Date/Commencement Date** is given in the Contract Data. It is the date when the Contractor shall commence execution of the Works. It does not necessarily coincide with any of the Site Possession Dates.

**A Nominated Sub-Contractor** is a person or corporate body who has a Contract with the Contractor to carry out a part of the construction work and/or routine maintenance in the Contract, which includes work on the Site.

**Temporary Works** are works designed, constructed, installed, and removed by the Contractor that are needed for construction or installation of the Works.

**Variation** means a change to the:-

- i) Specification and /or Drawings (if any) which is instructed by the Employer.
- ii) Scope in the Contract which is instructed by the Employer.
- iii) Price in the Contract which is instructed by the Employer.

**The Works**, as defined in the Contract Data, are what the Contract requires the Contractor to construct, install, maintain, and turn over to the Employer. Routine maintenance is defined separately.

**Jurisdiction:** In case of any claim, dispute or difference arising in respect of a contract, the cause of action thereof shall be deemed to have arisen in Mumbai and all legal proceedings in respect of any claim, dispute or difference shall be instituted in a competent court in the City of Mumbai only.

## **2. Interpretation**

2.1 In interpreting these Conditions of Contract, singular also means plural, male also means female or neuter, and the other way around. Headings have no significance. Words have their normal meaning under the language of the Contract unless specifically defined. The Engineer will provide instructions clarifying queries about these Conditions of Contract.

2.2 If sectional completion is specified in the Contract Data, references in the Conditions of Contract to the Works, the Completion Date, and the Intended Completion Date apply to any Section of the Works (other than references to the Completion Date and Intended Completion Date for the whole of the Works).

2.3 The documents forming the Contract shall be interpreted in the following documents: (1) Agreement, (2) Letter of Acceptance, (3) Notice to Proceed with the Work , (4) Contractor's Bid, (5) Contract Data, (6) Special Conditions of Contract Part (7) General Conditions of Contract Part I, (8)



Specifications, (9) Drawings, (10) Bill of Quantities, and (11) Any other document listed in the Contract Data.

### **3 . Engineer's Decisions**

3.1 Except where otherwise specifically stated, the Engineer will decide contractual matters between the Employer and the Contractor in the role representing the Employer. However, if the Engineer is required under the rules and regulations and orders of the Employer to obtain prior approval of some other authorities for specific actions, he will so obtain the approval, before communicating his decision to the Contractor.

3.2 Except as expressly stated in the Contract, the Engineer shall not have any authority to relieve the Contractor of any of his obligations under the contract.

### **4. Delegation**

4.1 The Engineer, with the approval of the Employer, may delegate any of his duties and responsibilities to other person(s), except to the Adjudicator, after notifying the Contractor, and may cancel any delegation after notifying the Contractor.

### **5. Communications**

All certificates, notices or instructions to be given to the Contractor by Employer/ Engineer shall be sent on the address or contact details given by the Contractor of Bid. The address and contact details for communication with the Employer/ Engineer shall be as per the details given in Contract Data. Communications between parties that are referred to in the conditions shall be in writing. The Notice sent by facsimile (fax) or other electronic means shall be effective on confirmation of the transmission. The Notice sent by Registered post or Speed post shall be effective on delivery or at the expiry of the normal delivery period as undertaken by the postal service.

### **6. Subcontracting**

6.1 Unless specifically mentioned in the contract subletting will not be allowed. Subletting, where otherwise provided by the contract shall not be more than 25% of the contract price.

6.2 The Contractor shall not be required to obtain any consent from the Employer for:

- a. the sub-contracting of any part of the Works for which the Subcontractor is named in the Contract;
- b. the provision for labour, or labour component.
- c. the purchase of Materials which are in accordance with the standards specified in the Contract.

6.3 Beyond what has been stated in clauses 6.1 and 6.2, if the Contractor proposes sub contracting any part of the work during execution of the Works, because of some unforeseen circumstances to enable him to complete the Works as per terms of the Contract, the Employer will consider the following before according approval:

a. The Contractor shall not sub-contract the whole of the Works. b. The permitted subletting of work by the Contractor shall not establish any contractual relation-ship between the sub-contractor and the BMC and shall not relieve the Contractor of any responsibility under the Contract.

6.4 The Engineer should satisfy himself before recommending to the Employer whether



- a. the circumstances warrant such sub-contracting; and
- b. the sub-Contractor so proposed for the Work possesses the experience, qualifications and equipment necessary for the job proposed to be entrusted to him.

## **7. Other Contractors**

7.1 The Contractor shall cooperate and share the Site with other Contractors, public authorities, utilities, and the Employer between the dates given in the Schedule of Other Contractors, as referred to in the Contract Data. The Contractor shall also provide facilities and services for them as described in the Schedule. The Employer may modify the Schedule of Other Contractors, and shall notify the Contractor of any such modification.

7.2 The Contractor should take up the works in convenient reaches as decided by the Engineer to ensure there is least hindrance to the smooth flow and safety of traffic including movement of vehicles and equipment of other Contractors till the completion of the Works.

## **8. Personnel**

8.1 The Contractor shall employ for the construction work and routine maintenance the key personnel including technical personnel named in the Contract Data or other personnel approved by the Engineer. The Engineer will approve any proposed replacement of technical personnel only if their relevant qualifications and abilities are substantially equal to those of the personnel stated in the Contract Data.

8.2 The Contractor's personnel shall appropriately be qualified, skilled and experienced in their respective trades or occupations. The Engineer shall have authority to remove, or cause to be removed, any person employed on the site or works, who carries out duties incompetently or negligently and persists in any conduct which is prejudicial to safety, health or the protection of the environment.

8.3 If the Engineer asks the Contractor to remove a person who is a member of the Contractor's staff or work force, stating the reasons, the Contractor shall ensure that the person leaves the Site within seven days and has no further connection with the Works in the Contract.

8.4 The Contractor shall not employ any retired Gazetted officer who has worked in the Engineering Department of the BMC /State Government and has either not completed two years after the date of retirement or has not obtained BMC/State Government's permission to employment with the Contractor.

## **9. Employer's and Contractor's Risks**

9.1 The Employer carries the risks which this Contract states are Employer's risks, and the Contractor carries the risks which this Contract states are Contractor's risks.

## **10. Employer's Risks**

10.1 The Employer is responsible for the excepted risks which are (a) in so far as they directly affect the execution of the Works in the Employer's country, the risks of war, invasion, act of foreign enemies, rebellion, revolution, insurrection or military or usurped power, civil war, riot, commotion or disorder (unless restricted to the Contractor's employees) and contamination from any nuclear fuel or nuclear waste or radioactive toxic explosive, or (b) a cause due solely to the design of the Works, other than the Contractor's design.



## **11. Contractor's Risks**

**11.1** All risks of loss of or damage to physical property and of personal injury and death which arise during and in consequence of the performance of the Contract other than the excepted risks, referred to in clause 11.1, are the responsibility of the Contractor.

## **12. Insurance**

12.1 The Contractor at his cost shall provide, in the joint names of the Employer and the Contractor, insurance cover from the Start Date to the end of Defects Liability Period, in the amounts and deductibles stated in the Contract Data for the following events which are due to the Contractor's risks:

- a) Loss of or damage to the Works, Plant and Materials;
- b) Loss of or damage to Equipment;
- c) Loss of or damage to property (other than the Works, Plant, Materials, and Equipment) in connection with the Contract; and
- d) Personal injury or death.

12.2 Insurance policies and certificates for insurance shall be delivered by the Contractor to the Engineer for the Engineer's approval before the Start Date. All such insurance shall provide for compensation to be payable in the types and proportions of currencies required to rectify the loss or damage incurred.

12.3 Alterations to the terms of insurance shall not be made without the approval of the Engineer.

12.4 Both parties shall comply with any conditions of the insurance policies.

**12.5** If the Contractor does not provide any of the policies and certificates required, the Employer may affect the insurance which the Contractor should have provided and recover the premiums the Employer has paid, from payments otherwise due to the Contractor or if no payment is due, the payment of premiums shall be debt due.

## **13. Site Investigation Reports**

**13.1** The Contractor, in preparing the Bid, may rely, at his own risk, on any Site Investigation Reports referred to in the Contract Data, supplemented by any other information available to him, before submitting the bid.

## **14. Queries about the Contract Data**

**14.1** The Engineer will clarify queries on the Contract Data.

## **15. Contractor to Construct the Works and Undertake Maintenance (if specified in the tender)**

15.1 The Contractor shall construct, and install and maintain the Works in accordance with the Specifications and Drawings and as per instructions of the Engineer.

15.2 The Contractor shall construct the works with intermediate technology, i.e., by manual means with medium input of machinery required to ensure the quality of works as per specifications. The Contractor shall deploy the equipment and machinery as required in the contract.



15.3 The Contractor shall take all reasonable steps to protect the environment on and off the Site and to avoid damage or nuisance to persons or to property of the public or others resulting from pollution, noise or other causes arising as a consequence of his methods of operation.

During continuance of the contract, the Contractor and his sub-contractors shall abide at all times by all existing enactments on environmental protection and rules made there under, regulations, notifications and byelaws of the State or Central Government, or local authorities and any other law, bye-law, regulations that may be passed or notification that may be issued in future by the State or Central Government or the local authority. Salient features of some of the major laws that are applicable are given below:

□ The Water (Prevention and Control of Pollution) Act, 1974, this provides for the prevention and control of water pollution and the maintaining and restoring of wholesomeness of water. 'Pollution' means such contamination of water or such alteration of the physical, chemical or biological properties of water or such discharge of any sewage or trade effluent or of any other liquid, gaseous or solid substance into water (whether directly or indirectly) as may, or is likely to, create a nuisance or render such water harmful or injurious to public health or safety, or to domestic, commercial, industrial, agricultural or other legitimate uses, or to the life and health of animals or plants or of aquatic organisms.

□ The Air (Prevention and Control of Pollution) Act, 1981, this provides for prevention, control and abatement of air pollution. 'Air Pollution' means the presence in the atmosphere of any 'air pollutant', which means any solid, liquid or gaseous substance (including noise) present in the atmosphere in such concentration as may be or tend to be injurious to human beings or other living creatures or plants or property or environment.

□ The Environment (Protection) Act, 1986, this provides for the protection and improvement of environment and for matters connected therewith, and the prevention of hazards to human beings, other living creatures, plants and property. 'Environment' includes water, air and land and the inter-relationship which exists among and between water, air and land, and human beings, other living creatures, plants, micro-organism and property.

□ The Public Liability Insurance Act, 1991, This provides for public liability insurance for the purpose of providing immediate relief to the persons affected by accident occurring while handling hazardous substances and for matters connected herewith or incidental thereto. Hazardous substance means any substance or preparation which is defined as hazardous substance under the Environment (Protection) Act 1986, and exceeding such quantity as may be specified by notification by the Central Government.

## **16. The Works and Routine Maintenance to be completed by the Intended Completion Date**

16.1 The Contractor may commence execution of the Works on the Start Date and shall carry out the Works and Routine Maintenance, if specified in the tender, in accordance with the Programme submitted by the Contractor, as updated with the approval of the Engineer, and complete them by the Intended Completion Date.

## **17. Approval by the Engineer**

17.1 The Contractor shall submit Specifications and Drawings showing the proposed Temporary Works to the Engineer, who is to approve them if they comply with the Specifications and Drawings.

17.2 The Contractor shall be responsible for design and safety of Temporary Works.



17.3 The Engineer's approval shall not alter the Contractor's responsibility for design and safety of the Temporary Works.

17.4 The Contractor shall obtain approval of third parties to the design of the Temporary Works, where required.

17.5 All Drawings prepared by the Contractor for the execution of the temporary or permanent Works, are subject to prior approval by the Engineer before their use.

## **18. Safety**

**18.1** The Contractor shall be responsible for the safety of all activities on the Site. He shall comply with all applicable safety requirements and take care of safety of all persons entitled to be on the site and the works. He shall use reasonable efforts to keep the site and the works, both during construction and maintenance, clear of unnecessary obstruction so as to avoid danger to the persons and the users.

Workers employed on mixing asphaltic materials, cement and lime mortars shall be provided with protective footwear and protective goggles.

Stone breaker shall be provided with protective goggles and protective clothing and seated at sufficiently safe intervals.

The area should be barricaded or cordoned off by suitable means to avoid mishaps of any kind. Power warning signs should be displayed for the safety of the public whenever cleaning works are undertaken during night or day.

The workers engaged for cleaning the manholes/sewers should be properly trained before allowing working in the manhole.

### **18.2 Safety Programs:-**

I. Have adequate safety supervision in place to ensure that safety programs set up by the firms/agencies are in compliance with prevalent laws and regulations.

II. Review safety programs developed by each of the trade firms, prepare and submit a comprehensive safety program.

III. Monitor day to day implementation of safety procedures.

### **18.3 First Aid Facilities: -**

i. At every work place there shall be provided and maintained, so as to be easily accessible during working hours, first-aid boxes at the rate of not less than one box for 150 contract labour or part thereof ordinarily employed.

ii. The first-aid box shall be distinctly marked with a red cross on white back ground.

iii. Adequate arrangements shall be made for immediate recoupment of the equipment when necessary.

iv. Nothing except the prescribed contents shall be kept in the First-aid box.

v. The first-aid box shall be kept in charge of a responsible person who shall always be readily available during the working hours of the work place.



vi. A person in charge of the First-aid box shall be a person trained in First-aid treatment, in the work places where the number of contract labour employed is 150 or more.

## **19. Discoveries**

19.1 Anything of historical or other interest or of significant value unexpectedly discovered on the Site shall be the property of the Employer. The Contractor shall notify the Engineer of such discoveries and carry out the Engineer's instructions for dealing with them.

## **20. Possession of the Site**

20.1 The Employer shall handover complete or part possession of the site to the Contractor 7 days in advance of construction programme. At the start of the work, the Employer shall handover the possession of at-least 75% of the site free of all encumbrances, the remaining 25 % of the possession as per contractor's construction programme.

## **21. Access to the Site**

21.1 The Contractor shall allow access to the Site and to any place where work in connection with the Contract is being carried out, or is intended to be carried out to the Engineer and any person/persons/agency authorized by: a. The Engineer b. The Employer or authorized by the Employer.

## **22. Instructions**

22.1 The Contractor shall carry out all instructions of the Engineer, which comply with the applicable laws where the Site is located.

22.2 The Contractor shall permit the appointed and/or authorized persons to inspect the Site and/or accounts and records of the Contractor and its subcontractors relating to the performance of the Contract, and to have such accounts and records audited by auditors appointed, if so required. The Contractor's attention is invited to Clause of 'Fraud and Corruption', which provides, inter alia, that acts intended to materially impede the exercise of the inspection and audit rights provided for under the Clause & constitute a obstructive practice subject to contract termination.

22.3 Engineer to have power to issue further drawings or instructions:

The Engineer shall have the power and authority from time to time and at all times to make and issue such further drawings and to give such further instructions and directions as may appear to him necessary or proper for the guidance of the contractor and the good and sufficient execution of the works according to terms of the specifications and Contractor shall receive, execute, obey and be bound by the same, according to the true intent and meaning thereof, as fully and effectually as though the same had accompanied or had been mentioned or referred to in the specification, and the Engineer may also alter or vary the levels or position of nature of works contemplated by the specifications, or may order any of the works contemplated thereby to be omitted, with or without the substitution of any other works in lieu thereof, or may order any work or any portion of work executed or partially executed, to be removed, changed or altered, added if needful, may order that other works shall be substituted instead thereof and difference of expense occasioned by any such diminution or alteration so ordered and directed shall be added to or deducted from the amount of this Contract, as provided under condition no.10(a) hereinafter.

No work which radically changes the original nature of the Contract shall be ordered by the Engineer and in the event of any deviation being ordered which in the opinion of the Contractor changes the



original nature of Contract he shall nevertheless carry it out and disagreement as to the nature of the work and the rate to be paid therefore shall be resolved in accordance with condition no.13d.

The time for completion of the Works, shall be in even of any deviations resulting in additional cost over the contract price being ordered, be extended or reduced reasonably by the Engineer. The Engineer's decision in this case shall be final.

## **B. Time Control**

### **23. Programme**

23.1 Within the time stated in the Contract Data, the Contractor shall submit to the Engineer for approval a Programme, including Environment Management Plan showing the general methods, arrangements, order, and timing for all the activities in the Works, along with monthly cash flow forecasts for the construction of works.

After the completion of the construction works, the programme for the Routine Maintenance Work, showing the general methods, arrangements, order and timing for all the activities involved in the Routine Maintenance will also be submitted by the Contractor to the Engineer for approval if specified in the tender. The programme for Routine Maintenance will be submitted in each year for the period of Maintenance.

23.2 The Contractor shall submit the list of equipment and machinery being brought to site, the list of key personnel being deployed, the list of machinery/ equipments being placed in field laboratory and the location of field laboratory along with the Programme. The Engineer shall cause these details to be verified at each appropriate stage of the programme.

23.3 An update of the Programme shall be a programme showing the actual progress achieved on each activity and the effect of the progress achieved on the timing of the remaining Works, including any changes to the sequence of the activities.

23.4 The Contractor shall submit to the Engineer for approval an updated Programme at intervals no longer than the period stated in the Contract Data. If the Contractor does not submit an updated Programme within this period, the Engineer may withhold the amount stated in the Contract Data from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue Programme has been submitted.

23.5 The Engineer's approval of the Programme shall not alter the Contractor's obligations. The Contractor may revise the Programme and submit it to the Engineer again at any time. A revised Programme shall show the effect of Variations and Compensation Events.

### **24. Extension Of Time In Contracts :**

Subject to any requirement in the contract as to completion of any portions or portions of the works before completion of the whole, the contractor shall fully and finally complete the whole of the works comprised in the contract (with such modifications as may be directed under conditions of this contract) by the date entered in the contract or extended date in terms of the following clauses:

#### **a) Extension attributable to BMC**

**(i) Extension Due To Modification:** If any modifications have been ordered which in the opinion of the Engineer have materially increased the magnitude of the work, then such extension of the



contracted date of completion may be granted as shall appear to the Engineer to be reasonable in the circumstances, provided moreover that the Contractor shall be responsible for requesting such extension of the date as may be considered necessary as soon as the cause thereof shall arise and in any case **should not be less than 30 days before the expiry of the date fixed for completion of the works.**

**(ii) Extension For Delay Due To BMC:** In the event of any failure or delay by the BMC to hand over the Contractor possession of the lands necessary for the execution of the works or to give the necessary notice to commence the works or to provide the necessary drawings or instructions or any other delay caused by the BMC due to any other cause whatsoever, then such failure or delay shall in no way affect or vitiate the contract or alter the character thereof or entitle the contractor to damages or compensation therefore, but in any such case, the BMC may grant such extension(s) of the completion date as may be considered reasonable.

**Note: For extension of time period as governed in (i) and (ii) above, any modifications in design/drawings, specifications, quantities shall be needed to be justified with recorded reasons with approval of Hydraulic Eng. for not anticipating the same while preparing estimates and draft tender.**

**(b) Extension Of Time For Delay Due To Contractor :** The time for the execution of the work or part of the works specified in the contract documents shall be deemed to be the essence of the contract and the works must be completed no later than the date(s) / the programme for completion of work as specified in the contract. If the contractor fails to complete the works within the time as specified in the contract for the reasons other than the reasons specified in above as (a.i) and (a.ii), the BMC may, if satisfied that the works can be completed by the contractor within reasonable short time thereafter, allow the contractor for further extension of time as the Engineer may decide. On such extension the BMC will be entitled without prejudice to any other right and remedy available on that behalf, to recover the compensation as governed by Clause 8(e) of GCC.

For the purpose of this Clause, the contract value of the works shall be taken as value of work as per contract agreement including any supplementary work order/contract agreement issued.

Further, competent authority while granting extension to the currency of contract under Clause (b) of as above may also consider levy of penalty, as deemed fit based on the merit of the case. Also, the reasons for granting extension shall be properly documented.

## **25. Delays Ordered by the Engineer**

**25.1** The Engineer may instruct the Contractor to delay the start or progress of any activity within the Works. Delay/delays totaling more than 30 days will require prior written approval of the DMC/AMC.

## **26. Management Meetings**

**26.1** The Engineer may require the Contractor to attend a management meeting. The business of a management meeting shall be to review the plans for progress of the Works.

**26.2** The Engineer shall record the business of management meetings and provide copies of the record to those attending the meeting. The responsibility of the parties for actions to be taken shall be decided by the Engineer either at the management meeting or after the management meeting and stated in writing to all those who attended the meeting.



## **C. Quality Control**

### **27.1. Work to be open to Inspection and Contractor or Responsible agent to be present**

All works under or in course of execution or executed in pursuance of the contract shall at all times be open to the inspection and supervision of the Eng-in-charge and his subordinates and the contractor shall at all times during the usual working hours, at all other times, during the usual working hours and at all other times at which reasonable notice of the intention of the Eng-in-charge and his subordinates to visit the works shall have been given to the contractor, either himself be present to receive orders and instruction or have responsible agent duly accredited in writing present for that purpose. Order given to the contractors' duly authorized agent shall be considered to have the same force and effect as if they had been given to the contractor himself.

### **27.2. Notice To Be Given Before Work Is Covered Up**

The contractor shall give not less than ten days' notice in writing to the Eng-In-Charge or his subordinate incharge of the work before covering up or otherwise placing beyond the reach of measurement any work in order that the same may be measured and correct dimension thereof taken before the same is so covered up or placed beyond the reach of measurements and shall not cover up or place beyond the reach of measurement any work without the consent in writing of the Eng-In-Charge or his subordinate incharge of the work, and if any work shall be covered up or placed beyond the reach of measurement, without such notice having been given or consent obtained the same shall be uncovered at the contractors expenses, and in default thereof no payment or allowance shall be made for such work or for the materials with which the same was executed

### **27.3 Works to be executed in accordance with specifications / drawings /orders etc. :**

The contractor shall execute the whole and every part of the work the most substantial and workman like manner and both has regards material and every other respect in strict accordance with specifications. The contractor shall also confirm exactly, fully and faithfully to the designs, drawings and instructions in writing relating to the work signed by the Engineer In-charge and lodged in his office and to which the contractor shall be entitled to have access for the purpose of inspection at such office, or on the site or work during office hours. The contractor shall be entitled to receive three sets of contract drawings and working drawings as well as one certified copy of the accepted tender along with the work order free of cost.

## **28. Identifying Defects**

28.1 The Engineer shall check the Contractor's work and notify the Contractor of any Defects that are found. Such checking shall not affect the Contractor's responsibilities. The Engineer may instruct the Contractor to search for a Defect and to uncover and test any work that the Engineer considers may have a Defect.

28.2 The Contractor shall permit the Employer's technical person(s) to check the Contractor's work and notify the Engineer and Contractor if any defects that are found.

## **29. Tests**



29.1 For carrying out mandatory tests as prescribed in the specifications, the Contractor shall establish field laboratory at the location decided by Engineer. The field laboratory will have minimum of equipments as specified in the Contract Data. The contractor shall be solely responsible for:

- a. Carrying out the mandatory tests prescribed in the Specifications, and
- b. For the correctness of the test results, whether preformed in his laboratory or elsewhere.

29.2 If the Engineer instructs the Contractor to carry out a test not specified in the Specification/ Quality Assurance Handbook to check whether any work has a Defect and the test shows that it does, the Contractor shall pay for the test and any samples. If there is no defect, the test shall be a compensation event.

When required by the Engineer-in-charge the contractor(s) shall supply for the purpose of testing samples of all materials proposed to be used in the works. Samples submitted either to govern bulk supplies or required for testing before use shall be in suitable packages to contain them and shall be provided free of charge by the contractor. The cost of testing shall be borne by the contractor even if the result of the sample confirm or do not confirm to the relevant BIS code specifications.

- i. All expenditure required to be incurred for taking the samples conveyance, packing shall be borne by the contractor himself.
- ii. The failed material shall be removed from the site by the contractor at his own cost within a week time of written order of the Engineer-in-charge.

#### **29.3.1 A Vehicle**

**The contractor shall provide one AC vehicle (Car) in good condition along with driver at his cost to be kept available round the clock for the sole use of the site incharge and his staff. The contractor shall be solely responsible for upkeep of the vehicle including taxes, insurance, licenses, fuel, Oils, lubricants, repairs and maintenance. If the vehicle with driver is not provided then a penalty of Rs.5000/ per day will be imposed.**

#### **29.3.2 Setting of Site Laboratories:**

Contractors shall set up a laboratory at site before commencement of work at their cost for performing various tests and at least the following machines and equipments shall be provided therein –

1. Set of Sieves as per I.R.C. /I.S.
2. Compressive Testing Machine(For new works)
3. Oven, Electrically Operated
4. Weighing Balance (20 kg capacity)
5. 3 m straight edge
6. Sieve shaker
7. First Aid Box
8. Measuring Jar (for silt content)
9. Other Machines/apparatus as may be directed by the Engineer
10. Level / Theodolite / Modern leveling machines.



11. Aggregate drying equipments M.S. Tray of 0.6 M x 0.45 M and Kerosene stove or electric hot plate.
12. Infra Red thermometer calibrated upto 250 degree Celsius (for checking asphalt / bitumen temperature).
13. Kadappah stone platform of size 2.5m. X 0.90m. Approx.
14. Camber Board
15. Other machines as may be directed by the Engineer.

All the test records shall be maintained in the site office and made available as and when required. The laboratory must be established within 15 days from the date of receipt of the work orders from Engineer In charge. On failure to do so, a penalty of Rs 1000/- per day shall be imposed.

The contractor shall install testing equipment at site. The contractor shall ensure and certify the calibration of the equipment so installed and shall maintain the same in working order throughout the period of construction. The contractor shall also provide necessary technically qualified experienced trained staff for carrying out such tests for using such equipment. The tests shall be carried out under the supervision of the Engineer-in-charge. The calibration shall be checked every twelve months as directed by Engineer-in-charge.

### **30. Correction of Defects noticed during the Defects Liability Period.**

(a) The Engineer shall give notice to the Contractor of any Defects before the end of the Defects Liability Period, which begins at Completion and ends after five years. The Defects Liability Period shall be extended for as long as Defects remain to be corrected.

(b) Every time notice of Defect/Defects is given, the Contractor shall correct the notified Defect/Defects within the duration of time specified by the Engineer's notice.

(c) The Engineer may issue notice to the Contractor to carry out removal of defects or deficiencies, if any, noticed in his inspection, or brought to his notice. The Contractor shall remove the defects and deficiencies within the period specified in the notice and submit to the Engineer a compliance report.

### **31. Uncorrected Defects and Deficiencies**

**31.1** If the Contractor has not corrected a Defect pertaining to the Defect Liability Period under clause and deficiencies in maintenance, to the satisfaction of the Engineer, within the time specified in the Engineer's notice, the Engineer will assess the cost of having the Defect or deficiency corrected, and the Contractor shall pay this amount, on correction of the Defect or deficiency by another agency.

### **D. Cost Control**

#### **32. Variations**

The Engineer shall, having regard to the scope of the Works and the sanctioned estimated cost, have power to order, in writing, Variations within the scope of the Works he considers necessary or advisable during the progress of the Works. Such Variations shall form part of the Contract and the Contractor shall carry them out and include them in updated Programmes produced by the Contractor. Oral orders of the Engineer for Variations, unless followed by written confirmation, shall not be taken into account.

#### **33. Payments for Variations**



33.1 If rates for Variation items are specified in the Bill of Quantities, the Contractor shall carry out such work at the same rate.

**33.2** The rate for Extra/Excess shall be governed by clause 10.A of Standard General Condition of Contract

#### **34. Cash Flow Forecasts**

When the Programme is updated, the Contractor shall provide the Engineer with an updated cash flow forecast.

#### **35. Payment Certificates**

The payment to the Contractor will be as follows for construction work:

(a) A bill shall be submitted by the Contractor monthly or before the date fixed by the Engineer In-charge for all works executed in the previous month, and the Engineer In-charge shall take or cause to be taken requisite measurement for the purpose of having the same verified and the claim, so far as it is admissible, shall be adjusted, if possible, within 10 days from the presentation of the bill. If the contractor does not submit the bill within the time fixed as aforesaid, the Engineer In-charge may depute a subordinate to measure up the said work in the presence of the contractor or his duly authorized agent whose counter signature to the measurement list shall be sufficient warrant, and Engineer In-Charge may prepare a bill from such list which shall be binding on the contractor in all respects.

(b) The Engineer shall check the Contractor's fortnightly/monthly statement within 14 days and certify the amount to be paid to the Contractor.

(c) The value of work executed shall be determined, based on measurements by the Engineer.

(d) The value of work executed shall comprise the value of the quantities of the items in the Bill of Quantities completed.

(e) The value of work executed shall also include the valuation of Variations and Compensation Events.

(f) The Engineer may exclude any item certified in a previous certificate or reduce the proportion of any item previously certified in any certificate in the light of later information.

(g) The contractor shall submit all bills on the printed forms at the office of Engineer In-charge. The charges to be made in the bills shall always be entered at the rates specified in tender.

#### **36. Payments**

36.1 Payments shall be adjusted for deductions for advance payments, retention, security deposit, other recoveries in terms of the Contract and taxes at source, as applicable under the law. The Employer shall pay the Contractor the amounts certified by the Engineer within 15 days of the date of each certificate.

36.2 All sums payable by a contractor by way of compensation under any of these conditions, shall be considered as a reasonable compensation to be applied to the use of BMC without reference to the actual loss or damage sustained and whether any damage has or has not been sustained.



36.3 No payment shall be made for any work estimated to cost less than Rupees One Thousand till after the whole of work shall have been completed and the certificate of completion given. But in the case of works estimated to cost more than Rs. One Thousand, the contractor shall on submitting a monthly bill therefore be entitled to receive payment proportionate to the part of the work than approved and passed by the Engineer In-charge, whose certificate of such approval and passing of the sum so payable shall be final and conclusive against the contractor. All such intermediate payments shall be regarded as payments by way of advance against the final payments only and not as payments for work actual done and completed and shall not preclude the Engineer In-charge from requiring any bad, unsound, imperfect or unskillful work to be removed or taken away and reconstructed or re-erected nor shall any such payment be considered as an admission of the due performance of the contract or any part thereof in any respect or the offering of any claim not shall it conclude, determine or effect in any other way, the powers of the Engineer In-charge as to the final settlement and adjustment of the accounts or otherwise, or in any other way vary or effect the contract. The final bill shall be submitted by the Contractor within one month of the date fixed for the completion of the work otherwise the Engineer In-charge's certificate of the measurements and of the total amount payable for the work shall be final and binding on all parties.

37. The Contractor shall not be entitled to compensation to the extent that the Employer's interests are adversely affected by the Contractor for not having given early warning or not having cooperated with the Engineer.

#### 38. Tax

Provisions incorporated in circulars under no. प्र.ले./वित्त/प्रकल्प/शहर/17/dt.06.09.2017, प्र.ले./वित्त/प्रकल्प/शहर/19 dt.15.09.2017 and . प्र.ले./वित्त/प्रकल्प/28 Dated 28.03.2023. are attached herewith in the Draft Tender.(Circular)

The Welfare cess as applicable as per the government resolution under B.C.A./2009/No.108/Kamgar 7-A, Mantralaya Mumbai 32 dated 17.06.2010 shall be recovered from the contractor's bill.

The tenderer shall quote inclusive of all taxes other than GST (excluding GST), levies/cess etc. as applicable at the time of bid submission. GST as applicable shall be paid separately on submission of bids/invoice

Input tax credit of GST as available with the bidder will not be claim separately by BMC. However, while quoting the rates benefit of Input Tax Credit or Exemptions shall be passed on to the BMC by way of equivalent reduction in quoted price.

#### 39. Currencies

All payments will be made in Indian Rupees.

#### 40. Liquidated Damages

Both, the Contractor and the Employer have agreed that it is not feasible to precisely estimate the amount of losses due to delay in completion of works and the losses to the public and the economy, therefore, both the parties have agreed that the Contractor shall pay liquidated damages to the Employer and not by way of penalty, at the rate per week or part thereof stated in the Contract Data for the period that the Completion Date is later than the Intended Completion Date. Liquidated damages at



the same rates shall be withheld if the Contractor fails to achieve the milestones prescribed in the Contract Data. However, in case the Contractor achieves the next milestone, the amount of the liquidated damages already withheld shall be restored to the Contractor by adjustment in the next payment certificate. The Employer and the contractor have agreed that this is a reasonable agreed amount of liquidated damage. The Employer may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages shall not affect the Contractor's other liabilities.

#### **41. Cost of Repairs**

Loss or damage to the Works or Materials to be incorporated in the Works between the Start Date and the end of the Defects Correction periods shall be remedied by the Contractor at his cost if the loss or damage arises from the Contractor's acts or omissions.

#### **42. Completion of Construction and Maintenance**

**42.1** The Contractor shall request the Engineer to issue a certificate of completion of the construction of the works, and the Engineer will do so upon deciding that the works is completed. This shall be governed as per clause no.8(g) of Standard General Conditions of Contract.

#### **43. Taking Over**

**43.1** The Employer shall take over the works within seven days of the Engineer issuing a certificate of completion of works. The Contractor shall continue to remain responsible for its routine maintenance during the maintenance period if specified in the contract.

#### **44. Final Account**

Final joint measurement along with the representatives of the contractor should be taken recorded and signed by the Contractors. Contractors should submit the final bill within 1 month of physical completion of the work.

If the contractor fails to submit the final bill within 1 month, the BMC staff will prepare the final bill based on the joint measurement within next 3 months.

Engineer's decision shall be final in respect of claims for defect and pending claims against contractors.

No further claims should be made by the Contractor after submission of the final bill and these shall be deemed to have been waived and extinguished. Payment of those items of the bills in respect of which there is no dispute and of items in dispute, for quantities and rates as approved by the Commissioner shall be made within a reasonable period as may be necessary for the purpose of verification etc.

After payment of the final bill as aforesaid has been made, the contractor may, if he so desires, reconsider his position in respect of a disputed portion of the final bills and if he fails to do so within 84 days, his disputed claim shall be dealt with as provided in the contract.



A percentage of the retention money, over and above the actual retention money as indicated below shall be held back from payments till the finalization of final bill to be submitted as per above and will be paid within 30 days of acceptance of the final bill.

Sr.no.	Amount of Contract Cost	Minimum Payable Amount in final bill
1	Upto Rs.5 Crs.	Rs.10 Lacs or final bill whichever is more
2	Upto Rs.25 Crs.	Rs.1 Crore or final bill amount whichever is more
3	Upto Rs. 50 Crs.	Rs.2 Crores or final bill amount whichever is more
4	Upto Rs.100 Crs.	Rs.4 Crore or final bill amount whichever is more
5	More than Rs.100 Crs..	Rs.7 Crore or final bill amount whichever is more

The contractor have to submit the bill for the work carried out within 15 days from the date of completion of the work to the respective executing department. If the contractor fails to submit their bills to concerned executing department, penalty or action as shown below will be taken for each delayed bill:-

After 15 days from the date of completion/running bill upto certain date, upto next 15 days i.e. upto 30 days	Equal to 5% of bill amount
Next 15 days upto 45 days from the date of completion/running bill upto specified date	Equal to 10% of bill amount
If not submitted witin 45 days from the date of completion/ R.A. bill	Bill will not be admitted for payment.

#### **45. Operating and Maintenance Manuals**

45.1 If "as built" Drawings and/or operating and maintenance manuals are required, the Contractor shall supply them by the dates stated in the Contract Data.

45.2 If the Contractor does not supply the Drawings and/or manuals by the dates stated in the Contract Data, or they do not receive the Engineer's approval, the Engineer shall withhold the amount stated in the Contract Data from payments due to the Contractor.

#### **46. Termination**

46.1 The Employer or the Contractor may terminate the Contract if the other party causes a fundamental breach of the Contract.



46.2 Fundamental breaches of Contract shall include, but shall not be limited to, the following:

- a) the Contractor stops work for 30 days when no stoppage of work is shown on the current Programme and the stoppage has not been authorized by the Engineer;
- b) the Contractor is declared as bankrupt or goes into liquidation other than for approved reconstruction or amalgamation;
- c) the Engineer gives Notice that failure to correct a particular Defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined by the Engineer;
- d) the Contractor does not maintain a Security, which is required;
- e) the Contractor has delayed the completion of the Works by the number of days for which the maximum amount of liquidated damages can be paid, as defined in relevant clause.
- f) the Contractor fails to provide insurance cover as required under relevant clause
- g) if the Contractor, in the judgment of the Employer, has engaged in the corrupt or fraudulent practices as defined in GCC in competing for or in executing the Contract.
- h) if the Contractor fails to set up a field laboratory with the prescribed equipment, within the period specified in the Contract Data; and
- i) any other fundamental breaches as specified in the Contract Data.
- j) if the Contractor fails to deploy machinery and equipment or personnel as specified in the Contract Data at the appropriate time.

46.3 When either party to the contract gives notice of a breach of contract to the Engineer for a cause other than those listed above, the Engineer shall decide whether the breach is fundamental or not.

46.4 Notwithstanding the above, the Employer may terminate the Contract for convenience.

46.5 If the Contract is terminated, the Contractor shall stop work immediately, make the Site safe and secure, and leave the Site as soon as reasonably possible.

## **47. Payment upon Termination**

47.1 If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Engineer shall issue a certificate for value of the work done and materials ordered less liquidated damages, if any, less advance payments received up to the date of the issue of the certificate and less the percentage to apply to the value of the work not completed, as indicated in the Contract Data. If the total amount due to the Employer exceeds any payment due to the Contractor, the difference shall be recovered from the security deposit, and performance security. If any amount is still left un-recovered it will be a debt due from the Contractor to the Employer

47.2 If the Contract is terminated at the Employer's convenience, the Engineer shall issue a certificate for the value of the work done, the reasonable cost of removal of Equipment, repatriation of the Contractor's personnel employed solely on the Works, and the Contractor's costs of protecting and



securing the Works and less advance payments received up to the date of the certificate, less other recoveries due in terms of the Contract, and less taxes due to be deducted at source as per applicable law.

#### **48. Property**

**48.1** All Materials on the Site, Plant, Equipment, Temporary Works, and Works shall be deemed to be the property of the Employer for use for completing balance construction work if the Contract is terminated because of the Contractor's default, till the Works is completed after which it will be transferred to the Contractor and credit, if any, given for its use.

#### **49. Release from Performance**

If the Contract is frustrated by the outbreak of war or by any other event entirely outside the control of the Employer or the Contractor, the Engineer shall certify that the Contract has been frustrated. The Contractor shall make the Site safe and stop work as quickly as possible after receiving this certificate and shall be paid for all work carried out before receiving it and for any work carried out afterwards to which a commitment was made.

#### **A) Other Conditions of Contract**

#### **50. Labour**

50.1 The Contractor shall, unless otherwise provided in the Contract, make his own arrangements for the engagement of all staff and labour, local or other, and for their payment, housing, feeding and transport.

50.2 The Contractor shall, if required by the Engineer, deliver to the Engineer a return in detail, in such form and at such intervals as the Engineer may prescribe, showing the staff and the number of the several classes of labour from time to time employed by the Contractor on the Site and such other information as the Engineer may require.

#### **51. Compliance with Labour Regulations**

(a) During continuance of the Contract, the Contractor and his sub-Contractors shall abide at all times by all existing labour enactments and rules made there under, regulations, notifications and bye laws of the State or Central Government or local authority and any other labour law (including rules), regulations, bye laws that may be passed or notification that may be issued under any labour law in future either by the State or the Central Government or the local authority.

(b) Furthermore, the Contractor shall keep the Employer indemnified in case any action is taken against the Employer by the competent authority on account of contravention of any of the provisions of any Act or rules made there under, regulations or notifications including amendments. If the Employer is caused to pay or reimburse, such amounts as may be necessary to cause or observe, or for non-observance of the provisions stipulated in the notifications/bye laws/Acts/Rules/regulations including amendments, if any, on the part of the Contractor, the Engineer/Employer shall have the right to deduct any money due to the Contractor including his amount of performance guarantee. The Employer/Engineer shall also have right to recover from the Contractor any sum required or estimated to be required for making good the loss or damage suffered by the Employer.

(c) The Contractor shall require his employees to obey all applicable laws, including those concerning safety at work.



(d) The employees of the Contractor and the Sub-Contractor in no case shall be treated as the employees of the Employer at any point of time.

## **52. Drawings and Photographs of the Works**

52.1 The Contractor shall do photography/video photography of the site firstly before the start of the work, secondly mid-way in the execution of different stages of work as required by Engineer In-charge and lastly after the completion of the work. No separate payment will be made to the Contractor for this.

52.2 The Contractor shall not disclose details of Drawings furnished to him and works on which he is engaged without the prior approval of the Engineer in writing. No photograph of the works or any part thereof or plant employed thereon, except those permitted under above clause, shall be taken or permitted by the Contractor to be taken by any of his employees or any employees of his sub-Contractors without the prior approval of the Engineer in writing. No photographs/ Video photography shall be published or otherwise circulated without the approval of the Engineer in writing.

## **53. The Apprentices Act, 1961**

The Contractor shall duly comply with the provisions of the Apprentices Act 1961 (III of 1961), the rules made there under and the orders that may be issued from time to time under the said Act and the said Rules and on his failure or neglect to do so, he shall be subject to all liabilities and penalties provided by the said Act and said Rules.

## **54 Contract Document**

The documents forming the contract are to be taken as mutually explanatory of one another. Unless otherwise provided in the contract, the priority of the documents forming the contract shall be, as follows:

- 1) Contract Agreement (if completed)
- 2) The letter of Acceptance
- 3) The Bid:
- 4) Addendum to Bid; if any
- 5) Tender Document
- 6) The Bill of Quantities:
- 7) The Specification:
- 8) Detailed Engineering Drawings
- 9) Standard General Conditions of Contracts (GCC)
- 10) All correspondence documents between bidder/contractor and BMC.

## **55 Conflict of Interest**



The Applicant shall not have a conflict of interest (the "Conflict of Interest") that affects the Bidding Process. Any Applicant found to have a Conflict of Interest shall be disqualified. An Applicant shall be deemed to have a Conflict of Interest affecting the Bidding Process, if

1. A constituent of such Applicant is also a constituent of another Applicant; or
2. Such Applicant has the same legal representative for purposes of this Application as any other Applicant; or
3. Such Applicant, or any Associate thereof has a relationship with another Applicant, or any Associate thereof, directly or through common third party/ parties, that puts either or both of them in a position to have access to each other's information about, or to influence the Application of either or each other; or
4. The Applicant shall be liable for disqualification if any legal, financial or technical adviser of the Authority in relation to the Project is engaged by the Applicant, its Member or any Associate thereof, as the case may be, in any manner for matters related to or incidental to the Project. For the avoidance of doubt, this disqualification shall not apply where such adviser was engaged by the Applicant, its Member or Associate in the past but its assignment expired or was terminated 6 (six) months prior to the date of issue of this TENDER. Nor will this disqualification apply where such adviser is engaged after a period of 3 (three) years from the date of commercial operation of the Project.

#### **56. Applications and costs thereof**

No Applicant shall submit more than one Application for the Project. An applicant applying individually shall not be entitled to submit another application either individually. The Applicant shall be responsible for all of the costs associated with the preparation of their Applications and their participation in the Bid Process. The Authority will not be responsible or in any way liable for such costs, regardless of the conduct or outcome of the Bidding Process.

#### **57. Acknowledgment by Applicant**

It shall be deemed that by submitting the Application, the Applicant has:

- a. made a complete and careful examination of the tender;
- b. received all relevant information requested from the Authority;
- c. accepted the risk of inadequacy, error or mistake in the information provided in the tender or furnished by or on behalf of the Authority relating to any of the matters referred; and
- d. Agreed to be bound by the undertakings provided by it under and in terms hereof.

"The Authority" shall not be liable for any omission, mistake or error in respect of any of the above or on account of any matter or thing arising out of or concerning or relating to the TENDER or the Bidding Process, including any error or mistake therein or in any information or data given by the Authority.

#### **58. Right to accept or reject any or all Applications/ Bids**

Notwithstanding anything contained in this TENDER, "The Authority" reserves the right to accept or reject any Application and to annul the Bidding Process and reject all Applications/ Bids, at any time without any liability or any obligation for such acceptance, rejection or annulment, and without assigning



any reasons therefore. In the event that the Authority rejects or annuls all the Bids, it may, in its discretion, invite all eligible Bidders to submit fresh Bids hereunder.

“The Authority” reserves the right to reject any Application and/ or Bid if:

(a) At any time, a material misrepresentation is made or uncovered, or

(b) The Applicant does not provide, within the time specified by the Authority, the supplemental information sought by the Authority for evaluation of the Application. In case it is found during the evaluation or at any time before signing of the Agreement or after its execution and during the period of subsistence thereof including the concession thereby granted by “The Authority”, that one or more of the pre-qualification conditions have not been met by the Applicant, or the Applicant has made material misrepresentation or has given any materially incorrect or false information, the Applicant shall be disqualified forthwith if not yet appointed as the Successful Bidder either by issue of the LOA (Letter of Approval) or entering into of the Agreement, and if the Applicant has already been issued the LOA or has entered into the Concession Agreement, as the case may be, the same shall, notwithstanding anything to the contrary contained therein or in this TENDER, be liable to be terminated, by a communication in writing by “The Authority” to the Applicant, without the Authority being liable in any manner whatsoever to the Applicant and without prejudice to any other right or remedy which the Authority may have under this TENDER, the Bidding Documents, the Concession Agreement or under applicable law.

“The Authority” reserves the right to verify all statements, information and documents submitted by the Applicant in response to the TENDER. Any such verification or lack of such verification by the Authority shall not relieve the Applicant of its obligations or liabilities hereunder nor will it affect any rights of the Authority there under.

**59 The bid shall be rejected if the bidder-**

- a. Stipulates the validity period less than 180 days.
- b. Stipulates own condition/conditions.
- c. Does not fill and (digital) sign undertaking forms, which are incorporated, in the document.

**60 Clarifications**

Applicants requiring any clarification on the tender may notify “the Authority” in writing or by fax or e-mail. They should send in their queries before the date specified in the header data. “The Authority” shall Endeavor to respond to the queries within the period specified therein. The responses will be sent by fax and/or e-mail. The Authority will forward all the queries and its responses thereto, to all purchasers of the TENDER without identifying the source of queries.

“The Authority” shall Endeavor to respond to the questions raised or clarifications sought by the Applicants. However, the Authority reserves the right not to respond to any question or provide any clarification, in its sole discretion, and nothing in this Clause shall be taken or read as compelling or requiring the Authority to respond to any question or to provide any clarification, but not later than the date provided in header data.

“The Authority” may also on its own motion, if deemed necessary, issue interpretations and clarifications to all Applicants. All clarifications and interpretations issued by the Authority shall be deemed to be part of the tender. Verbal clarifications and information given by Authority or its employees or representatives shall not in any way or manner be binding on the Authority



### **61 Amendment of tender**

At any time prior to the deadline for submission of Application, the Authority may, for any reason, whether at its own initiative or in response to clarifications requested by an Applicant, modify the tender by the issuance of Addendum.

Any Addendum thus issued will be sent in writing/ Fax/ Email to all those who have purchased the tender.

In order to afford the Applicants a reasonable time for taking an Addendum into account, or for any other reason, the Authority may, in its sole discretion, extend the Application Due Date.

### **Preparation and Submission of Application**

#### **62 Language**

The Application and all related correspondence and documents in relation to the Bidding Process shall be in English language. Supporting documents and printed literature furnished by the Applicant with the Application may be in any other language provided that they are accompanied by translations of all the pertinent passages in the English language, duly authenticated and certified by the Applicant. Supporting materials, which are not translated into English, may not be considered. For the purpose of interpretation and evaluation of the Application, the English language translation shall prevail.

#### **63 Format and signing of Application**

The Applicant shall provide all the information sought under this TENDER. The Authority will evaluate only those Applications that are received in the required formats and complete in all respects. Incomplete and /or conditional Applications shall be liable to rejection.

The Applicant will upload bid in One Folder in electronic form which shall contain the scanned certified copies of the documents given below and the documents uploaded has to be digitally signed by the bidder. These copies shall be certified by Practicing Notary approved by the Govt. of Maharashtra or Govt. of India with his stamp, clearly stating his name & registration number, except where original documents are demanded

#### **64 Marking of Applications**

The Applicant shall submit the Application in the format specified at Appendix-I, together with the documents, upload in folder as "VENDOR" together with their respective enclosures

Applications submitted by fax, telex, telegram shall not be entertained and shall be rejected outright.

#### **65 Late Applications**

Applications received by the Authority after the specified time on the Application Due Date shall not be eligible for consideration and shall be summarily rejected.

#### **66 Confidentiality**

Information relating to the examination, clarification, evaluation, and recommendation for the short-listed qualified Applicants shall not be disclosed to any person who is not officially concerned with the



process or is not a retained professional advisor advising the Authority in relation to or matters arising out of, or concerning the Bidding Process. The Authority will treat all information, submitted as part of Application, in confidence and will require all those who have access to such material to treat the same in confidence. The Authority may not divulge any such information unless it is directed to do so by any statutory entity that has the power under law to require its disclosure or is to enforce or assert any right or privilege of the statutory entity and/ or the Authority or as may be required by law or in connection with any legal process.

#### **67 Clarifications of Financial Bids**

To assist in the examination, evaluation and comparison of Bids, the Engineer may, at his discretion, ask any bidder for clarification of his Bid, including breakdown of unit rates. The request for clarification and the response shall be in writing or by post/facsimile/e-mail. No Bidder shall contact the Engineer on any matter relating to his bid from the time of the bid opening to the time the contract is awarded. Any effort by the Bidder to influence the Engineer in the Engineer's bid evaluation, bid comparison or contract award decisions may result in the rejection of the Bidder's bid.

#### **68 Inspection of site and sufficiency of tender:**

1. The Contractor shall inspect and examine the site and its surrounding and shall satisfy himself before submitting his tender as to the nature of the ground and subsoil (so far as is practicable), the form and nature of the site, the quantities and nature of the work and materials necessary for the completion of the works and means of access to the site, the accommodation he may require and in general shall himself obtain all necessary information as to risk, contingencies and other circumstances which may influence or affect his tender. He shall also take into consideration the hydrological and climatic conditions.

2. The Employer may make available to the Contractor data on hydrological and sub-surface conditions as obtained by or on his behalf from investigations relevant to the works but the Contractor shall be responsible for his own interpretation thereof. The contractor shall engage his investigating agency with prior approval of the Engineer from the approved list of such agencies by BMC or Govt at his cost initially before commencing actual work and which shall be reimbursed immediately subject to satisfaction of the Engineer for faithful compliance and submission of required data regarding such investigation within specified time.

3. The Contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender for the works and of the rates and prices quoted in the schedule of works / items / quantities, or in Bill of Quantities, which rates and prices shall, except as otherwise provided cover all his obligations under the Contract and all matters and things necessary for proper completion and maintenance of the works. No extra charges consequent on any misunderstanding.

**4. Not Foreseeable Physical Obstructions or Conditions:** If, however, during the execution of the Works the Contractor encounters physical obstructions or physical conditions, other than climatic conditions on the Site, which obstructions or conditions were, in his opinion, not foreseeable by an experienced contractor, the Contractor shall forthwith give notice thereof to the Engineer. On receipt of such notice, the Engineer shall, if in his opinion such obstructions or conditions could not have been reasonably foreseen by an experienced contractor, after due consultation with the Contractor, determine:

Any extension of time to which the Contractor is entitled and



- The amount of any costs which may have been incurred by the Contractor by reason of such obstructions or conditions having been encountered, which shall be added to the Contract Price.
- and shall notify the Contractor accordingly.

Such determination shall take account of any instruction which the Engineer may issue to the Contractor in connection therewith, and any proper and reasonable measures acceptable to the Engineer which the Contractor may take in the absence of specific instructions from the Engineer. However such costing shall be got approved by the competent authority as governed vide rules prevailing with authority.

#### **5. Office for the Engineer (Works costing upto Rs.50 Lakhs)**

The Contractor shall at his own cost and to satisfaction of the Engineer provide a small temporary office, at the work-site which will include tables, chairs and lockers for keeping the records. He shall also make necessary arrangements for drinking water, telephone with a pre-requisite of e-governance and electronic communication. These offices are not to be allowed on public roads without the written instruction of the Engineer. These offices should be preferably located within 50 to 500 m of the worksite. In case the office is more than 500m away from the worksite, the contractor is to provide conveyance for Municipal Staff.

#### **6. Office for the Engineer (Works costing above Rs.50 lakhs)**

The Contractor shall at his own cost and to satisfaction of the Engineer provide a temporary office at the work-site which will include tables, chairs and lockers for keeping the records. He shall also make necessary arrangements for drinking water, latrines, with doors, windows, locks, bolts and fastenings sufficient for security for the Engineer, and his subordinates, as close to the works from time to time in progress as can be conveniently arranged, and shall at his own cost furnish the office with such chairs, tables, lockers, locks and fastenings as may be required by the Engineer, and no expense of any kind in connection with the erection or upkeep of the offices or fittings shall be borne by the Corporation, but all such work shall be carried out by the Contractor and the expenses thereof defrayed by him. The Contractor shall also make water connections and fit up stand pipe with a bib tap at each office. The latrines and the water connections shall be subject to all the conditions herein elsewhere laid down for temporary water connection and latrines generally with all requisite equipments for e-governance and electronic and digital communication. These offices are not to be allowed on public roads without the written instruction of the Engineer. These offices should be preferably located within 50 to 500 m of the worksite. In case the office is more than 500m away from the worksite, the contractor is to provide conveyance. Also, for staff working beyond working hours the contractor has to provide conveyance.

**7. Permission for provision and removal of office on completion of work:** The tenderer shall obtain permission for provision of site office, cement go-down, store, etc. on payment of necessary cost implication. The cement go-down, Watchman cabins, etc. shall be provided as directed and shall be removed by the Tenderers on completion of the work at their cost. It is binding on the Tenderer to fulfill requirements of Environmental Authorities. The location of such office shall be finalized and got approved from the Engineer before erection/commencement work.

**8. Contractor's office near works:** The Contractor shall have an office near the works at which notice from the Commissioner or the Engineer may be served and shall, between the hours of sunrise and



sunset on all working days, have a clerk or some other authorized person always present at such office upon whom such notices may be served and service of any notices left with such clerk or other authorized person or at such office shall be deemed good service upon the Contractor and such offices shall have pre-requisite facilities for e-governance.

#### **69 Official Secrecy:**

The Contractor shall of all the persons employed in any works in connection with the contract that the India Official Secrets Act 1923 (XIX of 1923) applies to them and will continue to apply even after execution of the said works and they will not disclose any information regarding this contract to any third party. The contractor shall also bring into notice that, any information found to be leaked out or disclosed the concern person as well as the Contractor will be liable for penal action; further the Corporation will be at liberty to terminate the contract without notice.

#### **70 Subsequent Legislation:**

If on the day of submission of bids for the contract, there occur changes to any National or State statute, Ordinance, decree or other law or any regulation or By-laws or any local or other duly constituted authority or the introduction of any such National or State Statute, Ordinance, decree or by which causes additional or reduced cost to the Contractor, such additional or reduced cost shall, after due consultation with the Contractor, be determined by the concerned Engineering Department of BMC and shall be added to or deducted from the Contract Price with prior approval of competent authority and the concerned Engineering Department shall notify the Contractor accordingly with a copy to the Employer. BMC reserve the right to take decision in respect of addition/reduction of cost in contract.

#### **71 Patent, Right and Royalties:**

The contractor shall save harmless and indemnify the Corporation from and against all claims and proceedings for or on account of infringement of any Patent rights, design trademark or name of other protected rights in respect of any constructional plant, machine work, or material used for or in connection with the Works or any of them and from and against all claims, proceedings, damages, costs, charges and expenses whatsoever in respect thereof or in relation thereto. Except where otherwise specified, the contractor shall pay all tonnage and other royalties, rent and other payments or compensation, if any, for getting stone, sand, gravel, clay or other materials required for the works or any of them.

#### **72 Payments, Tax and Claims:**

##### **The limit for unforeseen claims**

Under no circumstances whatever the contractor shall be entitled to any compensation from BMC on any account unless the contractor shall have submitted a claim in writing to the Eng-in-charge within 1 month of the case of such claim occurring.

##### **No interest for delayed payments due to disputes, etc:**

It is agreed that the BRIHANMUMBAI MUNICIPAL CORPORATION or its Engineer or Officer shall not be liable to pay any interest or damage with respect of any moneys or balance which may be in its or its Engineer's or officer's hands owing to any dispute or difference or claim or misunderstanding between the Municipal Corporation of Greater Bombay or its Engineer or Officer on the one hand and the contractor on the other, or with respect to any delay on the part of the Municipal Corporation of



Greater Bombay or its Engineer or Officers in making periodical or final payments or in any other respect whatever.

### **73 Settlement of Disputes:**

#### **□ Termination of contract for death**

If the Contractor is an individual or a proprietary concern and the individual or the proprietor dies and if the Contractor is a partnership concern and one of the legal representative of the individual Contractor or the proprietor of the proprietary concern and in case of partnership, the surviving partners, are capable of carrying out and completing the contract, the Commissioner shall be entitled to cancel the contract as to its uncompleted part without the Corporation being in any way liable to payment of any compensation to the estate of the deceased Contractor and or to the surviving partners of the Contractor's firm on account of the cancellation of the contract. The decision of the Commissioner that the legal representative of the deceased Contractor or surviving partners of the Contractor's firm cannot carry out and complete the contract shall be final and binding on the parties. In the event of such cancellation the Commissioner shall not hold estate of the deceased Contractor and or surviving partners of the Contractor's firm liable in damages for not completing the contract.

#### **□ Settlement of Disputes:**

If any dispute or differences of any kind whatsoever other than those in respect of which, the decision of any person is, by the Contract, expressed to be final and binding) shall arise between the Employer and the Contractor or the Engineer and the Contractor in connection with or arising out of the Contract or carrying out of the Works (Whether during the progress of the Works or after their completion and whether before or after the termination, abandonment or breach of the Contract) it, the aggrieved party may refer such dispute within a period of 7 days to the concerned Addl. Municipal Commissioner who shall constitute a committee comprising of three officers i.e. concerned Deputy Municipal Commissioner or Director (ES&P), Chief Engineer other than the Engineer of the Contract and concerned Chief Accountant. The Committee shall give decision in writing within 60 days. Appeal on the Order of the Committee may be referred to the Municipal Commissioner within 7 days. Thereafter the Municipal Commissioner shall constitute a Committee comprising of three Addl. Municipal Commissioners including Addl. Municipal Commissioner in charge of Finance Department. The Municipal Commissioner within a period of 90 days after being requested to do so shall give written notice of committee's decision to the Contractor. Save as herein provided such decision in respect of every matter so referred shall be final and binding upon both parties until the completion of the works, and shall forthwith be given effect to by the Contractor who shall proceed with the works with due diligence, whether he requires arbitration as hereinafter provided or not. If the Commissioner has given written notice of the decision to the Contractor and no Claim to arbitration has been communicated within a period of 90 days from receipt of such notice the said decision shall remain final and binding upon the Contractor.

### **74 Arbitration and Jurisdiction:**

If the Commissioner shall fail to give notice of the decision as aforesaid within a period of 90 days after being requested as aforesaid, or if the Contractor be dissatisfied with any such decision, then and in any such case the Contractor may within 90 days after receiving notice of such decision or within 90 days after the expirations of the first named period of 90 days (as the case may be) require that the matter or matters in dispute be referred to arbitration as hereinafter provided. All disputes or differences



in respect of which the decision (if any) of the Commissioner has not become final and binding as aforesaid shall be finally settled by Arbitration as follows:

Arbitration shall be effected by a single arbitrator agreed upon the parties. The arbitration shall be conducted in accordance with the provisions of the Arbitration Act, 1996 or any statutory modifications thereof, and shall be held at such place and time within the limits of Brihan Mumbai as the arbitrator may determine. The decision of the arbitrator shall be final and binding upon the parties hereto and the expense of the arbitration shall be paid as may be determined by the arbitrator. Performance under the Contract shall, if reasonably be possible, continued during the arbitration proceedings and payment due to the Contractor by the Employer shall not be withheld unless they are the subject matter of arbitration proceedings. The said arbitrator shall have full power to open up, review and revise any decision, opinion, direction, certification or valuation of the Commissioner and neither party shall be limited in the proceedings before such arbitrator to the evidence or arguments put before the Commissioner for the purpose of obtaining his said decision. No decision given by the Commissioner in accordance with the foregoing provisions shall disqualify him from being called as a witness and giving evidence before the arbitrator on any matters whatsoever relevant to the disputes or difference referred to the arbitrator as aforesaid. All awards shall be in writing and for claims equivalent to 5,00,000 or more such awards shall state reasons for amounts awarded. The expenditure of arbitration shall be paid as may be determined by arbitrator.

In case of any claim, dispute or difference arising in respect of a contract, the cause of action thereof shall be deemed to have arisen in Mumbai and all legal proceedings in respect of any claim, dispute or difference shall be instituted in a competent court in the City of Mumbai only.

**75 Copyright:**

The copyright of all drawings and other documents provided by the Contractor under the contract shall remain vested in the Contractor or his sub-contractors as the case may be the employer shall have a license to use such drawings and other documents in connection with the design, construction, operation, maintenance of the works. At any time the Employer shall have further license without additional payment to the Contractor to use any such drawings or documents for the purpose of making any improvement of the works or enlargement or duplication of any part thereof, provided that such improvement, enlargement, or duplication by itself or in conjunction with any other improvements, enlargements or duplications already made in accordance with the further license does not result in the duplication of the whole works.

**76. Receipts to be signed in firm's name by any one of the partners:**

Every receipt for money which may become payable or for any security which may become transferable to the Contractor under these present shall, if signed in the partnership name by any one of the partners, be a good and sufficient discharge to the Commissioner and Municipal Corporation in respect of the money or security purporting to be acknowledged thereby, and in the event of death of any of the partners during the pendency of this contract, it is hereby expressly agreed that every receipt by any one of the surviving partners shall, if so signed as aforesaid, be good and sufficient discharge as aforesaid provided that nothing in this clause contained shall be deemed to prejudice or effect any claim which the Commissioner or the Corporation may hereafter have against the legal representatives of any partners so dying or in respect of any breach of any of the conditions thereof, provided also that nothing in this clause contained shall be deemed prejudicial or affect the respective rights or obligations of the Contractors and of the legal representatives of any deceased Contractors interest.

**77 Proprietary data**



All documents and other information supplied by the Authority or submitted by an Applicant to the Authority shall remain or become the property of the Authority. Applicants are to treat all information as strictly confidential and shall not use it for any purpose other than for preparation and submission of their Application. The Authority will not return any Application or any information provided along therewith.

### **78 Correspondence with the Applicant**

Save and except as provided in this TENDER, the Authority shall not entertain any correspondence with any Applicant in relation to the acceptance or rejection of any Application.

### **79 Price Variation Clause : Not Applicable**

The Contractor shall be reimbursed or shall refund to the Corporation as the case may be the variation in the value of the work carried out from time to time, depending on whether the prices of material and labour as a whole rise or fall, and the method adopted for such computations shall be as given below, it being clearly understood that the contractor shall have no claim for being reimbursed on the ground that the price of a particular material or group of materials have risen beyond the limits of the presumptions made in the following paras, however, no price variations shall be made applicable for contracts upto 12 months:

A) Controlled materials: Price variations shall be permitted in respect of these materials the price level of which is controlled by the Government or its agency. The rate ruling on the date of submission of the tender shall be considered as the basic price of such material for adjustment. Any variation in this rate shall be considered for reimbursement to the contractor or refund to be claimed from the contractor as the case may be. The contractor shall, for the purpose of adjustment submit in original the relevant documents from the suppliers.

B) Labour and other materials: For the purpose of this contract and for allowing reimbursement of refund on account of variation of prices of (i) labour, and (ii) materials other than materials mentioned in A above, computation will be based on the formula enunciated below which is based on the presumptions that :

i) The general price level of labour, rises or falls in proportion to the rise or fall of consumer price index number 9 (general) for working class in Mumbai.

ii) The general price level of materials rises or falls in proportion to rise or fall of whole-sale price index as published by 'Economic Adviser to Govt. of India'.

iii) And that the component of labour is to the extent of 30 percent of 88 percent and the component of materials is to the extent of 70 percent of 88 percent of the value of the work carried out. The remaining 12 percent being the presumptive profit of the contractor. a) Formula for Labour component:

$$VL = (0.88 R) \times 30 \times (I - IO)$$

$$100 IO$$

b) Formula for Material component :

$$VM = (0.88 R \times 70 - C) \times (W - WO)$$

$$100 WO$$



Where –

VL = Amount of price variation to be reimbursed or claimed as refund on account of general rise or fall of index referred to above.

I = Consumer Price Index number of working class for Mumbai (declared by the Commissioner of Labour and Director of Employment, Mumbai) applicable to the period under reference (base year ending 2004-05 as 100 i.e. new series of indices). IO = Consumer price index number for working class for Mumbai (declared by the Commissioner of labour and Director of Employment, Mumbai) prevailing, on the day of 28 days prior to the date of submission of the tender.

VM = The amount of price variation to be reimbursed or claimed as refund on account of general rise or fall of wholesale price index for period under reference.

W = Average wholesale price index as published by Economic Adviser to Govt. of India applicable to the period under reference.

WO = Wholesale price index as stated above prevailing on the day of 28 days prior to the date of submission of the tender.

R = Total value of the work done during the period under reference as recorded in the Measurement Book excluding water charges and sewerage charges but including cost of excess in respect of item upto 50 percent

C = Total value of Controlled materials used for the works as recorded in Measurement Book and paid for at original basic rate plus the value of materials used .

i) The quantity of the Controlled material adopted in working out the value of 'C' shall be inclusive of permitted wastages as / if mentioned in specifications.

ii) The basic rate for the supply of controlled material shall be inclusive of all the components of cost of materials excluding transport charges incurred for bringing the material from place of delivery to the site.

Computations based on the above formula will be made for the period of each bill separately and reimbursement will be made to (when the result is plus) and refund will claimed from (when the result is minus) the contractor's next bill. The above formulae will be replaced by the formulae in Annexure-I as and when mentioned in special conditions of contract

The operative period of the contract for application of price variation shall mean the period commencing from the date of commencement of work mentioned in the work order and ending on the date when time allowed for the work order and ending on the date when time allowed for the work specified in the contract for work expires, taking into consideration, the extension of time, if any, for completion of the work granted by Engineer under the relevant clause of the conditions of contract in cases other than those where such extension is necessitated on account of default of the contractor.

The decision of the Engineer as regards the operative period of the contract shall be final and binding on the contractors.

iii) Where there is no supply of controlled items to contractor the component 'C' shall be taken as zero.



C) Adjustment after completion: If the Contractor fails to complete the works within the time for completion adjustment of prices thereafter until the date of completion of the works shall be made using either the indices or prices relating to the prescribed time for completion, or the current indices or prices whichever is more favorable to the employer, provided that if an extension of time is granted, the above provision shall apply only to adjustments made after the expiry of such extension of time.

D) Price variation will be calculated similarly and separately for extra items and / or excess quantities and provisional sums calculated under Sub Clause 10 (b)A (i)&(ii) and Sub Clause 10 (b) B(ii) based on the above formula/formulae in Annexure-I as and when mentioned in Special conditions of contract; IO and WO being the indices applicable to the date on which the rates under Sub Clause 10 (a)A (i)&(ii) and Sub Clause 10 (a) B(iii) are fixed. No price variation shall be admissible for FAIR items created during execution.

**DI) 80. Maximum Price Variation shall be as follows:**

Time Period of Project	Maximum limit of Price Variation
Up to 12 months	No variation allowed
Above 12 months to 24 months	5%
Above 24 months	<b>10%</b>

**Note:**

1) The extension in time period for the projects originally estimated including monsoon results in change of price variation slabs as mentioned above i.e. from first slab to second slab or from second slab to third slab, then the maximum limit of original slab will prevail.

2) Operative period shall mean original or extended time period of contract.

**For example:**

Extension of Time period	Maximum Price Variation
If original period of 11 months <b>including</b> monsoon. The operative period will be 11 months.	No variation allowed
If original period of 11 months excluding monsoon extends to 16. The operative period will be 11+5 months.	Maximum 5% variation allowed

**Price Variation during Extended Period of Contract:**

(i) Extension Due To Modification & Extension for delay due to BMC :



The price variation for the period of extension granted shall be limited to the amount payable as per the Indices. In case the indices increases or decreases, above/below the indices applicable, to the last month of the original or extended period vide clause 8(l)(a)(i) and (ii) of standard GCC

(ii) Extension Of Time For Delay Due To Contractor :

(a) The price variation for the period of extension granted shall be limited to the amount payable as per the Indices in case the indices increase, above the indices applicable, to the last month of the original completion period or the extended period vide above clause 8(l)(a)(i) and (ii) of standard GCC.

(b) The price variation shall be limited to the amount payable as per the indices, in case the indices decrease or fall below the indices applicable, to the last month of original / extended period of completion period vide above clause 8(l)(b) of standard GCC, then lower indices shall be adopted.

(iii) Extension of Time For Delay due to reasons not attributable to BMC and Contractor (Reference Cl.8(d) of Standard GCC):

The price variation for the period of extension granted shall be limited to the amount payable as per the Indices in case the indices increases or decreases, above/below the indices applicable, to the last month of the original period.

## **81. Payment:**

### **Interim Payment :**

i) Interim bills shall be submitted by the Contractor from time to time (but at an interval of not less than one month) for the works executed. The Engineer shall arrange to have the bills verified by taking or causing to be taken, where necessary, the requisite measurement of work.

ii) Payment on account for amount admissible shall be made on the Engineer certifying the sum to which the Contractor is considered entitled by way of interim payment for all the work executed, after deducting there from the amount already paid, the security deposit / retention money and such other amounts as may be deductible or recoverable in terms of the contract.

iii) On request, the contractor will be paid upto 75 percent of the value of the work carried out as an adhoc payment in the first week of next month after deducting there from recoveries on account of advances, interest, retention money, income tax etc. The balance payment due will be paid thereafter.

iv) No interim payment will be admitted until such time the Contractor have fully complied with the requirement of the Condition no.8 (g) and 8 (h) concerning submission and approval of Network Schedule for the works, as detailed in Condition 8 (h). A fixed sum shall be held in abeyance at the time of next interim payment for non-attainment of each milestone in the network and shall be released only on attainment of the said milestone.

v) An interim certificate given relating to work done or material delivered may be modified or corrected by a subsequent interim certificate or by the final certificate. No certificate of the Engineer supporting an interim payment shall of itself be conclusive evidence that any work or materials to which it relates is / are in accordance with the contract.

## **82 Banning/De-Registration of Agencies of Construction works in BMC**



□ The regulations regarding Demotion/ Suspension Banning for specific period or permanently / De-Registration shall be governed as per the respective condition in Contractor Registration Rules of BMC.

### **83. JOINT VENTURE (Not applicable for this tender)**

**In case if Joint Venture is allowed for the Project, the guidelines for JV as follows shall be incorporated in the Tender Document:**

a) Joint Venture should be allowed only when the number of identifiable different works is more than one and/or the estimated cost of tender is more than Rs.100 Crores. JV shall also be allowed for complex technical work below Rs.100 Crores with the approval of concerned AMC

b) Separate identity/name shall be given to the Joint Venture firm.

c) Number of members in a JV firm shall not be more than three in normal circumstances, if the work involves only one discipline (say Civil or Electrical). If number of members in JV is required to be more than three, then approval of concerned AMC needs to be sought.

d) A member of JV firm shall not be permitted to participate either in individual capacity or as a member of another JV firm in the same tender.

e) The tender form shall be purchased and submitted in the 'name of the JV firm or any constituent member of the JV.

f) Normally EMD shall be submitted only in the name of the JV and not in the name of constituent member. However, EMD in the name of lead partner can be accepted subject to submission of specific request letter from lead partner stating the reasons for not submitting the EMD in the name of JV and giving written confirmation from the JV partners to the effect that the EMD submitted by the lead partner may be deemed as EMD submitted by JV firm.

g) One of the members of the JV firm shall be the lead member of the JV firm who shall have a majority (at least 51%) share of interest in the JV firm. The other members shall have a share of not less than 20% each in case of JV firms with up to three members and not less than 10% each in case of JV firms with more than three members. In case of JV firm with foreign member(s), the lead member has to be an Indian firm with a minimum share of 51%.

h) A copy of Letter of Intent or Memorandum of Understanding (MoU) executed by the JV members shall be submitted by the JV firm along with the tender. The complete details of the members of the JV firm, their share and responsibility in the JV firm etc. particularly with reference to financial technical and other obligation shall be furnished in the agreement.

i) Once the tender is submitted, the agreement shall not be modified/altered/terminated during the validity of the tender. In case the tenderer fails to observe/comply with this stipulation, the full Earnest Money Deposit (EMD) shall be forfeited. In case of successful tenderer, the validity of this agreement shall be extended till the currency of the contract expires.

j) Approval for change of constitution of JV firm shall be at the sole discretion of the BMC. The constitution of the JV firm shall not be allowed to be modified after submission of the tender bid by the JV firm except when modification becomes inevitable due to succession laws etc. and in any case the minimum eligibility criteria should not get vitiated. In any case the Lead Member should continue to be the Lead Member of the JV firm. Failure to observe this requirement would render the offer invalid.

k) Similarly, after the contract is awarded, the constitution of JV firm shall not be allowed to be altered during the currency of contract except when modification become inevitable due to succession laws etc. and in any case the minimum eligibility criteria should not get viti-ated. Failure to observe this stipulation shall be deemed to be breach of contract with all consequential penal action as per contract condition.



**l)** On award of contract to a JV firm, a single Performance Guarantee shall be required to be submitted by the JV firm as per tender conditions. All the Guarantees like Performance Guarantee, Bank Guarantee for Mobilization advance, machinery Advance etc. shall be accepted only in the name of the JV firm and no splitting of guarantees amongst the members of the JV firm shall be permitted.

**m)** On issue of LOA, an agreement among the members of the JV firm (to whom the work has been awarded) has to be executed and got registered before the Registrar of the Companies under Companies Act or before the Registrar / Sub-Registrar under the Registration Act, 1908. This agreement shall be submitted by the JV firm to the BMC before signing the contract agreement for the work. (This agreement format should invariably be part of the tender condition). In case the tenderer fails to observe/comply with this stipulation, the full Earnest Money Deposit (EMD) shall be forfeited and other penal actions due shall be taken against partners of the JV and the JV. This joint venture agreement shall have, interalia, following clauses:-

**i. Joint and several liability** - The members of the JV firm to which the contract is award-ed, shall be jointly and severally liable to the Employer (BMC) for execution of the project in accordance with General and Special conditions of the contract. The JV members shall also be liable jointly and severally for the loss, damages caused to the BMC during the course of execution of the contract or due to no execution of the contract or part there-of.

**ii. Duration of the Joint Venture Agreement** -It shall be valid during the entire period of the contract including the period of extension if any and the maintenance period after the work is completed.

**iii. Governing Laws** - The Joint Venture Agreement shall in all respect be governed by and interpreted in accordance with Indian Laws.

**iv. Authorized Member** -Joint Venture members shall authorize one of the members on be-half of the Joint Venture firm to deal with the tender, sign the agreement or enter into con-tract in respect of the said tender, to receive payment, to witness joint measurement of work done, to sign measurement books and similar such action in respect of the said tender/contract. All notices/correspondences with respect to the contract would be sent only to this authorized member of the JV firm.

No member of the Joint Venture firm shall have the right to assign or transfer the interest right or liability in the contract without the written consent of the other members and that of the employer in respect of the said tender/contract.

**n. Documents to be enclosed by the JV firm along with the tender:**

**i.** In case one or more of the members of the JV firm is/are partnership firm(s), following documents shall be submitted:

- a.** Notary certified copy of the Partnership Deed,
- b.** Consent of all the partners to enter into the Joint Venture Agreement on a stamp paper of appropriate value (in original).
- c.** Power of Attorney (duly registered as per prevailing law) in favor of one of the partners to sign the MOU and JV Agreement on behalf of the partners and create liability against the firm.

**ii.** In case one or more members is/are Proprietary Firm or HUF, the following documents shall be enclosed:



a. Affidavit on Stamp Paper of appropriate value declaring that his Concern is a Proprietary Concern and he is sole proprietor of the Concern OR he is in position of "KARTA" of Hindu Undivided Family and he has the authority, power and consent given by other partners to act on behalf of HUF.

iii. In case one or more members is/are limited companies, the following documents shall be submitted:

a. Notary certified copy of resolutions of the Directors of the Company, permitting the company to enter into a JV agreement, authorizing MD or one of the Directors or Managers of the Company to sign MOU, JV Agreement, such other documents required to be signed on behalf of the Company and enter into liability against the company and/or do any other act on behalf of the company.

b. Copy of Memorandum and articles of Association of the Company.

c. Power of Attorney (duly registered as per prevailing law) by the Company authorizing the person to do/act mentioned in the para (a) above.

o. All the members of the JV shall certify that they have not been black listed or debarred by BMC from participation in tenders/contract in the past either in their individual capacity or the JV firm or partnership firm in which they were members / partners.

When the delay is not a full week or in multiple of a week but involves a fraction of a week the compensation payable for that fraction shall be proportional to the number of days involved.

Provided always that the total amount of compensation for delay to be paid this condition shall not exceed the undernoted percentage of the Contract Value of the item or group of items of work for which a separate period of completion is given.

i) Completion period (as originally stipulated or as extended) not exceeding 6 months: **10 percent.**

ii) Completion period (as originally stipulated or as extended) exceeding 6 months and not exceeding 2 years : **7½ percent.**

iii) Completion period (as originally stipulated or as extended) exceeding 2 years : **5 percent.**

The amount of compensation may be adjusted set off against any sum payable to the contractor under this or any other contract with the Municipal Corporation.

#### **84. Action And Compensation Payable In Case Of Bad Work And Not Done As Per Specifications**

All works under or in course of execution or executed in pursuance of the contract, shall at all times be open and accessible to the inspection and supervision of the Engineer-in-charge, his authorized subordinates in charge of the work and all the superior officers, officer of the Vigilance Department of the BMC or any organization engaged by the BMC for Quality Assurance and the contractor shall, at all times, during the usual working hours and at all other times at which reasonable notice of the visit of such officers has been given to the contractor, either himself be present to receive orders and instructions or have a responsible agent duly accredited in writing, present for that purpose. Orders given to the Contractor's agent shall be considered to have the same force as if they had been given to the contractor himself.

If it shall appear to the Engineer-in-charge or his authorized subordinates in-charge of the work or to the officer of Vigilance Department, that any work has been executed with unsound, imperfect or unskillful workmanship or with materials of any inferior description, or that any materials or articles



provided by him for the execution of the work are unsound or of a quality inferior to that contracted for or otherwise not in accordance with the contract, the contractor shall, on demand in writing which shall be made within twelve months of the completion of the work from the Engineer-in-Charge specifying the work, materials or articles complained of notwithstanding that the same may have been passed, certified and paid for forthwith rectify, or remove and reconstruct the work so specified in whole or in part, as the case may require or as the case may be, remove the materials or articles so specified and provide other proper and suitable materials or articles at his own charge and cost. In the event of the failing to do

Credentials & Qualifying criteria: Technical and financial eligibility of the JV firm shall be adjudged based on satisfactory fulfilment of the following criteria:

**Technical eligibility criteria:** In case of Work involving single discipline, the Lead member of the JV firm shall meet at least 35% requirement of technical capacity as stipulated in tender document.

OR

In case of composite works (e.g. works involving more than one distinct component such as Civil Engineering works, M&E works, Electrical works, etc. and in the case of major bridges, substructure and superstructure etc.), atleast one member should have satisfactorily completed 35% of the value of any one component of the project work so as to cover all the components of project work or any member having satisfactorily completed 35% of the value of work of each component during last seven financial years.

**In such cases, what constitutes a component in a composite work shall be clearly defined as part of the tender condition without any ambiguity.**

**Financial eligibility criteria:** The contractual payments received by the JV firm or the arithmetic sum of contractual payments received by all the members of JV firm in any one of the previous three financial years and shall be at least **100% of the estimated value** of the work as mentioned in the tender.

#### **85. Compensation for delay:**

If the Contractor fails to complete the works and clear the site on or before the Contract or extended date(s) / period(s) of completion, he shall, without prejudice to any other right or remedy of Municipal Corporation on account of such breach, pay as agreed compensation, amount calculated as stipulated below (or such smaller amount as may be fixed by the Engineer) on the contract value of the whole work or on the contract value of the time or group of items of work for which separate period of completion are given in the contract and of which completion is delayed for every week that the whole of the work of item or group of items of work concerned remains uncompleted, even though the contract as a whole be completed by the contract or the extended date of completion. For this purpose the term 'Contract Value' shall be the value of the work at Contract Rates as ordered including the value of all deviations ordered:

- Completion period for projects (originally stipulated or as extended) not exceeding 6 months : **to the extent of maximum 1 percent per week.**
- Completion period for projects (originally stipulated or as extended) exceeding 6 months and not exceeding 2 years: **to the extent of maximum ½ percent per week.**



- Completion period for projects (originally stipulated or as extended) exceeding 2 years : **to the extent of maximum ¼ percent per week.**

so within a period specified by the Engineer-in-Charge in his demand aforesaid, then the contractor shall be liable to pay compensation at the same rate as under clause 8.e. of the general condition of contract in section 9 of tender document (for Compensation for delay) for this default. In such case the Engineer-in Charge may not accept the item of work at the rates applicable under the contract but may accept such items at reduced rates as the Engineer in charge may consider reasonable during the preparation of on account bills or final bill if the item is so acceptable without detriment to the safety and utility of the item and the structure or he may reject the work outright without any payment and/or get it and other connected and incidental items rectified, or removed and re-executed at the risk and cost of the contractor. Decision of the Engineer-in-Charge to be conveyed in writing in respect of the same will be final and binding on the contractor.

If the penalization amount exceeds maximum limit with respect to Clause 8.e of Standard General Conditions of Contract, then a show cause notice shall necessarily be issued to the contract as to why the contract should not be terminated.

The above clause is summarized to make it easy to understand as follows:

1. The Engineer-in-charge shall issue notice to the contractor for rectifying the defects or redoing of the work if necessary, within specific time to achieve the desired quality and quantity of the work and this should be governed by clause 8.f and 9.b of Standard General Conditions of Contract.
2. If the contractor fails to comply the same, only then, the contractor shall be liable to pay compensation at the same rate as under clause 8.e of the Standard General Condition of Contract (for Compensation for delay) for this default.
3. If the penalization amount exceeds the maximum limit, then the contractor will be liable for being banned/ deregistered from business dealings with BMC and this shall be governed by relative provision in Registration Rules of BMC and Standard General Conditions of Contract.
4. This penalization shall be levied only on account of delay in work, unsound, imperfect or unskillful workmanship or with materials of any inferior description, or that any materials or articles provided by him for the execution of the work are unsound or of quality inferior to that contracted for or otherwise not in accordance with the contract.

#### **86. Contractors remain liable to pay compensation:**

In any case in which any of the powers conferred upon the Engineer In-charge by the **relevant clauses** in documents that form a part of contract as exercised or is exercisable in the event of any future case of default by the Contractor, he is declared liable to pay compensation amounting to the whole of his security deposit. The liability of the Contractor for past and future compensation shall remain unaffected.

In the event of the Executive Engineer taking action against these **relevant clauses**,

he may, if he so desires, take possession of all or any tools and plant, materials and stores in or upon the work of site thereof or belonging to the Contractor or procured by him and intended to be used for the execution of the work or any part thereof paying or allowing for the same in account at the contract rates, or in the case of contract rates not being applicable at current market rates to be certified by the Executive Engineer, may after giving notice in writing to the Contractor or his staff of the work or other authorized agent require him to remove such tools and plants, materials or stores from the premises



within a time to be specified in such notice and in the event of the Contractor failing to comply with any such requisition, the Executive Engineer may remove them at the contractors expense or sell them by auction or private sell on account of the Contractor at his risk in all respects and certificate of the Executive Engineer as to the expense of any such removal and the amount of the proceeds an expense of any such sell be final and conclusive against the Contractor.

#### **87. No Claim to Any Payment Or Compensation Or Alteration In Or Restriction Of Work**

(a) If at any time after the execution of contract documents, the Engineer shall for any reason whatsoever, desires that the whole or any part of the works specified in the Tender should be suspended for any period or that the whole or part of the work should not be carried out, at all, he shall give to the Contractor a Notice in writing of such desire and upon the receipt of such notice, the Contractor shall forthwith suspend or stop the work wholly or in part as required after having due regard to the appropriate stage at which the work should be stopped or suspended so as not to cause any damage or injury the work already done or endanger the safety thereof, provided that the decision of the Engineer as to the stage at which the work or any part of it could be or could have been safely stopped or suspended shall be final and conclusive against the contractor.

The Contractor shall have no claim to any payment or compensation whatsoever by reason of or in pursuance of any notice as aforesaid, on account of any suspension, stoppage or curtailment except to the extent specified hereinafter.

(b) Where the total suspension of Work Order as aforesaid continued for a continuous period exceeding 90 days the contractor shall be at liberty to withdraw from the contractual obligations under the contract so far as it pertains to the unexecuted part of the work by giving 10 days prior notice in writing to the Engineer within 30 days of the expiry of the said period of 90 days, of such intention and requiring the Engineering to record the final measurement of the work already done and to pay final bill. Upon giving such Notice, the Contractor shall be deemed to have been discharged from his obligations to complete the remaining unexecuted work under his contract. On receipt of such notice the Engineer shall proceed to complete the measurement and make such payment as may be finally due to the contractor within a period of 90 days from the receipt of such Notice in respect of the work already done by the contractor. Such payment shall not in any manner prejudice the right of the contractor to any further compensation under the remaining provisions of this clause.

(c) Where the Engineer required to Contractor to suspend the work for a period in excess of 30 days at any time or 60 days in the aggregate, the Contractor shall be entitled to apply to the Engineer within 30 days of the resumption of the work after such suspension for payment of compensation to the extent of pecuniary loss suffered by him in respect of working machinery remained ideal on the site of on the account of his having an to pay the salary of wages and labour engaged by him during the said period of suspension provided always that the contractor shall not be entitled to any claim in respect of any such working machinery, salary or wages for the first 30 days whether consecutive or in the aggregate or such suspension or in respect of any such suspension whatsoever occasion by unsatisfactory work or any other default on his part, the decision of the Engineer in this regard shall be final and conclusive against the contractor.



**88. Contractor has to supply plant, ladder, scaffolding, etc and is liable for damages arising from non provision of lights, fencing, etc.**

The Contractor shall supply at his own cost all material, plant, tools, appliances, implements, ladders, cordage, tackle scaffolding and temporary works requisite or proper for the proper execution of the work, whether, in the original altered or substituted form and whether included in the specification of other documents forming part of the contract or referred to in these conditions or not and which may be necessary for the purpose of satisfying or complying with the requirements of the Eng-In-Charge as to any matter as to which under these conditions is entitled to be satisfied, or which is entitled to require together with the carriage therefore to and from the work.

The Contractor shall also supply without charge, the requisite number of person with the means and materials necessary for the purpose of setting out works and counting, weighing and assisting in the measurements of examination at any time and from time to time of the work or materials, failing which the same may be provided by the Engineer In-charge at the expense of the contractor and the expenses may be deducted from any money due to the contractor under the contract or from his security deposit or the proceeds of sale thereof, or offers sufficient portion thereof.

The contractor shall provide all necessary fencing and lights required to protect the public from accident and shall also be bound to bear the expenses of defence of every suit, action or other legal proceedings, that may be brought by any person for injury sustained owing to neglect of the above precautions and to pay any damages and cost which may be awarded in any such suit action or proceedings to any such person or which may with the consent of the contractor be paid for compromising any claim by any such person.

**89. Prevention of Fire:**

The contractor shall not set fire to any standing jungle, trees, brushwood or grass without a written permit from the Engineer In-charge. When such permit is given, and also in all cases when destroying cut or dug up trees brushwood, grass, etc., by fire, the contractor shall take necessary measure to prevent such fire spreading to or otherwise damaging surrounding property. The Contractor shall make his own arrangements for drinking water for the labour employed by him.

**90.** Compensation for all damages done intentionally or unintentionally by contractor's labour whether in or beyond the limits of BMC property including any damage caused by spreading the fire shall be estimated by the Engineer In-charge or such other officer as he may appoint and the estimate of the Engineer in-charge to the decision of the Dy. Chief Engineer on appeal shall be final and the contractor shall be bound to pay the amount of the assessed compensation on demand failing which the same will be recovered from the Contractor as damages or deducted by the Engineer In-charge from any sums that may be due or become due from BMC to contractor under this Contract or otherwise. Contractor shall bear the expenses of defending any action or other legal proceedings that may be brought to prevent the spread of fire and he shall pay any damages and costs that may be awarded by the Court in consequence.



**91.** In the case of Tender by partners, any change in the constitution of the firm shall be forthwith, notified by the contractor through the Engineer In-charge for his information.

**92. Action where no specifications:**

In the case of any class of work for which there is no such specifications, such works shall be carried out in accordance with the specifications and in the event of there being no such specifications, then in such case, the work shall be carried out in all respects in accordance with all instructions and requirements of the Engineer In-charge.

**93. Safety and medical help :**

(i) The Contractor shall be responsible for and shall pay the expenses of providing medical help to any workmen who may suffer a bodily injury as a result of an accident. If such expenses are incurred by BMC, the same shall be recoverable from the contractor forthwith and be included without prejudice to any other remedy of BMC from any amount due or that may become due to the Contractor.

(ii) The contractor shall provide necessary personal safety equipment and first-aid box for the use of persons employed on the site and shall maintain the same in condition suitable for immediate use at any time.

(iii) The workers shall be required to use the safety equipments so provided by the contractor and the contractor shall take adequate steps to ensure the proper use of equipments by those concerned.

(iv) When the work is carried on in proximity to any place where there is risk or drawing all necessary equipments shall be provided and kept ready for use and all necessary steps shall be taken for the prompt rescue of any person in danger.

**94.** No compensation shall be allowed for any delay caused in the starting of the work on account of acquisition of land or in the case of clearance of works, on account of any delay in according to sanction of estimates.

**95. Anti-malaria and other health measures:**

Anti-Malaria and other health measures shall be taken as directed by the Executive Health Officer of BMC. Contractor shall see that mosquito genic conditions are created so as to keep vector population to minimum level. Contractor shall carry out anti-malaria measures in the area as per the guidelines issued by the Executive Health Officer of BMC from time to time.



In case of default, in carrying out prescribed anti-malaria measures resulting in increase in malaria incidence, contractor shall be liable to pay BMC on anti-malaria measures to control the situation in addition to fine.



**SECTION 10**  
**SPECIFICATIONS**  
**& SELECTION OF**  
**MATERIAL**



## **SPECIFICATIONS & SELECTION OF MATERIAL**

The tender is prepared on the basis of Unified Schedule of Rates and specifications 2023. The specifications of the items of USOR are available on BMC portal <http://portal.mcgm.gov.in> under the Tender tab. Hence the deserving contractor shall either download the same from BMC portal or the same may be collected in the soft copy format at the time of purchasing the tender from this office.

### **SELECTION OF MATERIAL**

1. All materials brought on the site of work and meant to be used in the same, shall be the best of their respective kinds and to the approval of the Engineer. The Engineer or his representative will accept that the materials are really the best of their kinds, when it is proved beyond doubt that no better materials of the particular kind in question are available in the market.
2. The contractor shall obtain the approval of the Engineer of samples of all materials to be used in the works and shall deposit these samples with him before placing an order for the materials with the suppliers. The materials brought on the works shall conform in every respect to their approved samples. Fresh samples shall be deposited with the Engineer whenever the type or source of any material changes.
3. The contractor shall check each fresh consignment of materials as it is brought to the site of works to see that they conform in all respects to the Specifications of the samples approved by the Engineer, or both.
4. The Engineer will have the option to have any of the materials tested to find out whether they are in accordance with the Specifications and the Contractor will bear all expenses for such testing. All B bills, vouchers and test certificates, which in the opinion of the Engineer or his representative are necessary to convince him as to the quality of the materials or their suitability shall be produced for his inspection when required.
5. Any materials that have not been found to conform to the specifications will be rejected forthwith and shall be removed from the site by the contractor at his own cost within 24 hours.
6. The Engineer shall have power to cause the Contractors to purchase and use such materials from any particular source, as may in his opinion be necessary for the proper execution of the work.
7. Notwithstanding the source, the sand shall be washed using sand washing machine before use.



**SECTION 11**  
**FRAUD AND CORRUPT**  
**PRACTICES**



## **FRAUD AND CORRUPT PRACTICES**

□ The Applicants and their respective officers, employees, agents and advisers shall observe the highest standard of ethics during the Bidding Process. Notwithstanding anything to the contrary contained herein, the Authority may reject an Application without being liable in any manner whatsoever to the Applicant if it determines that the Applicant has, directly or indirectly or through an agent, engaged in corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice in the Bidding Process.

□ Without prejudice to the rights of the Authority under relevant Clause hereinabove, if an Applicant is found by the Authority to have directly or indirectly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice during the Bidding Process, such Applicant shall not be eligible to participate in any tender or RFQ issued by the Authority during a period of 2 (two) years from the date such Applicant is found by the Authority to have directly or indirectly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice, as the case may be.

□ For the purposes of this Clause , the following terms shall have the meaning hereinafter respectively assigned to them:

**A. “corrupt practice”** means the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the actions of any person connected with the Bidding Process (for avoidance of doubt, offering of employment to, or employing, or engaging in any manner whatsoever, directly or indirectly, any official of the Authority who is or has been associated in any manner, directly or indirectly, with the Bidding Process or the LOA or has dealt with matters concerning the Concession Agreement or arising there from, before or after the execution thereof, at any time prior to the expiry of one year from the date such official resigns or retires from or otherwise ceases to be in the service of the Authority, shall be deemed to constitute influencing the actions of a person connected with the Bidding Process); or save and except as permitted under the relevant sub clause, engaging in any manner whatsoever, whether during the Bidding Process or after the issue of the LOA or after the execution of the Concession Agreement, as the case may be, any person in respect of any matter relating to the Project or the LOA or the Concession Agreement, who at any time has been or is a legal, financial or technical adviser of the Authority in relation to any matter concerning the Project;

**B. “fraudulent practice”** means a misrepresentation or omission of facts or suppression of facts or disclosure of incomplete facts, in order to influence the Bidding Process;

**C. “coercive practice”** means impairing or harming or threatening to impair or harm, directly or indirectly, any person or property to influence any persons participation or action in the Bidding Process;

**D. “undesirable practice”** means (i) establishing contact with any person connected with or employed or engaged by the Authority with the objective of canvassing, lobbying or in any manner influencing or attempting to influence the Bidding Process; or (ii) having a Conflict of Interest; and

**E. “Restrictive practice”** means forming a cartel or arriving at any understanding or arrangement among Applicants with the objective of restricting or manipulating a full and fair competition in the Bidding Process.

**F.** If the Employer/Financier determines that the Contractor has engaged in corrupt, fraudulent, collusive, coercive or obstructive practices, in competing for or in executing the Contract, then the Employer may, after giving 14 days’ notice to the Contractor, terminate the Contractor's employment



under the Contract and expel him from the Site, and the provisions of relevant Clause shall apply as if such expulsion had been made.

**G.** Should any employee of the Contractor be determined to have engaged in corrupt, fraudulent, collusive, coercive, or obstructive practice during the execution of the Works, then that employee shall be removed in accordance with relevant Clause.

For the purposes of this Sub-Clause:

i. "corrupt practice" is the offering, giving, receiving to soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party;

ii. "another party" refers to a public official acting in relation to the procurement process or contract execution. In this context, "public official" includes Financer staff and employees of other organizations taking or reviewing procurement decisions.

iii. "fraudulent practice" is any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation;

iv. "collusive practice" is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party;

v. "coercive practice" is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;

vi. "obstructive practice" is deliberately destroying, falsifying, altering or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede the Financier investigation into allegations of a corrupt, fraudulent, coercive or collusive practice; and/or threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or

vii. acts intended to materially impede the exercise of the Financer's inspection and audit rights provided .

Viii. party" refers to a public official; the terms "benefit" and "obligation" relate to the procurement process or contract execution; and the "act or omission" is intended to influence the procurement process or contract execution.

ix. parties" refers to participants in the procurement process (including public officials) attempting to establish bid prices at artificial, noncompetitive levels.

x. a "party" refers to a participant in the procurement process or contract execution. n.



# **SECTION 12**

# **PRE BID MEETING**



**PREBID MEETING:**

Pre-bid meeting of the interested parties shall be convened at the designated date, time and place. A maximum of three representatives of each Applicant shall be allowed to participate on production of authority letter from the Applicant.

During the course of Pre-bid meeting, the Applicants will be free to seek clarifications and make suggestions for consideration of the Authority. The Authority shall Endeavour to provide clarifications and such further information as it may, in its sole discretion, consider appropriate for facilitating a fair, transparent and competitive Bidding Process.



**SECTION –13**

**SPECIAL**

**INSTRUCTIONS TO**

**TENDERERS**



## **Special Tender Conditions**

### **1. Work Records**

**All specified, up to date site record should be prepared & maintained by the contractors and shall be produced as and when required, duly certified by the contractors site engineer.**

2. Contract Labour (Regulation and Abolition Act 1970): The tenderer(s) should specifically note that the successful tenderer shall have to strictly comply with all the statutory requirement under the provision of the Contract Labour (Regulation and Abolition) Rules 1970 and with the Maharashtra State Contract Labour (Regulation and Abolition) Rules 1971 and indemnify the Corporation against any claim(s) whatsoever.

As per contract labour (Regulating Abolition Act 1970) every contractor should obtain a license certificate from the office of labour commissioner situated at commerce centre Tardeo, near A.C.Market, Mumbai 400 034.

3. Tenderer are requested to take cognizance of Child Labour Act and take precaution not to employ child Labourers on site. If Child Labourer is found to be employed on the work , a penalty of Rs. 5000/- on the spot will be imposed on the defaulting contractors and further action, as deemed fit as per law will be initiated.
4. Tenderer is requested to refer to relevant prevailing Fair Market Schedules of B.M.C. for full description of the items in the B.O.Q.
5. No extra payment shall be admissible for dewatering the trenches, carrying the material by head load transport or approaches to the work site.
6. The contract period is excluding monsoon but including period required for mobilization, procurement of material, traffic permission, other required permissions, erection of site office etc. complete and shall be reckoned from the date of issue of work order.
7. Tenderer(s) is requested to note the units for various items carefully before quoting the rates.
8. Rates of each item of work mentioned in the schedule should be well scrutinized with the due consideration of each item before submitting the tender as no variation in rates will be allowed on any ground as mistake or misunderstanding after the tender has been submitted.
9. Tenderer should specifically state their residential addresses besides their official addresses along with the telephone and mobile number. The contractor or their partners and authorized representative shall be available on a given telephone number during any hours.
10. The tenderers may need to work simultaneously at multiple places as directed by Engineer in charge to complete the work within contract period.
11. Tenderers shall pursue to obtain permission from traffic police department within mobilization period and shall provide various boards and proper barricading of trenches wherever necessary on site to have smooth traffic as per the requirement of traffic police department and shall have proper co-ordination with office of Dy. Hydraulic Engineer (Operations.)
12. Tenderer shall pursue to obtain all the permissions of the concerned authorities required for carrying out the work. Only recommendatory letters will be issued by the B.M.C.
13. On completion of work the contractors shall furnish free of cost five sets of completion drawing and soft copy in pendrive or CD, showing details of all work. The same shall be checked and sign by engineer and shall be submitted within 1 month of completion of work or at time of submission of final bill whichever is earlier. The payments of final bill shall be made to contractor after receipt of



above sets. In the case the contractor fails to submit the completion drawings, a compensation at the rate of Rs. 5000/- per drawing shall be recovered from the final bill.

14. The Contractors should provide suitably required number of M.S. plates of suitable size and thickness for covering excavated trenches for smooth movement of vehicular traffic as instructed by engineers in charge/ site engineer. Contractor should note that no payment will be made to the contractor for providing, removing and refixing M.S. plates on trenches etc.
15. While excavation of trenches, temporary arrangement like placing of M.S. plate over trenches in front of the entrances of the properties shall be done to allow vehicles/ public entries to the properties. No extra payment will be made for this.
16. Tenderer should note that the supply of material such as Bricks, Metal and Sand included in the Bill of Quantities shall be made available anywhere in the Outside City Division or at the departmental work chowkies as directed. The rates of these supply items include transport, loading, unloading etc. complete.
17. Tenderer shall be registered under the GST Act.
18. All the excavated material belongs to the Brihanmumbai municipal corporation and therefore shall be property of Brihanmumbai Municipal Corporation. It will be mandatory on the part of contractor to use this material in the execution of works under the instant contract or on any other sites of other contracts of BMC as directed by the Engineer; if the quality of material is as per the specification. If any excavated material is used on construction sites then the remainder surplus earth OR if no excavated material is utilized on Municipal works then the entire surplus excavated earth /any material including de-silted material shall be removed /transported from sites by the contractor within 24 hours; for which no separate payment will be made. If Municipal dumping grounds are not available for removal of surplus earth then the contractor shall make his own arrangements for removal /transportation /disposal of excavated surplus earth or any other material at his own risk and cost
19. Barricading shall be provided free of cost as per circular vide V/no. MGC/F/6342 dtd 05.05.2018 and as per Annexure I,II & III of standard drawings and specifications with slogans and department wise colour code.
20. The noise level shall be maintained within the permissible limit in Silence Zone area during the construction activities by the Contractors as per the notification dated 14.02.2000 issued by the Ministry of Environments and Forests.
21. Building & other construction labour welfare cess shall be applicable to the tenderer as per circular no. CA/FRT/12 dated 21.06.2012
- 22 The conditions regarding revised "Decision rule" will be applicable as per the Circular under no. Dir/ES&P /324 dt.15.07.2015.



- 23) If any damages to property / assets of BMC was done by contractor during execution of work, contractor has to repair or reconstruct it at his risk and const.
- 24) Diversions if required, during execution of work shall be done for movement of traffic at risk and cost of contractor. No payment will be made on this account.
- 25) Scrap material generated from the work should be deposited to office campus at location indicated by the site in-charge. Payment for transportation of scrap from site to office campus will not be made to the contractor.

**26. Material Testing:-**

**All material testing shall be in accordance with Chief engineer (Vigilance) circular under No. Ch.E.(Vig.)/7123/B date 14.03.2017 as below or circular enforce at the time of execution of work.**

*27. Please note that all the prevailing circulars/policies of BMC in force as on date of submission of current bid shall be applicable to this tender even if not mentioned specifically.*



## **Important Notes**

### **TESTING OF CONCRETE AND ALLIED WORKS**

#### **I. CONTROLLED CONCRETE**

Testing for compressive strength of concrete works shall be carried out as directed by the Engineer in-charge.

Twelve cubes (150 mm x 150 mm x 150 mm) shall be cast & tested for compressive strength for 7 & 28 days at the site laboratory for everyday's work. In case of failure in compressive strength for 28 days, the remaining three cubes shall be sent to the municipal laboratory or any other approved laboratory, as directed by engineer in-charge for retesting.

Besides, once in a month, compressive strength for 7 & 28 days (for concrete of all grades) shall be carried out at municipal laboratory or approved laboratory as directed by the Engineer in-charge.

Initial curing shall be done immediately, either by covering with hessian cloth and sprinkling with water over the concreted portion as soon as the concrete starts setting or by the application of approved resin based aluminized reflective curing compound which hardens into an impervious film of membrane (with the help of mechanical sprayer.)

Further curing of concrete shall be done as directed, for a minimum period of 14 days from the date of casting of c.c. slab.

A penalty of Rs.100/- per Sq.M. per day will be levied for broken vatas. A penalty of Rs.500/- per day will be levied for improper curing.

In controlled concrete the determination of the proportions of cement, aggregate and water to attain the required strength shall be made with preliminary test by designing the concrete mix at contractors cost.

Mix - design to give the target strength as required shall be prepared preferably in accordance with the relevant IRC / IS specifications. The same shall be checked by the Asst. Engineer / Executive Engineer

All type of concrete works shall conform to relevant I.S. Codes as mentioned below or their latest editions:

- |    |                   |                                  |
|----|-------------------|----------------------------------|
| a. | I.S. 10262        | 1982 for concrete mix design.    |
| b. | I.S. 383          | 1970 for aggregates.             |
| c. | I.S. 456          | 1978 for concrete. (As modified) |
| d. | I.S. 1791         | for mixer                        |
| e. | I.S. 516.         | 1959 for testing concrete.       |
| f. | I.S. 9103         | for admixtures for concrete.     |
| g. | I. S. 8142 & 8122 | for cement concrete vibrators    |
| h. | I.S. 2505         | for immersion type vibrators     |



- i. I. S. 2911 1 to IV water retaining structures
- j. Any other relevant I.S. codes as directed.

Ready mix concrete if any will be brought to the site from RMC plant only by transit mixers. (Agitators).

Every transit mixer will carry delivery challan, mentioning the minimum following details

Name of Manufacturer and Depot.

Serial No. of challan.

Date

Truck No.

Name of contractor to whom the RMC is being supplied.

Location of contract work.

Grade of concrete.

Specified workability.

Cement content and Grade of cement.

Time of loading

Quantity of concrete.

Batch report

When the truck arrives on site, the drum should always be speeded to about 10 to 15 rev/min, for at least 3 minutes, to make sure that the concrete is thoroughly mixed and uniform, before discharge.

Testing of Ready Mixed Concrete:- The sampling and testing requirements for ready mixed concrete are the same as those for site mixed concrete. As regards testing of workability, following procedure be followed.

After making sure that the concrete has been uniformly mixed, take a sample from the first 0.5 cu.m. of concrete discharge, and do a slump (or compacting factor) test on the sample. If the result complies with the specified requirements, then the load should be accepted. If the results are beyond limits, a further sample should be taken from the second 0.5 cu.m. of the discharge, and if this is satisfactory, the load should be accepted, if not, the concrete load shall be rejected, as the same is not as per the specification range.

No extra payment will be made for the use of admixtures.

The defect liability period will be the responsibility of the main tenderer.

It will be the sole right of the Administration to allow or disallow the use of ready mixed concrete in specific works based on the site situation, number of works, distance of plant from the site of work, etc.



The rate unless otherwise specified shall cover the cost of complete work including boxing, ramming consolidating, watering, placing, curing. Concrete lost in interstices of rubble and / or metal packing etc. will not be paid for. The rate includes cost of finishing all exposed surfaces to match with type of finish to surrounding surfaces or as directed by the engineer.

The rates also include cost of providing, placing, launching, removing, cleaning, striping the form work unless otherwise specifically mentioned.

The rates are also inclusive of cost of vibrating by mechanical vibrator of appropriate type.

#### **24. Ready Mix Concrete/ Asphalt Mix**

i) The contractor shall have to arrange Ready Mix concrete (RMC)/Asphalt from RMC/ASPHALT producing plants registered with BMC

ii) The contractor shall, within a 7 days of award of the work, submit a list of at least three RMC/Asphalt producers with details of such plants including details and number of transit, mixers & pumps etc. to be deployed indicating name of owner/company, its location, capacity, technical establishment.

The Engineer-in-charge will reserve right to inspect at any stage and reject the concrete if he is not satisfied about quality of product at the user's end.

iii) The Engineer-in-charge reserves the right to exercise control over the:-

a) Calibration check of the RMC/Asphalt plant.

b) Weight and quantity check on the ingredients, water and admixtures added for batch mixing for RMC plants

c) Time of mixing of concrete/grade of asphalt.

d) Testing of fresh concrete/asphalt mix, recording of results and declaring the mix fit or unfit for use. This will include continuous control on the work ability during production and taking corrective action, if required.

e) For exercising such control, the Engineer-in-charge shall periodically depute his authorized representative at the RMC/Asphalt plant. It shall be responsibility of the contractor to ensure that all necessary equipment, manpower & facilities are made available to Engineer-in-charge and or his authorized representative at RMC/Asphalt plant.

f) All required relevant records of RMC/Asphalt mix shall be made available to the Engineer-in-charge or his authorized representative. Engineer-in-charge shall, as required, specify guidelines & additional procedures for quality control & other parameters in respect of material production & transportation of concrete mix which shall be binding on the contractor & the RMC/Asphalt plant. Only concrete as approved in design mix by Engineer-in-charge shall be produced in RMC plant and transported to the site.

reports as issued by the RMC/Asphalt plant as a documentary proof in lieu of supply of RMC/Asphalt mix before releasing payment.



**Note.** In case of any changes to above mentioned testing clauses, the prevailing testing circulars & conditions, specifications at the time of execution of work be taken into consideration.

g) **List of approved R.M.C. Plants**

Contractor shall arrange to bring RMC mixes from approved plants registered with BMC, during the execution of the work. **The valid list of approved R.M.C. plants at “the time of execution of works” to be obtained from the Dy.Ch.Engineer (Rds)E.S.'s office.**

The Municipal Site Engineer to ensure the validity of registration certificate of RMC plant and compliance of conditions laid down in the registration certificate issued to the RMC plant owner before receiving RMC mixes.

**Note:- Tenderer shall note that any changes/modification in any type of Taxes / Levies / Charges / Fees etc. came in force time to time is binding upon the Tenderer & the same shall be borne by them without any dispute.**



**SECTION –14**  
**LIST OF APPROVED**  
**BANKS**



## **LIST OF APPROVED BANKS**

1. The following Banks with their branches in Greater Mumbai and in suburbs and extended suburbs up to Virar and Kalyan have been approved only for the purpose of accepting Banker's guarantee from 1997-98 onwards until further instructions.

2. The Bankers Guarantee issued by branches of approved Banks beyond Kalyan and Virar can be accepted only if the said Banker's Guarantee is countersigned by the Manager of a branch of the same Bank, within the Mumbai Limit categorically endorsing thereon that said bankers Guarantee is binding on the endorsing Branch of the bank within Mumbai limits and is liable to be enforced against the said branch of the Bank in case of default by the contractor/supplier furnishing the bankers Guarantee.

### **List of approved Banks:-**

<b>A</b>	<b>S.B.I and its subsidiary Banks</b>	<b>D</b>	<b>Schedule Urban Co-op Banks</b>
1	State Bank Of India.	49	Abhyudaya Co-op Bank Ltd.
2	<del>State Bank Of Bikaner &amp; Jaipur.</del>	50	Bassein Catholic Co-op Bank Ltd.
3	State Bank Of Hyderabad.	51	Bharat Co-op Bank Ltd.
4	State Bank Of Mysore.	52	Bombay Mercantile Co-op Bank Ltd.
5	State Bank Of Patiyala.	53	Cosmos Co-op Bank Ltd.
6	State Bank Of Saurashtra.	54	Greater Mumbai Co-op Bank Ltd.
7	State Bank Of Travankore.	55	JanataSahakari Bank Ltd.
<b>B</b>	<b>Nationalized Banks</b>	56	Mumbai District Central Co-op Bank Ltd.
8	Allahabad Bank.	57	Maharashtra State Co-op Bank Ltd.
9	Andhra Bank.	58	New India Co-op Bank Ltd.
10	Bank Of Baroda.	59	North Canara G.S.B. Co-op Bank Ltd.
11	Bank Of India.	60	Rupee Co-op Bank Ltd.
12	Bank Of Maharashtra.	61	Sangli Urban Co-op Bank Ltd.
13	Central Bank Of India.	62	Saraswat Co-op Bank Ltd.
14	Dena Bank.	63	ShamraoVithal Co-op Bank Ltd.
15	Indian Bank.	64	Mahanagar Co-op Bank Ltd.
16	Indian Overseas Bank.	65	Citizen Bank Ltd.
17	Oriental Bank Of Commerce.	66	Yes Bank Ltd.
18	Punjab National Bank.	<b>E</b>	<b>Foreign Banks</b>
19	Punjab & Sindh Bank.	67	ABM AMRO (N.Y.) Bank.
20	Syndicate Bank.	68	American Express Bank Ltd.
21	Union Bank Of India.	69	ANZ Grindlays Bank Ltd.
22	United Bank Of India.	70	Bank Of America N.T. & S.A.
23	UCO Bank.	71	Bank Of Tokyo Ltd.
24	Vijaya Bank.	72	Bankindosuez.
24A	Corporation Bank.	73	BanqueNationale de Paris.



<b>C</b>	<b>Scheduled Commercial Banks</b>		
		74	Barclays bank.
25	Bank Of Madura Ltd.	75	City Bank N.A.
26	Bank Of Rajasthan Ltd.	76	Hongkong & Shanghai banking Corporation.
27	Banaras State Bank Ltd.	77	Mitsui Taiyokbe Bank Ltd.
28	Bharat Overseas Bank Ltd	78	Standard Chartered Bank.
29	Catholic Syrian Bank Ltd.	79	Cho Hung Bank.
30	City Union Bank Ltd.		
31	Development Credit Bank.		
32	Dhanalakshmi Bank Ltd.		
33	Federal Bank Ltd.		
34	Indsind Bank Ltd.		
35	I.C.I.C.I Banking Corporation Ltd.		
36	Global Trust Bank Ltd.		
37	Jammu & Kashmir Bank Ltd.		
38	Karnataka Bank Ltd.		
39	KarurVysya Bank Ltd.		
40	Laxmi Vilas Bank Ltd.		
41	Nedugundi Bank Ltd.		
42	Ratnakar Bank Ltd.		
43	Sangli Bank Ltd.		
44	South Indian Bank Ltd.		
45	S.B.I Corporation & Int Bank Ltd.		
46	Tamilnadu Mercantile Bank Ltd.		
47	United Western Bank Ltd.		
48	Vysya Bank Ltd.		



# **SECTION –15**

# **APPENDIX**



**FORM OF TENDER**

**BID NO. -**

To,

The Municipal Commissioner for Greater Mumbai

Sir,

I/ We have read and examined the following documents relating to the construction of

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

- i. Notice inviting tender.
- ii. Directions to tenderers (General and special)
- iii. General condition of contract for Civil Works of the BRIHANMUMBAI MUNICIPAL CORPORATION as amended up to date.
- iv. Relevant drawings
- v. Specifications.
- vi. Special directions
- vii. Annexure A and B.
- viii. Bill of Quantities and Rates.

1A. I/We \_\_\_\_\_

(full name in capital letters, starting with surname), the Proprietor/ Managing Partner/ Managing Director/ Holder of the Business, for the establishment / firm / registered company, named herein below, do hereby offer to

.....

.....

.....

Referred to in the specifications and schedule to the accompanying form of contract of the rates entered in the schedule of rates sent herewith and signed by me/ us" (strike out the portions which are not applicable).



1B. I/We do hereby state and declare that I/We, whose names are given herein below in details with the addresses, have not filled in this tender under any other name or under the name of any other establishment /firm or otherwise, nor are we in any way related or concerned with the establishment /firm or any other person, who have filled in the tender for the aforesaid work.”

2. I/We hereby tender for the execution of the works referred to in the aforesaid documents, upon the terms and conditions, contained or referred to therein and in accordance with the specifications designs, drawings and other relevant details in all respects.

\* At the rates entered in the aforesaid Bill of Quantities and Rates.

3. According to your requirements for payment of Earnest Money amounting to Rs. \_\_\_\_\_/-Rs. \_\_\_\_\_ )

I/We have deposited the amount through online payment gateways with the C.E. of the Corporation not to bear interest.

4. I/We hereby request you not to enter into a contract with any other person/s for the execution of the works until notice of non/acceptance of this tender has first been communicated to me/us, and in consideration of yours agreeing to refrain from so doing I/we agree not to withdraw the offer constituted by this tender before the date of communication to me/us of such notice of non/acceptance, which date shall be not later than ten days from the date of the decision of the Standing Committee or Education Committee of the Corporation, as maybe required under the Mumbai Municipal Corporation Act, not to accept this tender.(Subject to condition 5 below).

5. I/We also agree to keep this tender open for acceptance for a period of 180 days from the date fixed for opening the same and not to make any modifications in its terms and conditions which are not acceptable to the Corporation.

6. I/We agree that the Corporation shall, without prejudice to any other right or remedy, be at liberty to forfeit the said earnest money absolutely, if.

a. I/We fail to keep the tender open as aforesaid.

b. I/We fail to execute the formal contract or make the contract deposit when called upon to do so.

c. I/we do not commence the work on or before the date specified by the Engineer in his work order.

7. I/We hereby further agree to pay all the charges of whatsoever nature in connection with the preparation, stamping and execution of the said contract.



8. I/We further agree that, I/we shall register ourselves as 'Employer' with the Bom-bay Iron and Steel Labour Board' and fulfill all the obligatory provisions of Maharashtra Mathadi, Hamal and other Manual workers (Regulation of Employment and Welfare) Act 1969 and the Bombay Iron and Steel unprotected workers Scheme 1970.

9. "I/We..... have failed in the accompanying tender with full knowledge of liabilities and, therefore, we will not raise any objection or dispute in any manner relating to any action, including forfeiture of deposit and blacklisting, for giving any information, which is found to be incorrect and against the instructions and directions given in this tender.

10. "I/We further agree and undertake that in the event it is revealed subsequently after the allotment of work/contract to me/us, that any information given by me/us in this tender is false or incorrect, I/We shall compensate the BRIHANMUMBAI MUNICIPAL CORPORATION for any such losses or inconvenience caused to the Corporation in any manner and will not resist any claim for such compensation on any ground whatsoever. I/we agree and undertake that I/we shall not claim in such case any amount by way of damages or compensation for cancellation of the contract given to me/us or any work assigned to me/us or is with-drawn by the Corporation,"

Address Yours faithfully,

.....  
 .....

Digital Signature of the Tenderer or the Firm

- 1.....
- 2.....
- 3.....
- 4.....
- 5.....

Full Name and private residential address of all the partners constituting the Firm	A/c No. .....
1.	.....
2.	.....
3.	.....
4.	.....
5.	.....





h) Standard General Conditions of Contracts (GCC)

i) All correspondence documents between bidder and BMC

3) In consideration of the payments to be made by the Commissioner to the contractor as hereinafter mentioned the contractor hereby covenants with the Commissioner to construct, complete and maintain the works in conformity in all respects with the provision of the contract.

4) The Commissioner hereby covenants to pay to the Contractor in consideration of the construction, completion and maintenance of the works the contract sum at times and in the manner prescribed by the contract.

**IN WITNESS WHEREOF** the parties hereto have caused their respective common seals to be here into affixed (or have hereunto set their respective hands and seals) the day and year above written.

Signed and delivered by the contractors

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

In the presence of \_\_\_\_\_

Trading under the name & Style of \_\_\_\_\_

Full Name \_\_\_\_\_

**Contractors.**

Address \_\_\_\_\_  
\_\_\_\_\_

Signed by the Deputy Municipal Commissioner \_\_\_\_\_

**Deputy Municipal Commissioner (S.E.)**

In the presence of \_\_\_\_\_  
\_\_\_\_\_

The Common Seal of the Municipal Corporation

of Greater Mumbai was hereunto affixed on

the \_\_\_\_\_ 20 in the presence of two

Members of Standing Committee of the Corporation.

(1) \_\_\_\_\_  
\_\_\_\_\_

(1) \_\_\_\_\_  
\_\_\_\_\_

(2) \_\_\_\_\_

(2) \_\_\_\_\_

and in the presence of the Municipal Secretary.

**Municipal Secretary**





## **Annexure- B**

### **BID NO. -**

#### **PRE-CONTRACT INTEGRITY PACT**

The Bidder commits himself to take all measures necessary to prevent corrupt practices, unfair means and illegal activities during any stage of his bid or during any pre-contract or post-contract stage in order to secure the contract or in furtherance to secure it and in particular commits himself to the following:-

- 1) The Bidder will not offer, directly or through intermediaries, any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the BMC, connected directly or indirectly with the bidding process, or to any person, organization or third party related to the contract in exchange for any advantage in the bidding, evaluation, contracting and implementation of the Contract.
- 2) The Bidder further undertakes that he has not given, offered or promised to give, directly or indirectly any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the BMC or otherwise in procuring the Contract or forbearing to do or having done any act in relation to the obtaining or execution of the Contract or any other Contract with the Government for showing or forbearing to show favour or disfavour to any person in relation to the Contract or any other Contract with the Government.
- 3) The Bidder will not collude with other parties interested in the contract to impair the transparency, fairness and progress of the bidding process, bid evaluation, contracting and implementation of the contract.
- 4) The Bidder will not accept any advantage in exchange for any corrupt practice, unfair means and illegal activities.
- 5) The Bidder, either while presenting the bid or during pre-contract negotiations or before signing the contract, shall disclose any payments he has made, is committed to or intends to make to officials of the BMC or their family members, agents, brokers or any other intermediaries in connection with the contract and the details of services agreed upon for such payments.
- 6) The Bidder shall not use improperly, for purposes of competition or personal gain, or pass on to others, any information provided by the BMC as part of the business relationship, regarding plans,



technical proposals and business details, including information contained in any electronic data carrier. The Bidder also undertakes to exercise due and adequate care lest any such information is divulged.

7) The Bidder commits to refrain from giving any complaint directly or through any other manner without supporting it with full and verifiable facts.

8) The Bidder shall not instigate or cause to instigate any third person to commit any of the actions mentioned above.

9) The Bidder and their respective officers, employees, agents and advisers shall observe the highest standard of ethics during the Bidding Process. Notwithstanding anything to the contrary contained herein, the Authority may reject an Application without being liable in any manner whatsoever to the Applicant if it determines that the Applicant has, directly or indirectly or through an agent, engaged in corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice in the Bidding Process

For the purposes of this Clause 9, the following terms shall have the meaning herein after respectively assigned to them:

1. "fraudulent practice" means a misrepresentation or omission of facts or suppression of facts or disclosure of incomplete facts, in order to influence the Bidding Process ;

1. "coercive practice" means impairing or harming or threatening to impair or harm, directly or indirectly, any person or property to influence any persons participation or action in the Bidding Process;

2. "undesirable practice" means (i) establishing contact with any person connected with or employed or engaged by the Authority with the objective of canvassing, lobbying or in any manner influencing or attempting to influence the Bidding Process; or (ii) having a Conflict of Interest; and

3. "restrictive practice" means forming a cartel or arriving at any understanding or arrangement among Applicants with the objective of restricting or manipulating a full and fair competition in the Bidding Process.

**Signature of Tenderer/Bidder**



**Annexure- C**

(On Rs. 500/- Stamp Paper)

**BID NO. -**

**DECLARATION CUM INDEMNITY BOND**

I, \_\_\_\_\_ of \_\_\_\_\_, do hereby declared and undertake as under.

1. I declare that I have submitted certificates as required to Executive engineer (Monitoring) at the time of registration of my firm/company \_\_\_\_\_ and there is no change in the contents of the certificates that are submitted at the time of registration.

2. I declare that I \_\_\_\_\_ in capacity as Manager/Director/Partners/Proprietors of \_\_\_\_\_ has not been charged with any prohibitory and /or penal action such as banning(for specific time or permanent)/de-registration or any other action under the law by any Government and/or Semi Government and/or Government undertaking.

3. I declare that I have perused and examined the tender document including addendum, condition of contract, specifications, drawings, bill of quantity etc. forming part of tender and accordingly, I submit my offer to execute the work as per tender documents at the rates quoted by me in capacity as \_\_\_\_\_ of \_\_\_\_\_.

4. I further declare that if I am allotted the work and I failed to carry out the allotted work in accordance with the terms and conditions and within the time prescribed and specified, BMC is entitled to carry out the work allotted to me by any other means at my risk and cost, at any stage of the contract.

5. I also declare that I will not claim any charge/damages/compensation for non availability of site for the contract work at any time.

6. I declare that I will positively make the arrangements of the required equipment on the day of commencement or with respect to the progress of the work in phases, as per the instructions of site in charge

**Signature of Tenderer/Bidder**



## **BANKERS GUARANTEE IN LIEU OF CONTRACT DEPOSIT**

### **BID NO. -**

THIS INDENTURE made this \_\_\_\_\_ day of \_\_\_\_\_ BETWEEN

THE \_\_\_\_\_ BANK incorporated under the English/Indian Companies Acts and carrying on business in Mumbai (hereinafter referred to as 'the bank' which expression shall be deemed to include its successors and assigns) of the first part

\_\_\_\_\_ inhabitants carrying on business at \_\_\_\_\_ in Mumbai under the style and name of Messer's \_\_\_\_\_ (hereinafter referred to as 'the consultant') of the second part Shri. \_\_\_\_\_

THE MUNICIPAL COMMISSIONER FOR GREATER MUMBAI (hereinafter referred to as 'the commissioner' which expression shall be deemed, also to include his successor or successors for the time being in the said office of Municipal Commissioner ) of the third part and THE BRIHANMUMBAI MUNICIPAL CORPORATION (hereinafter referred to as 'the Corporation') of the fourth part WHEREAS the consultants have submitted to the Commissioner tender for the execution of the work of " \_\_\_\_\_ and the terms of such tender /contract require that the consultants shall deposit with the Commissioner as/contract deposit/ earnest money and /or the security a sum of Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_) AND WHEREAS if and when any such tender is accepted by the Commissioner, the contract to be entered into in furtherance thereof by the consultants will provide that such deposit shall remain with and be appropriated by the Commissioner towards the Security -deposit to be taken under the contract and be redeemable by the consultants, if they shall duly and faithfully carry out the terms and provisions of such contract and shall duly satisfy all claims properly chargeable against them there under AND WHEREAS the consultants are constituents of the Bank and in order to facilitate the keeping of the accounts of the consultants, the Bank with the consent and concurrence of the consultants has requested the Commissioner to accept the undertaking of the Bank hereinafter contained, in place of the contractors depositing with the Commissioner the said sum as earnest money and /or security as aforesaid AND WHEREAS accordingly the Commissioner has agreed to accept such undertaking NOW THIS AGREEMENT WITNESSES that in consideration of the premises, the Bank at the request of the consultants ( hereby testified ) UNDERTAKES WITH the commissioner to pay to the commissioner upon demand in writing , whenever required by him , from time to time , so to do , a sum not exceeding in the whole Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_) under the terms of the said tender and /or the contract .The B.G. Is valid upto \_\_\_\_\_" Notwithstanding anything what has been stated above, our liability under the above guarantee is restricted to Rs. \_\_\_\_\_ only and guarantee shall remain in force upto \_\_\_\_\_ unless the demand or claim under this guarantee is made on us in



writing on or before \_\_\_\_\_ all your right under the above guarantee shall be forfeited and we shall be released from all liabilities under the guarantee thereafter”

IN WITNESS WHEREOF

WITNESS(1) \_\_\_\_\_

Name and \_\_\_\_\_

address \_\_\_\_\_

WITNESS(2) \_\_\_\_\_

Name and \_\_\_\_\_ the duly constituted Attorney Manager

address \_\_\_\_\_

the Bank and the said Messer's \_\_\_\_\_

\_\_\_\_\_ (Name of the Bank)

WITNESS(1) \_\_\_\_\_

Name and \_\_\_\_\_

address \_\_\_\_\_

WITNESS(2) \_\_\_\_\_

Name and \_\_\_\_\_

For Messer's \_\_\_\_\_

address \_\_\_\_\_

have here into set their respective hands the day and year first above written.

**The amount shall be inserted by the Guarantor, representing the Contract Deposit in Indian Rupees.**



**Annexure- D**

**BID NO. -**

**Rate Analysis**

Item Description

Sr.No.	Description of rate analysis parameters	Unit	Quantity	Rate	Amount
1	Basic Material (Rate should be inclusive of all taxes)				
2	Machinery Hire Charges				
3	Labour Type		(labour components)		
4	Total of all components				
5	Overhead & Profit 15% on 4				
6	Total Rate (4+5)				
7	Per unit rate				

**Sign & Seal of the Tenderer**



Annexure- E

Irrevocable Undertaking

**BID NO. -**

(on Rs. 500/- Stamp Paper)

I Shri/Smt \_\_\_\_\_ aged \_\_\_\_\_ years Indian inhabitant  
Proprietor/Partner/Director of M/s. \_\_\_\_\_ resident \_\_\_\_\_ do  
hereby give Irrevocable undertaking as under:

I say and undertaking that as specified in section 171 of CGST Act, 2017, any reduction in rate of tax on supply of goods or services or the benefit of input tax credit shall be mandatorily passed on the BMC by way of commensurate reduction in prices.

I further say and undertake that I understand that in case the same is not passed on and is discovered at any later stage, BMC shall be at liberty to initiate legal action against me for its recovery including, but not limited to, any appeal to the Screening Committee of the GST Counsel.

I say that above said irrevocable undertaking is binding upon me/my partners/company/other Directors of the company and also upon my/our legal heirs, assigned, Executor, administrator etc.

If I fail to compliance with the provisions of the GST Act, I shall be liable for penalty/punished or both as per the provisions of GST Act.

Whatever has been stated here in above is true and correct to my/our own knowledge & belief.

Solemnly affirmed at

DEPONENT

This day of

BEFORE ME

Interpreted Explained and Identified by me



## MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding (MOU in short) is being made and entered into on this \_\_\_\_\_ Day of (Month and year) by between:

M/s. \_\_\_\_\_ (hereinafter referred to as '\_\_\_\_') and having their Registered Office, \_\_\_\_\_, represented by its Partner is Mr. \_\_\_\_ of the **FIRST PART**.

### AND

M/s. \_\_\_\_\_ (Hereinafter referred to as '\_\_\_\_') and having their \_\_\_\_\_ registered \_\_\_\_\_ office \_\_\_\_\_ at \_\_\_\_\_, representative by its Authority Person Mr. \_\_\_\_\_ ( \_\_\_\_\_ ) of the **SECOND PART**.

### **WHEREAS**

The Parties have agreed and decided to quote for BMC tender of Dy. HE(Operation)“ **Part A: Construction of retaining structure along approach road at Middle Vaitarna Dam in O.C. Division and Part B: Providing landslide protection measures to land slopes near lower gallery of Vaitarna Dam in O.C Division Bid no. \_\_\_\_\_** )” (Hereinafter referred to as the “Project”). The Client is BRIHANMUMBAI MUNICIPAL CORPORATION (herein after referred to as “**Employer**”).

**NOW THEREFORE** both the parties have agreed to record the understanding reached by & between them in writing and as under;

1. M/s. \_\_\_\_\_ shall purchase quote, execute and perform all the works except for **drilling and grouting/ soil nailing/ rock bolting/ anchoring/ shotcreting/ guniting and gabion structures concerning to hill slope protection/ strengthening/ stabilization works executed in last 7 years.**
2. All the permissions, deposits, fees, NOC's , local issues like shifting of structure, utilities, trees, local problems, various testing and approvals, etc. shall be taken care of by M/s. \_\_\_\_\_ including all the costs and expenses involved thereof. All the Statutory charges applicable to the project, from time to time and at the prevailing rates, shall be borne by M/s. \_\_\_\_\_.
3. Tender fees, EMD, Security deposit & any other charges shall be paid by M/s. \_\_\_\_\_.



4. 'M/s. \_\_\_\_\_' shall be solely responsible to execute the work i.e. "drilling and grouting/ soil nailing/ rock bolting/ anchoring/ shotcreting/ guniting and gabion structures concerning to hill slope protection/ strengthening/ stabilization works executed in last 7 years" and they will arrange for all the resources required to execute the work.
5. It is clearly and expressly understood and agreed by both the parties that this MOU, between M/s. \_\_\_\_\_ and \_\_\_\_\_, is only for the above stated project and shall immediately cease to exist upon completion of the works and/ or the result of the tender.

**IN WITNESS** hereof the parties have signed this MOU first before stated.

Signed, Sealed and delivered By the within named party of the 1 <sup>st</sup> Part	)
M/s. _____	)
(Office at _____	)
Through its Partner	)Partner
In presence of .....	)

Signed, Sealed and delivered ) By the within named party of the 2<sup>nd</sup> Part )

M/s. \_\_\_\_\_ )

(Office at \_\_\_\_\_, )

\_\_\_\_\_ ) M/s. \_\_\_\_\_

Through its Person Mr. \_\_\_\_\_ )

**Authorized Signatory**

In presence of ..... )

**Note:- Bidder may incorporate legally sustainable conditions.**



## **PROFORMAS:**

### **PROFORMA- I**

**The list of similar works as stated in para 'A' of Post qualification during last seven years--**

<b>PROFORMA- I</b>					
Sr. No.	Name of the Project	Name of the employer	Stipulated date of completion	Actual date of completion	Actual cost of work done
1	2	3	4	5	6

**NOTE:**

j. Scanned Attested copies of completion/performance certificates from the Engineer-in-Charge for each work should be annexed in the support of information furnished in the above proforma.

k. Works shall be grouped financial year-wise.

### **PROFORMA- II**

**Yearly turnover of civil Engineering Construction Works during the last five years.**

<b>PROFORMA- II</b>					
Sr.No.	Financial year	Annual Turnover of Civil Engineering Works	Updated value to current year	Average of last 5 years	Page No.
1					
2					
Total					

**NOTE:** The above figures shall tally with the audited balance sheets uploaded by the tenderers duly certified by Chartered Accountant.

### **PROFORMA- III**

**At least similar work, as stated in para 'A' of Post qualification,**

<b>PROFORMA- III</b>							
Name of the Project	Name of the Employer	Cost of the Project	Date of issue of work Order	Stipulated Date of Completion	Actual Date of Completion	Actual cost of work done	Remarks explaining reasons for delay, if any
1	2	3	4	5	6	7	8



**Note:** Scanned Attested copies of completion/performance certificates from the Engineer-in-charge for each work should be annexed in support of information furnished in the above proforma.

**PROFORMA- IV**

**PERSONNEL:**

PROFORMA- IV					
Sr. No.	Post	Name	Qualification	Work Experience	
		(Prime Candidate/ Alternate)		No. of Years	Name of Projects
1	Project Manager				
2	Quality Control Engineer				
3	Site Engineer				
4	Site Supervisor				

**NOTE:** Scanned Attested copies of qualification certificates and details of work experience shall be submitted /uploaded.

**PROFORMA- V**

**PROFORMA- V/A**

**MACHINERY: (for special work only)**

PROFORMA- V/A			
Sr. No.	Equipment	Number	Owned / Leased / Assured access
1	2	3	4

**PROFORMA- V/B**

PROFORMA- V/B			
Sr. No.	Equipment	Number	Owned
1	2	3	4

**Note:** The tenderer(s) shall furnish/upload the requisite Scanned Attested documents of ownership/leased of machineries. The undertaking from the suppliers will not be accepted.

**PROFORMA- VI**

**PROFORMA - VI / A**

**Details of Existing Commitments and ongoing works –**

PROFORMA - VI / A							
Description of work	Place	Contract No. & Date	Name & Addresses of employer	Value of Contract in Rs.	Scheduled date of completion	Value of work remaining to be completed	Anticipated date of completion
1	2	3	4	5	6	7	8



**Note:** Scanned Attested copies of completion/performance certificates from the Engineer-in-Charge for each work should be annexed in the support of information furnished in the above proforma.

**PPROFORMA - VI / B**

**Details of works for which bids are already uploaded –**

<b>PROFORMA - VI / B</b>						
Description of work	Place	Name & Addresses of employee	Value of Contract in Rs.	Time Period	Date on which decision is expected	Remarks
1	2	3	4	5	6	7

**Note:** Scanned Attested copies of certificates from the Engineer-in-charge for each work shall be annexed

**PROFORMA – VIII**

Details of Litigation / Arbitration history in which tenderer is involved.

Name of other Party(s)	Employer	Cause of Dispute	Amount Involved	Remarks showing present status
1	2	3	4	5



**SECTION**

**16:-**

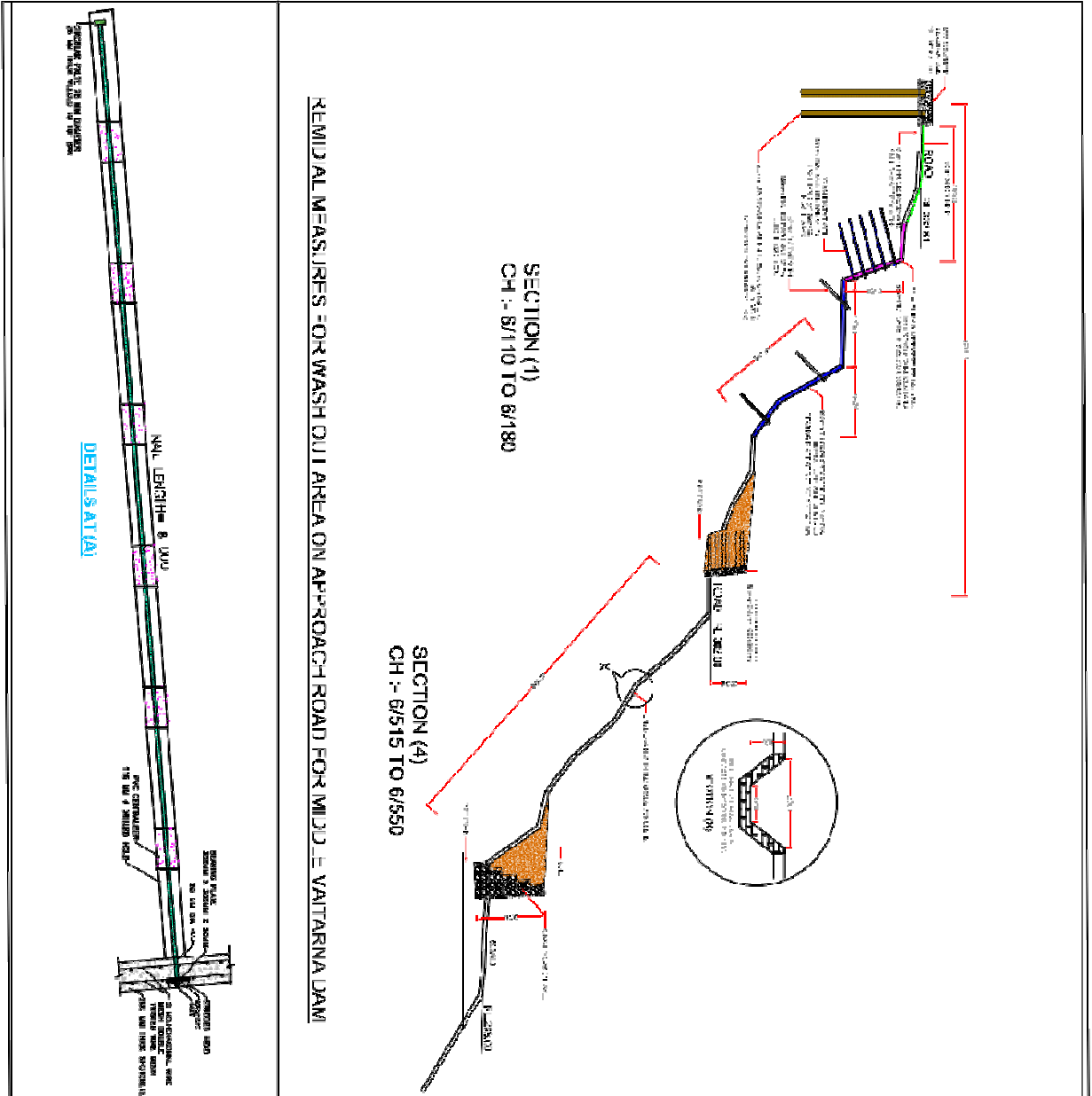
**DRAWINGS**



**LOCATION MAP of proposed works marked in red line at Middle Vaitarna Dam**



<i>Sr. No</i>	<i>Location</i>	<i>Identification</i>	<i>#Chainage</i>		<i>App. RL</i>
			<i>From</i>	<i>To</i>	
					332 (Top)
1	Location 1	Section A - Ch .6 / 130	6/110	6/180	302.00
	Location 1 A	Section C - Ch. 6/320	6/190	6/200	295.00
2	Location 2		6/270	6/311	290.00
	Location 2 A		6/311		278.00
3	Location 3		6/442	6/508	272.00
4	Location 4	Section B - Ch. 6/520	6/515	6/550	270.00
5	Location 5	Section D -Ch 6 / 655 to Ch 6/700	6/680	6/730	268.00
6	Location 6		7/080	7/098	230.00
7	Location 8		7/680	7/700	200.00
8	Location 9	Section E - Ch. 7/830	7/770	7/863	200-180
9	Location 10	Section E - Ch. 7/830	7/863		175 -172
10	Location 11	ADIT 4/5/6 area.			



REMEDIAL MEASURES - DR WASH OUT AREA ON APPROACH ROAD FOR MIDD E VAITARNA DAM

SECTION (1)  
CH - 8/110 TO 8/180

SECTION (2)  
CH - 8/515 TO 8/550

DETAILS AT (A)

NAL LENGTH - 8.000

1.00m SHOULDER

1.00m SHOULDER

1. The proposed work is to be carried out in accordance with the provisions of the Contract Documents, including the Bill of Materials, and the Instructions to Bidders.

2. The Contractor shall be responsible for the design and construction of the remedial measures, including the drainage system, and shall provide all necessary details and specifications.

3. The Contractor shall ensure that the remedial measures are constructed in accordance with the approved design and specifications, and shall be responsible for the maintenance and repair of the work.

4. The Contractor shall provide a detailed program of work, including a schedule of activities, and shall ensure that the work is completed within the specified time frame.

5. The Contractor shall provide a detailed estimate of the cost of the work, including all materials, labor, and overheads, and shall be responsible for the payment of the work.

6. The Contractor shall provide a detailed report of the work, including a description of the work, the materials used, and the results of the work.

7. The Contractor shall be responsible for the safety of the work, and shall ensure that all necessary safety measures are taken to protect the workers and the public.

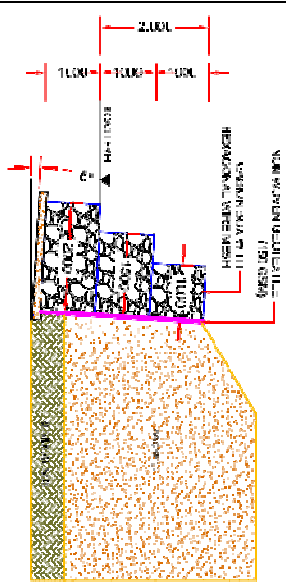
8. The Contractor shall be responsible for the environmental protection of the work, and shall ensure that all necessary measures are taken to protect the environment.

9. The Contractor shall be responsible for the quality of the work, and shall ensure that all necessary measures are taken to ensure the quality of the work.

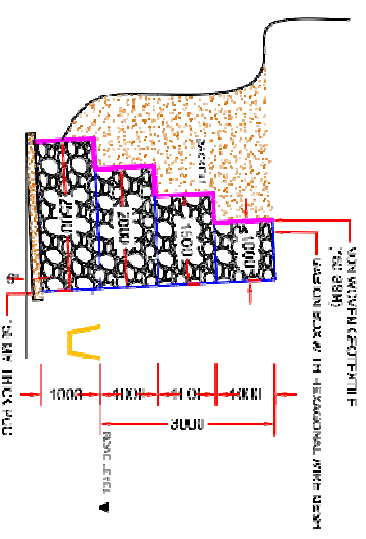
10. The Contractor shall be responsible for the completion of the work, and shall ensure that the work is completed in accordance with the approved design and specifications.

Sl. No.	Description	Quantity	Unit	Rate	Total
1	Excavation and backfilling of the drainage system	100	m <sup>3</sup>	100	10000
2	Construction of the drainage system	100	m	100	10000
3	Construction of the embankment	100	m <sup>3</sup>	100	10000
4	Construction of the shoulder	100	m <sup>3</sup>	100	10000
5	Construction of the road surface	100	m <sup>2</sup>	100	10000
6	Construction of the drainage system	100	m	100	10000
7	Construction of the embankment	100	m <sup>3</sup>	100	10000
8	Construction of the shoulder	100	m <sup>3</sup>	100	10000
9	Construction of the road surface	100	m <sup>2</sup>	100	10000
10	Construction of the drainage system	100	m	100	10000
11	Construction of the embankment	100	m <sup>3</sup>	100	10000
12	Construction of the shoulder	100	m <sup>3</sup>	100	10000
13	Construction of the road surface	100	m <sup>2</sup>	100	10000
14	Construction of the drainage system	100	m	100	10000
15	Construction of the embankment	100	m <sup>3</sup>	100	10000
16	Construction of the shoulder	100	m <sup>3</sup>	100	10000
17	Construction of the road surface	100	m <sup>2</sup>	100	10000
18	Construction of the drainage system	100	m	100	10000
19	Construction of the embankment	100	m <sup>3</sup>	100	10000
20	Construction of the shoulder	100	m <sup>3</sup>	100	10000
21	Construction of the road surface	100	m <sup>2</sup>	100	10000
22	Construction of the drainage system	100	m	100	10000
23	Construction of the embankment	100	m <sup>3</sup>	100	10000
24	Construction of the shoulder	100	m <sup>3</sup>	100	10000
25	Construction of the road surface	100	m <sup>2</sup>	100	10000
26	Construction of the drainage system	100	m	100	10000
27	Construction of the embankment	100	m <sup>3</sup>	100	10000
28	Construction of the shoulder	100	m <sup>3</sup>	100	10000
29	Construction of the road surface	100	m <sup>2</sup>	100	10000
30	Construction of the drainage system	100	m	100	10000
31	Construction of the embankment	100	m <sup>3</sup>	100	10000
32	Construction of the shoulder	100	m <sup>3</sup>	100	10000
33	Construction of the road surface	100	m <sup>2</sup>	100	10000
34	Construction of the drainage system	100	m	100	10000
35	Construction of the embankment	100	m <sup>3</sup>	100	10000
36	Construction of the shoulder	100	m <sup>3</sup>	100	10000
37	Construction of the road surface	100	m <sup>2</sup>	100	10000
38	Construction of the drainage system	100	m	100	10000
39	Construction of the embankment	100	m <sup>3</sup>	100	10000
40	Construction of the shoulder	100	m <sup>3</sup>	100	10000
41	Construction of the road surface	100	m <sup>2</sup>	100	10000
42	Construction of the drainage system	100	m	100	10000
43	Construction of the embankment	100	m <sup>3</sup>	100	10000
44	Construction of the shoulder	100	m <sup>3</sup>	100	10000
45	Construction of the road surface	100	m <sup>2</sup>	100	10000
46	Construction of the drainage system	100	m	100	10000
47	Construction of the embankment	100	m <sup>3</sup>	100	10000
48	Construction of the shoulder	100	m <sup>3</sup>	100	10000
49	Construction of the road surface	100	m <sup>2</sup>	100	10000
50	Construction of the drainage system	100	m	100	10000
51	Construction of the embankment	100	m <sup>3</sup>	100	10000
52	Construction of the shoulder	100	m <sup>3</sup>	100	10000
53	Construction of the road surface	100	m <sup>2</sup>	100	10000
54	Construction of the drainage system	100	m	100	10000
55	Construction of the embankment	100	m <sup>3</sup>	100	10000
56	Construction of the shoulder	100	m <sup>3</sup>	100	10000
57	Construction of the road surface	100	m <sup>2</sup>	100	10000
58	Construction of the drainage system	100	m	100	10000
59	Construction of the embankment	100	m <sup>3</sup>	100	10000
60	Construction of the shoulder	100	m <sup>3</sup>	100	10000
61	Construction of the road surface	100	m <sup>2</sup>	100	10000
62	Construction of the drainage system	100	m	100	10000
63	Construction of the embankment	100	m <sup>3</sup>	100	10000
64	Construction of the shoulder	100	m <sup>3</sup>	100	10000
65	Construction of the road surface	100	m <sup>2</sup>	100	10000
66	Construction of the drainage system	100	m	100	10000
67	Construction of the embankment	100	m <sup>3</sup>	100	10000
68	Construction of the shoulder	100	m <sup>3</sup>	100	10000
69	Construction of the road surface	100	m <sup>2</sup>	100	10000
70	Construction of the drainage system	100	m	100	10000
71	Construction of the embankment	100	m <sup>3</sup>	100	10000
72	Construction of the shoulder	100	m <sup>3</sup>	100	10000
73	Construction of the road surface	100	m <sup>2</sup>	100	10000
74	Construction of the drainage system	100	m	100	10000
75	Construction of the embankment	100	m <sup>3</sup>	100	10000
76	Construction of the shoulder	100	m <sup>3</sup>	100	10000
77	Construction of the road surface	100	m <sup>2</sup>	100	10000
78	Construction of the drainage system	100	m	100	10000
79	Construction of the embankment	100	m <sup>3</sup>	100	10000
80	Construction of the shoulder	100	m <sup>3</sup>	100	10000
81	Construction of the road surface	100	m <sup>2</sup>	100	10000
82	Construction of the drainage system	100	m	100	10000
83	Construction of the embankment	100	m <sup>3</sup>	100	10000
84	Construction of the shoulder	100	m <sup>3</sup>	100	10000
85	Construction of the road surface	100	m <sup>2</sup>	100	10000
86	Construction of the drainage system	100	m	100	10000
87	Construction of the embankment	100	m <sup>3</sup>	100	10000
88	Construction of the shoulder	100	m <sup>3</sup>	100	10000
89	Construction of the road surface	100	m <sup>2</sup>	100	10000
90	Construction of the drainage system	100	m	100	10000
91	Construction of the embankment	100	m <sup>3</sup>	100	10000
92	Construction of the shoulder	100	m <sup>3</sup>	100	10000
93	Construction of the road surface	100	m <sup>2</sup>	100	10000
94	Construction of the drainage system	100	m	100	10000
95	Construction of the embankment	100	m <sup>3</sup>	100	10000
96	Construction of the shoulder	100	m <sup>3</sup>	100	10000
97	Construction of the road surface	100	m <sup>2</sup>	100	10000
98	Construction of the drainage system	100	m	100	10000
99	Construction of the embankment	100	m <sup>3</sup>	100	10000
100	Construction of the shoulder	100	m <sup>3</sup>	100	10000

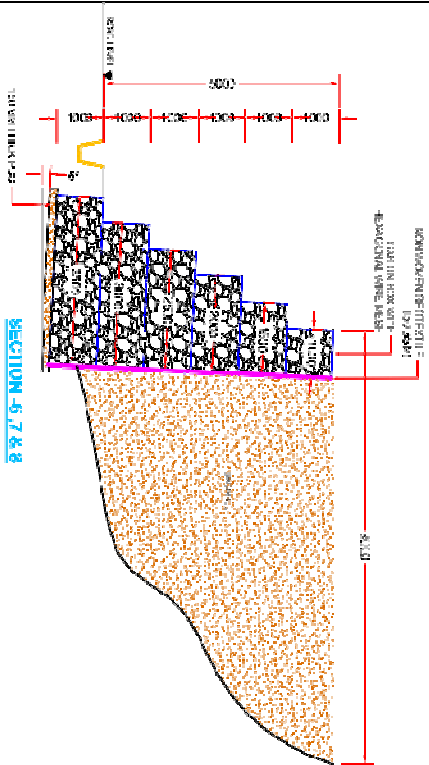




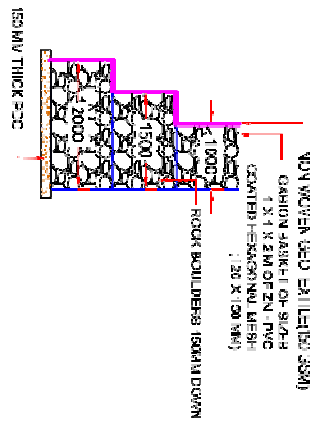
**SECTION-8**



**SECTION-5**



**SECTION-6, 7 & 8**



**DETAILS OF GABION WALL**

**GENERAL NOTES:**

1. All dimensions are in meters unless otherwise specified.
2. The gabion structure shall be constructed with stone of size 150mm x 100mm x 75mm.
3. The gabion structure shall be filled with stone of size 150mm x 100mm x 75mm.
4. The gabion structure shall be constructed with stone of size 150mm x 100mm x 75mm.
5. The gabion structure shall be filled with stone of size 150mm x 100mm x 75mm.
6. The gabion structure shall be constructed with stone of size 150mm x 100mm x 75mm.
7. The gabion structure shall be filled with stone of size 150mm x 100mm x 75mm.
8. The gabion structure shall be constructed with stone of size 150mm x 100mm x 75mm.
9. The gabion structure shall be filled with stone of size 150mm x 100mm x 75mm.
10. The gabion structure shall be constructed with stone of size 150mm x 100mm x 75mm.

<p>1. All dimensions are in meters unless otherwise specified.</p> <p>2. The gabion structure shall be constructed with stone of size 150mm x 100mm x 75mm.</p> <p>3. The gabion structure shall be filled with stone of size 150mm x 100mm x 75mm.</p> <p>4. The gabion structure shall be constructed with stone of size 150mm x 100mm x 75mm.</p> <p>5. The gabion structure shall be filled with stone of size 150mm x 100mm x 75mm.</p> <p>6. The gabion structure shall be constructed with stone of size 150mm x 100mm x 75mm.</p> <p>7. The gabion structure shall be filled with stone of size 150mm x 100mm x 75mm.</p> <p>8. The gabion structure shall be constructed with stone of size 150mm x 100mm x 75mm.</p> <p>9. The gabion structure shall be filled with stone of size 150mm x 100mm x 75mm.</p> <p>10. The gabion structure shall be constructed with stone of size 150mm x 100mm x 75mm.</p>	<p>11. The gabion structure shall be filled with stone of size 150mm x 100mm x 75mm.</p> <p>12. The gabion structure shall be constructed with stone of size 150mm x 100mm x 75mm.</p> <p>13. The gabion structure shall be filled with stone of size 150mm x 100mm x 75mm.</p> <p>14. The gabion structure shall be constructed with stone of size 150mm x 100mm x 75mm.</p> <p>15. The gabion structure shall be filled with stone of size 150mm x 100mm x 75mm.</p> <p>16. The gabion structure shall be constructed with stone of size 150mm x 100mm x 75mm.</p> <p>17. The gabion structure shall be filled with stone of size 150mm x 100mm x 75mm.</p> <p>18. The gabion structure shall be constructed with stone of size 150mm x 100mm x 75mm.</p> <p>19. The gabion structure shall be filled with stone of size 150mm x 100mm x 75mm.</p> <p>20. The gabion structure shall be constructed with stone of size 150mm x 100mm x 75mm.</p>
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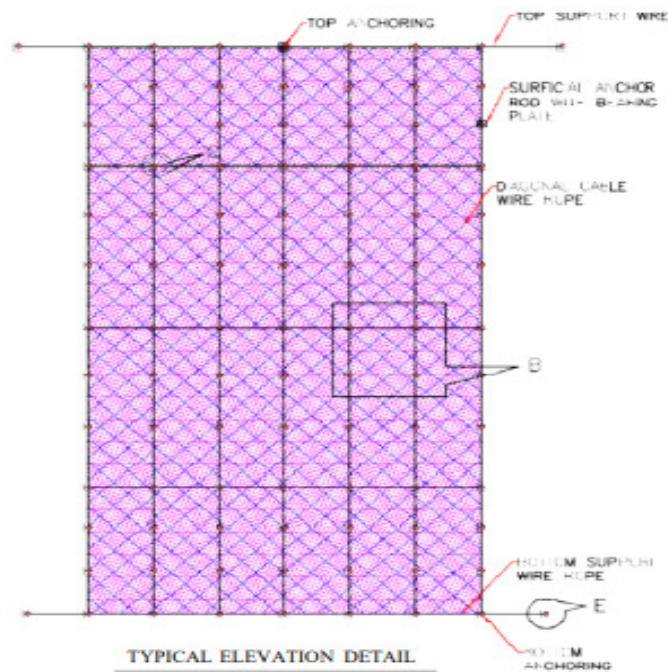
## ***MODAKSAGAR DAM***



**LOCATION MAP of proposed works marked in red line at Modak sagar Dam**



## ***DRAWINGS OF METHOLOGY***

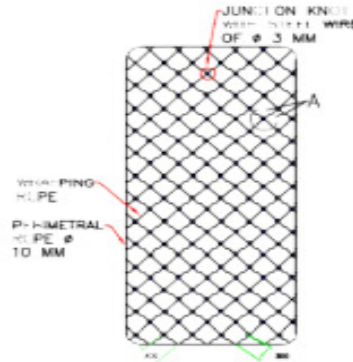


TYPICAL ELEVATION DETAIL

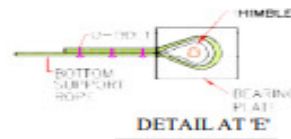


DETAIL AT 'A'

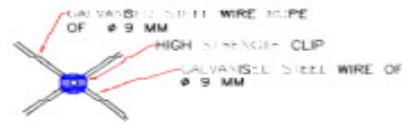
LACING DETAILS OF STEEL WIRE MESH GEOCOMPOSITE



ELEVATION OF RHOMBOIDAL SHAPED MESH PANEL



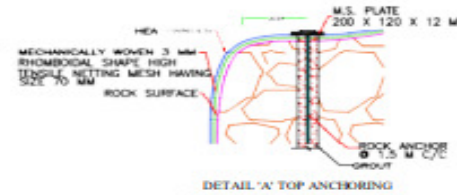
DETAIL AT 'A'



DETAILS AT CABLES CROSSING RHOMBOIDAL SHAPED MESH PANEL  
DETAILS 'A'

**NOTES :-**

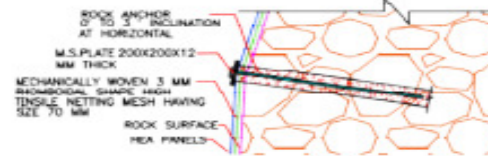
- All dimensions are in mm unless otherwise specified.
  - Woven double twisted hexagonal shaped Zinc + PVC coated wire mesh netting, Mesh type 100 x 120mm, mesh wire 2.32.7mm.
  - HEA panels specifications: Rhomboidal cable wire rope panels (HEA panel) shall be comprising of 9 mm diameter of steel wire rope (class A coating) of size 300 mm x 300 mm with suitable connection at junctions having minimum tear resistance 15 KN. Ultimate tensile strength shall be 120 KN/m.
  - Anchor shall be of 25 mm dia, partially threaded (100mm at face) bar yield load more than 210 KN. The diameter of drill hole shall be minimum 50 mm.
  - M.S. bearing plate shall be epoxy coated and of size 200 x 200 x 12 mm.
  - Top anchoring using anchors to be employed at places where rocky strata present, if soil strata is present at crest then anchor trench method to be adopted.
  - All treated areas needs periodic maintenance such as removal of loose boulders/debris as necessary after completion of work and the same needs to be taken care by client.
  - Before carrying out the installation of proposed solution, loose scaling of slope be done so as to remove the loose exposed rock blocks which can be easily dislodged from the surface.
  - Suitable drainage collection/diversion points shall be fixed to the slope.
- Geotechnical survey (drilling of borehole and borings with geotechnical properties) shall be carried out by executing agency to finalize the dimensioning and type of anchorage requirements (diameter, length, spacing).



DETAIL 'A' TOP ANCHORING



DETAIL M.S. PLATE



DETAIL 'B' TOP ANCHORING

This drawings is the property of VJTI, Mumbai can not be reproduced or used without their permission. The user of these drawings confirms the acceptance of the following condition.

- Any discrepancy between the drawings and drawings of MCGM and other consultants shall be brought to our notice before construction.
- All concrete for structural use shall be weight batched, machine, machine and mechanically vibrated.
- If specially agreed in our contract our slope will include periodic supervision site to mainly verify reinforcement placement and general quality of constructional the owner will appoint licensed supervisor for day supervision of construction the responsibility for sound and safe construction shall lie solely with the contractor and owner.
- The responsibility of VJTI Mumbai shall include the correctness of structural design as reflected in this drawing but will exclude the following:
  - Design and safety of scaffolding, shoring, centering and any other temporary structure erected at site.
  - Any injury caused to any person at site due to any accident caused for reasons other than faults on this drawings.
  - Safety of any building, road or other structures near the construction site and any person there in and safety of any structure or person during demolition and execution work.

**GENERAL NOTES**

- Do not scale the drawing. Written dimension only should be followed for centerlines, levels etc. Refer architectural drawings.
- For typical R.C. details & notes refer general drawings.
- All dimensions are in MM & levels are in MFL.
- Clear cover to bars to be 50 mm U.N.C.
- C.C. mix for all R.C. works to be M40 unless noted otherwise.
- T indicates steel grade. TMT Fe-415 with minimum % elongation not less than 14.25% of Fe-415 D.
- All weld 8 mm continuous fillet weld as per IS 816 U.N.C.
- Structural steel should of grade Fy 250.
- All steel work to receive one coat of red oxide and anti epoxy coated.
- All dimensions should be verified on site before fabrication.
- Contractor should take a trial pit at regular interval to locate the services to avoid any damage to existing utility during shoring and excavation which are required to be retained.
- Lap length (L/D) should not less than 50 x dia.

NO.	REVISION	DATE	BY	CHECK

**NOTES :-**


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CLIENT  
MUNICIPAL CORPORATION OF GREATER MUMBAI (MCGM)

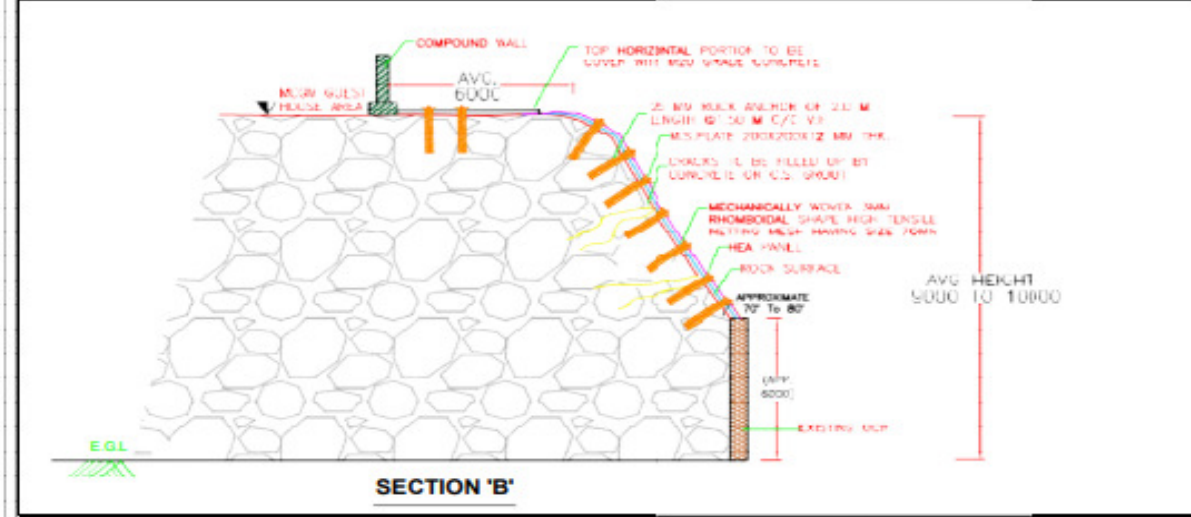
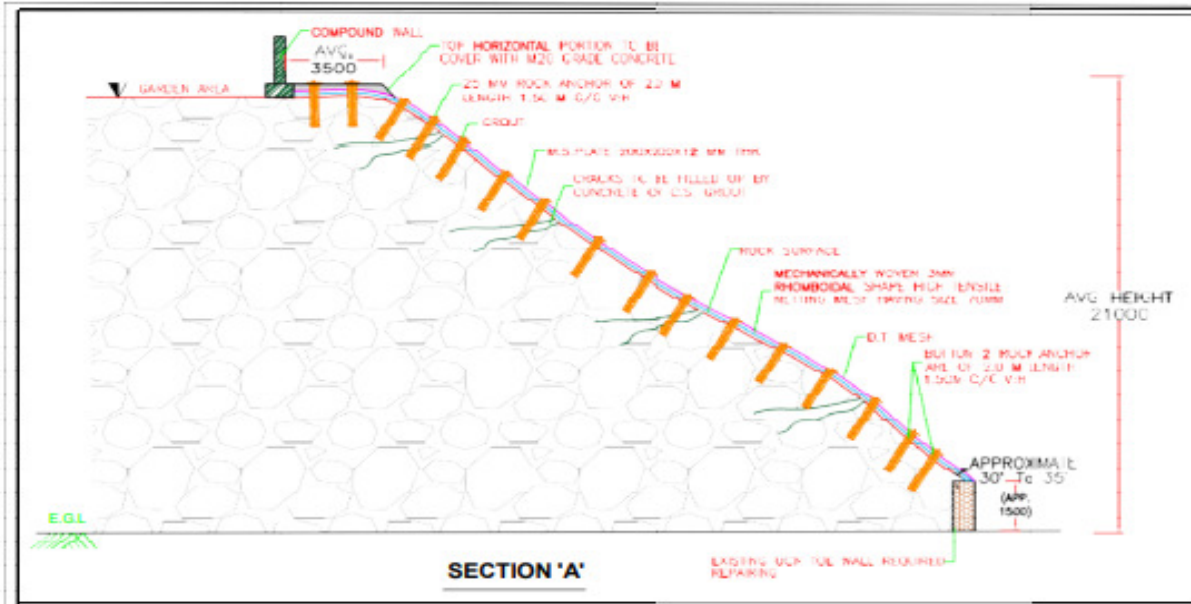


PROJECT  
REMEDIAL MEASURES FOR UPPER DAM MODAK SAGAR NEAR ENTRANCE GATE

TITLE > DETAILS OF RHOMBOIDAL SHAPE HIGH TENSILE NETTING MESH  
DESIGN > VEERMATA REJABAI TECHNOLOGICAL INSTITUTE MATYUNGA, MUMBAI 400039



DRAWING NO. >	SAVE/2022/02
DATE >	17/01/2022
SCALE >	NTS
DRAWN BY >	CHKD BY >
SKG	SPB
APPROVED BY >	VJG
	45 of 211



- REMARKS:**
- All dimensions are in mm unless otherwise specified.
  - Woven double twisted hexagonal shaped Zinc + PVC coated wire mesh netting, Mesh type 100 x 120mm, refer spec 2.7.3.7.1.
  - HGA panels specifications: Rhomboidal cable wire rope panels (HGA panel) shall be comprising of 8 mm diameter of steel wire rope (class A coating) of size 300 mm x 300 mm with suitable connection at junctions having minimum tear resistance 15 KN. Ultimate tensile strength shall be 120 KN/m.
  - Anchors shall be of 25 mm dia, partially threaded 100mm at face j bar yield load more than 210 KN. The diameter of soil hole shall be minimum 50 mm.
  - M.S. bearing plate shall be epoxy coated and of size 200 x 200 x 12 mm.
  - Top anchoring using anchors to be employed at places where rocky strata present if soil strata is present at crest then anchor trench method to be adopted.
  - All treated areas needs periodic maintenance such as removal of loose boulders / debris as necessary after completion of work and the same needs to be taken care by client.
  - Before carrying out the installation of proposed solutions, loose scaling of slope be done so as to remove the loose exposed rock blocks which can be easily dislodged from the surface.
  - Suitable drainage collection/diversion points shall be fixed based on site feasibility.
  - The topographical survey (contour plan and sections), Geotechnical survey (drilling of borehole and borelogs with geotechnical properties) shall be carried out by executing agency to finalize the dimensioning and type of anchorage requirements (diameter, length, spacing).

- This drawing is the property of VJTI, Mumbai cannot be reproduced or used without their permission. The user of these drawings confirms the acceptance of the following condition.
- Any discrepancy between the drawings and drawings of MCGM and other consultants shall be brought to our notice before construction.
  - All concrete for structural use shall be weight batched, machine mixed and mechanically vibrated.
  - If specially agreed in our contract our slope will include periodic supervision site to mainly verify reinforcement placement and general quality of construction the owner will appoint licensed supervisor for day supervision of construction the responsibility for sound and safe construction shall be solely with the contractor and owner.
  - The responsibility of VJTI Mumbai shall include the correctness of structural design as reflected in this drawing but will exclude the following:
    - Design and safety of scaffolding, shoring, centering and any other temporary structure erected at site.
    - Any injury caused to any person at site due to any accident caused for reasons other than faults on this drawings.
    - Safety of any building, road & other structures near the construction site and any person there in and safety of any structure or person during demolition and execution work.
- GENERAL NOTES:**
- Do not scale the drawing. Written dimension only should be followed for centerline, levels etc. Refer architectural drawings.
  - For typical R.C. details & notes refer general drawings.
  - All dimensions are in MM & levels are in M.
  - Clear cover to bars to be 50 mm U.N.O.
  - C.C. mix for all R.C. works to be M40 unless noted otherwise.
  - T indicates steel grade TMT Fe 415 with minimum % elongation not less than 14.5% or Fe 415 D.
  - All weld 8 mm continuous filed weld as per IS 816 U.N.O.
  - Structural steel should of grade Fy 250.
  - All steel work to receive one coat of red oxide and anti epoxy coated.
  - All dimensions should be verified on site before fabrication.
  - Contractor should take a trial pit at regular interval to locate the services to avoid any damage to existing utility during shoring and excavation which are required to be retained.
  - Lap length (LD) should not less than 50 x dia.

NO.	REVISION	DATE	BY

**NOTE** -  
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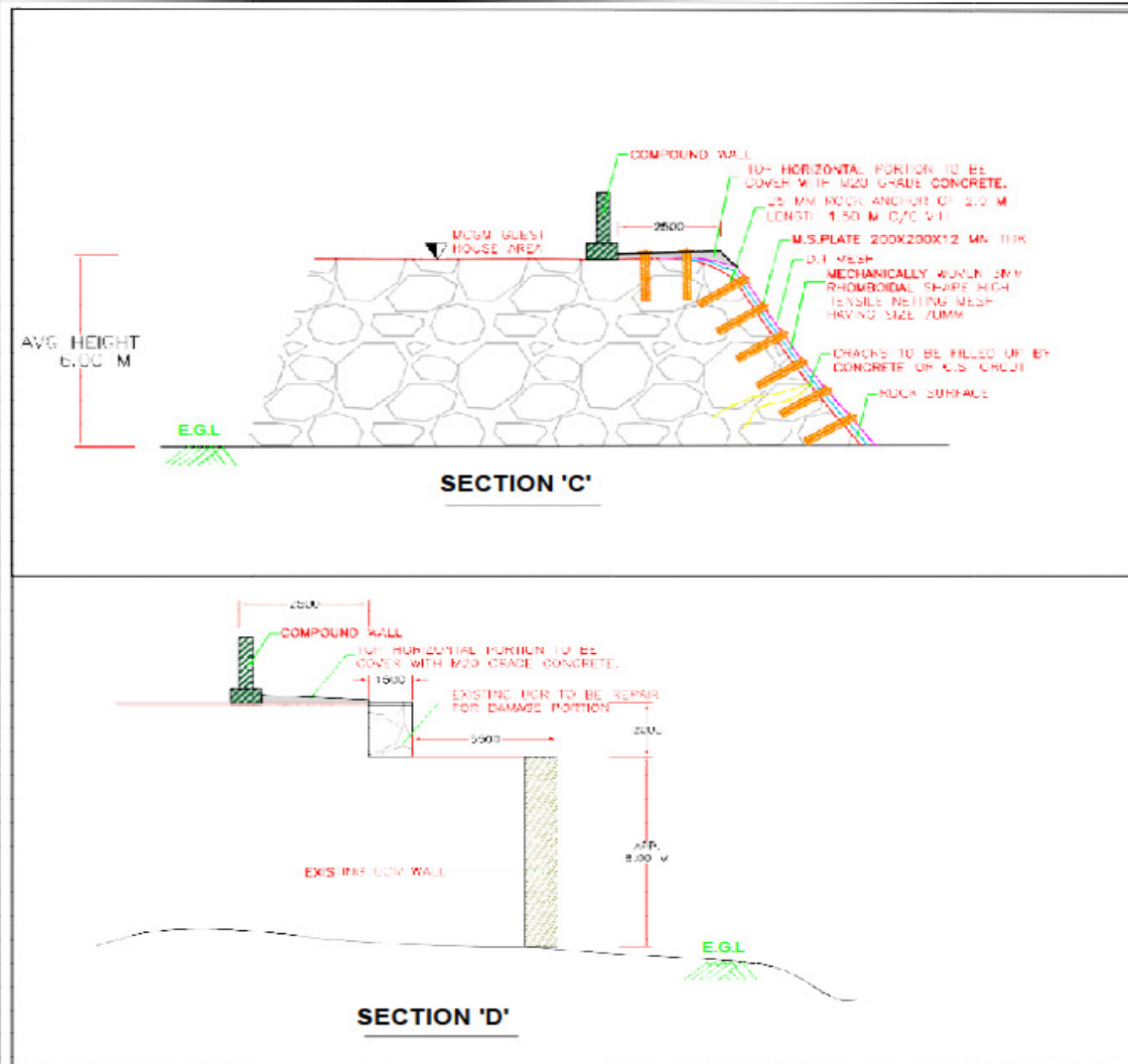
**CLIENT**  
MUNICIPAL CORPORATION OF GREATER MUMBAI (MCGM)

**PROJECT**  
REMEDIAL MEASURES FOR UPPER DAM MODAK SAGAR NEAR ENTRANCE GATE.

**TITLE** - TYPICAL CROSS SECTION OF RHOMBODAL SHAPE HIGH TENSILE NETTING MESH

**DESIGN** - VEERMATA JEEJABAI TECHNOLOGICAL INSTITUTE MATUNGA, MUMBAI 400019

<b>DRAWING NO.</b>	SAVE/2022/09
<b>DATE</b>	17/03/2022
<b>SCALE</b>	NTS
<b>DRAWN BY</b>	SRG
<b>CHECKED BY</b>	SPB
<b>APPROVED BY</b>	46 of 211



**NOTES**

- All dimensions are in mm unless otherwise specified.
- Woven double twisted hexagonal shaped Zinc + PVC coated wire mesh netting, Mesh type 100 x 120mm, mesh wire 2.75.7mm.
- HEA panels specifications: Rhomboidal cable wire rope panels (HEA panel) shall be comprising of 9 mm diameter of steel wire rope (class A coating) of size 300 mm x 300 mm with suitable connection at junctions having minimum tear resistance 15 KN. Ultimate tensile strength shall be 120 KN/m.
- Anchors shall be of 25 mm dia, partially threaded 100mm at face | bar yield load more than 210 KN. The diameter of drill Hole shall be minimum 50 mm.
- M.S. bearing plate shall be epoxy coated and of size 200 x 200 x 12 mm.
- Top anchoring using anchors to be employed at places where rocky strata present, if soil strata is present at crest then anchor trench method to be adopted.
- All treated areas needs periodic maintenance such as removal of loose boulders & debris as necessary after completion of work and the same needs to be taken care by client.
- Before carrying out the installation of proposed solutions, loose scaling of slope be done so as to remove the loose exposed rock blocks which can be easily dislodged from the surface.
- Subsidiary drainage collection/diversion points shall be fixed based on site feasibility.
- The topographical survey (contour plan and sections), Geotechnical survey (drilling of borehole and borelogs with geotechnical properties) shall be carried out by consulting agency to finalize the dimensioning and type of anchorage requirements (diameter, length, spacing).

This drawings is the property of VJTI, Mumbai, can not be reproduced or used without their permission. The user of these drawings confirms the acceptance of the following condition.

- Any discrepancy between the drawings and drawings of MCGM and other consultants shall be brought to our notice before construction.
- All concrete for structural use shall be weight batched, machine, machine and mechanically vibrated.
- If specially agreed in our contract our slope will include periodic supervision site to mainly verify reinforcement placement and general quality of constructional the owner will appoint licensed supervisor for day supervision of construction the responsibility for sound and safe construction shall lie solely with the contractor and owner.
- The responsibility of VJTI Mumbai shall include the correctness of structural design as reflected in this drawing but will exclude the following:
  - Design and safety of scaffolding, shuttering, centering and any other temporary structure erected at site.
  - Injury caused to any person at site due to any accident caused for reasons other than faults on this drawings.
  - Safety of any building, road & other structures near the construction site and any person there in and safety of any structure or person during demolition and execution work.

**GENERAL NOTES**

- Do not scale the drawing. Written dimension only should be followed for centerlines, levels etc. Refer architectural drawings.
- For typical R.C. details & notes refer general drawings.
- All dimensions are in 'MM' & levels are in 'M'.
- Clear cover to bars to be 50 mm U.N.C.
- C.C. mix for all R.C. works to be M40 unless noted otherwise.
- T indicates steel grade TMT Fe 415 with minimum % elongation not less than 14.5% or Fe 415 D.
- All weld 5 mm continuous fillet weld as per IS 816 U.N.C.
- Structural steel should of grade Fy 250.
- All steel work to receive one coat of red oxide and anti epoxy coated.
- All dimensions should be verified on site before fabrication.
- Contractor should take a trial pit at regular interval to locate the services to avoid any damage to existing utility during shoring and excavation which are required to be retained.
- Lap length (LD) should not less than 50 x dia.

NO.	REVISION	DATE	BY

**NOTE**  
 THE DRAWING CONTAINS THE INFORMATION PROPRIETARY TO SAGE CONSTRUCTORS PROJECTS PVT. LTD. POSSESSION OF THE DRAWING DOES NOT AUTHORISE THE USE OF THE INFORMATION CONTAINED THEREIN IN WHOLE OR IN PART NOR THE TRANSMISSION OF THE DRAWING BY THE INFORMATION CONTAINED THEREIN, HEREIN NOT CONNECTED WITH THIS PROJECT.

**CLIENT**  
 MUNICIPAL CORPORATION OF GREATER MUMBAI (MCGM)

**PROJECT**  
 REMEDIAL MEASURES FOR UPPER DAM MODAK SAGAR NEAR ENTRANCE GATE.

**TITLE** > TYPICAL CROSS SECTION OF RHOMBOIDAL SHAPE HIGH TENSILE NETTING MESH

**DESIGN** > VEERMATA JEEJABAI TECHNOLOGICAL INSTITUTE MATUNGA, MUMBAI 400019

**DRAWING NO.** > SAYE/2022/04

**DATE** > 17/03/2022

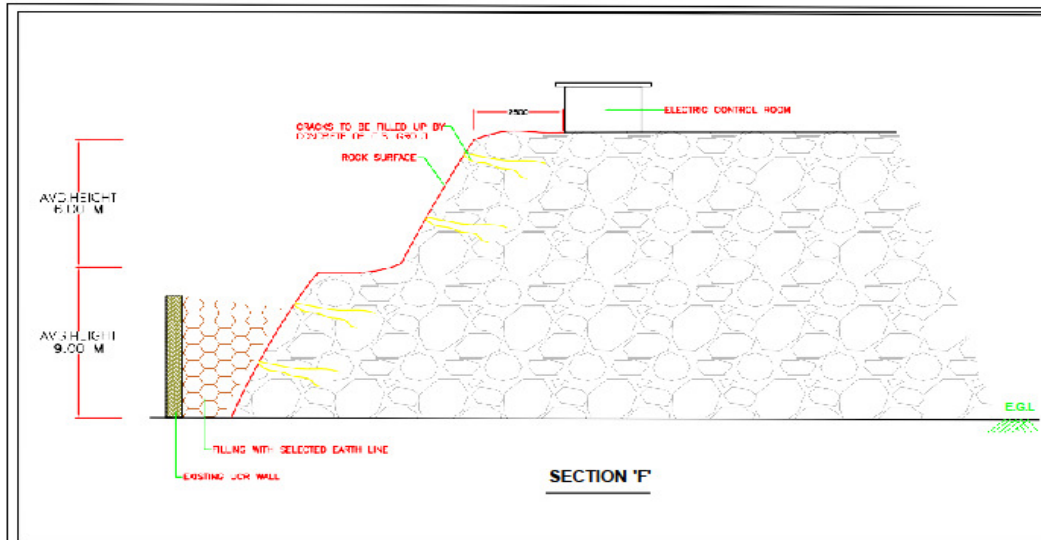
**SCALE** > NTS

**DRAWN BY** > SSG

**CHECKED BY** > A

**APPROVED BY** > VGG

**SPB** 47 of 211

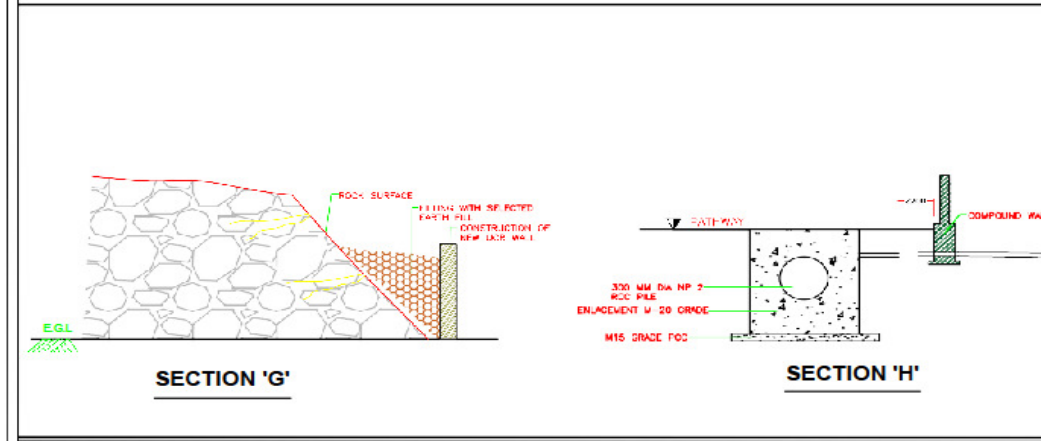


- NOTES:-**
- All dimensions are in mm unless otherwise specified.
  - Woven double twisted hexagonal shaped Zinc + PVC coated wire mesh netting, Mesh type 100 x 120mm, mesh wire 2.7/3.7mm.
  - HEA panels specifications - Rhomboidal cable wire rope panels (HEA panel) shall be comprising of 9 mm diameter of steel wire rope (class A coating) of size 300 mm x 300 mm with suitable connection at junctions having minimum tear resistance 15 KN. Ultimate tensile strength shall be 120 KN/m.
  - Anchors shall be of 25 mm dia, partially threaded 100mm at face 1 bar yield load more than 210 KN. The diameter of drill Hole shall be minimum 50 mm.
  - M.S. bearing plate shall be epoxy coated and of size 200 x 200 x 12 mm.
  - Top anchoring using anchors to be employed at places where rocky strata present if soil strata is present at crest then anchor trench method to be adopted.
  - All treated areas needs periodic maintenance such as removal of loose boulders /debris as necessary after completion of work and the same needs to be taken care by client.
  - Before carrying out the installation of proposed solutions, loose scaling of slope be done so as to remove the loose exposed rock blocks which can be easily dislodged from the surface.
  - Suitable drainage collection/diversion points shall be fixed based on site feasibility.
  - The topographical survey (contour plan and sections), Geotechnical survey (drilling of borehole and borings with geotechnical properties) shall be carried out by executing agency to finalize the dimensioning and type of anchorage requirements (diameter, length/spacing).

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- Any discrepancy between the drawings and drawings of MCGM and other consultants shall be brought to our notice before construction.
- All concrete for structural use shall be weight batched, machine, machine and mechanically vibrated.
- If specially agreed in our contract our slope will include periodic supervision site to mainly verify reinforcement placement and general quality of construction the owner will appoint licensed supervisor for day supervision of construction the responsibility for sound and safe construction shall lie solely with the contractor and owner.
- The responsibility of VJTI Mumbai shall include the correctness of structural design as reflected in this drawing but will exclude the following:
  - Design and safety of scaffolding, shuttering, centering and any other temporary structure erected at site.
  - Any injury caused to any person at site due to any accident caused for reasons other than faults on this drawings.
  - Safety of any building, road & other structures near the construction site and any person there in and safety of any structure or person during demolition and execution work.

- GENERAL NOTES:**
- Do not scale the drawing. Written dimension only should be followed for centerlines, levels etc Refer architectural drawings.
  - For typical R.C. details & notes refer general drawings.
  - All dimensions are in "MM" & levels are in "M".
  - Clear cover to bars to be 50 mm U.N.O.
  - C.C. mix for all R.C. works to be M40 unless noted otherwise.
  - T indicates steel grade TMT Fe 415 with minimum % elongation not less than 14.5% of Fe 415 D.
  - All weld 8 mm continuous filed weld as per IS 816 U.N.O.
  - Structural steel should of grade Fy 250.
  - All steel work to receive one coat of red oxide and anti epoxy coated.
  - All dimensions should be verified on site before fabrication.
  - Contractor should take a trial pit at regular interval to locate the services to avoid any damage to existing utility during shoring and excavation which are required to be retained.
  - Lap length (LD) should not less than 50 x dia.



NO.	REVISION	DATE

**NOTE:-**  
 THE DRAWING CONTAINS THE INFORMATION PREPARED BY VEERAMATA JEEJABAI TECHNOLOGICAL INSTITUTE. THE USER OF THIS DRAWING DOES NOT AUTHORISE USE OF THE INFORMATION CONTAINED THEREIN FOR ANY PURPOSES OTHER THAN THAT FOR WHICH IT WAS PREPARED. THE INFORMATION CONTAINED HEREIN IS FOR PERSONS NOT CONNECTED WITH THIS PROJECT.

**CLIENT**  
 MUNICIPAL CORPORATION OF GREATER MUMBAI (MCGM)

**PROJECT**  
 REMEDIAL MEASURES FOR UPPER DAM MODAK SAGAR NEAR ENTRANCE GATE.

**TITLE**  
 TYPICAL CROSS SECTION OF RHOMBOIDAL SHAPE HIGH TENSILE NETTING MESH

**DESIGN**  
 VEERMATA JEEJABAI TECHNOLOGICAL INSTITUTE MATUNGA, MUMBAI 400019

<b>DRAWING NO.</b>	SAYE/2022/05
<b>DATE</b>	17/03/2022
<b>SCALE</b>	NTS
<b>DRAWN BY</b>	VGG
<b>CHECKED BY</b>	SSG
<b>APPROVED BY</b>	48 of 211



बृहन्मुंबई महानगरपालिका

परिपत्रक  
२०२३-२०२४

क्र. सीए/एफआरजी/ १० दिनांक १९.१०.२०२३

विषय :- महानगरपालिकेच्या विविध खात्यांमार्फत मागविण्यात येणा-या अनस्टार दरपत्रिका/  
निविदा/दरपत्रिका/ ई-दरपत्रिका/ ई-निविदा दस्तऐवजांच्या छाननी शुल्काबाबत

- संदर्भ :- १) प्रले/एफसीई/२८ दि. १३.०९.२०२३  
२) परिपत्रक क्र. सीए/एफआरजी/२१ दिनांक ०८.०२.२०२३  
३) एमजीसी/एफ/९५८५ दि. ११.०५.२०२३  
४) परिपत्रक क्र. सीए/एफआरजी/०३ दिनांक ११.०५.२०२३  
५) अति.आ./प्रकल्प/१३५१ दि. २३.०५.२०२३  
६) परिपत्रक क्र. सीए/एफआरजी/०४ दि. २४.०५.२०२३

बृहन्मुंबई महानगरपालिकेच्या विविध खात्यांमार्फत मागविण्यात येणाऱ्या अनस्टार दरपत्रिका/निविदा/दरपत्रिका/ ई-दरपत्रिका/ई-निविदा दस्तऐवजांकरिता छाननी शुल्क आकारण्याबाबत उपरोक्त संदर्भ क्र. ४ व ६ अन्वये परिपत्रक निर्गमित करण्यात आले होते. परिपत्रक क्र. सीए/एफआरजी/०३ दिनांक ११.०५.२०२३ मध्ये पुढील प्रमाणे निर्देश देण्यात आले आहेत.

“सर्व खाते प्रमुख/सहाय्यक आयुक्त/रुग्णालय प्रमुख, अधिष्ठाता यांनी त्यांच्या अखत्यारीतील संबंधित कर्मचारीवृंदांना उपरोक्त सुचनेची काटेकोरपणे अंमलबजावणी करण्याचे तसेच मंजुरीच्या दिनांकापासून मागविण्यात येणाऱ्या अनस्टार दरपत्रिका/ निविदा/ दरपत्रिका/ ई-दरपत्रिका/ई-निविदा दस्तऐवजांकरिता निविदा शुल्क न आकारता सर्व देकारदारांकडून या परिपत्रकातील सुधारीत दरांनुसार इसारा अनामत रक्कमेचा परतावा करण्यापूर्वी छाननी शुल्क अनुज्ञेय वस्तू व सेवाकरासहित वसूल करण्याचे अथवा देकारदाराच्या संमतीने इसारा अनामत रक्कमेतून समायोजित करण्यासंबंधीचे निर्देश द्यावेत. ”

तदनंतर सुधारित परिपत्रक क्र. सीए/एफआरजी/०४ दि. २४.०५.२०२३ निर्गमित करण्यात आले. सदर परिपत्रकात पुढील प्रमाणे निर्देश देण्यात आले आहेत.

“दरपत्रिका/निविदा/दरपत्रिका/ई-दरपत्रिका/ई-निविदा दस्तऐवजांकरिता मा. महानगरपालिका आयुक्तांच्या मंजुरीच्या दिनांकापासून छाननी शुल्क न आकारता, एसआरएम कार्यप्रणाली मध्ये निविदा शुल्क न आकारण्यासंबंधीची कार्यवाही माहिती व तंत्रज्ञान खात्याकडून पूर्ण झाल्यावर त्यानंतरच निविदाकाराकडून छाननी शुल्क आकारण्यात यावेत. तसेच सदर छाननी शुल्काचा भरणा लेखा संकेतांक 140402609 - Scrutiny Fees From Tenders (From May 2023)-Taxable यामध्ये करण्यात यावा.”



परिपत्रक क्र. सीए/एफआरजी/०४ दि. २४.०५.२०२३ मध्ये नमूद केल्यानुसार एसआरएम प्रणाली मध्ये आवश्यक ते बदल माहित व तंत्रज्ञान विभागाकडून दि. २३.०६.२०२३ रोजी पूर्ण करण्यात आले आहेत.

दरम्यान माहिती व तंत्रज्ञान विभागामार्फत परिपत्रक क्र. Dir/IT/F-59 दि. १०.०५.२०२३ निर्गमित करण्यात आले. सदर परिपत्रकामध्ये दि. १५.०६.२०२३ पासून रु.२५ लाखावरील सर्व निविदा महानगरपालिकेच्या एसआरएम प्रणालीद्वारे न मागविता महाराष्ट्र शासनाच्या महाटॅंडर पोर्टलद्वारे मागाविण्याबाबत निर्देश देण्यात आले आहेत. तसेच परिपत्रक क्र. सीए/एफआरजी/०३ दिनांक ११.०५.२०२३ मध्ये इसारा अनामत रक्कमेचा परतावा करण्यापूर्वी छाननी शुल्क, अनुज्ञेय वस्तू व सेवाकरासहित वसूल करण्याचे अथवा देकारदाराच्या संमतीने इसारा अनामत रक्कमेतून समायोजित करण्यासंबंधीचे निदेश देण्यात आले आहेत. तथापि महाराष्ट्र शासनाच्या महाटॅंडर पोर्टलवर इसारा अनामत रक्कमेतून समायोजना करण्याची सुविधा नसल्याने पुढील प्रमाणे सुधारित निर्देश देण्यात येत आहेत.

“महाराष्ट्र शासनाच्या महाटॅंडर / एसआरएम प्रणालीद्वारे मागविण्यात येणारे सर्व अनस्टार दरपत्रिका/निविदा/दरपत्रिका/ ई-दरपत्रिका/ ई-निविदा दस्तऐवजांकरिता निविदा शुल्क (Tender Fee) न आकारता सर्व देकारदारांकडून परिपत्रक क्र. सीए/एफआरजी/०३ दिनांक ११.०५.२०२३ मधील सुधारित दरांनुसार छाननी शुल्क (Scrutiny Fee) अनुज्ञेय वस्तू व सेवाकरासहित लिफाफा 'अ' व 'ब' उघडल्यानंतर व लिफाफा 'क' उघडण्याआधी फक्त नागरी सुविधा केंद्रात चलनाद्वारे भरण्यात यावे.”

संदर्भित परिपत्रकातील अन्य निर्देशांमध्ये कोणताही बदल करण्यात आलेला नाही.

सही/-१६.१०.२०२३  
श्री.पांडुरंग गोसावी  
प्रमुख लेखापाल (पा.पु.म.नि.)

सही/-१६.१०.२०२३  
श्री. प्रदिप भा. पडवळ  
प्रमुख लेखापाल (वित्त)प्र.

सही/-१६.१०.२०२३  
श्री. प्रशांत गायकवाड  
उप. आयुक्त (वित्त) प्र.

सही/-१८.१०.२०२३  
श्री. पी. वेलरासू  
अति.आयुक्त (प्रकल्प)

परिपत्रक

२०२३-२४

क्र.सीए/एफआरजी/१० दिनांक १९.१०.२०२३

प्रत .....(जादा .....प्रतीसह ) यांना माहितीकरिता व पुढील  
आवश्यक त्या कार्यवाहीकरिता अग्रेषित.

प्रमुख लेखापाल (वित्त) यांजकरिता



**MUNICIPAL CORPORATION OF GREATER MUMBAI**

No. : MGC/F/6565 dtd. 25-9-2018

**CIRCULAR**

Sub : Setting up the parameters of litigation history of the bidders.

As approved by Hon'ble M.C., the clause of litigation history be included as part of SBD as below :-

- 1) The bidder shall disclose the litigation history in Packet 'B' under the head "Details of Litigation History".

If there is no Litigation History, the bidder shall specifically mention that there is no Litigation History against him as per the clause of Litigation History. In case there is Litigation History -

**Litigation History must cover – Any action of blacklisting, debarring, banning, suspension, deregistration and cheating with MCGM, State Govt., Central Govt. or any authority under State or Central Govt./Govt. organisation initiated against the company, firm, directors, partners or authorized signatory shall be disclosed for last 5 years from the date of submission of bid. Also, bidder must disclose the litigation history for last 5 years from the date of submission of bid about any action like show cause issued, blacklisting, debarring, banning, suspension, deregistration and cheating with MCGM and MCGM is party in the litigation against the company, firm, directors, partners or authorized signatory for carrying out any work for MCGM by any authority of MCGM and the orders passed by the competent authority or by any Court where MCGM is a party. While taking decision on litigation history, the concerned Chief Engineer or D.M.C. or Director, as may be the case, should consider the details submitted by bidder and take decision based on the gravity of the litigation and the adverse effect of the act of company, firm, directors, partners or authorized signatory on the MCGM works which can spoil the quality, output, delivery of any goods or any work execution and within the timeframe.**

- 2) The litigation history shall be treated as curable defect and hence, the portion/clause of SBD, (C) Bid Capacity at Pg. 15 & in the chapter of 'Instructions to Applicants' at Pg. 31 of the SBD will be now corrected by deleting the word litigation history and shall be read as below.

**C) Bid Capacity :**

**The bid capacity of the prospective bidders will be calculated as under: Assessed Available Bid Capacity = (A \* N \* 2 - B)**

Where,

A = Maximum value of Civil Engineering works executed in any one year (year means Financial year) during the last five years (updated to the price level of the Financial year in which bids are received at a rate of 10% per year) taking into account the completed as well as works in progress.

N = Number of years prescribed for completion of the Project/Works, excluding monsoon period, for which these bids are being invited. (E.g. 7 months = 7/12 year). For every intervening monsoon, 0.33 shall be added to N.

B = Value of existing commitments (only allotted works) on the last date of submission of bids as per bidding document and on-going works to be completed during the period of completion of the Project/Works for which these bids are being invited.

Note: The statement showing the value of existing commitments and on-going works as well as the stipulated period of completion remaining for each of the works listed should be attached along with certificates duly signed by the Engineer-in Charge, not below the rank of an Executive Engineer or equivalent.



Even though the bidders meet the above qualifying criteria, they are subject to be disqualified if they have:

- made misleading or false representation in the forms, statements and attachments submitted in proof of the qualification requirements; and/or
- Record for poor performance such as abandoning the works, not properly completing the contract, inordinate delays in completion, litigation history, or financial failures etc."

All the concerned are directed to implement the above directions with immediate effect.

9/c

Director (E. S. & P.)

City Engineer/Ch.Eng.(Roads & Traffic) / Ch.Eng. (Bridges) / H. E. / Ch.Eng. (WSP) / Ch.Eng.(S.P.) / Ch.Eng.(S.O.)/ Ch.Eng.(MSDP) / Ch.Eng. (BM) / Ch.Eng.(Vig) / Ch.Eng. (M&E) / Ch.Eng.(D.P.)/Ch.Eng.(SWD) / Ch.Eng. (Coastal Road) / Ch.Eng.(SWM) / Ch.Eng.(CTIRC)/Dy. Ch.Eng.(HIC) / Dy.Ch.Eng.(SIC), Supt. of Gardens/

Asstt. Comm. Ward / Asstt. Comm.(Markets) / Asstt. Comm. (Estate) / Asstt. Comm.(Planning) / Asstt. Comm.(R.E.) City/W.S./E.S.

No. DIR/ES & P/915/MC dtd. 27-9-2018

C.C. to : DMC(MCO)/ DMC (Imp.) / DMC(GA)/ DMC(Vig)/ DMC(SE) / DMC(E)/ DMC(CPD)/ DMC(SWM)/DMC (Education)/DMC (RE)/ DMC(PH)/ DMC(Z-I) / DMC(Z-II) / DMC(Z-III) / DMC(Z-IV) / DMC(Z-V)/ DMC(Z-VI)/ DMC(Z-VII) / C.A. (F) / C.A. (WSSD) / C.A. (C.P.D.) / Law Officer

Forwarded for information please.

9/c

Director (E.S.& P.)

No. No. DIR/ES & P/915/MC dtd. 27-9-2018

C.C. to:

Submitted please.

9/c

Director (E.S.& P.)

A.M.C.(City) / A.M.C.(E.S.) / A.M.C(W.S) / A.M.C(P)

Sir/Madam,



Office of the DMC CPD,  
Central Purchase Department,  
569, N.M.Joshi Marg, Byculla, Mumbai-400 011.

No. DyChE/ CPD/ 2025 / dt. 01/09/2021

CIRULAR

Sub: Formation of Grievance Redressal Committee (GRC)  
to address grievances from bidders.

Ref.: MGC/F/4961 dated 09/08/2021.

Hon. M.C.'s accorded sanction under reference to form Grievance Redressal Committee (GRC) to address grievances from the bidders regarding responsiveness/ non-responsiveness in Packets 'A', 'B' or 'C' in all the tenders. Therefore, all HOD's are requested to incorporate following condition in all the tenders;

Grievance Redressal Committee (GRC)

1. If a Bidder is not satisfied with the decision of responsiveness/ non responsiveness in Packets 'A', 'B' or 'C', by the concerned HOD, he may appeal to D.M.C. (C.P.D.) by paying fee of Rs. 25,000/-.
2. D.M.C. (C.P.D.) will assign the work of co-ordination of various activities and administration work of G.C.R. to nominated Registrar – Shri. Uday B. Mande.
3. The Committee for hearing grievances and passing orders will be constituted as follows:
  - (a) The Committee will comprise of D.M.C. / Director / Jt.M.C. of tender inviting department and D.M.C. / Director / Jt.M.C. of the department for which tender is being invited.  
  
For example, if tender is invited by C.P.D. dept, for K.E.M. Hospital then the Committee will be of DMC(CPD) and DMC (PH).
  - (b) In case the tender inviting department and department for which tender is being invited are same then the concerned DMC/ Director/ Jt.M.C. of the same department and DMC(CPD) will be the members of the Committee.

For example, if tender is invited by Dean (KEM) for KEM Hospital then the Committee will be DMC (PH) and DMC(CPD).



<i>Tender inviting Department</i>	<i>Work belonging Department</i>
<i>DMC(CPD) or DMC /Director / Jt.M.C. of concerned Department.</i>	<i>Concerned DMC / Director/ Jt.M.C.</i>

4. *In case the work is pertaining to various departments then concerned DMC / Director/ Jt.M.C. having major contribution of work will be one of the member of the Committee.*
5. *The Committee will hear the grievances of bidder within 30 days on receipt of bidder's application and will pass an order within 45 days.*
6. *If Bidder is not satisfied with the decision of the above Committee, he may appeal to the concerned Addl. Municipal Commissioner of Tender Inviting Department. The Addl. Municipal Commissioner will hear the case within 45 days from the date of receipt of application for second appeal from the bidder and will pass the order within 60 days.*


Sd/- 27.07.2021  
Dy ChE (Civil) CPD

sd/- 27.07.2021  
D.M.C. (C.P.D.)

Sd/- 30.07.2021  
A.M.C. (WS)

sd/- 06.08.2021  
Hon,ble M. C.

The above circular approved by Hon,ble MC is submitted for necessary action please.

  
01/09/2021  
Dy ChE (CPD) Civil



Copy To:

Additional Commissioner (ES/ Project/ City/ W/S)

Jt MC (Vig/ Education)/ Jt MC/ DMC- Zone (I/ II/ III/ IV/ V/ VI/ VII) (Public Health/ A&C/ Education/ Improvement/ CPD/ Infrastructure/ Engineering/ Special Engineering/ Environment/ SWM/ Sp/ RE)/ Director (Disaster Management/ Information Technology/ Zoo/ ES&P/ Medical Education & Major Hospitals)

City Engineer/ Hydraulic Engineer/ Chief Engineer (BM/ Rd&Tr/ Bridges/ SWD/ Coastal Road/ WSP/ MSDP/ SP/ SO/ SWM/ M&E/ CTI&RC/ DP/ Vigilance)/ Municipal Architect

Dean (Nair/ LTMG/ KEM/ Cooper/ Nair Dental/ ChMS&HOD)/ Director)

Executive Health Officer/ Law Officer/ Chief Fire Officer/ Education Officer/ Insecticide Officer/ Security Officer/ Chief Labour Officer/ Supt. of Gardens/ Supt. of License/ Asstt. Assessor & Collector/ Ch. Inspector Shop & Est./ GM Deonar Abattoir/ Manager Printing Press/ MCA/ MS

Chief Accountant (Finance/ Treasury/ WSSD/ CPD)

Asstt. Comm. (A, B, C, D, E, F/S, F/N, G/S, G/N, H/E, H/W, K/E, KW, L, M/E, M/W, N, P/S, P/N, R/C, R/N, R/S, S, T) Wards/ RE/ Estate

बृहन्मुंबई महानगरपालिका		
जल अभियंता यांचे कार्यालय		
सी. अर		आयसी
5	17 SEP 2021	आय एच
एमसीएल		एच सी
सी ओ	1261	आय ✓
वॉच	जअ	एच अर
		नगरपालिका

GRC - Circular Circular

For information for further n/a p.

HE/1261/I

Dt - 01/09/2024

Att Dy HES (DPS)

HE  
02/09/24

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