



केंद्रीय भंडारण निगम
(भारत सरकार का एक उपक्रम)

CENTRAL WAREHOUSING CORPORATION

(A Govt. of India Undertaking)

Corporate Office	Scope Minar, Core-3, Ist Floor, Laxmi Nagar Distt. Centre, Delhi-110092 Ph. No. & Fax No. (011) 22041851, 22444370 & Fax No. (011) 22444375 Email Id: ccdelhi.cwc@cewacor.nic.in & rmdli@cewacor.nic.in
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Volume-I (RFP)

E- Tender

Tender Reference Number: (E NIT_CWC/RO_Delhi/Engg./ZMC/2023-24/268)

Name of Work:

Execution of Miscellaneous Repair /Maintenance, upgradation and Construction works in Zone 10 - a cluster of central warehouses located at CW Gurugram (Hr) On Annual rate Contract basis.

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Regional Office, Scope Minar, Core-3, 1st Floor, Laxmi Nagar Distt. Centre, Delhi-110092 Ph. No. (011) 22041851, 22444370 & Fax No. (011) 22444375 Email Id: ccdelhi.cwc@cewacor.nic.in & rmdli@cewacor.nic.in

NO. CWC/RO_DELHI/ENGG/ZMC/23-24/268

E-TENDER NOTICE

CWC invites on-line and open to all - E-tenders from the contractors for :

SL	Name of Work	Estimated Cost/ (Rs. Lakh)	Last date of on line submission
1.	Execution of Miscellaneous Repair /Maintenance, upgradation and Construction works in Zone 10 - a cluster of central warehouses located at CW Gurugram (Hr) On Annual rate Contract basis.	Rs. 102.93	31.01.2024

Detailed Tender Notice along with Conditions of Contract and Notice Inviting E-Tender may be seen and downloaded from the CWC's website www.cewacor.nic.in or e-tender website www.cwceprocure.com or CPP Portal <https://eprocure.gov.in/cppp/> .

Further Corrigendum/Addendum to this Tender, if any, will be published on above websites only and any Press advertisement in Newspapers shall not be issued for the same.

Regional Manager

NOTICE INVITING TENDER**NO. CWC/RO_DELHI/ENGG/ZMC/23-24/268**

(E-tendering Mode)

The Central Warehousing Corporation, through the Regional Manager of the Central Warehousing Corporation, (CWC), at Regional Office, Delhi (hereinafter referred to as the Procuring Entity and 'Regional Manager' respectively), invites online e tenders (hereinafter referred as the 'bid(s)') for entering into an Annual Rate Contract for **Execution of Miscellaneous Repair /Maintenance, upgradation and Construction works in Zone 10 - a cluster of central warehouses located at CW Gurugram (Hr) On Annual rate Contract basis.** (hereinafter referred to as 'the Works').

This Request for Proposal for procurement having reference number, **Tender No. CWC/RO_DELHI/ENGG/ZMC/23-24/268** (hereinafter referred to as 'the Tender Document'), gives further details.

1. The Tender Document**1.1. Bidders must read the complete 'Tender Document'.**

This NIT is an integral part of the Tender Document and serves a limited purpose of invitation, and does not purport to contain all relevant details for submission of bids. 'Tender Information Summary' (TIS) appended to this notice gives a salient summary of the tender information. Any generic reference to NIT shall also imply a reference to TIS as well. However, Bidders must go through the complete Tender Document for details before submission of their Bids.

1.2. Availability of the Tender Document

The Tender Document shall be published on the the CWC's website www.cewacor.nic.in or e-tender website www.cwceprocure.com or CPP Portal <https://eprocure.gov.in/cppp/> . It shall be available for download after the date and time of the start of availability till the deadline for availability as mentioned in TIS. Unless otherwise stipulated in TIS, the Tender Document can be downloaded from CWC website www.cewacor.nic.in or from CPP portal free of cost. If the Procuring Entity happens to be closed on the deadline for submitting the bids as specified above, this deadline shall *not* be extended. Any query/clarification regarding downloading Tender Documents and uploading Bids on the e-Procurement portal may be addressed to the Help Desk (contact details given in TIS).

1.3. Clarifications

A Bidder requiring any clarification regarding the Tender Document may ask questions in writing/ electronically from Office/ Contact Person as mentioned in TIS, provided the questions are raised before the clarification end date mentioned in TIS (or if not mentioned, before 7 days of the deadline for the bid submission). This deadline shall not be extended in case of any intervening holidays.

2. Eligibility Criteria for Participation in this Tender

The participation in this Tender Process is open to all bidders who fulfill the 'Eligibility' and 'Qualification criteria. Bidder should meet the following eligibility criteria of the date of his bid submission and should continue to meet these till the award of the contract. Bidder shall be required to declare fulfillment of Eligibility Criteria in along with PQ Form enclosed in the ITB Section IIIA

Bidder unless otherwise stipulated in TIS/ ITB:

1) must be:

(a) a natural person or private entity or public entity (State-owned enterprise or institution),

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- (b) not be (or proposes to be, a Joint Venture/ Consortium (an association of several persons, firms, or companies - hereinafter referred to as JV/C).
- (c) a contractor having technical experience and Financial Soundness, to the extent minimum required for eligibility of this tender and office as mentioned in Annexure A
- (d) having valid registration regarding GSTIN, PAN.

2) must:

- (a) not be insolvent, in receivership, bankrupt or being wound up, not have its affairs administered by a court or a judicial officer, not have its business activities suspended and must not be the subject of legal proceedings for any of aforesaid reasons.
- (b) (Including their affiliates or subsidiaries or Contractors/ subcontractors for any part of the contract):

- i. Not stand declared ineligible/ blacklisted/ banned/ debarred by the Procuring Organization or its Ministry/ Department from participation in its Tender Processes; and/ or

- ii. Not be convicted (within three years preceding the last date of bid submission) or stand declared ineligible/ suspended/ blacklisted/ banned/ debarred by appropriate agencies of Government of India from participation in Tender Processes of all of its entities, for:

- offences involving moral turpitude in business dealings under the Prevention of Corruption Act, 1988 or any other law; and/or
- offences under the Indian Penal Code or any other law for causing any loss of life/ limbs/ property or endangering Public Health during the execution of a public procurement contract and/ or
- suspected to be or of doubtful loyalty to the Country or a National Security risk as determined by appropriate agencies of the Government of India.

- iii. Not have changed its name or created a new "Allied Firm", consequent to having declared ineligible/ suspended/ blacklisted/ banned/ debarred as above.

- iv. Not have an association (as a bidder/ partner/ director/ employee in any capacity) of: any retired Manager (of Gazetted Rank) or any retired Gazetted Officer of CWC or of the Central or State Government or its Public Sector Undertakings if such a retired person has not completed the cooling-off period of one year after his retirement. However, this shall not apply if such managers/ officers have obtained a waiver of the cooling-off period from their erstwhile organization.

- v. And of the near relations of executives of Procuring Entity involved in this Tender Process including Head of Engineering / Finance/ Purchase/Business Section, Executive Engineer, Assistant Engineer of Regional Office and Corporate Office.

- (c) Not have a conflict of interest, which substantially affects fair competition. The prices quoted should be competitive and without adopting any unfair/ unethical/ anti-competitive means. No attempt should be made to induce any other bidder to submit or not to submit an offer for restricting competition

3) must fulfil other additional eligibility conditions, viz Qualification norms, bid compliance, Bid security etc. as prescribed, in "Annexure-A" of Tender Document.

4) must provide such evidence of their continued eligibility to the Procuring Entity if so requested.

5) from specified countries having land borders with India (but not in development partnership with India) shall be eligible subject to certain conditions as detailed in the ITB-clause3.3.

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3. **Purchase Preference.**

No price preference or purchase preference shall be given to any bidder except valid L1 bidder quoting reasonable rates. Due to Nature of Scope, all works shall be awarded to valid L1 bidder (who has quoted reasonable rates) only without splitting it among others.

4. **Pre-bid Conference:**

If so indicated in TIS, Bidders are requested to attend a Pre-bid conference for clarification on the 'Tenders' technical specifications and commercial conditions, on the time, date, and place mentioned therein. Participation in such a Pre-bid Conference is not mandatory. If a bidder does not participate or submit any query, then no subsequent representations from them regarding the Technical/ commercial specifications/ conditions shall be entertained.

5. **Submission of Bids:**

- 1) **Bids must be uploaded only on CWC E procurement portal ie www.cwceprocure.com** till the deadline for submission mentioned in TIS. If the office happens to be closed on the deadline to submit the bids as specified above, this deadline shall not be extended.
- 2) No manual Bids shall be made available or accepted for submission. Bidder must comply with the conditions of the eProcurement portal, including registration, compatible Digital Signature Certificate (DSC) etc. In the case of downloaded documents, Bidder must not make any changes to the contents of the documents while uploading, except for filling in the required information.
- 3) **EMD** of amount as mentioned in TIS /ITB to be paid in favour of Central Warehousing Corporation, New Delhi only through e-payment gateway of e-procurement & receipt of same should be scanned and uploaded on the e-tendering website www.cwceprocure.com along with e-tender documents.
- 4) **Cost of tender (Non refundable)** as mentioned in TIS /ITB to be paid only through e-payment gateway of e-procurement system. Proof should be submitted/uploaded with the tender.
- 5) **Tender processing fee (Non-refundable)** would be paid mandatorily to M/s ITI Ltd. through e-payment on the portal www.cwceprocure.com
- 6) **Integrity Pact:** If so indicated, in the TIS/ ITB, all Bidders shall have to sign the Integrity Pact with the Procuring Entity as per 'Annexure-V: Integrity Pact'. Bids without a signed Integrity Pact shall be rejected.

6. **Bid Opening**

Bids received shall be opened online at *the specified date and time given in TIS*. If the office is closed on the specified date of opening of the bids, the opening shall be done on the next working day at the same time.

7. **Disclaimers and Rights of Procuring Entity**

The issue of the Tender Document does not imply that the Procuring Entity is bound to select bid(s), and it reserves the right without assigning any reason to:

- a) reject any or all the Bids, or
- b) cancel the tender process; or
- c) abandon the procurement of the Services; or
- d) issue another tender for identical or similar Services

Note: For further details, please refer to appended TIS and the complete Tender Document volume II & III

Regional Manager

Enclosures:

Appendix: Tender Information Summary (TIS)

Instructions to Bidder (ITB)

Volume II: Schedule I – Form of Contract and General Conditions of Contract with Appendixes

Volume III: Schedule II- Scope of Work, Technical Specifications and Appendixes

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Appendix to NIT: Tender Information Summary

Tender Information Summary (TIS)

1.0 Basic Tender Details

Name of Work	Execution of Miscellaneous Repair /Maintenance, upgradation and Construction works in Zone 10 - a cluster of central warehouses located at CW Gurugram (Hr) On Annual rate Contract basis.		
Tender Reference Number	CWC/RO_DELHI/ENGG/ZMC/23-24/268		
Tender Type	Open Tender – Domestic		
Tender Category	Works		
Bidding System	Single Stage in Two Bid System		
Form of Contract	Lump sum Value Contract based on Percentage Rates on Price Schedule.		
No. of Covers	Two Covers		
e-Reverse Auction to be held after financial bid opening	No		
the Procuring Organization/ The Procuring Entity:	Central Warehousing Corporation		
Authority on whose behalf Tender is invited	Managing Director	Through	Regional Manager
Tender Inviting Authority (TIA)	Regional Manager		
Address	Scope Minar, Core-3, 1st Floor, Laxmi Nagar Distt. Centre, Delhi-110092 Ph. No. (011) 22041851, 22444370& Fax No. (011) 22444375 Ph. No. (011) 22041851, 22444370& Fax No. (011) 22444375 Email Id: ccdelhi.cwc@cewacor.nic.in & rmdli@cewacor.nic.in		
Appointing Authority for Arbitration	Managing Director (CWC)		

2.0 Requirement Details

Contract Period:	One Year (including monsoon)	Major Mile stones / Stages	As per work orders placed under contract
Completion Period	As per various work orders placed under contract	Consequence of delay	As per Schedule I -GCC cl 10 and cl 24 and Schedule II-Scope of work – Appendix II
Price Schedule	Schedule-III: Items of Miscellaneous works & Services		
Indicative HSN Code/ GST No.:	06AAACC1206D4ZH		
State / Work place of construction:	Central warehouses located at Gurugram (Name and address of warehouses included in Zone)		
Address: Work Place /Site	CW Gurugram, NH 8 Delhi-Jaipur Expy Gurugram Haryana 122001		
Nearby Major Railway Stations.	New Delhi Railway station		
Nearest City/District	Delhi		

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Nearest Airport	IGI Airport		
3.0 Critical Dates			
Published Date	17.01.2024	Bid Validity (Days from the date of Tender Opening) –	90 days
Document Download Start Date & Time	17.01.2024 at 19:00 hrs	Document Download End Date & Time	31.01.2024 at 15:00 hrs
Clarification Start Date & Time	17.01.2024 at 10:00 hrs	Clarification End Date & Time	25.01.2024 at 17:00 hrs
bid Submission Start Date & Time	17.01.2024 at 19:00 hrs	bid Submission Closing Date & Time	31.01.2024 at 15:00 hrs
Tender Opening (techno-commercial bid) Date & Time	31.01.2024 at 15:30 hrs	Tender Opening (Financial bid) Date & Time	Shall be intimated later vide E procurement portal only to Qualified Bidders.
4.0 Eligibility to Participate (see NIT-clause 2 and ITB-clause 3.2 and Section III)			
Nature of Bidders eligible		[Individual / Firms / Company]	
Any kind of Joint venture		[Not Allowed]	
Total Turnover	As per Annexure-A		
Technical Experience in Similar Nature of work completed within time and without (LD)	As per Annexure-A		
Bidder Office Requirement	As per Annexure-A		
Other declaration and Power of attorney (as applicable)	Mandatory - Annexure-IV and Form E (bidder eligibility),		
5.0 Thresholds for Eligibility to Participate and Preference under Make in India Policy			
Is the requirement divisible for purchase preference		[No]	
Would the contract be split among more than one bidder		[No]	
6.0 Obtaining the Tender Document and clarifications			
E Procurement Portal from where tender to be purchased, submitted and where tender shall be opened.		www.cwceprocure.com	
Other web sites from where tender can be downloaded for references/ study etc.		www.cewacor.nic.in	

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helpdesk for Document availability and submission	M/s Indian Telephone Industries Limited, C-62, 2nd Floor, Preet Vihar, Opp. Metro Pillar 79, New Delhi-110092. May also call at Help Desk : 080-45811365 , 080-45982100 Email ID : cwceproc@etenderwizard.com		
Cost of Tender Document (INR)	Rs. 1180 (i/c GST)		
Office/ Contact Person/ email for clarifications	Sh. HarishChandra Meena Assistant Engineer Head of Engineering Email id : ccdelhi.cwc @cewacor.nic.in Contact no. 9962026239		
7.0 Pre-bid Conference			
Place, time, and date of the Pre-bid Conference	[No]		
8.0 Preparation and Submission and Opening of Bids			
Bids to be Addressed to	Central Warehousing Corporation, Through Regional Manager, CWC Regional Office Delhi		
Tender Opening Place	Only On e-procurement portal(s) mentioned above		
Alternate Bids allowed or not	[Only one bid meeting the conflict-of-interest criteria (as mentioned in this document) shall be considered as valid from a bidder.]		
9.0 Physical submission of Originals/ Self-attested copies of Originals of Scanned Documents uploaded			
Physical documents required/ permitted to be submitted	Not allowed and will not be entertained		
10.0 Bid Security and Performance Security			
EMD	Rs 205900.00.	<ul style="list-style-type: none"> to be paid in favour of Central Warehousing Corporation, New Delhi only through e-payment gateway of e-procurement & receipt of same should be scanned and uploaded on the e-tendering website www.cwceprocure.com along with e-tender documents. No Exemption from EMD to bidders from MSME/ Start-ups etc. 	
Performance Security	Through Bank Guarantee Amount and time line as per Appendix-7 of Schedule-II		
Additional Clauses	As per Appendix-7 of Schedule-II enclosed with Instructions to Bidder (ITB)		
Integrity Pact to be Signed and Submitted along with bid	[Applicable if Estimated cost put on tender is Rs. 3 Cr. and above]	Independent External Monitor, Name and Contact Details	Name as notified by ADMIN CELL/Corporate office, at the time of inviting of tender.

Section II: Instructions to Bidders (ITB)

1. The Tender Document

1.1. Basic Tender Details

This Tender Document details the terms and conditions for entering into a contract for execution and completion of work as per scope mentioned in schedule A (price schedule), Scope of Works etc covered by General Conditions of contract (GCC), Special conditions of contract (SCC) and Technical conditions of contract (TCC).

Bidders must go through the Complete Tender Document for further details.

'Tender Information Summary' (TIS) is appended to Section I: Notice Inviting Tender (NIT) for ready reference.

1.2. Interpretations, Definitions, Abbreviations and Document Conventions

details Tenets of interpretation, Definitions, Document conventions and Abbreviations, mentioned in this section shall also apply to the rest of the Tender Document.

1.3. Overview of Contents

- 1) The Sections, Forms, Annexures, Appendix and Formats etc comprising this Tender Document are described in ITB-clauses 1.4. The BOQ file (Price schedule) & Complex Lay out Plans are separately available on the eProcurement Portal and is also part of this Tender Document. Any generic reference to Tender Document shall also imply a reference to any/ all the sections, Forms, Formats and the BOQ file or other files that comprise this Tender Document.
- 2) Bidder must submit the bid in the Forms/ Formats mentioned in Section III (A) under ITB clause 1.4 below. The documents as mentioned in other sections under ITB-clause 1.4 below need not be signed or returned by the bidders; however, Bidder must declare in his affidavit as per format enclosed in Annexure IV of Section IIIA, that he has read, understood, complied, and stands bound by all requirements of the tender document:

1.4. Sections of the Tender Document

1.4.1 Sections of the Tender Document

The Tender Document contains the following sections mentioned in four different volume, which are described in subsequent sub-clauses:

Volume I:

1. E -Tender Notice.
2. Section I: Notice Inviting Tender (NIT) and its Appendix: Tender Information Summary (TIS)
3. Section II: Instructions to Bidders (ITB)
4. Section III: Qualification Norms.
5. Section III(A): Tender Forms & Annexures-I to VII to be filled by bidder

Volume II-

6. Form of Contract Agreement
7. Schedule-I: General Conditions of Contract (GCC)
8. Appendix-1: Performance Bank Guarantee Format
9. Appendix-2: Substance Abuse Conditions
10. Appendix- 3: Certificate of Compliance with Code of Business Ethics
11. Appendix-4: Rules for the Protection of Health and Sanitary Arrangements for Workers
12. Appendix-5: CPWD Contractor's Labour Regulations and related appendixes
13. Appendix-6: Labour Laws Compliance and Obligations

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14. Appendix-7: Various Operational Clause Summary

Volume III-

15. Schedule-II: Scope of Work
16. Appendix-1: Important Conditions
17. Appendix-2: General Maintenance Manual and Maintenance service Quality Requirements
18. Appendix-3: Minimum Requirement of Infrastructure and Its Maintenance in CW Complex
19. Appendix -4 : Technical Specifications and related Appendixes

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20. Schedule- III: Price Schedules-Sub-Schedules
21. Appendix-1: Layout Plans of CW Complex etc.

2. **Procuring Entity - Rights and Disclaimers**

2.1. **The Procuring Entity**

Central Warehousing Corporation having its corporate office at New Delhi also called (CWC) is the Procuring Entity and Bids are to be addressed to the Central Warehousing Corporation, through the officer designated and mentioned in 'Appendix-7 of Schedule-II'.

The officer designated and mentioned in 'Appendix-7 of Schedule-II' is a Tender Inviting Authority (TIA) and he is the designated officer for inviting the tender and clarifying this Tender Document.

He shall also be Contract Manager and shall discharge designated function during contract execution through his authorized representative (warehouse Manager and Engineer) and Team.

Regional Manager shall be the tender accepting authority.

The Authority who has invited the tender shall place the letter of award and shall enter into contract agreement with successful bidder after following due procedures and approval of Tender accepting authority as per delegation of power in CWC.

2.2. **Right to Intellectual Property and confidentiality:**

- 1) The Tender Document and associated correspondence are subject to copyright laws and shall always remain the property of the Procuring Entity and must not be shared with third parties or reproduced, whether in whole or part, without the Procuring Entity's prior written consent.
- 2) However, Bidders may share these to prepare and submit its bid with its employees, subcontractor(s), or holding Company. Bidders shall obtain from them an undertaking of confidentiality similar to that imposed on Bidder under this clause.
- 3) This condition shall also apply to bidders who do not submit a bid after downloading it or who are not awarded a contract in the process.
- 4) The obligation of the Bidders under sub-clauses above, however, shall not apply to information that:
 - a) now or hereafter is or enters the public domain through no fault of Bidder;
 - b) is legally possessed by Bidder at the relevant time and was not previously obtained, directly or indirectly, from the Procuring Entity; or
 - c) otherwise lawfully becomes available to Bidder from a third party that has no obligation of confidentiality.
- 5) The provisions of this clause shall survive completion or termination for whatever reason of the Tender Process or the contract.

2.3. **Right to Reject any or all Bids**

The Procuring Entity reserves its right to accept or reject any or all Bids, abandon/ cancel the Tender process, and issue another tender for the same or similar at any time before the award of the contract. It would have no liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or

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Bidders of the grounds for such action(s).

The Competent Authority on behalf of The Procuring Entity does not bind himself to accept the lowest or any other offer and reserves to himself the authority to reject any or all the tenders received without assignment of any reason.

The Competent Authority on behalf of The Procuring Entity does not bind himself to accept the lowest tender and reserves to himself the right of accepting the whole or any part of the tender and the Bidder shall be bound to perform the same at the rate quoted.

2.4. Disclaimers

2.4.1 Regarding Purpose of the Tender Document

The Tender Document is neither an agreement nor an offer to prospective Bidder(s) or any other party hereunder. The purpose of the Tender Document is to provide the Bidder(s) with information to assist them in participation in this Tender Process.

2.4.2 Regarding Documents/ guidelines

The Tender Document, ensuing communications, and Contracts shall determine the legal and commercial relationship between the bidders/ contractors and the Procuring Entity. No other Government or Procuring Entity's document/ guidelines/ Manuals including its Procurement Manual (for internal and official use of its officers), notwithstanding any mention thereof in the Tender Document, shall have any locus-standii in such a relationship. Therefore, such documents/ guidelines/ Manuals shall not be admissible in any legal or dispute resolution or grievance redressal proceedings.

2.4.3 Regarding Information Provided

Information contained in the Tender Document or subsequently provided to the Bidder(s) is on the terms and conditions set out in the Tender Document or subject to which that was provided. Similar terms apply to information provided verbally or in documentary or any other form, directly or indirectly, by the Procuring Entity or any of its employees or associated agencies.

2.4.4 Regarding Tender Document:

- 1) The Tender Document does not purport to contain all the information Bidder(s) may require. It may not address the needs of all Bidders. They should conduct due diligence, investigation, and analysis, check the information's accuracy, reliability, and completeness, and obtain independent advice from appropriate sources. Information provided in the Tender Document to the Bidder(s) is on a wide range of matters, some of which may depend upon interpreting the law. The information given is not intended to be an exhaustive account of statutory requirements and should not be regarded as a complete or authoritative statement of law. The Procuring Entity, its employees and other associated agencies accept no responsibility for the accuracy or otherwise for any interpretation or opinion on law expressed herein.
- 2) The Procuring Entity, its employees and other associated agencies make no representation or warranty for the accuracy, adequacy, correctness, completeness or reliability, assessment, assumption, statement, or information in the Tender Document. They have no legal liability, whether resulting from negligence or otherwise, for any loss, damages, cost, or expense that may arise from/ incurred/ suffered howsoever caused to any person, including any Bidder, on such account.

3. Bidders – Eligibility and Preferential Policies

3.1. Bidders

Subject to provisions in the following clauses in this section and provisions in Tender Document, this invitation for Bids is open to all bidders who fulfil the 'Eligibility Criteria' stipulated in the Tender Document.

3.1.1 Sub-Contractors

Subject to the restrictions outlined in this Tender Document, any Bidder may propose to sub-contract a part of the contract for specialized items of services, provided that the names and details of the sub-contracts are

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clearly stated in the bid submitted by Bidder and provided further that such sub-contractor should not circumvent the eligibility condition laid down below. Procurement of material, hire of equipment or engagement of labour shall not be considered as sub-contracting. Despite any approval granted by the Procuring Entity for such arrangements, the Bidder/ Contractor shall be solely and directly responsible for executing sub-contracted portions of the contract.

Sub-contracting by the contractor without the approval of the Procuring Entity shall be a breach of contract.

The Bidder, apart from being a contractor of appropriate class may associate himself with agencies of the other appropriate class which are eligible to tender for (i) Electrical, (ii) Sanitary and Water Supply Installation, (iii) Fire safety installation works, (iv) Horticulture and others specialized works, if any in the scope.

3.2. Eligibility Criteria for Participation in this Tender

Subject to provisions in this Tender Document, participation in this Tender Process is open to all bidders who fulfil the 'Eligibility' and 'Qualification criteria. Bidder should meet (as on the date of his bid submission and should continue to meet till the award of the contract) the 'Eligibility Criteria' detailed herein. Bidder shall submit a declaration about the 'Eligibility Criteria' compliance in Eligibility Declarations along with their PQ forms.

ELIGIBILITY CRITERIA: Contractor who fulfils the following requirements shall only be eligible to quote the rates.

- 1) Submit responsive technical bid comprising of Mandatory documents (towards proof of qualification as well) and other documents as prescribed herein.

A. Mandatory –submission of Following mandatory documents.

- 1) EMD, Cost of Tender & Tender Processing Fees: As per 'TIS'
- 2) Technical Experience & Performance Certificate: As per Annexure-A
- 3) Financial Soundness and Turnover: As per Annexure-A
- 4) Affidavit for Compliance/declaration by Bidder: As per Annexure-A
- 5) Bidder must have Office, on the latest due date of tender submission in any District of The State where Central warehouse ie site of work, is located ie Bidder must have office in State HARYANA.

For this purpose, valid GST number issued for the sate shall be considered as proof of office address along with Copy of rent agreement / Property ownership documents indicating that office is in possession at the time of tender submission.

- 6) Eligibility declaration form as per NIT-clause 3 and ITB-clause 3.2 under form -E of this PQ Performa
- 7) Bidder shall submit a Power of Attorney* AND/ OR Board Resolution in favour of signatory(ies) duly attested by the Notary as per ANNEXURE III. {This format is for guidance only and deviation in the wording can be accepted.}. The power of Attorney shall be mandatory. However, if not submitted, **Corporation may carry out call of clarification for soliciting Power of Attorney/ Board Resolution.**

B. Other—submission of Following other Documents –

- 1) Integrity Pact: Bidder will have to sign the Integrity Pact as per proforma at ANNEXURE-V for contracts having estimated value of Rs. 3 (three) crore or more and duly signed copy has to be submitted with the tender.
- 2) Net Worth: Bidder should submit with the tender the Positive Net Worth Certificate, duly certified by a practicing Chartered Accountant as per ANNEXURE I, based on the accounts for the latest financial year, i.e., Profit & Loss Account and Balance Sheet.
- 3) GST Registration: Contractor must have valid GST Registration Certificate from the concerned authority (as applicable) and copy to be enclosed with the tender.
- 4) PAN Card: Bidder must enclose copy of PAN Card along with the tender.
- 5) PF Registration: Bidders must have valid PF Registration Certificate from the concerned authority and copy to be enclosed with the tender.

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- 6) Organization Details:
- In case the Bidder is a Proprietorship Firm, they will submit an affidavit as per ANNEXURE II.
 - In case the Bidder is a Partnership Firm, a certified copy of the partnership deed shall be submitted by the Bidder.
 - In case the Bidder is a Company (whether Private or Public), a certified copy of Certificate of Incorporation together with Memorandum and Article of Association shall be submitted. Certificate of Registration with Registrars of Company (ROC) in case of Ltd. / Pvt. Ltd. Company / PSU, if required shall be submitted by the Bidder.
 - In other cases, certified copy of Certificate of Incorporation shall be submitted by the Bidder.
- 7) Declaration of near relative: Bidder shall submit a declaration about their near relative as per ANNEXURE-VI
- 8) Declaration to be given by the bidder for works in Hand (in progress) on letter head of firm (ANNEXURE- VII).

***Power of Attorney:** Notwithstanding anything contained in the Clause above, the Bidder shall execute the Power of Attorney (POA) in prescribed format as mentioned in ANNEXURE III and shall conform to the following –

- a) A company, while executing Power of Attorney must make conformity with the Board Resolution and the charter documents giving the power to issue the said Power of Attorney including further sub-delegation of the same by the said POA holder only.
- b) Unless notified in writing to the Tendering Authority, the Authority shall recognize only that POA holder for the purposes of tender submission and matters related thereto whose notice and necessary POA document was submitted to the Authority at the time of tender submission.
- c) While for a Partnership Firm, either all the partners of the partnership firm shall execute and confirm the Power of Attorney if executed or there shall exist a Power of Attorney in favour of the Partners executing the Power of Attorney for the delegation of power on behalf of the Bidder.
- d) The Power of Attorney being executed by the Bidder herein shall be executed in favour of only its Partner or Director or Salaried employee. And in case the POA is being executed by the Bidder in favour of its salaried employee, the said employee should have worked for at least more than one year continuously with the Bidder and the Bidder should furnish the following:
 - Name
 - Designation
 - Mobile / Contact no.
 - Employment Letter / Agreement issued by the Firm
 - Identity Card with number, issued by the Firm
 - Information about the wages paid, i.e. Salary Slips
 - Form-16
 - PAN Card
 - PF Number
 - Power of Attorney as per ANNEXURE III
- e) CWC will not be bound by the Power of Attorney furnished by the Bidder and acceptance of the same shall be at the sole discretion of the CWC.
- f) There can validly exist only a single Power of Attorney at any given time. The Power of Attorney executed and accepted by CWC shall stand revoked on issuance of any new Power of Attorney issued within the rules herein, with regard to this particular Project.

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- g) During the subsistence of contract, if Power of Attorney holder is found to be creating mischief or involved in any illegal or unlawful activity, CWC will at its sole discretion reject the Power of Attorney of such person submitted by the Bidder and the Bidder would be required to issue a fresh Power of Attorney within the rules herein in favour of authorized person, stated above, within a period of 10 days of being so notified.
- h) The CWC will not be bound by any power of attorney granted by the Bidder or by change in the composition of the Firm and subsequent to the execution of the contract. It may, however, recognize such Power of Attorney and changes after obtaining proper legal advice, the cost of which will be chargeable to the Contractor.
- i) The **POA shall be supported by Board Resolution** in case of Company/PSU/Statutory Body. Further, POA is not required, in case bid is being signed by Person Authorized by Board of Directors by way of Board Resolution.
- j) **The Power of Attorney shall be issued as per the constitution of the bidder as below:**
- In case of Proprietorship: by Proprietor
 - In case of Partnership: by all Partners or Managing Partner as per Partnership Deed
 - In case of Limited Liability Partnership: by any Person authorized in terms of Deed of LLP
 - In case of Company/PSU/Statutory Body: by Board of Directors through Board Resolution or by the designated officer authorized by Board to do so. Such Board Resolution should be duly signed by Company Secretary / MD / CMD / CEO.
 - In case of Cooperative Society: by Managing Members of Cooperative Society or by the designated member authorized under Bye Laws.

2) **If relative Working in CWC then the Contractor Not Allowed to Tender**

The contractor shall not be permitted to tender for works in the CWC in which his near relative is posted as Officer in any capacity, responsible for award, monitoring, execution and payment under Contracts within Region.

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 Officer in the Central Warehousing Corporation or in the Ministry of Food, Consumer Affairs & Public Distribution, Govt. of India, New Delhi.

The contractor would be debarred from tendering in CWC for five years for any breach of this condition

Note: By the term “near relatives” is meant wife, husband, parents & grandparents, children & grandchildren, brothers & sisters, uncles, aunts & cousins and their corresponding in-laws.

3) **No Gazetted Engineer to Work as Contractor within One Year of Retirement**

No Officer of Gazetted rank employed in any Govt Department of India/its states/UTs or other officers employed in Central Warehousing Corporation shall work as a contractor or employee of a contractor for a period of one year after his retirement from Govt. Department / Corporation service without the previous permission of the Managing Director of the Corporation in writing.

This contract is liable to be cancelled, if either the contractor or any of his employees is found at any time to be such a person who had not obtained the permission of Central Warehousing Corporation as aforesaid, before submission of the tender or engagement in the contractor’s service, as the case may be.

Though, permission shall not be required for working as contractor or employee of contractor post one year of retirement.

3.3. **Eligibility of bidders from specified countries**

Orders issued by the Government of India restricting procurement from bidders from certain countries that share a land border with India shall apply to this procurement.

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22. Any bidder (as defined in GCC) from a country that shares a land border with India¹, excluding countries as listed on the website of the Ministry of External Affairs², to which the Government of India has extended lines of credit or in which the Government of India is engaged in development projects – hereinafter called ‘Restricted Countries’) shall be eligible to bid in this tender only if Bidder is registered³ with the Registration Committee constituted by the Department for Promotion of Industry and Internal Trade (DPIIT). Bidders shall enclose the certificate in this regard.
23. In Bids for Turnkey contracts, including Works contracts, the successful bidder shall not be allowed to sub-contract works to any contractor from such Restricted Countries unless such contractor is similarly registered. In such cases, the bidders shall enclose the certificate in this regard.
24. If Bidder has proposed to sub-contract Services or incidental Goods directly/ indirectly from the vendors from such countries, such vendor shall be required to be registered with the Competent Authority. However, if Bidder procures raw material, components, and sub-assemblies from such countries' vendors, such vendors shall not require registration.
25. "Bidder from such Restricted Countries" means: -
- a) An entity incorporated, established, or registered in such a country; or
 - b) A subsidiary of an entity incorporated, established, or registered in such a country; or
 - c) An entity substantially controlled through entities incorporated, established, or registered in such a country; or
 - d) An entity whose beneficial owner is situated in such a country; or
 - e) An Indian (or other) agent of such an entity; or
 - f) A natural person who is a citizen of such a country; or
 - g) A consortium/ joint venture where any member falls under any of the above
26. The beneficial owner shall mean:
- a) In a company or Limited Liability Partnership, the beneficial owner is the natural person(s). Whether acting alone or together or through one or more juridical persons, controlling ownership interest or exercises control through other means.
- Explanation-*
- i) "Controlling ownership interest" means ownership of or entitlement to more than twenty-five percent of the company's shares or capital or profits.
 - ii) "Control" shall include the right to appoint a majority of the directors or to control the management or policy decisions including by virtue of their shareholding or management rights or shareholder agreements or voting agreements;
- b) In the case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together or through one or more juridical persons, has ownership of entitlement to more than fifteen percent of capital or profits.
 - c) In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals;

¹<https://mea.gov.in/india-and-neighbours.htm>

²<http://meadashboard.gov.in/indicators/92>

³<https://dipp.gov.in/sites/default/files/Revised-Application-Format-for-Registration-of-Bidders-15Oct2020.pdf>

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- d) Where no natural person is identified under (1) or (2) or (3) above, the beneficial owner is the relevant natural person who holds the position of senior managing official.
- e) In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.

3.4. Conflict of Interest

Any bidder having a conflict of interest, which substantially affects fair competition, shall not be eligible to bid in this tender. Bids found to have a conflict of interest shall be rejected as non-responsive. Bidder shall be required to declare the absence of such conflict of interest in Eligibility Declarations along with PQ forms. A bidder in this Tender Process shall be considered to have a conflict of interest if the bidder:

- 1) directly or indirectly controls, is controlled by or is under common control with another Bidder; or
- 2) receives or have received any direct or indirect subsidy/ financial stake from another bidder; or
- 3) has the same legal representative/ agent as another bidder for purposes of this bid. A Principal can authorise only one agent, and an agent also should not represent or quote on behalf of more than one Principals. However, this shall not debar more than one Authorised distributor from quoting equipment manufactured by an Original Equipment Manufacturer (OEM), in procurements under Proprietary Article Certificate; or
- 4) has a relationship with another bidder, directly or through common third parties, that puts it in a position to have access to information about or influence the bid of another Bidder or influence the decisions of the Procuring Entity regarding this Tender process; or
- 5) participates in more than one bid in this tender process. Participation in any capacity by a Bidder (including the participation of a Bidder as sub-contractor in another bid or vice-versa) in more than one bid shall result in the disqualification of all bids in which he is a party. However, this does not limit the participation of a non-bidder firm as a sub-contractor in more than one bid; or
- 6) would be providing goods, works, or non-consulting services resulting from or directly related to consulting services that it provided (or were provided by any affiliate that directly or indirectly controls, is controlled by, or is under common control with that firm), for the procurement planning (inter-alia preparation of feasibility/ cost estimates/ Detailed Project Report (DPR), design/ technical specifications, terms of reference (ToR)/ Activity Schedule/ schedule of requirements or the Tender Document etc)of this Tender process; or
- 7) has a close business or family relationship with a staff of the Procuring Organisation who: (i) are directly or indirectly involved in the preparation of the Tender document or specifications of the Tender Process, and/or the evaluation of bids; or (ii) would be involved in the implementation or supervision of resulting Contract unless the conflict stemming from such relationship has been resolved in a manner acceptable to the Procuring Entity throughout the Tender process and execution of the Contract.

3.5 If relative Working in CWC then the Contractor Not Allowed to Tender

The contractor shall not be permitted to tender for works in the CWC in which his near relative is posted as Officer in any capacity, responsible for award, monitoring, execution and payment under Contracts within Region.

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 Officer in the Central Warehousing Corporation or in the Ministry of Food, Consumer Affairs & Public Distribution, Govt. of India, New Delhi.

The contractor would be debarred from tendering in CWC for five years for any breach of this

condition

Note: By the term "near relatives" is meant wife, husband, parents & grandparents, children & grandchildren, brothers & sisters, uncles, aunts & cousins and their corresponding in-laws.

3.6 No Gazetted Engineer to Work as Contractor within One Year of Retirement

No Officer of Gazetted rank employed in any Govt Department of India/its states/UTs or other officers employed in Central Warehousing Corporation shall work as a contractor or employee of a contractor for a period of one year after his retirement from Govt. Department / Corporation service without the previous permission of the Managing Director of the Corporation in writing.

The contract is liable to be cancelled, if either the contractor or any of his employees is found at any time to be such a person who had not obtained the permission of Central Warehousing Corporation as aforesaid, before submission of the tender or engagement in the contractor's service, as the case may be.

Though, permission shall not be required for working as contractor or employee of contractor post one year of retirement.

4. The Schedule of Requirements and Form of Contract

4.1. Eligible Supply of Goods and Services –Origin and Minimum Local Content

Unless otherwise stipulated in the Tender Document, all Works, 'Services' and incidental 'Goods and Works' to be delivered under the contract must conform to i) restrictions on certain countries with land-borders with India; ii) minimum local content (Make in India Policy).

4.2. Quotation for All Schedules and all Services

Unless otherwise stipulated in the Tender Document, Bidder must quote for all the sub schedules (and all the Services and item of works in a Sub Schedule) in the Price Schedule- that is Schedule A of Tender document; otherwise, his bid would be rejected as nonresponsive.

4.3. Facilities to be Provided by the Procuring Entity

1. Unless otherwise stipulated in the Tender Document, no Facilities (including Reference Documents, Medical facilities, Rooms, Furniture, Transport, Access to IT Services etc.) shall be provided by the Procuring Entity to Contractor at Site.
2. Unless otherwise stipulated in the Tender Document, The Procuring Entity may supply without any obligation to do so, to the contractor part or whole of the quantity of the water and electricity required for the delivery of Services/ completion of work from the Procuring Entity's existing water/ electricity supply system at or near the site of Services on specified terms and conditions and on chargeable basis, provided that the contractor shall arrange, at his own expense, to effect the connections and lay additional pipe/ power lines and accessories on the site. Nevertheless, it shall be the responsibility of the contractor to install adequate alternative arrangements to tide over outages in utilities or failure in supply by the Procuring Entity, and that the contractor shall not be entitled to any compensation- nor shall this be a reason for the delay in delivery of Services.
3. Unless exclusively stipulated in the Tender Document Appendix 7 of Schedule II, The Procuring Entity will not provide any T&P, Construction material, Consumable, Labour either free of cost or chargeable basis for completion of work under this contract.
4. technical specifications / documents pertaining to the works will be provided by procuring entity.

4.4. Completion Time and Contract Period

The work shall be required to be completed within stipulated time period and up to the date mentioned in various work orders placed under the contract.

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Contract period shall be one year

5. Bid Prices, Taxes and Duties

5.1. Prices

5.1.1 Competitive and Independent Prices

- a) The prices should be arrived at independently, without restricting competition, any consultation, communication, or agreement with any other bidder or competitor relating to:
 - i) those prices; or
 - ii) the intention to submit an offer; or
 - iii) the methods or factors used to calculate the prices offered.
- b) The prices should neither be nor shall be knowingly disclosed by the Bidder, directly or indirectly, to any other bidder or competitor before bid opening or contract award unless otherwise required by law.

5.1.2 Undue profiteering

- 1) **Controlled Price, if any:** The price quoted by Bidder shall not be higher than the controlled price fixed by law for any of the Services covered under contract, if any, or where there is no controlled price, it shall not exceed the prices or contravene the norms for fixation of prices if any, laid down by Government or where the Government has fixed no such prices or norms, it shall not exceed the price appearing in any agreement, if any, relating to price regulation by any industry.
- 2) **Undue profiteering:** If the price quoted is higher than the controlled price in the sub-clause above, Bidder shall specifically mention this fact in his bid giving reasons for quoting a higher price(s). If he fails to do so or makes any misstatement, it shall be lawful for the Procuring Entity either to revise the price at any stage to bring it in conformity with the sub-clause (1) above or to terminate the contract for default as per the contract and avail all the remedies available therein in addition to other punitive actions for violation of Code of Integrity.

5.1.3 Price Components

- 1) The prices quoted by Bidder shall include all cost towards satisfactory completion of works as per technical specification, including cost of material, labour, Tools and Plants, Consumables, Sundries, site establishment, overhead, Contractor Profit, Water charges, cost of incidental goods & services, cost towards testing and measurement and Taxes as applicable.
- 2) The Prices quoted by the bidders shall be inclusive of GST and all applicable taxes, Building and Other Construction Workers Welfare Cess (As applicable), Levies, Duties on materials or services and on complete works and Contractors contributions towards ESI/EPF as per prevailing ACTs and Rules in respect of this contract.
- 3) The quoted price shall be considered to include all relevant financial implications, including inter-alia the scope of the Services to be delivered and the incidental goods/ works to be supplied, location of the bidder, site(s) of the delivery of Services, terms of delivery, extant rules and regulations relating to taxes, duties, customs, transportation, environment, labor, cost of watch and ward of bidder's material through private security, Mining & Forest etc in India.
Central Warehousing Corporation will not entertain any claim, whatsoever in this respect.

5.1.4 Price Schedule

1. Bidders are to upload only the downloaded BOQ and Price sub schedules (in excel format) after entering the relevant fields without any alteration/ deletion/ modification of other portions of the

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excel sheet. All the columns shown in the price schedules should be filled up as required. If any column does not apply to a Bidder, he should clarify the same.

2. Bidders shall fill in their rates other than zero value in the specified cells without keeping it blank.
3. The Bidder shall quote the rate on-line in prescribed proforma, available with the tender in Excel format only and sign the same digitally.

5.1.5 Provisions of BOCW Cess, EPF, Income Tax , GST etc.

- 1) Contractor is required to get himself registered as per Building & Other Construction Workers Cess Act 1996, PF Registration, GST etc. as per Govt. of India law.
- 2) The Bidder shall be required to pay cess @ 1% of cost of construction work, or at the rate as mentioned in latest act/rules or guidelines of Government, in accordance with each bill payable on account of such construction to the concerned State Govt. (Labour Deptt.).
Cost of material shall be outside the purview of cess, when supplied under a separate schedule item. CWC shall not entertain any claim whatsoever in this respect.
- 3) Under Income Tax Act, 1961; a deduction for income tax along with surcharge, as applicable will be made from sums paid on account and final payments for carrying out the work under this contract.

5.1.6 Currencies of Bid and Payment

Unless otherwise stipulated in the Tender Document, the currency of bid and payment shall be quoted by Bidder entirely in Indian Rupees. All payments shall be made in Indian Rupees only.

5.1.7 Non-compliance

Tenders, where prices are quoted in any other way, shall be rejected as nonresponsive.

5.2. Goods and Services Tax (GST)

5.2.1 GST Registration Status:

- 1) All the Bidders should ensure that they are GST compliant and their quoted tax structure/ rates as per GST Act/ Rules. Bidder should be registered under GST and furnish GSTIN number and GST Registration Certificate in their offer unless they are specifically exempted from registration under specific notification/ circular/ section/ rule issued by statutory authorities.
- 2) **GST Registration Number (15-digit GSTIN).** If the bidder has multiple business verticals in a state and has separate registration for each vertical, the GSTIN of each vertical is concerned with the delivery of Services involved, as per the Schedule of Requirements and Price Schedule's scope be quoted. If the services provided are from multiple states, the bidder should mention GST registration numbers for each state separately.
- 3) **Composition scheme:** If the Bidder has opted for a composition levy under Section 10 of CGST, he should declare the fact while bidding along with GSTIN and GST registration certificate.
- 4) **Exemption from Registration:** If a bidder is not liable to take GST registration, i.e., having turnover below threshold, he shall submit undertaking/ indemnification against tax liability. Bidder claiming exemption in this respect shall submit a valid certificate from practising Chartered Accountant (CA)/ Cost Accountant with Unique Document Identification Number (UDIN) to the effect that Bidder fulfils all conditions prescribed in notification exempting him from registration. Such bidder/ dealer shall not charge any GST and/ or GST Cess in the bill/ invoice. In such case, applicable GST shall be deposited under Reverse Charge Mechanism (RCM) or otherwise as per GST Act by the Procuring Entity directly to concerned authorities. Bidder should note that his offer would be loaded with the payable GST under the RCM. Further, Bidder should notify and submit to the Procuring Entity within 15 days from the date of becoming liable to registration under GST.
- 5) The Procuring Entity's state-wise GSTINs is indicated in TIS

5.2.2 HSN Code and GST Rate:

- 1) It shall be the responsibility of Bidder to ensure that they quote for the exact HSN Code and including corresponding correct GST rate for each activity of the Services / works being offered by them
- 2) **Applicability to Imported Goods/ Services:** Following the implementation of GST, the import of commodities shall not be subject to such erstwhile applicable duties likes safeguard duty, education cess, basic customs duty, anti-dumping duty, etc. All these supplementary custom duties are subsumed under GST. The supply of commodities or services or both, if imported into India, shall be considered as supply under inter-state commerce/ trade and shall attract integrated tax (IGST). The IGST rate and GST cess shall be applicable on the 'Custom Assessable Value' plus the 'Basic Customs duty applicable thereon'.

5.3. Payments

5.3.1 General

Periodic "On Account" payments and final Payment shall be made as per the procedure laid down in GCC only upon raise of valid invoice through BTS portal "Bill tracking system portal "of CWC after submission of complete E -MB (computerized Measurement Book) by Contractor and Acceptance of E MB. by CWC. Central Warehousing Corporation (CWC) in its endeavor to achieve Zero Paper Usage (ZPU) and to ensure timely payment to the Contractors/vendors/ suppliers, has mandated the usage of BTS to submit the digitally signed invoices/ bills and supporting documents, if any, against the supply of goods/ services/ works etc. The ink signed invoices or physical copy of the invoices/ supporting documents shall not be accepted for processing the due payments.

- The Contractors/ vendors/ suppliers shall be required to get themselves registered on the BTS as "vendors" (<https://cwceportal.com/bts/>) upon entering into the contract with CWC.
- Similarly, for increasing the transparency, expediting the process and achieving the contract management benefits through digital system, CWC has commenced "Contract Management system Portal (CMS)". All contractors are required to submit their agreements, EMBS and Quality test reports etc. through CMS only.

5.3.2 No Advance Payments

Unless otherwise stipulated, no advance payment like Mobilization advance and Secured advance shall be made by the Procuring Entity. The other advances viz secured advances can be made If so, provided for such advances as per conditions stipulated therefore in GCC.

6. Downloading the Tender Document; Corrigenda and Clarifications

6.1. Downloading the Tender Document

The Tender Document shall be published and be available for download as mentioned in TIS. Bidders can obtain the Tender Document after the date and time of the start of availability till the deadline for availability. If the office happens to be closed on the deadline for the availability of the Tender Document, the deadline shall not be extended.

Tender document should be purchased (at the price mentioned in TIS) by the Bidder who is participating in the tender, i.e., Tender forms should be in name of bidder, otherwise tender will be summarily rejected.

6.2. Corrigenda/ Addenda to Tender Document

Before the deadline for submitting bids, the Procuring Entity may update, amend, modify, or supplement the information, assessment or assumptions contained in the Tender Document by issuing corrigenda and addenda. The corrigenda and addenda shall be published in the same manner as the original Tender Document. Newspaper press advertisement shall not be issued for the same. Without any liability or obligation, the Portal may send intimation of such corrigenda/ addenda to bidders who have downloaded the document under their login. However, the bidders' responsibility is to check the website(s) for any

corrigenda/ addenda. Any corrigendum or addendum thus issued shall be considered a part of the Tender Document. To give reasonable time to the prospective bidders to take such corrigendum/ addendum into account in preparing their bids, the Procuring Entity may also suitably extend the deadline for the bid submission, as necessary. After the procuring entity makes such modifications, any Bidder who has submitted his bid in response to the original invitation shall have the opportunity to either withdraw his bid or re-submit his bid superseding the original bid within the extended time of submission.

6.3. Clarification on the Tender Document or discrepancies in the Document

- 1) A Bidder may seek clarification of the Tender Document from Office/ Contact Person/ e-procurement Help Desk as mentioned in TIS, provided the clarifications are raised before the clarification end date mentioned in TIS (or if not mentioned, within 3 days of publishing of the bid). The Procuring Entity shall respond before 72 hours of the bid closing date. The query and clarification shall be shared on the portal with all the prospective bidders. Any modification of the Tender Document that may become necessary due to the clarification shall be made by the Procuring Entity through an Addendum/ Corrigendum issue under the sub-clause above.
- 2) It should be understood that every endeavour has been made to avoid any error which can materially affect the basis of the tender and the successful Bidder shall take upon himself and provide for the risk of any error which may subsequently be discovered & shall make no subsequent claim on account thereof.
Should a Bidder find discrepancies or omissions in the drawings or any of the Tender forms or should he be in doubt as to their meaning, he should at once notify , within 10 days from start of document download date to the authority inviting tenders to remove this discrepancy.

7. Pre-bid Conference

- 1) If a Pre-bid conference is stipulated in the TIS, prospective bidders interested in participating in this tender may attend a Pre-bid conference to clarify the techno- commercial conditions of the Tenders at the venue, date and time specified therein. Participation in the Pre-bid conference is restricted to prospective bidders who have downloaded the Tender Document.
- 2) Participation is not mandatory. However, if a bidder chooses not to (or fails to) participate in the Pre-bid conference or does not submit a written query, it shall be assumed that they have no issues regarding the techno-commercial conditions.
- 3) The date and time by which the written queries for the Pre-bid must reach the authority and the last date for registration for participation in the Pre-bid conference are also mentioned in the TIS.
- 4) The pre-bid conference may also be held online at the discretion of the Procuring Entity.
- 5) After the Pre-bid conference, Minutes of the Pre-bid conference shall be published on the Procuring Entity's portal within seven days from the Pre-bid conference. If required, a clarification letter and corrigendum to Tender Document shall be issued, containing amendments of various provisions of the Tender Document, which shall form part of the Tender Document. The Procuring Entity may suitably extend, as necessary, the deadline for the bid submission to give reasonable time to the prospective bidders to take such clarifications into account in preparing their bids.

8. Preparation of Bids

8.1. The bid

8.1.1 Language of the bid

Unless otherwise stipulated in the ITB, the bid submitted by Bidder and all subsequent correspondence and documents relating to the bid exchanged between Bidder and the Procuring Entity shall be written in English or the Official Language (Hindi). However, the language of any printed literature furnished by Bidder in connection with its bid may be written in any other language provided a translation accompanies the same in the bid language. For purposes of interpretation of the bid, translation in the language of the bid shall prevail.

8.1.2 Acquaintance with Local Conditions and Factors

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The Bidder, at his own cost, responsibility, and risk, is encouraged and advised to visit, examine, and familiarize himself with all the site/ local conditions and factors like the nature of ground and sub-soil (so far as is practicable), the form and nature of the site, the means of access to the site, availability of Water, electricity, material, T&P , Laboure etc in local , accommodation they may require and in general, themselves to obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their tender.

The address of site (work place) is mentioned in TIS.

The Bidder shall be deemed to have full knowledge of the Central warehousing complex, working culture, rules etc prevailing in central warehousing complex, Operation hours, working days etc and whether he/they inspects it or not and no extra charges 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 and 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.

The Bidder acknowledges that before the submission of the bid, he has, after a complete and careful examination, made an independent evaluation of the Site/ local conditions, infrastructure, logistics, communications, the legal, environmental, and any other conditions or factors, which would have any effect on the performance of the contract. Bidders shall themselves be responsible for compliance with Rules, Regulations, Laws and Acts in force from time to time at relevant places. On such matters, the Procuring Entity shall have no responsibility and shall not entertain any request from the bidders in these regards.

Submission of tender 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 plants etc. will be issued (if any) to him by the Corporation and local conditions and other factors having a bearing on the execution of the work.

8.1.3 Cost of Bidding

The Bidder(s) shall bear all direct or consequential costs, losses and expenditure associated with or relating to the preparation, submission, and subsequent processing of their Bids, including but not limited to preparation, copying, postage, delivery fees, expenses associated with any submission of samples, demonstrations, or presentations which the Procuring Entity may require, or any other costs incurred in connection with or relating to their Bids. All such costs, losses and expenses shall remain with the Bidder(s), and the Procuring Entity shall not be liable in any manner whatsoever for the same or any other costs, losses and expenses incurred by a Bidder(s) for participation in the Tender Process, regardless of the conduct or outcome of the Tender process.

8.1.4 Interpretation of Provisions of the Tender Document

The provisions in the Tender Document must be interpreted in the context in which these appear. Any interpretation of these provisions far removed from such context or other contrived or between-the-lines interpretation is unacceptable.

8.1.5 Quote Quantities/ Prices in both Numerals and Words

Although the software on the Portal may convert quantities/ rates/ amounts in numerical digits in Bids to words, the bidders are advised to ensure that there is no ambiguity in this regard.

8.1.6 Alternate Bids not Allowed.

Any conditional offers, alternative offers, multiple bids by a bidder shall not be considered. The Portal shall permit only one bid to be uploaded.

8.2. Documents comprising the bid:

8.2.1 Techno-commercial bid/ Cover

"Technical Bid" shall include inter-alia the original or scanned copies of duly signed or digitally signed copies of the following documents in pdf format. Pdf documents should not be password protected. If so stipulated in TIS/ ITB, specified originals or self-certified copies of originals shall also be required to be physically submitted as per instruction contained therein. *No price details should be given or hinted at in the technical bid:*

The Bidder shall scan and upload:

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- 1) Tender (bid) Form (to serve as covering letter and declarations applicable for both the technical bid and financial bid);
This form shall be consisting the:
 - a) PQ form;
 - b) Eligibility Declarations;
- 2) The proof of submission of EMD,
- 3) Cost of tender document (if provided in TIS),
- 4) Power of Attorney,
- 5) Proof of the Constituent of Bidders organization: Affidavit of Proprietorship / Memorandum & Article of Association/ Partnership Deed as the case may be,
- 6) Pan Card,
- 7) Goods and Service Tax Registration Certificate,
- 8) PF Registration Certificate,
- 9) Similar Nature Works Completion Certificates,
- 10) CA Certificate & Balance Sheets with Profit & Loss Account, Trading account of specified preceding three financial years in respect of financial turnover,
- 11) Annexure IV along with Form 5: Deviation Statement from Terms and Conditions of Tender - Any deviations should be listed in a chart form without ambiguity or conditionality, along with justification and supporting documents. All such Statements and Documents shall be uploaded as Form 5.
In case of no deviation, it is not necessary to submit Form -5.
If deviations are mentioned elsewhere in the bid (other than designated Form 5), such deviations shall not be recognized and shall be null and void.
If Form 5 is not enclosed along with Annexure-IV, it shall be considered that bidder does not have any deviation.
- 12) Net Worth Certificate,
- 13) Integrity Pact, (if required & mentioned in TIS) as per, Annexure V)
- 14) Declaration about the near relative in CWC (Annexure VI)
- 15) Declaration of works in Hand -In progress by Bidder (Annexure VII).
- 16) Duly signed Checklist: Bidder must also upload the Checklist given in the Tender Document as to confirm that he has complied with all the instructions in the Tender Document, and nothing is inadvertently left out. This checklist is only for general guidance and is not comprehensive, and does not absolve Bidder from complying with all the requirements stipulated elsewhere in the Tender Document.
- 17) Proof of office address as per requirement in Annexure-A

8.2.2 Financial bid/ Cover

"Financial bid" shall comprise the Price Schedules (To be submitted separately as an excel sheet) considering all financially relevant details, including Taxes and Duties. No additional technical details, which have not been brought out in the technical bid shall be brought out in the financial bid and if so shall not be entertained.

8.2.3 Important Note:

- 1) For deciding eligibility/Qualification of Bidder, it is mandatory for Bidder to submit Affidavit (as per Annexure IV), EMD, Financial Turnover (Balance Sheets with Profit & Loss Account / Trading Account of specified preceding three years as per NIT) and Similar Nature of Work Experience Certificates of requisite magnitude (as per NIT), Bidder Eligibility declaration, power of attorney (if applicable), and proof of office address and detail of work in hand in progress as per format failing which the tender shall be summarily rejected.
- 2) No additional mandatory documents will be entertained after tender opening, except clarification documents required, if any regarding already submitted documents with tender. Any documents submitted suo-motu by the Bidder through e-mail/post/hand delivery etc. shall neither be entertained nor considered for evaluation.

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- 3) All other documents like Integrity Pact, Net Worth, Goods and Services Tax Registration Certificate, PAN Card, PF Registration, Organization Details, Power of Attorney/ Board Resolution, Annexure VI, Form of declaration as per Annexure -VI & VII, List of plant & machinery, list of permanent technical persons, Bank details etc. as per NIT/pre-qualifying Proforma / Comparative Statement, are also required to be submitted along with tender.
- 4) All other documents should also be uploaded by the Bidder. However, if the Bidder has not uploaded any of the other documents as per NIT/Pre-qualifying Proforma/Comparative Statement, lowest Bidder should submit the same with submission of Performance Guarantee, If the lowest Bidder fails to do so, then no Agreement between CWC and contractor will be executed and it will lead to rejection of bid and forfeiture of EMD & Performance Guarantee and punitive action towards breach of contract.

8.3. Bid Validity

- 1) Unless specified to the contrary in the TIS/ ITB, Bids shall remain valid for a period not less than 90 days from the deadline for the bid submission stipulated in TIS. A bid valid for a shorter period shall be rejected as nonresponsive.
- 2) In case the day up to which the bids are to remain valid falls on/ subsequently declared a holiday or closed day for the Procuring Entity, the bid validity shall automatically be deemed to be extended up to the next working day.
- 3) In exceptional circumstances, before the expiry of the original time limit, the Procuring Entity may request the bidders to extend the validity period for a specified additional period. The request and the bidders' responses shall be made in writing electronically. A bidder may agree to or reject the request.
- 4) The bidder(s) who has/have agreed to the Procuring Entity's request for extension of bid validity, in no case, shall be permitted to modify his/their bid.

8.4. Bid Security / Earnest Money Deposit (EMD)

- 1) All Bidders shall submit appropriate Bid Security/ EMD amount as mentioned in TIS/ITB, along with its technical bid. The EMD is required to protect the Procuring Entity against the risk of the Bidder's unwarranted conduct as amplified under the sub-clause below.
- 2) Any request for recovery from outstanding bills for Earnest Money against present tender will not, under any circumstance, be entertained. Tenders submitted with earnest money in the forms other than specified in TIS/ITB, shall not be considered.
- 3) The EMD shall be forfeited if Bidder breaches the following obligation(s) under the tender conditions:
 - (a) withdraws or amends his bid or impairs or derogates from the bid in any respect within the period of validity of its bid; or
 - (b) after having been notified within the period of bid validity of the acceptance of his bid by the Procuring Entity:
 - i) refuses to or fails to submit the original documents for scrutiny or the required Performance Security (PG) within the stipulated time as per the conditions of the Tender Document.
 - ii) Fails or refuses to sign the contract in prescribed Proforma at Volume- II within period prescribed in ITB.
- 4) Unsuccessful Bidders' EMD shall be returned (only through digital mode), if the contract is not awarded to them, upon:
 - (a) receipt by Bidder of the Procuring Entity's notification

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- i) of cancellation of the entire tender process or rejection of all bids or
- ii) of the name of the successful bidder or

(b) thirty days after the expiration of the bid validity or any extension thereof

- 5) The Bidder shall provide name of bank, account no., branch code and RTGS code for account maintained by them/him for financial transaction.
- 6) For the successful Bidder, Earnest Money will be returned after submission of PG (as applicable) within specified period and as per terms of Clauses of Contract.
- 7) The procuring entity shall not be responsible for any depreciation that may happen thereto EMD due to price inflation etc while in its possession, nor shall be liable to pay any interest thereon.

8.5. Non-compliance with these provisions

Bids are liable to be rejected as nonresponsive if a Bidder:

- 1) fails to provide and/ or comply with the required information, instructions etc., incorporated in the Tender Document or gives evasive information/ reply against any such stipulations.
- 2) furnishes wrong and/ or misleading data, statement(s) etc. In such a situation, besides rejection of the bid as nonresponsive, it is liable to attract other punitive actions under relevant provisions of the Tender Document for violation of the Code of Integrity.

9. Signing and Uploading of Bids

9.1. Relationship between Bidder and eProcurement Portal

The Procuring Entity is neither a party nor a principal in the relationship between Bidder and the organization hosting the e-procurement portal (hereinafter called the Portal). Bidders must acquaint and train themselves with the rules, regulations, procedures, and implied conditions/ agreements of the Portal. Bidders intending to participate in the bid shall be required to register in the Portal. Bidders shall settle clarifications and disputes, if any, regarding the Portal directly with them. In case of conflict between provisions of the Portal with the Tender Document, provisions of the Portal shall prevail. Bidders may study the resources provided by the Portal for Bidders.

9.2. Signing of bid

- 1) The individual digitally signing the bid or any other connected documents should submit an authenticated copy of the document(s), which authorizes the signatory to commit and submit bids on behalf of the bidder in PQ form (Bidder Information).
- 2) If the tender is made by Proprietary firm, it shall be signed by the Proprietor with his full name and full name of his firm with its current address.
- 3) If the application is made by a Firm in Partnership, it shall be signed by all partners of the Firm above their full names and current addresses or by a partner holding the power of attorney for the Firm by signing the applications in which case a certified copy of the power of attorney shall accompany the application. A certified copy of the Partnership Deed, current address of the Firm and the full names and current addresses of all the Partners of the Firm shall also accompany the application.
Note; Receipts for payment made on account of work, when executed by a Firm, must also be signed by all the partners, except where contractors are described in their tender as a Firm, in which case the receipts must be signed in the name of the Firm by one of the partners or by some other person having due authority to give effectual receipts for the Firm.
- 4) If the application is made by a limited company or a limited corporation, it shall be signed by a duly authorized person, holding the power of attorney for signing the application in which case a certified copy of the Power of Attorney shall accompany the application. Such Limited Company or Corporation will be required to furnish satisfactory evidence of its existence, before the contract is awarded.

9.3. Submission/ uploading of Bids.

9.3.1 Submission/ Uploading to the Portal

- 1) No manual Bids shall be made available or accepted for submission. In the case of downloaded documents, Bidder must not make any changes to the contents of the documents while uploading, except for filling the required information– otherwise, the bid shall be rejected as nonresponsive.
- 2) Bids shall be received only *Online* on or before the deadline for the bid submission as notified in TIS.
- 3) Only one copy of the bid can be uploaded, and Bidder shall digitally sign all statements, documents, certificates uploaded by him, owning sole and complete responsibility for their correctness/ authenticity as per the provisions of the IT Act 2000 as amended from time to time.
- 4) Bidder need not sign or up-load the entire tender document and its sections as mentioned in ITB-clause 1.4 above while uploading his bid. It is assumed that Bidder commits itself to comply with all the Sections and documents uploaded by the Tender Inviting Officer.
- 5) Bidder must upload scanned copies of originals – (as specified). Uploaded Pdf documents should not be password protected. Bidder should ensure the clarity/ legibility of the scanned documents uploaded by him.
- 6) The Procuring Entity reserves its right to call for verification originals of all such self-certified documents from the Bidders at any stage of evaluation, especially from the successful Bidder(s) even after the issue of Letter of Award (LoA).
- 7) Regarding the protected Price Schedule (excel format, Cover-2), Bidder shall write his name in the space provided in the specified location only. Bidder shall type percentage rates in the figure only in the bidder's rate column of each of sub schedule without leaving any blank cell or Zero values in the rate column, without any alteration/ deletion/ modification of other portions of the excel sheet.
- 8) The date and time of the deadline for the bid submission shall remain unaltered even if the specified date is declared a holiday for the Tender Inviting Officer.
- 9) The date and time of the e-Procurement server clock, which is also displayed on the dashboard of the bidders, shall be taken as the reference time for deciding the closing time of bid submission. Bidders are advised to ensure they submit their bid within the deadline and time of bid submission, taking the server clock as a reference, failing which the portal shall not accept the Bids. No request on the account that the server clock was not showing the correct time and that a particular bidder could not submit their bid because of this shall be entertained. Failure or defects on the internet or heavy traffic at the server shall not be accepted as a reason for a complaint. The Procuring Entity shall not be responsible for any failure, malfunction or breakdown of the electronic system used during the e-Tender Process.
- 10) Submission of tender and credential documents through E-Tender website www.cwceprocure.com shall be sole risk & responsibility of the Bidder. Any claim on this account will not be entertained. Hence, Bidder should ensure that tender along with all requisite credential papers are submitted / uploaded on e-tender website in correct way and at correct place on or before tender submission date & time.
- 11) Bidder should upload all the required documents with the tender under valid digital signature. Uploading of tender with digital signature shall imply that all tender terms & conditions have been accepted by the bidder unless the bidder has specifically declared for non-acceptance / deviation in his technical bid. It shall also mean that documents uploaded by bidders are attested by him self and he takes full responsibility of authenticity of same.
- 12) All Bids uploaded by Bidder to the portal shall get automatically encrypted. The encrypted bid can only be decrypted/ opened by the authorised persons on or after the due date and time. The bidder should ensure the correctness of the bid before uploading and take a printout of the system generated submission summary to confirm successful bid upload.

- 13) The Procuring Entity may extend the deadline for the bid submission by issuing an amendment, in which case all rights and obligations of the Procuring Entity and the bidders previously subject to the original deadline shall then be subject to the new deadline for the bid submission.
- 14) Bid submitted through modalities other than those stipulated in TIS shall be liable to be rejected as nonresponsive.
- 15) For whatsoever reasons, if any part of tender document is not uploaded/submitted by the bidder, other than financial & technical offers and requisite pre-Qualifying credentials; in that case, the missing part of the tender document shall be treated as read and accepted by bidder. Missing part of tender document shall not be called for re-submission; however, the same shall form part of contract agreement and shall be binding on bidder.

9.3.2 Implied acceptance of procedures by Bidders

Submission of bid in response to the Tender Document is deemed to be acceptance of the e-Procurement and tender procedures and conditions of the Tender Document.

9.3.3 Late Bids

The bidder shall not be able to submit his bid after the expiry of the deadline for the bid submission (as per server time). Therefore, in eProcurement, a situation of Late Tender does not arise.

9.4. Modification, Resubmission and Withdrawal of Bids

9.4.1 Modification & Resubmission

Once submitted in e-Procurement, Bidder cannot view or modify his bid since it is locked by encryption. However, resubmission of the bid by the bidders for any number of times superseding earlier bid(s) before the date and time of submission is allowed. Resubmission of a bid shall require uploading of all documents, including financial bid afresh. The system shall consider only the last bid submitted.

9.4.2 Withdrawal

- 1) The bidder may withdraw his bid before the bid submission deadline, and it shall be marked as withdrawn.
- 2) No bid should be withdrawn after the deadline for the bid submission and before the expiry of the bid validity period. If a Bidder withdraws the bid during this period, the Procuring Entity shall be within its right to enforce Bid Security (EMD), in addition to other punitive actions provided in the Tender Document for such misdemeanour.

10. Bid Opening

The date & time of the opening bid is as stipulated in TIS. Bids cannot be opened before the specified date & time, even by the Tender Inviting Officer, the Procurement Officer, or the Publisher. If the specified date of tender opening falls on a subsequently declared a holiday or closed day for the Procuring Entity, the Bids shall be opened at the appointed time on the next working day.

11. Evaluation of Bids and Award of Contract

11.1. General norms

11.1.1 Evaluation based only on declared criteria.

The evaluation shall be based upon scrutiny and examination of all relevant data and details submitted by Bidder in its/ his bid and other allied information deemed appropriate by Procuring Entity. Evaluation of bids shall be based only on the criteria/ conditions included in the Tender Document.

11.1.2 Infirmary/ Irregularity/ Non-Conformity/ Deviations - Substantive or Minor

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1. An infirmity/ irregularity or non-conformity/ exception/ deviation/ reservation/ omission from the requirements of the Tender Document shall be considered as a substantive deviation as per the following norm, and the rest shall be considered as Minor deviation:
 - a) which affects in any substantive way the scope, quality, or performance standards of the Works/ Services;
 - b) which limits in any substantive way, inconsistent with the Tender Document, the Procuring Entity's rights or the Bidder's obligations under the contract; or
 - c) Whose rectification would unfairly affect the competitive position of other Bidders presenting substantively responsive Bids.
2. The decision of the Procuring Entity shall be final in this regard. Bids with substantive deviations shall be rejected as nonresponsive.
3. Variations and deviations and other offered benefits (Techno-commercial or Financial) above the scope/ quantum of Works/ Services stipulated in the Tender Document shall not influence evaluation Bids. If the bid is otherwise successful, such benefits shall be availed by the Procuring Entity, and these would become part of the contract.
4. The Procuring Entity reserves the right to accept or reject bids with any minor deviations. Wherever necessary; the Procuring Entity shall convey its observation as per sub-clause below, on such 'minor' issues to Bidder electronically etc. asking Bidder to respond by a specified date. If Bidder does not reply by the specified date or gives an evasive reply without clarifying the point at issue in clear terms, that bid shall be liable to be rejected as nonresponsive.

11.1.3 Clarification of Bids and shortfall documents

- 1) During the evaluation of Techno commercial or Financial Bids, the Procuring Entity may, at its discretion, but without any obligation to do so, ask Bidder to clarify its bid by a specified date otherwise **within time of 03 days. Bidder should answer the clarification within that specified date otherwise within time of 03 days.**
- 2) The request for clarification shall be submitted in writing electronically and no change in prices or substance of the bid shall be sought, offered, or permitted that may grant any undue advantage to such bidder.
- 3) for this purpose, the procedure stated below is to be followed and the specific clarification is required to be uploaded on the same portal as per the procedure prescribed therein.
- 4) The Bidder has the option to respond or not to respond to these queries.
- 5) If the Bidder fails to respond, within the stipulated time period or fails to respond/submit the clarification(s)/document(s) with respect to mandatory documents submitted or it is non-conforming to requirement of tender conditions; no further time will be given for submitting the same and the tender will be summarily rejected.
- 6) For obtaining clarification, following procedure is to be followed:
 - i. An icon for clarification shall appear on "Bid Details" page (in front of each of the Bidder's name) at Corporation's end after opening of Technical / Financial Bid.
 - ii. Corporation shall click on clarification icon for the desired Bidder and enter the details of clarifications sought within the prescribed time.
 - iii. After entering the details of clarification sought by the Corporation, same icon shall appear at Bidder's end for replying to the particular clarification sought by the Corporation. The system will also send the alert to the Bidder at his registered e-mail address about the clarification sought by the Corporation.
 - iv. Bidder will click on clarification icon and will reply to the same and upload the required clarification/documents in support of clarification sought, if any, within the prescribed time. Bidder cannot ask for any clarification from the corporation.

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- v. Once the prescribed time expires, clarification icon from Bidder site shall also disappear automatically.
- vi. After expiry of prescribed time, Corporation shall download the clarification/ documents in support of clarification submitted by the Bidder.
- 7) If discrepancies exist between the uploaded scanned copies and the Originals submitted by the bidder, the original copy's text, etc., shall prevail. Any substantive discrepancy shall be construed as a violation of the Code of Integrity, and the bid shall be liable to be rejected as non-responsive in addition to other punitive actions under the Tender Document for violation of the Code of Conduct.
- 1) The Procuring Entity reserves its right to, but without any obligation to do so, to seek any shortfall information/ documents only in case of historical documents which pre-existed at the time of the tender opening, and which have not undergone change since then and does not grant any undue advantage to any bidder. There is a provision on the portal for requesting Short-fall documents from the bidders.

11.1.4 Contacting Procuring Entity during the evaluation

Canvassing whether directly or indirectly in connection with tenders is strictly prohibited and the tenders submitted by the Bidders who resort to canvassing will be liable to rejection.

From the time of bid submission to awarding the contract, no Bidder shall contact the Procuring Entity on any matter relating to the submitted bid. If a Bidder needs to contact the Procuring Entity for any reason relating to this tender and/ or its bid, it should do so only in writing electronically. Any effort by a Bidder to influence the Procuring Entity during the processing of bids, evaluation, bid comparison or award decisions shall be construed as a violation of the Code of Integrity, and bid shall be liable to be rejected as non-responsive in addition to other punitive actions for violation of Code of Integrity as per the Tender Document.

11.2. Evaluation of Bids

11.2.1 Preliminary Examination of Bids - Determining Responsiveness

A substantively responsive bid is complete and conforms to the Tender Document's essential terms, conditions, and requirements, without substantive deviation, reservation, or infirmity. Only substantively responsive bids shall be considered for further evaluation. Unless otherwise stipulated in the ITB, the following are some of the crucial aspects for which a bid shall be rejected as nonresponsive:

- 1) The bid is not in the prescribed format or is not submitted as per the stipulations in the Tender Document.
- 2) Required Bid Security (EMD) has not been provided.
- 3) Tender Document Cost, if specifically mentioned in TIS/ITB, has not been paid.
- 4) Bidder is not eligible to participate in the bid as per laid down eligibility criteria;
- 5) The Services offered are not eligible as per the provision of this tender.
- 6) Bidder has quoted conditional bids or more than one bid or alternative bids unless permitted explicitly in the TIS/ ITB.
- 7) The bid validity is shorter than the required period.
- 8) The bid departs from the essential requirements stipulated in the bidding document;
- 9) Bidder has not quoted in all sub-Schedules or against any sub schedule of Price Schedule -A. or has not quoted for all item of works as per scope as stipulated in any sub schedule of Price Schedule.
- 10) Non-submission or submission of illegible scanned copies of stipulated **Mandatory documents/ declarations**
- 11) Tenders containing any condition leading to unknown/indefinite liabilities.

11.2.2 The evaluation process:

- 1) This Tender Process is for Single Stage bids in Two bid System (Technical and Financial) as stipulated in TIS/ITB.

- 2) Initially, only the techno-commercial bids that is also referred /called as technical bid shall be opened on the stipulated date of opening of bids. After that, the techno-commercial evaluation shall be done to find whether these bids meet the eligibility & qualification criteria and techno-commercial aspects. Subsequent opening of financial bids and financial evaluation shall be done only of bids declared successful in techno-commercial evaluation.

11.3. Techno-commercial Evaluation

Only substantively responsive bids shall be evaluated for techno-commercial evaluation. In evaluating the techno-commercial bid, conformity to the eligibility/ qualification criteria, technical specifications, and Quality Assurance; and commercial conditions of the offered Services to those in the Tender Document is ascertained. Additional factors incorporated in the Tender Document shall also be considered in the manner indicated therein. Bids with substantive techno-commercial deviations shall be rejected as non-responsive. Procuring entity reserves its right to consider and allow minor deviations in technical and Commercial Conditions.

11.3.1 Evaluation of eligibility

The Tender evaluation Committee constituted by Procuring Entity shall determine, to its satisfaction, whether the Bidders are eligible as per ITB-clause 3.2 and NIT-clause 2 above to participate in the Tender Process as per submission in Eligibility Declarations. Tenders that do not meet the required eligibility criteria prescribed shall be rejected as nonresponsive.

11.3.2 Evaluation of Qualification Criteria

The Tender evaluation Committee constituted by Procuring Entity shall determine, to its satisfaction, whether the Bidders are qualified and capable in all respects to perform the contract satisfactorily. This determination shall, inter-alia, consider the Bidder's Experience/ Past Performance and Financial Capabilities etc; for satisfying all requirements incorporated in the Tender Document. The determination shall not consider the qualifications of other firms such as the Bidder's subsidiaries, parent entities, affiliates, subcontractors, or any other firm(s) different from the Bidder.

11.3.3 Evaluation of Conformity to Commercial and Other Clauses

Bidder must comply with all the Commercial and other clauses of the Tender Document. The Procuring Entity shall also evaluate the commercial conditions quoted by Bidder to confirm that all terms and conditions stipulated in the Tender Document have been accepted without substantive omissions/ reservations/ exception/ deviation by the Bidder. Deviations from or objections or reservations to critical provisions such as those concerning Governing laws and Jurisdiction, Contractor's Obligations and Restrictions of its Rights, Performance Bond/ Security, Force Majeure, Taxes & Duties, Defects Liability Period, Completion Time, LD clauses, Technical Specifications, and Code of Integrity will be deemed to be a material deviation.

11.3.4 Declaration of Techno-commercially Suitable Bidders and Opening of Financial Bids

Bids that succeed in the above techno-commercial evaluation shall be considered techno-commercially suitable, and financial evaluation shall be done only of such Bids. The list of such techno-commercially suitable bidders and a date/time and venue for the opening of their financial bids shall be declared on the e procurement Portal only.

11.4. Evaluation of Financial Bids and Ranking of Bids

11.4.1 Ranking of Financial Bids

- 1) Evaluation of the financial bids shall be on the price criteria only. Financial Bids of all Techno-commercially suitable bids shall be evaluated and ranked to determine the lowest priced bidder.
- 2) The comparison of the responsive Bids shall be on total outgo from the Procuring Entity's pocket, to be paid to the contractor including all elements of costs as per the terms of the proposed contract, duly delivered, commissioned, etc. as the case may be, including any taxes, duties, levies etc.

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- 3) The price schedule contains the rates of civil, electrical, E&M works from CPWD-DSR (DSR CIVIL 2021 and E&M 2022 and other schedules mentioned in the Volume III) and Market Rates/ non schedule items based of the analysis of DSR. the contract shall quote all items mentioned in the schedule including scheduled or non-scheduled items. The bid for a schedule shall not be considered if all item of works prescribed in that schedule are not quoted or included in the bid.
Any mention of prices elsewhere other than at appropriate place in financial bid XLS sheet, will be summarily rejected and will not be entertained.
- 4) All tenders in which any of the prescribed condition is not fulfilled and any condition including that of conditional rebate is put forth by the Bidder, shall be summarily rejected.
- 5) If any bidder offers discounts/ rebates in his bid or suo-motu discounts and rebates after the tender opening (techno-commercial or financial), such rebates/ discounts shall not be considered for ranking the offer. But if such a bidder does become L-1 without such discounts/ rebates, such discounts/ rebates shall be availed and incorporated in the contracts;
- 6) Unless announced beforehand, the quoted price shall not be loaded based on deviations in the commercial conditions. If it is so declared, such loading of a financial bid shall be done as per the relevant provisions;
- 7) Bidders quoted rates shall be inclusive of GST, Building & Construction Workers Cess and any other taxes, levies, duties, as applicable on complete work. Evaluation of Bids shall include and consider these component over and above basic rates of material & services. The Procuring Entity shall not be responsible for any misclassification of HSN Number or incorrect GST rate if quoted by the bidder. Any increase in GST rate due to misclassification of HSN number shall have to be absorbed by the supplier.
- 8) Valid L1 shall be decided based on over all lowest quote in terms of Gross Tendered Amount (GTA) calculated on the basis of estimated cost and contractor percentage (CP) quoted for each sub schedule by bidder in his financial bid. Refer TCC for details .
- 9) **Ambiguous Financial bid:** If the financial bid is ambiguous, it shall be rejected as nonresponsive.
- 10) In case the lowest Gross tendered amount (GTA) of two or more contractors is same, such lowest bidders will be asked to submit sealed revised offer in the form of letter mentioning percentage above/below on scheduled cost of tender including all sub sections/ sub heads as the case may be, but the revised percentage quoted above/below on tendered cost or on each sub section/sub head should not be higher than the percentage quoted at the time of submission of tender. The lowest tender shall be decided based on revised offers.
- 11) In case any of such contractor refuses to submit revised offer, then it shall be treated as withdrawal of his tender before acceptance and 50% of earnest money shall be forfeited.
- 12) If the revised tendered amount of two more contractors received in revised offer is again found to be equal, the lowest tender, among such contractors, shall be considered as one for whom Arithmetic sum of turn over from operations for previous three financial years as mentioned in eligibility criteria of bid stands highest. In case, turnover of all such bidder stands equal then Lowest bidder shall be decided by draw of lots in the presence of Tender Evaluation Committee & the lowest contractors those have quoted equal amount of their tenders.
- 13) In case all the lowest contractors those have quoted same tendered amount, refuse to submit revised offers, then tenders are to be recalled after forfeiting 50% of EMD of each contractor. Contractor(s), whose earnest money is forfeited because of non-submission of revised offer, shall not be allowed to participate in the re-tendering process of the work.
- 14) **Cartel Formation/ Pool Rates**
 1. If Procuring Entity decides this to be a case of Cartel/ Pool Rates, leading to “Appreciable Adverse Effect on Competition” (AAEC) as identified in Competition Act, 2002, as amended from time to time, It reserves its rights to:
 - a) consider it as a violation of the Code of Integrity and reject the bid(s) as non-responsive in addition to other punitive actions provided in this regard in the Tender Document. In addition to

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such remedies, the Procuring Entity also reserves the right to refer the matter to the Competition Commission of India (CCI) for obtaining necessary relief. In addition, the attention of the bidders is drawn to Chapter VI of the "The Competition Act 2002", which deals with Penalties. Such actions shall be in addition to other rights and remedies available to the Procuring Entity under the contract and Law.

11.4.2 Reasonableness of Rates Received

Procuring Entity shall evaluate whether the rates received in the Bids in the zone of consideration are reasonable. If the rates received are considered abnormally low or unreasonably high, it reserves its right to take action as per the following sub-clauses, or as per ITB-clause 2.3, reject any or all Bids; abandon/cancel the Tender process and issue another tender for identical or similar Services.

11.4.3 Consideration of Abnormally Low Bids

An Abnormally Low bid is one in which the bid price, in combination with other elements of the bid, appears so low that it raises substantive concerns as to the Bidder's capability to perform the contract at the offered price. Procuring Entity shall in such cases seek written clarifications from the Bidder, including detailed price analyses of its bid price concerning scope, schedule, allocation of risks and responsibilities, rates of material, manpower, T&P, machines etc required to be provided to complete the work or to deliver the services and any other requirements of the Tender Document.

The rates consist of applicable GST, 15% contractor profit with overhead and the scope of work includes miscellaneous Day to day General nature maintenance services. The More over the quality of works and standard of services required in CW complex shall be as per approved technical specifications and of best industries practice and therefore it is understood the contractor cannot deliver the services in an efficient manner if they quote the abnormally below rates. The contractor shall also comply all labor laws and contribution towards ESI/EPF and Labor CESS is also covered in the rates quoted by him. **In view if all these factors, If rate quoted in any of tender price sub schedule (A. I, A.II, A.III) is below 15% of rates mentioned in tender price schedule, then It shall be considered abnormally low rates and in such case, if A contractor quoting such abnormal rate is found successful in tender system due to his lowest offer (Lowest GTA), he will have to submit additional performance guarantees equivalent to 2 times of the amount mentioned in Clause 12.1.3, below.**

11.4.4 Price Negotiation

Usually, there shall be no price negotiations. However, the Procuring Entity reserves its right to negotiate with the lowest acceptable bidder (L-1).

The Bidder shall not increase his rate in case the Procuring Entity negotiates for reduction of rates. Such negotiations shall not amount to cancellation or withdrawal of original offer and rates originally quoted will also be binding on the Bidder.

12. Award of Contract

There shall be no parallel orders or splitting quantities among more than one Bidders.

12.1. Letter of Award (Acceptance - LoA) and Signing of Contract, Placement of work orders

12.1.1 Selection of Successful Bidder(s)

The Procuring Entity shall award the contract to the Bidder whose bid is Techno-commercially suitable and bid price is the lowest and reasonable, as per evaluation criteria detailed in the Tender Document.

12.1.2 Letter of Award (LoA)

- 1) The Bidder, whose bid has been accepted, shall be notified of the award by the Procuring Entity before the expiration of the bid validity period in written by digital means only through CWC Email only. This notification (hereinafter and in the Conditions of Contract called the "Letter of Award - LoA") shall state the sum (hereinafter and in the contract called the "Contract Price") that the Procuring Entity shall pay the contractor in consideration of completion of work. The

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Letter of Award (LoA) shall constitute the legal formation of the contract, subject only to the furnishing of performance security as per the provisions of the sub-clause below.

- 2) The bidder shall return duly acceptance copy of LOA in written by digital means only through Email only. Failure in acceptance of LOA or non-acting for further deposition of PG will lead to termination and forfeiture of EMD and other punitive actions as mentioned in ITB.
- 3) On acceptance of the tender, the name of the accredited representative(s) of the contractor, who would be responsible for taking instructions from the Regional Manager/Engineer-in-charge / Engineer/Warehouse Manager shall be communicated to the Engineer-in-Charge.
- 4) If a Bidder expires after the submission of his tender or after the acceptance of his tender, the CWC shall deem such tender as cancelled. If a partner of a Firm expires after the submission of their tender or after the acceptance of their tender, the CWC shall deem such tender as cancelled, unless the Firm retains its character. However, in such cases, the amount of Earnest Money will be refunded to the legal heir on production of successor certificate.

12.1.3 Performance Security / Performance Guarantee (PG)

- 1) The Bidder, whose tender is accepted and LOA has been placed, will be required to furnish to the Procuring Entity, a Performance Guarantee (PG) of an amount equivalent of 5% of the estimated Contract Price with escalation, if any and Additional Performance Guarantee (in case of abnormally low bid as per Clause 11.4.4 above) within 15 days of receipt of the Letter of Award (LoA) or period specified in Annexure-7 whichever is earlier, as per details in TIS/GCC-CL -1/ LOA
- 2) In case of non-submission of Performance Security / Performance Guarantee (PG) by contractor by due date as above, Procuring Entity, upon written request of Contractor, may extend the due date of submission of PG which in no case shall be 30 days of receipt of the Letter of Award (LOA). Such (maximum) allowable extension shall be with late fee @ 0.1% per day of Performance Guarantee amount beyond the initial period of 15 days.
- 3) In case of non-receipt of written request of Contractor for extension of initial due date of submission of PG or non-submission of PG even by 15th day of receipt of LOA, no extension of such due date shall be su moto granted by Procuring Entity. The action on contract shall be decided by Procuring Entity as per provisions made herein at subclause (4) or elsewhere in Tender Document.
- 4) In case the PG/SD is to be submitted through BG then, The Bank Guarantee issuing bank shall send cover for Bank Guarantee issued through SFMS platform to the CWC Banker i.e. **ICICI Bank, 9 Phelps Building, Connaught Place, New Delhi, (IFSC Code: ICIC0000007)** as per details given below:
 - MT760 COV for issuance of bank guarantee.
 - MT767 COV for amendment of bank guarantee.
 - Issuing bank shall mention CWC beneficiary code i.e. CENTRALW27112020 in field 7037 of MT 760 COV / MT767 COV.
 - The bidder shall submit the copy of SFMS message as sent by the issuing bank branch along with the original Bank Guarantee.
 - Bank Guarantee submitted without these details shall not be accepted.
- 5) If the contractor, having been called upon by the Procuring Entity to furnish PG, fails to do so within the period as specified above in subclause (1) (in case of non-extension) and even up to last date of extended period, if extended as specified in subclause (2) above, the contract shall be terminated without any notice to Contractor, duly forfeiting EMD and other dues, if any payable against the contract. The failed contractor shall be debarred from participating in future tender of the Corporation for next two years from the date of debarring.
- 6) In the case, when bidder, whose bid has been found to be the lowest evaluated bid withdraws or whose bid has been accepted, fails to sign the contract as may be required, or fails to provide the

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security (PG) as may be required for the performance of the contract or otherwise withdraws from the procurement process, the Procuring Entity shall cancel the procurement process.

12.1.4 The Contract and Signing of Contract

- 1) Within seven working days of receiving performance security in form of Bank Guarantee, the Procuring Entity shall send the contract form (as per Volume-II: Contract Form along with sub-formats) duly completed and signed, in duplicate by digital means through CWC Contract Management Portal (CMS)/Email only to the successful Bidder.
- 2) If so asked by the Procuring Entity, the successful Bidder shall return the original copy of the contract, duly signed and dated, within seven days from the date of receipt of the contract, to the Procuring Entity by suitable digital means through CWC Contract Management Portal (CMS) /Email only.
- 3) The contractor may point out to the Procuring Entity, in writing/ electronically, any anomalies noticed in the contract within seven days of its receipt.
- 4) Failure to do so in signing the contract shall constitute a breach, in which case, the Procuring Entity would be at liberty to not only terminate the contract, but also forfeit EMD and Performance Bank Guarantee. Cost of stamp paper for the agreement will be borne by contractor.
- 5) The contract agreement shall consist of:
The Press Notification (if any), E-Tender Notice, Notice Inviting Tender (NIT), Tender information summary (TIS), Instructions to Bidders (ITB), all the Documents of Tender & Contract for works including Schedule I,II and III and Drawings, if any, forming the part of tender documents, as issued/downloaded by the Bidder from the websites at the time of invitation of tender and acceptance thereof together with any correspondence with them leading thereto and also the correspondence related with verification of credentials
- 6) Procuring Entity through the officers as defined in contract may place the work order(s) on need basis to perform various works and to deliver the services as per scope during currency of contract.

12.1.5 Publication of Tender Result

The name and address of the successful Bidder(s) receiving the contract(s) shall be published only on the e procurement Portal ie on www.cwceprocure.com , website of the Corporation and on CPP portal.

12.1.6 Verification of Original Documents

The Procuring Entity, at its discretion, may ask Bidder to submit for verification the originals of all such documents whose scanned copies were submitted online along with the technical bid. The credential documents of financial and experience criteria shall also be got verified from the authority/ office who has issued such documents. If so decided, the photocopies of such self-certified documents and the credential documents verified from issuing office/ authority shall be kept in the records as part of the contract agreement.

If the Bidder fails to provide such originals or in case of substantive discrepancies in such documents or it is found at any stage of tendering process that documents submitted in bid is/are fabricated/ tempered/ forged/ altered/ manipulated/ false then it shall be construed as a violation of the Code of Integrity. Such bid shall be liable to be rejected as non-responsive, bidder shall be disqualified and the evaluation of Bids shall proceed with the subsequent ranked offers.

If the Bidder fails to provide such originals or in case of substantive discrepancies in such documents or documents submitted in bid is/are fabricated/ tempered/ forged/ altered/ manipulated/ false if found even after placement of LOA or signing the contract or then Procuring Entity reserves the right to terminate the contract, forfeit of EMD and Performance Security and/or adjust the Security Deposit or the Retention Amount against Corporation's claims whichever is available on or after termination of the Contract.

In addition to above (disqualification of bidder or termination of contract as the case may be), other punitive actions shall also be taken to blacklist/debar the bidder from future participation in tenders of the

Procurement Entity for next five years.

13. Grievance Redressal/ Complaint Procedure

- 1) Bidder has the right to submit a complaint or seek de-briefing regarding the rejection of his bid, in writing or electronically, within 10 days of declaration of techno-commercial or financial evaluation results. The grievance can be registered through grievance redressal portal (<https://cwceportal.com/grp/VigilanceApplicationForm/Create?q=itbljmSK+WnjaC/EoVtINA==>) using general grievances.
- 2) Within 10 working days of receipt of the complaint, the Tender Inviting Officer shall acknowledge the receipt in writing to the complainant indicating that it has been received, and the response shall be sent in due course after a detailed examination.
- 3) The Tender Inviting Officer shall convey the final decision to the complainant within 21 days of receiving the complaint. No response shall be given regarding the confidential process of evaluating bids and awarding the contract before the award is notified, although the complaint shall be kept in view during such a process. However, no response shall be given regarding the following topics explicitly excluded from such complaint process:
 - a) Only a bidder who has participated in the concerned Tender Process, i.e., bidding, can make such representation.
 - b) Only a directly affected bidder can represent in this regard.
 - i) In case a technical bid has been evaluated before the opening of the financial bid, an application for review concerning the financial bid may be filed only by a bidder whose technical bid is found to be acceptable.
 - c) Following decisions of the Procuring Entity shall not be subject to review:
 - i) Determination of the need for procurement.
 - ii) Complaints against performance standards except under the premise that they are either vague or too specific to limit competition
 - iii) Selection of the mode of procurement or bidding system;
 - iv) Choice of the selection procedure.
 - v) Provisions limiting the participation of bidders in the Tender Process, in terms of policies of the Government
 - vi) Provisions regarding purchase preferences to specific categories of bidders in terms of policies of the Government
 - vii) The decision to enter into negotiations with the L-1 bidder; and
 - viii) Cancellation of the Tender Process except where it is intended to subsequently re-tender the same Services.

14. Code of Integrity in Public Procurement, Misdemeanors and Penalties:

Procuring authorities, bidders including their suppliers, contractors, and consultants shall observe the highest standard of integrity and not indulge in prohibited practices or other misdemeanors, either directly or indirectly, at any stage during the Tender Process or during the execution of resultant contracts. Integrity Pact (including the penalties prescribed therein) shall be considered to be part of this clause of ITB (even though it is not being reproduced here for the sake of brevity) and shall apply mutadis mutandis during the pre-award tender process.

15. The contract operations and proceeding in connection with the works at all times be conducted during the continuance of contract in accordance with the laws, ordinances, rules and regulations for the time being in force and the contractors shall further observe and comply with the by-laws & regulations of the Govt. of India, State Govts., local Municipalities and other authorities, having jurisdiction over area involved in connection with the works of site & over operations, such as those as carried out by the contractor/s and shall give all notices required by such by-laws & regulations. The hospital and medical regulations in force for the time being shall also be complied with by the contractor/contractors and their workmen.

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16. The contractor shall be responsible for observance of the rules and regulations under Mines Act, Mineral Rules and Indian Metallurgical rules & regulations of State Govt. concerned, as amended from time to time.
17. The contractor shall, at all times, keep CWC indemnified against all penalties that may be imposed by the Govt. of India or State Govt. for infringement of any other clauses of the mines act and rules made thereunder in respect of the quarries from which the quarry material for these works is procured.
18. Engineer in charge shall monitor the contract progress and shall ensure the day-to-day supervision of execution, quality etc through a team of his representative at site who will be a PMC and field representative of him as mentioned in LOA. The contractor shall own the responsibility under the contract and shall report regularly to such representative and keeping engineer in charge informed also.

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Pre-Qualifying (PQ) Proforma

{To be Filled by Bidder and Submitted along with Tender Document}

Name of Works:

NIT Reference Number-

S L	Description	Details filled by Bidder
1.	Name of the Bidder,	
1a	Address, Organization ID, Tel./Fax No. & E-mail address of Bidder	
2.	Type of constituent (Organization) (Proprietorship / Partnership / Private Limited / Limited)	
2a	Attested copy of organization Details (Proprietorship / Partnership / Private Limited / Limited)	
3	Name of the person holding the power of attorney for this Bid	
3a	Contact details of person holding the power of attorney Mobile Number Email id.	
3.	Attested Copy of Power of Attorney details to sign the Tender Document	
4.	Earnest Money Deposit (EMD) of Rs. 2.06 lakh : Only through e-payment Gateway	
5.	Cost of Tender Documents of Rs 1180: Only through e-payment Gateway	
6.	PF Registration code	
7.	GST Registration code	
8.	PAN No. of the Bidder	
9.	Contractor Registration enlistment with CPWD/ MES/ Railway etc if any	
10	Financial Eligibility Criteria:	

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10 a.	<p>The Sum (Arithmetic sum) of tenderer's turnover: revenue (income) from operations for the last three financial year should be of value not less than ₹ 231.60 Lakh (225% of Estimated Cost put on Tender).</p> <p>The information shall be supported by audited Balance Sheets and Profit & Loss Statements of specified period. In case Balance Sheet and Statement of Profit/Loss for the immediately preceding financial year have not been prepared / audited; the account for one more preceding financial year can be submitted.</p> <p>In case, Bidder does not submit Audited balance sheet and P&L accounts for a particular year (among previous three years as mentioned above), turn over for that particular year will be considered '0'(zero) for calculating arithmetic sum of previous three years.</p> <p>{Please see Eligibility criteria as per Annexure-A in Tender document}</p>	Total Turnover against the criteria Rs.
10 b.	Chartered Accountant's Certificate for Annual financial turnover/ revenue (income) from operations of specified preceding three years	
11	<p>Annual Financial Turnover/Revenue (Income) from operations (as per P&L Account)</p> <p>(a) FY - 2019 – 2020 (only when audited turn over for FY 22-23 is not available)</p> <p>(b) FY - 2020 – 2021</p> <p>(c) FY - 2021- 2022</p> <p>(d) FY - 2022- 2023</p>	<p>Total Turn Over- RS.....</p> <p>Total Turn Over- RS.....</p> <p>Total Turn Over- RS.....</p> <p>Total Turn Over- RS.....</p>
12	<p>Experience w.r.t. Similar Nature of Work:</p> <p>Tenderer, during the last four financial years (i.e., 2019- 2020, 2020-2021, 2021-2022 and 2022-23) & current year (2023-2024) up to the date of tender submission, must have completed successfully:</p> <p>(1) at least ONE similar nature of work "(i.e. any construction / maintenance works comprising of Civil & Electrical works both as a composite package)" of value not less than Rs. 82.35 Lakh (80% of the Estimated Cost put on Tender) OR</p> <p>(2) at least TWO similar nature of work "(i.e. any construction / maintenance works comprising of Civil & Electrical works both as a composite package)" of value not less than Rs. 51.47 Lakh (50% of the Estimated Cost put on Tender) OR</p> <p>(3) at least Three similar nature of work "(i.e. any construction / maintenance works comprising of Civil & Electrical works both as a composite package)" of value not less than Rs. 41.17 .Lakh (40% of the Estimated Cost put on Tender) OR</p> <p>Note: Housekeeping works, Manpower supply works, works consisting only Electrical/Firefighting AMC works or only Civil works, interior decoration works such as wallpapers/blind/curtain installation etc shall not be considered Similar Works.</p> <p>The credential Certificate of work experience should include the name of work, agreement no., date of start, actual date of</p>	Name of the works completed and presented against the criteria:

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	completion & gross amount of work done up to the completion. {Please see Eligibility criteria as per Annexure-A in Tender document and Please see Important Notes}	
	Experience No.1	
A	Work order/ contract agreement ref number and date	
B	Name of client issuing the work order and completion certificate	
C	Completion certificate -ref number and date	
D	Total value of work completed (Rs.)	
E	Stipulated date of completion	
F	Actual date of completion	
G	Amount / period of delay for which Liquidity damage levied by client (if any)	
	Experience No.2	
A	Work order/ contract agreement ref number and date	
B	Name of client issuing the work order and completion certificate	
C	Completion certificate -ref number and date	
D	Total value of work completed (Rs.)	
E	Stipulated date of completion	
F	Actual date of completion	
G	Amount / period of delay for which Liquidity damage levied by client (if any)	
	Experience No.3	
A	Work order/ contract agreement ref number and date	
B	Name of client issuing the work order and completion certificate	
C	Completion certificate -ref number and date	
D	Total value of work completed (Rs.)	
E	Stipulated date of completion	
F	Actual date of completion	
G	Amount / period of delay for which Liquidity damage levied by client (if any)	
13	Bidder Office in the State	
A	Bidder must have Office, on the latest due date of tender submission in any District of The State where Central warehouse ie site of work, is located ie Bidder must have office in State Haryana.... For this purpose, valid GST number along with copy of rent agreement / property owner ship document shall be considered as proof of office address.	Address of Office..... With complete details.
B	GST Number	
14	Eligibility declaration form as per NIT-clause 3 and ITB-clause 3.2 under form -E of this PQ Performa	
1. Tenderers have to fill complete details in Pre-Qualifying Proforma.		
2. Documents pertaining to above details should be scanned and uploaded on e-tendering website at the time of on-line tender submission.		
3. RTGS/NEFT E-payment Challans with UTR no. duly authenticated by Bank may also be scanned & uploaded along with tender submission.		
4. Bidder must refer Tender eligibility criteria and Qualification norms as per ITB clause 3.2 and Annexure A		
5. Affidavit (Annexure-IV) and Signed copy of Integrity Pact must be submitted by the Bidder.		

Sign of Bidder.
(Digital Signature)

**(To be submitted as part of technical bid along with PQ performa)
(On Bidder Letter-head)**

(Along with supporting documents, if any)

Tender Document No. Tend No./ xxxx;

Name of work:

Bidder's Name _____

[Address and Contact Details]

Bidder's Reference No. _____ Date.....

Eligibility Declarations

(Please tick appropriate boxes or cross out any declaration not applicable to the bidder)

We hereby confirm that we comply with all the stipulations of NIT-clause 3 and ITB-clause 3.2 and declare as under and shall provide evidence of our continued eligibility to the Procuring Entity as may be requested:

- 1) **Legal Entity of Bidder:** _____
- 2) **Bidder/ Agent Status:** _____
- 3) We solemnly declare that we (including our affiliates or subsidiaries or constituents):
 - i. are not insolvent, in receivership, bankrupt or being wound up, not have our affairs administered by a court or a judicial officer, not have our business activities suspended and are not the subject of legal proceedings for any of these reasons;
- 4) **Including our Contractors/ subcontractors for any part of the contract:**
 - i. Do not stand declared ineligible/ blacklisted/ banned/ debarred by the Procuring Organisation or its Ministry/ Department from participation in its Tender Processes; and/ or
 - ii. Are not convicted (within three years preceding the last date of bid submission) or stand declared ineligible/ suspended/ blacklisted/ banned/ debarred by appropriate agencies of Government of India from participation in Tender Processes of all of its entities, for offences mentioned in Tender Document in this regard. We have neither changed our name nor created a new "Allied Firm", consequent to the above disqualifications.
- 5) Do not have any association (as bidder/ partner/ Director/ employee in any capacity) with such retired public official or near relations of such officials of Procuring Entity, as counter-indicated, in the Tender Document.
- 6) We certify that we fulfil any other additional eligibility condition if prescribed in Tender Document.
- 7) We have no conflict of interest, which substantially affects fair competition. The prices quoted are competitive and without adopting any unfair/ unethical/ anti-competitive means. No attempt has been made or shall be made by us to induce any other bidder to submit or not to submit an offer to restrict competition.
- 8) Restrictions on procurement from bidders from a country or countries, or a class of countries under Rule 144 (xi) of the General Financial Rules 2017:

"We have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries, and solemnly certify that we fulfil all requirements in this regard and are eligible to be considered. We certify that:

we are not from such a country or, if from such a country, we are registered with the Competent Authority (copy enclosed). and;

we shall not subcontract any work to a contractor from such countries unless such contractor is registered with the Competent Authority.

9) We also declare that.

- There is no country whose bidders have been notified as ineligible on a reciprocal basis under this order for the offered / tendered works/ Services, or
- We do not belong to any Country whose bidders are notified as ineligible on a reciprocal basis under this order for the offered / tendered works/ Services.
-

10) Penalties for false or misleading declarations:

We hereby confirm that the particulars given above are factually correct and nothing is concealed and undertake to advise any future changes to the above details. We understand that any wrong or misleading self-declaration would violate the Code of Integrity and attract penalties as mentioned in this Tender Document.

.....
(Signature with date)

.....
(Name and designation)

Duly authorized to sign bid for and on behalf of

.....
.....

[name & address of Bidder and seal of company]

The Qualification Norms for bidder

1. EMD, Cost of Tender & Tender Processing Fees:

- o EMD to be paid in favour of Central Warehousing Corporation, New Delhi only through e-payment gateway of e-procurement & receipt of same should be scanned and uploaded on the e-tendering website www.cwceprocure.com along with e-tender documents.
- o Cost of tender to be paid only through e-payment gateway of e-procurement system. Proof should be submitted/uploaded with the tender.
- o Tender processing fee (Non-refundable) would be paid mandatorily to M/s ITI Ltd. through e-payment on the portal www.cwceprocure.com.

2. Experience Certificate:

Tenderer, during the last four financial years (i.e., 2019-2020, 2020-2021, 2021-2022 and 2022-23) & current year (2023-2024) up to the date of tender submission, must have completed successfully:

(1) **at least ONE** similar nature of work "(i.e., any construction /maintenance works comprising of Civil & Electrical works both as a composite package)" of value not less than **Rs 82.35 Lakh** (80% of the Estimated Cost put on Tender) **OR**

(2) **at least TWO** similar nature of work "(i.e., any construction /maintenance works comprising of Civil & Electrical works both as a composite package)" of value not less than **Rs. 51.47 Lakh** (50% of the Estimated Cost put on Tender) **OR**

(3) **at least Three** similar nature of work "(i.e., any construction /maintenance works comprising of Civil & Electrical works both as a composite package)" of value not less than **Rs 41.17 Lakh** (40% of the Estimated Cost put on Tender) **OR**

Note: Housekeeping works, Manpower supply works, works consisting only Electrical/Firefighting AMC works or only Civil works, interior decoration works such as wallpapers/blind/curtain installation etc shall not be considered Similar Works.

The credential Certificate of work experience should include the name of work, agreement no., date of start, actual date of completion & gross amount of work done up to the completion.
{Please see Eligibility criteria as per Annexure-A in Tender document and Please see Important Notes}

It should be noted that credentials for the works executed for Private organizations shall not be considered.

It should be noted that experience of work not completed in Time and where LD is levied by Client organization shall not be accepted /considered for evaluation.

{Please see "important notes"}

3. Turnover: Financial Eligibility Criteria:

The sum total (arithmetic sum) of Bidder's turnover: revenue (income) from operations for the last three financial years (i.e. 2020-21, 2021-22 & 2022-23) should be of value not less than **Rs 231.60 Lakh (225% of Estimated Cost put on Tender).**

The information shall be supported by audited Balance Sheets and Profit & Loss Statements of specified period. In case Balance Sheet and Statement of Profit/Loss for the immediate preceding

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financial year have not been prepared / audited; the account for one more preceding financial year can be submitted.

In case, Bidder does not submit Audited balance sheet and P&L accounts for a particular year (among previous three years as mentioned above), turn over for that particular year will be considered '0'(zero) for calculating arithmetic sum of previous three years.

{Please see "important notes"}

- 4. Affidavit:** Duly filled up and signed on stamp paper as per **Annexure IV**.
- 5. Bidder must have Office,** on the latest due date of tender submission in any District of The State where Central warehouse ie site of work, is located ie Bidder must have office in State....

For this purpose, valid GST number along with copy of rent agreement / property ownership document shall be considered as proof of office address.

- 6. Bidder must submit Eligibility declaration form as per NIT-clause 3 and ITB-clause 3.2 under form -E of this PQ Performa**

Important Note:

1. The credential documents viz Letter of award/ Work order/ Contract Agreement /Work completion certificate etc should be in the name of Bidder and works should have been executed in the same name and style, the bidder is participating in the tender.
2. The past experience in similar nature of work should be supported by work completion Certificates issued by the client's organization. The work experience for Private sector shall not be considered.
3. The information about actual completion date and stipulated completion date and LD levied by client (if any) on delay in completion must be available in the client certificate. In case this information is silent on client certificate, Bidder shall submit factual position of Delay and LD levied in his eligibility declaration along with PQ form. This information from bidder shall be varied from client organization at any stage of evaluation/ execution of work.
4. The value of executed works, for the purpose of this clause shall also include the value of any materials (such as cement, steel, etc.), services (scaffolding, batching-plant, other machinery, etc.), which have been supplied by client/employer free cost/ on discounted price to the contractor, and which have not been already included in the 'value of works executed' that is reflected/declared on the relevant 'experience certificate' or 'Letter of Award'. Such exclusion shall be specifically mentioned on the Letter of Award, "Experience Certificate" and the 'value of free supplies' shall be separately certified by the employer, or in cases where the employer is a private entity, by a practicing cost/chartered accountant (holding valid certificate of practice),
5. Joint-venture / Consortia of firms / companies and foreign bidders are not eligible to quote for the tender.
6. The bidder submitting experience certificate for the works done in joint venture (JV)/consortium with other firms/companies, their proportionate experience to the extent of its share in the JV/consortium or work done by them shall only be allowed on submitting the valid proof of their share/work done.
7. Experience gained by executing work on back-to-back contract basis is acceptable. Back-to-back contract means work awarded by owner to first agency and then by the first agency to the second agency. The first agency shall not be eligible for work experience in such a case. To get the weightage of experience, following conditions must be fulfilled.
 - a. Work should be actually executed by the second agency with due concurrence of the owner as tri-partite agreement. It should be backed by valid agreement and experience certificate.
 - b. Payments received by second agency should be reflected in bank accounts and income tax statements.
 - c. Owner of the project and first agency should jointly certify the experience certificate.
 - d. The actual amount of payment received by the second agency shall be considered for

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experience.

8. Experience in respect of an associate contractor, subcontractor or those executing work on subletting may be allowed only if the conditions of sub-contract / sub-letting have been incorporated in the original agreement between the client/owner and first agency and the experience certificate is jointly issued by first agency and owner/client.
9. Experience of petty contractor, labour rate contractor work shall not be accepted.
10. Experience of works on foreign soil shall not be accepted.
11. Certificate in the name of other companies:
 - a) Certificates of Subsidiary/ Parent/ Group Company/ Own works: Any company/firm while submitting tender can use the work experience of its subsidiary company to the extent of its ownership in the subsidiary company. On the other hand, the companies/firms which intend to get qualified on the basis of experience of the parental company/group company/ Own works, shall not be considered. Further, the financial parameters of the subsidiary or Parental Company cannot be used by the other one for qualification.
 - b) Merger/ Acquisition of Companies: In case of a Company/firm, formed after merger and/ or acquisition of other companies/ firms, past work experience and financial parameters like turnover, profitability, net worth etc. of the merged/ acquired companies/ firms will be considered for qualification of such Company/ firm provided such Company/ firm continues to own the requisite assets and resources of the merged/ acquired companies/ firms. Valid document like Copy of MOA/ROC etc should be submitted in support of this information.
 - c) The bidder, who have changed the name of Firm/merged/acquired/purchased any Firm whose credential papers are being used/submitted for qualification of tender, should submit the following documents in this regard and in absence of the complete documentary evidence, such offer shall be summarily rejected.
 - i. The copy of certificate of Incorporation of Firm or Registration Certificate of Firm.
 - ii. Copy of Memorandum and Articles of Association of Firm.
 - iii. Copy of Board Resolution regarding change of name of/take over/merger of Firm.
 - iv. Copy of sale deed/Memorandum of Understanding for Purchase/sale/merger of Firm along with assets and liabilities.
 - v. Copy of PF Registration and PAN Card.
 - vi. Affidavit regarding change of name of Firm along with all assets and liabilities, if any.
 - vii. Affidavit regarding closure of business of Old Firm/Merged Firm.
 - viii. Copy of Certificate of CA/Company Secretary regarding Sale/Merger/Change of name of Firm.
12. In case a work is started prior to 04 (four) years, ending last day of tender submission, but completed in last 04 (four) years, ending last day of tender submission, the completed work shall be considered for fulfilment of credentials.
13. If a work is physically completed and completion certificate to this extent is issued by the concerned Client organization but final bill is pending, such work shall be considered for fulfilment of credentials.
14. If a part or a component of work is completed but the overall scope of contract is not completed, this work shall not be considered for fulfilment of technical credentials even if the cost of part completed work/component is more than required for fulfilment of credentials. 4. In case a work is considered similar in nature for fulfilment of technical credentials, the overall cost of that work including PVC amount if any shall be considered and no separate evaluation for each component of that work shall be made to decide eligibility.
15. The value of final bill including PVC amount-if paid, or otherwise in case final bill is pending the contract cost in last approved variation statement plus PVC amount paid or cumulative amount paid up to last on-account bill including PVC amount and statutory deductions whichever is less, shall be considered as the completion cost of work.
16. **Participation of Partnership Firms in works tenders:**

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- i. The Partnership Firms participating in the tender should be legally valid under the provisions of the Indian Partnership Act.
- ii. The partnership firm should have been in existence or should have been formed prior to submission of tender. Partnership firm should have either been registered with the Registrar or the partnership deed should have been notarized prior to date of tender opening as per the Indian Partnership Act.
- iii. Separate identity / name should be given to the partnership firm. The partnership firm should have PAN / TAN number in its own name and PAN / TAN number in the name of any of the constituent partners shall not be considered. The valid constituents of the firm shall be called partners.
- iv. Once the tender has been submitted, the constitution of the firm shall not be allowed to be modified / altered / terminated during the validity of the tender as well as the currency of the contract except when modification becomes inevitable due to succession laws etc., in which case prior permission should be taken from CWC and in any case the minimum eligibility criteria should not get vitiated. The re-constitution of firm in such cases should be followed by a notary certified Supplementary Deed. The approval for change of constitution of the firm, in any case, shall be at the sole discretion of the CWC and the Bidder shall have no claims whatsoever. Any change in the constitution of Partnership firm after opening of tender shall be with the consent of all partners and with the signatures of all partners as that in the Partnership Deed. Failure to observe this requirement shall render the offer invalid and full EMD shall be forfeited. If any Partner/s withdraws from the firm after opening of the tender and before the award of the contract, the offer shall be rejected. If any new partner joins the firm after opening of tender but prior to award of contract, his / her credentials shall not qualify for consideration towards eligibility criteria either individually or in proportion to his share in the previous firm. In case the Bidder fails to inform CWC beforehand about any such changes / modification in the constitution which is inevitable due to succession laws etc. and the contract is awarded to such firm, then it will be considered a breach of the contract conditions liable for determination of the contract under Clause 3 of General Conditions of Contract.
- v. A partner of the firm shall not be permitted to participate either in his individual capacity or as a partner of any other firm in the same tender.
- vi. The tender form shall be submitted only in the name of partnership firm. The EMD shall be deposited by partnership firm through e-payment gateway as mentioned in tender document. The EMD submitted in the name of any individual partner or in the name of authorized partner (s) shall not be considered.
- vii. One or more of the partners of the firm or any other person (s) shall be designated as the authorized person (s) on behalf of the firm, who will be authorized by all the partners to act on behalf of the firm through a "Power of Attorney", specially authorizing him / them to submit & sign the tender, sign the agreement, receive payment, witness measurements, sign measurement books, make correspondences, compromise / settle / relinquish any claim (s) preferred by the firm, sign "No Claim Certificate", refer all or any dispute to arbitration and to take similar such action in respect of the said tender / contract. Such "Power of Attorney" shall be notarized / registered and submitted along with the tender.
- viii. On issue of Letter of Acceptance (LOA) to the partnership firm, all the guarantees like Performance Guarantee, Guarantee for various Advances to the Contractor shall be submitted only in the name of the partnership firm and no splitting of guarantees among the partners shall be acceptable.
- ix. On issue of Letter of Acceptance (LOA), contract agreement with partnership firm shall be executed in the name of the firm only and not in the name of any individual partner.
- x. In case the Letter of Acceptance (LOA) is issued to a partnership firm, the following undertakings shall be furnished by all the partners through a notarized affidavit, before signing

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of contract agreement.

(a) Joint and several liabilities: The partners of the firm to which the Letter of Acceptance (LOA) is issued, shall be jointly and severally liable to the CWC for execution of the contract in accordance with General and Special Conditions of the Contract. The partners shall also be liable jointly and severally for the loss, damages caused to the CWC during the course of execution of the contract or due to non-execution of the contract or part thereof.

(b) Duration of the partnership deed and partnership firm agreement: The partnership deed/partnership firm agreement shall normally not be modified/alterd/ terminated during the currency of contract and the maintenance period after the work is completed as contemplated in the conditions of the contract. Any change carried out by partners in the constitution of the firm without permission of CWC, shall constitute a breach of the contract, liable for determination of the contract under Clause 3 of the General Conditions of Contract.

(c) Governing laws: The partnership firm agreement shall in all respect be governed by and interpreted in accordance with the Indian laws.

(d) No partner of the firm shall have the right to assign or transfer the interest right or liability in the contract without the written consent of the other partner/s and that of the CWC.

- xi. The Bidder shall clearly specify that the tender is submitted on behalf of a partnership firm. The following documents shall be submitted by the partnership firm, with the tender:
- A copy of partnership deed.
 - A copy of Power of Attorney (duly registered as per prevailing law) in favour of the individual to tender for the work, sign the agreement etc. and create liability against the firm.
 - An undertaking by all partners of the partnership firm that they are not blacklisted or debarred by CWC/CPWD/Railways or any other Ministry / Department of the Govt. of India / any State Govt. or PSU from participation in tenders / contracts as on the date of opening of bids, either in their individual capacity or in any firm in which they were / are partners. Concealment / wrong information in regard to above shall make the contract liable for determination under Clause 3 of the General Conditions of Contract.
- xii. In case of newly formed partnership firm, the credentials of individual partners from previous propriety firm(s) or dissolved previous partnership firm(s) or split previous partnership firm(s), shall be considered only to the extent of their share in previous entity on the date of dissolution / split and their share in newly formed partnership firm. For example, a partner A had 30% share in previous entity and his share in present partnership firm is 20%. In the present tender under consideration, the credentials of partner A will be considered to the extent of 0.3×0.2 *value of the work done in the previous entity. For this purpose, the Bidder shall submit along with his bid all the relevant documents which include copy of previous partnership deed(s), dissolution deed(s) and proof of surrender of PAN No.(s) in case of dissolution of partnership firm(s) etc.
- xiii. In case of existing partnership firm, if any one or more partners quit the partnership firm, the credentials of remaining partnership firm shall be re-worked out i.e., the quitting partner(s) shall take away his credentials to the extent of his share on the date of quitting the partnership firm (e.g. in a partnership firm of partners A, B & C having share 30%, 30% & 40% respectively and credentials of Rs 10 crore; in case partner C quits the firm, the credentials of this partnership firm shall remain as Rs 6 crore). For this purpose, the Bidder shall submit along with his bid all the relevant documents which include copy of previous partnership deed(s), dissolution deed(s) and proof of surrender of PAN No.(s) in case of dissolution of partnership firm(s) etc.
- xiv. In case of existing partnership firm if any other partner(s) joins the firm, the credentials of partnership firm shall get enhanced to the extent of credentials of newly added partner(s) on

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the same principles as mentioned in subclause above. For this purpose, the Bidder shall submit along with his bid all the relevant documents which include copy of previous partnership deeds, dissolution/splitting deeds and proof of surrender of PAN No.(s) in case of dissolution of partnership firm etc.

- xv. Any partner in a partnership firm cannot use or claim his credentials in any other firm without leaving the partnership firm i.e., In a partnership firm of A&B partners, A or B partner cannot use credentials of partnership firm of A&B partners in any other partnership firm or propriety firm without leaving partnership firm of A&B partners.
- xvi. In case a partner in a partnership firm is replaced due to succession as per succession law, the proportion of credentials of the previous partner will be passed on to the successor.
- xvii. If the percentage share among partners of a partnership firm is changed, but the partners remain the same, the credentials of the firm before such modification in the share will continue to be considered for the firm as it is without any change in their value. Further, in case a partner of partnership firm retires without taking away any credentials from the firm, the credentials of partnership firm shall remain the same as it is without any change in their value.
- xviii. In case of a partnership firm 'AB' consisting of partners 'A' & 'B', if Partner 'A' also works as proprietor firm 'P' or partnership in other firm 'AX', the credentials of 'A' in proprietor firm 'P' or other partnership firm 'AX' earned after date of becoming a partner of the firm AB shall not be added in partnership firm AB.
- xix. In case a Bidder is LLP, the credentials of Bidder shall be worked out on above lines similar to a partnership firm.

Bidder not fulfilling the above requirements or submission of clarification documents with respect to above or any of mandatory document, shall be summarily rejected.

Regional Manager

SECTION – III A
(TENDER FORMS & ANNEXURES)

CENTRAL WAREHOUSING CORPORATION

(A Govt. of India Undertaking)

(Scope Minar, Core-3, 1st Floor, Laxmi Nagar Distt. Centre, Delhi-110092 Ph. No. (011) 22041851, 22444370& Fax No. (011) 22444375 Email Id: ccdelhi.cwc@cewacor.nic.in & rmdli@cewacor.nic.in)

“TENDER & CONTRACT”

PERCENTAGE RATE TENDER & LUMPSUM VALUE CONTRACT FOR WORKS

Tender for the Work of Execution of Miscellaneous Repair /Maintenance, upgradation and Construction works in Zone 10 - a cluster of central warehouses located at CW Gurugram (Hr) On Annual rate Contract basis.

(i) To be submitted on-line at Website: www.cwceprocure.com latest by **03:00 pm on 31.01.2024** To be opened on-line at 03:30 pm on 20.11.2023 Website: www.cwceprocure.com in presence of Bidders or their authorized representative who may wish to be present at **03.30 pm on 31.01.2024**, in the office of Regional Manager, Central Warehousing Corporation, Regional Office Delhi, (Scope Minar, Core-3, 1st Floor, Laxmi Nagar Distt. Centre, Delhi-110092 Ph. No. (011) 22041851, 22444370& Fax No. (011) 22444375 Email Id: ccdelhi.cwc@cewacor.nic.in & rmdli@cewacor.nic.in)

T E N D E R

I/We have read and examined the Tender Notice; Notice Inviting Tender; Tender information summary (TIS), Instructions to Bidders (TIB), Schedules – A (Price schedule) Specifications applicable, Drawings & designs; General rules & directions; Conditions of contract; Clauses of contract; Special & technical conditions; Schedule of rate, Price Sub Schedules; Other documents; Rules referred to in the Conditions of Contract and all other contents in the tender documents for the work.

I/We hereby tender for execution of the work, specified for the Central Warehousing Corporation within the time specified in Schedule 'F' / NIT (TIS), viz. Schedule of quantities in all sub-schedules and in accordance in all respects with the Specifications, Designs, Drawings and Instructions in writing, referred to in Rule 1 of General Rules & Directions and in line of technical, special, General Conditions of Contract and with such materials, as are provided for by and in respect & in accordance with such conditions, so far as applicable, and NIT/ ITB as well.

I/We agree to keep **the tender open for ninety (90) days from the date of opening of Technical Bid** under two bid system and not to make any modifications in its terms and conditions.

A sum of Rs. _____ including GST is hereby submitted **through e-payment gateway of e-procurement as EMD and Cost of the tender Rs. ____***.

If I/We fail to furnish the prescribed Performance Guarantee within prescribed period after award of the contract to me/us; I/We agree that the Central Warehousing Corporation shall, without prejudice to any other right/remedy, be at liberty to forfeit the said Earnest Money absolutely.

Further, if I/We, fail to commence the work as specified, I/We agree that the Central Warehousing Corporation shall, without prejudice to any other right or remedy, be at liberty to forfeit the said Earnest Money and the Performance Guarantee absolutely, otherwise the said Earnest Money shall be retained by the Corporation towards Security Deposit to execute all the works referred to in the tender documents upon the terms and conditions, contained or referred to therein and to carry out such deviations as may be ordered, upto maximum of the percentage mentioned in Schedule 'F' and those in excess of that limit at the rates to be determined in

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accordance with the provisions contained in general & special conditions of contract.

Further, I/We agree that in case of forfeiture of Earnest Money or both Earnest Money and Performance Guarantee as aforesaid, I/We shall be debarred for participation and shall not be eligible to participate in future tender /procurement process of Central warehousing corporation from the date of debarment.

“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 CWC in future. 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 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 pre-judicial to the safety of the Corporation.

Dated __/__/_____

Signature of Contractor
Postal Address

Witness :

Address :

Occupation :

* Cost of the tender to be deposited along with the EMD would be applicable only to those contractors who will download the tenders from the websites as mentioned in the NIT.

ACCEPTANCE

The above tender (as modified by you as provided in the letters mentioned hereunder) is accepted by me for and on behalf of Central Warehousing Corporation for a sum of Rs. _____ (Rupees _____), i.e. _____% above / below the estimated cost of work of Rs. _____ (Rupees _____).

The letters referred below shall form part of this Contract Agreement –

- (a) _____
- (b) _____
- (c) _____

Dated : __/__/_____

For & on behalf of CWC

Signature _____

Designation _____

FORMAT OF NET WORTH

The Net Worth of Mr./Ms./M/s_____for last Financial Year____-____is Rs._____lakhs as per his/her/their books of Accounts.

(Note : Net Worth means sum total of paid up share capital plus free reserves. Further, anydebit balance of Profit & Loss Account and Misc. Expenses to the extent not adjusted / or written off, if any, shall be reduced from Reserves and Surpluses.

Signature of Chartered Accountant

Name :

Membership No. :

UDIN:

Seal :

Date :

Signature of Contractor

AFFIDAVIT
(For Sole Proprietary Firm)

(To be executed in presence of Public Notary on non-judicial stamp paper of appropriate value.
The stamp paper has to be in the name of the Bidder.)

I, _____ R/o _____
_____ do hereby solemnly affirm and
declare as under –

1. That I am Sole Proprietor of _____
_____ (Sole Proprietor Firm Name).
2. That the office of the firm is situated at _____
_____ (address).

Place :

DEPONENT

Date :

VERIFICATION

Verified that the contents of my above said affidavit are true and correct to the best of my
knowledge & belief and nothing has been concealed there from.

Place :

DEPONENT

Date :

FORMAT FOR POWER OF ATTORNEY TO AUTHORIZED SIGNATORY

(To be executed on non-judicial stamp paper of the appropriate value in accordance with relevant Stamp Act. The stamp paper to be in the name of the firm/ company who is issuing the Power of Attorney).

Tender Ref. No.: _____

Date: _____

We, M/s. _____ (name of the firm/ company with address of the registered office) hereby constitute, appoint and authorize Mr./Ms. _____ (Name and residential address) who is presently with us and holding the position of _____ and whose signature is given below as our Attorney to do in our name and our behalf all or any of the acts ,deeds or things necessary or incidental to our bid for the work _____ (name of work), including signing and submission of application/ tender / proposal, participating in the meetings, responding to queries, submission of information/ documents and generally to represent us in all the dealings with CWC or any other Government Agency or any person, in connection with the works until culmination of the process of bidding, till the Contract Agreement is entered into with CWC and thereafter till the expiry of the Contact Agreement.

We hereby agree to ratify all acts, deeds and things lawfully done by our said Attorney pursuant to this Power of Attorney and that all acts, deeds and things done by our aforesaid Attorney shall always be deemed to have been done by us.

(Signature and name of authorized signatory being given Power of Attorney)

(Signature and name of Person Delegating Power of Attorney)

Seal of the Organization

Witness 1:
Name:
Address:
Occupation:

Witness 2:
Name:
Address:
Occupation:

Notes:

- The mode of execution of the power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and when it is so required the same should be under common seal affixed in accordance with the required procedure.

AFFIDAVIT

{TO BE SUBMITTED BY BIDDER ALONGWITH THE TENDER DOCUMENTS}

(To be executed in presence of Public Notary on non-judicial stamp paper of the value of Rs. 100.
The stamp paper has to be in the name of the Bidder.)

I _____ (Name and Designation) _____, appointed as the attorney / authorized signatory of the Bidder (including its constituents) M/s _____ (hereinafter called the Bidder) for the purpose of the Tender documents for the work of _____ as per the Tender No. _____ of CWC, do hereby solemnly affirm and state on behalf of the Bidder including its constituents, as under :

1. I/We the Bidder(s), am/are signing this document after carefully reading the contents.
2. I/We the Bidder(s) also accept all the conditions of the tender document and have signed all the pages in confirmation thereof.
3. I/We hereby declare that I/We have downloaded the tender documents from CWC tender portal www.cwceprocure.com and printed the same. I/We have verified the content of the printed document from the website and there is no addition, no deletion or no alteration to the content of the tender document. In case of any discrepancy noticed at any stage (i.e. evaluation of tenders & execution of work), the decision of CWC with regard to such discrepancies shall be final and binding upon me/us.
4. I/We declare and certify that I/we have not made any misleading or false representation in the PQ forms, eligibility declaration, statements and attachments in proof of the qualification requirements.
5. **I/We also understand that my/our offer will be evaluated based on the documents /credentials submitted along with the offer and same shall be binding upon me/us.**

I/We declare that the information and documents submitted along with the tender by me/us are correct and I/We are fully responsible for the correctness of the information and documents, submitted by us.

6. I/We understand that if the Certificates and information regarding Eligibility Criteria, Qualification norms submitted by us are found to be forged/false or incorrect at any time during process for evaluation of tenders, it shall lead to forfeiture of the tender EMD besides suspending of business for five year. Further, I/We _____ [insert name of the Bidder] and all my/our constituents understand that my/our offer shall be summarily rejected.
7. I/We also understand that if the certificates submitted by us are found to be false/ forged or incorrect at any time, after the award of the contract, it will lead to termination of the contract, alongwith forfeiture of EMD/SD and Performance Guarantee, besides any other action provided in the contract and suspending of business for five year.
8. I/We also understand that in case I/we fails to submit the requisite Performance Guarantee even after the period specified in Clause 1 of Schedule 'F' from the date of issue of Letter of Award (LOA), the contract shall be terminated, duly forfeiting EMD and other dues, if any payable against the contract or in case of termination of contract due to default at my/our end, I/we shall be debarred from participating in future tender /procurement process of the Corporation for two years from the date of debarring.
9. I/We certify that I/We are not black listed or debarred by MES / CPWD / Railways / any

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Govt. Department / State PWDs / PSU (Public Sector Undertaking) and Govt. Sector Construction Agencies from participation in tenders / contract on the date of opening of bids.

10. 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 CWC 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.

11. COMPLIANCE TO BID REQUIREMENT:

I/We hereby confirm that we have gone through and understood the Tender Document and our Bid complies with the requirements / terms & conditions of the Tender Document and subsequent Addendum / Corrigendum (if any), issued by CWC, without any deviation / exception / comments / assumptions.

We also confirm that we have quoted the rates without any condition and deviation. The Tender has been submitted along with the required documents and same have been uploaded under digital signatures of the authorized signatory. We undertake that the tender document shall be deemed to be our bid and in the event of award of work to us, the same shall be considered for constitution of contract agreement. Further, we shall sign and stamp each page of the Tender Document as token of acceptance and as part of contract in the event of award of contract to us. We further confirm that we have quoted our rates in our financial bid as per the conditions of the Tender Document and for all the items.

12 I/We certify that I/we have offered the products with local content more than 50 %

DEPONENT

Seal and Signature of the Bidder

VERIFICATION

I/We above named Bidder do hereby solemnly affirm and verify that the contents of my /our above Affidavit are true and correct. Nothing has been concealed and no part of it is false.

DEPONENT

Seal and Signature of the Bidder

Place:

Dated:

- ❖ Details, as appropriate, are to be filled in suitably by Bidder.
- ❖ Attestation before Magistrate/ Notary Public.

INTEGRITY PACT

To
The Bidder

Sub : **NIT No CWC/RO_DELHI/ENGG/ZMC/23-24/268 for the work of Execution of Miscellaneous Repair /Maintenance, upgradation and Construction works in Zone 10 - a cluster of central warehouses located at CW Gurugram (Hr) On Annual rate Contract basis.**

Dear Sir,

It is hereby declared that CORPORATION is committed to follow the principle of transparency, equity and competitiveness in public procurement.

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 BIDDER will stand disqualified from the tendering process 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 CORPORATION.

Yours faithfully

Regional Manager/ CWC

INTEGRITY PACT

To
The Regional manager

.....
.....

Sub : Submission of Tender for the work of Execution of Miscellaneous Repair /Maintenance, upgradation and Construction works in Zone 10 - a cluster of central warehouses located at CW Gurugram (Hr) On Annual rate Contract basis.

Dear Sir,

I/We acknowledge that CORPORATION 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 CORPORATION. I/We acknowledge and accept the duration of the 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, CORPORATION shall have unqualified, absolute and unfettered right to disqualify the BIDDER and reject the tender/bid in accordance with terms and conditions of the tender/bid.

Yours faithfully

(Duly authorized signatory of the BIDDER)

INTEGRITY PACT

Tender Ref. No.: GEM/ _____

Date: _____

(Compulsory Ink signed on each page and to be submitted along with Technical Bid)
(The same shall be signed on non-judicial stamp paper of appropriate value during agreement signing)

General This pre-bid / pre-contract Agreement (hereinafter called the Integrity Pact) is made on _____ day of the month of _____ between on one hand, the Central Warehousing Corporation (A Govt. of India Undertaking), 4/1 Siri Institutional area, Hauz Khas, New Delhi, acting through Group General Manager (Personnel), Central Warehousing Corporation (A Govt. of India Undertaking) (hereinafter called the "**CORPORATION**" which expression shall mean and include, unless the context otherwise requires, his successors in office and assigns) of the First Part and M/s _____

represented by Shri _____, (Name of the contractor) (hereinafter called **BIDDER** which expression shall mean and include, unless the context otherwise requires, his successors and permitted assigns) of the Second Part.

WHEREAS the CORPORATION proposes to appoint contractor at _____ and the BIDDER is willing to execute the items of work / Section as per schedule of work, the work order issued General conditions of the contract of CWC.

WHEREAS the BIDDER is a private company / public company / Government undertaking / partnership firm constituted in accordance with the relevant law in the matter and the corporation is a PSU performing its functions on behalf of the Ministry of Consumer Affairs, Food and Public Distribution, New Delhi, Govt. of India.

NOW, THEREFORE,

To avoid all forms of corruption by following a system that is fair, transparent and free from any influence / prejudiced dealings prior to, during and subsequent to the currency of the contract to be entered into with a view to:- Enabling the CORPORATION to obtain the desired said work at a competitive price in conformity with the defined specifications by avoiding the high cost and the distortionary impact of corruption on public procurement, and enabling BIDDER to abstain from bribing or indulging in any corrupt practice in order to secure the contract by providing assurance to them that their competitors will also abstain from bribing and other corrupt practices and the CORPORATION will commit to prevent corruption, in any form, by its officials by following transparent procedures.

The parties hereto hereby agree to enter into this integrity Pact and agree as follows:

[1] Commitments of the Corporation

[1.1] The Corporation undertakes that no official of the CORPORATION, connected directly or indirectly with the contract, will demand, take a promise for or accept, directly or through intermediaries, any bribe, consideration, gift, reward, favour or any material or immaterial benefit or any other advantage from the BIDDER, either for themselves or for any person, organization or third party related to the contract in exchange for an advantage in the bidding process, bid evaluation, contracting or implementation process related to the contract.

[1.2] The CORPORATION will, during the pre-contractor stage, treat all BIDDERS alike and will provide to all BIDDERS the same information and will not provide any such information to any particular BIDDER which could afford an advantage to that particular BIDDER in comparison to other BIDDERS.

[1.3] All the officials of the CORPORATION will report to the appropriate authority any attempted or completed breaches of the above commitments as well as any substantial suspicion of such a breach.

[2] In case any such preceding misconduct on the part of such official(s) is reported by the BIDDER to the

CORPORATION with full and verifiable facts and the same is prima facie found to be correct by the CORPORATION, necessary disciplinary proceedings, or any other action as deemed fit, including criminal proceedings may be initiated by the CORPORATION and such a person shall be debarred from further dealings related to the contract process. In such a case while an enquiry is being conducted by the CORPORATION the proceedings under the contract would not be stalled.

[3] Commitments of BIDDERS

The BIDDER commits itself to take all measures necessary to prevent corrupt practices, unfair means and illegal activities during any stage of its bid or during any pre-contract or post-contract stage in order to secure the contract or in furtherance to secure it and in particular commit itself to the following: -

[3.1] The BIDDER will not offer, directly or through intermediaries, any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the CORPORATION, connected directly or indirectly with the bidding process, or to any person, organization or third party related to the contract in exchange for any advantage in the bidding, evaluation, contracting and implementation of the contract.

[3.2] The BIDDER further undertakes that it has not given, offered or promised to give, directly or indirectly any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the CORPORATION or otherwise in procuring the Contract or forbearing to do or having done any act in relation to the obtaining or execution of the contract or any other contract with the CORPORATION for showing or forbearing to show favour or disfavour to any person in relation to the contract or any other contract with the CORPORATION.

[3.3] The BIDDER, either while presenting the bid or during pre-contract negotiations or before signing the contract, shall disclose any payments he has made, is committed to or intends to make to officials of the CORPORATION or their family members, agents, brokers or any other intermediaries in connection with the contract and the details of services agreed upon for such payments.

[3.4] The BIDDER will not collude with other parties interested in the contract to impair the transparency, fairness and progress of the bidding process, bid evaluation, contracting and implementation of the contract.

[3.5] The BIDDER will not accept any advantage in exchange for any corrupt practice, unfair means and illegal activities.

[3.6] The BIDDER shall not use improperly, for purposes of competition or personal gain, or pass on to others, any information provided by the CORPORATION as part of the business relationship, regarding plans, technical proposals and business details, including information contained in any electronic data carrier. The BIDDER also undertakes to exercise due and adequate care lest any such information is divulged.

[3.7] The BIDDER commits to refrain from giving any complaint directly or through any other manner without supporting it with full and verifiable facts.

[3.8] The BIDDER shall not instigate or cause to instigate any third person to commit any of the actions mentioned above.

[3.9] If the BIDDER or any employee of the BIDDER or any person acting on behalf of the BIDDER, either directly or indirectly, is a relative of any of the officers of the CORPORATION, or alternatively, if any relative of an officer of the CORPORATION has financial interest / stake in the BIDDER's firm, the same shall be disclosed by the BIDDER at the time of filling of tender.

The term 'relative' for this purpose would be as defined in Section 6 of the Companies Act 1956.

[3.10] The BIDDER shall not lend to or borrow any money from or enter into any monetary dealings or transactions, directly or indirectly, with any employee of the CORPORATION

[4] Previous Transgression

[4.1] The BIDDER declares that no previous transgression occurred in the last three years immediately before signing of this Integrity Pact, with any other company in any country in respect of any corrupt practices envisaged hereunder or with any Public Sector Enterprise in India or any Government Department in India that could justify BIDDER's exclusion from the tender process.

[4.2] The BIDDER agrees that if it makes incorrect statement on this subject, BIDDER can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

[5] Sanctions for Violations

Any breach of the aforesaid provision by the BIDDER or any one employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER) shall entitle the CORPORATION to take all or any one of the following actions, wherever required: -

- i. To immediately call off the pre-contract negotiations without assigning any reason or giving any compensation to the BIDDER. However, the proceedings with the other BIDDER(s) would continue.
- ii. The Security Deposit / Performance Bond (after the contract is signed) shall stand forfeited either fully or partially, as decided by the CORPORATION and the CORPORATION shall not be required to assign any reason therefore.
- iii. To immediately cancel the contract, if already signed, without giving any compensation to the BIDDER.
- iv. To recover all sums already paid by the CORPORATION, and in case of an Indian BIDDER with interest thereon at 2% higher than the prevailing Prime Lending Rate of State Bank of India, while in case of a BIDDER from a country other than India with interest thereon at 2% higher than the LIBOR. If any outstanding payment is due to the BIDDER from the CORPORATION in connection with any other contract for any other stores / work such outstanding payment could also be utilized to recover the aforesaid sum and interest.
- v. To encash the advance bank guarantee and performance bond / warranty bond, if furnished by the BIDDER, in order to recover the payments, already made by the CORPORATION, along with interest.
- vi. To cancel all or any other Contracts with the BIDDER. The BIDDER shall be liable to pay compensation for any loss or damage to the CORPORATION resulting from such cancellation / rescission and the CORPORATION shall be entitled to deduct the amount so payable from the money(s) due to the BIDDER.
- vii. To debar the BIDDER from participating in future bidding processes of the CORPORATION for a minimum period of five years, which may be further extended at the discretion of the CORPORATION.
- viii. To recover all sums paid in violation of this Pact by BIDDER(s) to any middleman or agent or broker with a view to securing the contract.
- ix. In cases where irrevocable Letters of Credit have been received in respect of any contract signed by the CORPORATION with the BIDDER, the same shall not be opened.
- x. Forfeiture of Performance Bond in case of a decision by the CORPORATION to forfeit the same without assigning any reason for imposing sanction for violation of this Pact.

[5.1] The CORPORATION will be entitled to take all or any of the actions mentioned at para 5.1(i) to (x) of this Pact also on the Commission by the BIDDER or any one employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER), of an offence as defined in Chapter IX of the Indian Penal code, 1860 or Prevention of Corruption Act, 1988 or any other statute enacted for prevention of corruption.

[5.2] The decision of the CORPORATION to the effect that a breach of the provisions of this Pact has been committed by the BIDDER shall be final and conclusive on the BIDDER. However, the BIDDER can approach the independent Monitor(s) appointed for the purposes of this Pact.

[6] Fall Clause

[6.1] The BIDDER undertakes that it has not supplied / is not supplying similar product / systems or subsystems at a price lower than that offered in the present bid in respect of any other Ministry / Department of the Government of India or PSU and if it is found at any stage that similar product / systems or sub systems was supplied by the BIDDER to any other Ministry / Department of the Government of India or a PSU at a lower price, then that very price, with due allowance for elapsed time, will be applicable to the present case and the difference in the cost would be refunded by the BIDDER to the CORPORATION, if the contract has already

been concluded.

[7] Independent Monitor

- [7.1] The CORPORATION has appointed Independent Monitors (hereinafter referred to as Monitors) for this Pact in consultation with the Central Vigilance Commission, New Delhi.
- [7.2] The CORPORATION has appointed Sh. Sudhanshu Sekhara Mishra, Email – ssmishra.995@gmail.com and Sh. Rajni Kant Mishra, Email rkmishraips84@gmail.com as an Independent Monitor (hereinafter referred to as Monitor) for this Pact in consultation with the Central Vigilance Commission.
- [7.3] The task of the Monitor shall be to review independently and objectively, whether and to what extent the parties comply with the obligations under this Pact.
- [7.4] The Monitor shall not be subject to instructions by the representatives of the parties and perform their functions neutrally and independently.
- [7.5] Both the Parties accept that the monitors have the right to access all the documents relating to the project / procurement, including minutes of meetings.
- [7.6] As soon as the Monitor notices, or has reason to believe, a violation of this Pact, he will so inform the Authority designated by the CORPORATION.
- [7.7] The BIDDER(s) accepts that the Monitor has the right to access without restriction to all Project documentation of the CORPORATION including that provided by the BIDDER. The BIDDER will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The same is applicable to Subcontractors. The Monitor shall be under contractual obligation to treat the information and documents of the BIDDER / Subcontractor(s) with confidentiality.
- [7.8] The CORPORATION will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations between the parties. The parties will offer to the Monitor the option to participate in such meetings.
- [7.9] The Monitor will submit a written report to the designated Authority of CORPORATION within 8 to 10 weeks from the date of reference or intimation to him by the CORPORATION / BIDDER and, should the occasion arise, submit proposals for correcting problematic situations.

[8] Facilitation of Investigation

In case of any allegation of violation of any provisions of this Pact or payment of commission, the CORPORATION or its agencies shall be entitled to examine all the documents including the Books of Accounts of the BIDDER and the BIDDER shall provide necessary information and documents in English and shall extend all possible help for the purpose of such examination.

[9] Law and Place of Jurisdiction

This Pact is subject to Indian Law. The Place of performance and jurisdiction is the seat of the CORPORATION.

[10] Other Legal Actions

The actions stipulated in this integrity Pact are without prejudice to any other legal action that may follow in accordance with the provisions of the extant law in force relating to any civil or criminal proceedings.

[11] Validity

- [11.1] The validity of this Integrity Pact shall be from date of its signing and extend upto 5 years or the complete execution of the contract to the satisfaction of both the CORPORATION and the BIDDER / Seller, including warranty period, whichever is later. In case BIDDER is unsuccessful, this integrity Pact shall expire after six months from the date of the signing of the contract.
- [11.2] Should one or several provisions of this Pact out to be invalid; the remainder of this Pact shall remain valid. In this case, the parties will strive to come to an agreement to their original intentions.

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[12] The parties hereby sign this Integrity Pact at _____ on _____

Corporation	Bidder
Name of the Officer:-	Name of Authorized Signatory:-
Designation	Designation
Signature & Stamp: -	Signature & Stamp: -
Signature and Name of Witness 1	Signature and Name of Witness 1
Signature and Name of Witness 2	Signature and Name of Witness 2

ANNEXURE-VI**DECLARATION****(On the letter head of firm)**

Following are the near relative of the contractor are working as Officer or as an officer in any capacity Officer in the Central Warehousing Corporation or in the Ministry of Food, Consumer Affairs & Public Distribution, Govt. of India, New Delhi:

S/N	Department	Name of officer	Place of Posting	Relation	Remarks
1	Central Warehousing Corporation				
2	Ministry of Food, Consumer Affairs & Public Distribution, Govt. of India, New Delhi:				

(Duly authorized signatory of the BIDDER)

**WORKS IN HAND
(On letter head of firm)-**

The contractor shall submit list of works which are committed / in hand (in-progress) in the following format –

SL	Name of Work	Name & Particulars of Division /Department/Organization Where Work is being Executed	Amount of Works awarded (Rs.)	Status of Work in Progress	Balance value of work to be executed during next one year from the date of inviting the tender
1	2	3	4	5	6

(Duly authorized signatory of the BIDDER)

In case of the works in progress /committed for CWC, the details provided by CWC engineer shall be final and shall be considered for evaluation.

General Tenets of Interpretation

Unless where the context requires otherwise, throughout the contract:

1. The heading of these conditions shall not affect the interpretation or construction thereof.
2. Writing or written includes matter either whole or in part, in digital communications, manuscript, typewritten, lithographed, cyclostyled, photographed, or printed under or over signature or seal or digitally acceptable authentication, as the case may be.
3. Words in the singular include the plural and vice-versa.
4. Words importing the masculine gender shall be taken to include other genders, and words importing persons shall include any company or association or body of individuals, whether incorporated or not.
5. Terms and expression not herein defined shall have the meanings assigned to them in the contract Act, 1872 (as amended) or the Sale of Goods Act, 1930 (as amended) or the General Clauses Act, 1897 (as amended) or of INCOTERMS, (current edition published by the International Chamber of Commerce, Paris) as the case may be.
6. Any reference to 'Works' shall be deemed to include the incidental Services/ Goods also.
7. Any generic reference to GCC shall also imply a reference to SCC as well.
8. Any reference to 'Contract' shall be deemed to include all other documents (inter-alia GCC, SCC, TCC, ITB, NIT)
9. Any reference to any legal Act, Government Policies or orders shall be deemed to include all amendments to such instruments, from time to time, till date.

Definitions

In the contract, unless the context otherwise requires:

1. "Agent" is a person employed to do any act for another or represent another in dealings with a third person. In the context of public procurement, an Agent is a representative participating in the Tender Processor Execution of a Contract for and on behalf of its principals.
2. "Beneficiary" (of Services/ Works) means the person for whom the Services/ Works are to be delivered as stipulated in the contract.
3. "bid" (including the term 'tender', 'offer', 'quotation' or 'proposal' in specific contexts) means an offer to supply goods, services or execution of works made as per the terms and conditions set out in a document inviting such offers.
4. "Bidder" (including the term 'Bidder', 'consultant' or 'service provider' in specific contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency branch or office controlled by such person, participating in a Tender Process.
5. "Bill of Quantities" (including the term Price Schedule or BOQ) means the priced and completed Bill of Quantities forming part of the bid.
6. "Commercial Bank" means a bank, defined as a scheduled bank under section 2(e) of the Reserve Bank of India Act, 1934.
7. "Contract" (including the terms 'Purchase Order' or 'Supply Order' or 'Withdrawal Order' or 'Work Order' or 'Consultancy Contract' or 'Contract for Services', 'rate contract' or 'framework contract' or 'Letter of Award – LoA' (letter or memorandum communicating to the contractor the acceptance of his bid) or 'Agreement' or a 'repeat order' accepted/ acted upon by the contractor in specific contexts), means a formal legal agreement in writing relating to the subject matter of procurement, entered into between the Procuring Entity and the contractor on mutually acceptable terms and conditions and which are in compliance with all the relevant provisions of the laws of the country;

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8. "Contractor" (including the terms 'Supplier' or 'Service Provider' or 'Consultant' or 'Firm' or 'Vendor' or 'Manufacturer' or 'Successful Bidder' in specific contexts) means the person, firm, company, or a Joint Venture with whom the contract is entered into and shall be deemed to include the contractor's successors (approved by the Procuring Entity), agents, subcontractor, representatives, heirs, executors, and administrators as the case may be unless excluded by the terms of the contract;
9. "Day", "Month", "Year" shall mean calendar day/ month or year (unless reference to financial year is clear from the context).
10. "Drawing" means the drawing or drawings stipulated in or annexed to the Specifications or the Tender Document/ Contract;
11. "Engineer in charge" means Head of Engineering section at Regional Office, where contract is awarded. He is the CWC officer responsible for execution of the Special/Preventive Repair & Maintenance works / Upgradation or construction works under the contract and for monitoring the Progress of works, for payment of works etc.
12. "Engineer" means Assistant Engineer/Executive Engineer or Representative of Engineer in charge at place of work deployed by Regional Manager or Engineer in charge for performing the duties as per contract terms & conditions.
13. "Equipment" means the contractor's machinery and vehicles brought temporarily to the Site for the performance of Service.
14. "General Conditions" means the General Conditions of Contract, also referred to as GCC.
15. "Goods" (including the terms 'Stores', 'Material(s)' in specific contexts) includes all articles, material, commodity, livestock, medicines, furniture, fixtures, raw material, consumables, spare parts, instruments, machinery, equipment, industrial plant, vehicles, aircrafts, ships, railway rolling stock assemblies, sub-assemblies, accessories, a group of machines comprising an integrated production process or such other categories of goods or intangible, products like technology transfer, licenses, patents or other intellectual properties (but excludes books, publications, periodicals, etc., for a library), in specific contexts), procured or otherwise acquired by a Procuring Entity. Any reference to Goods shall be deemed to include specific small work or some services that are incidental or consequential to the supply of such goods;
16. "Government" means the Central Government or a State Government as the case may be and includes agencies and Public Sector Enterprises under it, in specific contexts;
17. "Inspection" means activities such as measuring, examining, testing, analysing, gauging one or more characteristics of the goods or services or works, and comparing the same with the specified requirement to determine conformity.
18. "Intellectual Property Rights" (IPR) means the rights of the intellectual property owner concerning a tangible or intangible possession/ exploitation of such property by others. It includes rights to Patents, Copyrights, Trademarks, Industrial Designs, Geographical indications (GI).
19. "Joint Venture" means a Joint Venture or a Consortium (that is an association of several persons, or firms or companies - also referred to as JV/C)
20. "Materials" means all supplies, including consumables, used by the contractor for service performance or use by his staff.
21. "PMC" means the Project Management Consultant or any other officer or a third-party agency who has been assigned the authority to take day to day actions on behalf of the Engineer in charge / Regional Manager/Procuring Entity during the execution of the contract by the contractor;
22. "Parties": The parties to the contract are the "Contractor" and the "Procuring Entity", as defined in this clause;
23. "Performance Security/Guarantee" (includes the terms 'Performance Bond' or 'Performance Bank Guarantee' or other specified financial instruments in specific contexts) means a monetary guarantee to be furnished by the successful Bidder or Contractor in the form prescribed for the due performance of the contract;
24. "Procurement" or "public procurement" (or 'Purchase', or 'Government Procurement/ Purchase' including an award of Public-Private Partnership projects, in specific contexts) means the acquisition of Goods/ Services/ works by way of purchase, lease, license or otherwise, either using public funds or

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any other source of funds (e.g. grant, loans, gifts, private investment etc.) of goods, works or services or any combination thereof, by a Procuring Entity, whether directly or through an agency with which a contract for procurement services is entered into, but does not include any acquisition without consideration. The term “procure”/ “procured” or “purchase”/ “purchased” shall be construed accordingly;

25. “Procuring Entity” means the entity in The Procuring Organization procuring Goods, Works, or Services that is Central warehousing Corporation in context of this contract.
26. “Regional Manager” means the officer signing the Letter of Award (LoA) in capacity of Regional Manager CWC and/or the contract on behalf of the Procuring Entity and an officer who is administrative head of the Region and in charge of all warehousing operations in the region; He will be tender accepting authority and decision-making authority for taking punitive actions under various provisions of contract.
27. “Service(s)” (including the term ‘non-consultancy services’ or ‘Outsourcing of Services’ in specific contexts) are defined by exclusion as services that cannot be classified as Consultancy Services. Services (non-Consultancy) involve routine, repetitive physical, procedural, and non-intellectual outcomes for which quantum and performance standards can be tangibly identified and consistently applied and are bid and contracted on such basis but does not include the appointment of an individual made under any law, rules, regulations, or order issued in this behalf. Any reference to Services shall be deemed to include the supply of goods or performance of consultancy service or small works, which are incidental or consequential to such services;
28. “Warehouse Manager” means the Incharge of Central warehouse complex where work is to be executed as mentioned in NIT. He is the administrative and operation head of CW complex and He is the CWC officer responsible for execution of the Day to Day /Annual Repair & Maintenance works under the contract and for monitoring the Progress of works, for payment of works etc.
29. “Works” refer to any activity involving construction, fabrication, repair, overhaul, renovation, decoration, installation, erection, excavation, dredging, and so on, which make use of a combination of one or more of engineering design, architectural design, material and technology, labour, machinery, and equipment.
30. “Special Conditions” means Special Conditions of Contract, which override the General Conditions, also referred to as SCC.
31. “Specification” or “Technical Specification” means the drawing/ document/ standard or any other details governing the construction, manufacture or supply of goods or performance of services or completion of work that prescribes the requirement to which goods or services or works have to conform as per the contract.
32. “Signed” means ink signed or digitally signed with a valid Digital Signature as per IT Act 2000 (as amended from time to time). It also includes stamped, except in the case of Letter of Award or amendment thereof.;
33. “Sub-Contractor” means a person or corporate body with an agreement with the contractor to carry out a specific part of the contract that may or may not include working on the Site.
34. “Temporary Works” means works designed, constructed, installed, and removed by the contractor needed during the Services' performance.
35. “Variation” means an instruction given by the Contract Manager, which varies the scope, quantum or performance standards of the Service performed.
36. “Tender”; “Tender Document”; “Tender Enquiry” or “Tender Process”: “Tender Process” is the whole process from the publishing of the Tender Document till the resultant award of the contract. “Tender Document” means the document (including all its sections, appendices, forms, formats, etc.) published by the Procuring Entity to invite bids in a Tender Process. The Tender Document and Tender Process may be generically referred to as “Tender” or “Tender Enquiry”, which would be clear from context without ambiguity.

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Abbreviation of the words used in Tender document

Abbreviation	Definition
BG	Bank Guarantee
BIS	Bureau of Indian Standard
BOQ	Bill of Quantities
BSD	Bid Securing Declaration
CAR Policy	Contractor's all Risk Policy
CC	Cement Concrete
CGST	Central Goods and Services tax
CPP	Central Procurement Portal
CPWD	Central Public Works Department
CTE	Chief Technical Examiner
CWC	Central Warehousing Corporation
DPIIT	Department for Promotion of Industry and Internal Trade
DSR	Delhi Schedule of Rates
EFT	Electronic Funds Transfer
EMD	Earnest Money Deposit
EOT	Extension of Time
EPFO	Employees Provident Fund Organization
ESI	Employees State Insurance
ESI	Employees State Insurance
FD/FDR	Fixed Deposit Receipt
GCC	General Conditions of Contract
GST	Goods and Services Tax
GSTIN	GST Identification Number
HSN	Harmonized System of Nomenclature
IEM	Independent External Monitor
IGST	Integrated Goods and Services tax
IIT	Indian Institute of Technology
INR	Indian Rupee
IPC	Indian Penal Code
IPR	Intellectual Property Rights
IRC	Indian Roads Congress
ITB	Instructions To Bidders
JV	Joint Venture
JV/C	Joint Venture/ Consortium
LAR	Last Approved Rates
LD	Liquidated damage
LoA	Letter of Award (Acceptance)
MD	Managing Director
MES	Military Engineering Services
MII	Make in India
MORTH	Ministry of Road Transport & Highway

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MSE	Micro and Small Enterprises
MSME	Micro Small and Medium Enterprises
MSMED	MSME Development (Act)
MT	Metric Tonne
NEFT	National Electronic Funds Transfer
NIT	Notice Inviting Tender
PAN	Permanent Account Number
PC	(Indian) Penal Code
PC	Prevention of Corruption
PERT	Programme Evaluation Review Technique.
PF	Provident Fund
PQ	Pre-Qualifying
PSU	Public Sector Undertaking
PVC	Price Variation Clause
RCM	Reverse Charge Mechanism
SCC	Special Conditions of Contract
SD	Security Deposit
SGST	State Goods and Services tax/
SOR	Schedules of Rates
T&P	Tools & Plants
TCS	Tax Collected at Source
TDS	Tax Deducted at Source
TIA	Tender Inviting Authority
TIS	Tender Information Summary
UGST	Union Territory Goods and Services tax
WC Policy	Workmen Compensation Policy

CENTRAL WAREHOUSING CORPORATION

and

...[Contractor]...

Contract Number

Execution of Miscellaneous Repair /Maintenance, upgradation and Construction works in Zone 10 - a cluster of central warehouses located at CW Gurugram (Haryana) On Annual rate Contract basis.

(Signature of the Issuing Officer)

(Signature of the Tenderer)

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(On a Non-Judicial Stamp Paper of INR 100/-)

THIS AGREEMENT is made this [date] day of [month], [year]

BETWEEN

(1) **Central Warehousing Corporation**, a Government of India Undertaking, established under the Warehousing Corporation Act, 1962, having its Regional Office at Delhi and having its Corporate Office at at 4/1, Siri Institutional Area, August Kranti Marg, Hauz Khas, New Delhi- 110016 through its Regional Manager, Central Warehousing Corporation, Scope Minar, Core-3, 1st Floor, Laxmi Nagar Distt. Centre, Delhi-110092 (hereinafter referred to as the "Corporation", which expression, unless the context requires otherwise, shall include its successors and permitted assignees); and

(2) [name of the Contractor], having its place of business at [address] (hereinafter referred to as the "Contractor", which expression, unless the context requires otherwise, shall include its successors/legal heirs and permitted assignees).

RECITALS

Whereas:

- A The Corporation is involved in providing services in the field of warehousing, logistics and related activities to various depositors including, from Government/ private sectors.
- B For the purposes mentioned under recital A above, the Corporation requires the Contractor to provide certain services of miscellaneous Repair /Maintenance, upgradation and Construction works in **Zone 10** a cluster of central warehouses **CW Gurugram** and the Contractor is engaged in the business of providing such services and has agreed to perform the Services for the Corporation on the terms and conditions set out in this Contract. Accordingly, it is essential to the Corporation that the Services to be provided under this Contract are rendered in timely manner as envisaged in the Contract/ Work Order(s). In entering into this Contract, Contractor acknowledges that time is of utmost importance and agrees to the provisions in the Contract addressing that.

NOW THEREFORE IT IS HEREBY AGREED as follows:

1. The Contractor agrees to perform such Services including, any incidental services, in accordance with the terms and conditions of this Contract/ Work Order (S) or as directed from time-to-time by the Corporation, such directions not being inconsistent with this Contract, and in consideration of its due performance of such Services, the Corporation agrees to pay the Contractor according to the rates, terms and conditions herein contained.

2. The Contract shall comprise the following documents:

This Agreement;
Schedule I: Conditions of Contract with Appendix(s);
Schedule II: Scope of Work and Appendix(s)
Schedule III: Price/ Compensation Schedule

(all hereinafter the "Contract")

3. In the event of any inconsistency or discrepancy between any of the documents listed in Clause 2 above, then precedence shall be in descending order as listed.
4. The terms and conditions of this Contract shall take effect from [insert date] (the "Effective Date") and shall be valid for __1__ year(s) only.

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5. The required date for commencement of the Work shall be as per the Work Order (s) that may be issued by the Warehouse Manager/ Corporation's Engineer (**Refer Schedule II: Scope of Work**), on need basis, from time to time ("**Commencement Date**"). Notwithstanding any other provisions of the Contract, Corporation's obligations under this Contract or any Work Order shall arise only upon issuance of a Work Order to the Contractor. The Work Order may comprise *inter-alia*, the following:
- Work Order reference Number, Date of Placement;
 - Name of the Work/ services to be delivered;
 - Schedule of handing over of site by the Corporation;
 - Schedule of issue of designs (If required/ applicable) by the corporation;
 - Estimated (abstract) quantities of Work(s);
 - Time of commencement and completion;
 - Reference of quantity estimates whether estimated by Contractor or estimated by CWC Engineer/ Warehouse Manager
 - Defect Liability Period;
 - Place of Work, Site details.
6. The work(s) shall be required to be completed within stipulated time schedule to be reckoned from the 3rd day from date of placement of Work Order in case of R&M/ Upgradation works as per Table 2 /Table 3 of Scope of Work (Schedule-II) and from next day from date of placement of Work Order in case of Horticulture & Housekeeping Services mentioned in Table 1 of Scope of Work (Schedule-II) above and immediately upon call by Warehouse Manager for breakdown services mentioned in Table 1 above to meet the time line as per Schedule- II of Scope of Work.
7. For the purposes of Clause 14 (Warranty) of Schedule I (Conditions of Contract) the "Warranty Period" shall be a period as stipulated in the Scope of Work (Schedule-II) from the date of issue of the Completion Certificate in respect of the respective work(s) or, if earlier, the date of termination of the Contract; provided that if any rectification is carried out pursuant to Clause 14 (Warranty), then the Warranty Period shall be extended for a further equivalent period from the date of completion of such rectification.
8. The Contractor has provided the Corporation with an irrevocable and unconditional performance bank guarantee in the sum of [REDACTED] i.e. [insert amount] from a bank or financial institution acceptable to the Corporation (the "**Performance Bank Guarantee**"). The PBG shall be returned to the Contractor after Completion Certificate issued by the Corporation.

The PBG and or any other Bank Guarantee provided under this Contract shall be duly kept valid by the Contractor for beyond sixty (60) days- after first anniversary of the Letter of Award issued by the Corporation or any Contract/ Work Order extension.

If requested by the Corporation, the Contractor agrees to extend the validity period of the Performance Bank Guarantee or to issue a further Performance Bank Guarantee in the event that the duration of this Contract is for any reason extended beyond such validity date.

The Corporation shall make a claim under the Performance Bank Guarantee apart for amounts to which the Corporation is entitled under the contract (not withstanding and/or without prejudice to any other provisions in the contract agreement) in the event of:

- a) failure by the Contractor to extend the validity of the Performance Bank Guarantee as described herein above, in which event the Corporation may claim the full amount of the Performance Bank Guarantee.
 - b) failure by the Contractor to pay Corporation any amount due, either as agreed by the Contractor or determined under any of the provisions of this Contract/ Work Order, within 30 days of the service of notice to this effect by Corporation.
9. Notwithstanding any other provisions of the Contract, no payments due to the Contractor by the Corporation under the Contract shall be payable by the Corporation to the Contractor until the copies of the certificates of insurance referred to in Clause 21 (Insurance) of Schedule I (Condition of Contract) (wherever applicable) and the Performance Bank Guarantee have been delivered to the Corporation.

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10. For the purposes of Clause 31.5 (Notices) of Schedule I (Conditions of Contract), the address for notices shall be:

If to the Corporation/ Regional manager:

Regional Manager,
Central Warehousing Corporation,
Scope Minar, Core-3, 1st Floor, Laxmi Nagar Distt. Centre,
Delhi-110092]

E-mail: rmdli@cewacor.nic.in

Attention: []

If to the Contractor:

[Insert Address]

E-mail: []

Attention: []

DRAFT

13. For the purposes of this Contract, the Corporation's Representative for contractual matters shall be **[Pawan Kumar ,Regional Manager]** and the Corporation's Representative for operational/technical matters shall be **[HarishChandra Meena/AE]**.

For the purposes of this Contract, the Contractor's Representative for contractual matters shall be **[name/designation]** and the Contractor's Representative for operational/technical matter shall be **[name/designation]**.

14. The following additional terms and conditions shall apply to this Contract:

[Insert here any additional contract-specific terms and conditions, if any]

Vol-II Contract & GCC

IN WITNESS WHEREOF the Parties hereto have executed this Agreement on the day, month and year herein above written:

Signed by.....

.....[Print Name]

for and on behalf of **CWC**

Witness.....

.....[Witness Name]

Signed by.....

.....[Print Name]

for and on behalf of **[Name of Contractor]**

DRAFT

Witness.....

.....[Witness Name]

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SCHEDULE I **CONDITIONS OF CONTRACT**

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APPENDIX- 1

PERFORMANCE BANK GUARANTEE

SCHEDULE I CONDITIONS OF CONTRACT

1 INTERPRETATION

1.1 Definitions

In the Contract the following words and expressions shall, unless the context otherwise requires, have the following meanings:

"Affiliate"	shall mean any subsidiary or holding company of any body corporate or any other subsidiary of such holding company. For the purpose of this definition: "subsidiary" shall mean a subsidiary within the meaning of the Companies Act, 2013 but in addition as if that section provided that its members are deemed to include any other body corporate whose rights in relation to it are held on behalf of that other body corporate or by way of security by another person but are treated for the purposes of that section as held by that other body corporate; and "holding company" shall mean a holding company within the meaning of the Companies Act, 2013 but in addition as if that section provided that a body corporate is deemed to be a member of another body corporate where its rights in relation to that body corporate are held on its behalf or by way of security by another person but treated for the purposes of that section as held by it;
"Agreement"	shall mean the Agreement between the Corporation and the Contractor to which this Schedule is attached;
"Claim"	shall mean means any and all claims, demands, liens, judgments, awards, remedies, debts, liabilities, damages, injuries, costs, losses, legal and other expenses, or causes of action of whatsoever nature, including, without limitation, those claims made or enjoyed by dependents, heirs, claimants, executors, administrators, successors or assigns, in whatever jurisdiction the foregoing may arise;
"Commencement Date"	shall mean the required date for commencement of the Work at the Site, as specified in the Contract/ Work Order;
"Corporation Group"	shall mean the Corporation, its affiliate, successors and permitted assignees, and its and their respective directors, officers and employees (including agency personnel).
"Corporation Information"	shall mean all data, documents, materials and information supplied by the Corporation to the Contractor for the purposes of this Contract, including, without limitation, any updated or re-issued information;
"Corporation's Representative"	shall mean the person(s) identified as such in the Agreement;
"Completion Certificate"	shall have the meaning given to that term in Clause 13 (Completion of the Work);

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"Completion Date"	shall mean the required date for completion of the Work as set out in the Contract/ Work Order, as the same may be amended in accordance with the provisions of the Contract;
"Contract"	shall have the meaning given to that term in the Agreement, as the same may be amended or varied in accordance with its terms;
"Contractor's Equipment"	shall mean all tools, plant, equipment, materials and supplies provided by the Contractor Group (whether owned, leased or hired) in connection with the performance of the Work/Services (including, without limitation, those referred to in the Scope of Work) and whether or not for incorporation in the Facilities/ Work(s);
"Contractor Group"	shall mean the Contractor, its subcontractors of any tier, its and their respective Affiliates, successors and permitted assignees, and its and their respective directors, officers, employees (including agency personnel);
"Contractor's Personnel"	shall mean all personnel provided or used by the Contractor Group for the purpose of carrying out the Work, including, without limitation, those referred to in the Scope of Work;
"Contractor's Representative"	shall mean the person(s) identified as such in the Agreement;
"Data"	means all reports, studies, designs, data, drawings and other information, documentation and materials as may be prepared, created or developed by the Contractor as a result of the Work or in accordance with this Contract;
"Effective Date"	shall have the meaning given to that term in the Agreement;
"Facilities"	shall mean the facilities to be constructed/ maintained/ repaired/ renovated by the Contractor as a result of the Work(s);
"Force Majeure"	shall have the meaning given to that term in Clause 22.2 (Definition);
"Government"	shall mean the Government of India, or where applicable, any state, regional or local government or authority, inclusive of any ministry, agency, authority or other entity controlled by same; includes agencies and Public Sector Enterprises under it, in specific contexts;
"Issued Material"	shall mean the resources viz materials, tools, plant, equipment listed in the, Appendix 7 and/or Scope of Work (if any) to be procured by the Corporation and delivered to the Contractor at the specified location to enable to Contractor to carry out the Work;
"Officer –in charge"	shall mean the Corporation representative Officer in the capacity/rank of Warehouse Manager or Engineer who placed the work order to contractor to perform the work/deliver the services under the contract.
"Party"	shall mean either the Corporation or the Contractor as the context so permits and, as expressed in the plural, shall mean the Corporation and the Contractor collectively;
"Scope of Work"	shall mean the scope of work set out in Schedule II (Scope of Work) along with Technical Specifications and any amendment thereto made in accordance with the terms of the Contract;

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"Schedule(s)"	shall mean the schedule(s) to the Contract as referred to numerically and exhaustively therein;
"Site"	shall mean the operating site, construction site or other place where the Contractor is performing the Work and/or any supporting activity in respect thereof;
"Specification"	shall mean those requirements regarding the standard of Contractor's Equipment, as set out in the Contract;
"Warranty Period"	shall have the meaning given to that term in the Agreement;
"Work"	shall mean all work or services to be performed by the Contractor as provided for under the Contract, including, without limitation, the provision of all materials, services and equipment required in accordance with the Contract as per Scope of Work and Technical Specifications;

1.2 Clauses

Unless otherwise stated, any and all references in the Contract to Clauses are references to the Clauses of this Schedule I of the Contract.

1.3 Headings

The headings in the Contract are used for convenience only and shall not govern or affect the interpretation of the Contract.

1.4 Plurality

Words denoting the singular shall include the plural and vice versa, where the context requires.

1.5 Statutory References

Except as expressly identified, any reference to statute, statutory provision or statutory instrument shall include any re-enactment or amendment thereof for the time being in force.

1.6 Periods

Unless expressly stated otherwise, all references to days, weeks, months and years shall mean calendar days, weeks, months and years.

2 COMMENCEMENT AND PROGRESS OF WORK

2.1 Commencement Date

When Corporation issue the work order(s), on need basis, for any work /services at any day during contract period, The Contractor shall ensure that it is in position ready to commence the Work at the Site no later than the Commencement Date mentioned in work order(s).

2.2 Progress of the Work

2.2.1 The Contractor shall at all times carry out and complete the Work in accordance with any Work Plan and/or time schedule for the Work specified in the Work Order (s) or if none is specified such other work plan and/or time schedule as may be agreed between the Parties (the "Work Plan").

2.2.2 As soon as possible, but within 3 (Three) working days of receipt of a Work Order, the Contractor shall submit a Work Plan showing the "Time and Progress Chart" for each milestone within the Time for

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Completion. The Officer in Charge may within 7 (seven) working days thereafter, if required modify and communicate the Work Plan approved to the Contractor, failing which the Work Plan submitted by the Contractor shall be deemed to be approved by the Officer in Charge.

- 2.2.3 In case of non-submission of Work Plan by the Contractor, the Work Plan as may be issued by the Officer in Charge shall be deemed to be final. The issuance of and/or deemed approval of such Work Plan by the Officer in Charge shall not relieve the Contractor of any of the obligations under the Contract.
- 2.2.4 The Contractor shall submit the Work Plan including the 'Time & Progress Chart' and Progress Report using the mutually agreed software or in other format decided by Corporation for the work done during previous month to the Corporation on or before 5th day of each month, failing which a recovery as per **Appendix-7** to be decided by the Corporation, shall be made on per week or part basis in case of delay in submission of the monthly progress report.
- 2.2.5 The Contractor shall use the Work Plan as the basis for progress reporting, scheduling, forecasting and controlling performance of the Work. If at any time the progress of the Work does not comply with the Work Plan, the Contractor shall immediately inform the Corporation and shall take all necessary action to re-establish progress in accordance with the Work Plan.
- 2.2.3 A Work Order issued by the Corporation shall only be amended in accordance with the procedure set out in Clause 29 (Variations).

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2.3 Completion Date

The Contractor shall complete the Work in accordance with the Contract by no later than the Completion Date stipulated in the Work Order. Upon completion, the Corporation shall issue a Completion Certificate to the Contractor in accordance with Clause 13.3.

3 CONTRACTOR'S OBLIGATIONS – GENERAL

3.1 Contractor's Performance

- 3.1.1 The Contractor shall perform the Work with all due skill, diligence and care and in a safe, competent and workmanlike manner in accordance with good and prudent industry practice and in accordance with the provisions of the Contract.
- 3.1.2 Except to the extent that it may be legally or physically impossible or create a hazard to safety, the Contractor shall comply with the Corporation's Representative(s) instructions and directions on all matters relating to the Work.
- 3.1.3 The Contractor shall provide all management, supervision, personnel, materials, equipment and supplies, plant, consumables, facilities and all other things, so far as the necessity for providing the same is specified in or is reasonably to be inferred from the Contract.
- 3.1.4 Where the Contractor has to work along with other agencies in and around the area allotted for his Works, it shall execute all the Works in complete coordination and cooperation with all such agencies, so that at no time either its work or the works of other agencies is stopped or delayed. In case of any dispute in this regard, decision of Regional Manager of the Corporation will be final and binding on the Contractor. No claim for idle labor, plant and machinery, under any circumstances will be entertained by the Corporation.
- 3.1.5 During execution of the work, the Warehouse may be operational. Contractor has to execute all works in complete coordination and cooperation with all activities confined to the area within the Scope of Work, so as not to affect the operation of Warehouse under any circumstances. In case of any dispute in this regard, decision of Corporation or their representative (officer in charge) will be final and binding

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on the Contractor. Contractor shall also note that work shall progress in phased manner as per operational requirement of Corporation, if any, as may be informed by the Corporation at the time of execution of the Work.

- 3.1.6 The Contractor acknowledges that it has assessed CWC operations at site of work and shall deploy the needful resources after proper planning in such a way that each work/services, under this contract, is completed within stipulated time schedule despite running transactions/ operations of CWC.
- 3.1.7 Contractor shall provide temporary site office with requisite furniture & appliances and godown for storing/ stacking construction materials at their own cost. Space, without charging any rent, to construct temporary godown and to provide temporary site office shall be provided by Warehouse Manager of the Corporation based on availability of space in CWC complex. The area to be provided shall be decided by Warehouse Manager based on availability. The Contractor undertakes that no construction material, supplied goods or any other items/materials is/are placed in the CWC complex in haphazard manner or stored at any place other than its designated place. Warehouse Manager may, in all such case shall have the power to remove such material(s) from the CWC Complex or may relocate the same to designated place at risk and cost of Contractor. Decision of Warehouse Manager in such cases shall be final and binding on Contractor and shall be an exempted matter.
- 3.1.8 Where the Work(s) executed by the Contractor are ultimately to be delivered to the Corporation, the risk and responsibility for the damage, loss, care and maintenance of such Work(s) shall remain with the Contractor until the date of issue of the Completion Certificate in respect of the whole of the Facilities.
- 3.1.9 The Contractor acknowledges that it has already inspected the site and satisfied itself about the actual site conditions and has collected any other information which may be required by the Contractor. The Contractor shall not be entitled for any claim(s) whatsoever, in case of variance of Site conditions prior to or after execution of this Contract.

3.2 Sampling, Inspection and Testing

- 3.2.1 The Contractor shall, at his own expense and without delay, supply to the Corporation samples of materials to be used on the work and shall get these approved in advance. All such materials to be provided by the Contractor shall be in conformity with the specifications, if any, laid down or referred to in the Contract. The Contractor shall, if requested by the Corporation furnish proof, to the satisfaction of the Corporation that the materials so comply.
- 3.2.2 The Corporation through its representative shall, within 7 days of supply of samples or within such further period as he may require, intimate to the Contractor in writing whether samples are approved by him or not. If samples are not approved, the Contractor shall forthwith arrange to supply to the Corporation for his approval, fresh samples complying with the specifications laid down in the Contract. When materials are required to be tested in accordance with specifications, approval of the Corporation shall be issued after the test results are received.
- 3.2.3 The Contractor shall at his risk & cost submit the samples of materials to be tested or analyzed and shall not make use of or incorporate in the work any materials represented by the samples until the required tests or analysis have been made and materials finally accepted by the Corporation. The Contractor shall not be eligible for any claim or compensation either arising out of any delay in the work or due to any corrective measures required to be taken on account of and as a result of testing of materials.
- 3.2.4 The Contractor shall, at his risk & cost, make all arrangements and shall provide all facilities as the Corporation may require for collecting, and preparing the required number of samples for such tests at such time and to such place or places as may be directed by the Corporation and bear all charges and cost of testing unless specifically provided for otherwise elsewhere in the contract or specifications. The Corporation shall, at all times, have access to the works and to all workshops and places where work is being prepared or from where materials, manufactured articles or machinery are being obtained for the works and the Contractor shall afford every facility and every assistance in obtaining the right to such access.

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- 3.2.5 The Corporation shall have full powers to require the removal from the premises of all materials which in his opinion are not in accordance with the specifications and in case of default, the Corporation shall be at liberty to employ at the expense of the Contractor, other persons to remove the same without being answerable or accountable for any loss or damage that may happen or arise to such materials. The Corporation shall also have full powers to require other proper materials to be substituted thereof and in case of default, the Corporation may cause the same to be supplied and all costs which may attend such removal and substitution shall be borne by the Contractor.
- 3.2.6 The contractor may at his own expense, provide a material testing lab. at the site for conducting routine field tests. The lab should be equipped at least with the testing equipment, as specified in Appendix 7.
- 3.2.7 Any inspection by the Corporation, test or examination, or any failure by the Corporation to carry out any inspection, test or examination, shall not relieve the Contractor of any of its obligations under the Contract.

3.3 Quality Assurance and Quality Control

- 3.3.1 Promptly after the Effective Date, the Contractor shall provide quality assurance and quality control systems and quality plans for approval by the Corporation. Such systems and plans shall be in accordance with good industry practice and Field quality plans given in Schedule-II (Appendix-IV-technical specification).
- 3.3.2 The Contractor shall ensure, and shall procure that its sub-contractors ensure, that the Work is carried out in accordance with the quality assurance and quality control systems and quality plans approved in writing by the Corporation and any other quality assurance and quality control systems and quality plans provided to the Contractor by the Corporation.
- 3.3.3 All works under or in course of execution or executed in pursuance of the contract, shall at all times be open and accessible to the inspection and supervision of the Corporation and/or his authorized officers-in-charge of the work and all the superior officers, officer of the Quality Assurance Unit of the Department or any organization engaged by the Department for Quality Assurance and of the Chief Technical Examiner's Office and the contractor shall, at all times, during the usual working hours and at all other times at which reasonable notice of the visit of such officers has been given to the contractor, either himself be present to receive orders and instructions or have a responsible agent, duly accredited in writing, present for that purpose. Orders given to the Contractor's agent shall be considered to have the same force as if they had been given to the contractor himself.
- 3.3.4 If it shall appear to the Corporation or his authorized subordinates , Chief Engineer and or Other Engineers in his Office of Quality Assurance or his subordinate officers or the officers of the organization engaged by the Department for Quality Assurance or to the Chief Technical Examiner or his subordinate officers, that any work has been executed with unsound, imperfect or unskillful workmanship or with materials or articles provided by him for the execution of the work which are unsound or of a quality inferior to that contracted or otherwise not in accordance with the contract, the Contractor shall, on demand in writing which shall be made within six months (three months in the case of work costing Rs. 10 Lac and below except roadwork) of the completion of the work from the Corporation specifying the work, materials or articles complained of notwithstanding that the same may have been passed, certified and paid for forthwith rectify, or remove and reconstruct the work so specified in whole or in part, as the case may require or as the case may be, remove the materials or articles so specified and provide other proper and suitable materials or articles at his own charge and cost. In the event of the failing to do so within a period specified by the Corporation in his demand aforesaid, then the contractor shall be liable to pay compensation at the same rate as under Clause 10 of the contract (for non-completion of the work in time) for this default.

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In such case, the Corporation may not accept the item of work at the rates applicable under the contract, but may accept such items at reduced rates as the authority specified in Appendix 7 may consider reasonable during the preparation of on account bills or final bill, if the item is so acceptable without detriment to the safety and utility of the item and the structure or he may reject the work outright without any payment and/or get it and other connected and incidental items rectified, or removed and re-executed at the risk & cost of the contractor. Decision of the Corporation to be conveyed in writing in respect of all of the above shall be final and binding on the Contractor and shall be excepted matter(s).

4 CONTRACTOR'S EQUIPMENT

4.1 Contractor's Equipment - General

- 4.1.1 The Contractor warrants that the Contractor's Equipment shall be adequate to perform the Work, shall be new or as new, of good quality and workmanship and shall comply in all respects with the Specification.
- 4.1.2 The Corporation shall be entitled, at any time, to inspect all or any part of the Contractor's Equipment. If any part of the Contractor's Equipment does not, at any time, meet the requirements of the Contract, then the Contractor shall upon notice from the Corporation promptly replace or repair such part of the Contractor's Equipment to ensure compliance with the Contract.
- 4.1.3 The Contractor warrants good title to all Contractor's Equipment.
- 4.1.4 The Contractor warrants that the Contractor's Equipment has been examined by inspectors of any relevant certifying authority no more than six months prior to the Effective Date and shall, for the duration of the Contract and any extension thereof, conform in all respects with all applicable current laws or statutory instruments setting out regulations to be observed in the conduct of oilfield operations.
- 4.1.5 Any inspection of any item of Contractor's Equipment necessarily required during the currency of the Contract to ensure continued compliance with certification requirements, or for any other reason, shall be conducted at a time convenient to the Corporation (subject to any overriding limitation imposed by any certification authority). All costs connected with any such inspection shall be to the account of the Contractor.

4.2 Spares

The Contractor shall ensure that the Contractor's operational base at the Site is at all times stocked with spare parts for the Contractor's Equipment that meet the requirements of the Contract, together with all necessary or desirable packing and marking for that purpose and that such spare parts are sufficient to ensure that the Work /services can continue in the event of failure of the Contractor's Equipment.

4.3 Removal of Unserviceable Contractor Equipment

- 4.3.1 The Contractor shall at its own expense, if required by the Government or if required by the Corporation for operational reasons, promptly remove from the Site, any Contractor's Equipment which may have been rendered unserviceable through any cause during the course of operations hereunder or otherwise deal with the Contractor's Equipment in accordance with the Corporation's instructions, notwithstanding that the Contractor's Equipment may be insured and whether or not declared a loss.
- 4.3.2 In the event that the Contractor fails to carry out its obligations under the foregoing Clause 4.3.1 within seven days of receiving notice from the Corporation, the Corporation shall be entitled to take such measures in respect of any such equipment and, at its sole discretion, shall be entitled to elect, at any time thereafter, to remove the same and shall be entitled to recover all costs and expenses so incurred from the Contractor (including, without limitation, any customs duties or taxes which may be incurred).

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4.4 Title and Risk

Where any item of Contractor's Equipment is ultimately intended to become the property of the Corporation pursuant to this Contract (whether through incorporation in the Facilities or otherwise), title to such item shall be transferred to the Corporation with effect from the first arrival of such item at the Site but the risk and responsibility for the damage, loss, care and maintenance of such item shall remain with the Contractor until the date of issue of the Completion Certificate in respect of the whole of the Facilities.

- 4.5 The contractor shall treat all materials obtained during dismantling of a structure, excavation of the site for a work etc. as Corporation's property and such materials shall be disposed of to the best advantage of Corporation according to the instructions in writing issued by the Officer in charge. The Contractors, in the course of their own work, acknowledges that all materials obtained in the work of dismantling and excavation etc. is the property of Corporation and would be issued to the Contractor (if they require the same for use in the work) at the rates approved by the Corporation, as the case may be.

5 CONTRACTOR'S PERSONNEL

5.1 Contractor's Personnel - General

- 5.1.1 Subject to all the compliances of Appendix-5, the Contractor shall, at its expense, provide and keep available for the Work, the Contractor's Personnel and shall ensure that the Contractor's Personnel comply with applicable laws and, where necessary for the performance of the Work, are in possession of valid passports and work permits, wherever applicable.
- 5.1.2 The Contractor shall ensure that the Contractor's Personnel shall be sufficient in number, experience and quality to carry out the Work in accordance with the terms and conditions of the Contract.
- 5.1.3 No key member of the Contractor's Personnel assigned to the Works may be replaced without the Corporation's prior written approval, except in the case of death, serious injury or illness of the key member or their immediate family and/or resignation of such personnel not followed by any hiring back by the Contractor during the term of the Contract. Any replacement shall work with the person to be replaced for a reasonable handover period. For the purposes of this Clause, the term "key member" shall mean any member of the Contractor's Personnel who, in the reasonable opinion of the Corporation, performs an important role in the performance of the Work and shall include, without limitation, any project manager, supervisory staff, project engineer or lead discipline engineer.
- 5.1.4 The Corporation reserves the right to reject any member of the Contractor's Personnel, prior to that member commencing any part of the Work.
- 5.1.5 The Contractor shall submit by the 4th and 19th of every month, to the Corporation, a true statement showing in respect of second half of the preceding month and the first half of the current month respectively:
- (i) the number of labourers employed by him on the work
 - (ii) their working hours
 - (iii) the wages paid to them
 - (iv) the accidents that occurred during the said fortnight showing the circumstances under which they happened and the extent of damage and injury caused by them
 - (v) the number of female workers who have been allowed maternity benefit and the amount paid to them.
- In case of failure to comply with the above, the Contractor shall be liable to pay to Corporation, a sum as decided by the authority mentioned in Appendix-7 for each default or materially incorrect statement. Decision of the Corporation shall be final in deducting from any bill due to the Contractor, the amount levied as fine and be binding on the Contractor.

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5.2 Removal of Personnel

The Corporation may, at any time after the commencement of the Work and at its sole discretion, direct the Contractor in writing to remove any member of the Contractor's Personnel from the performance of the Work. The Contractor shall immediately comply with such direction and shall, as soon as reasonably practicable, replace, or procure the replacement of, such person with another person suitably qualified and acceptable to Corporation. The Contractor shall bear the costs of any such removal and replacement.

5.3 Working Conditions and Discipline of Contractor Personnel

5.3.1 The Contractor shall, at all times, be responsible for the conduct of the Contractor's Personnel and shall ensure that they comply with all applicable laws and honour and observe Indian standards of morality and behaviour.

5.3.2 The Contractor shall comply with, and ensure that its sub-contractors comply with, all labour laws, regulations, standards and practices applicable in respect of the Site. Wherever, applicable, the Contractor shall provide a copy of Labour Licence to the Corporation promptly/immediately after execution of this Contract.

5.3.3 No guarantee will be provided by CWC for accommodation of the Contractor or any of his personnel deployed for the Work(s). The Contractor may, however, be allowed by the Corporation at its discretion, to erect labour camps for housing the labour/ personnel at or near the site of work on available Warehouse premises. The Contractor shall at his own cost make all necessary and adequate arrangements for importation, feeding and preservation of the hygiene of his staff. Contractor shall always permit inspection of the Corporation or his assistant or any official of the Corporation for all sanitary arrangements, made by him. If the Contractor fails to make adequate medical and sanitary arrangements, these may be provided by the CWC and cost thereof will be recovered from the Contractor. The Contractor shall ensure that these labour camps so erected shall not adversely degrade the beauty and aesthetic of CWC / Warehouse complex. The camps shall be erected as per Good Industry Practices giving a neat and clean ambience.

5.4 Drugs and Alcohol

Neither the Contractor nor any of the Contractor's Personnel shall, except for bona fide medical purposes, keep, sell, barter, give, dispense or otherwise dispose of any drugs or alcoholic liquors to any person at the Site or permit the same to be done by any person. Alcohol shall not be permitted at the Site save in a form generally used in medicine and forming a bona fide constituent of a medical kit. The Corporation's Representative reserves the right to search the property and person of any member of the Contractor's Personnel to ensure compliance with the provisions of this Clause 5.4 (Drugs and Alcohol). The Corporation's Representative may at his absolute discretion prohibit any member of the Contractor's Personnel to go on to the Site or other facility in the control of Corporation, or may require such person to leave the Site where he has reasonable grounds to suspect non-compliance with the provisions of this Clause 5.4 (Drugs and Alcohol). The Contractor shall at all times comply with the provisions of Appendix 4 (Substance Abuse Conditions).

6 TRANSPORT OF PERSONNEL AND EQUIPMENT

6.1 Contractor's Responsibility

Unless otherwise specified in the Contract, the Contractor shall be responsible for providing any and all transportation for all Contractor's Equipment and Contractor's Personnel required in connection with the performance of the Work.

7 CORPORATION SUPPLIED RESOURCES

7.1 Resources viz Issued Material, Tools, Plants and Equipment

7.1.1 The Corporation shall deliver the Material Tools, Plants and Equipment to the Contractor as specified in the Appendix- 7 of Schedule I. The Contractor shall inspect all such resources when delivered into the Contractor's possession and shall within 48 hours of such delivery notify the Corporation of any defect, deficiency or shortage. In the event that the Contractor does not notify the Corporation of any defect, deficiency or shortage within 48 hours of delivery, then the Contractor will be deemed to have accepted the Issued Material / Tools/ Plants/ Equipment and these resources shall be deemed to have been delivered in a complete and undamaged state.

7.1.2 Title to the Corporation Issued Material / Tools/ Plants/ Equipment shall at all times remain with the Corporation but the risk and responsibility for the damage, loss, care and maintenance of the these resources shall rest with the Contractor from the date of delivery to the Contractor until the date of issue of the Completion Certificate in respect of the whole of the Facilities. Upon completion of the Facilities or expiry/ termination of the Contract, the Contractor undertakes to return the resources balanced from consumption in work based on technical consumption requirement as defined in Appendix IV of Schedule II and/or reconcile the same. In case of any unaccounted issued resources, the Contractor shall be liable to the Corporation to pay the cost of such resource.

7.2 Corporation Information

7.2.1 The Corporation shall provide the Corporation Information to the Contractor as specified in the Scope of Work. The Corporation makes no representation or warranty as to the accuracy or sufficiency of the Corporation Information.

7.2.2 The Contractor shall review the Corporation Information and shall promptly notify the Corporation of any inaccuracies, omissions, contradictions or ambiguities in the Corporation Information.

7.2.3 All Corporation Information shall at all times remain the exclusive property of the Corporation and shall be returned to the Corporation on completion of the Work or termination of the Contract, whichever is the earliest.

7.2.4 The Corporation Information may be updated or re-issued to the Contractor from time to time during the carrying out of the Work.

7.2.5 The Contractor shall not diverge from or change the requirements or parameters referred to in the Corporation Information or the Scope of Work without the prior written approval of the Corporation.

7.3 Deemed Satisfaction

Notwithstanding the provision of the Corporation Information, the Contractor shall be deemed to have satisfied itself in respect of all relevant matters pertaining to the Work, including, but not limited to, the Scope of Work, the nature of the Work, access to the Site, local facilities, climatic, sea, other water and weather conditions, working hygiene and working environment conditions and all other matters which may affect the performance of the Work. Any failure by the Contractor to take into account any of the aforementioned matters shall not relieve or excuse the Contractor from any of its responsibilities, liabilities or obligations hereunder or entitle the Contractor to any extra payment.

8 HEALTH, SAFETY AND ENVIRONMENT

8.1 Safety

The Contractor shall observe and comply with all laws, regulations, restrictions, guides and issued by any authority having jurisdiction in the respect of the Site relating to health, safety and environment including, as provided in Appendix-4. In respect of all labour/ personnel directly or indirectly employed for execution of the work(s) for the performance of the contractor's part of this Contract, the Contractor shall at his own expense arrange for the safety provisions as per CPWD's Safety Code (a copy of which Contractor acknowledges to have received), framed from time to time and shall at his

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own expense provide for all facilities in connection therewith. In case the contractor fails to make arrangement and provide necessary facilities as aforesaid, he shall be liable to pay a penalty as decided by the authority mentioned in Appendix-7 for each default and in addition, the Corporation shall be at liberty to make arrangement and provide facilities as aforesaid and recover the costs incurred in that behalf from the Contractor.

8.2 Compliance with Corporation HSE Requirements

The Contractor shall observe and comply with the health, safety and environment requirements set prescribed by any statutory authority and/or set out in the Contract including, without limitation, the Corporation's HSE policy and guidelines (or relevant part thereof) set out in the Contract.

8.3 Obligations of Contractor

8.3.1 It shall be the Contractor's obligation to determine at all times whether the Work can be safely continued or undertaken including, without limiting the generality of the foregoing, determining by the Contractor's own inspection that all Contractor's Equipment is loaded and/or stored in a proper and safe manner and that the Contractor's Equipment is in all respects suitable to undertake the Work in the then existing conditions.

8.3.2 The Contractor shall store all material brought by him for incorporating in works such that its physical and material property are not damaged. Its storage should not be haphazard and exposed to weather, sun (in case it is not so recommended by manufacturers). Raw construction material viz bricks, sand, aggregates, TMT, Roof sheets, Pipes etc shall not be stacked in circulation area. These to be stored over space identified by Corporation only despite of lead and carriage within CW Complex. All earth excavated from pit shall be disposed off neatly at the end of day. Construction material, in CW Complex, shall be stored such that CW operations and campus aesthetic is not disturbed. In case of Contractor's failure in this regard, the Corporation shall have power to shift the stored items and relocate the same. Any cost and damage upon such shifting shall be at the risk and cost of the Contractor.

8.3.3 No inflammable materials, such as petroleum, oil etc. within the meaning of the Indian Petroleum Act and Indian Explosives Act shall be stored at site or adjacent land, until approval of the Corporation and necessary license under the Act has been obtained by the Contractor. All due precautions, as required under the Acts shall be taken by Contractor.

8.3.4 The Contractor shall ensure that equipment or rubbish in any form originating from the Work will be collected promptly in a place at the Site suitable for ready and prompt removal therefrom.

8.4 Responsibility for Safety of Contractor Personnel

8.4.1 The Contractor shall, throughout the duration of the Contract be responsible for the safety of the Contractor's Personnel and agrees that the Contractor's Personnel, whilst on the Site, shall attend and conduct safety drills as may be directed by, or on behalf of, the Corporation.

8.4.2 The Contractor shall hold regular meetings with the Contractor's Personnel to instruct and up-date them regarding compliance with the requirements of this Clause 8 (Health, Safety and Environment) and shall provide evidence of this to the Corporation on request. The Contractor shall at all times provide appropriate and adequate personal protective equipment and safety equipment to the Contractor's Personnel.

8.4.3 The Contractor shall have proper arrangements in place for the effective supervision of the execution of the Work by the Contractor's Personnel so as to ensure safe and proper execution of the Work. Where the Work is being performed at an offshore location, the Contractor shall ensure that those members of the Contractor's Personnel working offshore have undergone sea survival training.

8.5 Contractor's Policy

The Contractor may supply to the Corporation a copy of the Contractor's health, safety and environmental policy prior to commencement of the Work. The policy shall indicate how the

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responsibility for health, safety and environmental matters is allocated and shall specify by name one individual amongst the Contractor's Personnel with overall responsibility for such matters. The policy shall indicate in clear terms the practices, procedures and measures which the Contractor intends to follow or take to protect all resources at the Site, including men and materials, during the carrying out of the Work. The policy shall also include details of the emergency procedures to be followed in case of injury to any person, damage to any works, equipment or materials and pollution to the environment. The policy shall be complementary to the Corporation's HSE policy and guidelines referred to in Clause 8.2 (Compliance with Corporation HSE Requirements) and the other requirements set out in this Clause 8 (Health, Safety and Environment).

8.6 Compliance with Corporation's Instructions

Without prejudice to the foregoing provisions of this Clause 8 (Health, Safety and Environment), the Contractor shall comply with all safety instructions of the Corporation consistent with the provisions of the Contract including, without limitation, the safety instructions of any of the Corporation's other contractors. Such instructions shall, if the Contractor so requires, be confirmed in writing by the Corporation's Representative, so far as practicable.

8.7 Warehouse Manager and Engineer

The Contractor acknowledges that the Corporation shall be represented by Warehouse Manager and/or Engineer. Such representatives shall have the general responsibility for matters affecting safety, emergency response, health or welfare and the maintenance of order and discipline, and in the discharge of that responsibility shall exercise authority over all personnel of Corporation, the Contractor's Personnel and the personnel of other contractors of the Corporation when present on or near the Site.

The Contractor hereby acknowledges the authority of the Warehouse Manager and/or Engineer and shall ensure that the Contractor's Personnel shall recognize such authority and comply with all instructions (whether written, oral or otherwise) of such Warehouse Manager and/or Engineer.

8.8 Reporting

8.8.1 The Contractor shall immediately inform the Corporation in writing when an incident or accident occurs (including, without limitation, any fatality, lost time incident, medical treatment case, first aid case near miss or any other loss related incident) in any way connected with the Work, whether or not it may affect any operations of the Corporation or the operations of others working on behalf of the Corporation, and shall maintain accurate records therefor. Any fatality or major accident or incident shall be reported to the Corporation within 24 hours of occurrence. The Contractor shall also submit a monthly report in respect of all incidents or accidents in any way connected with the Work detailing, without limitation, the nature of such incident or accident, the extent of lost time, the reasons for the incident or accident and future preventive measures which will be taken by the Contractor.

8.8.2 In addition to the foregoing, the Contractor shall promptly conduct incident investigations on all fatalities or major accidents or incidents and submit a report with its findings, conclusions, recommendations and actions taken or planned to the Corporation within one week from the date of occurrence of such fatality or major accident or incident. The Corporation shall be entitled to join the Contractor in its investigation of the matter or carry out its own independent investigation. In either case, the Corporation's role in any such investigation shall not relieve the Contractor of its obligation to conduct its own investigation and to submit its report to the Corporation within the stipulated time.

9 REPRESENTATIVES

9.1 Corporation's Representative

9.1.1 The Corporation's Representative(s) shall act in full charge of the Work and shall have full authority to liaise with the Contractor's Representative(s) to resolve all day to day matters which may arise between the Contractor and the Corporation.

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- 9.1.2 The Corporation's Representative(s) shall monitor the performance of the Work and shall have the authority necessary to enforce the provisions of this Contract.
- 9.1.3 The Corporation's Representative(s) shall be entitled to inspect the Work and all documentation relating thereto at any time.
- 9.1.4 The Contractor shall direct all matters relating to the Contract to the Corporation's Representative(s) and shall act only in accordance with the instructions of the Corporation's Representative(s).

9.2 Contractor's Representative

The Contractor's Representative(s) shall act in full charge of the Work and shall have full authority to liaise with the Corporation's Representative(s) to resolve all day to day matters which may arise between the Contractor and the Corporation.

9.3 Change of Representatives

Either Party may:

- (a) revoke the appointment of any person appointed as that Party's representative and may appoint another person as representative in his/her place; or
- (b) appoint any person to be an additional representative for a stated purpose.

No such revocation or appointment shall be effective until notice of it is given to the other Party.

10. Liquidated Damages

- 10.1 Except as provided under Clause 22 (Force Majeure) in case, the execution of Work(s) is/are delayed beyond the time for completion of Work(s) under any Work Order, without prejudice to right to take action under Clause 24, the Contractor shall be liable for liquidated damages to the Corporation. Unless specifically provided in Appendix-7, the liquidated damages shall be deducted in the following manner:

- In case the scheduled completion of work under any Work Order is more than six months- at the rate 1% (one percent) per month of delay to be computed on per day basis based on the total Work Order value/price determined as per the total amount determined by the Corporation to be payable against a Work Order;
- In case the scheduled completion of work under any Work Order is more than two months and up to six months- at the rate 2% (two percent) per month of delay to be computed on per day basis based on the total Work Order value/price determined as per the total amount determined by the Corporation to be payable against a Work Order;
- In case scheduled completion of work under any Work Order is up to two months- at the rate 5% (five percent) per month of delay to be computed on per day basis based on the total Work Order value/price determined as per the total amount determined by the Corporation to be payable against a Work Order;

Provided always that the total amount of liquidated damages shall not exceed 10% of the estimated Work Order price/value.

- 10.2 The right of Corporation to levy liquidated damages under this clause shall survive the expiry/ termination of Contract.

11 PATENTS

11.1 Indemnity

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The Contractor shall be liable for and shall defend, indemnify and hold the Corporation Group harmless from and against any Claim in connection with any infringement (whether actual or alleged) of any patent or other intellectual property right arising out of or in connection with the performance of this Contract by the Contractor.

11.2 Continued Performance

If the Contractor is prevented from performing any part of the Work as a result of an infringement (whether actual or alleged) of any patent or other intellectual property right the Corporation shall have no liability to pay for any part of the Work not performed as a result. The Contractor shall use all reasonable endeavours to utilise alternative methods and/or processes and/or equipment to continue to carry out the Work in accordance with the Contract.

11.3 Exception

The provisions of Clause 11 (Patents) shall not apply to the extent that the infringement necessarily arises from the Corporation's specifications or instructions to the Contractor, provided that the Contractor could not reasonably have been aware of such possible infringement.

12 DATA/ DRAWINGS

12.1 Delivery of Data

12.1.1 The Contractor shall deliver to the Corporation or to any other party designated by the Corporation, all Data/ Drawings, promptly on preparing/ obtaining such Data/Drawings. In the event of suspension or termination of the Contract, the Contractor shall immediately deliver to the Corporation all undelivered Data/ Drawings. The Contractor may not retain copies of such Data/Drawings unless it shall have first obtained the Corporation's written consent. The Contractor shall take all possible measures to ensure that no magnetic medium (tape, disk or other) will be passed through, or otherwise come into the vicinity of, any form of magnetic device during transport of the Data/ Drawings. Prior to the transport of any Data/Drawings by the Contractor, the Contractor shall advise the Corporation's Representative of the shipping and packing details.

12.1.2 Completion Drawings (in case of new construction only)

Completion drawings on as built basis of all the completed works for showing the layout of the area with dimensions, slopes and details of building, reinforcements used, pavement, drain, cable trenches, machine foundations etc. shall be prepared by the Contractor at his own cost. The Contractor will supply three copies of completion drawings along with soft copy in CD / Pen- drive with the final bill. In case, contractor does not submit the Completion drawing within 30 days of completion of the work or expiry/termination of Contract or with final bill, he shall not be entitled to receive any outstanding payment from the Corporation and the SD, PBG if available with CWC may be forfeited.

12.2 Ownership of Data/ Drawing

12.2.1 All Data/Drawing(s) shall be the property of the Corporation from the date of its creation or development. No Data/ Drawing(s) created or developed by the Contractor under this Contract shall become the property of the Contractor; provided that the risk and responsibility for the loss of, or damage to, any Data/Drawing(s) shall remain with the Contractor until delivery of such Data/Drawing(s) to the Corporation.

12.2.2 All Data shall be fit for the purposes specified in the Contract.

12.2.3 All items created or developed by the Contractor outside the Contract shall remain the property of the Contractor, provided that the Corporation shall have the right to use any such item where it is provided to the Corporation as part of the Work.

13 COMPLETION OF THE WORK

13.1 Notification by the Contractor

Upon completion of the Work (or any part thereof), the Contractor shall notify the Officer in charge. The Corporation Officer in-charge shall inspect the Work as soon as reasonably practicable and advise the Contractor whether the Work (or relevant part thereof) have been completed in accordance with the Contract.

13.2 Measurements for Works/Record of E- Measurements

- (i) Separate E -MB (Electronic Measurement Book) (“**EMB**”) shall be prepared for each Work Order.
- (ii) E-MB shall be maintained by Contractor and measurement shall be recorded therein. The date and time on which ‘on account’ or ‘final’ measurements of the Works/ Services completed are to be made shall be communicated to the Officer in charge. The date and time of test checks shall be communicated to the Contractor who shall be present at the Site of Work(s) where measurement is to be checked and shall witness the test checks, failing the Contractor’s attendance the test checks will not be conducted in his absence.
- (iii) The measurement (Test Check) shall be verified and accepted/rejected- by officer in charge who has placed the work order.
- (iv) The Contractor shall ensure that measurements for all works, which may be partially or wholly hidden in the course of construction are duly recorded in the Measurement book and tested /checked by Officer in charge, before that portion of work becomes inaccessible for measurement.
- (v) Incorrect measurement, actions to be taken: If in case during test check or otherwise, it is detected by the Officer in charge that Contractor has claimed or recorded any exaggerated measurement or has claimed or recorded any false measurement for the works which have not been executed; amounting to variation of 5% or more from actual work done, any exaggerated measurement, false claim shall not be paid and for repeated conduct on part of the Contractor, the Corporation shall have a right to terminate the Contract and any EMD, retention money or PBG available with CWC at the time of termination shall be forfeited and contractor shall be debarred from participating in future tender of Corporation as per Corporation’s policy.

13.3 Completion Certificate

13.3.1 Where the Corporation agrees that the Work (or relevant part thereof) have been completed in accordance with the Contract, the Corporation or its authorized representative shall issue a completion certificate (the “Completion Certificate”) to the Contractor. If the Work has not been completed in accordance with the Contract the Corporation or its authorized representative may advise the Contractor of the steps to be taken for completion and the Contractor shall promptly carry out such steps. In the event that a Completion Certificate , issued by corporation or its authorized representative identifies certain minor deficiencies and defects in the Work, the Contractor shall ensure that all such deficiencies and defects are remedied or repaired to the Corporation's satisfaction as soon as reasonably practical after the date of the Completion Certificate.

13.3.2 Issue of a Completion Certificate by the Corporation shall not relieve the Contractor of any of its obligations and/or liabilities under the Contract.

13.4 Extensions of Time

13.4.1 If the Contractor is delayed in performing the Work under this Contract/Work Order solely as a result of:

- (a) an event of Force Majeure; or
- (b) suspension of the Work by the Corporation pursuant to Clause 25.1 (Suspension Without Cause);
or

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- (c) Variation of quantities by the Corporation (Clause 29); or
- (d) delay on the part of other contractors or tradesmen, engaged by Corporation in executing work, not forming part of the Contract, or
- (e) any other similar cause(s) which, in the reasoned opinion of the Officer in Charge is beyond the Contractor's sole control.

Upon the happening of any such event causing delay, the Contractor shall immediately give notice within seven (7) days thereof in writing to the Corporation. The Contractor shall have no claim of damages for extension of time granted or rescheduling of milestone(s), if any for events listed in this sub-clause.

- 13.4.2 In case, the Work is hindered by the for any reason attributable to the Corporation, the Corporation shall give a fair and reasonable extension of time and reschedule the milestones for completion of work. In case of concurrent delays under this sub-clause, the Contractor shall be entitled to only extension of time and no damages.
- 13.4.3 With every request for extension of time, the Contractor shall indicate the period for which rescheduling of milestone/s or extension of time is desired along with a revised programme, which shall include all details of pending drawings and decisions required to complete the Contract/Work Order and also the target dates by which these details should be available without causing any delay in execution of the work. A recovery, as specified in **Appendix-7** shall be made on per day basis in case of delay in submission of the revised programme.
- 13.4.4 In any such case as above, the Corporation may give a fair and reasonable extension of time for completion of work or reschedule the milestones. The Corporation shall finalize/reschedule a particular milestone before taking an action against subsequent mile stone. Such extension or rescheduling of the milestones shall be communicated to the Contractor by the authority, specified in **Appendix 7**, in writing, within 21 days of the date of receipt of such request from the Contractor. In the event of the Contractor failing to seek extension of time, the Corporation, after affording opportunity to the Contractor, may give, supported with a programme (as specified under Clause 13.4.3 above), a fair and reasonable extension within a reasonable period of occurrence of the event.
- 13.4.5 If the Contractor is delayed in performing the Work under this Contract/ Work Order as a result of its own delays, the Corporation may exercise its rights either to Terminate (Clause 24) or extend the time to a further date whilst reserving its right to or by levying liquidated damages.
- 13.4.6 Record of all such hindrances shall be maintained as described in Appendix 7 based on the information/notices provided by contractor and effect of such hindrance on actual performance of work as decided by Officer in charge. Only the events, which actually forced to stop or slowdown the performance of work shall be recorded in hindrance register.

14 WARRANTY

14.1 Warranty

The Contactor warrants that it has performed and shall perform the Work in accordance with the provisions of the Contract, and that the Facilities will be free from defects during the Defect Liability Period provided in Schedule-II Scope of Work.

14.2 Notice by Corporation

If the Contractor is in breach of the warranty set out in Clause 14.1 (Warranty), the Corporation may notify the Contractor in writing before or during the Warranty Period specifying the nature of such breach and requiring the Contractor to rectify such breach. Upon receipt of any such notice, the Contractor shall, at its own expense, immediately commence and thereafter continuously proceed to

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rectify such breach (including, if applicable, re-performance of the relevant part of the Work) to the Corporation's reasonable satisfaction and in accordance with the provisions of this Contract.

14.3 Rights of Corporation

If the Contractor fails to comply with the provisions of Clause 14.2 (Notice by Corporation) or if, in the reasonable opinion of the Corporation rectification of such breach by the Contractor would be prejudicial to the Corporation's interests, the Corporation shall be entitled to engage a third party to perform (or re-perform) any part of the Work not properly performed by the Contractor and shall be entitled to recover from the Contractor any additional costs incurred by the Corporation in so doing.

15 INDEPENDENT CONTRACTOR

15.1 Status of Contractor

The Contractor shall at all times be an independent contractor with respect to performance of the Work and neither the Contractor nor any person employed by the Contractor shall, other than as expressly authorised by the Corporation in writing, either represent itself or himself (as appropriate) as, or be deemed for any purpose to be, an employee, agent, or representative of the Corporation in the performance of the Work. Nothing in this Contract shall be deemed to create a joint venture, partnership or agency between the Parties.

15.2 Other Contractors

The Corporation reserves the right to perform other work or services or enter into other contracts related to the Work hereunder. The Contractor shall afford the Corporation or other such contractors every opportunity for the execution of their work or services.

16 PRICES AND RATES

16.1 General

The Contractor shall, subject to the other provisions of this Contract and the provisions set out in Schedule III (Price/ Compensation Schedule), be paid for the Work in accordance with the prices and rates set out in Schedule III (Price/ Compensation Schedule).

Unless otherwise stated in this Contract, the price once accepted shall remain firm and will not vary during contract period or extended period for any reason.

17 PAYMENT

17.1 Invoices

17.1.1 For works, where stipulated period of completion is more than 1 month, running/on-account payments shall be made based on detailed measurements recorded in the measurement books for the actual work executed by the Contractor during the preceding month. Contractor shall raise the bills on monthly basis, (during 1st week of each month or as may be decided mutually between Corporation and Contractor) incorporating certified measurement of all works/services completed during previous month.

17.1.2 For Works/services, where stipulated period of completion is up to 1 month and in case of General Maintenance works/services, only final payment upon satisfactory completion of Works/ delivery of services shall be done within 30 days from the receipt of final bill by the Corporation. Contractor shall raise the bill along with Corporation's certified measurement of all works/services completed during previous month.

17.1.3 The Contractor shall submit to the Corporation on or before the seventh (7th) day of each month an invoice detailing the amounts payable to the Contractor under this Contract in respect of the preceding

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month. Each invoice shall in addition to any requirements of Schedule III (Price/ Compensation Schedule):-

- (a) be in duplicate;
- (b) bear the Contract Number, work order number, name of work/services , date of work;
- (c) state the name, e-mail address, mobile telephone number of the Corporation's Representative; and
- (d) be accompanied by supporting evidence and itemised in accordance with the Corporation's requirements as per below:
 - Copy of paid challans of PF/ESI (as applicable) of a period preceding month;
 - register of Skilled/Semiskilled/Unskilled labors supplied, deployed on the work during the month, muster roll.
 - theoretical Consumption Statement of cement, steel & bitumen (if used in the work),
 - invoice of Cement, Paint, Floor Hardener, Steel & bitumen (as brought for use at Site)
 - test reports of the works claimed in the bills (Mandatory Items as per field quality plan)
 - Certified copy of EMB.
 - Copy of the certificate issued by Indian tax authorities, enabling the Corporation to make payments to the Contractor after deduction of such taxes as per prescribed rate in the certificate.
 - Copy of the Permanent Account Number ('PAN') card issued by the Indian Tax authorities,

Invoices and mentioned documents in the Contract shall submitted by the Contractor as per Bill Proforma enclosed through CWC online Bill Tracking System (BTS) only to the Regional Manager of the Corporation. Contractor must ensure that all invoices for services performed or goods delivered are submitted to the Corporation within 60 days of rendition of service or goods delivered, as the case may be. Late submission of Invoices beyond abovementioned period may result into denial of payments to Contractor on the sole discretion of the Corporation.

Note:

- (a) Water charges @ 1 % of tendered rates shall be deducted if the water is supplied by CWC. Certificate of Warehouse Manager shall be required.
- (b) Electricity Charges shall be deducted based on actual electricity consumed and the rates charged by electricity supplying Agency. Certificate of Warehouse Manager shall be required.
- (c) No bill (invoice) shall be accepted without EMB as mentioned above.
- (d) No bill (invoice) with EMB shall be accepted if it is not submitted through online BTS.
- (e) Contractor can submit documents mentioned at above subsequently within 15 days of submitting the bills on BTS but submission of EMB duly certified by Officer in charge along with Bill is mandatory.
- (f) No interest shall be payable, if payment is delayed beyond the stipulated period due to any reason.
- (g) Income tax as well as Goods and Service Tax or any other Tax / Levy, as applicable by the Central / State Govt., shall be recovered on the gross amount of each bill.

17.1.4 The Corporation shall make payment on satisfaction of all the requirements (if any) of the Reserve Bank of India (FEMA regulations), or any other regulation in relation to payment in foreign currency in relation to the Services provided by the Contractor.

17.1.5 While retaining 5% of the invoice amount as retention amount, in case of the invoices towards works completed with defect liability /warranty as mentioned in Schedule-II, the Corporation shall pay 95% payment towards any invoice received from the Contractor in the manner herein below:

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- Where the Contractor submits a correct invoice under Clause 17.1.1 along with EMB however without other documents as stipulated under Clause 17.1.3 above, the Corporation shall make an initial 75 % payment (of amount duly certified by Corporation in claimed bill after deducting necessary retention amount/Liquidated Damages/ TDS, wherever applicable and/or any other technical/ financial withholding/recovery as suggested by the Corporation's representative within seven (7) working days from the date of receipt of such invoice with EMB in BTS. The balance payment (net off any withheld, deduction, recovery, retention etc), shall be released within seven (7) working days of receipt of complete set of the supporting documents in accordance with Clause 17.1.3.
- Contractor can raise next monthly bill only after submission of complete supporting documents as above with respect to previous monthly bill pending for submission by him if any.
- Where the Contractor submits a correct invoice under Clause 17.1.2 along with all the documents stipulated under Clause 17.1.3 above, full payment of amount duly certified by Corporation in claimed bill after deducting necessary retention amount/Liquidated Damages/ TDS, shall be paid within (7) days from receipt of such correct invoice.

17.1.6 The retention amount of 5% of all the invoice(s), as applicable with defect liability period, shall be released only upon satisfactory completion of Defect Liability Period. While releasing, appropriate adjustment(s) may be made by the Corporation to recover any dues of the Contractor, including but not limited to, recovery on account of labour engagement, arising out of this Contract/ Work Order to the Corporation.

Only upon accumulation of such retention amount to a minimum of INR 5 lacs, should the Contractor seek to withdraw the said retention amount, the same may be released by the Corporation upon Contractor submitted a valid Bank Guarantee/ Government Security(s) of an equivalent amount for which withdrawal is sought.

17.1.7 Any invoice not complying with the provisions hereof may be returned by the Corporation to the Contractor whereupon the Contractor shall submit a rectifying invoice. The Corporation shall make payment of such rectifying invoice in accordance with this Clause 17.

17.1.8 No payment made by the Corporation shall be construed as acceptance in whole or in part of the performance by the Contractor of any of its obligations under this Contract.

17.1.9 All items provided by the Contractor under the provisions of Schedule III (Price/ Compensation Schedule) or the Scope of Work that are expressly stated therein to be reimbursable by the Corporation shall be invoiced to the Corporation with detailed supporting documentation. The detailed supporting documentation shall include, without limitation, good quality copies of all relevant receipts and a detailed summary of the use of and reason for such item. All such supporting documentation must be approved and signed by a representative of the Corporation prior to the submission of the relevant invoice.

17.1.10 Unless otherwise specified in Schedule III (Price/ Compensation Schedule), all rates and charges payable by the Corporation under this Contract shall be invoiced and paid in Indian Rupees (INR).

17.2 Corporation's Right to Dispute Invoices

If the Corporation disputes any item on an invoice received pursuant hereto then it shall be entitled to withhold, without payment of interest, the amount in dispute.

17.3 Payments Due to the Contractor

The Corporation shall be entitled to deduct from any payment due or becoming due to the Contractor under this Contract or any other Contract and/or from PBGs, retention amount(s), all costs, damages, recovery or expenses for which the Contractor is liable to the Corporation under this Contract or any other Contract.

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17.4 Audit

The Contractor shall maintain proper and accurate records in relation to this Contract and shall provide copies of the same to the Corporation on request. The Corporation (or its appointed representative) shall have the right to audit the relevant books and accounts of the Contractor in relation to any reimbursable charges paid for by the Corporation under this Contract. Such audit right shall survive for a period of 3 years following the expiry or termination of the Contract. Any incorrect payments identified by such audit shall be adjusted between the Parties as appropriate.

17.5 Liens

17.5.1 The Contractor shall not claim any lien, charge or the like on any aspect of the Work, the Facilities or on any property of the Corporation Group. The Contractor shall defend, indemnify and hold the Corporation Group harmless from and against any Claim in connection with any lien, charge or the like created or caused by any member of the Contractor Group arising out of or in connection with the performance of the Contract.

17.5.2 Without prejudice to the generality of Clause 17.5.1, should any act or omission of the Contractor Group result in any lien, charge or the like existing upon the property of the Corporation Group, the Contractor agrees to refund to the Corporation upon demand all monies that the Corporation Group may be compelled to pay to discharge any such lien.

17.6 Subcontracts

17.6.1 The Contractor shall ensure that the provisions of the foregoing Clauses 17.4 (Audit) and 17.5 (Liens) are included in all agreements it shall enter into with any subcontractors who shall supply any labour, equipment or materials to be provided under this Contract.

17.6.2 The Contractor agrees to furnish to the Corporation, promptly on request, a full and complete statement that all the Contractor's suppliers, subcontractors and vendors have been paid in full for work done or materials furnished in connection with the performance of the Work.

17.7 Payment upon Completion

17.7.1 Following the expiry or termination of the Contract, the Contractor shall prepare and submit to the Corporation within 30 (thirty) days a statement in the form of a final account, specifying the outstanding amounts which the Contractor intends to invoice to the Corporation for payments due to the Contractor in accordance with the provisions of this Clause 17 (Payment). The Contractor shall submit to the Corporation its final invoice in respect of such statement within 60 (sixty) days of the date of the expiry or termination of the Contract and shall confirm in writing to the Corporation that such invoice constitutes the final demand for all outstanding sums due to the Contractor under the Contract.

The Contractor acknowledges that once the Final Bill has been submitted, it shall have no other/further claim(s) whatsoever under the Contract and the said other/further claim(s) shall be deemed to have been waived and extinguished.

17.8.2 Following the expiry or termination of the Contract, the Corporation shall not be required to make payment of any invoice not received in accordance with this Clause 17.7 (Payment upon Completion).

Payments of those items of the bill in respect of which there is no dispute and of items in dispute, for quantities and rates as approved by Officer- in-Charge, will, as far as possible be made within 2 Month from the date of receipt of the Final bill in BTS by corporation complete in all respect.

18 TAXATION

18.1 Definitions

For the purposes of this Clause 18 (Taxation):

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- (a) "Tax" or "Taxes" means taxes, levies, duties, fees, charges and contributions as amended from time to time and any interest or penalties thereon;
- (b) "Government Authority" or "Government Authorities" means any local or national government or authority of any country, competent to levy any Tax.

18.2 Person Responsible for payment of taxes

18.2.1 General:

Except as may be expressly set out in this Contract, the Contractor shall be responsible for:

- (a) the payment of all Taxes now or hereafter levied or imposed on the Contractor or its subcontractors or on the personnel of the Contractor or its subcontractors by any Government Authority in respect of any wages, salaries and other remuneration paid directly or indirectly to persons engaged or employed by the Contractor or its subcontractors (hereinafter referred to as "Personal Income tax");
- (b) the payment of all Taxes now or hereafter levied or imposed by any Government Authority on the actual/assumed profits and gains made by the Contractor or its subcontractors (hereinafter referred to as "Corporate Income tax");
- (c) the payment of all Taxes now or hereafter levied or imposed by any Government Authority on the Goods and services, if any, provided to the Corporation by the Contractor or its subcontractors (hereinafter referred to as "GST"); and
- (d) the payment of any other Taxes now or hereafter levied or imposed by any Government Authority on the Contractor or its subcontractors as a result of the performance of this Contract.

18.3 Withholding taxes and Withholding certificates

- 18.3.1 The Corporation shall, at the time of its payments due to the Contractor, withhold the necessary taxes at such rate as is required by any Government Authority, unless and to the extent that the Contractor shall produce to the Corporation any certificate issued by a Government Authority (having authority to issue such certificate) entitling the Contractor to receive the payments under the Contract for a prescribed period without deduction of any tax or deduction at a lower rate.
- 18.3.2 The Corporation shall provide the necessary withholding tax certificates to the Contractor within the time stipulated by the relevant law to enable the Contractor to file the same with the Government Authority as a proof of payment of such taxes.

18.4 Person Responsible for filing of returns / information to Government Authorities

- 18.4.1 The Contractor shall be responsible for filing all necessary Tax returns (including, without limitation, returns for Corporate Income tax, Personal Income tax, GST as applicable) with the relevant Government Authorities in accordance with all applicable statutory requirements and shall be responsible for providing all information requested by such Government Authorities.
- 18.4.2 The Contractor shall also ensure that its subcontractors file such returns as stipulated by the relevant Government Authorities and furnish such information as requested for by the relevant Government Authorities.
- 18.4.3 The Corporation, with respect to the tax withheld from the Contractor in accordance with Clause 18.3 (Withholding Tax and Withholding Tax Certificates), shall be responsible for filing the withholding tax returns with the relevant Government Authorities in accordance with applicable statutory requirements.

18.5 Corporation's rights, if treated as representative assessee by Government Authorities

In certain situations, a Government Authority may treat the Corporation as the representative assessee of the Contractor and/or its subcontractors and recover the Taxes due to the Government Authority by

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the Contractor or its subcontractors from the Corporation. In such situations, the Corporation shall have the following rights:

- (a) The Corporation shall be entitled to recover from the Contractor, the Taxes paid on behalf of the Contractor or its subcontractors (together with any costs and expenses incurred by the Corporation in connection therewith) or to retain the same out of any amounts to be paid to the Contractor or its subcontractors that may be in its possession (whether due under this Contract or otherwise) and shall pay only the balance, if any, to the Contractor; and
- (b) If the Corporation is required to furnish any details or documents in such capacity, the Corporation shall request the details or documents to be furnished to it by the Contractor and the Contractor shall immediately furnish the same to the Corporation. If the Contractor fails to comply with the foregoing, any penalty/interest levied on the Corporation for non-filing or late filing of details or documents in this regard shall be recoverable from the Contractor.

18.6 Indemnity

The Contractor shall defend, indemnify and hold the Corporation Group harmless from and against any Claim in connection with any Taxes which may be levied or imposed on the Contractor or its subcontractors by any Government Authority arising out of or in connection with the performance of this Contract.

18.7 Change in Law

All tendered rates shall be inclusive of any tax, levy or cess applicable on last stipulated date of receipt of tender including extension, if any. No adjustment, i.e. increase or decrease shall be made for any variation in the rate of any tax, levy or cess applicable on input goods or services.

If, post due date of tender submission, there is any change in law which results in a change in the rate of any Tax or the introduction of a new Tax applicable on Contractor's prices or rates on output services then the Parties shall agree to a revision in pricing to reflect such change provided that:

- (a) the Party requesting such revision shall promptly (and in any case prior to submission of the Contractor's final invoice under this Contract) notify the other Party that such change in law has arisen; and
- (b) the Party requesting such revision shall provide the other Party with documentary proof of such change in cost to the reasonable satisfaction of the other Party; and
- (c) the provisions of this Clause 18.7 (Change in Law) shall not apply to changes in Personal Income tax or Corporate Income tax or to changes in non-Indian Taxes.

Provided further that such increase including GST shall not be made in the extended period of contract for which the contractor alone is responsible for delay.

The Contractor shall keep necessary books of accounts and other documents for the purpose of these conditions, as may be necessary and shall allow inspection of the same by a duly authorized representative of the Corporation and shall also furnish such other information/ document as the Corporation may require from time to time.

18.8 Contractor to Indemnify Corporation

The Contractor shall be liable for and shall defend, indemnify and hold the Corporation Group harmless from and against any Claim in connection with any item imported by the Contractor to which the Notifications do not apply and which is not imported at the request of the Corporation for the performance of this Contract.

18.9 Use of Equipment

The equipment, spares and consumables imported for petroleum operations under this Contract shall not be used or deployed by the Contractor for any purpose other than the performance of the Work. In the event that the equipment, spares or consumables are used or deployed for any purpose other than

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the performance of the Work, the Contractor shall be liable for all additional duty, fines or penalties imposed or other actions taken by the customs department or any relevant authority.

19 INDEMNITIES

19.1 General

19.1.1 The indemnities granted in this Clause shall be full and primary notwithstanding the provisions of Clause 21 (Insurance).

19.1.2 Each Party shall give the other prompt notification of any claim with respect to any of the indemnities hereunder, accompanied by full details of the circumstances of any incident giving rise to such a claim.

19.2 Property and Injury to Personnel

19.2.1 The Contractor shall be liable for, and shall defend, indemnify and hold the Corporation Group harmless from and against any Claim in connection with:

- (a) loss of or damage to the property of the Contractor Group (including, but not limited to, the Contractor's Equipment); and
- (b) loss of or damage to the property of the Corporation Group (including the Free Issue Material); and
- (c) death or sickness of or injury to any member of the Contractor Group (including, but not limited to, the Contractor's Personnel)

arising out of or in connection with the performance of this Contract, whether or not resulting from or contributed to by any negligence and/or breach of duty (statutory or otherwise) of the Corporation Group.

19.3 Third Party Liability

19.3.1 The Contractor shall be liable for, and shall defend, indemnify and hold the Corporation Group harmless from and against any Claim in connection with:

- (a) loss of or damage to any Third-Party property; and
- (b) death or sickness of or injury to any Third Party

arising out of or in connection with the performance of this Contract, to the extent caused by any negligence and/or breach of duty (statutory or otherwise) of the Contractor Group. For the purposes of this Clause 19 (Indemnities), the words "Third Party" shall mean any party which is not a member of the Corporation Group or the Contractor Group.

19.4 Pollution and Contamination

19.4.2 The Contractor shall be liable for, and shall defend, indemnify and hold the Corporation Group harmless from and against any Claim resulting from pollution and/or contamination which originates:

- (a) from the property of the Contractor Group (including, but not limited to, the Contractor's Equipment); and/or
- (b) from spills of fuels, lubricants, motor oils, pipe, dope, paints, solvents and rubbish or other effluent in the care, custody or control of the Contractor Group

arising out of or and in connection with the performance of this Contract, whether or not resulting from or contributed to by any negligence and/or breach of duty (statutory or otherwise) of the Corporation Group.

19.5 Responsibility for the Facilities

Without prejudice to the Contractor's other obligations under the Contract and at law, the Contractor shall be responsible for the Facilities from the Effective Date until the date of issue of the Completion Certificate in respect of the whole of the Facilities. In the event of any loss or damage to the Facilities during such period, the Contractor shall, if instructed by the Corporation, reconstruct, repair or replace the same at its own expense and in accordance with the provisions of this Contract.

20 CONSEQUENTIAL LOSS

Notwithstanding any provision to the contrary elsewhere in this Contract and whether or not resulting from or contributed to by any negligence and /or breach of duty (statutory or otherwise), the Contractor shall be liable for, and shall defend, indemnify and hold the Corporation Group harmless from and against the Contractor Group's own consequential or indirect loss arising out of or in connection with the performance of this Contract.

21 INSURANCES

21.1 Contractor Insurances

The Contractor shall procure and maintain, at its sole expense, in full force and effect throughout the duration of this Contract, the insurances set out below: -

- (a) Employers Liability and/or Workman's Compensation insurance to the full extent required by all laws applicable in the country (a) where this Contract is being performed and (b) in which the Contractor is incorporated;
- (b) Construction All Risks insurance covering loss of or damage to the Facilities to the full replacement value thereof (as applicable in case of new construction/ upgradation works mentioned in Work Order);
- (c) Any other insurances which the Contractor is obliged to cover under any applicable laws or which shall be adequate in terms of type, coverage and limits to cover the Contractor's liabilities under this Contract.

21.2 No Limitation

The insurances set out in Clause 21.1 (Contractor Insurances) are minimum requirements and shall not be construed in any way as limits of liability or as constituting acceptance by the Corporation of responsibility for financial liabilities in excess of such limits. The liabilities assumed by the Contractor under Clause 19 (Indemnities) are separate from and independent of the Contractor's obligations under this Clause 21 (Insurance).

21.3 General Requirements

The Contractor undertakes that its insurances and those of its subcontractors:

- (a) shall be issued by reputable and substantial insurers (with a Standard & Poors rating of BBB+ and above);
- (b) shall be primary and shall not be considered contributory insurance with any insurance provisions of the Corporation Group;
- (c) shall have the Corporation Group's interests endorsed as additional assured (other than in relation to Employers Liability/Workers Compensation insurance) to the extent of the liability assumed by the Contractor hereunder;
- (d) shall contain waivers of any rights of recourse including, in particular, subrogation rights against the Corporation Group arising out of or in connection with the performance of this Contract to the extent of liabilities assumed by the Contractor hereunder;
- (e) shall be endorsed to provide the Corporation with at least thirty (30) days written notice of a material change, cancellation or non-renewal by the underwriters.

21.4 Certificates of Insurance

Prior to commencing the Work, the Contractor shall furnish the Corporation with certificates of insurance evidencing the above insurances and, thereafter, renewal certificates as soon as they become available.

21.5 Subcontractors

The Contractor shall procure that its subcontractors are insured to appropriate levels as may be relevant to their work. The Contractor shall be liable to the Corporation Group for any absence or insufficiency of the insurances of its subcontractors.

21.6 Co-operation

Each Party shall afford the other all such reasonable assistance as may be required for the preparation and negotiations of insurance claims but the Contractor shall be responsible for the preparation of documents for insurance claims under any of the policies referred to in the claim. Where the Contractor is engaged in handling claims, actions or proceedings in respect of which it has granted an indemnity as provided above, the Contractor shall ensure that the Corporation is informed if the Corporation's operations, safety standards or working practices are called into question by any party or if the Contractor wishes to use information relating thereto in handling those claims, actions or proceedings. The Corporation shall at its sole option have the right to participate in and/or make representations in relation to the defence of such matters and the Contractor shall allow the Corporation full opportunity to do so.

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22 FORCE MAJEURE

22.1 General

No failure or omission by either Party to carry out or to perform any of the terms or conditions of this Contract shall give the other Party a claim against such Party, or be deemed a breach of this Contract, if and to the extent that such failure or omission arises from Force Majeure.

The Party prevented from performing due to Force Majeure shall promptly, and in any case within 48 hours, notify the other Party of the nature and anticipated duration thereof and shall use all reasonable endeavours to resume performance of this Contract as soon as reasonably possible. The Party prevented from performing due to any such cause shall, in addition, furnish the other Party with such information in respect of such cause as the other Party may reasonably require.

22.2 Definition

The term "Force Majeure", as used in this Contract, shall mean:

- (a) riot, war, invasion, act of foreign enemies, hostilities (whether war be declared or not), acts of terrorism, civil war, rebellion, revolution, military invasion, insurrection of military or usurped power; or
- (b) ionizing radiations or contamination by radio-activity from any nuclear waste, or radio-active, toxic, explosive or other hazardous properties of any explosive, nuclear assembly or nuclear component thereof (other than arising out of any radiation source used by the Contractor in relation to the Work); or
- (c) earthquake, flood, or any other natural disaster, but excluding weather or sea conditions as such, regardless of severity; or
- (d) strikes at national or state level or industrial disputes at a national level, or strikes or industrial disputes by labour not employed by the affected Party or its sub-contractors and which affects a substantial or essential portion of the Work; or

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- (e) fire or explosion (being fire or explosion not caused by the negligence of the affected Party or its sub-contractors); or
- (f) acts of Government which could not have been reasonably anticipated or controlled which makes performance impossible or impracticable.

22.3 Payment during Force Majeure

The Contractor shall not be entitled to any payment in respect of any period where the Work is not carried out as a result of Force Majeure. Except grant of time extension, in no event whatsoever, the Contractor shall be entitled for any other cost(s) including, prolongation costs, expenses, or site establishment charges or the like.

22.4 Termination for Force Majeure

Should any circumstance of Force Majeure continue for a period equal to or more than three consecutive months then the Corporation, at its sole discretion, may terminate this Contract with immediate effect by notice in writing to the Contractor, in which case the Corporation's sole liability in respect of such termination shall be to pay to the Contractor all sums properly due to the Contractor under the Contract in respect of the Work up to the date of termination.

23 LIQUIDATION OR INSOLVENCY

23.1 Corporation's Right to Terminate

In the event that the Contractor, at any time during the term of this Contract, becomes insolvent under any of the provisions of any applicable statute or makes a voluntary assignment of its assets for the benefit of creditors, is adjudged bankrupt, either upon the Contractor's voluntary petition in bankruptcy or upon the petition of the Contractor's creditors, or any of them, or should a judgement be executed on any of the goods or equipment of the Contractor, or should any lien or other right inconsistent with the Contractor's title to such goods or equipment be enforced, or if the Contractor shall have a receiver, administrator, administrative receiver and/or manager appointed in respect of all or any of its assets, an application or order is made or a resolution is passed to wind up the Contractor or if the Contractor shall go into liquidation (whether voluntarily or otherwise) or if the Contractor becomes subject, under the applicable laws of any jurisdiction, to any event having an analogous effect to any of the foregoing, the Corporation may terminate this Contract with immediate effect by notice in writing to the Contractor or to the receiver or liquidator or to any person in whom the Contract may become vested, as provided in Clause 24.3 (Termination due to Default).

24 TERMINATION

24.1 Termination by Corporation without Cause

The Corporation may, at its option, terminate all or any part of the Work or the Contract/ Work Order forthwith without cause at any time by giving written notice to the Contractor, subject to the provisions of Clause 24.2 (Reimbursement to Contractor).

24.2 Reimbursement to Contractor

In the event of termination under the provisions of Clause 24.1 (Termination by Corporation without Cause), the Corporation's sole liability in respect of such termination shall be to pay to the Contractor all sums properly due to the Contractor under the Contract in respect of the Work (or terminated part thereof) up to the date of termination;

24.3 Termination due to Default

The Corporation may, without prejudice to any other rights it may possess under the Contract or law, at its option, terminate all or any part of the Work/ Work Order or the Contract forthwith by written notice to the Contractor, where: -

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- (a) the Contractor has breached any of its obligations under the Contract, provided that, where remediable, the Corporation has notified the Contractor of such breach in writing and the Contractor has, upon receipt of such notice, failed to immediately commence and thereafter continuously proceed to remedy such breach to the Corporation's reasonable satisfaction; or
- (b) the Contractor is not ready to commence the Work at the Site by the Commencement Date; or
- (c) If the contractor has, without reasonable cause, suspended the progress of the work or has failed to proceed with the work with due diligence and continues to do so after a notice in writing of seven days from the Officer in Charge;
- (d) If the contractor shall offer or give or agree to give to any person in Corporation service or to any other person on his behalf any gift or consideration of any kind as an inducement or reward for doing or forbearing to do or for having done or forborne to do any act in relation to the obtaining or execution of this or any other contract for Corporation;
- (e) If the contractor had secured the contract with Corporation as a result of wrong tendering or other non-bonafide methods of competitive tendering or commits breach of Integrity Agreement.
- (f) the Contractor has failed to complete the Work by the Completion Date stipulated in work order or extended date of completion; or
- (g) as provided in Clause 23 (Insolvency), one or more of the circumstances in that Clause apply.
- (h) Fails to submit Insurance Certificate(s), Performance Bank Guarantee(s);
- (i) Refuses or is unable to provide sufficient materials, services or labour (adequate resources) to execute and complete the Facilities in the manner specified in the Work Plan, at rates of progress that give reasonable assurance to the Corporation that the Contractor can attain completion of the Facilities/ Works by the Time for Completion;
- (j) Refuses or is unable to rectify, reconstruct or replace any defects in services delivered or work completed/in progress or that the Service/work is being performed in an inefficient or otherwise improper or un-workman like manner to the satisfaction of the corporation.

If termination occurs pursuant to this Clause 24.3 (Termination due to Default), then the Corporation's sole liability to the Contractor shall be for all the sums properly due to the Contractor under the Contract in respect of the Work (or terminated part thereof) up to the date of termination. The Contractor shall have no claim towards compensation for any loss sustained by it for reasons of having purchased or procured any materials or entered into any engagements or made any advances on account or with a view to the execution of the Work or the performance of the Contract.

24.4 Saving of Rights

The termination or expiry of this Contract shall be without prejudice to the rights and obligations of the Parties up to and including the date of such termination or expiry, and shall not affect or prejudice any term of this Contract that is expressly or by implication provided to come into effect on, or continue in effect after, such termination or expiry.

24.5 Consequences of Termination

24.5.1 In the event of termination under any provision of this Contract, the Contractor shall:

- (a) promptly cease performance of the Work (or relevant part thereof) and, as directed by the Corporation, clear all unnecessary Contractor's Equipment and Contractor's Personnel from the Site;

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- (b) allow the Corporation all necessary rights of access to the Site to take over the Work (or relevant part thereof); and
- (c) if, and to the extent, requested by the Corporation assign any subcontracts or other rights and titles relating to the Work (or relevant part thereof) which the Contractor may have entered into or acquired.
- (d) the Performance Bank Guarantee shall stand forfeited in full and shall be absolutely at the disposal of the Corporation.

24.5.2 The Corporation may enter upon the Site, expel the Contractor, and complete the Facilities/ Work(s) itself or by employing any third party at the risk and cost of the Contractor. The Corporation may, to the exclusion of any right of the Contractor over the same, take over and use any Contractor's Equipment owned by the Contractor and on the Site in connection with the Facilities for such reasonable period as the Corporation considers expedient for the completion of the Works

24.5.3 Upon completion of the Facilities or at such earlier date as the Corporation thinks appropriate, the Corporation shall give notice to the Contractor that such Contractor's Equipment will be returned to the Contractor at or near the Site and shall return such Contractor's Equipment to the Contractor in accordance with such notice. The Contractor shall thereafter without delay and at its cost remove or arrange removal of the same from the Site.

24.5.4 If the Corporation completes the Facilities/ Works, the cost of completing the Facilities/ Works by the Corporation shall be determined after completion of such Facilities/Works.

- If the sum that the Contractor is entitled to be paid pursuant to Clause 24.3 above, plus the reasonable costs incurred by the Corporation in completing the Facilities/ Works, exceeds the Work Order value, the Contractor shall be liable for such excess.
- If such excess is greater than the sums due to the Contractor under Clause 24.3 hereof, the Contractor shall pay the balance to the Corporation, and if such excess is less than the sums due the Contractor under Clause 24.3, the Corporation shall pay the balance to the Contractor.
- The Corporation and Contractor shall agree, in writing, on the computation described above and the manner in which any sums shall be paid and in case of any issue/dispute arising therein, the same shall be resolved as per dispute resolution mechanism under this Contract.

24.6 **Survival of Clauses upon Expiry/Termination**

The provisions of the Agreement and Clauses 10 (Liquidated Damages), 11 (Patents), 14 (Warranty), 17 (Payment), 18 (Taxation), 19 (Indemnities), 20 (Consequential Loss), 24 (Termination), 27 (Confidentiality and Publicity), 31 (General Legal Provisions), and 32 (Governing Law and Jurisdiction) shall survive the expiry or termination of the Contract and shall remain in full force and effect after such date.

24.7 The Contractor acknowledges that the Contract/ Work Order(s) when terminated on account of Contractor's default and/or breach of Code of Business Ethics or integrity agreement, such Contractor shall be, as per the Corporation's policy, be blacklisted by the Corporation from participation in any future tenders/ contracts.

25 **SUSPENSION**

25.1 **Suspension without Cause**

25.1.1 The Corporation shall have the right, without cause, at any time to require the Contractor to suspend the Work (or part thereof) under this Contract on giving notice to the Contractor. Such notice shall include an estimate of the duration of the period of suspension (the "Suspension Period"). The Work (or relevant part thereof) shall resume at the end of the Suspension Period or at such other date as the Corporation may by notice in writing to the Contractor specify.

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25.1.2 During the Suspension Period pursuant to sub-clause 25.1.1, the Corporation shall, for the period commencing after 30 days from the date of suspension under this Clause, pay the Contractor, on actuals- salaries and/or wages paid by the Contractor to his employees and labour at site, remaining idle during the period of suspension, adding thereto 2% to cover indirect expenses of the Contractor, provided the contractor submits his claim supported by details to the Corporation within 30 days from the period commencing after 30 days from the date of suspension.

25.1.3 If the Works or part thereof, as the case may be, is suspended on the orders of the Corporation for more than three months at a time, the Contractor may, after receipt of such order, serve a written notice on the Corporation to treat the Works or part thereof, as the case may be, as an abandonment of the works by Corporation.

In the event of the Contractor treats the suspension as an abandonment of the Work Order or part thereof, as the case may be, except as provided in sub-clause 25.1.2 above, it shall not have any claim to payment of any compensation on account of any profit or advantage which he might have derived from the execution of the work in full, but which he could not derive in consequence of the abandonment.

25.2 Suspension Due to Default of Contractor

25.2.1 If the Contractor is in breach of any of its obligations under this Contract (including, without limitation, any breach of Clause 8 (Health Safety and Environment)), the Corporation shall, subject to Clause 25.2.2, be entitled to immediately suspend the Work (or part thereof) by written notice to the Contractor until such time as such breach has been remedied by the Contractor, in which case no rates or other amounts shall be payable to the Contractor in respect of such period of suspension.

25.2.2 Except in the case of a breach which in the reasonable opinion of the Corporation is likely to endanger the safety of any persons or property, the Corporation shall, prior to issuing any suspension notice pursuant to Clause 25.2.1, notify the Contractor of the breach. Following receipt of such notice, if the Contractor fails to immediately commence and thereafter continuously proceed to remedy such breach to the Corporation's reasonable satisfaction, the Corporation may issue the suspension notice pursuant to Clause 25.2.1

25.3 Procedure following Suspension Notice

Following receipt of a notice to suspend the Work, the Contractor shall discontinue the Work (or relevant part thereof) and follow any specific requirements of the Corporation with regard to the safety of the Work during any suspension period.

26 PERMITS, LAWS AND REGULATIONS

26.1 Permits and Authorisations

Except to the extent that the same have been obtained by the Corporation, the Contractor shall, at its own cost, be responsible for obtaining all certificates, licenses, permits, clearances, approvals and authorizations, from including but not limited to Municipality, Police and/or other relevant authorities whether statutory or otherwise, required for the performance of the Work (including, without limitation, all clearances and authorizations required for the use of any vessel by the Contractor in the performance of the Work) and in respect of the Contractor's Equipment and the Contractor's Personnel and for all approvals and permits required for the Contractor to engage in business and provide services of the nature contemplated by this Contract./ Work Order. The Contractor shall at all times ensure compliance with all such certificates, licenses, permits, approvals and authorizations referred to in this Clause 26 (Permits, Laws and Regulations). For the avoidance of doubt, the provisions of this Clause 26 (Permits, Laws and Regulations) pertain not only to the present legal and Government requirements, but also to the legal and Government requirements for the entire period of the Contract (including any extension thereof).

26.2 Laws

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In performing the Work, the Contractor shall observe and comply with all applicable laws including, without limitation, health and safety, labour (including ESI, EPF, CPWD's Contractor's Labour Regulations), immigration and marine laws, whether of Government/statutory or other authority or agency having jurisdiction in relation to the Parties, the Work or the Site. The Contractor shall defend, indemnify and hold the Corporation Group harmless from and against any Claim in connection with the Contractor's failure to comply with such laws, arising out of or in connection with the performance of this Contract.

27 CONFIDENTIALITY AND PUBLICITY

27.1 Confidentiality

All information concerning the Corporation's activities obtained by the Contractor in the course of performance of the Work hereunder and all information or data otherwise furnished to the Contractor by the Corporation shall be considered confidential and shall not be disclosed by the Contractor to any third party without the prior written consent of the Corporation or used by the Contractor for any purpose other than carrying out the Work.

27.2 Publication

The Contractor shall not publish or permit to be published any pictorial, written, oral or other information relating to the Contract, the Work, the performance thereof or the activities of the Corporation without the Corporation's prior written consent. Such consent shall be given (if at all) separately in relation to each specific application therefor and shall apply only to that application. The accuracy of any information released by the Contractor and not supplied directly by the Corporation is the absolute responsibility of the Contractor.

27.3 Contractor's Proprietary Information

The Corporation undertakes to keep confidential all techniques, know-how, methods and processes which are the property of or are proprietary to the Contractor. The Corporation shall also treat as confidential and shall not, without the Contractor's prior written consent, disclose to any third party any other information which is clearly marked as confidential by the Contractor.

27.4 Exclusions

The provisions of Clauses 27.1 (Confidentiality) and 27.3 (Contractor's Proprietary Information) shall not apply to information which:

- (a) is part of the public domain; or
- (b) was in the possession of the relevant Party prior to the Effective Date and which was not subject to any obligation of confidentiality owed to the other Party; or
- (c) was received from a third party whose possession is lawful and who is under no obligation not to disclose; or
- (d) is required to be disclosed in order to comply with the requirements of any law, rule or regulation of any governmental or regulatory body having jurisdiction over the Work or the relevant Party, or of any relevant stock exchange.

28 ASSIGNMENT AND SUBCONTRACTING

28.1 Assignment

28.1.1 The Contractor shall not assign either the Contract or any part of it or any benefit or interest in or under it without the prior written approval of the Corporation.

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- 28.1.2 The Corporation shall be entitled to assign the Contract or any part of it or any benefit or interest in or under it to any Co-venturer or Affiliate of the Corporation or to any other party taking over the operatorship in respect of petroleum operations pursuant to the Joint Operating Agreement. Any assignment by the Corporation to any other party shall require the prior written approval of the Contractor, such approval not to be unreasonably withheld or delayed.
- 28.1.3 In the event of an assignment by a Party pursuant to Clause 28.1.1 or 28.1.2 and if requested by that Party, the other Party undertakes to enter into such documentation as is reasonably necessary to transfer the first Party's obligations under the Contract.

28.2 Subcontracting

- 28.2.1 The Contractor shall not subcontract the Work or any part of the Work without the prior written approval of the Corporation
- 28.2.2 The Contractor shall not be relieved from any of its obligations or liabilities under the Contract by virtue of any subcontract and the Contractor shall be responsible for all work, acts, defaults and omissions of its subcontractors and its or their employees or consultants as though they were the work, acts, defaults and omissions of the Contractor.
- 28.2.3 No subcontract shall bind or purport to bind the Corporation, and each subcontract shall provide for its immediate termination in the event of termination of this Contract, and for immediate suspension of the services under the subcontract in the event of suspension of the Work under this Contract.
- 28.2.4 All subcontractors shall be responsible only to the Contractor. Notwithstanding the foregoing, the Corporation shall have the same rights in respect of the inspection of any services carried out by any subcontractor as are provided for in this Contract in respect of the Work.

29 VARIATIONS

29.1 Variations Extent and Pricing.

The Corporation shall have power:

- (i) to make alteration in, omissions from, additions to, or substitutions for the original specifications, drawings, designs and instructions that may appear to him to be necessary or advisable during the progress of the work, and
- (ii) to make new item of work, if it is not scheduled in the Price/Compensation Schedule, and to decide the rates of such item as per procedure mentioned in following clauses.

29.2 Deviated Quantities and Pricing:

- i. The Corporation shall have power to omit a part of the works in case of non-availability of a portion of the site or for any other reasons and the Contractor shall be bound to carry out the Works in accordance with any instructions given to him in writing signed by the Corporation and such alterations, omissions, additions or substitutions shall form part of the Contract as if originally provided therein and any altered, additional or substituted work which the Contractor may be directed to do in the manner specified above as part of the Works, shall be carried out by the Contractor on the same conditions in all respects including price on which he agreed to do the main work except as hereafter provided.
- ii. The Corporation shall be entitled by order in writing to enlarge or extend, diminish or reduce the works or make any alterations in their design, character position, site, quantities, dimensions or in the method of their execution or in the combination and use of materials for the execution thereof or to order any additional work to be done or any works not to be done and the Contractor will not be entitled, to any compensation for any increase/reduction in the quantities of work but will be paid only for the actual amount of work done and for approved materials supplied against a specific order.
- iii. When work order is placed by the Corporation based on assessment of work and estimation of quantities at their own, the quantities mentioned in the work order shall be liable for variation

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and may vary to any extent such that total value of works shall not be increased by 5% of the originally ordered value.

- iv. When work order is placed by the Corporation based on estimation of quantities by Contractor or his Engineer and if it is found that
 - a) actual executed quantity of an individual item of work is more than 10% of estimated quantity (given by Contractor's Engineer), the payment shall be restricted to 110% of estimated quantity of that item of work mentioned in the work order. However, Gross payment including all other item of works, completed against such work order, in such cases shall be restricted to 105 % of originally ordered value.
 - b) actual quantity of an individual item of work executed is less than 10% of the estimated quantity (given by Contractor's Engineer) then payment shall be restricted to actual quantity of that item of work executed at place and in such cases if it is found that gross value of works incorporating actual executed quantities of all items stipulated in work order, become less than 10 % of Estimated value of work as mentioned in work order, punitive recovery equivalent to 5% off net saving in total amount due to difference in the quantity of the item estimated / mentioned in work order and actual executed, shall be done from the contractor's bills.
- v. In any case, if it becomes necessary to execute additional quantities (beyond the quantities mentioned in work order) due to the magnitude or nature of work for satisfactorily completion of maintenance / services, Contractor shall inform the Corporation before executing such additional quantities.

In these cases, Corporation will release supplementary work order incorporating additional quantities required to be executed. Approval of Corporation shall be obtained for all such supplementary work orders incorporated with additional quantities.

- vi. Contractor shall carryout all works & Services as directed by Corporation during the Contract Period. Total quantum of works/services, to be executed under this Contract and against various work orders shall be such that the gross value of all works/services completed under the contract do not vary by +125 % of original Contract Value mentioned in LOA.
- vii. When, it is found that works to be executed require additional amount (beyond 125 % of original contract value), A fresh tender shall be called by Corporation and all such balance works shall be executed under separate contract to be finalized by fresh tender.

29.3 Deviation, Extra Items, New Items and Pricing

- (i) In case of extra item(s) (items that are completely new and are in addition to the items contained in the Price/Compensation Schedule/ Contract/ Work Order placed), the Contractor may within fifteen days of receipt of order or occurrence of the item(s) submit market rate, claim rates, supported by proper analysis which shall include invoices, vouchers etc. and manufacturer's specifications for the work, failing which the rate approved later by the Corporation shall be binding and the Corporation shall within a reasonable time from receipt of the claims supported by analysis, after giving consideration to the analysis of the rates submitted by the Contractor, determine the rates on the basis as described in (ii) below and the contractor shall be paid in accordance with the rates so determined.
- (ii) Any item of work ,which is not included in the accepted schedule of Rates (mentioned in Price/Compensation Schedule/ Contract/ Work Order placed) shall be executed at the rates set forth in the accepted schedule ie DSR Civil /DSR E&M (latest DSR published by CPWD on its website on the date of inviting of tender) modified by Contractor Percentage (CP) quoted by Contractor in his Financial bid over the respective Schedule of rates given in tender /price sub schedule but for such items not contained in the DSR, as per following procedure:

If the substituted / altered/additional work, required to be executed as per CWC's requirements, for which there are no established rates in DSR; the same shall be payable as per provisions stated here under –

- A. As far as possible the rates for such items shall be derived from analysis of rates of nearer or similar items mentioned in respective Delhi schedule of rates (Civil 2021 and E&M 2022) for Civil and E&M works respectively as given above, modified by Contractor Percentage (CP) quoted by Contractor in his Financial bid over the respective Schedule of rates given in tender /price sub schedule for Civil and E&M works respectively (ie A. I or A.II as the

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case may be).

- B. If direct working of rates from DSR, by method described above, is not possible or when Item is not Given in DSR (civil 2021 or E&M 2022) or In case of any item of General Maintenance works / Services not mentioned in Tender Sub schedule, the contractor shall be paid on the basis as under:
- (a) Material, labor either or both: Reasonable cost of materials plus reasonable cost of labor inclusive of tools, plants, machinery, and GST & Labor Cess as applicable and plus 15% of so derived cost to cover contractor profit, supervision, overheads, establishments, etc.
 - (b) The rates so worked out shall be modified by Contractor Percentage (CP) quoted by Contractor in his Financial bid over the respective Schedule of rates in tender / price Sub Schedule for Civil / E&M /General Maintenance Works & Services as per nature of works (as the case may be).

The Corporation's decision regarding reasonable labor cost and material consumption/ cost shall be final and binding on Contractor. For avoiding confusion, Reasonable rates, for the purpose of subclause above, shall be decided by Engineer based on lowest of (x) and (y) below:

- (X) = market rate of material, manpower, T&P (as enquired & received by Engineer in charge from not less than 3 suppliers) and
- (Y) = purchase price (mentioned in Invoices) of the items purchased by contractor

Variation in quantities & Vitiatio:

As there are more than one sub schedule in Contract, there is possibility of vitiatio of contract due to quantity variation. Therefore, in case of variation in quantities or original contracted amount for any sub schedule, the vitiatio statement will be prepared at the time of approval of deviation statement / Payment and the vitiated amount i.e (the difference in amount to keep L1 remains L1 after variation in quantity) will be recovered from contractor bill and no compensation on ground of quantity variation or recovery of such amount shall be payable.

29.4 Additional Time due to deviations in quantities /extra works:

The time for completion of the works shall, in the event of any deviations resulting in additional cost over the tendered value sum being ordered, be extended, if requested by the contractor, as follows:

- (a) In the proportion which the additional cost of the altered, additional or substituted work, bears to the original tendered value plus.
- (b) 25% of the time calculated in (i) above or such further additional time, as may be considered reasonable by the Corporation.

29.5 Sub structure / Foundation works Criteria

The following works shall be treated as works relating to foundation, unless & otherwise defined in the Contract:

- i. For Buildings: All works upto 1.2 metres above ground level or upto floor 1 level, whichever is lower
- ii. For Abutments, Piers and Well Staining: All works upto 1.2 m above the bed level
- iii. For Retaining Walls, Wing Walls, Compound Walls, Chimneys, Overhead Reservoirs/Tanks and other elevated structures: All works upto 1.2 metres above the ground level
- iv. For Reservoirs/Tanks (other than overhead reservoirs/tanks): All works upto 1.2 metres above the ground level
- v. For Basements: All works upto 1.2 m above ground level or upto floor 1 level, whichever is lower
- vi. For Roads: All items of excavation and filling including treatment of sub-base

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30 BUSINESS ETHICS

- 30.1 The Contractor shall at all times perform this Contract in a lawful manner consistent with the highest ethical standards and principles, including strict adherence to Corporation's Code of Business Ethics. The Contractor shall not at any time enter into any arrangement with personnel, officers or agents of the Corporation without the Corporation's prior written approval.
- 30.2 In conducting its business, Contractor shall not, at any time, either directly or indirectly, in the name of, on behalf of, or for the benefit of the Corporation, its Affiliates, offer, pay, promise to pay, or authorize the payment of any money and/or gift, or offer, give, promise to give, or authorize the giving of anything of pecuniary value or otherwise to (a) any official, employee, agent, or representative of any government, or any government department, agency, or instrumentality thereof; (b) any political party or official thereof, or to any candidate, nominated or otherwise, for political office; or (c) any official, employee or agent of the Corporation, its Affiliates; in each case for the purpose of influencing any act or decision of such official, employee, agent, party, or candidate or inducing such official, employee, agent, party, or candidate to do or omit to do any act in violation of the lawful duty of such official, employee, agent, party, or candidate, or securing any improper advantage for or otherwise promoting the business interests of the Contractor in any way. Contractor shall require each of its directors, officers, employees, agents, consultants, subcontractors and suppliers to comply with the provisions of this clause.
- 30.3 In the event corporation believes that the Contractor is engaged in corrupt practices or is acting in contravention of the aforesaid provisions defined in this clause, during the existence of this Contract, Corporation shall have the right to take appropriate action, which may include the immediate termination of this Contract.

31 GENERAL LEGAL PROVISIONS

31.1 Amendment

This Contract shall not be amended except by an instrument in writing expressed to be an amendment or variation hereto and executed by the Parties.

31.2 Waiver

No delay or failure on the part of either Party to enforce from time to time all or any part of the terms and conditions of this Contract shall be interpreted as a waiver of such terms and conditions.

31.3 Retention of Rights

Except in respect of the indemnities granted pursuant to Clause 19 (Indemnities), unless otherwise specifically stated, both the Corporation and the Contractor shall retain all rights and remedies, both under the Contract and at law, which either may have against the other.

The Contractor shall not be relieved from any liability or obligation under the Contract by any review, approval, authorisation, acknowledgement, issue of completion certificate or the like, by the Corporation.

31.4 Language

The language of the Contract shall be English and all meetings and other communications shall be in English.

31.5 Notices

- 31.5.1 All notices under this Contract shall be in writing and shall be served to the respective address and/or fax number set out in the Agreement. Either Party may from time to time change its address and/or fax number for service herein by giving written notice to the other Party.

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- 31.5.2 Any notice may be served by hand delivery to a Party at its address for service hereunder or by facsimile transmission or by mail.
- 31.5.3 Any notice given by hand delivery shall be deemed to be given at the time of delivery.
- 31.5.4 Any notice given by facsimile transmission shall be deemed to be given at the time transmission has been confirmed by the sender's fax machine, subject to the following provision. Where said time of transmission falls outside the normal business hours of the recipient, delivery shall be deemed to be given at 10:00hrs (recipient's local time) on the recipient's next following business day.
- 31.5.5 Any notice served by mail shall be given by registered mail and shall be deemed to be given on the date recorded on the delivery recording sheets by the mail carrier as delivered to and signed for on behalf of the recipient.

31.6 Invalidity

If any provision of this Contract shall be held to be invalid or unenforceable by a judgement or decision of any court of competent jurisdiction or any authority, the same shall be deemed severable and the remainder of this Contract (including the remainder of the affected provision) shall remain valid and enforceable to the fullest extent permitted by law. In any such case, the Parties will negotiate in good faith with a view to agreeing one or more provisions which may be substituted for such invalid or unenforceable provision in order to give effect, so far as practicable, to the spirit of this Contract.

31.7 Entire Agreement

This Contract contains the entire agreement between the Parties and supersedes any previous understandings, commitments, agreements or representations whatsoever, oral or written, pertaining to the subject matter hereof, provided that nothing in this Clause 31.7 (Entire Contract) shall have effect to exclude or restrict the liability of either Party for fraud or fraudulent misrepresentation.

31.8 Status of Corporation

The Corporation enters into this Contract for itself and as agent for and on behalf of the other Co-venturers. Notwithstanding the foregoing:

- (a) the Contractor agrees to look only to the Corporation for the due performance of this Contract and nothing contained in this Contract will impose any liability upon, or entitle the Contractor to commence any proceedings against any Co-venturer other than the Corporation; and
- (b) the Corporation is entitled to enforce this Contract on behalf of all the Co-venturers as well as for itself. For that purpose, the Corporation may commence proceedings in its own name to enforce all obligations and liabilities of the Contractor and to make any claim which any Co-venturer may have against the Contractor; and
- (c) all losses, damages, costs (including legal costs) and expenses recoverable by the Corporation pursuant to this Contract or otherwise shall include the losses, damages, costs (including legal costs) and expenses of the Corporation's Co-venturers and its and their respective Affiliates, except that such losses, damages, costs (including legal costs) and expenses shall be subject to the same limitations or exclusions of liability as are applicable to Corporation or the Contractor under the Contract.

32 GOVERNING LAW AND JURISDICTION

32.1 General

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Subject to Clause 32.2, this Contract shall be governed by and construed in accordance with the laws of India (excluding any of its conflict of law rules which would direct or refer to the laws of another jurisdiction) and shall be subject to the exclusive jurisdiction of the Courts at New Delhi.

32.2 Dispute Resolution

Any dispute, disagreement, claim or other difference arising out of or in connection with this Contract (a "Dispute") shall be resolved in accordance with Clause 32.2 (Dispute Resolution).

32.2.1 The Parties are unable to resolve any Dispute through good faith discussion, either Party shall be entitled to refer such Dispute to arbitration by serving notice on the other Party.

- In cases where the claim amount is INR 50 Crores or less, the arbitral tribunal shall consist of a sole arbitrator, to be appointed mutually by both the parties.
- In cases where the claim amount is in excess of INR 50 Crores, the arbitral tribunal shall consist of three members, one to be nominated each by a party and the presiding arbitrator to be appointed by the two nominated arbitrators.

32.2.2 The Parties agree that the arbitration proceedings shall be governed by the provisions of the Arbitration and Conciliation Act 1996 of India (or any statutory modification or re-enactment thereof for the time being in force). The language of the arbitration shall be English. The venue for such arbitration shall be New Delhi.

32.2.3 The arbitration award shall be final and binding on the Parties. The right to refer any Dispute to arbitration pursuant to this Clause 32.2 (Dispute Resolution) shall survive the expiry or termination of the Contract.

32.2.4 The Contractor shall be obliged to continue to provide the Service(s) to the CWC under the Contract or the Scope of Work, during the arbitration proceedings and no payment due or payable to the Contractor (except payment in dispute) shall be withheld on account of such proceedings.

33. FORECLOSURE OF CONTRACT

33.1 If at any time after execution of this Contract or any Work Order(s) placed or during the progress of Work(s), the purpose or object for which the Work(s) is being done changes due to any supervening cause and as a result of which the work has to be abandoned or reduced in scope, the Corporation shall give notice in writing to that effect to the Contractor stating the decision as well as the cause for such decision and the Contractor shall act accordingly in the matter. The Contractor shall have no claim to any payment of compensation or otherwise whatsoever, on account of any profit or advantage which he might have derived from the execution of the works in full, but which he did not derive in consequence of the foreclosure of the whole or part of the works.

The Contractor shall be paid at contract rates, full amount for works executed at site and in addition, a reasonable amount as certified by the Corporation for the items hereunder mentioned which could not be utilized on the work to the full extent in view of the foreclosure:

- (i) Any expenditure incurred on preliminary site work, e.g., temporary access roads, temporary labour huts, staff quarters and site office; storage accommodation and water storage tanks.
- (ii) Corporation shall have the option to take over Contractor's materials or any part thereof either brought to site or of which the Contractor is legally bound to accept delivery from suppliers (for incorporation in or incidental to the work) provided, however Corporation shall be bound to take over the materials or such portions thereof as the Contractor does not desire to retain. For materials taken over or to be taken over by Corporation, cost of such materials as detailed by Corporation shall be paid. The cost shall, however, take into account purchase price, cost of transportation and deterioration or damage which may have been caused to materials whilst in the custody of the Contractor.
- (iii) Reasonable compensation for transfer of T&P from site to contractor's permanent stores or to his other works, whichever is less. If T&P are not transported to either of the said places, no cost of transportation shall be payable.
- (iv) Reasonable compensation for repatriation of Contractor's site staff and labour to the extent

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necessary and at actual cost.

- 33.2 The Contractor shall, if required by the Corporation, furnish to him, books of account, wage books, time sheets and other relevant documents and evidence, as may be necessary to enable him to certify the reasonable amount payable under this condition.

The reasonable amount of items on (i), (iii) and (iv) above shall not be in excess of 2% of the cost of the work remaining incomplete on the date of closure, i.e. total stipulated cost of the work as per this Contract less the cost of work actually executed under the Contract and less the cost of Contractor's materials at site taken over by the Corporation as per item (ii) above.

Provided always that against any payments due to the Contractor on this account or otherwise, the Corporation shall be entitled to recover or be credited with any outstanding balances due from the Contractor for advance paid in respect of any tool, plants and materials and any other sums which at the date of termination were recoverable by the Corporation from the contractor under the terms of the contract.

- 33.3 In the event of action being taken under this Clause to reduce the Scope of Work, the Contractor may furnish fresh Performance Guarantee on the same conditions, in the same manner and at the same rate for the balance Contract amount and initially valid up to the extended date of completion or stipulated date of completion, if no extension has been granted plus 60 days beyond that. Wherever such a fresh Performance Guarantee is furnished/ submitted by the Contractor, the Corporation may return the previous Performance Guarantee.

- 33.4 The Corporation shall have a right to descope any portion of the Work where the Contractor is not able to complete such Work(s) within prescribed time. The Corporation shall have a right to get such Work(s) done from alternate agencies at the cost of the Contractor and Contractor shall have no grievance/ claim/ issue whatsoever in this regard.

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APPENDIX- 1

PERFORMANCE BANK GUARANTEE

Note:-

1. To be submitted on non-judicial stamp paper of appropriate value purchased in the name of the issuing Bank.
2. The expiry date of the BG shall be 60 days beyond the date of expiry of the contract.
3. The date of expiry of **claim period shall be 06 months** beyond the date of expiry of the BG.
4. The Bank Guarantee issuing bank shall send cover for Bank Guarantee issued through SFMS platform to the CWC Banker i.e., ICICI Bank, 9 Phelps Building, Connaught Place, New Delhi, (IFSC Code: ICIC0000007) as per details given below:
 - i. MT760 COV for issuance of bank guarantee.
 - ii. MT767 COV for amendment of bank guarantee.
 - iii. Issuing bank shall mention CWC beneficiary code i.e. CENTRALW27112020 in field 7037 of MT760 COV / MT767 COV.
 - iv. The bidder shall submit the copy of SFMS message as sent by the issuing bank branch along with the original Bank Guarantee.
 - v. Bank Guarantee submitted **without these details shall not be accepted**

BANK GUARANTEE

(To be submitted on non-judicial stamp paper of appropriate value purchased in the name of the issuing Bank.)

This Deed of Guarantee made this _____ day of _____ between _____ (Name of Bank) having its registered office at _____ (Place) and one of its local offices at _____ (hereinafter referred to as the "**Surety**"), in favour of Central Warehousing CWC, a statutory CWC established under the Central Warehousing CWC Act, 1962, having its Corporate Office at 4/1, Siri Institutional Area, August Kranti Marg, Hauz Khas, New Delhi-110026 (herein after referred to as "**CWC**").

WHEREAS M/s _____ (hereinafter referred to as "**Supplier**") having its registered office at _____ is bound to furnish Performance Guarantee in the form of Bank Guarantee with CWC in connection with the agreement at _____ (name of the Region)

WHEREAS the Supplier as per Clause No. 7 of the Contract has agreed to furnish a Bank Guarantee for Rs. _____.

NOW THIS WITNESSETH:

1. That the Surety in consideration of the above Tender made by the Bidder to CWC hereby undertakes to pay on demand by CWC and without demur and without notice to the Supplier, the said amount of Rs. _____ (Rupees _____).
2. The Surety agrees that CWC, at its option, shall be entitled to enforce this bank guarantee against the Surety as a principal debtor, in the first instance, without proceeding against the Supplier and notwithstanding any security of other guarantee that CWC may have in relation to the Supplier's liabilities.
3. The Surety guarantee and undertake to pay to CWC within two (2) business days after receipt by CWC, of a demand complying with the requirements of this bank guarantee on first demand in writing any / all moneys to the extent of INR _____ (in words) without any demur, reservation, recourse, contest or protest and without any reference to the Supplier. Any such demand made by Company on the Bank by serving a written notice, shall be conclusive and binding, without any proof whatsoever, as regards to the amount due and payable, notwithstanding any dispute (s) pending before any court, tribunal, arbitrator or any other authority and / or any other matter or thing whatsoever, as Bank's liability under these presents being absolute and unequivocal.
4. For the purposes of Clause 3, "business day" means a day on which commercial banks are open for business in [mention city of the bank branch].
5. This bank guarantee shall not be determined, discharged or affected by the liquidation, winding up, dissolution or insolvency of the Supplier and shall remain valid, binding and operative

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- against the Surety. The bank guarantee shall not be discharged by any change in Surety's constitution, constitution of CWC or that of the Supplier or change in appropriate laws.
6. The Surety agrees that CWC shall have the fullest liberty without the Surety's consent and without affecting in any manner, Surety's obligations hereunder to vary any of the terms and Conditions of Contract or to extend time for performance of the Contract by the said Supplier and to enforce, or to forebear to enforce any of the terms and conditions relating to the Contract and the Surety shall not be relieved from its liability by reason of any such variation, or extension being granted to the Supplier or any forbearance, act or omission on the part of CWC or any indulgence shown by CWC to the Supplier or any such matter or thing whatsoever which under the Applicable Laws may, but for this provision, have effect of relieving the Bank.
 7. The Surety hereby agree and acknowledge that this guarantee is irrevocable and shall remain in full force till it is fully and finally discharged by CWC in writing or [insert date] whichever is later, and all dues of CWC under or by virtue of the Contract have been fully paid and all its claims satisfied or discharged.
 8. The Bank also agrees that this bank guarantee shall be governed and construed in accordance with Indian laws and subject to the exclusive jurisdiction of Courts at New Delhi.
 9. All charges, fees, commission and other costs shall be to the account of the Supplier. Failure of the Supplier to make such payments shall not in any way affect the Surety's obligation under this bank guarantee and CWC shall be paid the money due to it under this bank guarantee without any deduction.
 10. The Surety confirms that this bank guarantee has been issued with observance of appropriate laws of India.
 11. Notwithstanding anything contained hereinabove:
 - (i) Surety's liability under this bank guarantee is limited to INR _____ (in words) and Bank's guarantee shall remain in force until [insert date].
 - (ii) Any claim under this bank guarantee must be received by Surety or or before [insert date]. If no such claim has been received by us by the said date, the right of CWC under this bank guarantee will cease.
 - (iii) Any letter from the CWC to the Manager, (Insert Branch name) branch of the Surety, under the seal of CWC shall be deemed to be sufficient and valid demand for payment under this bank guarantee.
 - (iv) The Bank undertakes not to revoke this bank guarantee before the expiry of this bank guarantee including during extension period, if any.

Cover message for this Bank Guarantee has been sent to CWC bankers i. e. ICICI Bank, 9 Phelps Building, Connaught Place, New Delhi, (IFSC Code: ICIC0000007) through Structured Financial Messaging System (SFMS).

In witness whereof, the Surety through its authorized officer has set its hand and stamp on this [insert date] day of [insert month], [insert year] at [insert place of execution].

(Signature)

Full name and official address
with bank stamp

Attorney as per power of
Attorney No.....
Dated

WITNESS No. 1

(Signature)

Full name and official address
with bank stamp

WITNESS No. 2

APPENDIX- 2

SUBSTANCE ABUSE CONDITIONS

The Corporation is committed to the provision of safe work places for its employees and other persons working on or visiting premises on which work is being carried out for the Corporation. This policy is put into operation to help to achieve the foregoing commitment. The Contractor shall promote and comply with this policy concerning substance abuse.

This policy is applicable to all persons including, without limitation, the Contractor, its Affiliates, agents and subcontractors who carry out services on Corporation premises (hereinafter jointly referred to as the "Contractor"). The term "Corporation premises" shall mean all property owned, operated, leased by or under the control of the Corporation, whether onshore or offshore and shall include, without limitation, any drilling unit, barge or vessel on contract to the Corporation. The term "employee" shall for the purpose of this Appendix include all persons including agency staff engaged by the Contractor.

The use, possession, concealment, transportation, promotion or sale of prohibited substances (as hereinafter defined) on Corporation premises is strictly forbidden. Any contravention by a Contractor's employee shall result in that employee being excluded forthwith and prohibited from Corporation premises. Additionally, any Contractor's employee who is suspected of being under the influence of any prohibited substance shall be prohibited from Corporation premises.

For the purposes of this Appendix, "prohibited substances" are defined as:

- (i) any substance which an individual may not sell, possess, use or distribute under applicable Indian legislation;
- (ii) any other legal but unlawfully used substance, e.g. prescription drugs obtained or used without permission or such drugs not being used for their originally intended purpose;
- (iii) any solvent (including, without limitation, glue) used or intended to be used for the purpose of intoxication; or
- (iv) any alcoholic beverage.

It is not the intention of this policy to prevent onshore-based personnel partaking of alcoholic beverage off Corporation premises in their own time provided that the individual's subsequent behaviour on-site is not (in the reasonable opinion of the Corporation) hazardous to health and safety and provided that the limits specified below are not exceeded. Alcohol is prohibited from all offshore installations and vessels and at the Corporation's process terminal.

Drug paraphernalia associated with substance abuse are prohibited from Corporation premises.

Contractor must have and administer a formal substance abuse policy. Contractor shall, if requested by Corporation, promptly submit a copy of its policy and programme to the Corporation's Representative. Such policy must provide for substance testing of Contractor's employees and must meet standards acceptable to the Corporation. The Corporation reserves the right to deny entry to Corporation premises for the employees of any Contractor which fails, when requested by Corporation, to present a written policy which, in the Corporation's opinion, meets such standards or which fails to administer an acceptable policy.

Except as stated below, substance testing results will not be disclosed to the Corporation. However, as a condition of their employees being entitled to enter Corporation premises, Contractors must certify that each employee has passed a substance test that meets the standards of this policy. Contractors must maintain records of substance testing which are subject to audit by Corporation.

The results of substance tests performed for reasonable suspicion or accident/incident investigations as outlined below must be disclosed to local Corporation management upon request.

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The Contractor shall bear all costs associated with testing and shall be responsible at its own cost for replacing forthwith any employee prohibited from Corporation's premises.

Refusal by a Contractor's employee to submit to testing required by this policy or a confirmed positive result will result in the Contractor's employee being prohibited from Corporation premises.

In the event that it suspects a breach of this Appendix by the Contractor, the Corporation may conduct or may authorize other parties to conduct unannounced searches and inspections on Corporation premises of Contractors or Contractor's employees, including their effects, lockers, baggage, desks, tool boxes, clothing and vehicles. The purpose of such searches and inspections is to ensure compliance with this policy.

Any prohibited substances or items prohibited by this policy, or any materials that are illegal to possess, will be retained by the Corporation and may be destroyed or turned over to the appropriate law enforcement authorities.

Refusal by a Contractor's employee to submit to a search or inspection or discovery of prohibited substances in the possession of such employee will result in the Contractor's employee being prohibited from Corporation premises. Contractors will be responsible at their own cost and expense for replacing any such person.

The Corporation reserves the right to audit the Contractor's records periodically to verify compliance with this policy.

Audit results will be treated as confidential.

DRAFT

In all cases where the Contractor is permitted to employ a sub-contractor, the Contractor is responsible for ensuring that the sub-contractor and sub-contractor's employees shall comply with this policy, without prejudice to the Corporation's rights herein.

The Contractor must obtain a signed consent demonstrating each employee's agreement to release to the Contractor and the Corporation the results of any substance testing performed.

The Contractor shall carry out tests that, at minimum, seek to determine whether the following substances are abused: cannabis, amphetamines, cocaine, benzodiazepines, opiates, barbiturates, secobarbital, and alcohol.

In the event onsite testing (e.g. at a heliport or onshore terminal) for alcohol consumption is required using an approved breathalyzer unit, the standard shall be a level of alcohol in breath not greater than 35 micrograms per 100 milliliters of breath.

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APPENDIX-3

CERTIFICATE OF COMPLIANCE WITH CODE OF BUSINESS ETHICS

INSTRUCTIONS: Please complete the form below while executing the Contract

1. Name of the Service Provider: _____ (“Service Provider”).
2. I, as an authorized representative of the Service Provider, hereby certify that I have understood Corporation’s Code of Business Ethics regarding compliance with business ethics and conduct expected as a Service Provider and on behalf of the Service Provider agree to abide by the terms of this.
3. I hereby certify, as of the date hereof, that neither I, nor any of the Service Provider’s members, officers, directors, owners, employees, consultants or agents have, directly or indirectly, offered, paid, promised to pay, or authorized the payment of any money, or offered, given, promised to give, or authorized the giving of anything of pecuniary value, or otherwise, to (a) any member, official, agent or employee of any government, or any department, agency, or instrumentality thereof; (b) any political party or official thereof, or to any candidate, nominated or otherwise, for political office; or (c) any official, employee, agent, owners or members of the Corporation, its Affiliates or other Co-ventures; in each case for the purpose of influencing any act or decision of such official, employee, agent, owner, member, party, or candidate or inducing such official, employee, party, or candidate to do or omit to do any act in violation of the lawful duty of such official, employee, agent, owner, member, party, or candidate, or securing any improper advantage for or otherwise promoting the business interests of the Service Provider in any respect.
4. I hereby certify, as of the date hereof, that neither I, nor any of the Service Provider’s members, officers, directors, owners, employees, consultants or agents have, directly or indirectly, offered, paid, promised to pay, or authorized the payment of any money, or offered, given, promised to give, or authorized the giving of anything of pecuniary value, or otherwise, to any agent or agency or otherwise to any person, organization or third party in procuring the Contract or forbearing to do or having done any act in relation to the obtaining or execution of the Contract or any other contract with the Corporation for showing or forbearing to show favour or disfavour to any person in relation to the Contract or any other contract with the Corporation.
5. I hereby declare, as of the date hereof, that I, nor any of the Service Provider’s members, officers, owners or employees, are; (a) public officials or hold government office, except for (name and position in Service Provider’s organisation) at (name of the public or government office); (b) do not and will not employ or otherwise compensate or offer to compensate any public officials, or make or cause another to make any direct or indirect offers or payments to any public officials, for the purpose of influencing or inducing any decision for the benefit of the Service Provider; (c) will not employ any subcontractor, consultant, agent or representative in connection with this Contract or Purchase Order without a thorough documented examination of his person, reputation and integrity, and; (d) will not employ any subcontractor, consultant, agent or representative who does not comply with the terms and conduct of the Corporation’s Code of Business Ethics and in the event of any such violation coming to its attention will inform the Corporation immediately.

Yes No

(If you checked ‘No’ above, then you must attach a separate sheet of paper explaining your answer.)

Signature: _____ Date: _____

Name: _____

Position: _____

APPENDIX- 4

RULES FOR THE PROTECTION OF HEALTH AND SANITARY ARRANGEMENTS FOR WORKERS

1. APPLICATION

These rules shall apply to all buildings and construction works in charge of Central Warehousing Corporation in which twenty or more workers are ordinarily employed or are proposed to be employed in any day during the period when the contract work is in progress.

2. DEFINITION

Work place means a place where twenty or more workers are ordinarily employed in connection with construction work on any day during the period when the contract work is in progress.

3. FIRST-AID FACILITIES

- (i) At every work place, there shall be provided and maintained, so as to be easily accessible during working hours, First-Aid Boxes at the rate of not less than one box for 150 contract Labour or part thereof ordinarily employed.
- (ii) The First-Aid Box shall be distinctly marked with a red cross on white background and shall contain the following equipments:
- (a) For work-places in which no. of contract Labour employed does not exceed 50 –
- (1) 6 small sterilized dressings
 - (2) 3 medium size sterilized dressings
 - (3) 3 large size sterilized dressings
 - (4) 3 large sterilized burn dressings
 - (5) 1 (30 ml) bottle containing a two per cent alcoholic solution of iodine
 - (6) 1 (30 ml) bottle containing Sal volatile having the dose and mode of administration, indicated on the label
 - (7) 1 snakebite lancet
 - (8) 1 (30 gm) bottle of potassium permanganate crystals
 - (9) 1 pair scissors
 - (10) 1 copy of the first-aid leaflet issued by the Director General, Factory Advice Service and Labour Institutes, Govt. of India
 - (11) 1 bottle containing 100 tablets (each of 5 gm) of aspirin
 - (12) Ointment for burns
 - (13) A bottle of suitable surgical antiseptic solution
- (b) For work places in which the no. of contract Labour exceed 50 –
- (1) 12 small sterilized dressings
 - (2) 6 medium size sterilized dressings
 - (3) 6 large size sterilized dressings
 - (4) 6 large size sterilized burn dressings
 - (5) 6 (15 gm) packets sterilized cotton wool
 - (6) 1 (60 ml) bottle containing a two per cent alcoholic solution iodine

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- (7) 1 (60 ml) bottle containing Salvolatile having the dose and mode of administration, indicated on the label
- (8) 1 roll of adhesive plaster
- (9) 1 snake bite lancet
- (10) 1 (30 gm) bottle of potassium permanganate crystals
- (11) 1 pair scissors
- (12) 1 copy of the first-aid leaflet issued by the Director General Factory Advice Service and Labour Institutes /Government of India
- (13) A bottle containing 100 tablets (each of 5 gm) of aspirin
- (14) Ointment for burns
- (15) A bottle of suitable surgical antiseptic solution
- (iii) Adequate arrangements shall be made for immediate recoument of the equipment when necessary.
- (iv) Nothing except the prescribed contents shall be kept in the First-aid box.
- (v) The First-Aid Box shall be kept in the charge of a responsible person who shall always be readily available during the working hours of the work place.
- (vi) A person in charge of the First-aid box shall be a person trained in First-aid treatment in the work places where the number of contract Labour employed is 150 or more.
- (vii) In work places where the number of contract Labour employed is 500 or more and hospital facilities are not available within easy distance from the works; First-aid posts shall be established and run by a trained compounder. The compounder shall be on duty and shall be available at all hours when the workers are at work.
- (viii) Where work places are situated in places which are not towns or cities, a suitable motor transport shall be kept readily available to carry injured person or person suddenly taken ill to the nearest hospital.

4. DRINKING WATER

- (i) In every work place, there shall be provided and maintained at suitable places, easily accessible to Labour, a sufficient supply of cold water, fit for drinking.
- (ii) Where drinking water is obtained from an intermittent public water supply, each work place shall be provided with storage where such drinking water shall be stored.
- (iii) Every water supply or storage shall be at a distance of not less than 15 metre from any latrine drain or other source of pollution. Where water has to be drawn from an existing well, which is within such proximity of latrine, drain or any other source of pollution, the well shall be properly chlorinated before water is drawn from it for drinking. All such wells shall be entirely closed in and be provided with a trap door which shall be dust & water proof.
- (iv) A reliable pump shall be fitted to each covered well, the trap door shall be kept locked and opened only for cleaning or inspection, which shall be done at least once a month.

5. WASHING FACILITIES

- (i) In every work place, adequate and suitable facilities for washing shall be provided and maintained for the use of contract Labour employed therein.
- (ii) Separate and adequate cleaning facilities shall be provided for the use of male and female workers.
- (iii) Such facilities shall be conveniently accessible and shall be kept in clean and hygienic condition.

6. LATRINES AND URINALS

- (i) Latrines shall be provided in every work place on the following scale, namely:
 - (a) Where females are employed, there shall be at least one latrine for every 25 females.

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- (b) Where males are employed, there shall be at least one latrine for every 25 males. Provided that, where the number of males or females exceeds 100, it shall be sufficient if there is one latrine for 25 males or females as the case may be upto the first 100 and one for every 50 thereafter.
- (ii) Every latrine shall be under cover and so partitioned off as to secure privacy and shall have a proper door and fastenings.
- (iii) Construction of Latrines: The inside walls shall be constructed of masonry or some suitable heat-resisting non-absorbent materials and shall be cement washed inside and outside at least once a year, Latrines shall not be of a standard lower than borehole system.
- (iv) (a) Where workers of both sexes are employed, there shall be displayed outside each block of latrine and urinal, a notice in the language understood by the majority of the workers "For Men Only" or "For Women Only" as the case may be.
(b) The notice shall also bear the figure of a man or of a woman, as the case may be.
- (v) There shall be at least one urinal for male workers upto 50 and one for female workers upto 50 employed at a time, provided that where the number of male or female workmen, as the case may be, exceeds 500, it shall be sufficient, if there is one urinal for every 50 males or females upto the first 500 and one for every 100 or part thereafter.
- (vi) (a) The latrines and urinals shall be adequately lighted and shall be maintained in a clean and sanitary condition at all times.
(b) Latrines and urinals other than those connected with a flush sewage system, shall comply with the requirements of the Public Health Authorities.
- (vii) Water shall be provided by means of tap or otherwise, so as to be conveniently accessible in or near the latrines and urinals.
- (viii) Disposal of Excreta: Unless otherwise arranged for by the local sanitary authority, arrangements for proper disposal of excreta by incineration at the work place shall be made by means of a suitable incinerator. Alternately excreta may be disposed of by putting a layer of night soil at the bottom of a pucca tank prepared for the purpose and covering it with a 15 cm layer of waste or refuse and then covering it with a layer of earth for a fortnight (when it will turn to manure).
- (ix) The contractor shall at his own expense, carry out all instructions issued to him by the Corporation to effect proper disposal of night soil and other conservancy work in respect of the contractor's workmen or employees on the site. The contractor shall be responsible for payment of any charges which may be levied by Municipal or Cantonment Authority for execution of such on his behalf.

7. PROVISION OF SHELTER DURING REST

At every place there shall be provided, free of cost, four suitable sheds, two for meals and the other two for rest, separately for the use of men and women Labour. The height of each shelter shall not be less than 3 meters (10 ft) from the floor level to the lowest part of the roof. These shall be kept clean and the space provided shall be on the basis of 0.6 sqm (6 sft) per head.

Provided that the Corporation may permit, subject to his satisfaction, a portion of the building under construction or other alternative accommodation, to be used for the purpose.

8. CRECHES

- (i) At every work place, at which 20 or more women worker are ordinarily employed, there shall be provided two rooms of reasonable dimensions for the use of their children under the age of six years. One room shall be used as a play room for the children and the other as their bedroom. The rooms shall be constructed with specifications as per Clause 19H
- (ii) The rooms shall be provided with suitable and sufficient openings for light and ventilation. There shall be adequate provision of sweepers to keep the places clean.
- (iii) The contractor shall supply adequate number of toys and games in the play room and sufficient number of cots and beddings in the bed room.
- (iv) The contractor shall provide one Ayaa to look after the children in the Creche when no. of

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women workers does not exceed 50 and two when the no. exceeds 50.

- (v) Use of the rooms earmarked as Creche shall be restricted to children, their attendants and mothers of the children.

9. CANTEENS

- (i) In every work place where the work regarding the employment of contract Labour is likely to continue for six months and where in contract Labour, numbering one hundred or more are ordinarily employed, an adequate canteen shall be provided by the contractor for the use of such contract Labour.
- (ii) The canteen shall be maintained by the contractor in an efficient manner.
- (iii) The canteen shall consist of at least a dining hall, kitchen, storeroom, pantry and washing places separately for workers and utensils.
- (iv) The canteen shall be sufficiently lighted at all times when any person has access to it.
- (v) The floor shall be made of smooth and impervious materials and inside walls shall be lime washed or color washed at least once in each year. Provided that the inside walls of the kitchen shall be lime-washed every four months.
- (vi) Premises of the canteen shall be maintained in a clean and sanitary condition.
- (vii) Waste water shall be carried away in suitable covered drains and shall not be allowed to accumulate so as to cause a nuisance.
- (viii) Suitable arrangements shall be made for the collection and disposal of garbage.
- (ix) The dining hall shall accommodate at a time 30 per cent of the contract Labour working at a time.
- (x) Floor area of the dining hall, excluding the area occupied by the service counter and any furniture except tables and chairs shall not be less than one square meter (10 sqft) per diner to be accommodated as prescribed in Sub-Rule 9.
- (xi) (a) A portion of the dining hall and service counter shall be partitioned off and reserved for women workers in proportion to their number.
(b) Washing places for women shall be separate and screened to secure privacy.
- (xii) Sufficient tables, stools, chairs or benches shall be available for the number of diners to be accommodated as prescribed in Sub-Rule 9.
- (xiii) (a) 1. There shall be provided and maintained sufficient utensils, crockery, furniture and any other equipment, necessary for the efficient running of the canteen.
2. The furniture utensils and other equipment shall be maintained in a clean and hygienic condition.
(b) 1. Suitable clean clothes for the employees serving in the canteen shall be provided and maintained.
2. A service counter, if provided, shall have top of smooth & impervious material.
3. Suitable facilities including an adequate supply of hot water shall be provided for the cleaning of utensils & equipment's.
- (xiv) Food stuffs and other items to be served in the canteen shall be in conformity with the normal habits of the contract Labour.
- (xv) The charges for food stuffs, beverages and any other items served in the canteen shall be based on 'No Profit, No Loss' and shall be conspicuously displayed in the canteen.
- (xvi) In arriving at the price of foodstuffs and other article served in the canteen, the following items shall not be taken into consideration as expenditure namely:
 - (a) Rent of land and building
 - (b) Depreciation and maintenance charges for the building & equipment's provided for the canteen
 - (c) Cost of purchase, repairs and replacement of equipment's including furniture crockery, cutlery and utensils
 - (d) Water charges and other charges incurred for lighting and ventilation

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- (e) Interest and amounts spent on the provision and maintenance of equipment's provided for the canteen
- (xvii) Accounts pertaining to the canteen shall be audited once every 12 months by registered accountants and auditors.

10. ANTI-MALARIAL PRECAUTIONS

The contractor shall at his own expense, conform to all anti-malarial instructions given to him by the Corporation including the filling up of any borrow pits which may have been dug by him.

- 11.** The above rules shall be incorporated in the contracts and in notices inviting tenders and shall form integral part of the contracts.

12. AMENDMENTS

Government may, from time to time, add to or amend these rules and issue directions, it may consider necessary for the purpose of removing any difficulty which may arise in the administration thereof.

13. COVID- CONSTRUCTION SITES PROTOCOLS

Contractor shall maintain health safety of their employees, Labour, workers, vendors deployed by them at the site of work and shall follow all guidelines & protocol issued by State & Central Govt. with respect of COVID. Contractor shall ensure vaccination of workers deployed for the job at construction site. All protocols related to the Covid covering preventive measure, health advisory etc as issued by local administration, Govt. shall be followed without any additional claim or compensation.

Appendix-5

CWC's/CPWD's Contractor's Labour Regulations

**THESE REGULATIONS SHALL MUTATIS-MUTANDIS APPLY TO THE WORK OF THE
CENTRAL WAREHOUSING CORPORATION**

1. SHORT TITLE

These regulations may be called the CPWD / PWD (DA) Contractors' Labour Regulations.

2. DEFINITIONS

(i) **Workman** means any person employed by C.P.W.D. / PWD (DA) or its contractor directly or indirectly through a sub-contractor with or without - knowledge of the Central Public Works Department / PWD (DA) to do any skilled, semiskilled or unskilled manual, supervisory, technical or clerical work for hire or reward, whether the terms of employment are expressed or implied, but does not include any person:

(a) Who is employed mainly in a managerial or administrative capacity; or

(b) Who, being employed in a supervisory capacity draws wages exceeding five hundred rupees per mensem or exercises either by the nature of the duties attached to the office or by reason of powers vested in him, functions mainly of managerial nature; or

(c) Who is an out worker, that is to say, person to whom any article or materials are given out by or on behalf of the principal employers to be made up, cleaned, washed, altered, ornamental finished, repaired, adopted or otherwise processed for sale for the purpose of the trade or business of the principal employers and the process is to be carried out either in the home of the out worker or in some other premises, not being premises under the control and management of the Principal Employer.

No person below the age of 14 years shall be employed to act as a workman.

(ii) **Fair Wages** means wages whether for time or piece work, fixed and notified under the provisions of the Minimum Wages Act from time to time.

(iii) **Contractors** shall include every person who undertakes to produce a given result other than a mere supply of goods or articles of manufacture through contract Labour or who supplies contract Labour for any work and includes a sub-contractor.

(iv) **Wages** shall have the same meaning as defined in the Payment of Wages Act.

3 (i) Normally working hours of an adult employee should not exceed 9 hours a day. The working day shall be so arranged that inclusive of interval for rest, if any, it shall not spread over more than 12 hours on any day.

(ii) When an adult worker is made to work for more than 9 hours on any day or for more than 48 hours in any week, he shall be paid over time for the extra hours put in by him at double the ordinary rate of wages.

(iii) (a) Every worker shall be given a weekly holiday normally on a Sunday, in accordance with the provisions of the Minimum Wages (Central) Rules 1960 as amended from time to time irrespective of whether such worker is governed by the Minimum Wages Act or not.

(b) Where the minimum wages prescribed by the Govt. under the Minimum Wages Act are not inclusive of the wages for the weekly day of rest, the worker shall be entitled to rest day wages at the rate applicable to the next preceding day, provided he has worked under the same contractor for a continuous period of not less than 6 days.

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- (c) Where a contractor is permitted by the Corporation to allow a worker to work on a normal weekly holiday, he shall grant a substituted holiday to him for the whole day on one of the five days immediately before or after the normal weekly holiday and pay wages to such worker for the work performed on the normal weekly holiday at overtime rate.

3. **DISPLAY OF NOTICE REGARDING WAGES ETC.**

The contractor shall, before he commences his work on contract, display and correctly maintain and continue to display and correctly maintain in a clear & legible condition in conspicuous places on the work, notices in English and in the local Indian languages spoken by the majority of the workers giving the minimum rates of wages fixed under Minimum Wages Act, the actual wages being paid, the hours of work for which such wage are earned, wages periods, dates of payments of wages and other relevant information as per **Appendix-G-III**.

4. **PAYMENT OF WAGES**

- (i) The contractor shall fix wage periods in respect of which wages shall be payable.
- (ii) No wage period shall exceed one month.
- (iii) The wages of every person employed as contract Labour in an establishment or by a contractor where less than one thousand such persons are employed shall be paid before the expiry of seventh day and in other cases before the expiry of tenth day after the last day of the wage period in respect of which the wages are payable.
- (iv) Where the employment of any worker is terminated by or on behalf of the contractor, the wages earned by him shall be paid before the expiry of the second working day from the date on which his employment is terminated.
- (v) All payment of wages shall be made on a working day at the work premises and during the **working** time and on a date notified in advance and in case the work is completed before the expiry of the wage period, final payment shall be made within 48 hours of the last working day.
- (vi) Wages due to every worker shall be paid to him direct by contractor through bank or ECS or online transfer to his Bank account.
- (vii) All wages shall be paid through Bank or ECS or online transfer
- (viii) Wages shall be paid without any deductions of any kind except those specified by the Central Government by general or special order in this behalf or permissible under the Payment of Wages Act, 1956.
- (ix) A notice showing the wages period and the place and time of disbursement of wages shall be displayed at the place of work and a copy sent by the contractor to the Corporation under acknowledgment.
- (x) It shall be the duty of the contractor to ensure the disbursement of wages through bank account of Labour.
- (xi) The contractor shall obtain from the Junior Engineer or any other authorized representative of the Corporation as the case may be, a certificate under his signature at the end of the entries in the "Register of Wages" or the "Wage-cum- Muster Roll" as the case may be in the following form:

"Certified that the amount shown in Column No. _____ has been paid to the workman concerned **through his/her bank account** on ___/___/___ at."

5. **FINES AND DEDUCTIONS WHICH MAY BE MADE FROM WAGES**

- (i) The wages of a worker shall be paid to him without any deduction of any kind except the following:
- (a) Fines
- (b) Deductions for absence from duty i.e. from the place or the places where by the terms of his employment he is required to work. The amount of deduction shall be in proportion the period for which he was absent.

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- (c) Deduction for damage to or loss of goods expressly entrusted to the employed person for custody, or for loss of money or any other deduction which he is required to account, where such damage or loss is directly attributable to his neglect or default.
- (d) Deduction for recovery of advances or for adjustment of overpayment of wages, advances granted shall be entered in a register.
- (e) Any other deduction which the Central Government may from time to time allow.
- (ii) No fines should be imposed on any worker save in respect of such acts and omissions on his part as have been approved of by the Chief Labour Commissioner.

Note: An approved list of Acts and Omissions for which fines can be imposed is enclosed at **Appendix-G-X**.

- (iii) No fine shall be imposed on a worker and no deduction for damage or loss shall be made from his wages until the worker has been given an opportunity of showing cause against such fines or deductions.
- (iv) The total amount of fine which may be imposed in any one wage period on a worker shall not exceed an amount equal to three paise in a rupee of the total wages, payable to him in respect of that wage period.
- (v) No fine imposed on any worker shall be recovered from him by instalment, or after the expiry of sixty days from the date on which it was imposed.
- (vi) Every fine shall be deemed to have been imposed on the day of the act or omission in respect of which it was imposed.

6. LABOUR RECORDS

- (i) The contractor shall maintain a **Register of persons employed** on work on contract in Form XIII of the CL (R&A) Central Rules 1971 (**Appendix-G-IV**).
- (ii) The contractor shall maintain a Muster Roll register in respect of all workmen employed by him on the work under Contract in Form XVI of the CL (R&A) Rules 1971 (**Appendix-G-V**).
- (iii) The contractor shall maintain a Wage Register in respect of all workmen employed by him on the work under contract in Form XVII of the CL (R&A) Rules 1971 (**Appendix-G-VI**).
- (iv) Register of Accident - The contractor shall maintain a register of accidents in such form as may be convenient at the work place but the same shall include the following particulars:
 - (a) Full particulars of the laborer who met with accident
 - (b) Rate of Wages
 - (c) Sex
 - (d) Age
 - (e) Nature of accident and cause of accident
 - (f) Time and date of accident
 - (g) Date and time when admitted in Hospital
 - (h) Date of discharge from the Hospital
 - (i) Period of treatment and result of treatment
 - (j) Percentage of loss of earning capacity and disability as assessed by Medical Officer
 - (k) Claim required to be paid under Workmen's Compensation Act
 - (l) Date of payment of compensation
 - (m) Amount paid with details of the person to whom the same was paid
 - (n) Authority by whom the compensation was assessed
 - (o) Remarks
- (v) The contractor shall maintain a Register of Fines in the Form XII of the CL (R&A) Rules 1971 (**Appendix-G- XI**)
- (vi) The contractor shall display in a good condition and in a conspicuous place of work the approved list of Acts & Omissions for which fines can be imposed (**Appendix-G- X**)
- (vii) The contractor shall maintain a Register of Deductions for damage or loss in Form XX of the CL (R&A) Rules 1971 (**Appendix-G-XII**)

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- (viii) The contractor shall maintain a Register of Advances in Form XXIII of the CL (R&A) Rules 1971 (**Appendix-G-XIII**)
- (ix) The contractor shall maintain a Register of Overtime in Form XXIII of the CL (R&A) Rules 1971 (**Appendix-G-XIV**)

7. ATTENDANCE CARD-CUM-WAGE SLIP

- (i) The contractor shall issue an Attendance Card-cum-Wage Slip to each workman employed by him in the specimen form at (**Appendix-G-VII**).
- (ii) The Card shall be valid for each wage period.
- (iii) The contractor shall mark attendance of each workman on the card twice each day, once at the commencement of the day and again after the rest interval, before he actually starts work.
- (iv) The Card shall remain in possession of the worker during the wage period under reference.
- (v) The contractor shall complete the Wage Slip portion on the reverse of the card at least a day prior to the disbursement of wages in respect of the wage period under reference.
- (vi) The contractor shall obtain signature or thumb impression of the worker on the Wage Slip at the time of disbursement of wages and retain the card with himself.

8. EMPLOYMENT CARD

The contractor shall issue an Employment Card in Form XIV of the CL (R&A) Central Rules 1971 to each worker within three days of the employment of the worker (**Appendix-G-VIII**).

9. SERVICE CERTIFICATE

On termination of employment for any reason whatsoever, the contractor shall issue to the workman whose services have been terminated, a Service Certificate in Form XV of the CL (R&A) Central Rules 1971 (**Appendix-G-IX**).

10. PRESERVATION OF LABOUR RECORDS

All records required to be maintained under Regulations Nos. 6 & 7 shall be preserved in original for a period of three years from the date of last entries made in them and shall be made available for inspection by the Corporation or Labour Officer or any other officers authorized by the Ministry of Urban Development in this behalf.

11. POWER OF LABOUR OFFICER TO MAKE INVESTIGATIONS OR ENQUIRY

The Labour Officer or any person authorized by Corporation on their behalf shall have power to make enquires with a view to ascertaining and enforcing due and proper observance of Fair Wage Clauses and the Provisions of these Regulations. He shall investigate into any complaint regarding the default made by the contractor or subcontractor in regard to such provision.

12. REPORT OF LABOUR OFFICER

The Labour Officer or other persons authorized as aforesaid shall submit a report of result of his investigation or enquiry to the Executive Engineer concerned indicating the extent, if any, to which the default has been committed with a note that necessary deductions from the contractor's bill be made and the wages and other dues be paid to the laborer concerned. In case an appeal is made by the contractor under Clause 13 of these regulations, actual payment to laborer will be made by the Executive Engineer after Chief Engineer / Superintending Engineer has given his decision on such appeal.

The Executive Engineer shall arrange payments to the Labour concerned within 45 days from the receipt of the report from the Labour Officer or the Chief Engineer / Superintending Engineer, as the case may be.

13. APPEAL AGAINST THE DECISION OF LABOUR OFFICER

Any person aggrieved by the decision and recommendations of the Labour Officer or other person so authorized may appeal against such decision to the Chief Engineer / Superintending Engineer concerned within 30 days from date of decision, forwarding

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simultaneously a copy of his appeal to the Executive Engineer, but subject to such appeal, the decision of the officer shall be final and binding upon the contractor.

14. PROHIBITION REGARDING REPRESENTATION THROUGH LAWYER

- (i) A workman shall be entitled to be represented in any investigation or enquiry under these regulations by :
 - (a) An officer of a registered Trade Union of which he is a member.
 - (b) An officer of a federation of Trade Unions to which the Trade Union referred to in Clause (a) is affiliated.
 - (c) Where the employer is not a member of any registered Trade Union, by an officer of a registered trade union, connected with the industry in which the worker is employed or by any other workman employed in the industry in which the worker is employed.
- (ii) An employer shall be entitled to be represented in any investigation or enquiry under these regulations by :
 - (a) An officer of an association of employers of which he is a member.
 - (b) An officer of a Federation or Associations of Employers to which association referred to in Clause (a) is affiliated.
 - (c) Where the employer is not a member of any association of employers, by an officer of association of employer connected with the industry in which the employer is engaged or by any other employer, engaged in the industry in which the employer is engaged.
- (iii) No party shall be entitled to be represented by a legal practitioner in any investigation or enquiry under these regulations.

15. INSPECTION OF BOOKS AND SLIPS

The contractor shall allow inspection of all the prescribed Labour records to any of his workers or to his agent at a convenient time and place after due notice is received or to the Labour Officer or any other person, authorized by the Central Government on his behalf.

16. SUBMISSIONS OF RETURNS

The contractor shall submit periodical returns as may be specified from time to time.

17. AMENDMENTS

The Central Government may from time to time add to or amend the regulations and on any question as to the application / interpretation or effect of those regulations, the decision of the Superintending Engineer concerned shall be final.

ADDITIONAL PROVISIONS FOR LABOUR

18. **Apprentices Act:** The Contractor shall be responsible to ensure compliance with the provisions of the Apprentices Act, 1961 and the Rules and Orders issued thereunder from time to time in respect of apprentices directly or through petty Contractors or sub-contractors employed by him for the purpose of carrying out the Contract.

If the Contractor directly or through petty Contractors or sub-contractors fails to do so, his failure will be a breach of the contract and the Corporation may, in its discretion, rescind the contract. The Contractor shall also be liable for any pecuniary liability arising on account of any violation of the provisions of the Act.

19. **Provisions of Payments of Wages Act:** The Contractor shall comply with the provisions of the Payment of Wages Act, 1936 and the rules made thereunder in respect of all employees employed by him either directly or through petty Contractors or sub-contractors in the works. If in compliance with the terms of the contract, the Contractor directly or through petty Contractors or sub-contractors shall supply any labour to be used wholly or partly under the direct orders and control of the Engineer whether in connection with the works to be executed hereunder or otherwise for the purpose of the Engineer, such Labour shall nevertheless be deemed to comprise persons employed by the Contractor and any moneys

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which may be ordered to be paid by the Engineer shall be deemed to be moneys payable by the Engineer on behalf of the Contractor and the Engineer may on failure of the Contractor to repay such money to the Corporation deduct the same from any moneys due to the Contractor in terms of the contract. The Corporation shall be entitled to recover the same from Contractor's bills/Security Deposit or any other dues of Contractor with the Govt. of India all moneys paid or payable by the Corporation by way of compensation of aforesaid or for costs of expenses in connection with any claim thereto and the decision of the Engineer upon any question arising out of the effect or force of this Clause shall be final and binding upon the Contractor.

20. Provisions of Contract Labour (Regulation and Abolition) Act, 1970 :

20.1 The Contractor shall comply with the provision of the Contract Labour (Regulation and Abolition) Act, 1970 and the Contract Labour (Regulation and Abolition) Central Rules 1971 as modified from time to time, wherever applicable and shall also indemnify the Corporation from and against any claims under the aforesaid Act and the Rules.

20.2 The Contractor shall obtain a valid license under the aforesaid Act as modified from time to time before the commencement of the work and continue to have a valid license until the completion of the work. Any failure to fulfil the requirement shall attract the penal provision of the Act.

20.3 Provisions of Employees Provident Fund and Miscellaneous Provisions Act, 1952

: The Contractor shall comply with the provisions of Para 30 & 36-B of the Employees Provident Fund Scheme, 1952; Para 3 & 4 of Employees' Pension Scheme, 1995; and Para 7 & 8 of Employees Deposit Linked Insurance Scheme, 1976; as modified from time to time through enactment of "Employees Provident Fund & Miscellaneous Provisions Act, 1952", wherever applicable and shall also indemnify the Corporation from and against any claims under the aforesaid Act and the Rules.

21. Provisions of "The Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996" and "The Building and Other Construction Workers' Welfare Cess Act, 1996":

The tenderers, for carrying out any construction work, shall get themselves registered with the Registering Officer under Section-7 of the Building and Other Construction Workers Act, 1996 and Rules made thereto by the concerned State Govt., and submit Certificate of Registration issued by Registering Officer of the concerned State Govt. (Labour Dept.). The Cess shall be deducted from contractor's bills as per provisions of the Act.

22. Reporting of Accidents: The Contractor shall be responsible for the safety of all employees directly or through petty Contractors or sub-contractor employed by him on the works and shall report serious accidents to any of them however and wherever occurring on the works to the Engineer or the Engineers Representative and shall make every arrangement to render all possible assistance.

23. Provision of Workmen's Compensation Act : In every case in which by virtue of the provisions of Section 12 Sub-Section (1) of the Workmen's Compensation Act 1923, Contractor is to abide by the provisions of various Labour laws in terms of above clause.

24. Corporation not to Provide Quarters for Contractors: No quarters shall normally be provided by the Corporation for the accommodation of the Contractor or any of his staff employed on the work. In exceptional cases where accommodation is provided to the Contractor at the Corporation's discretion, recoveries shall be made at such rates as may be fixed by the Corporation for the full rent of the buildings and equipment's therein as well as charges for electric current, water supply and conservancy.

25. Labour Camps: The Contractor shall at his own expense make adequate arrangements for the housing, supply of drinking water and provision of latrines and urinals for his staff and workmen, directly or through the petty Contractors or sub-contractors and for temporary creche (Bal-Mandir) where 50 or more women are employed at a time. Suitable sites on Corporation land, if available, may be allotted to the Contractor for the erection of labour

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camp, either free of charge or on such terms and conditions that may be prescribed by the Corporation. All camp sites shall be maintained in clean and sanitary conditions by the Contractor at his own cost.

26. **Compliance to Rules for Employment of Labour :** The Contractor(s) shall conform to all laws, bye-laws rules and regulations for the time being in force pertaining to the employment of local or imported Labour and shall take all necessary precautions to ensure and preserve the health and safety of all staff employed directly or through petty contractors or sub-contractors on the works.
27. **Preservation of Peace:** The Contractor shall take requisite precautions and use his best endeavors to
 - (i) Prevent any riotous or unlawful behavior by or amongst his workmen and other employed directly or through the petty Contractors or sub-contractors on the works and for the preservation of peace and protection of the inhabitants and
 - (ii) Security of property in the neighborhood of the works. In the event of the Corporation requiring the maintenance of a Special Police Force at or in the vicinity of the site during the tenure of works, the expenses thereof shall be borne by the Contractor and if paid by the Corporation shall be recoverable from the Contractor.
28. **Sanitary Arrangements:** The Contractor shall obey all sanitary rules and carry out all sanitary measures that may from time to time be prescribed by the Corporation Medical Authority and permit inspection of all sanitary arrangements at all times by the Engineer, the Engineer's Representative or the Medical Staff of the Corporation. Should the Contractor fail to make the adequate sanitary arrangements, these will be provided by the Corporation and the cost thereof recovered from the Contractor.
29. **Outbreak of Infectious Disease:** The Contractor shall remove from his camp such labour and their families as refuse protective inoculation and vaccination when called upon to do so by the Engineer or the Engineer's Representative on the advice of the Corporation Medical Authority. Should cholera, plague, or other infectious disease break out, the Contractor shall burn the huts, beddings, clothes and other belongings of or used by the infected parties and promptly erect new huts on healthy sites as required by the Engineer, failing which within the time specified in the Engineer's requisition, the work may be done by the Corporation and the cost thereof recovered from the Contractor.
30. **Medical Facilities at Site:** The Contractor shall provide medical facilities at the site as may be prescribed by the Engineer on the advice of the Corporation's Medical Authority in relation to the strength of the Contractor's resident staff and workmen.

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APPENDIX – G-I

REGISTER OF MATERNITY BENEFITS [Clause 19F]

Name and Address of the Contractor(s) _____

Name and Location of the Work _____

Name of the Employee	Father's/ Husband'sName	Nature of Employment	Period of Actual Appointment	Date on which Notice of Confinement Given
1	2	3	4	5

Date on which Maternity Leave Commenced and Ended

Date of Delivery	In case of Delivery		In case of Miscarriage	
	Commenced	Ended	Commenced	Ended
6	7	8	9	10

Leave Pay Paid to the Employee

In case of Delivery		In case of Miscarriage		Remarks
Rate of Leave Pay	Amount Paid	Rate of Leave Pay	Amount Paid	
11	12	13	14	15

**SPECIMEN FORM OF THE REGISTER
REGARDING MATERNITY BENEFIT ADMISSIBLE TO THE CONTRACTOR'S LABOUR
IN CENTRAL WAREHOUSING CORPORATION WORKS**

Name and address of the contractor _____

Name and location of the work _____

1. Name of the woman and her husband's name
2. Designation
3. Date of appointment
4. Date with months and years in which she is employed
5. Date of discharge/dismissal, if any
6. Date of production of certificates in respect of pregnancy
7. Date on which the woman informs about the expected delivery
8. Date of delivery/miscarriage/death
9. Date of production of certificate in respect of delivery/miscarriage
10. Date with the amount of maternity/death benefit paid in advance of expected delivery
11. Date with amount of subsequent payment of maternity benefit
12. Name of the person nominated by the woman to receive the payment of the maternity benefit after her death
13. If the woman dies, the date of her death, the name of the person to whom maternity benefit amount was paid, the month thereof and the date of payment
14. Signature of the contractor authenticating entries in the register
15. Remarks column for the use of Inspecting Officer

Labour Board

- Name of Work _____
- Name of Contractor _____
- Address of Contractor _____
- Name and Address of Corporate Office _____
- Name and Address of CWC Labour Officer _____
- Name of Labour Enforcement Officer _____
- Address of Labour Enforcement Officer _____

SL	Category	Minimum Wage Fixed	Actual Wage Paid	Number Present	Remarks

- Weekly Holiday _____
- Wage Period _____
- Date of Payment of Wages _____
- Working Hours _____
- Rest Interval _____

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APPENDIX – G-IV

FORM XIII [See Rule 75]

Register of Workman Employed by Contractor

Name & Address of Contractor _____

Name & Address of Establishment under which Contract is Carried on _____

Nature & Location of Work _____

Name & Address of Principal Employer _

DRAFT

Sl.	Name & Surname of Workman	Age & Sex	Name of Husband/ sName	Nature of Employment/ Designation	Permanent Home Address of the Workman (Village and Tehsil, Taluk and District)	Local Address	Date of Commencement of Employment	Signature or Thumb Impression of the Workman	Date of Termination of Employment	Reasons for Termination	Remarks
1	2	3	4	5	6	7	8	9	10	11	12

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APPENDIX -G- V

FORM XVI [(See Rule 78 (2) (a)]

MUSTER ROLL

- ❖ Name & Address of Contractor _____
- ❖ Name & Address of Establishment under which Contract is Carried on _____
- ❖ Nature & Location of Work _____
- ❖ Name & Address of Principal Employer _____ For the Month/Fortnight _____

DRAFT

SL	Name of Workman	Sex	Father's/Husband's Name	Dates					Remarks
				1	2	3	4	5	
1	2	3	4	5					6

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APPENDIX -G- VI

FORM XVII [See Rule 78 (2) (a)]

REGISTER OF WAGE

- ❖ Name & Address of Contractor _____
- ❖ Name & Address of Establishment under which Contract is Carried on _____
- ❖ Nature & Location of Work _____
- ❖ Name & Address of Principal Employer _____ Wage Period : Monthly / Fortnightly _____

DRAFT

SL	Name of Workman	SL in the Register of Workman	Designation / Nature of Work done	No. of Days Worked	Unit of Work Done	Daily Rate of Wages / Piece Rate	Amount of Wages Earned				Total	Deduction, if any (Indicate Nature)	Net Amount Paid	Signature / Thumb Impression of Workman	Initials of tractor or his Representative
							Basic Wages	Dearness Allowance	Over-time	Other Cash Payments (Indicate Nature)					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

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WAGE CARD

APPENDIX – G-VII-A

Wage Card No. _____

Name & Address of Contractor _____

Date of issue _____

Name and Location of Work _____

Designation _____

Name of Workman _____

Month / Fortnight _____

Rate of Wages _____

DRAFT

Time	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Morning																															
Evening																															
Initial																															

Received from _____ the sum of Rs. _____ on account of my wages.

Signature

FORM XIX

[See Rule 78(2) (b)]

WAGES SLIP

Name and Address of Contractor _____

Name and Father's / Husband's Name of Workman _____

Nature and Location of Work _____

For the Week / Fortnight / Month Ending _____

1. No. of Days Worked _____
2. No. of Units Worked in case of Piece Rate Workers _____
3. Rate of Daily Wages/piece Rate _____
4. Amount of Overtime Wages _____
5. Gross Wages Payable _____
6. Deduction, if any _____
7. Net Amount of Wages Paid _____

Initial of the Contractor or His Representative

FORM XIV
[See Rule 76]

EMPLOYMENT CARD

Name and Address of Contractor _____

Name and Address of Establishment under which Contract is carried on _____

Name of Work and Location of Work _____

Name and Address of Principal Employer _____

1. Name of the Workman _____

2. SL in the Register of Workman Employed _____

3. Nature of Employment / Designation _____

4. Wage Rate (with particulars of unit in case of piece work) _____

5. Wage Period _____

6. Tenure of Employment _____

7. Remarks _____

Signature of Contractor

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APPENDIX – G-IX
FORM XV [See Rule 77]
SERVICE CERTIFICATE

Name & Address of Contractor _____

Nature & Location of Work _____

Name & Address of Workman _____

Age or Date of Birth _____

Identification Mark _____

DRAFT

Father's / Husband's Name _____

Name and Address of Establishment in/under which Contract is carried on _____

Name and Address of Principal Employer _____

SL	Total Period for which Employed		Nature of Work Done	Rates of Wage (with Particulars of Unit in case of Piece Work)	Remarks
	From	To			
1	2	3	4	5	6

Signature

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APPENDIX – G-X

LIST OF ACTS AND OMISSIONS FOR WHICH FINES CAN BE IMPOSED

{In accordance with Rule 7 (v) of CPWD's Contractor's Labour Regulations, to be displayed prominently at the site of Work, both in English and local Language}

1. Willful insubordination or disobedience, whether alone or in combination with other
2. Theft, fraud or dis-honesty in connection with the contractors beside a business or property of Central Warehousing Corporation
3. Taking or giving bribes or any illegal gratifications
4. Habitual late attendance
5. Drunkenness, fighting, riotous or disorderly or indifferent behavior
6. Habitual negligence
7. Smoking near or around the area where combustible or other materials are locked
8. Habitual indiscipline
9. Causing damage to work in the progress or to property of the Central Warehousing Corporation or of the Contractor
10. Sleeping on duty
11. Malingering or slowing down work
12. Giving of false information regarding name, age, father's name etc.
13. Habitual loss of wage cards, supplied by the employers
14. Unauthorized use of employer's property of manufacturing or making of unauthorized particles at the work place
15. Bad workmanship in construction and maintenance by skilled workers which is not approved by the Corporation and for which the contractors are compelled to undertaken rectifications
16. Making false complaints and/or misleading statements
17. Engaging on trade within the premises of the establishments
18. Any unauthorized divulgence of business affairs of the employees
19. Collection or canvassing for collection of any money within the premises of an establishment unless authorized by the employer
20. Holding meeting inside the premises without previous sanction of the employers
21. Threatening or intimidating any workman or employee during the working hours within the premises

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APPENDIX – G-XI

FORM XII

[See Rule 78 (2)(d)]

REGISTER OF FINES

Name & Address of Contractor _____

Name & Address of Establishment in/under which Contract is carried on _____

Name & Location of Work _____

Name & Address of Principal Employer _____

DRAFT

SL	Name of Workman	Father' s / Husbands Name	Designation / Nature of Employment	Act / Omission for which Fine Imposed	Date of Offence	Whether Workman Showed Cause Against Time	Name of Person in whose Presence Employee' s Explanation	Wage Periods and	Amount of Fine Imposed	Date on which Fine Realized	Remarks
	2	3					8				

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APPENDIX –G- XII

FORM XX

[See Rule 78 (2)(d)]

REGISTER OF DEDUCTION FOR DAMAGE OR LOSS

Name & Address of Contractor _____

Name & Address of Establishment in/under which Contract is carried on _____

Name & Location of Work _____

Name & Address of Principal Employer _____

DRAFT

SL	Name of Workman	Father' s /Husband' s Name	Designation/ Nature of Employment	Particulars of Damage or Loss	Date of Damage or Loss	Whether Workman showed Cause against Deduction	Name of Person in Whose Presence Employee' s	Amount of Deduction Imposed	No. of Instalments	Date of Recovery		Remarks
										First Instalment	Last Instalment	
		2	3									

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APPENDIX –G- XIII

FORM XXII

[See Rule 78 (2)(d)]

REGISTER OF ADVANCE

Name & Address of Contractor _____

Name & Address of Establishment in/under which Contract is carried on _____

Name & Location of Work _____

Name & Address of Principal Employer _____

DRAFT

Sl.	Name of Workman	Father' s / Husband' s Name	Designation/ Nature of Employment	Wage Period and Wages Payable	Date & Amount of Advance Given	Purpose(s) for which Advance Made	No. of Instalments by Which Advance to be Repaid	Date & Amount of each Instalment Repaid	Date on which Last Instalment was Repaid	Remarks
	2	3								

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APPENDIX – G-XIV

FORM XXIII

[See Rule 78 (2)(e)]

REGISTER OF OVER TIME

Name & Address of Contractor _____

Name & Address of Establishment in/under which Contract is carried on _____

Name & Location of Work _____

Name & Address of Principal Employer _____

DRAFT

SL	Name of Workman	Father' s/ Husband' s Name	Sex	Designation/ Nature of Employment	on which Overtime Worked	Total Over Time Worked or Production in Case of Piece Rated	Normal Rate of Wages	Overtime Rate of Wages	Overtime Earnings	Rate on which Overtime Wages Paid	Remarks
1	2	3	4	5	6	7	8	9	10	11	12

SAFETY CODE

1. Suitable scaffolds should be provided for workmen for all works that cannot safely be done from the ground, or from solid construction except such short period work as can be done safely from ladders. When a ladder is used, an extra Mazdoor shall be engaged for holding the ladder and if the ladder is used for carrying materials as well, suitable footholds and hand-hold shall be provided on the ladder and the ladder shall be given an inclination not steeper than $\frac{1}{4}$ to 1 ($\frac{1}{4}$ horizontal and 1 vertical).
2. Scaffolding of staging more than 3.6 m (12 ft) above the ground or floor, swung or suspended from an overhead support or erected with stationary support shall have a guard rail properly attached or bolted, braced and otherwise secured at least 90 cm (3 ft) high above the floor or platform of such scaffolding or staging and extending along the entire length of the outside and ends thereof with only such opening as may be necessary for the delivery of materials. Such scaffolding or staging shall be so fastened as to prevent it from swaying from the building or structure.
3. Working platforms, gangways and stairways should be so constructed that they should not sag unduly or unequally, and if the height of the platform or the gangway or the stairway is more than 3.6 m (12 ft) above ground level or floor level, they should be closely boarded, should have adequate width and should be suitably fastened as described in Para 2. above.
4. Every opening in the floor of a building or in a working platform shall be provided with suitable means to prevent the fall of person or materials by providing suitable fencing or railing whose minimum height shall be 90 cm (3 ft).
5. Safe means of access shall be provided to all working platforms and other working places. Every ladders shall be securely fixed. No portable single ladder shall be over 9m (30 ft) in length while the width between side rails in rung ladder shall in no case be less than 29 cm (11½") for ladder upto and including 3 m (10 ft) in length. For longer ladders, this width should be increased at least $\frac{1}{4}$ " for each additional 30 cm (1 foot) of length. Uniform step spacing of not more than 30 cm shall be kept.

Adequate precautions shall be taken to prevent danger from electrical equipment. No materials on any of the sites or work shall be so stacked or placed as to cause danger or inconvenience to any person or the public. The contractor shall provide all necessary fencing and lights to protect the public from accident and shall be bound to bear the expenses of defence of every suit, action or other proceedings at law that may be brought by any person for injury sustained owing to neglect of the above precautions and to pay any damages and cost which may be awarded in any such suit; action or proceedings to any such person or which may, with the consent of the contractor, be paid to compensate any claim by any such person.

6. (a) Excavation and Trenching – All trenches 1.2 m (4 ft) or more in depth, shall at all times be supplied with at least one ladder for each 30 m (100 ft) in length or fraction thereof. Ladder shall extend from bottom of the trench to at least 90 cm (3 ft) above surface of the ground. Side of the trenches which are 1.5 m (5 ft) or more in depth shall be stepped back to give suitable slope or securely held by timber bracing, so as to avoid the danger of sides collapsing. The excavated materials shall not be placed within 1.5 m (5 ft) of the edges of the trench or half of the depth of the trench, whichever is more. Cutting shall be done from top to bottom. Under no circumstances, undermining or undercutting shall be done.
 - (b) Safety Measures for Digging Bore Holes –
 - (i) If the bore well is successful, it should be safely capped to avoid caving and collapse of the bore well. The failed and the abandoned ones should be completely refilled to avoid caving and collapse
 - (ii) During drilling, sign boards should be erected near the site with the address of the drilling contractor and the Engineer in-charge of the work
 - (iii) Suitable fencing should be erected around the well during the drilling and after the installation of the rig on the point of drilling, flags shall be put 50 m around the point of drilling to avoid entry of people
 - (iv) After drilling the bore well, a cement platform (0.5 m x 0.5 m x 1.2 m) 0.6 m above ground level and 0.6 m below ground level should be constructed around the well casing

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- (v) After completion of the bore well, contractor should cap the bore well properly by welding steelplate, cover the bore well with drilled wet soil and fix thorny shrubs over the soil. This should be done even while repairing the pump
- (vi) After bore well is drilled, the entire site should be brought to the ground level.

7. Demolition - Before any demolition work is commenced and also during the progress of the work,

- (i) All roads and open areas adjacent to the work site shall either be closed or suitably protected
- (ii) No electric cable or apparatus which is liable to be a source of danger or a cable or apparatus used by the operator shall remain electrically charged
- (iii) All practical steps shall be taken to prevent danger to persons employed from risk of fire or explosion or flooding. No floor, roof or other part of the building shall be so overloaded with debris or materials as to render it unsafe.

8. All necessary personal safety equipment, as considered adequate by the Corporation should be kept available for the use of the person employed on the site and maintained in a condition suitable for immediate use and the contractor should take adequate steps to ensure proper use of equipment by those concerned.

The following safety equipment shall invariably be provided –

- (i) Workers employed on mixing asphaltic materials, cement and lime mortars shall be provided with protective footwear and protective goggles.
- (ii) Those engaged in white washing and mixing or stacking of cement bags or any material which is injurious to the eyes, shall be provided with protective goggles.
- (iii) Those engaged in welding works shall be provided with welder's protective eye shields.
- (iv) Stone Breaker shall be provided with protective goggles and protective clothing and seated at sufficiently safe intervals.
- (v) When workers are employed in sewers and manholes, which are in active use, the contractors shall ensure that the manhole covers are opened and ventilated at least for an hour before the workers are allowed to get into the manholes and the manholes so opened shall be cordoned off with suitable railing and provided with warning signals or boards to prevent accident to the public. In addition, the contractor shall ensure that the following safety measures are adhered to:
 - (a) Entry for workers into the line shall not be allowed except under supervision of the Site Engineer or any other higher officer.
 - (b) At least 5 to 6 manholes upstream and downstream should be kept open for at least 2 to 3 hours before any man is allowed to enter into the manhole for working inside.
 - (c) Before entry, presence of Toxic gases should be tested by inserting wet lead acetate paper which changes colour in the presence of such gases and gives indication of their presence.
 - (d) Presence of Oxygen should be verified by lowering a detector lamp into the manhole. In case, no Oxygen is found inside the sewer line, workers should be sent only with Oxygen Kit.
 - (e) Safety belt with rope should be provided to the workers. While working inside the manholes, such rope should be handled by two men standing outside to enable him to be pulled out during emergency.
 - (f) The area should be barricaded or cordoned off by suitable means to avoid mishaps of any kind. Proper warning signs should be displayed for the safety of the public, whenever cleaning works are undertaken during night or day.
 - (g) No smoking or open flames shall be allowed near the blocked manhole being cleaned.
 - (h) The malba obtained on account of cleaning of blocked manholes and sewer lines should be immediately removed to avoid accidents on account of slippery nature of the malba.
 - (i) Workers should not be allowed to work inside the manhole continuously. He should be given rest intermittently. The Corporation shall decide the time upto which a worker may be allowed to work continuously inside the manhole.
 - (j) Gas masks with Oxygen Cylinder should be kept at site for use in emergency.
 - (k) Air-blowers should be used for flow of fresh air through the manholes. Whenever called for, portable air blowers are recommended for ventilating the manholes. The Motors for

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these shall be vapour proof and of totally enclosed type. Non-sparking gas engines also could be used, but they should be placed at least 2 m away from the opening and on the leeward side protected from wind, so that they will not be source of friction on any inflammable gas that might be present.

- (l) Workers engaged for cleaning the manholes/sewers should be properly trained before allowing to work in the manhole.
 - (m) Workers shall be provided with Gumboots or non-sparking shoes, bump helmets and gloves, non-sparking tools, safety lights, gas masks and portable air blowers (when necessary). They must be supplied with barrier cream for anointing the limbs before working inside the sewer lines.
 - (n) Workmen descending a manhole shall try each ladder stop or rung carefully before putting his full weight on it to guard against insecure fastening due to corrosion of the rung, fixed to manholewell.
 - (o) If a man has received a physical injury, he should be brought out of the sewer immediately andadequate medical aid should be provided to him.
 - (p) The extents to which these precautions are to be taken, depend on individual situation, but decision of the Corporation regarding the steps to be taken in this regard in an individual case, will be final.
 - (vi) Contractor shall not employ men and women below the age of 18 years on the work of paintingwith products containing lead in any form. Wherever men above the age of 18 are employed onthe work of lead painting, following precautions should be taken :
 - (a) No paint containing lead or lead products shall be used except in the form of paste or readymadepaint.
 - (b) Suitable face masks should be supplied for use by the workers when paint is applied in the formof spray or a surface having lead paint is dry rubbed and scrapped.
 - (c) Overalls shall be supplied by the contractors to the workmen and adequate facilities shall be provided to enable the working painters to wash during and on the cessation of work.
 - (vii) Workmen executing work on scaffolds or other structures above specified height shall beprovided with full body harness and fall arresters.
9. An additional Clause (viii)(i) of CPWD's Safety Code (iv) - the Contractor shall not employ women and men below the age of 18 on the work of painting with product containing lead in any form, wherever men above the age of 18 are employed on the work of lead painting, the following principles must be observed for such use:
- (i) White lead, sulphate of lead or product containing this pigment, shall not be used in paintingoperation except in the form of pastes or paint ready for use.
 - (ii) Measures shall be taken, wherever required in order to prevent danger arising from theapplication of paint in the form of spray.
 - (iii) Measures shall be taken, wherever practicable, to prevent danger arising out of from dust, causedby dry rubbing down and scraping.
 - (iv) Adequate facilities shall be provided to enable working painters to wash during and on cessationof work.
 - (v) Overall, shall be worn by working painters during the whole of working period.
 - (vi) Suitable arrangement shall be made to prevent clothing put off during working hours, beingspoiled by painting materials.
 - (vii) Cases of lead poisoning and suspected lead poisoning shall be notified and shall be subsequently verified by medical man, appointed by competent authority of Central Warehousing Corporation.
 - (viii) The Central Warehousing Corporation may require, when necessary, medical examination ofworkers.
 - (ix) Instructions with regard to special hygienic precautions to be taken in the painting trade shall bedistributed to working painters.
10. When the work is done near any place where there is risk of drowning, all necessary equipments shouldbe provided and kept ready for use and all necessary steps taken for prompt rescue of any person in danger and adequate provision, should be made for prompt first aid treatment of all injuries likely to beobtained during course of the work.

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11. Use of hoisting machines and tackle including their attachments, anchorage and supports shall conform to the following standards or conditions :
- (i) (a) These shall be of good mechanical construction, sound materials and adequate strength and free from patent defects and shall be kept repaired and in good working order.
(b) Every rope used in hoisting or lowering materials or as a means of suspension shall be of durable quality and adequate strength and free from patent defects.
 - (ii) Every Crane Driver or Hoisting Appliance Operator shall be properly qualified and no person under the age of 21 years should be in-charge of any hoisting machine including any scaffolding winch or give signals to operator.
 - (iii) In case of every hoisting machine and of every chain ring hook, shackle swivel and pulley block used in hoisting or as means of suspension, the safe working load shall be ascertained by adequate means. Every hoisting machine and all gear referred to above shall be plainly marked with the safe working load. In case of a hoisting machine having a variable safe working load, each safe working load and the condition under which it is applicable, shall be clearly indicated. No part of any machine or any gear referred to above in this paragraph shall be loaded beyond the safe working load except for the purpose of testing.
 - (iv) In case of departmental machines, the safe working load shall be notified by the Electrical Corporation. As regards contractor's machines, the contractors shall notify the safe working load of the machine to Corporation whenever he brings any machinery to site of work and get it verified by the Electrical Engineer concerned.
12. Motors, gearing, transmission, electric wiring and other dangerous parts of hoisting appliances should be provided with efficient safeguards. Hoisting appliances should be provided with such means as will reduce to the minimum the risk of accidental descent of the load. Adequate precautions should be taken to reduce to the minimum the risk of any part of a suspended load becoming accidentally displaced. When workers are employed on electrical installations which are already energized, insulating mats, wearing apparel, such as gloves, sleeves and boots as may be necessary should be provided. The worker should not wear any rings, watches and carry keys or other materials which are good conductors of electricity.
13. All scaffolds, ladders and other safety devices mentioned or described herein shall be maintained in safe condition and no scaffold, ladder or equipment shall be altered or removed while it is in use. Adequate washing facilities should be provided at or near places of work.
14. These safety provisions should be brought to the notice of all concerned by display on a notice board at a prominent place at work spot. The person responsible for compliance of the Safety Code shall be named therein by the contractor.
15. To ensure effective enforcement of the rules & regulations relating to safety precautions, the arrangements made by the contractor shall be open to inspection by the Labour Officer or Engineer-in-Charge of the department or their representatives.
16. Notwithstanding the above Clauses from (1) to (15), there is nothing in these to exempt the contractor from operations of any other Act or Rule in force in the Republic of India.

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Appendix-6

LABOUR LAW(S) COMPLIANCES AND OBLIGATIONS

1. Contractor shall adhere to all general labour & statutory regulations, as may be applicable on it from time to time including, all necessary aspects such as minimum wages, PF, medical insurance, and accident insurance etc. for Personnel it engages for discharging its obligations under this Contract. The Contractor shall also comply with all Rules, Acts and Regulations made or as may be made by the Government Authority, State Government/ Local Authority from time to time pertaining to the Contract, pertaining to Labour Law(s).

Contractor shall submit copies of proof of statutory payments like insurance premium receipt, PF statement on quarterly basis to the Corporation/ Regional Manager for ensuring compliance.

2. Contractor shall strictly disburse salaries to its Personnel on time without fail. Contractor shall be responsible for collection & payment of taxes and any other statutory requirements made by any Government Authority, State Government/ Local Authority having jurisdiction, on behalf Personnel engaged.
3. While submitting monthly bill(s), Contractor shall submit all statutory registers (mentioned below) duly signed for the previous month to the Corporation/ Regional Manager. Acceptance of bill(s) shall be at the discretion of the Regional Manager in case of non-fulfillment of this condition.

The following is an indication and an inclusive list of Contractor's obligations under this Contract in respect of Labour Law(s) compliances:

- 1a. The Contractor shall be liable for making contributions in accordance with the provisions of the Employees Provident Fund and Miscellaneous Provisions Act, 1952 and the scheme framed there under in respect of the Personnel employed by it. The Contractor shall recover the amount payable by such Personnel and pay to the Corporation i.e. the Principal Employer under the said Act, the amount of member's contribution together with an equal amount of Contractor's contribution. If, on account of the default of the Contractor in making/depositing such payments or for any other reason, the Corporation makes such contributions on behalf of the contractor, the FIC shall be entitled to set off against the amount due to the contractor, the contributions made by it on account of his default in making payment or otherwise in respect of the labour employed by the Contractor.
- 1b. The Contractor shall maintain and submit following Records & Returns prescribed under the EPF Ac, 1952 and the Scheme framed there under to the Authority designated under the said Act and to the Regional Manager of the Corporation, or any officer acting on his behalf.

Form-2	Nomination & Declaration Forms to be submitted for new entrants
Form-3.	The Contribution Card for the currency period-annually.
Form-3-A	Contribution Card for the currency period from 1 st April; to 31 st March annually.
Form-4	Contribution Card for Employees other than monthly paid Employees annually.
Form-5	Return of Employees qualifying for the Membership.
Form-5A	Return of Ownership to be sent to the Regional Commissioner.
Form-6.	Return of the Contribution Card and Annual Statement of Contribution
Form-6A	Consolidated Annual Contribution Statement
Form-10	Form of Maintenance of Accounts.
Form-11	Balance Sheet.
Form-12-A	Statement of Contribution Monthly

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- 1c. The Contractor shall, within 7 days of the close of every month, submit of the Principal Employer (Corporation), Statement showing the recoveries of Contribution in respect of Employees employed by or through him and shall have to furnish to him such information as the Principal Employer (Corporation) is required to furnish under the provisions of Employees Provident Fund Scheme 1952 to the Commissioner.
- 1d. The Contractor shall maintain inspection Note Book in the form as may be specified by the Commissioner, for an Inspector to record his observations on his visit. The Contractor shall also make available the same when asked for inspection to the Officer of the Regional Provident Fund Commissioner and to the Regional Manager of the Corporation or any officer authorized by him, acting on his behalf.
2. If the Contractor fails to submit the prescribed Returns, Records and other documents to the designated authority under the EPF & MP At, 1952 and Scheme framed thereunder and also to General Manager, Food Corporation of India or an Officer acting on his behalf, FCI will be at liberty withhold the pending bills, Security Deposit etc, and or any other payments due to the Contractor.
3. In complying with the said enactments or any statutory modifications thereof, the contractor shall also comply with or cause to be complied with the labour regulations enactments made by the State Govt./Central Govt. from time to time in regard to payment of wages to the workers, wage period, deduction from wages, recovery of wages not paid and deductions unauthorisedly made, maintenance of wage book and wage slip, publication of the scale of wages and other terms of employment, inspection and submission of periodical returns and all other matters of like nature.
4. Notwithstanding the fact whether the said legislations, enactments or any statutory modifications thereof, are applicable or not to the employees/workers employed by the contractor of shall comply with the following:-

4i. **PAYMENT OF WAGES TO WORKERS:-**

The contractor shall pay not less than minimum wages to the workers engaged by them on either time rate basis on the work. Minimum wages both for the time rate and for the piece rate work shall mean the rate(s) notified by Appropriate Authority from time to time during the currency of contract period. Where such wages have not been so notified by the appropriate authority, the wages prescribed by the Regional Manager, as minimum wage, shall be made applicable. The Contractor shall maintain following records and registers as per Minimum Wages Act, 1948 & Central Rules made there under:

Form-I.	Register of fines.
Form-II.	Register of deduction for damage or loss caused to employer by the neglect or default of the employed person.
Form-III.	Annual return
Form-IV.	D.T. Register for workers.
Form-V.	Muster Roll.
Form; IXa	Abstract of the Act & Rules to be displayed on Notice Board.
Form XI.	Wage slips should be issued to the Contract Labour in a day prior to disbursement of wages.

4ii. **Weekly off:**

The contractor shall allow or cause to be allowed to the workers directly or indirectly employed in the work one days rest for six days continuous work and pay wages at the same rate as for duty.

4iii. **Attendance Allowance:**

The contractor shall pay attendance allowance per day @ 50% of the daily wages notified by the Minister of Labour under the Minimum Wages Act from time to time to the regular workers generally employed by him on him on piece rate basis when such worker report for duty on the day but is not booked or given work for the day shift. Aforesaid wage/benefits at Clause vi (e) (i) to (iii) shall be deemed to be a part of this contract and any contravention thereof shall be deemed to be a breach of this contract. He General Manager shall have the right to deduct any sum due to

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the contractor required for making good the loss suffered by a worker of workers by reasons of non-fulfillment of the condition of the contract for the benefit of workers, non-payment of wages, or of deductions made from his or their wages which were not justified or not observations of the regulations/enactments mentioned in Clause VI (a).

- 4iv. Welfare and Health of contract Labour Duties and responsibilities of the contractor: The contractor shall comply with the provisions as regards provision of canteen/rest room, latrine, Urinal, Washing facilities, first and facilities etc as follows as contained in the Contract Labour (Regulation & Abolition) Act 1970 and other applicable laws no amended from time to time.
- (a) Where contract labour in required to halt at night and work is likely to continue for three months, a rest room is to be provided by the contractor within 15 days.
 - (b) Where 100 or more Contract Labour is likely to continue work for six monthly, the Contractor shall provide a Canteen within 60 days of employing labour.
 - (c) Sufficient supply of drinking water at convenient places to be provided.
 - (e) Sufficient number of latrines and urinals to be provided.
 - (f) Adequate and suitable washing, bathing places separately for men and women, shall be provided by the contract.
 - (f) First Aid ox (one box for 150 Contract Labour) to be provided in working hours.
- 4v. Contract Labour (Regulation & Abolition) Rules, 1970
- (a) As pe Rule 25 (2) (VIII), every contractor shall file a return intimating commencement/completion of contract work within 15 days to the inspector in Form VI.A.
 - (b) As per Rules 75, the contractor shall maintain a Register of workmen Employed in Form-XIII and he shall also display hours of work, nature of duty etc.
 - (c) Every contractor shall issue a Service Certificate in Form-XV to the workman on termination of his services as per Rule. 77.
 - (d) As per Rule 82(1), every Contractor shall submit Half-yearly Returns in duplicate in Form-XXIV to Licensing Officer within 30 days from the close of Half-year.
 - (e) Notice to be displayed as required under Rule 81(1) and copy of such notice to be sent to Inspector as per Rule 81(2).
 - (f) The Contractor shall also maintain following records/ registers also:
 - Muster Roll in Form XVI;
 - Register for deduction for damage, loss in Form XX as per Rule 78(1)(a)(ii);
 - Register of Fines in Form XXI;
 - Register of Advances in Form XXII.
 - (g) Employment Card shall be given by Contractor in Form XIV to each worker within 3 days of employment as per Rule 76, in the following format:

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Temporary Contract Labour's Employment Card

Recent
Photograph

1. Name of the Labour/Worker _____
2. Father's/ Husband's Name _____
3. Date of Birth _____
4. i) Address (Local) _____
ii) Permanent _____
5. Name and address of CWC Contractor _____
6. Valid (Period of the Contractor) From _____ to _____

**Signature and stamp of the Contractor/
Authorised representative**

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5. Recovery of Compensation paid to Workmen

In every case in which by virtue of the provisions sub-section (1) of Section 12, of the Workmen's Compensation Act, 1923, the Corporation is obliged to pay compensation to workman employed by the contractor, in execution of the works, Corporation will recover from the contractor, the amount of the compensation so paid; and, without prejudice to the rights of the Corporation under sub-section (2) of Section 12 of the said Act, the Corporation shall be at liberty to recover such amount or any part thereof by deducting it from the security deposit or from any sum due by the Corporation to the contractor whether under this contract or otherwise.

The Corporation shall not be bound to contest any claim made against it under sub-section (1) of Section 12, of the said Act, except on the written request of the contractor and upon his giving to Corporation full security for all costs for which the Corporation might become liable in consequence of contesting such claim.

6. Ensuring Payment and Amenities to Workers, if Contractor Fails

In every case in which by virtue of the provisions of the Contract Labour (Regulation and Abolition) Act, 1970 and of the Contract Labour (Regulation and Abolition) Central Rules, 1971, the Corporation is obliged to pay any amounts of wages to a workman employed by the contractor in execution of the works or to incur any expenditure in providing welfare and health amenities required to be provided under the above said Act and the rules under Clause 19H or under the CPWD's Contractor's Labour Regulations or under the Rules framed by Govt. from time to time for the protection of health and sanitary arrangements for workers employed by Central Warehousing Corporation's Contractors; the Corporation will recover from the contractor, the amount of wages so paid or the amount of expenditure so incurred; and without prejudice to the rights of the Corporation under sub-section (2) of Section 20, and sub-section (4) of Section 21, of the Contract Labour (Regulation and Abolition) Act, 1970; Corporation shall be at liberty to recover such amount or any part thereof by deducting it from the Security Deposit or from any sum due by Corporation to the contractor whether under this contract or otherwise.

Corporation shall not be bound to contest any claim made against it under sub-section (1) of Section 20, sub-section (4) of Section 21, of the said Act, except on the written request of the contractor and upon his giving to the Corporation full security for all costs for which Corporation might become liable in contesting such claim.

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7. Compliance of all Labour Laws and Regulations

The Contractors, who are working in the establishments through Contract Labour and/or employing labour themselves directly, should get themselves registered with and obtain a license from the Assistant Labour Commissioner concerned, as required under Contract Labour (Regulation and Abolition) Act 1971 and produce the same to Warehouse Manager, in compliance to above and the Conditions of Contract. The copy of application for obtaining labour license may be submitted to Warehouse Manager within the period as specified in **Appendix-7 to Schedule I: General Conditions of Contract**.

The contractor shall obtain a valid licence under the Contract Labour (R&A) Act, 1970 and the Contract Labour (Regulation and Abolition) Central Rules, 1971, before the commencement of the work and continue to have a valid license until the completion of the work.

The contractor shall also comply with provisions of the Inter-State Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979. The contractor shall also abide by the provisions of the Child Labour (Prohibition and Regulation) Act, 1986.

The contractor shall also comply with the provisions of the building and other Construction Workers (Regulation of Employment & Conditions of Service) Act, 1996 and the building and other Construction Workers Welfare Cess Act, 1996.

Any failure to fulfil these requirements shall attract the penal provisions of this contract arising out of the resultant non-execution of the work.

No labor below the age of fourteen years shall be employed on the work.

8. Payment of Wages

Payment of Wages:

- i. The contractor shall pay to labour employed by him either directly or through sub-contractors, wages not less than fair wages as defined in the CPWD's Contractor's Labour Regulations or as per the provisions of the Contract Labour (Regulation and Abolition) Act, 1970 and the Contract Labour (Regulation and Abolition) Central Rules, 1971, wherever applicable.
- ii. The contractor shall, notwithstanding the provisions of any contract to the contrary, cause to be paid fair wage to labour indirectly engaged on the work, including any labour engaged by his sub-contractors in connection with the said work, as if the labour had been immediately employed by him.
- iii. In respect of all labour directly or indirectly employed in the works for performance of the contractor's part of this contract, the contractor shall comply with or cause to be complied with the CPWD's Contractor's Labour Regulations made by Govt. from time to time in regard to payment of wages, wage period, deductions from wages recovery of wages not paid and deductions unauthorizedly made, maintenance of wage books or wage slips, publication of scale of wage and other terms of employment, inspection and submission of periodical returns and all other matters of the like nature or as per the provisions of the Contract Labour (Regulation & Abolition) Act, 1970, and Contract Labour (Regulation & Abolition) Central Rules, 1971, wherever applicable.
- iv. (a) The Regional Manager concerned shall have the right to deduct from the money due to the contractor any sum required or estimated to be required for making good the loss suffered by a worker or workers by reason of non-fulfilment of the conditions of the contract for the benefit of workers, non-payment of wages or of deductions made from his or their wages which are not justified by their terms of the contract or non-observance of the Regulations.

(b) Under the provision of Minimum Wages (Central) Rules, 1950, the contractor is bound to allow to the labours directly or indirectly employed in the works one-day rest for 6 days' continuous work and pay wages at the same rate as for duty. In the event of default, the Regional Manager shall have the right to deduct the sum or sums not paid on account of wages for weekly holidays to any labours and pay the same to the persons entitled thereto from any money due to the contractor by the Regional Manager concerned.

In the case of Union Territory of Delhi, however, as the all-inclusive minimum daily wages fixed under Notification of the Delhi Admin. No. F.12(162) MWO/DAB/43884-91, dated 31.12.1979 as amended from time to time are inclusive of wages for the weekly day of rest, the question of extra payment for weekly holiday would not arise.
- v. The contractor shall comply with the provisions of the Payment of Wages Act 1936, Minimum Wages Act 1948, Employees Liability Act 1938, Workmen's Compensation Act

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1923, Industrial Disputes Act 1947, Maternity Benefits Act, 1961 and the Contractor's Labour (Regulation & Abolition) Act 1970 or the modifications thereof or any other laws relating thereto and the rules made thereunder from time to time.

- vi. The contractor shall indemnify and keep indemnified Corporation against payments to be made under and for the observance of the laws aforesaid and the CPWD's Contractor's Labour Regulations without prejudice to his right to claim indemnity from his sub-contractors.

The laws aforesaid shall be deemed to be a part of this contract and any breach thereof shall be deemed to be a breach of this contract.

- vii. Whatever is the minimum wage for the time being, or if the wage payable is higher than such wage, such wage shall be paid by the contractor to the workmen directly without the intervention of Jamadar and that Jamadar shall not be entitled to deduct or recover any amount from the minimum wage payable to the workmen as and by way of commission or otherwise.

The contractor shall ensure that no amount by way of commission or otherwise is deducted or recovered by the Jamadar from the wage of workmen.

9. Maternity Leave and Pay

Leave and pay during leave shall be regulated as follows –

1. Leave:

- (i) in the case of delivery - maternity leave not exceeding 8 weeks, 4 weeks upto and including the day of delivery and 4 weeks following that day
- (ii) in the case of miscarriage - upto 3 weeks from the date of miscarriage

2. Pay:

- (i) in the case of delivery - leave pay during maternity leave will be at the rate of the women's average daily earnings, calculated on total wages earned on the days when full time work was done during a period of three months immediately preceding the date on which she gives notice that she expects to be confined or at the rate of Rupee one only a day whichever is greater.
- (ii) in the case of miscarriage - leave pay at the rate of average daily earning calculated on the total wages earned on the days when full time work was done during a period of three months immediately preceding the date of such miscarriage.

3. Conditions for the grant of Maternity Leave:

No maternity leave benefit shall be admissible to a woman unless she has been employed for a total period of not less than six months immediately preceding the date on which she proceeds on leave.

4. The contractor shall maintain a register of Maternity (Benefit) in the Prescribed Form as shown in **Appendix-G- I & II**, and the same shall be kept at the place of work

10. Logistics for Labours

The contractor(s) shall at his/their own cost provide his/their labour with a sufficient number of huts (hereinafter referred to as the camp) of the following specifications on a suitable plot of land to be approved by the Warehouse Manager.

- (i) (a) The minimum height of each hut at the eaves level shall be 2.1m (7 ft) and the floor area to be provided will be at the rate of 2.7 sqm (30 sqft) for each member of the worker's family staying with the labourer.
- (b) The contractor(s) shall, in addition, construct suitable cooking places, having a minimum area of 1.80m x 1.50m (6'x5'), adjacent to the hut for each family.
- (c) The contractor(s) shall also construct temporary latrines and urinals for the use of the labourers each on the scale of not less than four per each one hundred of the total strength, separate latrines and urinals being provided for women.
- (d) The contractor(s) shall construct sufficient number of bathing and washing places, one unit for every 25 persons residing in the camp. These bathing and washing places shall be suitably screened.

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- (ii) (a) All the huts shall have walls of sun-dried or burnt bricks, laid in mud mortar or other suitable local materials, as may be approved by the Warehouse Manager. In case of sun-dried bricks, the walls should be plastered with mud gobri on both sides. The floor may be kutchra, but plastered with mud gobri and shall be at least 15 cm (6") above the surrounding ground. The roofs shall be laid with thatch or any other materials, as may be approved by the Warehouse Manager and the contractor shall ensure that throughout the period of their occupation, the roofs remain water-tight.
- (b) The contractor(s) shall provide each hut with proper ventilation.
- (c) All doors, windows, and ventilators shall be provided with suitable leaves for security purposes.
- (d) There shall be kept an open space of at least 7.2m (8 yards) between the rows of huts which may be reduced to 6m (20 ft) according to the availability of site with the approval of the Warehouse Manager. Back-to-back construction will be allowed.
- (iii) Water Supply - The contractor(s) shall provide adequate supply of water for the use of labourers. The provisions shall not be less than two gallons of pure and wholesome water per head per day for drinking purposes and three gallons of clean water per head per day for bathing & washing purposes. Where piped water supply is available, supply shall be at stand posts and where the supply is from wells or river, tanks which may be of metal or masonry, shall be provided. The contractor(s) shall also, at his/ their own cost, make arrangements for laying pipe lines for water supply to his/ their labour camp from the existing mains wherever available and shall pay all fees and charges therefor.
- (iv) The site selected for the camp shall be high ground, removed from jungle.
- (v) Disposal of Excreta - The contractor(s) shall make necessary arrangements for the disposals of excreta from the latrines by trenching or incineration which shall be according to the requirements laid down by the Local Health Authorities. If trenching or incineration is not allowed, the contractor(s) shall make arrangements for the removal of the excreta through the Municipal Committee/authority and inform it about the number of labourers employed so that arrangements may be made by such Committee /Authority for the removal of the excreta. All charges on this account shall be borne by the contractor and paid direct by him to the Municipality/Authority. The contractor shall provide one sweeper for every eight seats in case of dry system.
- (vi) Drainage - The contractor(s) shall provide efficient arrangements for draining away sewage water, so as to keep camp neat & tidy.
- (vii) The contractor(s) shall make necessary arrangements for keeping the camp area sufficiently lighted to avoid accidents to the workers.
- (viii) Sanitation - The contractor(s) shall make arrangements for conservancy and sanitation in the labour camps according to the rules of the Local Public Health and Medical Authorities

11. Conduct of Contractor Labors

The Corporation/Regional Manager/Warehouse Manager may require the contractor to dismiss or remove from the site of the work any person or persons in the contractors' employ upon the work who may be incompetent or misconduct himself and the contractor shall forthwith comply with such requirements. In respect of maintenance/repair or renovation works etc. where the labour have an easy access to the individual houses, the contractor shall issue identity cards to the laborer, whether temporary or permanent and he shall be responsible for any untoward action on the part of such labor. AE will display a list of contractors working in the Colony/Blocks on the notice board in the colony and also at the service center, to apprise the residents about the same.

12. Removal of illegal Occupation

It shall be the responsibility of the contractor to ensure that no space in complex, provided to him for carrying out work/delivery of service, is not occupied by anybody unauthorized. If it is found so, then the Warehouse Manager shall have the option to refuse to accept of work(s) / building/buildings irrespective of its completion stage. Any delay in acceptance on this account will be treated as the delay in completion and for such delay, a levy up to 5% of Value of work as per work order may be imposed by Regional Manager whose decision shall be final both with regard to the justification & quantum and be binding on contractor.

However, the Warehouse Manager, through a notice, may require the contractor to remove the illegal occupation any time on or before construction and delivery.

Trespass

The contractor shall, at all times, be responsible for any damages or trespass, committed by his agents and workmen in carrying out the work, unless such trespass is authorized by the Regional Manager/Warehouse Manager.

13. Employment of Skilled / Semi- Skilled Workers

The contractor shall, at all stages of work, deploy skilled/semi-skilled tradesmen who are qualified and possess certificate in particular trade from CPWD Training Institute / Industrial Training Institute / National Institute of Construction Management and Research (NICMAR) / National Academy of Construction, CIDC or any similar reputed and recognized Institute managed/certified by State/Central Govt. Number of such qualified tradesmen shall not be less than 20% of total skilled/semi-skilled workers required in each trade at any stage of work. Contractor shall submit number of man-days required in respect of each trade, its scheduling and the list of qualified tradesmen alongwith requisite certificate from recognized Institute to Regional Manager for approval.

Notwithstanding such approval, if the tradesmen are found to have inadequate skill to execute the work of respective trade, the contractor shall substitute such tradesmen within two days of written notice from Regional Manager. Failure on the part of contractor to obtain approval of Regional Manager or failure to deploy qualified tradesmen will attract a compensation to be paid by contractor at the rate specified in **Appendix-7 to Schedule I: General Conditions of Contract** per such tradesman per day. Decision of Regional Manager, as to whether particular tradesman possesses requisite skill and amount of compensation in case of default, shall be final and binding.

Provided always, that the provisions of this Clause shall not be applicable for works with estimated cost put to tender being less than Rs. 5 crores.

For work costing more than Rs. 10 crores, and upto Rs. 50 crores, the contractor shall arrange on site training as per National Skill Development Corporation (NSDC) norms for at least 20% of the unskilled workers engaged in the project in co-ordination with the CPWD Regional Training Institute & National Skill Development Corporation (NSDC) for certification at the level of skilled/semi-skilled tradesmen.

For work costing more than Rs. 50 Crores, the contractor shall arrange on site training as per National Skill Development Corporation (NSDC) norms for at least 30% of the unskilled worker engaged in the project in coordination with the CPWD Regional Training Institute & National Skill Development Corporation (NSDC) for certification at the level of skilled/ semi-skilled tradesmen. The cost of such training as stated above shall be borne by the Government. The necessary space and workers shall be provided by the contractor and no claim whatsoever shall be entertained.

14. PF Compliance and Contribution of EPF and ESI

It will be responsibility of the contractor to obtain separate code/identification No. for contractor's deposit of PF dues/ESI, if applicable with concerned authority directly. Copy of PF Registration / Code no. along with copy of PF paid Challans, shall be submitted along with Running Account Bills or Final Bill.

The ESI and EPF contributions on the part of employer in respect of this contract shall be paid by the contractor and shall be included under the rates quoted by him in the tender. The ESI, EPF and other labour compliance will be sole responsibility of Contractor; CWC will not provide anything over and above rate quoted by contractor. Contractor will provide the proof to CWC for submission of ESI & EPF to respective authorities along with bills and proof of final amount deposited to respective authorities for ESI & EPF along with final bill compulsorily. If the contractor fails to do so, CWC will deduct appropriate amount from contractor's Bill / Security Deposit and pay to the respective authorities.

15. Minimum Wages Act to be Complied

The contractor shall comply with all the provisions of the Minimum Wages Act, 1948 and Contract Labour (Regulation and Abolition) Act, 1970, amended from time to time and rules framed thereunder and other labour laws, affecting contract labour that may be brought into force from time to time.

16. Default & Breach of Provisions

In the event of the contractor(s) committing a default or breach of any of the provisions of the CPWD's Contractor's Labour Regulations and Model Rules for the protection of health and sanitary arrangements for the workers as amended from time to time or furnishing any information or submitting or filing any statement under the provisions of the above Regulations and Rules which is materially incorrect, he/they shall, without prejudice to any other liability, pay to the Corporation a sum as decided by the authority mentioned in **Appendix-7 to Schedule I: General Conditions of Contract** for every default, breach or furnishing, making, submitting, filing such materially incorrect statements and in the event of the contractor(s) defaulting continuously in this respect, the penalty may be enhanced to as decided by the authority mentioned in **Appendix-7 to Schedule I: General Conditions of Contract** per day for each day of default subject to a maximum of 5 percent of the estimated cost of the work put to tender. Decision of the Regional Manager in all of the above respect shall be final and binding on Parties.

Should it appear to the Regional Manager that the contractor(s) is/are not properly observing and complying with the provisions of the CPWD's Contractor's Labour Regulations & Model Rules and the provisions of the Contract Labour (Regulation & Abolition) Act 1970, and the Contract Labour (R&A) Central Rules 1971, for the protection of health & sanitary arrangements for work-people employed by the contractor(s) (hereinafter referred as "the said Rules") the Regional Manager shall have power to give notice in writing to the contractor(s) requiring that the said Rules be complied with and the amenities prescribed therein be provided to the work-people within a reasonable time to be specified in the notice. If the contractor(s) shall fail within the period specified in the notice to comply with and/observe the said Rules and to provide the amenities to the work-people as aforesaid, the Regional Manager shall have the power to provide the amenities herein before mentioned at the cost of the contractor(s).

The contractor(s) shall erect, make & maintain at his/their own expense and to approved standards all necessary huts and sanitary arrangements required for his/their work-people on the site in connection with the execution of the works, and if the same shall not have been erected or constructed, according to approved standards, the Regional Manager shall have power to give notice in writing to the contractor(s) requiring that the said huts and sanitary arrangements be remodeled and/or reconstructed according to approved standards, and if the contractor(s) shall fail to remodel or reconstruct such huts and sanitary arrangements according to approved standards within the period specified in the notice, the Regional Manager shall have the power to remodel or reconstruct such huts and sanitary arrangements according to approved standards at the cost of the contractor(s).

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Appendix-7

Operational Clauses -Summary

Refer relevant clauses & Articles in Schedule-I, General Conditions of Contract (GCC) and Schedule-II, Scope of work.

GENERAL RULES & DIRECTIONS	Officer Inviting Tender	Regional Manager
	Maximum works that can be executed under the contract	Up to 125 % of Original Contract Value.

Definitions:

1	Corporation/ Department/CWC	Central warehousing Corporation
2	Contract Manager/ Authorized Signatory for Agreement on behalf of Corporation and Corporation representative for the purpose of Corporation mentioned in Contract	Regional Manager of the Corporation who has invited tender
2	Warehouse Manager	In charge of Central Warehouse/CFS Terminal where services are to be delivered
3	Engineer	Engineer of Corporation in the rank of AE/ EE / SE .
3	Tender Accepting & Contract Terminating Authority	Regional Manager
4	Contractor Percentage on cost of materials and labor to cover all overheads and profits in Analysis of Rates:	15%

Standard Schedule of Rates applicable under this contract for selection of item of works for execution

- (i) DSR Civil 2021 (Up -to- date correction slips)
- (ii) DSR (E & M) 2022
- (iii) DSR Wet Riser and Sprinkler System - 2019
- (iv) DSR Item for BEE 5 star rated, ceiling fan with Brush Less Direct Current (BLDC) Motor - 2019
- (v) DSR (E&M) Item for Facade Lighting - 2019
- (vi) and Market rates for civil, electrical & mechanical works

ALL DSR latest up to correction slips at the time of tender publishing shall be valid and applicable for determining the rates.

Specifications to be followed for execution of work	CPWD Specifications Vol - I & II 2019 for Civil Works and CPWD General Specifications for Electrical Works Part-I (Internal) & Part-II (External) with up-to-date Correction Slips or Latest CPWD Specifications in vogue on the date of tender publication, MORTH for roads.
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Article 4 of Agreement

Contract period: 1 year form the date of placement of LOA

Article 8 of Agreement

- (i) Performance Bank Guarantee- 5% of Contract Value plus additional PBG in case of abnormally low rates as per clause 11.4.3 of ITB (volume I)
- (ii) Time allowed for submission of Performance Guarantee, Detail of Engineers and Supervision Staff and applicable labor licenses, registration with EPFO, ESIC and BOCW Welfare Board or proof of applying thereof from the date of issue of LOA: **15 days**
- (iii) Maximum allowable extension with late fee @ **0.1% per day** of Performance Guarantee amount beyond the period provided in Article 8 of Agreement/ Letter of Award: **15 days**
- (iv) Retention Money - 5 % of value of work executed based on DLP conditions.

Clause-2 of GCC (Schedule-I) ____

Schedule of rate of recovery for delay in submission of modified work program or Progress report -Clause 2 .2.4 and 13.4.3

SL	Contract Value	Recovery (Rs.)
I.	Any work executed under contract	Rs. 100 per day

Clause-3.2.6 of GCC (Schedule-I)

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

Concrete Mixer (Of capacity minimum 1 bag of cement) as per requirement on receipt of such works	Concrete Vibrator as per requirement on receipt of such works
Scaffolding for repair works upto height of 9 m from NGL	Ladders for repair works upto height of 6 m and for area where scaffolding cannot be erected.
Plumber tools & equipments	Electrician Tools & equipments
Lawn Mower, Hedge Cutters, Plants trimmers	Mason & Beldar Tools & Equipments

Clause-3.3.4 of GCC (Schedule-I)

Competent Authority for deciding reduced rates: Engineer in charge

Clause- 5.1.5 of GCC (Schedule-I)

Submission of statement

In case the contractor fails to submit the statement, he shall be liable to pay a penalty of Rs.500/- per week for the period he does not submit the statement.

Clause-7 .1.1 of GCC (Schedule-I)

Corporation Issue Material -Schedule of Materials to be issued to the Contractor –

SL	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				

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Corporation Issued - Tools & Plants , Equipment to be hired to the Contractor –

SL	Description	Hire Charges per day	Place of Issue
1	2	3	4
NIL			

Clause-8.1 of GCC (Schedule-I)

-Safety Provisions

In case the contractor fails to make arrangement and provide necessary facilities, he shall be liable to pay a penalty of Rs.500/- per day for the period he does not arrange the safety provision. **Clause-10 of GCC (Schedule-I)**

Liquidity Damage- For the general Maintenance Services as per rate specified in Appendix –II of Schedule-II

For other repair, Maintenance, upgradation or construction works- As per Clause 10 of GCC

Authority to Decide LD- Regional Manager

Clause-13.4.4 of GCC (Schedule-I)

- (i) Authority to Decide Extension of Time: Regional Manager
- (ii) Shifting of Date of Start in case of delay in handing over of site: Warehouse Manager

Clause-13.4.6 of GCC (Schedule-I)

- (i) Record of Days prevented from performing the work: Hindrance Register -Jointly Maintained by WHM and Engineer based on the information provided by Contractor.
- (ii) Nature of Hindrance Register- digital /electronic in format of Schedule II

Sub Clause 16 of Appendix 6 of GCC (Schedule-I)

Default & breach of provisions.

In the event the contractor(s) committing a default or breach of any of the provision, he shall be liable to pay a penalty @ 0.05% for each day of default subject to a maximum of 5% of estimated cost of work.

Sub Clause 13 of Appendix 6 of GCC (Schedule-I) and other subclauses of Appendix 5 /6

Employment of skilled/semi-skilled workers.

In case the contractor fails to deploy the qualified tradesman, he shall be liable to attract penalty of Rs.100/-per day.

Ref-Schedule II: Scope of Work**Requirement of Technical Staff for a Work and Rate of Recovery**

SL	Cost of Work	Minimum Qualification Of Technical Representative	Designation (Principal Technical / Technical Representative)	Minimum Experience (years)	Number	Rate at which recovery shall be made from the contractor in the event of not fulfilling provision of Contract T&C
1.	Any	Graduate Engineer (Civil) Or Diploma Engineer (Civil)	Principal technical representative	3 yrs for Graduate Engineers or 6 yrs for Diploma Engineers respectively	1	Rs.25,000/-PM
2	Any	Diploma Engineer (civil) Or any Graduate	Technical representative	3 yrs for Diploma Engineers and 10 yrs for Non Engineering Graduate and 1 year for Engineering Graduate respectively	1	Rs.15,000/-PM

- Assistant Engineers retired from Govt. Services that are holding Diploma will be treated at par with Graduate Engineers.
- Diploma holder with minimum 10 years relevant experience with a reputed construction co. can be treated at par with Graduate Engineers for the purpose of such deployment subject to the condition that such diploma holders should not exceed 50% of requirement of degree engineers.

Ref-Schedule II: Appendix- IV Clause R- Th. Consumption of Material

Schedule / Statement for determining theoretical quantity of cement & bitumen based on Delhi Schedule of Rates 2021 printed by CPWD

Variations permissible on theoretical quantities:

- (a) Cement All Works: +/- 2%
- (b) Bitumen All Works: 2.5% plus & only & nil on minus side
- (c) Steel Reinforcement and structural steel sections for each diameter, section, and category: +/- 2%

RECOVERY RATES FOR QUANTITIES BEYOND PERMISSIBLE VARIATION

SL	Description of Item	Rates at which recovery shall be made from the Contractor	
		Excess Beyond Permissible Variation	Less use Beyond Permissible Variation
1.	Cement	-	Twice the rates mentioned in DSR 2021 Dec 21 edition adopted for estimation
2.	Steel reinforcement	-	do
3.	Structural Sections	-	do
4.	Bitumen	-	do
5.	Bitumen issued free	-	do
6.	Bitumen issued at stipulated fixed price	-	Twice the rate issued

SCHEDULE – II
(SCOPE OF WORK)

1. General Scope of Work:

- i. The scope of works to be completed under this contract includes miscellaneous works of civil, electrical, and mechanical nature maintenance, upgradation, small scale construction works and general maintenance and housekeeping services , horticulture works as per terms and conditions mentioned in this document. These include day to day maintenance, annual repairs, preventive maintenance, special repairs, upgradation works and additions and alterations, new construction etc as indicated in Table 1, 2 & 3 below.
- ii. The Works shall be carried out by contractor maintaining the uniformity in Color scheme, Aesthetics of complex, pleasant ambience, presentable infrastructure, green belt and hygiene in offices, toilets etc. The color scheme of the buildings, Godowns & other Civil infrastructure in Complex, as approved by Corporation shall be followed uniformly.
- iii. Officer in charge shall decide and he shall be responsible for the quantum, time line, measurement and payment related to the works he ordered vide a particular work order to Contractor. Engineer of the corporation shall do all technical checks on the works mentioned in Table 2 and 3 , for its quality, specification , rates , quantity & amount etc.
- iv. Contractor shall be responsible for execution, timely completion, quality and workmanship of all works & services as ordered by officer in charge under the contracted rates for the items stipulated in Price schedule and at the rates as determined by Engineer of the Corporation for the items not stipulated in price schedule. He will ensure successful implementation of contract so that all infrastructure in CW Complex is effectively maintained and is brought to a presentable stage.
- v. General Maintenance Manual, & Service requirements/frequencies to be provided by Contractor are given in **Appendix- II this Schedule**. The Check list of minimum requirements of Infrastructure & Its maintenance in CW Complex, which will serve as a guide for deciding the works to be executed under a CW Complex is given in **Appendix III of this Schedule**.

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TABLE -1	GENERAL MAINTENANCE WORKS & SERVICES
	Housekeeping Services
1	Removal of garden waste
2	Cleaning/Sweeping of CW Roads, Main entry Ramps, Parking yards Godown Veranda/Open Platforms and Weighbridge platform area etc. including Safe disposal of garbage/ Refuse.
3	Cleaning, dusting, mopping of Window Glasses (both sides), floors, furniture, etc. to make the area neat and clean free from cobwebs, flies etc, and hygienic in Office buildings, labour Huts, Security Cabins, weighbridge cabin and other similar amenities
4	Cleaning, dusting of Godown Walls, Top Ventilators, Roof Trusses, Parapets and other heightened structures, Cleaning of Fans installed in office buildings, Cleaning of firefighting equipment including portable fire extinguishers
5	Cleaning of all Toilets /Washrooms / drinking water utilities and other similar amenities within CW Complex. With water including flushing as per requirement
6	Cleaning of terrace/loft water storage tank
7	Cleaning and desilting of gully trap chamber, Cleaning of outlet chambers connecting swage / drains of CWC complex with city means drains/ swage chamber
8	Cleaning of chocked / existing drain of campus / sewer line
9	Cleaning of underground sump, Over Head R.C.C. Tank .
10	Clearing of blockages in Rain Water Harvesting systems pit , Cleaning, disinfecting/ recouping the aggregates/ repair of RWH pits/ borewells
11	Cleaning of valley gutter in godown and underground tranches, drain pips
	Horticulture works and services
12	Grassing with selection No. 1 doob grass including watering and maintenance of the lawn
13	Cleaning of garden, Watering of landscaped/green belt areas and maintaining the plants/ shrubs, trees, bushes, flowering beds etc and keeping these in healthy condition Frequency of cleaning shall be daily and watering or other activities shall be as per requirement.
14	Renovating lawns including weeding, cheeling the grass, forking the ground, top dressing with sludge or manure, mixing the same with forke and keeping the lawn free from weeds
15	Other horticulture services like Mixing earth and sludge or manure in the required proportion and spreading/ of sludge, dump manure and/or good earth in required thickness within complex as per requirement
16	Plantation of Trees, Shrubs, and Hedge at site i/c watering and removal of unserviceable material's
17	Cutting of designer hedge/edge hoeing of hedge/edge bed Topiary cutting/shaping of plant removing of cut materials,
18	Clearing heavy jungle in open area including uprooting of rank vegetation
19	Clearing grass, shrubs, bushes grown unwanted near to buildings

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Other repair and maintenance related works and services	
20	General servicing including greasing, re -alignment, refixing of doors, rolling shutters etc
21	Replacement of broken glasses, Jalli, bird mesh in window and ventilators, doors etc
22	Replacement of damaged/ non-functional fittings of doors, windows and ventilators and rolling shutters, lubricating of rolling shutters Repairs to rolling shutters by replacing brackets, springs, gear box handles, MS cover locking rail, laith, shaft etc.
23	Replacement of ceramic fittings and fixtures of toilets, labs and other utilities, sanitary items.
24	Replacement / repair in fittings (tee, elbow etc in rainwater down take pips and storm water drains, swage pips etc.
25	Repair /replacement of Platform fender.
26	Replacement, refilling of fire extinguishers, sand bucket etc
27	Repair, replacement of PVC water tank, Borewell pump, UG tank pump and other fixtures of water supply network.
28	Painting on aisle way, Entry Gates, Security Cabin, Boundary walls, Office Buildings, Toilets & other amenities to restore the originals and to maintain the aesthetic of complex, in case of requirements before expiring next due date of painting as per periodicity.
29	Painting of Godown Gable walls, long walls etc to restore the originals and to maintain the aesthetic of complex and where Standard Measurement is certified by Engineer in case of requirements before expiring next due date of painting as per periodicity.
30	Plugging the punctures, arresting the leakages and laying water proofing sheets on leaking areas in Roofs like tarfelt over ridges, flashing and any other similar item on leaking locations.
31	Replacement/ refixing/realigning of isolated damaged ridges, flashing, velly gutters, sky light sheeting, turbo ventilators, Galvalume / GI Sheeting, Cement roofing sheet, rain water down take pipes such that volume of works is less than Rs. 5,00,000/- in each case.
32	Minor repair works in Walls, plaster, floors & Roads (pot holes, cracks etc), damages in drains, sewage pipes, manhole chambers etc, ramps at entry gates, steps, fins/jamb/off sets of doors/windows and any other similar asset including minor replacement works of paver blocks, Cement concrete in roads, floors, Bituminous mix, carpeting, Rolling shutters, Doors, Windows etc such that no technical supervision is required and / Or any other works mentioned in Table 2 below where extent of repair to carry out is such that value of repair works does not exceed Rs. 5,00,000/- in each case.
33	Repairs to electrical fittings wiring, panels, etc. Supplying & installation of electrical fittings, luminaries/ fans etc such that volume of works is less than Rs. 5,00,000/- in each case.

TABLE – 2 REPAIR & MAINTENANCE /UPGRADATION

1. Providing & fixing of new Jalli gates/steel gates/rolling shutters/Wood-PVC-FRP doors etc in the door openings or complete replacement / upgradation with new system.
2. Providing of new expanded metal Jallis/Glass/polycarbonate sheet over ventilators/ Glazed/wire meshed /Aluminium/UPVC/PVC/Steel/Wooden windows in wall opening or complete replacement / upgradation with new system.
3. Complete replacement/upgradation of roofing system of Godown or other Buildings in CWC Complex.
4. Repair to Major roof leakages in Godowns by water proofing of entire roofs or replacement of all cracked sheets.
5. Complete replacement /major repair of roof water drain system, wind ties, sky light sheeting, turbo ventilators

6. Repair / strengthening /modification in damaged trusses/purlins/runners/bracings in Godowns
7. Relaying/Replacement of roof slabs with or without RCC framing in the office block/ staff quarters.
8. Complete replacement/upgradation of Flooring system of Godown or other Buildings in CWC Complex.
9. Providing tiling works in floors/walls.
10. Providing wooden works in office blocks/staff quarters/guest houses
11. Repairs to Major damage in fins/jambs/off sets in the doors/windows
12. Repairs to Major damage of plaster in patches
13. Repairs to Major damage in flooring in patches.
14. Repairs to seepage in walls/roofing/floors.
15. Repairs / replacement /laying of plinth protection
16. Major Repair works in masonry walls of bricks/stones/CC/RCC, rebuilding, retrofitting and or anchoring works etc.
17. Repairs in RCC works of roof slab/Floors/columns/beams etc.
18. Repairs in Steel works with welding/extra riveting/bolting etc. in trusses, rafters, stanchions, columns, bracing, runners, purlins etc in building.
19. Replacement of paint finishing system as per Periodicity and /or new work of painting including White washing, colour washing & painting on CC/Plastered/Steel/wood works etc.
20. Major repair/ new Construction of drainage system in the complex.
21. Major repair/ new Construction of Rain Water harvesting infrastructure within the complex.
22. Major repair/ new Construction of Underground Water Tank.
23. Major Repairs/ Renewal/relaying/replacement to sewage /drainage/ water supply system including pumps, sumps, pipes and fittings.
24. Major repair/Installation of shallow borewell
25. Providing of base works to floor/Paver block yard/Road etc like subgrade preparation, Sub base and base laying with WBM/WMM/Mooram/Good earth/PCC etc.
26. Major repair/replacement/new Construction of CC/RCC roads/ramps/ VDC /CC floor/approaches in the complex.
27. Major Supply & installation of paver blocks in the parking yard/roads/godown floors.
28. Relaying of premix carpeting / seal coat/BM/DBM/BC/SDBC etc on the roads.
29. Filling of pot holes in the roads by stone/brick aggregate-Major works.
30. Complete replacement/upgradation of Roads & Other Circulation area of Godown or other Buildings in CWC Complex.
31. Patch repairs to roads by bitumastic concreting -Major works
32. Raising the height by construction of boundary wall, installation of entry gates.
33. Supplying & fixing concertina wire for fencing over boundary wall.
34. Renewal / replacement/ major repair or completely new works of wiring, internal, external electrical power conveyance system, earth pits, electrical conductor etc.

Table 3: New construction works (Small scale construction)

1. Construction of new building/ rooms like Public Toilets, Weighbridge Cabin, Security Cabin, Driver Block, Visitor lobby, Labs etc.
2. Construction of marketing sheds for farmers, labour shed, parking shed etc within the warehouses.
3. Construction of New boundary walls.
4. Construction of overhead water tank, Under Ground Fire Water Reservoir.
5. Construction of foundations of tower mast, high mast, Container cabins, DG set, weighbridge etc.
6. Installation of High mast, street lightings, Providing Street lighting in the complex.
7. Providing of new transformer, new cablings etc.
8. Installation of submersible, centrifugal pumps (Electrical equipment) , deep borewell etc.

2. Nature of works to be executed under the contract.

A. Day to day Repairs

- i. Day to day or routine repairs are the works which are to be attended on the day-to-day basis such as cleaning, Housekeeping, removing chokage of drainage pipes, manholes, restoration of water supply, repairs to faulty switches, watering of plants, lawn mowing, hedge cutting, sweeping of leaf falls etc.
- ii. In addition, works such as patch repair to plaster, minor repairs to various items of work, replacement of glasspanes, replacement of wiring damaged due to accident, replacement of switches, sockets tiles, Gap filling of hedges/perennial beds, Replacement/Replanting of trees, shrubs, painting of tree guards, planting of annual beds and trimming/pruning of plants etc., which are not emergent works and are considered to be of routine type shall be done as per requirement at any time during contract period, depending upon the exigency.
Such works can be done under day-to-day repair also.
- iii. These services shall be provided by contractor in a time bound manner based on receipt of complaints / requirements /call from the Warehouse manager.

B. Preventive Maintenance

Preventive maintenance is essential to keep the building services in serviceable condition. Preventive maintenance shall be taken up so that the services or the assets do not fail due to wear and tear and those components and services expected to fail are replaced well in time.

Periodical Checks for Preventive Maintenance

Systematic inspections by Warehouse Manager/ Engineer and Contractor along with his Engineer shall be carried out particularly of those services and components which are prone to higher wear and tear and nearing to outlive/outlived their life. Thin members, exposed members to severe weathering conditions, members affected by leakage/seepage and members/components affected by water splashes shall also be inspected periodically.

The following categories of items of preventing maintenance has to be paid special attention

- i. Cleanliness of roofs, inlet of rain water pipes, khurra, chajja/sunshade top, outlet of rain water pipes, plinth protection and drains minimum once a year and particularly before monsoon.
- ii. Cracks on gola and top of parapet
- iii. Cleanliness and waterproofing of mumty roof
- iv. Leakage from terrace tanks
- v. Damage of water proofing due to installation of various services on roof like Dish antenna, solar panels, etc or weed/vegetation.
- vi. Cracks on grit plaster, spalling of concrete, cladding stone coming out of substrate etc
- vii. Leakages/seepages from Roof/Wall/Pipes/Velly Gutters
- viii. Rusting of GI pipes and fittings showing seepage
- ix. Shafts for the leakage/seepage
- x. Sagging false ceiling
- xi. Termite affected areas and wooden members
- xii. The cleaning of manholes and sewer line and checking for rain water getting mixed in sewer lines
- xiii. Damaged cables & other abandoned service lines
- xiv. Electrical systems like main boards etc. should be checked annually.
- xv. Fire services particularly during hot weather and assessment of electric load due to additional services installed
- xvi. Whether unprotected heaters in use likely to cause fire incident

C. Annual Repairs

- i. The works of periodical nature like white washing, color washing, distempering, painting etc. shall be called Annual Repair works and these shall be generally undertaken based on requirement.
- ii. The periodicity for painting system shall be as below.

White washing and color washing on exterior surfaces, horticulture belt etc.	One Year
White washing and color washing on interior surfaces	two years
Painting with Distemper on plastered /concrete surface (interior)	three years
Painting with Emulsion on plastered /concrete surface (Exterior)	four years
Painting with Emulsion on plastered /concrete surface (interior)	four years
Steel surface (exposed) like veranda purlin & truss, Fender, Rolling shutter etc.	four years
Steel surface (interior) Like roof truss, roof purlin, internal Steel columns etc.	Ten Years
Cement paint over exterior walls	three years
Wood work polishing	three years

In city of adverse climate receiving excess rain, extreme weather, high dust, temperature variation, this periodicity can be reduced based on the severity of climate and degradation occurred in physical appearance of painting etc.

- iii. Following guidelines shall be followed for planning and execution of Annual repair works.

The total estimated cost of maintenance of a building / structure during a year, as annual repair, shall be within the prescribed limits as approved by the Competent Authority as per DOP, from time to time, for Annual repairs.

The entire exercise of finishing under annual repair should be carried out in a professional manner. Before sanctioning of estimate, placement of work order, it should be ensured that all defects like dampness of walls, damage to RCC, brick work and plaster, electrical cabling, its dressing, correctly installation of wiring are covered and also rectified so that the building looks renovated and presentable for sufficient time after annual repairs.

Painting along with associated annual repair works should be carried in One GO in entire CW Complex.

Payment of works will be made on the basis of actual work carried out and in case made based on standard measurement book, it shall be ensured that no work is left and there shall be no slackness of supervision on the part of the Officers.

No work of original construction or complete replacement of components shall be taken up in Annual Repair works.

D. SPECIAL REPAIR

As the building ages, there is deterioration to the various parts of the building and services and major repairs and replacement of elements become inevitable. It becomes necessary to prevent the structure from deterioration and undue wear and tear as well as to restore it back to its original conditions to the extent possible. The following types of works in general are to be undertaken under special repairs: -

- i. Provision of water proofing treatment to the roof, velly gutter. All the existing treatments known are supposed to last satisfactorily only for a period of about ten years.
- ii. Major Repair in Roof system, realignment of sheets, replacement in blocks, Replacement of Velly Gutters with replacement of Down take Pipes system etc.
- iii. Major Repair of internal roads and pavements.
- iv. Major Repairs/replacement of flooring, skirting, dado and plaster.
- v. Replacement / new installations of doors, window frames, shutters and fittings.
- vi. Replacement of complete water supply network and sanitary installation like water tanks, WC cistern, wash basins, kitchen sinks, pipes etc. The life of GI pipes shall be considered as 25 years.

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- vii. Re-grassing of lawns/grass plots in 5 to 6 years without replacement of earth and in 8 to 10 years with replacement of earth.
- viii. Renovation of lawn in 4 to 6 years as per site requirement.
- ix. Replanting of hedges in 8-10 years.
- x. Completely uprooting and removing hedges / shrubbery.
- xi. Replanting of
 - a) Rose beds in 5-6 years.
 - b) Perennial beds in 5-6 years.
 - c) Canna beds in 1-2 years.
- xii. Shifting of any garden feature from one site to another within building.
- xiii. Electrical Equipment's/ Installations after their useful life.

The replacement shall be made only after detailed inspections after assessing the condition of the components where they have outlived their useful life or not.

- i. At the commencement of contract, a Survey of the buildings shall be conducted to identify the items of Special Repairs which are required to be carried out. Special repair complaints are also to be noted and referred from general inspection reports of warehouses.
- ii. Special repairs, which are required to eliminate leakage and dampness in the buildings shall be given priority and completed before the monsoon. Special repairs to plastering, replacement of doors and windows and flooring shall be synchronized with the annual repairs so that white washing, color washing / distempering are carried out systematically.
- iii. It shall be ensured that the plants/trees survive and as such maintenance of the same shall be taken care with. Trees/Plants which are planted near to foundation of the buildings and in open areas/parks shall be planted in such a way that neither they damage the foundation nor are required to be fell down due to redevelopment of the area.

Authenticity of Special Repairs

Any work of Special Repair to be undertaken in the CW Complex has to be certified by the Engineer. The Engineer has to verify himself the necessity of undertaking Special Repair to any item of the building. All such repair shall be done with approval of Regional Manager for AA/ES or higher authority as per DOP.

E. Upgradation Works

Upgradation works, under this contract may be carried out as per the guidelines issued from corporate office time to time. A record shall be kept of the items upgraded building wise online/offline and once a building is already upgraded, further upgradation shall not be carried out without approval of the Competent Authority as per DOP. All the services, Civil and Electrical, which have completed their life or which are beyond repair or may not remain sustainable with repair shall be replaced and record shall be maintained.

At the commencement of contract, a Survey of the buildings shall be conducted to identify the items of all upgradation works which are required to be carried out in complex. complaints are also to be noted and referred from general inspection reports of warehouses.

F. Small value capital works /new construction works:

- Works as mentioned in table 3 above, may also be carried out under the contract based on exigencies of service and operational requirement as per decision of Regional Manager.
- Efforts shall be made to carry out all upgradation works of Roof and Road in One GO. Other capital works of new construction Should also be planned in ONE GO however, if total requirement of such works during a FY Year is small or the exigencies of the works /urgency or nature of operations / customer requirement is such that, the works are required to be taken up in phased manner or partially, these may also be executed under the contract by placing the works order with approval of Regional Manager.
- Upgradation of Floor of Godowns should be taken up in this contract because it has to be done in phased manners
- No capital works of upgradation and new construction of value exceeding Rs.50 lakh should be executed under this rate contract. Such higher value works should be executed through separate contracts after inviting tenders.
-

G. Energy Efficiency Measures

- All electrical installations shall be made adopting Energy efficiency measures like fixing of LED fittings, providing energy efficient fans etc.
- Green Building approved materials should be used preferably over other material.
- Use of water/ Power, Waste disposal, Vehicle circulation/ movement etc in CW Complex should be done with minimum carbon emission.
- Sewage Waste, should be treated before disposal into public sewer and should be used for Horticulture, Toilet re-flushing etc. Storm water collection and harvesting should be made effective based on geological profile of CW Complex.

3. Materials, Tools & Plants to be provided by the Contractor and Testing of Materials

3.1 The contractor shall, at his own expense, provide all materials, required for the works other than those which are stipulated to be supplied by the Corporation.

The contractor shall, at his own expense and without delay, supply to the Engineer, samples of materials to be used on the work and shall get these approved in advance. All such materials to be provided by the Contractor shall be in conformity with the specifications laid down or referred to in the contract. The contractor shall, if requested by the Engineer furnish proof, to the satisfaction of the Engineer that the materials so comply.

In case contractor does not set a field laboratory at CW Complex, all required tests shall be carried out in the reputed / approved outside laboratory. Payment of testing charges of such tests will be borne by the contractor in each case.

- i. For outside testing, test of materials and stipulated samples shall be carried out by one of the following laboratories/tests houses - (1) IIT, (2) NIT, (3) National Test Houses, (4) National Council of Cement & Building Material, (5) Govt. Engg. College/National Accreditation Board Approved Lab (NABL), as per decision of the Engineer section in the region.
- ii. Testing and acceptance criteria for cement, steel and any other materials, supplied by contractor should be as per BIS codes/Technical Specification or as decided by Engineer in charge, as per stipulated testing frequency given in enclosed list (field quality Plan) or CPWD Specifications.
- iii. Sample of material for testing will be supplied free of cost by the contractor, including its transportation to the approved test houses/laboratory, as directed by the Engineer or inspecting officials.
- iv. All Routine tests on various materials shall be carried out as per the field quality plan -List of Mandatory Tests (enclosed) at the cost of the contractor. Wherever it is not specified, it will be carried out as per decision of Site Engineer, which will be final and binding on the contractor.
- v. In addition to the tests required under above clauses thereof, the Engineer or his representative may order tests to be carried out by an independent person appointed by him at such place or in such laboratory, as he may determine in accordance with the appropriate Clauses of relevant Standard Specifications and cost of such tests shall be borne by the contractor.
- vi. Testing record shall be maintained as per standard Testing Performa, enclosed in the contract document for proper testing and their record by the contractor.
- vii. In case, test results indicate that the cement, steel, bitumen or any other material brought or arranged by the contractor for incorporation in work does not conform to the relevant BIS Codes, the same shall stand rejected and shall be removed from site by the contractor at his own cost within a week's time of written order from the Engineer-in-charge to do so.

3.2 Contractor to Supply Tools & Plants etc : Plant & Machinery Required for the Work

The contractor shall provide at his own cost all materials except such special materials, if any, as may in accordance with the contract be supplied from the CWC stores, machinery, tools & plants as specified in Appendix 7 of Schedule 1.

In addition to this, appliances, implements, other plants, ladders, cordage,tackle, scaffolding and temporary works required for the proper execution of the work, whether original, altered or substituted and whether included in the specifications or other documents forming part of the contract or referred to in these

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conditions or not, or which may be necessary for the purpose of satisfying or complying with the requirements of the Officer-in-Charge as to any matter as to which under these conditions he is entitled to be satisfied, or which he is entitled to require together with carriage therefore to and from the work.

The contractor shall also supply without charge the requisite number of persons with the means and materials, necessary for the purpose of setting out works and counting, weighing and assisting the measurement for examination at any time and from time to time of the work or materials. Failing his so doing, the same may be provided by the Corporation at the expense of the contractor and the expenses may be deducted, from any money due to the contractor, under this contract or otherwise and/or from his dues or the proceeds of sale thereof, or of a sufficient portion thereof.

- (i) It will be responsibility of the Contractor to arrange all plants & machinery, trucks, vibratory, Road roller etc. as required by him for execution of works.
- (ii) Contractor will also arrange for getting permission of such plant & machinery, if required from local or other concerned authorities for use as well as for their transportation to site.
- (iii) All expenditure incurred in this connection will be borne by the Contractor.

4. Maintenance after Completion (Defect Liability Period-DLP):

Following works executed /services delivered under this contract/ Work Order shall be maintained by the contractor at his own cost during the maintenance period/DLP as mentioned below. This period shall be reckoned from the actual date of completion of work.

- i. All kind of construction / repair works in Bituminous Roads/ concrete /masonry works in Building /Roads/Drains - DLP/Maintenance period-12 month.
- ii. All kind of leakage arresting, plugging in Roofs/ pipes etc.- DLP/ Maintenance period-12 month.
- iii. New construction-Upgradation works of Road/Roof /Floor- 3 Years
- iv. New construction /upgradation works -Others including Painting and any other special repair: - Maintenance period-12 month.
- v. Electrical fittings/items /Motors/Pump- As per manufacturer warranty; DLP/Maintenance period -1 year.
- vi. Sanitary Installation /Fitting/Fixture- As per manufacturer warranty; DLP- 12 Month.
- vii. Rolling shutters/Manual gears and other similar mechanical fitting works- DLP/Maintenance period-12 month.

The works /services, for which no maintenance period is prescribed here, contractor is waived off from his obligations of maintaining the works post completion.

5. Night Work

Contractor shall plan and deploy his all resources to complete the work within time as per agreed program of completion. If the CWC is, however, satisfied that the work is not likely to be completed in time except by resorting to night work; by special order, the contractor would be required to carry out the work even at night, without conferring any right on the contractor for claiming for extra payment for introducing night working. The decision of the Officer in charge in this regard will be final and binding on the contractor.

6. Work to be Executed in Accordance with Specifications, Drawings, Orders etc.

The Contractor shall execute the whole and every part of the work in the most substantial and workman like manner both as regards materials and otherwise in every respect in strict accordance with the specifications. The Contractor shall also conform exactly, fully and faithfully to the design, drawings and instructions in writing in respect of the work assigned by the Corporation and the Contractor shall be furnished free of charge one copy of the contract documents together with specifications, designs, drawings and instructions, as are not included in the standard specifications of Central Public Works Department, specified in **Schedule I: Appendix-7** or in any Bureau of Indian Standard or any other, published standard or code or Schedule of Rates or any other printed publication referred to elsewhere in the contract.

The Contractor shall comply with the provisions of the contract and with the care and diligence execute and maintain the works and provide all labour and materials, tools and plants including for measurements and

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supervision of all works, structural plans and other things of temporary or permanent nature required for such execution and maintenance in so far as the necessity for providing these, is specified or is reasonably inferred from the Contract. The Contractor shall take full responsibility for adequacy, suitability and safety of all the works and methods of construction.

7. Work(s) where no Specifications are specified

In the case of any class of work for which there is no specifications provided under this Contract, such work shall be carried out in accordance with the Bureau of Indian Standards Specifications. In case, there are no specifications in Bureau of Indian Standards, the work shall be carried out as per manufacturers' specifications, if not available then as per State / District Specifications. In case there are no such specifications as required above, the work shall be carried out in all respects in accordance with the instructions and requirements of the Corporation.

8. Water for Works

- (a) Departmental water supply, if available, shall be the sources of water for using into various works/services under this contract:

Water on the request of Contractor and, if available may be supplied to the contractor by the Corporation, subject to the following conditions:

- (i) The water charges shall be recovered from dues of Contractor, @ 1% on gross amount of the work done/services delivered.
 - (ii) Main sources of supply (Tapping source), shall be decided by Warehouse Manager based on availability of water. The contractor shall make his/their own arrangement of water connection and laying of pipelines from existing main of source of supply up to place of work at his own cost.
 - (iii) The Corporation do not guarantee to maintain uninterrupted supply of water and it will be incumbent on the contractor(s) to make alternative arrangements for water at his/their own cost in the event of any temporary break down in the Corporation water main so that the progress of his/their work is not held up for want of water. No claim of damage or refund of water charges will be entertained on account of such temporary break down.
- (b) In case, CW complex does not have adequate source of water or there is no such water which is fit for construction purpose, Warehouse Manager shall inform the contractor in writing, before commencement of work to arrange the water at its own. In all such cases, the contractor(s) shall make his/their own arrangements for water required for the work (sources as well conveyance of water) and nothing extra will be paid for the same. In all such cases, when contractor has procured construction water with its own arrangement due to non-availability of same in CW Complex, as confirmed by warehouse Manager in writing, The water charges @ 1% shall not be recovered from contractor's bill as mentioned in subclause (a-i) above. The procurement /arrangement of construction water by Contractor will be subject to the following conditions:
- (i) That the water used by the contractor shall be fit for construction purposes to the satisfaction of the Engineer.
 - (ii) The Engineer-in-Charge shall make alternative arrangements for supply of water at the risk & cost of contractor(s), if arrangements made by the contractor(s) for procurement of water are in the opinion of the Engineer unsatisfactory.
 - (iii) In all such cases, alternate Water Arrangements can also be done by contractor by installation of borewell into CWC Land if it is permitted as per local bye-laws. The contractor shall be allowed to construct temporary wells in Corporation land for taking water only for construction purposes when he has got permission of the respective local authority and of Engineer in writing.

No charges shall be recovered from the contractor towards providing of land for installation of borewell, but the contractor shall be required to provide necessary safety arrangements to avoid any accidents or damage to adjacent buildings, roads and service lines. He shall be responsible for any accidents or damage caused due to construction and subsequent maintenance of the wells and shall restore the ground to its original condition after the wells are dismantled on completion of the work.

9. Arrangements for Electric Connection, Lighting & Other Purpose

- i. CWC shall allow tapping of electric power, if available in CW Complex, on actual electric energy consumption basis by putting separate electric energy meter at tapping source with due permission of Corporation and payment of such electricity consumption shall be done by Contractor.
- ii. Contractor will have to make his own arrangements for supply of power from tapping source to site of work through cables, MCBs, Electric Bulbs, Fans etc. All cables shall be laid neatly dressed though proper supports on walls/underground etc. NO overhanging wires/cable shall run across the roads, buildings.
- iii. If for reasons of urgency to expedite or complete the work within time, work has to be executed at night, contractor shall make his own arrangement for additional illumination if required at the site. Nothing extra will be paid for doing works at night.
- iv. Any power backup required during failure of regular power, will be arranged by Contractor at his own cost for completing the services/works and no compensation shall be paid by CWC on his account.

10. Employment of Technical Staff and Employees

Contractor's Superintendence, Supervision, Technical Staff & Employees:

- i. The contractor shall provide all necessary superintendence during execution of the work and all along thereafter, as may be necessary for proper fulfilling of the obligations under the contract.
- ii. The contractor shall immediately after receiving letter of award of the tender and before commencement of the work, intimate in writing to the Corporation , the name(s), qualifications, experience, age, address(s) and other particulars along with certificates, of the principal technical representative to be in charge of the work and other technical representative(s) who will be supervising and measuring the work.
- iii. Minimum requirement of such technical representative(s) and their qualifications and experience shall not be lower than specified in **Schedule I: Appendix-7**. Even of the contractor {or partner(s) /Director in case of firm/company} is himself / herself an Engineer, it is necessary on the part of the contractor to employ principal technical representative / technical representative(s) as per stipulation in **Schedule I: Appendix-7**
- iv. The Corporation shall, within 3 days of receipt of such communication, intimate in writing his approval or otherwise of such a representative(s) to the contractor. If due to any reason, such approval is not received in writing, Contractor shall continue to deploy the technical representative(s) considering they are meeting the criteria stipulated in **Schedule I: Appendix-7**
- v. Any such approval may at any time be withdrawn or if at any stage, it is found by Corporation that technical representative(s) do not meet criteria stipulated in **Schedule I: Appendix-7** or they are not technically competent then in all such cases, the contractor shall appoint another such representative(s) according to the provisions of this Clause.
- vi. Decision of Corporation shall be final and binding on the contractor in case of any conflict/dispute in this respect.
- vii. Such technical representative(s) deployed by contractor shall be available at site before start of work and shall remain available, supervise all time, control during execution of work and will remain available when any activity as per work order placed is in progress at CW Complex. Principal technical representative will periodically inspect the works, inform Corporation on progress and will remain available for taking instructions or verifications as and when required by Officer in charge or his representative and /or Corporation .
- viii. All the provisions applicable to the principal technical representative under the Clause will also be applicable to other technical representative. Instructions given to the principal technical representative or other technical representative(s) shall be deemed to have the same force as if these have been given to the contractor.
- ix. The principal technical representative and other technical representative(s) shall be actually available at site fully during all stages of execution of work, during estimation (pre award

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stage) / recording/checking/test checking of measurements of works (post award stage) and whenever so required by the Corporation and shall also note down instructions conveyed by the Officer-in- Charge or his designated representative(s)/ Corporation in the site order book and shall affix his/their signature in token of noting down the instructions and in token of acceptance of measurements / checked measurements / test checked measurements.

- x. These representative(s) shall not look after any other work, not in scope of contractor. Substitutes of these representative, duly approved by Corporation for work in similar manner as aforesaid, shall be provided in event of absence of any of the representative(s) by more than two days.
- xi. If the Corporation , whose decision in this respect is final and binding on the contractor, is convinced that no such technical representative(s) is/are effectively appointed or is/are effectively attending or fulfilling the provision of this Clause, a recovery (non- refundable) shall be effected from the contractor, as specified in **Schedule I: Appendix-7** and the decision of the Corporation / Officer-in-Charge, as recorded in the site order book and measurement recorded checked/test checked in Measurement Books shall be final and binding on the contractor.
- xii. Further, if the contractor fails to appoint suitable technical Principal technical representative and/or other technical representative(s) and if such appointed persons are not effectively present or are absent by more than two days, during the requirement at CW Complex, without duly approved substitute or do not discharge their responsibilities satisfactorily, the Officer-in-Charge shall have full powers to suspend the execution of the work until such date as suitable other technical representative(s) is/are appointed and the contractor shall be held responsible for the delay so caused to the work. The contractor shall submit a certificate of employment of the technical representative(s) (in the form of copy of Form-16 of CPWD GCC or CPF deduction issued to the Engineers employed by him) along with every on-account bill / final bill and shall produce evidence if at any time so required by the Corporation.
- xiii. The contractor shall provide and employ on the site only such technical assistants as are skilled and experienced in their respective fields and such foremen and supervisory staff, as are competent to give proper supervision to the work. The contractor shall provide and employ skilled, semiskilled and unskilled labor as is necessary for proper and timely execution of the work/delivery of services. The Officer-in-Charge shall be at liberty to object to and require the contractor to remove from the works any person who in his opinion misconducts himself or his representative, or is incompetent or negligent in the performance of his duties or whose employment is otherwise considered by the Officer-in-Charge to be undesirable. Such person shall not be employed again at works site without the written permission of the Corporation and the persons so removed shall be replaced as soon as possible by competent substitutes.

Important conditions

A) Initial Inspection of Complex and Building survey

- (i) Within 7 days of placement of LOA, an Initial inspection shall be carried out jointly by Warehouse Manager/ Engineer and Contractor along with his team of Engineers (principal technical representative) to particularly assess the requirement of all maintenance works & services which are required to be carried out in CW Complex as well all upgradation and new capital construction works (from table 1,2 & 3 of **Schedule II: Scope of Work**). The works required to be carried can be accessed with reference of Checklist of minimum requirement of Infrastructure & its Maintenance mentioned in **Appendix III of Schedule II: Scope of Work**.
- (ii) Contractor will deploy at least one engineer having the qualifications mentioned in the **Appendix 7 of Schedule I** for carrying out the Measurement of area where general maintenance / repair & maintenance works / services are required. The measurement of the required Repair & maintenance activities shall be done along with Joint inspection. The Contractor, within 10 days of initial inspection, shall submit to the Corporation the detailed estimates of quantities mentioning the type of the works / services required to be carried out in the CW Complex.
- (iii) Initial Inspection and Measurement of quantities for preparation of estimates shall be done by Warehouse Manager and Contractor's Engineer Jointly.
- (iv) The estimated quantities to be executed shall be assessed meticulously by Contractor's Engineer, and any variation beyond plus minus 10% in each item of work may not be acceptable to Corporation.
The Corporation at its own discretion may place separate work order for executing additional quantities (beyond estimates provided by Contractor's Engineer) or may or may not do the payment of any kind of excess work done beyond the +110% of the quantities mentioned in work order based on estimates provided by Contractor's Engineer. Decision of Corporation, in all such cases, shall be final and binding on the Contractor.

B) Execution of works/delivery of Services:

- (i) The contractor will engage the experienced technical representatives of concerned discipline in the CW Complex, who should have full knowledge of work and are capable of getting executed the work and removing defects, as pointed out by the Officer-in-charge. Deployment of the technical representatives and recovery, in case the contractor fails to do so, shall be in accordance with the **Appendix-7 to Schedule I: General Conditions of Contract**.
- (ii) The contractor will carry out the works and will deliver the services as per the scope of work, the specifications and requirements stipulated the work order.
- (iii) The contractor shall take levels and record them in prescribed Level Book before commencement of work. Levels taken shall be got verified from Engineer or his representative.
- (iv) Contractor shall keep Corporation informed on progress of various works being executed by contractor. The verification of quantities of works executed, measurement of works and assessment of quality shall be done by Officer in charge as per the terms & conditions mentioned in the Contract/Work Order and Indian code of practices, specifications of CPWD etc.
- (v) All works ordered at a time shall be executed by Contractor as per time line stipulated in Work order by commencing works simultaneously in all places through parallel and independent team. Sequencing and phasing of works will not be accepted due to non-availability of manpower/material/T&P etc.
- (vi) The Officer in charge will certify the measurement of the all works completed / and services delivered for the work order placed by him for the works/services.
- (vii) The decision of Officer in charge shall be final towards the measurement of actual work completed and It shall be binding on the contractor.

GENERAL MAINTENANCE MANUAL& MAINTENANCE SERVICE QUALITY REQUIREMENTS

1. Service Requirements

- 1.1. The Contractor shall adhere to Good Industry Practices for maintaining Services quality.
- 1.2. The Contractor shall deploy the multiskilled staff – (skilled Labours) along with unskilled workers to ensure all kind of maintenance services including horticulture services and housekeeping services in the Central Warehouse Complex as per Good Industry Practises.
- 1.3. General maintenance works & services shall be carried out at their prescribed frequency as mentioned in below paragraph. The payment towards satisfactory delivery of these services, shall be done as per contracted price schedule considering contractor percentage quoted in Price schedule. Nothing extra shall be payable to contractor for performing these activities & providing services except such monthly payment based on frequency, area, and satisfactorily delivery of services upon certification of warehouse manager.
Rates of such jobs is mentioned in contracted Price Schedule.

2. General Maintenance & Service Requirements

- 2.1. The Contractor shall, at all times, maintain the Central Warehouse Complex in accordance with the provisions of the Agreement, Applicable Laws and Applicable Permits. In particular, the Contractor shall, at all times during the Contract Period, confirm to the General Maintenance & Service Requirements set forth in the Table below.
- 2.2. The Maintenance activities, put forth in Table at B (S/n 1to to 9) below shall invariably carry out by deploying adequate skilled workmen with required tools, plants, and consumables on requirement basis as and when Corporation through Officer in charge ask to carry out the activities upon breakdown in services. Officer in charge will send the requirement to Contractor via email and SMS on registered mobile number of contractors.
- 3. The payment towards these specific maintenance works shall be done after satisfactory restoration of service based on the contracted rates for General Civil & Electrical works.

	Activity	Coverage	LD for not performing/delivering satisfactory service
A	Service Requirements		
	Housekeeping Services		
1	Removal of waste, garbage, scraps etc. Frequency: once in a week or as per requirement.	Within CW complex	Rs 100 per day
2	Cleaning/Sweeping of CW Roads, Main entry Ramps, Parking yards Godown Veranda/Open Platforms and Weighbridge platform area etc. including Safe disposal of garbage/ Refuse. Frequency: Daily	Within CW complex	Rs 300 per day
3	Cleaning, dusting, mopping of Window Glasses (both sides), floors, furniture, etc. to make the area neat and clean free from cobwebs, flies etc, and hygienic in Office buildings, labour Huts, Security Cabins, weighbridge cabin and other similar amenities. Frequency: Daily	Within CW complex	Rs 300 per day

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4	Cleaning, dusting of Godown Walls, Top Ventilators, Roof Trusses, Parapets and other heightened structures, Cleaning of Fans installed in office buildings, Cleaning of firefighting equipment including portable fire extinguishers. Frequency: Once in 2 months	Within CW Complex	Rs 300 per day
5	Cleaning of all Toilets /Washrooms / drinking water utilities and other similar amenities within CW Complex. With water including flushing as per requirement. Frequency: Twice daily	Within CW Complex	Rs 300 per day
6	Cleaning of terrace/loft water storage tank. Frequency: Once in 6 months.	Within CW Complex	Rs 300 per day
7	Cleaning and desilting of gully trap chamber, Cleaning of outlet chambers connecting swage / drains of CWC complex with city means drains/ swage chamber	Within CW Complex	Rs 300 per day
8	Cleaning of choked / existing drain of campus / sewer line. Frequency : once a year or as per requirement	Within CW Complex	Rs 300 per day
9	Cleaning of under ground sump, Over Head R.C.C. Tank . Frequency: once in 6 months,	Within CW Complex	Rs 300 per day
10	Clearing of blockages in Rain Water Harvesting systems pit , Cleaning, disinfecting/ recouping the aggregates/ repair of RWH pits/ borewells. Frequency: Twice a year.	Within CW Complex	Rs 300 per day
11	Cleaning of valley gutter in godown and underground tranches, drain pips	Within CW Complex	Rs 300 per day
Horticulture works and services			
12	Grassing with selection No. 1 doob grass including watering and maintenance of the lawn. Frequency: as per requirement	All Gardens within Complex	Rs 150 per day
13	Cleaning of garden, Watering of landscaped/green belt areas and maintaining the plants/ shrubs, trees, bushes, flowering beds etc and keeping these in healthy condition. Frequency of cleaning shall be daily and watering or other activities shall be as per requirement.	All Gardens within Complex	Rs 150 per day
14	Renovating lawns including weeding,	All Gardens within	Rs 150 per day

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	cheeling the grass, forking the ground, top dressing with sludge or manure, mixing the same with forke and keeping the lawn free from weeds. Frequency: Once in 6 months	Complex	
15	Other horticulture services like Mixing earth and sludge or manure in the required proportion and spreading/ of sludge, dump manure and/or good earth in required thickness within complex as per requirement. Frequency: once a month	All Gardens within Complex	Rs 150 per day
16	Plantation of Trees, Shrubs, and Hedge at site i/c watering and removal of unserviceable material's	All Gardens within Complex	Rs 150 per day
17	Cutting of designer hedge/edge hoeing of hedge/edge bed Topiary cutting/shaping of plant removing of cut materials. Frequency: Once in month	All Gardens within Complex	Rs 50 per day
18	Clearing heavy jungle in open area including uprooting of rank vegetation. Frequency: once in 6 months	Within CW Complex	Rs 150 per day
19	Clearing grass, shrubs, bushes grown unwanted near to buildings. Frequency: once in 3 months	Within CW Complex	Rs 150 per day
20	Clearing grass, shrubs, bushes grown unwanted near to buildings. Frequency: once in 3 months	Within CW Complex	Rs 150 per day

	Maintenance Requirements	Coverage	Frequency/ Requirement	LD for not performing/delivering satisfactory service
Wet Utilities				
1	Damage related to Water supply, Water pumping units & fittings.	Within CW Complex	Restoration through temporary measures within 4 hours Restoration through permanent measures within 3 days.	Rs. 800 per for each lapse
2	Damage of drainage system, removal of drain block, draining the storm water logged over roads etc by pumping or any other suitable means as per requirement etc	Within CW Complex	Restoration through temporary measures within 6 hours Restoration through permanent measures within 1 day	Rs. 1000 for each lapse

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3	Damage of Sewage system, removal of sewage block, draining the sewage, preventing back flow, over flow over roads etc by pumping or any other suitable means as per requirement etc	Within CW Complex	Restoration through temporary measures within 6 hours Restoration through permanent measures within 1 day	Rs. 1000 for each lapse
4	Damage of sanitary installations, repair /replacement of fittings, fixtures and plugging the leakages from pipes etc.	Within CW Complex	Leakages to be repaired within 24 hours Damage to septic tank to be repaired within 1 day after detection	Rs. 800 for each lapse
5	Damage to rainwater harvesting system including cleaning of Rain water pit, replacing the aggregates, removal of blockages etc to restore the water flow.	Within CW Complex	Restoration through temporary measures within 1 days Restoration through permanent measures within 7 days Periodically desilting and particularly prior to pre-monsoon & monsoon	Rs. 1000 for each lapse
6	Plugging the leakages from Roof, Velly Gutter, Restoration of blown sheets /turbo ventilators in Original Position	Within CW Complex	Restoration through temporary measures within 1 days Restoration through permanent measures within 3 days	Rs. 1000 per day for each lapse
Electrical Utilities				
7	Restoration of Functioning of power supply, electrical installations and electrical equipment for buildings and external as per direction of WHM	Within CW Complex	Temporary Restoration of Power supply to common areas to be restored within 30 minutes during the night and within 60 minutes during the day, in the event of a power shortage/ breakdown. Restoration through permanent measures within 2 days	Rs. 500 for each lapse
8	Replacement /repair in Electrical fittings like bulbs, lamp shades, wiring etc. to make it operational at all times within Offices/ Godowns and other amenities as per direction of WHM	Within CW Complex	Replacement/restoration through temporary measure within 4 hours Restoration through permanent measure within 2 days	Rs. 500 for each lapse
9	Repair/rectification of Damage to exterior lighting, High masts, Street light including replacement to make it operational as per direction of WHM	Within CW Complex	Faults and minor failures to be repaired within 4 hours Any major failure of the system to be repaired within 2 days	Rs. 500 for each lapse

Notes:

1. Daily means each working day of CW Complex.
2. The Contractor shall at all times maintain an adequate inventory of spares and consumables to deliver these General Maintenance & Services as per requirements not less than the quantity /item as mentioned in **Appendix-7 to Schedule I: General Conditions of Contract**.
3. Notwithstanding anything to the contrary specified in this Schedule, if the nature and extent of any defect or deficiency justifies more time for its repair or rectification than the time specified herein, the Contractor shall be entitled to additional time in conformity with Good Industry Practice. Such additional time shall be determined by the Officer in charge based on the necessity, urgency and magnitude of the repair and conveyed to the Contractor. His decision shall be final and binding on contractor. In case of such extension, LD shall not be levied
4. **Emergency repairs/restoration:** Notwithstanding anything to the contrary contained in this Schedule, if any defect, deficiency, or repair requirement is such that it poses a hazard to safety or risk of damage to property, the Contractor shall promptly take all reasonable measures for eliminating or minimising such danger.
5. **Inspection by the Contractor:** The Contractor shall, through its engineer, undertake an initial Inspection jointly with Corporation Authorized Engineer and / or Warehouse Manager and then later on with his Engineer shall carry out periodic (at least once in 30 days) visual inspection of the CW Complex to access the non-conformity in services and to measure the maintenance /repair requirement in Buildings, Utilities, Roads etc in accordance Good Industry Practises and Maintenance Check List mentioned in **Appendix- III to Schedule II: Scope of Work**.

Contractor will submit its inspection report to Corporation and He will also keep Corporation informed on all such periodic inspection /progress of works.

6. Non performing of the activities, denial to undertake any of these upon requirement of Corporation or Its officer in charge and non-delivery of satisfactory services or failure in timely completion will attract LD as mentioned above. The Amount of LD to be levied shall be decided by Authority as mentioned in Appendix 7 of Schedule-I and it shall be recovered from any dues payable to contractor under any contract with CWC.

MINIMUM REQUIREMENTS OF INFRASTRUCTURE & ITS MAINTENANCE IN CW COMPLEX

Below, minimum requirements of facilities, infrastructure are mentioned as check list. The Regional Manager shall ensure that all below mentioned infrastructure requirements are met in CW Complex.

Any additional requirements, providing better specifications and rich ambience may be adopted but none of below can be relaxed.

1. Godowns :

- The Godowns should be well painted and neat & clean. All exterior wall should be painted with exterior grade long durable emulsion paint and interior should be at least white washed free from cobweb etc. Godown & verandah truss should be free from rust & well painted.
- Uniform color scheme shall be followed in all complex. All CW Godowns & Buildings in complex shall be painted to follow uniform color scheme decided by Competent Authority and conveyed by Engg division from Corporate office.
- Godown floor & platform should be free from depressions, sinking, potholes and cracks. Floors should be in operator-able conditions and storage worthy.
- Godown platform should be protected by fender as per technical requirement. Fender should not be damaged & should be kept intact. Platform canopy truss should be rust free and well painted.
- Godown Platform shall be provided clear approaches and accesses. Gola of platform sheet with wall should be intact and free from cracks. In case when no Gola treatment is provided, adequate size flashing should be provided to avoid leakages.
- There should be no crack in Godown walls, plaster etc all joints of walls at beam and column locations should be well grooved, dressed and crack free.
- Godown roof should be leak-free and rust free. Needful upgradation should be taken up in case of old/aged damaged AC roofing sheet.
- Godown should receive sufficient Day lights through sky light sheeting.
- Godown should be well ventilated.
- Turbo ventilators, sky light sheets should not be provided in the roof to prevent the water leakage wherever already existing, these fittings should be adequately fixed in matching profile of roof sheet by additional tie-bar, screws etc. to ensure that there is no gap in between these fittings and roof sheets allowing the rain water to percolate through.
- Godown inside drains should be clear & free from damage. Valley gutters should be well painted and FRP lining/ PU coating should be provided in case of rusting in old valley gutters. Needful maintenance of such pipes should be invariably done in each year before monsoon season.
- All rain water down take pipes in Godown should be well erected and leak free.
- Godown Roof sheet & purlin shall be rust free. Necessary coating shall be done to prevent rusting of steel.

2. Roads:

- All circulating roads in CW Campus must be motorable, free from water logging etc. Needful upgradation of existing roads in the CW complex with M40/M50 Grade CC paver Block or M30 grade CC Concrete Pavement to done to make it motorable.
- The work of drainage wherever not existing or damaged should invariably be included as a part of road work.

3. Drains:

- All drains should be free from blockage and well connected with city outskirt drains. There should be no backflow or stagnation of storm water in CW campus. Needful drains should be made connecting all roads and yards.
- In case of low-lying campus, an underground sump should be provided & maintained along with adequate capacity pump with power back up facility to effectively drain the storm water without flooding in CWC campus.
- In case of low laying Campus, Ramp and sump approaches shall be provided at all entry gates to avoid ingress of storm water drains from city roads and to throw out storm water from campus.
- Wherever required liaisoning with the local authorities of Municipalities, Sewerage Board etc. should be done to connect drains from CW complex with city outskirt drains. Efforts should be made to ensure the

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cleaning of city drains to prevent the back flow of sewage, storm water in CW campus and if required, such cleaning should be taken up by CWC with permission of local authority on merit of case basis.

4. Rain water Harvesting:

- RWH should be kept in working conditions. RWH should be provided in low level area in CW campus wherever feasible.

5. Storage Yard:

- All open storage yard to be kept free from Jungle, bushes, waterlogging etc. Regular cleaning of jungles etc should be done and yard should be developed with hard soil/paving as per requirement.

6. Boundary Wall:

- All-around boundary wall should be intact. 6 feet high Boundary wall (from outskirt Road side) along with 2 feet concertina coil/ barbed wire fencing should mandatorily be maintained to prevent encroachment in CW property. This boundary wall should be free from holes etc.
- In case of low-lying CW campus, main entrance should be raised from city roads by providing a RCC ramp and a storm water catch pit at the entrance should be available. This is mandatorily required to prevent the entry of storm water from the city roads.
- Entry Gates /Doors shall be well maintained and functional at each entry /exit locations. Gate shall be made of Structural Steel (tubular / ISA/ISMC sections).

7. Ventilators, rolling shutters & Jalli gates:

- All ventilators should be intact. Glass & wire mesh in these ventilators should be clear visible, mesh should be rust free and painted. There should be no broken glass or wire mesh in Ventilators / windows.
- Rolling shutters or steel doors should be rust free, well painted and in working condition. Proper support system & alignment should be maintained to prevent the accidental falling.
- Jalli gates in the openings of rolling shutters/gates should be provided & maintained as per operational requirements.

8. Illumination & wiring:

- CW campus should be well illuminated and the lights during the night hours should be available in all circulating area & operating area to prevent the security threat. High Mast & street lights should be provided and maintained accordingly as per the requirement of the campus.
- Godown (interior), circulation area, platforms, office all should be well illuminated and Energy efficient lights (LED) must be available at all key movement area. LUX level requirement as per operations of warehouse shall be maintained thoroughly.
- All types of cables like power cable, communication cable, IT cable, CCTV cable etc. should be properly dressed, running through conduits and should not be over hanging along the roads/office/godowns.
- Preventive checks should be implemented to avoid haphazard digging of roads and cutting of underground cables during civil works in CW campus.

9. Electricals:

- All type of the electrical installations should be properly grounded and should be in well maintained working condition.
- Sub-stations, transformers, control panels, DG sets. Etc. should be properly maintained regularly serviced through AMC and needful upkeeping should be done to ensure the safety.

10. Firefighting:

- The CW campus should be equipped with fire mitigation system like dry type fire extinguishers and fire water sump and firefighting arrangement as per local bye-laws should be maintained in all CFSs as per requirement.

11. Basic facilities/amenities:

The basic facilities like

- ACs (Warehouse Manager cabin), Coolers (in staff rooms), Water coolers/ purifier should be well maintained and in working condition.
- Visitor room, office cabins, staff rooms should be properly maintained, well painted, neat & clean.
- The labor huts (rest rooms), public toilets, drinking water facilities should be provided and well maintained in each of warehouses.

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- Separate toilets for ladies & gents should be provided & well maintained in each warehouse. These toilets should be part of the office building and should not be haphazardly built in the campus.
- Access to CWC office, godown should be well maintained, free from debris and approachable by physically handicapped persons too.
- The office space should be provided with modular furniture with adequate storage system for proper upkeep of records & supplies.
- There should be a proper movement plan indicating the directions to approaches the CW godowns, parking yards, docking yards, office, scrap yards etc. The signage board indicating the movement plan & directions along with the speed limit(20kmph) should be erected in position and clearly visible to all.
- Signages of Proper height, size to ensure wide visibility shall be provided in all Godowns, Buildings indicating the fire signages, hazard signage, Do's , Don'ts etc.
- Parking yard should be exclusively designated for office vehicles and logistic vehicles. The parking of the vehicles should be ensured in designated parking place. Parking yard should be well maintained and should be free from fire and safety hazard.
- There should be no encroachment in CWC campus. Any kind of temporary or permanent labor hut by outsiders should not be permitted inside the campus.
- The dumping yard for garbage, scrap dumping should be located in isolation within CWC campus. This Yard should also be maintained & regularly cleaned to prevent fire hazard, bad odor or unpleasant ambience. Proper size and capacity dustbins shall be provided in all important locations of garbage collections along the road in Complex and in Offices buildings also.
- Housekeeping for cleanliness of roads, godowns, drains yard, offices and sanitary works should be mandatorily ensured. Road area, Parking Bay and office are should be free from garbage and scraps.
- CWC board and LOGO should be well lit, positioned and of sufficient size to ensure the visibility from main approach roads outside of warehouse. Board must be of pleasing appearance.
- A well-developed green belt shall be maintained along with landscaping near Office area as per Guideline of corporate office released time to time.
- Sand buckets filled with clean sand shall be kept maintained in position at Admin Building/ Office Building, Each Godowns and other areas prone to fire hazard in CW Campus.
- Separate area shall be provided for hazardous storage. area shall be kept barricaded and isolated.

Campus should be free from litter and waste and no animal should be roaming inside CW Complex.

TECHNICAL SPECIFICATIONS FOR CIVIL WORKS

GENERAL SCOPE

These Specifications establish and define the materials and constructional requirements for engineering construction works in brief.

EQUIVALENCY OF STANDARDS AND CODES, MEASUREMENTS & MATERIALS

Wherever reference is made in the contract to specific standards and codes to be met by the goods and materials to be furnished, and work performed or tested, the provisions of the latest current edition or revision of the relevant standards and codes in effect shall apply, unless otherwise expressly stated in the contract. In case, no reference is made for any particular work, relevant IS/BIS Codes will be followed.

- 1.2.1 Providing and operating necessary measuring & testing devices and materials including all consumables are included in the Scope of Work. No separate measurement or payment for testing the work shall be made, but rates quoted for various items shall be deemed to include cost of such tests, which are required to ensure achievement of specified quality.
- 1.2.2 All materials shall be of standard quality, manufactured by renowned concerns, conforming to Indian Standards and shall have certification work from Bureau of Indian Standards as far as possible, unless otherwise approved by Engineer. The contractor shall get all materials approved by Engineer prior to procurement and use. The contractor shall furnish manufacturer's certificates, for materials supplied by him when asked for. Further to that he shall get material tested from an approved Test House, if asked for by the Engineer. Cost for all the tests and test certificates shall be borne by the contractor. No separate payment shall be made for the testing. The Engineer shall have the right to determine whether all or any of the materials are suitable. Any materials procured or brought to site and not conforming to specifications and satisfaction of the Engineer shall be rejected and the contractor shall have to remove the same immediately from site at his own expense & without any claim for compensation due to such rejection.
- 1.2.3 All goods and materials to be incorporated in the works shall be new, unused, of the most recent or current models and incorporate all recent improvements in design & materials, unless provided otherwise in the contract.
- 1.2.4 Wherever referred to in this tender document, only the latest revision of Specifications, Codes of Practice and other publications of the Indian Standards shall be applicable.

A. EXCAVATION:

1) CLASSIFICATION OF SOILS FOR EARTH WORK IN EXCAVATION

The earth work shall be classified under the following categories and measured separately for each category.

- i. **All kinds of soils:** Generally any strata, such as sand, gravel, loam, clay, mud, black cotton moorum, shingle, river or nallah bed boulders, siding of roads, paths etc. and hard core, macadam surface of any description (water bound, grouted tarmac etc.), lime concrete, mud concrete and their mixtures which for excavation yields to application of picks, showels, jumper, scarifiers, ripper and other manual digging implements.
- ii. **Ordinary rock:** Generally any rock which can be excavated by splitting with crow bars or picks and does not require blasting, wedging or similar means for excavation such as lime stone, sand stone, hard laterite, hard conglomerate and unreinforced cement concrete below ground level. If required light blasting may be resorted to for loosening the materials but this will not in any way entitle the material to be classified as „Hard rock“.
- iii. **Hard rock:** Generally any rock or boulder for the excavation of which blasting is required such as quartzite, granite, basalt, reinforced cement concrete (reinforcement to be cut through but not separated from concrete) below ground level and the like.

2) **Engineer- in- Charge** will furnish all necessary drawings showing the areas to be excavated, filled, sequence of priorities etc. Contractor shall follow such drawings strictly.

3) **Excavation Category:**

a) Excavation in Open area/ Wide Excavation:

- Excavation exceeding 1.5 m in width and 10 sqm on plan and exceeding 30 cm in depth.
- Excavation for basements, water tanks etc.
- Excavation in trenches exceeding 1.5 m in width and 10 sqm on plan

b) Surface Excavation.

- Excavations exceeding 1.5 m in width and 10 sqm. on plan but not exceeding 30 cm. in depth in all types of soils and rocks shall be described as surface excavation

c) Excavation in foundation & Trenches.

- This shall comprise excavation not exceeding 1.5 m in width or 10 sqm on plan and to any depth in trenches (excluding trenches for pipes, cables, conduits etc.)

4) **General**

Contractor shall provide all tools, plants, instruments, qualified supervisory personnel, labor, materials, and temporary works, consumables, any and everything necessary, whether or not such items are specifically stated herein, for completion of the Work.

Contractor shall set properly all lines and establish levels for various works such as earthwork in excavation for levelling, basement, foundations, plinth filling, roads, drains, cable trenches, pipelines etc.

The area to be excavated / filled shall be cleared of fences, trees, plants, logs, slumps, bush, vegetation, rubbish slush etc. and other objectionable matter. If any roots or stumps of trees are found during excavation, they shall also be removed. The material so removed shall be burnt or disposed off as directed by Engineer. Where earth fill is intended, the area shall be stripped of all loose/soft patches, top soil containing deleterious matter/materials before fill commences. Final cleaning shall be done with removal of all rubbish up to the distance of 50.0 m all around outside the periphery of building.

5) **Relics, Objects of Antiquity, Etc.**

All gold, silver, oil minerals archaeological and other findings of importance, all precious stones, coins, treasures, relics, antiquities and other similar things which may be found in or upon the site shall be the property of Engineer- in- Charge and Contractor shall duly preserve the same to the satisfaction of Engineer- in- Charge and from time to time deliver the same to such person or persons as Engineer- in- Charge may from time to time authorize or appoint to receive the same.

6) **Site Clearance:**

Before the start of work, the area of the Site shall be cleared of all shrubs, vegetation, grass, bush wood, stumps, saplings etc of girth up to 30cm measured at a height of one metre above ground level. All the building shall be laid out to ensure that the layout plan fits at site. Trees if any live within construction site layout shall be shifted to other safe place as directed by Engineer in charge (at extra cost). After completion of the work, the entire area of the site shall be cleared from all debris, unwanted materials / equipment and level / slope of ground as required at site up to peripheral roads. The debris and unwanted material shall be disposed off away from the site without any extra cost.

7) **Site Levels:**

After site clearance and before commencement of excavation or filling, the contractor shall take levels in both longitudinal and transverse directions of the building at regular intervals as directed by Engineer in charge at site for the entire layout where the new work is to be executed. A record of these levels shall be signed jointly by Contractor and the Engineer- in- charge. These records shall be submitted to the Engineer- in- charge and shall be used in deciding the NGL, PL, FFL and measurement of earth work.

8) **Setting out of works:**

The contractor shall set out the works and shall provide & fix all setting out apparatus required and solely be responsible for the true and perfect setting out the same and for correctness of the position, levels, dimensions and alignment of all buildings as per the drawings. The contractor shall take in writing the approval of the Engineer- in- charge for setting out and levels before starting the construction works. These approvals shall be recorded and signed by the Engineer- in- charge and contractor.

A masonry pillar to serve as a bench mark will be erected at a suitable point in the area, which is visible from the largest area. This bench mark shall be constructed and connected with the standard bench mark as approved by the Engineer-in-Charge. Necessary profiles with strings stretched on pegs, bamboos or 'Burjis' shall be made to indicate the correct formation levels before the work is started.

9) **Surface Dressing:**

The surface area to be occupied by the building shall be cleared of all debris, shrubs and plants, grass etc. The roots of trees and saplings shall be removed to a depth of 60cm below ground level or 30 cm below formation level or 15 cm below sub grade level, whichever is lower, and the holes or hollows filled up with the earth, rammed and leveled. All roots and organic material shall be cleared from the filling area inside the building.

10) **Important Note:**

The works mentioned above viz Site clearance, site levels, setting out and Surface dressing are part of contractor scope and shall be done by Contractor without any extra cost or payment from CWC.

However, Major works like or large scale/Dense jungle clearance , Surface excavation, Shifting and /or Cutting of Trees (more than 300 mm dia in girth at height of 1 meter above ground) or any major clearance requiring shifting of CWC stored material, Existing structures and services such as old buildings, culverts, fencing, water supply pipe lines, sewers, power cables, communication cables, drainage pipes etc. within or adjacent to the area etc. , if required to be diverted/removed, shall be diverted/dismantled as per directions of the Engineer-inform site of work, and shall be payable extra as per agreed Bill of quantities and schedule of rates.

11) **Excavation in Trenches and Over Areas:**

- i. All excavation operations manually or by mechanical means shall include excavation and 'getting out' the excavated materials.
- ii. During the excavation the natural drainage of the area shall be maintained. Excavation shall be done from top to bottom. Undermining or undercutting shall not be done.
- iii. In firm soils, the sides of the trenches shall be kept vertical upto a depth of 2 metres from the bottom. For greater depths, the excavation profiles shall be widened by allowing steps of 50 cms on either side after every 2 metres from the bottom. Alternatively, the excavation can be done so as to give slope of 1:4 (1 horizontal: 4 vertical). Where the soil is soft, loose or slushy, the width of steps shall be suitably increased or sides sloped or the soil shored up as directed by the Engineer-in- Charge. It shall be the responsibility of the contractor to take complete instructions in writing from the Engineer-in-Charge regarding the stepping, sloping or shoring to be done for excavation deeper than 2 metres
- iv. The earth work in excavation shall be done as per the required depths, width & length shown in approved Excavation Plan /drawings and in line of site levels and alignments in all sorts of soils as directed by Engineer in charge. Nothing extra, from the dimensions shown in approved excavation plan, shall be payable for excavation done for working space for labor. Only neat line excavation as per drawing shall be payable. Roots or trees met with during the excavation shall be cut and removed. Excavated earth

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- shall be stacked at least 3 m away from the trenches or as per the Engineer's instructions, so that it may not damage the sides of the excavated trenches. The sides of the excavated trenches shall be in straightline and bottom uniformly levelled watered, consolidated and ready for termite treatment. The maximum lead for stacking the earth shall be 200 m, unless otherwise categorically specified more in the item description.
- v. Earth work in excavation in any type of soil existing at site for foundations of rafts, columns and walls / half brick walls / from existing ground level shall be as indicated on the drawings. The finish floor level of building shall be as per drawings and shall be approved by the Engineer- in- charge after fixing of same at Site by Contractor. The work shall be executed at site as per the levels approved by the Engineer- in- charge.
 - vi. Immediately after the excavation of the foundation work, concreting therein and before covering the same the record of the levels as actually executed at site shall be recorded in the measurement books and jointly signed and dated by the Engineer- in- charge & Contractor -
 - vii. If trenches or foundations are excavated beyond the specified dimensions due to bad workmanship of contractor, the extra excavation shall be filled with selected good earth ensuring adequate compaction duly watered, consolidated and rammed at the cost of contractor.
 - viii. Explosives of any form shall not be used for any construction activity. Where hard rock is met with and blasting operations are considered necessary, the contractor shall obtain the approval of the Engineer-in-Charge in writing for resorting to blasting operation. In ordinary rock blasting operations shall not be generally adopted. However, the contractor may resort to blasting with the permission of the Engineer-in-charge, but nothing extra shall be paid for such blasting operations.
 - ix. From the date when the Contractor starts work under this contract, or from the required contract date, whichever is earlier, the Contractor shall assume all responsibilities for earth and rock banks. Such responsibility shall continue to the date when all work under the contract is completed and approved by Engineer- in- Charge. The contractor shall provide sheeting, shoring and bracing required for the support of earth and rock banks during construction. Sheeting, shoring and bracing shall be maintained in place until immediately before filling or backfilling then shall be removed by stages as the filling or backfilling progresses. Engineer- in- Charge reserves the right to specify shoring or bracing as may be deemed necessary by them.
 - x. Any settlement or washing away of filled or backfilled areas, and earth and rock banks, that may occur from the action of the elements, or any other cause, prior to acceptance of work, shall be repaired and grades re- established to the required elevations and slopes, at no additional cost.
 - xi. Excavation where directed by the Engineer-in- Charge shall be securely barricaded and provided with proper caution signs, conspicuously displayed during the day and properly illuminated with red lights and/or written using fluorescent reflective paint as directed by engineer in charge during the night to avoid accident.
 - xii. The Contractor shall take adequate protective measures to see that the excavation operations do not damage the adjoining structures or dislocate the services. Water supply pipes, sluice valve chambers, sewerage pipes, manholes, drainage pipes and chambers, communication cables, power supply cables etc. met within the course of excavation shall be properly supported and adequately protected, so that these services remain functional. However, if any service is damaged during excavation shall be restored in reasonable time.
 - xiii. Excavation shall not be carried out below the foundation level of the adjacent buildings until underpinning, shoring etc. is done as per the directions of the Engineer-in-Charge for which payment shall be made separately. Contractor will be responsible if he has not taken precaution for the safety of the people, property or neighbor's property caused by his negligence during the constructional operations or unsafe excavation.
 - xiv. Any damages done by the contractor to any existing work shall be made good by him at his own cost. Existing drains pipes, culverts, overhead wires, water supply lines and similar services encountered during the course of execution shall be protected against damage by the contractor. The contractor shall not store material or otherwise occupy any part of the site in manner likely to hinder the operations of such services.
 - xv. To the extent available, selected surplus spoils from excavated materials shall be used as backfill. Fill material shall be free from clods, salts, sulphates, and organic & other foreign material. All clods of earth shall be broken or removed. Where excavated material is mostly rock, the boulders shall be broken into pieces not larger than 150 mm size, mixed with properly graded fine material consisting of moorum or earth to fill up the voids and the mixture used for filling.
 - xvi. As soon as the work in foundations has been accepted and measured, the spaces around the foundations, structures, pits, trenches etc. shall be cleared of all debris and filled with earth in layers 15 cm to 20 cm, each layer being watered, rammed and properly consolidated before the succeeding one is laid. Each layer shall be consolidated to the satisfaction of Engineer- in- Charge.

- xvii. Trench width in case of excavation in trenches for pipes, cables etc.
- Upto one metre depth the authorized width of trench for excavation shall be arrived at by adding 25 cm to the external diameter of pipe (not socket/ collar) cable, conduit etc. Where a pipe is laid on concrete bed/ cushioning layer, the authorized width shall be the external diameter of pipe (not socket/ collar) plus 25 cm or the width of concrete bed/ cushioning layer whichever is more.
 - For depths exceeding one metre, an allowance of 5 cm per metre of depth for each side of the trench shall be added to the authorized width (that is external diameter of pipe plus 25 cm) for excavation. This allowance shall apply to the entire depth of the trench. In firm soils the sides of the trenches shall be kept vertical upto depth of 2 metres from the bottom. For depths greater than 2 metres, the excavation profiles shall be widened by allowing steps of 50 cm on either side after every two metres from bottom.
 - Where more than one pipe, cable, conduit etc, are laid, the diameter shall be reckoned as the horizontal distance from outside to outside of the outermost pipes, cable, conduit etc.
 - Where the soil is soft, loose or slushy, width of trench shall be suitably increased or side sloped or the soil shored up as directed by the Engineer-in-Charge. It shall be the responsibility of the contractor to take complete instructions in writing from the Engineer-in-Charge regarding increase in the width of trench. Sloping or shoring to be done for excavation in soft, loose or slushy soils.

12) **FILLING**

- i. The excavated stacked earth (other than Black cotton soil or disposable soil as decided by Engineer in charge) shall be filled in trenches, sides of foundations and under floor in layers of 200mm thick and balance shall be disposed off by uniform spreading within the site as directed by the Engineer-in-Charge. The Filling with excavated earth shall be done in regular horizontal layers and all lumps and clods exceeding 8 cm in any direction shall be broken. Each layer shall be watered and consolidated with steel rammer or ½ tonne roller.
- ii. The Selected earth supplied and used for filling shall be free from all roots, grass, shrubs, rank vegetation, brushwood, tress, sapling and rubbish. Sand, supplied for filling shall be clean and free from dust organic and foreign matter and its grading shall be within the limits of grading zone IV or V as specified in Section 3 'Mortars' of CPWD specifications of work.
- iii. In case of filling under floor /open area with excavated available or supplied good earth etc., every third and top must layer shall also be consolidated with power roller of minimum 8 tonnes. Wherever depth of filling exceeds 1.5 metre vibratory power roller shall be used to consolidate the filing unless otherwise directed by Engineer-in-charge. The top and sides of filling shall be neatly dressed. The contractor shall make good all subsidence and shrinkage in earth fillings, embankments, traverses etc. during execution and till the completion of work unless otherwise specified.
- iv. Filling in trenches for foundations, pipes etc shall be commenced soon after the Concrete/Masonry works in foundations etc, joints of pipes, cables, conduits etc. have been tested and passed. The space around the footing, pedestals, foundation masonry, pipes, cables conduits etc. shall be cleared of all debris, brick bats etc. Where the trenches are excavated in hard/ soft soil, the filling shall be done with earth on the side and top of pipes in layers not exceeding 20 cm in depth. Each layer shall be watered, rammed and consolidated. All clods and lumps of earth exceeding 8 cm in any direction shall be broken or removed before the excavated earth is used for filling. In case of excavation trenches in ordinary/ hard rock, the filling upto a depth of 30cm above the crown of pipe, cable, conduits etc. shall be done with fine material like earth, moorum or pulverized/ decomposed rock according to the availability at site. The remaining filling shall be done with boulders of size not exceeding 15cm mixed with fine material like decomposed rock, moorum or earth as available to fill up the voids, watered, rammed and consolidated in layers not exceeding 30cm. Excavated material containing deleterious material, salt peter earth etc. shall not be used for filling. Ramming shall be done with iron rammers where feasible and with blunt ends of crow bars where rammers cannot be used. Special care shall be taken to ensure that no damage is caused to the pipes, Cables, Conduitsetc. laid in the trenches.

13) Lead

Lead for deposition/disposal of excavated material, shall be within a lead of 200m unless specifically mentioned in Tender items. The Deposition/disposal shall be as directed by Engineer- in- Charge. Only leads beyond 200m shall be considered as extra lead if not specifically mentioned in tender items and the Contractor shall be paid extra. For the purpose of measurement of lead the area to be excavated or filled or area on which excavated material is to be deposited/disposed off shall be divided into suitable blocks and for each of the blocks, the distance between centerlines shall be taken as the lead which shall be measured, as far as practically possible, by the shortest straight line route on the plan and not the actual route taken by Contractor. No extra compensation is admissible on the grounds that the lead including that for borrowed materials had to be transported over marshy or katcha land/route.

B. CONDITIONS FOR WATER:

Contractor shall get the water tested from any laboratory approved by the Engineer-in-charge at regular interval as per the CPWD Specifications. All expenses towards collection of samples, packing transportation except testing charges etc. shall be borne by the contractor.

C. FORM WORK

- i. The supply, erection, workmanship, stripping, measurement, and scope of works covered under the rates etc. shall be in general as per CPWD Specifications unless specifically mentioned in tender document.
- ii. Rates in tender items shall be valid for all heights for carrying out Centering, and shuttering for all RCC /PCC works, wall finishing works etc wherever required for construction works in Warehouse and no extra cost shall be paid unless specifically mentioned in tender BOQ.
- iii. Where it is not specifically stated in the description of the item that form work shall be paid for separately, the rate of the RCC item shall be deemed to include the cost of form work.
- iv. No deductions from the shuttering due to the openings/ obstructions shall be made if the area of each openings/ obstruction does not exceed 0.4 square metre. Nothing extra shall be paid for forming such openings.
- v. Only M.S. Centering/shuttering and scaffolding material unless & otherwise specified shall be used to give an even finish of concrete surface. However, marine-ply shuttering in as per site requirement may be used on specific request from contractor to be approved by the Engineer-in-charge.
- vi. Centring and shuttering for all concrete and reinforced concrete wherever required shall be in steel and / or plywood to produce a smooth and uniform finish on all exposed surfaces. However, all props, bracings, scaffolding etc., shall be in steel. The entire responsibility of planning, design, erection and safety of formwork shall lie with the Contractor.
- vii. Extra for shuttering in curved profile: For shuttering curved in elevation the steel/ply shuttering shall be fabricated to achieve the curved profile as per the architectural drawings and nothing extra shall be payable on this account.
- viii. In order to keep the floor finish as per architectural drawings and to provide required thickness of the flooring as per specifications, the level of top surface of RCC shall be accordingly adjusted at the time of its centering, shuttering and casting for which nothing extra shall be paid to the Contractor.
- ix. As per general engineering practice, level of floors in toilets/bath, balconies, shall be kept 12 to 20mm lower than general floor as required. Shuttering should be adjusted accordingly. Nothing extra is payable on this account.

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- x. Steel shuttering as approved by the Engineer-in-charge only shall be used by the contractor. Minimum size of shuttering plates shall be 600mm x 900mm except for the case when closing pieces required to complete the shuttering panels. Dented, broken, cracked, twisted or rusted shuttering plates shall not be allowed to be used 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 shall be applied on the surface of the shuttering plates in the requisite quantity before assembly of steel reinforcement.
- xi. For the execution of centring and shuttering, the contractor shall use propriety „Reebole” chemical mould release agent of FOSROC or equivalent as shuttering oil as approved by Engineer-in-charge and nothing extra shall be paid on this account.

D. REINFORCEMENT STEEL.

- i. The TMT bars shall conform to IS 1786 pertaining to Fe 415 D or Fe 500 D or Fe grade of steel as specified in Tender Item/ Drawing.
- ii. In case of Construction in seismic zone III and above, unless specifically mentioned in technical drawings, steel reinforcement of Grade Fe 415 D shall be used. However, high strength deformed steel bars, produced by thermo mechanical treatment process of grade Fe 415, Fe 500 and Fe 550 having elongation more than 14.5. % and conform to other requirements of Fe 415 D, Fe 500 D and Fe 550 D respectively of IS 1786 may also be used for reinforcement.
- iii. The supply, storage at site, assembly, erection, placement in position into formwork, workmanship including bend, hook, overlap, welding, anchoring, cover, testing, acceptable quality parameters and test results, permissible tolerance, measurement, and scope of rates etc. shall be in general as per CPWD Specifications unless specifically mentioned in tender document or Construction Drawings.
- iv. Reinforcement bars shall be placed in position as shown in the drawings or as directed by the Engineer-in-charge. The bars crossing one another shall be tied together at every intersection with two strands of annealed steel wire 0.9 to 1.6 mm thickness twisted tight to make the skeleton of the steel work rigid so that the reinforcement does not get displaced during deposition of concrete.
- v. Tack welding in crossing bars shall also be permitted in lieu of binding with steel wire if approved by Engineer-in-charge.
- vi. Reinforcement including authorized spacer bars and lappages shall be measured in length of different diameter, as actually (not more than as specified in the drawings.) used in the work nearest to a centimeter and their weight calculated on the basis of standard weight given in clause 6.2 of IS 1786 . In case actual unit weight of the bars is less than standard unit weight, but within variation, in such cases weight of reinforcement shall be calculated on the basis of actual unit weight. Wastage and unauthorized overlaps shall not be paid for.
- vii. Annealed steel wire required for binding or tack welding shall not be measured, its cost being included in the rate of reinforcement.
- viii. The contractor shall provide approved type of support for maintaining the bars in position and ensuring required spacing and correct cover of concrete to reinforcement as called for in the drawings, spacer blocks of required shape and size. Chairs and spacer bars shall be used in order to ensure accurate positioning of reinforcement. Spacer blocks shall be cast well in advance with approved proprietary pre-packed free flowing mortars (Conbextra as manufactured by M/s Fosroc Chemicals India Ltd., or equivalent as approved by the Engineer-in-charge at his discretion) of high early strength and same colour as surrounding concrete, Pre-cast cement mortar / concrete blocks / blocks of polymer shall not be used as spacer blocks unless specially approved by the Engineer-in-charge, rate of RCC items is inclusive of cost of such cover blocks.

E. RCC WORK

- i. All mixed design concrete shall be executed by Concrete Batch Mix Plant of suitable capacity, to be installed by Contractor at site. In special cases RMC shall be allowed by Engineer on written request of the contractor but the RMC should also be from a plant of appropriate capacity. No extra payment shall be allowed on account of Concrete from batch mix plant or RMC.
- ii. In case of Nominal Mix concrete also, weight basis batching shall only be allowed.

- iii. Mixer having arrangement of weighing water for controlling W.C. ratio should only be used in all PCC and RCC works where there is no provision for Ready Mix Concrete in tender items.
- iv. Any cement slurry if added over base surface (or for continuation of concreting) for bond, its cost shall be deemed to have been included in the respective items, unless otherwise, explicitly stated and nothing extra shall be payable nor extra cement considered in the cement consumption on this account.
- v. Unless otherwise specified for the item, the maximum water cement ratio for any grade of concrete shall not be more than 0.5. The contractor shall within 15 days of issue of letter for commencement of the work, submit the mix design for various grades of concrete along with 7 days crushing strength reports and within 40 days submit 28 days crushing strength reports, for the samples for the mix. Nothing extra shall be payable on account of admixing any chemical admixture for achieving any characteristic for the concrete. Concreting shall be commenced only after the approval of the mix design by the Engineer-in-Charge.
- vi. Wherever required the M.S. inserts shall be provided during the casting of RCC / PCC for which nothing extra shall be payable. As far as possible the contractor shall plan that the concreting is carried out during day shift.
- vii. It is important to maintain the water cement ratio constant at its correct value. To this end, determination of moisture contents in both fine and coarse aggregates shall be made as frequently as possible, the frequency for a given job being determined by the Engineer-in-Charge according to weather conditions. The amount of the added water shall be adjusted to compensate for any observed variations in the moisture contents. For the determination of moisture content in the aggregates, IS 2386 (Part 3) may be referred to. To allow for the variation in mass for aggregate due to variations in their moisture content, suitable adjustments in the masses of aggregates shall be made.
- viii. The concrete shall be deposited in its final position in a manner to preclude segregation of ingredients. In deep trenches and footings concrete shall be placed through chutes or as directed by the Engineer-in-Charge. In case of columns and walls, the shuttering shall be so adjusted that the vertical drop of concrete is not more than 1.5 metres at a time.
- ix. The surface which is to receive plaster or where it is to be joined with brick masonry wall, shall be properly roughened immediately after the shuttering is removed, taking care to remove the laitance completely without disturbing the concrete. The roughening shall be done by hacking. Before the surface is plastered, it shall be cleaned and wetted so as to give bond between concrete and plaster.
- x. On the basis of mandatory lab tests, in case of actual average compressive strength being less than specified strength but upto 70% of specified strength, the rate payable shall be in the same proportion as actual average compressive strength bears to specified compressive strength. In case average compressive strength is less than 70% of the specified strength, the work represented by the sample shall be rejected.
- xi. However, on the basis of mandatory field tests, where they prevail, the rates of the work represented by samples showing actual compressive strength less than specified strength shall be worked out as per relevant guideline of CPWD Specifications. In addition, Engineer-in-charge may order for additional tests (see Appendix 'B' of chapter 5 of CPWD Specifications) to be carried out at the cost of contractor to ascertain if the portion of structure where in concrete represented by the samples had been used, can be retained on the basis of these tests. Engineer-in-Charge may take further remedial measures as necessary to retain the structure at the risk and cost of the contractor.
- xii. If at any stage of the work, during or after placing the concrete in the structure the work is found defective such concrete shall be removed and work be done with fresh concrete and adequate rigid forms at the cost of the contractor. The contractor shall be liable to bear the cost for the cement concrete thus dismantled.
- xiii. The construction work shall be done with proper and assured system of curing duly identified areas with dates marked in paint. In hot weather the contractor shall take relevant care to cover the work with wet gunny bags/hessian cloth or use continuous ponding of water on surface so as to keep the surface wet.
- xiv. Hard stone aggregate of different sizes shall be crushed or broken from hard stone conforming to CPWD Specifications for work subject to Para below. Where CPWD Specifications for R.C.C. or any item or work are silent, the provisions of the latest Code of BIS for plain and reinforced cement concrete for general building construction I.S. 456-2000 or the concerned I.S. specifications or Code of practice shall apply.
- xv. When an R.C.C. slab or a flat slab is projected beyond the wall/beam line, the payment for such

projected part of the R.C.C. work shall be made under the corresponding item of R.C.C. slab/flat slab. Payment for centering & shuttering of the projected portion shall also be made under the item of centering & shuttering for the slab/flat slab. Nothing shall be paid for the edge shuttering of the slab/flat slab projection or otherwise. All exposed edges shall be finished as per specifications without extra payment.

F. BRICK WORKS

- i. Type of the Bricks to be used in Masonry works in foundation and superstructure i.e Common Burnt Clay Bricks/ Fly Ash Lime Bricks / Clay Fly Ash Bricks/ Tile Brick/ Brick Bats Calcium Silicate Bricks/CC Block/AAC Block etc. shall be strictly as mentioned in Tender Item and Construction drawings.
- ii. Unless specifically mentioned in Construction Drawing or Tender Item, Bricks used shall have compressive strength not less than 7.5 MPa. In case bricks of compressive strength 7.5 MPa are not available and the structure is not of load bearing nature, then use of less compressive strength bricks can be relaxed as per CPWD specification, at reduced rate as worked out by the Engineer in-charge.
- iii. All brick Masonry work shall be done with the available size of F.P.S. Bricks. The measurement of the brick work would be done in the multiples of the half brick. Above three bricks, the brick work would be measured as per the actual thickness.
- iv. The 'Modular bricks' shall only be used where use of same is specifically mentioned in the relevant items.
- v. The material Specifications, dimensions, permissible tolerance, testing, acceptable quality parameters, test results, workmanship, erection and placement procedures, measurement of works and scope of works covered under rates etc all in general shall be as per CPWD Specifications with up to date correction slips unless specifically mentioned in tender documents.
- vi. Top courses of all plinths, parapets, steps and top of walls below floor and roof slabs shall be laid with brick on edge, unless specified otherwise. Brick on edge laid in the top courses at corner of walls shall be properly radiated and keyed into position to form cut (maru) corners. Where bricks cannot be cut to the required shape to form cut (maru) corners, cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) equal to thickness of course shall be provided in lieu of cut bricks.
- vii. No deductions or additions shall be done and no extra payment made for the following :
Where minimum area is defined for deduction of an opening, void or both, such areas shall refer only to opening or void within the space measured.
 - a. Ends of dissimilar materials (that is, joists, beams, lintels, posts, girders, rafters, purlins, trusses, corbels, steps, etc.); up to 0.1 m² in section;
 - b. Opening up to 0.1 Sqm in area (see Note);
 - c. Wall plates, bed plates, and bearing of slabs, chajjas and the like, where thickness does not exceed 10 cm and bearing does not extend over the full thickness of wall;
 - d. Cement concrete blocks as for hold fasts and holding down bolts;
 - e. Iron fixtures, such as wall ties, pipes upto 300 mm diameter and hold fasts for doors and windows; and
 - f. Chases of section not exceeding 50 cm in girth.
 - g. Bearing portion of drip course, bearing of moulding and cornice.

Note: In calculating area of an opening, any separate lintel or sills shall be included with the size of the opening but end portions of lintel shall be excluded. Extra width of rebated reveals, if any, shall also be excluded.

G. FLOORING

- i. Final finished flooring with Marble/Granite/Stone/Ceramic/Vitrified/CC etc shall be done in pattern, layout out, sizes, thickness as shown in Construction drawings and Tender items other wise as directed by Engineer in charge.
- ii. The supply, material Specifications, dimensions, permissible tolerance, testing, acceptable quality parameters, test results, workmanship, erection and placement procedures, measurement of works and scope of works covered under rates etc all in general shall be as per CPWD Specifications with up to date correction slips unless specifically mentioned in tender documents.
- iii. Sample of Marble /Granite/Ceramic/Vitrified/CC Tile or any other material to be used in finish floorings shall be got approved by Contractor from Engineer in charge.
- iv. Gang saw cut granite floor slabs.

- v. Wherever the tender schedule provide for mirror polished granite slab flooring using Gang saw cut granite slabs. The size of such gang saw cut granite slabs shall not be less than 1.5m x 2.4m. The granite block shall be gang saw cut using water cutting process. The polishing of the cut stone slabs should be automatic machine polished to highly even surface without any undulations. Manual polished and kerosene cutting process slabs shall not be accepted and shall be rejected.
- vi. Proper gradient shall be given to flooring for toilets, verandah, kitchen, courtyard etc. so that the wash water flows towards the direction of floor trap. Any reverse slop if found, these shall be made good by the contractor by ripping open the floor/grading concrete and nothing extra shall be paid for such rectifications. Slope in Office, warehouse floor shall be as indicated in drawings otherwise as directed by Engineer in charge.
- vii. Final Finish flooring shall be laid over a well prepared base and sub base flooring of material & specifications as mentioned in tender items and shown in Construction Drawings.
- viii. Sub base floor shall be laid over well prepared sub grade.

H. SUBGRADE

- i. Where the pavement / Warehouse Floor is to be laid on surface obtained after cutting the soil, the sub-grade for pavement shall be prepared as per specifications relevant to item in BOQ for achieving not less than 97% of dry density as per IS : 2720 Part VIII at no extra cost or otherwise as per the procedure mentioned hereafter.
 - The sub-grade shall be excavated to a depth of 0.5 meter, watered and compacted in layers not exceeding 250mm thickness, dressing to required camber and profile and consolidation with vibratory roller of 80 to 100 KN static weight so as to achieve not less than 97% of dry density as per IS : 2720 Part VIII. However, before relaying and compacting the loosened material the surface below this level shall be suitably consolidated as directed by the Engineer but with a minimum six passes of vibratory roller. If the next 15 cm below this level does not have a relative compaction of 90%, it shall be compacted until not less than 95% dry density is obtained. Rate for work of this nature shall be covered in the item of preparation of sub-grade.
- ii. Where the pavement is to be laid on fill and height of proposed fill is less than 0.5 meter, the procedure for sub-grade preparation as mentioned above shall be followed.
- iii. Where the pavement is to be laid on fill and the height of proposed fill is more than 0.5 meter, preparation of sub-grade is not required at these locations, however, in such locations original ground level shall be compacted by rolling as directed by the Engineer as much as possible but with a minimum of six passes of vibratory roller of 80 to 100 KN static weight. No separate payment shall be made for this, as same shall covered in item of earth work in excavation and /or filling.
- iv. **Control Tests on Borrow Material**

Soil suitable for consolidation under O.M.C. conditions should preferably have the following characteristics:

 - Minimum percentage of clay -10%; Liquid limit- 14; Plasticity index-4; Percentage of silt should not exceed-50%; free from Peat, muck and organic soils which are unsuitable.

The Engineer-in-Charge may, however, relax these requirements taking into account availability of materials, cost of transportation and other relevant factors.

I. WBM /WMM

WBM/WMM wherever to be used as sub base/base course in road/warehouse floor etc. shall be laid in proper gradient, compacted thickness as shown in construction drawings. The supply, stacking, procedure for laying in position, testing, acceptance within tolerance limit, measurement and scope of work covered under rates shall be as per the guideline of relevant CPWD specifications for these works.

J. STRUCTURAL STEEL WORKS IN COLUMN-BEAM FRAMES/ROOF TRUSS/MEZZANINE FLOOR

- i. The scope of work also includes preparation & submission of shop Drawings/ Fabrication drawings, connection details of joints including all bolted / welded and riveted joints as per

- design and obtaining approval for all the drawings from Engineer in charge. The agency shall prepare all the required shop drawings needed for correct and accurate erection of Steel Structure work. The design shall be strictly in accordance with the "Design Specifications" and building drawings.
- ii. Engineer in charge reserves the right to review any/all or none of the drawings, Review by Engineer in charge shall not relieve the contractor of his responsibility for correct drawing and execution of the works.
 - iii. The Final GFC drawings shall directly adhere to the reviewed comments and general arrangement and shall incorporate all the comments/suggestions given by Department/Engineer In charge without any extra cost to the department and any implication on the time schedule for the completion of the work.
 - iv. If there is any difference in opinion or changes to be made with regard to drawings/specifications as per the recommendation of Engineer in Charge, The Contractor shall agree to be bound by the same without any extra cost.

Specification for steel works

- i. The work in general shall be carried out as per CPWD specifications and the relevant Indian Standards a list of which are mentioned in the particular specifications.
- ii. The fabrication and erection of the steel members shall be as per General Specification IS : 800 and stipulations contained in the other relevant standards.
- iii. The contractor shall prepare and submit the fabrication drawings, indicating the complete details of all members, detail of joints, weld sizes, length of welds, cleats holes etc. The fabrication work shall be commenced only after the fabrications drawings are approved. A scheme for fabrication and erection of the various members shall also be furnished and got approved. However such approval shall not absolve the contractor for the safety of the structure and its components during fabrication, erection and service.
- iv. The contractor shall submit manufacturer's test certificate for all the material procured by him indicating clearly the identification marks etc. The Engineer-in-charge may get samples of the materials tested for their conformity to the standards. No payments shall be made for the materials, which are used for testing.
- v. Normally Fabrication shall be carried at site of work but To advance the progress, Contractor may do fabrication works at their shop with approval of Engineer in charge. The fabrication shop of the contractor, shall have all facilities required for carrying out the fabrication work.
- vi. The material shall conform to the following specifications.
 - Structural steel rolled sections: IS 2062 Grade „A“ up to 20 mm thickness, IS 2062 Grade „ B“ above 20 mm thickness.
 - Pipes etc. : IS 1161/1233
 - Chequered plates : IS 3502
- vii. Steel sections from the main manufacturers such as SAIL, TISCO, RINL or JINDAL only shall be permitted to be used. **The steel members shall be in single piece end to end without any intermediate joints unless specifically approved by the Engineer-in- charge.** The contractor shall get the name of manufacturer approved before placing the order. The material should be free from defects. If any defect is noticed at the time of manufacturing the same should be rejected. Re-rolled material shall not be permitted.
- viii. Welding materials shall conform to IS : 814 & AWS E 6013 for thickness upto 20 mm and MWSE7018 above 20 mm.
- ix. Bolts and nuts shall be as per IS : 1363 & IS : 1367. Washers shall be as per IS : 2016, IS : 5372 and IS : 5374.
- x. The bending of plates and sections shall be carried out on appropriate machines.
- xi. Cutting may be effected by sheering, cropping, sawing or by gas cutting by mechanically controlled torch. Gas cutting by hand and electric arc cutting shall not be permitted.
- xii. All cut edges shall be ground before they are welded.

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- xiii. The accuracy at contact surfaces and tolerances shall be as per relevant IS standards.
- xiv. Bolt – holes shall be drilled. Enlarging the holes by filling, hand drilling using flame etc. are not permitted.
- xv. The welders qualified as per procedure given in the IS standards shall only be engaged for doing the welding work.
- xvi. The welding procedure as proposed by the contractor shall be got approved in advance from the Engineer-in-charge.
- xvii. The welds shall be subjected to visual examination, mechanical tests on samples, dye penetration tests, other non-destructive tests like radiographic/ ultrasonic tests etc.
- xviii. Internal surfaces of boxed / back-to-back members should be treated with primer.
- xix. The edges of chequered plate shall be made smooth and no burrs or jagged ends shall be left.
- xx. The structural steel required conforming to IS: 2062 shall normally be procured from the main steel producers viz. TATA, SAIL and RINL (Vizag). Tubes to be supplied by Contractor, conforming to IS 1161, shall normally be of Make TATA, APPOLO.
- xxi. In case of difficulties in getting required quantities of materials from the main producers, permission may be given as a special case to procure the materials from the secondary producers having ISI registration by Engineer in charge if the contractors approach the Engineer-in-charge with the efforts made by them in getting the materials with full justification details.
- xxii. Fabricated structural member's viz., columns, beams and purlins along with the base plates and cleats etc. shall be provided with zinc chromate steel primer coating after fabrication unless specifically mentioned otherwise in Tender Items and Specifications.
- xxiii. The quantity of the steel for structural members for the purpose of payment shall be worked out by adopting the unit weight given in the relevant IS code for tubes, angles, Channels, flats and plates etc. If the actual weight of the member is less than that specified in the code beyond the minus tolerance permissible then the materials shall be rejected. Payment on weight basis would be made as per the theoretical or actual weight whichever is less.
- xxiv. Weight of cleats, brackets, packing pieces bolts nuts, washer's distance pieces separators diaphragm gussets (taking overall square dimensions) fish plates etc. shall be added to the weight of respective items unless otherwise specified. No deduction shall be made for skew cuts.

K. ADDITIONAL CONDITIONS FOR PRE-FAB STRUCTURE IN STEEL:

- i. Wherever Tender Items mentioned the Prefab Structures or **Pre-Engineered Building System (PEB)**, The scope of work for **Fabrication, Supply and Erection of Pre-Engineered Building System (PEB)** is as defined in the following sections under the contract which includes manufacture, supply and erection of Structural Steel System and all accessories as per design, drawings and as per direction of Engineer-in- Charge.
- ii. **Condition for Specialized Agency for PEB Structure:**

In case the Main contractor is himself not a PEB Manufacturer, He will obtain the approval of Engineer in charge for selection and appointing the PEB Manufacturer/Supplier for this contract. The Engineer-in-Charge or his authorized representative shall visit the factory of PEB manufacturer and will grant the approval for Supply of PEB system based on the experience, availability of CNC machines for fabrication, cutting/welding etc and production capacity of the manufacturer. EIC or his representative will also visit the factory of PEB Manufacturer during manufacturing of PEB components for quality checks. The PEB components shall be brought to site from factory only after the satisfactory test results and quality checks as per the direction of Engineer in Charge.
- iii. Before commencement of procurement, the contractor, if mentioned in tender drawings or item specifications, shall make detail design drawings based on models and suggested loading, framed drawings provided by CWC and will prepare fabrication & erection drawings for steel structure and detail fabrication and erection drawings for roofing and cladding indicating the positions of overlap, joints, Louvers, Flashings, cutouts etc. He shall make all drawings available all worksheets/supporting data/design details to Engineer in Charge as so desired. After the

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completion of work, the contractor shall submit to the Engineer-in-Charge. 3 sets of "As Built" drawings along with CAD copies as specified elsewhere.

- iv. The contractor shall clarify to Engineer In Charge any queries regarding specifications, rates, etc as and when requested/ required. Rate of analysis for the rates quoted shall also be furnished by the Tenderer If desired by Engineer In Charge.
- v. **The following are the minimum requirements of tests on welds.**
 - Visual examination: 100%
 - Dye penetration test: 30 % after back gouging and after final finish.
 - Mechanical test: 1 test each on a column and beam members.
 - Radiography test: 2% of welds.

Where radiography test is not possible ultrasonic test shall be carried out. The acceptance criteria shall be as per IS specifications and as decided by the Engineer-in- charge.

- vi. Apart from the IS Codes mentioned above, all other relevant codes such as American standards (AISC, MBMA, AISI & AWS specifications) related to the specific job under consideration and / or referred to in the above-mentioned codes may be followed wherever applicable, if the specifications for the same are not available in the relevant IS codes.
- vii. When Contractor scope of works includes supply of Prefab/PEB structural steel system, NO Fabrication at site shall be allowed except erection works and minor steel works like nonstructural steel works.

L. DOOR/WINDOWS/VENTILATOR WORKS

- i. The supply of materials viz Rolling Shutters/Mild Steel doors/T sections doors/windows/ Aluminum/UPVC Sections for doors / windows/ ventilators/ partitions, Wooden paneled/ flush doors/ cupboard shutters/ PVC /FRP shutters/ frames/ Pressed steel frames/ all type of fittings/glazing/paneling /decorative polish/veneering/Wire gauge/expanded metal mesh/MS grills/Chqd plate/Handrails etc including their storage at site, procedure of installations, workmanship, testing, acceptance within tolerance limit, measurement and scope of work covered under rates for these works shall be as per relevant CPWD specifications unless specifically mentioned otherwise in tender documents, drawings.
- ii. Wood work shall not be painted, oiled or otherwise treated before it has been approved by the Engineer-in-Charge.
- iii. Aluminum Fittings shall be anodized to natural matt finish or dyed anodic coating not less than grade AC 10 of IS 1868. Mild steel Fittings shall be bright finish black stone enameled or copper oxidized (black finish), nickel chromium plated or as specified. Brass Fittings shall be finished bright satin finish or nickel chromium plated or copper oxidised or as specified.
- iv. All fittings and fixtures of doors, windows, ventilators shall be got approved from the Engineer-in-Charge before procurement well in advance and the approved samples shall be kept at site till completion of the work.
- v. Wooden flush door shutter/ PVC/FRP /Fire rated door shutters, as specified shall be obtained from factories to be approved by the Engineer- in-charge. The contractor shall inform well in advance to the Engineer- in-charge the name and address of the factory where from he intends to get the shutters manufactured. The contractor will place order for manufacturing of shutters only after written approval of the Engineer- in- charge in this regard is given. The contractor is bound to recommend name(s) of another factory from the approved list in case the factory already proposed by the contractor is not found competent to manufacture quality shutters.
- vi. Shutters samples shall be first submitted and got approved by Engineer in charge Shutters will however, be accepted only if they meet the specified tests/technical requirements
- vii. Rolling Shutters: The shaft of rolling shutters shall be of M.S. Pipe heavy duty 40 mm. nominal bore, 48.3 mm outer dia, thickness 4.05 mm and weight of pipe shall be 4.43 Kg./metre. At least three springs made of H.T. steel grade 2 of I.S. 4454/1967 of 27.5 mm. length shall be used in each shutter. The guide channels of minimum 60 mm depth shall be made of 3.15 mm thick M.S. strips Lock rail at bottom shall be of 3.15 mm thickness with M.S. angle 35 mm x 35 mm x 5 mm welded at the bottom and brackets for fixing the M.S. pipe on wall shall be of M.S. plate 3.15 mm thick. Top cover of shutters shall be made out of M.S. Plate 1-25 mm thick sliding bolt for lock rail

shall be made of M.S. flats not less than 50 mm x 6 mm size at both ends with inside and outside locking arrangement. Further details if any not covered by general specifications of Delhi CPWD specifications 2009 Volume I and details described above shall be as per IS specifications No.6248 of 1971/revision (latest)

The contractor shall arrange one more spring than the total required number, for testing purpose. The Engineer-in-Charge shall select at random one spring to be sent for test regarding grade of H.T. steel wire used in the springs. No extra payment shall be made for the additional spring arranged.

The rates to be quoted for supplying and fixing rolling shutter should include making necessary chases in masonry and making good the same for fixing of side guide etc.

M.FINISHING

- i. The work shall be carried out to provide a smooth finish with pleasing appearance in high standards of workmanship and quality of material up to the satisfaction of Engineer in charge.
- ii. The supply of materials for finishing works and their storage, procedure of applications, testing, acceptance within tolerance limit, measurement and scope of work covered under rates for these works shall be as per relevant CPWD specifications unless specifically mentioned otherwise in tender documents, drawings.
- iii. For all exposed brick work or tile work double scaffolding independent of the work having two sets of vertical supports shall be provided. The supports shall be sound and strong, tied together with horizontal pieces over which scaffolding planks shall be fixed. For all other work in buildings, single scaffolding shall be permitted. In such cases the inner end of the horizontal scaffolding pole shall rest in a hole provided only in the header course for the purpose. Only one header for each pole shall be left out. Such holes for scaffolding shall, however, not be allowed in pillars/columns less than one metre in width or immediately near the skew backs of arches. The holes left in masonry works for scaffolding purposes shall be filled and made good before plastering.
- iv. For external and under coat plaster work, the fine aggregate shall conform to grading IV. For finishing coat Plaster work the fine aggregate conforming to grading zone V shall be used unless specified otherwise.
- v. The plaster shall be kept wet for a period of at least 7 days. During this period, it shall be suitably protected from all damages at the contractor's expense by such means as the Engineer-in-Charge may approve. The dates on which the plastering is done shall be legibly marked on the various sections plastered so that curing for the specified period thereafter can be watched.
- vi. Wherever scaffolding is necessary for Whitewash /Painting works, it shall be erected on double supports tied together by horizontal pieces, over which scaffolding planks shall be fixed. No ballies, bamboos or planks shall rest on or touch the surface which is being white washed. Where ladders are used, pieces of old gunny bags shall be tied on their tops to avoid damage or scratches to walls.
- vii. For White wash /waterproofing cement paint on new work, three or more coats shall be applied till the surface presents a smooth and uniform finish through which the plaster does not show. The finished dry surface shall not show any signs of cracking and peeling nor shall it come off readily on the hand when rubbed. For old work, after the surface has been **prepared**, a coat of white wash/cement paint shall be applied over the patches and repairs. Then a single coat or two or more coats of white wash/cement paint as stipulated in the description of the item shall be applied over the entire surface. The white washed surface should present a uniform finish through which the plaster patches do not appear.
- viii. Distempering: If the wall surface plaster has not dried completely, cement primer shall be applied before distempering the walls. But if distempering is done after the wall surface is dried completely, distemper primer shall be applied. Oil bound distemper is not recommended to be applied, within six months of the completion of wall plaster. However, newly plastered surfaces if required to be distempered before a period of six months shall be given a coat of alkali resistant priming Paint conforming to IS 109 and allowed to dry for at least 48 hours before distempering is commenced.
- ix. The color code and make of Painting material on exterior or interior finish shall be first approved by Engineer in charge. Contractor shall submit all possible combinations, physical samples on size 300x300 mm over wall for approval of color without any extra cost.
- x. The Primer, Synthetic Enamel paint, distemper etc., of as approved by the Engineer- in- charge and of low VOC (unless specified otherwise), shall only be used and brought to the site of work in the

- original sealed containers.
- xi. The material brought to the site of work shall be sufficient for at least 30 days of work.
 - xii. The material shall be kept under the joint custody of contractor and representative of the Engineer-in-charge. The empty containers shall not be removed from the site till the completion of the work without permission of the Engineer-in-charge.
 - xiii. Contractor shall submit the copies of invoices of Painting material purchased by them for incorporation in to the contract works.

N. WATER SUPPLY, INSTALLATIONS AND DRAINAGE

- i. The contractor shall furnish all labor, material and equipment, transportation and incidental necessary for supply, installation, testing and commissioning of the complete Plumbing / system as described in the Specifications, Tender Items and as shown on the drawings. This also includes any material, equipment, appliances and incidental work not specifically mentioned herein or noted on the Drawings/Documents as being furnished or installed, but which are necessary and customary to be performed under this contract.
- ii. The Plumbing / Sanitary system shall comprise of following:
 - a. Sanitary and water supply Fixtures and Fittings.
 - b. Internal and External Water Supply.
 - c. Internal and External Drainage
 - d. Approval from Local Authorities
 - e. Balancing, testing & commissioning.
 - f. Test reports and completion drawings
- iii. The contractor shall procure and install all pipes, its fittings, joints/bends/tees /sockets /nipples including shut-off valve etc as specified.
- iv. The contractor shall ensure that senior and experienced plumbers are assigned exclusively for this work. Such plumber(s) should have valid license from the local authorities. The project management shall be done through modern technique. For quality control & monitoring of workmanship, contractor shall assign at least one engineer who would be exclusively responsible for ensuring strict quality control, adherence to specifications and ensuring top class workmanship for the installation.
- v. The work shall be in conformity with the Bye-laws, Regulations and Standards of the local authorities concerned. But if these Specifications and drawings call for a higher standard of materials and / or workmanship than those required by any of the above regulations and standards, then these Specifications and drawings shall take precedence over the said regulations and standards. However, if the drawings and specifications require something which violates the Bye-laws and Regulations, then the Bye-laws and Regulations shall govern the requirement of this installation.
- vi. The contractor shall obtain all permits/ licenses and pay for any and all fees required for the inspection, approval and commissioning of their installation. However, all received amount shall be reimbursed on production of proof of payment.
- vii. The Plumbing drawings are to be given by the contractor for obtaining approval from Engineer-in-charge. The Plumbing / Sanitary Drawings given by the Engineer in- Charge or issued with tenders are diagrammatic only and indicate arrangement of various systems and the extent of work covered in the contract. These Drawings indicate the points of supply and of termination of services and broadly suggest the routes to be followed. Under no circumstances shall dimensions be scaled from these Drawings. The contractor shall follow these drawings in preparation of his shop drawings, and for subsequent installation work.
- viii. The contractor shall examine all architectural, structural, plumbing, electrical and other services drawings and check the as-built works before starting the work, report to the Engineer In-Charge any discrepancies and obtain clarification. Any changes found essential to coordinate installation of his work with other services and trades, shall be made with prior approval of the Engineer In-Charge without additional cost to the department.
- ix. All the shop drawings shall be prepared on computer through AutoCAD System based on Architectural drawings and site measurements. Contractor shall furnish, for the approval of Engineer-in-charge, the two sets of detailed shop drawings of complete work and materials including layouts / Typical toilets drawings showing exact location of supports, flanges, bends, tee connections, reducers, detailed piping drawings showing exact location and type of supports, valves, fittings etc; external insulation details for pipe insulation etc.

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- x. These shop drawings shall contain all information required to complete the work. These drawings shall contain details of construction, size, arrangement, operating clearances, performance characteristics and capacity of all items of equipment, also the details of all related items of work by other contractors. Each shop drawing shall contain tabulation of all measurable items of equipment/materials/works and progressivecumulative totals from other related drawings to arrive at a variation-in-quantity statement at the completion of all shop drawings. Minimum 3 sets of drawings shall be submitted after final approval along with CD. When he makes any amendments in the above drawings, the contractor shall supply two fresh sets of drawings with the amendments duly incorporated along with check prints, for approval. The contractor shall submit further 3 sets of shop drawings to the Engineer In-charge for the exclusive use by the Engineer In-charge and all other agencies. No material or equipment may be delivered or installed at the job site until the contractor has in his possession, the approved shop drawing for the particular material/equipment / installation.
- xi. Shop drawings shall be submitted for approval four weeks in advance of planned delivery and installation of any material to allow the Engineer-in-charge ample time for scrutiny. No claims for extension of time shall be entertained because of any delay in the work due to his failure to produce shop drawings at the right time, in accordance with the approved programme.
- xii. Samples of all materials like valves, pipes and fittings etc. shall be submitted to the Engineer In-Charge prior to procurement for approval and retention by Engineer In-Charge and shall be kept in their site office for reference and verification till the completion of the Project. Wherever directed, a mockup or sample installation shall be carried out for approval before proceeding for further installation without any extra cost.
- xiii. Approval of shop drawings shall not be considered as a guarantee of measurements or of building dimensions. Where drawings are approved, said approval does not mean that the drawings supersede the contract requirements, nor does it in any way relieve the contractor of the responsibility or requirement to furnish material and perform work as required by the contract.
- xiv. All materials and equipment shall conform to the relevant Indian Standards and shall be of the approved make and design. Makes shall be in conformity with list of approved manufacturers.
- xv. Balancing of all water systems and all tests as called for the CPWD Specifications shall be carried out by the contractor through a specialist group, in accordance with the Specifications and ASPE / ASHRAE Guidelines and Standards. The installation shall be tested and shall be commissioned only after approval by the Engineer-in-charge. All tests shall be carried out in the presence of the representatives of the Engineer-in-charge and nothing extra shall be payable on this account.
- xvi. The contractor shall submit "completion plans of services" for water supply, internal installations and building drainage work within 15 days of the date of completion. These drawings shall be submitted in the form of two sets of CD's and four portfolios (300 x 450 mm) each containing complete set of drawings on approved scale indicating the work as - installed. These drawings shall clearly indicate complete plant/toilet room layouts, piping layouts and sequencing of automatic controls, location of all concealed piping, valves, controls and other services. In case the contractor fails to submit the completion plans as aforesaid, security deposit shall not be released and these shall be got prepared at his risk and cost
- xvii. The CCI/CI/PVC pipe and GI pipe etc. wherever necessary shall be fixed to RCC columns, beams etc. with rawl plugs and nothing extra shall be paid for this.
- xviii. The variation in consumption of material shall be governed as per CPWD Specification and clauses of the contract to the extent applicable.
- xix. Rates quoted shall be inclusive of all work and items given in the above mentioned specifications and Schedule of Quantities and applicable for the work under floors, in shafts or at ceiling level at all heights and depths. All rates are inclusive of cutting holes and chases in RCC and masonry work and making good the same unless specifically mentioned otherwise. Rates are inclusive of pre testing and on site testing of the installations, materials and commissioning
- xx. **Cleaning and Disinfection of Pipelines:** - On completion of hydraulic tests and before a pipe is disinfected, it shall be proved to be free from obstruction, debris and sediment by scouring or by any other process which the Engineer-in-charge may prescribe. Upon satisfactory completion of testing and cleaning, the pipelines shall be disinfected as order. Chlorine solution shall be applied at the charging point as the pipeline is being filled and dosing shall be continued until the pipeline is full and at least 50 parts of chlorine per million parts of

water have been made available and distributed evenly. If ordinary bleaching powder is used, proportions will 150 gms of power to 1000 litre of water. If a proprietary brand is used, the proportion shall be as specified by the manufacturer. The treated water shall be left in pipeline for a period as directed but not exceeding 24 hours chlorine residual tests shall be taken at various points along the pipeline. The disinfection process shall be repeated until the sample of water taken from the pipeline are declared fit for human consumption by a recognized laboratory.

- xxi. The supply of Input materials and their storage, procedure for laying in position, testing, acceptance within tolerance limit, measurement and scope of work covered under rates for water supply, sanitation, drainage works shall be as per the guideline of relevant CPWD specifications unless specifically mentioned otherwise in tender documents, drawings.

O. CONSTRUCTION & EXPANSION JOINTS

- i. Construction joints in PCC, RCC and Light Weight Concrete works etc., shall be provided only at places as per approved structural drawings. It shall not in any manner structurally or functionally affect the structure. If, any additional construction joint is required to be provided, it shall be done with approval of the Engineer-in-Charge. The centering, shuttering, strutting etc., required for the construction joint shall be provided as per the CPWD Specifications. Nothing extra shall be payable on this account.

TREATMENT TO THE CONSTRUCTION JOINTS AND RECTIFICATION OF DEFECTS.

- ii. All care shall be taken to minimize the number of construction joints in the rafts, floors, and walls as well as in the levelling course of PCC at base. Still, wherever the construction joints are provided, these shall be slightly opened up and then suitably filled with cement mortar 1:3 (1 cement: 3 fine sand) after applying a bond coat of cement slurry. The aluminum nipples shall be fixed in the cavity and crevices, if required. Then cement slurry of w/c ratio 0.5 shall be pressure grouted through these nipples as required, which shall then be suitably cut. Nothing extra shall be payable on this account.
- iii. All care shall be taken to avoid any honey combed concrete or any cavity. Still, if any honey combed concrete or cavity in RCC/CC works is encountered the same shall be rectified by removing all loose concrete by chiselling. The chipped concrete surface shall be cleaned and made dust free by blowing compressed air and then washed clean with water (but without excess water). Then a bond coat of polymer modified cement slurry @ 2.2 kg of cement per sq. m. of concrete surface, in two coats, shall be applied as specified. The second coat shall be applied immediately within 15-20 minutes of application of the first coat. A coat of polymer modified cement plaster of mix 1:3 (1 cement: 3 fine sand) of the required thickness shall be applied as specified to fill the cavity if the required thickness is less than 20 mm. If the required thickness is more than 20 mm. the cavity shall be filled by concrete of relevant grade after providing the required centering and shuttering. The surface shall then be moist cured for minimum 7 days. Nothing extra shall be payable on this account.

Expansion Joint

- i. General Seismic / separation joints shall be provided where shown on the drawings. They shall be constructed with in gap between the adjoining parts for the works of the width specified in the drawings.
- ii. The contractor shall ensure that no debris is allowed to enter and be lodged in seismic and separation joints.
- iii. Seismic or separation joints shall be provided with approved 50mm thickness of compressible filler board, backer rod and polysulphide sealant compound etc.,
- iv. Board to be used in expansion joint shall be of best approved quality and shall be got approved before use. It shall have minimum density of 95 kg/cum, Non staining with less than 1% water absorption and compression recovery of 93% minimum as per the specifications.

Method of Application

- v. 50mm thick expansion board having sufficient width directed by Engineer-in-charge shall be provided in expansion joint before filling and finishing the expansion joint with sealant.
- vi. The expansion joint shall be cleaned and made dry completely. All loose materials shall also be removed. The joints gap shall be made uniform in width and depth after cleaning the joints. The backup materials of best quality shall be provided in position in order to produce the size of joint i.e. width and depth. The primer part of I and II shall be mixed thoroughly together in required proportion as prescribed by manufacture specification, so that a uniform mixture obtained. The mixed solution shall be applied to two sides of the joint that it covers the sides completely.
- vii. Disturbed edges of RCC members near expansion joints shall be finished with rich mortar without any extra work includes providing required width of expansion board in the joints and measurement of expansion board only shall be taken.

Sampling criteria

Following test carried out at every 100 sqmt.

- (i) Density
- (ii) Water absorption
- (iii) Compression recover

P. CONSTRUCTION SITE LAB:

- i. The contractor shall arrange and provide at the site of work all the equipments for field testing as required like :-
 - balances, sieves, slump cone , dial gauges,
 - graduated measuring cylinders, steel tapes, vernier calipers, micrometer screw gauges, plumb bobs, spirit levels ,
 - Total station survey equipment, magnifying glass, screw drivers, plastic bags for samples, etc.
- ii. Allowing establishing the site laboratory by the contractor shall not absolve the contractor from fulfilling the criteria of getting the tests done in an independent laboratory. The decision of the Engineer-in-Charge of allowing any test in the site laboratory or any other laboratory shall be final and binding on the contractor and no claim of any kind whatsoever shall be entertained from the contractor on this account.

Q. OTHER IMPORTANT-MISCELLANEOUS

- (i) Even if the certain items of work are carried out by the specialized sub-contractors the responsibility for the work shall however rest with the main contractor only.
Procurement, Storage and Payment of Cement, Steel, Bitumen etc.
- (ii) The contractor shall procure Portland Pozzolana Cement (PPC) as per IS-1489 Part-I in all the works except Cement Concrete Pavement works, wherein Ordinary Portland Cement (OPC) of Grade 43 (IS:269:2015) and/or 53 Grade (IS: IS:269:2015) shall be used. The PPC & OPC to be used shall be of approved make, as specified in the list of Approved Makes (enclosed with Technical Specifications).
- (iii) The contractor shall procure steel reinforcement bars conforming to IS 1786:2008 pertaining Fe415D or Fe500D, structural steel conforming to IS-808 and bitumen should conform to IS : 702 and 703 as per the item/drawing from manufacturers of approved make, as specified in the list of Approved Makes (enclosed with Technical Specifications).
- (iv) The storage of cement should be done by contractor as per IS:4082-1996 (recommendation on stacking & storage of construction materials at site). Sheds having capacity as decided by Engineer-in-Charge to store the cement shall be provided by contractor for which no extra payment shall be made. All such sheds/store, after

- completion of work shall be removed by contractor at its cost and site shall be cleared.
- (v) Cement & steel reinforcement shall be brought at site in bulk supply of approx. 50 tones & 10 tones respectively or more or as decided by the Engineer-in-charge. Each bag of cement must weigh 50 kg, subject to variation as per BIS code, bearing manufacturer's name & ISI marking.
 - (vi) The contractor shall be responsible for the watch & ward, safety of the Cement store/shed, Bitumen & Steel. The contractor shall facilitate inspection of the same by the Engineer-in-charge at any time. Materials supplied by the contractor should be in countable position and properly stacked.
 - (vii) Steel reinforcement shall be stored by the contractor at site of work in such a way as to prevent distortion & corrosion and nothing extra shall be paid on this account. Bars of different sizes & lengths shall be stored separately to facilitate easy counting & checking.

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

Size (dia.) of Bar	For Consignment below 100 T	For Consignment over 100 T
Under 10 mm	One sample for each 25 tones or part thereof	One sample for each 40 tones or part thereof
10 mm to 16 mm	One sample for each 35 tones or part thereof	One sample for each 45 tones or part thereof
Over 16 mm	One sample for each 45 tones or part thereof	One sample for each 50 tones or part thereof

- (viii) Proper daily record of cement, steel, paint and bitumen consumption shall be maintained at site by the Contractor. The register shall be duly signed by the Contractor/authorized representative of contractor and the same will be checked by the Site Engineer / Engineer-in-charge from time to time. In case, concrete is being obtained from RMC plant, record of cement of the same shall be kept, based on the computerized receipt of mix proportion of each lot. Actual issue and consumption of cement & steel on work shall be regulated and proper accounts maintained, as per provision of the Terms and conditions of the contract. The theoretical consumption of cement shall be worked out as per procedure prescribed in Clause 38 of the General conditions of contract and shall be governed by conditions laid therein.
- (ix) Payment for steel reinforcement shall be made on the basis of standard weight of the bars used as per approved drawings. In case weight of bars is more than or less than the standard weight, but within the tolerance limits, as specified in BIS; the payment will be restricted to lesser weight in case of steel having less weight than the specified & standard weight, in case steel having more weight than specified.
- (x) Cement, Steel & Bitumen brought to site and remaining unused after completion of work shall not be removed from site without written permission of the Engineer-in-charge.
- (xi) No claim whatsoever shall be entertained by CWC on account of delay in non-availability of these materials in the market.
- (xii) Cladding of cement and rusting of steel should be avoided to the maximum extent possible. For such cladding of cement and/or rusting of steel, which may render the same unusable, the contractor shall be responsible to make good such quantities, the loss at his own cost.

R. Theoretical Consumption of Material

After completion of the work and also at any intermediate stage in the event of non-reconciliation of materials issued, theoretical quantity of materials used in the work shall be calculated on the basis and method given hereunder:

- i. Quantity of cement & bitumen shall be calculated on the basis of quantity of cement & bitumen required for different items of work as shown in the Schedule of Rates mentioned in **Schedule I: Appendix-7**. In case any item is executed for which standard constants for the consumption of

cement or bitumen are not available in the above-mentioned schedule or cannot be derived from the same, it shall be calculated on the basis of standard formula, to be laid down by the Engineer-in-Charge.

- ii. Theoretical quantity of steel reinforcement or structural steel sections shall be taken as the quantity required as per design or as authorized by Engineer-in-Charge, including authorized lappages, chairs etc. plus 3% wastage due to cutting into pieces, such theoretical quantity being determined and compared with the actual issues each diameter wise, section-wise and category wise separately.
- iii. Theoretical quantity of G.I. & C.I. or other pipes, conduits, wires and cables, pig lead and G.I./M.S. sheets shall be taken as quantity actually required and measured plus 5% for wastage due to cutting into pieces (except in the case of G.I./ M.S. sheets it shall be 10%), such determination & comparison being made diameter wise & category wise.
- iv. For any other material, as per actual requirements.
- v. For Non-Scheduled items, decision of the Engineer-in-Charge regarding theoretical quantities of materials which should have been actually used, shall be final and binding on the contractor.

Over the theoretical quantities of materials so computed a variation shall be allowed as specified in **Schedule I: Appendix-7**.

TECHNICAL CONDITIONS AND SPECIFICATIONS FOR ELECTRICAL WORKS

1. Tender Drawings and Construction Drawings :

- 1.1 These drawings are meant for Tenderer's guidance only. "Approval for Construction" drawings will be furnished to the contractor during the progress of work to supplement the bid drawings. Construction drawings will be revised and fresh copies issued to the contractor from time to time to incorporate any change to be adopted in the work as per final design to suit any change to be adopted in the work as per final design to suit any condition encountered during the progress of work. Hence, "Approved for Construction" drawings will be furnished progressively during the progress of work, broadly conforming to construction schedule.
- 1.2 HT/LT main panel, other major equipment's, other Distribution Board drawings and cable route shall be submitted by the contractor for approval of CWC / Consultant before starting fabrication, manufacture.
- 1.3 Details shown either on the drawings or stated in the Specification shall prevail upon drawings in case of doubts. However, in case of ambiguity, the more stringent shall be applicable.
- 1.4 **Conformity to IE Act, IE Rules and Standards:** All Electrical works shall be carried out in accordance with the provisions of Indian Electricity Act, 2003 and Indian Electricity Rules, 1956 amended up-to-date (date of call of tender unless otherwise specified).

1.5 Earthing

Earthing shall be carried out as per IS rules 3043 code of practice for earthing with latest amendments and as per specification and site requirement.

2. Guarantee

The tenderer shall guarantee the equipment's offered for satisfactory performance for a period of 12 months from the date of commissioning and handing over the installation to the employer against defects arising out of faulty design, material & workmanship. The tenderer should make good all the defects free of costs during the guarantee period and replace or repair the defective equipment's/parts free of cost promptly and satisfactorily.

3. Inspection & Testing

The purchase representative shall be free to visit the manufacturer's work at all reasonable times to witness and inspect the testing of equipment's. It is the duty of the tenderer to see all the equipment's supplied are tested as per relevant IS/BS specifications. The contractor shall furnish three copies of manufacturer's test certificate for the routine and type test conducted on the equipment's offered. If necessary the contractor shall arrange to conduct all the routine tests at the manufacturer's premises in presence of CWC representative. On receipt of the equipment's/materials at site, the tenderer shall offer equipment's/materials for inspection of electrical engineer and get approved before installation.

4. Pre-Commissioning Tests of Equipment

HT/LT switchgear, Transformer LT cables and DG set shall be subjected to the pre-commissioning tests as per approved Performa by employer. The pre-commissioning test report shall be sent to the Consultant/CWC for approval for electrical installation/license for release-sanctioned load.

5. Approval of Drawings

The drawings for HT Panels and LT Panels, High Mast, DG set and cable layout shall be offered by the tenderer for approval of CWC and manufacturing/laying of these items can be taken in hand only after approval of the drawings by CWC. The tenderer shall also supply three copies of approved drawings for LT switchgear and transformers (both the dimensional and schematic) along with 3 copies route drawings & earthing positions etc.

6. The contractor shall provide all kinds of facilities for inspection of the works by the Engineer of CWC.

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7. The electrical work shall conform to CPWD General Specifications for external with up-to-date amendments and for internal electrification works with up-to-date amendments.

7.1 The electrical works other than internal & external electrification like DG Set, Substation, High Mast, Fire Detection & Alarm system, Heating, Ventilation & Air Conditioning System (HVAC) and Lifts & Escalators shall conform to latest CPWD's General Specifications with up-to-date amendments.

8. Liaisoning / Approval Work with Statutory Authorities

It will be responsibility of the contractor to do liaisoning work for obtaining necessary approvals / clearances for electrical load sanction and power supply connection etc. to energizing the terminal, the statutory charges as per the State Electricity Board demand note will be paid by the CWC.

MINIMUM TECHNICAL SPECIFICATION OF ELECTRICAL LUMINAIRES –

Sr. No.	Item description	Specification	Required rating
1	LED High Bay light fixture	Input voltage	220V AC +- 5%, Single phase
		Power factor	0.9 or more
		System lumen efficacy	110 Lm/watt or more
		Correlated Color Temperature (CCT)	5000K - 6500K
		Color Rendering Index (CRI)	70 or more
		Total Harmonic Distortion (THD)	20% or less
		Optics	Integrated optics having high spread beam angle of 90 degree or more
		Electrical Protection	surge voltage
		Housing	Pressure die cast aluminium housing with heat resistant toughened glass cover and efficient heat sinking material
		Ingress Protection	IP 65 or greater
		Mounting	Roof mounting with single point mounting arrangement with eye bolt or J-Hook. All items required for mounting to be supplied by the party
		Driver	Constant current output integrated driver built into fitting/fixture and should be field replaceable
2	LED flood light fixture	Input voltage	220V AC +- 5%, Single phase
		Power factor	0.9 or more
		System lumen efficacy	110 Lm/watt or more
		Correlated Color Temperature (CCT)	5000K - 6500K
		Color Rendering Index (CRI)	70 or more
		Total Harmonic Distortion (THD)	20% or less
		Optics	Integrated optics having high spread beam angle of 90 degree or more
		Electrical Protection	surge voltage

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		Housing	Pressure die cast aluminiums housing with heat resistant toughened glass cover and efficient heat sinking material
		Ingress Protection	IP 65 or greater
		Mounting	Truss mounting with clamp, or, wall mounting with fastener. All items required for mounting to be supplied by the party
		Driver	Constant current output integrated driver built into fitting/fixture and should be field replaceable
3	LED Street Light	Operating voltage	140 V - 270 V, AC Single phase
		Power factor	0.9 or more
		System lumen efficacy	110 Lm/watt or more
		Correlated Color Temperature (CCT)	5000K - 6500K
		Color Rendering Index (CRI)	70 or more
		Total Harmonic Distortion (THD)	20% or less
		Optics	High efficiency polycarbonate UV stabilized cover with Integrated lens having high spread beam angle of 90 degree or more
		Electrical Protection	Output open/ short circuit protection, phase to phase protection, over voltage protection, 10 KV surge voltage protection
		Housing	Pressure die cast aluminium housing with efficient heat sinking material
		Ingress Protection	IP 65 or greater
		Mounting	GI Pole mounting
		Driver	Constant current output integrated driver built into fitting/fixture and should be field replaceable
4	LED Wellglass light	Operating voltage	140 V - 270 V, AC Single phase
		Power factor	0.9 or more
		System lumen efficacy	100 Lm/W or more
		Correlated Color Temperature (CCT)	5000K - 6500K
		Color Rendering Index (CRI)	70 or more
		Total Harmonic Distortion (THD)	10% or less
		Optics	High efficiency polycarbonate UV stabilized cover with Integrated lens having high spread beam angle of 90 degree or more
		Electrical Protection	Output open/ short circuit protection, phase to phase protection, over voltage protection, 10 KV surge voltage protection

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		Housing	Pressure die cast aluminium housing with efficient heat sinking material
		Ingress Protection	IP 65 or greater
		Mounting	GI Pole mounting
		Driver	Constant current output integrated driver built into fitting/fixture and should be field replaceable
5	LED Bulb/lamps/ batten	Wattage	As mentioned in schedule
		Frequency	50 Hz
		Operating temperature	0-35 degree Cel.
		Color Rendering Index (CRI)	80
		Color Temperature	Shall be as per instruction of Engineer-in-charge
		Rated lumen efficacy	90 Lm/Watt (for Warm lights) 95 Lm/Watt (for Cool lights)
		Base cap (in case of lamps)	E27/E40/B22 (as required)
		Voltage withstanding range	140-270 V
		In built surge protection	3.0 KV (for lamp/bulb) 2.5 KV (for batten)
		BEE Rating (for lamps)	3 star
6	LED Recessed panel/ downlight	Wattage	As mentioned in schedule
		Frequency	50 Hz
		Operating temperature	-10 to 45 degree Cel.
		Color Rendering Index (CRI)	80
		Color Temperature	Shall be as per instruction of Engineer-in-charge
		Rated lumen efficacy	110 Lm/Watt
		Voltage withstanding range	140-270 V
		In built surge protection	Yes
		LED Driver	Electronic
		Housing	CRCA Powder coated
		Size	As per instructions of Engineer-in-charge
7	LED round recessed light	Wattage	As mentioned in schedule
		Frequency	50 Hz
		Operating temperature	0-35 degree Cel.
		Color Rendering Index (CRI)	80
		Color Temperature	Shall be as per instruction of Engineer-in-charge
		Rated lumen efficacy	100 Lm/watt
		Voltage withstanding range	140-270 V
		In built surge protection	Yes
		Housing	Round aluminium Powder coated white with Pressure Die cast housing
		Size	As per instructions of Engineer-in-charge

List of Approved Makes

Civil /Electrical Work Item

- **Items of make as approved by CWC /CE and notified list time to time and enclosed in Appendix be considered applicable in this contract.**

Note:

- The brands /make mentioned in such above list shall be used & incorporated in work instead of any other but in case these make are not available in local city/distt/state etc then Contractor may use other make with prior approval of Engineer. Unapproved Brand/Make shall not be accepted.
- Items that are not covered in the such above list and are required for execution shall be procured with the approval of Engineer.
- The decision of Engineer be final and binding on the contractor in this respect.

Indicative list of signage in CW Complex

<p>1.8 mm aluminum powdercoated panel with vinyl graphics fixing on 2" MS pipe with base plate Size : 50 cm x 70 cm</p> <p>220 cm</p> <p>2" MS pipe</p> <p>25 cm x 25 cm base plate</p>	<p>vinyl graphics Only Size : 30 cm x 45 cm</p>	<p>3 mm thick ACP Panel with vinyl graphics Size : 30 cm x 45 cm</p>	<p>1.8 mm aluminum powdercoated panel with vinyl graphics Size : 40 cm x 60 cm</p>
<p>3 mm thick ACP Panel with vinyl graphics Size : 40 cm x 60 cm</p>	<p>3 mm thick ACP Panel with vinyl graphics Size : 30 cm x 45 cm</p>	<p>3 mm thick ACP Panel with vinyl graphics Size : 40 cm x 30 cm</p>	<p>1.8 mm aluminum powdercoated panel with vinyl graphics Size : 60 cm x 100 cm</p>
<p>3 mm thick ACP Panel with vinyl graphics Size : 50 cm x 15 cm</p>	<p>3 mm thick white acrylic Panel with vinyl graphics Size : 30 cm x 10 cm</p>	<p>1.8 mm aluminum powdercoated panel with vinyl graphics Size : 30 cm x 30 cm</p>	
<p>1.8 mm aluminum powdercoated panel with Reflective vinyl graphics Size : 45 cm x 45 cm</p>	<p>1.8 mm aluminum powdercoated panel with vinyl graphics Size : 30 cm x 15 cm</p>	<p>vinyl graphics Only Size : 30 cm x 15 cm</p>	
<p>vinyl graphics Only Size : 30 cm x 15 cm</p>	<p>1.8 mm aluminum powdercoated panel with vinyl graphics Size : 40 cm x 30 cm</p>	<p>3 mm thick ACP Panel with vinyl graphics Size : 40 cm x 30 cm</p>	



WAREHOUSE SAFETY





Contact: 9818100883 DELHI Sadar Bazar www.vsgsignage.com




Contact: 9818100883 DELHI Sadar Bazar www.vsgsignage.com







Contact: 9818100883 DELHI Sadar Bazar www.vsgsignage.com



Fire action

Any person discovering a fire

- 1 Sound the alarm.
- 2 to call fire brigade.
- 3 Attack the fire if possible using the appliances provided.

On hearing the fire alarm

- 4 Leave building by route.
- 5 Close all doors behind you.
- 6 Report to assembly point.



Do not take risks
Do not return to the building for any reason until authorised to do so.

Do not use lifts.

SITE ORDERS BOOKS

NAME OF WORK _____

DATE OF COMMENCEMENT / PERIOD FOR COMPLETION _____

SL	REMAKRS OF THE INSPECTING OFFICER OR CONTRACTOR	ACTON TAKEN AND BY WHOM	REMARKS
1	2	3	4

HINDRANCE REGISTER

SL	Nature of Hindrance	Items of Work that Could Not be Executed Due to this Hindrance	Date of Start of Hindrance	Date of Removal of Hindrance	Over-Lapping Period if any	Net Hindrance in Days	Sign of AE	Weightage of the Hindrance	Net Effective Days of Hindrance	Sign of EE	Remarks of Reviewing Officer
1	2	3	4	5	6	7	8	9	10	11	12

MATERIAL AT SITE ACCOUNTS

- ❖ Region _____
- ❖ Name of Work _____
- ❖ Name of Article _____
- ❖ Estimate Requirements _____
- ❖ Issue Rate _____

SL	Date of Receipt	Received From	Unit	Qty. Received	Progressive Received Qty.	Date of Issue	To Whom Issued	Qty. Issued	Progressive Issued Qty.	Balance	Remarks
1	2	3	4	5	6	7	8	9	10	11	12

CEMENT REGISTER

Date of Receipts	Quantity Received	Progressive Recd. Quantity	Date of Issue	Quantity Issued	Items of Work For Which Issued	Quantity Returned at the End of The Day	Total Issue	Progressive Total	Daily Balance at Hand	Contractor's Initial	Site Engineer's Initial	Remarks of AE/EE at Periodical Checks
1	2	3	4	5	6	7	8	9	10	11	12	13

REGISTER FOR RECORDING LEVELS

SL	Changes	Back Sight	Intermediate Sight	Fore Sight	Height of the Instrument	Reduced Level	Remarks
1	2	3	4	5	6	7	8

APPENDIX T-VI

REGISTER FOR SILT CONTENT OF FINE / COARSE SAND

SL	Date of Test	Source of Material	Height of Silt After Setting (V1)	Height of Sand After Setting (V2)	%age of Silt Content (V1/V2x100)	Acceptability As Per Specification	Sign. of Site Engineer With Date	Sign. of Contractor With Date	Location Where Sand Used	Remarks / Action Taken
1	2	3	4	5	6	7	8	9	10	11

REGISTER FOR SLUMP TEST

SL	Date of Testing	Item of Work & Location	Vibrator Used Yes/No	Quantity of Water Added per Bag of Cement (Litre)	Height of Specimen After Removal of Mould (mm)	Slump (mm)	Acceptability of Result or Action Taken	Sign of Site Engineer With Date	Sign. of Contractor With Date	Remarks
1	2	3	4	5	6	7	8	9	10	11

SAMPLE REGISTER

Material & Identification Mark	No. of Samples Collected	Sl. No. of Sample	Place From Where Sample Collected	Qty. of Work/Lot Represented By Each Sample	Test	Field /Lab	Letter No. & Date By Which Sample Sent For Testing	Signature of Official Drawing Sample	Signature of the Contractor	Reference for the Results Received	Remarks
1	2	3	4	5	6	7	8	9	10	11	12

REGISTER FOR PARTICLE SIZE DISTRIBUTION FOR COARSE AGGREGATE & FINE AGGREGATE

SL	Date	Weight of Sample (Gram)	Size of Sieves	Weight Retained on Each Sieve	%Age of Weight Retained	Cumulative %Age of Weight Retained	%Age of Weight Passing	Specified %age of Weight Passing	Sign. of Contractor With Date	Sign. of Site Engineer With Date	Remarks / Action Taken
1	2	3	4	5	6	7	8	9	10	11	12

Note : Size of Sieve should be as per CPWD Manual / BIS Specifications

PHYSICAL WEIGHMENT REGISTER

Tor Steel Bars / Truss Members / Other Misc. Items

SL	Date	Description of Sample	Actual Weight perUnit	Theoretical Weight perUnit	Actual Thickness (Outer Dia.)	Theoretical Thickness (Outer Dia.)	Remarks Accepted /Rejected	Initials of Site Engineer	Contractor Signature
1	2	3	4	5	6	7	8	9	10

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										1	SL
										2	Date of Collection
										3	Grade of Mix
										4	Mark of Specification
										5	Date of Testing
										6	Load in KN
										7	Compressive Strength (KN/mm ²)
										8	Average Compressive Strength (KN/mm ²)
										9	Date of Testing
										10	Load in KN
										11	Compressive Strength (KN/mm ²)
										12	Average Compressive Strength (KN/mm ²)
										13	Required Specified Strength
										14	Approx. Qty. Represented By Specimen
										15	Item of Work from Where the Sample is Collected
										16	Sign. of Site Engineer With Date
										17	Contractor's / Contractor's Rep. Sign. With Date

CUBE TEST

APPENDIX T-XI

						1	SL
						2	Location (C.H.) / Area Represented by the Test
						3	Core Cutter Nos.
						4	Weight of Core Cutter + Weight of Soil (gram) (W1)
						5	Weight of Empty Core cutter (gram) (W2)
						6	Weight of Wet Soil (gram) $W = W1 - W2$
						7	Volume of Core Cutter (in CC) V
						8	Bulk Density (gram/cc) $W3 = W/V$
						9	Moisture Content of compaction layers (M)
						10	Dry Density gram/cc $W4 = W3 / (1 + M)$
						11	Degree of compaction $W4/W5$
						12	Acceptability Limit
						13	Sign. of Site Engineer with Date
						14	Contractor / Contractor's Representative Signature with Name & Date

MDD As Per Lab. Test W5

Density Test by Core Cutter Method

APPENDIX T-XII

TEST FOR THICKNESS AND DENSITY OF THE COMPACTED LAYER

(BY SAND REPLACEMENT METHOD)

For Asphalt Concrete / Bitumen Macadam / CC Pavement

APPENDIX T-XIII

Lab Test Density in gm/CC _____

1	SL																		
2	Date of Test																		
3	Qty. Represented by the Test																		
4	Location of Holes																		
5	Thickness of Layer	Individual l(mm)																	
6		Average e(mm)																	
7	A Gm	Weight of Materials Removed from the Carpet Hole																	
8	W Gm	Initial Weight of Sand taken in Cylinder																	
9	W1 Gm	Weight of Sand Filling in Cone of Cylinder																	
10	W2 Gm	Weight of Sand Remaining in Cylinder																	
11	d gm/CC	Predetermined Bulk Density of Sand																	
12	gm/CC	Density = $\frac{A*d*W}{W1+W2}$																	
13	Remarks / Acceptability																		
14	Sign. of Site Engineer																		
15	Contractor / Contractor's Representative Signature with Name & Date																		
16	Action Taken																		

DENSITY TEST REGISTER FOR SOIL - BY SAND REPLACEMENT METHOD

APPENDIX T-XIV

Wt. of Standard Sand in gram/cc (W6) = _____
 Unit Lab Test MDD in gram/cc (W10) = _____

				1	SL
				2	Date of Test
				3	Qty. Represented by the Test
				4	Location of Holes
				5	Individual
				6	Average
				7	(W) gm
				8	(Y)
				9	(W1)
				10	(W2)
				11	(W3) = W1-W2
				12	(W4)
				13	W5 = (W3-W4)
				14	(W7) = W5/W6
				15	(W8) = W/W7
				16	(W9) = W8/Y
				17	W9/W10 x 100
				18	W9/W10 x 100
				19	Sign. of Site Engineer with Date
				20	Contractor's / Contractor's Representative Signature with Name & of Date
				21	Action Taken

TEST OF THE BRICK / BRICK TILES FOR COMPRESSIVE STRENGTH

APPENDIX T-XV

										1	SL
										2	Date of Collection of Sample
										3	Date of Testing
										4	Wt. (in Kg)
										5	No. of Specimen
										6	Size in cm/Area in cm ²
										7	Compressive Strength Obtained for Individual Bricks in Kg. per cm ²
										8	Average Strength in Kg/cm ²
										9	Specified Compressive Strength in Kg/cm ²
										10	Acceptability
										11	Sign. of Site Engineer with Date
										12	Contractor's / Contractor's Representative Signature with Name & Date
										13	Action Taken / Remarks

ROAD ROLLER REGISTER

SL	Date	Period		Hours	Description of Item Rolled	Qty. of Area Rolled	Theoretical Qty. / Area to be Rolled	Signature of Site Engineer	Signature of Contractor	Remarks
		From	To							
1	2	3	4	5	6	7	8	9	10	11

REGISTER FOR DISMANTLED MATERIAL

Name of Work _____

Name of Division _____

SL	Date of Receipt	Ref. to No. & Page of MB	Full Particulars of Material giving Size etc. if any	Opening Balance	Qty. Recd.	Total	Ref. to its Disposal Whetherby Write off Sale of Transfer to Other Works	Qty. Issued or Disposed off	Closing Balance	Dated Initial of the Site Engineer	Date of Verification of Balance by Whom Verified	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13

APPENDIX T-XVIII

REGISTER FOR BULKING OF SAND

SL	Date Of Testing	Particulars of Work Represented by Sample	Qty. of Lot/Qty. of Material	Height of Dry Sand (X)	Height of Sand after Mixing Water (Y)	Bulking of Sand $(\frac{X}{Y}-1) \times 100$	Action Taken for Bulkage	Signature of Site Engineer	Signature of Contractor	Remarks
1	2	3	4	5	6	7	8	9	10	11

BILL PROFORMA
{On Letter Head Of Contractor}

Name of Work _____ Date of Start _____

Agreement No. _____ Due Date of Completion _____

Date of Preparation of Bill _____

Details of Service Provider	Details of Service Receiver
-----------------------------	-----------------------------

Name _____	Name _____
Address _____	Address _____
City _____	City _____
State _____	State _____
State Code _____	State Code _____
GSTIN _____	GSTIN (if Registered) _____

Invoice Serial No. _____ HSN _____
Date of Invoice _____ Description of Services _____

SL	Item No.	Description of Items	Unit	Qty. as per Agt.	Rate as per Agt.	Qty. as per Pre. Bill	Qty. as per this Bill	Cumulative Qty.	Amt. as per Previous Bill	Amt. as per this Bill	Cumulative Amount
1.											
								Total			
								Grand Total			

Total Invoice Value (in figures) Total Invoice Value (in words) Amount of Tax Subject to reverse Charge : Nil	<table style="width:100%; border-collapse: collapse;"> <tr> <td colspan="2" style="text-align: center;">Total Taxable Value</td> </tr> <tr> <td style="text-align: center;">Tax</td> <td style="text-align: center;">Rate</td> </tr> <tr> <td style="text-align: center;">CGST</td> <td style="text-align: center;">_____%</td> </tr> <tr> <td style="text-align: center;">SGST</td> <td style="text-align: center;">_____%</td> </tr> <tr> <td style="text-align: center;">IGST*</td> <td style="text-align: center;">_____%</td> </tr> <tr> <td colspan="2" style="text-align: center;">Total Invoice Amount</td> </tr> </table>	Total Taxable Value		Tax	Rate	CGST	_____%	SGST	_____%	IGST*	_____%	Total Invoice Amount	
Total Taxable Value													
Tax	Rate												
CGST	_____%												
SGST	_____%												
IGST*	_____%												
Total Invoice Amount													

Signature _____ Name of the Signatory _____
Designation / Status _____

LIST OF MANDATORY TESTS- CWC Field Quality Plan

SL	Description of Material	Test	Ref. of IS Code/Specs for Testing	Field / Laboratory Test	Frequency of Testing
1.	Cement (Approved Brand)	Physical & Chemical Properties	IS : 4031	Lab	Initial Test-01 test for each brand of cement. Subsequently, 01 test for 200 MT or part thereof for each brand. Cement should be of approved brand and each lot should be accompanied by manufacturer's test certificates
2.	Reinforcement Steel (Approved Brand)	Physical & Chemical Properties	IS :1786	Lab	Initial Test-01 test for each brand and each dia of reinforcement steel , Subsequently - One test for every 25/35/45 MT or part thereof (As specified in Special condition of Contract Para 6.7) Reinforcement Steel should be of approved brand and each lot should be accompanied by manufacturer's test certificates
3.	Water	PH Value, Chlorides, Sulphates, Alkalinity Test, Acidity Test, Suspended Matter, Organic Matter and Inorganic Matter	IS:3025	Lab	Initial Test- Source approval at commencement of work and Subsequently- every six months or change of source.
4.	Coarse Aggregate - Building Works	Gradation	IS 2386 – I	Field / Lab	Minimum one test for every 50 cum or part thereof.
		Deleterious Material	IS 2386 – II	Field / Lab	
		Specific Gravity	IS 2386 – III	Field / Lab	
		Crushing Value	IS 2386 – IV	Field / Lab	
		Impact Value	IS 2386 – IV	Field / Lab	
		10% Fine Value	IS 2386 – IV	Field / Lab	
5.	Fine Aggregate - Building Works	Organic Impurities	Appendix 'A' of Chapter 3, CPWD Specifications	Field	Minimum one test for every 50 cum or part thereof.

SL	Description of Material	Test	Ref. of IS Code/Specs for Testing	Field / Laboratory Test	Frequency of Testing
		Silt Content	Appendix 'C' of Chapter 3, CPWD Specifications	Field	
		Bulking of Sand	Appendix 'D' of Chapter 3, CPWD Specifications	Field	
		Gradation	Appendix 'B' of Chapter 3, CPWD Specifications	Field / Lab	
6.	Coarse Aggregate - Road, Pavement Works	Gradation	IS 2386 – I	Field / Lab	One test for everyday's work
		Flakiness and Elongation Index	IS 2386 – I	Field / Lab	Once for each source of supply and subsequently on monthly basis
		Deleterious Material	IS 2386 – II	Lab	Once for each source of supply and subsequently on monthly basis
		Water Absorption	IS 2386 – III	Lab	Once for each source of supply and subsequently on monthly basis
		Los Angeles Abrasion Value/Aggregate Impact Value	IS 2386 – IV	Lab	Once for each source of supply and subsequently on monthly basis
		Soundness	IS 2386 – V	Lab	Before approving the aggregates and every month subsequently.
		Alkali aggregate reactivity	IS 2386-VII, IS:456	Lab	Before approving the aggregates and every month subsequently.
7.	Fine Aggregate - Road, Pavement Works	Gradation	IS 2386 – I	Field / Lab	One test for everyday's work.
		Deleterious material	IS 2386 – II	Lab	Once for each source of supply and subsequently on monthly basis.
		Water Absorption	IS 2386 – III	Lab	Once for each source of supply and subsequently on monthly basis.
		Silt Content	Appendix 'C' of Chapter 3, CPWD Specifications	Field	Once for each source of supply and subsequently on monthly basis.

Volume II : Schedule II- Appendix -IV (Technical specifications of works)

SL	Description of Material	Test	Ref. of IS Code/Specs for Testing	Field / Laboratory Test	Frequency of Testing
8.	Slump Test - Building Works		Appendix 'D' of Chapter 4, CPWD Specifications	Field	Minimum one test for every 20 cum of concrete or part thereof
9.	Slump Test - Pavement Works		IS 1199	Field	One test per each dumper load at both Batching Plant Site and Paving Site initially when work starts. Subsequently, sampling may be done from alternate dumper.
10.	Cube Test				
(i)	Reinforced Cement Concrete - Building works	7 days and 28 days Compressive Strength	IS 516	Lab	One sample of six cubes for every 50 cum or part thereof
(ii)	Pavement Quality Concrete (PQC) - Pavement Work	Compressive Strength, Flexure Strength	IS 516	Lab	2 cube set samples and 2 beam set samples per 150 cum or part thereof for each day production.
11.	Earthwork				
	Control Test on Borrow Pits	Gradation	IS 2720-IV	Lab	One or two tests per 8000 cum
		Plasticity	IS: 2720-V	Lab	
		Proctor Test	IS 2720- VIII	Lab	
		Maximum Dry Density / OMC	IS 2720-VIII	Lab	
		Deleterious Content		Lab	As and when required by Engineer
		Moisture Content	IS 2720-II	Lab	250 cum
	Embankment under (OMC Conditions)	Field Density	IS 2720-XXVIII		250 cum
		Moisture Content	IS 2720-II		250 cum
12.	Granular Sub-Base	Gradation	IS 2386-I	Field / Lab	Minimum 1 test per source and additional test after every 1000 cum
		Water Absorption	IS 2386-III	Lab	Minimum 1 test per source and additional test as required by Engineer

SL	Description of Material	Test	Ref. of IS Code/Specs for Testing	Field / Laboratory Test	Frequency of Testing
		Wet Aggregate Impact Value test (if WA > 2%)	IS 5640	Lab	As required by Engineer
		Aggregate Impact Value	IS 2386-IV	Lab	Minimum 1 test per source and additional test after every 2000 cum
		Atterberg's Limit	IS 2720-V	Lab	Minimum 1 test per source and additional test after every 1000 cum
		Maximum Dry Density / OMC	IS 2720-VIII	Lab	Minimum 1 test per source and additional test as required by Engineer
		Moisture Content prior to compaction	IS 2720-II	Field	Minimum 1 test every 400 cum
		Field Density	IS 2720-XXVIII	Field	one test per 2000 Sqm or part thereof
		Deleterious Material	IS 2720-XXVII	Lab	Minimum 1 test per source and additional test as required by Engineer
		CBR	IS 2720-XVI	Lab	Minimum 1 test per source and additional test as required by Engineer
13.	Water Bound Macadam	Gradation	IS 2386-I	Field / Lab	Minimum 1 test per source and additional test after every 500 cum
		Aggregate Value or Aggregate Impact Value	IS 2386-IV or IS5640	Lab	Minimum 1 test per source and additional test after every 500 cum
		Combined Flakiness	IS 2386-I	Lab	Minimum 1 test per source and additional test after every 500 cum
		Los Angles	IS 2386-IV	Lab	Minimum 1 test per source and additional test after every 500 cum or part thereof
14.	Wet Mix Macadam	Gradation	IS 2386-I	Field / Lab	Minimum 1 test per source and additional test after every 500 cum
		Water Absorption	IS 2386-III	Lab	Minimum 1 test per source and additional test as required by Engineer

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SL	Description of Material	Test	Ref. of IS Code/Specs for Testing	Field / Laboratory Test	Frequency of Testing
		Soundness (if WA > 2%)	IS 2386-V	Lab	As required by Engineer
		Atterberg's Limit of Portion of Aggregate Passing 425 micron Sieve	IS 2720-V	Lab	Minimum 1 test per source and additional test after every 500 cum or part thereof
		Aggregate Impact Value	IS 2386-IV or IS 5640	Lab	Minimum 1 test per source and additional test after every 500 cum
		Maximum Dry Density / OMC	IS 2720-VIII	Lab	Minimum 1 test per source and additional test as required by Engineer
		Combined Flakiness and Elongation Indices	IS 2386-I	Lab	Minimum 1 test per source and additional test after every 500 cum
		Moisture Content	IS 2720-II	Field	Minimum 3 tests per day
		Field Density	IS 2720-XXVIII	Field	One set of three tests per 2000 sqm or part thereof
15.	Bitumen	As prescribed in IS 73	As prescribe din IS 73	Lab	As required by the Engineer-in-charge
16.	Dense Bituminous Macadam / Bituminous Concrete	Quality of Binder	IS 73	Lab	As required
		Los Angeles Abrasion Value / Aggregate Impact Value	IS 2386-IV	Lab	100 cum
		Stripping Value	IS 6241	Lab	100 cum
		Water Absorption	IS 2386-III	Lab	100 cum
		Flakiness Index	IS 2386-I	Lab	One test for 100 cum.
		Sieve Analysis for Filler	IS 2386-I	Lab	One test for each consignment subject to minimum one test per 5 cum
		Mix Grading	IS 2386-I	Lab	One set of test on individual constituent and mixed aggregates from dryer of each 100 tonnes of mixed subject to a minimum of two sets per plant per day

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SL	Description of Material	Test	Ref. of IS Code/Specs for Testing	Field / Laboratory Test	Frequency of Testing
		Stability of Mix	ASTM D-1559	Lab	Three Marshal Specimen per 100 tonnes of mix, subject to a minimum of two sets being tested per plant per day
		Binder Content		Field	Minimum 2 tests per day
		Thickness, Density of Compacted Layer	Appendix 'B' of CPWD Specification	Field	One test of 3 samples per 500 sqm
17.	Brickwork / Brick Tiles / Sewer Brick / Burnt Clay Perforated Building Bricks	Dimension	Appendix A, B, C & D of Chapter 6 of CPWD Specifications	Lab	Minimum one test for every 50000 bricks or part thereof
		Compressive Strength		Lab	
		Water Absorption		Lab	
		Efflorescence		Lab	
18.	Stone Work	Water Absorption	IS 1124	Lab	Minimum one test for every 200 sqm / 100 cum or part thereof
		Transverse Strength	IS 1121 – II		
		Resistance to Wear	IS 1706		
		Durability	IS 1126		
19.	Marble	Moisture Absorption	IS 1124	Lab	Minimum one test for every 100 sqm or part thereof
		Hardness Test	Mho's Scale		
		Specific Gravity	IS 1122		
20.	Granite	Moisture	IS 1124	Lab	Minimum one test for every 100 sqm or part thereof
		Specific Gravity	IS 1122		
21.	Structural Steel (other than PEB)	Tensile Strength	IS 1599	Lab	Minimum one test for every 20 tonnes or part thereof per source and also manufacturer's test certificates for each consignment
		Bend Test			
22.	Steel Tubular Pipes	Tensile Test	IS 1608	Lab	Minimum one test for every 8 tonne or part thereof per source and also manufacturer's test certificates for each consignment
		Bend Test	IS 2329		
		Flattening Test	IS 2328		
23.	M-40/50 Grade Cement Concrete Paver Blocks				

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SL	Description of Material	Test	Ref. of IS Code/Specs for Testing	Field / Laboratory Test	Frequency of Testing
(i)	M-40/50 Grade Pre-Cast Concrete Paving Blocks	Compressive Strength	As per IS Code 15658	Field / Lab	Minimum one test for every 50000 bricks or part thereof
		Water absorption	As per IS Code 15658	Field / Lab	
		Dimensions	As per IS Code 15658	Field / Lab	
(ii)	Sand for Bedding Layer	Percentage of Deleterious material	IS 2386	Lab	Minimum one test for every 50 cum or part thereof
		Particle Size Distribution	As per Technical specification	Field / Lab	
		Silt Content	As per Appendix 'C' of Chapter 3 of CPWD Specifications	Field	
		Moisture Content	IS 2720	Field	
(iii)	Sand for Joint Filling	Particle Size Distribution	As per Technical Specification	Field / Lab	Minimum one test for every 50 cum or part thereof.

Note : For items not covered above may be dealt with as per the Technical Specifications in the contract / mandatory tests will be carried out as per CPWD's Specification

LIST OF APPROVED MAKES

The CWC reserves the right to select any of the brands indicated in the list of approved makes. The Tenderer shall quote his rates on the basis of the price of quality and grade of product of the brand/make stipulated in the item of works as described in BOQ & Specification as well as in the list of approved makes. The contractor cannot claim extra if CWC changes the make but within the list of approved makes. However other equivalent manufacture may be considered with prior approval of Engineer due to issue of local availability.

Final approval of Make will be as decided by Engineer authorized by Corporation.

CIVIL WORKS

SL.NO.	ITEM	MAKE
1	GREY CEMENT OPC-43 Grade	Produced from major plants of following brands: ACC, Ultra Tech, Ambuja, Shree Cement, Lafarge Duraguard cement, Birla, Chettinad Cement, Ramco cement, India Cement, JSW Cement
2	WHITE CEMENT	JK, BIRLA
3	REINFORCEMENT	SAIL, TISCO, RINL (VIZAG), TATA, JSW Neo
4	STRUCTURAL STEEL	TATA, SAIL, Jindal steel , RINL.
5	Structural Steel- Truss pipes (RHS/CHS/SHS sections)	TATA, APPOLO, SAIL, JINDAL
6	Galvalume Sheets	TATA BlueScope, JSW Colouron/ JSW Steel
7	Self-drilling/ tapping Zinc plated screws size 5.5x55mm for Galvalume sheets	HILTI or equivalent
8	PUF Panel	Sheets make- TATA BlueScope / JSW -Zn al alloy steel sheet
9	CONCRETE ADDITIVE	FOSROC, CICO-TL, SIKA
10	FLUSH DOORS	GREEN, DURO, CENTURY, SWASTIK, KIT PLY, ALPRO
11	FIRE CHECK DOORS	GLOBAL FIRE PROTECTION COMPANY, RADIANT SAFE FIRE DOORS, GODREJ; NAVAIR; SHAKTI Horman, Gandhi Automation
12	PLYWOOD / BLOCK BOARD / SOFT BOARD	ANCHOR, DURO, MERINO, GREEN, CENTURY, KITPLY, ALPRO
13	PRELAMINATED PARTICLE BOARD	NOVAPAN, ANCHOR, MERINO; BHUTAN BOARD, KITLAM. GREEN LAM
14	LAMINATES	CENTURY, ROYAL CHALLENGE, MERINO, GREENLAM, DURO, AMUL
15	ADHESIVE FOR WOOD WORK	DUNLOP, FEVICOL, VAMICOL, PIDILITE
16	POLYURETHANE SEALANT	MBT, CHOKSEY, CHEMATAL RAI, FOSROC, PIDLITE
17	ALUMINIUM SECTIONS EXTRUDED	JINDAL, HINDALCO, ALUPURE, FINESTA
18	STAINLESS STEEL	SALEM, JINDAL' CAVELIER

SL.NO.	ITEM	MAKE
19	EXPANSION, FASTENERS	FISCHER, HILTI, ANCHORS
20	FLOAT GLASS	MODI GUARD, SAINT GOBAIN, ASAHI
21	CERAMIC TILES	NITCO, KAJARIA, SOMANI, ORIENT, Johnson (only premium/first quality)
22	VITRIFIED PORCELINE TILES	NAVEEN DIAMOND TILES, KAJARIA, NITCO, BELL, MARBONITE, BOSS PROFILES, RESTILE, JOHNSON, SOMANI (only premium/first quality)
23	TERRAZZO TILES	NITCO, MODERN, HINDUSTAN
24	CEMENT CONCRETE TILES DESIGNER TILES	UNISTONE, ULTRA, EUROCON, TERRA FIRMA
25	SYNTHETIC ENAMEL PAINTS	BERGER (LUXOL GOLD), ASIAN (APCOLITE), ICI DULUX (GLOSS), NEROLAC (FULL GLOSS HARD DRYING)
26	OIL BOUND DISTEMPER	ASIAN (TRACTOR), BERGER (BISON), NEROLAC (SUPER ACRYLIC)
27	CEMENT PAINT	SNOWCEM PLUS, BERGER (DUROCEM EXTRA), NEROLAC (NEROCHEM WITH TITANIUM)
28	PLASTIC EMULSION PAINT	ICI, ASIAN, NEROLAC
29	OTHER PAINTS/PRIMERS	ICI DULUX, ASIAN, BERGER, NEROLAC
30	TEXTURED COATING	UNITILE, SPECTRUM, HERITAGE
31	DOOR FITTINGS	GODREJ, EVERITE, SIGMA, OPEL, DOORSET, PALLADIUM
32	LOCKS	EVERITE, GODREJ, HARRISON, YALE
33	NON METALLIC HARDENER COMPOUND	FOSROC, CICO, SIKKA
34	ROLLING SHUTTER (Galvalume/ POWER OPERATED)/ DOCK DOOR	GANDHI AUTOMATION, SHAKTI HORMANN
35	POLYSULPHIDE SEALANT	PIDLITE, FOSROC. CHOKSEY, CHEMATAL RAI
36	ALUMINIUM Bldg. Expansion Joint	VEXCOLT, WATSON BOWMAN, ACME, C/S EXPANSION JOINT, Z-TECH INDIA, J. SONS, METCO.
37	Aluminium Composite panels	ALUCOBOND, RENOBOND, ALSTRONG, DURA BUILD
38	Tile Joint Filler	"ROFF RAINBOW TILE MATE" OF ROFF CONSTRUCTION CHEMICALS PVT. LTD. WINSIL 20/SILICON SEALANT OF GE BAYER SILICON, MATRIX GROUP.
39	Silicone Sealants	GE BAYER SILICONE/DOW CORNING/WACKER/ 3M
40	Polyurethane Paint	MRF
41	Wax Polish	RECKITT & COLMAN
42	Melamine	ICI DULUX, TIMBERSTONE MELAMINE COATING

43	Silicon Water Repellent Solution	GE BAYER SILICON(I) P LTD., METROARK P LTD. OR "SILICON WATERPELLER" BY STP LTD "NISIWA-SH" OF MC-BAUCHEME (I) P LTD., "TECHREPEL" OF CHOKSY CHEMICALS P LTD.
44	Gypsum Ceiling	INDIA GYPSUM, GYP ROC, ARMSTRONG, USG BORAL
45	Mineral Fibre Tiles	ARMSTRONG, AMF, INSULA, GYPROC
46	Laminated Wooden Flooring	KRONO, PERGO, HARO, BERRY, ARMSTRONG, MIKASA, WELSPUN
47	Venetian Blinds	MAC DÉCOR, VISTA, MARVEL
48	PVC Flooring	POLYFLOR, LG, WONDERFLOOR
49	MDF Board	NUWUD, URO, CENTURY
50	A. Vitreous china sanitary ware	CERA, HINDWARE, ROCA, KOHLER, jaquar
51	Seat cover (heavy duty)	SAME AS PER SANITARY WARE MAKE
52	Stainless steel sink	PRESTIGE, KINGSTON, NEELKANTH, JAYANA
53	Auto urinal flush system	AOS AUTO ROBO FLUSHING SYSTEM, TOSHI, UTEC SYSTEM
54	Sensor operated flush valve, W.B. pillar tap / mixer, soap dispenser	AOS AUTO ROBO FLUSHING SYSTEM, TOSHI, UTEC SYSTEM, IDROLL
55	Hand drier	KOPAL, ATMAS, UTEC SYSTEM, TOSHI, EURONICS
56	CP Brass Fittings and toilet accessories	JAQUAR, HINDWARE, KOHLER, CERA, ROCA
57	Angel valve with fitter	JAQUAR, HINDWARE, KOHLER, CERA, ROCA
58	GI Pipes (IS : 1239 and IS : 3589)	TATA STEEL, JINDAL , PRAKASH-SURYA
59	GI pipes fittings	UNIK, ZOLOTO,KS, R BRAND,
60	PVC pipe	SUPREME, ASTRAL, FINOLEX, PRINCE
61	Gm / forged brass values	LEADER, ZOLOTO, RB IBP
62	Sluice Valves / Non return valves	KIRLOSKAR, INDIAN VALUE COMPANY, KALPANA
63	Butterfly valve	AUDCO, KSB, ZOLOTO, DANFOSS
64	Wafer type check valve	ADVANCE, KIRLOSKAR
65	Pressure reducing valve	LEADER, ZOLOTO, RBM, FLOMATIC
66	Air release value	ZOLOTO, OR,RBM
67	Storm water drainage sump pumps	KIRLOSKAR, CROMPTON
68	Sewage handling pumps	KIRLOSKAR, CROMPTON
69	Drinking water cooler	USHA (SHRIRAM AQUA COOLER), BLUE STAR, VOLTAS, SIDHWAL
70	Borewell pump	KIRLOSKAR, CROMPTON, V-GUARD
71	water tank PVC	SINTEX, ASTRAL
72	Welding rods	ADVANI, VICTOR OR EQUIVALENT ISI MAKE
73	Concealed Cistern	VIEGA, GEBRIT

74	CP Waste, spreaders, urinal	JAQUAR, CERA, HINDWARE, ROCA
75	Soil, Waste & rain water pipes & fittings UPVC	JAIN, SUPREME, FINOLEX
76	CPVC pipes & fittings/UPVC pipes & fittings	AASHIRVAD FLOWGUARD, ASTRAL FLOWGUARD

ELECTRICAL WORKS

SR. NO.	ITEMS	MA KE
1	PVC CONDUIT	BEC/ AKG / PRECISION / LAPP / PLAZA/ FINOLEX
2	FLEXIBLE CONDUIT	HENSEL / LEGRAND / TRINITY TOUCH / LAPP
3	BACKELITE SHEET	HYLAM / FORMICA / GREEN / LAM
4	1.1 KV PVC INSULATED FRLS COPPER WIRE (ISI MARKED)	FINOLEX / HAVELLS / POLYCAB
5	1.1 KV PVC / XLPE INSULATED L. T. CABLE (ISI MARKED)	FINOLEX / POLYCAB/ HAVELLS / KEC/KEI
6	11 KV PVC / XLPE INSULATED HT CABLE (ISI MARKED)	GLOSTER / HAVELL'S / POLYCAB / KEI / FINOLEX
7	TELEPHONE CABLE	SKY TONE / NATIONAL / FINOLEX / HAVELL'S
8	TV COAXIAL CABLE	SKY TONE / NATIONAL / SHYAM / HAVELL'S
9	CONTROL & INSTRUMENTATION CABLE	SKY TONE / NATIONAL / LAPP / ANCHOR
10	COMPUTER CABLE	LUCENT / AVAYA / LEGRAND / AMP / ANCHOR / SYSTIAMX
11	CABLE JOINTING KITS	RAYCHEM / M. SEAL / JAISON / 3M
12	CABLE GLAND	GRIP WELL / EMI / COMET / LEGRAND / HENSEL / TRINITY TOUCH
13	THIMBLES	DOWELLS
14	CABLE TRAY	MODERN / VENUS / SLOTOO / PILCO/PROFAB/AKG/CHOCK STORAGE/CTM (Engg.)
15	MODULAR TYPE SWITCHES AND SOCKET OF ALL RATINGS	MK / CLIPSAL / NORTH WEST / LEGRAND / TOYOMA / SSK / CRABTREE / THANES (HAVELLS)/ SIEMENS/ABB/ ANCHOR
16	L.T. ACB	L & T GE POWER / SIEMENS / ABB / CROMPTON
17	MCCB	L & T / SIEMENS / LEGRAND / ABB / SCHNEIDER/ STANDARD / HAGER
18	SWITCH FUSES UNIT / FUSE SWITCH UNIT	G.E. POWER / SIEMENS / L & T / CONTROL & SWITCH GEAR/ STANDARD/SPC ELECTROTECH PVT. LTD.
19	HRC FUSES	GEC / L & T / SIEMENS / ADHUNIK/STANDARD
20	BUS TRUNCKING / RISING MAIN	SCHEINDER ELECTRIC / GE POWER / GODREJ / CONTROL & SWITCH GEAR CO. LTD / CPRI APPROVED VENDORS /L&T /SPC ELECTROTECH PVT. LTD
21	MCB DISTRIBUTION BOARD	L & T / HAGER / LEGRAND (MDS) / SIEMENS / GE / ABB/ HAVELLS / STANDARD
22	POLYCARBONATE MCB DB	HENSEL / LEGRAND / STANDARD

23	MCB, ISOLATOR, RCCB ELCB (OF ALL RATINGS)	L & T / HAGER / LEGRAND / SIEMENS / GE / ABB / HAVELLS / STANDARD / SCHNEIDER
24	METAL CLAD SHEET STEEL ENCLOSURE SOCKET / PLUG BOX	CROMPTON / L & T / HAGER / STANDARD
25	CAPACITOR	GENERAL ELECTRIC / L & T / SIEMENS / EPCOS / CROMPTON / ABB / HAVELLS
26	CONTROL GEAR (CONTACTOR'S & O/L RELAY)	L & T / GE POWER / SIEMENS / CROMPTON / SCHNEIDER / ABB
27	PROTECTION RELAYS	G.E. / ALSTHOM / EASUN / REYROLTS – RELAY / MYSORE ELECTRIC INDUSTRIES / L & T
28	METERS (INSTRUMENTS)	L & T / (RISHAB) AUTOMATIC ELECTRIC / IMP / ENERCON / TRINITY
29	ENERGY METER	HAVELLS / L & T / SECURE / HPL SOCOMAC / ADHUNIK
30	INDICATION LAMPS & C.T.	VAISHNO / L & T / RASS, CONTROLS
31	DOL STARTER	L & T / SIEMENS / GE POWER
32	11 KV SWITCH GEAR / VCB	CROMPTON / SIEMENS / ABB / L&T / HAGER / SCHNEIDER
33	TAG BLOCK	KRONE / ISI / ERICSON
34	M.S. STEEPED TUBULAR POLE	ASPL OR APPROVED EQUIVALENT / ADVANCE STEEL TUBE
35	CEILING FANS	GE / BAJAJ / CROMPTON / USHA / HAVELLS
36	EXHAUST / AXIAL FLOW / VENTILATION FAN	G.E. / CROMPTON GREAVES / BAJAJ / KHATTAN / USHA
37	LIGHT FIXTURE / FITTINGS AND LAMPS	PHILIPS / CROMPTON / BAJAJ / HAVELLS
38	MANUAL CALL POINT	AGNI / ALERT / NOVAFR / SYSTEM SENSOR / KAC / GAC
39	RESPONSE INDICATOR	AGNI / ALERT / NOVAFR / SYSTEM SENSOR
40	TRANSFORMER	CROMPTON / ABB / NGEF / KIRLOSKAR / POWER WARE / ALSTOM / UNIVERSAL
41	ENGINE (DG SET)	KIRLOSKAR / CUMMINS / CATERPILLAR
42	LT PANELS	SIEMENS / CONTROL & SWITCH GEARS LTD. / SPC ELECTROTECH PVT. LTD / Adlec / ADI / L&T
43	ELEVATOR / Lift (imported)	MITSUBUSHI / SCHINDLER / OTIS / JOHNSONS / KONE
44	SMOKE DETECTORS (BOTH IONIZATION AND OPTICAL)	APOLLO / BASCH (BOSCH) / NOTIFIER / COOPER / EDWARDS / SIEMENS / TYCO
45	RISE HEAT DETECTOR	APOLLO / BASCH (BOSCH) / NOTIFIER / COOPER / EDWARDS / SIEMENS / TYCO
46	FIRE ALARM PANELS	APOLLO / BASCH (BOSCH) / NOTIFIER / COOPER / EDWARDS / SIEMENS / TYCO
47	DUCT CASTING UNIT	APOLLO / SYSTEM SENSUR / SAFEWAY
48	BATTERY	EXIDE / YUASA / AMAR RAJA / AMARON
49	SPEAKER BOX	GAC / DAKSH
50	AMPLIFIER LMT & SPEAKER	PHILIPS / AHNIYA
51	DIESEL ENGINE	CUMMINS / KIRLOSKAR / CATERPILLAR
52	PUMP	KIRLOSKAR / KSB / MATHER'S PLATT

53	MOTOR	ABB / SIEMENS / CROMPTON GREAVES / KIRLOSKAR
54	BAILER	THERMAX / ECOFLAM
55	HOT WATER STORAGE TANK	AS APPROVED BY ENGINEER-IN-CHARGE
56	ALTERNATOR (DG SET)	KIRLOSKAR / CROMPTON / STAMFORD / AVK
60	Selector Switches	KAYCEE, L & T

FIRE FIGHTING WORK

S.NO	DETAIL OF EQUIPMENT/MATERIAL	APPROVED MAKES / MANUFACTURERS
1.	FIRE HYDRANT VALVES	MINIMAX, SUPEREX, NEWAGE
2.	FIRE HOSE PIPES	JAYSHREE, NEWAGE, SUPEREX
3.	FIRST AID FIRE HOSE REELS	MINIMAX, NEWAGE, SUPEREX
4.	SPRINKLERS	TYCO, SPRARY SAFE
5.	PRESSURE SWITCH	INDFOSS/SWITZER
6.	VIBRATION ISOLATOR	RESISTOFLEX, DUNLOP, KUNWAL
7.	CURRENT TRANSFORMER	AE, KAPPA
8.	INDICATING LAMPS	SIEMENS
9.	SELECTOR SWITCH	KAYCEE, SALZER
10.	MS/GI PIPES	TATA, JINDAL, SURYA, APPOLO
11.	CI BUTTERFLY VALVES	AUDCO, ZOLOTO, C&R
12.	CI DOUBLE FLANGED NRVs	KIRLOSKAR, DRIP, CASTLE, INTER VALVE, ZOLOTO
13.	GATE VALVE	LEADER, ZOLOTO, SANT
14.	BALL VALVE	AUDCO, ZOLOTO TBS
15.	CLEAR WATER PUMPS	KIRLOSKAR, BEACON, KSB
16.	SUMP PUMPS	JS, KSB, HOMA, KIRLOSKAR
17.	FIRE EXTINGUISHERS	MINIMAX, SAFEX, SUPEREX
18.	FIRE FIGHTING FIRST AID HOSE REEL TUBING	MITRA DUNLOP, JYOTI

SCHEDULE III

PRICE/ COMPENSATION SCHEDULE

1. Levy/Taxes Payable by Contractor

- (i) GST, Building and other Construction Workers Welfare Cess or any other Tax, Levy or Cess in respect of input for or output by this contract shall be payable by the contractor. The Corporation shall not entertain any claim whatsoever in this respect except as provided under Clause 18.7. of **Schedule II**
- (ii) The contractor shall deposit Royalty and obtain necessary permit for supply of the red bajri, stone, kankar etc. from local authorities.
- (iii) If pursuant to or under any law, notification or order any royalty, cess or the like becomes payable by the Corporation and does not any time become payable by the contractor to the State Govt., Local Authorities in respect of any material used by the contractor in the works, then in such a case, it shall be lawful to the Corporation and it will have the right and be entitled to recover the amount paid in the circumstances as aforesaid from dues of the contractor under any contract with Corporation.

Important Instructions on Prices:

1. Specifications as published by CPWD for Civil, E& M works (latest including UpToDate correction slips) for building works and MORTH specifications for Road works shall be used for executing the work. Works for which CPWD specifications are not available, the same shall be carried out in accordance with GCC.
2. Schedule A consists of miscellaneous item of works consisting of following:
 - (i) DSR Civil 2021 (upto-date correction slips) and Market Rates (MR) Civil
 - (ii) DSR (E & M) 2022 and Market Rates (MR) E&M
 - (iii) General Maintenance Works and Services (GMWS) consisting Horticulture Works and Housekeeping Services.
3. Items of work in schedule are the works which are most likely to be executed under the contract. But items not covered under the schedule may also be taken up as per site requirement and need. Rates of such item shall be decided as per relevant clauses of GCC.
4. DSR and MR Civil item rate consists of 1% Water charges, GST 12% and labor cess 1%
MR item rates are based on Analysis of most similar items of DSR, Labor rates as in DSR 2021 (civil) and most reasonable Market rate of material, sundries/T&P as per DSR 2021 (Civil).
5. DSR and MR Electrical item rate consists of GST 12%
MR item rates are based on Analysis of most similar items of DSR, Labor rates as in DSR 2022 (E&M) and most reasonable Market rate of material, Sundries/T&P as per DSR 2022 (E&M).
6. General Maintenance Works & Services (horticulture /Housekeeping Services) (GMWS) item rate consists of 1% Water charges, GST 12%.
7. Contractor shall quote a uniform percentage, called contractor percentage (CP) applicable to all items mentioned in the sub-schedule including DSR and MR Items. He may quote uniform or different CP for each sub schedule but quote for each sub schedule is mandatory otherwise Price bid shall be summarily rejected.
8. **Contractor shall quote his rates considering contribution towards ESI/EPF as per prevailing act and rules, 18 % GST and labor CESS (BOCW), as applicable as per prevailing tax regime and no extra GST/ CESS /Additional sum on account of ESI/EPF shall be payable except as per cl 18.7 of Schedule II.**
9. The Total Amount quoted for each sub schedule (A. I, A.II & A.III) shall be calculated by Multiplying quoted CP with estimated Amount of that sub-schedule.
10. Total for each sub schedule (A. I, A.II and A.III) shall be done to arrive Gross Tendered Amount (GTA). The bidder who has quoted the lowest Gross Tendered Amount (GTA) shall be Ll

Volume-IV: Schedule-III (PRICE/ COMPENSATION SCHEDULE)

bidder.

11. The CP quoted for Civil works in respective sub schedule (A.I) shall also be applicable for all other Civil works/items whether mentioned in these sub schedule or not but mentioned in DSR Civil 2021 and also on items not mentioned in DSR 2021 (Civil) ie Other Market rates Items of Civil works and Rates of such items shall be decided as per Procedure given in Contract.
12. The CP quoted for E&M works in respective sub schedule (A.II) shall also be applicable for all other E&M works/items whether mentioned in these sub schedule or not but mentioned in DSR E&M 2022 and also on items not mentioned in DSR 2022 (E&M) ie Other Market rates Items of E&M works and Rates of such items shall be decided as per Procedure given in Contract.
13. The CP quoted for General Maintenance Works & Services in respective sub schedule (A.III) shall also be applicable for all other similar nature General Maintenance Works/ Housekeeping services if not mentioned in this sub schedule and Rates of such items shall be decided as per Procedure given in Contract.
14. Where rate/percentage rate is asked for, tenderer should quote in **figures**. In E- Tender, values in words are not acceptable. Tenderer should note that noncompliance of above, may lead to rejection of their tender.
15. Items given in price schedule are just to give an idea of work involved. CWC reserves the right to delete any item from price schedule or operate any other items scheduled in the latest DSR (at the time of tender publishing) or non-schedule item (market rates item) without any limit of variation to complete the work. The payment of DSR items/MR items shall be made at the accepted Contractor Percentage (CP) **above/below/at par** of DSR /MR quoted in respective sub schedule and in terms of relevant clause of **SCC/GCC**.
16. Tenderers are required to quote **their rate in percentage only in the excel sheet designed for quoting rates in the uploaded tender on the tender website**.
17. Tenderer is required to dump/stack and neatly level, dress all excavated material as per the instruction of Warehouse Manager / Engineer at site, for use in the work. Contractor is not supposed to take any excavated material out of site without permission of CWC Warehouse Manager / Engineer.

Tender Price Schedules:

Schedule-A	
<ul style="list-style-type: none"> Sub schedule A. (1): Items based on DSR 2021 (with up-to-date correction slips) and Non-Scheduled Items for civil works, 	
Name of Work:	Execution of Miscellaneous Repair /Maintenance, upgradation and Construction works in Zone 10 - a cluster of central warehouses located at CW Gurugram (Hry) On Annual rate Contract basis
NIT Number	NIT_CWC/RO_DELHI/ENGG/ZMC/23-24/268
Total Estimated Amount (Rs.) for works/services covering this Sub-Schedule-	Rs. 5812895.56

S/N	Description of Work	Contractor Percentage (CP) % Quote by Bidder(In Fig)	
		Above/Below/ At Par of rates - mentioned in Price Schedule	% Fig
1	Price Schedule: <ul style="list-style-type: none"> Items mentioned at Schedule 'A: Items based on DSR 2021 for civil works, Non-Scheduled Market rate Items of Civil work. 		
	Tendered Amount Based on above Quote: Estimated Amount x Contractor Percentage	Rs. (In figure)	

Important Note:

(TENDERER SHALL NOT QUOTE THE RATE ANY WHERE IN TECHNICAL BID. THE RATES SHALL BE QUOTED IN THE PRICE BID XL SHEET DESIGNED FOR QUOTING RATES IN THE UPLOADED TENDER ON THE TENDER WEBSITE. THE RATES IF ANY MENTION IN TECHNICAL BID SHALL NOT BE CONSIDERED FOR PRICE EVALAUTION AND WILL BE NULL AND VOID TO THIS EFFECT

Tender Price Schedules:

Schedule-A	
Sub schedule A. (II): Items based on DSR 2022 (with up-to-date correction slips) and Non-Scheduled Items for E&M Works,	
Name of Work:	Execution of Miscellaneous Repair /Maintenance, upgradation and Construction works in Zone 10 - a cluster of central warehouses located at CW Gurugram (Hry) On Annual rate Contract basis
NIT Number	NIT_ CWC/RO_DELHI/ENGG/ZMC/23-24/268
Total Estimated Amount (Rs.) for works/services covering this Sub-Schedule-	Rs. 4235289.31

S/N	Description of Work	Contractor Percentage (CP) % Quote by Bidder(In Fig)	
		Above/Below/ At Par of rates - mentioned in Price Schedule	% Fig
1	Price Schedule: <ul style="list-style-type: none"> • Items based on DSR(E &M) 2022 for Electrical works • Non-Scheduled Market rate Items of E&M work. 		
	Tendered Amount Based on above Quote: Estimated Amount x Contractor Percentage	Rs. (In figure)	

Important Note:

(TENDERER SHALL NOT QUOTE THE RATE ANY WHERE IN TECHNICAL BID. THE RATES SHALL BE QUOTED IN THE PRICE BID XL SHEET DESIGNED FOR QUOTING RATES IN THE UPLOADED TENDER ON THE TENDER WEBSITE. THE RATES IF ANY MENTION IN TECHNICAL BID SHALL NOT BE CONSIDERED FOR PRICE EVALAUTION AND WILL BE NULL AND VOID TO THIS EFFECT

Tender Price Schedules:

Schedule-A	
Sub schedule A. (III): Items for General Maintenance Services -Horticulture Works and Housekeeping Services.	
Name of Work:	Execution of Miscellaneous Repair /Maintenance, upgradation and Construction works in Zone 10 - a cluster of central warehouses located at CW Gurugram (Hry) On Annual rate Contract basis
NIT Number	NIT_ CWC/RO_DELHI/ENGG/ZMC/23-24/268
Total Estimated Amount (Rs.) for works /Services covering this Sub-Schedule-	Rs. 245026.91

S/N	Description of Work	Contractor Percentage (CP) % Quote by Bidder(In Fig)	
		Above/Below/ At Par of rates - mentioned in Price Schedule	% Fig
1	Price Schedule: <ul style="list-style-type: none"> • Items for General Maintenance Works & Services consisting Horticulture works and House Keeping Services. 		
	Tendered Amount Based on above Quote: Estimated Amount x Contractor Percentage	Rs. (In figure)	

Important Note:

(TENDERER SHALL NOT QUOTE THE RATE ANY WHERE IN TECHNICAL BID. THE RATES SHALL BE QUOTED IN THE PRICE BID XL SHEET DESIGNED FOR QUOTING RATES IN THE UPLOADED TENDER ON THE TENDER WEBSITE. THE RATES IF ANY MENTION IN TECHNICAL BID SHALL NOT BE CONSIDERED FOR PRICE EVALAUTION AND WILL BE NULL AND VOID TO THIS EFFECT

Tender Price Schedules:

Schedule-A Price Bid- Summary Sheet	
Name of Work:	Execution of Miscellaneous Repair /Maintenance, upgradation and Construction works in Zone 10 - a cluster of central warehouses located at CW Gurugram (Hry) On Annual rate Contract basis
NIT Number	NIT_ CWC/RO_DELHI/ENGG/ZMC/23-24/268
Total Estimated Amount (Rs.) for works/services.	Rs. 20027031.02

S/ N	Description	Estimated Amount (Rs.)	Contractor Percentage (CP) Quoted Above/ Below/At Par of rates - mentioned in Price Schedule	Tendered Amount (Rs.)
1	Price Sub Schedule A.I	Rs. 5812895.56		
2	Price Sub Schedule A.II	Rs. 4235289.31		
3	Price Sub Schedule A.III	Rs 245026.91		
	Sub Total Rs.	Rs. 10293211.78	-	
Gross Tendered Amount (GTA) Rs.				

Important Note:

(TENDERER SHALL NOT QUOTE THE RATE ANY WHERE IN TECHNICAL BID. THE RATES SHALL BE QUOTED IN THE PRICE BID XL SHEET DESIGNED FOR QUOTING RATES IN THE UPLOADED TENDER ON THE TENDER WEBSITE. THE RATES IF ANY MENTION IN TECHNICAL BID SHALL NOT BE CONSIDERED FOR PRICE EVALAUTION AND WILL BE NULL AND VOID TO THIS EFFECT

Sub schedule A. (1): Items based on DSR 2021 (with up-to-date correction slips) and Non-Scheduled Items for civil works				
Name of Work: Execution of Miscellaneous Repair /Maintenance, upgradation and Construction works in Zone 10 - a cluster of central warehouses located at CW Gurugram (Hry) On Annual rate Contract basis				
SLNo	Description	Unit	Rate	Ref
	DSR Civil Items			
1	Disposal of moorum/building rubbish/ malba/ similar unserviceable, dismantled or waste material by mechanical transport including loading, transporting, unloading to approved municipal dumping ground for lead upto 10 km for all lifts, complete as per directions of Engineer-in-charge.	cum	411.30	DSR Civil 2021 1.1.18
2	EARTH WORK			2
2.1	Banking excavated earth by mechanical I manual means in layers not exceeding 20 cm in depth, breaking clods, watering, rolling each layer with 'A tonne roller, or wooden or steel rammers, and rolling every 3rd and top-most layer with power roller of minimum 8 tonnes and dressing up, in embankments for roads, food banks, marginal banks, and guide banks etc., lead upto 50 m and for all lift :			2.3
2.1.1	All kinds of soil	cum	163.10	2.3.1
2.2	Deduct for not rolling with power roller of minimum 8 tonnes for banking excavated earth in layers not exceeding 20 cm in depth.	cum	4.40	2.4
2.3	Deduct for not watering the excavated earth for banking	cum	10.70	2.5
2.4	Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and for all lift, as directed by Engineer-in-charge.			2.6
2.4.1	All kinds of soil	cum	149.00	2.6.1
2.5	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, for all lift, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.			2.8
2.5.1	All kinds of soil.	cum	218.60	2.8.1
2.6	Excavation work by mechanical means (Hydraulic excavator)/ manual means in foundation trenches or drains (not exceeding 1.5m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soils as directed, within a lead of 50 m.			2.9
2.6.1	Hard rock (requiring blasting)	cum	846.25	2.9.2

2.7	Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, by mechanical / manual means ramming of bottoms, for all depth, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m:			2.1
2.7.1	All kinds of soil			2.10.1
2.7.1.1	Pipes, cables etc, not exceeding 80 mm dia. But not exceeding 300mm dia	metre	293.40	2.10.1.2
2.7.1.2	Pipes, cables etc. exceeding 300 mm dia but not exceeding 600 mm	metre	458.10	2.10.1.3
2.8	Filling available excavated earth (excluding rock) in trenches, plinth. sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and for all lift	cum	161.60	2.25
2.9	Extra for every additional lift of 1.5 m or part thereof in excavation / banking excavated or stacked materials.			2.26
2.9.1	All kinds of soil	cum	104.50	2.26.1
2.1	Supplying and filling in plinth with sand under floors, including watering, ramming, consolidating and dressing complete.	cum	2161.20	2.27
2.11	Excavating holes more than 0.10 cum & upto 0.5 cum including getting out the excavated soil, then returning the soil as required in layers not exceeding 20cm in depth, including consolidating each deposited layer by ramming, watering etc, disposing of surplus excavated soil, as directed within a lead of 50 in and lift upto 1.5m.			2.3
2.11.1	All kinds of soil	each	69.40	2.30.1
2.11.2	Ordinary rock	each	160.90	2.30.2
2.12	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth up to 30 cm measured at a height of 1 m above ground level and removal of rubbish up to a distance of 50 m outside the periphery of the area cleared.	sqm	14.50	2.31
2.13	Clearing grass and removal of the rubbish up to a distance of 50 m outside the periphery of the area cleared.	sqm	7.40	2.32
2.14	Felling trees of the girth (measured at a height of 1 m above ground level), including cutting of trunks and branches, removing the roots and stacking of serviceable material and disposal of unserviceable material.			2.33
2.14.1	Beyond 30 cm girth upto and including 60 cm girth	each	439.25	2.33.1
2.14.2	Beyond 60 cm girth upto and including 120 cm girth	each	1957.15	2.33.2
2.15	Extra for levelling & neatly dressing of disposed soil completely as directed by Engineer-in-charge.	cum	76.70	2.36
3	CEMENT CONCRETE (CAST IN SITU)			4

3.1	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :			4.1
3.1.1	1:1½:3 (1 Cement: 1½ coarse sand (zone-III) derived from natural sources : 3 graded stone aggregate 20 mm nominal size derived from natural sources)	cum	7783.65	4.1.2
3.1.2	1:2:4 (1 cement : 2 coarse sand (zone-III) derived from natural sources : 4 graded stone aggregate 20 mm nominal size derived from natural sources)	cum	7365.15	4.1.3
3.1.3	1:4:8 (1 Cement : 4 coarse sand (zone-III) derived from natural sources : 8 graded stone aggregate 40 mm nominal size derived from natural sources)	cum	6326.05	4.1.8
3.1.4	1:5:10 (1 cement : 5 coarse sand (zone-III) derived from natural sources : 10 graded stone aggregate 40 mm nominal size derived from natural sources)	cum	6050.65	4.1.10
3.2	Providing and laying cement concrete in retaining walls, return walls, walls (any thickness) including attached pilasters, columns, piers, abutments, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window sills, fillets, sunken floor etc., up to floor five level, excluding the cost of centering, shuttering and finishing:			4.2
3.2.1	1:1½:3 (1 cement : VA coarse sand (zone-III) derived from natural sources : 3 graded stone aggregate 20 mm nominal size derived from natural sources).	cum	9465.80	4.2.2
3.2.2	1:2:4 (1 Cement : 2 coarse sand (zone-III) derived from natural sources : 4 graded stone aggregate 20 mm nominal size derived from natural sources)	cum	9047.30	4.2.3
3.2.3	1:5:10 (1 cement : 5 coarse sand (zone-III) derived from natural sources : 10 graded stone aggregate 40 mm nominal size derived from natural sources).	cum	7719.65	4.2.8
3.3	Centering and shuttering including strutting, propping etc. and removal of form work for:			4.3
3.3.1	Foundations, footings, bases for columns	sqm	332.10	4.3.1
3.3.2	Retaining walls, return walls, walls (any thickness) including attached pilasters, buttresses, plinth and string courses fillets, kerbs and steps etc.	sqm	702.00	4.3.2
3.3.3	Columns, piers, abutments, pillars, posts and struts	sqm	804.25	4.3.3
3.4	Providing and laying cement concrete in kerbs, steps and the like at or near ground level excluding the cost of centering, shuttering and finishing.			4.4
3.4.1	1:1½:3 (1 Cement: 1½ coarse sand(zone-III) derived from natural sources : 3 graded stone aggregate 20 mm nominal size derived from natural sources)	cum	7783.65	4.4.1
3.5	Providing and fixing up to floor five level precast cement concrete string or lacing courses, copings, bed plates, anchor blocks, plain window sills, shelves, louvers, steps, stair cases, etc., including hoisting and setting in position with cement mortar 1:3 (1 Cement : 3 coarse sand), cost of required Centering complete.			4.5

3.5.1	1:1.5:3 (1 cement : 1.5 coarse sand(zone-III) derived from natural sources : 3 graded stone aggregate 20mm nominal size derived from natural sources)	cum	9277.75	4.5.1
3.6	Providing and fixing at or near ground level precast cement concrete in kerbs, edgings etc. as per approved pattern and setting in position with cement mortar 1:3 (1 Cement : 3 coarse sand), including the cost of required centering, shuttering complete.			4.6
3.6.1	1:1½:3 (1 Cement: 1½ coarse sand(zone-III) derived from natural sources: 3 graded stone aggregate 20 mm nominal size derived from natural sources).	cum	8130.65	4.6.1
3.7	Providing and fixing up to floor five level precast cement concrete solid block, including hoisting and setting in position with cement mortar 1:3 (1 cement : 3 coarse sand), cost of required centering, shuttering complete :			4.7
3.7.1	1:1½:3 (1 Cement: 1½ coarse sand(zone-III) derived from natural sources : 3 graded stone aggregate 20 mm nominal size derived from natural sources).	cum	15755.3	4.7.1
3.8	Providing and laying damp-proof course 40mm thick with cement concrete 1:2:4 (1 cement : 2 coarse sand (zone-III) derived from natural sources : 4 graded stone aggregate 12.5mm nominal size derived from natural sources)	sqm	370.85	4.1
3.9	Extra for providing and mixing water proofing material in cement concrete work in doses by weight of cement as per manufacturer's specification.	per bag of cement of 50 kg	57.15	4.12
3.1	Extra for laying concrete in or under foul positions.	cum	385.25	4.16
3.11	Making plinth protection 50mm thick of cement concrete 1:3:6 (1 cement : 3 coarse sand (zone-III) derived from natural sources : 6 graded stone aggregate 20 mm nominal size derived from natural sources) over 75mm thick bed of dry brick ballast 40 mm nominal size, well rammed and consolidated and grouted with fine sand, including necessary excavation, levelling & dressing & finishing the top smooth.	sqm	681.65	4.17
4	REINFORCED CEMENT CONCRETE			5
4.1	Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level :			5.1
4.1.1	1:1.5:3 (1 cement : 1.5 coarse sand (zone-III) derived from natural sources : 3 graded stone aggregate 20 mm nominal size de rived from natural sources)	cum	8364.2	5.1.2
4.2	Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, flets, columns, pillars, piers, abutments, posts and struts etc. above plinth level up to floor five level, excluding cost of centering, shuttering, finishing and reinforcement:			5.2
4.2.1	1:1.5:3 (1 cement : 1.5 coarse sand(zone-III) derived from natural sources : 3 graded stone aggregate 20 mm nominal size derived from natural sources)	cum	9861.70	5.2.2

4.3	Reinforced cement concrete work in beams, suspended floors, roofs having slope up to 15° landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases and spiral stair cases above plinth level up to floor five level, excluding the cost of centering, shuttering, finishing and reinforcement with 1:1.5:3 (1 cement : 1.5 coarse sand(zone-III) derived from natural sources: 3 graded stone aggregate 20 mm nominal size derived from natural sources).	cum	10391.40	5.3
4.4	Centering and shuttering including strutting, propping etc. and removal of form for			5.9
4.4.1	Foundations, footings, bases of columns, etc. for mass concrete.	sqm	332.10	5.9.1
4.4.2	Walls any thickness) including attached pilasters, buttresses, plinth and string courses etc.	sqm	702.00	5.9.2
4.4.3	Suspended floors, roofs, landings, balconies and access platform	sqm	766.55	5.9.3
4.4.4	Lintels, beams, plinth beams, girders, bressumers and cantilevers	sqm	608.35	5.9.5
4.4.5	Columns, Pillars, Piers, Abutments, Posts and Struts	sqm	804.25	5.9.6
4.4.6	Weather shade, Chajjas, corbels etc., including edges	sqm	814.95	5.9.19
4.5	Providing, hoisting and fixing above plinth level up to floor five level precast reinforced cement concrete work in string courses, bands, copings, bed plates, anchor blocks, plain window sills and the like, including the cost of required centering, shuttering but , excluding cost of reinforcement with 1:1.5:3 (1 cement : 1.5 coarse sand (zone-III) derived from natural sources : 3 graded stone aggregate 20 mm nominal size derived from natural sources).	cum	9673.50	5.12
4.6	Providing, hoisting and fixing up to floor five level precast reinforced cement concrete in small lintels not exceeding 1.5m, clear span up to floor five level, including the cost of required centering, shuttering but, excluding the cost of reinforcement. with 1:1.5:3 (1 cement: 1.5 coarse sand (zone-III) derived from natural sources : 3 graded stone aggregate 20 mm nominal size derived from natural sources).	cum	12815.35	5.13
4.7	Providing, hoisting and fixing above plinth level up to floor five level precast reinforced cement concrete in mouldings as in cornices, windows sills etc, including setting in cement mortar 1:3 (1 cement : 3 coarse sand) cost of required centering, shuttering but, excluding the cost of reinforcement, with 1:1.5:3 (1 cement : 1.5 coarse sand(zone-III) derived from natural sources : 3 graded stone aggregate 20 mm nominal size derived from natural sources).	cum	16067.65	5.14

4.8	Providing, transporting, hoisting and fixing above plinth level up to four five level precast reinforced cement concrete in lintels, beams and bressumers, including setting in cement mortar 1:3 (1 cement : 3 coarse sand), cost of required centering and shuttering but , excluding the cost of reinforcement, with 1:1.5:3 (1 cement : 1.5 coarse sand(zone- III) derived from natural sources : 3 graded stone aggregate 20 mm nominal size derived from natural sources)	cum	12489.55	5.15
4.9	Providing,transporting, hoisting and fixing above plinth level up to four five level precast reinforced cement concrete in shelves, including setting in cement mortar 1:3 (1cement : 3 coarse sand), cost of required centering, shuttering and finishing with neat cement punning on exposed surfaces but , excluding the cost of reinforcement, with 1:1.5:3 (1 cement : 1.5 coarse sand(zone-III) derived from natural sources : 3 graded stone aggregate 20 mm nominal size derived from natural sources).	cum	18038.25	5.16
4.1	Providing, transporting, hoisting and fixing above plinth level up to four five level precast reinforced cement concrete in vertical & horizontal fns, individually or forming box louvers, setting in cement mortar 1:2 (1 cement : 2 coarse sand), including the cost of required centering, shuttering but , excluding the cost of reinforcement, with 1:1.5:3 (1 cement : 1.5 coarse sand(zone-III) derived from natural sources : 3 graded stone aggregate 20 mm nominal size derived from natural sources).	cum	10897.75	5.17
4.11	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level.			5.22
4.11.1	Mild steel and Medium Tensile steel bars	kg	88.95	5.22.1
4.11.2	Thermo-Mechanically Treated bars of grade Fe-500D or more.	kg	89.65	5.22.6
4.12	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above plinth level.			5.22A
4.12.1	Thermo-Mechanically Treated bars of grade Fe-500D or more.	kg	89.65	5.22A.6
4.13	Smooth finishing of the exposed surface of R.C.C. work with 6 mm thick cement mortar 1:3 (1 Cement : 3 fine sand).	sqm	253.05	5.23
4.14	Supplying and applying pre tested and approved water based concrete curing compound to concrete/ masonry surface, all as per manufacturer's specification and direction of Engineer-in-charge.			5.41
4.14.1	Non pigmented wet curing compound	sqm	57.50	5.41.1
5	MASONRY WORK			6
5.1	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundation and plinth in:			6.1
5.1.1	Cement mortar 1:4 (1 cement : 4 coarse sand)	cum	6882.00	6.1.1
5.1.2	Cement mortar 1:6 (1 cement : 6 coarse sand)	cum	6658.25	6.1.2

5.2	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 :			6.4
5.2.1	Cement mortar 1:6 (1 cement : 6 coarse sand)	cum	8288.35	6.4.2
5.3	Providing half brick masonry with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in cement mortar 1:3 (1 Cement : 3 coarse sand) in superstructure for closing cavity 5 to 7.5 cm wide in cavity wall complete with 10cm / 11.4 cm wide bitumen felt type 3 grade 1.	metre	273.45	6.7
5.4	Half brick masonry with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundations and plinth in :			6.12
5.4.1	Cement mortar 1:3 (1 cement : 3 coarse sand)	sqm	862.90	6.12.1
	Half brick masonry 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.			
	a) Cement mortar 1:4 (1 cement : 4 coarse sand)	Sqm	1018.05	6.13.2
5.5	Brick work with clay flyash F.P.S. (non modular) brick of class designation 7.5 in superstructure above plinth level up to floor five level in :			6.32
5.5.1	Cement mortar 1:6 (1 cement : 6 coarse sand)	cum	8190.90	6.32.2
5.6	Providing and laying Autoclaved Aerated Concrete (AAC) blocks masonry 100 mm / 125mm thick with Grade 1 AAC blocks of density 551 to 650 kg/cum conforming to IS: 2185 (Part 3) in super structure above plinth level up to floor V level in cement mortar 1:4 (1 cement : 4 coarse sand). The rate includes providing and placing in position 2 Nos 6 mm dia M.S. bars at every third course of masonry work.	cum	8890.80	6.38
5.7	Brick edging 7cm wide 11.4 cm deep to plinth protection with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 including grouting with cement mortar 1:4 (1 cement : 4 fine sand).	metre	55.80	6.44
6	STONE WORK			7
6.1	Random rubble masonry with hard stone in foundation and plinth including levelling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 mm nominal size) upto plinth level with :			7.1
6.1.1	Cement mortar 1:6 (1 cement : 6 coarse sand)	cum	6653.45	7.1.1
6.2	Random rubble masonry with hard stone in superstructure above plinth level and upto floor five level, including leveling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 mm nominal size) at window sills, ceiling level and the like.			7.2
6.2.1	Cement mortar 1:6 (1 cement : 6 coarse sand)	cum	8275.70	7.2.1
6.3	Coursed rubble masonry (first sort) with hard stone in foundation and plinth with :			7.6
6.3.1	Cement mortar 1:6 (1 cement : 6 coarse sand)	cum	7914.50	7.6.1
	Granite stone slab of all colour and texture except black, Cherry/ Ruby red			

	Area of slab over 0.50 sqm	Sqm	3301.50	8.2.3.2
	Providing edge moulding to 18 mm thick marble stone counters, Vanities etc., including machine polishing to edge to give high gloss finish etc. complete as per design approved by Engineer-in-Charge.	metre	418.85	8.3.2
	Granite work			
	Extra for fixing marble /granite stone, over and above corresponding basic item, in facia and drops of width upto 150 mm with epoxy resin based adhesive, including cleaning etc. complete			
	Fly Proof Stainless steel grade 304 wire gauge with 0.5 mm dia wire and 1.4 mm wide aperture with matching wood beading			
7	WOOD AND P. V. C. WORK			9
7.1	Providing and fixing Pre-laminated flat pressed 3 layer (medium density) particle board or graded wood particle board IS : 3087 marked, with one side decorative and other side balancing lamination Grade I, Type II exterior grade IS : 12823 marked, in shelves with screws and fittings wherever required, edges to be painted with polyurethane primer (fittings to be paid separately).			9.18
7.1.1	25 mm thick	sqm	1501.00	9.18.2
7.2	Providing and fixing ISI marked flush door shutters conforming to IS : 2202 (Part I) non-decorative type, core of block board construction with frame of 1st class hard wood and well matched commercial 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters:			9.21
7.2.1	35 mm thick including ISI marked Stainless Steel butt hinges with necessary screws	sqm	2015.75	9.21.1
7.3	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 :			9.96
7.3.1	300x16 mm	each	260.30	9.96.1
7.4	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 :			9.97
7.4.1	250x10 mm	each	104.40	9.97.2

7.5	Providing and fixing partition upto ceiling height consisting of G.I. frame and required board, including providing and fixing of frame work made of special section power pressed/ roll form G.I. sheet with zinc coating of 120 gms/sqm(both side inclusive), consisting of floor and ceiling channel 50mm wide having equal flanges of 32 mm and 0.50 mm thick, fixed to the floor and ceiling at the spacing of 610 mm centre to centre with dash fastener of 12.5 mm dia meter 50 mm length or suitable anchor fastener or metal screws with nylon plugs and the studs 48 mm wide having one flange of 34 mm and other flange 36 mm and 0.50 mm thick fixed vertically within flanges of floor and ceiling channel and placed at a spacing of 610 mm centre to centre by 6 mm dia bolts and nuts, including fixing of studs along both ends of partition fixed flush to wall with suitable anchor fastener or metal screws with nylon plugs at spacing of 450 mm centre to centre, and fixing of boards to both side of frame work by 25 mm long dry wall screws on studs, floor and ceiling channels at the spacing of 300 mm centre to centre. The boards are to be fixed to the frame work with joints staggered to avoid through cracks, M.S. fixing channel of 99 mm width (0.9 mm thick having two flanges of 9.5 mm each) to be provided at the horizontal joints of two boards, fixed to the studs using metal to metal flat head screws, including jointing and finishing to a flush finish with recommended jointing compound, jointing tape, angle beads at corners (25 mm x 25 mm x 0.5 mm), joint finisher and two coats of primer suitable for board as per manufacture's specification and direction of engineer in charge all complete.			9.105
7.5.1	75mm overall thickness partition with 12.5 mm thick double skin tapered edged plain Gypsum plaster board conforming to IS: 2095: (part I): 2011 (Board with BIS certification marks)	sqm	1530.05	9.105.2
7.6	Providing and fixing factory made uPVC door frame made of uPVC extruded sections having an overall dimension as below (tolerance ± 1 mm), with wall thickness 2.0 mm (± 0.2 mm), corners of the door frame to be jointed with galvanized brackets and stainless steel screws, joints mitred and Plastic welded. The hinge side vertical of the frames reinforced by galvanized M.S. tube of size 19 X 19 mm and 1mm (± 0.1 mm) wall thickness and 3 nos. stainless steel hinges fixed to the frame complete as per manufacturer's specification and direction of Engineer-in-charge			9.117
7.6.1	Extruded section profile size 48x40 mm	metre	232.55	9.117.1
7.7	Providing and fixing to existing door frames.			9.118

7.7.1	24 mm thick factory made PVC door shutters made of styles and rails of a uPVC hollow section of size 59x24 mm and wall thickness 2 mm (± 0.2 mm) with inbuilt edging on both sides. The styles and rails mitred and joint at the corners by means of M.S. galvanised/ plastic brackets of size 75x220 mm having wall thickness 1.0 mm and stainless steel screws. The styles of the shutter reinforced by inserting galvanised M.S. tube of size 20x20 mm and 1 mm (± 0.1 mm) wall thickness. The lock rail made up of 'H' section, a uPVC hollow section of size 100x24 mm and 2 mm (± 0.2 mm) wall thickness, fixed to the shutter styles by means of plastic/galvanised M.S. 'U' cleats. The shutter frame filled with a uPVC multi-chambered single panel of size not less than 620 mm, having over all thickness of 20 mm and 1 mm (± 0.1 mm) wall thickness. The panels filled vertically and tie bar at two places by inserting horizontally 6 mm galvanised M.S. rod and fastened with nuts and washers, complete as per manufacturer's specification and direction of Engineer-in-charge. (For W.C. and bathroom door shutter).	sqm	1790.65	9.118.1
7.7.2	30 mm thick factory made Polyvinyl Chloride (PVC) door shutter made of styles and rails of a uPVC hollow section of size 60x30 mm and wall thickness 2 mm (± 0.2 mm), with inbuilt decorative moulding edging on one side. The styles and rails mitred and joint at the corners by means of M.S. galvanised/ plastic brackets of size 75x220 mm having wall thickness 1.0 mm and stainless steel screws. The styles of the shutter reinforced by inserting galvanised M.S. tube of size 25x20 mm and 1 mm (± 0.1 mm) wall thickness. The lock rail made up of 'H' section, a uPVC hollow section of size 100x30 mm and 2 mm (± 0.2 mm) wall thickness fixed to the shutter styles by means of plastic/ galvanised M.S. 'U' cleats. The shutter frame filled with a uPVC multi-chambered single panel of size not less than 620 mm, having over all thickness of 20 mm and 1 mm (± 0.1 mm) wall thickness. The panels filled vertically and tie bar at two places by inserting horizontally 6 mm galvanised M.S. rod and fastened with nuts and washers, complete as per manufacturer's specification and direction of Engineer-in-charge.	sqm	2008.55	9.118.2
8	STEEL WORK			10
8.1	Structural steel work in single section, fixed with or without connecting plate, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	kg	93.05	10.1
8.2	Structural steel work riveted, bolted or welded in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	kg	111.95	10.2
8.3	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.			10.16

8.3.1	Hot finished welded type tubes	kg	154.90	10.16.1
8.4	Providing and fixing M.S. fan clamp type I or II of 16 mm dia M.S. bar, bent to shape with hooked ends in R.C.C. slabs or beams during laying, including painting the exposed portion of loop, all as per standard design complete.	each	185.95	10.17
8.5	Providing and fixing mild steel round holding down bolts with nuts and washer plates complete.	kg	88.50	10.19
8.6	Providing and fixing bolts including nuts and washers complete.	kg	140.15	10.2
8.7	Steel work welded in built up sections/ framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required.			10.25
8.7.1	In stringers, treads, landings etc. of stair cases, including use of chequered plate wherever required, all complete	kg	102.25	10.25.1
8.7.2	In gratings, frames, guard bar, ladder, railings, brackets, gates and similar works	kg	142.30	10.25.2
8.8	Providing and fixing hand rail of approved size by welding etc. to steel ladder railing, balcony railing, staircase railing and similar works, including applying priming coat of approved steel primer.			10.26
8.8.1	M.S. tube	kg	157.15	10.26.1
8.9	Providing and fixing carbon steel galvanised (minimum coating 5 micron) dash fastener of 10 mm dia double threaded 6.8 grade (yield strength 480 N/mm ²), counter sunk head, comprising of 10 mm dia polyamide PA 6 grade sleeve, including drilling of hole in frame , concrete/ masonry, etc. as per direction of Engineer-in-charge.			10.27
8.9.1	10 x 60 mm	each	111.70	10.27.1
8.9.2	10 x 80 mm	each	117.30	10.27.2
8.9.3	10 x 120 mm	each	144.60	10.27.3
8.9.4	10 x 140 mm	each	156.35	10.27.4
8.9.5	10 x 160 mm	each	191.95	10.27.5
8.1	Providing and fixing stainless steel (Grade 304) railing made of Hollow tubes, channels, plates etc., including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts and bolts complete, i/c fixing the railing with necessary accessories & stainless steel dash fasteners , stainless steel bolts etc., of required size, on the top of the floor or the side of waist slab with suitable arrangement as per approval of Engineer-in- charge, (for payment purpose only weight of stainless steel members shall be considered excluding fixing accessories such as nuts, bolts, fasteners etc.).	kg	612.25	10.28
8.11	Providing & fixing fly proof wire gauze to windows, clerestory windows & doors with M.S. Flat 15x3 mm and nuts & bolts complete.			10.29

8.11.1	Galvanised M.S. Wire gauze with 0.63 mm dia wire and 1.4 mm aperture on both sides	sqm	732.20	10.29.1
8.12	Providing & fixing glass panes with putty and glazing clips in steel doors, windows, clerestory windows, all complete with :			10.3
8.12.1	4.0 mm thick glass panes (weights not less than 10 kg/ sqm)	sqm	940.30	10.30.1
9	FLOORING			11
9.1	Brick on edge flooring with bricks of class designation 7.5 on a bed of 12 mm cement mortar, including filling the joints with same mortar, with common burnt clay non modular bricks:			11.1
9.1.1	1:4 (1 cement : 4 coarse sand)	sqm	937.00	11.1.1
9.2	Dry brick on edge flooring in required pattern with bricks of class designation 7.5 on a bed of 12 mm mud mortar, including filling joints with local sand, with common burnt clay non modular bricks.	sqm	733.30	11.2
9.3	Providing and fixing glass strips in joints of terrazo/ cement concrete floors.			11.13
9.3.1	40 mm wide and 4 mm thick	metre	79.50	11.13.1
9.4	Kota stone slab flooring over 20 mm (average) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab, including rubbing and polishing complete with base of cement mortar 1 : 4 (1 cement : 4 coarse sand) :			11.26
9.4.1	25 mm thick	sqm	1706.60	11.26.1
9.5	Providing and laying Ceramic glazed floor tiles of size 300x300 mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS : 15622 of approved make in colours such as White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick cement mortar 1:4 (1 Cement : 4 Coarse sand), Jointing with grey cement slurry @ 3.3 kg/sqm including pointing the joints with white cement and matching pigment etc., complete.	sqm	935.60	11.37
9.6	Providing and fixing 1st quality ceramic glazed floor tiles conforming to IS : 15622 (thickness to be specified by the manufacturer) of approved make in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge in skirting, risers of steps and dados over 12 mm thick bed of cement Mortar 1:3 (1 cement: 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm including pointing in white cement mixed with pigment of matching shade complete.	sqm	938.50	11.37A
9.7	Providing and laying vitrified floor tiles in different sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS: 15622, of approved make, in all colours and shades, 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., complete.			11.41
9.7.1	Size of Tile 500x500 mm	sqm	1334.35	11.41.1

9.8	Providing and laying Vitrified tiles in different sizes (thickness to be specified by manufacturer), with water absorption less than 0.08 % and conforming to I.S. 15622, of approved make, in all colours & shade, in skirting, riser of steps, over 12 mm thick bed of cement mortar 1:3 (1 cement: 3 coarse sand), jointing with grey cement slurry @ 3.3 kg/ sqm including grouting the joint with white cement & matching pigments etc. complete.			11.46
9.8.1	Size of Tile 600x600 mm	sqm	1466.50	11.46.2
10	ROOFING			12
10.1	Providing corrugated G.S. sheet roofing including vertical / curved surface fixed with polymer coated J or L hooks, bolts and nuts 8 mm diameter with bitumen and G.I. limpet washers or with G.I. limpet washers filled with white lead, including a coat of approved steel primer and two coats of approved paint on overlapping of sheets complete (up to 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.			12.1
10.1.1	0.80 mm thick with zinc coating not less than 275 gm/m ²	sqm	1135.45	12.1.2
10.1.2	0.63 mm thick with zinc coating not less than 275 gm/ m ²	sqm	978.00	12.1.3
10.2	Painting top of roofs with bitumen of approved quality @ 17kg per 10 sqm impregnated with a coat of coarse sand at 60 cudm per 10 sqm, including cleaning the slab surface with brushes and finally with a piece of cloth lightly soaked in kerosene oil complete :			12.15
10.2.1	With residual type petroleum bitumen of grade VG -10	sqm	133.15	12.15.1
10.3	Providing gola 75x75 mm in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 stone aggregate 10 mm and down gauge), including finishing with cement mortar 1:3 (1 cement : 3 fine sand) as per standard design :			12.21
10.3.1	In 75x75 mm deep chase	metre	260.20	12.21.1
10.4	Providing and fixing on wall face unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10 mm gap for thermal expansion, (i) Single socketed pipes.			12.41
10.4.1	75 mm diameter	metre	213.00	12.41.1
10.4.2	110 mm diameter	metre	319.75	12.41.2
10.5	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10 mm gap for thermal expansion.			12.42
10.5	Coupler 110 mm	Each	119.95	12.42.1.2
10.5.1	Bend 87.5°			12.42.5
10.5.1.1	110 mm bend	each	132.00	12.42.5.2
10.5.2	Shoe (Plain)			12.42.6
10.5.2.1	110 mm Shoe	each	115.95	12.42.6.2

10.6	<p>Providing and fixing false ceiling at all height including providing and fixing of frame work made of special sections, power pressed from M.S. sheets and galvanized with zinc coating of 120 gms/sqm (both side inclusive) as per IS : 277 and consisting of angle cleats of size 25 mm wide x 1.6 mm thick with flanges of 27 mm and 37mm, at 1200 mm centre to centre, one flange fixed to the ceiling with dash fastener 12.5 mm dia x 50mm long with 6mm dia bolts, other flange of cleat fixed to the angle hangers of 25x10x0.50 mm of required length with nuts & bolts of required size and other end of angle hanger fixed with intermediate G.I. channels 45x15x0.9 mm running at the spacing of 1200 mm centre to centre, to which the ceiling section 0.5 mm thick bottom wedge of 80 mm with tapered flanges of 26 mm each having lips of 10.5 mm, at 450 mm centre to centre, shall be fixed in a direction perpendicular to G.I. intermediate channel with connecting clips made out of 2.64 mm dia x 230 mm long G.I. wire at every junction, including fixing perimeter channels 0.5 mm thick 27 mm high having flanges of 20 mm and 30 mm long, the perimeter of ceiling fixed to wall/partition with the help of rawl plugs at 450 mm centre, with 25mm long dry wall screws @ 230 mm interval, including fixing of gypsum board to ceiling section and perimeter channel with the help of dry wall screws of size 3.5 x 25 mm at 230 mm c/c, including jointing and finishing to a flush finish of tapered and square edges of the board with recommended jointing compound , jointing tapes , finishing with jointing compound in 3 layers covering upto 150 mm on both sides of joint and two coats of primer suitable for board, all as per manufacturer's specification and also including the cost of making openings for light fittings, grills, diffusers, cutouts 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 :</p>			12.45
10.6.1	12.5 mm thick tapered edge Glass Reinforced Gypsum (GRG) board conforming to IS: 2095- (Part 3):1996 (Boards with BIS certification marks)	sqm	1286.45	12.45.2
10.7	<p>Providing & fixing UV stabilised fiberglass reinforced plastic sheet roofing up to any pitch, including fixing with polymer coated 'J' or 'L' hooks, bolts & nuts 8mm dia. G.I plain/bitumen washers complete but excluding the cost of purlins, rafters, trusses etc. The sheets shall be manufactured out of 2400 TEX panel rovigs incorporating minimum 0.3% ultra-violet stabiliser in resin system under approximately 2400 psi and hot cured. They shall be of uniform pigmentation and thickness without air pockets and shall conform to IS 10192 and IS 12866.The sheets shall be opaque or translucent, clear or pigmented, textured or smooth as specified.</p>			12.47
10.7.1	2 mm thick flat	sqm	1048.50	12.47.2

10.8	Providing and fixing precoated galvanised steel sheet roofing accessories of total coated thickness 0.50mm (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 using self drilling/ self tapping screws complete:			12.51
10.8.1	Flashings/ Aprons.(Upto 600 mm)	metre	412.85	12.51.2
11	FINISHING			13
11.1	12 mm cement plaster of mix :			13.1
11.1.1	1:6 (1 cement: 6 fine sand)	sqm	282.00	13.1.2
11.2	15 mm cement plaster on the rough side of single or half brick wall of mix :			13.2
11.2.1	1:6 (1 cement: 6 fine sand)	sqm	324.30	13.2.2
11.3	12 mm cement plaster of mix :			13.4
11.3.1	1:6 (1 cement: 6 coarse sand)	sqm	294.35	13.4.2
11.4	20 mm cement plaster of mix :			13.6
11.4.1	1:6 (1 cement: 6 coarse sand)	sqm	401.35	13.6.2
11.5	6 mm cement plaster of mix :			13.16
11.5.1	1:3 (1 cement : 3 fine sand)	sqm	253.05	13.16.1
11.6	Neat cement punning.	sqm	67.80	13.18
11.7	Pebble dash plaster upto 10 m height above ground level with a mixture of washed pebble or crushed stone 6 mm to 12.5 mm nominal size, dashed over and including fresh plaster in two layers under layer 12 mm cement plaster 1:4 (1 cement : 4 coarse sand) and top layer 10 mm cement plaster with cement mortar 1:3 (1 cement : 3 fine sand) mixed with 10% finely grounded hydrated lime by volume of cement.	sqm	705.90	13.2
11.8	Pointing on brick work or brick flooring with cement mortar 1:3 (1 cement : 3 fine sand):			13.31
11.8.1	Flush / Ruled/ Struck or weathered pointing	sqm	214.40	13.31.1
11.9	Pointing on stone work with cement mortar 1:3 (1 cement : 3 fine sand):			13.33
11.9.1	Flush/ Ruled pointing	sqm	319.35	13.33.1
11.1	White washing with lime to give an even shade :			13.37
11.10.1	New work (three or more coats)	sqm	32.45	13.37.1
11.11	Distempering with oil bound washable distemper of approved brand and manufacture to give an even shade :			13.41
11.11.1	New work (two or more coats) over and including water thinnable priming coat with cement primer	sqm	154.6	13.41.1
11.12	Applying one coat of water thinnable cement primer of approved brand and manufacture on wall surface :			13.43
11.12.1	Water thinnable cement primer	sqm	64.45	13.43.1
11.13	Finishing walls with water proofing cement paint of			13.44

	required shade :			
11.13.1	New work (Two or more coats applied @ 3.84 kg/10 sqm)	sqm	97.60	13.44.1
11.14	Finishing walls with Acrylic Smooth exterior paint of required shade :			13.46
11.14.1	New work (Two or more coat applied @ 1.67 ltr/10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/10 sqm)	sqm	147.45	13.46.1
11.15	Finishing walls with Premium Acrylic Smooth exterior paint with Silicone additives of required shade:			13.47
11.15.1	New work (Two or more coats applied @ 1.43 ltr/10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/10 sqm)	sqm	162.35	13.47.1
11.16	Applying priming coat:			13.5
11.16.1	With ready mixed red oxide zinc chromate primer of approved brand and manufacture on steel galvanised iron/ steel works	sqm	55.50	13.50.3
11.17	Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete.			13.52
11.17.1	On steel work	sqm	201.70	13.52.1
11.17.2	On concrete work	sqm	198.40	13.52.2
11.18	Wall painting with acrylic emulsion paint of approved brand and manufacture to give an even shade :			13.6
11.18.1	Two or more coats on new work	sqm	137.85	13.60.1
11.19	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade :			13.61
11.19.1	Two or more coats on new work	sqm	131.45	13.61.1
	Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete	Sqm	123.85	13.8
11.2	Distempering with 1st quality acrylic distemper, having VOC (Volatile Organic Compound) content less than 50 grams/ litre, of approved brand and manufacture, including applying additional coats wherever required, to achieve even shade and colour.		123.85	13.81
11.20.1	One or more coats on old work	sqm	51.80	13.81.1
11.21	Wall painting with acrylic emulsion paint, having VOC (Volatile Organic Compound) content less than 50 grams/ litre, of approved brand and manufacture, including applying additional coats wherever required, to achieve even shade and colour.			13.82
11.21.1	One coat	sqm	76.20	13.82.1
11.22	Wall painting with premium acrylic emulsion paint of interior grade, having VOC (Volatile Organic Compound) content less than 50 grams/ litre of approved brand and manufacture, including applying additional coats wherever required to achieve even shade and colour.			13.83

11.22.1	One coat	sqm	79.70	13.83.1
11.22.2	Two coats	sqm	119.20	13.83.2
11.23	White washing with lime to give an even shade :			13.87
11.23.1	Old work (two or more coats)	sqm	19.00	13.87.1
11.24	Removing white or colour wash by scrapping and sand papering and preparing the surface smooth including necessary repairs to scratches etc. complete	sqm	16.35	13.88
11.25	Distempering with 1st quality acrylic distemper (Ready mix) having VOC content less than 50 grams/ litre of approved brand and manufacture to give an even shade :			13.9
11.25.1	Old work (one or more coats)	sqm	56.80	13.90.1
11.26	Removing dry or oil bound distemper, water proofing cement paint and the like by scrapping, sand papering and preparing the surface smooth including necessary repairs to scratches etc. complete.	sqm	20.85	13.91
11.27	Painting on G.S. sheet with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade :			13.92
11.27.1	Old work (one or more coats)	sqm	77.20	13.92.1
11.28	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade :			13.99
11.28.1	One or more coats on old work	sqm	86.55	13.99.1
12	REPAIRS TO BUILDING			14
12.1	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, all complete as per direction of Engineer-in-Charge.			14.1
12.1.1	With cement mortar 1:4 (1 cement : 4 fine sand)	sqm	462.30	14.1.1
12.1.2	With cement mortar 1:4 (1cement: 4 coarse sand)	sqm	478.00	14.1.2
12.2	Making the opening in brick masonry including dismantling in floor or walls by cutting masonry and making good the damages to walls, flooring and jambs complete, to match existing surface i/c disposal of mulba/ rubbish to the nearest municipal dumping ground, all complete as per direction of Engineer-in-Charge.			14.4
12.2.1	For door/ window/ clerestory window	sqm	1046.95	14.4.1
12.3	Renewing glass panes, with putty and nails wherever necessary including racking out the old putty:			14.5
12.3.1	Float glass panes of nominal thickness 4 mm (weight not less than 10kg/sqm)	sqm	941.95	14.5.1
12.3.2	Float glass panes of nominal thickness 5 mm (weight not less than 12.5kg/sqm)	sqm	1245.15	14.5.2

	Providing and fixing 16 mm M.S. Fan clamps of standard shape and size in existing R.C.C. slab, including cutting chase, anchoring clamp to reinforcement bar, including cleaning, refilling, making good the chase with matching concrete, plastering and painting the exposed portion of the clamps complete.	Each	468.40	14.12
12.4	Raking out joints in lime or cement mortar and preparing the surface for re-pointing or replastering, including disposal of rubbish to the dumping ground, all complete as per direction of Engineer-in-Charge.	sqm	59.75	14.17
12.5	Taking out wind ties from roof including cutting out rusted bolts, nuts etc. and removing materials to any distance within compound and stacking.	kg	4.45	14.19
12.6	Fixing of old wind tie with new fittings including painting two or more coats with anticorrosive bitumastic paint of approved brand & manufacturer over and including priming coat of ready mixed zinc chromate yellow primer of approved brand.	metre	107.00	14.2
12.7	Pumping out water caused by springs, tidal or river seepage, broken water mains or drains and the like.	kilo litre	190.40	14.23
12.8	Providing and fixing 25 mm thick shutters for cup board etc. :			14.26
12.8.1	Panelled or panelled & glazed shutters :			14.26.1
12.8.1.1	Ist class teak wood including nickel plated bright finished M.S. piano hinges with necessary screws.	sqm	3979.65	14.26.1.2
12.9	Providing round the clock security guard with gun for watch & ward of Government premises and its all belongings by deploying neatly dressed security guards in 8 hour's shift including necessary T&P like torch, lathi and uniform etc.complete, as per the direction of Engineer-in-charge.(One job means 8 hour's duty).	job	1169.65	14.94
12.9 a	Providing and fixing double scaffolding system (cup lock type) on the exterior side, up to seven story height made with 40 mm dia M.S. tube 1.5 m centre to centre, horizontal & vertical tubes joining with cup & lock system with M.S. tubes, M.S. tube challies, M.S. clamps and M.S. staircase system in the scaffolding for working platform etc. and maintaining it in a serviceable condition for the required duration as approved and removing it there after .The scaffolding system shall be stiffened with bracings, runners, connection with the building etc wherever required for inspection of work at required locations with essential safety features for the workmen etc. complete as per directions and approval of Engineer- in-charge .The elevational area of the scaffolding shall be measured for payment purpose .The payment will be made once irrespective of duration of scaffolding. Note: - This item to be used for maintenance work judicially, necessary deduction for scaffolding in the existing item to be done.	sqm	285.00	14.72

12.10	Repair to plaster of thickness 12mm to 20 mm in patches of area 2.5 sqm and under, including cutting the patch in proper shape, raking out joints and preparing plastering the wall surface with white cement based polymer modified self curing mortar, including disposal of rubbish, all complete as per the direction of Engineer-In-Charge.	sqm	540.35	14.75
12.11	Cleaning and desilting of gully trap chamber, including removal of rubbish mixed with earth etc. and disposal of same, all as per the direction of Engineer-in-charge.	each	89.45	14.76
12.12	Cleaning of chocked sewer line by diesel running vehicle mounting hydraulic operated high pressure suction cum jetting sewer cleaning machine fitted with pump having 4000 litres suction capacity and 6000 litres water jetting tank capacity including skilled operator, supervising engineer etc. for cleaning and partial desilting of manholes and dechocking of sewer lines. Dechocking and flushing of sewer line from one manhole to another by high pressure jetting system of 2200 PSI for sewer line from 150mm dia upto 300mm	metre	285.90	14.77
12.13	Cleaning of under ground sump, Over Head R.C.C. Tank (independent staging) including disposal of slit and rubbish, all as per direction of Engineer-in-Charge. The cleaning shall consist following operations:- Tank shall be emptied of water by pumping & bottom shall be cleaned of silt and other deposits. Entire surface area of the sump shall then scrubbed thoroughly with wire brush etc. and pressure washed with water. (iii) Chlorination of RCC internal surface by liquid chlorine. The treated surface shall be dried using air jetting and all loose particles shall be removal from the surface. Finally the surface shall be treated with ultraviolet radiation etc. as per direction of Engineer-in-Charge.	sqm	71.30	14.78
12.14	Disconnecting damaged overhead/terrace PVC water storage tank of any size from water supply line and removing from the terrace including shifting at ground level as per direction of Engineer-in-charge.	each	357.55	14.79
12.15	Cutting holes of required size in brick masonry wall for fixing of exhaust fan including providing and fixing 300 mm dia PVC pipe conforming BIS-12818 and making good the same etc. complete as per direction of Engineer-in-charge.	each	243.10	14.81
12.16	Dismantling W.C. Pan of all sizes including disposal of dismantled materials i/c malba all complete as per directions of Engineer-in-Charge.	each	110.70	14.82
12.17	Hacking of CC flooring including cleaning for surface etc. complete as per direction of the Engineer-in-Charge.	sqm	2.85	14.83
12.18	Taking out existing wooden door shutter, repair by cutting, painting etc. and refixing of repaired door shutters to existing door frames, including replacement of hinges with screws, etc. as required, all complete as per the direction of the Engineer-in-charge.	each	325.95	14.85
13	Dismantling and Demolishing			15

13.1	Demolishing cement concrete manually/ by mechanical means including disposal of material within 50 metres lead as per direction of Engineer - in - charge.			15.2
13.1.1	Nominal concrete 1:3:6 or richer mix (i/c equivalent design mix)	cum	2007.10	15.2.1
13.2	Demolishing R.C.C. work manually/ by mechanical means including stacking of steel bars and disposal of unserviceable material within 50 metres lead as per direction of Engineer - in- charge.	cum	2928.10	15.3
13.3	Demolishing R.B. work manually/ by mechanical means including stacking of steel bars and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in- charge.	cum	2619.45	15.4
13.4	Extra for cutting reinforcement bars manually/ by mechanical means in R.C.C. or R.B. work (Payment shall be made on the cross sectional area of R.C.C. or R.B. work) as per direction of Engineer-in-charge.	sqm	947.10	15.5
13.4	Dismantling old plaster or skirting raking out joints and cleaning the surface for plaster including disposal of rubbish to the dumping ground within 50 metres lead	Sqm	45.05	15.56
13.5	Demolishing brick work manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge.			15.7
13.5.1	In cement mortar	cum	1698.45	15.7.4
13.6	Removing mortar from bricks and cleaning bricks including stacking within a lead of 50 m (stacks of cleaned bricks shall be measured):			15.8
13.6.1	From brick work in cement mortar	1000 Nos	5522.25	15.8.3
13.7	Demolishing stone rubble masonry manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge :			15.9
13.7.1	In cement mortar	cum	2027.10	15.9.2
13.8	Dismantling dressed stone work ashlar face stone work, marble work or precast concrete work manually/ by mechanical means including stacking of serviceable and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge :			15.1
	Demolishing cement concrete manually/ by mechanical means including disposal of material within 50 metres lead as per direction of Engineer - in - charge.	Cum	2007.10	15.2.1
13.8.1	In cement mortar	cum	2372.30	15.10.2
13.9	Removing mortar from and cleaning stones and concrete articles (net quantity of stacks of cleaned materials will be measured):			15.11
13.9.1	In cement mortar	cum	568.15	15.11.2

13.1	Dismantling doors, windows and clerestory windows (steel or wood) shutter including chowkhats, architrave, holdfasts etc. complete and stacking within 50 metres lead :			15.12
13.10.1	Of area 3 sq. metres and below	each	302.70	15.12.1
13.10.2	Of area beyond 3 sq. metres	each	414.55	15.12.2
13.11	Taking out doors, windows and clerestory window shutters (steel or wood) including stacking within 50 metres lead :			15.13
13.11.1	Of area 3 sq. metres and below	each	118.30	15.13.1
13.11.2	Of area beyond 3 sq. metres	each	155.75	15.13.2
13.12	Dismantling steel work in single sections including dismembering and stacking within 50 metres lead in:			15.17
13.12.1	Channels, angles, tees and flats	kg	1.90	15.17.2
13.13	Dismantling steel work in built up sections in angles, tees, flats and channels including all gusset plates, bolts, nuts, cutting rivets, welding etc. including dismembering and stacking within 50 metres lead.	kg	4.65	15.18
13.14	Dismantling steel work manually/ by mechanical means in built up sections without dismembering and stacking within 50 metres lead as per direction of Engineer-in-charge.	kg	3.20	15.19
13.15	Extra for dismantling trusses, rafters, purlins etc. of steel work for every additional height of one metre or part thereof beyond 5 metres.	kg per metre height	0.70	15.21
13.16	Dismantling tile work in floors and roofs laid in cement mortar including stacking material within 50 metres lead.			15.23
13.16.1	For thickness of tiles 10 mm to 25 mm	sqm	60.50	15.23.1
	Demolishing mud phaska in terracing and disposal of material within 50 metres lead.	Cum	12.11	15.27
13.17	Dismantling roofing including ridges, hips, valleys and gutters etc., and stacking the material within 50 metres lead of:			15.28
13.17.1	G.S. Sheet	sqm	136.00	15.28.1
13.17.2	Asbestos Cement sheet	sqm	63.75	15.28.2
13.18	Dismantling precast concrete or stone slabs in walls, partition walls etc. including stacking within 50 metres lead :			15.4
13.18.1	Thickness above 40 mm up to 75 mm	sqm	357.60	15.40.2
13.19	Dismantling old plaster or skirting raking out joints and cleaning the surface for plaster including disposal of rubbish to the dumping ground within 50 metres lead.	sqm	45.05	15.56
13.2	Dismantling aluminium/ Gypsum partitions, doors, windows, fixed glazing and false ceiling including disposal of unserviceable material and stacking of serviceable material with in 50 meters lead as directed by Engineer-in-charge.	sqm	46.50	15.57

13.21	Demolishing R.C.C. work by mechanical means and stockpiling at designated locations and disposal of dismantled materials up to a lead of 1 kilometre, stacking serviceable and unserviceable material separately including cutting reinforcement bars.	cum	2328.55	15.58
	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means, including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all leads including all lifts involved.	cum	219.30	15.6
14	ROAD WORK			16
14.1	Preparation and consolidation of sub grade with power road roller of 8 to 12 tonne capacity after excavating earth to an average of 22.5cm depth, dressing to camber and consolidating with road roller including making good the undulations etc. and re-rolling the subgrade and disposal of surplus earth with lead upto 50 metres.	sqm	180.50	16.1
14.2	Supplying and stacking at site.			16.3
14.2.1	90 mm to 45 mm size stone aggregate	cum	1937.60	16.3.1
14.2.2	63 mm to 45 mm size stone aggregate	cum	1624.50	16.3.2
14.2.3	53 mm to 22.4 mm size stone aggregate	cum	1837.25	16.3.3
14.2.4	Stone screening 13.2 mm nominal size (Type A)	cum	1865.00	16.3.6
14.2.5	Stone screening 11.2 mm nominal size (Type B)	cum	2065.70	16.3.7
14.2.6	Good earth	cum	624.55	16.3.9
14.2.7	Moorum	cum	888.30	16.3.10
14.3	Laying, spreading and compacting stone aggregate of specified size to WBM specifications in uniform thickness, hand picking, rolling with 3 wheeled road/vibratory roller 8-10 tonne capacity in stages to proper grade and camber, applying and brooming requisite type of screening / binding material to fill up interstices of coarse aggregate, watering and compacting to the required density.	cum	865.80	16.4
14.3.1	Scarifying metalled (water-bound) road surface including disposal of rubbish, lead upto 50 m and consolidation of the aggregate received from scarifying with power road roller of 8 to 10 tonne capacity.	sqm	27.55	16.9
14.4 a	Dry stone pitching 22.5 cm thick including supply of stones and preparing surface complete.	sqm	821.95	16.11
14.4	Cutting road and making good the same including supply of extra quantities of materials i.e. aggregate, moorum screening, red bajri and labour required.			
14.4.1	Water bound macadam	cum	2592.10	16.13.2

16.18.1	Fencing with angle iron post placed at required distance embedded in cement concrete blocks, every 15th post, last but one end post and corner post shall be strutted on both sides and end post on one side only and provided with horizontal lines and two diagonals interwoven with horizontal wires, of barbed wire weighing 9.38 kg per 100 m (minimum), between the two posts fitted and fixed with G.I. staples, turn buckles etc. complete. (Cost of posts, struts, earth work and concrete work to be paid for separately). Payment to be made per metre cost of total length of barbed wire used. With G.I. barbed wire	Metre	19.60	16.18.1
16.43.2	Cement concrete manufactured in automatic batching plant (RMC plant) i/c transportation to site in transit mixer	Cum	10006.65	16.43.2
14.4.1 a	Providing and fixing pre-moulded joint filler in expansion joints of RCC roads / CC pavements after making the joints dust free with high pressure air jet cleaners, all complete as per direction of the Engineer-in-Charge. (Pre-moulded joint fillers shall be made of bitumen hot sealing compound impregnated fibre board having impregnation more than 35%, conforming to IS:1838 for fibre board and IS: 1834 for hot sealing bitumen compound grade A.)	per cm depth per cm width per m length	4.70	16.45
14.4.1 b	Providing and filling in position rubberized bitumen hot sealing compound for sealing of expansion joints in roads / pavements all complete as per direction of the Engineer-in-Charge.	per cm depth per cm width per m length	7.50	16.46.1
14.4.1.1	Painting runway/taxi track/apron marking with adequate nos of coats to give uniform finish with road marking paint of superior make as approved by the Engineer-in-charge, i/c cleaning the surface of ail dirt, scales, oil, grease and other foreign material etc. and lining out complete. New work (Two or more coats)		158.50	16.47.1
14.4.1.2	Painting runway/taxi track/apron marking with adequate nos of coats to give uniform finish with road marking paint of superior make as approved by the Engineer-in-charge, i/c cleaning the surface of ail dirt, scales, oil, grease and other foreign material etc. and lining out complete.		101.60	16.47.2

14.4.2	Providing and fixing Glow studs of size 100x20 mm made of heavyduty body shall be moulded ASA (Acrylic styrene Acryloretrite) orHIP (High impact polystyrene) or ABS having electronically weldedmicro- prismatic lens with abrasion resistant coating as approved byEngineer in charge. The glow stud shall support a load of 13635 kgtested in accordance with ASTM D4280. The slope of retro- reflectivesurface shall be 35 (+/-5) degress to base .The reflective panels onboth sides with at least 12 cm of reflective area up each side. Theluminance intensity should be as per the specification and shall betested as described in ASTM I: 809 as recommended in BS: 873part 4 : 1973. The studs shall be fixed to the Road surface using theadhesive conforming to IS, as per procedure recommended by themanufacturer complete and as per direction of Engineer-in-charge.	each	175.50	16.5
14.5	Providing and fixing concertina coil fencing with punched tapeconcertina coil 600 mm dia 10 metre openable length (total length90 m), having 50 nos rounds per 6 metre length, upto 3 m height ofwall with existing angle iron 'Y' shaped placed 2.4m or 3.00 m apartand with 9 horizontal R.B.T. reinforced barbed wire, stud tied withG.I. staples and G.I. clips to retain horizontal, including necessarybolts or G.I. barbed wire tied to angle iron, all complete as per directionof Engineer-in-charge, with reinforced barbed tape(R.B.T.) / Springcore (2.5mm thick) wire of high tensile strength of 165 kg/ sq.mmwith tape (0.52 mm thick) and weight 43.478 gm/ metre (cost ofM.S. angle, C.C. blocks shall be paid separately)	metre	303.65	16.53
14.6	Providing and laying Dense Graded Bituminous Macadam usingcrushed stone aggregates of specified grading, premixed withbituminous binder and filler, transporting the hot mix to work site bytippers, laying with paver finisher equipped with electronic sensor tothe required grade, level and alignment and rolling with smoothwheeled, vibratory and tandem rollers as per specifications to achievethe desired compaction and density, complete as per specificatonsand directions of Engineer-in-Charge.			16.54
14.6.1	50 to 100 mm average compacted thickness with bitumenof grade VG-30 @ 5% (percentage by weight of total mix)and lime filler @ 2% (percentage by weight of Aggregate)prepared in Drum Type Hot Mix Plant of 60-90 TPHcapacity.	cum	9930.95	16.54.2
14.7	Providing and laying semi- dense Bituminous concrete using crushedstone aggregates of specified grading, premixed with bituminousbinder and filler, transporting the hot mix to work site by tippers,laying with paver finisher equipped with electronic sensor to the requiredgrade, level and alignment and rolling with smooth wheeled, vibratoryand tandem rollers to achieve the desired compaction and densityas per specification, complete and as per directions of Engineer-in-Charge.			16.56

14.7.1	25 mm compacted thickness with bitumen of grade VG-30 @ 5% (percentage by weight of total mix) and limefiller @ 2% (percentage by weight of Aggregate) prepared in Drum Type Hot Mix Plant of 60-90 TPH capacity.	sqm	247.35	16.56.2
14.7.2	Supplying and stacking of hard stone (for stone pitching) 22.5 cm thick at site.	cum	1060.80	16.72
14.7.3	Manufacturing, supplying and fixing retro reflective overhead signage boards made up of 2 mm thick aluminium sheet, face to be fully covered with high intensity and encapsulated lens type heat activated retro reflective sheeting conforming to type - III of ASTM-D-4956-01 as approved by Engineer-in-charge, letters, borders etc. as per IRC : 67-2001 in silver white with blue colour back ground and with high intensity grade, pasted on substrate by pressure sensitive adhesive backing which shall be activated by applying pressure conforming to class II of ASTM-D-4956-01 and fixing the same to the plate of structural frame work by means of suitable sized aluminium alloys, rivets or bolts & nuts @ 300 mm centre to centre all along the periphery as well as in two vertical rows along with theft resistant measures, including the cost of painting with two or more coats of epoxy paint in grey colour on the back side of aluminium sheet including appropriate priming coat. The rate includes the cost of rounding off the corners, lowering down the structural frame work from the gantry, fixing and erecting the same in position all complete as per drawings, specification and direction of the engineer-in-charge.(Structural frame work including M.S. plate to be provided separately. Rectangular area of the sheet only shall be measured for payment). Overhead informatory road signage	sqm	5609.55	16.60.1
14.7.4	Providing and applying 2.5 mm thick road marking strips (retro-reflective) of specified shade/ colour using hot thermoplastic material by fully/ semi automatic thermoplastic paint applicator machine fitted with profile shoe, glass beads dispenser, propane tank heater and profile shoe heater, driven by experienced operator on road surface including cost of material, labour, T&P, cleaning the road surface of all dirt, seals, oil, grease and foreign material etc. complete as per direction of Engineer-in-charge and accordance with applicable	sqm	623.80	16.62

	specifications.			
14.8	Taking out existing CC interlocking paver blocks from footpath/ centralverge, including removal of rubbish etc., disposal of unserviceable material to the dumping ground, for which payment shall be made separately and stacking of serviceable material within 50 metre lead as per direction of Engineer-in-Charge.	sqm	108.65	16.83
14.9	Laying old cement concrete interlocking paver blocks of any design/shape laid in required line, level, curvature, colour and pattern over and including 50 mm thick compacted bed of coarse sand, filling the joints with fine sand etc. all complete as per the direction of Engineer-in-charge. (Old CC paver blocks shall be supplied by the department free of cost)	sqm	362.30	16.84
15	SANITARY INSTALLATIONS			17
15.1	Providing and fixing water closet squatting pan (Indian type W.C.pan) with 100 mm sand cast Iron P or S trap, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever) conforming to IS : 7231, with all fittings and fixtures complete, including cutting and making good the walls and floors wherever required:			17.1
15.1.1	White Vitreous china Orissa pattern W.C. pan of size 580x440 mm with integral type foot rests	each	5781.35	17.1.1
15.2	Providing and fixing white vitreous china pedestal type water closet (European type W.C. pan) with seat and lid, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever), conforming to IS : 7231, with all fittings and fixtures complete, including cutting and making good the walls and floors wherever required :			17.2
15.2.1	W.C. pan with ISI marked white solid plastic seat and lid	each	5540.55	17.2.1
15.3	Providing and fixing white vitreous china pedestal type water closet (European type) with seat and lid, 10 litre low level white vitreous china flushing cistern & C.P. flush bend with fittings & C.I. brackets, 40 mm flush bend, overflow arrangement with specials of standard make and mosquito proof coupling of approved municipal design complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required :			17.3
15.3.1	W.C. pan with ISI marked white solid plastic seat and lid	each	6941.30	17.3.1

15.4	Providing and fixing white vitreous china flat back or wall corner typelipped front urinal basin of 430x260x350 mm and 340x410x265 mmsizes respectively with automatic flushing cistern with standard flushpipe and C.P. brass spreaders with brass unions and G.I clampscomplete, including painting of fittings and brackets, cutting andmaking good the walls and floors wherever required :			17.4
15.4.1	One urinal basin with 5 litre white P.V.C. automatic flushing cistern	each	5268.85	17.4.1
15.4.2	Range of two urinal basins with 5 litre white P.V.C. automaticflushing cistern	each	8115.55	17.4.2
15.4.3	Range of three urinal basins with 10litre white P.V.C.automatic flushing cistern	each	11256.40	17.4.3
15.4.4	Range of four urinal basins with 10 litre white P.V.C.automatic flushing cistern	each	15564.35	17.4.4
15.5	Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brasspillar taps, 32 mm C.P. brass waste of standard pattern, includingpainting of fittings and brackets, cutting and making good the wallswherever require:			17.7
15.5.1	White Vitreous China Wash basin size 630x450 mmwith a single 15 mm C.P. brass pillar tap	each	1913.75	17.7.2
15.5.2	White Vitreous China Flat back wash basin size 450x300 mm with single 15mm C.P. brass pillar tap	each	1318.35	17.7.7
15.6	Providing and fixing white vitreous china pedestal for wash basincompletely recessed at the back for the reception of pipes andfittings.	each	1500.05	17.8
15.6	Providing and fixing kitchen sink with C.I. brackets, C.P. brass chain with rubber plug, 40 mm C.P. brass waste complete, including painting the fittings and brackets, cutting and making good the walls wherever required: White glazed fire clay kitchen sink of size 600x450x 250 mm	Each	3302.91	17.9.1
15.7	Providing and fixing 8 mm dia C.P. / S.S. Jet with flexible tube upto1 metre long with S.S. triangular plate to European type W.C. ofquality and make as approved by Engineer - in - charge.	each	299.35	17.16A
15.8	Providing and fixing P.V.C. low level flushing cistern with manuallycontrolled device (handle lever) conforming to IS : 7231, with all fittingsand fixtures complete.			17.18
15.8.1	10 litre capacity - White	each	1023.05	17.18.1
15.9	Providing and fixing controlled flush, low level cistern made of vitreouschina with all fittings complete.			17.19
15.9.1	10 litre (full flush) capacity-white	each	1930.85	17.19.1
15.1	Providing and fixing solid plastic seat with lid for pedestal type W.C.pan complete :			17.2
15.10.1	White solid plastic seat with lid	each	586.55	17.20.1
15.11	Providing and fixing CP Brass 32mm size Bottle Trap of approvedquality & make and as per the direction of Engineer-in-charge.	each	886.25	17.22A

15.12	Providing and fixing white vitreous china flat back or wall corner typelipped front urinal basin of 430x260x350 mm or 340x410x265 mmsizes respectively.	each	1382.30	17.23
15.13	Providing and fixing white vitreous china squatting plate urinal withintegral rim longitudinal flush pipe.	each	3389.35	17.24
15.14	Providing and fixing white vitreous china wash basin including makingall connections but excluding the cost of fittings :			17.25
15.14.1	Flat back wash basin of size 630x450 mm	each	1149.60	17.25.1
15.14.2	Flat back wash basin of size 450x300 mm	each	554.20	17.25.5
15.15	Providing and fixing P.V.C. waste pipe for sink or wash basin includingP.V.C. waste fittings complete.			17.28
15.15.1	Semi rigid pipe			17.28.1
15.15.1.1	32 mm dia	each	90.95	17.28.1.1
15.15.2	Flexible pipe			17.28.2
15.15.2.1	32 mm dia	each	104.35	17.28.2.1
15.16	Providing and fixing 600x450 mm beveled edge mirror of superiorglass (of approved quality) complete with 6 mm thick hard boardground fixed to wooden cleats with C.P. brass screws and washerscomplete.	each	1411.15	17.31
15.17	Providing and fixing mirror of superior glass (of approved quality) andof required shape and size with plastic moulded frame of approvedmake and shade with 6 mm thick hard board backing :			17.32
15.17.1	Rectangular shape 1500x450 mm	each	1817.20	17.32.4
15.18	Providing and fixing 600x120x5 mm glass shelf with edges round off,supported on anodised aluminium angle frame with C.P. brassbrackets and guard rail complete fixed with 40 mm long screws, rawlplugs etc., complete.	each	942.15	17.33
15.19	Cutting chases in brick masonry walls for following diameter sandcast iron/centrifugally cast (spun) iron pipes and making good thesame with cement concrete 1:3:6 (1 cement : 3 coarse sand :6graded stone aggregate 12.5 mm nominal size), including necessaryplaster and pointing in cement mortar 1:4 (1 cement : 4 coarsesand) :			17.61
15.19.1	100 mm dia	metre	615.70	17.61.1
15.19.2	75 mm dia	metre	442.20	17.61.2
15.19.3	50 mm dia	metre	287.50	17.61.3
15.2	Providing and fixing PTMT Bottle Trap for Wash basin and sink.			17.7
15.20.1	Bottle trap 31mm single piece moulded with height of270 mm, effective length of tail pipe 260 mm from thecentre of the waste coupling, 77 mm breadth with 25 mmminimum water seal, weighing not less than 260 gms	each	325.10	17.70.1
15.20.2	Bottle trap 38 mm single piece moulded with height of270 mm, effective length of tail pipe 260 mm from thecentre of the waste coupling, 77 mm breadth with 25 mmminimum water seal, weighing not less than 263 gms	each	325.10	17.70.2

15.21	Providing and fixing floor mounted, white vitreous china single piece, double traps syphonic water closet of approved brand/make, shape, size and pattern including integrated white vitreous china cistern of capacity 10 litres with dual flushing system, including all fittings and fixtures with seat cover, cistern fittings, nuts, bolts and gasket etc including making connection with the existing P/S trap, complete in all respect as per directions of Engineer-in-Charge.	each	16100.40	17.81
16	WATER SUPPLY			18
16.1	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge. Internal work - Exposed on wall			18.7
16.1.1	15 mm nominal dia Pipes	metre	255.90	18.7.1
16.1.2	20 mm nominal dia Pipes	metre	325.10	18.7.2
16.1.3	25 mm nominal dia Pipes	metre	408.55	18.7.3
16.1.4	32 mm nominal dia Pipes	metre	500.95	18.7.4
16.1.5	40 mm nominal dia Pipes	metre	674.35	18.7.5
16.1.6	50 mm nominal dia Pipes	metre	927.00	18.7.6
16.2	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge. Concealed work, including cutting chases and making good the walls			18.8
16.2.1	15 mm nominal dia Pipes	metre	441.15	18.8.1
16.2.2	20 mm nominal dia Pipes	metre	513.75	18.8.2
16.2.3	25 mm nominal dia Pipes	metre	626.05	18.8.3
16.2.4	32 mm nominal dia Pipes	metre	712.75	18.8.4
16.3	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings This includes jointing of pipes & fittings with one step CPVC solvent cement, trenching, refilling & testing of joints complete as per direction of Engineer in Charge. External work			18.9
16.3.1	15 mm nominal dia Pipes	metre	221.35	18.9.1
16.3.2	20 mm nominal dia Pipes	metre	275.25	18.9.2
16.3.3	25 mm nominal dia Pipes	metre	370.65	18.9.3
16.3.4	32 mm nominal dia Pipes	metre	435.05	18.9.4

16.3.5	40 mm nominal dia Pipes	metre	559.20	18.9.5
16.3.6	50 mm nominal dia Pipes	metre	811.85	18.9.6
16.3.7	65 mm nominal dia Pipes	metre	1576.90	18.9.7
16.3.8	80 mm nominal dia Pipes	metre	1990.40	18.9.8
16.3.9	100 mm nominal dia Pipes	metre	2811.75	18.9.9
16.3.10	150 mm nominal dia Pipes	metre	5871.25	18.9.10
16.4	Providing and fixing G.I. pipes complete with G.I. fittings and clamps, i/c cutting and making good the walls etc. Internal work - Exposed on wall			18.1
16.4.1	15 mm dia nominal bore	metre	304.15	18.10.1
16.4.2	20 mm dia nominal bore	metre	373.35	18.10.2
16.4.3	25 mm dia nominal bore	metre	491.20	18.10.3
16.4.4	32 mm dia nominal bore	metre	563.60	18.10.4
16.4.5	40 mm dia nominal bore	metre	725.15	18.10.5
16.4.6	50 mm dia nominal bore	metre	893.20	18.10.6
16.5	Providing and fixing G.I. Pipes complete with G.I. fittings and clamps, i/c making good the walls etc. concealed pipe, including painting with anti corrosive bitumastic paint, cutting chases and making good the wall :			18.11
16.5.1	15 mm dia nominal bore	metre	485.20	18.11.1
16.5.2	20 mm dia nominal bore	metre	541.10	18.11.2
16.6	Providing and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc. External work			18.12
16.6.1	15 mm dia nominal bore	metre	267.50	18.12.1
16.6.2	20 mm dia nominal bore	metre	315.35	18.12.2
16.6.3	25 mm dia nominal bore	metre	417.95	18.12.3
16.6.4	32 mm dia nominal bore	metre	457.70	18.12.4
16.6.5	40 mm dia nominal bore	metre	558.35	18.12.5
16.6.6	50 mm dia nominal bore	metre	654.20	18.12.6
16.6.7	65 mm dia nominal bore	metre	768.60	18.12.7
16.6.8	80 mm dia nominal bore	metre	919.10	18.12.8
16.7	Making connection of G.I. distribution branch with G.I. main of following sizes by providing and fixing tee, including cutting and threading the pipe etc. complete :			18.13
16.7.1	25 to 40 mm nominal bore	each	757.10	18.13.1
16.7.2	50 to 80 mm nominal bore	each	1513.70	18.13.2
16.8	Providing and fixing brass bib cock of approved quality :			18.15
16.8.1	15 mm nominal bore	each	303.85	18.15.1
16.8.2	20 mm nominal bore	each	327.95	18.15.2
16.9	Providing and fixing brass stop cock of approved quality :			18.16
16.9.1	15 mm nominal bore	each	303.85	18.16.1
16.9.2	20 mm nominal bore	each	327.95	18.16.2

16.1	Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end) :			18.17
16.10.1	25 mm nominal bore	each	532.35	18.17.1
16.10.2	20 mm nominal bore	each	461.75	18.17.1A
16.10.3	32 mm nominal bore.	each	589.90	18.17.2
16.10.4	40 mm nominal bore	each	707.30	18.17.3
16.10.5	50 mm nominal bore	each	878.25	18.17.4
16.11	Providing and fixing gun metal non- return valve of approved quality (screwed end) :			18.19
16.11.1	25 mm nominal bore			18.19.1
16.11.1.1	Horizontal	each	506.65	18.19.1.1
16.11.1.2	Vertical	each	573.50	18.19.1.2
16.11.2	32 mm nominal bore			18.19.2
16.11.2.1	Horizontal	each	677.55	18.19.2.1
16.11.2.2	Vertical	each	777.90	18.19.2.2
16.11.3	40 mm nominal bore			18.19.3
16.11.3.1	Horizontal	each	815.05	18.19.3.1
16.11.3.2	Vertical	each	1049.20	18.19.3.2
16.11.4	50 mm nominal bore			18.19.4
16.11.4.1	Horizontal	each	1173.65	18.19.4.1
16.11.4.2	Vertical	each	1320.80	18.19.4.2
16.12	Providing and fixing brass ferrule with C.I. mouth cover including boring and tapping the main :			18.2
16.12.1	15 mm nominal bore	each	301.60	18.20.1
16.12.2	20 mm nominal bore	each	347.90	18.20.2
16.12.3	25 mm nominal bore	each	447.00	18.20.3
16.13	Providing and fixing uplasticised PVC connection pipe with brass unions :			18.21
16.13.1	30 cm length			18.21.1
16.13.1.1	15 mm nominal bore	each	74.80	18.21.1.1
16.13.1.2	20 mm nominal bore	each	81.50	18.21.1.2
16.13.2	45 cm length			18.21.2
16.13.2.1	15 mm nominal bore	each	85.20	18.21.2.1
16.13.2.2	20 mm nominal bore	each	102.55	18.21.2.2

16.14	Constructing masonry Chamber 30x30x50 cm inside, in brick work in cement mortar 1:4 (1 cement :4 coarse sand) for stop cock, with C. I. surface box 100x100 x75 mm (inside) with hinged cover fixed in cement concrete slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), i/c necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12mm thick, finished with a floating coat of neat cement complete as per standard design :			18.32
16.14.1	With common burnt clay F.P.S.(non modular) bricks of class designation 7.5	each	1712.15	18.32.1
16.15	Constructing masonry Chamber 60x60x75 cm inside, in brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for sluice valve, with C.I. surface box 100mm top diameter, 160 mm bottom diameter and 180 mm deep (inside) with chained lid and RCC top slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) , i/c necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick, finished with a floating coat of neat cement complete as per standard design :			18.33
16.15.1	With common burnt clay F.P.S.(non modular) bricks of class designation 7.5	each	10102.50	18.33.1
16.16	Constructing masonry Chamber 90x90x100 cm inside, in brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for sluice valve, with C.I. surface box 100 mm top diameter, 160 mm bottom diameter and 180 mm deep (inside) with chained lid and RCC top slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) , i/c necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick, finished with a floating coat of neat cement complete as per standard design :			18.34
16.16.1	With common burnt clay F.P.S.(non modular) bricks of class designation 7.5	each	17577.90	18.34.1
16.17	Constructing masonry Chamber 120x120x100 cm inside, in brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for sluice valve, with C.I. surface box 100 mm top diameter, 160 mm bottom diameter and 180 mm deep (inside) with chained lid and RCC top slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) , i/c necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) and inside plastering with cement			18.35

	mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick, finished with a floating coat of neat cement complete as per standard design :			
16.17.1	With common burnt clay F.P.S.(non modular) bricks of class designation 7.5	each	24388.85	18.35.1
16.18	Constructing masonry Chamber 60x60x75 cm, inside in brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for fire hydrants, with C.I. surface box 350x350 mm top and 165 mm deep (inside) with chained lid and RCC top slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) , i/c necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine sand:10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick, finished with a floating coat of neat cement complete as per standard design :			18.36
16.18.1	With common burnt clay F.P.S.(non modular) bricks of class designation 7.5	each	9630.65	18.36.1
16.19	Constructing masonry Chamber 60x45x50 cm inside, in brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for water meter complete with C.I. double flap surface box 400x200x200 mm (inside) with locking arrangement and RCC top slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) , i/c necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine sand:10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick, finished with a floating coat of neat cement complete as per standard design :			18.37
16.19.1	With common burnt clay F.P.S.(non modular) bricks of class designation 7.5	each	9020.80	18.37.1
16.2	Providing and fixing G.I. Union in G.I. pipe including cutting and threading the pipe and making long screws etc. complete (New work) :			18.46
16.20.1	15 mm nominal bore	each	262.30	18.46.1
16.20.2	20 mm nominal bore	each	289.05	18.46.2
16.20.3	25 mm nominal bore	each	369.35	18.46.3
16.20.4	32 mm nominal bore	each	409.45	18.46.4
16.20.5	40 mm nominal bore	each	523.20	18.46.5
16.20.6	50 mm nominal bore	each	706.70	18.46.6

16.21	Providing and fixing G.I. Union in existing G.I. pipe line, cutting and threading the pipe and making long screws, including excavation, refilling the earth or cutting of wall and making good the same complete wherever required :			18.47
16.21.1	15 mm nominal bore	each	682.90	18.47.1
16.21.2	20 mm nominal bore	each	709.70	18.47.2
16.21.3	25 mm nominal bore	each	789.95	18.47.3
16.21.4	32 mm nominal bore	each	830.10	18.47.4
16.21.5	40 mm nominal bore	each	943.80	18.47.5
16.21.6	50 mm nominal bore	each	1280.30	18.47.6
16.22	Providing and fixing rectangular high density polyethylene water storage loft tank with cover, conforming to ISI : 12701, colour of opaque white or as approved by Engineer-in-charge. The rate includes making necessary holes for inlet, outlet & over flow pipes. The base support i/c fittings & fixtures for tank shall be paid separately.	per litre	9.70	18.48A
16.23	Providing and fixing C.P. brass bib cock of approved quality conforming to IS:8931 :			18.49
16.23.1	15 mm nominal bore	each	434.20	18.49.1
16.24	Providing and fixing C.P. brass long nose bib cock of approved quality conforming to IS standards and weighing not less than 810 gms.			18.5
16.24.1	15 mm nominal bore	each	715.05	18.50.1
16.25	Providing and fixing C.P. brass long body bib cock of approved quality conforming to IS standards and weighing not less than 690 gms.			18.51
16.25.1	15 mm nominal bore	each	708.40	18.51.1
16.26	Providing and fixing C.P. brass stop cock (concealed) of standard design and of approved make conforming to IS:8931.			18.52
16.26.1	15 mm nominal bore	each	594.75	18.52.1
16.27	Providing and fixing C.P. brass angle valve for basin mixer and geyser points of approved quality conforming to IS:8931			18.53
16.27.1	15mm nominal bore	each	500.35	18.53.1
16.28	Providing and fixing C.P. Brass extension nipple (size 15mmx50mm) of approved make and quality as per direction of Engineer-in-charge.	each	61.70	18.53A
16.28.1	Providing and fixing PTMT pillar cock of approved quality and colour.15 mm nominal bore, 125 mm long foam flow, weighing not less than 120 gms	Each	194.15	18.56.2
16.29	Providing and fixing PTMT Ball cock of approved quality, colour and make complete with Epoxy coated aluminium rod with L.P./ H.P.H.D. plastic ball.			18.62
16.29.1	15 mm nominal bore, 105 mm long, weighing not less than 138 gms	each	161.55	18.62.1
16.29.2	20 mm nominal bore, 120 mm long, weighing not less than 198 gms	each	223.50	18.62.2
16.29.3	25 mm nominal bore, 152mm long, weighing not less than	each	459.40	18.62.3

	440 gms			
16.29.4	40 mm nominal bore, 206mm long, weighing not less than 690 gms	each	653.40	18.62.4
16.29.5	50 mm nominal bore, 242mm long, weighing not less than 1240 gms	each	1188.55	18.62.5
16.3	Cutting holes up to 30x30 cm in walls including making good the same:			18.76
16.30.1	With common burnt clay F.P.S. (non modular) bricks	each	362.40	18.76.1
16.31	Cutting holes up to 15x15 cm in R.C.C. floors and roofs for passing drain pipe etc. and repairing the hole after insertion of drain pipe etc. with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), including finishing complete so as to make it leak proof.	each	377.10	18.77
16.32	Making chases up to 7.5x7.5 cm in walls including making good and finishing with matching surface after housing G.I. pipe etc.	metre	171.80	18.78
16.33	Making hole up to 20x20 cm and embedding pipes up to 150 mm diameter in masonry and filling with cement concrete 1:3:6 (1 cement : 3 coarse sand: 6 graded stone aggregate 20 mm nominal size) including disposal of malba.	metre	198.40	18.79
17	DRAINAGE			19
17.1	Providing and laying cement concrete 1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) all-round S.W. pipes including bed concrete as per standard design :			19.2
17.1.1	100 mm diameter S.W. pipe	metre	895.50	19.2.1
17.1.2	150 mm diameter S.W. pipe	metre	1095.15	19.2.2
17.1.3	200 mm diameter S.W. pipe	metre	1276.70	19.2.3
17.1.4	250 mm diameter S.W. pipe	metre	1476.35	19.2.4
17.2	Providing and laying non-pressure NP2 class (light duty) R.C.C. pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete :			19.6
17.2.1	100 mm dia. R.C.C. pipe	metre	447.25	19.6.1
17.2.2	150 mm dia. R.C.C. pipe	metre	493.10	19.6.2
17.2.3	250 mm dia. R.C.C. pipe	metre	811.15	19.6.3
17.2.4	300 mm dia. R.C.C. pipe	metre	902.05	19.6.4
17.2.5	450 mm dia. R.C.C. pipe	metre	1481.55	19.6.5
17.2.6	500 mm dia. R.C.C. pipe	metre	1745.20	19.6.6
17.2.7	600 mm dia. R.C.C. pipe	metre	2098.10	19.6.7

17.3	Constructing brick masonry manhole in cement mortar 1:4 (1 cement : 4 coarse sand) with R.C.C. top slab with 1:1.5:3 mix (1 cement : 1.5 coarse sand (zone-III) : 3 graded stone aggregate 20 mm nominal size), foundation concrete 1:4:8 mix (1 cement : 4 coarse sand (zone-III) : 8 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement complete as per standard design :			19.7
17.3.1	Inside size 90x80 cm and 45 cm deep including C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover and frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg) :			19.7.1
17.3.1.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	11687.10	19.7.1.1
17.3.2	Inside size 120x90 cm and 90 cm deep including C.I. cover with frame (medium duty) 500 mm internal diameter, total weight of cover and frame to be not less than 116 kg (weight of cover 58 kg and weight of frame 58 kg) :			19.7.2
17.3.2.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	24405.90	19.7.2.1
17.3.3	Inside size 120x90 cm and 90 cm deep including C.I. cover with frame (heavy duty) 560 mm internal diameter, total weight of cover and frame to be not less than 208 kg (weight of cover 108 kg and weight of frame 100 kg) :			19.7.3
17.3.3.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	30197.95	19.7.3.1
17.4	Extra for depth for manholes :			19.8
17.4.1	Size 90x80 cm			19.8.1
17.4.1.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	metre	8127.45	19.8.1.1
17.4.2	Size 120x90 cm			19.8.2
17.4.2.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	metre	9744.25	19.8.2.1
17.5	Constructing brick masonry circular type manhole 0.91 m internal dia at bottom and 0.56m dia at top in cement mortar 1:4 (1 cement : 4 coarse sand), inside cement plaster 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement, foundation concrete 1:3:6 mix (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size), and making necessary channel in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement, all complete as per standard design :			19.9

17.5.1	0.91 m deep with S.F.R.C. cover and frame (heavy duty, HD-20 grade designation) 560 mm internal diameter conforming to I.S. 12592, total weight of cover and frame to be not less than 182 kg., fixed in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) including centering, shuttering all complete. (Excavation, foot rests and 12mm thick cement plaster at the external surface shall be paid for separately) :			19.9.1
17.5.1.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	11886.45	19.9.1.1
17.6	Extra depth for circular type manhole 0.91m internal dia (at bottom) beyond 0.91 m to 1.67 m			19.1
17.6.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	metre	6986.80	19.10.1
17.7	Constructing brick masonry circular manhole 1.22 m internal dia at bottom and 0.56 m dia at top in cement mortar 1:4 (1 cement :4 coarse sand) inside cement plaster 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement foundation concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size) and making necessary channel in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement, all complete as per standard design :			19.11
17.7.1	1.68 m deep with SFRC Cover and frame (heavy duty HD-20 grade designation) 560 mm internal diameter conforming to I.S. 12592, total weight of cover and frame to be not less than 182 kg. fixed in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) including centering, shuttering all complete. (Excavation, foot rests and 12 mm thick cement plaster at the external surface shall be paid for separately) :			19.11.1
17.7.1.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	22951.95	19.11.1.1
17.8	Extra depth for circular type manhole 1.22 m internal dia (at bottom) beyond 1.68 m to 2.29 m :			19.12
17.8.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	metre	9068.35	19.12.1
17.9	Providing M.S. foot rests including fixing in manholes with 20x20x10 cm cement concrete blocks 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) as per standard design :			19.15
17.9.1	With 20x20 mm square bar	each	461.35	19.15.1
17.1	Replacement of M.S. foot rests in manholes including dismantling concrete blocks and fixing with 20x20x10 cm cement concrete blocks 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size):			19.17
17.10.1	With 20x20 mm square bar	each	564.60	19.17.1
17.10.2	With 20 mm diameter round bar	each	523.25	19.17.2
17.11	Supplying and fixing C.I. cover without frame for manholes :			19.18

17.11.1	455x610 mm rectangular C.I. cover (light duty) the weight of the cover to be not less than 23 kg	each	1341.35	19.18.1
17.11.2	500 mm diameter C.I. cover (medium duty) the weight of the cover to be not less than 58 kg	each	3219.00	19.18.2
17.11.3	560 mm diameter C.I. cover (heavy duty) the weight of the cover to be not less than 108 kg	each	6972.75	19.18.3
17.12	Providing and fixing in position pre-cast R.C.C. manhole cover and frame of required shape and approved quality			19.19
17.12.1	LD- 2.5			19.19.1
17.12.1.1	Rectangular shape 600x450 mm internal dimensions	each	1255.25	19.19.1.1
17.12.1.2	Square shape 450 mm internal dimensions	each	1047.80	19.19.1.2
17.12.1.3	Circular shape 450 mm internal diameter	each	1047.80	19.19.1.3
17.12.2	MD - 10			19.19.2
17.12.2.1	Square shape 450 mm internal dimension	each	1257.40	19.19.2.1
17.12.2.2	Circular shape 500 mm internal diameter	each	1056.65	19.19.2.2
17.12.3	HD - 20			19.19.3
17.12.3.1	Circular shape 560 mm internal diameter	each	1494.20	19.19.3.1
17.12.4	EHD - 35			19.19.4
17.12.4.1	Circular shape 560 mm internal dia	each	1882.20	19.19.4.1
17.13	Supplying and fixing C.I. cover 300x300 mm without frame for gully trap (standard pattern) the weight of cover to be not less than 4.5 kg	each	671.75	19.2
17.14	Making connection of drain or sewer line with existing manhole including breaking into and making good the walls, floors with cement concrete 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) cement plastered on both sides with cement mortar 1:3 (1 cement : 3 coarse sand), finished with a floating coat of neat cement and making necessary channels for the drain etc. complete :			19.21
17.14.1	For pipes 100 to 250 mm diameter	each	683.70	19.21.1
17.14.2	For pipes 250 to 300 mm diameter	each	785.90	19.21.2
17.14.3	For pipes 350 to 450 mm diameter	each	1134.65	19.21.3
17.15	Dismantling of manhole including R.C.C. top slab, C.I. cover with frame, including stacking of useful materials near the site and disposal of unserviceable materials within 50 m lead as per direction of Engineer-in-charge:			19.24
17.15.1	Rectangular manhole 90x80 cm and 45 cm deep	each	2096.10	19.24.1
17.15.2	Rectangular manhole 120x90 cm and 90 cm deep	each	3691.10	19.24.2
17.15.3	Rectangular arch type manhole 140x90 cm and 2.45 m deep	each	6982.55	19.24.3
17.15.4	Circular manhole 122 cm diameter and 1.68 m deep	each	5338.95	19.24.4
17.16	Extra for depth of manholes dismantled :			19.25
17.16.1	Rectangular manhole 90x80 cm and beyond 45 cm depth	metre	1686.65	19.25.1
17.16.2	Rectangular manhole 120x90 cm and beyond 90 cm depth	metre	2009.35	19.25.2

17.16.3	Rectangular arch type manhole 140x90 cm and beyond 2.45 m depth (up to 4.25 m depth)	metre	1628.95	19.25.3
17.16.4	Circular manhole 122 cm diameter and beyond 1.68 m depth (up to 2.29 m depth)	metre	1837.85	19.25.4
17.17	Raising manhole cover and frame slab to required level including dismantling existing slab and making good the damage as required (Raising depth of manhole to be paid separately) :			19.26
17.17.1	Rectangular manhole 90x80 cm with rectangular cover 600 x 450 mm of grade LD - 2.5	each	2723.65	19.26.1
17.17.2	Rectangular manhole 120x90 cm with circular cover 500 mm dia of grade MD - 10	each	4290.35	19.26.2
17.17.3	Rectangular manhole 120x90 cm with circular cover 560 mm dia of grade HD - 20	each	3989.40	19.26.3
17.17.4	Circular manhole 140 cm dia with circular cover 600 mm dia of grade EHD - 35	each	326.45	19.26.4
17.18	Constructing brick masonry road gully chamber 50x45x60 cm with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) including 500x450 mm pre-cast R.C.C. horizontal grating with frame complete as per standard design :			19.27
17.18.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	5589.45	19.27.1
17.19	Constructing brick masonry road gully chamber 45x45x77.5 cm with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) with precast R.C.C. vertical grating complete as per standard design :			19.28
17.19.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	6258.20	19.28.1
17.2	Constructing brick masonry road gully chamber 110x50x77.5 cm with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) including 500x450 mm precast R.C.C. horizontal grating with frame and vertical grating complete as per standard design :			19.29
17.20.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	10596.95	19.29.1
17.21	Making soak pit 2.5 m diameter 3.0 metre deep with 45 x 45 cm dry brick honey comb shaft with bricks and S.W. drain pipe 100 mm diameter, 1.8 m long complete as per standard design.			19.32
17.21.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	28029.15	19.32.1
17.22	Constructing soak pit 1.20x1.20x1.20 m filled with brickbats including S.W. drain pipe 100 mm diameter and 1.20 m long complete as per standard design.	each	2940.20	19.33
17.23	Providing and laying Non Pressure NP-3 class (Medium duty) R.C.C. pipes including collars/spigot jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete			19.35
17.23.1	450 mm dia RCC pipes.	metre	2385.50	19.35.1

18	ALUMINIUM WORK			21
18.1	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 I 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) :			21.1
18.1.1	For fixed portion			21.1.1
18.1.1.1	Powder coated aluminium (minimum thickness of powder coating 50 micron)	kg	466.30	21.1.1.2
18.1.2	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)			21.1.2
18.1.2.1	Powder coated aluminium (minimum thickness of powder coating 50 micron)	kg	553.55	21.1.2.2
18.2	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):			21.3
18.2.1	With float glass panes of 4.0 mm thickness (weight not less than 10kg/sqm)	sqm	1019.80	21.3.1
18.2.2	With float glass panes of 5 mm thickness (weight not less than 12.50 kg/sqm)	sqm	1325.55	21.3.2
18.3	Providing and fixing double action hydraulic floor spring of approved brand and manufacture conforming to IS : 6315, having brand logo embossed on the body / plate with double spring mechanism and door weight upto 125 kg, for doors, including cost of cutting floors, embedding in floors as required and making good the same matching to the existing floor finishing and cover plates with brass pivot and single piece M.S. sheet outer box with slide plate etc. complete as per the direction of Engineer-in-charge.			21.4
18.3.1	With stainless steel cover plate minimum 1.25 mm thickness	each	2448.85	21.4.1
19	WATER PROOFING			22
19.1	Grading roof for water proofing treatment with			22.14
19.1.1	Cement mortar 1:4 (1cement : 4 coarse sand)	cum	13378.15	22.14.3
20	NEW TECHNOLOGIES AND MATERIALS			26

20.1	Providing & fixing in position Phenol bonded Bamboowood panelled or panelled and glazed shutters for doors windows, clerestorey windows with pre-molded minimum 30mm thick planks, in approved colours, texture & finish. It shall have 10mm wide, 25mm deep groove to fit in panels. The bamboo wood shall have minimum density of 1000 Kg/cum, minimum Hardness 1000 Kgf. All styles and rails shall have profiled interlocking system locked in place by bamboo pins, all complete as per direction of Engineer in charge. (The panelling will be paid for separately).	sqm	5504.70	26.4
20.1 .1	Providing and fixing false ceiling at all heights with integral densified calcium silicate reinforced with fibre and natural filler false ceiling tiles of Size 595x595mm of approved texture, design and patterns as per CPWD Specification 2019, to be laid in true horizontal level suspended on interlocking metal T-Grid of hot dipped galvanised iron section of 0.33mm thick (galvanized @ 120 grams per sqm including both sides) comprising of main-T runners of size 24x38 mm of length 3000 mm, cross - T of size 24x32 mm of length 1200 mm and secondary intermediate cross-T of size 24x32 mm of length 600mm to form grid module of size 600 x 600 mm, suspended from ceiling using galvanised mild steel items (galvanizing @ 80 grams per sqm) i.e. 12x50 mm long dash fasteners, 6 mm dia fully threaded hanger rod upto 1000 mm length and L-shape level adjuster of size 76x25x25x1.6 mm fixed with grid and Z cleat of size 25x37x25x1.6mm thick with pre-cut hole on both 25mm flange to pierce into 12x50mm or even bigger size dash fastener if require, fixed with Galvanized iron perimeter wall angle or size 24x24x0.40 mm of length 3000 mm to be fixed on periphery wall / partition with the help of plastic rawl plugs at 450mm center to center and 40 mm long dry wall S.S screws. The work shall be carried out as per specifications, drawing and as per directions of the Engineer-in-Charge. With 15 mm thick Tegular edged light weight calcium silicate false ceiling tiles	sqm	1777.50	26.22.1

20.1.2	Providing and fixing false ceiling at all heights with integral densified calcium silicate reinforced with fibre and natural filler false ceiling tiles of Size 595x595mm of approved texture, design and patterns as per CPWD Specification 2019, to be laid in true horizontal level suspended on interlocking metal T-Grid of hot dipped galvanised iron section of 0.33mmthick (galvanized @ 120 grams per sqm including both sides)comprising of main-T runners of size 24x38 mm of length 3000 mm,cross - T of size 24x32 mm of length 1200 mm and secondary intermediate cross-T of size 24x32 mm of length 600mm to formgrid module of size 600 x 600 mm, suspended from ceiling usinggalvanised mild steel items (galvanizing @ 80 grams per sqm) i.e. 12x50 mm long dash fasteners, 6 mm dia fully threaded hanger rod upto 1000 mm length and L-shape level adjuster of size 76x25x25x1.6 mm fixed with grid and Z cleat of size 25x37x25x1.6mm thick with precut hole on both 25mm flange to pierce into 12x50mm or even bigger size dash fastener if require, fixed with Glavanised iron perimeter wall angle or size 24x24x0.40 mm of length 3000 mm to be fixed on periphery wall / partition with the help of plastic rawl plugs at 450mm center to center and 40 mm long dry wall S.S screws. The workshall be carried out as per specifications, drawing and as per directionsof the Engineer-in-Charge. With 15 mm thick tegular/butt edged without perforation plain/designer light weight calcium silicate Anti-Microbial Bio-Safe coated false ceiling tiles Confirming to JIS-Z2801 and ASTM G-21	sqm	1981.20	26.22.2
20.2	Providing, mixing and applying bonding coat of approved adhesive on chipped portion of RCC as per specifications and direction of Engineer-In-charge complete in all respect.			26.31
20.2.1	Epoxy bonding adhesive having coverage 2.20 sqm/kg of approved make	sqm	390.45	26.31.2
20.3	Providing and injecting approved grout in proportion recommended by the manufacturer into cracks/honey-comb area of concrete/ masonry by suitable gun/pump at required pressure including cutting of nipples after curing etc. complete as per directions of Engineer-in-Charge. (The payment shall be made on the basis of actual weight of approved grout injected.)			26.35
20.3.1	Stirrer mixed SBR Polymer (of approved make) modified Cement slurry made with Shrinkage Compensating Cement in concrete/RCC work.	kg	106.70	26.35.2
20.3.2	Epoxy injection grout in concrete/RCC work of approved make	kg	793.25	26.35.3
20.4	Providing and inserting 12mm dia galvanised steel injection nipple in honey comb area and along crack line including drilling of holes of required diametre (20mm to 30mm) up to depth from 30mm to 80mm at required spacing and making the hole & crack dust free by blowing compressed air, sealing the distance between injection nipple with adhesive chemical of approved make and allow it to cure complete as per direction of Engineer-In-Charge.	each	202.70	26.39

	Civil Market Rate Items- Non Scheduled Items			
21	Providing and fixing colour coated galvalume profile sheets (Make- TATA/JSW) with the depth of 30 mm and pitch of corrugation 200 mm (Colour and shape of profile as approved by the Engineer-in-charge), 0.60 mm(TCT) total coated thickness(tolerance as per relevant IS code), material yield strength 550 MPa, galvalume AZ-150 GSM (both side inclusive) with regular modified polyester paint and coating of 20-25 micron RMP on exposed surface including primer and 7-10 micron epoxy coating on unexposed surface including primer. The sheet should be supplied in single length as shown in drawing or as desired by engineer in charge and shall be fixed using stainless steel Hex cap headed self drilling/ tapping stainless steel screws M6, 50 mm long with 3 mm thick EPDM seal and Stainless steel stitching screw of size 19X2.5 mm excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required. All screw should be sealed with silicon sealant.	Sqm	830.70	NSI/MR
22	Providing and fixing colour coated galvalume sheets roofing accessories (Make- TATA/JSW), 0.60 mm total coated thickness (TCT), material yield strength 550 MPa, galvalume AZ-150 GSM (both side inclusive) with regular modified polyester paint and coating of 20-25 micron rmp on expose surface including primer and 7-10 micron epoxy coating on unexposed surface including primer using stainless steel self drilling/ tapping screws of size 6x50 mm with 3 mm thick EPDM seal and Stainless steel plain washer complete : Matching Profile ridge (500 - 600mm).	Metre	610.20	NSI/MR
23	Providing and fixing colour coated galvalume sheets roofing accessories (Make-TATA/ JSW), 0.60 mm total coated thickness (TCT), material yield strength 550 MPa, galvalume AZ-150 GSM (both side inclusive) with regular modified polyester paint and coating of 20-25 micron rmp on expose surface including primer and 7-10 micron epoxy coating on unexposed surface including primer using stainless steel self drilling/ tapping screws of size 6x50 mm with EPDM seal and Stainless steel plain washer complete : Flashing/ Apron (Upto 600mm).	Metre	545.30	NSI/MR
24	Repair / Refilling gap between roof sheet and walls with cement concrete 1:1.5:3 (1 cement: 1.5 Coarse sand (Zone III), 3 graded stone aggregate 20 mm nominal size) and finishing/ leveling with avg 6 mm thick cement plaster both side of mix 1:3 (1 cement : 3 fine sand) to match with existing wall plaster i/c scaffolding and all lead and lift complete as per direction of Engineer -in-charge.(avg thickness of CC 50 mm)	Sqm	552.70	NSI/MR
25	Providing and spreading non-metallic floor hardener minimum @ 4.5kg/sqm in floor concrete (as per manufactures specifications and approved by Engineer-in-charge). Nothing extra shall be payable if manufacturer specifies extra quantity.	Sqm	80.90	NSI/MR

26	Providing and fixing channels for preparing panels of required size and then dewatering of the concrete with vaccum dewatering machine finishing with mechanical trowel with trimix matching (thickness of flooring 75 to 150 mm, along with cutting groove joints at appropriate spacing as per direction of engineer in charge (concrete and steel to be paid separately as per relevent item)	Cum	610.00	NSI/MR
27	Extra for providing and fixing Aluminium wind ties of 40 x 6 mm section.	Metre	212.70	NSI/MR
28	Manufacturing/ Providing and laying precast inter locking cement concrete paver blocks of grade M-40 and size 200mm X 100mm X 100 mm including providing and laying 50 to 80mm (avg 65 mm) thick layer of bedding sand, joint filling with fine sand, compacting with plate compactor and final compaction with vibratory roller etc. as per specification. The item includes all cost of paver blocks i.e., cost of ingredients of paver blocks such as sand, aggregate, cement of high strength OPC cement as per IS 8112-2013, cost of bedding as well as sand filled in joints. The rate shall also include all lead, lifts, materials, machine tools, plants, labour, equipment & testing etc. complete in all respects as directed by Enineer - in - Charge	Sqm	1213.00	NSI/MR
29	Manufacturing/ Providing and laying precast inter locking cement concrete paver blocks of grade M-50 and size 200mm X 100mm X 100 mm including providing and laying 50 to 80mm (avg 65 mm) thick layer of bedding sand, joint filling with fine sand, compacting with plate compactor and final compaction with vibratory roller etc. as per specification. The item includes all cost of paver blocks i.e., cost of ingredients of paver blocks such as sand, aggregate, cement of high strength OPC cement as per IS 8112-2013, cost of bedding as well as sand filled in joints. The rate shall also include all lead, lifts, materials, machine tools, plants, labour, equipment & testing etc. complete in all respects as directed by Enineer - in - Charge	sqm	1466.92	NSI/MR
30	Steel work in single section for door frame, made of M.S. angle 75x75x6mm, joints mitred, welded with 8 Nos., 30 cm. long lugs of M.S. Angle40X40x6mm to act as hold fasts, complete” as per drg. No.CWC/PG/380/5 applying priming coat of approved steel primer, fixing in Cement Concrete Block of mix 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) of 30x30x23 cm. etc.	Kg	99.50	NSI/MR

31	Providing & fixing expanded metal mesh frame with expanded metal 20x60 mm strands 3.25 mm wide and 1.6 mm thick, and frame made of 25x4 mm M.S. flat sub divided into three equal panels with 25x4 mm M.S. Flat expanded metal to be fixed with 19x3mm M.S. Beading tack welded, 4 nos. of M.S. Cleats of size 50x50x4 mm size with holes for 12 mm dia. bolt i/c and manufacture and priming coat of approved steel primer complete as per drg. No.CWC/PG/385 and as per instructions of Engineer- in-charge. The whole frame with expanded metal mesh is to be fixed on the outer side of V4 openings with required size of fasteners 10x80 mm size	Kg	186.22	NSI/MR
32	Providing and fixing Angle iron frames for doors, windows and ventilators of mild steel Angle sections of required size for V4 and V6 complete as per CWC Drawing No. CWC/PG/380/5(For V4) and CWC/PG/414 (For V6), joints mitred and welded by angle iron or MS flat pieces and/or GI Fabric of required size to the MS angle frames fixed with holdfast including fixing of necessary butt hinges and screws and applying a priming coat of approved steel primer, all complete as per the direction of Engineer-In-charge. Note- The fixing of glass panes and cement concrete block shall be paid separately under relevant items	Kg	103.70	NSI/MR
33	Providing and fixing 1mm thick M.S. sheet steel door with frame of 40x40x6 mm angle iron and 3 mm M.S. gusset plates at the junctions and corners by using MS angles 40x40x6 mm for diagonal braces, all necessary fittings like bush hinges, handles, tower bolts, sliding door bolts as per drawing No./ CWC/PG/380/5 complete, including applying a priming coat of approved steel primer.Using M.S. angels 40x40x6 mm for diagonal braces	Sqm	4781.15	NSI/MR
34	Supply & Fixing of 2mm thick Polycarbonate sheet, having length, width and profile in accordance with those of adjoining main cladding sheets shall be fixed using stainless steel Hex cap headed self-drilling/ tapping stainless steel screws M6,50 mm long with 3 mm thick EPDM seal and Stainless steel stitching screw of size 19X2.5 mm excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required. All screw should be sealed with silicon sealant. complete work as directed by official in charge	Sqm	2050.05	NSI/MR
35	Removing & refixing A.C. sheets in roofing with G.I.J. or L hooks bitumen and G.I. plain washers complete as directed by official -in-Charge (A.C. Sheets required for the work shall be used out of dismantled serviceable assets) shall be supplied free of cost.)	sqm	168.96	NSI/MR

36	Removing & refixing GI/ Galvalume steel sheets in roofing using stainless steel Hex cap headed self drilling/ tapping stainless steel screws M6, 50 mm long with 3 mm thick EPDM seal and Stainless steel stitching screw of size 19X2.5 mm excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required. All screw should be sealed with silicon sealant complete as directed by official in charge (Sheets required for the work shall be used out of dismantled serviceable assets) shall be supplied free of cost.)	sqm	306.62	NSI/MR
37	Supplying & Laying APP tarfelt non woven polyeser based as per IS code 16532: 2017 pliable menbrane with release film on top of roof/ sheet/ Ridges with suitable synthetic adhesive confroming to astm d 6511:2018PP mebrane with release film of approved quality by apply 1.45 Kg. per Sqm. (The hessain type tarfelt should be of approved quality and conform to IS 1322)	sqm	265.20	NSI/MR
38	Laying stone soling including packing with smaller stone and consolidation with road roller including spreading and consolidation of blinding material, moorum, earth filling and laying to template, (payment to be made for quantity of only stone soling used excluding blinding material etc.) complete work as per direction of official in charge	cum	820.52	NSI/MR
39	Providing and fixing Glass strips in joints of terazo/cement floors. A) 50 mm wide and 4 mm thick. Complete work as per directiono of official in charge	meter	79.69	NSI/MR
40	Providing and fixing broken glass chips on C.C. coping of compound wall during laying of C.C. Coping using broken glass chips @ 5 Kg./SQM (Rate includes cost of glass chips but excluding Cost of C.C. coping). Complete work as per direction of official in charge	sqm	99.85	NSI/MR
41	P/F ridges and hips in asbestos cement sheet roofing close fitting adjustable ridges (A.C. ridges shall confirm to I.S. code 1626 (Part-III) – 1981). Complete work as per direction of official in charge	meter	525.85	NSI/MR
42	Plugging of roof leakage in AC sheets by bitumenous sealing compound of make shalimar/ sika or equivalnet of good quality . Complet work as per direction of official in charge	sqm	8.15	NSI/MR
43	Plugging of roof leakage by self adhesive tear resistant (Bituminous sealing tape, used for a wide range of waterproofing work on roofs, building components, caravans) plugging tape/ Mastic tape of sika multiseal/ shalimar or equivalent of approved make (minimum thickness 100 mm) after cleaning the dirt/ sheet complete for proper fixing of tape as per direction of official in charge. Rate includes cost of all material and labour required for plugging of roof leakage. complete work as per direction of official in charge	sqm	1,578.62	NSI/MR

44	Plugging of roof leakage by self adhesive tear resistant (Bituminous sealing tape, used for a wide range of waterproofing work on roofs, building components, caravans) plugging tape/ Mastic tape of sika multiseal/ shalimar or equivalent of approved make (minimum thickness 100 mm) after cleaning the dirt/ sheet complete for proper fixing of tape as per direction of official in charge. Rate includes cost of all material and labour required for plugging of roof leakage. complet work as per direction of official in charge	per point	158.37	NSI/MR
45	Lubricating rolling shutters with grease and other lubricating items to make rolling shutter in working condition all work complete as per direction of official in charge	sqm	1107.55	NSI/MR
46	Providing and Fixing at or near ground level precast cement concrete saucer drain of grade M-30 : Size (450mm x 600mm x 100mm) complete work as per direction of official in charge	meter	843.40	NSI/MR
47	painting with anti corrosive paint of aproved brand and manufacture to give an even shade two or more coats on new work as per direction of official in charge	sqm	115.10	NSI/MR
48	Providing and supplying Reinforced Cement Concrete Crash Barrier (Provision of an Reinforced cement concrete crash barrier at the edges of the road, approaches to bridge structures and medians, constructed with M-25 grade concrete with HYSD reinforcement conforming to IRC:21 and dowel bars 25 mm dia, 450 mm long at expansion joints filled with pre-moulded asphalt filler board, keyed to the structure on which it is built and installed as per design given in the enclosure to MOST circular No. RW/NH - 33022/1/94-DO III dated, 24 June 1994 as per dimensions in the approved drawing and at locations directed by the Engineer, all as specified), M 25 grade concrete . complete work as per direction of official in charge	Meter	4446.40	NSI/MR
49	Metal Beam Crash Barrier: Type - A, "W" : Metal Beam Crash Barrier (Providing and erecting a "W" metal beam crash barrier comprising of 3 mm thick corrugated sheet metal beam rail, 70 cm above road/ground level, fixed on ISMC series channel vertical post, 150 x 75 x 5 mm spaced 2 m centre to centre, 1.8 m high, 1.1 m below ground/road level firmly fixed to the ground by means of foundation with M-15 grade cement concrete 30 x 30 x 110 cm, all steel parts and fitments to be galvanised by hot dip process, all fittings to conform to IS:1367 and IS:1364, metal beam rail to be fixed on the vertical post with a spacer of channel section 150 x 75 . complete work as per direction of official in charge	Meter	4599.84	NSI/MR

50	Type - B, "THRIE" : Metal Beam Crash Barrier (Providing and erecting a "Thrie" metal beam crash barrier comprising of 3 mm thick corrugated sheet metal beam rail, 85 cm above road/ground level, fixed on ISMC series channel vertical post, 150 x 75 x 5 mm spaced 2 m centre to centre, 2 m high with 1.15 m below ground level firmly fixed to the ground by means of foundation with M15 grade cement concrete 30 x 30 x 115 cm, all steel parts and fitments to be galvanised by hot dip process, all fittings to conform to IS:1367 and IS:1364, metal beam rail to be fixed on the vertical post with a space of channel section 150 x 75 x 5 mm, 546 mm long complete as per clause 811) complete work as per direction of official in charge	Meter	6249.60	NSI/MR
51	Providing and applying high performance EPU Flooring of sika /Fosroc/ STP (Shalimar) / JEMKON of thickness 3 mm on concrete surface, which includes surface preparation thoroughly by grinding & cleaning all dirt, debris to achieve a sound surface, followed by a primer coat with Tech 24 of 0.1 MM by mixing base and hardener (as per manufacturer's specification). It will be followed by a screed coat with Tech 60 of 2 MM by mixing base & hardener & aggregates (as per manufacturer's specification) followed by a sealer coat and application of Final Top coat with Tech SLE of 0.9 MM by mixing base ,hardener , color paste & aggregates (as per manufacturer's specification) complete as per specifications and as directed by official -In-Charge. Total thickness will be 3 MM.	sqm	1083.35	NSI/MR
52	Providing and applying high performance PU Dispersion Based Self-Leveling Cement concrete Flooring of strenght M50 (+/- 5), having density of 1920 kg/ cum,of sika /Fosroc/ STP (Shalimar) / JEMKON producing a smooth matt surface finish of required colour, having specified thickness on concrete surface having has excellent chemical resistance and provides smooth, even and easy to clean monolithic, seamless surface, which includes surface preparation thoroughly by scarification: Removal of old coating by means of scarification.Cleaning of dust and debris and making the concrete ready for PU Concrete application, Groove cutting & cleaning all dirt, debris to achieve a sound surface. Application of scratch coat of 1 mm compatible with top and bottom layer and followed by application of Final Top coat with Tuffkrete of 2mm by mixing base , hardener , colour paste & aggregates (as per manufacturer's specification) complete as per specifications and as directed by official-In-Charge. Total thickness will be 3mm.	sqm	1265.31	NSI/MR
53	Providing and laying of Concrete repair material or equivalnet of make Sika/ Fosroc/ STP (Shalimar)/ JEMKON, making foor surface ready for use/ further application of concrete or EPU/ PU Concrete flooring as per direction of official in charge	kg	278.99	NSI/MR

54	Providing of hydraulic excavator (3D) with driver and fuel for day to day maintenance works in warehouse complex for excavation/ malba cleaning/ shifting of civil work/ electrical work as per direction of official in charge , Rate include cost of services of operating staff, Cost of lubricating oil, diesel / Petrol/ Kerosene oil , other consumables for running the plant and machinery(one job means 8 hours duty)	each job	9393.93	NSI/MR
	Providing of tractor with trolley for small petty works of day to day maintenance works in warehouse complex for excavation/ malba cleaning/ shifting of civil work/ electrical work as per direction of official in charge, Rate include cost of services of operating staff, Cost of lubricating oil, diesel / Petrol/ Kerosene oil , other consumables for running the plant and machinery (one job means 1 hour duty)	each job	1098.71	NSI/MR
55	Providing of tractor with trolley for small petty works of day to day maintenance works in warehouse complex for excavation/ malba cleaning/ shifting of civil work/ electrical work as per direction of official in charge, Rate include cost of services of operating staff, Cost of lubricating oil, diesel / Petrol/ Kerosene oil , other consumables for running the plant and machinery (one job means 1 hour duty)	each job	1633.89	NSI/MR
56	Providing of generator for day to day maintenance works in warehouse complex for running machines/ other works as per need of civil work/ electrical work as per direction of official in charge, Rate include cost of services of operating staff, Cost of lubricating oil, diesel / Petrol/ Kerosene oil , other consumables for running the plant and machinery (one job means 8 hours duty)	each job	4042.18	NSI/MR
57	Providing of road roller (8- 10 tonne) for compaction/ consolidation of earth or other day to day maintenance works in warehouse complex for civil work/ electrical work as per direction of official in charge , Rate include cost of services of operating staff, Cost of lubricating oil, diesel / Petrol/ Kerosene oil , other consumables for running the plant and machinery (one job means 8 hours duty)	each job	4042.18	NSI/MR
58	Providing skilled labour for Preparing of Grass bed, turfing, cutting the grass with lawn movers, trimming of Damaged trees and bushes, sapling of new plants, shifting of plant pots etc., other miscellaneous skilled works of civil and electrical work as per direction of official in charge (one job means 8 hours duty)	each job	958.23	NSI/MR

59	Providing unskilled labour for Cleaning of garden, Watering of landscaped areas and maintaining the hygiene, aesthetic in lawn, Cleaning/Sweeping of CW Roads, Terrace, Surrounding along Boundary walls, Main entry Roads, Parking yards etc, Cleaning of Office floors, walls, cobwebs, labour Huts, Security Cabins and other similar amenities within complex, Cleaning of Toilets /Washrooms / drinking water utilities and other similar amenities decided by WHM etc, Cleaning of firefighting equipment including portable fire extinguishers, Sand Buckets (cleaning & refilling), Underground Tank, fire pump panels, cartage of items, uprooting of plants/ weeds on building structure, cleaning of roof of building structure etc., including other unskilled works of repair maintenance works of Civil and electrical works as per direction of official in charge (one job means 8 hours duty)	each job	891.33	NSI/MR
60	Supply of Water supply tanker of 5000 litre capacity with complete labour work of providing water for intended use as per direction of official in charge	each	2035.27	NSI/MR
61	Providing, installation and commissioning of one seater portable toilet Assembled Ready To Use of make TATA Steel of cabin size 890mm X 840mm X 1980mm (+/- 25 mm for 1- seater) of colour as per requirement with one no of compartment 1 (no partiton) - seater portable toilet having flat roof having no projection , made of bottom frame material 35mm X 35mm X 5mm(thick) MS angle for one seater, top roof frame material 35mm X 35mm X 5mm(thick) MS angle, unit understructure Supported by 4- legs of size 35mm X 35mm X 5mm MS angle with corner support of 25mm x 25mm X 3mm MS angle for 1-seate, Door size : 585mm x 1830mm (+/- 20 mm) with top, side and door panels of Powder coated 1.2 mm thick Galvanized Iron sheet, having flooring of Anti skid tile finish floor inside toilet, 2 nos door hinges of 75mm size with 1.2-1.5mm thickness MS, Door locking bolts : Size 100mm of MS, Towerbolt of MS size 75mm, Ventilation All 4 - sides of size 650mm X 40mm (+/- 10 mm) of 25mm X 25mm X 3mm(thick) flat MS, with one no of Indian WC with steel base of size 580mm X 440mm with built in platform/footrest , seat cistern fitting By PVC flush pipe to toilet seat, footrest made of SS 304 integrated with Indian WC and floor, base floor surface To be suitably slanted towards WC for proper drainage(for Indian WC), cloth hook made of SS 304, stair size : 610mm X 230mm (+/- 10 mm) having 1-step, stair frame material 25mm x 25mm X 3mm MS angle and stairs of 25mm X 3mm MS flat, with water facility By mean of overhead tank(Capacity 200Ltrs) made of double layer HDPE sheet , tank holder frame material 25mm X 3mm(thick) MS flat, leg height 350mm (+/- 10 mm), 1 no wash basin made of SS 304, chrome plated tap, soap stand of SS 304, P trap made of PVC(75mm) ,two number 20 mm dia heavy lifting hook provided, provision of electric connection By mean of connection from main line, water supply connection UPVC pipe connection with all toilet interconnecting, with Sludge tank(Capacity 200 Ltrs) with	each	299999.00	MR as per GeM

	75mm outlet facility through butterfly valve and hosepipe(for 1-seater and 2-seater) complete with plumbing and sanitary fitting connections (Cost excludes Civil foundation, sewage tank, mirros, electrical and waste extraction fittings.			
62	Providing and fixing GI wire netting 3/4" X 24G on the clean terrace below CC Grading fixed with nails etc as per direction of Engineer -in -charge	Sqm	45.00	NSI/MR
63	Providng and fixing PVC Redu wheel for sliding window of approved design and brand as per direction of engineering in charge	Each	25.00	NSI/MR
64	Providing and fixing star lock type aluminium handle of standard size for sliding window shutter of approved brand and design as per direction of engineer-in-charge.	Each	30.00	NSI/MR
65	Major repairs to damaged rolling shutters including dismantling of rolling shutter and its part and re-fixing the same after complete repairs to MS laths, pipe shaft, brackets side guides and arrangement for inside outside locking with push and pull operation complete and lubricating of rolling shutters with grease of approved quality @ 1.00 Kg/ per shutter including repairs to mechanical devise chain and crank operation for heavy size of rolling shutter 10x12 feet complete as per instruction of engineer in charge.	Each	2500.00	NSI/MR
66	Major repairs to damaged rolling shutters including dismantling of rolling shutter and its part and re-fixing the same after complete repairs to MS laths, pipe shaft, brackets side guides and arragement for inside outside locking with push and pull operation complete and lubricating of rolling shutters with grease of approved quality @ 0.50 Kg/ per shutter including repairs to mechanical devise chain and crank operation for heavy size of rolling shutter 6x8 feet complete as per instruction of engineer in charge.	Each	2000.00	NSI/MR
67	Providing and laying locking latches/hooks in Rolling shutter including welding reverting etc. as required and as per instruction of Enginner-in-charge.	Each	150.00	NSI/MR
68	Repairs and refixing of damaged channel/fender including proper alignment fixed with fasteners/existing bolts in the nosing of platform complete as per direction of engineer-in-charge.	Mtr	80.00	NSI/MR
69	Replacing of damaged/broken rolling shutters with new springs made of HT steel grade-II of IS 4454/1967 of 45.00 cm length with bolts and nuts including removing of shaft doom delinking the shutters and refixing the same after replacing complete for smooth operation for big size 10'x12' rolling shutters as per the directions of Engineer-in-charge.	Each	600.00	NSI/MR

70	Replacing of damaged/broken rolling shutters with new springs made of HT steel grade-II of IS 4454/1967 of 27.50 cm length with bolts and nuts including removing of shaft doom delinking the shutters and refixing the same after replacing complete for smooth operation for big size 6'x8' rolling shutters as per the directions of Engineer-in-charge.	Each	500.00	NSI/MR
71	Lubricating rolling shutter with grease of approved quality @ 0.5 kg/per shutter including springs side guides, channels locking latch, brackets/plats etc complete including cleaning side guides, channels springs and tightening the existing springs, bolts etc as per the directions of Engineer-in-charge	Each	400.00	NSI/MR
72	Lubricating rolling shutter with grease of approved quality @ 1.0 kg/per shutter including springs side guides, channels locking latch, brackets/plats etc complete including cleaning side guides, channels springs and tightening the existing springs, bolts etc as per the directions of Engineer-in-charge for heavy size of rolling shutters 10x12 feet.	Each	600.00	NSI/MR
73	Repairs to roof leakages of precoated galvanized iron profiled sheets colour coated (TCT) including tightening of self taping screw wherever required of precoated galvanized iron profile sheets colour coated (TCT) including the cost of self taping screw & required adhesive to plugging the roof leakage complete as per instruction of Engineer-in-charge.	Sqm	11.31	NSI/MR
74	Repairs of tilting/blown of high performance industrial multi-roof turbo ventilators i/c refixing after complete repair and replacement of nut bolts and fixing on the existing sheet on the roof of godown as per the direction of Engineer- in-charge.	Each	1000.00	NSI/MR
75	Repairs & refixing of blown off roof of pre- coated galvanized iron profile colour coated (TCT) sheets. The sheet shall be fixed using self drilling/self tapping screws of size (5.5x55mm) complete upto any pitch in horizontal/vertical or curved surface including cutting to size and shape wherever required in godowns complete as per engineer in charge.	Each	250.00	NSI/MR
76	Repairs to damaged MS garage doors frames & shutters including repairs to pivots, door frame & shutters, sliding door & tower bolts with proper alignment by welding complete and in working condition and as per instruction of engineer in charge.	Each	1000.00	NSI/MR

77	Providing & Fixing wire mesh steel doors in two leaves from outside the godown to prevent entry of birds through rolling shutters opening, with M.S. jali in squared mesh of size not more than 30mmx30mm of M.S. wire of dia 2.5mm thick and door frame of 40x40x6mm M.S. angle, 3mm gusset plate at junction and corner by using M.S. flat 40x6mm diagonal bracings. 25x4mm M.S. beading are to be fixed on wiremesh over frames and bracings on back side along with necessary fittings as per drawing No. CWC/ANC-BLD/231-AC including a priming coat of approved steel primer including cutting walls/floor for 8 Nos. of holes of size 300x150x150mm for fixing hold fasts and making good the same by CC 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) i/c dismantling of existing brick bend and making good i/c plastering with cement mortar 1:4 (1 cement : 4 fine sand) and white wash & colour wash over blocks area complete as per direction of Engineer-in-charge.	Sqm	5291.84	NSI/MR
78	Supplying, erection and commissioning of CWC logo with CWC in Acrylic 3d letter A cast sheet of 4mm thickness with Samsung module LED & back channel of ACP sheet of minimum height of 3 feet of single letter and total width 10 feet. total size including logo is 10' x 8.5' (H).	Each	120414.00	NSI/MR

Sub schedule A. (II): Items based on DSR 2022 (with up-to-date correction slips) and Non-Scheduled Items for E&M Works,				
Name of Work: Execution of Miscellaneous Repair /Maintenance, upgradation and Construction works in Zone 10 - a cluster of central warehouses located at CW Gurugram (Hry) On Annual rate Contract basis				
SLNo	Description	Unit	Rate	Ref
1	Wiring for circuit/ submain wiring along with earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed steel conduit as required.			DSR Electrical 2022 1.7
1.01	2 X 1.5 sq. mm + 1 X 1.5 sq. mm earth wire	Metre	327.00	1.7.1
1.02	2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire	Metre	369.00	1.7.2
1.03	2 X 4 sq. mm + 1 X 4 sq. mm earth wire	Metre	428.00	1.7.3
1.04	2 X 6 sq. mm + 1 X 6 sq. mm earth wire	Metre	589.00	1.7.4

1.05	2 X 10 sq. mm + 1 X 6 sq. mm earth wire	Metre	710.00	1.7.5
1.06	2 X 16 sq. mm + 1 X 6 sq. mm earth wire	Metre	942.00	1.7.6
1.07	4 X 2.5 sq. mm + 2 X 2.5 sq. mm earth wire	Metre	560.00	1.7.7
1.08	4 X 4 sq. mm + 2 X 4 sq. mm earth wire	Metre	677.00	1.7.8
1.09	4 X 6 sq. mm + 2 X 6 sq. mm earth wire	Metre	924.00	1.7.9
1.10	4 X 10 sq. mm + 2 X 6 sq. mm earth wire	Metre	1166.00	1.7.10
1.11	4 X 16 sq. mm + 2 X 6 sq. mm earth wire	Metre	1645.00	1.7.11
2	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable etc. as required.			1.10
2.1	Group A	Point	1015.00	1.10.1
2.2	Group B	Point	1182.00	1.10.2
2.3	Group C	Point	1467.00	1.10.3
3	Wiring for twin control light point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, 2 way modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable etc. as required.	Point	1562.00	1.11
4	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required.			1.14
4.01	2 X 1.5 sq. mm + 1 X 1.5 sq. mm earth wire	Metre	233.00	1.14.1
4.02	2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire	Metre	275.00	1.14.2
4.03	2 X 4 sq. mm + 1 X 4 sq. mm earth wire	Metre	334.00	1.14.3
4.04	2 X 6 sq. mm + 1 X 6 sq. mm earth wire	Metre	439.00	1.14.4
4.05	2 X 10 sq. mm + 1 X 6 sq. mm earth wire	Metre	570.00	1.14.5
4.06	2 X 16 sq. mm + 1 X 6 sq. mm earth wire	Metre	772.00	1.14.6
4.07	4 X 2.5 sq. mm + 2 X 2.5 sq. mm earth wire	Metre	410.00	1.14.7
4.08	4 X 4 sq. mm + 2 X 4 sq. mm earth wire	Metre	537.00	1.14.8
4.09	4 X 6 sq. mm + 2 X 6 sq. mm earth wire	Metre	754.00	1.14.9
4.10	4 X 10 sq. mm + 2 X 6 sq. mm earth wire	Metre	1005.00	1.14.10
4.11	4 X 16 sq. mm + 2 X 6 sq. mm earth wire	Metre	1365.00	1.14.11
5	Rewiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable and 1.5 sq.mm FRLS PVC insulated copper conductor single core cable as earth wire in existing surface/ recessed steel/PVC conduit including dismantling as required.			1.15
5.1	Group A	Point	574.00	1.15.1
5.2	Group B	Point	637.00	1.15.2

5.3	Group C	Point	894.00	1.15.3
6	Rewiring for twin control light point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable and 1.5 sq.mm FRLS PVC insulated copper conductor single core cable as earth wire in existing surface/ recessed steel/PVC conduit including dismantling as required.	Point	894.00	1.16
7	Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface/ recessed steel/ PVC conduit as required.			1.17
7.01	1 x 1.5 sq. mm	Metre	45.00	1.17.1
7.02	2x 1.5 sq. mm	Metre	70.00	1.17.2
7.03	3 x 1.5 sq. mm	Metre	95.00	1.17.3
7.04	4x 1.5 sq. mm	Metre	120.00	1.17.4
7.05	5x 1.5 sq. mm	Metre	155.00	1.17.5
7.06	6 x 1.5 sq. mm	Metre	181.00	1.17.6
7.07	7 x 1.5 sq. mm	Metre	216.00	1.17.7
7.08	8 x 1.5 sq. mm	Metre	241.00	1.17.8
7.09	9x 1.5 sq. mm	Metre	285.00	1.17.9
7.10	10 x 1.5 sq. mm	Metre	311.00	1.17.10
7.11	2 x 2.5 sq. mm	Metre	98.00	1.17.11
7.12	3 x 2.5 sq. mm	Metre	137.00	1.17.12
7.13	4 x 2.5 sq. mm	Metre	177.00	1.17.13
7.14	5 x 2.5 sq. mm	Metre	226.00	1.17.14
7.15	6 x 2.5 sq. mm	Metre	265.00	1.17.15
7.16	7 x 2.5 sq. mm	Metre	314.00	1.17.16
7.17	8 x 2.5 sq. mm	Metre	353.00	1.17.17
7.18	9 x 2.5 sq. mm	Metre	412.00	1.17.18
7.19	10 x 2.5 sq. mm	Metre	451.00	1.17.19
7.20	2 x 4 sq. mm	Metre	147.00	1.17.20
7.21	3 x 4 sq. mm	Metre	206.00	1.17.21
7.22	4 x 4 sq. mm	Metre	275.00	1.17.22
7.23	5 x 4 sq. mm	Metre	337.00	1.17.23
7.24	6 x 4 sq. mm	Metre	396.00	1.17.24
7.25	7 x 4 sq. mm	Metre	457.00	1.17.25
7.26	8 x 4 sq. nmm	Metre	516.00	1.17.26
7.27	9 x 4 sq. mm	Metre	579.00	1.17.27
7.28	10 x 4 sq. mm	Metre	648.00	1.17.28
7.29	2 x 6 sq. nmm	Metre	216.00	1.17.29
7.30	3 x 6 sq. mm	Metre	304.00	1.17.30
7.31	4 x 6 sq. mm	Metre	402.00	1.17.31
7.32	5 x 6 sq. mm	Metre	491.00	1.17.32

7.33	6 x 6 sq. mm	Metre	598.00	1.17.33
7.34	7 x 6 sq. mm	Metre	687.00	1.17.34
7.35	8 x 6 sq. mm	Metre	785.00	1.17.35
7.36	9 x 6 sq. mm	Metre	874.00	1.17.36
7.37	10 x 6 sq. mm	Metre	967.00	1.17.37
8	Supplying and fixing of following sizes of steel conduit along with accessories in surface/recess including painting in case of surface conduit, or cutting the wall and making good the same in case of recessed conduit as required.			1.20
8.1	20 mm	Metre	223.00	1.20.1
8.2	25 mm	Metre	256.00	1.20.2
8.3	32 mm	Metre	326.00	1.20.3
8.4	40 mm	Metre	470.00	1.20.4
8.5	50 mm	Metre	584.00	1.20.5
9	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required.			1.21
9.1	20 mm	Metre	128.00	1.21.1
9.2	25 mm	Metre	145.00	1.21.2
9.3	32 mm	Metre	184.00	1.21.3
9.4	40 mm	Metre	228.00	1.21.4
9.5	50 mm	Metre	284.00	1.21.5
10	Supplying and fixing metal box of following sizes (nominal size) on surface or in recess with suitable size of phenolic laminated sheet cover in front including painting etc. as required.			1.22
10.01	75 mm X 75 mm X 60 mm deep	Each	178.00	1.22.1
10.02	100 mm X 100 mm X 60 mm deep	Each	209.00	1.22.2
10.03	150 mm X 75 mm X 60 mm deep	Each	216.00	1.22.3
10.04	150 mm X 150 mm X 60 mm deep	Each	311.00	1.22.4
10.05	180 mm X 100 mm X 60 mm deep	Each	245.00	1.22.5
10.06	200 mm X 125 mm X 60 mm deep	Each	323.00	1.22.6
10.07	200 mm X 150 mm X 60 mm deep	Each	355.00	1.22.7
10.08	200 mm X 150 mm X 75 mm deep	Each	363.00	1.22.8
10.09	200 mm X 250 mm X 60 mm deep	Each	468.00	1.22.9
10.10	200 mm X 250 mm X 75 mm deep	Each	488.00	1.22.10
10.11	200 mm X 150 mm X 100 mm deep	Each	412.00	1.22.11
10.12	200 mm X 250 mm X 100 mm deep	Each	506.00	1.22.12
10.13	200 mm X 300 mm X 60 mm deep	Each	525.00	1.22.13
10.14	200 mm X 300 mm X 100 mm deep	Each	561.00	1.22.14
10.15	250 mm X 300 mm X 60 mm deep	Each	607.00	1.22.15
10.16	250 mm X 300 mm X 100 mm deep	Each	653.00	1.22.16

11	Supplying and fixing following piano type switch/ socket on the existing switch box/ cover including connections etc. as required.			1.23
11.1	5/6 amps switch	Each	52.00	1.23.1
11.2	2 way 5/6 A switch	Each	64.00	1.23.2
11.3	15/16 A switch	Each	121.00	1.23.3
11.4	3 pin 5/6 A socket outlet	Each	69.00	1.23.4
11.5	6 pin 15/16 A socket outlet	Each	137.00	1.23.5
11.6	Telephone socket outlet	Each	109.00	1.23.6
11.7	TV antenna socket outlet	Each	95.00	1.23.7
11.8	Bell push	Each	83.00	1.23.8
12	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.			1.24
12.1	5/6 A switch	Each	103.00	1.24.1
12.2	2 way 5/6 A switch	Each	148.00	1.24.2
12.3	15/16 A switch	Each	156.00	1.24.3
12.4	3 pin 5/6 A socket outlet	Each	122.00	1.24.4
12.5	6 pin 15/16 A socket outlet	Each	197.00	1.24.5
12.6	Telephone socket outlet	Each	148.00	1.24.6
12.7	TV antenna socket outlet	Each	148.00	1.24.7
12.8	Bell push	Each	140.00	1.24.8
13	Supplying and fixing two module stepped type electronic fan regulator on the existing modular plate switch box including connections but excluding modular plate etc. as required.	Each	369.00	1.25
14	Supplying and fixing modular blanking plate on the existing modular plate & switch box excluding modular plate as required.	Each	40.00	1.26
15	Supplying and fixing following size/ modules, GI box alongwith modular base & cover plate for modular switches in recess etc. as required.			1.27
15.1	1 or 2 Module (75mmX75mm)	Each	298.00	1.27.1
15.2	3 Module (100mmX75mm)	Each	327.00	1.27.2
15.3	4 Module (125mmX75mm)	Each	343.00	1.27.3
15.4	6 Module (200mmX75mm)	Each	402.00	1.27.4
15.5	8 Module (125mmX125mm)	Each	454.00	1.27.5
15.6	12 Module (200mmX150mm)	Each	547.00	1.27.6
16	Supplying and fixing following Modular base & cover plate on existing modular metal boxes etc. as required.			1.28
16.1	1 or 2 Module	Each	133.00	1.28.1
16.2	3 Module	Each	151.00	1.28.2
16.3	4 Module	Each	158.00	1.28.3
16.4	6 Module	Each	182.00	1.28.4

16.5	8 Module	Each	211.00	1.28.5
16.6	12 Module	Each	272.00	1.28.6
17	Supplying and fixing metal box of 150mm X 75mm X 60mm deep (nominal size) on surface or in recess with suitable size of phenolic laminated sheet cover in front including providing and fixing 3 pin 5/6 A socket outlet and 5/6 A piano type switch, connections, painting etc. as required.	Each	358.00	1.29
18	Supplying and fixing metal box of 180mm X 100mm X 60mm deep (nominal size) on surface or in recess with suitable size of phenolic laminated sheet cover in front including providing and fixing 6 pin 5/6 & 15/16 A socket outlet and 15/16 A piano type switch, connections, painting etc. as required.	Each	488.00	1.30
19	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 3 pin 5/6 A modular socket outlet and 5/6 A modular switch, connections etc. as required.	Each	477.00	1.31
20	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 6 pin 5/6 & 15/16 A modular socket outlet and 15/16 A modular switch, connections etc. as required.	Each	586.00	1.32
21	Supplying and fixing 3 pin, 5 A ceiling rose on the existing junction box/ wooden block including connections etc. as required.	Each	87.00	1.33
22	Installation ,Testing, Commissioning of wall bracket /ceiling fittings of all sizes and shapes containing upto two GLS/CFL/LED lamps per fitting, complete with all accessories including connections etc. as required.	Each	119.00	1.35
23	Supplying and fixing call bell/ buzzer suitable for single phase, 230 V, complete as required.	Each	99.00	1.38
24	Providing and fixing plain 16/0.20mm (0.50sqmm) twin flat flexible, FRLS PVC insulated, copper conductor cable, in PVC sleeve of suitable size on the floor/ wall, or side of the table/ door etc. as required.	Metre	44.00	1.39
25	Providing and fixing plain 16/0.20mm (0.50sqmm) twin circular flexible FRLS PVC insulated, PVC sheathed copper conductor cable direct on the wall with PVC clips etc. as required.	Metre	40.00	1.40
26	Providing and fixing extra conduit down rod of 20 mm dia, 2 X 10 cm length, wiring with 2 X 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable including painting etc. as required. (Note: More than 5 cm length shall be rounded to the nearest 10 cm and 5 cm or less shall be ignored)	Each	55.00	1.43
27	Installation, testing and commissioning of ceiling fan, including wiring the down rods of standard length (upto 30 cm) with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable etc. as required.	Each	213.00	1.44

28	Installation, testing and commissioning of ceiling fan, including wiring the down rods of standard length (upto 30 cm) with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable, including providing and fixing phenolic laminated sheet cover on the fan box etc. as required.	Each	339.00	1.45
29	Supplying and fixing extra down rod of 10 cm length G.I. pipe ,15 mm dia, heavy gauge including painting etc. as required. (Note : More than 5 cm length shall be rounded to the nearest 10 cm and 5 cm or less shall be ignored)	Each	46.00	1.47
30	Supplying and fixing extra conduit down rod of 20 cm length G.I. pipe 15 mm dia, heavy gauge including painting etc. as required. (Note: More than 5 cm length shall be rounded to the nearest 10 cm and 5 cm or less shall be ignored)	Each	52.00	1.48
31	Installation of exhaust fan in the existing opening, including making good the damage, connection, testing, commissioning etc. as required.			1.50
31.1	Upto 450 mm sweep	Each	450.00	1.50.1
31.2	510 mm sweep	Each	643.00	1.50.2
32	Extra for fixing the louvers/ shutters complete with frame for a exhaust fan of all sizes.	Each	207.00	1.51
33	Painting of ceiling fan in installed position with one or more coats of spray painting with synthetic enamel paint of approved brand and manufacture to give an even shade, including cleaning of surface with detergent etc. as required.	Each	154.00	1.52
34	Supplying and drawing of UTP 4 pair CAT 6 LAN Cable in the existing surface/ recessed Steel/ PVC conduit as required.			1.53
34.1	1 run of cable	Metre	57.00	1.53.1
34.2	2 run of cable	Metre	96.00	1.53.2
34.3	3 run of cable	Metre	134.00	1.53.3
35	Wiring for group controlled (looped) light point/fan point/exhaust fan point/ call bell point (without independent switch etc.) with 1.5 sq. mm FRLS PVC insulated copper conductor single core cable in surface/ recessed steel conduit, and earthing the point with 1.5 sq. mm FRLS PVC insulated copper conductor single core cable etc. as required.			1.54
35.1	Group A	Point	777.00	1.54.1
35.2	Group B	Point	939.00	1.54.2
35.3	Group C	Point	1094.00	1.54.3
36	Wiring for group controlled (looped) light point/fan point/exhaust fan point/ call bell point (without independent switch etc.) with 1.5 sq. mm FRLS PVC insulated copper conductor single core cable in surface/ recessed PVC conduit, and earthing the point with 1.5 sq. mm FRLS PVC insulated copper conductor single core cable etc. as required.			1.55
36.1	Group A	Point	649.00	1.55.1

36.2	Group B	Point	753.00	1.55.2
36.3	Group C	Point	858.00	1.55.3
37	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 2 nos. 3 pin 5/6 A modular socket outlet and 2 nos. 5/6 A modular switch, connections etc. as required. (For light plugs to be used in non residential buildings).	Each	680.00	1.56
38	Supplying & fixing suitable size GI box with modular plate and cover in front on surface or in recess including providing and fixing 25 A modular socket outlet and 25 A modular SP MCB, "C" curve including connections, painting etc. as required.	Each	727.00	1.57
39	Supplying and fixing PVC batten/ angle holder including connections etc. as required.	Each	110.00	1.58
40	Dismantling of ceiling fan and painting the same with with one or more coats of spray painting with synthetic enamel paint of approved brand and manufacture to give an even shade, including cleaning of surface with detergent and replacing the damaged rubber reel, nuts and bolts with washers and safety pins, reinstalling the same as required.	Each	261.00	1.59
41	Providing and fixing following capacity TP&N disconnecter fuse switch unit inside the existing panel board with ISI marked HRC fuses including drilling holes in cubicle panel, making connections, etc. as required.			2.1
41.1	32A TP&N	Each	2152.00	2.1.1
41.2	63A TP&N	Each	3144.00	2.1.2
41.3	100A TP&N	Each	6084.00	2.1.3
41.4	125A TP&N	Each	7189.00	2.1.4
41.5	160A TP&N	Each	8116.00	2.1.5
41.6	200A TP&N	Each	9689.00	2.1.6
41.7	315A TP&N	Each	14566.00	2.1.7
41.8	400A TP&N	Each	17812.00	2.1.8
42	Providing and fixing following rating and breaking capacity and pole MCCB with thermomagnetic release and terminal spreaders in existing cubicle panel board including drilling holes in cubicle panel, making connections, etc. as required.			2.2
42.01	100 A, 16 KA,TPMCCB	Each	3777.00	2.2.1
42.02	125 A, 16 KA,TPMCCB	Each	4821.00	2.2.2
42.03	150 A, 16 KA,TPMCCB	Each	5992.00	2.2.3
42.04	200 A, 16 KA,TPMCCB	Each	7691.00	2.2.4
42.05	200 A, 25 KA,TPMCCB	Each	11016.00	2.2.5
42.06	250 A, 25 KA,TPMCCB	Each	12984.00	2.2.6
42.07	250 A, 35 KA,TPMCCB	Each	13881.00	2.2.7
42.08	315 A, 35 KA,TPMCCB	Each	21586.00	2.2.8
42.09	400 A, 35 KA,TPMCCB	Each	21586.00	2.2.9

42.10	500 A, 35 KA,TPMCCB	Each	25554.00	2.2.10
42.11	630 A, 50 KA,TPMCCB	Each	27860.00	2.2.11
42.12	800 A, 50 KA,TPMCCB	Each	36160.00	2.2.12
42.13	100 A,30KA,FPMCCB	Each	7723.00	2.2.13
42.14	125 A,36KA,FPMCCB	Each	8209.00	2.2.14
42.15	200 A,36KA,FPMCCB	Each	15206.00	2.2.15
42.16	250 A,36KA,FPMCCB	Each	17510.00	2.2.16
42.17	250 A,50KA,FPMCCB	Each	18411.00	2.2.17
42.18	400 A,50KA,FPMCCB	Each	42665.00	2.2.18
42.19	630 A,50KA,FPMCCB	Each	43092.00	2.2.19
43	Supplying and fixing following way, single pole and neutral, sheet steel, MCB distribution board, 240 V, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator)			2.3
43.1	6 way , Double door	Each	2206.00	2.3.1
43.2	8 way , Double door	Each	2573.00	2.3.2
43.3	12 way , Double door	Each	2315.00	2.3.3
43.4	16 way, Double door	Each	3141.00	2.3.4
44	Supplying and fixing following way, horizontal type three pole and neutral, sheet steel, MOB distribution board, 415 V, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator)			2.4
44.1	4 way (4 + 12), Double door	Each	4091.00	2.4.1
44.2	6 way (4 + 18), Double door	Each	4974.00	2.4.2
44.3	8 way (4 + 24), Double door	Each	5967.00	2.4.3
45	Supplying and fixing of following ways surface/ recess mounting, vertical type, 415 V, TPN MOB distribution board of sheet steel, dust protected, duly powder painted, inclusive of 200 A tinned copper bus bar, common neutral link, earth bar, din bar for mounting MCBs (but without MCBs and incomer) as required . (Note : Vertical type MOB TPDB is normally used where 3 phase outlets are required.)			2.5
45.1	4 way (4 + 12), Double door	Each	7512.00	2.5.1
45.2	8 way (4 + 24), Double door	Each	10165.00	2.5.2
45.3	12 way (4 + 36), Double door	Each	12833.00	2.5.3
46	Supplying and fixing 5 A to 32 A rating, 240/415 V, 10 kA, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MOB DB complete with connections, testing and commissioning etc. as required.			2.10
46.1	Single pole	Each	256.00	2.10.1

46.2	Single pole and neutral	Each	599.00	2.10.2
46.3	Double pole	Each	656.00	2.10.3
46.4	Triple pole	Each	1007.00	2.10.4
46.5	Triple pole and neutral	Each	1228.00	2.10.5
47	Supplying and fixing single pole blanking plate in the existing MOB DB complete etc. as required.	Each	13.00	2.11
48	Supplying and fixing following rating, double pole, 240 V, isolator in the existing MOB DB complete with connections, testing and commissioning etc. as required.			2.12
48.1	40A	Each	435.00	2.12.1
48.2	63A	Each	527.00	2.12.2
49	Supplying and fixing following rating, four pole, 415 V, isolator in the existing MOB DB complete with connections, testing and commissioning etc. as required.			2.13
49.1	40A	Each	970.00	2.13.1
49.2	63A	Each	1034.00	2.13.2
49.3	100A	Each	1227.00	2.13.3
50	Supplying and fixing following rating, double pole, (single phase and neutral), 240 V, residual current circuit breaker (RCCB), having a sensitivity current 30 mA in the existing MCB DB complete with connections, testing and commissioning etc. as required.			2.14
50.1	25A	Each	2028.00	2.14.1
50.2	40A	Each	2642.00	2.14.2
50.3	63A	Each	2722.00	2.14.3
51	Supplying and fixing following rating, four pole, (three phase and neutral), 415 volts, residual current circuit breaker (RCCB), having a sensitivity current 30 mA in the existing MCB DB complete with connections, testing and commissioning etc. as required.			2.15
51.1	25A	Each	2586.00	2.15.1
51.2	40A	Each	3188.00	2.15.2
51.3	63A	Each	2872.00	2.15.3
52	Supplying and fixing DP sheet steel enclosure on surface/ recess along with 25/32 A 240 V "C" curve DP MCB complete with connections, testing and commissioning etc. as required.	Each	1169.00	2.16
53	Supplying and fixing TP sheet steel enclosure on surface/ recess along with 16/25/32 A 415 V "C" curve TP MCB complete with connections, testing and commissioning etc. as required.	Each	1592.00	2.17
54	Supplying and fixing 20 A, 240 V, SPN Industrial type socket outlet, with 2 pole and earth, metal enclosed plug top alongwith 20 A "C" curve, SP, MCB, in sheet steel enclosure, on surface or in recess, with chained metal cover for the socket out let and complete with connections, testing and commissioning etc. as required.	Each	1621.00	2.18

55	Supplying and fixing 20 A, 415 V, TPN Industrial type socket outlet, with 4 pole and earth, metal enclosed plug top alongwith 20 A "C" curve, TPMCB, in sheet steel enclosure, on surface or in recess, with chained metal cover for the socket out let and complete with connections, testing and commissioning etc. as required.	Each	2590.00	2.19
56	Supplying and fixing 30 A, 415 V, TPN Industrial type socket outlet, with 4 pole and earth, metal enclosed plug top alongwith 30 A "C" curve, TPMCB, in sheet steel enclosure, on surface or in recess, with chained metal cover for the socket out let and complete with connections, testing and commissioning etc. as required.	Each	4107.00	2.20
57	Providing and fixing M.V. danger notice plate of 200 mm X 150 mm, made of mild steel, at least 2 mm thick, and vitreous enameled white on both sides, and with inscription in single red colour on front side as required.	Each	269.00	2.21
58	Providing and fixing H.T. danger notice plate of 250 mm X 200 mm, made of mild steel, at least 2 mm thick, and vitreous enameled white on both sides, and with inscription in single red colour on front side as required.	Each	292.00	2.22
59	Supplying and fixing Cable End Box (Loose Wire Box) suitable for following single pole and neutral, sheet steel, MCB distribution board, 240 Volts, on surface/ recess, complete with testing and commissioning etc. as required.			2.23
59.1	For 6 way, Double door SPN MCBDB	Each	752.00	2.23.1
59.2	For 8 way, Double door SPN MCBDB	Each	832.00	2.23.2
59.3	For 10 way, Double door SPN MCBDB	Each	810.00	2.23.3
59.4	For 14 way, Double door SPN MCBDB	Each	902.00	2.23.4
60	Supplying and fixing Cable End Box (Loose Wire Box) suitable for following triple pole and neutral, sheet steel, MCB distribution board, 415 Volts, on surface/ recess, complete with testing and commissioning etc.as required.			2.24
60.1	For 4 way, Double door TPN MCBDB	Each	1080.00	2.24.1
60.2	For 6 way, Double door TPN MCBDB	Each	1124.00	2.24.2
60.3	For 8 way, Double door TPN MCBDB	Each	1340.00	2.24.3
61	Supplying and fixing Cable End Box (Loose Wire Box) suitable for triple pole and neutral, sheet steel, Vertical MCB distribution board, 415 Volts, on surface/ recess, complete with testing and commissioning etc. as required.	Each	1170.00	2.25
62	Supplying and installing following size of perforated painted with powder coating M.S. cable trays with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc as required.			4.1
62.01	100 mm width X 50 mm depth X 1.6 mm thickness	Metre	543.00	4.1.1
62.02	150 mm width X 50 mm depth X 1.6 mm thickness	Metre	604.00	4.1.2
62.03	200 mm width X 50 mm depth X 1.6 mm thickness	Metre	689.00	4.1.3
62.04	300 mm width X 50 mm depth X 1.6 mm thickness	Metre	777.00	4.1.4

63	Supplying and installing following size of perforated painted with powder coating M.S. cable trays bends with perforation not more than 17.5%, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc as required.			4.2
63.01	100 mm width X 50 mm depth X 1.6 mm thickness	Each	868.00	4.2.1
63.02	150 mm width X 50 mm depth X 1.6 mm thickness	Each	1018.00	4.2.2
63.03	200 mm width X 50 mm depth X 1.6 mm thickness	Each	1227.00	4.2.3
63.04	300 mm width X 50 mm depth X 1.6 mm thickness	Each	1438.00	4.2.4
64	Supplying and installing following size of perforated painted with powder coating M.S. cable trays Tee with perforation not more than 17.5%, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc as required.			4.3
64.01	100 mm width X 50 mm depth X 1.6 mm thickness	Each	1003.00	4.3.1
64.02	150 mm width X 50 mm depth X 1.6 mm thickness	Each	1186.00	4.3.2
64.03	225 mm width X 50 mm depth X 1.6 mm thickness	Each	1446.00	4.3.3
64.04	300 mm width X 50 mm depth X 1.6 mm thickness	Each	1708.00	4.3.4
65	Supplying and installing following size of perforated painted with powder coating M.S. cable trays Cross Member with perforation not more than 17.5%, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc as required.			4.4
65.01	100 mm width X 50 mm depth X 1.6 mm thickness	Each	1139.00	4.4.1
65.02	150 mm width X 50 mm depth X 1.6 mm thickness	Each	1356.00	4.4.2
65.03	225 mm width X 50 mm depth X 1.6 mm thickness	Each	1667.00	4.4.3
65.04	300 mm width X 50 mm depth X 1.6 mm thickness	Each	1979.00	4.4.4
66	Supplying and installing following size of perforated painted with powder coating M.S. cable trays Reducer with perforation not more than 17.5%, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc as required.			4.5
66.01	100 mm width X 50 mm depth X 1.6 mm thickness	Each	1003.00	4.5.1
66.02	150 mm width X 50 mm depth X 1.6 mm thickness	Each	1186.00	4.5.2
66.03	225 mm width X 50 mm depth X 1.6 mm thickness	Each	1456.00	4.5.3
66.04	300 mm width X 50 mm depth X 1.6 mm thickness	Each	1718.00	4.5.4
67	Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray (Galvanisation thickness not less than 50 microns) with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with G.I. suspenders including G.I. bolts & nuts, etc. as required.			4.6
67.01	100 mm width X 50 mm depth X 1.6 mm thickness	Metre	669.00	4.6.1
67.02	150 mm width X 50 mm depth X 1.6 mm thickness	Metre	716.00	4.6.2

67.03	225 mm width X 50 mm depth X 1.6 mm thickness	Metre	895.00	4.6.3
67.04	300 mm width X 50 mm depth X 1.6 mm thickness	Metre	963.00	4.6.4
68	Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray "bends" (galvanisation not less than 50 microns) with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with G.I. suspenders including G.I. bolts & nuts, etc. as required.			4.7
68.01	100 mm width X 50 mm depth X 1.6 mm thickness	Each	1159.00	4.7.1
68.02	150 mm width X 50 mm depth X 1.6 mm thickness	Each	1270.00	4.7.2
68.03	225 mm width X 50 mm depth X 1.6 mm thickness	Each	1694.00	4.7.3
68.04	300 mm width X 50 mm depth X 1.6 mm thickness	Each	1852.00	4.7.4
69	Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray "Tee" (galvanisation not less than 50 microns) with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with G.I. suspenders including G.I. bolts & nuts, etc. as required.			4.8
69.01	100 mm width X 50 mm depth X 1.6 mm thickness	Each	1327.00	4.8.1
69.02	150 mm width X 50 mm depth X 1.6 mm thickness	Each	1383.00	4.8.2
69.03	225 mm width X 50 mm depth X 1.6 mm thickness	Each	1967.00	4.8.3
69.04	300 mm width X 50 mm depth X 1.6 mm thickness	Each	2156.00	4.8.4
70	Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray "Cross member" (galvanisation not less than 50 microns) with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with G.I. suspenders including G.I. bolts & nuts, etc as required.			4.9
70.01	100 mm width X 50 mm depth X 1.6 mm thickness	Each	1327.00	4.9.1
70.02	150 mm width X 50 mm depth X 1.6 mm thickness	Each	1383.00	4.9.2
70.03	225 mm width X 50 mm depth X 1.6 mm thickness	Each	1987.00	4.9.3
70.04	300 mm width X 50 mm depth X 1.6 mm thickness	Each	2366.00	4.9.4
71	Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray "Reducer" (galvanisation not less than 50 microns) with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with G.I. suspenders including G.I. bolts & nuts, etc as required.			4.10
71.01	100 mm width X 50 mm depth X 1.6 mm thickness	Each	1655.00	4.10.1
71.02	150 mm width X 50 mm depth X 1.6 mm thickness	Each	1921.00	4.10.2
71.03	225 mm width X 50 mm depth X 1.6 mm thickness	Each	2421.00	4.10.3
71.04	300 mm width X 50 mm depth X 1.6 mm thickness	Each	2823.00	4.10.4
72	Earthing with G.I. earth pipe 4.5 metre long, 40 mm dia including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. with charcoal/ coke and salt as required.	Each	6855.00	5.2

73	Earthing with G.I. earth plate 600 mm X 600 mm X 6 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required.	Set	7472.00	5.4
74	Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required.	Set	13838.00	5.6
75	Supplying and laying 6 SWG G.I. wire at 0.50 metre below ground level for conductor earth electrode, including connection/ termination with GI thimble etc. as required.	Metre	51.00	5.7
76	Supplying and laying 25 mm X 5 mm copper strip at 0.50 metre below ground as strip earth electrode, including connection/ terminating with nut, bolt, spring, washer etc. as required. (Jointing shall be done by overlapping and with 2 sets of brass nut bolt & spring washer spaced at 50mm)	Metre	972.00	5.8
77	Supplying and laying 25 mm X 5 mm G.I strip at 0.50 metre below ground as strip earth electrode, including connection/ terminating with G.I. nut, bolt, spring, washer etc. as required. (Jointing shall be done by overlapping and with 2 sets of G.I. nut bolt & spring washer spaced at 50mm)	Metre	144.00	5.9
78	Providing and fixing 25 mm X 5 mm copper strip in 40 mm dia G.I. pipe from earth electrode including connection with brass nut, bolt, spring, washer excavation and re-filling etc. as required.	Metre	1551.00	5.10
79	Providing and fixing 25 mm X 5 mm G.I. strip in 40 mm dia G.I. pipe from earth electrode including connection with G.I. nut, bolt, spring, washer excavation and re-filling etc. as required.	Metre	706.00	5.11
80	Providing and laying earth connection from earth electrode with 6 SWG dia G.I. Wire in 15 mm dia G.I. pipe from earth electrode including connection with G.I. thimble excavation and re-filling as required.	Metre	287.00	5.12
81	Providing and laying earth connection from earth electrode with 4.00 mm dia copper wire in 15 mm dia G.I. pipe from earth electrode including connection with copper thimble excavation and re-filling as required.	Metre	369.00	5.13
82	Providing and fixing 25 mm X 5 mm copper strip on surface or in recess for connections etc. as required.	Metre	1162.00	5.14
83	Providing and fixing 25 mm X 5 mm GI. strip on surface or in recess for connections etc. as required.	Metre	244.00	5.15
84	Providing and fixing 6 SWG dia GI. wire on surface or in recess for loop earthing as required.	Metre	70.00	5.16
85	Providing and fixing 4.00 mm dia copper wire on surface or in recess for loop earthing as required.	Metre	155.00	5.17
86	Providing and fixing 6 SWG dia GI. wire on surface or in recess for loop earthing along with existing surface/ recessed conduit/ subnain wiring/ cable as required.	Metre	42.00	5.18

87	Providing and fixing 4.00 mm dia copper wire on surface or in recess for loop earthing along with existing surface/ recessed conduit/ submain wiring/ cable as required.	Metre	127.00	5.19
88	Providing and fixing earth bus of 50 mm X 5 mm copper strip on surface for connections etc. as required.	Metre	2113.00	5.20
89	Providing and fixing of lightning conductor finial, made of 25 mm dia 300 mm long, G.I. tube, having single prong at top, with 85 mm dia 6 mm thick G.I. base plate including holes etc. complete as required.	Each	518.00	6.2
90	Fixing of lightning conductor finial (single prong) with base plate including holes etc. complete as required.	Each	339.00	6.3
91	Jointing copper/ G.I. tape (with another copper/ G I tape, base of the finial or any other metallic object) by riveting / nut bolting/ sweating and soldering etc as required.	Each	113.00	6.4
92	Providing and fixing GI. tape 20 mm X 3 mm thick on parapet or surface of wall for lightning conductor complete as required.(For horizontal run)	Metre	126.00	6.7
93	Providing and fixing GI. tape 20 mm X 3 mm thick on parapet or surface of wall for lightning conductor complete as required.(For vertical run)	Metre	197.00	6.8
94	Fixing of copper/ G.I. tape 20 mm X 3 mm thick on parapet or surface of wall for lightning conductor complete as required.(For horizontal run)	Metre	80.00	6.9
95	Fixing of copper/ G.I. tape 20 mm X 3 mm thick on parapet or surface of wall for lightning conductor complete as required.(For vertical run)	Metre	162.00	6.1
96	Providing and laying GI tape 32 mm X 6 mm from earth electrode directly in ground as required.	Metre	195.00	6.14
97	Laying copper/ G.I. tape 32 mm X 6 mm from earth electrode directly in ground as required.	Metre	75.00	6.15
98	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc as required.			7.1
98.1	Upto 35 sq. mm	Metre	387.00	7.1.1
98.2	Above 35 sq. mm and upto 95 sq. mm	Metre	405.00	7.1.2
98.3	Above 95 sq. mm and upto 185 sq. mm	Metre	422.00	7.1.3
98.4	Above 185 sq. mm and upto 400 sq. mm	Metre	474.00	7.1.4
99	Laying of one number additional PVC insulated and PVC sheathed! XLPE power cable of 1.1 KV grade of following size direct in ground in the same trench in one tier horizontal formation including excavation, sand cushioning, protective covering and refilling the trench etc as required.			7.2
99.1	Upto 35 sq. mm	Metre	269.00	7.2.1
99.2	Above 35 sq. mm and upto 95 sq. mm	Metre	286.00	7.2.2
99.3	Above 95 sq. mm and upto 185 sq. mm	Metre	304.00	7.2.3
99.4	Above 185 sq. mm and upto 400 sq. mm	Metre	356.00	7.2.4

100	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size direct in ground including excavation and refilling the trench etc as required, but excluding sand cushioning and protective covering.			7.3
100.1	Upto 35 sq. mm	Metre	200.00	7.3.1
100.2	Above 35 sq. mm and upto 95 sq. mm	Metre	217.00	7.3.2
100.3	Above 95 sq. mm and upto 185 sq. mm	Metre	234.00	7.3.3
100.4	Above 185 sq. mm and upto 400 sq. mm	Metre	287.00	7.3.4
101	Laying of one number additional PVC insulated and PVC sheathed! XLPE power cable of 1.1 KV grade of following size direct in ground in the same trench in one tier horizontal formation including excavation and refilling the trench etc as required, but excluding sand cushioning and protective covering.			7.4
101.1	Upto 35 sq. mm	Metre	126.00	7.4.1
101.2	Above 35 sq. mm and upto 95 sq. mm	Metre	143.00	7.4.2
101.3	Above 95 sq. mm and upto 185 sq. mm	Metre	161.00	7.4.3
101.4	Above 185 sq. mm and upto 400 sq. mm	Metre	213.00	7.4.4
102	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size in the existing RCC/ HUME/ METAL pipe as required.			7.5
102.1	Upto 35 sq. mm	Metre	37.00	7.5.1
102.2	Above 35 sq. mm and upto 95 sq. mm	Metre	57.00	7.5.2
102.3	Above 95 sq. mm and upto 185 sq. mm	Metre	77.00	7.5.3
102.4	Above 185 sq. mm and upto 400 sq. mm	Metre	134.00	7.5.4
103	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size in the existing masonry open duct as required.			7.6
103.1	Upto 35 sq. mm	Metre	28.00	7.6.1
103.2	Above 35 sq. mm and upto 95 sq. mm	Metre	45.00	7.6.2
103.3	Above 95 sq. mm and upto 185 sq. mm	Metre	63.00	7.6.3
103.4	Above 185 sq. mm and upto 400 sq. mm	Metre	115.00	7.6.4
104	Laying and fixing of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size on wall surface as required.			7.7
104.1	Upto 35 sq. mm (clamped with 1mm thick saddle)	Metre	55.00	7.7.1
104.2	Above 35 sq. mm and upto 95 sq. mm (clamped with 25x3mm MS flat clamp)	Metre	130.00	7.7.2
104.3	Above 95 sq. mm and upto 185 sq. mm (clamped with 25/40x3mm MS flat clamp)	Metre	153.00	7.7.3
104.4	Above 185 sq. mm and upto 400 sq. mm (clamped with 40x3mm MS flat clamp)	Metre	226.00	7.7.4
105	Laying and fixing of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size on cable tray as required.			7.8
105.1	Upto 35 sq. mm (clamped with 1mm thick saddle)	Each	44.00	7.8.1

105.2	Above 35 sq. mm and upto 95 sq. mm (clamped with 25x3mm MS flat clamp)	Metre	92.00	7.8.2
105.3	Above 95 sq. mm and upto 185 sq. mm (clamped with 25/40x3mm MS flat clamp)	Metre	115.00	7.8.3
105.4	Above 185 sq. mm and upto 400 sq. mm (clamped with 40x3mm MS flat clamp)	Metre	185.00	7.8.4
106	Supplying and making cable route marker with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) of size 60 cm X 60 cm at the bottom and 50 cm X 50 cm at the top with a thickness of 10cm including inscription duly engraved as required.	Each	585.00	7.9
107	Supplying and fixing cable route marker with 10 cm X 10 cm X 5 mm thick G.I. plate with inscription there on, bolted /welded to 35 mm X 35 mm X 6 mm angle iron, 60 cm long and fixing the same in ground as required.	Each	508.00	7.1
108	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade of following size direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc as required.			8.1
108.1	Upto 120 sq. mm	Metre	525.00	8.1.1
108.2	Above 120 sq. mm and upto 400 sq. mm	Metre	577.00	8.1.2
109	Laying of one number additional PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade of following size direct in ground in the same trench in one tier horizontal formation including excavation, sand cushioning, protective covering and refilling the trench etc as required.			8.2
109.1	Upto 120 sq. mm	Metre	362.00	8.2.1
109.2	Above 120 sq. mm and upto 400 sq. mm	Metre	415.00	8.2.2
110	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade of following size in the existing RCC/ HUME/ METAL pipe as required.			8.3
110.1	Upto 120 sq. mm	Metre	77.00	8.3.1
110.2	Above 120 sq. mm and upto 400 sq. mm	Metre	134.00	8.3.2
111	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade of following size in the existing masonry open duct as required.			8.4
111.1	Upto 120 sq. mm	Metre	63.00	8.4.1
111.2	Above 120 sq. mm and upto 400 sq. mm	Metre	115.00	8.4.2
112	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.			9.1
112.1	2 X 6 sq. mm (19mm)	Each	240.00	9.1.1
112.2	2 X 10 sq. mm (19mm)	Each	241.00	9.1.2
112.3	2 X 16 sq. mm (22mm)	Each	256.00	9.1.3
112.4	2 X 25 sq. mm (22mm)	Each	259.00	9.1.4
112.5	2 X 35 sq. mm (25mm)	Each	310.00	9.1.5

112.6	2 X 50 sq. mm (28mm)	Each	351.00	9.1.6
112.7	3 X 10 sq. mm (22mm)	Each	257.00	9.1.7
112.8	3 X 16 sq. mm (25mm)	Each	270.00	9.1.8
112.9	3 X 25 sq. mm (25mm)	Each	275.00	9.1.9
119.10	3 X 35 sq. mm (28mm)	Each	351.00	9.1.10
119.11	3 X 50 sq. mm (32mm)	Each	373.00	9.1.11
119.12	3 X 70 sq. mm (35mm)	Each	424.00	9.1.12
119.13	3 X 95 sq. mm (38mm)	Each	542.00	9.1.13
119.14	3 X 120 sq. mm (45mm)	Each	597.00	9.1.14
119.15	3X 150 sq. mm (50mm)	Each	681.00	9.1.15
119.16	3 X 185 sq. mm (57mm)	Each	858.00	9.1.16
119.17	3 X 225 sq. mm (62mm)	Each	972.00	9.1.17
119.18	3 X 240 sq. mm (62mm)	Each	1004.00	9.1.18
119.19	3 X 300 sq. mm (70mm)	Each	1165.00	9.1.19
119.20	3.5 X 25 sq. mm (28mm)	Each	313.00	9.1.20
119.21	3.5 X 35 sq. mm (32mm)	Each	369.00	9.1.21
119.22	3.5 X 50 sq. mm (35mm)	Each	413.00	9.1.22
119.23	3.5 X 70 sq. mm (38mm)	Each	468.00	9.1.23
119.24	3.5 X 95 sq. mm (45mm)	Each	588.00	9.1.24
119.25	3.5 X 120 sq. mm (45mm)	Each	613.00	9.1.25
119.26	3.5 X 150 sq. mm (50mm)	Each	697.00	9.1.26
119.27	3.5 X 185 sq. mm (57mm)	Each	875.00	9.1.27
119.28	3.5 X 225 sq. mm (62mm)	Each	994.00	9.1.28
119.29	3.5 X 240 sq. mm (62mm)	Each	1027.00	9.1.29
119.30	3.5 X 300 sq. mm (70mm)	Each	1195.00	9.1.30
119.31	3.5 X 400 sq. mm (82mm)	Each	1556.00	9.1.31
119.32	4 X 10 sq. mm (25mm)	Each	269.00	9.1.32
119.33	4 X 16 sq. mm (28mm)	Each	309.00	9.1.33
119.34	4 X 25 sq. mm (28mm)	Each	315.00	9.1.34
119.35	4 X 35 sq. mm (32mm)	Each	370.00	9.1.35
119.36	4 X 50 sq. mm (35mm)	Each	418.00	9.1.36
113	Supplying and making outdoor end termination with cast resin compound including aluminium lugs and other jointing materials for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.			9.2
113.1	2 X 16 sq. mm	Each	1310.00	9.2.1
113.2	2 X 25 sq. mm	Each	1410.00	9.2.2
113.3	2 X 35 sq. mm	Each	1410.00	9.2.3
113.4	2 X 50 sq. mm	Each	1410.00	9.2.4
113.5	3 X 16 sq. mm	Each	1410.00	9.2.5

113.6	3 X 25 sq. mm	Each	1410.00	9.2.6
113.7	3 X 35 sq. mm	Each	1410.00	9.2.7
113.8	3 X 50 sq. mm	Each	1503.00	9.2.8
113.9	3 X 70 sq. mm	Each	1503.00	9.2.9
120.10	3 X 95 sq. mm	Each	1799.00	9.2.10
120.11	3 X 120 sq. mm	Each	1799.00	9.2.11
120.12	3 X 150 sq. mm	Each	1799.00	9.2.12
120.13	3 X 185 sq. mm	Each	2392.00	9.2.13
120.14	3 X 225 sq. mm	Each	2392.00	9.2.14
120.15	3 X 240 sq. mm	Each	2761.00	9.2.15
120.16	3 X 300 sq. mm	Each	2761.00	9.2.16
120.17	3.5 X 25 sq. mm	Each	1410.00	9.2.17
120.18	3.5 X 35 sq. mm	Each	1503.00	9.2.18
120.19	3.5 X 50 sq. mm	Each	1503.00	9.2.19
120.20	3.5 X 70 sq. mm	Each	1645.00	9.2.20
120.21	3.5 X 95 sq. mm	Each	1799.00	9.2.21
120.22	3.5 X 120 sq. mm	Each	1799.00	9.2.22
120.23	3.5 X 150 sq. mm	Each	2392.00	9.2.23
120.24	3.5 X 185 sq. mm	Each	1889.00	9.2.24
120.25	3.5 X 225 sq. mm	Each	2761.00	9.2.25
120.26	3.5 X 240 sq. mm	Each	2761.00	9.2.26
120.27	3.5 X 300 sq. mm	Each	3088.00	9.2.27
120.28	3.5 X 400 sq. mm	Each	3521.00	9.2.28
120.29	4 X 16 sq. mm	Each	1410.00	9.2.29
120.30	4 X 25 sq. mm	Each	1410.00	9.2.30
120.31	4 X 35 sq. mm	Each	1503.00	9.2.31
120.32	4 X 50 sq. mm	Each	1503.00	9.2.32
114	Supplying and making straight through joint with cast resin compound including ferrules and other jointing materials for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.			9.3
114.01	2 X 16 sq. mm	Each	2673.00	9.3.1
114.02	2 X 25 sq. mm	Each	2673.00	9.3.2
114.03	2 X 35 sq. mm	Each	2673.00	9.3.3
114.04	2 X 50 sq. mm	Each	3040.00	9.3.4
114.05	3 X 16 sq. mm	Each	3040.00	9.3.5
114.06	3 X 25 sq. mm	Each	2673.00	9.3.6
114.07	3 X 35 sq. mm	Each	2673.00	9.3.7
114.08	3 X 50 sq. mm	Each	3040.00	9.3.8
114.09	3 X 70 sq. mm	Each	3542.00	9.3.9

114.10	3 X 95 sq. mm	Each	3779.00	9.3.10
114.11	3 X 120 sq. mm	Each	4231.00	9.3.11
114.12	3 X 150 sq. mm	Each	4231.00	9.3.12
114.13	3 X 185 sq. mm	Each	5017.00	9.3.13
114.14	3 X 225 sq. mm	Each	5668.00	9.3.14
114.15	3 X 240 sq. mm	Each	5668.00	9.3.15
114.16	3 X 300 sq. mm	Each	7299.00	9.3.16
114.17	3.5 X 25 sq. mm	Each	3040.00	9.3.17
114.18	3.5 X 35 sq. mm	Each	3040.00	9.3.18
114.19	3.5 X 50 sq. mm	Each	3542.00	9.3.19
114.20	3.5 X 70 sq. mm	Each	3572.00	9.3.20
114.21	3.5 X 95 sq. mm	Each	4231.00	9.3.21
114.22	3.5 X 120 sq. mm	Each	5017.00	9.3.22
114.23	3.5 X 150 sq. mm	Each	5017.00	9.3.23
114.24	3.5 X 185 sq. mm	Each	5668.00	9.3.24
114.25	3.5 X 225 sq. mm	Each	5769.00	9.3.25
114.26	3.5 X 240 sq. mm	Each	6972.00	9.3.26
114.27	3.5 X 300 sq. mm	Each	8554.00	9.3.27
114.28	3.5 X 400 sq. mm	Each	5038.00	9.3.28
114.29	4 X 16 sq. mm	Each	2673.00	9.3.29
114.30	4 X 25 sq. mm	Each	3040.00	9.3.30
114.31	4 X 35 sq. mm	Each	3040.00	9.3.31
114.32	4 X 50 sq. mm	Each	3542.00	9.3.32
115	Supplying and making straight through joint with heat shrinkable kit including ferrules and other jointing materials for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.			9.4
115.01	2 X 16 sq. mm	Each	2168.00	9.4.1
115.02	2 X 25 sq. mm	Each	2478.00	9.4.2
115.03	2 X 35 sq. mm	Each	2478.00	9.4.3
115.04	2 X 50 sq. mm	Each	2478.00	9.4.4
115.05	3 X 16 sq. mm	Each	2168.00	9.4.5
115.06	3 X 25 sq. mm	Each	2478.00	9.4.6
115.07	3 X 35 sq. mm	Each	2478.00	9.4.7
115.08	3 X 50 sq. mm	Each	2478.00	9.4.8
115.09	3 X 70 sq. mm	Each	3363.00	9.4.9
115.10	3 X 95 sq. mm	Each	3517.00	9.4.10
115.11	3 X 120 sq. mm	Each	4538.00	9.4.11
115.12	3 X 150 sq. mm	Each	4538.00	9.4.12
115.13	3 X 185 sq. mm	Each	4538.00	9.4.13

115.14	3 X 225 sq. mm	Each	4919.00	9.4.14
115.15	3 X 240 sq. mm	Each	4919.00	9.4.15
115.16	3 X 300 sq. mm	Each	6107.00	9.4.16
115.17	3.5 X 25 sq. mm	Each	2478.00	9.4.17
115.18	3.5 X 35 sq. mm	Each	2478.00	9.4.18
115.19	3.5 X 50 sq. mm	Each	2478.00	9.4.19
115.20	3.5 X 70 sq. mm	Each	3363.00	9.4.20
115.21	3.5 X 95 sq. mm	Each	3517.00	9.4.21
115.22	3.5 X 120 sq. mm	Each	4538.00	9.4.22
115.23	3.5 X 150 sq. mm	Each	4538.00	9.4.23
115.24	3.5 X 185 sq. mm	Each	4538.00	9.4.24
115.25	3.5 X 225 sq. mm	Each	4919.00	9.4.25
115.26	3.5 X 240 sq. mm	Each	4919.00	9.4.26
115.27	3.5 X 300 sq. mm	Each	6107.00	9.4.27
115.28	3.5 X 400 sq. mm	Each	7966.00	9.4.28
115.29	4 X 16 sq. mm	Each	2168.00	9.4.29
115.30	4 X 25 sq. mm	Each	2478.00	9.4.30
115.31	4 X 35 sq. mm	Each	3363.00	9.4.31
115.32	4 X 50 sq. mm	Each	3363.00	9.4.32
116	Supplying and making indoor cable end jointing with cast resin compound, including lugs and other jointing materials, for following size of 3 core, XLPE aluminium conductor cable of 11 KV grade as required:			10.1
116.1	70 sq. mm	Each	2075.00	10.1.1
116.2	120 sq. mm	Each	2653.00	10.1.2
116.3	240 sq. nmm	Each	3549.00	10.1.3
116.4	300 sq. mm	Each	3609.00	10.1.4
117	Supplying and making outdoor cable end jointing with cast resin compound, including lugs and other jointing materials, for following size of 3 core, XLPE aluminium conductor cable of 11 KV grade as required:			10.2
117.1	70 sq. mm	Each	4769.00	10.2.1
117.2	120 sq. mm	Each	5398.00	10.2.2
117.3	240 sq. mm	Each	6293.00	10.2.3
117.4	300 sq. mm	Each	6293.00	10.2.4
118	Supplying and making straight through cable jointing with cast resin compound, including ferrule and other jointing materials, for following size of 3 core, XLPE aluminium conductor cable of 11 KV grade as required:			10.3
118.1	70 sq. mm	Each	4526.00	10.3.1
118.2	120 sq. mm	Each	5137.00	10.3.2
118.3	240 sq. mm	Each	7615.00	10.3.3
118.4	300 sq. mm	Each	8667.00	10.3.4

119	supplying and making indoor cable end termination with heat shrinkable jointing kit complete with all accessories including lugs suitable for following size of 3 core, XLPE aluminium conductor cable of 11 KV grade as required:			10.4
119.1	70 sq. mm	Each	12181.00	10.4.1
119.2	120 sq. mm	Each	14968.00	10.4.2
119.3	240 sq. mm	Each	16249.00	10.4.3
119.4	300 sq. mm	Each	16249.00	10.4.4
120	Supplying and making outdoor cable end termination with heat shrinkable jointing kit complete with all accessories including lugs suitable for following size of 3 core, XLPE aluminium conductor cable of 11 KV grade as required:			10.5
120.1	70 sq. mm	Each	18248.00	10.5.1
120.2	120 sq. mm	Each	20100.00	10.5.2
120.3	240 sq. mm	Each	22795.00	10.5.3
120.4	300 sq. mm	Each	22795.00	10.5.4
121	Supplying and making straight through cable jointing with heat shrinkable jointing kit complete with all accessories including ferrules suitable for following size of 3 core, XLPE aluminium conductor cable of 11 KV grade as required:			10.6
121.1	70 sq. mm	Each	29141.00	10.6.1
121.2	120 sq. mm	Each	38083.00	10.6.2
121.3	240 sq. mm	Each	41892.00	10.6.3
121.4	300 sq. mm	Each	41892.00	10.6.4
122	Supplying and making indoor cable end termination with heat shrinkable jointing kit complete with all accessories including lugs suitable for following size of 3 core, XLPE aluminium conductor cable of 33 KV grade as required:			10.7
122.1	70 sq. mm	Each	19840.00	10.7.1
122.2	120 sq. mm	Each	30086.00	10.7.2
122.3	240 sq. mm	Each	34216.00	10.7.3
123	Supplying and making outdoor cable end termination with heat shrinkable jointing kit complete with all accessories including lugs suitable for following size of 3 core, XLPE aluminium conductor cable of 33 KV grade as required :			10.8
123.1	70 sq. mm	Each	31563.00	10.8.1
123.2	120 sq. mm	Each	41204.00	10.8.2
123.3	240 sq. mm	Each	71644.00	10.8.3
124	Supplying and making straight through cable jointing with heat shrinkable jointing kit complete with all accessories including ferrules suitable for following size of 3 core, XLPE aluminium conductor cable of 33 KV grade as			10.9

	required :			
124.1	70 sq. mm	Each	54841.00	10.9.1
124.2	120 sq. mm	Each	69628.00	10.9.2
124.3	240 sq. mm	Each	98623.00	10.9.3
125	Erection of RCC/ PCC pole of following length in brick ballast and ramming the foundation, finishing with 150mm thick cement concrete (1:3:6) layer on top with including excavation and refilling etc as required.			11.1
125.1	Above 4.5 metre and upto 6.5 metre	Each	5566.00	11.1.1
125.2	Above 6.5 metre and upto 8.0 metre	Each	6177.00	11.1.2
125.3	Above 8.0 metre and upto 11.0 metre	Each	7414.00	11.1.3
125.4	Above 11.00 metre and upto 13.00 metre	Each	8136.00	11.1.4
126	Erection of RCC/ PCC pole strut in brick ballast and ramming the foundation including excavation and refilling and secured with holding clamps, bolts, nuts, etc. as required.	Each	9573.00	11.2
127	Erection of metallic pole of following length in cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size) foundation including excavation and refilling etc. as required.			11.3
127.1	Above 4.5 metre and upto 6.5 metre	Each	5121.00	11.3.1
127.2	Above 6.5 metre and upto 8.0 metre	Each	6066.00	11.3.2
127.3	Above 8.0 metre and upto 10.0 metre	Each	7077.00	11.3.3
127.4	Above 10.00 metre and upto 12.00 metre	Each	8177.00	11.3.4
128	Erection of steel tubular or rail pole strut in cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size) foundation including excavation and refilling and secured with holding clamps, bolts, nuts, etc. as required.	Each	8673.00	11.4
129	Providing and making steel pole collar with cement concrete (1 cement: 3 coarse sand : 6 stone aggregate 20mm) of specified size and shape including form work, plastering if required, curing etc as required. (volume of pole/ pipe not to be deducted)	cum	8135.00	11.5
130	Supplying and embedding following dia G.I. pipe (medium class) in pole collar/ foundation (during casting) for cable entry including bending the pipe to the required shape complete as required.			11.6
130.1	32 mm dia	Metre	525.00	11.6.1
130.2	40 mm dia	Metre	589.00	11.6.2
131	Supplying and fixing of 32 mm dia X 2.00 metres long GI. pipe (medium class) bracket for mounting of fluorescent / HPMV / HPSV street light fitting on pole including bending the pipe to the required shape, 2 nos 40 mm X 3 mm flat iron clamps with nuts, bolts and washer, painting the flat iron with primer and finish paint	Each	1477.00	12.34

	etc. as required.			
132	Providing and fixing 50 mm dia X 3.2 metres G.I. pipe (including accessories) complete with 50 mm X 50 mm X 6 mm angle iron bracket on wall and 75 mm X 90 mm shackle insulator with straps for house service connection including painting the angle and flat iron with primer and finish paint etc. as required.	Each	3031.00	12.35
133	Providing and fixing 50 mm dia X 5.6 metres Cl. pipe (including accessories) complete with 50 mm X 50 mm X 6 mm angle iron cross arm and 40 mm X 3mm M.S. flat iron clamps bends for guard wire, 75 mm X 90 mm shackle insulator and straps, 7/ 3.15 mm G.I. wire stay set for house service connection including painting the angle and flat iron with primer and finish paint etc. as required.	Each	4814.00	12.36
134	Supplying and fixing of light class G.I. pipe of 50 mm dia. (nominal) 3 metres length along the pole for protection of under ground cable as required.	Each	2564.00	12.37
135	Supplying and fixing of light class G.I. pipe of 80 mm dia. (nominal) 3 metres length along the pole for protection of under ground cable as required.	Each	3606.00	12.38
136	Supplying and fixing of light class G.I. pipe of 100 mm dia. (nominal) 3 metres length along the pole for protection of under ground cable as required.	Each	4907.00	12.39
137	Dismantling of pole/ street light standard/ strut embedded in brick ballast foundation etc. as required.	Each	2003.00	12.41
138	Dismantling of pole/ street light standard/ strut embedded in cement concrete foundation etc. as required.	Each	2662.00	12.42
139	Providing, laying and fixing following dia G.I. pipe (medium class) in ground complete with G.I. fittings including trenching (75 cm deep) and re-filling etc as required			14.13
139.1	50 mm dia	Metre	654.20	14.13.1
139.2	80 mm dia	Metre	919.10	14.13.2
139.3	100 mm dia	Metre	1806.00	14.13.3
139.4	150 mm dia	Metre	2740.00	14.13.4
140	Providing, laying and fixing following dia RCC pipe NP2 class (light duty) in ground complete with RCC collars, jointing with cement mortar 1:2 (1 cement: 2 fine sand) including trenching (75 cm deep) and refilling etc as required.			14.14
140.1	100 mm dia	Metre	662.00	14.14.1
140.2	150 mm dia	Metre	724.00	14.14.2
140.3	250 mm dia	Metre	975.00	14.14.3
140.4	300 mm dia	Metre	1140.00	14.14.4

141	Supplying and laying of following size DWC HDPE pipe ISI marked along with all accessories like socket, bend, couplers etc. conforming to IS 14930, Part II complete with fitting and cutting, jointing etc. in the existing trench, complete as required.			14.15
141.1	63 mm dia (OO-63 mm & ID-51 mm nominal)	Metre	127.00	14.15.1
141.2	90 mm dia (OD-90 mm & ID-76 mm nominal)	Metre	171.00	14.15.2
141.3	120 mm dia (OO-120 mm & ID-103 mm nominal)	Metre	248.00	14.15.3
141.4	160 mm dia (OD-160 mm & ID-135 mm nominal)	Metre	361.00	14.15.4
141.5	200 mm dia (OO-200 mm & ID-175 mm nominal)	Metre	548.00	14.15.5
142	Supplying and laying of following size DWC HDPE pipe ISI marked along with all accessories like socket, bend, couplers etc. conforming to IS 14930, Part II complete with fitting and cutting, jointing etc.direct in ground (75 cm below ground level) including excavation and refilling the trench but excluding sand cushioning and protective covering etc., complete as required.			14.16
142.1	63 mm dia (OD-63 mm & ID-51 mm nominal)	Metre	247.00	14.16.1
142.2	90 mm dia (OD-90 mm & ID-76 mm nominal)	Metre	292.00	14.16.2
142.3	120 mm dia (OO-120 mm & ID-103 mm nominal)	Metre	368.00	14.16.3
142.4	160 mm dia (OO-160 mm & IO-135 mm nominal)	Metre	481.00	14.16.4
142.5	200 mm dia (OO-200 mm & IO-175 mm nominal)	Metre	668.00	14.16.5
143	Supplying, installation, testing and commissioning of Passive Infrared(PIR) technology based occupancy sensor having high performance, non regulating programmable type, suitable for connected load upto 10Amp , for mounting height up to 2.8 mtr and for 5 m diameter coverage area along with necessary fixing arrangements i/c programming at site etc. complete as required.	Each	4602.00	15.1
144	Supplying, installation, testing and commissioning of Passive Infrared(PIR) technology based occupancy sensor with day light dimming(lighting level shall be regulated as per availability of natural day light in an area along with occupancy detection.) having high performance, regulating programmable type, suitable for connected load upto 10Amp , for mounting height up to 2.8 mtr and for 5 m diameter coverage area along with necessary fixing arrangements i/c programming at site etc. complete as required.	Each	9171.00	15.2
145	Supplying, installation, testing and commissioning of Microwave technology based occupancy sensor having high performance, non regulating programmable type, suitable for connected load upto 10Amp , for mounting height up to 2.6 mtr and for 5m X 20m coverage area along with necessary fixing arrangements i/c programming at site etc. complete as required.	Each	11893.00	15.3

146	Supplying, installation, testing and commissioning of Astronomical time switch of following configuration to be mounted in feeder pillars / Lighting DBs for automatic switching On & OFF of street lights at sun set & sun rise or twilight(Auto ON, Auto OFF, Auto modes) with manual override facility with 12/24 hour display format with suitable battery and indication for relay status i/c programming at site complete as required.			15.4
146.1	1 output per phase and suitable for single phase supply	Each	4389.00	15.4.1
146.2	2 output per phase and suitable for single phase supply	Each	8557.00	15.4.2
146.3	3output(1output per phase) and suitable for three phase supply	Each	10597.00	15.4.3
147	Supplying, installation, testing & commissioning of heat detector operating at 54°C/57°C with rate of rise cum fixed temperature (dual thermistor) type with mounting base complete with all connection etc. as required.	Each	1071.00	17.1.1
148	Supplying, installation, testing & commissioning of smoke detector with builtin LED and mounting base complete with all connections etc. as required.	Each	1153.00	17.1.2
149	Supplying, installation, testing & commissioning of manual call boxes of MS construction in surface/recess with stainless steel chain & hammer assembly complete with glass and push button etc. as required.	Each	474.00	17.1.3
150	Supplying, installation, testing & commissioning of manual call box of ABS type in surface/recess with stainless steel chain & hammer assembly complete with glass and push button etc. as required.	Each	408.00	17.1.4
151	Supplying, installation, testing & commissioning response indicator on surface/recess MS box having two LEDs metallic cover complete with all connections etc. as required.	Each	196.00	17.1.5
152	Supplying, installation, testing & commissioning fire alarm sounder with facility to make announcement, mounted in M.S. box (16 SWG) with hinged cover plate & suitable for operation with amplifier i/c line matching transformer etc. complete as required.	Each	557.00	17.1.6
153	Supplying, installation, testing & commissioning fire alarm sounder with facility to make announcement, mounted in A.B.S. box with hinged cover plate & suitable for operation with amplifier i/c line matching transformer etc. complete as required.	Each	491.00	17.1.7
154	Supplying, installation, testing & commissioning talk back slave station in surface/recess suitable for operation on simplex mode complete with P.T.T. knob & speaker/microphone enclosed in a M.S.(16 SWG)/ ABS box with break glass in front etc. complete as required.	Each	905.00	17.1.8
155	Supplying, installation, testing & commissioning sector panel suitable for following zones, complete with visual indications for short circuit fault, open circuit fault, fire condition and all other standard facilities as per IS:2189 with mimic diagram for all area/zone covered, complete with all connections, interconnections as required.			17.1.9

155.1	4 Zone	Each	8866.00	17.1.9.1
155.2	6 Zone	Each	12178.00	17.1.9.2
155.3	10 Zone	Each	16287.00	17.1.9.3
156	<p>Supplying, installation, testing & commissioning of main control and indicating panel made out of 16 SWG MS sheet to accommodate the following items duly powder coated in approved colour with louvers for ventilation, locking arrangement, audio and visual indication for fire alarm and public address system, monitoring system including connections, interconnections etc complete as required.</p> <p>10 Zone panel for fire alarm system 250 Watt amplifier racks suitable for operation on 230V AC/24V DC supply conforming to IEC-268-3 complete with all accessories as required - 2 Nos.(one to act as standby) Talk back master station with LED PTT (press to talk) push button for operation on 230V AC/24 V DC supply conforming to IEC-268 for simplex mode of operation/communication suitable for 20 Nos.talk back unit -1 set. Announcement control desk suitable for selection of different zones selectively and ON ALL CALL switch with visual indication etc. complete as required -1 set. Amplifier change over switch for inter changing amplifier -1 No. Monitor panel for loudspeaker complete with output selector, ON/OFF switch, fuse, visual indications etc. complete as required- 1 No. Gooseneck microphone with stand and ON/OFF switch- 1 No. Main ON/OFF switch, fuse indication lamps, DC and AC voltmeters & ammeters, terminal blocks etc. complete as required -1 set. Battery charger trickle cum boost to take complete load of fire alarm & PA system complete with all accessories including providing & fixing of 2 nos.12 volt, 60 AH each sealed maintenance free batteries -1 set.</p>	Each	70389.00	17.1.10

157	Supplying, installation, testing & commissioning of main control and indicating panel made out of 16 SWG MS sheet to accommodate the following items duly powder coated in approved colour with louvers for ventilation, locking arrangement, audio and visual indication for fire alarm and public address system, monitoring system including connections, interconnections etc complete as required . 6 zone panel for fire alarm system 100 watt amplifier racks suitable for operation on 230V AC/24V DC supply conforming to IEC-268-3 complete with all accessories as required- 2 Nos.(one to act as standby) Talk back master station with LED PTT (press to talk) push button for operation on 230V AC/24 V DC supply conforming to IEC-268 for simplex mode of operation/communication suitable for 20 Nos.talk back unit -1 set. Announcement control desk suitable for selection of different zones selectively and ON ALL CALL switch with visual indication etc., complete as required- 1 set. Amplifier change over switch for inter changing amplifier- 1 No. Monitor panel for loudspeaker complete output selector ON/OFF switch, fuse visual indications etc. complete as required- 1 No. Gooseneck microphone with stand and ON/OFF switch -1 No. Mains ON/OFF switch, fuse indication lamps, DC and AC voltmeters & ammeters terminal blocks etc. complete as required -1 set. Battery charger trickle cum boost to take complete load of fire alarm & PA system complete with all accessories including providing & fixing of 2 nos. 12 volt, 30 AH each sealed maintenance free batteries - 1 set.	Each	48718.00	17.1.11
158	Supplying, installation, testing and commissioning of micro processor based intelligent addressable main fire alarm panel, central processing unit with the following loop modules and capable of supporting not less than 240 devices (including detectors) and minimum 120 detectors per loop and loop length up to 2 km, network communication card, minimum 320 character graphics/ LCD display with touch screen or other keypad and minimum 4000 events history log in the non volatile memory (EPROM), power supply unit (230 ± 5 % V, 50 hz), 48 hrs back-up with 24 volt sealed maintenance free batteries with automatic charger. The panel shall have facility to connect printer to printout log and facility to have seamless integration with analog/digital voice evacuation system (which is part of the schedule of work under SH: PA System) and shall be complete with all accessories . The panel shall be compatible for IBMS system with open protocol BACnet/ Modbus over IP complete as per specifications.			17.2.1
158.1	Ten Loop Panel.	Each	455534.00	17.2.1.1
158.2	Two Loop Panel.	Each	239225.00	17.2.1.2
159	Supplying, installation, testing & commissioning of central graphical fire alarm management system to centrally monitor and operate the fire alarm system complete as required.	Each	200611.00	17.2.2

160	Supplying, installation, testing & commissioning of repeater panel with 320 character/ Touch screen LCD display with inbuilt reset, acknowledge and silence switches complete as required.	Each	108688.00	17.2.3
161	Supplying, installation, testing & commissioning of intelligent analog addressable photothermal detector complete with mounting base complete as required.	Each	2858.00	17.2.4
162	Supplying, installation, testing & commissioning of response indicator on surface/recessed MS Box having two LED, metallic cover complete with all connections etc as required.	Each	276.00	17.2.5
163	Supplying, installation, testing & commissioning of intelligent addressable programmable sounder complete as required.	Each	2651.00	17.2.6
164	Supplying, installation, testing & commissioning of fault isolator complete with base as required.	Each	3270.00	17.2.7
165	Supplying, installation, testing & commissioning of intelligent aspiration detector for area coverage of minimum 5000 sq. ft. complete as required.	Each	295326.00	17.2.8
166	Supplying, installation, testing & commissioning of intelligent addressable thermal detector with rate of rise cum fixed temperature thermistor complete with base as required.	Each	2726.00	17.2.9
167	Supplying, installation, testing & commissioning of addressable fire control module complete as required.	Each	3003.00	17.2.10
168	Supplying, installation, testing & commissioning of addressable phone control module complete as required.	Each	3267.00	17.2.11
169	Supplying, installation, testing & commissioning of addressable beam detector with short circuit isolator (inbuilt or separate) complete with emitter and receiver including connections with remote test features etc complete as required.	Each	74937.00	17.2.12
170	Supplying, installation, testing & commissioning of intelligent addressable duct detector including suitable Photo detector complete with base as required.	Each	7814.00	17.2.13
171	Supplying, installation, testing & commissioning of addressable manual call point complete as required.	Each	3871.00	17.2.14
172	Supplying, installation, testing & commissioning of addressable horn cum strobe complete as required.	Each	3506.00	17.2.15
173	Supplying, installation, testing & commissioning of addressable strobe complete as required.	Each	3367.00	17.2.16
174	Supplying, installation, testing & commissioning of fire fighter telephone handset complete as required.	Each	5740.00	17.2.17
175	Supplying, installation, testing & commissioning of intelligent interface unit BACnet/ Modbus protocol i.e. supplying communication links between building management system and fire alarm control panel complete as required.	Each	187744.00	17.2.18
176	Supplying, installation, testing & commissioning of fire fighter phone jack complete as required.	Each	1600.00	17.2.19
177	Supplying, installation, testing & commissioning of 6 zone, voice alarm controller with USB, MP3 player (including 6 zone button paging station) with seamless integration facility with main fire alarm panel for voice	Each	126411.00	17.3.1

	evacuation complete as required.			
178	Supplying, installation, testing & commissioning of 1.5/3/6W ceiling speaker complete as required.	Each	965.00	17.3.2
179	Supplying, installation, testing & commissioning of 1.5/3/6W metal box ceiling/wall speakers complete as required.	Each	1793.00	17.3.3
180	Supplying, installation, testing & commissioning of ceiling/wall mounted loud speaker, 3/1.5 Watt in ABS enclosure complete as required.	Each	2428.00	17.3.4
181	Supplying, installation, testing & commissioning of 6 inches dia, 2 watts, 70/100 volts ceiling speaker complete as required.	Each	1839.00	17.3.5
182	Supplying, installation, testing & commissioning of digital audio amplifier 50 Watt, 25V rms operating at 240 volt AC supply complete as required.	Each	96779.00	17.3.6
183	Supplying, installation, testing & commissioning of digital audio amplifier 75 Watt, 25V rms operating at 240 Volt AC Supply complete as required.	Each	145793.00	17.3.7
184	Supplying, installation, testing & commissioning of exit point directional sound speaker with voice and integral audio amplifier with selectable sound pulse patterns complete as required.	Each	10145.00	17.3.8
185	Supplying, installation, testing & commissioning of Voice command keypad 6 zone, with microphone assembly complete as required.	Each	81756.00	17.3.9
186	Supply, installation, testing and commissioning of 25 mm Outer dia CPVC PIPE with end caps including making air sampling opening of appropriate dia on appropriate interval and all accessories as required,(rate for area protected in sqm).	sqm	56.00	17.4.1
187	Supplying & laying of 2x1.5 sqmm fire survival armoured cable, 600/1000V rated with annealed copper conductor having glass mica fire barrier tape covered by an extruded layer of Cross Linkable Ethylene Propylene Rubber (EPR) insulation and LSZH inner bedding, steel wire armouring & LSZH outer sheath complete as required.	Metre	359.00	17.5.1
188	Supplying & laying of 2x1.5 sqmm fire alarm armoured cable, 600/1000V rated with annealed copper conductor having XLPE insulation, steel wire armouring & FRLS outer sheath complete as required.	Metre	173.00	17.5.2
189	Supplying and drawing of cable Fire Retardant PVC insulated copper conductor cable in the existing surface / recessed steel conduit of following pairs, cores and size including connections and interconnections etc. as required.			17.5.3
189.1	speaker cable Single pair, 2-core, 1.5 sqmm	Metre	54.00	17.5.3.1
189.2	speaker cable Two pair, 2-core, 1.5 sqmm	Metre	89.00	17.5.3.2
189.3	speaker cable Three pair, 2-core, 1.5 sqmm	Metre	123.00	17.5.3.3
189.4	speaker cable Four pair, 2-core, 1.5 sqmm	Metre	158.00	17.5.3.4

190	Supplying and fixing 25 mm dia MS Flexible pipe with PVC coating along with all ancillaries and accessories like coupler etc. as required.	Meter	53.00	17.5.4
191	Supply, Installation, Testing and Commissioning of 1200 mm sweep, BEE 5 star rated, ceiling fan with Brush Less Direct Current (BLOC) Motor, class of insulation: B, 3 nos. blades, 30 cm long down rod, 2 nos. canopies, shackle kit, safety rope, copper winding, Power Factor not less than 0.9, Service Value (CM/M/W) minimum 6.00, Air delivery minimum 210 Cum/Min , 350 RPM (tolerance as per IS : 374-2019), THD less than 10%, remote or electronic regulator unit for speed control and all remaining accessories including safety pin, nut bolts, washers, temperature rise=75 degree C (max.), insulation resistance more than 2 mega ohm, suitable for 230 V, 50 Hz, single phase AC Supply, earthing etc. complete as required.	Each	2730.00	19.1
	Electrical MR			
192	Supply and testing of LED Flood light fixture with following wattage rating and as per technical specifications attached, including accessories for support on wall, bracket, truss, or suitable hanging arrangement upto 1 meters, and 1 meter FR PVC insulated copper conductor flexible cable of size 1.5 sq. mm, complete as per instructions of official-in-charge.			
192.1	30 Watt	Each	1656.00	NSI/ MR
192.2	50 Watt	Each	1656.00	NSI/ MR
192.3	80 Watt	Each	2782.00	NSI/ MR
192.4	100 Watt	Each	2981.00	NSI/ MR
192.5	150 Watt	Each	5166.00	NSI/ MR
192.6	200 Watt	Each	7551.00	NSI/ MR
192.7	250 Watt	Each	11127.00	NSI/ MR
192.8	300 Watt	Each	15896.00	NSI/ MR
193	Supply and testing of LED well glass fixture with following wattage rating and as per technical specifications attached, including accessories for support on wall, bracket, truss, or suitable hanging arrangement upto 1 meters, and 1 meter FR PVC insulated copper conductor flexible cable of size 1.5 sq. mm, complete as per instructions of official-in-charge.			NSI/ MR
193.1	30 Watt	Each	1457.00	NSI/ MR
193.2	40 Watt	Each	1722.00	NSI/ MR
193.3	70 Watt	Each	3047.00	NSI/ MR
194	Supply and testing of LED street Light fixture with following wattage rating and as per technical specifications attached, including accessories for installation on existing GI pipe bracket/ Street Light pole and 1.5 meters FR PVC insulated copper conductor flexible cable of size 1.5 sq. mm, complete as per instructions of official-in-charge.			NSI/ MR
194.1	30 Watt	Each	1219.00	NSI/ MR

194.2	45 Watt	Each	1921.00	NSI/ MR
194.3	60 Watt	Each	2782.00	NSI/ MR
194.4	70 Watt	Each	3047.00	NSI/ MR
194.5	90 Watt	Each	3775.00	NSI/ MR
194.6	120 Watt	Each	4504.00	NSI/ MR
195	Supply and testing of LED High Bay Light fixture with following wattage rating and as per technical specifications attached, including accessories for installation on existing GI pipe bracket/ Street Light pole and 1 meter FR PVC insulated copper conductor flexible cable of size 1.5 sq. mm, complete as per instructions of official-in-charge.			NSI/ MR
195.1	80 Watt	Each	4371.00	NSI/ MR
195.2	100 Watt	Each	4901.00	NSI/ MR
195.3	120 Watt	Each	5431.00	NSI/ MR
195.4	150 Watt	Each	5961.00	NSI/ MR
196	Supply and testing of following rating energy efficient LED Lamp as per technical specifications and as per instructions of official-in-charge.			NSI/ MR
196.1	5 Watt	Each	83.00	NSI/ MR
196.2	9 Watt	Each	99.00	NSI/ MR
196.3	12 Watt	Each	185.00	NSI/ MR
196.4	15 Watt	Each	225.00	NSI/ MR
197	Supply and testing of following size and rating square shaped LED recessed downlight as per technical specification and as per instructions of official-in-charge.-			NSI/ MR
197.1	2 feet x 2 feet, 36 Watt	Each	1656.00	NSI/ MR
197.2	2 feet x 2 feet, 45 Watt	Each	1961.00	NSI/ MR
198	Supply and testing of following rating round shaped LED recessed/surface ceiling lights as per technical specifications and as per instructions of official-in-charge.-			NSI/ MR
198.1	6 Watt	Each	298.00	NSI/ MR
198.2	12 Watt	Each	563.00	NSI/ MR
198.3	15 Watt	Each	636.00	NSI/ MR
198.4	18 Watt	Each	649.00	NSI/ MR
198.5	22 Watt	Each	1225.00	NSI/ MR
199	Supply and testing of following size and rating LED batten light, complete with accessories, as per technical specification and as per instructions of official-in-charge.-			NSI/ MR
199.1	2 feet, 10 Watt	Each	152.00	NSI/ MR
199.2	4 feet, 20 Watt	Each	172.00	NSI/ MR
199.3	4 feet, 36 Watt	Each	596.00	NSI/ MR
199.4	Supply & testing of 18/20 Watt 4 feet LED T8 Tube light (Poly carbonate make) as per required specification and as per instructions of official-in-charge..	Each	318.00	NSI/ MR

199.5	Supply and testing of prewired box type industrial channel fitting suitable for 1x4 feet LED T8 Tube Light, CRCA Housing and cover, copper pre-wiring, complete with T-8 LED Tube Light and all accessories and as per instructions of official-in-charge..	Each	636.00	NSI/ MR
199.6	Supply & testing of XLPE insulated copper conductor steel armoured power cable of 1.1 KV grade confirming to IS :7089 (part 1) 1988 or latest amendment. and as per instructions of official-in-charge.			NSI/ MR
199.7	3 X 1.5 sq. mm	Meter	83.00	NSI/ MR
199.8	3 x 2.5 sq. mm	Meter	121.00	NSI/ MR
199.9	3 x 4.0 sq. mm	Meter	170.00	NSI/ MR
200	3 x 6.0 sq. mm	Meter	235.00	NSI/ MR
200.1	3 x 10 sq. mm	Meter	377.00	NSI/ MR
200.2	4 x 6.0 sq. mm	Meter	303.00	NSI/ MR
200.3	4 x 10 sq. mm	Meter	496.00	NSI/ MR
200.4	Supply & testing of XLPE insulated copper conductor unarmoured power cable of 1.1 KV grade confirming to IS :7089 (part 1) 1988 or latest amendment and as per instructions of official-in-charge.			NSI/ MR
200.5	3 X 1.5 sq. mm	Meter	63.00	NSI/ MR
200.6	3 x 2.5 sq. mm	Meter	101.00	NSI/ MR
200.7	3 x 4.0 sq. mm	Meter	153.00	NSI/ MR
200.8	3 x 6.0 sq. mm	Meter	217.00	NSI/ MR
200.9	3 x 10 sq. mm	Meter	365.00	NSI/ MR
201	4 x 6.0 sq. mm	Meter	264.00	NSI/ MR
201.1	4 x 10 sq. mm	Meter	436.00	NSI/ MR
201.2	Supply & testing of XLPE insulated aluminium conductor steel armoured power cable of 1.1 KV grade confirming to IS :7089 (part 1) 1988 or latest amendment and as per instructions of official-in-charge.			NSI/ MR
201.3	2 x 10 sq. mm	Meter	103.00	NSI/ MR
201.4	3 x 10 sq. mm	Meter	109.00	NSI/ MR
201.5	3 X 16 sq. mm	Meter	109.00	NSI/ MR
201.6	3 X 25 sq. mm	Meter	140.00	NSI/ MR
201.7	3 X 35 sq. mm	Meter	184.00	NSI/ MR
201.8	3 X 50 sq. mm	Meter	238.00	NSI/ MR
201.9	3 X 70 sq. mm	Meter	318.00	NSI/ MR
202	3 X 95 sq. mm	Meter	398.00	NSI/ MR
202.1	3 X 120 sq. mm	Meter	496.00	NSI/ MR
202.2	3 X 150 sq. mm	Meter	588.00	NSI/ MR
202.3	3 X 185 sq. mm	Meter	738.00	NSI/ MR
202.4	3 X 240 sq. mm	Meter	943.00	NSI/ MR
202.5	3 X 300 sq. mm	Meter	1168.00	NSI/ MR

202.6	3.5 X 25 sq. mm	Meter	165.00	NSI/ MR
202.7	3.5 X 35 sq. mm	Meter	204.00	NSI/ MR
202.8	3.5 X 50 sq. mm	Meter	273.00	NSI/ MR
202.9	3.5 X 70 sq. mm	Meter	369.00	NSI/ MR
203	3.5 X 95 sq. mm	Meter	461.00	NSI/ MR
203.1	3.5 X 120 sq. mm	Meter	566.00	NSI/ MR
203.2	3.5 X 150 sq. mm	Meter	665.00	NSI/ MR
203.3	3.5 X 185 sq. mm	Meter	841.00	NSI/ MR
203.4	3.5 X 240 sq. mm	Meter	1079.00	NSI/ MR
203.5	3.5 X 300 sq. mm	Meter	1319.00	NSI/ MR
203.6	3.5 X 400 sq. mm	Meter	1686.00	NSI/ MR
203.7	4 x 10 sq. mm	Meter	115.00	NSI/ MR
203.8	4 X 16 sq. mm	Meter	143.00	NSI/ MR
203.9	4 X 25 sq. mm	Meter	175.00	NSI/ MR
204	4 X 35 sq. mm	Meter	230.00	NSI/ MR
204.1	4 X 50 sq. mm	Meter	299.00	NSI/ MR
204.2	Supply & testing of XLPE insulated aluminium conductor unarmoured power cable of 1.1 KV grade confirming to IS : 7089 (part 1) 1988 or latest amendment and as per instructions of official-in-charge.			NSI/ MR
204.3	2 x 6 sq. mm	Meter	50.00	NSI/ MR
204.4	2 x 10 sq. mm	Meter	71.00	NSI/ MR
204.5	3 X 16 sq. mm	Meter	86.00	NSI/ MR
204.6	3 X 25 sq. mm	Meter	121.00	NSI/ MR
204.7	3 X 35 sq. mm	Meter	167.00	NSI/ MR
204.8	3 X 50 sq. mm	Meter	206.00	NSI/ MR
204.9	3 X 70 sq. mm	Meter	296.00	NSI/ MR
205	3 X 95 sq. mm	Meter	360.00	NSI/ MR
205.1	3 X 120 sq. mm	Meter	471.00	NSI/ MR
205.2	3 X 150 sq. mm	Meter	543.00	NSI/ MR
205.3	3 X 185 sq. mm	Meter	684.00	NSI/ MR
205.4	3 X 240 sq. mm	Meter	883.00	NSI/ MR
205.5	3 X 300 sq. mm	Meter	1082.00	NSI/ MR
205.6	3.5 X 25 sq. mm	Meter	154.00	NSI/ MR
205.7	3.5 X 35 sq. mm	Meter	181.00	NSI/ MR
205.8	3.5 X 50 sq. mm	Meter	245.00	NSI/ MR
205.9	3.5 X 70 sq. mm	Meter	335.00	NSI/ MR
206	3.5 X 95 sq. mm	Meter	426.00	NSI/ MR
206.1	3.5 X 120 sq. mm	Meter	548.00	NSI/ MR
206.2	3.5 X 150 sq. mm	Meter	641.00	NSI/ MR

206.3	3.5 X 185 sq. mm	Meter	820.00	NSI/ MR
206.4	3.5 X 240 sq. mm	Meter	984.00	NSI/ MR
206.5	3.5 X 300 sq. mm	Meter	1275.00	NSI/ MR
206.6	3.5 X 400 sq. mm	Meter	1593.00	NSI/ MR
206.7	4 X 16 sq. mm	Meter	114.00	NSI/ MR
206.8	4 X 25 sq. mm	Meter	162.00	NSI/ MR
206.9	4 X 35 sq. mm	Meter	201.00	NSI/ MR
207	4 X 50 sq. mm	Meter	269.00	NSI/ MR
207.1	Installation and commissioning of LED lighting fixture of any wattage rating upto the below mentioned height including dismantling of existing fixture at same location, external or internal work, including connections, complete as per instructions of official -in-charge. (The dismantled fixture shall be handed over to the CWC Officer)			NSI/ MR
207.2	Upto 3 meters	Job	173.00	NSI/ MR
207.3	Above 3 meters and upto 6 meters	Job	336.00	NSI/ MR
207.4	Above 6 meters	Job	660.00	NSI/ MR
207.5	Installation and commissioning of LED lighting fixture of any wattage rating upto the below mentioned height, including connections, complete as per instructions of official-in-charge.			NSI/ MR
207.6	Upto 3 meters	Job	116.00	NSI/ MR
207.7	Above 3 meters and upto 6 meters	Job	224.00	NSI/ MR
207.8	Above 6 meters	Job	440.00	NSI/ MR
207.9	Dismantling of LED lighting fixture of any wattage rating upto the below mentioned height, including connections, complete as per instructions of official-in-charge. (The dismantled fixture shall be handed over to the CWC Officer)			NSI/ MR
208	Upto 3 meters	Job	116.00	NSI/ MR
208.1	Above 3 meters and upto 6 meters	Job	224.00	NSI/ MR
208.2	Above 6 meters	Job	440.00	NSI/ MR
208.3	Dismantling of following type of sheet steel MCB distribution box in surface or recess irrespective of number of ways, door, etc. inclusive of dismantling of any switchgear complete as per instruction of official-in-charge.			NSI/ MR
208.4	Single pole and neutral MCB distribution box	Job	374.00	NSI/ MR
208.5	Triple pole and neutral MCB distribution box	Job	451.00	NSI/ MR
208.6	Supply and fixing of 20 mm dia flexible corrugated PVC conduit as required.	Meter	13.00	NSI/ MR
208.7	Supply and fixing of 20 mm dia flexible corrugated metal/GI conduit as required.	Meter	30.00	NSI/ MR
208.8	Supply & Testing of 3 core 2.5 sq.mm FRLS PVC insulated multicore Unsheathed Industrial Flexible Cable conforming to IS 694: 2010 with Flexible Bright Annealed Copper Conductor for Voltage Grade upto 1100 Volts. as	Meter	97.00	NSI/ MR

	per the instructions of the engineer incharge			
208.9	Supply & testing of 2 core 2.5 sq.mm FRLS PVC Insulated Multi core Unsheathed Industrial Flexible Cable conforming to IS 694: 2010 with Flexible Bright Annealed Copper Conductor for Voltage Grade upto 1100 Volts. as per the instructions of the engineer incharge	Meter	66.00	NSI/ MR
209	Supply & testing of 3 core 4 sq. mm Flat Cable for submersible pump motors FRLS PVC insulated single core Unsheathed Industrial Flexible Cable conforming to IS 694: 2010 with Flexible Bright Annealed Copper Conductor for Voltage Grade upto 1100 Volts. as per the instructions of the engineer incharge	Meter	225.00	NSI/ MR
209.1	Attending to breakdown calls including identification, isolation, correction of fault, followed by restoration of circuit supply complete as required as per the instructions of Officer-in-charge.			NSI/ MR
209.2	Low impact category (as decided by Officer-in-charge)	Job	963.00	NSI/ MR
209.3	Medium Impact category (as decided by Officer-in-charge)	Job	1927.00	NSI/ MR
209.4	High Impact category (as decided by Officer-in-charge)	Job	2796.00	NSI/ MR
209.5	Lowering of carriage of High Mast Tower and raising the same including necessary fault repair/ maintenance, by operation of winch-gear assembly by manual/electro-mechanical means complete as required as per direction of official in charge	Job	2000.00	NSI/ MR
209.6	Supplying and fixing following 40 /63 Ampere rating, 240/415 V, 10 kA, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required as per direction of official in charge			NSI/ MR
209.7	Triple pole	Each	1678.00	NSI/ MR
209.8	Triple pole and neutral	Each	2088.00	NSI/ MR
209.9	Supply, installation, testing & commissioning of LED Based signage board of required size, made of aluminium composite panel sheet of 3 mm thickness duly framed on 25 mm x 25 mm M.S. Square Pipe, duly computerized CNC cutting, display by using 3 mm laser cut imported acrylic sheet as per the design in bilingual, with Samsung/ Oshram make LEDs, with warranty of 1 year on LED and SMPS, with installation at site complete as per direction of official in charge	Sqft	834.00	NSI/ MR
210	Supplying, erection and commissioning of CWC logo with CWC in Acrylic 3d letter A cast sheet of 4mm thickness with samsung/Osram module LED & back channel of ACP sheet of minimum height of 3 feet of single letter and total width 10 feet.total size including logo is 10 'x 8.5 ' (H).	each	120414.00	NSI/ MR

210.1	Comprehensive Annual Maintenance of air conditioning unit of following capacity inclusive of 04 Nos. of preventive maintenance quarterly visits (involves cleaning, servicing etc.) and any number of breakdown repair calls inclusive of all required tools, plants, consumables and spare parts as required and as per direction of official in charge			NSI/ MR
210.2	1 Tr. Window AC	Each	3028.00	NSI/ MR
210.3	1.5 Tr. Window AC	Each	4213.00	NSI/ MR
210.4	2 Tr. Window AC	Each	4872.00	NSI/ MR
210.5	1 Tr. Split AC (Non inverter)	Each	3292.00	NSI/ MR
210.6	1 Tr. Split AC (Inverter)	Each	4213.00	NSI/ MR
210.7	1.5 Tr. Split AC (Non-Inverter)	Each	4608.00	NSI/ MR
210.8	1.5 Tr. Split AC (Inverter)	Each	6320.00	NSI/ MR
210.9	2 Tr. Split AC (Inverter)	Each	5135.00	NSI/ MR
211	2 Tr. Split AC (Non-inverter)	Each	6431.00	NSI/ MR
211.1	2 Tr. cassette AC	Each	6715.00	NSI/ MR
211.2	Supply and Installation of 10HP , Three Phase sewage submersible Motor Pumpset with following Details- a) Head Range 4 to 14 Meters b) Flow Rates 3360 to 480 LPM c) size of Delivery Section of Pump 150MM d)Pump Should be capable of Sucking /lifting of Solid Handling Capacity upto 45 MM e)Motor to be installed in suitable foundation of cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size) etc. as required, as per the direction of Engineering Incharge along with the Metal mesh to protect from the entry of solid particles beyond 45 mm. f) Make: Crompton Greaves, Kiloskar, (Kilosakar Model 7500CW), KSB	Each	154279.00	NSI/ MR
211.3	Supply and Installation of Startor with PANEL board suitable for 10Hp submersible motor with following details. Three Phase electronic Panel with Digital voltmeter & ampere meter, phase preventor protection, thermal Overload & Electronic Dryrun protection, high/ low voltage cut off, RYB Indication, 3 pole MCB, Water level Controller, Dry run autostart Timer, etc as per the direction of Engineer Incharge	Each	16671.00	NSI/ MR
211.4	Supply and fixing of SMC junction box of size 250 x 200 x 105 mm, waterproof, Fire retardant including of din bar, 6 amp single pole MCB, 4 way connector plate and making connections including installation on street light pole with MS D-Clamp with iron strip etc. complete in all respects as per direction of Officer-in-charge.	Each	1193.00	NSI/ MR
211.5	Supply and fixing of SMC junction box of size 140 x 140 x 95 mm, waterproof, Fire retardant including of 4 way connector plate and making connections including installation on street light pole with MS D-Clamp with iron strip etc. complete in all respects as per direction of Officer-in-charge.	Each	643.00	NSI/ MR
211.6	Testing of earth pit resistance test using calibrated ground resistance meter and submission of report, complete as per instructions of Officer-in-charge.	Per pit	656.00	NSI/ MR

211.7	<p>Supplying, Installation, Testing and commissioning of dust, damp and vermin proof wall mounted, outdoor type factory built sheet steel enclosed modular bolted construction extendable type Main Distribution Panel, suitable for operation on 415 ±10% volts, 50 Hz AC 3 phase 4 wire supply system fabricated out of suitable sized square tubular section and covered with CRCA sheet steel of 1.2mm thick for frame work and 1.2mm covers , 1.6mm thick for gland plates i/c cleaning & finishing complete with 7 tank process for powder coating in approved shade, having extensible type TPN Aluminium bus bars of high conductivity, SMC bus bar supports, fabrication shall be done in transportable sections, entire panel shall have a common G.I. earth bus bar to switch gears with required size of Alum. bus bars and inter-connection with solid copper conductor wires / aluminium strips, neutral links, including control wiring with 1.5 / 2.5sqmm. PVC insulated FRLS copper conductor Single Core cable, cable alleys, cable gland plates in two half, etc. necessary metering protections & indications and mounted with the following switch gears as per drawing and technical specifications etc. complete as required. The Quantities of components/rating may be changed as per the direction of Engineer in Charge The panel should be compatible as per local DISCOM requirements.</p> <p>INCOMERS 200A,FP,36 KA MCCB With following accessories. Digital Multifunction Meter of size 96x96mm. 3-nos. Phase indicating light with 6A Backup MCB. 3-nos CT 100/5A,CL-1</p> <p>BUS BAR 150A TPN, 10KA aluminium bus bar with coloured heat shrinkable insulated sleeve.</p> <p>OUTGOING MCCB -100A-4P-36KA 63A,FP,10KA,C-Curve MCB Qty- 04Nos. 32A,DP,10KA,C-Curve MCB Qty- 6Nos. 32A,SP,10KA,C-Curve MCB Qty- 6Nos.</p>	each	200000.00	NSI/MR

Sub schedule A. (III): Items for General Maintenance Services -Horticulture Works and Housekeeping Services

Name of Work: Execution of Miscellaneous Repair /Maintenance, upgradation and Construction works in Zone 10 - a cluster of central warehouses located at CW Gurugram (Hry) On Annual rate Contract basis

	Horticulture works	unit	rate	
1	Cleaning of garden, Watering of landscaped/green belt areas and maintaining the plants/ shrubs, trees, bushes, flowering beds etc and keeping these in healthy condition and maintaining the area green, hygienic and aesthetic in lawn within complex .Trimming the branches of trees obstructing the height up to 6 m above the driveway or obstructing the visibility of road signs or unsolicited plants grown over terrace/walls of building within complex , including Maintenance of Kitchen garden including preparation of beds manuring/ fertigation weeding hoeing watering planting of vegetable seeds including spraying of insecticide and pesticide and Harvesting. (Note:- Only Good Earth, Manure, Fertilizer, Insecticide & Pesticide will be provided by the Department and other T & P material/articles shall be provided by the Per Sqm/ contractor) and as per direction of officer in charge Frequency: once in month in the area decided by WHM	sqm	14.43	based on 2.59.2 + 2.41 Horticulture DSR 2020
2	Grassing with selection No. 1 doob grass including watering and maintenance of the lawn for 30 days or more till the grass forms a thick lawn, free from weeds and fit for mowing including supplying good earth, if needed (the grass and good earth shall be paid for separately). within complex. Frequency: as per requirement and area decided by WHM	sqm	13.30	DSR 2020 Horticulture 2.10.2
3	Renovating lawns including weeding, cheeling the grass, forking the ground, top dressing with sludge or manure, mixing the same with forke and keeping the lawn free from weeds and fit for mowing including spreading of good earth/sludge etc as per requirement, mowing using lawn mowers and trimming of Damaged trees plants and bushes in Lawns or from any other garden within CW Complex at least once in 3 weeks and as per additional requirement. Frequency: Once in 3 months in the area decided by WHM	sqm	34.40	DSR 2020 Horticulture 2.11
4	Mixing earth and sludge or manure in the required proportion and spreading/ of sludge, dump manure and/or good earth in required thickness within complex as per requirement. Frequency: once a month	cum	52.35	DSR 2020 Horticulture 2.8
5	Plantation of Trees, Shrubs, and Hedge at site i/c watering and removal of unserveiceable material's as per direction of officer in charge (excluding cast of plant) These includes new plants ,including seasonal flowering plants, shrubs, hedges etc. , shifting of plant from pots, Relocating the plants and /or Pots etc. within complex as per requirement by WHM, Cost of plant shall be paid extra			
a	Trees Plant	each	7.30	2.57.1
b	Shrubs Plant	each	3.65	2.57.2
c	Hedge Plant /Ground cover	each	2.45	2.57.3

6	Cutting of designer hedge/edge hoeing of hedge/edge bed Topiary cutting/shaping of plant removing of cut materials, cleaning, hoeing of plants, hoeing of trees (Topiary) watering manure and applying insecticides and fungicides etc. Frequency: Once a month in the area decided by WHM.	per sqm per month	45.20	DSR 2020 Horticulture 2.37
7	Clearing heavy jungle in open area including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth up to 30 cm measured at a height of 1 m above ground level and removal of rubbish upto secondary collection chamber . frequency: once in 3 months and Area to be decided by WHM.	sqm	12.25	DSR 2020 Horticulture 2.31
8	Clearing grass, shrubs, bushes grown unwanted near to buildings and roads and removal of the rubbish upto secondary collection chamber . frequency: once in 3 months and Area to be decided by WHM.	sqm	6.25	DSR 2020 Horticulture 2.32
	Total of horticulture works			
	Housekeeping Services			
9	Removal of garden waste by TATA 407 or equivalent including loading/unloading and carriage upto 5 km lead,complete disposal upto designated place as per direction of officer-in-charge Disposal of garbage/ Refuse or solid waste, scraps from warehouse to designated place in the city/ town decided by local Authority. Frequency: once in a week or as per requirement of WHM.	per trip	397.55	
10	Cleaning/Sweeping of CW Roads, Main entry Ramps, Parking yards Godown Veranda/Open Platforms and Weighbridge platform area etc. including Safe disposal of garbage/ Refuse or solid waste, scraps after segregating Organic /recyclable and inorganic waste to the dustbins placed at designated disposal sites (secondary collection centres near Office/ Godown (s) and any other place within CW Complex. Frequency: Fortnightly and Area to be decided by WHM and Total open area cleaned shall be measured for payment	sqm	3.21	based on 2.59.2 Horticulture DSR 2020
11	Cleaning, dusting, mopping of Window Glasses (both sides), floors, furnitures, etc. to make the area neat and clean free from cobwebs, flies etc , and hygeinic in Office buildings, labour Huts, Security Cabins,weighbridge cabin and other similar amenities within complex, including Safe disposal of garbage/ Refuse or solid waste, scraps after segregating Organic /recyclable and inorganic waste to the dustbins placed at designated disposal sites (secondary collection centres near Office/ Godown (s) and any other place within CW Complex. Frequency: Fortnightly and total carpet area cleaned shall be measured for payment	sqm	13.30	based on 2.10.2 Horticulture DSR 2020

12	Cleaning of Floor of godowns , brushing of stacks, recovery of grains from sweeping and filling in palla bags, cleaning of store room of the warehouse and arranging in a systematic manner , including Safe disposal of garbage/ Refuse or solid waste, scraps after segregating Organic /recyclable and inorganic waste to the dustbins placed at designated disposal sites (secondary collection centres near Office/ Godown (s) and any other place within CW Complex. Frequency: Once in a Two months and area to be decided by WHM	sqm	2.70	based on 2.59.2 Horticulture DSR 2020
13	Cleaning of all Toilets /Washrooms / drinking water utilities and other similar amenities within CW Complex.with water including flushing as per requirement including cost of broom, brush, wipers, cloth etc (only Toilet cleaning chemical shall be provided by WHM) Frequency: Twice daily and payment shall be done based on no of washrooms blocks (comprising urinals, WC, Wash basins, faucet, wall tiles, floor tiles etc complete)cleaned	each per day	44.13	based on 2.10.2 Horticulture DSR 2020
14	Cleaning of terrace/loft water storage tank (inside surface area) upto 2000 litre capacity at all heights with coconut brushes, duster etc., removal of silt, rubbish from the tank and cleaning the tank with fresh water disinfecting with bleaching powder @ 0.5gm per litre capacity of tank including marking the date of cleaning on the side of tank body with the help of stencil and paint and disposing of malba all complete as per direction of WHM . (The old date written on tank should be removed with paint remover or black paint and if date is not written with the stencil or old date is not removed deduction will be made @ Rs. 0.10 per litre) (if during cleaning any GI fittings or ball cock is damaged that is to be repaired by contractor at his own cost and nothing extra will be paid on this account). Frequency: Once in 6 months.	Per litre	0.40	DSR Civil 2021 14.75 A
15	Cleaning and desilting of gully trap chamber, including removal of rubbish mixed with earth etc. and disposal of same, all as per the direction of WHM.	each	89.45	DSR Civil 2021 14.76
16	Cleaning of chocked / existing drain of campus / sewer line by diesel running vehicle mounting hydraulic operated high pressure suction cum jetting sewer cleaning machine fitted with pump having adequate suction capacity or by deploying manual labour and adequate water jetting tank capacity including skilled operator, supervisor etc. for cleaning and partial desilting of manholes and dechocking of sewer lines. Dechocking and flushing of sewer line from one manhole to another by high pressure jetting system of 2200 PSI for sewer line from 150mm dia upto 300mm.frequency or by deploying manual labour to make drainage system choke and water logging free complete work as per direction of WHM . Frequency : Twice a year or as per requirement and quantity to be decided by WHM	metre	142.95	half rate for open drain DSR Civil 2021 14.77

17	Clearing of blockages in Rain Water Harvesting systems pit of plan area upto including cleaning of Rain water pit, replacing the aggregates, removal of blockages , sludges etc to restore the water flow. Cost of replaced aggregates shall be paid extra. Frequency: Twice a year	job	460.439	
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