

NOTICE INVITING E-TENDER
(TENDER)

N.I.T. No. : 09/ENGG/NIT/BSF/PB/2026-27

Name of Work : RENOVATION UPGRADATION OF 120 MEN JAWAN BARRACK AT SHQ BSF FEROREPUR (SH: RENOVATION OF NCO SINGLE ACCOMMODATION)

Estimated Cost : Rs. 9,07,688

Earnest Money : 18,154/-

Time allowed : 90 Days

Certified that this N.I.T. amounting to Rs.9,07,688 only (Rupees Nine Lakh Seven Thousand Six Hundred Eighty Eight) only contains 90 pages only, in chronological order.

AC (Works)
SHQ BSF Ferozepur

APPROVED / NOT APPROVED

Dy Commandant (Works)
FTR HQ BSF Punjab

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Press Notice (Notice Inviting e-tender)

The Dy. Commandant (Works), Ftr HQ BSF Punjab on behalf of the President of India invites online **Percentage rate** tenders from approved and eligible contractors of CPWD and non-CPWD contractors (i.e. PWD Punjab / MES / P & T (BSNL) / Railways) for the following work :-

S.No	NIT No.	Name of work	Estimated cost put to tender	Earnest Money	Period of Completion	Last date & time of online submission of bid, original EMD, copy of receipt or deposition of original EMD and other documents as specified in the Press Notice	Time and date of opening of tender
1.	—	RENOVATION UPGRADATION OF 120 MEN JAWAN BARRACK AT SHQ BSF FERROZEPUR (SH: RENOVATION OF NCO SINGLE ACCOMMODATION)	Rs. 9,07,688	Rs. 18,154/-	90 Days	_____ at 1100 hrs	_____ at 1130 hrs

The tender forms and other details can be obtained from the web site www.eprocure.gov.in and www.bsf.gov.in .

Information and Instruction for Bidders for e-Tendering forming part of Bid Document and to be uploaded on e-Tenders Web Site.

The Dy Commandant (Works), Ftr HQ BSF Punjab invites, on behalf of President of India, **on line percentage rate tenders** from approved and eligible contractors of CPWD and non-CPWD contractors (i.e. PWD Punjab / MES / P & T (BSNL)/ Railways) for the following work mentioned below:-

S. No	NIT No.	Name of work	Estimated cost put to tender	Earnest Money	Period of Completion	Last date & time of online submission of bid, original EMD, copy of receipt or deposition of original EMD and other documents as specified in the Press Notice	Time and date of opening of tender
1.	_____	RENOVATION UPGRADATION OF 120 MEN JAWAN BARRACK AT SHQ BSF FERROZEPUR (SH: RENOVATION OF NCO SINGLE ACCOMMODATION)	Rs. 9,07,688	Rs. 18,154/-	90 Days	_____ at 1100 hrs	_____ at 1130 hrs

1. The intending bidder must read the terms and conditions of CPWD-6 carefully. He should only submit his bid if he considers himself eligible and he is in possession of all the documents required.

2. Information and Instructions for bidders posted on website shall form part of bid document.
3. The bid document consisting of plans, specifications, the schedule of quantities of various types of items to be executed and the set of terms and conditions of contract to be complied with and other necessary documents can be seen and downloaded from website www.eprocure.gov.in free of cost.
4. Those contractors not registered on the website (e-tendering portal) are required to get registered beforehand. If needed they can be imparted training on online tendering process as per the details available on the website.
5. The intending bidder must have valid class-III digital signature certificate to submit the bid.
6. On opening date, the contractor can login and see the bid opening process. After opening of bids, he will receive the competitor bid sheets.
7. Contractor can upload documents in the form of JPG and PDF format.
8. Contractor must ensure to quote rate of each item. The column meant for quoting rate in figures appears in pink colour and the moment rate is entered; it turns sky blue. In addition to this, while selecting any of the cells a warning appears that if any cell is left blank the same shall be treated as "0". Therefore, if any cell is left blank and no rate is quoted by the bidder, rate of such item shall be treated as "0" (ZERO).
9. The EMD can be paid in the form of Insurance Surety Bonds, Account Payee Demand Draft, Fixed Deposit Receipt, Banker's Cheque or Bank Guarantee including e- Bank Guarantee from any of the Commercial Banks. The intending bidder has to fill all the details such as Banker's name, Demand Draft/Fixed Deposit Receipt/ Banker's Cheque / Bank Guarantee number, amount and date.
10. It is mandatory to upload scanned copies of all the documents including GST Registration as stipulated in the bid document. If such document is not uploaded the bid will become invalid.
11. If any discrepancy is noticed between the documents as uploaded at the time of submission of bid and hard copies as submitted physically by the contractor, the bid shall become invalid
12. **List of documents to be scanned and uploaded within the period of bid submission:** -
 - a) Enlistment order of the Contractor.
 - b) Earnest Money in the form of Insurance Surety Bonds, Account Payee Demand Draft, Fixed Deposit Receipt, Banker's Cheque or Bank Guarantee including e-Bank Guarantee from any of the Commercial Banks (drawn in favour of DIG SHQ BSF Ferozpur) shall be scanned and uploaded on the e-Tendering website within the period of bid submission.

- c) Copy of receipt for deposition of original EMD issued from **DDO** of any BSF Establishment (i.e. Command HQ / Frontier HQ / Sector HQ / Training Centre/ Bn HQ BSF).
- d) Contact details of the Contractor in separate sheet:
 - (i) Mailing Address-
 - (ii) Contact Phone / mobile No-
 - (iii) E-Mail ID –
- e) GST registration certificate, if already obtained by the bidder.

If the bidder has not obtained GST registration as applicable, then he shall scan and upload following undertaking along with bid documents. “If work is awarded to me, I/we shall obtain GST registration certificate, as applicable, within one month from the date of receipt of award letter or before release of any Payment by BSF, whichever is earlier, failing which I/we shall be responsible for any delay in payments which will be due towards me/us on account of the work executed and/or for any action taken by BSF or GST department in this regard.”

- f) **Certificates of Work Experience :**
Completion certificate issued by Officer of the rank of Executive Engineer or the equivalent in support of execution of similar works in case of registration with CPWD as well as other than CPWD Dept. The completion certificate should include the name of work, agreement No., estimated cost, tendered / awarded cost, stipulated date of start and completion of work and actual date of completion of work.
- g) **To become eligible for issue of bid, the bidders shall have to furnish an affidavit as under :- (as per Para 1.2.2 of SOP for CPWD Works Manual 2024)**
“I/We undertake and confirm that eligible similar work(s) has/have not been got executed through another contractor on back-to-back basis. Further, if such a violation comes to the notice of Department, then I/We shall be debarred for tendering in BSF in future forever. Also, if such a violation comes to the notice of Department before date of start of work, the Engineer-in-charge shall be free to forfeit the entire amount of the Earnest Money/Performance Guarantee”.
- h) PAN Card
- i) EPF & ESIC Registration certificate as applicable.
Claim against EPF & ESIC will be reimbursed only on production of relevant documents by the bidder.

Note: If the above-mentioned documents are not scanned and uploaded within the period of bid submission the bid shall be treated as invalid and cancelled.

Dy Commandant (Works)

CPWD-6 FOR E-TENDERING

1. Percentage rate bids are invited on behalf of President of India from approved and eligible contractors of CPWD and those of appropriate list of P.W.D Punjab / M.E.S / P & T (BSNL) / Railways) for the work of:-

**RENOVATION UPGRADATION OF 120 MEN JAWAN BARRACK AT SHQ
BSF FEROPUR (SH: RENOVATION OF NCO SINGLE ACCOMMODATION)**

The enlistment of the contractors should be valid on the last date of submission of bids.

In case the last date of submission of bid is extended, the enlistment of contractor should be valid on the original date of submission of bids.

- 1.1 The work is estimated to cost **Rs.9,07,688** This estimate, however, is given merely as a rough guide.
- 1.1.1 The authority competent to approve NIT for the combined cost and belonging to the major discipline will consolidate NITs for calling the bids. He will also nominate Division which will deal with all matters relating to the invitation of bids. For composite bid, besides indicating the combined estimated cost put to bid, should clearly indicate the estimated cost of each component separately. The eligibility of bidders will correspond to the combined estimated cost of different components put to bid.
- 1.2 Intending bidders is eligible to submit the bid provided he has definite proof from the appropriate authority, which shall be to the satisfaction of the competent authority, of having satisfactorily completed similar works of magnitude specified below: -

Criteria of eligibility for submission of bid documents

- 1.2.1 **Criteria of eligibility for CPWD as well as non-CPWD Contractors: -**

One similar works each of value not less than 80% or two similar works each of value not less than 60% or three similar works of value not less than 40% (all figures rounded to nearest convenient figure) during the last 7 years ending last day of the month previous to the one in which tenders are invited.

The value of executed works shall be brought to current costing level by enhancing the actual value of work at simple rate of 7% per annum, calculated from the date of completion to previous day of last day of submission of bid

To become eligible for issue of bid, the bidders shall have to furnish an affidavit as under:-

“I/We undertake and confirm that eligible similar work(s) has/have not been got executed through another contractor on back to back basis. Further, if such a violation comes to the notice of Department, then I/We shall be debarred for tendering in BSF in future forever. Also, if such a violation comes to the notice of Department before date of start of work, the Engineer-in-charge shall be free to forfeit the entire amount of the Earnest Money/Performance Guarantee”.

2. Agreement shall be drawn with the successful bidders on prescribed Form No. CPWD 7/8 (or other Standard Form as mentioned) which is available as a Govt. of India Publication and also available on website www.cpwd.gov.in. Bidders shall quote his rates as per various terms and conditions of the said form which will form part of the agreement.
3. The time allowed for carrying out the work will be **90 Days** from the date of start as defined in schedule 'F' or from the first date of handing over of the site, whichever is later, in accordance with the phasing, if any, indicated in the bid documents.
4. (i) The site for the work is available.
or
~~The site for the work shall be made available in parts as specified below: **RENOVATION UPGRADATION OF 120 MEN JAWAN BARRACK AT SHQ BSF FERROZEPUR (SH: RENOVATION OF NCO SINGLE ACCOMMODATION)**~~
5. The bid document consisting of plans, specifications, the schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents except Standard General Conditions of Contract Form can be seen on website www.eprocure.gov.in free of cost.
6. After submission of the bid the contractor can re-submit revised bid any number of times but before last time and date of submission of bid as notified.
7. While submitting the revised bid, contractor can revise the rate of one or more item(s) any number of times (he need not re-enter rate of all the items) but before last time and date of submission of bid as notified.
8. Earnest Money in the form of Insurance Surety Bonds, Account Payee Demand Draft, Fixed Deposit Receipt, Banker's Cheque or Bank Guarantee including e- Bank Guarantee from any of the Commercial Banks (drawn in favour of respective DDO of whom work sanctioned) shall be scanned and uploaded on the e-Tendering website within the period of bid submission. The original EMD should be deposited alongwith prescribed format mentioned in Form-A of CPWD Manual to any of BSF DDO i.e. **Command HQ / Frontier HQ / Sector HQ / Training Centre/ Bn HQ BSF** before last date & time of

submission of bid. The EMD receiving authority i.e. DDO of any BSF establishment **i.e. Command HQ / Frontier HQ / Sector HQ / Training Centre/ Bn HQ BSF** shall issue a receipt of deposition of earnest money deposit to the bidder in a prescribed format (as per Form-A) uploaded by tender inviting authority in the NIT.

- 8.1 A part of earnest money is acceptable in the form of bank guarantee also. In such case, minimum 50% of earnest money or Rs.20 lac, whichever is less, shall have to be deposited in shape prescribed above, and balance may be deposited in shape of Bank Guarantee including e- Bank Guarantee of any Commercial bank having validity for a period of 90 days for single bid works and 365 Days for two bid system or more from the last date of receipt of bids which is to be scanned and uploaded by the intending bidders.
- 8.2 The earnest money given by all the tenderers except the lowest tenderer shall be refunded immediately after the expiry of stipulated bid validity period or immediately after acceptance of the successful bidder, whichever is earlier.
- 8.3 Copy of Enlistment Order and certificate of work experience and other documents as specified in the notice inviting e- tender shall be scanned and uploaded on the e-Tendering website within the period of bid submission. However, certified copy of all the scanned and uploaded documents as specified in e- tender notice shall have to be submitted by the lowest bidder within a week physically in the office of tender opening authority. Online bid documents submitted by intending bidders shall be opened only of those bidders, who has deposited EMD with any BSF Establishment and other documents scanned and uploaded are found in order.
- 8.4 The bid submitted shall be opened at _____ AM on 1130
9. The bid submitted shall become invalid and e-Tender processing fee (if applicable) shall not be refunded if:
 - (i) The bidder is found ineligible.
 - (ii) The bidder does not upload scanned copies of all the documents stipulated in the bid document.
 - (iii) If any discrepancy is noticed between the documents as uploaded at the time of submission of bid and hard copies as submitted physically by the lowest bidder in the office of bid opening authority.
 - (iv) If a tenderer quotes nil rates against each item in item rate tender or does not quote any percentage above/below on the total amount of the tender or any section / sub head in percentage rate tender, the tender shall be treated as invalid and will not be considered as lowest tenderer.

10. The contractor whose bid is accepted will be required to furnish performance guarantee at specified percentage of the tendered amount as mentioned in schedule E and within the period specified in Schedule F. This guarantee shall be in the form of Insurance Surety Bonds, Account Payee Demand Draft, Fixed Deposit Receipt or Bank Guarantee from any of the Commercial Banks in accordance with the prescribed form. In case the contractor fails to deposit the said performance guarantee within the period as indicated in Schedule 'F', including the extended period if any, the Earnest Money deposited by the contractor shall be forfeited automatically without any notice to the contractor. The earnest money deposited along with bid shall be returned after receiving the aforesaid performance guarantee. The contractor whose bid is accepted will also be required to furnish either copy of applicable licenses/ registrations or proof of applying for obtaining labour licenses, registration with EPFO, ESIC and BOCW Welfare Board including Provident Fund Code No. If applicable and also ensure the compliance of aforesaid provisions by the sub-contractors, if any engaged by the contractor for the said work within the period specified in Schedule F.

11. The description of the work is as follows:

Intending Bidders are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their bids as to the nature of the ground and sub-soil (so far as is practicable), the form and nature of the site, the means of access to the site, the accommodation they may require and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their bid. A bidder shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charge consequent on any misunderstanding or otherwise shall be allowed. The bidder shall be responsible for arranging and maintaining at his own cost all materials, tools & plants, water, electricity access, facilities for workers and all other services required for executing the work unless otherwise specifically provided for in the contract documents. Submission of a bid by a bidder implies that he has read this notice and all other contract documents and has made himself aware of the scope and specifications of the work to be done and of conditions and rates at which stores, tools and plant, etc. will be issued to him by the Government and local conditions and other factors having a bearing on the execution of the work.

12. The competent authority on behalf of the President of India does not bind itself to accept the lowest or any other bid and reserves to itself the authority to reject any or all the bids received without the assignment of any reason. All bids in which any of the prescribed condition is not fulfilled or any condition including that of conditional rebate is put forth by the bidders shall be summarily rejected.

13. Canvassing whether directly or indirectly, in connection with bidders is strictly prohibited and the bids submitted by the contractors who resort to canvassing will be liable for rejection.
14. The competent authority on behalf of President of India reserves to himself the right of accepting the whole or any part of the bid and the bidders shall be bound to perform the same at the rate quoted.
15. The contractor shall not be permitted to bid for works in the BSF responsible for award and execution of contracts, in which his near relative is posted a Senior Accountant or as an officer in any capacity between the grades of Superintending Engineer and Junior Engineer (both inclusive). He shall also intimate the names of persons who are working with him in any capacity or are subsequently employed by him and who are near relatives to any gazetted officer in the BSF or in the Ministry of Home Affairs. Any breach of this condition by the contractor would render him liable to be removed from the approved list of contractors of this Department.
16. No Engineer of Gazetted Rank or other Gazetted Officer employed in Engineering or Administrative duties in an Engineering Department of the Government of India is allowed to work as a contractor for a period of one year after his retirement from Government service, without the prior permission of the Government of India in writing. This contract is liable to be cancelled if either the contractor or any of his employees is found any time to be such a person who had not obtained the permission of the Government of India as aforesaid before submission of the bid or engagement in the contractor's service.
17. The bids for the work shall remain open for acceptance for a period of 30 (thirty) days from the date of opening of bids in case of single bid system and **75 (seventy five) days** from the date of opening of technical bids in case bids are invited in 2 or 3 bid system.
Further
 - (i) If any tenderer withdraws his tender or makes any modification in the terms & conditions of the tender which is not acceptable to the department within 7 days after last date of submission of bids, then the Government shall without prejudice to any other right or remedy, be at liberty to forfeit 50% of the earnest money absolutely irrespective of letter of acceptance for the work is issued or not.
 - (ii) If any tenderer withdraws his tender or makes any modification in the terms & conditions of the tender which is not acceptable to the department after expiry of 7 days after last date of submission of bids, then the Government shall without prejudice to any other right or remedy, be at liberty to forfeit 100% of the earnest money absolutely irrespective of letter of acceptance for the work is issued or not.

(iii) In case of forfeiture of earnest money as prescribed in para (i) and (ii) above, the bidders shall not be allowed to participate in the rebidding process of the same work.

18. This notice inviting Bid shall form a part of the contract document. The successful bidder/contractor, on acceptance of his bid by the Accepting Authority shall within 15 days from the stipulated date of start of the work, sign the contract consisting of:-

(a) The Notice Inviting Bid, all the documents including additional conditions, specifications and drawings, if any, forming part of the bid as uploaded at the time of invitation of bid and the rates quoted online at the time of submission of bid and acceptance thereof together with any correspondence leading thereto.

(b) Standard C.P.W.D. Form 7/8 or other Standard C.P.W.D. Form as applicable.

FORM-A

FORMAT FOR DEPOSITING EARNEST MONEY

Receipt of Deposition of Original EMD

Receipt No.....

Date.....

1.	Name of work	RENOVATION UPGRADATION OF 120 MEN JAWAN BARRACK AT SHQ BSF FERROZEPUR (SH: RENOVATION OF NCO SINGLE ACCOMMODATION)
2.	NIT No	
3.	Estimated Cost	
4.	Amount of EMD	
5.	Last date of submission of bid	

(To be filled by NIT approving authority at the time of issue of NIT and uploaded along with NIT)

To be filled by EMD receiving officer

1.	Name of contractor #	
2.	Form/shape of EMD No & Date #	
3.	Amount EMD Deposit#	
4.	Date of submission of EMD#	

Signature, Name and Designation of EMD
Receiving DDO along with Office stamp

INTEGRITY PACT

To

Subject :- NIT No _____ or the work **RENOVATION UPGRADATION OF 120 MEN JAWAN BARRACK AT SHQ BSF FEROPUR (SH: RENOVATION OF NCO SINGLE ACCOMMODATION).**

Dear Sir,

It is hereby declared that Border Security Force is committed to follow the principle of transparency, equity and competitiveness in public procurement/e-tendering.

The subject notice inviting tender (NIT) is an invitation to offer made on the condition that the bidder will sign the integrity Agreement, which is an integral part of tender/ bid documents, failing which the tenderer/ bidder will stand disqualified and the bid of the bidder would be summarily rejected.

This declaration shall form part and parcel of the Integrity agreement and signing of the same shall be deemed as acceptance and signing of the Integrity Agreement on behalf of the Border Security Force.

Yours faithfully,

**Dy Commandant (Works)
Ftr HQ BSF Punjab**

To

Dy. Commandant (Works)
Ftr HQ BSF Punjab

Sub :- Submission of tender for the work of “RENOVATION UPGRADATION OF 120 MEN JAWAN BARRACK AT SHQ BSF FERROZEPUR (SH: RENOVATION OF NCO SINGLE ACCOMMODATION)

Dear Sir,

I / We acknowledge that Border Security Force is committed to follow the principles thereof as enumerated in the Integrity Agreement enclosed with the tender/bid document.

I/ We agree that the Notice Inviting Tender (NIT) is an invitation to offer made on the condition that I / We will sign the enclosed integrity agreement, which is an integral part of tender documents, failing which I/ We will stand disqualified from the tendering process. I / We acknowledge that the making of the bid shall be regarded as an unconditional and absolute acceptance of this condition of the NIT.

I/ We confirm acceptance and compliance with the Integrity Agreement in letter and spirit and further agree that execution of the said Integrity Agreement shall be separate and distinct from the main contract, which will come into existence when tender/ bid is finally accepted by Border Security Force. I/ We acknowledge and accept the duration of Integrity Agreement, which shall be in the line with Article 1 of the enclosed Integrity Agreement.

I/ We acknowledge that in the event of my/ our failure to sign and accept the Integrity Agreement, while submitting the tender/ bid, Border Security Force shall have unqualified, absolute and unfettered right to disqualify the tenderer/ bidder and reject the tender/ bid in accordance with terms and conditions of the tender/ bid.

Yours faithfully,

Signatures of Contractor with seal and address

(to be signed by the bidder and same signatory competent / authorized to sign relevant contract on behalf of B.S.F.)

CPWD-7

GOVERNMENT OF INDIA
BORDER SECURITY FORCE

Percentage Rate e-Tender & Contract for Works

Tender for the work of:- **RENOVATION UPGRADATION OF 120 MEN JAWAN BARRACK AT SHQ BSF FERROZEPUR (SH: RENOVATION OF NCO SINGLE ACCOMMODATION).**

TENDER

I/We have read and examined the notice inviting tender, schedule, A, B, C, D, E & F Specifications applicable, Drawings & Designs, General Rules and Directions, Conditions of Contract, clauses of contract, Special conditions, Schedule of Rate & other documents and Rules referred to in the conditions of contract and all other contents in the tender document for the work.

I/We hereby tender for the execution of the work specified for the President of India within the time specified in Schedule 'F' viz., schedule of quantities and in accordance in all respect with the specifications, designs, drawing and instructions in writing referred to in Rule-1 of General Rules and Directions and in Clause 11 of the Conditions of contract and with such materials as are provided for, by, and in respect of accordance with, such conditions so far as applicable.

I/We agree to keep the tender open for a period of **75 (seventy-five) days** from the date of opening of technical bid in case tenders are invited on 2 /3 bid/ system for specialized work and not to make any modification in its terms and conditions.

I/We have deposited EMD for the prescribed amount in the office of concerned Executive Engineer as per the bid document.

A copy of earnest money deposit receipt of prescribed amount deposited in the form of Insurance Surety Bonds, Account Payee Demand Draft, Fixed Deposit Receipt, Banker's Cheque or Bank Guarantee (as prescribed) issued by a Commercial Bank, is scanned and uploaded (strike out as the case may be). If I/We, fail to furnish the prescribed performance guarantee within prescribed period, I/We agree that the said President of India or his successors, in office shall without prejudice to any other right or remedy, be at liberty to forfeit the said earnest money absolutely. Further, if I/We fail to commence work as specified, I/ We agree that President of India or the successors in office shall without prejudice to any other right or remedy available in law, be at

liberty to forfeit the said performance guarantee absolutely. The said Performance Guarantee shall be a guarantee to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to those in excess of that limit at the rates to be determined in accordance with the provision contained in Clause 12.2 and 12.3 of the tender form.

Further, I/We agree that in case of forfeiture of Earnest Money or Performance Guarantee as aforesaid, I/We shall be debarred for participation in the re-tendering process of the work.

I/We undertake and confirm that eligible similar work(s) has/have not been got executed through another contractor on back to back basis. Further that, if such a violation comes to the notice of Department, then I/We shall be debarred for tendering in BSF in future forever. Also, if such a violation comes to the notice of Department before date of start of work, the Engineer-in-Charge shall be free to forfeit the entire amount of Earnest Money Deposit/Performance Guarantee.

I/We hereby declare that I/We shall treat the tender documents drawings and other records connected with the work as secret/confidential documents and shall not communicate information/derived there from to any person other than a person to whom I/We am/are authorized to communicate the same or use the information in any manner prejudicial to the safety & integrity of the State.

Dated.....

Signature of the contractor

Witness.....#

Postal Address.....#

Address :.....#

Occupation.....#

ACCEPTANCE

The above tender (as modified by you as provided in the letters mentioned hereunder) is accepted by me for and on behalf of the President of India for a sum of ₹..... (Rupees.....).

The letters referred to below shall form part of this contract Agreement: -

- *
- *
- *

For & on behalf of the President of India

Signature.....

Dated.....

Designation.....

* To be filled by the EE.

PROFORMA OF SCHEDULES

SCHEDULE 'A'

Schedule of quantities - As per the schedule of work enclosed.

SCHEDULE 'B'

Schedule of materials to be issued to the contractor:-

S. No	Description of item	Quantity	Rates in figures & words at which the material will be Charged to the contractor	Place of issue
1	2	3	4	5
.....Nil.....				

SCHEDULE 'C'

Tools and plants to be hired to the contractor

S.No	Description	Hire charges per day	Place of issue
1	2	3	4
.....Nil.....			

SCHEDULE 'D'

Extra schedule for specific requirements / documents for the work, if any. : Attached at page No..... (if any)

SCHEDULE 'E'

Reference to General Conditions of contract : General conditions of contract for CPWD works -2023 (as modified and corrected up to date).

Name of Work : **RENOVATION UPGRADATION OF 120 MEN JAWAN BARRACK AT SHQ BSF FERROZEPUR (SH: RENOVATION OF NCO SINGLE ACCOMMODATION) .**

Estimated cost of work : **Rs. 9,07,688**

(i) Earnest Money : **Rs. 18,154/-** (to be returned after receiving performance guarantee)

(ii) Performance Guarantee : 5% of tendered value. or ECPT (whichever is high) if lowest TA is less than 80% of ECPT then PG amount will be increased by difference between 80% of ECPT & TA

(iii) Security Deposit : 2.5% of tendered value.

SCHEDULE-'F'

GENERAL RULES & DIRECTIONS:

Officer inviting tender : **Dy Commandant (Works)
FTR HQ BSF Punjab**

Maximum percentage for quantity of items of work to be executed beyond which rates are to be determined in accordance with Clauses 12.2 & 12.3.

Definitions: -

(i) **Engineer-in-charge** : DC(Works) concerned

(ii) Accepting Authority : **Dy Commandant (Works)
FTR HQ BSF Punjab**

(iii) Percentage on cost of materials and : 15%

labour to cover all overheads and profits

(iv) Standard Schedule of Rates : Delhi Schedule of Rates - 2023

(v) Department : BSF

(vi) Standard CPWD Contract Form : CPWD form –7 as modified and corrected up to date of call of tender.

Clause 1

(i) Time allowed for submission of Performance Guarantee Programme Chart (Time& progress) and applicable labour licenses, registration with EPFO, ESIC & BOCW Welfare Board or proof of applying thereof from the date of issue of letter of acceptance, in days : 07 days

(ii) Maximum allowable extension with late fee @ 0.1% per day of Performance Guarantee amount beyond the period provided in (i) above in days : 07 days

Clause 1

Authority for fixing compensation : Commandant (Works).
under clause 2

Clause 2 A

Whether Clause 2 A shall be applicable : No

Clause 5

Number of days from the date of issue of letter of acceptance for reckoning date of start : 10 days

Mile stone(s) of the work as per table given below :

TABLE OF MILE STONE (S)

S. No	Description of Mile Stone(s) (Physical)	Time allowed (from date of start)	Amount to be withheld in case of non-achievement of milestones)
.....Not applicable.....			

Time allowed for execution of work : 90 Days

Authority to decide

- (i) Extension of time : Commandant (Works). FHQ
- (ii) Rescheduling of milestones : Not applicable.
- (iii) Shifting of date of start in case of delay in handing over of site : Engineer-in-charge i.e. 2IC/DC(Works)

Clause 6 : Applicable

Clause 7

Gross work to be done together with net payment/adjustment of advances for material collected if any, since the last such payment for being eligible to interim payment : 20% of tendered amount.

Clause 7 A

Whether clause 7A shall be applicable. : Yes, applicable

No Running Account Bill shall be paid for the work till the applicable labour licenses, registration with EPFO, ESIC and BOCW Welfare Board, whatever applicable are submitted by the contractor to the Engineer-in-charge.

Clause 10 A

List of testing equipment to be provided by the contractor at site Lab. : As per list attached.

Clause 10 B(ii)

Whether Clause 10 B(ii) shall be applicable : Not applicable.

Clause 10 C : Not applicable.

Clause 10 CA : Not applicable.

Clause 10 CC : Not applicable.

Clause 11

Specifications to be followed for execution of work : C.P.W.D. Specifications 2019 Vol-I to II with up-to-date Correction Slips issued up to the last date of receipt of tender and additional conditions and Specifications as attached in the Tender

Clause 12

Type of work : Repair and maintenance work

Clause 12.2 & 12.3

Deviation Limit beyond which Clauses shall apply for building work excluding foundation : No Limit

Clause 12.5

(i) Deviation Limit beyond which Clauses shall apply for foundation work (except earth work) : -do-

(ii) Deviation Limit for items in earth work sub head on DSR or related items. : -do-

Gross value of work done : As per General conditions of contract for construction works - 2023 (as modified and corrected up to date).

Clause 16

Competent Authority for deciding reduced rates. Sub-standard work must be got rectified and if necessary, may be redone. Acceptance of sub-standard work at reduced rate should be done only under exceptional circumstances. Total value of items of agreement rate for which the Superintending Engineer accepts sub-standard work in a contract shall not exceed 5% of the Contract value. In case, total value of such items exceeds 5%, prior approval of Chief Engineer Concerned will be necessary

Clause 18

List of mandatory machinery, tools & plants to be deployed by the contractor at site:

- 1 2 3 *(To be filled by Engineer-in-charge)*
- 4 5 6 *(To be filled by Engineer-in-charge)*
- 7 8 9 *(To be filled by Engineer-in-charge)*

Clause 19C – Engineer-in-charge to decide penalty for each default.

Clause 19D – Engineer-in-charge to decide penalty for each default .

Clause 19G – Engineer-in-charge to decide penalty for each default .

Clause 19K –Engineer-in-charge to decide penalty for each default .

Clause 25

Constitution of Dispute Redressal Committee (DRC) for total claims more than ₹ 25 Lakh:

- 1.Chairman – IG of some other Ftr.
- 2.Member – Concerned DIG
- 3.Member- Any nominated officer by Ftr IG
- 4.Member- Concerned EE (Only to present the case).

Constitution of Dispute Redressal Committee (DRC) for total claims upto ₹25 Lakh:

- 1.Chairman – DIG of some other Ftr. to be nominated by IG.
- 2.Member- Executive Engineer, Any other Ftr. to be nominated by IG.
- 3.Member- Executive Engineer, of some other Ftr. to be nominated by IG
- 4.Concerned Executive Engineer (Only to present the case).

Ftr. IG is competent to appoint DRC in both cases.

Clause 32 : Requirement of Technical Representative(s) and recovery Rate

S N	Minimum Qualification of Technical Representative	Discipline	Designation (Principal Technical/ Technical Representative)	Minimum Experience	Number	Rate at which recovery shall be made from the contractor in the event of not fulfilling provision of clause 36(i)	
						Figures	Words
1	Graduate Engineer Or Diploma Engineer	Civil/ Elect	Project manager cum planning / quality/site/billing engineer	2-years	One	Rs 15,000 /-PM	Rupees Fifteen thousand per month each
		Civil/ Elect		5 years	One	Rs 15,000 /-PM	

							-do-
--	--	--	--	--	--	--	------

Assistant Engineers retired from Government services who are holding Diploma will be treated at par with Graduate Engineers.

Clause 38

- (i) (a) Schedule / statement for determining theoretical quantity of cement and bitumen on the basis of **Delhi Schedule of Rates 2023** printed by the CPWD : As per additional specifications attached with NIT
- (ii) Variations permissible on theoretical quantities:
- a) Cement
- For works with estimated cost put to tender not more than Rs. 25 lakh. : 3% plus/minus.
- For works with estimated cost put to tender more than Rs. 25 lakh. : 2% plus/minus
- b) Bitumen for all works : 2.5% plus only & Nil on minus side
- c) Steel Reinforcement and structural steel sections for each diameter, section and category : 2% plus / minus
- d) All other materials : NIL

ON NON-JUDICIAL STAMP PAPER OF MINIMUM RS. 100

(Guarantee offered by Bank to BSF in connection with the execution of contracts)
Form of Bank Guarantee for Earnest Money Deposit/Performance Guarantee/Security
Deposit/ Mobilization Advance

1. Whereas the 2IC/DC(Works) (name of BSF Establishment),
BSF on behalf of the President of India (hereinafter called "The Government")has invited bids
under(NIT number)..... dated for
..... (name of work)
..... The Government has further agreed to accept
irrevocable Bank Guarantee for Rs. (Rupees only)
valid upto (date)*..... as Earnest Money Deposit from (name and
address of contractor)(hereinafter called "the contractor") for compliance of his
obligations in accordance with the terms and conditions of the said NIT

OR**

Whereas the 2IC/DC(Works) (name of BSF Establishment),
BSF on behalf of the President of India (hereinafter called "The Government") has entered into an
agreement bearing number with(name and address of the
contractor) (hereinafter called "the Contractor") for execution of work
..... (Name of work)
The Government has further agreed to accept an irrevocable Bank Guarantee for Rs.
..... (Rupees only) valid upto (date)..... as
Performance Guarantee/Security Deposit/Mobilization Advance from the said Contractor for
compliance of his obligations in accordance with the terms and conditions of the agreement.

2. We, (indicate the name of the bank) (herein after referred to as "the
Bank"), hereby undertake to pay to the Government an amount not exceeding Rs.
..... (Rupees..... only) on demand by the Government within 10
days of the demand. 3. We,(indicate the name of the Bank),
do here by undertake to pay the amount due and payable under this guarantee without any demur,
merely on a demand from the Government stating that the amount claimed is required to meet the
recoveries due or likely to be due from the said Contractor. Any such demand made on the Bank
shall be conclusive as regards the amount due and payable by the Bank under this Guarantee.
However, our liability under this guarantee shall be restricted to an amount not exceeding Rs.
(Rupeesonly)

4. We, (indicate the name of the Bank), further undertake to pay the
Government any money so demanded notwithstanding any dispute or disputes raised by the
contractor in any suit or proceeding pending before any Court or Tribunal, our liability under this
Bank Guarantee being absolute and unequivocal. The payment so made by us under this Bank

Guarantee shall be a valid discharge of our liability for payment there under and the Contractor shall have no claim against us for making such payment.

5. We, (indicate the name of the Bank), further agree that the Government shall have the fullest liberty without our consent and without affecting in any manner our obligation here under to vary any of the terms and conditions of the said agreement or to extend time of performance by the said Contractor from time to time or to postpone for any time or from time to time any of the powers exercisable by the Government against the said contractor and to forbear or enforce any of the terms and conditions relating to the said agreement and we shall not be relieved from our liability by reason of any such variation or extension being granted to the said Contractor or for any forbearance, act of omission on the part of the Government or any indulgence by the Government to the said Contractor or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.
6. We, (indicate the name of the Bank), further agree that the Government at its option shall be entitled to enforce this Guarantee against the Bank as a principal debtor at the first instance without proceeding against the Contractor and notwithstanding any security or other guarantee the Government may have in relation to the Contractor’s liabilities.
7. This guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor.
8. We, (indicate the name of the Bank), undertake not to revoke this guarantee except with the consent of the Government in writing.
9. This Bank Guarantee shall be valid up to unless extended on demand by the Government. Notwithstanding anything mentioned above, our liability against this guarantee is restricted to Rs. (Rupees only) and unless a claim in writing is lodged with us within the date of expiry or extended date of expiry of this guarantee, all our liabilities under this guarantee shall stand discharged.

Date

Witnesses:

1. Signature.....

Name and address

Authorized signatory

Name Designation Staff code no.

2. Signature

Name and address

Bank seal

*Date to be worked out on the basis of validity period of 90 days where only financial bids are invited and 365 Days for two/three bid system from the date of submission of tender.

**In paragraph 1, strike out the portion not applicable. Bank Guarantee will be made either for earnest money or for performance guarantee/security deposit/mobilization advance, as the case may be.

FORM OF EARNEST MONEY (BANK GUARANTEE)

WHEREAS, contractor..... (Name of contractor) (hereinafter called "the contractor") has submitted his tender dated (date) for the construction of (name of work) (hereinafter called "the Tender")

KNOW ALL PEOPLE by these presents that we (name of bank) having our registered office at (hereinafter called "the Bank") are bound unto (Name and division of Executive Engineer) (hereinafter called "the Engineer-in-Charge") in the sum of Rs. (Rs. in words) for which payment well and truly to be made to the said Engineer-in-Charge the Bank binds itself, his successors and assigns by these presents.

SEALED with the Common Seal of the said Bank this day of 20... .

THE CONDITIONS of this obligation are:

- (1) If after tender opening the Contractor withdraws, his tender during the period of validity of tender (including extended validity of tender) specified in the Form of Tender;
- (2) If the contractor having been notified of the acceptance of his tender by the Engineer-in-Charge:
 - (a) fails or refuses to execute the Form of Agreement in accordance with the Instructions to contractor, if required; OR
 - (b) fails or refuses to furnish the Performance Guarantee, in accordance with the provisions of tender document and Instructions to contractor,

We undertake to pay to the Engineer-in-Charge up to the above amount upon receipt of his first written demand, without the Engineer-in-Charge having to substantiates his demand, provided that in his demand the Engineer-in-Charge will note that the amount claimed by his is due to him owing to the occurrence of one or any of the above conditions, specifying the occurred condition or conditions.

This Guarantee will remain in force up to and including the date*after the deadline for submission of tender as such deadline is stated in the Instructions to contractor or as it may be extended by the Engineer-in-Charge, notice of which extension(s) to the Bank is hereby waived. Any demand in respect of this Guarantee should reach the Bank not later than the above date.

DATE

SIGNATURE OF THE BANK

WITNESS

SEAL

(SIGNATURE, NAME AND ADDRESS)

*Date to be worked out on the basis of validity period of 6 months from last date of receipt of tender.

FORM OF PERFORMANCE SECURITY (GUARANTEE)

BANK GUARANTEE BOND

1. In consideration of the President of India (hereinafter called "the Government") having agreed under the terms and conditions of agreement No. _____ dated _____ made between _____ and _____ {hereinafter called "the said contractor(s)"} for the work _____

_____ (hereinafter called "the said agreement") having agreed to production of an irrevocable Bank Guarantee for Rs. _____ (Rupees _____ only) as a security/guarantee from the contractor(s) for compliance of his obligations in accordance with the terms and conditions in the said agreement,

We _____

(indicate the name of the Bank)

(hereinafter referred to as "the Bank") hereby undertake to pay to the Government an amount not exceeding Rs. _____/- (Rupees _____ only) on demand by the Government.

2. We _____ do hereby undertake to
(indicate the name of the Bank)

pay the amounts due and payable under this Guarantee without any demure, merely on a demand from the Government stating that the amount claimed is required to meet the recoveries due or likely to be due from the said contractor (s). Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the bank under this Guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs. _____/-(Rupees _____ only).

3. We, the said bank further undertake to pay to the Government any money so demanded notwithstanding any dispute or disputes raised by the contractor(s) in any suit or proceeding pending before any court or Tribunal relating thereto, our liability under this present being absolute and unequivocal.

The payment so made by us under this bond shall be a valid discharge of our liability for payment thereunder and the contractor(s) shall have no claim against us for making such payment.

4. We _____ further agree that the guarantee
(indicate the name of the Bank)

herein contained shall remain in full force and effect during the period that would be taken for the performance of the said agreement and that it shall continue to be enforceable till all the dues of the Government under or by virtue of the said agreement have been fully paid and its claims satisfied or discharged or till Engineer-in-Charge, on behalf of the Government, certifies that the terms and conditions of the said agreement have been fully and properly carried out by the said contractor(s) accordingly discharges this guarantee.

5. We _____ further agree with the Government that
(indicate the name of the Bank)
the Government shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said agreement or to extend time of performance by the said contractor(s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the Government against the said contractor(s) and to forbear or enforce any of the terms and conditions relating to the said agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said contractor(s) or for any forbearance, act of omission on the part of the Government or any indulgence by the Government to the said contractor(s) or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.
6. This guarantee will not be discharged due to the change in the constitution of the Bank or the contractor(s).
7. We _____ lastly undertake not to
(indicate the name of bank)
revoke this guarantee except with the previous consent of the Government in writing.
8. This guarantee shall be valid upto _____ unless extended on demand by Government. Notwithstanding anything mentioned above, our liability against this Guarantee is restricted to Rs. _____ /-(Rupees _____ only) and unless a claim in writing is lodged with us within Six Months of the date of expiry or the extended date of expiry of this guarantee, all our liabilities under this guarantee shall stand discharged.

Dated the _____ day of _____

for _____
(indicate the name of the Bank)

To be signed by the bidder and same signatory competent / authorized to sign the relevant contract on behalf of BSF.

INTEGRITY AGREEMENT

This Integrity Agreement is made at on this day of20.....

BETWEEN

President of India represented through Executive Engineer i.e. 2IC/DC(Works),
.....,(Name of BSF Establishment)

BSF,, (Hereinafter referred as the
(Address of Division)

‘Principal/Owner’, which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns)

AND

.....
(Name and Address of the Individual/firm/Company)

through (Hereinafter referred to as the
(Details of duly authorized signatory)

“Bidder/Contractor” and which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns)

Preamble

WHEREAS the Principal / Owner has floated the Tender (NIT No.)
(hereinafter referred to as **“Tender/Bid”**) and intends to award, under laid down organizational procedure, contract
for.....

(Name of work)

hereinafter referred to as the **“Contract”**.

AND WHEREAS the Principal/Owner values full compliance with all relevant laws of the land, rules, regulations, economic use of resources and of fairness/transparency in its relation with its Bidder(s) and Contractor(s).

AND WHEREAS to meet the purpose aforesaid both the parties have agreed to enter into this Integrity Agreement (hereinafter referred to as **“Integrity Pact”** or **“Pact”**), the terms and conditions of which shall also be read as integral part and parcel of the Tender/Bid documents and Contract between the parties.

NOW, THEREFORE, in consideration of mutual covenants contained in this Pact, the parties hereby agree as follows and this Pact witnesses as under:

Article 1: Commitment of the Principal/Owner

- 1) The Principal/Owner commits itself to take all measures necessary to prevent corruption and to observe the following principles:
 - (a) No employee of the Principal/Owner, personally or through any of his/her family members, will in connection with the Tender, or the execution of the Contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.
 - (b) The Principal/Owner will, during the Tender process, treat all Bidder(s) with equity and reason. The Principal/Owner will, in particular, before and during the Tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential / additional information through which the Bidder(s) could obtain an advantage in relation to the Tender process or the Contract execution.
 - (c) The Principal/Owner shall endeavour to exclude from the Tender process any person, whose conduct in the past has been of biased nature.
- 2) If the Principal/Owner obtains information on the conduct of any of its employees which is a criminal offence under the Indian Penal code (IPC)/Prevention of Corruption Act, 1988 (PC Act) or is in violation of the principles herein mentioned or if there be a substantive suspicion in this regard, the Principal/Owner will inform the Chief Vigilance Officer and in addition can also initiate disciplinary actions as per its internal laid down policies and procedures.

Article 2: Commitment of the Bidder(s)/Contractor(s)

- 1) It is required that each Bidder/Contractor (including their respective officers, employees and agents) adhere to the highest ethical standards, and report to the Government / Department all suspected acts of **fraud or corruption or Coercion or Collusion** of which it has knowledge or becomes aware, during the tendering process and throughout the negotiation or award of a contract.
- 2) The Bidder(s)/Contractor(s) commits himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the Tender process and during the Contract execution:

- a) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm, offer, promise or give to any of the Principal/Owner's employees involved in the Tender process or execution of the Contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the Tender process or during the execution of the Contract.
- b) The Bidder(s)/Contractor(s) will not enter with other Bidder(s) into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to cartelize in the bidding process.
- c) The Bidder(s)/Contractor(s) will not commit any offence under the relevant IPC/PC Act. Further the Bidder(s)/Contractor(s) will not use improperly, (for the purpose of competition or personal gain), or pass on to others, any information or documents provided by the Principal/Owner as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
- d) The Bidder(s)/Contractor(s) of foreign origin shall disclose the names and addresses of agents/representatives in India, if any. Similarly Bidder(s)/Contractor(s) of Indian Nationality shall disclose names and addresses of foreign agents/representatives, if any. Either the Indian agent on behalf of the foreign principal or the foreign principal directly could bid in a tender but not both. Further, in cases where an agent participate in a tender on behalf of one manufacturer, he shall not be allowed to quote on behalf of another manufacturer along with the first manufacturer in a subsequent/parallel tender for the same Item.
- d) The Bidder(s)/Contractor(s) will, when presenting his bid, disclose (with each tender as per proforma enclosed) any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the Contract.
- 3) The Bidder(s)/Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.
- 4) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm indulge in fraudulent practice **means a willful misrepresentation or omission of facts or submission of fake/forged documents in order to induce public official to act in reliance thereof, with the purpose of obtaining unjust advantage by or causing damage to justified interest of others and/or to influence the procurement process to the detriment of the Government interests.**
- 5) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm use Coercive Practices (means the act of obtaining something, compelling an action or

influencing a decision through intimidation, threat or the use of force directly or indirectly, where potential or actual injury may befall upon a person, his/ her reputation or property to influence their participation in the tendering process).

Article 3: Consequences of Breach

Without prejudice to any rights that may be available to the Principal/Owner under law or the Contract or its established policies and laid down procedures, the Principal/Owner shall have the following rights in case of breach of this Integrity Pact by the Bidder(s)/Contractor(s) and the Bidder/ Contractor accepts and undertakes to respect and uphold the Principal/Owner's absolute right:

- 1) If the Bidder(s)/Contractor(s), either before award or during execution of Contract has committed a transgression through a violation of Article 2 above or in any other form, such as to put his reliability or credibility in question, the Principal/Owner after giving 14 days notice to the contractor shall have powers to disqualify the Bidder(s)/Contractor(s) from the Tender process or terminate/determine the Contract, if already executed or exclude the Bidder/Contractor from future contract award processes. The imposition and duration of the exclusion will be determined by the severity of transgression and determined by the Principal/Owner. **Such exclusion may be forever or for a limited period as decided by the Principal/Owner.**
- 2) **Forfeiture of EMD/Performance Guarantee/Security Deposit:** If the Principal/Owner has disqualified the Bidder(s) from the Tender process prior to the award of the Contract or terminated/determined the Contract or has accrued the right to terminate/determine the Contract according to Article 3(1), the Principal/Owner apart from exercising any legal rights that may have accrued to the Principal/Owner, may in its considered opinion forfeit the entire amount of Earnest Money Deposit, Performance Guarantee and Security Deposit of the Bidder/Contractor.
- 3) **Criminal Liability:** If the Principal/Owner obtains knowledge of conduct of a Bidder or Contractor, or of an employee or a representative or an associate of a Bidder or Contractor which constitutes corruption within the meaning of Indian Penal code (IPC)/Prevention of Corruption Act, or if the Principal/Owner has substantive suspicion in this regard, the Principal/Owner will inform the same to law enforcing agencies for further investigation.

Article 4: Previous Transgression

- 1) The Bidder declares that no previous transgressions occurred in the last 3 years with any other Company in any country confirming to the anticorruption approach or with Central Government or State Government or any other Central/State Public Sector Enterprises in India that could justify his exclusion from the Tender process.

- 2) If the Bidder makes incorrect statement on this subject, he can be disqualified from the Tender process or action can be taken for banning of business dealings/ holiday listing of the Bidder/Contractor as deemed fit by the Principal/ Owner.
- 3) If the Bidder/Contractor can prove that he has resorted / recouped the damage caused by him and has installed a suitable corruption prevention system, the Principal/Owner may, at its own discretion, revoke the exclusion prematurely.

Article 5: Equal Treatment of all Bidders/Contractors/Subcontractors

- 1) The Bidder(s)/Contractor(s) undertake(s) to demand from all subcontractors a commitment in conformity with this Integrity Pact. The Bidder/Contractor shall be responsible for any violation(s) of the principles laid down in this agreement/Pact by any of its Subcontractors/sub-vendors.
- 2) The Principal/Owner will enter into Pacts on identical terms as this one with all Bidders and Contractors.
- 3) The Principal/Owner will disqualify Bidders, who do not submit, the duly signed Pact between the Principal/Owner and the bidder, along with the Tender or violate its provisions at any stage of the Tender process, from the Tender process.

Article 6- Duration of the Pact

This Pact begins when both the parties have legally signed it. It expires for the Contractor/Vendor 12 months after the completion of work under the contract or till the continuation of defect liability period, whichever is more and for all other bidders, till the Contract has been awarded.

If any claim is made/lodged during the time, the same shall be binding and continue to be valid despite the lapse of this Pacts as specified above, unless it is discharged/determined by the Competent Authority, BSF.

Article 7- Other Provisions

- 1) This Pact is subject to Indian Law, place of performance and jurisdiction is the **Headquarters of the Division** of the Principal/Owner, who has floated the Tender.
- 2) Changes and supplements need to be made in writing. Side agreements have not been made.
- 3) If the Contractor is a partnership or a consortium, this Pact must be signed by all the partners or by one or more partner holding power of attorney signed by all partners and consortium members. In case of a Company, the Pact must be signed by a representative duly authorized by board resolution.

- 4) Should one or several provisions of this Pact turn out to be invalid; the remainder of this Pact remains valid. In this case, the parties will strive to come to an agreement to their original intentions.
- 5) It is agreed term and condition that any dispute or difference arising between the parties with regard to the terms of this Integrity Agreement / Pact, any action taken by the Owner/Principal in accordance with this **Integrity Agreement/ Pact or interpretation thereof shall not be subject to arbitration.**

Article 8- LEGAL AND PRIOR RIGHTS

All rights and remedies of the parties hereto shall be in addition to all the other legal rights and remedies belonging to such parties under the Contract and/or law and the same shall be deemed to be cumulative and not alternative to such legal rights and remedies aforesaid. For the sake of brevity, both the Parties agree that this Integrity Pact will have precedence over the Tender/Contact documents with regard any of the provisions covered under this Integrity Pact.

IN WITNESS WHEREOF the parties have signed and executed this Integrity Pact at the place and date first above mentioned in the presence of following

witnesses:

.....
(For and on behalf of Principal/Owner)

.....
(For and on behalf of Bidder/Contractor)

WITNESSES:

1.
(signature, name and address)

2.
(signature, name and address)

Place:

Dated :

ANNEXURE - 38

(Refer SOP No. 5/30)

GUARANTEE BOND TO BE EXECUTED BY CONTRACTORS FOR REMOVAL OF DEFECTS AFTER COMPLETION IN RESPECT OF WATER PROOFING WORKS

The Agreement made this day of two thousand and between son of of (hereinafter called the Guarantor of the one part) and the PRESIDENT OF INDIA (hereinafter called Government of the other part).

WHEREAS this agreement is supplementary to a contract (hereinafter called the Contract) dated and made between the GUARANTOR of the one part and the Government of the other part, whereby the Contractor, inter alia, undertook to render the buildings and structures in the said contract recited completely water and leak-proof.

AND WHEREAS GUARANTOR agreed to give a guarantee to the effect that the said structures will remain water and leak-proof for five years from the date of giving of water proofing treatment.

NOW THE GUARANTOR hereby guarantees that water proofing treatment given by him will render the structures completely leak-proof and the minimum life of such water proofing treatment shall be five years to be reckoned from the date after the CONSTRUCTION period prescribed in the contract.

Provided that the guarantor will not be responsible for leakage caused by earthquake or structural defects or misuse of roof or alteration and for such purpose:

- (a) Misuse of roof shall mean any operation which will damage proofing treatment, like chopping of firewood and things of the same nature which might cause damage to the roof;
- (b) Alteration shall mean construction of an additional storey or a part of the roof or construction adjoining to existing roof whereby proofing treatment is removed in parts;
- (c) The decision of the Engineer-in-Charge with regard to cause of leakage shall be final.

During this period of guarantee the guarantor shall make good all defects and in case of any defect being found, render the building water-proof to the satisfaction of the Engineer-in-Charge at his cost, and shall commence the work for such rectification within seven days from the date of issue of the notice from the Engineer-in-Charge calling upon him to rectify the defects, failing which the work shall be got done by the Department by some other contractor at the GUARANTOR'S cost and risk. The decision of the Engineer- in-Charge as to the cost, payable by the Guarantor shall be final and binding.

That if GUARANTOR fails to execute the water proofing or commits breach thereunder then the GUARANTOR will indemnify the Principal and his successors against all loss, damage, cost, expense or otherwise which may be incurred by him by reason of any default on the part of the GUARANTOR in performance and observance of this supplementary agreement. As to the amount of loss and/or damage and/or cost incurred by the Government the decision of the Engineer-in-Charge will be final and binding on the parties.

IN WITNESS WHEREOF these presents have been executed by the Obligorand by and for and on behalf of the PRESIDENT OF INDIA on the day, month and year first above written.

Signed, sealed and delivered by OBLIGOR in the presence of-1.

2.

Signed for and on behalf of THE PRESIDENT OF INDIA by in the presence of 1.

BITUMINOUS WORK

1.1 GENERAL

1.1.1. The contractor shall have to necessarily deploy self- propelled mechanical paver with suitable screed capable of spreading, tamping and finishing the mix true to the specified lines, grades and cross sections of the Roads. The paver finisher shall have the following essential features : -

- (a) Loading hoppers and suitable distributing mechanism.
- (b) All drives having hydrostatic drive/ control.
- (c) The machine shall have a hydraulically extendable screed for appropriate width requirement.
- (d) The screed shall have tamping and vibrating arrangement for initial compaction to the layer as it is spread without rutting or otherwise marring the surface. It shall have adjustable amplitude and variable frequency.
- (e) The paver shall be equipped with necessary control mechanism so as to ensure that the finished surface is free from surface blemishes.
- (f) The paver shall be fitted with an electronic sensing device for automatic leveling and profile control within the specified tolerances.
- (g) The screed shall have the internal heating arrangement.
- (h) The paver shall be capable of laying either 2.5 to 4.0 m width or 4.0 to 7.0 m width as stipulated in the Contract.
- (i) The paver shall be so designed as to eliminate skidding/ slippage of the tyres during operation.

1.1.2 The contractor shall have to necessarily deploy the Roads rollers, for BM, DBM & DBC for their compaction as per relevant MORTH specifications, as described below:

- (i) For initial Rolling 8 to 10 tonne static weight smooth wheel roller (3 wheels or tandem.)
- (ii) For intermediate Rolling Vibratory roller of 8 to 10 tonne static weight or pneumatic tyred roller of 12 to 15 tonne weight, with minimum 9 wheels and minimum tyre pressure of 5.6 Kg/ Cm².
- (iii) For Final Rolling It shall be done with 6 to 8 tonne smooth wheeled tandem rollers.
- (iv) Roller should not move at a speed of more than 5km./ hours.

1.1.3 Mix shall be prepared in hot mix plant of adequate capacity and capable of yielding a mix of proper and uniform quality with thoroughly coated aggregate. Hot Mix Plant shall be of batch mix type with electronic load sensor device. The requirement of clause 501.3 of MORTH specifications shall be strictly adhered to.

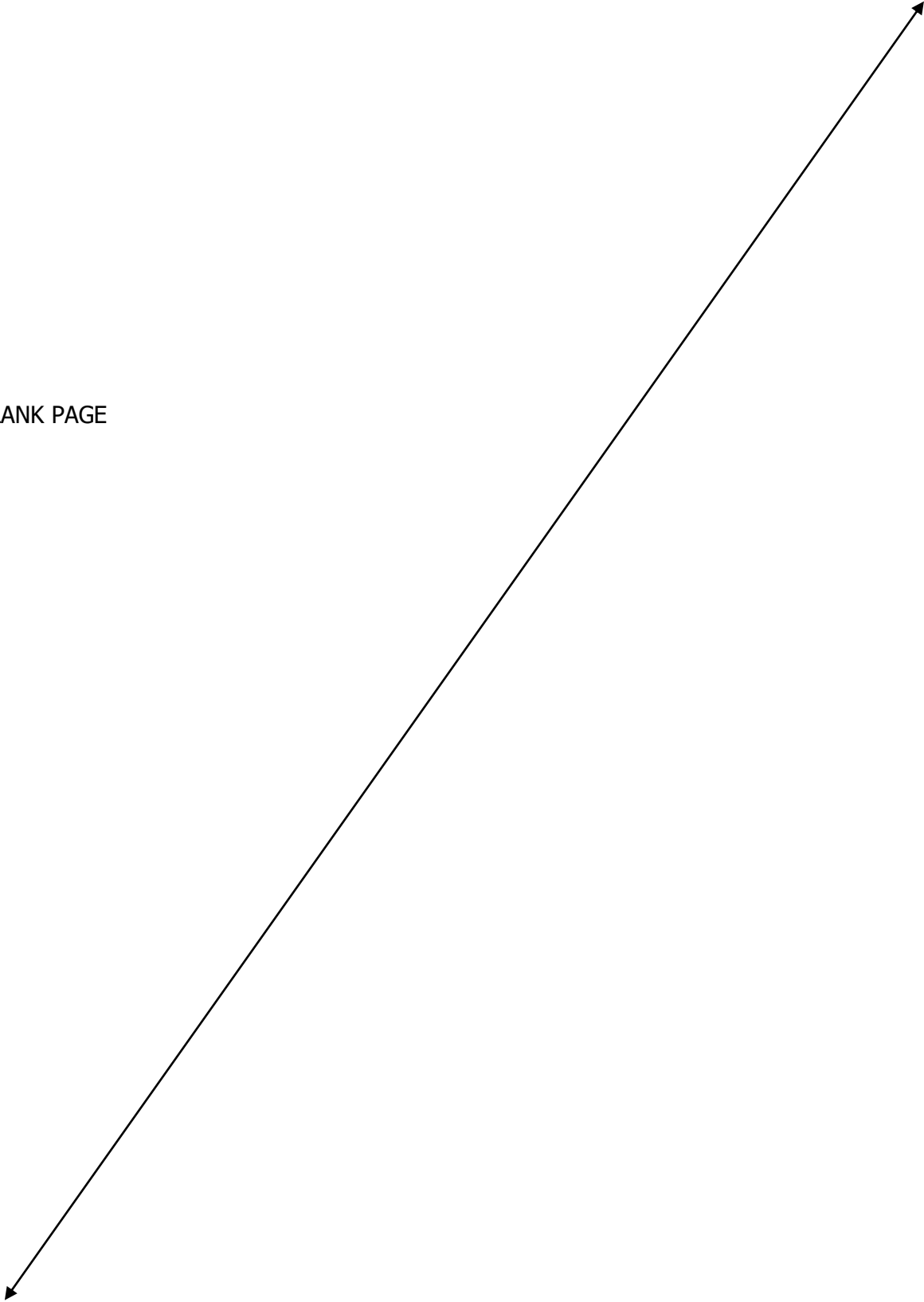
1.1.4 The job mix shall be got designed by the contractor from NIT/any other approved laboratory or as directed by Engineer-in-Charge and its cost shall be borne by the contractor if any. The mix shall be designed in such a proportion that minimum laboratory density of 2.2 gm./Cucm. For Bituminous Macadam, 2.3 gm./Cucm. For Dense Bituminous Macadam and 2.36 gm./ Cucm for Dense Bituminous concrete is achieved. The contractor shall follow the instructions contained in clause 507.3.3 and 507.3.4 for D.B.M. and clause 509.3.3 and 509.3.4. for D.B.C. of MORTH specification strictly and provide all necessary details as specified their in.

a. TACK COAT

The work shall consist of application of single coat of low viscosity liquid bituminous material to an existing Road surface preparatory to another bituminous construction over it. The binder used for tack coat shall be bitumen of suitable grade as specified in

nomenclature of item. The work shall be done strictly in accordance with clause 503 and sub clause thereto of MORTH specifications for Roads & Bridge work (Ivth Revision) 2001

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- 1.2.1 The emulsified bitumen for tack coat on Roads shall be Medium Setting (MS) type conforming to IS:8887-1995. The bitumen emulsion shall be brought at site in one lot in sealed drums and shall be got verified and checked by the representative of Engineer-in-Charge before its use.

1.2.2 **CLEANING AND PREPARATION OF THE SURFACE:** -

The surface on which the tack coat to be applied shall be clean and free from dust, dirt, and any extraneous material and be otherwise prepared in accordance with the requirements of clauses

501.8 and 902 as appropriate. Immediately before the application of the tack coat, the surface shall be swept clean with a mechanical broom and high pressure jet or by other means as directed by the Engineer-in-charge.

b. BITUMINOUS MACADAM (BM)

The work shall consist of construction in single course of compacted crushed stone aggregate premixed with bituminous binder, to serve as base/ binder course. Profile correction layer, laid immediately after mixing, on a previously prepared base in accordance with the requirements as per the specification as laid in clause 504 and sub clause thereto of MORTH specifications for Roads & Bridge works 2001 (Iv th Revision) or as directed by Engineer-in-Charge

1.3.1 MATERIAL

1.3.1.1 BITUMEN

Bitumen shall conform to grade VG-30 and quantities as specified in nomenclature of the item.

TABLE: REQUIREMENT OF PAVING BITUMEN AS PER IS 73:2006.

Sl. NO.	CHARACTERSTICS	METHODS OF TESTS REF TO IS NO	PAVING GRADES	
				VG-30
(i)	Absolute Viscosity at 60°C, Poises	IS 1206 (Part 2)		Min. 2400
(ii)	Kinematic Viscosity at 135°C, cSt	IS 1206 (Part 3)		Min. 350
(iii)	Flash Point (Cleveland Open Cup,) °C	IS 1209		Min. 220
(iv)	Solubility in trichloroethylene,	IS 1206		Min. 99%
(v)	Penetration @ 25°C, 100 gm, 5 sec.	IS 1203		Min 50-70
(vi)	Softening Point.(R&B), °C	IS 1205		Min. 47
(vii)	Tests on residue from thin film oven tests/RTFOT			
	Viscosity ratio at 60°C	IS 1206 (Part 2)		Max. 4.0
	Ductility at 25°C, cm, after thin-film oven Test			Max. 40
	Conforms to BIS (IS 73:2006) Specifications			

1.3.1.2 AGGREGATE

Aggregates shall consist of crushed stone aggregate conforming to grading & specifications as laid down in paras 504.2.2. to 504.2.5 of MORTH specifications 2001. No natural aggregate or sand shall be allowed.

1.3.2 RATE

The contract unit rate for the Bituminous Macadam shall be the payment in full for carrying out all the required operations including full compensation for all components listed in clause 501.8.8.2(i) to (vi) of MORTH specifications 2001. The rate shall cover the provision of bitumen in the mix design @3.5 percent of weight of total mix with provision that variation of quantity on minus side shall be recovered @ as mentioned under Clause-42 in

Schedule-F of bitumen less used as per design mix. However, no extra payment would be admissible for use of extra bitumen of the variation as on higher side i.e beyond 3.5% of weight of total mix.

c. DENSE GRADED BITUMINOUS MACADAM (DBM)

The work shall consist of constructing single layer specified compacted thickness dense bituminous macadam consisting of crushed stone aggregate mixed with bituminous binder/ base to serve as course laid immediately after mixing, on a previously prepared base in accordance with the requirements of specifications as laid down in clause 507 and sub-clauses thereto of MORTH specifications for Roads & Bridge works (IVth Revision) 2001 and as directed by Engineer -in-Charge.

1.4.1 MATERIAL

1.4.1.1 BITUMEN

Bitumen shall conform to grade VG-30 and quantities as specified in nomenclature of the item.

1.4.1.2 AGGREGATE

Aggregates shall consist of crushed stone aggregate conforming to grading & specifications as laid down in sub clause 507.2.2. to 507.2.5 of MORTH specifications for Roads & Bridge work (IVth Revision) 2001. No natural aggregate or sand shall be allowed.

1.4.1.3 FILLER

Filler shall consist of hydrated lime of grade & specification conforming to clause 507.2.4 of MORTH specifications.

1.4.2 RATE

The contract unit rate for the Dense Bituminous Macadam shall be payment in full for carrying out all the required operations including full compensation for all components listed in clause 501.8.8.2(i) to (vi)

. The rate shall cover the provision of bitumen in the mix design @ 5.0 percent of weight of total mix with provision that variation of quantity on minus side shall be recovered @ as mentioned under Clause -42 in Schedule-F of bitumen less used as per design mix. However, no extra payment would be admissible for use of extra bitumen of the variation is on higher side i.e beyond 5.0% of weight of total mix.

1.5 DENSE BITUMEN CONCRETE (DBC)

1.5.1 MATERIAL.

1.5.1.1 BITUMEN

Bitumen shall conform to CRMB -60/VG-30 and quantities as specified in nomenclature of the item.

1.5.1.2 AGGREGATE

Aggregates shall consist of crushed stone aggregate conforming to grading and specifications as laid down in MORTH specification sub clause 509.2.22 to 509.2.5. No natural aggregate or sand shall be allowed.

1.5.1.3 FILLER

Filler shall consist of hydrated lime @ 3% of grade and specifications conforming to clause 509.2.4 of MORTH specifications.

1.5.2 RATE

The contract unit rate for the Dense Bituminous Concrete (DBC) shall be for carrying out all the required operations including full compensation for component listed in MORTH specification. The rate shall cover the provision of bitumen CRMB -60/VG-30 in the mix design @ 5.5% of total mix with provision that variation of quantities on minus side shall be recovered @ as mentioned under Clause-42 in Schedule-F of bitumen less used as per

design mix. However, no extra payment would be admissible for use of extra bitumen if the variation is on higher side i.e. beyond 5.5% of weight of total mix.

d. Compaction

The degree of compaction for the various bituminous layers shall be established taking core from the laid bituminous layer. The bill of the contractor shall be paid only if the same qualifies as per the specifications/ requirements, Sand replacement method for verifying the degree of compaction of laid bituminous layers will not be allowed.

1.6 BITUMINOUS CONCRETE

The work shall consist of constructing a single layer of specified compacted thickness of bituminous concrete consisting of crushed stone aggregate mixed with bituminous binder, to serve as wearing course, laid immediately after mixing on a previously prepared base in accordance with the requirement of specification as laid down in clause 507 and sub-clause thereto of MORTH specifications for Roads & Bridges works 2013(5th Revision) and as directed by Engineer -in-Charge.

MATERIAL

(i) BITUMEN

Bitumen shall conform to grade and quantity as specified in nomenclature of the item.

1.6.1.2 AGGREGATE

Aggregate shall consist of crushed stone aggregate conforming to grading & specification as laid down in sub-clause 504.2.2 to 504.2.5 of MORTH specification 2013(5th Revision) for Roads & Bridges works 2013 (5th Revision). No natural aggregate or sand shall be allowed.

FILLER

Filler shall consist of hydrated lime of grade & specification conforming to clause 507.2.4 of MORTH specifications 2013(5th Revision).

1.6.2 RATE

The contract unit rate for the Dense Bituminous concrete shall be paid in full for carrying out all the required operations including full compensation for components listed in clause 501.8.8.2(i) to (xi) of MORTH specification 2013(5th Revision). The rate shall cover the provision of bitumen in the mix design @ 5.5% of weight of total mix with provision that variation of quantity on minus side is not allowed. However, no extra payment would be admissible for use of bitumen if the variation is on higher side i.e. beyond of 5.5% weight of total mix.

1.6 S.M.A .

The work shall be accepted as per Morth Specification 2013 clause 515.

1. Measurements for Payment

The painted markings shall be measured in sq. metres of actual area marked (excluding the gaps, if any) correct upto the two places of decimal.

CONDITIONS FOR PROCUREMENT AND ACCOUNTING OF BITUMEN:

2.0 The contractor shall procure bitumen of required grade as specified conforming to IS: 73-1992 with upto date amendments and other relevant codes from the manufactures of repute like Indian Oil Corporation Ltd., Hindustan Petroleum Corporation Ltd. And Bharat Petroleum Corporation Ltd. As approved by Ministry of Petroleum Corporation Ltd. And Bharat Petroleum Corporation Ltd. As approved by Ministry of Petroleum, Govt. of India and holding license to use ISI certification mark for their products.

2.1 MODE OF PROCUREMENT :-

2.1.1 Bitumen for tack coat shall be brought at site in sealed drums only bearing following markings(legible) :- (i) Name of Manufacturer

- (ii) Gross Wt. Net Wt. Total weight.
- (iii) Month and year of Manufacture.
- (iv) Use before (Date) or Expiry date.
- (v) Type and Grade.
- (vi) Batch Number.
- (vii) 'ISI' Certification and Standard Mark.
- (viii) Name of contractor/ Supplier.
- (ix) Serial No. & Total Nos. of drums in each batch.

2.2 For providing bituminous surface like BM, DBM, DBC etc. the bitumen shall be procured in bulk and stored at the hot mix plant site. The drums/ container shall bear the marking as mentioned in para 2.1 above. Nothing extra shall be paid to the contractor, if the bitumen is procured by him in drums.

2.3 The contractor will produce original challan/ voucher for purchase of bitumen and emulsion from IOCL/HPCL/BPCL/IBP/HINCOL as a proof of having purchased the material from manufacturer. The voucher/ challan shall be returned to the contractor after verification and making necessary endorsement.

2.4 Bitumen of specified grade shall be brought to plant site in one lot for theoretical requirement upto 100 tonnes and in lots of 100 tonnes or more for theoretical requirement of more than 100 tonnes. The day to day receipt and issue accounts of bitumen shall be maintained by the Junior Engineer-in-Charge and signed daily by the Contractor or his authorized agent on the following proforma :-

PROFORMA FOR THE BITUMEN REGISTER

Date of Receipt	Qty. Received	Progressive Total	Date of Issue	Qty. of Bitumen Issued	Total Issued	Balance in Hand	Contractor's initial	Junior Engineer's Initial
1.	2.	3.	4.	5.	6.	7.	8.	9.

DAILY COMPARISON OF ISSUE WITH REQUIREMENTS

Item of work for which issued	Approx. qty. of work done on each day	Theoretical requirement of bitumen for work done on each day	Remarks	
			AEE/AE	Ex. Engineer
10	11	12		

2.5 When bitumen is issued in drums, the same shall be stacked in fenced enclosures, to be provided by the contractor at his own cost, as directed by the Engineer-in-Charge, on one side of the roadway. The contractor shall be responsible for the watch & ward and safety of bitumen. The contractor shall facilitate the inspection of bitumen stockyard by the Engineer-in-charge or his representative at any time.

2.6 Material shall be kept in joint custody of the contractor and the representative of the Engineer-in- Charge. The empty containers shall not be removed from the site of work till the relevant items of work has been completed and permission obtained from the Engineer-in-charge. No heating of bitumen in drums for any purpose whatsoever shall be allowed.

2.7 Bitumen purchase vouchers shall be provided by the contractor.

2.8 SAMPLES AND TESTING

2.8.1 The contractor shall have to obtain and furnish test certificates issued by manufacturer to the Engineer-in-Charge in respect of bitumen procured by him. The samples shall be collected at discretion of Engineer-in-Charge and got tested as per provisions of IS : 73/MORTH/CPWD specifications from the laboratories approved by him.

2.8.2 The contractor shall supply, free of charge, the bitumen required for testing. The cost of specimen samples shall be borne by contractor/ department in the manner described below :-

- (i) By the contractor, if the test result show that the bitumen does not conform to the relevant BIS codes/ IRC Publications.
- (ii) By the department, if the test results show that the bitumen conforms to the relevant BIS codes/ IRC Publications ns.

2.8.3 In case the test result indicate that the bitumen procured by the contractor does not conform to the relevant BIS codes/ IRC Publications, the same lot shall stand rejected and shall be removed from th esite of work by the contractor at his own cost within a week's time of written order from Engineer -in- Charge to do so.

2.8.4 The bitumen content in bituminous mix shall (Batch type only) be checked by conducting the bitumenextraction test conforming to IRC: SP.11 at regular interval during progress of work the actual consumption of bitumen shall be worked out based on such test results. The theoretical consumption shall be worked out based on the design mix formula and the actual consumption (**based on extraction test as well as MAS account**) if found less than theoretical one, the recovery shall be made from contractor @ as mentioned under **Clause-38 in Schedule-F** for less use of bitumen. The work found executed with bituminous mix having bitumen content lesser than permissible variation of (-) 0.3% shall be considered as sub-standard work and hence shall be liable for rejection. However, nothing extra shall be paid if

actual consumption so worked out is higher than theoretical consumption. This is without prejudice to action under other relevant clauses of the agreement.

- 2.8.5 Bitumen brought to site /Hot Mix Plant and bitumen remaining unused after completion of work shall not be removed from site without written permission of the Engineer-in-Charge.

NOTE: - Nothing extra shall be paid for cartage of bitumen to the site of work.

3.0 GRANULAR SUB –BASE

3.1 Scope

This work shall consist of laying and compacting well-graded material on prepared subgrade in accordance with the requirements of these Specifications. The material shall be laid in one or more layers as sub-base or lower sub- base and upper sub-base (termed as sub-base hereinafter) as necessary according to lines, grades and cross- sections shown on the drawings or as directed by the Engineer-in-charge.

3.2. Materials

3.2.1. The material to be used for the work shall be natural sand, crushed gravel, crushed stone, crushed slag or combination thereof depending upon the grading required. Use of materials like brick metal, Kankar and crushed concrete shall be permitted in the lower sub-base. The material shall be free from organic or other deleterious constituents and shall conform to the grading given in Table 16.44 and physical requirement given in Table 16.45 Gratings III and IV shall preferably be used in lower sub-base. Grading V and VI shall be used as a sub-base- cum-drainage layer. The grading to be adopted for a project shall be as specified in the Contract. Where the sub-base is laid in two layers as upper sub-base and lower sub-base, the thickness of each layer shall not be less than 365 mm.

3.2.2 If the water absorption of the aggregate determined as per IS : 2386 (Part 3); if this value is greater than 2 per cent, the aggregate shall be tested for Wet Aggregate Impact Value (AIV) (IS: 5640). Soft aggregates like Kankar ,Brick ballast and laterite shall also be tested for Wet AIV (IS: 5640).

GRADING FOR GRANULAR SUB-BASE MATERIALS

IS Sieve Designation	Percentage by Weight Passing the IS Sieve					
	Grading I	Grading II	Grading III	Grading IV	Grading V	Grading VI
75.0mm	100	--	--	--	100	--
53.0mm	80-100	100	100	100	80-100	100
26.5mm	55-90	70-100	55-75	50-80	55-90	75-100
9.50mm	35-65	50-80	--	--	35-65	55-75
4.75mm	25-55	40-65	10-30	15-35	25-50	30-55
2.36mm	20-40	30-50	--	--	10-20	10-25
0.85mm	--	--	--	--	2-10	--
0.425mm	10-15	10-15	--	--	0-5	0-8
0.075mm	<5	<5	<5	<5	--	0-3

PHYSICAL REQUIREMENTS FOR MATERIALS FOR GRANULAR SUB-BASE

Aggregate Value (AIV)	Impact	IS:2386 (Part 4) or IS:5640	40 Maximum
Liquid Limit		IS:2720 (Part 5)	Maximum 25
Plasticity Index		IS:2720 (Part 5)	Maximum 6
CBR at 98% dry density (at IS:2720-Part 8)		IS:2720 (Part 5)	Minimum 30 unless otherwise specified in the Contract

3.2.2 Construction Operations

3.2.2.1. Preparation of Sub-Grade:

The surface of the sub grade to receive the Granular Sub-base shall be prepared to the specified lines and crossfall (Camber) as necessary and made free of dust and other extraneous materials. Any ruts or soft yielding places shall be corrected in an approved manner and rolled with 80 – 100 kN smooth wheeled roller until firm surface is obtained if necessary by sprinkling water. Weak places shall be strengthened, corrugations removed and depressions and pot holes made good with suitable materials, before spreading the aggregate for GSB.

Where the existing surface over which the sub base of GSB is to be laid is black topped, to ensure effective internal drainage, furrows 50 mm x 50 mm (depth of furrows increased to reach bottom of bituminous layer where necessary) at one metre intervals shall be cut in the existing bituminous surface at 45 degrees to the central line of the carriageway at one metre intervals in the existing road before the GSB is laid.

3.2.3.2 Spreading and compacting:

The sub-base material of grading specified in the Contract and water shall be mixed mechanically by a suitable mixer equipped with provision for controlled addition of water and mechanical mixing. So as to ensure homogenous and uniform mix. The required water content shall be determined in accordance with IS:2720 (Part 8). The mix shall be spread on the prepared sub-grade with the help of a motor grader of adequate capacity, its blade having hydraulic controls suitable for initial adjustment and for maintaining the required slope and grade during the operation, or other means as approved by the Engineer-in-charge.

Moisture content of the mix shall be checked in accordance with IS:2720 (Part 2) and suitably adjusted so that, at the time of compaction, it is from 1 to 2 per cent below the optimum moisture content (OMC).

Immediately after spreading the mix, rolling shall be done by an approved roller. If the thickness of the compacted layer does not exceed 100 mm, a smooth wheeled roller of 80 to 100 kN weight may be used. For a compacted single layer upto 200 mm the compaction shall be done with the help of a vibratory roller of minimum 80 to 100 kN static weight capable of achieving the required compaction. Rolling shall commence at the lower edge and proceed towards the upper edge longitudinally for portions having unidirectional cross fall or on super elevation. For carriageway having crossfall on both sides, rolling shall commence at the edges and progress towards the crown.

Each pass of the roller shall uniformly overlap not less than one third of the track made in the preceding pass. During rolling, the grade and crossfall (camber) shall be checked and any high spots or depressions, which become apparent, corrected by removing or adding fresh material. The speed of the roller shall not exceed 5 km per hour.

Rolling shall be continued till the density achieved is at least 98 percent of the maximum dry density for the material determined as per IS : 2720 (Part 8). The surface of any layer of material on completion of compaction shall be well closed, free from movement under compaction equipment and from compaction planes, ridges, cracks or loose material. All loose, segregated or otherwise defective areas shall be made good to the full thickness of layer and re-compacted.

3.2.3 Measurements

Granular sub-base shall be measured as finished work in position in cubic metres. The length and breadth shall be measured to the nearest centimetre. The depth of consolidated layer shall be computed by taking levels (initial and final) to nearest half centimetre by taking average of depths as decided by the Engineer- in-Charge. The consolidated cubical contents shall be calculated in cubic metres correct to two places of decimal. The protection of edges of granular sub-base extended over the full formation as shown in the drawing shall be considered incidental to the work of providing granular sub-base and as such no extra payment shall be made for the same.

3.2.5. Rate

The Contract unit rate for granular sub-base shall be payment in full for carrying out the required operations including all labour, tools, equipments, machinery and incidentals to complete the work to the specifications as described above.

4.0 WET MIX MACADAM (WMM) SUB-BASE/BASE

4.1 Scope

This work shall consist of laying and compacting clean, crushed, graded aggregate and granular material, premixed with water, to a dense mass on a prepared subgrade/sub-base/base or existing pavement as the case may be in accordance with the requirements of these Specifications. The material shall be laid in one or more layers as necessary to lines, grades and cross-sections shown on the approved drawings or as directed by the Engineer-in-charge.

The thickness of a single compacted Wet Mix Macadam layer shall not be less than 75 mm. When vibrating or other approved types of compacting equipment are used, the compacted depth of a single layer of the sub-base course may be increased to 200 mm upon approval of the Engineer-in-charge.

4.2 Materials

4.2.1. Aggregates

4.2.1.1. Physical requirements

Coarse aggregates shall be crushed stone. If crushed gravel/shingle is used, not less than 90 per cent by weight of the gravel/shingle pieces retained on 4.75 mm sieve shall have at least two fractured faces. The aggregates shall conform to the physical requirements set forth in Table below.

If the water absorption value of the coarse aggregate is greater than 2 per cent, the soundness test shall be carried out on the material delivered to site as per IS:2386(Part-5).

PHYSICAL REQUIREMENTS OF COARSE AGGREGATES FOR SUB-BASE/BASE COURSES

	Test	Test Method	Requirement
1.	Los Angeles Abrasion value or	IS:2386 (Part-4)	40 per cent (Max.)
2.	Aggregate impact value Combined Flakiness and Elongation indices (Total)	IS:2386 (Part-4) or IS:5640 IS:2386 (Part-1)	30 per cent (Max.) 35 per cent (Max.)*

- * To determine this combined proportion, the flaky stone from a representative sample should first be separated out. Flakiness index is weight of flaky stone metal divided by weight of stone sample. Only the elongated particles be separated out from the remaining (non-flaky) stone metal. Elongation index is weight of elongated particles divided by total non-flaky particles. The value of flakiness index and elongation index so found are added up.



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4.0.1.1. Grading requirements:

The aggregates shall conform to the grading given in Table **below**.

GRADING REQUIREMENTS OF AGGREGATES FOR WET MIX MACADAM

IS Sieve Designation	Per cent by weight passing the IS sieve
53.00 mm	100
45.00 mm	95-100
26.50 mm	--60-80
22.40 mm	40-60
11.20 mm	25-40
4.75 mm	15-30
2.36 mm	8-22
600.00 micron	0-5
75.00 micron	

Materials finer than 425 micron shall have Plasticity Index (PI) not exceeding 6.

The final gradation approved within these limits shall be well graded from coarse to fine and shall not vary from the low limit on one sieve to the high limit on the adjacent sieve or vice versa.

4.2.3. Construction Operations**4.2.3.1. Preparation of base :**

The surface of the sub grade / sub base / base to receive the Wet Mix Macadam shall be prepared to the specified lines and crossfall (Camber) as necessary and made free of dust and other extraneous materials. Any ruts or soft yielding places shall be corrected in an approved manner and rolled with 80-100 kN smooth wheeled roller until firm surface is obtained if necessary by sprinkling water. Weak places shall be strengthened, corrugations removed and depressions and pot holes made good with suitable materials, before spreading the aggregate for WMM.

Where the existing surface over which the sub base of WMM is to be laid is black topped, to ensure effective internal drainage, furrows 50 mm x 50 mm (depth of furrows increased to reach bottom of bituminous layer where necessary) at one metre intervals shall be cut in the existing bituminous surface at 45 degrees to the central line of the carriageway at one metre intervals in the existing road before the WMM is laid.

4.2.3.2. Provision of lateral confinement of aggregates:

While constructing wet mix macadam, arrangement shall be made for the lateral confinement of wet mix.

This shall be done by laying materials in adjoining shoulders along with that of wet mix macadam layer.

4.2.3.3. Preparation of mix:

Wet Mix Macadam shall be prepared in an approved mixing plant of suitable capacity having provision for controlled, addition of water and forced/positive mixing arrangement like pugmill or pan type mixer of concrete batching plant. For small quantity of wet mix work, the Engineer may permit the mixing to be done in concrete mixers.

Optimum moisture for mixing shall be determined in accordance with IS:2720 (Part-8) after replacing the aggregate fraction retained on 22.4 mm sieve with material of 4.75 mm to 22.4 mm size.

While adding water, due allowance should be made for evaporation losses. However, at the time of compaction, water in the wet mix should not vary from the optimum value by more than agreed limits. The mixed material should be uniformly wet and no segregation should be permitted.

4.2.3.4. Spreading of mix :

Immediately after mixing, the aggregates shall be spread uniformly and evenly upon the prepared sub grade/sub- base/base in required quantities. In no case should these be dumped in heaps directly on the area where these are to be laid nor shall their hauling over a partly completed stretch be permitted.

The mix may be spread either by a paver finisher.

The paver finisher shall be self-propelled of adequate capacity with the following features:

- (i) Loading hoppers and suitable distribution system. So as to provide a smooth uninterrupted material flow for different layer thickness from the tipper to the screed.
- (ii) Hydraulically operated telescopic screed for paving width upto 8.5 metre and fixed screed beyond this. The screed shall have tamping and vibrating arrangement for initial compaction of the layer.
- (iii) Automatic leveling control system with electronic sensing device to maintain mat thickness and cross slope of mat during laying procedure. In exceptional cases where it is not possible for the paver to be utilized mechanical means like motor grader may be used with the prior approval of the Engineer-in-charge. The motor grader shall be capable of spreading the material uniformly all over the surface.

The surface of the aggregate shall be carefully checked with templates and all high or low spots remedied by removing or adding aggregate may be required. The layer may be tested by depth blocks during construction. No segregation of larger and fine panicles should be allowed. The aggregates as spread should be of uniform gradation with no pockets of fine materials.

The Engineer-in-charge may permit manual mixing and / or laying of Wet Mix Macadam, where small quantity of WMM is to be executed. Manual mixing / laying in inaccessible / remote locations and in situations where use of machinery is not feasible can also be permitted. Were manual mixing / laying is intended to be used, the same shall be done with the approval of the Engineer-in-charge.

4.2.3.5. Compaction:

After the mix has been laid to the required thickness, grade and crossfall/camber the same shall be uniformly compacted, to the full depth with suitable roller. If the thickness of single compacted layer does not exceed 100 mm, a smooth wheel roller of 80 to 100 kN weight may be used. For a compacted single layer upto 200 mm, the compaction shall be done with the help of vibratory roller of minimum static weight of 80 to 100 kN with an arrangement for adjusting the frequency and amplitude. An appropriate frequency and amplitude may be selected. The speed of the roller shall not exceed 5 km/h.

In portions having unidirectional cross fall/super elevation, rolling shall commence from the lower edge and progress gradually towards the upper edge. Thereafter, roller should progress parallel to the centre line of the road, uniformly over-lapping each preceding track by at least one-third width until the entire surface has been rolled. Alternate trips of the roller shall be terminated in stops at least 1 m away from any preceding stop.

In portions in camber, rolling should begin at the edge with the roller running forward and backward until the edges have been firmly compacted. The roller shall then progress gradually

towards the centre parallel to the centre line of the road uniformly overlapping each of the preceding track by at least one-third width until the entire surface has been rolled.

Any displacement occurring as a result of reversing of the direction of a roller or from any other cause shall be corrected at once as specified and/or removed and made good.

Along forms, kerbs, walls or other places not accessible to the roller, the mixture shall be thoroughly compacted with mechanical tampers or a plate compactor. Skin patching of an area without scarifying the surface to permit proper bonding of the added material shall not be permitted.

Rolling should not be done when the sub grade is soft or yielding or when it causes a wave-like motion in the sub-base/base course or sub grade. If irregularities develop during rolling which exceed 12 mm when tested with a 3 metre straight edge, the surface should be loosened and premixed material added or removed as required before rolling again so as to achieve a uniform surface conforming to the desired grade and cross fall. In no case should the use of unmixed material be permitted to make up the depressions.

Rolling shall be continued till the density achieved is at least 98 per cent of the maximum dry density for the material as determined by the method outlined in IS: 2720 (Part-8)

After completion, the surface of any finished layer shall be well-closed, free from movement under compaction equipment or any compaction planes, ridges, cracks and loose material. All loose, segregated or otherwise defective areas shall be made good to the full thickness of the layer and re-compacted.

4.2.3.6. Setting and drying: After final compaction of wet mix macadam course, the road shall be allowed to dry for 24 hours.

4.2.4. Opening to Traffic

No vehicular traffic of any kind should be allowed on the finished wet mix macadam surface till it has dried and the wearing course laid.

4.2.5. Surface Evenness

All work perform shall confirm to the lines, grades, cross sections and dimensions shown on the drawings or as directed by the Engineer-in-charge, subject to the permitted tolerances described herein after.

4.2.5.1 Horizontal Alignment

Horizontal alignments shall be reckoned with respect to the centre line of the carriageway as shown on the drawings. The edges of the carriage way as constructed shall be correct within a tolerance of ± 10 mm there from. The corresponding tolerance for edges of the roadway and lower layers of pavement shall be ± 25 mm.

4.2.5.2 Surface Levels

The levels of the Sub-base / base course as constructed, shall not vary from those calculated with reference to the longitudinal and cross-profile of the road shown on the drawings or as directed by the Engineer-in-charge beyond the tolerances mentioned as below:

TOLERANCES IN SURFACE LEVELS OF WMM

Sub-base

- | | |
|-----------------------|-------------|
| (a) Flexible pavement | ± 10 mm |
| (b) Concrete pavement | ± 06 mm |

Base course flexible pavement

- | | |
|-------------------------------------|-------------|
| (a) Bituminous Base / Binder Course | ± 06 mm |
| (b) Granular | |
| (i) Machine laid | ± 10 mm |
| (ii) Manually laid | ± 15 mm |

For checking compliance with the above requirement for sub-base / base courses, measurements of the surface levels shall be taken on a grid of points placed at 6.25 m longitudinally and 3.5 m transversely.

The longitudinal profile shall be checked with a 3 metre long straight edge / moving straight-edge as desired by the Engineer-in-charge at the middle of each traffic lane along a line parallel to the centre line of the road.

4.2.6. Measurements

Wet Mix Macadam shall be measured as finished work in position in cubic metres. The length and breadth shall be measured to the nearest centimetre. The depth of consolidated layer shall be computed by taking levels (initial and final) to nearest half centimetre by taking average of depths as decided by the Engineer- in- Charge. The consolidated cubical contents shall be calculated in cubic metres correct to two places of decimal.

4.2.7. Rates

The contract unit rate for Wet Mix Macadam shall be payment in full for carrying out the required operations including all labour, tools, equipments machinery and incidentals to complete the work to the specification as described above.

GENERAL CONDITIONS

1.0 Scope of work

The quoted rates of the contractor include all the following activities, except otherwise specified

- (i) The scope of work also includes Preliminary works like setting and maintenance of permanent bench marks reference points, central line of the carriageway etc. It shall also include making adjustment in the layout if required as per site conditions and as directed by the Engineer-in-Charge. The layout shall be got approved from the Engineer-in-charge before starting actual work. Existing levels of the area under the scope of work shall also be recorded.
- (ii) Clearing of site for construction of the work and all activities connected therewith before commencement of work to the satisfaction of the Engineer-in-Charge.
- (iii) Maintenance of all works during construction till handing over to the Department.
- (iv) Protection and maintenance of existing services.
- (v) Provision for all safety measures for traffic, pedestrian workmen, machinery etc. as considered necessary by the Engineer-in-charge.
- (vi) Identification of services like sewer lines, water supply lines, electric and telephone cables etc. well in advance of actual execution.
- (vii) It may be noted that all the safety requirements as may be felt necessary by the Engineer- in-Charge, shall have to be provided for allowing the traffic to pass underneath the superstructure at all times during the construction period.
- (viii) In case of defective construction by the contractor or on account of any other reason attributable to the contractor if the consultants appointed by the department, .submit additional claims for re-designing on account of additional input by them, due to such reasons, the same shall also be borne by the contractor. The opinion of the Engineer-in-charge in these matters shall be final and binding.
- (ix) All ancillary and incidental facilities required for execution of the work i.e. labour camps, stores, offices for contractors, work shop facilities, watch and ward, temporary structure for plants and machinery, well equipped, site laboratory as mentioned in the tender document, water storage structure, tube wells, electric /telephone installation and charges, liaison work, protection work during execution and not included in the main Items, any other Item /activity contained elsewhere in the tender documents which is necessary for execution of work in the opinion of the Engineer-in-Charge.

- (x) Pumping and bailing out water in suitable manner as directed by Engineer-in-Charge.
- (xi) It is also made clear that intending tenderer should visit the sites of work including contractor's compound and physically assess the activities which are involved for completing the work, including the quantum of work besides the information supplied in the tender document. No claim whatsoever shall be entertained on this account.
- (xii) The construction agencies shall make arrangement for a regular fortnightly or other frequency as desired by Engineer-in-Charge for the documentation of the progress of work.
- (xiii) Activities related to setting of various Items such as permanent bench-marks, reference points, central line of carriageway, layout of foundations and bearings etc. shall be performed by total station survey.
- (xiv) The contractor shall provide barricading along the length of road if required and suitable light shall be provided with barricading, if required. Contractor shall not be paid anything extra for the barricading. In case the Agency fail to provide barricading as per direction of Engineer in charge. The same shall be provided by the department at his risk and cost.
- (xv) Services like water supply lines, sewer lines, storm water drains, electricity lines, telephone lines over head and underground cables /structure, if any falling in the alignment of the work, (which are required to be removed or shifted in the opinion of the Engineer-in-Charge) shall be removed /shifted by the department if found necessary by the Engineer-in-charge. Time taken for its shifting, removal, diversion shall be accounted for towards according extension of times if it actually causes hindrance in execution as per the discretion of the Engineer-in-Charge. No claim for delay or otherwise due to above reasons shall be entertained on this account.

2.0 Samples of Material:-

Sample of materials and other articles required for execution of work shall be got approved from the Engineer-in-Charge before use in the work. The quantity of samples brought by the contractor shall be judged by standards laid down in the relevant BIS specifications.

- 2.1 All materials and fittings brought by the contractor to the site for use shall conform to the samples approved by the Engineer-in-charge which shall be preserved till the completion of the work. If a particular brand of material is specified in the Item of work in Schedule of Quantity, the same shall be used after getting the same approved from Engineer-In-Charge. Wherever brand / quality of materials is not specified in the Item of work, the contractor shall submit the samples as per suggestive list of brand names given in the tender document / particular specifications for approval of Engineer-in-Charge. For all other Items, materials and fittings carrying BIS Mark shall be used with the approval of Engineer-in-Charge. Wherever BIS Marked material / fittings are not available, the contractor shall submit samples of materials / fitting manufactured by firms of repute conforming to relevant specifications or IS codes and use the same only after getting the approval of Engineer-In-Charge. To avoid delay, contractor should submit samples as stated above well in advance so as to give timely orders for procurement. If any material, even though

approved by Engineer-In-Charge is found defective or not conforming to specifications shall be replaced / removed by the contractor at his own risk & cost.

- 2.2 The contractor shall ensure quality construction in a planned and time bound manner. Any sub-standard material / work beyond set-out tolerance limit shall be summarily rejected by the Engineer-In-Charge & contractor shall be bound to replace / remove such sub-standard / defective work immediately.
- 2.3 BIS marked materials except otherwise specified shall be subjected to quality test besides testing of other materials as per the specifications described for the Item / material. Wherever BIS marked materials are brought to the site of work, the contractor shall furnish manufacturer's test certificate or test certificate or test certificate from approved testing laboratory to establish that the material produced by the contractor for incorporation in the work satisfies the provisions of BIS codes relevant to the material and / or the work done.
- 2.4 BIS marked Items (except cement & steel) required on the work shall be got tested. Only important tests, which govern the quality of the product, shall be carried out. The frequency of such tests shall be 25% of the frequency specified in **the CPWD Specifications 2023 Vol I to II with up to date correction slips.**

For certain Items, if frequency of tests is not mentioned in the CPWD Specifications then relevant IS code shall be followed and tests shall be carried out @25% of the frequency specified therein.

3.0 Samples for Testing:-

- 3.1 The contractor shall provide samples of material required for testing free of charge. The cost of tests shall be borne by the contractor / department in the manner indicate below:-
- a) By the contractor, if the results show that the material does not conform to relevant specifications.
 - b) By the department, if the result shows that the material conforms to relevant specifications.
All other expenditure required to be incurred for taking samples; conveyance, packing etc. shall be borne by the contractor himself.
- 3.2 However, if any load testing or special testing is to be done for concrete whose strength is doubtful, the cost of the same shall be borne by the contractor.

1.3 All necessary tests as per the NIT/CPWD specifications / relevant BIS codes shall be carried out on all the materials whether ISI marked or otherwise. Wherever NIT/CPWD specifications / relevant BIS codes do not specify the frequency of tests, the same shall be carried out as per the directions of the Engineer-in-Charge. Nothing extra whatsoever shall be payable on this account.

1.4 Testing at Manufacturer's place – All materials which are specified to be tested at the manufacturer's works shall satisfactorily pass the tests in presence of the authorized representative

of Engineer-in-Charge before being used in the work. In case all requisite testing facilities are not available at the manufacturer's premises, such testing shall be conducted at laboratory approved by the Engineer-in-Charge. The charges for such testing shall be borne by the contractor.

3.3 The contractor has to establish field laboratory at site including all necessary equipment (conforming to BIS) as per Annexure attached and skilled manpower for field tests at his own cost Contractor has to establish compression testing machine of suitable capacity at site and 90% of the cube test will be carried out in lab at site and 10% of the cube test will be carried out in the lab as per clause below.

3.4 Testing of the building material will be done as per the following priority.

- a) CPWD Testing Lab.
- b) Any Govt. / State undertaking Lab.
- c) Other approved laboratory by BSF / CPWD.

4 Quality Assurance: -

4.1 The contractor shall ensure quality control measures on different aspects of construction including materials, workmanship and correct construction methodologies to be adopted. He shall have to submit brief quality assurance program within two weeks of the award of the work. The quality assurance program should include the name of the Engineers and make of materials proposes to be used in the work.

4.2 The contractor shall get the source of various raw materials namely aggregate, cement, sand, steel, water etc. to be used on the work, approved from the Engineer-in-Charge and trial mixes for controlled concrete shall be done using the approved materials. The contractor shall stick to the approved source unless it is absolutely unavoidable. Any change shall be done with the prior approval of the Engineer-in-Charge for which tests etc. shall be done by the contractor at his own cost.

4.3 Lists of approved makes and brands of materials for work are annexed hereto. Makes and brands of Materials specified therein shall only be used on the work. The contractor shall submit brand / make of various materials to be used for the approval of the Engineer-in-Charge along with sample.

4.4 The contractor shall submit shop drawings of staging and shuttering arrangement for approval of Engineer-in-Charge. The contractor shall also submit bar bending schedule for approval of Engineer-in-Charge before execution.

4.5 All material shall be brought at site as per program finalized with the Engineer-in-Charge. Any pre-delivery of the material, not required for immediate consumption shall not be accepted and thus not paid for.

4.6 Except for the Items, for which particular specifications are given or where it is specifically mentioned otherwise in the description of the Items in the schedule of quantities, the work shall generally be carried out in accordance with the **MORTH specification 2001** and "**CPWD Specifications 2023 Vol I to II** with up to date correction slips (Hereinafter to be referred to as CPWD Specifications) and instructions of Engineer-in-Charge. Wherever CPWD Specifications are silent, the latest IS Codes / Specifications shall be followed.

4.7 A reference made to any Indian Standard Specifications in these documents, shall imply to the latest version of that standard, including such revisions / amendments as issued by the Bureau of Indian Standard, upto

last date of receipt of tenders. **The contractor shall keep at his own cost all such publications of relevant Indian Standard applicable to the work at time.**

- 4.8 Sample including brand / quality of materials and fittings to be used in the work shall be got approved from the Engineer-in-Charge, well in advance of actual execution and shall be preserved till the completion of the work.
- 4.9 Unless otherwise specified in the schedule of quantities, the rates tendered by the contractor shall be all inclusive and shall apply to all lifts & all heights, floors including terrace, leads and depths and **nothing extra shall be payable on this account.**
- 4.10 The rates for all Items of work shall, unless clearly specified otherwise, include cost of all labor, material, tools and plants and other inputs involved in the execution of the Item and **nothing extra shall be payable on this account.**
1. The contractor(s) shall quote all-inclusive rates against the Items in the schedule of quantities and **nothing extra shall be payable for any of the conditions and specifications** mentioned in the tender documents unless specifically specified otherwise.
 2. Unless otherwise specified in the schedule of quantities, the rates for all Items, shall be considered as inclusive of pumping / bailing out water, wherever necessary for which **no extra payment shall be made.**
 3. The rate for all Items, in which the use of cement is involved, is inclusive of charges for curing.
 4. The foundation trenches shall be kept free from water while works below ground level are in progress.
 5. The work shall be executed and measured as per metric dimensions given in the schedule of quantities, drawings etc. (FPS units wherever indicated are for guidelines only).
 6. Any legal or financial implications resulting out of disposal of earth shall be sole responsibility of the contractor. **Nothing extra shall be paid on this account.**
 7. All the hidden Items such as water supply lines, drainage pipes, conduits, sewers etc. are to be properly tested as per the design conditions before covering.
 8. The contractor shall indemnify the Govt. against any claims or obligations arising out of any damage to adjacent property, structure or to building work done by him.
- 8.1 The contractor shall pay to the municipal, police or other authorities all the fees etc. if required for execution of work, obtain requisite licenses for temporary constructions, enclosures, and pay all fees, taxes and charges which shall be livable on account of their observations in executions of the contract. No extra claim will be entertained on this account. However, department shall provide necessary assistance by way of forwarding the applications of the contractor.
- 8.2 All license fees, royalty charges shall be paid by the contractor direct to the authorities concerned. **No extra claim will be entertained on this account.**
9. In case services are encountered during excavation / earth work and such services are required to be shifted, the contractor is bound to carry out the shifting operation as per guidance / instructions and with the

approval of the Engineer-in-Charge. However, necessary payments shall be made in this regard as per provision of the agreement.

10. Many other agencies would be executing work simultaneously at site. The contractor shall maintain proper co-ordination with other agencies in maintaining progress of work. In case of any dispute, the decision of the Engineer-in-Charge shall be final and binding.
11. ~~The contractor shall be required to comply with the provisions of Delhi labour welfare fund notified by the Delhi Govt. on 13.07.04 as per which if the contractor employs directly or through other persons, five or more than five persons on any working day during the preceding 12 months, owes a statutory obligation to deposit:-~~

- ~~(i) Fines realized from employees.~~
- ~~(ii) Unpaid accumulations.~~
- ~~(iii) Contribution of employees @75 paise per employee, per six months.~~
- ~~(iv) Contribution of employer Rs.2.25 per employee, per six months.~~

~~As per the provision of the above said Act. All employees are covered, except managerial and supervisory staff drawing as wages Rs.2,365/- per month or more, engaged in different establishments and if any employ fails to deposit the amount payable under the provisions of the said Act., penal interest would be charged @1% P.M. for first three months and thereafter penal interest would be charged @1.5% P.M. and the arrears are recoverable as arrears of "Land Revenue".~~

12. The contractor shall have to make his own arrangement for housing facility for staff and labour away from construction site and shall have to transport the labour to and fro between construction site and labour camp at site own cost. No labour huts will be allowed to be constructed at the project site except a few temporary sheds for Chowkidars and Storekeeper. The decision about how many huts can be allowed for Chowkidars and Storekeeper at project site shall rest with the Engineer-in-Charge and the contractor shall have no claim on this account.
- 13. GST or any other tax applicable in respect of inputs procured by the contractor for this contract shall be payable by the Contractor and Government will not entertain any claim whatsoever in respect of the same. However, component of GST at time of supply of service (as provided in CGST Act 2017) provided by the contract shall be varied if different from that applicable on the last date of receipt of tender including extension if any.**
14. **Maintenance of Register of Tests**
- (i) All the registers of tests carried out at construction site or in outside laboratories shall be maintained by the contractor which shall be issued to the contractor by Engineer-in-Charge in the same manner as being issued to BSF field staff.
 - (ii) All samples of materials including cement concrete cubes shall be taken jointly with contractor by JE and out of this at least 50% samples shall be taken in presence of AE in charge. If there is no JE, all samples of materials including cement concrete cubes shall be taken by AE jointly with contractor. All the necessary assistance shall be provided by the contractor. Cost of samples materials is to be borne by the contractor and he shall be responsible for safe custody of samples to be tested at site.

- (iii) All the tests if field lab setup at construction site shall be carried out by the Engineering staff deployed by the contractor which shall be 100% witnessed by JE and 50% of tests shall be witnessed by AE –in-Charge. At least 10% of the tests are to be witnessed by the Assistant Engineer.
- (iv) All the entries in the registers will be made by the designated Engineering Staff of the contractor and same should be regularly reviewed by JE/AE/EE.
- (v) Contractor shall be responsible for safe custody of all the test registers.
- (vi) Submission of copy of all test registers, Material at site register and hindrance register along with each alternate Running Account Bill and Final Bill shall be mandatory. These registers should be duly checked in division office and receipts of registers should also be acknowledged by Accounts Officer by signing the copies and register to confirm receipt in Division office.

If all the test registers and hindrance register is not submitted along with each alternate R/A Bill & Final Bill than no payment shall be released to the contractor.

15. Maintenance of Material at Site (MAS) Register-

- (i) All the MAS Registers including cement and Steel Registers shall be maintained by Contractor which shall be issued to the contractor by Engineer-in-Charge in the same manner as being issued to BSF field staff.
- (ii) Each of the entry of receipt of material at site shall be 100% test checked by JE or by AE if there is no JE.
- (iii) Each MAS register shall be checked by JE at least twice a week and at least once a week by AE. If there is no JE then MAS registers will be checked by AE at least twice a week
- (iv) Cement Register shall be reviewed by AE at least once in a month.

16. Programme Chart:-

The Contractor shall prepare a programme chart for the execution of work, showing clearly all activities from the start of work to completion within the stipulated period and submit the same for approval of the Engineer-In-Charge within two weeks of the award of the contract.

- 17.** Normally contractors shall not be allowed to work at night. Work at night shall, however, be allowed if the site conditions / circumstances so demand. However, if the work is carried out in more than one shift or at night, **no claim on this account shall be entertained**

The contractor shall be bound to follow the instruction and restrictions imposed by the Administration/Police authorities on the working and/or movement of labour, materials etc. and nothing extra shall be payable on this account or due to less/restricted working hours or suspension of work or any detours in movement of vehicles due to stated instructions and restrictions.

- 18.** The contractor shall also be required to follow the rules & restrictions imposed on working /movement/stacking of materials by the local competent authority at all times. Nothing extra shall be payable on this account.

- 19.** The contractor should remove from site, the net surplus earth only. If he disposes earth more than the surplus quantity and earth is required later to be brought from outside, the contractor shall be liable to supply at site the such required quantity of earth of required quality at his own cost and nothing shall be

paid on the account. The quantity of the surplus earth to be disposed off from the site shall be worked out on the basis of levels to be taken before and after the excavation. The decision of the Engineer-in-charge regarding the quantity of net surplus earth shall be final & binding. Nothing extra shall be payable to the contractor for stacking the excavated earth.

20. SITE CONDITIONS

Site conditions given hereunder and elsewhere are given as guidelines and contractor shall satisfy himself regarding all aspects of site conditions and no claim will be entertained on the plea that the information supplied by the department is erroneous or insufficient.

21 Location

As mentioned in the name of work.

22 Traffic restrictions & Permissions

Work has to be executed without disrupting the traffic and thus, limited space shall be available for execution of the work. The contractor will have to carefully plan his sequence of operations so that the traffic moves unhindered at all times. The traffic diversion plan evolved by the contractor for execution of the work at all locations will require approval of Police Department. Modifications suggested by the Traffic Police and also by the department shall be implemented by the contractor during execution of the work

23 Climatic conditions

The climate in the region is extreme with three major seasons- winter, summer and rainy. The winter season lasts from October to March, summer season from April to June and rainy season from July to September. This is only for guidance and there may be variations.

24 Housing, water supply, Drainage and Electricity

No accommodation is available at the site of work. The contractor has to make his own arrangements for electric connection, housing, stores and field offices, accommodations for his labour and other employees etc. Contractor should visit the site and see in what manner he is able to arrange the above. Arrangement of water for drinking purpose in addition to the water required for construction work is also to be made by the contractor. No other space shall be made available at work site except for temporary site office/ contractor's compound. However onus will be on contractor to arrange the space on its own. No claim whatsoever will be entertained on this account.

25 It shall be deemed that the contractor has satisfied himself as to the nature and location of the work, general and local conditions and particularly those pertaining to transport, handling and storage of materials, availability of labour, weather conditions at site and general ground / sub soil conditions and the contractor has to estimate his cost accordingly.

- 26** The BSF will bear no responsibility for the lack of such knowledge and also the consequence thereof to the contractor. The information and site data shown in the drawings and mentioned herein and elsewhere in these tender documents are furnished for general information and guidance only. The Engineer-in-charge in no case shall be held responsible for the accuracy thereof or / and whatsoever, interpretations or conclusions drawn there from/ by the contractor and no claim shall be entertained whatsoever if the site conditions/ information is different or otherwise incorrect as it is presumed that the contractor has satisfied himself for all possible contingencies, situations, bottlenecks and acts of coordination which may be required between the different agencies
- 27** In case of flooding of site on account of rain or any other cause, or any other damage whatsoever, no claim financially or otherwise shall be entertained, not with standing any other provisions elsewhere in the tender documents.
- 28** The contractor shall remove the malba on regular basis to keep the site neat and clean during the execution of the work. In case the Agency fails to remove the malba, the same shall be removed by the department at his risk and cost.

SPECIAL CONDITIONS FOR CEMENT

1. The contractor shall, at his own expense procure and provide all materials including cement and steel required for the work.
2. The contractor shall procure all the materials in advance so that there is sufficient time to testing and approving of the materials and clearance of the same before use in work.
3. All materials brought by the contractor for use in the work shall be got checked from the Engineer-In-Charge or his authorized representative of the work on receipt of the same at site before use.
4. The contractor shall also employ necessary watch and ward establishment for the safe custody of materials at his own cost. The contractor shall be fully responsible for the safe custody of materials brought by him/ issued to him even though the materials may be under double lock and key system.
5. Contractor has to produce manufacturers test certificate for each lot of cement & steel procured at site.

6. CONDITIONS FOR CEMENT:-

- 6.1 The contractor shall procure 43 grade ordinary Portland Cement conforming to IS 8112/ Portland Pozzolana cement conforming to IS 1489 (Part-I), as required in the work, from reputed manufacturers of cement such as ACC, UltraTech, Vikram, Shree Cement, Ambuja, Jaypee Cement, Century Cement & J.K. Cement or from any other reputed cement Manufacturer having a production capacity not less than one million tones per annum as approved by ADG for that sub region. The tenderers may also submit a list of names of cement manufacturers which they propose to use in the work. The tender accepting authority reserves right to accept or reject name(s) of cement manufacturer(s) which the tenderer proposes to use in the work. No change in the tendered rates will be accepted if the tender accepting authority does not accept the list of cement manufacturers, given by the tenderer, fully or partially. The supply of cement shall be taken in 50 kg. bags bearing manufacturer's name and ISI marking. Samples of cement arranged by the contractor shall be taken by the Engineer-in-charge and got tested in accordance with provisions of relevant BIS codes. In case the test results indicate that the cement arranged by the contractor does not conform to the relevant BIS codes, the same shall stand rejected, and it shall be removed from the site by the contractor at his own cost within a week's time of written order from the Engineer- in-Charge to do so.
- 6.2 The cement shall be brought at site in bulk supply of approximately 50 tonnes or as decided by the Engineer- in- charge. The cement godown of the capacity to store a minimum of 2000 bags of cement shall be constructed by the contractor at site of work or which no extra payment shall be made.
- 6.3 Double lock provision shall be made to the door of the cement godown. The keys of one lock shall remain with the Engineer-in-Charge or his authorized representative and the keys of the other lock shall remain with the contractor. The contractor shall be responsible for the watch and ward and safety of the cement godown. The contractor shall facilitate the inspection of the cement godown by the Engineer-in-Charge at any time.

- 6.4 The cement shall be got tested by the Engineer-in-charge and shall be used on the work only after satisfactory test results have been received. The contractor shall supply free of charge the cement required for testing including its transportation cost to testing laboratories. The cost of tests shall be borne by the contractor/Department in the manner indicated below:
- (a) By the contractor, if the results show that the cement does not conform to relevant BIS codes.
 - (b) By the Department, if the results show that the cement conforms to relevant BIS codes.
- 6.5 The actual issue and consumption of cement on work shall be regulated and proper accounts maintained as provided in clause 10 of the contract. The theoretical consumption of cement shall be worked out as per procedure prescribed in clause 42 of the contract and shall be governed by conditions laid therein. In case the cement consumption is less than theoretical consumption including permissible variation, recovery at the rate so prescribed shall be made. In case of excess consumption no adjustment need to made.
- 6.6 The cement brought to the site and the cement remaining unused after completion of the work shall not be removed from site without the written permission of the Engineer-in-charge.
- 6.7 The damaged cement shall be removed from the site immediately by the contractor on receipt of a notice in writing from the Engineer-in-charge. If he does not do so within 3 days of receipt of such notice, the Engineer-in-charge shall get it removed at the cost of the contractor.
- 6.8 The cement in bags shall be stacked by the contractor in two god owns one for fresh arrival to be tested for quality and another already tested in use having weather proof roof and walls and on a proper floor consisting of two layers of dry bricks laid on well consolidated earth at a level at least 30 cm above the ground level. These stacks shall be in rows of two bags deep and 10 bags high with a minimum of 60 cm. clear space all round. The bags should be placed horizontally continuous in each line as per sketch given in **CPWD Specifications – 2023**. The sketch is only for guidance. Actual size / shape of godowns shall be as per site requirement. The decision of Engineer-in-Charge regarding the capacity needed will be final and nothing extra shall be paid on this account.
- 6.9 Cement register for the cement shall be maintained at site. The account of daily receipts and issue of cement shall be maintained in the register by the authorized representative of the Engineer-in-charge and signed daily by contractor or his authorized agent.
- 6.10 Cement, which is not used within 90 days from its date of manufacture, shall be tested at Govt. laboratory. Until the results of such tests are found satisfactory, it shall not be used in any work.

PROFORMA FOR THE CEMENT REGISTER

PARTICULARS OF RECEIPT			PARTICULARS OF ISSUE			REMARKS							
Date of receipt	Quantity received	Progressive Total	Date of issued	quantity issued	Item of work for which issued	Quantity returned at the end of the day	Total issued	Daily Balance in hand	Contractors initials	J. E's initials	Asst. Engg. initials	A. E. E initials	Periodical Check
1	2	3	4	5	6	7	8	9	10	11	12	13	14

SPECIAL CONDITIONS FOR STEEL

1.1 The contractor shall procure TMT bars of Fe550 grade from primary producers such as SAIL, Tata Steel Ltd., RINL, Jindal Steel & Power Ltd. and JSW Steel Ltd. or any other producer as approved by CPWD who are using iron ore as the basic raw material/input and having crude steel capacity of 2.0 Million tons per annum and above.

In case of non-availability of steel from primary producers the NIT approving authority may permit use of TMT reinforcement bars procured from secondary producers having Integrated Steel Plants (ISPs) using iron ore as the basic raw material for production of crude steel which is further rolled into finished shapes in-house having crude steel capacity of 0.5 Million tonne per annum and more.

In case of non-availability of steel from primary producers as well as ISPs then the NIT approving authority may also permit use of TMT reinforcement bars procured from secondary producers in such cases following conditions are applicable.

The grade of the steel such as Fe550 grade to be procured is to be specified as per BIS 1786-2008.

- (a) The secondary producers must have valid BIS license to produce HSD bars conforming to IS 1786 : 2008. In addition to BIS license, the secondary producer must have valid license from either of the firms Tempcore, Thermex, Evcon Turbo & Turbo Quench to produce TMT Bars.
- (b) The TMT bars procured from primary producers & ISP shall conform to manufacture's specifications.
- (c) The TMT bars procured from secondary producers shall conform to the specifications as laid by Tempcore, Thermex, Evcon Turbo & Turbo Quench as the case may be.
- (d) TMT bars procured either from primary producers ISP or secondary producers, the specifications shall meet the provisions of IS 1786: 2008 pertaining to Fe 550 grade of steel as specified in the tender

1.2 The contractor shall have to obtain and furnish test certificates to the Engineer-in-charge in respect of all supplies of steel brought by him to the site of work.

1.3 Samples shall also be taken and got tested by the Engineer-in-Charge as per the provisions in this regard in relevant BIS codes. In case the test results indicate that the steel arranged by the contractor does not conform to the specifications as defined under para (1)(d) & (1)(e) above, the same shall stand rejected, and it shall be removed from the site of work by the contractor at his cost within a week time or written orders from the Engineer-in-Charge to do so.

1.4 The steel reinforcement bars shall be brought to the site in bulk supply of 10 tonnes or more, or as decided by the Engineer-in-charge.

1.5 The steel reinforcement bars shall be stored by the contractor at site of work in such a way as to prevent their distortion and corrosion, and nothing extra shall be paid on this account. Bars of different sizes and lengths shall be stored separately to facilitate easy counting and checking.

1.6 For checking nominal mass, tensile strength, bend test, re-bend test etc. specimens of sufficient length shall be cut from each size of the bar at random, and at frequency not less than that specified below:

Size of bar	For consignment below 100 tonnes	For consignment above 100 tonnes
Under 10 mm dia bars	One sample for each 25 tonnes or part thereof	One sample for each 40 tonnes or part there of
10 mm to 16 mm dia bars	One sample for each 35 tonnes or part there of	One sample for each 45 tonnes or part there of
Over 16 mm dia bars	One sample for each 45 tonnes or part there of	One sample for each 50 tonnes or part there of

1.7 The contractor shall supply free of charge the steel required for testing including its transportation to testing laboratories. The cost of tests shall be borne by the contractor/Department in the manner indicated below:

- (a) By the contractor, if the results show that the steel does not conform to relevant BIS codes.
- (b) By the Department, if the results show that the steel conforms to relevant BIS codes.

1.8 The actual issue and consumption of steel on work shall be regulated and proper accounts maintained as provided in clause 10 of the contract. The theoretical consumption of steel shall be worked out as per procedure prescribed in clause 42 of the contract and shall be governed by conditions laid therein. In case the consumption is less than theoretical consumption including permissible variations recovery at the rate so prescribed shall be made. In case of excess consumption no adjustment need to be made.

1.9 The steel brought to site and the steel remaining unused shall not be removed from site without the written permission of the Engineer-in-charge.

1.10 Contractor shall be permitted to use TMT reinforcement bars procured from secondary producers subject to rate of providing & laying TMT reinforcement bars as quoted by the contractor in the tender shall also be reduced by Rs.7.00 per kg. (Which includes Contractor's Profit and Over Heads as applicable).

1.11 In case the contractor bring surplus quantity of steel the same after completion of the work will be removed from the site by the contractor at his own cost after approval of the Engineer-in- Charge.

1.12 The mild steel and medium tensile steel bars to be used shall conform to latest version of IS: 432 and cold twisted bars and TMT bars shall conform to the latest version of IS: 1786.

1.13 i) Reinforcement including authorized spacer bars and lap pages shall be measured in length of different diameters as actually (not more than as specified in the drawings) used in the work nearest to a centimeter. Wastage and un-authorized overlaps shall not be measured.

ii) The standard sectional weights referred to as in Table 5.4 in para 5.3.4 in CPWD Specifications (Vol-I) 2009 for Cement Mortar, Cement Concrete and RCC Works will be considered for conversion of length of various sizes of M.S. Bars and T.M.T. bars into Standard Weight.

iii) Records of actual Sectional weights shall also be kept dia-wise and lot-wise. The average sectional weight for each diameter shall be arrived at from samples from each lot of steel received at site. The decision of

the Engineer-in-Charge shall be final for the procedure to be followed for determining the average sectional weight of each lot. Quantity of each diameter of steel received at site of work each day will constitute one single lot for the purpose. The weight of steel by conversion of length of various sizes of bars based on the actual weighted average sectional weight shall be termed as Derived Actual Weight.

- iv) a) If the Derived Weight as in sub-para (iii) above is lesser than the Standard Weight as in Sub-para (ii) above then the Derived Actual Weight shall be taken for payment.
- b) If the Derived Actual Weight is found more than the Standard Weight, the Standard Weight as worked out in sub-para (ii) above shall be taken for payment. In such case nothing extra shall be paid for the difference between the Derived Actual Weight and the standard Weight.

ADDITIONAL CONDITIONS

1. The work shall be carried out in such a manner so as not to interfere or affect or disturb other works, being executed by other agencies, if any.
2. Any damage done by the contractor to any existing work shall be made good by him at his own cost.
3. The work shall be carried out in the manner complying in all respects with the requirement of relevant byelaws of the local bodies under the jurisdiction of which the work is to be executed and nothing extra shall be paid on this account.
4. The contractor shall make his own arrangement for obtaining electric connection (s) if required, and make necessary payment directly to the department concerned. The _____ department will however make all reasonable recommendations to the authority concerned in this regard.
5. The Contractor or his authorized representative should always be available at the site of work to take instructions from departmental officers, and ensure proper execution of work.
6. The structural and other drawings for the work shall at all times, be properly correlated before executing any work and no claim whatsoever shall be entertained in his respect.
7. The contractor shall maintain in good condition, all works executed till the completion of entire work allotted to the contractor.
8. Royalty at the prevalent rates and all other incidental expenditure shall have to be paid by the contractor on all the, metal shingle, earth sand, bajri etc. collected by him for the execution of the work direct to the concerned Revenue Authority of the State or Central Govt. His rates are deemed to include all such expenditure and nothing extra shall be paid.
9. The malba / garbage, removed from the site shall be disposed off by the contractor at any suitable place as directed by the Engineer-in-Charge.
10. All work and materials brought and left upon the ground by the contractor or by his order for the purpose of forming part of the works, are to be considered to be the property of the President of India and the same are not to be removed or taken away by the contractor or any other person without special license and consent in writing of the Engineer-in-Charge, but the President of India is not to be in any way responsible for any loss or damage which may happen to or in respect of any such work or materials either by the same being lost or damaged by weather or otherwise.
11. Unless otherwise provided in the schedule of quantities the rates, tendered by the contractor shall be all-inclusive and shall apply to all heights, depths, leads and lifts.
12. The contractor shall construct suitable godown at the contractor's compound for storing the materials safe against damage due to sun, rain dampness, fire, theft etc. He shall also employ necessary watch and ward establishment for the purpose and no extra claim whatsoever shall be entertained on this account.

13. Material shall be kept in joint custody of the contractor and the representative of the Engineer-in-charge. The empty containers shall not be removed from the site of work till the relevant Item of work has been completed and permission obtained from the Engineer-in-Charge.
14. The area shall be kept dry when the work is in progress even below water table. Nothing extra shall be paid for removal of slush / sludge, bailing out water due to sub-soil condition, rains, spring etc.
15. The temporary warning lamps shall be installed at all barricades during the hours of darkness and kept lit at all times during these hours.

Failure to comply with the requirements mentioned above shall be deemed to be breach of the contract on the part of the contractor for which the contractor shall be liable to action under relevant clauses/conditions of the agreement. The Engineer-in-Charge shall give notice to the contractor for such default and the contractor shall comply with the same within one day of such notice failing which the Engineer-in-Charge will get the barricading set right in accordance with above provisions at risk and cost of the contractor in addition to the compensation payable by the contractor for default.

16. For taking the permission to execute the work, if any required from any Government Department like Traffic Police, local body etc. the contractor will associate themselves with the department.
17. The bitumen content in bituminous mix shall be checked by conducting the bitumen extraction test conforming to IRC:SP:11 at regular interval during progress of work. The actual consumption of bitumen shall be worked out based on such test results. The theoretical consumption shall be worked out based on the approved design mix formula. The actual consumption (based on extraction test as well as MAS account) if found less than theoretical one, the recovery shall be made from contractor for bitumen of grade 80/100, **VG-30**, etc. as appropriate at the rate as mentioned under **Clause 42 in Schedule- 'F'** for less use of bitumen. The work found executed with bituminous mix having bitumen content lesser than permissible variation of (-) 0.3% (by weight on similar basis as of design mix) shall be considered as sub-standard work and hence shall be liable for rejection. However, nothing extra shall be paid if actual consumption so worked out is higher than theoretical consumption. This is without prejudice to action under other relevant clauses of the agreement.
18. All stone aggregate and stone ballast shall be of hard stone variety to be obtained from Govt. approved quarries.
19. Sand to be used for all works excluding filling shall be of standard quality. Sand shall be obtained from Govt. approved location. The same shall consist of hard siliceous materials. It shall be clean sand.
20. All the dismantle material will be stacked by contractor and handed over to the department after completion of work with proper listing counting of dismantle material as per direction of engineer-in-charge and nothing extra payment shall be made for this.

21. For the release of payments (after receiving the pass order from the 2IC/DC (Works), BSF) necessary action will be taken by NCDDO (DDO). For any payment related issues of the bill has to contact with Admin officer only of the establishment (not contact in this regard to Engineering Br. or DDO).
23. PAD (Pay & Accounts Division) BSF, Pushpa Bhawan, Madangiri, New Delhi-110017 is the payment authority for releasing of the payment.

GENERAL SPECIFICATIONS

- 1 The work, in general, shall be executed as per the description of Item, and **CPWD specifications 2023 Vol, I & II with correction slips** up to the date of receipt of tender.
- 2 All the works unless otherwise specified hereinafter or permitted by Engineer-in-Charge shall be done in accordance with the latest editions of IRC codes as on the date of receipt of tenders or any other specified code. In addition, relevant IS Codes. (Latest revision), and **CPWD Specifications 2023 Vol, I & II with upto date correction slips shall also be applicable.**

Any additional standard specifications or criteria published by the IRC/BIS or other foreign standard and in practice on the date of receipt of tenders shall also be taken into account. In the absence of any definite provisions on any particular issue in the above mentioned specifications, the design and construction shall be in conformity with the Sound Engineering Practice and in all such matters the decision of the Engineer-in-Charge shall be final and binding on the contractor and nothing shall be paid extra.

In case of any discrepancy or contradiction amongst the specified standards the following order of preferences shall generally prevail.

- i. Nomenclature of item etc given in Schedule of Quantities.
- ii. Particular Specifications & Special conditions for this work, if any.
- iii. Particular Specifications, Special Conditions, Special Conditions for Cement & steel and additional conditions if any.
- iv. General Specifications and General Conditions, if any.
- v. Drawings attached with the tender.
- vi. **CPWD specifications, 2023 Vol I & II with upto date correction slips.**
- vii. All relevant IS Codes with the latest revisions.

If there are varying or conflicting provisions made in any document forming part of the contract, the Engineer-in-Charge shall be the deciding authority with regard to the Intention / interpretation of the document and his decision shall be binding without any reservations.

3. The contractor shall ensure quality control measures on different aspects of construction materials, workmanship and correct construction methodologies to be adopted. He shall have to submit brief quality assurance programme within two weeks of the award of the work detailing list of Engineers and make of different materials to be used in the work.

- 3.1 The contractor shall submit brand/make of various materials to be used for the approval of the Engineer-in-Charge along with samples and once approved, he shall stick to it.
- 3.2 The contractor shall submit shop drawings of staging and formwork arrangement etc. for the approval of Engineer-in-Charge. The contractor shall also submit bar bending schedule for approval of Engineer-in-Charge before execution.
- 3.3 The contractor shall get the water tested with regard to its suitability for use in the works and get written approval from the Engineer-in-Charge before he proceeds with the use of same for execution of works. If the tube well water is not suitable, the contractor shall arrange Municipal water at his own cost and nothing extra shall be paid to the contractor on this account. Water charges shall not be recovered in case arrangement of water is made at his own by the contractor.
- 3.4 Wherever any reference to any Indian Standard Specifications and other relevant codes occur in the documents relating to this contract same shall be inclusive of all amendments issued thereto or revision thereof, if any, upto date of receipt of the tender.
- 3.5 All the drawings shall at all times be properly correlated by the contractor before executing the work and no claim what so ever shall be entertained for failing to do so. In case of any discrepancy in the specifications, schedule of quantity and drawings, the decision of the Engineer-in-charge shall be final, conclusive and binding on the contractor.
- 3.6 Rates for the Items are inclusive of all labour, materials, T&P , incidental charges, contractors' profit and overheads etc. unless, otherwise, specified. The contractors shall quote the rates accordingly).

PARTICULAR SPECIFICATIONS
CIVIL WORKS

1. EARTH WORK

The work shall be done in accordance with CPWD Specifications using mechanical equipment's and machinery as per site condition and without any damage to nearby structure.

2. CONCRETE WORK

The concrete work shall be done in accordance with CPWD Specifications.

3. PRE-CAST RCC WORK

Pre-cast reinforced concrete units shall be of grade or mix and cement content as specified in the schedule of quantities. Provision shall be made in the mould to accommodate fixing devices such as hook, flats etc and forming of notches and holes. Each unit shall be cast in one operation. A sample of the unit shall be got approved from Engineer-in-charge before taking up the work.

Pre-cast units shall be clearly marked to indicate the top of member and its location.

Pre-cast units shall be stored, transported and placed in position in such a manner that these are not damaged.

The compaction of the concrete shall be done by vibrating table or external vibrator, as approved by Engineer-in-charge. The rate quoted for the Item shall include the element for framework and mechanical vibration.

Rate for Item includes cost of all materials, shuttering, reinforcement, M.S Sheet, labour and all operations involved. Cost of M.S. frames, lugs including their welding, lifting hooks is also included.

4. Shuttering:-

The contractor shall use steel shuttering as approved by the Engineer-in-charge. Minimum size of shuttering plates shall be 600mm x 900mm except for the case when closing pieces required completing the shuttering panels. Dented, broken, cracked, twisted or rusted shuttering plates shall not be allowed for use on the work.

The shuttering plates shall be cleaned properly with electrically driven sanders to remove any cement slurry or cement mortar or rust. Proper shuttering oil or de-bonding compound or plastic sheets shall be applied on the surface of the shutter plates in the requisite quantity before assembly of steel reinforcement.

5. Brick work:-

5.1 The brick work shall be carried out with good quality well burnt FPS Bricks of specified class designation.

5.2 The rate shall also include for leaving chases / notches for dowels / cramps for all kinds of cladding to come over brick work.

5.3 Brick masonry shall be with FPS. Contractor shall intimate the source of supply of bricks & samples of the bricks shall be got approved from the Engineer-In-Charge in advance.

PARTICULAR SPECIFICATIONS & SPECIAL CONDITIONS

1. The work shall be done as per MORTH/CPWD Specifications. Cost of all tests shall be borne by the contractor. Job Mix formula shall be carried out by contractor from laboratory approved by the Executive Engineer /Assistant Engineer. Cost of Job Mix formula etc shall be borne by contractor.
2. Design mix shall be done in approved lab like IITs, CRRI, NITs or Central/State owned laboratory approved by Engineer-in-charge. Cost of design mix shall be borne by contractor.

LIST OF EQUIPMENT IN SITE TESTING LABORATORY

PARTICULARS		ITEM	QUANTITY
1. Aggregate Testing			
	1	Set of coarse sieves 30cm dia (GI Sheet frames with aperture size (40 mm, 25mm, 20mm, 16mm, 17.5mm, 10mm, 4.75 mm all with lid and pan)	1 Set
	a)	Motorised sieve shaker for the above sieves.	1 No.
	2.	Set of fine sieves 20 cm dia of Brass with aperture size (4.75 mm, 2.36mm, 1.18 mm, 600 mic, 300 mic, 75mic all with lid and pan)	1 Set
	a)	Motorised sieve shaker for the above sieves.	1 No.
II Weighing Equipment	1.	Physical balance capacity 200 gms	1 No.
	2.	Dial type spring balance having knob capacity 100 kgs reading to ½ kg.	2 Nos.
	3.	Counter Scale capacity 1 kg & 10 kg	1 No. / each
	4.	Weighing Platform Capacity 100 kg	1 No.
	5.	Iron weights of 5kg, 2kg, 365gm, 200gm, 100gm	2 Nos. / each
	6.	Brass Weights of 50gm, 20gm, 10gm, 5gm, 2gm, 1gm	2 Nos. / each
III	1.	Cube testing Machine	1 No.
IV	1.	Slump cone in case of RCC work.	2 Nos.

The contractor has to deploy cube testing machine if the cost of cement concrete grade 1:2:4 (M-15) and richer mix is more than Rs 25 lacs. In other cases, the testing charges of cube shall be borne by the contractor.

1. These equipment/T &P/machinery shall be the mandatory requirement over and above those pertaining to arrangement of concrete from RMC producing plants as mentioned elsewhere in the tender

documents. In case the requirement at any stage exceeds that given above the same shall be arranged as per need by the contractor at his own cost.

Nothing extra whatsoever shall be payable on this account.

2. All the equipment, T & P and machinery shall be kept in good conditions.
3. Equipment like excavators/Transit mixer etc. shall be allowed to be moved away from the site when, in written opinion of Engineer-in-Charge, the same are no longer required at site of work.
4. All the equipment shall be brought, installed and commissioned at site of work at least one week before their actual planned use at site.
5. To maintain horizontal & vertical profile of the building the contractor have to do the total station survey with least count of 1 second at his own cost and nothing extra shall be paid for this.
6. Before starting the work, the spot level of the site is to be done by the total survey station instrument by the contractor and three sets of spot level drawings are to be submitted by the contractor to the department before starting work.

Note:- The equipment's not relevant for this work may be exempted by Engineer-in-Charge on the written request of the agency.

Sl No.	Material	Approved product/make by the Committee for future NIT under this Zone
<u>LIST OF APPROVED MANUFACTURES/SUPPLIERS (GENERAL)</u>		
1.	CEMENT (OPC/PPC)	SHREE, STAR, ULTRATECH, ACC , DALMIA, LAFARGE, AMBUJA, RAMCO or as directed by Engineer-in-charge,
2.	STRUCTURAL STEEL SECTIONS AND REINFORCEMENT	TATA, SAIL, KAMDHENU, RINI, JINDAL STEEL & POWER LTD., JSW STEEL LTD., SHYAM (MISSHYAM STEEL INDUSTRIES) LIMITED), DURGAPUR
3.	DAMP PROOF MATERIAL/ POLY SULPHIDE SEALENT/ ADMIXTURES/ WATER PROOFING COMPOUND/ INJECTION GROUTING	DR. FIXIT, FOSROC, BASF, IMPERMO, CICO, ZYDEX, DOW, CORNING, CHOKSEY, TUFFSHEAL, SIKKA,
4.	WHITE CEMENT	J.K. WHITE, BIRLA WHITE
5.	LOCKS/ LATCH	GODREJ, HARRISON, YALE, LINK.
6.	SS WIRE MESH	STERLING ENTERPRISES, TRIMURTY WELDED, SPC (SELECTED PRODUCTS CO).
7.	ADHESIVE	PIDILITE, FOSROC, SIKA, CICO, BASF,
8.	EPOXY MORTAR	FOSROC, SIKA, DR. FIXIT, CICO.
9.	DASH FASTENER	HILTI, FISHER, BOSCH, CANON
10.	FLUSH DOOR SHUTTERS (DOOR SHUTTERS (DECORATIVE/ NON DECORATIVE)/ LAMINATES/ PRELAMINATED PARTICLE BOARD/ BOARD & PLYWOOD	GREENPLY, CENTURY, NATIONAL, DURO, JAYNA (JAIN WOOD INDUSTRIES), MERINO, ACTION TESA, NOVOPAN, KITLAM, ARCHID, PLY, ACTION TESA (ISI MARKED)
11.	HYDRAULIC DOOR CLOSER/ FLOOR	GODREJ, DORMA, HEFFLE, KICH, HETTICK, HARDWYN
12.	WOODEN DOOR FITTINGS OF BRUSHED STEEL	B & R, GODREJ, DORMA, HEFFLE, KICH, HETTICK.(ISI MARKED)

13.	S.S. STAIRCASE RAILING/ ACCESSORIES	KICH, D-LINE, JINDAL STAINLEES STEEL LTD.(ISI MARKED)
14.	FIRE CHECK DOOR	PROMAT, KUTTY DOOR, NAVAIR, SAINT GOBAIN, SIGNUM FIRE PROTECTION INDIA PVT. LTD.)
15.	FIRE CHECK ACCESSORIES CALCIUM/ SMOKE SEAL STRIP/ DOOR, CLOSER LOCK	PROMAT, NAVAIR, ASTRO FLAME.
16.	PREMIUM ACRYLIC EXTERIOR PAINT WITH LOW VOC / INTERIOR ACRYLIC PAINT AND PRIMER WITH LOW VOC/	ASIAN, BERGER, NEROLAC, DULUX
17.	ANODISED ALUMINIUM HARDWARE (HEAVY DUTY)	CLASSIC HARDIMA, EVERITE, SIGMA (ISI MARKED)
18.	HARDWARE FITTINGS	GODREJ, HFFLE, HETTICH, KICH, DORMA, POLYTUF (R.S. INDUSTRIES).
19.	TEMPERED GLASS	MODL SAINT GOBAIN, ASAHI, MODI GUARD
20.	POLYESTER POWDER COATING	NEROLAC, BERGER, J & N
21.	ALUMINIUM SECTIONS	HINDALCO, INDALCO, JINDAL
22.	FRICTION STAY HINGES	EARL-BIHARI, HETTICK, DORMA, HEFFLE.
23.	NUTS, BOLTS AND SCREWS	HETTCK, HEFFLE, KICH, DORMA
24.	EPDM GASKET	HANU, ANAND
25.	STRUCTURAL SILICON/WEATHER SILICON	DOW CORNING, WACKER, 3M
26.	ADHESIVE TAPE	NORTON, 3M (ISI MARKED)
27.	GLAZED CERAMIC TILES / VITRIFIED TILES	KAJARIA, SOMANY, NITCO, ORIENT, CERA, JOHNSON

28.	CEMENT CONCRETE TILES/ HARDONITE TILES	NITCO, HINDUSTAN, PODDAR, ULTRA TILES, NTC
29.	TILE ADHESIVE	CICO, PIDILITE, FERROUS, BALENDURA, LETECRETE.
30.	CHEQUERED TERRAZO TILES	NITCO, BHARAT, PODDAR, ULTRA TILES, NTC, CERA, SOMANY.
31.	CLAY TILES ON ROOF	KENJAI, JOHNSON.
32.	CC PAVERS	NITCO-{ROCKARD), PODDAR. ULTRA TILES
33.	GRASS PAVER	UNISTONE, ULTRA
34.	WATER-PROOF CEMENT PAINT/ SYNTHETIC ENAMEL PAINT/ PLASTIC EMULSION PAINT	SNOWCEM, ASIAN, BERGER, NERQLAC, DULUX
35.	VITREOUS CHINA SANITARY WARE	PARRYWARE, HINDWARE, ESSCO, KOHLER SOMANY, CERA.
36.	FIRECLY SINK & DRAIN BOARDS	PARRY, SUNFIRE
37.	S.S. KITCHEN SINKS	NILKANTH, AMC, COBRA, SPC (SELECTED PRODUCTS CO.), CERA, M/S PRAYAG POLYMERS (P) LTD, KINGSTON (PLASTO CRAFT SANITARY INDIA PVT. LTD.)
38.	C P BRASS BATH FITTINGS	JAQUAR, HINDWARE, KOHLER, SOMANY, PRIMA CERA, KINGSTON, PRAYAG, ESSCO (JAQUAR)
39.	SOIL, WASTE & VENT PIPES & FITTING (A) CENTTIFUGAL CAST IRON	NECO, SKF, HEI'CO, BIC RPMF (RAJ PATIERN MAKERS & FOUNDERS PVT. LTD.) (ISI MARKED)
40.	LA (CI) PIPES	NECO, JINDAL, PUNJAB FOUNDRY LTD
41.	G.I. PIPES	TATA, JINDAL (HISSAR), BANSAL, SURYA PRAKASH, SYNTEX.
42.	GI FITTINGS (MALLEABLE CAST IRON)	UNIK, ZOLOTO
43.	GUNMETAL VALVES	LEADER, SANT, ZOLOTO

44.	STONEWARE PIPE & GULLY TRAPS	PERFECT, PARRY
45.	R.C.C. PIPES (NP-2)	LAKSHMI, SOOD & SOOD, JAIN & Co.
46.	MS PIPES	TATA, SAIL, JINDAL, ELECTRO STEEL
47.	C.I. DOUBLE FLANGED SLUICE VALVE	KIRLOSKAR, IVC, BURN
48.	C.I. DOUBLE FLANGED NON-RETURN VALVE	KIRLOSKAR, LEADER
49.	C.I. MANHOLES COVERS	BIC, RIF,SPC (SLELECTED PRODUCTS CO.)
50.	UPVC PIPE	SUPPEREME, PRINCE, FINOLEX, AKG, KISHAN (ISI MARKED)
51.	BALL VALVES	ZOLOTO, IBP, ARCO
52.	UNGLAZED VITRIFIED TILES	JHONSON (ENDURA), SOMANY (DURASTONE)
53.	SPIDER FITTINGS	DORMA, HEFELE,KICH,HETTICK
54.	MINERAL FIBRE FALSE CEILING	ARMSTRONG, ANUTONE
55.	LIGHT WEIGHT CALCIUM SILICATE FALSE CEILING TILES	AEROLITE, HILUX
56.	ACOUSTICAL PANELS	ARMSTRONG, ANUTONE
57.	6MM THICK TOUGHENED HEAT REFLECTIVE GLASS	SAINT GOBAIN, ASAHI, MODIGUARD
58.	GLASS REINFORCED CONCRETE TILE	UNISTONE, ULTRA, GYPROC.
59.	UPVC WINDOW, VENTILATION AND DOORS	FENESTA, REHAU, NCL-VEKA
60.	MULTI LATERED POLYCARBONATE PANEL/ FAÇADE SYSTEM	GE PLASTICS, DANPLAN
61.	STAINLESS STEEL HARDWARE FITTINGS	DORMA, GODREJ, KICH, HAFFLE, HETTICK

62.	HUBLESS PIPES & FITTINGS	NECO, SKF, RPMF, (RAJ PATTERN MAKERS & FOUNDERS PVT LTD.)
63.	FRP DOOR SHUTTER AND FRAME	SPC (SELECTED PRODUCTS CO.) JAIN DOORS PVT. LTD, JAYNA (JAIN WOOD INDUSTRIES)
64.	SOLID PVC CUPBOARD SOLID KITCHEN CABINET AND SOLID PVC DOORS.	RAJSHREE, SINTEX
65.	PVC DOORS & FRAMES	RAJSHREE, SINTEX
66.	ISI MARKED FLUSHING CISTERNS	HINDWARE, JINDAL, CERA, PARRYWARE, PRAYAG
67.	MANUFACTURER OF MS STEEL SECTION WINDOWS, MS TUBLER SECTION WINDOWS & MS PRESSED STEEL DOOR FRAMES	SAN HARVIC, AGUE JANGID ENGINEERING WORKS
68.	PTMT BATHROOM FITTINGS	M/S PRAYAG POLYMERS (P) LTD, POLYTUF (R.S. INDUSTRIES) KINGSTON (PLASTOCRAFT SANITARY INDIA LTD.)
69.	SUPER PLASTICIZER	PIDILITE, FOSROC, SIKA, CICO, BASF,
70.	FRP SHUTTER	FIBER GLASS ENGINEERS, ASHOO MODEL
71.	CURTAIN CARRIER	VISTA LEVLOR OR EQUIVALNET
72.	DRAPERY ROD	VISTA LEVLOR OR EQUIVALNET
73.	TUBLAR SECTION WINDOW	M/S CLASSIC ENGINEERS & FABRICATOR, RAIPUR, M/S MULWIN INDUSTRIAL CORPORATION, KOLKATA
74.	HARDNER	HARDCRETE OF SNOWCEM INDIA,MC DERITOP, DR FIXIT
75.	EPOXY PRIMER & PAINTS	BERGER, PIDILITE, ASIAN, NEROLAC
76.	PRIMER	ASIAN, ICI, BERGER, NEROLAC

77.	PVC RAIN WATER PIPE & FITTING	FINOLAX, CLASSIC OF KISAN, ASTRAL, SUPREME, PRINCE
78.	BIO TOILET	SINTEX OR EQUIVALENT AS PER SPECIFICATION
79.	ALL SANITARY FITTING PTMT	PRAYAG, PRINCE, KLASSIC, SUPREME, ASTRAL
80.	PP-R PRPE & FITTING	SINTEX, FINOLEX, ASTRAL, SUPREME, SFMC
81.	SYNTHETIC POLYMERIC RUBBER COMPUND	ARMSTRONG, SUPERLON, VIDOFLEX
82.	TEXTURE EXTERIOR WALL	BERGER. NEROLAC, ASIAN, ICI-DULUX
83.	OIL BOUND DISTEMPER	BERGER. NEROLAC, ASIAN, ICI-DULUX
84.	VIRTUOSOS CHINA WASH BASIN OVAL	HINDWARE / PERRYWARE /CERA
85.	VITREOUS CHINA PEDESTAL FOR WASH BASIN	PEDSTAL OF PERRYWARE / HINDWARE /CERA
86.	VITREOUS CHINA FLOOR MOUNTED EUROPEAN W.C. WITHOUT/WITH CISTERN/ VITREOUS CHINA WALL HUNG W.C. WITH VITREOUS CISTERN (COMPONENT)/ ORISSA PAN/ VITREOUS CHINA HALF STALL URINAL/ VITREOUS CHINA WASH BASIN	PERRYWARE / HINDWARE /CERA
87.	LOW LEVEL PVC CISTERN SINGLE FLUSH	SLEEK MODEL CISTERN OF PVC OF HINDWARE OR SLIMLINE DELUXE MODEL OF PERRYWARE, CERA JINDAL.
88.	DUAL FLUSH FLUSHING CISTERN	SLEEK DUAL FLUSH PVC CISTERN OF HINDWARE OR SLIMLINE DUAL OF PERRYWARE, CEAR
89.	PUNCHED TAPE CONCERTINA COIL	UNIFENCE, TIRUPATI, A-4, EFFICACY

90.	BITUMEN	INDIAN OIL, HINDUSTAN PETROLEUM, MANGALORE REFINERIES, BHARAT PETROLIUM
91	PROFILE ROOFING SHEET	TATA DURASHINE, JSW COLOURON+, SAIL

Dy. Commandant (Works)
FTR HQ BSF Punjab

SCHEDULE OF QUANTITY						
N/Work : RENOVATION UPGRADATION OF 120 MEN JAWAN BARRACK AT SHQ BSF FERROZEPUR (SH: RENOVATION OF NCO SINGLE ACCOMMODATION)						
S No	Description	Qty	Unit	Rate i/c correcti on factor 0.973	Amount	Code No
1	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level in all shapes and sizes in : Cement mortar 1:6 (1 cement : 6 coarse sand)	1.06	cum	8860.09	9,391.70	6 .4 .2
2	Providing and fixing ISI marked flush door shutters conforming to IS : 2202 (Part I) decorative type, core of block board construction with frame of 1st class hard wood and well matched teak 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters. 35 mm thick including ISI marked Stainless Steel butt hinges with necessary screws	6.30	sqm	3380.06	21,294.38	9.20.1
3	Providing and fixing wire gauge shutters using galvanized M.S. wire gauge of average width of aperture 1.4 mm in both directions with wire of dia 0.63 mm, for doors, windows and clerestory windows with hinges and necessary screws : 30 mm thick shutters with ISI marked M.S. pressed butt hinges bright finished of required size Kiln seasoned and chemically treated hollock wood	4.20	sqm	3166.39	13,298.84	9.27.2.1.2
4	Providing and fixing aluminium sliding door bolts, ISI marked anodised (anodic coating not less than grade AC 10 as per IS : 1868), transparent or dyed to required colour or shade, with nuts and screws etc. complete : 250x16 mm	8.00	each	253.56	2,028.48	9.96.2
5	Providing and fixing aluminium tower bolts, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade, with necessary screws etc. complete : 300x10 mm	8.00	each	126.59	1,012.72	9.97.1

6	Providing and fixing aluminium handles, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade, with necessary screws etc. complete : 125 mm	16.00	each	64.46	1,031.36	9.100.1
7	Providing and fixing aluminium hanging floor door stopper, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour and shade, with necessary screws etc. complete. Twin rubber stopper	5.00	each	70.4	352.00	9.101.2
8	Providing and fixing T-iron frames for doors, windows and ventilators of mild steel Tee-sections, joints mitred and welded, including fixing of necessary butt hinges and screws and applying a priming coat of approved steel primer. Fixing with 15x3 mm lugs 10 cm long embedded in cement concrete block 15x10x10 cm of C.C. 1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)	60.00	kg	137.87	8,272.20	10.13.1
9	Steel work in built up tubular (round, square or rectangular hollow tubes etc.) trusses etc., including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washers etc. complete. Hot finished welded type tubes	1350.00	kg	189.15	255,352.50	10.16.1
10	Providing and laying Vitrified tiles in floor in different sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS: 15622, of approved brand & manufacturer, in all colours and shade, laid on 20mm thick cement mortar 1:4 (1 cement: 4 coarse sand) jointing with grey cement slurry @3.3 kg/sqm including grouting the joints with white cement and matching pigments etc. The tiles must be cut with the zero chipping diamond cutter only. Laying of tiles will be done with the notch trowel, plier, wedge, clips of required thickness, leveling system and rubber mallet for placing the tiles gently and easily. Glazed vitrified tiles Matt / Anti skid finish of size. Size of Tile 600 x 600 mm.	117.37	sqm	1425.3	167,287.46	11.41A.3.1

11	<p>Providing and fixing precoated galvanised iron profile sheets (size, shape and pitch of corrugation as approved by Engineer-in-charge) of total coated thickness 0.5mm (base metal of minimum 0.45mm thickness with total coating thickness of 0.05mm) with zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns. Sheet should have protective guard film of 25 microns minimum to avoid scratches during transportation and should be supplied in single length upto 12 metre or as desired by Engineer- in-charge. The sheet shall be fixed using self drilling /self tapping screws of size (5.5x 55 mm) with EPDM seal, complete upto any pitch in horizontal/ vertical or curved surfaces, excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required.</p>	115.44	sqm	718.71	82,967.88	12.50
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12	<p>Providing & fixing false ceiling at all height including providing & fixing of framework made of special section, power pressed from M.S. sheets and galvanised with zinc coating of 120 gms/ sqm (both side inclusive) as per IS : 277 and consisting of angle cleat of size 25mm wide x 1.6mm thick with flanges of 27mm and 37mm, at 1200mm c/c, one flange fixed to the ceiling with dash fastener 12.5mm dia x 50mm long with 6mm dia bolts, other flange of cleat fixed to the angle hangers of 25 x10 x0.50mm of required length with nuts & bolts of required size and other end of angle hanger fixed with intermediate G.I chanel 45 x15 x 0.90mm running at the spacing of 1200 mm c/c, to which the ceiling section 0.5mm thick bottom wedge of 80mm with tapered flanges of 26 mm each having lips of 10.5mm, at 450mm c/c, shall be fixed in a direction perpendicular to G.I intermediate channel with connecting clip made out of 2.64mm dia x 230mm long G.I wire at every junction, including fixing perimeter channels 0.50mm thick 27mm high having flanges of 20mm and 30mm long, the perimeter of ceiling fixed to wall/ partitions with the help of Rawl plugs at 450mm centre, with 25mm long dry wall screws @ 230mm interval, including fixing of Calcium Silicate Board to ceiling section and perimeter channels with the help of dry wall screws of size 3.5 x25mm at 230mm c/c, including jointing & finishing to a flush finish of tapered and square edges of the board with recommended jointing compounds, jointing tapes, finishing with jointing compounds in three layers covering up to 150mm on both sides of joints and two coats of primer suitable for boards, all as per manufacture's specification and also including the cost of making opening for light fittings, grills, diffusers, cut outs made with frame of perimeter channels suitably fixed, all complete as per drawings, specification and direction of the Engineer in charge but excluding the cost of painting with: a. 8 mm thick Calcium Silicate Board made with Calcareous & Siliceous materials reinforced with cellulose fiber manufactured through autoclaving process.</p>	108.63	sqm	1529.85	166,187.61	12.59.1
13	<p>12 mm cement plaster of mix : 1:6 (1 cement: 6 fine sand)</p>	15.24	sqm	324.35	4,943.09	13.1.2

14	Repairs to plaster of thickness 12 mm to 20 mm in patches of area 2.5 sq. meters and under, including cutting the patch in proper shape, raking out joints and preparing and plastering the surface of the walls complete, including disposal of rubbish to the dumping ground within 50 metres lead : With cement mortar 1:4 (1 cement : 4 fine sand)	50.00	sqm	532.62	26,631.00	14.1.1
15	Hacking of CC flooring including cleaning for surface etc.complete as per direction of the Engineer-in-Charge.	108.63	sqm	3.36	365.00	14.83
16	Dismantling doors, windows and clerestory windows (steel or wood) shutter including chowkhats, architrave, holdfasts etc. complete and stacking within 50 metres lead : Of area 3 sq. metres and below	9.00	each	357.29	3,215.61	15.12.1
17	Demolishing mud phaska in terracing and disposal of material within 50 metres lead.	10.86	cum	889.61	9,661.16	15.27
18	Dismantling tiled roofing with battens, boarding etc. complete including stacking of serviceable material and disposal of unserviceable material within 50 metres lead.	217.26	sqm	204.23	44,371.01	15.31
19	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) : For fixed portion Powder coated aluminium (minimum thickness of powder coating 50 micron)	40.00	kg	516.57	20,662.80	21.1.1.2

19	For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber / neoprene gasket required (Fittings shall be paid for separately) Powder coated aluminium (minimum thickness of powder coating 50 micron)	50.00	kg	617.32	30,866.00	21.1.2.2
20	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge . (Cost of aluminium snap beading shall be paid in basic item): With float glass panes of 5 mm thickness (weight not less than 12.50 kg/ sqm)	7.20	sqm	1464.61	10,545.19	21.3.2
21	Providing and fixing anodised aluminium grill (anodised transparent or dyed to required shade according to IS: 1868 with minimum anodic coating of grade AC 15) of approved design/pattern, with approved standard section and fixed to the existing window frame with C.P. brass/ stainless steel screws @ 200 mm centre to centre, including cutting the grill to proper opening size for fixing and operation of handles and fixing approved anodised aluminium standard section around the opening, all complete as per requirement and direction of Engineer-in-charge. (Only weight of grill to be measured for payment).	45.00	kg	621.11	27,949.95	21.17
					907,687.94	

SAY 907688

**Dy Commandant (works)
FTR HQ BSF Punjab**

I/we hereby agree to execute the above work _____% (Percentage) above / below the estimated cost put to tender.

Note : Tenderer shall quote his rates inclusive of all applicable (Goods and Service Tax, Income Tax, Education Cess, Labour Cess and any other taxes as applicable time to time) and nothing extra shall be payable on this account.

**Dy Commandant (Works)
FTR HQ BSF Punjab**

Correction = Nil, Insertion Nil, Omission = Nil.

AC (Works)

DC(Works)

Proforma for Quoting The Rates

NIT No. -					
Name of work: RENOVATION UPGRADATION OF 120 MEN JAWAN BARRACK AT SHQ BSF FEROZEPUR (SH: RENOVATION OF NCO SINGLE ACCOMMODATION)					
Estimated Cost put to tender		Rs. 9,07,688			
Name of the Contractor					
Sr. No	Name of component	Estimated Cost	Percentage above or below the estimated cost	% in Figures	Total in cost
1.	Civil Work	Rs. 9,07,688 /-			
	Total	Rs. 9,07,688 /-			

1. Only one of the options is to be filled. More than one option shall be rejected.
2. Rate filled in any form shall be considered only in % age.
3. Rate filled at any other place in the document shall not be considered
4. No condition shall be accepted.