



**BRIHANMUMBAI MUNICIPAL CORPORATION (BMC)**

**(2022-2023)**

**DEMOLITION AND RECONSTRUCTION OF BRIDGES (2 Nos.) IN  
ZONE – VII**

- 1) BRIDGE AT IRANIWADI ROAD No. 4 (BADA POOL), KANDIVALI  
(W) IN R/S WARD**
- 2) VALNAI BRIDGE, KANDIVALI (W) IN R/S WARD**

**Website:** [portal.BMC.gov.in/tenders](http://portal.BMC.gov.in/tenders)

Office of: Chief Engineer (Bridges),  
Engineering Hub Building,  
Dr. E. Moses Road,  
Worli Naka, Worli,  
Mumbai- 400 018.

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**S.E. (Bridges) W.S.**

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**A.E. (Bridges) W.S.**

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**E.E. (Bridges) W.S.**

-sd-

**Dy. Ch. Eng. (Bridges) W.S.**

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**Chief Engineer (Bridges)**

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**SECTION 1**  
**E-TENDER NOTICE**

**BRIHANMUMBAI MUNICIPAL CORPORATION (BMC)**

**Chief Engineer (Bridges)**

No. Ch.E. / 7330 /Bridges dated. 06/10/2022

**Bid No- 7200037647**

**E-TENDER NOTICE**

**Demolition and Reconstruction of bridges (2 Nos.) in zone- VII**

**1) Bridge at Irani wadi road no. 4 (Bada Pool), Kandivali (W) in R/S Ward**

**2) Valnai Bridge, Kandivali (W) in R/S Ward**

The BrihanMumbai Municipal Corporation (BMC) invites e-tender to appoint Contractor for the aforementioned work from contractors of repute, multidisciplinary engineering organizations i.e. eminent firm, Proprietary/Partnership Firms/ Private Limited Companies/ Public Limited Companies/Companies registered under the Indian companies' act 2013, the contractors registered with the BrihanMumbai Municipal Corporation (BMC)in **Class I(A) as per new registration** (Excluding those who are blacklisted or against whom FIR has been filed) and from the contractors/firms equivalent and superior classes registered in Central or State Government/Semi Govt. Organization/Central or State Public Sector Undertakings, will be allowed subject to condition that, the contractors who are not registered with BMC will have to apply for registering their firm within three months from date of issue of work order failing which their Bid security ie EMD (Earnest Money Deposit) will be forfeited recovered and a penalty of 0.1 % of contract cost OR Rs. 10,000/- whichever is more will be recovered / deducted from the Contractors payment / bill by the executive department .The contractor, who fails to get registered with BMC in Civil / Mechanical and Electrical discipline shall not be considered to BMC work in future in this discipline.

Bidding Process will comprise of THREE stages.

**Joint Venture (JV) is not allowed.**

The bidder shall note the guidelines for Provisions incorporated in circulars under no.प्र.ले. वित्त/प्रकल्प/शहर/17 dt 06.09.2017,प्र.ले. वित्त/प्रकल्प/शहर, 15.09.2017, and प्र.ले. वित्त/प्रकल्प/शहर/28/ dt 10.11.2017 **are attached here within the Draft Tender.**

The application form can be downloaded from BMC's portal (<http://portal.BMC.gov.in>) on payment of Rs.10, 400/- + 18% GST. 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.

**i.** 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.

**ii.** Followed by SRM login ID and password to be obtained from Central Purchase Department (CPD), Office at Byculla, Bakariadda, Mumbai.

**iii.** 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, CUSTOMS, MTNL, GNFC and e-Mudhra CA.

Name and location of work	Contract period	Estimated Cost of Project (INR)
<b>Demolition and Reconstruction of bridges (2 nos.) in zone- VII</b> <b>1)Bridge at Irani wadi road no. 4 (Bada Pool), Kandivali (W) in R/S Ward</b> <b>2)Valnai Bridge, Kandivali (W) in R/S Ward</b>	24 months (Excluding monsoon)	Rs. <b>42,95,49,471/-</b>

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. 42, 95, 500 /- (Rupees Forty Two Lakhs Ninety Five Thousand Five Hundred only) (the "EMD"), refundable in accordance to the relevant clause of bid document, from the Bid Due Date, except in the case of the selected Bidder whose Bid Security/EMD shall be retained. The Bidders will have to provide Earnest Money Deposit through the payment gateways while submitting the bids. The Bid shall be summarily rejected if it is not accompanied by the Earnest Money Deposit. The e-tender is available on BMC portal (<http://portal.BMC.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 & C. 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 Chief Engineer (Bridges). 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 the BMC Portal. (<http://portal.BMC.gov.in>)

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

Office of: Chief Engineer (Bridges), BMC

Zero Floor, Engineering Hub Building,

Dr. E. Moses Road, Worli Naka,

Worli, Mumbai- 400 018,

The applicants may wish to visit the sites under reference as mentioned in above table and can collect the information of the present status from the department who have invited the bids.

The 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 Website of BMC. (<http://portal.BMC.gov.in/tenders>).

-sd-

**Chief Eng. (Bridges)**

### **HEADER DATA**

Tender Document No	7200037647
Name of Organization	BrihanMumbai Municipal Corporation
Subject	Demolition and Reconstruction of bridges (2 nos.) in zone- VII 1)Bridge at Irani wadi road no. 4 (Bada Pool), Kandivali (W) in R/S Ward 2)Valnai Bridge, Kandivali (W) in R/S Ward
Cost of Tender	Rs.10,400 + 18% GST
Cost of E-Tender (Estimated Cost)	Rs. 42,95,49,471/-
Bid Security Deposit/ EMD	Rs. 42,95,500/-
Date of issue and sale of tender	19/10/2022 from 11:00 Hrs
Last date & time for sale of tender &	18/11/2022 up to 15:00 Hrs
Submission of Packet A, B & Packet C(Online) & Receipt of Bid Security Deposit	18/11/2022 up to 16:00 Hrs
Pre-Bid Meeting	02/11/2022 at 14: 00 hrs.
Opening of Packet A	21/11/2022 after 11:00Hrs
Opening of Packet B	21/11/2022 after 11:10Hrs
Opening of Packet C	05/12/2022 after 11:00Hrs
Address for communication	Office of the:- Ch.E.(Bridges)'s office BMC, Zero floor, Engineering Hub Building, Dr. E. Moses Road, Worli Naka, Worli, Mumbai-400018
Venue for opening of bid	Online in Ch. Eng. (Bridges)'s office.

**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/-**

**Chief Eng. (Bridges)**

**SECTION 2**  
**ELIGIBILITY CRITERIA**

## **2.1 Technical Capacity (Project Experience)**

The tenderer(s) in their own name should have satisfactorily executed the bridge work of **#similar nature** in 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 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. Three similar completed works or currently executing three works of similar nature each costing 30% of estimated cost.\***

**OR**

**b. Two similar completed works or currently executing two works of similar nature each costing 40% of estimated cost.\***

**OR**

**c. One similar completed work or currently executing one work of similar nature of aggregate 60% of estimated cost.\***

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 last date of receipt of applications for tenders.

**Note: # similar nature means any Bridge**

**a) PSC Slab bridge of 20 m span minimum.**

**b) 3 Lane Steel Truss bridge in Vehicular loads of 50 m span minimum.**

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

## **2.2 Financial Capacity**

Achieved 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 invited.

- 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.
- 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 last date of receipt of applications for tenders.

### 2.3 Similar Experience

#### **Similar nature means any work involving construction of**

- c) **PSC Slab bridge of 20 m span minimum.**
- d) **3 Lane Steel Truss bridge in Vehicular loads of 50 m span minimum.**

### 2.4 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. 15 months = 15/12 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:**

1. Made misleading or false representation in the forms, statements and attachments submitted in proof of the qualification requirements; and/or
2. Record for poor performance such as abandoning the works, not properly completing the contract, inordinate delays in completion, 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 Municipal Corporation of Greater Mumbai(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 Municipal Corporation of Greater Mumbai(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**

### **1. Background:**

The Municipal Corporation of Greater Mumbai 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's The BrihanMumbai Municipal Corporation (BMC), hereafter called the "corporation", 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. BMC is an organization having different departments, right from engineering depts. to health depts. Moreover we have other dept. like education, market, fire brigade dept., Octroi and other such departments where quite a good number of staff members are working.

### **Scope of Work:**

BMC is primarily an organization, which in the interest of citizens and with the speed of urbanization deals with the variety of the infrastructure services and delivered to the public by different departments like Water Supply Projects, Sewerage Projects, Hydraulics,

#### **Demolition and Reconstruction of bridges (2 nos.) in zone- VII**

##### **1) Bridge at Irani wadi road no. 4 (Bada Pool), Kandivali (W) in R/S Ward**

Length of Bridge is 51 m. Overall Width of Bridge is 17.2 m. Construction of Bridge is proposed with Stainless steel Trusses and deck slab resting on decking sheet supported by abutments. Abutments will rest on the foundation of piles and pile cap. It is also proposed to use stainless steel Rebars in entire structure. Bridge consist of 2 number of Pile caps of 14-Pile group for each abutment. Span arrangement is 1 no. of 51 m span.

## **2) Valnai Bridge, Kandivali (W) in R/S Ward**

Length of Bridge is 20.26 m. Overall Width of Bridge is 20.60 m. Construction of Bridge is proposed with pre stress concrete deck slab resting on decking sheet supported by abutments. Abutments will rest on the foundation of piles and pile cap. It is also proposed to use stainless steel Rebars in entire structure. Bridge consist of 2 number of Pile caps of 12-Pile group for each abutment. Span arrangement is 1 no. of 20.26 m span. The bridge is proposed to construct in two phase of equal width. Phase-II will be constructed after demolition of Existing Bridge.

Contractor shall submit construction methodology and phasing in detail proposed along with his offer.

Vehicular traffic in the construction area shall be regulated with the help of Traffic Police Authority. However pedestrian movement in the area should not be affected during entire construction period. Hence, before starting the work barricading, signals, warning signals etc. shall be provided, in order not to affect the pedestrian movement and the utilities

### **Sequence of activities to construct bridge, satisfying above condition will be:-**

- New Span arrangement will be as per GAD.
- Proposed foundation will be designed by pile foundation.
- New abutment as design will be constructed, on pile foundation / open foundation as per GAD.
- Deck slab will be rest on Stainless Steel Trusses as per GAD.

**Note: The bidder shall refer the approved GAD to ascertain the detail scope of work.**

**SECTION 5**

**E-TENDERING ONLINE**

**SUBMISSION PROCESS**

## E-TENDERING ONLINE SUBMISSION PROCESS

The terminology of e-Tendering is solely depending upon policies in existence, guidelines and methodology adopted since decades. The SRM is only change in process of accepting and evaluation of tenders in addition to manual. The SAP module to be used in this E-tendering is known as Supplier Relationship Module (SRM).SRM is designed and introduced by ABM Knowledge ware Ltd. who will assist BMC in throughout the tendering process for successful implementation.

**NOTE:** This tendering process is covered under Information Technology ACT & Cyber Laws as applicable

(1) In e-tendering process some of the terms and its definitions are to be read as under wherever it reflects in online tendering process.

Start Date read as “Sale Date”

End Date read as “Submission Date”

Supplier read as “Contractor/bidder”

Vendor read as “Contractor/bidder”

Vendor Quotation read as “Contractors Bid/Offer”

Purchaser read as “Department/BMC”

I. Before entering in to online tendering process, the contractors should complete the registration process so as to get User ID for E-tendering links. For this, the contractors can access through Supplier registration via BMC Portal.

There are two methods for this registration :( II and III)

II. Transfer from R3 (registered contractors with BMC) to SRM

- a. Contractors already registered with BMC will approach to Vendor Transfer cell.
- b. Submit his details such as (name, vendor code, address, registered Email ID, pan card etc.) to Vendor transfer cell.
- c. BMC authority for Vendor Transfer, transfers the Vendor to SRM application from R3 system to SRM system.
- d. Transferred Vendor receives User ID creation link on his supplied mail Id.
- e. Vendor creates his User ID and Password for e-tendering applications by accessing link sent to his mail ID.

### III. Online Self Registration (Temporary registration for applicant not registered with BMC)

- b) Vendor fills up Self Registration form via accessing BMC portal.
- c) Vendor Transfer cell (same as mentioned above) accesses Supplier Registration system and accepts the Vendor request.
- d) Accepted Vendor receives User ID creation email with Link on his supplied mail Id.
- e) Vendor creates his User ID and Password for e-tendering application.

### IV. CONTRACTORS BIDDING: Applicant will Quote and Upload Tender Documents

- 1) Access e-tender link of SRM Portal
- 2) Log in with User ID and Password
- 3) Selects desired Bid Invitation (he wants to bid)
- 4) To download tender documents contractors will have to pay online Tender fee. The same can be done by accessing Pay Tender Fees option. By this one will be able to pay Tender fee through Payment Gateway-If transaction successful, Contractors can register his interest to participate. Without Registration one cannot quote for the Bid/Tender.
- 5) Applicant will download Tender Documents from Information from purchaser tab by accessing Purchaser document folder through collaboration 'C' folder link.
- 6) Applicant will upload Packet A related and Packet B related Documents in Packet A and Packet B folder respectively by accessing these folders through "My Notes" Tab and collaboration folder link.
- 7) All the documents uploaded have to be digitally signed and saved. Contractors can procure there digital signature from any certified CA's in India.
- 8) Bid security deposit/EMD and ASD, if applicable, should be paid online as mentioned in tender.
- 9) For commercial details (in Packet C) contractors will fill data in Item Data tab in Service Line Item via details and quotes his "Percentage Variation" (i.e.% quoted) figure.(If entered '0' it will be treated as at par. By default the value is zero only.
- 10) Applicants to check the bid, digitally signs & save and submit his Bid Invitation.
- 11) Applicants can also save his uploaded documents/commercial information without submitting the BID for future editing through 'HOLD' option.



- 12) Please note that “Hold” action do not submit the Bid.
- 13) Applicants will receive confirmation once the Bid is submitted.
- 14) Bid creator (BMC) starts Bid Opening for Packet A after reaching End Date and Time and Bid Evaluation process starts.

As per Three Packet system, the document for Packet A, B & C are to be uploaded by the tenderer in 'Vendor's document' online in Packet A, B & C. Before purchasing/ downloading the tender copy, tenderer may refer to post- Qualification criteria mentioned in e-Tender Notice.

The tenderer shall pay the EMD/Bid Security through payment gateways before submission of Bid and shall upload the screenshot of receipt of payment in Packet ‘A’ instead of paying the EMD at any of the CFC centers in BMC Ward Offices.

The e-tender is available on BMC portal, <http://portal.BMC.gov.in>, as mentioned in the Header Data of the tender. The tenders duly filled in should be uploaded and submitted online on or before the end date of submission. The Packet ‘A’, Packet ‘B’ & Packet ‘C’ of the tenderer will be opened as per the time table shown in Header Data in the Office of Chief Engineer (Bridges)

The Municipal Commissioner reserves the right to reject all or any of the e-Tender(s) without assigning any reason at any stage. The dates and time for submission and opening the tenders are as shown in the Header Data. If there are any changes in the dates the same will be displayed on the BMC Portal (<http://portal.BMC.gov.in>).

#### **BARRING PHYSICAL SUBMISSIONS**

As the entire tendering procedure is online process, the physical submission of documents shall not be entertained.

**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**

The BrihanMumbai Municipal Corporation (BMC) invites e-tender to appoint Contractor for the aforementioned work from contractors of repute, multidisciplinary engineering organizations i.e. eminent firm, Proprietary/Partnership Firms/ Private Limited Companies/ Public Limited Companies/Companies registered under the Indian companies' act 2013, the contractors registered with the BrihanMumbai Municipal Corporation (BMC) in **Class I(A) as per new registration** (Excluding those who are blacklisted or against whom FIR has been filed) and from the contractors/firms equivalent and superior classes registered in Central or State Government/Semi Govt. Organization/Central or State Public Sector Undertakings, will be allowed subject to condition that, the contractors who are not registered with BMC will have to apply for registering their firm within three months from date of issue of work order failing which their Bid security ie EMD (Earnest Money Deposit) will be forfeited recovered and a penalty of 0.1 % of contract cost OR Rs. 10,000/- whichever is more will be recovered / deducted from the Contractors payment / bill by the executive department. The contractor, who fails to get registered with BMC in Civil / Mechanical and Electrical discipline shall not be considered to BMC work in future in this discipline.

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

#### **A) Technical Capacity (Project Experience):**

The tenderer(s) in their own name should have satisfactorily executed the bridge work of **#similar nature** in 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 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) **Three similar completed works or currently executing three works of similar nature each costing 30% of estimated cost.\***

**OR**

- b) **Two similar completed works or currently executing two works of similar nature each costing 40% of estimated cost.\***

**OR**

- c) **One similar completed work or currently executing one work of similar nature costing 60% of estimated cost.\***

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 last date of receipt of applications for tenders.

**Note: - # similar nature means any work involving construction of**

a) **PSC Slab bridge of 20 m span minimum.**

b) **3 Lane Steel Truss bridge in Vehicular loads of 50 m span minimum.**

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

#### **B) Financial Capacity**

Achieved 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 invited.

- 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.
- 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 last date of receipt of applications for tenders.

#### **C) Similar Experience:**

**# similar nature means any work involving construction of**

a) **PSC Slab bridge of 20 m span minimum.**

b) **3 Lane Steel Truss bridge in Vehicular loads of 50 m span minimum.**

#### **D) Bid Capacity:**

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

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

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. 12 months = 12/12 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 or financial failures etc

#### **E) Equipment Capabilities as required for this work**

**New Works 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 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.

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 equipment's/ plant at particular distance from site should not be made in the tender document.
3. In case any requirement of machinery is felt necessary to be mentioned in tender document for a Regular and Routine works or New and original works, approval of concerned AMC shall be obtained.

#### **F) 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.**

#### **General Guidelines for Fixing Requirement of Technical Staff**

Cost of work (Rs in Crores)	Qualification	Number	Minimum Experience in years	Designation
More than 20 to 50	i) Graduate Engineer	1	20	Project Manager
	ii) Graduate Engineer or Diploma Engineer	1+1	5 or 10	Project/Site Engineer
	iii) Graduate Engineer	1	8	Quality Engineer
	iv) Diploma Engineer	1	8	Surveyor
	v) Graduate Engineer	1	6	Project Planning/Billing Engineer

#### **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	Project Manager with Degree	20	Rs.60000/-p.m.
2	Project /Site Engineer ( degree /Diploma)	5 or 10 respectively	Rs.25000/-p.m.
3	Quality Control Engineer (degree)	8	Rs.25000/-p.m.
4	Project Planning Billing Eng.	6	Rs.20000/-p.m.
5	Surveyor	8	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 cost and complexity of the work by competent authority i.e. Chief Engineer with recorded reasons.

5. The failure in providing experienced technical and /professional ability personnel and even ignoring the instruction of the Engineer-in-charge shall be linked to penalization. Such disobeying attitude of the contractor shall also be reported to Vigilance/Registration & Monitoring department.

**G) TIME PERIOD OF THE PROJECT:**

Entire project should be completed and delivered within Twenty four (24) months' time from the date of award of contract that excludes monsoon.

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 Letter of Acceptance 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 24 months (Excluding 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. Chief Engineer 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.

- **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

- 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 cancelled and legal steps be taken against the contractor for recovery of the amounts. 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 towards the excess cost incurred by the Department on rectification work.

- **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 therefore 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.

• **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 ensure 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.

It will be entirely responsibility of the contractor to provide and install secure barricades on work site; wholly at his cost. The barricading shall be provided as per specifications and as per site requirements and the circular issued u/no. MGC/6342 dated 05.05.2018 shall be applicable. BMC will not make any payments towards barricading, contractor shall quote accordingly.

All the excavated material belongs to the Municipal Corporation of the Greater Mumbai and therefore shall be the property of BMC. The excavated material shall be removed from site and dump to suitable dumping ground at the risk and cost of the contractors. The payment of transportation charges shall not be paid by the BMC. The bidder has to consider all the cost above and have to quote accordingly.

**Categories and classes available for Civil Contractors**

**A. New registration.(2016)****Minimum Financial requirements for Civil Engineering Discipline**

(Rs. In Lakh)

<b>Class</b>	<b>Amounts upto which work can be taken up</b>	<b>Minimum Solvency</b>	<b>Average turnover of work done during last 3 years</b>	<b>Estimated cost of work in hand during current year</b>
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	0.50	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) Valid GST Certificate. (Please refer circular no. CA.F.Project.City-28 dated 10.11.2017)
- 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) 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 Technical Capacity of Eligibility Criteria successfully completed during the **last Seven (7) years** in prescribed Proforma, in the role of 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). Information furnished in the prescribed Proforma (Proforma – I) shall be supported by the certificate duly self-attested. Documents stating that it has successfully completed during the last seven years at least one contract of similar works as stated in Eligibility Criteria.
- 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) **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.
- 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'.

**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:

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.

**I. Details of Litigation History:** - (As per Circular No.: MGC/F/6565 dated. 25.09.2018.)

**(PROFORMA VII)**

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, de-registration and cheating with BMC, State Govt., Central Govt. or any authority under State or Central Govt./Govt. organization initiated against the company, firm, directors, partners or authorized signatory shall be disclosed for last five years from the date of submission of bid. Also, bidder must disclose the Litigation History for last five years from the date of submission of bid about any action like show cause issued, blacklisting, debarring, banning, suspension, deregistration and cheating with BMC and BMC is the party in the Litigation against the company, firm, directors, partners or authorized signatory for carrying out any work for BMC by any authority of BMC and the orders passed by the competent authority or by any court where BMC 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 the bidder and take decision based on the gravity of the litigation and the adverse effects of the act of the company, firm, directors, partners or authorized signatory on the BMC works which can spoil the quality, output, delivery of any goods or any work execution and within the time frame.

**J)** 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. 500 stamp paper as per circular u/no. CA/FRD/I/65 of 30.03.2013.

**K)** 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. 500 stamp paper as per circular u/no. CA/FRD/I/44 of 04.01.2013.

**L)** The contractor should have completed the piling work at least minimum Depth / Length should not be less than 40% of pile Depth / Length proposed for this project.

**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: 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. Ch. Eng. The format for rate analysis is annexed at Annexure D.**

### INTERNAL GRIEVANCE REDRESSAL MECHANISM

B.M.C. has formed an internal Grievance Redressal Mechanism for redressal of bidders grievances. Any Bidder or prospective Bidder aggrieved by any decision, action or omission of the procuring entity being contrary to the provisions of the tender or any rules or guidelines issued therein, In packet 'A', 'B' & 'C' can make an application for review of decision of responsiveness in Packet 'A', 'B' & 'C' within a period of 7 Days or any such other period, as may be specified in the bid document.

While making such an application to procuring entity for review, aggrieved bidders or prospective bidders shall clearly specify the ground or grounds in respect of which he feels aggrieved.

Provided that after declaration of a bidder as a successful in Packet 'A' (General Requirements), an application for review may be filed only by a bidder who has participated in procurement proceedings and after declaration of successful bidder in Packet 'B' (Technical Bid), an application may be filed only by successful bidders of Packet 'A'. Provided further that, an application for review of the financial bid can be submitted, by the bidder whose technical bid is found to be acceptable/responsive.

Upon receipt of such application for review, B.M.C. may decide whether the bid process is required to be suspended pending disposal of such review. The B.M.C. after examining the application and the documents available to him, give such reliefs, as may be considered



appropriate and communicate its decision to the Applicant and if required to other bidders or prospective bidders, as the case may be.

Where M.C.G.M. fails to dispose off the application within the specified period or if the bidder or prospective bidder feels aggrieved by the decision of the procuring entity, such bidder or prospective bidder may file an application for redressal before the 'Internal Procurement Redressal Committee' within 7 days of the expiry of the allowed time or of the date of receipt of the decision, as the case may be. Every such application for Internal redressal before redressal Committee shall be accompanied by fee of Rs.25,000/- and fee shall be paid in the form of D.D. in favour of M.C.G.M.

1st Appeal by the bidder against the decision of C.E./HoD/Dean can be made to concerned D.M.C / Director who should decide appeal in 7 days.

If not satisfied, 2nd appeal by the bidder can be made to concerned A.M.C for decision.

Grievance Redressal Committee (GRC) is headed by concerned D.M.C / Director of particular department for the first appeal / grievances by the bidder against the decision for responsiveness/ non-responsiveness in Packet 'A', Packet 'B' or Packet 'C', and if not satisfied, concerned A.M.C, will take decision as per second appeal made by the bidder.

This grievance Redressal Committee (GRC) will be operated through DMC(CPD) office where appeals of aggrieved bidder will be received with fee of Rs. 25000/- from aggrieved bidder. The necessary correspondence in respect of said applications to the aggrieved bidder & concerned department, issuing notices, arranging of grievance Redressal Committee (GRC) with D. M. C. and further proceeding will be carried out through registrar appointed by BMC.

No application shall be maintainable before the redressal committee in Regard of any decision of the M.C.G.M. relating to following issues:

Determination of need of procurement

The decision of whether or not to enter into negotiations.

Cancellation of a procurement process for certain reasons On receipt of recommendation of the committee, it will be communicated his decision thereon to the Applicant within 10 days or such further time not exceeding 20 days, as may be considered necessary from the date of the

recommendation and in case of non-acceptable of any recommendation, the reason of such non-acceptance shall also be mentioned in such communication.

Additional Municipal Commissioner and/or Grievance Redressal Committee, if found, come to the conclusion that any such complaint or review is of vexatious, frivolous or malicious nature and submitted with the intention of delaying or defeating any procurement or causing loss to the procuring entity or any other bidder, then such complaint shall be punished with fine, which may extend to Five Lac rupees or two percent of the value of the procurement, whichever is higher.

**As per GCC 2016, Clause No.13.d) 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 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 7days. 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 here in after 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.

## **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 the EMD online instead paying the EMD at any of the CFC centers in BMC Ward Offices.
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 and ASD of L-2 and other higher bidders (L-3, L-4 etc) shall be refunded immediately after opening of financial bid.
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.

(Please refer circular No. CA (F)/Project/32 dated 26/10/2020)

7. 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. No rejections and forfeiture shall be done in case of curable defects. For non-curable defects the 10% of EMD shall be forfeited and bid will be liable for rejection.

### **3. FORFEITURE OF EMD FOR BEING NON-RESPONSIVE**

1. The practice of forfeiting 10% of EMD on non-compliance of the shortfalls is continued. However, no rejections and forfeiture shall be done in case of curable defects. **For non-curable defects the 10% of EMD shall be forfeited and bid will be liable for rejection.**

2. The forfeiture of EMD in the cases wherein if these submissions are not followed by a contractor, shall be informed by the user department to Registration and Monitoring Cell so as to make a data-base of such defaults of the contractors.

3. In case of non-submission of documents be considered as 'Intentional Avoidance' and if three or more cases in 12 months are reported, it shall be viewed seriously and disciplinary action against the defaulters which includes demotion, suspension, etc shall be taken by Registration cell as governed by relative provision in Registration Rules of BMC and Standard General Conditions of Contract.

4. Incentive and penalty:

Please refer the GCC condition no.84

**Note:**

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

- a.** Non-submission of following documents,
  - i.** Valid Registration Certificate
  - ii.** Valid Bank Solvency
  - iii.** Valid GST 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.

**ii) Non-curable Defect shall mean**

- a.** In-adequate 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 certificate and other documents etc.  
Please refer circular Ch.E./BM/01991/II/7.01.2019
- d.** Wrong calculation of Bid Capacity.

**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 re-quest 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**

- 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.
- 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.
- 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.
- 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.
- If defective work or workmanship or design have been knowingly covered-up or conceived 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.
- The DLP shall be as below:

<b>Dept</b>	<b>Type of works</b>	<b>DLP</b>
Roads / Bridge	For cement concrete road/ Mastic works	10 years
	CC Passage & Mastic Asphalt	5 years
	Structural work	5 years
	General works	5 years
	Asphalt Works	3 years

- 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.
- 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.

II) **Retention Money**–The contractor shall pay the retention money an amount equal to five (5) percent of the Contract Sum which will be recovered from the contractors 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 will be applicable when a rebate of more than of 12 % at the rate of with no maximum limit. The ASD is calculated as follows:

Additional security deposit =  $(X/100) \times$  office

estimated cost, Where X= percentage rebate quoted

above 12%

Note: - As per recent circular of Additional Security Deposit u. no.CA/F/42 dated 09.01.2021 is applicable for this tender.

### **C. Performance Guarantee**

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

<b>Offer</b>	<b>PG applicable %</b>
For premium, at par and rebate 0 to 12%	PG= 0.92% x contract sum <b>applicable for rebate of 12%</b>
For rebate of 12.01%	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 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 f 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**

One-half (50%) of the Retention Money shall be released within 30 days of issue of 'Certificate of Completion' with respect to the whole of the Works. 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.

The balance Retention Money 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) 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 moneys will be released within 30 days on expiration of the latest of such Defects Liability Periods.

Payment of the above mentioned 50% is exclusive of the amounts to be withheld as stated in and that amount shall be paid as per condition stated therein.



### III. Refund of Additional Security Deposit

The additional security deposit shall be released within 30 days of issue of 'Certificate of Completion' with respect to the whole of the Works. 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.

### IV. Refund of EMD/ASD

1. EMD /ASD of the bidders from L3 and downwards will be released immediately in next three days without asking any application from the applicant, at the level of A.E / Ex. Eng. through SRM system and without any insistence of the sanction of the competent authority as the EMD/ASD is a deposit to be refunded immediately of unsuccessful bidder and should not be kept on hold for any reason. Once the system is IT enabled, the same shall be done automatically.

2. EMD/ASD submitted by the L2 bidder will be returned after obtaining Standing Committee Resolution for awarding the work to L1.

The refund of EMD/ASD of unsuccessful tenderer is applicable as per circular u. no. CAF/Projects/32 dated 26.10.2020.

### V. 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 5 years DLP

Deposits refunded after completion	After 3 yrs of DLP
ASD + 50% of RM	CD+50% of RM

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

Deposits refunded after completion	After Completion of DLP
ASD + 50% of RM	CD+50% of 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.

**C. Legal + Stationary Charges: (As per applicable circular)**

Successful tender shall pay the Legal Charges + Stationary charges as per Circular no Legal dept/10318 Dated 24.03.2022

<b>Contract Value</b>	<b>As per circular no. 10318 dated 24.03.2022</b>
Upto Rs. 50,000/-	Nil
From Rs. 50,000/- To Rs. 1,00,000/-	Rs.6,290/-
From Rs. 1,00,001/- To Rs. 3,00,000/-	Rs. 10,380/-
From Rs.3,00,001/-To Rs.5,00,000/-	Rs. 12,470/-
From Rs.5,00,001/-To Rs.10,00,000/-	Rs. 14,510/-
From Rs.10,00,001/-To Rs.20,00,000/-	Rs. 16,570/-
From Rs.20,00,001/-To Rs.40,00,000/-	Rs. 18,660/-
From Rs.40,00,001/-To Rs.1,00,00,000/-	Rs. 20,720/-
From Rs.1,00,00,001/-To Rs.10,00,00,000/-	Rs. 24,450/-
From Rs.10,00,00,001/-To Rs.20,00,00,000/-	Rs. 28,220/-
From Rs.20,00,00,001/-To Rs.30,00,00,000/-	Rs. 31,980/-
From Rs.30,00,00,001/-To Rs.40,00,00,000/-	Rs. 35,740/-
From Rs.40,00,00,001/-To Rs.50,00,00,000/-	Rs.39,470/-

**D. Stamp Duty: (As per circular No. Ch. Eng/ BM/ 17800/II dated 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 Maharashtra Stamp Act 2015, stamp duty is payable for “works contract” that is to say, a contract for works and labor 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:

ii. (a) o	Where the amount or value set forth in such contract does not exceed rupees ten Lakh.	Five Hundred rupees stamp duty
(b) s t a m p	Where it exceeds rupees ten lakhs	Five hundred rupees plus one hundred rupees for part thereof, above Rs.1, 00,000/- or part thereof, above rupees ten Lakh subject to the maximum of rupees twenty five Lakh stamp duty.

duty @ 0.50% on original B.G as well as on extended B.G. amount as per letter of commissioner of stamp under circular no. Refer Letter of मुद्रांकजिल्हाधिकारीयांचेजाक्र./अमल-1/करययकरांतररट/896/2016 dated 23.02.2016.

- iii. The successful bidder shall enter into a contract agreement with M.C.G.M. within 30 days from the date of issue of Work Order and the same should be adjudicated for payment of Stamp Duty by the successful bidder.
- iv. 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 favor of “Superintendent of Stamp, Mumbai” within 15 days from intimation thereof.
- v. All legal charges and incidental expenses in this respect shall be borne and paid by the successful tenderer.
- vi. The successful bidder shall enter into a contract agreement with M.C.G.M. within 30 days from the date of issue of Work Order and the same should be adjudicated for payment of Stamp Duty by the successful bidder.
- vii. 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.
- viii. 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.BMC.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 [che.br@BMC.gov.in](mailto:che.br@BMC.gov.in). The subject shall clearly bear the following identification/ title: **"Queries/ Request for Additional Information: TENDER for Demolition and Reconstruction of bridges (2 nos.) in zone- VII**

**1) Bridge at Irani wadi road no. 4 (Bada Pool), Kandivali (W) in R/S Ward**

**2) Valnai Bridge, Kandivali (W) in R/S Ward**

Any changes in mail ID will be intimated on the portal.

### **3. ALLOTMENT OF WORKS IN CASE OF EQUAL PERCENTAGE**

1. 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 be 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, and then the successful bidder will be decided by lottery system by concerned Ch. Eng. in presence of Bidder/Bidder’s representative and Accounts Officer.

The lowest bidder shall have to submit the additional ASD if applicable within 7 days after receipt of notification issued by concerned Chief Engineer and “Performance Guarantee” shall be paid in 15 days after receipt of ‘Letter of Acceptance’.

Note: This process of re-quoting online shall be carried only after development in SRM system by IT Department.

4. In case of any surplus excavated material is required to be removed from the site, the cost shall be borne by contractor and is deemed to be included in the contractor’s offer. No payment on this account will be made separately. (As per the circular MGC/F/7867 dated 12.1.2015).

5. It will be entirely responsibility of the contractor to provide and install secure barricades on work site; wholly at his cost. The Barricading shall be provided as per specification and as per site requirements and the circular issued u/no AMC/ES/679/II dated 06.10.2015 shall be applicable. BMC will not make any payment towards barricading Contractor shall quote accordingly.

6. In case of any surplus excavated material is required to be removed from the site, the cost shall be borne by contractor and is deemed to be included in the contractors offer. No payment on this account will be made separately. (As per the circular MGC/F/7867dated 12.10.2015).

7. The surplus excavated material from the site shall be removed free of cost to the municipal dumping ground within 24 hours, as directed. The necessary tipping charges at dumping ground, as applicable, shall be borne by the contractor or at designated unloading site, as per circular No. Dy.Ch.Eng./SWM/3957 Op. dtd 28.09.2018 for which no extra payment will be made.

**SECTION 7**  
**SCOPE OF WORK**

## SCOPE OF WORK

This work includes **Demolition and Reconstruction of bridges (2 nos.) in zone-VII**

**1) Bridge at Irani wadi road no. 4 (Bada Pool), Kandivali (W) in R/S Ward**

Length of Bridge is 51 m. Overall Width of Bridge is 17.2 m. Construction of Bridge is proposed with Stainless steel Trusses and deck slab resting on decking sheet supported by abutments. Abutments will rest on the foundation of piles and pile cap. It is also proposed to use stainless steel Rebars in entire structure. Bridge consist of 2 number of Pile caps of 14-Pile group for each abutment. Span arrangement is 1 no. of 51 m span.

**2) Valnai Bridge, Kandivali (W) in R/S Ward**

Length of Bridge is 20.26 m. Overall Width of Bridge is 20.60 m. Construction of Bridge is proposed with pre stress concrete deck slab resting on decking sheet supported by abutments. Abutments will rest on the foundation of piles and pile cap. It is also proposed to use stainless steel Rebars in entire structure. Bridge consist of 2 number of Pile caps of 12-Pile group for each abutment. Span arrangement is 1 no. of 20.26 m span. The bridge is proposed to construct in two phase of equal width. Phase-II will be constructed after demolition of Existing Bridge.

It may specifically be noted by Contractors willing to quote for the work that Tenderer to fulfill all requirements of environmental authorities and safety measures on site. (See Annexure 'B'). Sequence of activities to construct bridge, satisfying above condition will be:-

- New span arrangement will be as per GAD in two phases
- Proposed foundations will be constructed by Pile foundation
- Abutments will be constructed and Pre-stressed Solid slab to be constructed on both sides as per GAD provided.
- Deck slab will be rest on Stainless Steel Trusses as per GAD.

The tenderer(s), prior to submitting his tender for the work is encouraged to visit and examine the site of work and its surroundings at his own expenses and obtain and ascertain for himself, on his own responsibility and risk. All information, technical data etc. that may be necessary for preparing his tender and entering into a contract including, inter-alia, the actual conditions regarding the nature and

conditions of site, availability of materials, labour probable sites for Chowky/ stores etc. and the extent of lead and lift required for the execution of the work over the entire duration of the contract, after taking into consideration local conditions, traffic restrictions, obstructions in work if any allow all such extra expenses that are likely to be incurred due to any such conditions, restrictions, obstructions etc. in the quoted contract price for the work.

Marking detailed dimensional survey of all the existing structures which are to be demolished and preparing necessary drawings will be the responsibility of the contractor for which no separate payment will be made. These drawings will have to be made available within one month of LOI. For this no separate payment will be made.

As the work under this tender is to be carried out near the running traffic, it will be essential for the contractor to take all safety measures to ensure safety of the same. The intending tenderer should carefully examine the site to understand the restrictions on availability of space and provision of safety measures.

The entire work will be carried out as detailed under title “Scope of Work” at the end of this section.

The sequence of activities to be performed as per prevailing site conditions in each phase will be as under.

- Demarcation of alignment of proposed Bridge and all the utilities underground before Piling work commences, especially at the location of foundations by taking trial pits and mapping utilities as already stated etc.
- Demolishing of existing Abutment, slab, wing wall, parapet wall and Nalla retaining wall on shop sides.
- During demolition of existing bridge, the site has to be controlled for pollution considering environmental impact and factors.
- Conducting Soil Investigation bores and finalizing the depth of Pile wrt. Pile load carrying capacity. Carrying out Initial static load test upto 2.50 times.
- Approval for Concrete Mix Design for various Grades of Concrete prior to start of concreting work. Approval of admixtures to be used in the works.
- Approval of construction methodology proposed by the contractor for phase wise work.
- Tenderer to indicate construction methodology for the bridge along with his submission of tender, Traffic regulation if required will be arranged by the contractor in consultation with traffic police. Getting permission from traffic police will be the responsibility of contractor. No claim will be entertained due to non-permission / delayed permission etc.



- Approval by Engineer in charge for foundation strata as per Static load test in consultation with Design consultant.
- The depth of foundation will be determined after carrying out the necessary investigations and analysis of information obtained/available at site in consultation with contractor's consultant (Soil expert) and Engineer – in – charge.
- Piling as per predetermined and approved sequence. The piling shall be done with hydraulic rig only. Boring through all type of strata including hard rock, this shall be payable under item relevant item of BOQ. If the socketing of pile in hard rock of 1 dia. cannot be done with hydraulic rig, then chiseling with ordinary rig and chisel shall be resorted to in order to get desired socketing of the pile in rock. No extra payment for this will be made.
- RCC pile caps after excavating, soling, PCC etc.
- Construction of cofferdam for foundation work, wherever necessary.
- Construction of Pile foundation along with Pile cap followed by the construction of RCC Abutment & pedestal after the excavation, soling, PCC for pile cap etc.
- Fixing of Steel plate/Elastomeric bearing on pedestals as directed by Engineer.
- Approval from competent authority for Launching scheme, detailed drawings, methodology proposed by contractor.
- Approval from competent authority for Launching scheme, detailed drawings, methodology proposed by contractor shall be obtained, if required.
- Fabrication/ Assembling and launching Girders as per approved scheme etc.
- Fixing of Rolla Deck sheet over greeed in phases.
- Casting of deck slab will be followed after Fixing of Rolla Deck sheet over Trusses.
- Casting of Dirt wall, Retaining wall, Deck slab, Crash barrier, footpath and Approach slab.
- Shifting of existing Utilities in the necessary locations as per approved drawing.
- Contractor will have to arrange his own fabricating and stacking yard etc. Road will not be available for stacking of any material, etc.
- Existing services/ utilities will have to be identified by the contractor and arranged to be rerouted as required by respective agencies.
- Above same methodology will be repeated for Second phase which is on Existing Nalla Bridge, by demolition of existing Nalla Bridge and Temporary bridges.
- Safety of the existing structures in vicinity is complete responsibility of the tenderer. Any damages to these structures in vicinity for what so ever the reason may be will be responsibility of the tenderer throughout Contract period and repair / rectification will be borne by tenderer. No extra payment will be made for the same. Tenderer should take note of the same while quoting.

- Contractor will have to maintain all barricading signs, signboards, blinkers, warning, supply of wardens and signals for traffic to the satisfaction of traffic police.
- Use of ready mix concrete is compulsory for all concrete items. Concrete manufacture at site will not be allowed. Use of existing bridge for placing concrete will not be allowed. Contractor has to arrange for design of suitable mix.
- Traffic regulation if required will be arranged by the contractor in consultation with traffic police. Getting permission from traffic police will be the responsibility of contractor. No claim will be entertained due to non-permission / delayed permission etc.

### **Mapping of Utility services:**

For ascertaining the existing utility services met with during excavation, along the project carriageway of Bridges, the contractor shall prepare & precisely map the utilities met with and submit 3 sets maps of said utility services in soft as well as hard copies of all the existing as well as any newly laid utility services from permanent reference points along and across the improved project bridge carriageway by mentioning co-ordinates in three dimensions. Mapping of utilities will not be paid separately. While bidding, bidders shall consider this aspect and should quote accordingly.

**Note:** All the works contained in the scope of work shall be carried out strictly as per the relevant specifications applicable as attached OR referred to in this e- tender document OR as directed by The Engineer.

The above is general description of the scope of work & actual work shall be governed by B.O.Q. and as directed by the Engineer.

The Contractors shall execute the work even on Saturdays, Sundays, Holidays & in night time without any break in the continuity of work; the Contractor shall arrange exclusive labour force for this purpose along with all resources. The total working days shall, however, be counted as per the Contract period mentioned in this Tender Document & as per G.C.C. Failure of the Contractor to observe the continuity of work will be viewed seriously & heavy penalty will be imposed for the every default.

### **(III) APPLICABLE TO CONSTRUCTION OF BRIDGE**

1. Traffic is playing on the existing road, which provides across to proposed site. Intending tenderers will have to obtain the approval from traffic police dept., during execution of works and to take all safety measures such as barricading, blinkers at night at both ends. “Go slow work in Progress” boards at least 100m. at 2 nos. at each end, use of reflective paint etc. this will be incidental to work and will not be paid separately.

2. Wherever works are to be carried out near the road, it would be necessary to provide strong barricading of approved pattern and design to keep off the pedestrians and vehicular traffic from any construction work or equipment brought for the work. In addition to this barricading diversion sign boards, blinking electric warning colour lights and proper warning lights during night times will have to be provided by the contractors, in consultation with the times will have to be provided by the contractor, in consultation with the Engineer – in charge and the traffic authorities. Provision of shoring / strutting necessary for protecting / retaining embankments / filling in the area adjacent to construction area as required by Engineer – in charge is included in contractor's scope. The cost of providing all these measures, as mentioned above shall be deemed to be included in the price / percentage quoted by the Tenderers and no extra payment on any of these accounts shall be admissible.
3. There are a few utilities along / over the existing bridge however there could be some unknown utilities also below ground. Tenderers should note that certain utilities are running along the existing bridge, which are required to be shifted. The contractor has to take necessary precautions for safety of the structure and utilities. No extra payment will be made for this.
4. The utilities will have to be identified by taking trial pits at suitable interval around the ROW before starting the foundation work. Mapping must be done before taking up any activity. Taking trial pits and mapping utilities is incidental and no extra payment on this account will be made. All damages to the utility known or unknown shall be sole responsibility of the contractor.
5. Utility services like telephone cables or power cables or water mains, if any, are proposed to be shifted suitably as per provisions of clause no. 5(o) of G.C.C. as amended up to date. Tenderers are requested to take into cognizance the width of excavation over which utilities will be required to be supported and quote their percentage rate accordingly.
6. Contractors have to take all precautions and safety measures of all utilities (underground or on existing bridge) like water mains, cables etc. till its shifting by concerned department. If any mishaps happen with utilities during construction works, all responsibility for the same will be borne by contractor.
7. Foundation design may have to be modified as per actual strata met with if it is different than the soil investigation report. However, no claims such as idle labours and machinery and materials and extra resources on this count shall be entertained. Contractors have to plan his work taking into account this factor and complete the work in time.
8. Water required for the work shall be arranged by the contractor at no extra cost. Contractor will have to make his own arrangement for adequate storing of water, so as to avoid use of any other

water for construction purpose. Water from the outside sources shall have to be got tested at Municipal Laboratory or any other Government recognized laboratory at Contractors cost before its use.

**9.** The time period prescribed for the completion of the works is 24 months (excluding monsoon) includes certain likely delays on account of shifting of utilities etc. In case of any abnormal delay on account of shifting of utilities, the engineer may grant suitable extension in the activity. However, such delays will not vitiate the contract and non-claims for compensation on such account will be entertained.

**10.** Layout and detailed drawings attached with the tender documents may undergo changes depending on site conditions soil data, exact location of utilities and sub soil strata met with at the time of execution. This will not vitiate the contract and will not lead to claims for extra rate of compensation.

**11.** Excavation and demolition of various items is required to be carried out with utmost safety. Care should be taken to avoid any damage to the existing properties and utilities. In that eventuality the contractors will have to bear the cost for compensation / reconstruction.

**12.** Mix designs for the required strengths of concert shall be carried out well in advance of concreting. Ready mix concrete must be used for all structural concrete.

Tenderer should submit undertaking for mandatory and minimum machinery which must be required during execution of said work. The tenderers should note that it is very much essential to make arrangements for getting the required machineries before quoting for the work. Tenderers should submit a “List of Plants and Equipment including centering materials along with the tender.”

**13.** There are chances of accumulation of slush / mud / foreign material in construction trenches during working. No extra payment will be made for removal of such material.

**14.** Intending tenderers are free to do the construction activities like superstructures on land away from actual for site. However mode of payment will be on completion as per BOQ item only.

**15.** The contractor should take a necessary note of tidal variation and flow levels in the river and make plan the height of coffer dam for diverting flow.

**16.** No construction joint is permissible in this except as shown in the drawing. The concrete mix shall be designed to provide for the necessary retardation to account for the various pours by addition of admixtures. The tenderer is required to make all necessary arrangements accordingly. No extra payment is admissible on account of use of admixtures.

**17.** Concreting work during night hours will be permitted only when it is necessary. The contractor shall make all the necessary arrangements like flood lights, generator sets etc. at such times.

- 18.** Mechanical means of curing by spraying water is mandatory for all RCC / PSC components. Additionally, the superstructure shall be cured by ponding on top of the slabs.
- 19.** The use of approved admixtures / plasticizers is mandatory for maintaining workability of the concrete with the water cement ratio limited to 0.4.
- 20.** Use of steel shuttering with minimum 3mm. thick M.S. plates backed by angle frames shall be permitted as formwork alternatively Marine Plywood with adequate thickness backed by wooden / SS frames shall also be permitted. The shutting design for all components shall be got approved from the Engineer-in-charge.
- 21.** PERT chart with milestone fixed for activities shall be submitted by the successful tenderer before commencing work.
- 22.** The staging and shuttering of the RCC members shall be designed for form vibrators.
- 23.** Facility for Fax Connection & PC shall be made on site.
- 24.** All sub-surface water including run off from storm water, other surface drainage, river water etc. running in the nalla / river shall be required to be diverted from the open excavation of the foundations. Dewatering of water using adequate number of pumps of suitable capacity shall also be considered. The concreting will be permitted only in fully dry condition. Also precautions and provisions for ensuring the same are deemed to be included in the rate and no separate payment shall be made for the same.
- 25.** Every steel bar shall bear the mark of manufacturer embossed on it along with all other requirements as usual.

The tenderer should note that –

- i. The maximum price variation refer as per section -9 of G.C.C clause no.79

**26.** It is mandatory for the contractors to provide necessary and required office equipment accessories, stationary, furniture etc. for the work under reference and will help the site engineers for maintaining day to day record as given below.

The maximum price variation payable as per of general condition of contract. As per GR of Maharashtra Government. Basic consumer price index (Io) and basic wholesale price index (Wo) prevailing on the day of 28 days prior to the date submission of the tender is considered. The price variation shall be permitted for the materials. The basic rates adopted in the item of Uniform schedule of rate applicable to this tender are as under-

I. Cement:Rs.6160/MT	Mild Steel:Rs.47,200/MT
----------------------	-------------------------

HYS Steel(Fe415):Rs.49,560/M T	T.M.T.(Fe500):Rs.52,510/MT
Structural Steel:Rs.50,740/MT	Bitumen: a) 10/20 - Rs.28.60 per Kg b) 30/40 - Rs.31.31 per Kg c) 60/70 - Rs.29.54 per Kg

However, price variation shall not be admissible beyond theoretical date of completion of contract period, as also for the fair items created during execution.

The price variation formula as per section -9 of clause 79(B) of general condition of contract as below:

a) Formula for Labour component :

$$VL = \frac{(0.88 R) \times 30 \times (I - IO)}{100 \quad 10}$$

b) Formula for Material component :

$$VM = \frac{(0.88 R \times 70 - C) \times (W - WO)}{100 \quad WO}$$

#### List of Registers.

The contractor shall prepare & maintain soft copies of the following registers as applicable during execution of work:-

1. Inventory Register
2. Correspondence file
3. External & internal utility remarks file
4. File containing drawings
5. Daily Progress Register
6. Instruction Register
7. Level Book
8. Mix design file
9. Material Testing Result file
10. Photograph file
11. Excavation Register (Asphalt , rock, soil etc)

12. Removal Challans & Register (if dumped at Municipal ground /if paid separately)
13. Steel Register
14 M15,M20, M-35, M-40, M-45 Cube registers etc.
15. M15,M20, M-35, M-40, M-45 registers etc.
16. R.M.C. Challan file for grade M15,M20, M-35, M-40, M-45 etc.
17. Penalty Register.
18. G.S.B Register.
19.W.M.M Register
20. D.B.M Register.
21. Bituminous Register, Bituminous Challan File.
22. Register for inspection during defect liability period.
23. Contractor's site staff attendance register
Note: - Any other register as directed by Engineer- In-Charge.

Any other registers required as per description of items for any activity/material/quantity for which payment is made or as instructed by engineer in -charge. Hard copies of the registers shall be prepared and signed by the contractors and shall be provided as and when required.

Mastication work during night hours will be permitted only when it is necessary. The contractors shall make all the necessary arrangements like flood lights, generator sets etc. at such times.

## BARRICADES.

**Regarding barricading referred following circular:-**

**BRIHANMUMBAI MUNICIPAL CORPORATION (BMC)**

**CIRCULAR**

**U/No.MGC/F/6342 dated 5.5.2018**

Sub.: Revised guidelines regarding barricades being used during the execution of  
Various infrastructure development projects by BMC in Mumbai.

Various infrastructure development projects are being executed by BMC for the betterment of citizens of Mumbai. During the course of execution of the projects, it is necessary to provide strong and secured barricading as a safety measure to avoid any mishaps as well as to avoid nuisance to vehicular and pedestrian traffic. Nowadays, the following types of barricades are being used exclusively in BMC as per the convenience of various departments at different sites.

1. Water/sand fillable PVC Metro barricades.
2. RW 7.45 (G.I. sheets of 22 gauge fixed on 3 inch dia. Wooden bullies buried in existing road sufficiently)
3. RW 7.36 (G.I. sheets of 22 gauge fixed on MS Angle post buried in half the depth in drums of 20 litres capacity in 1:3:6 concrete)
4. Structural steel barricade for major trenches having depth more than 2.00 meters.

Thus from the above, it can be seen that there is no uniformity in provision of barricades as they are of different size and shape. Further it is also observed that the continuity is not maintained in providing the barricading keeping gaps in between thus endangering the safety of vehicular as well as pedestrian traffic. Also the barricades are not being cleaned, thus further adding to shabbiness. Further Mumbai being the financial capital of India, people from all over the world visit the city daily and to maintain good image of city the following decisions are taken.

A) Only two types of barricades having department wise colour coding are proposed to be used depending upon the nature of work i.e. Minor and Major.

**i) Minor works:** Barricading made out of 1.5 mm thick MS plate fixed on M.S. angle post/ frame of 65 mm X 65 mm X 6 mm having height of 1.5 m supported on as shown in Annex-I.

**ii) Major works:** Structural steel barricade made out of 1.50 mm thick M.S. Plate ISMB 250, ISLC 250X50mm and ISA 50mmX50mmX6 mm having of size 2.5 m X 2 m as shown in Annex-II.

**B)** The department wise colour coding for the barricading shall be as under:- i) H.E. & W.S.P. department – Blue ii) Roads, Traffic, Bridges and Coastal Roads department– Yellow iii) S.P. & S.O department – Green iv) S.W.D., Building Maintenance department & forwards works – Red

**C)** The basic principle behind installing secured and continuous barricading is to ensure the safety of vehicular as well as pedestrian traffic and residents in the nearby vicinity of the project. Due to non-



installation of appropriate barricades on sites if any mishap occurs leading to injury or loss of life, then the contractor and contractor's Engineer-in-charge will be liable for the consequent action.

**D)** During the course of execution of project, if it is noticed that the contractor has not provided barricading then a penalty of Rs.1000/- per meter per day will be imposed upon the contractor and will be deducted from the due Bill. This penalty shall be a part of penalty as per tender condition.

**E)** Details of the work shall be prominently displayed on the central panel of the barricades along-with the Social Slogans as given in Annexure III and the Cycle of the same shall be maintained.

**F)** The contractor shall provide and install the barricading along with the slogans printed as per the Annexure III, at his own cost and no payment will be made for this; however the contractor shall quote the bid accordingly by considering the cost of barricading.

The condition shall be included in the tender as given below.

“Barricading shall be provided free of cost as per Circular vide U/No. MGC/F/6342 dated 5.5.2018 and as per Annexure I, II and III of Standard drawings and specifications with slogans and department wise colour codes.” The copy of circular will be attached to the tender as a part of tender document. This circular will be applicable for the new tenders proposed to be invited from 01.05.2018 and also the corrigendum shall be attached to tenders which are uploaded. However, for the projects wherein the tenders are already invited, the barricading shall be provided strictly as per tender condition. All the details (Annexure I, II & III of Standard drawings and specifications with slogans and department wise colour codes, sketches and department wise colour coding) are uploaded on BMC portal.

This circular shall come in force with immediate effect.

sd/- 20.4.2018  
(Shri V.P. Chithore)  
Dir. (ES&P)

sd/- 20.4.2018  
(Shri R. B. Bambale)  
D.M.C. (S.E.)

sd/- 21.4.2028  
(Shri Vijay Singhal)  
A.M.C. (E.S.)

sd/- 21.4.2018  
(Dr. Shri Sanjay Mukherjee)  
A.M.C.(P.)

sd/- 5.5.2018  
(Shri. Praveen Pardeshi)  
M. C

sd/-16.5.2018  
(Shri P. R. Kadam )  
D.M.C. (S.E.)

**1) HYDRAULIC ENGINEER'S DEPARTMENT/ WATER SUPPLY PROJECTS**

- i) Inconvenience regretted
- ii) Ensuring Mumbai's water supply
- iii) Save water Save life

**2) ROAD, TRAFFIC / BRIDGES DEPARTMENT**

- i) Inconvenience regretted
- ii) Working towards a better tomorrow
- iii) My Mumbai, Green Mumbai

**3) SEWERAGE PROJECTS DEPARTMENT/ SEWERAGE OPERATIONS DEPARTMENT**

- i) Inconvenience regretted
- ii) Reduce Reuse Recycle
- iii) Clean Mumbai , healthy Mumbai

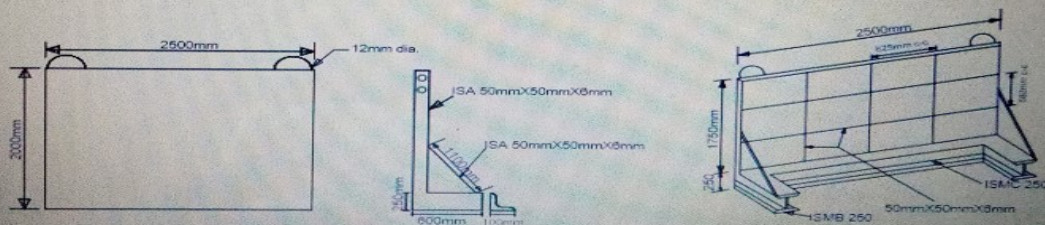
**4) STORM WATER DRAIN DEPARTMENT/ WARD WORKS**

- i) Inconvenience regretted
- ii) Working towards a better tomorrow
- iii) Swatch Bharat

**ANNEXURE II**

**B) Major works:**

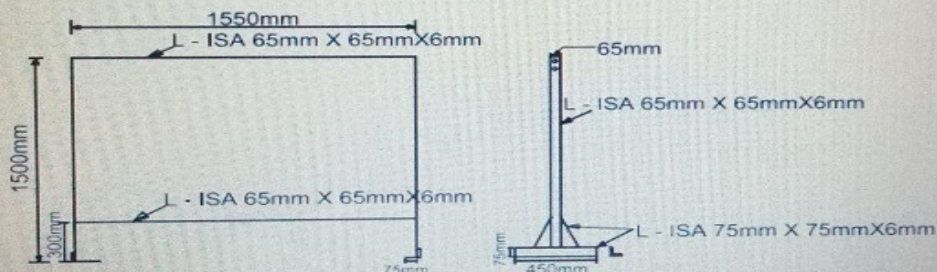
Providing, fabricating and installing the structural steel barricading made out of 1.5 mm thick M.S. plate of size 2500 mm X 2000 mm, ISMC 250 X 50 channels, M.S. Angles ISA 50 X 50 X 6mm and ISMB 250 as per IS 1161-1 RHS/SHS rolled angle plates of TATA Steel, Lloyd Steel, SAIL, ESSAR steel approved in straight profile of all sizes, shapes and for all works including stiffeners, bolts and nuts, file / butt welding, splicing, machine grinding, of all member joints wherever required to give neat appearance, and daily cleaning the barricading along with displaying of the Depthwise slogans as given in Annexure -III etc with interlocking arrangement to avoid gap in between and as directed by Engineer in-charge.



**ANNEXURE I**

**A) Minor work**

Providing, fabricating and installing the barricading made out of 1.5 m high M.S. Angle post of 65 mm X 65 mm X 6 mm with 1.5 mm thick M.S. Sheet of size 1.55 m X 1.2 m welded to the M.S. angle post/ frames and fixed to 75mm X 75mm X 6 mm angle base as shown in sketch for minor works , displaying of the social slogan as per the Annex - III, daily cleaning of the same to get better appearance and interlocking arrangement to ensure continuity in provision and to avoid gap in between etc complete and as directed by Engineer in-charge.







**SECTION 8**  
**BILL OF QUANTITIES**

**ABSTRACT (BILL OF QUANTITIES)**

S. No.	Item No.	DESCRIPTION	Unit	Total Quantity	Rate in Rs.	Amount in Rs.
		<b>EXCAVATION</b>				
1	R2-CS-EW-1	Excavation for foundations, substructures, basements, tanks, sumps, walls, chambers, manholes, trenches, poles, pits & general building works in all types of soils, vegetable earth, soft murum, running sand, shingle, turf clay, loam, peat, ash, shale, slag, chalk, garbage, muddy/ marshy/ slushy soil, marine clay, reclaimed land etc. for depths/lifts upto 1.5M measured from the ground level, including dressing/ trimming the sides, leveling and ramming 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 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 Engineer-in-Charge. 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 applicable if any. For more details refer General Notes.	Cum	7765.00	307.00	2383855.00
2	R2-CS-EW-2-a	Extra over above item CS-EW-1 for lift from 1.50 m to 3.0m	Cum	3470.00	71.00	246370.00

**ABSTRACT (BILL OF QUANTITIES)**

<b>S. No.</b>	<b>Item No.</b>	<b>DESCRIPTION</b>	<b>Unit</b>	<b>Total Quantity</b>	<b>Rate in Rs.</b>	<b>Amount in Rs.</b>
3	R2-CS-EW-2-b	Extra over above item CS-EW-1 for lift from 3 m to 4.5m	Cum	320.00	106.00	33920.00
4	R2-CS-EW-2-c	Extra over above item CS-EW-1 for lift from 4.5 m to 6.0m	Cum	85.00	171.00	14535.00
5	R2-CS-EW-2-d	Extra over above item CS-EW-1 for lift from 6 m to 7.5m	Cum	0.00	236.00	0.00
6	R2-SWD-153 A	Constructing cofferdam of puddle bags with clay etc. as specified & as directed by Engineer in Charge.	Cum	583.00	5282.00	3079406.00
		<b>FOUNDATION</b>				
		Providing and installing in position controlled concrete of grade M-40 with minimum cement content as 440kg/cum. and W.C ratio not exceeding 0.40 for R.C.C work in cast-in-situ bored piles with hydraulic boring machine including mobilization to the site of work. Each pile shall have load capacity as per design and of specific diameter using maximum 20mm size of aggregate including boring through all strata including rock, including placing of concrete by tremie arrangement through mildsteel casing to the required depth. Compaction as necessary withdrawal of mildsteel casing including chipping/dressing of piles to required levels, cleaning the reinforcement etc. complete as specified and directed (Excluding reinforcement) (Using Batching Plant, Transit Mixer and Concrete Pump)				
7	R2-	1200 mm Dia	Rmt	960.00	15089.00	14485440.00

**ABSTRACT (BILL OF QUANTITIES)**

<b>S. N o.</b>	<b>Item No.</b>	<b>DESCRIPTION</b>	<b>Unit</b>	<b>Total Quantity</b>	<b>Rate in Rs.</b>	<b>Amount in Rs.</b>
	BW-2-115-m					
8	R2-BW-2-115- e	600mm dia	Rmt	4747.00	5011.00	23787217.00
9	R2-BW-2-28-o	Empty boring through over burden including road crust upto the bottom of pile cap for all diameters of piles.	Rmt	132.00	1935.00	255420.00
10	R2-BW-2-29-m	Chipping and dressing of the RCC piles to remove surplus concrete up to one metre height only above cut off level without damaging the projecting reinforcement including clearing reinforcement and removing the dismantled materials etc. complete as specified and directed. <b>1200 Dia</b>	Rmt	132.00	1856.00	244992.00
11	R2-BW-2-36	Providing and installing in position permanent M.S. liners for piles of specified diameter and fabricated from 6 to 8 mm thick plates as per detailed drawing and designs including cutting, bending to required shape, welding, painting with Red Oxide paint etc. Complete as specified and directed.	Mt	527.00	73417.00	38690759.00
12	R2-BW-2-37	Levelling course for Pile cap - Providing and laying of PCC M15 levelling course 100mm thick below the pile cap.	Cum	50.00	4963.00	248150.00
13	R2-BW-2-17	Providing and placing in position controlled cement concrete of M-15 grade for foundation work with minimum cement 400kg./cum. and water cement ratio not exceeding 0.4 for PCC raft foundation slab with V notches Sloped/ flat/ strlp footings, pilecap stie beams to required lines/ levels including leveling, compacting by	Cum	260.00	5419.00	1408940.00

**ABSTRACT (BILL OF QUANTITIES)**

<b>S. No.</b>	<b>Item No.</b>	<b>DESCRIPTION</b>	<b>Unit</b>	<b>Total Quantity</b>	<b>Rate in Rs.</b>	<b>Amount in Rs.</b>
		vibrators, curing including shuttering, centering as necessary and required etc. complete as specified and as directed.				
14	R2-BW-2-13	Providing and laying Dry Rubble stone packing having thickness 230 mm and above in foundation including hand packing in regular line and level, filling interstices with small pieces of stone, thoroughly ramming and consolidating including watering as necessary etc. complete as specified and directed.	Cum	1300.00	1439.00	1870700.00
15	R2-BW-2-25	Providing and placing in position controlled cement concrete of M40 grade for foundation work with minimum cement 400 kg/cum and water cement ratio not exceeding 0.4 for RCC raft foundation slab with V notches/ flat/ strip footings, pile caps, Retaining wall raft tie beams to required line / levels including levelling, compacting by vibrators, curing including shuttering, centering as necessary and required etc complete as specified and as directed but excluding reinforcement.	Cum	760.00	7995.00	6076200.00
16	BR-FAIR-22-02	Supplying, providing and fixing in position Stainless steel rebars of grade G 410-L Ferritic confirming to IS 16651 : 2017 for RCC works of any dia. Up to 32 mm whenever directed including handling, fixing, straightening, wastage, cutting, banding, placing in position, binding etc. complete in all respect as directed and procured from BMC approved supplier.	MT	258.00	200631.00	51762798.00
17	R2-BW-2-	Providing and cutting bending, hooking, laying in position and tying Mild steel / HYSD bars for				



**ABSTRACT (BILL OF QUANTITIES)**

<b>S. N o.</b>	<b>Item No.</b>	<b>DESCRIPTION</b>	<b>Unit</b>	<b>Total Quantity</b>	<b>Rate in Rs.</b>	<b>Amount in Rs.</b>
	38-a	reinforcement (including lapping) as per detailed drawings for R.C.C.work.				
		a) HYSD bars	Mt	162.00	64518.00	10451916.00
18	R2-BW-5-8	providing Fusion Bonded epoxy coating (FREC) to reinforcing steel bars as per IS 13620-1993 specifications for coating thickness of 175 microns (with permissible variation of 50 microns) including testing at plants etc. complete as per specifications.	Mt	488.00	16275.00	7942200.00
19	R2-BW-5-6-o	Carrying out Cyclic load test at 2.50 times the design load or as specified on vertical test pile of 1000mm dia. as per the procedure laid down in IS:2911 including maintaining and submitting complete records of load settlement as specified and directed.	No	2.00	880000.00	1760000.00
		Carrying out load test at 1.50 times the design load on any vertical pile selected by Engineer-in charge as per the procedure and specifications laid down in IS:2911 and maintaining complete record of observations regarding load settlement etc. complete.				
20	R2-BW-5-6-i	a) On first Pile	No	2.00	436568.00	873136.00
21	R2-BW-5-6-j	b) Subsequent Pile	No	2.00	171801.00	343602.00
		Carrying out Dynamic Load Test at 1.50 times the design load on any diameter of pile including all preparation for conducting test by precasting required C.C hammer				

**ABSTRACT (BILL OF QUANTITIES)**

<b>S. N o.</b>	<b>Item No.</b>	<b>DESCRIPTION</b>	<b>Unit</b>	<b>Total Quantity</b>	<b>Rate in Rs.</b>	<b>Amount in Rs.</b>
		head and machineries, labour etc. including submitted report with graphs and interpretations complete( excluding cost of pile).				
22	R2-BW-5-6-m	a) On first pile	No	2.00	49500.00	99000.00
23	R2-BW-5-6-n	b) Subsequent Pile	No	4.00	27500.00	110000.00
24	R2-BW-5-7-d	Carring out integrity test on piles of various diameters as per standard procedure and submitting reports.	nos	152.00	550.00	83600.00
25	R2-BW-1-18	Carrying out Plate Load Test complete with necessary and adequate Kentledge loads, equipments and instruments etc. as per specifications for determination of bearing capacity of soil etc.complete as specified and directed and submitting reports in duplicate.	nos.	2.00	82500.00	165000.00
		<b>SUBSTRUCTURE</b>				
26	R2-BW-3-27	Providing and placing in position controlled cement concrete M-40 grade using minimum cement content as 400Kg/cum and max water cement ratio of 0.40 for RCC work in coping on retaining walls, bedblocks, abutment/pier/columncaps, dirtwalls,pedestalsforbearing on piers/abutments as per drawing sand designs including projections, moulding, champhers etc. of required shape and size including levelling, compacting by vibrators, curing, finishing the exposed surfaces including formwork, shuttering	Cum	3181.00	8129.00	25858349.00

**ABSTRACT (BILL OF QUANTITIES)**

<b>S. N o.</b>	<b>Item No.</b>	<b>DESCRIPTION</b>	<b>Unit</b>	<b>Total Quantity</b>	<b>Rate in Rs.</b>	<b>Amount in Rs.</b>
		and centering as necessary and required etc. complete as specified and directed but excluding reinforcement.				
27	BR-FAIR-22-02	Supplying, providing and fixing in position Stainless steel rebars of grade G 410-L Ferritic confirming to IS 16651 : 2017 for RCC works of any dia. Up to 32 mm whenever directed including handling, fixing, straightening, wastage, cutting, banding, placing in position, binding etc. complete in all respect as directed and procured from BMC approved supplier.	MT	53.00	200631.00	10633443.00
28	R2-BW-3-18	Supplying and fitting and placing HYSD bar reinforcement in substructure complete as per drawing and technical specification	Mt	296.00	64770.00	19171920.00
		<b>SUPERSTRUCTURE</b>				
		Providing and placing in position controlled cement concrete of M 45 grade using minimum cement content as 400Kg/cum and max water cement ratio of 0.40 for Prestressed Concrete Girders as per detailed drawings and designs having form finish surfaces including formwork on casting bed and temporary supports as necessary and required, compacting by vibrators, levelling, curing and finishing etc. complete as specified and directed including launching the girders in position using plant and equipment and providing erecting and removing the temporary staging as necessary and required etc. complete as specified and directed excluding reinforcement and placing in position.(Using RMC/Batch Mix Plant, Tansit Mixer and Concrete				

**ABSTRACT (BILL OF QUANTITIES)**

<b>S. N o.</b>	<b>Item No.</b>	<b>DESCRIPTION</b>	<b>Unit</b>	<b>Total Quantity</b>	<b>Rate in Rs.</b>	<b>Amount in Rs.</b>
		Pump).				
29	R2-BW-4-48-b	Height from 5m to 10m	Cum	525.00	9587.00	5033175.00
		Providing and placing in position controlled cement concrete of M-40 grade using minimum cement content as 400Kg/cum and max water cement ratio of 0.40 for cast-in-situ portions after launching girders of RCC Deck Slab, cross diaphragms to required lines and levels including levelling, compacting by vibrators, curing including formwork, temporary supports as necessary and required etc.complete as specified and directed but excluding reinforcement.				
30	R2-BW-4-34-b	Height from 5m to 10m	Cum	463.00	9268.00	4291084.00
31	R2-cs-ss-30-d	Providing and fixing structural Profile decking sheet as per particular specification,with GI sheet, zinc coating not less than 275 GSM as per IS 277 and of yield strength 500 Mpa of approved make with specified Base Metal Thickness. The profile shall be structural decking profile having ribs & pitch as per the drawing referred with the embossments (shear groove)on top and side of the ribs for better composite action. The decking	Sq.m	1425.00	1720.00	2451000.00

**ABSTRACT (BILL OF QUANTITIES)**

<b>S. N o.</b>	<b>Item No.</b>	<b>DESCRIPTION</b>	<b>Unit</b>	<b>Total Quantity</b>	<b>Rate in Rs.</b>	<b>Amount in Rs.</b>
		sheet shall be fabricated to required form as per the slab design and fixed with Galvanised Iron fasteners, self drilling screws, shear studs as per IS 1367, connectors etc. complete as per design, drawing and direction of Engineer-in-Charge. (Refer typical drwg). Plan area of the sheeting shall be measured and paid for. Structural steel frame work, reinforcement steel and concrete shall be paid seperately. With Base Metal Thickness (BMT) (excluding Zinc coat thickness) 1.60 mm thick Profile decking sheet.				
32	R2-BW-4-28	Providing and placing in position controlled cement concrete of M35 grade using minimum cement concrete content as 400 kg/cum and max water cement ratio of 0.40 in RCC approach slab over/ beyond abutments as per drawings and designs, including levelling, compacting by vibrators, curing, including formwork etc complete as specified and directed excluding reinforcement	Cum	83.00	8095.00	671885.00
33	BR-FAIR-22-02	Supplying, providing and fixing in position Stainless steel rebars of grade G 410-L Ferritic confirming to IS 16651 : 2017 for RCC works of any dia. Up to 32 mm whenever directed including handling, fixing, straightening, wastage, cutting, banding, placing in position, binding etc. complete in all respect as directed and procured from BMC approved supplier.	MT	147.00	200631.00	29492757.00

**ABSTRACT (BILL OF QUANTITIES)**

S. N o.	Item No.	DESCRIPTION	Unit	Total Quantity	Rate in Rs.	Amount in Rs.
34	BR-FAIR-22-01	Providing, fabricating (Fabrication Charge with all consumables, lifting and handling machineries, electricity charges and destressing of plates including temporary assembly etc), detailing ( Preparation of shop/fabrication drawing details for each section from approved good for construction drawing) and fixing at desired location using Stainless Steel Hot Rolled Annealed Pickled Plates 450 N/mm <sup>2</sup> , IRS-CR similar to RDSO specifications IRS-CR and X2CR12 suitably modified for the Structural application, ASTM A1010/A1010M - 01EI and Indian Standard (IS) 6911-2017 (amendment 2) having Chemical properties of C 0.03% Max, Mn 1.5% Max, Si 1% Max, S 0.01 % max, P 0.04% Max, Ni 1.5% Max, Mo 01-0.75 % , Cr I 0.5% - 12.5% & Mechanical properties 0.2 %proof Stress 450 MPA min. Ultimate Tensile Strength 550 MPA min % Elongation18 Min, Charpry lmoact Value.(at RT) 27 Joules Min, Hardness97( RB ) Max,of make SAIL, JSL or equivalent inclusive of all necessary testing &certifiction etc. complete, transporting to site ( including loading/unloading from fabrication plant to site) and erecting structural stainless steel members for all heights& at all levels ( charges for crane for erection, fuel & lubricants) including provision of necessary erection bolts, fixing bolts, nuts,Washers, cleats, stiffeners, gussets, base plate, Stud and all neccsary fixtures and operations like preheating as per Specifications, straightening,	MT	320.00	397300.00	127136000.00

**ABSTRACT (BILL OF QUANTITIES)**

<b>S. N o.</b>	<b>Item No.</b>	<b>DESCRIPTION</b>	<b>Unit</b>	<b>Total Quantity</b>	<b>Rate in Rs.</b>	<b>Amount in Rs.</b>
		bending, cutting, drilling, grinding, machining if specified, welding, grinding and removing the welding burr etc, complete as directed by Engineer In Charge.				
35	R2-BW-4-55	High tensile steel wiers/strands including all accessories for stressing, stressing operations and grouting complete as per drawing and Technical Specifications	Mt	21.00	278836.00	5855556.00
36	R2-BW-3-25	Supplying, fitting and fixing in position true to line and level elastomeric bearing, confirming to IRC 83 (Part II) section IX and clause 2005 Of MoRTH specifications complete including all accessories as per drawing and Technical specification	Cucm	323400.00	1.00	323400.00
37	R2-BW-3-23	Supplying, fitting and fixing in position true to line and level POTPTFE bearing consisting of a metal piston supported by a disc or unreinforced elastomer confined within a metal cylinder, sealing rings, dust seals, PTFE surface sliding against stainless steel mating surface, complete assembly to be of cast steel/fabricated structural steel, metal and elastomer elements to be as per IRC:83 part-I & II respectively and other parts conforming to BS: 5400, section	MT capacity	2200.00	351.00	772200.00

**ABSTRACT (BILL OF QUANTITIES)**

<b>S. N o.</b>	<b>Item No.</b>	<b>DESCRIPTION</b>	<b>Unit</b>	<b>Total Quantity</b>	<b>Rate in Rs.</b>	<b>Amount in Rs.</b>
		9.1 & 9.2 and clause 2006 of MoRTH Specifications complete as per drawing and approved technical specifications.				
<b>MISCELLANEOUS ITEMS</b>						
38	R2-BW-3-21	Providing and laying filter media 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 600mm 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 complete as per drawing and technical specification	Cum	1656.00	1447.00	2396232.00
39	R2-BW-3-11	Providing weep holes in Brick masonry/ Plain/ reinforced concrete abutment wing walls/ return wall with 100mm dia AC pipe, extending through the full width of the structure with slope of 1V : 20h towards drawing face complete as per drawing and technical specification	Each	2619.00	281.00	735939.00
40	R2-BW-5-3-f	Providing and applying protective paint consisting of two coats of coal tar epoxy paint over one coat of primer of approved quality and make to the external surface of concrete structures, pile cap and, abutment and pier to be buried under the soil etc complete as specified and directed	Sqmt	922.00	281.00	259082.00



**ABSTRACT (BILL OF QUANTITIES)**

<b>S. N o.</b>	<b>Item No.</b>	<b>DESCRIPTION</b>	<b>Unit</b>	<b>Total Quantity</b>	<b>Rate in Rs.</b>	<b>Amount in Rs.</b>
41	R2-BW-5-1-i	Providing and fixing strip seal type expansion joint catering to maximum horizontal movement of 70mm , complete as per drawing and standard specifications to be installed by the manufacturer/ supplier or their authorised representative ensuring complaine to the amnufacturer's instruction for installation	Rmt	77.00	16745.00	1289365.00
42	R2-BW-5-1-j	Drainage spouts complete as per drawing and technical specifications	No	30.00	2213.00	66390.00
43	R2-BW-5-3-c	Providing and applying epoxy base paint to RCCpiers, columns, beams, girders, diaphragms, slabs, parapets etc. including cleaning the surfaces thoroughly so as to remove deposited salts, oil, grease, tar, moisture etc. from the surface, preparing the surface, applying putty consisting of epoxy base paint and steolite powder, to render the concrete surfaces smooth by covering small irregularities and applying one coat of epoxy paint including scaffolding etc. complete as specified and directed. (2coats epoxy + primer)	Sqm	2617.00	412.00	1078204.00
44	R2-RW-7-18	Providing applying Yellow & Black road marking paint grade – I in 3- coats including single coat of approved brand primer after cleaning of old surface of any type divider with brushing by wire brush as per relevant I. S. codes to satisfaction of Engineer in charge --- etc. complete.	Sqm	400.00	166.00	66400.00
45	R2-BW-5-4-C	Providing and fixing Mild Steel Sleeves of M.S.Pipe 200mm dia and 1.2m length with base plate 300x300x3mm thk. For electric poles etc. complete as specified and directed	Nos	44.00	3009.00	132396.00

**ABSTRACT (BILL OF QUANTITIES)**

<b>S. N o.</b>	<b>Item No.</b>	<b>DESCRIPTION</b>	<b>Unit</b>	<b>Total Quantity</b>	<b>Rate in Rs.</b>	<b>Amount in Rs.</b>
46	R2-BW-5-1-a	providing and fixing in position expansion joints with premoulded bituminous filter 25mm thick including fixing 10gauge moulded galvanised iron sheets 38 cm wide etc complete as specified and directed	Rmt	23.00	1283.00	29509.00
47	R2-RT-16-84	Providing & fixing of 1200mm high Glass Fibre Reinforced Composite railing for footpath made of 80x80x8mm inverted profile for fencing column, 50x50x6mm profiles slotted as horizontal members, 25x15mm rods for vertical members, SMC moulded square ring & cap including cover ring for 50x50mm tube. The column shall be fixed on M.S Base plate with 2 coats of red oxide and the same shall be rested on 100mm PCC in 400x400x500mm deep pit. 60 micron thk polyurethane paint with half matt semigloss finish should be used. All the components should have fibreglass content, Isophthalic grade resin, Water absorption, tensile strength, etc. as per specifications. M40 grade concrete should be used for embedment of fencing column as per Drawing. No. DyChE/GFRC Railing/1/Traffic & DyChE/Foundation Railing/5/Traffic or as directed by the Engineer In-charge as per site condition. The above rate is inclusive of excavation, resurfacing & removal of excavated soil from the site.	Rmt	361.00	25020.00	9032220.00
48	R2-CS-MW-3	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 3.5 and above in superstructure above				

**ABSTRACT (BILL OF QUANTITIES)**

<b>S. N o.</b>	<b>Item No.</b>	<b>DESCRIPTION</b>	<b>Unit</b>	<b>Total Quantity</b>	<b>Rate in Rs.</b>	<b>Amount in Rs.</b>
		plinth level upto floor five level in all shapes and sizes in :				
	(b)	Cement mortar 1:4 (1 cement : 4 coarse sand)	Cum	230.00	6930.00	1593900.00
49	R2-CS-PL-04	Providing and applying 12 mm thick internal sand faced plaster in cement mortar 1:3 at all heights and locations in one coat for masonry (except stone masonry) and concrete surfaces including racking out joints, hacking of concrete surface, watering, finishing, curing, scaffolding etc. complete.	Sqm	1320.00	268.00	353760.00
50	R2-RW-10-19	Providing & constructing cement vatas in c/m 1:10 at 0.6m * 0.6m/c admeasuring 0.09m at bottom, 0.04m at top & 0.075m deep & maintaining the same throughout 14 days curing & removing the same thereafter as directed.	Sqm	1558.00	78.00	121524.00
51	R2-RW-10-50	Providing and fixing of cement concrete Kerb Stone of various grades of size: 500mm width x 325 height x 165mm thick (Half Batter, Bull Nose / Full Batter) manufactured in wet press vacuum dewatering technology plant / equivalent with face pimple finish for high visibility with excellent quality and finish and edges perfect and sharp. Grade – M-25. Including excavation in any soil except rock, laying a leveling course of M 15 grade RMC 100mm. thick, to required slope (inclusive of form work) jointing in C.M.1:2 proportion flush to concrete surface, painting exposed surface with one coat of primer and two coats of 1st grade road marking paint in the yellow/white/black or	Rmt	53.00	1116.00	59148.00

**ABSTRACT (BILL OF QUANTITIES)**

<b>S. N o.</b>	<b>Item No.</b>	<b>DESCRIPTION</b>	<b>Unit</b>	<b>Total Quantity</b>	<b>Rate in Rs.</b>	<b>Amount in Rs.</b>
		any shade as directed.(Kerbstones shall be procured from BMC registered agencies).				
52	R2- RW- 10-51	Providing and fixing of Water Dished Channel size : 600 x 300 x 80mm, M-40 grade manufactured in vacuum wet press technology plant with excellent finish and sharp edges inclusive of excavation in any soil except rock, laying of leveling course of M 15 grade RMC 100mm. thick to required slope, (inclusive of form work) jointing in 1:2 cm. prop. flush to concrete surfaces as directed (Watertables shall be procured from BMC registered gencies).	Rmt	181.00	799.00	144619.00
<b>BRIDGE WEARING COAT</b>						
53	R2- RW-1- 08	P/L earth work in embankments & /or filling low-lying grounds in layers not exceeding 25cm. in loose thickness & compacting each layer with a 10/12 tonnes power roller including levelling watering, etc. complete in conformity with the required lines,grades & cross sections (Lab C.B.R. in soaked conditions shall not be less than 4) etc. including cleaning & grubbing the ground (The contractor should take note of the site conditions pertaining to creek lands under reference & should note that nothing extra whatsoever will be paid like diversion of water, the protective measures that may be necessary	Cum	1763.00	1511.00	2663893.00

**ABSTRACT (BILL OF QUANTITIES)**

<b>S. N o.</b>	<b>Item No.</b>	<b>DESCRIPTION</b>	<b>Unit</b>	<b>Total Quantity</b>	<b>Rate in Rs.</b>	<b>Amount in Rs.</b>
		to be carried out to protect the embankment from water & settlement of earth. Settlements will not be paid for the earth work and must be retained for consolidations for one season & settlement if any will be ascertained & made up free of cost. The rate includes efforts for diversion of water, protection of embankments & also settlement of earth.etc. complete as per prevailing BMC specification for Roadworks clause no. 151.0.				
54	R2- RW-2- 21	Providing & laying, spreading 7 compacting specified crushing stone in granular subbase course including pre mixing the material in mechanical mixer(pugmill or approved type), spreading of material in mechanical in uniform layer of 100mm to 75mm( compacted thickness each) with motor grader or paver on prepared murum surface & compacting with 10 tonne vibratory roller to achieve desired density including all material, labour, machinery, lighting barrigating toll lifts & lead maintainance of diversion etc. complete (metal gradaion from 75mm to 75mm micron as per BMC Road Specifications clause no.210)	Cum	533.00	2547.00	1357551.00
55	R2- RW-2- 20	Providing & laying, spreading & compacting graded crushed stone aggregate to wet mix macadam satisfaction including pre mixing the material wiht water to OMC in mechanical mix(pugmill) carriage of mix material by tipper to site laying in uniform layer of 75mm to 100mm( compacted thickness each) with sensor paver	Cum	665.00	2937.00	1953105.00

**ABSTRACT (BILL OF QUANTITIES)**

<b>S. N o.</b>	<b>Item No.</b>	<b>DESCRIPTION</b>	<b>Unit</b>	<b>Total Quantity</b>	<b>Rate in Rs.</b>	<b>Amount in Rs.</b>
		finisher on prepared sub base & compacting with 10 tonne vibratory roller to achieve desired density including all material, labour, machinery, lighting barrigating & lead maintainance of diversion etc. as directed by engineer( rebate formuting sensor paver should be taken, (metal gradation from 53mm to 75mm micron as per BMC Road Specifications clause no.210)				
56	R2- RW-5- 46	P/L hot PremixDense bituminous macadam with 4.50%bitumen content of grade VG-40 to the required line,level,and camber rolling with 10/12 M.T.power ,vibratory roller & sensor paveretc. complete as specified and as directed with antistripping agent at 1%by weight of bitumen using grading II of "MORTH"(per prevailing BMC specification for Roadworks clause no.354)	Cum	161.00	9008.00	1450288.00
57	R2- RW-5- 54	P/L premixhot mix Bituminous concrete with 6.00%of VG-40 gradebitumen content by weight of mix surface coat tocompacted to required thickness using new material to the required grade, level and camberolling with power roller, vibratory roller pneumatic roller& sensor paver etc. complete as specified and as directed with addition of lime filler 2% and anti stripping agent @ 1% by weight of bitumenetc.(As per prevailing BMC specification for Roadworks clause no.364)	Cum	108.00	11261.00	1216188.00

**ABSTRACT (BILL OF QUANTITIES)**

<b>S. N o.</b>	<b>Item No.</b>	<b>DESCRIPTION</b>	<b>Unit</b>	<b>Total Quantity</b>	<b>Rate in Rs.</b>	<b>Amount in Rs.</b>
58	R2- RW-5- 44	P/L hot Premix Dense bituminous macadam with 4.50% bitumen content of grade 30-40 to the required line, level, and camber rolling with 10/12 M.T. power, vibratory roller & sensor paver etc. complete as specified and as directed to thickness of 50 mm. with antistripping agent at 1.00% by weight of bitumen using grading II of "MORTH" (As per new Road Specification clause no. 354)	Sqm	1558.00	450.00	701100.00
59	R2- RW-5- 65	P/L, mastic asphalt 25 mm thick with 10/20 grade bitumen including producing the same at computerised batch mix plant, transporting the same to site by means of mastic cookers, laying the same with mastic paver and including all necessary tools, labours & barricading, spreading of aggregates as an antiskid measure by means over newly laid mastic asphalt as per clause no. 365 of 'Road Specification' as directed by Engineer in charge (Note: The material specifications / gradation & content shall be as specified in the relevant I.S. Codes.)	Sqm	1558.00	1079.00	1681082.00
60	R2- BW-5- 2-a	Mastic Asphalt (Providing and laying 12 mm thick mastic asphalt wearing course on top of deck slab excluding prime coat with paving grade bitumen meeting the requirements given in table 500- 29, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen precoated fine grained hard stone chipping of 9.5 mm	Sqm	1558.00	283.00	440914.00

**ABSTRACT (BILL OF QUANTITIES)**

<b>S. N o.</b>	<b>Item No.</b>	<b>DESCRIPTION</b>	<b>Unit</b>	<b>Total Quantity</b>	<b>Rate in Rs.</b>	<b>Amount in Rs.</b>
		nominal size at the rate of 0.005cum per 10qm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces not less than 100 deg. C, protruding 1 mm to 4 mm over mastic surface, all complete .)				
61	R2- RW-5- 20	Providing and applying PRIME COAT with CATIONIC BITUMEN EMULSION (SS) @ 7 to 12 Kg. of 10Sqmt. over prepared surface to receive bituminous mix by applying PRIMER with mechanical spray bitumen, including cleaning of road surface etc.completed, as directed For Low Porosity surface & the primed surface shall be allowed to cure for at least 24 hours or any other higher period, as is found to be necessary to allow all the moisture or volatiles to evaporate before any subsequent bituminous surface treatment or mix is laid (As per prevailing BMC specification for RoadworksClause No. 313, curing as per 313.5)	Sqm	2660.00	57.00	151620.00
62	R2- RW-5- 26	Providing and applying Tack coat with Catonic Bitumen Emulsion (RS) @ 0.3 to 0.35 kg of Sqmt over prepared surface to receive bituminous mix by applying Tack coat with mechanical spray bitumen, including cleaning the road surface etc completed as directed for Non Bituminous surfaces cement concrete pavement (as per new Road Specification clause no 314)	Sqm	1699.00	37.00	62863.00
63	R2- RW-5- 27	Providing and applying Tack coat with bitumen VG-30 bitumen @ 0.2 to 0.25 kg. of sqmt. Over prepared surface to receive bituminous mix by applying TACK COAT with Mechanical spray	Sqm	8299.00	32.00	265568.00



**ABSTRACT (BILL OF QUANTITIES)**

S. No.	Item No.	DESCRIPTION	Unit	Total Quantity	Rate in Rs.	Amount in Rs.
		bitumen including cleaning of road surface etc. completed as directed for normal bituminous surface (as per New road specifications clause no. 314)				
64	R2-BW-5-7-i	Providing and applying hot applied thermoplastic road marking material with glass beads extremely high skid resistance 2.5 mm thick without primer coat (Trck coat) on Asphalt road surface. All labour, materials, with special aggregates as sepcified in B.S.part- I & II 1989 and carrying out the marking on any road in center line and other marking continious or intermitten 10 cm. or 15 cm width also pedestrians crossing strips as well as spraying further quantity of glass beads of type II uniformly into a mono layer on to the hot paint line in quick succession of the paint spraying opration @ 250 gms per sqm.area as directed and as per BS/ Mosst specifications in white/Yellowcolour.				
		a) White colour	Sqm	37.00	874.00	32338.00
		b) Yellow colour	Sqm	145.00	874.00	126730.00
65	R2-CS-CW-3-a	Providing and laying in position ready mixed plain cement concrete, 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 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				

**ABSTRACT (BILL OF QUANTITIES)**

S. No.	Item No.	DESCRIPTION	Unit	Total Quantity	Rate in Rs.	Amount in Rs.
		direction of the Engineer - in - charge.				
	1)	M-20 grade plain cement concrete (cement content considered @ 260 kg/cum as per IS 456 table showing minimum cement content).	Cum	82.00	6963.00	570966.00
66	R2-RW-10-63	Extra Over item of stencil concrete above M- 20 in footpath				
		Providing, applying and finishing the top surface of M-20 concrete with <b>stamp / stencil</b> of approved pattern and colour, in accordance with manufacturer's specification of any approved brand of colour hardener @ of 3.5 kgs/m <sup>2</sup> ; including floating of colour hardened over concrete surface with different types of floaters; including application of release agent @ of 0.15 kgs/m <sup>2</sup> , stamping over the concrete surface with stamping tools; including cleaning of surface with water and cutting of finished concrete; including application of two coats of acrylic based sealer for finishing. Colour hardener and release agent shall be tested for abrasion resistance for a depth of wear, should not be more than 0.025 mm. Coverage of sealer should not be more than 6.5 sq.m per one litre coat; including cost of skilled manpower, utting machine, sprayer and all tools tackles for all activities; complete smooth & finish as per direction	sqm	271.00	436.00	118156.00

**ABSTRACT (BILL OF QUANTITIES)**

S. No.	Item No.	DESCRIPTION	Unit	Total Quantity	Rate in Rs.	Amount in Rs.
		of Engineer-In-Charge.				
<b>DEMOLITION</b>						
67	R2-SWD-34	Cutting down stone, concrete, brick masonry work by any means in lime or cement motar includig removal of plaster, pointing in compound walls, arches, piers/wing walls, abutments etc, etc. complete,as specified & as directed by Engineer in charge.	Cum	110.00	484.00	53240.00
68	R2-SWD-36	Cutting down completely RCC slab, walls, beams, columns, arches, piles, pile caps of any thickness and or size of any height / depth by any means below or above ground level including cutting down steel reinforcement, removing and stacking them properly as directed etc. complete, as specified & as direced by Engineer in charge.	Cum	295.00	1588.00	468460.00
69	R2-CS-EW-16	Excavation over areas for basements, roads, land/plot developement in soft/ disintegrated rock, sand stone, stiff clay, gravel, cobblestone, hard laterite, water bound macadam, wet mix macadam, pitching, soling, paths and hardcore, lime concrete, 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	Cum	818.00	343.00	280574.00

**ABSTRACT (BILL OF QUANTITIES)**

<b>S. N o.</b>	<b>Item No.</b>	<b>DESCRIPTION</b>	<b>Unit</b>	<b>Total Quantity</b>	<b>Rate in Rs.</b>	<b>Amount in Rs.</b>
		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 Engineer-in-Charge. 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.				
70	R2- RW-3- 22	Removing the paver blocks of any thickness, size & colour from carriage way or footpath & transporting the same to ward depot or any where in BMC limit. The paver blocks shall be stacked neatly at specified location etc. complete as specified and as directed by the Engineer.	Cum	435.00	157.00	68295.00
71	R2- BW-5- 7-n	Removing the existing rolled steel joist beams, stanchions etc. completely and staking the material at ward office or at site as directed by Engineer.	Mt	60.00	3911.00	234660.00
72	R2- RW-7- 07	Removing existing barbed wire fencing/ pipe railing of any height, including posts & carting away the same to ward chowky & stacking the same neatly as directed.	Rmt	343.00	19.00	6517.00
		<b>SUBSOIL INVESTIGATION</b>				

**ABSTRACT (BILL OF QUANTITIES)**

<b>S. N o.</b>	<b>Item No.</b>	<b>DESCRIPTION</b>	<b>Unit</b>	<b>Total Quantity</b>	<b>Rate in Rs.</b>	<b>Amount in Rs.</b>
73	R2-BW-1-01	Providing and transporting necessary and adequate plant and equipment to site within a lead of 50 km for taking trial bores for subsoil investigations including conducting an initial survey for establishing datum RLS and locations at trial bores including installation of the drilling equipment of the first bore location etc. complete as specified and directed.	Each unit	2.00	27500	55000.00
74	R2-BW-1-02	Shifting and locating the drilling equipment from one location to another within a lead of 500 m between successive locations including surveying the spot for establishing bore hole location, fixing ground levels with reference to datum RLs and observing groundwater level during boring operation etc. complete as specified and directed.	Each shift	2.00	1100.00	2200.00
75	R2-BW-1-03	Taking trial bores upto 150 mm dia. for subsoil investigation through overburden and soil of all sorts including providing of temporary casing and cleaning the bottom of holes before conducting field tests or collecting samples at various depths etc. complete as specified and directed.				
	R2-BW-1-03-a	a) Depth upto 6.0m below ground surface	Rmt	12.00	1100.00	13200.00
	R2-BW-1-03-b	b) Depth beyond 6.00m up to 20.00m	Rmt	3.00	1320.00	3960.00

**ABSTRACT (BILL OF QUANTITIES)**

<b>S. N o.</b>	<b>Item No.</b>	<b>DESCRIPTION</b>	<b>Unit</b>	<b>Total Quantity</b>	<b>Rate in Rs.</b>	<b>Amount in Rs.</b>
76	R2-BW-1-05	Taking trial bores for subsoil investigation through rock using rotary drilling equipment with NX size diamond core drilling bits and double tube core barrel to obtain approximately 54 mm dia. rock cores including provision of wooden boxes for storage of cores, indexing the core samples at site of work and conveying the same to the headquarters of concerned office etc. complete as specified and directed.				
	R2-BW-1-05-a	a) Depth upto 10.0 m below ground surface =2x4	Rmt	5.00	1760.0	8800.00
	R2-BW-1-05-b	b) Depth beyond 10.00m up to 20.00m below ground surface.	Rmt	20.00	2090.00	41800.00
77	R2-BW-1-06	Conducting Standard penetration test as per specifications in soil at various levels of bore holes and reporting the results in the approved format etc. complete as specified and directed.	No.	2.00	220.00	440.00
78	R2-BW-1-07-b	Collecting disturbed samples of soil from bore holes as per specifications and delivering the same to the testing laboratory anywhere in Greater Mumbai as directed etc. complete as specified and directed.				
		b) In polythene bags by driving 100 mm size tube.	No.	2.00	165.00	330.00
79	R2-BW-1-08	Collecting undisturbed samples of soil as per specifications at any depth in M.S. black tube 100 mm dia. 450 mm long, sealed at both ends with paraffin wax and delivering the same to the testing laboratory anywhere in Greater Mumbai etc. complete as	No.	2.00	495.00	990.00

**ABSTRACT (BILL OF QUANTITIES)**

<b>S. N o.</b>	<b>Item No.</b>	<b>DESCRIPTION</b>	<b>Unit</b>	<b>Total Quantity</b>	<b>Rate in Rs.</b>	<b>Amount in Rs.</b>
		specified and directed.				
80	R2-BW-1-17	Collecting soil samples and sub-soil water samples in glass or plastic bottles I jars from trial bore holes and getting the same chemically analyzed in an approved laboratory for determination of sulphate and chloride contents and pH value etc. complete as specified and directed.	No.	2.00	110.00	220.00
81	R2-BW-1-19	Preparing and submitting reports and drawings in triplicate for location depth and details of underground pipe lines, cables and services as existing according to standard technique as specified upto whatever depth of excavation and including all equipment, material, and labour of technical expertise as directed excluding excavation.	Each Trench	2.00	16500.00	33000.00
82	R2-BW-1-20	Taking trial pit in soil of all sorts excluding rock including shoring and strutting as required, collecting disturbed & undisturbed samples at 1 m intervals and trial depth, collecting water samples & transporting all soil & water sample to lab., visual inspection for description of strata / recording water table encountered, dewatering manually and refilling at end etc. complete as specified and directed.				
	R2-BW-1-20-a	a) Upto 2 mt. depth	Cum	2.00	2200.00	4400.00
83	R2-BW-1-21-a	i) Natural moisture Content (NMC) of soil by Oven Drying method	No.	4.00	165.00	660.00

**ABSTRACT (BILL OF QUANTITIES)**

<b>S. N o.</b>	<b>Item No.</b>	<b>DESCRIPTION</b>	<b>Unit</b>	<b>Total Quantity</b>	<b>Rate in Rs.</b>	<b>Amount in Rs.</b>
		ii) Atterberg limits				
	R2-BW-1-21-b	a) Liquid limit	No.	4.00	165.00	660.00
	R2-BW-1-21-c	b) Plastic Limit	No.	4.00	165.00	660.00
	R2-BW-1-21-d	c) Shrinkage Limit	No.	4.00	165.00	660.00
	R2-BW-1-21-e	a) Sieve Analysis	No.	4.00	220.00	880.00
	R2-BW-1-21-f	b) Hydrometer Analysis	No.	4.00	330.00	1320.00
	R2-BW-1-21-g	iv) In-situ density of soil samples	No.	4.00	165	660.00
	R2-BW-1-21-h	v) Specific gravity	No.	4.00	165	660.00
	R2-BW-1-21-i	vi) Unconfined compressive strength of rock samples, including determination of percentage of water absorption and density.	No.	8.00	550.00	4400.00
84	R2-BW-1-26	Conducting Direct Shear Test in accordance with IS:2720 (part 13) and reporting results thereof as per prescribed proforma etc complete as specified and directed.	No.	2.00	550.00	1100.00
85	R2-BW-1-27	Conducting Consolidation test on undisturbed soil sample or soil sample compacted to specified density in accordance with IS 2720 ( part-15), reporting results including unit weights, specific gravity, e-log p curve, virgin	No.	2.00	990.00	1980.00



**ABSTRACT (BILL OF QUANTITIES)**

<b>S. No.</b>	<b>Item No.</b>	<b>DESCRIPTION</b>	<b>Unit</b>	<b>Total Quantity</b>	<b>Rate in Rs.</b>	<b>Amount in Rs.</b>
		curve, po, eo, Cc, Cv and mv for all pressure increments etc. complete as specified and directed.				
86	R2-BW-1-28	Conducting Unconfined compression test on undisturbed soil samples or soil samples compacted to specified density in accordance with IS: 2720 (part 10) and reporting results thereof as per prescribed Proforma etc. complete as specified and directed.	No.	2.00	385	770.00
		<b>GRAND TOTAL</b>				<b>42,95,49,471.00</b>

**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 Municipal Corporation of Greater Mumbai (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.Ch. Eng./Ch. Eng. 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. Subletting**

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 relationship 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**

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: -**

- 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.
- The first-aid box shall be distinctly marked with a red cross on white back ground.
- Adequate arrangements shall be made for immediate recoupment of the equipment when necessary.
- Nothing except the prescribed contents shall be kept in the First-aid box.
- 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.
- 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 an 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, and quantities shall be needed to be justified with recorded**



reasons **with approval of Ch. 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 presents.**

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 to less than ten days' notice in writing to the Eng-In-Charge or his subordinate in charge 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 in charge 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.

### **27.4 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 7 days of awards 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, and 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.

g) The contractor shall have to produce a copy of Challan receipts/SCADA reports/VTS reports as issued by the RMC/Asphalt plant as a documentary proof in lieu of supply of RMC/Asphalt mix before releasing payment.

## **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.

- All expenditure required to be incurred for taking the samples conveyance, packing shall be borne by the contractor himself .T
- 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 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. Vernier Caliber
11. Level / Theodolite

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 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.**

30.1 (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 Programme 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. Taxation**

1. 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 , प्र.ले./ वित्त/प्रकल्प/शहर/28/ dt.10.11.2017 and CA/F/Project/25/ dated 12/07/2022 are attached herewith in the Draft Tender.

2. 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.

3. Chapter XXI-Miscellaneous, section 171(1) of GST Act, 2017 governs the 'Anti Profiteer Measure' (APM). As per the provision of this section, 'Any reduction in rate of tax on any



supply of goods or services or the benefit of input tax credit shall be passed on to the recipient by way of commensurate reduction in prices'. Accordingly contractor should pass on the complete benefit accruing to him on account of reduced tax rate or additional input credit, to BMC. Further, all provisions of GST Act will be applicable to the tender. "GST and other state levies/cess which are not subsumed under GST will be applicable. The tenderer shall quote inclusive of all taxes applicable at the time of bid submission. It is clearly understood that BMC will not bear any additional liability towards payment of any Taxes & Duties.

Wherever the services to be provided by the Tenderers, falls under Reverse Charge Mechanism, the Price quoted shall be exclusive of GST, but inclusive of Taxes/Duties/Cess other than GST, if any.

Rates accepted by BMC shall hold good till completion of work and no additional individual claim shall be admissible on account of fluctuations in market rates; increase in taxes/any other levies / tolls etc. except that payment/recovery for overall market situation shall be made as per Price variation and if there is any subsequent change (after submission of bid) in rate of GST applicable on the work/services to be executed as per tender, i.e. any increase will be reimbursed by BMC whereas any reduction in the rate of GST shall be passed on to BMC as per the provisions of the GST Act.

#### **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.

## **E. Finishing the Contract**

### **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 has 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 within 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 unrecovered 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.

### **F) 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:

- at any time, a material misrepresentation is made or uncovered, or
- 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.

## **G) 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 Clarification 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 awards 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 stature, 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 Engineer-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 Municipal Corporation of Greater Mumbai 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**

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:

$$VL = \frac{(0.88 R) \times 30 \times (I - IO)}{100 \quad IO}$$

b) Formula for Material component:

$$VM = \frac{(0.88 R \times 70 - C) \times (W - WO)}{100 \quad WO}$$

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.

**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%
<b>Above 24 months</b>	<b>10%</b>

**\*Approval of AMC/MC shall be obtained before invitation of tender in case of any changes in above.**

**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, and then the maximum limit of original slab will prevail.**

2) Operative period shall mean original or extended time period of contract.

**For example:**

<b>Extension of Time period</b>	<b>Maximum Price Variation</b>
If original period of 11 months <b>including</b> monsoon extends to 16. The operative period will be 11+5 months.	No variation allowed
If original period of 11 months <b>excluding</b> 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 8.1(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(1)(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(1)(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 allowed in this case.**

## **84. 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.**

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 under noted 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.

### **85. 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 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.

**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 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 defense 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 ant 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 2018. The specifications of the items of USOR are available on BMC portal <http://portal.BMC.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.



## **TECHNICAL SPECIFICATION OF STAINLESS STEEL**

### **1. Grade:**

**1.1** Stainless Steel -Hot Rolled Annealed Pickled Plates ,Grade IRS-450 CR, similar to RDSO specifications and CK-201-X02Cr22Ni6Mo3n suitably modified for structural application, ASTM A1010/A1010M-01e1 and Indian standard (IS) 6911-2017 (amendment 2)-X02Cr12.

### **2. Scope:**

**2.1** This specification covers the technical requirements and quality assurance tests of hot rolled stainless steel sheets and plates for fabrication of components for bridges & associated structural applications.

#### **2.1.1** Conditions of supply:

The material supplied shall be of guaranteed mechanical properties and weldability.

**2.2** The material shall be supplied in hot rolled, annealed, shot blasted and pickled Condition and shall be to the specific rationalized sizes required.

### **3. Manufacture:**

**3.1.** Steel shall be manufactured by the electric arc furnace process. In case of any other process is employed by the manufacturer, prior approval of RDSO shall be obtained.

**3.2** All Structural stainless Steel shall be procured as per specifications Stainless Steel -Hot Rolled Annealed Pickled Plates, Grade IRS-450Independent tests shall be conducted, wherever required, to ensure that the materials procured conform to the specifications. The Stainless Steel shall be procured only from those firms, which are Established, Reliable, Indigenous and fully Integrated manufacturers/producers with Melting of Stainless Steel like Salem Steel Plant (SAIL)/Jindal Stainless Limited/Jindal Stainless (Hisar) Limited or equivalent.

### **4. CHEMICAL COMPOSITION:**

#### **4.1. Ladle Analysis**

The ladle analysis of steel when carried out either by the methods specified in relevant parts of ASTM A240 or by any other established instrumental/chemical method shall be as follows. In case of any dispute the procedure given in relevant parts of ASTM A240 shall be the reference method.

## 4.2 Chemical Composition:

Element	Percentage
Carbon(C)	0.03 max
Manganese (Mn)	1.5 max
Silicon (Si)	1.00 max
Sulphur (S)	0.01 max
Phosphorus (P)	0.04 max
Nickel (Ni)	1.5 max
Molybdenem (Mo)	0.1 – 0.75
Chromium (Cr)	10.5 – 12.5

## 4.3. Product Analysis

Analysis of product composition from each cast shall be carried out by the material specified in ASTM A240. The chemical composition shall be within the limits of permissible variation specified in ASTM A240.

## 5. Tensile Test:

### 5.1 Number of Tensile Test

**5.1.1.** Tensile test shall be taken from each lot of 10 tones or part thereof. The lot or the part shall be from the same cast and same heat treatment batch.

**5.1.2.** Where palates or sections of more than one thickness are tolled from the same cast, one additional tensile test shall be made from the material representing each class of product.

### 5.2 Tensile Test Pieces

**5.2.1** One sample each shall be selected lengthwise and crosswise to the direction of rolling from plates and sheets and one sample cut lengthwise from sections for conducting tensile test.

### 5.3 Mechanical Properties:

5.3.1 When tested according to method specified in IS-1608, the ultimate tensile strength, 0.2% proof stress, hardness and elongation percentage shall be as follows:

Properties	Value
0.2% Proof Stress	450 MPA min
Ultimate Tensile Strength	550 MPA min
% Elongation	18 min
Charpy Impact Value	27 Joules
Hardness (HRB)	32 HRB

5.4 If the fracture of the tensile test piece is outside the gauge length, the test shall be discarded and retest conducted. To facilitate this sufficient number of test pieces shall be prepared in advance.

### 6. BEND TEST:

6.1. Bend test shall be taken from each lot of 10 tones of sheets/plates/sections or part thereof.

#### 6.2. Bend Test Pieces

6.2.1. One test piece each shall be selected lengthwise and crosswise to the direction of rolling from plates and sheets and one test piece lengthwise from sections.

6.2.2. The rough ends or arris resulting from shearing may be removed by filing or grinding or machining. Test pieces shall receive no other preparation.

6.2.3. Bend test shall be conducted in accordance with ASTM A240 (Method of test).

6.2 4. The bend test specimen shall withstand being bent at ambient temperature in any direction through 180 degree around a former of diameter equivalent to the thickness of the material without cracking on the outside of the bent portion.

### 7. Location of test sample

7.1. Samples for chemical analysis and test pieces for tensile and bend test shall be drawn from standard location for plates and sections as given in ASTM A240 and for sheets at any convenient location.

## **8. Retest**

8.1. Should any of the test pieces first selected fail to pass any of the tests specified in this standard, two further samples shall be selected from the same lot for testing in respect of each failure. Should the test piece from both these additional samples pass, the material represented by the test sample shall be deemed to comply with the requirement of that particular test. Should the test piece from either of these additional samples fail the material represented by the test sample shall be deemed to be not conforming to this standard and shall be rejected.

## **9. Freedom from defects**

9.1. All finished material shall be well and cleanly rolled to the dimensions and weights specified. The finished material shall be free from cracks, surface flaws, laminations, rough jagged and imperfect edges and all other harmful defects. The sheets shall be reasonably flat and the edges cleanly sheared and truly squared to the specified dimensions. The inspecting officer or the purchaser's representative shall be free to decide the method of detecting these defects.

## **10. Surface finish**

10.1. The plates, sheets and sections shall be well and cleanly rolled. Minor surface defects may be removed by the manufacturer by grinding provided the thickness is not reduced locally by more than 4 percent and the final thickness remains within the tolerance. However, the manufacturer shall indicate the areas of defect and grinding location to the inspecting officer.

10.2. The surface finish of the sheets/plates/sections shall be No. 1 & condition as per clause 10 of ASTM A480.

## **11. Weldability**

11.1. The plates, sheets and sections shall be suitable for metal arc welding using RDSO approved medium basic coated electrode under class M1 to IRS: M-28 f( Gr E-19.9L of IS: 5206) using DC power source.

**11.2.** The sheets shall be suitable for metal arc welding and suitable for spot ends seam welding processes also.

## **12. Dimensions and tolerances**

Tolerance for thickness will conform to ASTM A480. However for thickness, the tolerances for 4mm- 8 mm thick plates shall be in limits +0.5mm to -0.2mm. Tolerance of width will be as +30mm/ -0 mm for ME and +10 mm/-0 mm for TE. Tolerance of Length will be +50 mm/-0 mm up to 10mm thk & +100mm / -0mm above 10mm thk.

## **13. Inspection**

**13.1.** The purchaser or his inspecting officer shall have free access to the works of the manufacturer at all reasonable times and he shall be at liberty to inspect the manufacture at any stage and to reject material that does not conform to the terms of this specifications.

### **13.2. Testing Facilities**

**13.2.1.** The manufacturer will supply the material required for testing free of charge and shall at his own cost furnish and prepare the necessary test pieces and supply labour and appliances for such test as may be carried out on his premises in accordance with the specification. Failing to provide the facilities at his own works for making the prescribed testes the manufacturer shall bear the cost of carrying out the tests in a laboratory/test house selected by the inspecting officer or the purchaser.

**13.2.2.** Each supply of plates/sheets shall be furnished with a test certificate indicating chemical composition, mechanical properties, bend test result, etc.

## **14. Marking**

**14.1.** Each product (sheet & plate) shall be stenciled or painted with material specification, code of surface finish, the cast number the manufacturer's name or trade mark and the size of the product,

## **15. Protection and Packaging**

**15.1.** Plates supplied shall be provided with reasonable packing with metal strapping for handling during transit and storage.

**15.2.** Due care be taken to avoid mechanical damage and corrosion during transit.

## **16. Shop Erection**

The steel work shall be temporarily erected in the shop to determine the accuracy of the fit.  
The extent of erection shall be either complete or as directed by Engineer in charge.

### **17. General Inspections and Testing of Structures**

Materials and workmanship at all times shall be subject to inspection by the Client / Employer. All inspection as far as possible shall be made at the place of fabrication and the contractor shall co-operate with the Client / Employer Inspector and permit access for inspection to all places where work is being done. The contractor shall supply all necessary gauges and templates necessary for inspection. However, such inspection shall not relieve the contractor of his responsibility to furnish satisfactory work.

Materials of workmanship, not conforming to provisions of the specifications may be rejected at any time when defects are found during the progress of work.

The contractor shall obtain approval from the Engineer – in - charge of all fabricated items prior to commencement of their erection. However, any such approval shall not absolve the contractor from his responsibility of correctness and workmanship of the entire work.

### **18. Packaging and Transportation**

Loading and transportation shall be done in accordance with transport rules prevailing at that location. Items shall be packed to protect them from damage / distortion. Small parts shall be wired to their main members. Loose item such as bolts, nuts and washers shall be packed in crates / bags.

### **19. Erections/Launching**

#### **19.1 General**

Erection of structural steel work shall be carried out in accordance with the relevant IS code in conformity with the drawings and specifications in an expeditious manner.

The suitability and capacity of all plant, machinery, equipment etc. used for erection shall be to the satisfaction of the Engineer.

## **19.2 Scope of erection work**

The contractor shall provide all construction material and equipment, transport facilities, tools, tackles, consumables, labour, supervision for erection, including carrying out the following:

Receiving, unloading, checking and moving into the storage facility at site, as outlined under General Conditions of contract inclusive of attending to all insurance matters in respect of materials arriving at site.

Transporting from site, storage, handling, rigging, assembling, riveting, bolting, welding, and installation of all fabricated materials in proper location according to drawings or as directed by the Engineer.

Checking centre lines, levels of all foundations blocks including checking line and level, position and plumb of all bolts and pockets. Any defects observed in the foundation shall be brought to the notice of the Engineer. The contractor shall satisfy himself regarding the correctness of the foundations before installing the fabricated structures on the foundation blocks. Aligning, levelling, riveting, bolting, welding, fixing in position of fabricated materials shall be done in accordance with drawings or as directed by the Engineer.

Supply of all required consumables, construction and erection materials, including but not limited to gauges, welding / brazing, rods, electrodes and wires, oxygen, acetylene, fuel, bolts, nuts, rivets, shims and temporary supports etc. as required for the incidental works and for the completion of erection.

Erection/Launching shall also include the following work:

- I. All minor modification such as :
- II. Removal of bends, kinks, twists etc. of parts damaged during transport and handling.
- III. Cutting, chipping, filling, grinding etc. for preparation and finishing of site connections.
- IV. Reaming for use of the next higher size of rivet or bolt for holes which do not register or which are found to be damaged.
- V. Welding of connections in place of riveting or bolting for which holes are either not drilled or wrongly drilled during fabrication.
- VI. The following shall be considered as a legitimate part of erection work:

- VII. Re-fabrication work in respect of parts damaged beyond repair during transport and handling or in respect of those that are incorrectly fabricated.
- VIII. Fabrication of parts omitted during fabrication due to an error, or subsequently found to be essential.
- IX. Plug-welding and re-drilling of holes which do not register and which cannot be reamed for the use of next size of rivet or bolt.
- X. Drilling of holes which are either not drilled at all or are drilled in incorrect positions during fabrication.

### **19.3 Erection/Launching scheme and Drawings**

The approved erection drawings and any approved arrangement drawings, specifications or instructions accompanying them shall be followed while erecting the structural steelwork. Erection drawings for structural steel work shall be prepared by the contractor and shall consist of line diagrams showing every member in position with the respective erection mark.

Erection marks shall appear on the structural steel members as detailed and all steelwork shall be erected with the marks in the same relative position as shown on the plan or elevation.

Any discrepancy between and specifications shall be brought to the attention of the Engineer in Charge for obtaining his decision.

### **19.4 Storing and Handling of Material**

The fabricated materials shall be carefully unloaded at site, examined for defects, checked, sorted out and stacked properly above the ground level, to be kept clean and properly drained. The handling and storing of the component parts of a structure shall involve the use of method and alliances not likely to produce injury by twisting, bending or otherwise deforming the metal. No member slightly bent or twisted shall be put in place until the defects are corrected.

All small bends or twists detected in members shall be rectified before such members are put in place. Any serious bends or defects shall be reported at once to the Engineer. The straightening of bent edges of plates, angles and other shapes shall be done by methods not likely to produce fracture or other injury. Following the completion of the straightening of a bend or buckle, the surface of the metal shall be carefully inspected by



the contractor for evidence of incipient or any other type of fractures. The contractor shall report to the Engineer about the presence of such evidence and act according to his instructions.

### **19.5 Setting Out**

The contractor shall be responsible for checking the alignment and levels of foundations, correctness of foundation-bolt centres, their projected height above the foundation tops, the length of threading provided and the provision and fitment of nuts for the foundation bolts. These shall be checked well in advance of starting the erection work and the contractor shall be responsible for any consequences for non-compliance thereof. Discrepancies, if any, shall immediately be brought to the notice of the Engineer for his advice.

One set of reference axes and one Bench mark level will be furnished to the contractor. These shall be used by him for the setting out operation.

The contractor shall assume full responsibility for the correct setting out of all steelwork and erecting it correctly as per the alignment and levels shown on the drawings and for the verticality of members. Notwithstanding any assistance rendered to the contractor by the Engineer, if at any time during the progress of the work any error should appear or arise therein, the contractor shall remove and amend the work to the satisfaction of the Engineer, at his own cost.

### **19.6 Assembly and Erection**

Before the commencement of structural steel work, the contractor shall submit a schedule of operations, detailing the erection procedures to be followed. The schedule shall include provisions for any temporary bracing that may be considered necessary during the erection.

During the erection of a structure, the steel work shall be securely bolted or otherwise fastened and if necessary, temporarily braced, so as to make adequate provision for all erection stresses and conditions, including those due to erection equipment and its operation. Such temporary bracing shall be maintained in position until the erection work is sufficiently advanced and it is ascertained that the bracing provided is no longer required.

Connections for temporary bracing and additional holes, members or cleats used to facilitate handling or erection, shall be provided in a manner which does not weaken the steelwork already erected.

The alignment of each portion of the structure shall be carried out progressively, soon after that portion is erected. Permanent connections shall not be made until proper alignment has been obtained and a sufficiently large portion of the structure has been erected and temporarily connected so as to ensure that the members thus connected shall not be overstressed or displaced during the progressive alignment of the remainder of the structure.

### **19.7 Tolerances**

Erection tolerances shall be provided strictly in accordance with the requirements of IS: 7215.

## **20. Field Connections**

### **20.1 Field Bolting**

This shall be carried out with the same care as shop bolting.

### **20.2 Field Welding**

Field Welding after field assembly shall follow the same requirements as laid down for shop assembly and shop welding.

## **21. Grouting**

Prior to erecting the steelwork over concrete pedestals, columns or brackets, the top of concrete shall be cleared with wire brushes, chipping and compressed air to remove all laitance and loose material and made thoroughly wet. The structural member shall then be erected aligned and plumbed with the base plates as shoe plates maintained as specified levels using shims / pack plates or wedges.

After the structure is erected, formwork shall be done all around and the joints sealed to be water tight. The Grout under the base plates, including in pockets and sleeves shall be ordinary grout or non-shrink grout as specified in drawings. Non-shrink grout shall be of premix type and shall be prepared as per manufacturer's instruction; Non shrink grout shall be of quality and type approved by Engineer – in – charge.

The grout shall be poured in by grout a pump continuously from one side till the intervening space is filled completely and the grout is carried to the far side of base plate. The grout shall be spread with flexible steel strips and rammed with rods to ensure the gap is filled completed.

After the grout has sufficiently hardened the shims / pack / wedges which are accessible may be removed and anchor bolts tightened. The alignment of the structure shall be rechecked and the voids left by removal of the shims / pack plates / wedges shall be filled with a similar mix of grout. In case the structure is not properly aligned the grout shall be removed the structure re-aligned and grouting operation repeated.

## **SPECIFICATIONS FOR STRUCTURAL STEEL WORK**

### **• General**

This specification covers the supply, fabrication and erection/launching of structural steel work in general.

Fabrication and approval of steel structures shall be in compliance with:

- 1.1 The specifications and relevant standards and codes as listed under and related drawings.
- 1.2 All fabrication drawings and supplementary drawings to be supplied by the Contractor prior to execution of the work and duly approved by the Engineer.

In case of any conflict between the clauses mentioned hereunder and the Indian Standards, those expressed in the specification shall prevail.

### **2. Scope**

The fabrication and erection/launching of the steel work consist of accomplishing all jobs herein enumerated including providing all labour, tools, tackle and plant, machinery, all materials and consumables such as welding electrodes, bolts and nuts, oxygen and acetylene gases, oils for cleaning etc of approved quality. The work shall be executed by an approved specialist agency experienced in the work and according to the drawings and specifications.

The contractor will be required to fabricate the structure to the extent possible (in transportable length and volume) in approved fabrication work shop.

### 3. Applicable Codes and Specifications

The following specifications, standards and codes of latest version at the time of execution shall be made a part of this specification. All standards, specifications, codes of practice referred to herein shall be of latest editions including all applicable official amendments and revisions. Only the codes relevant to present work out of the list mentioned below shall be applicable. Any additional pertinent code, if required shall be used with prior permission of Engineer in charge.

<b>Indian Standard codes</b>		
i)	IS : 2062	Steel for general structural purposes – specs (super cedes IS : 226)
ii)	IS : 1363	Black Hexagonal Bolts, Nuts and Lock Nuts (diameter 6 to 39mm) and black hexagonal screw (diameter 6 to 24mm) of product Grade C.
iii)	IS : 1364	Hexagonal head bolts, screws (M16 to M64).
iv)	IS : 3757	Specs for high strength structural bolts nuts.
	IS : 6623	
v)	IS : 2016	Specs for plain washers
	IS : 6639	Hexagon bolts for steel structures
vi)	IS : 814	Specifications for covered Electrodes for Metal Arc Welding of carbon and carbon manganese steel – specs.
vii)	IS : 800	Code of Practice for General Construction in steel.
viii)	IS : 816	Code of Practice for use of Metal Arc Welding for General Construction in mild steel specs for filler rods for gas welding.
ix)	IS : 1278	Welding rods and bars electrodes for gas shielded arc welding of Structural steel.
	IS : 6419	
x)	IS : 9595	Metal Arc Welding of Carbon and Carbon Manganese steel – recommendations.
xi)	IS : 4353	Recommendations for Submerged Arc welding of Mild Steel and Low Alloy Steel.
xii)	IS : 7280	Specs for base wire electrodes for submerged arc welding of structural steels.
xiii)	IS : 817	Code of practice for training and testing of metal arc welders.

<b>Indian Standard codes</b>		
xiv)	IS : 7318 Part – I	Approval test for welders when welding procedure approval is not required.
xv)	IS : 1182	Recommended Practice for Radiographic Examination of fusion Welded Butt Joints in steel Plates.
xvi)	IS : 2595	Code of practice for Radiographic testing.
xvii)	IS : 4260	Recommended practice for ultra-sonic testing for butt welds in ferritic steels.
xviii)	IS : 3658	Codes of Practice for Liquid penetrate Flaw Detection.
xix)	IS : 1477	Code of Practice for painting of Ferrous (Part 1 & 2) Metals in building.
xx)	IS : 2074	Ready Mix Paint, air drying, red oxide zinc chrome, priming specifications.
xxi)	IS : 1852	Specifications for Rolling and Cutting Tolerances for Hot rolled steel Products.
xxii)	IS : 806	Code of Practice for use of steel tubes in General Building Construction.
xxiii)	IS : 1161	Specifications for Steel Tubes for Structural purposes.
xxiv)	IS : 7215	Tolerances for fabrication of steel structures.
xxv)	IS : 822	Code of procedures for inspection of welding.
xxvi)	IS : 801	Code of practice for use of cold – formed light gauge steel structural member's in general building construction.
xxvii)	IS : 1599	Method for bend test.
xxviii)	IS : 1608	Mechanical testing of metals : Tensile Test.
xxix)	IS : 7205	Safety Code for erection of structural steel work.
xxx)	IS : 7307	Approval tests for welding procedures – fusion welding of steel.
<b>IRC Codes</b>		
xxxi)	IRC-6	Code of practice for Road bridges-section-II
xxxii)	IRC-112	Code of practice for Concrete Road bridges
xxxiii)	IRC-24	Code of practice for Road bridges-section-V
xxxiv)	IRC-78	Code of practice for Road bridges-section I-V
xxxv)	IRC-83	Code of practice for Bearings- Part-III
<b>IRS Codes</b>		
xxxvi)	IRS Steel Bridge Code	For construction of Steel bridges

<b>Indian Standard codes</b>		
xxxvii)	BS-110,	Guidelines on fabrication of steel girders for construction/field engineers
xxxviii)	BS-112	Guidelines for Planning of Road Over Bridges

#### **4. General Specifications**

- The requirements set forth in Relevant IS codes for the design, fabrication and erection of structural steel shall govern this work, except as otherwise noted on the drawings or as otherwise specified.
- In cases of conflict between clauses of this specification and those in the Indian Standards, this specification shall govern.
- Substitutions of sections or modifications of details or both shall be made only when approved, in writing, by the Engineer in charge. The contractor shall be responsible for all errors of fabrication, and for the correct fittings of the structural members shown on the drawings.

#### **1. Materials**

All materials shall be new and shall conform to their respective specifications as specified.

The use of equivalent or higher grade or alternative materials will be considered only in very special cases subject to the approval of the Engineer / competent authority.

#### **5.1 Steel**

Structural steel shall conform to IS: 2062 – grade – A (weldable quality) unless specified otherwise Carbon steel pipes shall confirm to IS: 1161 of grade YST – 24 or higher as per requirement of structural design.

#### **5.2 Black Bolts and Nuts**

Black bolts, nuts and screws shall be in accordance with IS: 1363, 1364, 1367, 3757, 6623, and 6639 – as applicable.

#### **5.3 Washers**

Washers shall confirm to IS: 2016 or any other relevant IS codes.

#### **5.4 Welding electrodes**

Covered electrodes for metal arc welding shall conform to IS: 814, IS: 7280 for bare electrodes for submerged arc welding or IS: 1278 for filler rods and wires for gas welding or any other relevant codes.

### **1. Receipt and Storing of Materials**

Storage of Materials:

Approved material conforming to IS and Specification shall be procured by the Contractor as per schedule. Storing yards shall have hard grounds and should be well drained. Steel shall be stored on raised platform in these yards. Yards shall be maintained clean so as to avoid any contamination due to dust, mud, oil, grease etc. Scrap and full-length steel shall be stacked separately. Further each type / categories of steel shall be stacked appropriately.

All sections shall be checked on receipt to ensure that they are free from surface defects as pitting, twists, cracks and laminations. They shall be arranged by grade and quality and by lot. Every section shall be marked to aid identification and the manufacturer's certificate for every lot giving details of chemical analysis and mechanical characteristics shall be kept in record.

Welding wires and electrodes shall be segregated by quality and lots and stored inside a dry, enclosed room as per recommendations of IS: 9595. All care shall be taken to keep the electrodes in perfectly dry condition to ensure weld metal soundness and satisfactory operations manufacturer's certificates for electrodes shall also be made available.

Bolts, nuts and washers shall be sorted out by grade, type and diameter and the manufacturer's quality/ test certificate shall be maintained for record purpose.

### **2. Quality Certificate of Materials**

The contractor shall produce manufacturer's test certificate of the material. Notwithstanding, the manufacturer's test certificate the EIC may ask for testing of material in approved test labs. The test result shall satisfy the requirement of relevant Indian Standards.

Whenever quality certificate are missing or incomplete or when material quality differs from standard specifications, the Contractor shall conduct all appropriate tests as directed by the Engineer at his own cost.

### **3. Shop / Fabrication Drawings**

The Contractor shall prepare all fabrication drawings on the basis of the design and submit four copies to the Engineer – in – Charge, well in advance to commencement of work, for approval and comments of Client / Employer and design consultant, if any on the same. The Contractor shall fabricate all the structural steel work strictly conforming to the specifications and approved fabrication drawings.

Fabrication drawings shall include the following:

1. Member sizes and details.
2. Types and dimensions of welds and bolts.
3. Shapes and sizes of edge preparation for welding.
4. Details of shop and field joints included in the assemblies.
5. Bill of Materials.
6. Quality of structural steel, welding electrodes, bolts, nuts and washers, etc. to be used.
7. Erection assemblies, identifying all transportable parts and sub – assemblies, associated with special instructions, if required showing part marks and erection marks.
8. Calculations where asked for approval.
9. Method of erection and Special precautions to be taken during erection.

Issue of fabrication and erection drawings by consultants or review of drawings by Client / Employer / Consultant shall in no way relieve the contractor of his responsibilities for correctness in the execution of the work and the contractor shall be required to modify / rectify the structure at any stage of the work to rectify any mistake / omission in the fabrication drawing and the fabrication based on this drawing or that the work does not conform to good engineering practices such modifications / rectification shall be made at no extra cost.

The contractor is required to update the fabrication drawings to include revisions made in design drawings during the course of work at no extra cost. The contractor shall also supply two prints of as built drawings, along with their soft copies and transparencies at no extra cost.

### **4. Workmanship**

The workmanship shall be equal to the Standard practice followed in modern structural shop. All works shall be adequately supervised and care shall be taken to ensure that the structural members remain in proper position. All similar parts shall be manufactured



accurately so that the same could be interchanged with other parts having same identification marks. Accuracy shall be maintained during fabrication to ensure that all parts fit together properly during erection.

## **10. Fabrication**

10.1 All fabrication shall be preferably done in full – fledged workshop. However, contractor may be allowed to fabricate the structural element at his workshop nearby and transport the same to the site. This is to be done with prior approval of Engineer in Charge.

10.2 All fabrication shall be done as per specifications, IS: 800, IS: 9595 and drawings approved as “Good for Construction”.

10.3 Fabrication shall also be understood to include building up an element either by welding plates to a rolled section, a combination of rolled sections with plates or a section built up entirely with plates, tubes / pipes / hollow sections.

10.4 The contractor shall prior to starting any fabrication ensures that the fabrication yard is levelled on firm enough to take weight of structures and equipment.

10.5 Any defective fabrication or material pointed out at any stage shall be replaced by the contractor free of cost.

10.6 All the fabricated and delivered items shall be suitably packed and protected from any damage during transportation and handling. Any damage caused at any time shall be made good by the Contractor at his own cost.

10.7 In general, tolerance for fabrication shall be as per IS: 7215.

## **11 Preparation of Materials / Fabrication procedures**

### **11.1 Straightening**

All materials shall be clean, reasonably straight and free from twists. If straightening or flattening is necessary, it shall be done in a manner that will not damage the material. The specified camber wherever necessary shall be provided.

### **11.2 Marking**

Marking of members shall be made on horizontal pads or on appropriate racks or supports in order to ensure horizontal and straight placement of such members.

### **11.3 Clearance**

The erection clearance for members having end cleats or plates shall not be more than 2 mm at each end, whereas for other types of end connections it shall not be more than 3 mm at each end. If for any reason a greater end clearance is required, suitable seating shall be provided.

### **11.4 Templates**

Templates used shall be of steel. In case where actual parts have been used as templates for drilling similar pieces, the Engineer – in – Charge shall decide whether they are fit to be used.

### **11.5 Cutting**

Machine cutting, flame cutting and planing:

Machine cutting or flame cutting may be allowed to use provided, a mechanically controlled cutting torch is used for the flame-cutting and the resulting edge is reasonably clean and straight. Cut members shall be free from distortion at cut edges. When gas cutting is adopted, the flame cut edges shall be machined to a depth of 3 to 5 mm depending on the thickness of the member.

Chipping of angles, flanges and edges of plates wherever necessary, shall be done without damaging the parent material. Chipped edges shall be grinded to a neat finish and sharp corners and hammered rough faces shall be rounded off.

Edge preparation for welding may be done by machine controlled flame cutting with edges free of burns, clean and straight.

The butting surfaces at all joints shall be planned so as to butt in close contact throughout the finished joint.

All flame – cut edges shall be planned, unless they are clean, square and true to shape.

### **11.6 Drilling / Holing**

Holes for bolts shall be drilled. All holes, except as stated hereunder, shall be drilled to the required size or sub-punched 3mm less in diameter and reamed thereafter to the required size. Thickness of the materials for sub-punching shall not be greater than 16mm. All matching holes for bolts shall register with each other so that a gauge of 0.8mm less in diameter than the diameter of the hole can pass freely through the members assembled for

bolting in the direction at right angle to such members. All holes for turned and fitted bolts shall be drilled undersize by one mm and after assembly, reamed to a tolerance of  $+0.13\text{mm} / - 0.00\text{mm}$  unless otherwise specified.

No holes shall be made by gas cutting process.

### **11.7 Bending**

Cold bending of plates, flats, tubes / pipes and sections shall be carried out on bending rolls or in presses. The methodology for bending along with mock up shall be got approved from Engineer – in – Charge. In exceptional cases hot bending may be allowed by EIC for higher diameter pipes provided cold bending is not possible.

Appropriate bending method shall be adopted, so as to avoid wrinkles on surface or distortion of pipe section etc. If required suitable filler materials shall be used for equitable stress distribution during bending.

Accuracy of bending operations shall be checked by means of templates and the clearance between member and template shall be decided by EIC based on the mock-up and good Engineering practice.

Bend member shall not have cracks wrinkles or deep indentations from bending equipment.

### **11.8 Assembly**

All parts of bolted and welded members shall be held firmly in position by means of jigs or clamps while bolting or welding. No drifting of holes shall be permitted except to draw the parts together and no drift shall be larger than the nominal diameter of bolt. Drifting carried out during assembly shall not distort the metal or enlarge the holes.

Trial assemblies shall be carried out at the fabrication stage to ensure accuracy of workmanship. These checks shall be witnessed by the Engineer – in – Charge.

### **11.9 Bolting**

Bolts shall be grade Class 10.9 (Class Ten point nine). All turned and fitted bolts shall be parallel throughout the barrel within the tolerance of  $0.125\text{mm}$  unless otherwise specified and faces of heads and nuts bearing on steel work shall be machined.

All such bolts shall be provided with washers not less than 3mm thick, so that when the nut is tightened, it shall not bear the unthreaded body of the bolt and the threaded portion of

the bolt should not be within the thickness of the parts bolted together. The threaded portion of each bolt shall project through the nut by at least one thread. Square tapered washers shall be provided for all heads and nuts bearing on levelled surface. Flat washers shall be circular in shape nuts and washers etc. shall be thoroughly cleaned and dipped in linseed oil.

#### **11.10 Preparation of Member for Bolting**

The member shall be assembled for bolting with proper jigs and fixtures to sustain the assemblies without deformation and bending. Before assembly all sharp edges, rust, dirt etc. shall be removed. Before assembly the surfaces in contact of the member shall be cleaned.

#### **11.11 Welding**

##### **11.11.1 General**

Welding of steel shall be in accordance with IS : 800, IS : 816, IS : 817, IS : 4353, IS : 1223 and IS : 9595 as applicable. Welds shall be made by qualified welders. A Welder shall produce satisfactory evidence of his ability to do a given type of work and shall prove his ability to product a connection of the strength required. Evidence of welder's qualification tests shall be produced if required by the Engineer – in – Charge. Engineer – in – Charge may reject any welder found not suitable during actual work. In general, the welders qualification shall be carried out as per ASME – Section IX / IS: 817.

Welding wire and electrodes shall be stored separately by quantities and lots inside a dry and enclosed room and as per instruction given by the Engineer in Charge. Material shall be perfectly dry and drawn from an electrode oven, if required.

Both the structural members and the welding operators shall be adequately protected from rain, strong winds or snow during welding. The Contractor shall provide necessary supervision to ensure that all welding carried out in conformity with the specification and relevant IS codes. The contractor shall make all necessary infrastructures available such as requisite number of welding sets, cutting and grinding equipment, test equipment and all consumables as required.

##### **11.11.2 Preparation of Members for Welding**

Edge preparation of fusion faces for welding shall be carried out as per details given in IS : 9595 or as shown in drawings. All tolerances for such weld shall be as per IS : 9595.

Surfaces to be welded shall be cleared to ensure that they are free from loose scales, slag, rust, grease, paint and other foreign matter, and shall be maintained.

Preheating of members shall be necessary when the base metal temperature (based on ambient temperature) is less than the temperature required for that welding procedure. Preheating shall generally be carried out for members having thickness more than 20mm. The preheating shall be done in such a manner that the part on which weld metal is to be deposited is above the specified temperature shall be measured on the face opposite to the face being heated. In case access is limited to only the face being heated, the Source of heat shall be removed and sufficient time allowed elapsing for heat equalization prior to measurement. (1 minute per 25mm of Plate thickness).

Column splices and butt joints of compression members shall be accurately ground and close butted over the entire section to ensure full contact for load transmission. The tolerance for such work shall be maximum 0.2mm. In the case of column bases and caps the ends of the section along with connected gussets, stiffeners, angles, channels etc. shall be ground so as to ensure a minimum contact area of 90%. The fining of angles and channels should be sufficiently accurate to limit the reduction in thickness on account of grinding to 2mm. The ends of bearing stiffeners shall be ground so as to fit tightly at top and bottom. Slab bases and cap plates shall be accurately ground over bearing surfaces to ensure minimum 90% contact area with columns.

#### **11.11.3 Welding electrodes**

Covered electrodes for metal arc shall conform to IS: 814, IS: 7280 for bare electrodes for submerged arc welding or IS: 1278 for filler rods and wires for gas welding or any other relevant codes.

#### **11.11.4 Welding Plant**

Welding plant shall be capable of maintaining the voltage and current specified by the manufacturer of the electrodes. The contractor shall supply instruments for verifying the voltage and current as and when required by the Engineer.

When an automatic process of welding is adopted, the deposited metal must have mechanical properties equal to those obtained by the use electrodes complying with IS: 814 or any other relevant code.

### **11.11.5 Manual Welding**

Manual welding shall be carried out by qualified welders equipped with plant suitable for the purpose. All welders shall be qualified in accordance with IS: 817 / ASME Section IX and details of such qualification shall be submitted to the Engineer.

### **11.11.6 Welding Processes**

Any one or more of the following welding processes may be used.

- Manual Metal Arc Welding process.
- 2. Submerged Arc Welding process.
- 3. Gas Metal Arc Welding process.

The contractor shall submit the welding procedure and the consumables proposed to be used to the Engineer – in – Charge for approval. Combination of processes or electrodes may be permitted only with the specific approval of the Engineer – in – Charge.

### **11.11.7 Approval and Testing of Welding Procedures**

Before welding of any of the permanent works is carried out, the contractor shall furnish details of welding procedure for each welding operation.

Welding trials shall be carried out and completed on representative samples of the materials before the start of fabrication, as directed by the Engineer.

Welding trials are intended to establish welding procedure prior to the commencement of fabrication and for this purpose assemblies shall be made from plate or section cuttings large enough to simulate the joint selected for trial. The trial shall be representative of actual fabrication conditions including:

1. Preparation and fit-up.
2. Preheat.
3. Welding position
4. Restraint (so far as is practicable)

Welding trials on material 20mm thick will be taken to include all materials under 20mm thick and trials on materials 50mm thick. The trials shall include specimen weld details from the actual construction which shall be welded in a manner simulating the most unfavourable instances of fit-up and preparation which it is expected will occur in the particular fabrication.

After welding, the specimen shall be allowed to cool naturally to ambient temperature. It shall be left for 72 hours and thereafter, it shall be sectioned and examined for cracking.

Testing shall be carried out in accordance with IS: 7307 (Part – I) as directed by the Engineer.

Approval of any welding procedure shall not relieve the contractor of his responsibility for correct welding procedure to be followed and for minimizing the distortion in the finished structure.

#### **11.11.8 Sequence of Welding**

- The direction of welding shall be horn points relatively fixed with respect to each other towards points having more flexibility.
- ii. Welding shall be carried out continuously to completion with the required number of runs.
- iii. For compound section splices, each component part shall be spliced prior to welding with other component parts.
- iv. Welds shall progress in a sequence that will balance the applied heat so as to reduce distortion.
- v. Joints having more shrinkage shall be welded prior to joints having less shrinkage.
- vi. The sequence causing minimum distortion or shrinkage shall be chosen.

#### **11.11.9 Welding Technique**

The fusion faces shall be properly aligned and the gap set to the distance specified. The root pass of butt joint shall be done such that full penetration is achieved as also complete fusion of root edges.

On completing each run the weld and the parent metal shall be cleared by wire brushing and light chipping to remove all slag and splatters. Visible defects, if any such as cracks, cavities etc. shall be removed to sound metal prior to depositing subsequent run of weld.

All full penetration butt weld shall be completed by gouging / chipping the back of the joint and depositing a seal run of weld metal. Alternatively a backing strip shall be provided.

All care shall be taken to prevent any kind of movement, shock or vibration of components during welding to prevent weld cracks.

Low hydrogen electrodes shall be used for all welding of girders with thickness of plates equal to or more than 20mm.

#### **11.11.10 Workmanship of welding**

The general welding programme for shop and site welds, including particulars of the preparation of fusion faces, pre-heating where required and method of making welds shall be submitted in writing to the Engineer for approval before the work is put in hand. No departure from the welding programme shall be made without the prior approval of the Engineer.

In the fabrication of built up assemblies all butt welds in each component part shall be completed before the final assembly. Wherever practicable, clamps, magnets, holding devices or other setting-up fixtures shall be used in assembling parts of the structures so as to avoid tack welding as far as possible.

In fit-up where clamps cannot be used, spacer strips shall be used to ensure the correct root gap.

Where tack welds are used, they shall be of the same quality and size as the first run of main weld. All tack welds shall be cleaned and ground to sound material prior to welding of the root pass. The main weld shall fuse completely with the end of the tack weld to form a regular profile. Where preheat is required for the main welds, the tack welds shall be made under the same heat conditions. The indiscriminate use of tack welds during assembly shall be avoided.

All welds shall be visually inspected. Cracked or badly formed welds shall be cut out to the approval of the Engineer before re-welding them.

As far as practicable, all welding shall be carried out in the down hand position.

Where structural steelwork is painted before fabrication or erection, the metal surface within 75mm of any weld shall be coated with primer only.

#### **11.11.11 Weld Inspection**

All facilities for stage inspection during welding and on completion shall be provided by contractor.

All testing shall be as per IS: 822 and the extent of inspection and testing shall be in conformity with the relevant or as directed by Engineer in Charge. The contractor shall extend all facility required to inspect all stages of fabrication and erection including



welding procedure qualification. No painting of welds shall be undertaken prior to inspection and approval. All the tests required to be carried out shall be paid for by the contractor.

One or more of the following methods will be applied for the inspection and testing of welds.

The various types of tests shall be:

**i. Visual Inspection**

100% welds shall be visually inspected to ascertain absence of the following defects.

Suitable magnifying glass may be used for inspection.

- Surface cracks in weld or parent metal, or undercut, burning, overheating of parent metal.
- Blow holes, exposed porosity in the weld or infused welds.
- Defects in the profile such as excessive convexity or concavity, unequal leg lengths, incompletely filled grooves excessive penetration beds, root grooves etc.
- Distortion due to welding and misalignment.

**ii. Mechanical Tests**

Tensile load test, bend test, impact test etc. shall be carried out as per the standards.

**66. Other tests.**

- Ultrasonic test for detection of for detection of internal flows in welds shall be carried out as per IS-4260.
- Liquid Penetrate Test (LPI) shall be carried out for inspection of surface defects in the welds per IS 3658.

**11.11.12 Repairs of Welds**

Welds not meeting the requirements of the specification and IS codes shall be removed and replaced. Repairs to defective welds shall be carried out only after the repair procedure submitted is approved by the Engineer – in – charge.

**11.11.13 Splicing**

In compound sections, splicing of components shall be staggered with respect to each other by a minimum of 500mm. When two parts of a component are not butt welded to each other, the opposing ends at a joint shall be ground flush for bearing and suitable flange

and web splice plates shall be designed to cater for the full strength of the flange / web of the sections.

In case full strength butt weld is used to connect opposing ends at a joint, additional flange and web splice plates shall be provided capable of carrying 20% strength of the flange and web.

## **12. Shop Erection**

The steel work shall be temporarily erected in the shop to determine the accuracy of the fit. The extent of erection shall be either complete or as directed by Engineer in charge.

## **13. General Inspections and Testing of Structures**

Materials and workmanship at all times shall be subject to inspection by the Client / Employer. All inspection as far as possible shall be made at the place of fabrication and the contractor shall co-operate with the Client / Employer Inspector and permit access for inspection to all places where work is being done. The contractor shall supply all necessary gauges and templates necessary for inspection. However, such inspection shall not relieve the contractor of his responsibility to furnish satisfactory work.

Materials of workmanship, not conforming to provisions of the specifications may be rejected at any time when defects are found during the progress of work.

The contractor shall obtain approval from the Engineer – in - charge of all fabricated items prior to commencement of their erection. However, any such approval shall not absolve the contractor from his responsibility of correctness and workmanship of the entire work.

## **14. Packaging and Transportation**

Loading and transportation shall be done in accordance with transport rules prevailing at that location. Items shall be packed to protect them from damage / distortion. Small parts shall be wired to their main members. Loose item such as bolts, nuts and washers shall be packed in crates / bags.

## **15. Erections/Launching**

### **15.1 General**

Erection of structural steel work shall be carried out in accordance with the relevant IS code in conformity with the drawings and specifications in an expeditious manner.

The suitability and capacity of all plant, machinery, equipment etc. used for erection shall be to the satisfaction of the Engineer.

### **15.2 Scope of erection work**

The contractor shall provide all construction material and equipment, transport facilities, tools, tackles, consumables, labour, supervision for erection, including carrying out the following:

Receiving, unloading, checking and moving into the storage facility at site, as outlined under General Conditions of contract inclusive of attending to all insurance matters in respect of materials arriving at site.

Transporting from site, storage, handling, rigging, assembling, riveting, bolting, welding, and installation of all fabricated materials in proper location according to drawings or as directed by the Engineer.

Checking centre lines, levels of all foundations blocks including checking line and level, position and plumb of all bolts and pockets. Any defects observed in the foundation shall be brought to the notice of the Engineer. The contractor shall satisfy himself regarding the correctness of the foundations before installing the fabricated structures on the foundation blocks. Aligning, levelling, riveting, bolting, welding, fixing in position of fabricated materials shall be done in accordance with drawings or as directed by the Engineer.

Supply of all required consumables, construction and erection materials, including but not limited to gauges, welding / brazing, rods, electrodes and wires, oxygen, acetylene, fuel, bolts, nuts, rivets, shims and temporary supports etc. as required for the incidental works and for the completion of erection.

Erection/Launching shall also include the following work:

- XI. All minor modification such as :
- XII. Removal of bends, kinks, twists etc. of parts damaged during transport and handling.
- XIII. Cutting, chipping, filling, grinding etc. for preparation and finishing of site connections.
- XIV. Reaming for use of the next higher size of rivet or bolt for holes which do not register or which are found to be damaged.
- XV. Welding of connections in place of riveting or bolting for which holes are either not drilled or wrongly drilled during fabrication.

- XVI. The following shall be considered as a legitimate part of erection work:
- XVII. Re-fabrication work in respect of parts damaged beyond repair during transport and handling or in respect of those that are incorrectly fabricated.
- XVIII. Fabrication of parts omitted during fabrication due to an error, or subsequently found to be essential.
- XIX. Plug-welding and re-drilling of holes which do not register and which cannot be reamed for the use of next size of rivet or bolt.
- XX. Drilling of holes which are either not drilled at all or are drilled in incorrect positions during fabrication.

### **15.3 Erection/Launching scheme and Drawings**

The approved erection drawings and any approved arrangement drawings, specifications or instructions accompanying them shall be followed while erecting the structural steelwork. Erection drawings for structural steel work shall be prepared by the contractor and shall consist of line diagrams showing every member in position with the respective erection mark.

Erection marks shall appear on the structural steel members as detailed and all steelwork shall be erected with the marks in the same relative position as shown on the plan or elevation.

Any discrepancy between and specifications shall be brought to the attention of the Engineer in Charge for obtaining his decision.

### **15.4 Storing and Handling of Material**

The fabricated materials shall be carefully unloaded at site, examined for defects, checked, sorted out and stacked properly above the ground level, to be kept clean and properly drained. The handling and storing of the component parts of a structure shall involve the use of method and alliances not likely to produce injury by twisting, bending or otherwise deforming the metal. No member slightly bent or twisted shall be put in place until the defects are corrected.

All small bends or twists detected in members shall be rectified before such members are put in place. Any serious bends or defects shall be reported at once to the Engineer. The straightening of bent edges of plates, angles and other shapes shall be done by methods not likely to produce fracture or other injury. Following the completion of the straightening of a bend or buckle, the surface of the metal shall be carefully inspected by the contractor for evidence of incipient or any other type of fractures. The contractor shall

report to the Engineer about the presence of such evidence and act according to his instructions.

### **15.5 Setting Out**

The contractor shall be responsible for checking the alignment and levels of foundations, correctness of foundation-bolt centres, their projected height above the foundation tops, the length of threading provided and the provision and fitment of nuts for the foundation bolts. These shall be checked well in advance of starting the erection work and the contractor shall be responsible for any consequences for non-compliance thereof. Discrepancies, if any, shall immediately be brought to the notice of the Engineer for his advice.

One set of reference axes and one Bench mark level will be furnished to the contractor. These shall be used by him for the setting out operation.

The contractor shall assume full responsibility for the correct setting out of all steelwork and erecting it correctly as per the alignment and levels shown on the drawings and for the verticality of members. Notwithstanding any assistance rendered to the contractor by the Engineer, if at any time during the progress of the work any error should appear or arise therein, the contractor shall remove and amend the work to the satisfaction of the Engineer, at his own cost.

### **15.6 Assembly and Erection**

Before the commencement of structural steel work, the contractor shall submit a schedule of operations, detailing the erection procedures to be followed. The schedule shall include provisions for any temporary bracing that may be considered necessary during the erection.

During the erection of a structure, the steel work shall be securely bolted or otherwise fastened and if necessary temporarily braced, so as to make adequate provision for all erection stresses and conditions, including those due to erection equipment and its operation. Such temporary bracing shall be maintained in position until the erection work is sufficiently advanced and it is ascertained that the bracing provided is no longer required.

Connections for temporary bracing and additional holes, members or cleats used to facilitate handling or erection, shall be provided in a manner which does not weaken the steelwork already erected.

The alignment of each portion of the structure shall be carried out progressively, soon after that portion is erected. Permanent connections shall not be made until proper alignment has been obtained and a sufficiently large portion of the structure has been erected and temporarily connected so as to ensure that the members thus connected shall not be overstressed or displaced during the progressive alignment of the remainder of the structure.

### **15.7 Tolerances**

Erection tolerances shall be provided strictly in accordance with the requirements of IS: 7215.

### **16. Field Connections**

#### 16.1 Field Bolting

This shall be carried out with the same care as shop bolting.

#### 16.2 Field Welding

Field Welding after field assembly shall follow the same requirements as laid down for shop assembly and shop welding.

### **17. Grouting**

Prior to erecting the steelwork over concrete pedestals, columns or brackets, the top of concrete shall be cleared with wire brushes, chipping and compressed air to remove all laitance and loose material and made thoroughly wet. The structural member shall then be erected aligned and plumbed with the base plates as shoe plates maintained as specified levels using shims / pack plates or wedges.

After the structure is erected, formwork shall be done all around and the joints sealed to be water tight. The Grout under the base plates, including in pockets and sleeves shall be ordinary grout or non-shrink grout as specified in drawings. Non-shrink grout shall be of premix type and shall be prepared as per manufacturer's instruction; Non shrink grout shall be of quality and type approved by Engineer – in – charge.

The grout shall be poured in by grout a pump continuously from one side till the intervening space is filled completely and the grout is carried to the far side of base plate. The grout shall be spread with flexible steel strips and rammed with rods to ensure the gap is filled completed.

After the grout has sufficiently hardened the shims / pack / wedges which are accessible may be removed and anchor bolts tightened. The alignment of the structure shall be rechecked and the voids left by removal of the shims / pack plates / wedges shall be filled with a similar mix of grout. In case the structure is not properly aligned the grout shall be removed the structure re-aligned and grouting operation repeated.

## **CONCRETE – REQUIREMENTS FOR DESIGN MIXES**

### **16.1.1.1. Suitability of Proposed Design Mix Proportions**

- The Contractor shall submit for the Engineer's approval, prior to the supply of any design mix, the following information for each grade and type of concrete in the Contract in following manner.

EITHER

In cases where the Contractor proposes to use a continuing concrete source of an approved ready-mixed concrete source, evidence of satisfactory previous performances for target mean strength, workability and water/cement ratio in accordance with Clause 1704.2 of MORT&H Specifications.

OR

Full details of design and trial mixes as per Clause 1704.3 of MORT&H Specifications.

#### **i) Design Mixes from a Continuing Source**

When mixes have been proposed from a continuing source for which the necessary test results are available and for a batching installation which has been operated for a sufficient period (not less than 2 months) then the required cube strength results to be adopted shall meet the requirements given in Clause 1706.9

- c) The mean strength calculated from 'n' cube results from separate batches of concrete shall exceed the specified characteristic strength by a margin equal to

$$1.64 \times SD (0.86 + 2/n)$$

Where:-

'SD' is the standard deviation from 'n' results but not less than  $3N/mm^2$

'n' is the number of results not less than 10 and not greater than 100

When 'n' exceeds 100 the margin shall be calculated as  $1.64 \times SD$ .

d) Previous production data for use in the above criteria shall be 28 day cube test results from separate batches of concrete, sampled at random over an immediately prior period not exceeding one year, using those materials and plant which are proposed for the work.

### **3.0 Design Mixes from a New Source**

For mixes proposed from a source which cannot satisfy the requirements of Clause 1704.2 above, the following procedure shall apply –

- The Contractor shall supply the Engineer with the design details of the proposed mix, including any proposed admixtures. The design of the mix shall be by a recognized, documented design method.
- A potential mix design shall first be subjected to preliminary testing on one batch. The mix proportions shall be adjusted to achieve the maximum density from available materials. If this preliminary batch achieves cube strengths which exceed the characteristic strength by an acceptable margin (an assessment based on 7 day strengths may be accepted) at the specified free water cement ratio and produces concrete of the required workability and even consistency, the mix may be prepared for trial mix analysis. If the batch fails the Contractor shall experiment with the mix proportions and submit another design.
- That batches shall be prepared under strictly mentioned conditions in the presence of the Engineer Materials shall be typical of the prospect supply and special care must be taken in record aggregate moisture contents and to achieve the required free water content. These separate trial batches shall be made using the proposed design mix. The batches shall be determined and six cubes made from each batch, three cubes for testing at 28 days and a further time cubes for testing at 7 days as a quality control guide.
- These requirements to perform trial mixes may be relaxed by the Engineer upon production of satisfactory evidence of trial mixes previously approved with the same materials used in the same proportions.

- **Acceptance**

The proposed mix design will be accepted provided:

1. The plastic properties are compatible with the requirements of the Contract having due regard to bleed capacity and minimum workability necessary to allow placing and compaction as specified with the requirement proposed in any situation. If bleeding occurs in a mix, it shall be assessed in accordance with ASTM C232 and where necessary the mix design or sad grading shall be adjusted to prevent recurrence.
2. The specified free water cement ratio (Table 17/4) is not exceeded.



3. The requirements of Clauses 1702.3, 1703.4, 1703.5, 1703.6, 1703.7 and 1703.8 are satisfied, in addition to :

The requirements of clause 1704.2 or

For trial mixes the mean strength of the nine cubes tested at 28 days exceeds the specified characteristic strength by not less than 10 N/mm<sup>2</sup>. The range of individual cube strength shall not be more than 15% of the mean strength.

4. All constituent materials conform to the present specification. Any change in the mix proportions (except changes in cement content of not more than 20 kg/m<sup>3</sup>), alterations in source grading type or size of material shall be subject to the Engineer's prior approval.

#### **Method Statements**

Method statements shall be approved before any concrete is placed and any alteration in the source or quality or proportioning of any of the materials in the mix will necessitate a new method statement which must be submitted to the Engineer for his approval

**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:

**J.** “corrupt practice” is the offering, giving, receiving to soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party;

**K.** “another party” refers to a public official acting in relation to the procurement process or contract execution. In this context, “public official” includes Financier staff and employees of other organizations taking or reviewing procurement decisions.

**L.** “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;

**M.** “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;

**N.** “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;

**O.** “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

**P.** acts intended to materially impede the exercise of the Financer’s inspection and audit rights provided .

**Q.** “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.

**R.** ”parties” refers to participants in the procurement process (including public officials) attempting to establish bid prices at artificial, noncompetitive levels.

**S.** a “party” refers to a participant in the procurement process or contract execution.

**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**  
**LIST OF APPROVED BANKS**



## LIST OF APPROVED BANKS

- 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.
- 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 on forced against the said branch of the Bank in case of default by the contractor/supplier furnishing the bankers Guarantee.
- Please refer circular no.CA/FBK/25 dated 30.10.2014
- IDBI Bank BG not allowed as per Circular CA/FBK/303 dtd.17.03.2018.

### List of approved Banks:-

<b>A</b>	<b>S.B.I and its subsidiary Banks</b>
1	State Bank Of India.
2	State Bank Of Bikaner & Jaipur.
3	State Bank Of Hyderabad.
4	State Bank Of Mysore.
5	State Bank Of Patiyala.
6	State Bank Of Saurashtra.
7	State Bank Of Travancore.
<b>B</b>	<b>Nationalized Banks</b>
8	Allahabad Bank.
9	Andhra Bank.
10	Bank Of Baroda.
11	Bank Of India.
12	Bank Of Maharashtra.
13	Central Bank Of India.

14	Dena Bank.
15	Indian Bank.
16	Indian Overseas Bank.
17	Oriental Bank Of Commerce.
18	Punjab National Bank.
19	Punjab & Sindh Bank.
20	Syndicate Bank.
21	Union Bank Of India.
22	United Bank Of India.
23	UCO Bank.
24	Vijaya Bank.
24A	Corporation Bank.
<b>C</b>	<b>Scheduled Commercial Banks</b>
25	Bank Of Madura Ltd.
26	Bank Of Rajasthan Ltd.
27	Banaras State Bank Ltd.
28	Bharat Overseas Bank Ltd
29	Catholic Syrian Bank Ltd.
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	Karur Vysya 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.
<b>D</b>	<b>Schedule Urban Co-op Banks</b>
49	Abhyudaya Co-op Bank Ltd.
50	Bassein Catholic Co-op Bank Ltd.
51	Bharat Co-op Bank Ltd.
52	Bombay Mercantile Co-op Bank Ltd.
53	Cosmos Co-op Bank Ltd.
54	Greater Mumbai Co-op Bank Ltd.
55	Janata Sahakari Bank Ltd.
56	Mumbai District Central Co-op Bank Ltd.
57	Maharashtra State Co-op Bank Ltd.
58	New India Co-op Bank Ltd.
59	North Canara G.S.B. Co-op Bank Ltd.
60	Rupee Co-op Bank Ltd.
61	Sangli Urban Co-op Bank Ltd.
62	Saraswat Co-op Bank Ltd.

63	Shamrao Vithal Co-op Bank Ltd.
64	Mahanagar Co-op Bank Ltd.
65	Citizen Bank Ltd.
66	Yes Bank Ltd.
<b>E</b>	<b>Foreign Banks</b>
67	ABM AMRO (N.Y.) Bank.
68	American Express Bank Ltd.
69	ANZ Grindlays Bank Ltd.
70	Bank Of America N.T. & S.A.
71	Bank Of Tokyo Ltd.
72	Bankindosuez.
73	Banque Nationale de Paris.
74	Barclays bank.
75	City Bank N.A.
76	Hong Kong & Shanghai banking Corporation.
77	Mitsui Taiyokbe Bank Ltd.
78	Standard Chartered Bank.
79	Cho Hung Bank.

**SECTION -14**  
**APPENDIX**

**FORM OF TENDER**

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 Municipal Corporation of Greater Mumbai 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 Bombay Iron and Steel Labour Board' and fulfil 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 Municipal Corporation of Greater Mumbai 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 withdrawn 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. ....

Name of Bank

2. ....

.....

3. ....

Name of Branch

4. ....

.....

5. ....

Vender

No. ....



**AGREEMENT FORM**

Tender / Quotation

dated ..... 20...

Standing Committee/Education Committee Resolution No. ....

CONTRACT

FOR

THE

WORKS .....

This agreement made this day of .....

Two thousand .....

Between .....

inhabitants of Mumbai, carrying on business  
at.....

..... in Bombay under the style and name of  
Messrs .....

..... (Hereinafter called "the contractor of the one part and  
Shri ..... the

Director (E.S. &P.) (hereinafter called "the commissioner" in which expression are included unless the inclusion is inconsistent with the context, or meaning thereof, his successor or successors for the time being holding the office of Director (E,S.& P)of the second part and the Municipal Corporation of Greater Mumbai (hereinafter called "the Corporation") of the third part, WHEREAS the contractor has tendered for the construction, completion and maintenance of the works described above and his tender has been accepted by the Commissioner (with the approval of the Standing Committee/Education Committee of the Corporation NOW THIS

THIS AGREEMENT WITNESSETH as follows:-

- 1) In this agreement words and expressions shall have the same meanings as are respectively assigned to them in the General Conditions of Contract for works hereinafter referred to:-
- 2) The following documents shall be deemed to form and be read and constructed as a part of this agreement viz.
  - a) The letter of Acceptance
  - b) The Bid:
  - c) Addendum to Bid; if any
  - d) Tender Document

- e) The Bill of Quantities:
- f) The Specification:
- g) Detailed Engineering Drawings
- 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 WHERE OF the parties hereto have caused their respective common seals to be herein to affixed (or have hereunto set their respective hands and seals) the day and year above written.

Signed, Sealed and delivered by the contractors


In the presence of

Trading under the name and style of

--	--

Full Name  
Address

Contractors

Signed by the Director (ES&P) in the presence of

Ex..... City/ WS/ ES

\_\_\_\_\_

Director (ES&P)

The Common seal of the Municipal Corporation of Greater Mumbai was hereunto affixed on the ..... 20 in the presence of two members of the Standing Committee.

1. 1.

2. 2.

And in the presence of the Municipal Secretary Municipal Secretary

## ANNEXURE " A "

### NAME OF WORK: -Demolition and Reconstruction of bridges (2 nos.) in zone- VII

1) Bridge at Irani wadi road no. 4 (Bada Pool), Kandivali (W) in R/S Ward

2) Valnai Bridge, Kandivali (W) in R/S Ward

1. The Engineer for this work:  
Chief Engineer (Bridges)  
Dy. Ch. Eng. (Bridges) E.S.  
Exe. Eng.(Bridges)E.S.(North)
2. Estimated cost of Tender: **Rs. 42,95,49,471 /-**
3. Earnest Money (1% of the Estimated cost) **Rs. 42,95,500/-**
4. Time Period **24 months (Exclusive of monsoon)**
5. Percentage to be charged as supervision charges for the work got executed through other means .....percent.

The "Actual cost of the work" shall mean in the case of percentage rate contracts the actual cost of the work executed at the rates as mentioned in the Contract Schedule adjusted by the Contractor's percentage rate and cost of extra and excess, but excluding the cost on account of Water Charges and Sewerage Charges if any, payable by the contractor and also excluding cost on account of price variation claims as provided in price variation clause as amended up to date.

1. In case of item rate contracts the actual cost calculated for the work executed at the rates mentioned in the contract schedule for different items including cost of excess and extra items of the work excluding the cost of water charges and sewerage charges if any, payable by the contractor and excluding cost on account of price variation claims as provided in extra excess conditions as amended up to date.

2. In case of lump sum contract the cost of the work actually carried out as per break up and programme of the work and the schedule of payment included in the contract including cost of any excess and/or extra items, of the work, excluding the cost on account of water charges and sewerage charges and also excluding cost on account of price variation claims as provided in extra excess conditions as amended up to date.

## **Annexure- B**

### **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, rewards, 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, rewards, 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 ;

2 “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;

3 “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 “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)

**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 GURANTEE IN LIEU OF CONTRACT DEPOSIT**

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 MUNICIPAL CORPORATION OF GREATER MUMBAI (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 AGRREMENT 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**

**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**

(on Rs. 500/- Stamp Paper)

I Shri/Smt .....aged, .....years Indian Inhabitant.

Proprietor/Partner/Director of M/s .....

Residing at ..... do hereby give Irrevocable undertaking as under ;

1. I say and undertake that as specified in section 171 of CGST Act,2017,any reduction in rate on supply of goods or services or the benefit of input tax credit shall be mandatorily passed on to BMC by way of commensurate reduction in prices.
2. 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, an appeal to the Screening Committee of GST Counsel.
3. 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, assignee, Executor, administrator etc.
4. If I fail to comply with the provisions of GST Act, I shall be liable for penalty/punishment or both as per the provisions of GST Act.

Whatever has been stated here in above is true & correct to my/our own knowledge & belief.

Solemnly affirmed at

DEPONANT

This day of

BEFORE ME

Interpreted Explained and Identified by me.

**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:**

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.

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 5years	Page No.
1					
2					
3					
4					
5					
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,

PROFORMA- III							
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.

**PERSONNEL:**

PROFORMA- IV					
Sr. No.	Post	Name (Prime Candidate/ Alternate)	Qualification	Work Experience	
				No. of Years	Name of Projects
1	Principal Technical Representative (Project Manager)		Graduate Engineer or Diploma Engineer		
2	Project planning Engineer/Billing Engineer.		Graduate Engineer or Diploma Engineer.		
3	Project/Site Engineer		Graduate Engineer or Diploma Engineer		
4	Quality Control Engineer		Graduate Engineer or Diploma Engineer		
5	Surveyor		Graduate Engineer or Diploma Engineer		

**NOTE:** Scanned Attested copies of qualification certificates and details of work experience shall be submitted /uploaded.

**MACHINERY: (for special work only)**

<b>PROFORMA- V/A</b>			
Sr. No.	Equipment	Number	Owned/Leased/Assured access
1	2	3	4
<b>PROFORMA- V/B</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 / A**

Details of Existing Commitments and on-going works –

<b>PROFORMA - VI / A</b>							
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.

**PROFORMA - 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 - VII**

Details of Litigation / Arbitration history in which tenderer is involved–

<b>PROFORMA - VI / B</b>				
Name of other party(s)	Employer	Cause of Dispute	Amount Involved	Remark showing present status
1	2	3	4	5

**SECTION 15**  
**SPECIAL CONDITIONS OF**  
**CONTRACT**



## 15. SPECIAL CONDITIONS OF CONTRACT

### (A)

**15.1** BMC shall not be responsible for providing the sites for dumping ground and in the event dumping ground is not able to be made available by BMC, the bidder shall have to arrange own dumping arrangement for which no any cost will be paid by BMC.

Nevertheless, BMC reserves its rights to use surplus excavated materials for its own use anywhere in BMC limits.

**15.2** i) All material required for the work can be stacked near the site of work in such manner so as not to cause any inconvenience to the pedestrian and vehicular traffic. If no space is available on site then tenderer shall make his own arrangement for stacking of material etc. No extra payment will be made on this account.

ii) The surplus excavated material from the site shall be removed free of cost to the Municipal dumping ground within 24 hours, as directed. The necessary tipping charges at the dumping ground, as applicable, shall be borne by the contractor or at designated unloading site, as per circular No. Dy. Ch.E./SWM/3957Op. dtd. 28.09.2018 for which no extra payment will be made.

i) The royalty charges in respect of excavated material shall be paid by the contractors to the collector as and when asked for.

iv) The contractor should note that during the execution of the work, debris etc. dumped on the public streets/places will have to be removed immediately after completion of the work as per direction of the Engineer, failing which the same will be got removed at their risk and cost.

v) The site shall be cleared by removal of surplus material on or before 15<sup>th</sup> of May every year.

vi) The policy's circulars are issued by BMC from time to time related to various clauses/conditions of bid documents shall remained applicable. The BMC reserves the right of its applicability for the particular work.

### **15.3 (A) Removal of Excavated Material**

All the excavated material belongs to the Municipal Corporation of Greater Mumbai and therefore shall be the property of Municipal Corporation of Greater Mumbai. It will be mandatory on the part of contractor to use this material in the execution of works under contract if the quality of material available is as per the specification and rest of quality wise unutilized material shall be removed as directed by Engineer.

All the excavated and surplus material on site shall be disposed by means of transportation or as directed by the Engineer on the cost of contractor. No additional /

separate payment will be made to contractor, as per circular under No. MGC/F/7867 dated 12.10.2015.

**(B) Royalty Payment on excavated material as per statutory requirement:**

The contractor shall pay necessary royalties and submit documentary evidences of such payments to the engineer for his information and records. If and when royalties becomes payable to the government authority on excavated material as per statutory requirements, the payment shall be made by the contractor as per the circular under no. अ.शा.पत्र. क्र. २०६८/१७-१८ दिनांक २८ डिसेंबर २०१७ and गौखनि१०/०८१२/प्र.क्र.५३४/ख दिनांक ४ डिसेंबर २०१२.(Attached in the circular section)

15.4 If the contractor excavates certain portion of the bridge carriageway and fails to reinstate. the same within the stipulated time limit, as per the programme and or before 31st of May, the reinstatement will be got carried out at contractor's risk and cost through other agency in addition to further penal action

15.5 All trenches taken in connection with the work should be sufficiently barricaded, as specified.

15.6 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 14.2.2000, issued by the Ministry of Environment & Forests.

15.6.1. a) Proper arrangements to safe guard trunk mains/ water mains during construction period shall be responsibility of tenderer, and no separate payment will be made for the same.

b) Salvage material generated during demolition of existing bridge, if any, shall be transported and deposited with Municipal store or as directed by engineer's in-charge. No separate payment will be made for the same.

c) Tenderer shall maintain existing bridge till completion of new bridge to avoid any mishaps.

d) All concrete work will be done by RMC and pumping.

15.6.2 2.The scope of work includes demolition and reconstruction of bridge. Minimum 3 numbers of Graduate Technical & professional personnel should be deployed at site .

15.7 **Permissions:**

15.7.1 The contractors will have to obtain permission from the traffic police department well in advance either for closing down the bridge carriageway partially/fully or for diversion of traffic for execution of the work. The work may be required to be executed in phases as per traffic police permission. The contractors should therefore consider this factor while quoting.

15.7.2 The contractor shall have to obtain all the permissions of the concerned authorities outside M.C.G.M. required for carrying out the work. Only recommendatory letters will be issued by BMC.

15.8 The contractors will be given 12 mm. dia. or 20 mm. dia. (as per the conditions of H.E.) water connection for drinking purposes. Extra water required for construction purposes will have to be brought by the contractors at his own cost and no extra claims on this behalf will be entertained.

15.9 Methodology of the work, **safety manual** and quality assurance plan shall be submitted before commencement of the work with copy at each site office.

15.10 Quantities of all items provided in the B.O.Q. may not be required to be executed depending upon the site conditions. The tenderer shall not be entitled for any compensation on this account. Before starting the work, contractor shall consult with the Site Engineer and shall take actual measurements on the site for procurement of material.

15.11 The contractor shall procure all material required for the work from manufacturers with I.S.I. certificates and according to M.C.G.M. specifications wherever applicable.

15.12 Corporation will appoint a consultant for quality audit, during execution period. The contractor will extend all help in carrying out any survey; test etc. as directed and adverse decision there of including rectification shall be carried out by the contractors at their cost.

15.13 The Engineer not below the rank of **Assistant Engineer** is entitled to impose a penalty of **Rs. 2500/-** per day per lapse for each defective work/lapse, disobedience of orders by the officer not below the rank of site Engineer. Penalty amount will be recovered from contractors running bill. This penalty is over and above Penalty mentioned under G.C.C. enforced.

If it is observed that, the contractor carrying out the work fails to comply with the instructions given by the authorities of the A.C. /Ch .E. (Br)/ Zonal DMC/Dir.(ES&P)/A.M.C./M.C.'s level during execution of work twice, the work may be terminated and will be carried out at the risk and cost of the contractor and penal action will be taken against them. This decision will not be arbitral at all.

The above mentioned condition will be in addition to the relevant condition in the General Condition of contract regarding cancellation of contract in full or partly final decision of disputes, difference of claims raised by the contractor or relating to any matter out of contract.

## **ii) Other penalties**

In addition to any penal action under the GCC of Individual contracts, a registered contractor will be liable under the registration Rule to one or more of the following penalties as per the procedure laid down in the “Rules Governing registration of Contractor/s for Civil, Mechanical, Electrical and Electronics Engineering works, 2016” of BMC:

- I. Warning
- II. Fine
- III. Demotion
- IV. Banning / De-registration
- V. Suspension of Registration pending inquiry
- VI. Debarring

### **I. WARNING / FINE**

A contractor/s will be liable to a warning and / or fine for -

- i. Non-compliance of any provision of these rules,
- ii. Failure to comply with any clause or direction under these Rules or failure to comply with any condition of E-Quotation / E-Tenders / contracts and
- iii. Inadequate progress during execution of work / performance under a contract.
- iv. For the first default of any type mentioned above, a warning letter / notice will be issued by competent authority i.e. defined under Engineer of the project / work. For each subsequent default of the types in (a), (b) & (c) above, the penalty will be imposed to the contractor as per the penalties mentioned in the contract document under general condition of contract or special condition of contract. Higher amount of fine may be levied by the competent authority i.e. defined under Engineer of the
- v. Project / work, for the reasons to be recorded.

## **II. DEMOTION**

A Contractor/s is liable to be demoted to one lower class of registration on one or more of the following grounds -

- i. Specific failure or default in execution of individual works, in respect of physical progress or quality in such works,
- ii. Deterioration in financial or technical ability / capacity and
- iii. Repeated failure to properly fill in tender document/s, fully and correctly or delay in execution of formal contract documents

**Note:** Demotion from the lowest class of registration will amount to banning / de-registration of registration for the period specified. In such cases, the registration of the contractor/s will stand restored after the period of demotion / banning / de-registration.

## **III. BANNING - DE-REGISTRATION**

Banning / Deregistration will be for a specific period or permanent banning / Deregistration.

A contractor/s is liable to be Banned / De-registered on one or more of the following grounds: -

- i. If security considerations including question of loyalty to the BMC so warrant,
- ii. If the proprietor of the firm, its employee, partner or representative is convicted by a court of law following of investigation or under normal process of law for offences involving moral turpitude in relation to business dealings viz. Conviction by court of law,
- iii. If there is strong justification for believing that the proprietor or employee, or representative of the firm has been guilty of malpractices such as bribery, corruption, fraud substitution of tenders, interpolation, misrepresentation, evasion or habitual default in payment of any tax levied by law,
- iv. If the firm continuously refuses to return BMC or State Govt. dues without showing adequate cause, and BMC is satisfied that this is not due to a reasonable dispute which would attract proceedings in arbitration or court of law,
- v. If the firm employs a BMC or State Govt. servant, dismissed / removed on account of corruption, or employs a non-official convicted for an offence involving corruption or abetment of such an offence, in a position where he could corrupt Govt. Servants,

- vi. Persistent and intentional violation of important conditions of contract. Not attaining required quality of work and non-execution of works as per terms and conditions of contract. Constant non-achievement of milestone on insufficient and imaginary grounds and non-adherence to quality specifications despite being pointed out,
- vii. An attempt to cheat BMC , an attempt to secure a contract through unfair means or bringing to bear outside influence, an attempt to secure unauthorized copies of Municipal records and documents in relation to any tender / contract or any other official matter, an attempt to tamper with Municipal record and documents, threatening, misbehaving with or physical attack on any Municipal employee/ Officer,
- viii. An attempt to instigate or collude with other contractor/s with a view to securing undue advantage,
- ix. Any of the grounds mentioned in clause Demotion, if it is deemed serious enough.

#### **IV. SUSPENSION OF REGISTRATION PENDING INQUIRY**

- i. Whenever any Show Cause Notice is issued to the contractor calling for the explanation on the alleged lapses by him, the registration of contractor/s may be banned / suspended up to the arrival of final outcome of the said Show cause notice, depending on the seriousness of the reasons for which show cause notice is issued.
- ii. Show cause notice shall be issued by the officer not below the rank of Executive Engineer in charge of the concerned work / project of BMC.
- iii. Director (E. S. & P.) or concerned Deputy Municipal Commissioner is the competent authority to ban / suspend the registration pending inquiry in such cases.
- iv. Circular of Banning / suspension of registration till further orders shall be circulated to all departments of BMC by Head of the executing department i.e. Chief Engineer of concerned department / Assistant Commissioner of the concerned Wards.
- v. The outcome of registration of the contractor will be decided depending on the final outcome of the process of the said Show Cause Notice and circular to that effect shall be issued by concerned Head of the Department.

#### **V. DEBARRING**

Debarring is the penal action to be initiated against the Contractor/s who are carrying out works for M.C.G.M. and are not registered with M.C.G.M. All other criteria and procedure of penal action (i.e.

observed for suspension, banning, demotion, (deregistration) will remain similar as mentioned in penal action clause 7.

#### **15.14 Traffic Management:-**

15.14.1 The contractor shall have to provide adequate number of wardsens as per requirement of Traffic Police Dept. at the contractor's cost.

15.14.2 Traffic signs – Temporary traffic and construction signs are to be provided during construction and maintenance operations for traffic diversion and pedestrian safety as per Traffic Diversion Plan approved by the Engineer.

15.14.3 The contractor shall display the boards stating information of the name of the work, date of starting, date of completion, name of the Dept. and contact telephone nos. of **Contractor's Engineer**

15.15 While constructing/improving footpath, provision for slopping ramp of at least 1.00 m width or as directed, shall be made at every carriage entrance, junctions, bus stops etc., for convenience of physically challenged persons.

15.16 The full time services of the Personnel Team of the contractor is mandatory during the entire period of the project. Daily Attendance register of Contractor's staff shall be maintained and got checked from BMC staff from time to time.

#### **15.17 TESTING OF MATERIAL –**

i) Contractors are required to send at least one sample per day up to 50 M.T. and at the rate of one sample for every additional 50 M.T or part thereof per day for Asphalt Macadam/ Seal Coat/Asphalt Concrete and other asphalt mixes to the laboratory for testing. The contractor shall note that, 50% payment of the bitumen work will be withheld till the results are received.

The test of samples of asphalt macadam, asphaltic concrete, mastic asphalt, used in the work shall be carried out at municipal laboratory or approved laboratory as directed by engineer in-charge.

The site laboratory shall be used for testing of sub-base, GSB, base course, WBM, concrete cubes (7 days, 14 days) and other materials as necessary and directed engineer in-charge.

The charges for testing of construction materials and asphalt mixes shall be as per the rates in force at the time of testing of materials/asphalt mixes and the testing charges shall be borne by the contractor.

**a)** All requests for testing of samples must be made in writing to in duplicate specifying

**b)** there in the following information (separate memo should be sent for concrete, steel, soil, asphaltic mixes) etc.

- c)** Name of the Work, Work Code No. if any
- d)** Type of material and tests desired (i.e. grade of cement, date of consignment)
- e)** Identification mark on the sample should be mentioned on the forwarding memo (in case of concrete beams and cubes identification marks, grade of concrete, date of casting, specimen No. should be engraved on concrete. If these details are marked by paint, samples will not be accepted. In case of reinforcement bars, details shall be displayed on label pasted on bars and label must be signed by the officer who has taken the samples.)
- f)** Name and full postal address of the officer to whom the results must be sent.
- g)** Date of sampling (i.e. date of laying asphalt mix, Sr. No. of load casting concrete or taking cement samples.)
- h)** Name of the tenderer carrying out the work.
- i)** Any other information, which is specified by the user department.
- ii)** Samples must also bear the identification mark and signature of site in charge/ officer taking the samples. In case of samples of asphalt mixes sent in polythene bags a legible duplicate tag should be stapled from outside.
- iii)** Quantity of sample for testing must be adequate as shown in the schedule.
- iv)** For issuing additional copies or duplicate copies of test results at Municipal Testing Lab. Rs. 25/- will be charged for each copy. Request for additional /duplicate copy should be made in writing by site in charge or higher officers of the user department.
- v)** Field Density test shall be taken in Asphalt concrete Carpet for any thickness. The Contractor shall obtain the intimation letter from Engineer-in-charge & furnish the same to A. E. (Soil Mech.) or as directed by the Engineer within 7 days from the date of laying of asphalt concrete for carrying out the field density test. For any neglect or delay on the part of the contractor to intimate the same within seven days period, the additional charges as penalty would be recovered from the Contractor up to Rs. 200/- per test per week at the time of submission of intimation to A. E. (Soil Mech.)'s office.
- vi)** Samples of bitumen cut back, emulsions shall be forwarded in wide mouthed metal containers with label pasted on the lid.
- vii)** Samples for tensile testing of reinforcing bars shall be straight for entire length without bends. The ends of the bars shall be hacksaw cut and not chisel cut. One sample of each diameter bar shall be sent for first test and for retest, two bars shall be sent. The length of the bars shall be 50 cm. for all



diameters. Test Certificates (Chemical/Physical tests) from manufacturers (MTC) will be submitted along with each Lot of Steel.

**viii)** Samples that are sent for testing for natural moisture content, shall be forwarded in wax coated packing or sealed airtight bags.

**ix)** Undisturbed samples sent in sampling tube shall be wax coated on both open ends.

**x)** The samples thus taken shall send to the Testing Laboratory within 4 days from the date of laying, of Asphalt mix on site. In case of delay, additional testing charges as penalty would be recovered from the Contractor at the following rates.

A)	From the 5th day to 7th day from date of laying of asphalt mix on site	Rs. 10,000/-
B)	From the 8th day to 14th day from date of laying of asphalt mix on site	Rs. 20,000/-

The above charges i.e. (A) & (B) shall be paid by the contractors at time of submitting the samples in Municipal Laboratory.

If the samples of the Asphalt mixes are not sent for testing within 14 days, payment for the corresponding quantity of those samples shall not be made.

Charges would be recovered from the respective bills payable to the contractor by respective department and credited to XV- Traffic Operations, Roads and Bridges, H - Material Testing Laboratory.

**xi)** In case of failure of asphalt mix sample testing in Municipal Laboratory in various tests the following penalties will be imposed.

a) Rs.500/- for each gradation failure as per result of asphalt macadam, seal coat and asphaltic concrete and Rs.1,000/- for each gradation failure in mastic asphalt.

b) For failure on more than 3 gradations in any asphalt mix. 50% of the cost of the work represented by the failed sample will not be paid to the contractors.

C) Rs.1,000/- each for failure in flow value/Bulk density/Void ratio/marshall stability in a asphaltic mix beyond permissible limit as mentioned in the test report.

d) In case of excess % of bitumen in the bitumen mix beyond specified limit, a penalty of Rs.60/- per MT of AM/SC/AC having excess bitumen for 50MT or thereafter as applicable for which representative sample was taken will be imposed on C/s.

e) In case of less percentage of bitumen in the bitumen mix, than the specified limit, 50% of the cost of day's work represented by the sample will be recovered as penalty.

f) In case of failure of field density of Asphalt mix, the area represented by the sample has to be removed and redone. The test of samples of asphalt macadam, asphaltic concrete, mastic asphalt, paver blocks, concrete cubes (28 days) flexural beams used in the work shall be carried out at municipal laboratory or approved laboratory as directed by engineer in-charge.

15.18 The contractor shall maintain the following registers during execution of work and it is mandatory to provide Lap Top to the site Engineers for this–

**The contractor shall prepare & maintain soft copies of the following registers as applicable during execution of work:-**

1.	Inventory Register
2.	Correspondence file
3.	External & internal utility remarks file
4.	File containing drawings
5	Daily Progress Register
6	Instruction Register
7	Level Book
8	Mix design file
9	Material Testing Result file
10	Photograph file
11	Excavation Register (Asphalt , rock, soil etc)
12	Filling / Embankment Register
13	Removal Challan & Register (if dumped at Municipal ground /if paid separately)
14	Steel Register
15	M15,M20, M-35, M-40 Cube registers etc.
16	G.S.B. register
17	W.M.M. Register
18	Sand Metal Filling Register
19	Register for Tension bar
20	Register for Structural Steel
21	Formwork shuttering register
22	Pour Card
23	M15,M20, M-35, M-40 registers etc

24	M15,M20, M-35, M-40 for cube register etc
25	R.M.C. Challan file for grade M15,M20, M-35, M-40 etc
26	Joint cutting Register
27	Precast Item Challan Register
28	D.B.M. Register
29	Bituminous Register
30	Bituminous challan Register
31	Penalty Register.
32	Register for inspection during defect liability period.
33	Contractor's site staff attendance register
	Note: - Any other register as directed by Engineer- In-Charge.

Any other registers required as per description of items for any activity/material/quantity for which payment is made or as instructed by Engineer in Charge.

Hard copies of the registers signed by the contractors shall be provided as required.

**15.19** 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. If contractor fails provide equipments as per instruction of engineer in charge, Penalty of Rs 5000/- day will be imposed and the same will be recovered from contractors ASD or Running Bill.

**15.20 Site Office/ Office for the Engineer**

- i.** If Site office with necessary requirements is not provided within 15 days after issue of work order, a penalty of Rs. 10000/- per day per item will be imposed.
- ii.** If there is further delay more than 30 days, a penalty of Rs. 20000/- per day (i.e. starting from 31st day from issue of work order ) will be forfeited from paid ASD or will be recovered from 1st R.A. Bill.
- iii.** If there is further delay more than 45 days, a penalty of Rs. 50000/- per day (i.e. starting from 46th day from issue of work order) will be forfeited from paid ASD or will be recovered from 1st R.A. Bill.

**NOTE:**

- a. The bidders have to consider the costs of all items related to site office and site laboratory and quote their % accordingly.
- b. AS per Circular No. Ch.E./487/Rds, Tr. & Br. /SR Dated 18/9/12.

On receipt of the work order, the contractor will have to provide for site office as per requirement either on his / her owned place or rented/leased place. The Cost for this may be charged to BMC by incorporating in the offer. No separate payment may be made for providing the Site office and ancillary items.

**15.21 FOR ASPHALT ROAD WORKS:**

I. Loads of asphalt mix brought on lorries shall be fully covered with tarpaulin, failing which **Rs.2500/-** for every lorry load received on the site uncovered with tarpaulin will be imposed as penalty and the same will be recovered from the contractor's bill.

II. The lorry loads of the asphalt mix shall be checked at random at public weigh Bridge including the Tar Weight for verifying the correct weight of the mix at the rate of one load out of every ten loads.

III. Various asphalt mix Challans shall bear printed serial No. weight and departure time from the plant end. The test reports of the test conducted in the asphalt plant laboratory shall invariably accompany with the first load.

IV. Mix Design for WMM/GSB/Paver Blocks/Concrete/Asphalt mix shall invariably include details of source material including tests carried out at source (Quarry/Cement Manufacturer's/Bitumen supplier's lab).

V. While laying asphalt mix layers on the existing bridge carriageway surface, care shall be taken to see that no manhole or chamber covers of drainage, etc. are buried or kept higher than bridge carriageway surface. They shall be first identified and raised or lowered to be flushed with final asphalt surface.

VI. Prime coat/Tack coat will be allowed during execution of resurfacing work only by mechanical sprayer.

VII. Field Density test shall be taken in Asphalt mix / Asphalt Concrete, W.M.M., D.L.C. and GSB.

VIII. The contractors shall bring the correct size of metal/material required for construction of water bound layers. The contractors will not be allowed to break stones, preparation of material for water bound layers on site.

**15.22** The contractors should carry out if required, any minor works such as raising/lowering of manhole, attending to bad spots, bad patches etc. as may be decided by the Engineer-in charge anywhere within the concerned wards limit where the work is in progress under contract at the rates included in the Bill of Quantities of the above work with his percentage quoted.

## Maintenance Works –

1) During the Contract period (including intervening monsoon) the contractor shall maintain the project roads in motor able and traffic worthy condition at his own cost. The contractor shall attend and repair the damaged portion of the project road and the said work shall be done within 24 hours from intimation as directed by Engineer. The contractor shall not be entitled for any additional cost for such work undertaken.

2) The defect liability period for the improved roads shall be as mentioned in Section 6. The contractor shall be liable to maintain the road during the defect liability period, which shall include any repairs, rectification of any part or portion of the project road immediately without waiting for any notice or intimation and shall include:

a) Maintaining roads signs, road markings, arrow marking etc. throughout the year.

b) Maintaining the kerbs, dividers, with proper **painting twice in a year preferably before and after monsoon**, jointing etc.

c) All Bridge and Road side furniture shall be inspected, restored/painted to original condition.

d) Surface deteriorations shall be rectified.

e) Paver blocks- the undulations in the paver blocks settlement of paver blocks, broken pieces of paver blocks shall be rectified /replaced as directed.

f) The contractors shall not allow any trenches on the project road, stretch without due permission from concerned authority of BMC.

g) Cleaning and maintaining of laterals and water entrances of storm water drains including replacing missing /broken covers.

h) Preventive Maintenance of Improved Bridge Carriageway Preventive maintenance uses pavement preservation techniques in terms of surface treatments and extends the service life of the pavement and minimizes the need for routine maintenance interventions. The bitumen in asphalt layers of the pavement, especially the wearing course, gets oxidized due to weathering conditions such as sun, wind and water. Due to this the wearing course hardens and becomes brittle causing cracking in the pavement. A seal coat (liquid seal coat) when applied as specified, provides a waterproofing layer on top of the wearing course and slows down the oxidation process. In the present case, initially, the seal coat should be applied during the dry season that follows the first monsoon rains after the construction of the pavement. Thereafter, the liquid seal coat may be applied 15 days before end of defect liability

period as a preventive treatment after carrying out proper structural and functional evaluation of the pavement. For liquid seal coat, Rapid Setting (RS) grade of cationic bitumen emulsion shall be used.

The specifications in relevant clauses of Section 513 of MORTH (2001) pertaining to Type-A Seal Coat with cationic RS grade emulsified bitumen should be followed. Alternatively micro-surfacing can also be used as a surface treatment for preventive maintenance. In addition, the corrective and emergency repairs such as crack sealing, pothole and patch repair, etc., should be carried out as per Section 3004 of MORTH (2001) as and when necessary.

The contractor shall not be entitled for any additional cost for above works. All of this cost should be included in fixed percentage quoted by bidder. The contractor shall not be entitled for any additional cost such works undertaken.

i) Sealing of the joints of concrete pavements shall be done once a year, prior to monsoon.

j) Contractor shall maintain the following after expiry of Defect liability period of respective items till completion of DLP of the as directed by Engineer In charge, for which payment will be made with quoted percentage of this tender as per prevailing schedule rates at the time of execution.

i. Maintaining roads signs, road markings, arrow marking, pedestrian crossings etc.

ii. Maintaining the kerbs, dividers, with proper painting etc.

iii. All road side furniture shall be inspected, restored/painted to original condition

3) Prescribed period for completing the maintenance works shall be as under:

a) Deteriorated surfaces in Asphalt, Paver Blocks that affect the movement of traffic shall be repaired/rectified within 24 hrs. of notice of such defects by the contractor or in his default when brought to his notice by concerned staff of M.C.G.M.

b) All other maintenance work like Road signs, Lane marking, railing etc. if found defective, shall be started within 7 days of notice of such defects by the contractors and completed within a reasonable period of 4 weeks or period as directed by Engineer whichever is earlier.

c) Filling of potholes or patching up should be taken and completed with 24 hrs. of issue of instructions to do so.

4) Penalty of Rs. 2500/- per day for every day of delay beyond period prescribed in the tender shall be levied as regards the Maintenance Works.

5) All scrap of fabrication steel in the bridge work shall be stacked properly in the concern wards office.

- 6) Challan of the scrap materials from wards shall be procured/ shall be maintained.
- 7) During the contract period/ execution of work all kind of utilities such as roads, slab etc. if any get damaged shall maintain smooth flow of nalla, traffic etc. as his own risk and cost.
- 8) Bidders attention is requested to the new circular regarding Good and Service Tax.
- 9) An amount of 1% will be deducted from the R.A. bills in respect of Building Construction and other Worker's cess as per directives of State Government and Circular in force as per circular no. CA/FRT/12 of 21.06.2012.
- 10) As per circular No. CA/F/Project/19 of 15.09.2017, Tenderer has to submit undertaking on Rs. 500/- stamp paper.
- 11) Circular for construction and demolition waste management rules:-  
A circular regarding implementation of the construction and demolition waste management rules, 2016 has been issued by BMC u/No. Dy.Ch.Eng./SWM/3957/OD dated 28.09.2018. The said circular is to be applicable for the said tender work.

**Note: - Please refer to the new circular regarding Goods and Service Tax (GST):-**

**Bidder's attention is requested to the new circular regarding Goods and Service Tax (GST) under no. प.ल./व/वित्त/पककलर/शहर/28/दि. 10.11.2017, CA/F/Project/25 dtd.12.07.2022.**

**SECTION – 16**  
**SPECIAL INSTRUCTION TO**  
**TENDERER(S)**



### **SPECIAL INSTRUCTION TO TENDERER(S)**

- Two Bridges are to be reconstructed across Irani wadi Road No.4 (Bada pool) and Valnai Nallah at Kandivali (West) This work includes dismantling of the old bridges and reconstruction of new bridge at the same location. Construction is to be carried out in two phases. Single lane traffic to be diverted over new bridge. After that existing bridge is to be dismantled and remaining width of bridge is to be constructed.
- The tenderer(s), prior to submitting his tender for the work is required to visit site and examine the site of work and its surroundings at his own expenses and obtain and ascertain for himself, on his own responsibility and risk, all information, technical data etc. that may be necessary for preparing his tender and entering into a contract including, inter-alia, the actual conditions regarding the nature and conditions of site, availability of materials, labour, probable sites for Chowky / stores etc and the extent of lead and lift required for the execution of the work over the entire duration of the contract, after taking into consideration local conditions, traffic restrictions, obstructions in work if any and to allow in all such extra expenses that are likely to be incurred due to any such conditions, restrictions, obstructions etc. in the quoted contract price for the work.
- As the work under this tender is to be carried out across a nalla, it will be essential for the contractor to take all safety measures to ensure safety of vehicular traffic and pedestrians using the road. As the work will be carried out with the running road on one side during the phase construction, the working space available for carrying out the work will be limited. Also for all the bridges there are structures close by the bridge and approach and hence working space is limited. The intending tenderer should therefore carefully examine the site to understand the restrictions on availability of space and provision of safety measures.
- As the work under this tender is to be carried out adjacent to the existing Hutments/ establishment, it will be essential for the contractor to take all safety measures to ensure safety of existing buildings, provide vehicular / pedestrians access to the traffic generated locally. The intending tenderer should carefully examine the site to understand the restrictions on availability of space and provision of safety measures.
- Work will be permitted to be carried out in 2 (Two) shifts with prior consent for the Engineer in charge. Adequate lighting arrangements shall be made at night time and safety of people, workers be insured.
- Layout drawings indicating general arrangement of the existing and proposed bridge structure, approaches, etc. and dimensions mentioned on the drawings are tentative. The general arrangement and dimensions may vary as per detailed drawings and this will not deviate the contract and will not lead to any claim for extra rate or compensation whatsoever.
- The dismantled steel shall be stacked as directed by Engineer incharge and the same will be handed over to BMC.
- The clearing of encroachments of affected Hutments will be done by BMC respective department. The details / measurements etc. as required for the proposal shall be given by contractor without any extra claim. If the procedure for clearing the encroachment delays whatsoever the contractor shall not claim any extra payment, however the time extension will be granted for such delay as per BMC rules.

- While dismantling the existing bridge in parts, care must be taken to protect the balance part of bridge where the vehicular traffic/ pedestrian movements are moving the over the bridge. The safety measures shall be taken in to account by the contractor to see that no harm or risk occurs to the traffic and locals safety. Proper arrangement for balance bridge safety shall be done and strengthen the bridge accordingly if required.
- While constructing bridge if traffic movement / pedestrian movement are disturbed, the proper arrangement for the same shall be done without any extra claim, the contractor shall quote the price taking in to account all such items stated above.
- A list of mandatory and minimum machinery which must be available with the tenderer is attached. The tenderers should note that it is very much essential to make arrangements for getting these machineries before quoting for the work. Tenderers should submit “list of plants & equipment” including centering materials owned, their present location, along with the tender.
- Contractor shall note that no inconvenience shall be caused to pedestrians and vehicular traffic during construction. Due care shall be taken for safety of pedestrians and vehicles
- Excavation shall be carried out by using Poclain / J.C.B. carefully. Excavated earth shall be removed from site immediately to the dumping ground / location / Space as directed by the Engineer. No inconvenience shall be caused traffic, local residents or pedestrians on account of stacking of excavated earth.
- All the materials shall be stacked or stored at the site of work as directed and used only on the work in question and any materials remaining surplus shall not be disposed of or removed by the Contractors without obtaining the written permission of the Engineer In Charge. The Contractors shall maintain a register, account of the receipts and use of material to the satisfaction of the Engineer in charge and supply monthly statement of such account to the Engineer-In-charge.
- The contractors will have to work in two shifts, if required and no extra claims will be entertained for the same.
- In any case whatsoever the type of structure will not permitted to change, contractor has to note the same.
- Contractor shall ensure that he is do construction all the structure components.
- Method statement for phase wise construction or construction in stages shall be strictly adhered and the detailed method statement shall be submitted to client and design consultant before commencement of Fabrication / Launching.

**SECTION – 17**  
**CIRCULAR**

## बृहन्मुंबई महानगरपालिका

### परिपत्रक

प्र.ले./वित्त/प्रकल्प/शहर/२८ दि. १०.११.२०१७

विषय: महानगरपालिकेद्वारे हाती घेण्यात येणारी विविध प्रकल्प कामे तसेच खरेदी करण्यात येणा-या वस्तु व सेवा इत्यादीबाबतच्या निविदांमध्ये वस्तु व सेवा कराच्या अनुषंगाने घ्यावयाचे विशेष परिशिष्ट-१ (Special Annexure-I) बाबत.

संदर्भ: १) प्र.ले./वित्त/प्रकल्प/शहर/३३ दि.०४.०३.२०१७

२) प्र.ले./वित्त/प्रकल्प/शहर/१२०अ दि.०८.०५.२०१७

३) प्र.ले./वित्त/प्रकल्प/शहर/८ दि.१४.०७.२०१७

संदर्भित परिपत्रकांन्वये वस्तु व सेवाकराच्या अनुषंगाने, निविदांमध्ये निविदाकाराने त्याच्या देकारामध्ये समाविष्ट असलेल्या सर्व करांची माहिती Special Annexure-I मध्ये दर्शविण्याबाबत वेळोवेळी यथोचित सूचना देण्यात आल्या आहेत.

संदर्भित परिपत्रकानुसार, निविदेतील अनुषंगिक अटी व शर्तीनुसार निविदाकाराने निविदा सादर करावयाच्या अंतिम दिनांकास लागू असलेल्या सर्व करांसहित दर उद्धृत करणे आवश्यक आहे. तसेच सदर Special Annexure-I मध्येही निविदाकाराने दर उद्धृत करताना विचारात घेतलेले कर, कराची टक्केवारी व रक्कम, दिलेल्या रकान्यात दर्शविणे आवश्यक आहे. तथापि, काही खातेप्रमुखांकडून काही प्रकरणी कंत्राटदाराच्या नियुक्तीसाठी लघुत्तम निविदाकाराची शिफारस करणारे प्रस्ताव व मसुदापत्र लेखाविभागास पडताळणीसाठी सादर केले असता, निविदाकाराने लिफाफा 'क' मध्ये उद्धृत केलेला दर व त्या अनुषंगाने आलेली रक्कम आणि Special Annexure-I मध्ये उद्धृत केलेली रक्कम, कराची टक्केवारी अथवा कराची रक्कम इत्यादींमध्ये तफावत/विसंगती असल्याचे निदर्शनास येत आहे. त्यामुळे अशा प्रकरणी कंत्राटदार म्हणून नियुक्तीसाठी निविदाकाराची शिफारस करताना खालील निर्देशांचे पालन करावे.

१. प्रथम लघुत्तम निविदाकार (L1) ठरविण्यासाठी निविदेचे मूल्यमापन (Tender Evaluation) करताना निविदाकारांनी सॅप कार्यप्रणालित लिफाफा 'क' मध्ये उद्धृत केलेला दर तसेच रक्कम व त्या अनुषंगाने आलेला निविदा तुलनात्मक तक्ता (Bid Comparison Statement Generated by SAP) हा अंतिम समजण्यात यावा.

२. निविदा दाखल करावयाच्या अंतिम दिनांकास (Last date of Tender Submission) लागू असलेले कर, सदर निविदेस त्यावेळी लागू होते असे विचारात घेऊन आणि प्रथम लघुत्तम निविदाकाराने (L1 as per 'C' packet, i.e. Bid Comparison Statement Generated by SAP) निविदेसोबत Special Annexure-I अपलोड केलेले असेल तरच व आवश्यक असल्यास, प्रथम लघुत्तम निविदाकाराकडून सुधारीत Special Annexure-I घेण्यात यावे. तथापि, ज्या प्रकरणी प्रथम लघुत्तम निविदाकाराने निविदेसोबत अपलोड केलेल्या Special Annexure-I मध्ये नमूद केलेली कराची टक्केवारी, निविदा सादर करावयाच्या शेवटच्या दिनांकास लागू असलेल्या जीएसटी दरापेक्षा जास्त असल्यास, प्रथम लघुत्तम निविदाकाराकडून स्पष्टीकरण घ्यावे.
३. प्रथम लघुत्तम निविदाकाराशिवाय (L1 as per 'C' packet, i.e. Bid Comparison Statement Generated by SAP) अन्य निविदाकारांशी वाटाघाटी (Negotiations) करू नयेत.
४. जीएसटी अंमलबजावणीनंतर सर्व प्रकारच्या वस्तु व सेवा खरेदी मधील कर स्वतंत्रपणे दर्शाविणे अनिवार्य आहे. याकरीता कार्यालयीन कामकाजात सुलभता येण्यासाठी निविदांमध्ये Special Annexure-I बाबतची अट समाविष्ट करण्यात आली असून त्याअनुषंगाने निविदाकारांकडून Special Annexure-I घेण्यात येते. कोणत्याही परिस्थितीमध्ये निविदेचे मूल्यमापनासाठी, प्रथम लघुत्तम निविदाकार ठरविण्यासाठी (Tender Evaluation i.e. deciding L1) Special Annexure-I प्रमाण मानता येणार नाही.
५. महापालिकेने वस्तु व सेवाकराच्या अनुषंगाने निविदाकारांनी उद्धृत केलेल्या दरामधील कररचना/कर रक्कम Special Annexure-I मध्ये दिलेल्या विहित नमून्यात जाहिर करण्याबाबत संदर्भित परिपत्रकांन्वये निर्देश देण्यात आले होते. आता वस्तु व सेवाकराचे दर, रचना इत्यादी बाबी जाहिर झालेल्या असून Special Annexure-I ची प्रासंगिकता संपुष्टात आली आहे. यास्तव, यापुढील मागविण्यात येणाऱ्या निविदा/अतारांकित निविदा/दरपत्रक यांमध्ये Special Annexure-I घेणे आवश्यक नाही. यास्तव संदर्भित क्र.३ स्थित परिपत्रकामध्ये कराबाबत दिलेल्या अटीमध्ये खालील प्रमाणे बदल करण्यात येत आहे.

**Tax:**

“G.S.T. and other state levies/cess which are not subsumed under GST will be applicable. The tenderer shall quote inclusive of all taxes. It is clearly understood that MCGM will not bear any additional liability towards payment of any Taxes & Duties.

Wherever the services to be provided by the Tenderers, falls under Reverse Charge Mechanism, the Price quoted shall be exclusive of GST, but inclusive of Taxes/ Duties/ Cess other than GST, if any.

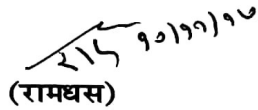
Rates accepted by MCGM shall hold good till completion of work and no additional individual claim shall be admissible on account of fluctuations in market rates; increase in taxes/ any other levies / tolls etc. except that payment / recovery for overall market situation shall be made as per Price Variation.”

यापुढील मागविण्यात येणाऱ्या निविदा/अतारांकित निविदा/ दरपत्रक यांमध्ये कराबाबत उपरोक्त अटीचा समावेश करावा.

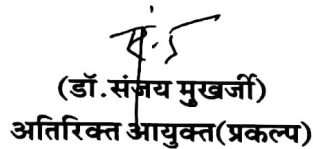
सर्व खातेप्रमुख , रूग्णालयांचे अधिष्ठाता, सहायक आयुक्त, उपप्रमुख लेखापाल तसेच सर्व लेखाधिकारी यांनी उपरोक्त सुचनांचे काटेकोर पालन करावे.

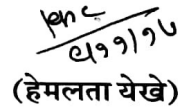
  
(रा.क.आव्हाड)

प्रमुख लेखापाल(पा.पु.म.नि.)

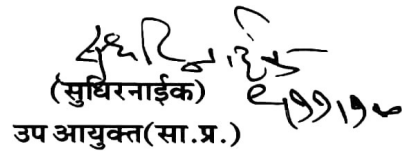
  
(रामधस)

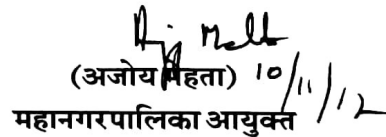
उप आयुक्त(म.ख.खा.)

  
(डॉ. संजय मुखर्जी)  
अतिरिक्त आयुक्त(प्रकल्प)

  
(हेमलता येखे)

प्रमुख लेखापाल (वित्त)

  
(सुधिरनाईक)  
उप आयुक्त(सा.प्र.)

  
(अजोय महता) 10/11/12  
महानगरपालिका आयुक्त

(18)

वैदेही रानडे  
अपर जिल्हाधिकारी  
मुंबई उपनगर जिल्हा



सत्यमेव जयते  
महाराष्ट्र शासन

अ. शा. पत्र क्र. 2068/17-18  
दि. 28/12/2017

AMC/WS/ 7108/VIP  
Dt. 11/01/2018

आपला विषय मंडळ,

विषय :- सार्वजनिक/पायाभूत विकास प्रकल्पातील गौण खनिज स्वामित्वधनाची रक्कम भरणेबाबत.

G.A. (Finance)

संदर्भ :- शासन महसूल व वनविभाग यांचेकडील पत्र क्र. गौखनि-१०/०८१२/प्र.क्र.५३४/ख  
दि. ०४/१२/२०१२ चे पत्र.

अति. आयुक्त (प.उप)

उपरोक्त संदर्भिय विषयाच्या अनुषंगाने कळविणेत येते की, मुंबई उपनगर जिल्ह्यामध्ये आपल्या प्राधिकरणामार्फत अनेक सार्वजनिक विकास प्रकल्प राबविली जात आहेत. सदर प्रकल्प राबवित असताना निरनिराळ्या संस्था, खासगी ठेकेदार, संबंधित यंत्रणा/कंत्राटदार इत्यादींना निविदा मागवून विविध कामासाठी कार्यांरंभ आदेश दिले जातात. सदर प्रकल्प राबवित असताना मोठ्या प्रमाणात गौण खनिजांचा वापर केला जातो. गौण खनिजांच्या स्वामित्वशुल्काची वसूली करून महसूल विभागाकडे भरण्याची जबाबदारी संबंधित कार्यकारी अभियंता/ कार्यन्वीत यंत्रणा यांची आहे.

पायाभूत विकास प्रकल्पाच्या अंमलबजावणीमधील विलंब टाळण्यासाठी विहित कालावधीमध्ये कामे पूर्ण करण्याच्या दृष्टीने गौण खनिज उत्खनन व स्वामित्व शुल्क आकारणी प्रक्रीया सुलभीकरण करण्याची बाब विचारात घेता मुंबई गौण खनिज उत्खनन नियम-१९५५ मधील नियम-४ व नियम-२२ अ नुसार गौण खनिजाचे उत्खनन व वहन करण्यापूर्वी संबंधित ठेकेदाराने माहिती देणे आवश्यक आहे. त्यानुसार संबंधितांनी स्वामित्वशुल्क अदा करून रितसर गौण खनिज परवाना घेणे बंधनकारक असल्याचे महसूल व वन विभागाच्या दि. ०४/१२/२०१२ रोजीच्या पत्रान्वये निर्देश दिले आहेत तथापि गेल्या काही वर्षात गौण खनिज स्वामित्वधनाची रक्कम संबंधित ठेकेदार यांचेकडून शासन जमा केली जात नाही तसेच आपले प्राधिकरणाकडून संबंधित ठेकेदार यांचे कामकाजाचे देयक पारित करताना अशा स्वरूपाच्या रक्कमा वजा करून त्या शासन जमा करण्यात येत नाही त्यामुळे शासनाच्या महसूलाचे नुकसान होत आहे ही बाब गंभीर स्वरूपाची आहे.

(कृ. मा. प.)



उपरोक्त वस्तुस्थिती विचारात घेता १) विविध शासकीय कामे पूर्ण झाल्यावर त्याचे देयक अदा करणेपूर्वी त्याची त्यांच्या अंदाजपत्रकात नमूद केल्याप्रमाणे तेवढ्याच रकमेची रॉयल्टी अदा केल्याची खात्री करावी अथवा अशा रकमा आपले स्तरावरून कपात करून स्वामित्वशुल्कांची रक्कम SBI A/C GRAS या नावे D.D./Pay Order या नावे काढून अपर जिल्हाधिकारी, मुंबई उपनगर जिल्हा यांचे कार्यालय, प्रशासकीय इमारत, ९ वा मजला, शासकीय वसाहत, बांद्रा (पू), मुंबई-४०००५१ या कार्यालयात जमा करावा त्याशिवाय अशा ठेकेदारांना देयक अदा करू नये.

२) तसेच खाजगी इमारतीच्या बांधकामास सुरू करण्याची परवानगी (IOD) CC यांची एक प्रत या कार्यालयात पाठवावी म्हणजे संबंधितांकडून गौण खनिज रॉयल्टीची रक्कम वसूल करणे सुलभ होईल.

या संदर्भातील दि. ०१/०४/२०१५ पासून आपल्या कार्यालयामार्फत विकास प्रकल्प/ पायाभूत सुविधांसाठी दिलेले कार्यारंभ आदेश व त्यांचे ठेकेदार यांची पत्यासह यादी तसेच सदर कामासाठी वापरण्यात आलेल्या गौण खनिजाचे परिमाण यांची माहिती सोबतच्या नमुन्यात उपलब्ध करून द्यावी याबाबत आपले अधिनस्त संबंधित अधिका-यांस आवश्यक निर्देश व्हावेत.

आपली विष्वास्

*Madre*

(वेदेही रानडे)

अपर जिल्हाधिकारी,  
मुंबई उपनगर जिल्हा

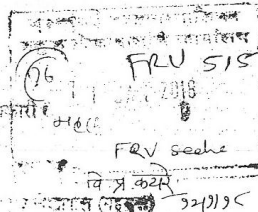
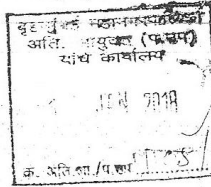
प्रति,

श्रीमती आय. ए. कुंदन (भा.प्र.से.)

अतिरिक्त महापालिका आयुक्त (पश्चिम उपनगरे)

महापालिका मुख्य कार्यालय, ३ रा मजला, महापालिका मार्ग,

सीएसटीएम स्टेशनच्या बाजूला, मुंबई-४००००९



Dy. CA (EXP) / Dy. CA (Rev. I)

*CA (F) / K*

A.E. (Bridges) City-N-1/II  
*17. Do this useful early*

E.E. (Bridges) City-North *03/02*



परिशिष्ट "अ"

- शासकीय विभाग/अधिनस्त महामंडळाचे नाव:-
- कार्यान्वयीन यंत्रणेचे नाव:-
- कंत्राटदाराचे नाव:-

अ. क्र.	ठेकेदाराचे नाव	कार्यारंभ आदेश क्र. व दिनांक	कामाचे स्वरूप	कार्यारंभ आदेशाप्रमाणे काम पूर्ण करावयाचा दिनांक	कार्यारंभ आदेशाप्रमाणे आवश्यक गौण खनिजाचा प्रकार	एकूण परिमाण	अंदाजपत्रकात विभागाने गौण खनिजासाठी केलेली तरतूद	स्वामित्वधन (Royalty) अदा केली असल्यास त्याचा तपशील
1	2	3	4	5	6	7	8	9

दूरध्वनी क्र. ०२२-२२१८८२३५  
ई-मेल - dokh.rfd@maharashtra.gov.in

महाराष्ट्र शासन

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सही

प्रति,

सर्व विभागीय आयुक्त,  
सर्व जिल्हाधिकारी

क्रमांक : गौखनि १०/०८१२/प्र.क्र.५३४/ख  
महसूल व वन विभाग  
३२ वा मजला, सेंटर-१,  
जागतिक व्यापार केंद्र,  
कफ परेड, मुंबई.  
दिनांक ४ डिसेंबर, २०१२

विषय :- शासकिय कामाकरिता गौण खनिज उत्खनन  
व स्वामित्व शुल्क प्रक्रिया सुलभीकरण

मुंबई गौण खनिज उत्खनन नियम, १९५५ मधील नियम-४ नुसार शासकीय मालकीच्या जमिनीतून गौण खनिजाचे उत्खनन करण्यास तसेच नियम २२-अ नुसार खाजगी व्यक्तींच्या मालकीच्या जमिनीतून गौण खनिजाचे उत्खनन करण्यास सक्षम प्राधिकारी यांची मान्यता आवश्यक आहे. सदर तरतुदीनुसार शासकीय कामासाठी आवश्यक गौण खनिजाच्या उत्खननासाठी संबंधित यंत्रणा / कंत्राटदार यांना सक्षम प्राधिकारी तहसिलदार / उपजिल्हाधिकारी / जिल्हाधिकारी यांचेकडे प्रत्येक वेळी परवानगी घेण्यासाठी अर्ज करावा लागतो. याकरीता विलंब होवून कालापव्यय होतो. शासकिय कामासाठी स्वामित्व शुल्काची तरतूद अंदाजपत्रकात करण्यात येत असल्याने व वसुलीची जबाबदारी संबंधित कार्यकारी अभियंता यांचो असल्याने पायाभूत विकास प्रकल्पांच्या अंमलबजावणीमधील विलंब टाळण्यासाठी पर्यायाने विहित कालावधीमध्ये कामे पूर्ण करण्याच्या दृष्टिकोणातून अशा कामासाठी गौण खनिज उत्खनन व स्वामित्व शुल्क आकारणी प्रक्रीया सुलभीकरण करण्याची बाब विचारात घेता मुंबई गौण खनिज उत्खनन नियम, १९५५ मधील नियम-४ व नियम-२२-अ संदर्भात पुढीलप्रमाणे सूचना देण्यात येत आहेत :-

- (अ) जलसंपदा विभाग व अधिनस्त महामंडळे, सार्वजनिक बांधकाम विभाग व अधिनस्त महामंडळे, पुनर्वसन विभाग व शासनाचे इतर विभाग व अधिनस्त महामंडळांच्या संबंधित कार्यकारी अभियंता यांनी त्यांचे अधिनस्त प्रकल्पांच्या कामाकरिता गौण खनिजाची आवश्यकता दिचारात घेवून आवश्यक प्रकाराच्या गौण खनिजाच्या परिमाणाचे शासकीय जमिनीतून व प्रकल्पासाठी संपादित जमिनीतून उत्खनन व वहन करण्यासाठी संबंधित तहसिलदार यांना काम सुरु करतांना संबंधित नोंदलेल्या परिशिष्ट "अ" प्रमाणे गौण खनिजाचे उत्खनन व वहन सुरु करण्यापूर्वी माहिती द्यावी. यासाठी वेगळ्या परवानगीची आवश्यकता राहणार नाही.
- (ब) तथापि, गौण खनिजाच्या उत्खननासाठी आवश्यक पर्यावरण अनुमती घेणे बंधनकारक राहिले.

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24/12/12



**MUNICIPAL CORPORATION OF GREATER MUMBAI**

No. : MGC/E/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, 0.23 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.

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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.

o/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)/Dv. Ch.Eng.(HIC) / Dv.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.

o/c

Director (E.S.& P.)

No. No. DIR/ES & P/915/MC dtd. 27-9-2018

C.C. to:

Submitted please.

o/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,



## Municipal Corporation of Greater Mumbai

No. Dy.Ch.Eng./SWM/3957/Op. dt. /09/2018

### CIRCULAR 28-9-2018

**Subject:** Implementation of the Construction and Demolition Waste Management Rules, 2016

**Reference:** i) Hon'ble Supreme Court's order in the Special Leave Petition (civil) No. D 23708/2017, dated 15/03/2018  
ii) Hon'ble M.C. Sir's Approval u/no. MGC/F/7076 dtd. 30.08.2018

The Construction and Demolition Waste Management Rules, 2016 is applicable to 'every waste resulting from construction, re-modeling, repair and demolition of any civil structure of individual or organisation or authority who generates construction and demolition waste such as building materials, debris, rubble'.

Hon'ble Supreme Court vide order dated 15/03/2018, has directed to dispose of construction and demolition waste material by following due procedure in accordance with the provisions of the Construction and Demolition Waste Management Rules, 2016".

In order to put curb on the un-authorisedly dumped waste, it is essential to control it by asking ward Maintenance department or any MCGM department to issue work-permission only after assessing the total estimated quantity of C&D waste likely to be generated out of the repairs / construction / trenching work or any such civil works, and asking them to make payment in advance or in stages of waste generation for the 'Debris on Call' system or transport C&D waste to designated unloading site.

**Following standard operating procedure is proposed to be adopted:**

- 1) MCGM department like A. E. (Maintenance), A. E. (B&F), H.E., S.O., S.P., M.S.D.P., W.S.P., S.W.D., S.W.M., C.E., B.C., B.M., Roads, Bridges, etc. carrying out civil work / repairs works etc. shall put condition in the tender / quotation / work order to dispose of C&D waste generated either by (i) 'Debris on Call' scheme if generation of C&D waste is less than 300MT for entire project or (ii) contractor shall transport to designated unloading site approved by MCGM S.W.M. department by following due procedure if C&D waste is more than 300MT for entire project.
- 2) The estimated quantity of the C&D waste generated shall be certified by A.E. (Maintenance) Ward or the concerned department.
- 3) If quantity of C&D waste is less than 300MT, A. E. (S.W.M.) Ward will issue Challan for making payment as per 'Debris on call' scheme on approval from Zonal Ex. Eng. (S.W.M.).
- 4) If quantity of C&D waste is more than 300MT, the contractor / agency will submit C&D waste management plan complete with requisite documents to Zonal Ex. Eng. (S.W.M.). On approval, the contractor / citizen / agency carrying out the civil works will be allowed to transport the C&D waste material to the designated unloading site.
- 5) The contractor / citizen / agency carrying out the civil works shall maintain & submit the appropriate record like date, quantity of C&D waste transported, vehicle No., Challan of Receipt of C&D waste from unloading site etc.
- 6) The whole system of issuing NOC for C&D waste transportation and payment will be made ONLINE and for this M/S. Softech will be asked to develop appropriate software on the basis of existing norms being done for auto-DCR portal.
- 7) The proposals will be processed manually till the complete system fully operational online.
- 8) All the contractors / agencies using designated unloading site must maintain proper record of the C&D waste generated and transported along with date and vehicles through which C&D is transported & the copies of Challans from unloading site for having unloaded the C&D waste and submit the same to A.E. (S.W.M.) ward through concerned department.

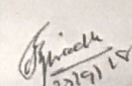
Sd/-07/08/2018  
Ch. Eng. (S.W.M.)

Sd/-07/08/2018  
D.M.C. (S.W.M.)

Sd/-10/08/2018  
A.M.C.(E.S.)

Sd/-29/08/2018  
Municipal Commissioner

Forwarded for information and compliance please

  
22/9/18  
Dy. Ch. Eng. (SWM) Op.

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# बृहन्मुंबई महानगरपालिका

## परिपत्रक

२०१४-१५

क्रमांक :- सीए/एफबीके/२५, दिनांक ३०/१०/२०१४

विषय :- बँकेने दिलेले हमीपत्र (बँकर्स गॅरंटी) स्वीकारण्याबाबत.

संदर्भ :- सीए/एफबीके/३९, दिनांक ०७/१२/२०१२

कंत्राटदार / पुरवठा यांच्याकडून सादर करण्यात येणारी बँक हमीपत्रे (बँकर्स गॅरंटी) स्वीकारण्यासंदर्भात उपरोक्त संदर्भाधीन परिपत्रकान्वये मार्गदर्शनपर सूचना परिक्रमित करण्यात आल्या आहेत. सादर परिपत्रकातील परिच्छेद क्रमांक २ मध्ये नमूद करण्यात आलेल्या बँकांच्या प्रवर्गात नागरी सहकारी बँकांचा (Urban Co- Operative Banks) उल्लेख नसल्याने सादर परिच्छेद पुढीलप्रमाणे सुधारित करण्यात येत आहे.

"रिझर्व बँक ऑफ इंडिया यांनी त्यांच्या 'rbidocs.rbi.org.in/rdocs/publications/ pdfs/84656.pdf' ह्या अधिकृत वेबसाईटवर रिझर्व बँक ऑफ इंडिया अधिनियम, १९३४ अन्वयेची अनुसूची-दोन माहितीकरीता उपलब्ध केलेली आहे. सादर अनुसूची-दोन मध्ये (१) स्टेट बँक ऑफ इंडिया आणि तिच्या संलग्न बँका, (२) राष्ट्रीयीकृत बँका, (३) इतर सार्वजनिक क्षेत्रातील बँका, (४) खाजगी क्षेत्रातील बँका, (५) विदेशी बँका आणि (६) नागरी सहकारी बँका ह्या प्रवर्गात नमूद करण्यात आलेल्या बृहन्मुंबई महानगरपालिका तसेच त्यापुढील विरार व कल्याण पर्यंतच्या क्षेत्रातील सर्व बँकांच्या राखा, बँक हमीपत्रे स्वीकारण्याबाबतच्या प्रयोजनाकरीता मान्यताप्राप्त आहेत."

तरी, सर्व खातेप्रमुख, सहाय्यक महापालिका आयुक्त आणि संबंधित यांनी वरील सुधारणेची कृपया नोंद घ्यावी अशी विनंती आहे.

सही/ २२.१०.२०१४

प्रमुख लेखापाल (वित्त)

परिपत्रक

२०१४-१५

क्र. सीए/एफबीके/२५, दिनांक ३०/१०/२०१४

यांना प्रत (-----) अधिक प्रतींसह

माहितीकरीता व योग्य त्या कार्यवाहीसाठी पाठवित आहे.

*Rhandolhas*  
11/14  
प्रमुख लेखापाल (वित्त) यांच्याकरीता

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## बृहन्मुंबई महानगरपालिका

परिपत्रक

२०१७-१८

क्र. टीए/एफबीके-३०३, दि. १७.०३.२०१८

विषय:- बँकेचे ि नेले हमीपत्र (बँकर्स गॅरंटी) स्वीकारण्याबाबत.

संदर्भ:- सीए/ए बीके/२५, दि.३०.१०.२०१४

कंत्राटदार / पुरवठादार यां सकाडून महानगरपालिकेस सादर करण्यात येणारी बँक हमीपत्रे (बँकर्स गॅरंटी) स्वीकारण्यासंदर्भात उपरोक्त संदर्भित परिपत्रकान्वये मार्गदर्शनपर सूचना निर्गमित करण्यात आल्या आहेत. आयडीबीआय बँकेकडून प्राप्त झाले त्या बँक हमीपत्रांचे (बँक गॅरंटी) रोखीकरण (Encashment) करण्याबाबत अडचणी निर्माण झाल्याचे निदर्शना आलेले आहे. यास्तव, पुढील आदेशा मित्तेपर्यंत आयडीबीआय बँकेने दिलेली कोणतीही बँक हमीपत्रे (बँक गॅरंटी) स्वीकारली जाऊ नये.

तरी, सर्व खातेप्रमुख, सह एक महानगरपालिका आयुक्त आणि संबंधित यांनी वरील सुधारणेची नोंद घेऊन काटेकोरपणे अंमलबजावणी होईल र नी दक्षता घ्यावी.

सही/१७.०३.२०१८  
(श्री. रामदास क. आव्हाड)  
प्रमुख लेखापाल (पा.पु.म.नि.)

सही/१७.०३.२०१८  
(श्री. प्रदिप.भा. पडवळ)  
प्रमुख लेखापाल (वित्त)प्र.

सही/१७.०३.२०१८  
(डॉ. संजय मुखर्जी)  
अतिरिक्त आयुक्त (प्रकल्प)

परिपत्रक

२०१७-१८

क्र. टीए/एफबीके-३०३, दि. १७.०३.२०१८

-----यांना मत (-----) अधिक प्रतीसह माहिती करिता व योग्य त्या कार्यवाही साठी पाठवित आहे.

प्रमुख लेखापाल (वित्त)प्र. यांकडून

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# **MUNICIPAL CORPORATION OF GREATER MUMBAI**

Central Purchase Department

## **CIRCULAR**

No. D.M.C./CPD/3217 Date: 02.03.2019

**Sub :** To incorporate new clause of internal "GRIEVANCE REDRESSAL MECHANISM" in the standard Bid document.

**Ref:** i) CA/FRD/I/05 dt. 10.05.2016  
ii) MGC/F/8155 dtd. 30.01.2019.

- Vide above reference, Hon'ble M.C. has granted to discontinue the existing Procurement Redressal Committee & to incorporate new clause of internal "GRIEVANCE REDRESSAL MECHANISM" as mentioned below in the bid document.

### **INTERNAL GRIEVANCE REDRESSAL MECHANISM**

M.C.G.M. has formed a internal Grievance Redressal Mechanism for redressal of bidder's grievances. Any Bidder or prospective Bidder aggrieved by any decision, action or omission of the procuring entity being contrary to the provisions of the tender or any rules or guidelines issued therein, in Packet 'A', 'B' & 'C' can make an application for review of decision of responsiveness in Packet 'A', 'B' & 'C' within a period of 7 days or any such other period, as may be specified in the Bid document.

While making such an application to procuring entity for review, aggrieved bidders or prospective bidders shall clearly specify the ground or grounds in respect of which he feels aggrieved.

Provided that after declaration of a bidder as a successful in Packet 'A' (General Requirements), an application for review may be filed only by a bidder who has participated in procurement proceedings and after declaration of successful bidder in Packet 'B' (Technical Bid), an application for review may be filed only by successful bidders of Packet 'A'. Provided further that, an application for review of the financial bid can be submitted, by the bidder whose technical bid is found to be acceptable / responsive.

Upon receipt of such application for review, M.C.G.M. may decide whether the bid process is required to be suspended pending disposal of such review. The M.C.G.M. after examining the application and the documents available to him, give such reliefs, as

may be considered appropriate and communicate its decision to the Applicant and is required to other bidders or prospective bidders, as the case may be.

M.C.G.M. shall deal and dispose off such application as expeditiously as possible and in any case within 10 days from the date of receipt of such application or such other period as may be specified in pre-qualification document, bidder registration document or bid documents, as the case may be.

Where M.C.G.M. fails to dispose off the application within the specified period or if the bidder or prospective bidder feels aggrieved by the decision of the procuring entity, such bidder or prospective bidder may file an application for redressal before the 'Internal Procurement Redressal Committee' within 7 days of the expiry of the allowed time or of the date of receipt of the decision, as the case may be. Every such application for internal redressal before Redressal Committee shall be accompanied by fee of Rs.25,000/- and fee shall be paid in the form of D.D. in favour of M.C.G.M.

**1<sup>st</sup> Appeal by the bidder against the decision of C.E./HoD/Dean can be made to concerned D.M.C /Director who should decide appeal in 7 days.**

**If not satisfied, 2<sup>nd</sup> Appeal by the bidder can be made to concerned A.M.C for decision.**

Grievance Redressal Committee (GRC) is headed by concerned D.M.C / Director of particular department for the first appeal / grievances by the bidder against the decision for responsiveness / non-responsiveness in Packet 'A', Packet 'B' or Packet 'C', and if not satisfied, concerned A.M.C. will take decision as per second appeal made by the bidder.

**This Grievance Redressal Committee (GRC) will be operated through DMC(CPD) office where appeals of aggrieved bidder will be received with fee of Rs. 25,000/- from aggrieved bidder. The necessary correspondence in respect of said applications to the aggrieved bidder & concerned department, issuing notices, arranging of Grievance Redressal Committee (GRC) with D.M.C and further proceeding will be carried out through registrar appointed by MCGM.**

No application shall be maintainable before the redressal Committee in regard of any decision of the M.C.G.M. relating to following issues:

Determination of need of procurement

The decision of whether or not to enter into negotiations.

Cancellation of a procurement process for certain reasons.

On receipt of recommendation of the Committee, It will be communicated his decision thereon to the Applicant within 10 days or such further time not exceeding 20 days, as may be considered necessary from the date of receipt of the recommendation and in case of non-acceptance of any recommendation, the reason of such non-acceptance shall also be communicated to the Applicant.



## बृहन्मुंबई महानगरपालिका

### परिपत्रक

प्र.ले./वित्त/प्रकल्प/ 25 दि. 12/०७/२०२२

विषय: महानगरपालिकेद्वारे हाती घेण्यात येणारी विविध प्रकल्प कामे तसेच प्राप्त करण्यात येणा-या वस्तु व सेवा इत्यादीबाबतच्या ई-निविदा/निविदा/दरपत्रक यामध्ये वस्तु व सेवा कराच्या अनुषंगाने अंतभूत करावयाच्या अटीबाबत.

संदर्भ: १) प्र.ले./वित्त/प्रकल्प/शहर/३३ दि.०४.०३.२०१७

२) प्र.ले./वित्त/प्रकल्प/शहर/१२०अे दि.०८.०५.२०१७

३) प्र.ले./वित्त/प्रकल्प/शहर/८ दि.१४.०७.२०१७

४) प्र.ले./वित्त/प्रकल्प/शहर/२८ दि.१०.११.२०१७

५) Press Release: 47<sup>th</sup> Meeting of the GST Council, Chandigarh

28<sup>th</sup> and 29<sup>th</sup> June, 2022.

बृहन्मुंबई महानगरपालिकेद्वारे हाती घेण्यात येणाऱ्या विविध प्रकल्प कामे तसेच प्राप्त करण्यात येणा-या वस्तु व सेवा इत्यादीबाबतच्या ई-निविदा/निविदा/दरपत्रक यामध्ये वस्तु व सेवा कराच्या अनुषंगाने अंतभूत करावयाच्या अटीबाबत संदर्भित परिपत्रकान्वये सूचना प्रसृत केल्या आहेत.

वस्तु व सेवाकरांच्या दरात फेरबदल करण्याबाबत शासन विचाराधीन असल्याने महानगरपालिकेतील विविध कामांच्या निविदांबाबत संभाव्य निविदाकार महापालिकेस निवेदन सादर करत आहेत. अतएव, महानगरपालिकेद्वारे हाती घेण्यात येणारी विविध प्रकल्प कामे तसेच प्राप्त करण्यात येणा-या वस्तु व सेवा इत्यादीबाबतच्या ई-निविदा/निविदा/दरपत्रक यामध्ये संदर्भित क्र.५ अन्वये दिलेल्या वस्तु व सेवा कराच्या अनुषंगाने अंतभूत करावयाच्या अटीमध्ये खालीलप्रमाणे बदल करण्यात येत आहे.

विद्यमान अट	सुधारित अट
<p>“GST and other state levies/cess which are not subsumed under GST will be applicable. The tenderer shall quote inclusive of all taxes. It is clearly understood that BMC will not bear any additional liability towards payment of any Taxes &amp; Duties.</p> <p>Wherever the services to be provided by the Tenderers, falls under Reverse Charge Mechanism, the Price quoted shall be exclusive of GST, but inclusive of Taxes/Duties/Cess other than GST, if any.</p> <p>Rates accepted by BMC shall hold good till completion of work and no additional individual claim shall be admissible on account of fluctuations in market rates; increase in taxes/any other levies/tolls etc. except that payment/recovery for overall market situation shall be made as per Price variation.</p>	<p>“GST and other state levies/cess which are not subsumed under GST will be applicable. The tenderer shall quote inclusive of all taxes <u>applicable at the time of bid submission</u>. It is clearly understood that BMC will not bear any additional liability towards payment of any Taxes &amp; Duties.</p> <p>Wherever the services to be provided by the Tenderers, falls under Reverse Charge Mechanism, the Price quoted shall be exclusive of GST, but inclusive of Taxes/Duties/Cess other than GST, if any.</p> <p>Rates accepted by BMC shall hold good till completion of work and no additional individual claim shall be admissible on account of fluctuations in market rates; increase in taxes/any other levies / tolls etc. except that payment/recovery for overall market situation shall be made as per Price variation <b>and if there is any subsequent change (after submission of bid) in rate of GST applicable on the work/services to be executed as per tender, i.e. any increase will be reimbursed by BMC whereas any reduction in the rate of GST shall be passed on to BMC as per the provisions of the GST Act.</b></p>

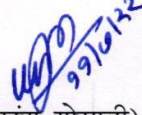
उपरोक्त सुधारीत अट ही ज्या कामांच्या ई-निविदा/निविदा/दरपत्रक दस्तऐवज यामध्ये समाविष्ट केलेली असेल फक्त त्याच कामांकरिता लागू असेल.

अतएव, प्राप्त होणारे देकार प्रचलित वस्तु व सेवा करांच्या दरानुसार प्राप्त होणार असल्याने, सध्या ज्या ई-निविदा/निविदा/दरपत्रक मागविलेल्या आहेत अशा निविदांमध्ये



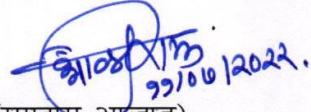
नियत दिनांकापूर्वी शुद्धीपत्रकाद्वारे उपरोक्त सुधारीत अट समाविष्ट करण्याबाबत तसेच यापुढे मागविण्यात येणाऱ्या ई-निविदा/निविदा/दरपत्रक यांमध्ये उपरोक्त सुधारीत अट समाविष्ट करण्याची संबंधित खातेप्रमुख यांनी दक्षता घ्यावी. तसेच वस्तु व सेवा कराच्या दरातील बदल हा शासन निर्णयामधील दिनांकापासून प्रभाव्य राहिल.

सर्व खातेप्रमुख, रूग्णालयांचे अधिष्ठाता, सहायक आयुक्त, यांनी उपरोक्त सुचनांचे काटेकोरपणे अनुपालन करावे.

  
११/०७/२२

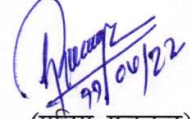
(पांडुरंग गोसावी)

प्रमुख लेखापाल (पा.पु.म.नि.)

  
११/०७/२०२२.

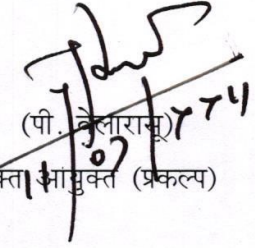
(रामदास आव्हाड)

उप आयुक्त (वित्त)

  
११/०७/२२

(प्रदिप पडवल)

प्रमुख लेखापाल (वित्त) प्र.

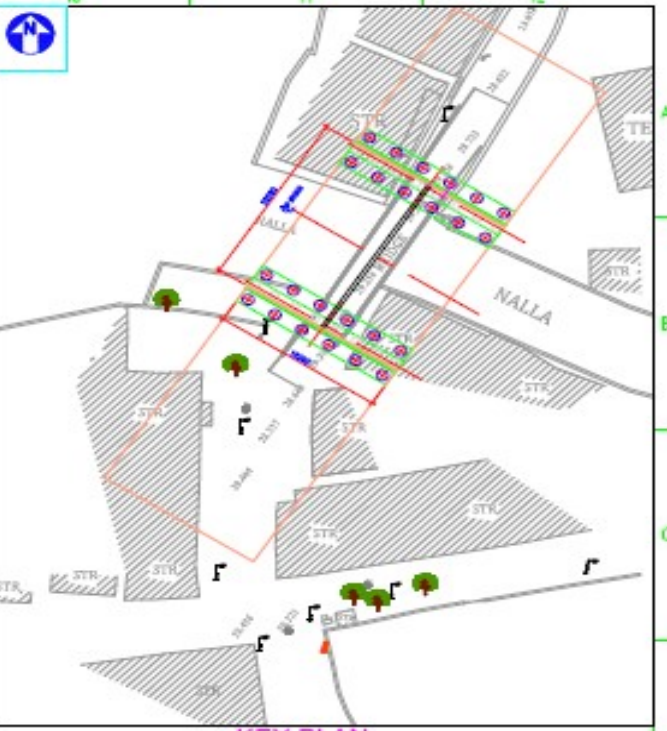
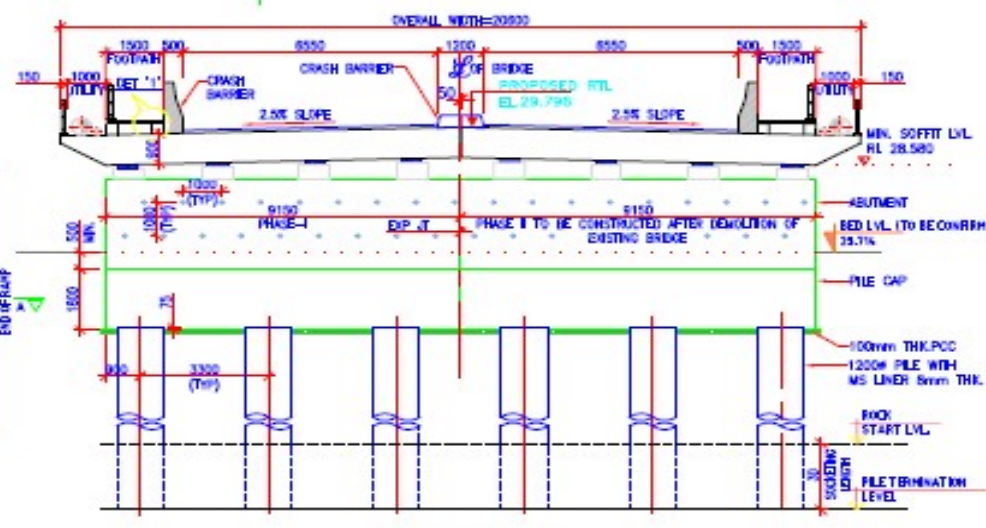
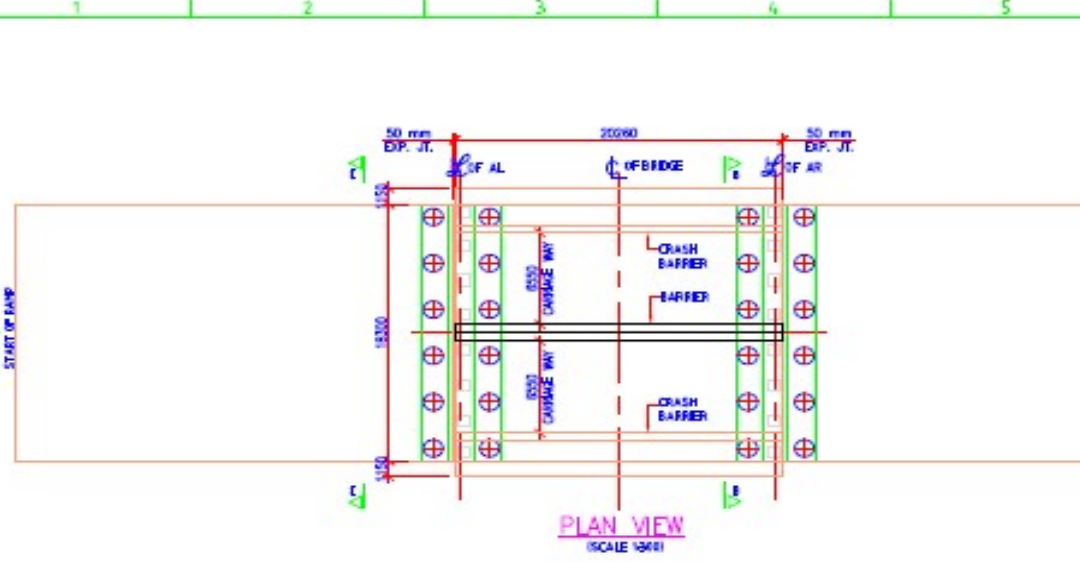
  
११/०७/२०२२

(पी. वेलारासु)

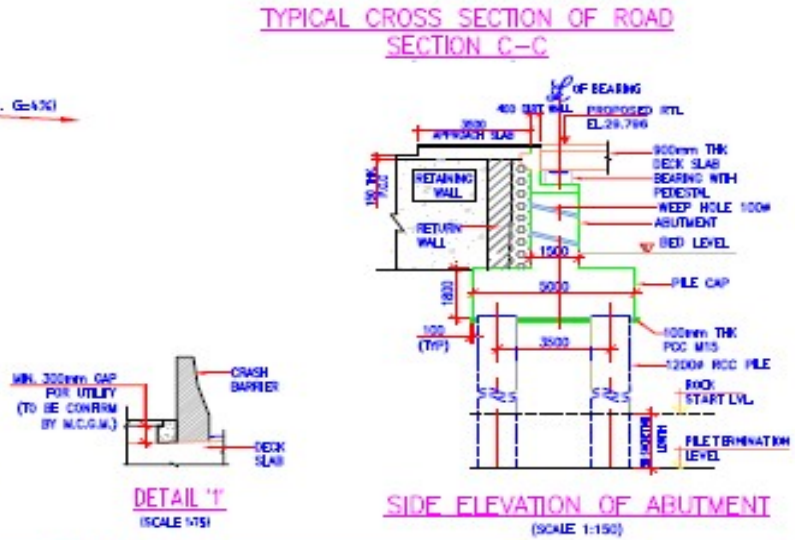
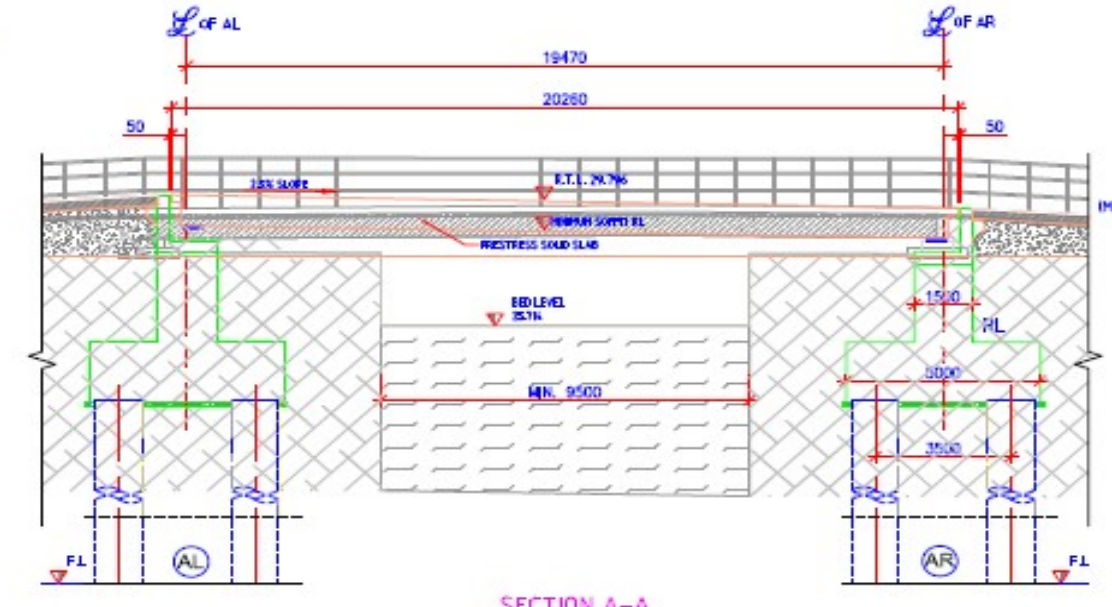
अतिरिक्त आयुक्त (प्रकल्प)

**SECTION- 18**  
**DRAWING**





PROPOSED R.T.L.	26.788									
DATUM POINT (M.S.D. LVL.)										
OLD EXISTING R.T.L.	28.337	28.945	29.004	29.175	29.238	29.285	29.294	29.005	28.723	28.422
CHANGAGE	0.000	5.000	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000



DEPTH (M)	LOG	DESCRIPTION OF STRATA
1.00		ROADSIDE SAND, S.S. CLAY
4.00		BROWNISH STEPPY CLAY
7.00		BROWNISH STEPPY CLAY
9.00		BROWNISH WEATHERED ROCK
12.00		BROWNISH HIGHLY WEATHERED ROCK
15.00		BROWNISH WEATHERED ROCK WITH PATCHES OF AMPHIBOLE
20.00		DARK BROWNISH WEATHERED ROCK WITH PATCHES OF AMPHIBOLE

- NOTES:-**
- ALL DIMENSIONS ARE IN MILLIMETRES AND LEVELS IN METRES.
  - DO NOT SCALE THE DRAWING, FOLLOW ONLY WRITTEN DIMENSIONS.
  - VERTICAL CAPACITY OF PILE AS PER GEOTECH REPORT IS 3MT.
  - GRADE OF CONCRETE:-
    - PCC SOLID SLAB-M15
    - DRY WALL PILE-CAST-IN-PLACE
    - ICE ABUTMENT & PCC RETAINING WALL-M15.
    - PCC LEVELLING COURSE-M15
  - 100# WEEP HOLES AT 1m c/c STAGGERED SHALL BE PROVIDED IN ABUTMENT.
  - 400 THK. FILTER MEDIA TO BE PROVIDED IN ABUTMENT.
  - MS LINER 6 mm THICK WITH APPROPRIATE COATING SHALL BE PROVIDED FOR ALL PILES. THE LINER SHALL BE PROVIDED UP TO PERISAL.
  - DIMENSIONS SHOWN ARE TENTATIVE & MAY CHANGE DURING DETAILED DESIGN & DRAWING.
  - WEARING COAT ON BRIDGE SURFACE - 10mm MASTIC, 50mm DBM & 25mm MASTIC.
  - SOCKETING LENGTH IS 3 TIMES DIAMETER OF PILE AS PER GEOTECH REPORT.
  - NALLA BED LEVEL IS AS PER DATA SENT BY MCGM ON 25.02.2022.
  - THE DESIGN MAY BE SUBJECT TO CHANGE AFTER OBTAINING THE NPL ACTUAL WIDTH OF NALLA VALUES FROM MCGM.
  - THE DEMOLITION METHODOLOGY SHALL BE DISCUSSED WITH DESIGN CONSULTANT AND SHALL BE APPROVED BY MCGM BEFORE DEMOLISHING THE EXISTING STRUCTURES FOR PHASE CONSTRUCTIONS.
  - ALL PROPOSED LEVEL & GRADIENT SHALL TO BE CONFIRMED BY MCGM PRIOR TO THE EXECUTION OF WORK.
  - AS PER MCGM LETTER D/QUE/SWD/2144/P/C DT-22/03/2021 REQUIRED CLEAR WATERWAY OF 9.5M IS MAINTAINED.
  - DIMENSION & PILING LEVEL SHOWN ARE TENTATIVE & MAY CHANGE DURING DETAILED DESIGN & DRAWING.
  - PROPOSED STRUCTURES DESIGNED FOR 2 LANE OF CLASS A & 1 LANE OF CLASS TOR AS PER LATEST IRC-A-2017.
  - SEISMIC ZONE FOR THIS PROJECT IS ZONE II.
- CONSTRUCTION SCHEDULE:-**
- PHASE-I OF 95mm Ø ABUTMENT SHALL BE CONSTRUCTED TOWARDS SOUTH SIDE DURING THIS PERIOD TRAFFIC WILL BE FLYING ON EXISTING BRIDGE.
  - AFTER COMPLETION OF PHASE-I CONSTRUCTION TRAFFIC OF 95mm Ø NO LANE SHALL BE DIVERTED ON PHASE-II NEW BRIDGE. EXISTING BRIDGE SHALL BE DEMOLISHED AND PHASE-II SHALL BE CONSTRUCTED.

REV.	DESCRIPTION	DATE	STATUS	DESIGNER	CHECKED BY	APPROVED BY
R2	THICKNESS OF THE APPROACHES ARE REVISED AS PER REQUIREMENT	25.02.22	1	YVE	HD	Dr. HSR
R1	REVISED AS PER MEET AND HOLD IN MCGM'S OFFICE DATED 18.02.2022.	25.02.22	1	NSI	HD	Dr. HSR
R0	FIRST SUBMISSION	15.10.21	1	NSI	HD	Dr. HSR

DESIGN CONSULTANT :

**CONSTRUMA CONSULTANCY PRIVATE LTD.**

2nd FLOOR PINKY PLAZA,  
5TH ROAD, KHAR (WEST), MUMBAI 400 052  
Tel. : 022-26487415, 26050208. Fax : 022-26483181  
email : bridges@construma.in

CLIENT : MUNICIPAL CORPORATION OF GREATER MUMBAI

PROJECT : DEMOLITION & RECONSTRUCTION OF BRIDGE AT VALNAI BRIDGE AT KANDIVALI (W) R/S WARD, DILAPIDATED BRIDGES IN ZONE-VII

TITLE : GENERAL ARRANGEMENT DRAWING

DATE : 25.02.2022

SCALE : AS SHOWN

DRAWING NO. : MCGM-KC/VAL-BRG/GAD/01

STATUS : FOR APPROVAL

REV. : R2



