

**ELECTRICITY DEPARTMENT
NEW DELHI MUNICIPAL COUNCIL
OFFICE OF THE EXECUTIVE ENGINEER
ELECTRIC C-III DIVISION
3rd Floor, Shaheed Bhagat Singh Place, Gole Market
NEW DELHI-110001**

e-Procurement Tender Notice

Tender ID No.:
NIT No.

Name of work: **Supply Installation Testing and Commissioning Grid connected Roof top Solar Power Plant at the 4 nos. Type-V quarters (Duplex type) at Prithviraj Lane in NDMC area.**

Estimate cost: - Rs.8,10,000/-

Date of release of tender through e-procurement solution 17.11.2021 at 6.00 PM Last date/time for receipt of tenders through e-procurement solution 26.11.2021 at upto **4.00PM** Further details can be seen at <https://ndmc.gov.in> or <http://govtprocurement.delhi.gov.in>

Note: To participate in e-tender in NDMC registration with e-tendering system, Govt. of NCT of Delhi is mandatory.

Executive Engineer (E) C-III

**ELECTRICITY DEPARTMENT
NEW DELHI MUNICIPAL COUNCIL
OFFICE OF THE EXECUTIVE ENGINEER
ELECTRIC C-III DIVISION
3rd Floor, Shaheed Bhagat Singh Place, Gole Market
NEW DELHI-110001**

TENDER NOTICE

NIT No.D/_____

Dated_____

- | | | |
|----|--|-------------------------|
| 1. | Last date and time for downloading tender document | 26.11.2021 upto 3.00 PM |
| 2. | Date and time for pre-bid meeting, If any | NIL |
| 3. | Date and time for start submission of tender | 17.11.2021 at 4.00 PM |
| 4. | Date and time of opening of tender | 26.11.2021 at 4.00 PM |

Executive Engineer (E), invites online **Item-/ percentage rate** bids on behalf of NDMC from Reputed and experienced contractors for the Work of **Installation of Solar Panel on the top of Supply Installation Testing and Commissioning Grid connected Roof top Solar Power Plant at the 4 nos. Type-V quarters (Duplex type) at Prithviraj Lane in NDMC area** with a time Stipulation of period of completion of 15 Days at the cost of bids (non refundable) of Rs. –Nil– . **Bid Security Declaration / a sum of Rs. 16,200/-** as earnest money shall have to be deposited in the office of the Executive Engineer inviting the bid or division office of any executive engineer before the opening of bid through pay order/demand draft/banker' cheque/Deposit at Call Receipt/FDR of a scheduled bank in favour of Secretary, NDMC payable at local branch of Delhi/New Delhi. It should be ensured that the FDR is pledged in favour of the Secretary, NDMC.

The original EMD should be deposited either in the office of EE(C-III) inviting bids or division office of any executive Engineer NDMC (Within the period of bid submission (The EMD document shall only be issued from the place in which the office of receiving division office is situated) The EMD receiving Executive Engineer shall issue a receipt of deposition of earnest money deposit to the bidders in a prescribed format (Enclosed) uploaded by tender inviting executive Engineer in the NIT.

The scanned copy of receipt for deposition of Original EMD issued by Division office and tender papers should be uploaded with the tenders documents (online) otherwise the same are liable to not be opened.

Eligible contractors may download the bid documents for reference only from Delhi Govt. e-procurement Portal <https://govtprocurement.delhi.gov.in> or <https://ndmc.gov.in> for bidding purpose. However tenders shall be quoted through e-tendering only.

The bidder may inspect the site on any working day and may contact for any query or technical clarification to EE(E). The duly filled up bid documents shall be submitted online **on 26.11.2021 upto 3.30 PM** and the same shall be opened on the same day in presence of the tenderers or their authorized representative who may desire to attend.

NDMC reserves the right to reject the whole or any part of the bid without assigning any reason.

Executive Engineer (E)

- Online ~~item rate~~/percentage rate bids on behalf of NDMC are invited from Reputed and

experienced contractors for the Work of **Supply Installation Testing and Commissioning Grid connected Roof top Solar Power Plant at the 4 nos. Type-V quarters (Duplex type) at Prithviraj Lane in NDMC area** The enlistment of the contractors should be valid on the last date of submission of bids. In case the last date of submission of bid is extended, the enlistment of contractor should be valid on the original date of submission of bids.

- 1.1 The work is estimated to cost Rs 8,10,000/- . This estimate, however, is given merely as a rough guide.

2 Criteria of eligibility for submission of bid documents

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

I/We undertake and confirm that eligible similar works(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 bidding in NDMC 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. (Scanned copy to be uploaded at the time of submission of bid)

- 2.2 Intending bidders is eligible to submit the bid provided he has definite proof from the appropriate authority, which shall be to the satisfaction of the competent authority, of having satisfactorily completed similar works of magnitude specified below:-

- (a) Experience of having successfully completed **similar** works during the last 7 years ending last day of month previous to the one in which tenders are invited.

Three similar works each costing not less than **Rs 3,24,000/-** OR two similar works each costing not less than **Rs. 4,86,000/-** OR one similar work costing not less than **Rs 6,48,000/-**

Similar work shall mean works of **SITC of Solar Power Plant/ maintenance/ comprehensive maintenance of Solar Power plants** the value of executed works shall be brought to current costing level by enhancing the actual value of work at simple rate of 7% per annum; calculated from the date of completion to previous day of last day of submission of bids.

~~(HEI NDMC Registered contractor, no documents for past experienced is required to be uploaded).~~

- 2.2.1 Should have had Average Annual Financial Turnover of **Rs. 4,05,000/-** on construction works during the last three years ending 31st March 2020 (Scanned copy of Certificate from CA to be uploaded) with UDIN.

(Certificate of Financial Turnover: At the time of submission of bid contractor may upload affidavit / certificate from CA mentioning Financial Turnover of last 3 years or for the period as specified in the bid document and further details if required may be asked from the contractor after opening of technical bids. There is no need to upload entire voluminous balance sheet).

- 2.2.2 Should not have incurred any loss (profit after tax should be positive) in more than two years during the last five years ending 31st March 2020.

- 2.2.3 Solvency certificate: Solvency of the amount equal to 40% of the estimated cost put to

tender (ECPT).

- 2.2.4 Electrical contractor license issued by the Govt. of NCT of Delhi.

- 2.2.5 An undertaking for declaration of deviation, if any, preferably on the letterhead of the

contractor/firm “I/We have gone through all the terms and conditions and specifications of the NIT that there is no deviation as given in my/our offer.

- 3 Agreement shall be drawn with the successful bidders on prescribed Form No. **NDMC 7/8** (or other Standard Form as mentioned) which is available on website <https://ndmc.gov.in> or <https://govtprocurement.delhi.gov.in> Bidders shall quote his rates as per various terms and conditions of the said form which will form part of the agreement.
- 4 The time allowed for carrying out the work will be 15 days from the date of start as defined in schedule ‘F’ or from the first date of handing over of the site, whichever is later, in accordance with the phasing, if any, indicated in the bid documents.
- 5 The site for the work is available.

OR

~~The site for the work shall be made available in parts as specified below:-~~

.....

6. The bid document consisting of plans, specifications, the schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents except Standard General Conditions of Contract Form can be seen on website <https://ndmc.gov.in> or <https://govtprocurement.delhi.gov.in> free of cost.
7. After submission of the bid the contractor can re-submit revised bid any number of times but before last time and date of submission of bid as notified.
8. Earnest Money in the form of Treasury Challan or Demand Draft or Pay order or Banker’s Cheque or Deposit at Call Receipt or Fixed Deposit Receipt (drawn in favour of Secretary, NDMC) shall be scanned and uploaded to the e-Tendering website within the period of bid submission. The original EMD should be deposited either in the office of Executive Engineer inviting bids or division office of any Executive Engineer, NDMC within the period of bid submission. The EMD receiving Executive Engineer (including NIT issuing EE/AE/AAO/HA-cum-EA) shall issue a receipt of deposition of earnest money deposit to the bidder in a prescribed format (enclosed) uploaded by tender inviting EE in the NIT.

A part of earnest money is acceptable in the form of bank guarantee also. In such case, minimum 50% of earnest money or Rs. 20 lac, whichever is less, shall have to be deposited in shape prescribed above, and balance may be deposited in shape of Bank Guarantee of any scheduled bank having validity for six months or more from the last date of receipt of bids which is to be scanned and uploaded by the intending bidders.

Copy of Enlistment Order and certificate of work experience and other documents as specified in the press notice shall be scanned and uploaded to the e-Tendering website within the period of bid submission. However, certified copy of all the scanned and uploaded documents as specified in press notice shall have to be submitted by the lowest bidder only along with physical EMD of the scanned copy of EMD uploaded within a week physically in the office of tender opening authority. Online bid documents submitted by intending bidders shall be opened only of those bidders, whose original EMD deposited with any division of NDMC and other documents scanned and uploaded are found in order.

The bid submitted shall be opened at 4.00 PM on 26.11.2021 .

9. The bid submitted shall become invalid if:
 - (i) The bidder is found ineligible.
 - (ii) The bidder does not upload scanned copies of all the documents stipulated in the bid document.
 - (iii) If any discrepancy is noticed between the documents as uploaded at the time of

submission of bid and hard copies as submitted physically by the lowest bidder in the office of bid opening authority.

- (iv) If a tenderer quotes nil rates against each item in item rate tender or does not quote any percentage above/below on the total amount of the tender or any section / sub head in percentage rate tender, the tender shall be treated as invalid and will not be considered as lowest tenderer.
- 10. The contractor whose bid is accepted will be required to furnish performance guarantee of 3% (Three Percent) (of the bid amount within the period specified in Schedule F. This guarantee shall be in the form of cash (in case guarantee amount is less than Rs. 10000/-) or Deposit at Call receipt of any scheduled bank/Banker's cheque of any scheduled bank/Demand Draft of any scheduled bank/ Pay order of any Scheduled Bank of any scheduled bank (in case guarantee amount is less than Rs. 1,00,000/-) or Government Securities or Fixed Deposit Receipts or Guarantee Bonds of any Scheduled Bank or the State Bank of India in accordance with the prescribed form. In case the contractor fails to deposit the said performance guarantee within the period as indicated in Schedule 'F', including the extended period if any, the Earnest Money deposited by the contractor shall be forfeited automatically without any notice to the contractor. The earnest money deposited along with bid shall be returned after receiving the aforesaid performance guarantee. The contractor whose bid is accepted will also be required to furnish either copy of applicable licenses/ registrations or proof of applying for obtaining labour licenses, registration with EPFO, ESIC and BOCW Welfare Board including Provident Fund Code No. If applicable and also ensure the compliance of aforesaid provisions by the sub contractors, if any engaged by the contractor for the said work within the period specified in Schedule F. (This is as per DG CPWD O.M. No.DG/CON/Misc./13 dated 23.11.2020 and Ministry of Finance, Deptt. of Expenditure O.M. No.9/4/2020-PPD dated 12.11.2020).

11. The description of the work is as follows:

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

- 12. The competent authority on behalf of the NDMC does not bind itself to accept the lowest or any other bid and reserves to itself the authority to reject any or all the bids received without the assignment of any reason. All bids in which any of the prescribed condition is not fulfilled or any condition including that of conditional rebate is put forth by the bidders shall be summarily rejected.
- 13. Canvassing whether directly or indirectly, in connection with bidders is strictly prohibited and the bids submitted by the contractors who resort to canvassing will be liable for rejection.
- 14. The competent authority on behalf of President of India reserves to himself the right of accepting the whole or any part of the bid and the bidders shall be bound to perform the same

at the rate quoted.

15. The contractor shall not be permitted to bid for works in the NDMC responsible for award and execution of contracts, in which his near relative is posted a Divisional Accountant or as an officer in any capacity between the grades of Superintending Engineer and Junior Engineer (both inclusive). He shall also intimate the names of persons who are working with him in any capacity or are subsequently employed by him and who are near relatives to any gazetted officer in the New Delhi Municipal Council (NDMC). Any breach of this condition by the contractor would render him liable to be removed from the approved list of contractors of this Department.
16. No Engineer of Gazetted Rank or other Gazetted Officer employed in Engineering or Administrative duties in an Engineering Department of the NDMC is allowed to work as a contractor for a period of one year after his retirement from NDMC service, without the prior permission of the NDMC in writing. This contract is liable to be cancelled if either the contractor or any of his employees is found any time to be such a person who had not obtained the permission of the NDMC as aforesaid before submission of the bid or engagement in the contractor's service.
17. The bid for the works shall remain open for acceptance for a period of seventy five (75) days from the date of opening of bids in case bids are invited in 2 or 3 bid envelop system. (Strike out as the case may be).
 - I) If any tenderer withdraws his tender or makes any modification in the terms and conditions of the tender which is not acceptable to the department within 7 days after last date of submission of bids, then the Government/ NDMC shall without prejudice to any other right or remedy, be at liberty to forfeit 50% of the earnest money absolutely at the time of bid or action taken as per submitted declaration irrespective of letter of acceptance for the work is issued or not.
 - II) If any tenderer withdraws his tender or makes any modification in the terms and conditions of the tender which is not acceptable to the department after expiry of 7 days after last date of submission of bids, then the Government/NDMC shall without prejudice to any other right or remedy, be at liberty to forfeit 100% of the earnest money absolutely at the time of bid or action taken as per submitted declaration irrespective of letter of acceptance for the work is issued or not.
 - III) In case of forfeiture of earnest money as prescribed in para (i) and (ii) above, the bidders shall not be allowed to participate in the rebidding process of the same work.
18. This notice inviting Bid shall form a part of the contract document. The successful bidder/contractor, on acceptance of his bid by the Accepting Authority shall within 15 days from the stipulated date of start of the work, sign the contract consisting of:-
 - (a) The Notice Inviting Bid, all the documents including additional conditions, specifications and drawings, if any, forming part of the bid as uploaded at the time of invitation of bid and the rates quoted online at the time of submission of bid and acceptance thereof together with any correspondence leading thereto.
 - (b) Standard N.D.M.C. Form 7/8 or other Standard N.D.M.C. Form as applicable.
- ~~19. Non-registered contractor with NDMC shall also have to get themselves registered in NDMC before they are paid first running bill.~~
20. Engineer-in-Charge shall deduct TDS, GST and Cess as per prevailing NDMC instructions / orders from the total payments made to contractor in pursuance of this contract. The TDS shall be deducted on advance payment to be adjusted in future bills and on the amount of cost escalation. The TDS certificate shall be issued by the Engineer-in-Charge to the contractor in form (in TDS Form).
21. In order to achieve a high standard of quality, it may be required to go for third party quality

control. For this purpose a separate agency shall be appointed by the owner who will carry out independently testing of material checking and ensuring overall quality procedures. The contractor shall be required to fully cooperate with agency and facilitate them in taking samples, transportation and examination of various activities including documentations at no extra time and cost to the owner. In case of adverse finding by the agency, the contractors shall do the needful rectification at no extra time and cost to the owner. The Engineer-in-Charge shall be at liberty for getting quality assurance work done through any agency as approved by the Chief Engineer at his own cost.

List of documents for Cover I to be scanned and uploaded within the period of the submission: -

1. ~~Earnest Money Deposit Declaration as per proforma annexed at Annexure “I” at P-12 — (For registered contractors only upto 31.12.2021 as per CPWD OM No.DG/CON/Misc./13 dated 23.11.2020 & OM No.F-9/14/2020 PPD dated 12.11.2020 issued by the Department of Expenditure (Procurement Policy Division), Ministry of Finance, Govt. of India)~~

Or

Copy of receipt for deposition of original EMD issued from Division office of any Executive Engineer of NDMC as per Annexure “II”. (The EMD document shall only be issued from the place in which office of receiving Division office is situated). Proforma attached at P-13.

2. Treasury Challan/ Demand Draft/Pay Order or banker’s Cheque / FDR any schedule Bank against EMD in the name of Secretary NDMC.
3. ~~Enlistment Order/ Registration Certificate of the Contractor.~~
4. Electrical contractor license issued by Designated authority.
5. Experience of having successfully completed **similar** works during the last 7 years ending last day of month previous to the one in which tenders are invited.

Three similar works each costing not less than **Rs 3,24,000/-** OR two similar works each costing not less than **Rs. 4,86,000/-** OR one similar work costing not less than **Rs 4,86,000/-**.

Similar work shall mean works of **SITC of Solar Power Plant/ maintenance/ comprehensive maintenance of Solar Power plants** the value of executed works shall be brought to current costing level by enhancing the actual value of work at simple rate of 7% per annum; calculated from the date of completion to previous day of last day of submission of bids.

6. Should have had Average Annual Financial Turnover of **Rs. 4,05,000 /-** on construction works during the last three years ending 31st March 2020 preferably as per Annexure – “III” (Scanned copy of Certificate from CA to be uploaded) with UDIN.
7. Should not have incurred any loss (profit after tax should be positive) in more than two years during the last five years ending 31st March 2020 preferably as per Annexure – “III”.
8. Solvency certificate: Solvency of the amount equal to 40% of the estimated cost put to tender (ECPT). The validity period of solvency certificate shall be 12 months from the date of issue of the certificate to the previous day of receipt of applications for bid preferably as per Annexure – “IV”.
9. Affidavit on Non-Judiciary Stamp Paper of Rs. 100/- duly attested by Notary **after publishing the date of tender**. (Separate affidavit duly notarized will be uploaded and original of uploaded affidavit will become part of agreement of L-1 bidder.

“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 bidding in NDMC in future work, the Engineer-in-Charge shall be free to forfeit the entire amount of Earnest Money Deposit/ Performance Guarantee.” (Scanned copy to be uploaded at the time of submission of bid).

10. Certificate of Registration of GST Act.

11. Certificate of tenderer preferably on contractor letterhead that “I, M/s _____ hereby certify that I my firm have/ has not been black listed/debarred in any Central/State govt. Public Undertaking/ private undertaking etc. on account of supply of sub standard material and poor execution/ poor performance on what so ever reason for the last three years from date of opening of tender.

12. GST registration certificate of the state in which the work is to be taken up, if already obtained by the bidder.

If the bidder has not obtained GST registration in the state in which the work is to be taken up or as required by GST authorities, then in such a case the bidder shall scan and upload following under taking along with other bid documents **preferably of letterhead of the bidder.**

“If work is awarded to me I/we shall obtain GST registration certificate of the state. In which work is to be taken up within one month from the date of receipt of award letter o before release of any payment by NDMC, whichever for any delay in payment which will be due towards me/us on a/c of the work executed and/ or for any action taken by NDMC or GST department in this regard.

13. An undertaking for declaration of deviation, if any, preferably on the letterhead of the contractor/firm “I/We have gone through all the terms and conditions and specifications of the NIT that there is no deviation as given in my/our offer.

14. An Undertaking as per Annexure – “V”.

Price Bid Template (Cover-II)

As per Schedule of work.

Executive Engineer (E)

INFORMATION AND INSTRUCTIONS FOR BIDDERS FOR e-TENDERING FORMING PART OF BID DOCUMENT

The Executive Engineer C-III Division on behalf of the NDMC invites online bids from Reputed and experienced contractors for the following work for the following work:

S. No.	NIT No.	Name of work & Location	Estimated cost put to bid	Earnest Money	Period of Completion	Last date & time of submission of bid, copy of receipt of deposition of original EMD, and other documents as specified in the NIT	Time & date of opening of technical bid
1	2	3	4	5	6	7	8
1.		Supply Installation Testing and Commissioning Grid connected Roof top Solar Power Plant at the 4 nos. Type-V quarters (Duplex type) at Prithviraj Lane in NDMC area	Rs. 8,10,000/-	16,200/-	15Days from 10 th day of written order	Up to 03.30 PM on 26.11.2021	At 4.00 PM on 26.11.2021

1 Contractors who fulfill the following requirements shall be eligible to apply.

Joint ventures are not accepted. (This is not applicable for NDMC enlisted contractors of appropriate class in composite category)

i) ~~Earnest Money Deposit Declaration as per proforma annexed (For registered contractors only upto 31.12.2021 as per CPWD OM No. DG/CON/Misc./13 dated 23.11.2020 & OM No.F-9/14/2020-PPD dated 12.11.2020 issued by the Department of Expenditure (Procurement Policy Division), Ministry of Finance, Govt. of India)~~

Or

Copy of receipt for deposition of original EMD issued from Division office of any Executive Engineer of NDMC. (The EMD document shall only be issued from the place in which office of receiving Division office is situated).

- ii) Treasury Challan/ Demand Draft/Pay Order or banker’s Cheque / FDR any schedule Bank against EMD in the name of Secretary NDMC.
- iii) ~~Enlistment Order/ Registration Certificate of the Contractor.~~
- iv) Electrical contractor license issued by Govt. of NCT of Delhi.
- v) Affidavit on Non-Judiciary Stamp Paper of Rs. 100/- duly attested by Notary **after publishing the date of tender.** (Separate affidavit duly notarized will be uploaded in each case and original of uploaded affidavit will become part of agreement of L-1 bidder.

“I/We undertake and confirm that eligible similar work(s) has/ have not been got executed through another contractor on back basis. Further that, if such a violation comes to the notice of Department, then I/we shall be debarred for bidding in NDMC in future work, the Engineer-in-Charge shall be free to forfeit the entire amount of Earnest Money Deposit/ Performance Guarantee.” / suspended for one year and shall not be eligible to bid for NDMC tenders from date of issue of suspension order. (Scanned copy to be uploaded at the time of submission of bid)

- vi) The Integrity Pact forming the part of Notice Inviting Tender (NIT) is mandatory signed preferably with stamp and uploaded.
- vii) Certificate of tenderer preferably on contractor letterhead that “I, M/s _____ hereby certify that I/ my firm have/ has not been black listed/debarred in any Central/State govt. Public Undertaking/ private undertaking etc. on account of supply of sub standard material and poor execution/ poor performance on what so ever reason for the last three years from date of opening of tender.
- viii) Certificate of Registration of GST Act.
- ix) GST registration certificate of the state in which the work is to be taken up, if already obtained by the bidder.

If the bidder has not obtained GST registration in the state in which the work is to be taken up or as required by GST authorities, then in such a case the bidder shall scan and upload following under taking along with other bid documents **preferably of letterhead of the bidder.**

“If work is awarded to me I/we shall obtain GST registration certificate of the state. In which work is to be taken up within one month from the date of receipt of award letter or before release of any payment by NDMC, whichever for any delay in payment which will be due towards me/us on a/c of the work executed and/ or for any action taken by NDMC or GST department in this regard.

- x) Experience of having successfully completed **similar** works during the last 7 years ending last day of month previous to the one in which tenders are invited.

Three similar works each costing not less than **Rs 3,24,000/-** OR two similar works each costing not less than **Rs. 4,86,000/-** OR one similar work costing not less than **Rs 6,48,000/-**.

Similar work shall mean works of **SITC of Solar Power Plant/ maintenance/ comprehensive maintenance of Solar Power plants** the value of executed works shall be brought to current costing level by enhancing the actual value of work at simple rate of 7% per annum; calculated from the date of completion to previous day of last day of submission of bids.

- xi) Should have had Average Annual Financial Turnover of **Rs 4,05,000 /-** on construction works during the last three years ending 31st March 2020 (Scanned copy of Certificate from CA to be uploaded) with UDIN.
 - xii) Should not have incurred any loss (profit after tax should be positive) in more than two years during the last five years ending 31st March 2020.
 - xiii) Solvency certificate: Solvency of the amount equal to 40% of the estimated cost put to tender (ECPT).
2. The intending bidder must read the terms and conditions of NDMC -6 carefully. He should only submit his bid if he considers himself eligible and he is in possession of all the documents required.
 3. This information and instructions for bidders posted on website shall form part of bid document.
 4. The bid document consisting of Plans, Specifications, Schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents can be seen and downloaded from website <https://ndmc.gov.in> or <https://govtprocurement.delhi.gov.in> free of cost.
 5. The bid can only be submitted after deposition of original EMD either in the office of Executive Engineer inviting bids or division office of any Executive Engineer, NDMC within the period of bid submission and uploading the mandatory scanned documents such as Demand Draft or Pay order or Bankers Cheque or Deposit at call Receipt or Fixed Deposit Receipts and Bank Guarantee of any scheduled Bank towards EMD in favour of Secretary, NDMC as mentioned

in NIT and other documents as specified.

6. Those contractors not registered on the website mentioned above, are required to get registered beforehand. If needed they can be imparted training on online bidding process as per details available on the website.
7. The intending bidder must have valid class-III digital signature to submit the bid.
8. On opening date, the contractor can login and see the bid opening process. After opening of bids he will receive the competitor bid sheets.
9. Contractor can upload documents in the form of **JPG** format and **PDF** format.
10. Certificate of Financial Turnover: At the time of submission of bid contractor may upload affidavit / certificate from CA mentioning Financial Turnover of last 3 years or for the period as specified in the bid document and further details if required may be asked from the contractor after opening of technical bids. There is no need to upload entire voluminous balance sheet.
11. Contractor must ensure to quote rate of each item. However, If a tenderer quotes nil rates against each item in item rate tender or does not quote any percentage above/below on the total amount of the tender or any section / sub head in percentage rate tender, the tender shall be treated as invalid and will not be considered as lowest tenderer.
12. The Technical Bid shall be opened first on due date and time as mentioned above. The time and date of opening of financial bid of contractors qualifying the technical bid shall be communicated to them at a later date.
13. Pre Bid conference shall be held in the chamber of at on.....to clear the doubt of intending bidders, if any.
14. The department reserves the right to reject any prospective application without assigning any reason and to restrict the list of qualified contractors to any number deemed suitable by it, if too many bids are received satisfying the laid down criterion.

Executive Engineer (E)

Proforma for Earnest Money Deposit Declaration

Whereas I/We.....(name of agency) have submitted bids
for.....(name of work) **Supply Installation Testing and Commissioning Grid
connected Roof top Solar Power Plant at the 4 nos. Type-V quarters (Duplex type) at Prithviraj
Lane in NDMC area**

I/We hereby submit following declaration in lieu of submitting Earnest Money Deposit.

(1) If after the opening of tender, I/We withdraw or modify my/our bid during the period of validity
of tender (including extended validity of tender) specified in the tender documents,

Or

(2) If after the award of work, I/We fail to sign the contract, or to submit performance guarantee
before the deadline defined in the tender documents,

I/We shall be suspended for one year and shall not be eligible to bid for NDMC tenders from date of
issue of suspension order.

Signature of the contractor(s)

Receipt of deposition of original EMD

Receipt No. _____ Date _____

- i. Name of work : **Supply Installation Testing and Commissioning Grid connected Roof top Solar Power Plant at the 4 nos. Type-V quarters (Duplex type) at Prithviraj Lane in NDMC area**
- ii. NIT No.:.....
- iii. Estimated Cost:Rs. 8,10,000 /-
- iv. Amount of Earnest Money Deposit : Rs.16,200/-
- v. Last date of submission of bid:.....
- vi. Name of Contractor :.....
- vii. Form of EMD :.....
- viii. Amount of Earnest Money Deposit:.....
- ix. Date of submission of EMD:.....

Signature, Name and Designation of EMD
receiving Officer along with Office Stamp:.....

(To be given by Chartered Accountant preferably on the letter head as per following format)

TO WHOMSOEVER IT MAY CONCERN

This is to certify that the turnover, and profits and losses in respect of M/s _____
_____ having its registered office at _____
_____ for the last 5 Years are as under:

Financial Year	Annual Turnover (Rs. In Lakh)	Net (PROFIT/LOSS) as per audited P&L accounts (Rs. In Lakh)	Remarks
2015-16			
2016-17			
2017-18			
2018-19			
2019-20			

SIGNATURE, ADDRESS, AND STAMP OF C.A/ ACCOUNT

Head of Firm with UDIN number

Date:

Place:

ANNEXURE-“IV”

**BANKERS' CERTIFICATE FROM A SCHEDULED BANK PREFERABLY ON
THE FOLLOWING FORMAT**

This is to certify that to the best of our knowledge and information that M/s./
Sh..... having marginally noted address, as a Customer of our bank
are/is respectable and can be treated as good for any engagement upto a limit of
Rs.....(Rupees.....)

This certificate is issued without any guarantee or responsibility on the bank or any of the officers.

(Signature) For the Bank

NOTE

1. Bankers Certificates should be on letter head of the Bank, addressed to tendering authority.
In case of Partnership firm, certificate should include names of all partners as recorded with the Bank.

UNDERTAKING

From

.....
.....
.....

To

The Executive Engineer (Elect.)C-III
3rd Floor SBS Place Gole Market
New Delhi.

Tender for : **Supply Installation Testing and Commissioning Grid connected Roof top Solar Power Plant at the 4 nos. Type-V quarters (Duplex type) at Prithviraj Lane in NDMC area**

- 1. I/We hereby offer to do the above work detailed in the schedule of quantity attached or such portion there of as you may specify in the acceptance of Tender at the price given in the schedule. It is confirmed that no charges other than the prices indicated in said schedule would be payable to me/us.
- 2. I/We have thoroughly examined and understood the ‘Conditions of Tendering’ ‘Conditions of Contract’ together with their Annexure and schedules and hereby agreed to abide by them.
- 3. I/We have thoroughly examined and understood the specifications drawing etc. and am/are fully aware of the nature of the work required to be done and my/our offer is strictly in accordance with the requirements under the terms and conditions detailed above.
- 4. I/We agree to hold the offer open up to and inclusive of 75 days and shall be bound by the communication of acceptance dispatched within this time. I/We further undertaken that this offer shall not be retracted or withdrawn by me/us after the opening of the tender.
- 5. We hereby confirm that there is no additional conditions/modifications/alternation/suggestions etc. in the cover III i.e. price bid.
- 6. I,M/s.... hereby certify that I/My firm have/has not been blacklisted/debarred in any Govt./Public undertaking/Private undertaking etc. on account of supply of sub standard material and/or poor execution/poor performance for the last three years from the date of opening of tender.

(Tenderer)

Yours faithfully,

(Signature of the Tenderer)
Status (State of capacity in
Which the signatory is signing)

Place.....

Date.....

NEW DELHI MUNICIPAL COUNCIL

NDMC 7/8

General Rules & Directions

1. All work proposed for execution by contract will be notified in a form of invitation to tender pasted in public places and signed by the officer inviting tender or by publication in News papers as the case may be.

This form will state the work to be carried out, as well as the date for submitting and opening tenders and the time allowed for carrying out the work, the amount of the security deposit and Performance guarantees to be deposited by the successful tenderer and the percentage, if any, to be deducted from bills. Copies of the specifications, designs and drawings and any other documents required in connection with the work signed for the purpose of Identification by the officer inviting tender shall also be open for inspection by the Contractor at the office of officer inviting tender during office hours.

2. In the event of the tender being submitted by a firm, it must be signed separately by each partner thereof or in the event of the absence of any partner, it must be signed on his behalf by a person holding a power-of attorney authorizing him to do so, such power of attorney to be produced with the tender, and it must disclose that the firm is duly registered under the Indian Partnership Act, 1952.
3. 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. Applicable for Item Rate Tender only (NDMC- 8) (DELETED)

~~Any person who submits a tender shall fill up the usual printed form, stating at what rate he is willing to undertake each item of the work. Tenders, which propose any alteration in the work specified in the said form of invitation to tender, or in the time allowed for carrying out the work, or which contain any other conditions of any sort, including conditional rebates, will be summarily rejected. No single tender shall include more than one work, but contractors who wish to tender for two or more works shall submit separate tender for each. Tender shall have the name and number of the works to which they refer, written on the envelopes.~~

The rate(s) must be quoted in decimal coinage. Amounts must be quoted in full rupees by ignoring fifty paise and considering more than fifty paise as rupee one.

Applicable for Percentage Rate Tender only (NDMC- 7)

- 4A. In case of Percentage Rate Tenders, tenderer shall fill up the usual printed form, stating at what percentage below/above (in figures as well as in words) the total estimated cost given in Schedule of Quantities at Schedule-A, he will be willing to execute the work. The tender submitted shall be treated as invalid if:-
 - (i) The contractor does not quote percentage above/ below on the total amount of tender or any section/sub head of the tender.
 - (ii) The percentage above/below is not quoted in figures & words both on the total amount of tender or any section/sub head of the tender.
 - (iii) The percentage quoted above/below is different in figures & words on the total amount of tender or any section/sub head of the tender:

Tenders, which propose any alteration in the work specified in the said form of invitation to tender, or in the time allowed for carrying out the work, or which contain any other conditions of any sort including conditional rebates, will be summarily rejected. No single tender shall include more than one work, but contractors who wish to tender for two or more works shall submit separate tender for each. Tender shall have the name and number of the works to which they refer, written on the envelopes.
- 4B. In case the lowest tendered amount (estimated cost + amount worked on the basis of percentage above/below) of two or more contractors is same, such lowest contractors will be asked to submit sealed revised offer in the form of letter mentioning percentage above/below on estimated 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 on the basis of revised offers.

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.

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 decided by draw of lots in the presence of SE of the circle, EE(s) in-charge of major & minor component(s) (also DDH in case Horticulture work is also included in the tender), NDMC of the circle & the lowest contractors those have quoted equal amount of their tenders.

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.

5. The officer inviting tender or his duly authorized assistant will open tenders in the presence of any intending contractors who may be present at the time, and will enter the amounts of the several tenders in a comparative statement in a suitable form.
6. The officer inviting tenders shall have the right of rejecting all or any of the tenders and will not be bound to accept the lowest or any other tender.
7. The receipt of an accountant or clerk for any money paid by the contractor will not be considered as any acknowledgment or payment to the officer inviting tender and the contractor shall be responsible for seeing that he procures a receipt signed by the officer inviting tender or a duly authorized Cashier.
8. The memorandum of work tendered for and the of materials to be supplied by the department and their issue-rates, shall be filled and completed in the office of the officer inviting tender before the tender form is issued. If a form is issued to an intending tenderer without having been so filled in and incomplete, he shall request the officer to have this done before he completes and delivers his tender.
9. The tenderers shall sign a declaration under the officials Secret Act 1923, for maintaining secrecy of the tender documents drawings or other records connected with the work given to them. The unsuccessful tenderers shall return all the drawings given to them.
- 9A Use of correcting fluid, anywhere in tender document is not permitted. Such tender is liable for rejection.

10. ~~**Applicable for Item Rate Tender only (NDMC- 8) (DELETED)**~~

~~In the case of Item Rate Tenders, only rates quoted shall be considered. Any tender containing percentage below/above the rates quoted is liable to be rejected. Rates quoted by the contractor in item rate tender in figures and words shall be accurately filled in so that there is no discrepancy in the rates written in figures and words. However, if a discrepancy is found, the rates which correspond with the amount worked out by the contractor shall unless otherwise proved be taken as correct. If the amount of an item is not worked out by the contractor or it does not correspond with the rates written either in figures or in words, then the rates quoted by the contractor in words shall be taken as correct. Where the rates quoted by the contractor in figures and in words tally, but the amount is not worked out correctly, the rates quoted by the contractor will unless otherwise proved be taken as correct and not the amount.~~

~~In event no rate has been quoted for any item(s), leaving space both in figure(s), word(s), and amount blank, it will be presumed that the contractor has included the cost of this/these item(s) in other items and rate for such item(s) will be considered as zero and work will be required to be executed accordingly.~~

10A. In case of Percentage Rate Tenders only percentage quoted shall be considered. Any tender containing item rates is liable to be rejected. Percentage quoted by the contractor in percentage rate tender shall be accurately filled in figures and words, so that there is no discrepancy.

11. In the case of any tender where unit rate of any item/items appear unrealistic, such tender will be considered as unbalanced and in case the tenderer is unable to provide satisfactory explanation, such a tender is liable to be disqualified and rejected.

~~**Applicable for Item Rate Tender only (NDMC- 8) (DELETED)**~~

12. ~~All rates shall be quoted on the tender form. The amount for each item should be worked out and requisite totals given. Special care should be taken to write the rates in figures as well as in words and the amount in figures only, in such a way that interpolation is not possible. The total amount should be written both in figures and in words. In case of figures, the word 'Rs.' should be written before the figure of rupees and word 'P' after the decimal figures, e.g. 'Rs. 2.15 P' and in case of words, the word, 'Rupees' should precede and the word 'Paise' should be written at the end. Unless the rate is in whole rupees and followed by the word 'only' it should invariably be upto two decimal places. While quoting the rate in~~

schedule of quantities, the word ‘only’ should be written closely following the amount and it should not be written in the next line.

Applicable for Percentage Rate Tender only (NDMC- 7)

- 12A. In Percentage Rate Tender, the tenderer shall quote percentage below/above (in figures as well as in words) at which he will be willing to execute the work. He shall also work out the total amount of his offer and the same should be written in figures as well as in words in such a way that no interpolation is possible. In case of figures, the word ‘Rs.’ should be written before the figure of rupees and word ‘P’ after the decimal figures, e.g. ‘Rs. 2.15P’ and in case of words, the word ‘Rupees’ should precede and the word ‘Paisa’ should be written at the end.
13. (i) The Contractor whose tender is accepted, will be required to furnish performance guarantee of 3% (Three Percent) of the tendered amount within the period specified in Schedule F. This guarantee shall be in the form of cash (in case guarantee amount is less than Rs. 10,000/-) or Deposit at call receipt of any scheduled bank/Banker’s cheque of any scheduled bank/Demand Draft of any scheduled bank/Pay order of any scheduled bank (in case guarantee amount is less than Rs. 1,00,000/-) or Government Securities or Fixed Deposit Receipts or Guarantee Bonds of any Scheduled Bank or the State Bank of India in accordance with the prescribed form. **The contractor whose bid is accepted will also be required to furnish either copy of applicable licenses/registration or proof of applying for obtaining labour licenses, registration with EPFO, ESIC & BOCW Welfare Board and Programme Chart (time and progress) within the period specify in Schedule F.**
- ii) ~~Security Deposit: 2.5% of tendered value. However, in case of contracts involving maintenance of building and services/other work after construction of same building and services/other work beyond defect liability period, 50% of Performance Guarantee shall be retained as Security Deposit. The same shall be returned year wise proportionately. The validity period of PG shall be extended accordingly. The Security deposit will be collected by deductions from the running bills of the contractor at the rates mentioned above and the earnest money deposited at the time of tenders, will be treated as a part of the Security Deposit. The Security amount will also be accepted in cash or in the shape of Government Securities. Fixed Deposit Receipt of a Scheduled Bank or State Bank of India will also be accepted for this purpose provided confirmatory advice is enclosed.~~
14. On acceptance of the tender, the name of the accredited representative(s) of the contractor who would be responsible for taking instructions from the Engineer-in-charge shall be communicated in writing to Engineer –in- Charge.
15. GST or any other tax applicable in respect of this contract shall be payable by the Contractor and NDMC will not entertain any claim whatsoever in respect of the same.
16. The contractor shall give a list of both gazetted and non-gazetted NDMC officers & employees related to him.
17. The tender for the work shall not be witnessed by a contractor or contractors who himself/ themselves has/have tendered or who may and has/have tendered for the same work. Failure to observe this condition would render, tenders of the contractors tendering, as well as witnessing the tender, liable to summary rejection.
18. The tender for composite work includes, in addition to building work, all other works such as sanitary and water supply installations drainage installation, electrical work, horticulture work, roads and paths etc. The tenderer apart from being a registered contractor (B&R) of appropriate class, must associate himself with agencies of appropriate class which are eligible to tender for sanitary and water supply drainage, electrical and horticulture works in the composite tender.
19. The contractor shall submit list of works which are in hand (progress) in the following form:-

Name of Work	Name and particulars of Division Where work is being executed	Value of Work	Position of works in Progress	Remarks

20. The contractor shall comply with the provisions of the Apprentices Act 1961, and the rules and orders issued there under from time to time. If he fails to do so, his failure will be a breach of the contract and the Chief Engineer, Superintending Engineer/Executive Engineer may in his discretion, without prejudice to any other right or remedy available in law, cancel the contract. The contractor shall also be liable for any pecuniary liability arising on account of any violation by him of the provisions of the said Act.
21. **All Govt. Institute, Indian Institutes of Technology, National Institutes of Technology, Central and State Research Centers, Centrally and State funded laboratories stands approved. Besides above N.A.B.L. accredited lab shall also be allowed subject to prior approval of Chief Engineer.**

Contractor

Executive Engineer (E) C-III

NDMC-7/8

NEW DELHI MUNICIPAL COUNCIL

Percentage Tender & Contract for Works

Tender for the work of: Supply Installation Testing and Commissioning Grid connected Roof top Solar Power Plant at the 4 nos. Type-V quarters (Duplex type) at Prithviraj Lane in NDMC area

(i) To be submitted by 3.30 **PM hours on 26.11.2021** to the Executive Engineer_____ Division, NDMC, New Delhi.

(ii) To be opened in presence of tenderers who may be present at 4.00 **PM hours on 26.11.2021** in the office of Executive Engineer Electric C-III Division, NDMC, New Delhi

Issued to

Signature of officer issuing the documents

Designation

Date of Issue

TENDER

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

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

I / We agree to keep the tender open for seventy five (75) days from the due date of its opening / seventy five days from the date of opening of technical bids in case tenders are invited on 2/3 Cover system.

A sum of Rs. 16,200/- is hereby forwarded in deposit at call receipt of a scheduled bank/fixed deposit receipt of scheduled bank/demand draft of a scheduled bank as earnest money. If I/We, fail to furnish the prescribed performance guarantee within prescribed period. I/We agree that the said NDMC or his successors, in office shall without prejudice to any other right or remedy, be at liberty to forfeit the said earnest money absolutely. Further, if I/We fail to commence work as specified, I/We agree that NDMC or the successors in office shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the said earnest money and the performance guarantee absolutely, otherwise the said earnest money shall be retained by him towards security deposit to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to those in excess of that limit at the rates to be determined in accordance with the provision contained in Clause 12.2 and 12.3 of the tender form. Further, I/We agree that in case of forfeiture of Earnest Money & Performance Guarantee as aforesaid. I/We shall be debarred for participation in the re-tendering process of the work.

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

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

Dated:

Witness:

Address:

Occupation:

Signature of Contractor

Postal Address

**ELECTRICITY DEPARTMENT
NEW DELHI MUNICIPAL COUNCIL
OFFICE OF THE EXECUTIVE ENGINEER
New Delhi**

CONDITIONS OF CONTRACT FOR WORKS

Definitions:

1. The "Contract" means the documents forming the tender and acceptance thereof and the formal agreement executed between the competent authority on behalf of the New Delhi Municipal Council and the contractor, together with the documents referred to therein including these conditions, the specification designs, drawings and instructions issued from time to time by the Engineer-in-Charge and all these documents taken together shall be deemed to form one contract and shall be complementary to one another.
2. In the contract, the following expression shall, unless the context otherwise requires, have the meanings, hereby respectively assigned to them :-
 - a. The Expression "works", or work shall unless there be something either in the subject or context repugnant to such construction, be construed and taken to mean the work by or virtue of the contract contracted to be executed whether temporary or permanent, and whether original, altered, substituted or additional.
 - b. The "site" shall mean the land/ or other places on, into or through which work is to be executed under the contract or any adjacent land path or street through which work is to be executed under the contract or any adjacent land, path or street which may be allotted or used for the purpose of carrying out the contract.
 - c. The "contractor" shall mean the individual, firm of company, whether incorporated or not, undertaking the works and shall include the legal personal representatives of such individual or the persons composing such firm or company, or the successors of such firm or company and the permitted assignees of such individual, firm or company.
 - d. The "N.D.M.C. or NDMC" mean the New Delhi Municipal Council.
 - e. The "Engineer-in-Charge" means the Executive Engineer who shall supervise and be in charge of the work.
 - f. The terms "Chief Engineer" includes Additional Chief Engineer also.
 - g. "Excepted Risk" are risk due to riots (other than those an account of contractor's employees), war (whether declared or not), invasion, act of foreign enemies, hostilities civil war, rebellion, revolution, insurrection, military or usurped power any act. Of Government, damages from aircraft, acts of God, such as earthquake, lightning and unprecedented floods, and other causes over which the contractor has no control and accepted as such by the NDMC or causes solely due to use or occupation by NDMC of the part of the works in respect of which a certificate of completion has been issued or a cause solely due to NDMC's faulty design of works.
 - h. "Market Rate" shall be the rate as decided by the Engineer-in-charge on the basis of the cost of materials and labours at the site where the work is to be executed plus fifteen percentages to cover all overheads and profits. "Tendered value" means the value of the entire work as stipulated in the letter of award.
 - i. Schedule(s) referred to in these conditions shall mean the relevant –schedule(s) annexed to the tender paper or Central Public works Department-Delhi Schedule of Rates with amendments thereto issued upto the date of receipt of the tender.

Scope and Performance

3. Where the context so requires, words imparting the singular only also include the plural and vice versa. Any reference to masculine gender shall whenever required include feminine gender and vice versa.
4. Headings and marginal notes to the conditions of contract shall not be deemed to form part thereof or be taken into consideration in the interpretation or construction thereof or of the contract.
5. The Contractor shall be furnished, free of cost one certified copy of the contract documents except standard specifications, Scheduled of Rates and such other printed and published documents, together with all drawings as may be forming part of the tender papers. None of these documents shall used for any purpose other than that of this contract.

Works to be carried out

6. The work to be carried out under the contract shall, except is otherwise provided in these conditions, include all labours, materials, tools, plants, equipments and transport which may be required in preparation of and for and in the full and entire execution and completion of the works. The descriptions given in the schedule of Quantities shall unless otherwise stated, be held to include wastage on material carriage and cartage, carrying and return of empties, hoisting, setting fitting and fixing in position and all other labours necessary in and for the full and entire execution and completion of the work as aforesaid in accordance with good practice and recognized principles.

Sufficiency of tender

7. The contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of this tender for the works and of the rates and prices quoted in the Schedule of Quantities, which rates and prices shall, except as otherwise provided, cover all his obligations under the contract and all matters and things necessary for the proper completion and maintenance of the works.

Discrepancies and adjustment of errors

8. The several documents forming the contract are to be taken as mutually explanatory of one another, detailed drawings being followed in preference to small scale drawing and figured dimensions in preference to scale and special conditions in preference to general conditions.
- 8.1 In the case of discrepancy between the Schedule of Quantities, the Specifications and/or the Drawings, the following order of preference shall be observed:-
 - (i) Description of Schedule of Quantities.
 - (ii) Particular Specification and Special Condition, if any.
 - (iii) Drawings
 - (iv) C.P.W.D. Specifications
 - (v) Indian Standard Specification of B.I.S.
- 8.2 if there are varying or conflicting provisions made in any one document forming part of the contract, the Chief Engineer shall be the deciding authority with regard to the intention of the document and his decision shall be final and binding on the contractor.
- 8.3 Any error in description, quantity or rate in Schedule of Quantities or any omission there from shall not vitiate the contract or release the contractor from the execution of the whole or any part of the works comprised therein according to drawing and specification or from any of his obligations under the contract.

Signing of Contract

9. The successful tenderer/contractor shall, as directed by the Executive Engineer, within the time specified in the letter communicating the acceptance of the tender, sign the necessary contract documents consisting of the notice inviting tender, all the documents including drawings, if any, forming the tender as issued at the time of invitation of tender and acceptance thereof together with any correspondence leading thereto.
10. Issue of stipulated materials and T&P shall be issued only after necessary contract documents are signed by the contractor.

CLAUSES OF CONTRACT

Clause 1.

Performance Guarantee

- (i) The contractor shall submit an irrevocable PERFORMANCE GURANTEE of 3% (Three Percent) of the tendered amount in addition to other deposit mentioned elsewhere in the contract for his proper performance of the contract agreement, (not withstanding and/or without prejudice to any other provision in the contract) **programme chart (time and progress) and applicable labour licenses, registration with EPFO, ESIC & BOCW Welfare Board or Proof of applying thereof from the date of issue of letter of acceptance** within 7 days of issue of letter of acceptance. This period can be further extended by the Engineer-in-Charge up to a maximum period on 3 days on written request of the contractor stating the reason for delays in procuring the Bank Guarantee, to the satisfaction of the Engineer-in-Charge. This guarantee shall be in the form of Deposit-at-Call receipt, Banker's Cheque/Demand Draft pay order of any schedule bank or Fixed Deposit Receipts or guarantee Bonds of any scheduled Bank or the State Bank of India in accordance with the form annexed hereto. In case a fixed deposit receipt of any Bank is furnished by the contractor to he NDMC as part of the performance guarantee and the Bank is unable to make payment against the said fixed deposit receipt, the loss caused thereby shall fall on the contractor and the contractor shall forthwith on demand furnish additional security to the NDMC to make good the deficit.
- (ii) The performance guarantee shall be initially valid upto the stipulated date of completion plus 60 days is for one year beyond that in case the time for completion of work gets enlarged, the contractor shall get the validity of performance guarantee extended to cover such enlarged time for completion of work. After recording of the completion certificate for the work by the competent authority, the performance guarantee shall be returned to the contractor, without any interest.
- (iii) The Engineer-in-Charge shall not make a claim under the performance guarantee except for amounts to which the NDMC is entitled under the contract (notwithstanding 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 Guarantee as described therein above, in which event the Engineer-in-Charge may claim the full amount of the performance guarantee.
 - b) Failure by the contractor to pay the NDMC any amount due, either as agreed by the contractor or determined under any of the clauses/Conditions of the agreement, within 30days of the service of notice to this effect by Engineer-in-Charge.
 - c) In the event of the contract being determined or rescinded under provision of any of the clause/condition of the agreement, the performance guarantee shall stand forfeited in full and shall be absolutely at the disposal of the NDMC.

Form of Performance Security/Bank Guarantee Bond.

In consideration of the New Delhi Municipal Council (hereinafter called N.D.M.C) having offered to accept the terms and conditions of proposed agreement between.....and.....(hereinafter called “the said contractor(s)”).....for the work.....(hereinafter called “the said agreement”) having agreed to production of a irrevocable Bank Guarantee for Rs.....(Rupees.....only) as a security/guarantee from the contractor (s) for compliance of his obligations in accordance with the terms and conditions in the said agreement.

1. We.....(herein after referred to as “the Bank” hereby undertake (indicate the name of the Bank) to pay to the NDMC an amount not exceeding Rs..... (Rupees.....only) on demand by the NDMC.

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

2. We, the said bank further undertake to pay to the NDMC: any money so demanded notwithstanding any dispute or disputes raised by the contractor (s) in any suite or proceeding pending before any court or Tribunal relating thereto, our liability under this present being absolute and un-equivocate. The payment so made by us under this bond shall be a valid discharge of our liability for payment there-under and the contractor (s) shall have no claim against us for making such payment.

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

4. We.....further agree with the NDMC that the NDMC shall have (indicate the name of Banks) the fullest liberty without our consent and without effecting in any manner our obligations hereunder to vary any of the terms and conditions of the said agreement or to extend time of performance by the said contractor (s) from time to time or to postpone or any time or from time to time any of the powers exercisable by the NDMC against the said contractor (s) and to forbear or enforce any of the terms and conditions relations to the said agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said contractor (s) or for any forbearance, act of omission on the part of the NDMC or any indulgence by the NDMC to the said contractor (s) or by any such matter or thing whatsoever which under the law relating to sureties would but for this provision have effect of so relieving us.

5. This guarantee will not be discharged due to the change in the constitution of the Bank or the contractor(s).

6. We..... lastly undertake not to revoke this guarantee except with the (indicate the name of the Bank) previous consent of the NDMC in writing.

7. This guarantee shall be valid uptounless extended on demand by the NDMC notwithstanding anything mentioned above our liability against this guarantee is restricted to Rs..... (Rs.....only)and unless a claim in writing is lodged with us within six months of the date of expiry or the extended date of expiry of this guarantee all our liabilities under this guarantee shall stand discharged.

Dated the.....day

of.....for.....(indicate the name of the Bank.

8. This guarantee shall be valid uptounless extended on demand by the NDMC notwithstanding anything mentioned above our liability against this guarantee is restricted to Rs..... (Rs.....only)and unless a claim in writing is lodged with us within six months of the date of expiry or the extended date of expiry of this guarantee all our liabilities under this guarantee shall stand discharged.

Dated the.....day

of.....for.....(indicate the name of the Bank.

Clause 1. A

Recovery of security deposit

The person/persons whose tender(s) may be accepted (hereinafter called the contractor) shall permit the NDMC at the time of making any payment to him for work under the contract to deduct a sum at the rate of 2.5% of the gross amount of each running bill till the sum will amount to security deposit of 2.5% of the tendered value of the work. Such deductions will be made and held by the NDMC by way of security deposit unless he/they has/have deposited the amount of security at the rate mentioned above in cash or in the form of Fixed Deposit Receipt of any scheduled Bank or the State Bank of India. In case a fixed deposit receipt of any bank is furnished by the contractor to the NDMC as part of the security deposit and the bank is unable to make payment against the said fixed deposit receipt, the loss caused thereby shall fall on the contractor and the contractor shall forthwith on demand furnish additional security to the NDMC to make good the deficit.

All compensations or the other sums of money payable by the contractor under the term of this contract may be deducted from his security deposit, or from any sums which may be due to or may become due to the contract by the NDMC on any account whatsoever and in the event of his security deposit being reduced by reason of any such deduction, the contractor shall within 10days make good in cash or fixed deposit receipt tendered by the State Bank of India or by schedule banks.

The security deposit shall be collected from the running bill of the contract or at the rate mentioned above.

Clause 2

Compensation for delay

If the contract fails to maintain the required progress in terms of clause 5 or to complete the work and clear the site on or before the contract or extended date of completion, he shall, without prejudice to any other right or remedy available under the law to the NDMC on account of such breach, pay as agreed compensation the amount calculated at the rates stipulated below as the Chief Engineer (whose decision in writing shall be final and binding) may decide on the amount of tendered value of the work for every completed day/month (as applicable) that the progress remains below that specified in Clause 5 or that the work remains in complete.

This will also apply to items or group of items for which a separate period of completion has been specified.

Compensation for delay of the work will be @ 0.5% per day of the estimated cost of Rs. 8,10,000/- to be computed on per day basis. Provided always that the total amount of compensation for delay to be paid under this condition shall not exceed 5% of the estimated cost of Rs. 8,10,000/-

The amount of compensation may be adjusted or set-off against any sum payable to the contractor under this or any other contract with the NDMC. In case, the contractor does not achieve a particular milestone mentioned in schedule –A or the rescheduled milestone (s) in terms of clause 5.4, the amount shown against that milestone shall be withheld, to be adjusted against the compensation levied at the final grant of extension of time. Withholding of this amount on failure to achieve a milestone, shall be automatic without any notice to the contractor. However, if the contractor catches up with the progress of work on the subsequent milestone (s), the withheld amount shall be released. In case the contractor fails to make up for the delay in subsequent milestone(s), amount mentioned against each milestone missed subsequently also shall be withheld. However, no interest, whatsoever, shall be payable on such withheld amount.

Clause 2A(Deleted)**Incentive for early completion**

~~In case, the contractor completes the work ahead of schedule completion time a bonus @ 1% (One Percent) of the tendered value per month computed on per day basis, shall be payable to the contractor subject to maximum limit of 5% (Five Percent) of the tendered value. The amount of bonus, if payable, shall be paid alongwith final bill after completion of work provided always that provision of clause 2A shall be applicable only when so provided in 'schedule F'~~

Clause 3**When contract can be determined**

Subject to other provisions contained in this clause, the Engineer-in-Charge may, without prejudice to his any other rights or remedy against the contractor in respect of any delay, inferior workmanship, any claims for damages and/ or any other provisions of this contract or otherwise and whether the date of completion has or has not elapsed by notice in writing absolutely determine the contract in any of the following cases:-

- (i) If the contractor having been given by the Engineer-in-charge a notice in writing to rectify, reconstruct or replace any defective work or that the work is being performed in an inefficient or otherwise improper or un workman like manner shall omit to comply with the requirements of such notice for a period of seven days thereafter.
- (ii) If the contractor has, without reasonable cause, suspended the progress of the work or has failed to proceed with the work with due diligence so that in the opinion of the Engineer-in-Charge (which shall be final and binding) he will be unable to secure completion of the work by the date for completion and continues to do so after a notice in writing of seven days from the Engineer-in-Charge.
- (iii) If the contractor fails to complete the work within the stipulated date or items of work with individual date of completion, if any stipulated, on or before such date (s) of completion and does not complete them within the period specified in a notice given in writing in that behalf by the Engineer-in-Charge.
- (iv) If the contractor persistently neglects to carry out his obligations under the contract and/or commits default in complying with any of the terms and conditions of the contract and does not remedy it or take effective steps to remedy it within 7days after a notice in writing is given to him in that behalf by the Engineer-in-Charge.
- (v) If the contractor shall offer or give or agreed to give to any person in NDMC service or to any other person on his behalf any gift or consideration of any kind as and inducement or reward for doing or for bearing to do or for having done or for born to do any act in relation to the obtaining or execution of this or any other contract for NDMC.
- (vi) If the contractors shall enter into a contract with NDMC in connection with which commission has been paid or agreed paid by him or to his knowledge, unless the particulars of any such commission and terms of payments thereof have been previously disclosed in writing to the Engineer in Charge.
- (vii) If the contractor shall contract a contract with NDMC as a result of wrong tendering or other non - bonafide method of competitive tendering.
- (viii) If the contractor being an individual, if a firm or any partner thereof shall act any time be adjudge in solvent or have a receiving order or order of administration of his estate made against him or shall take any proceeding for liquidation for composition (Other than A voluntary liquidation for the purpose of amalgamation for reconstruction) under any Insolvency Act for the time being enforce or make any conveyance or assignment of his effect or composition or arrangements for the benefits of his creditors or

purport so to do if any application be made under in any solvency act for the time being in force for the sequestration of his estate or if a trust did be executed by him for benefit of his creditors.

- (ix) If the contractor being a company shall pass resolution or the court shall make an order that the company shall be wound up or if a receiver or a manager on behalf of the creditor shall be appointed or if circumstance shall arise which entitled the court or the creditor to appoint a receiver or a manager for which entitled a court to make a winding up order.
- (x) The contractor shall suffer and execution being levied on his goods and allow it to be continued for a period of 21 days.
- (xi) If the contractor assigns, transfers, sublets (Engagement of labour on piece work basis or of labour with material not to be incorporated in work, shall not be deemed to be subletting) or otherwise parts with or attempts to assign, transfer, sublet or otherwise parts with the entire works or any portion thereof without the prior written approval of the Engineer in Charge. When the contractor made him self liable for action under any of the cases aforesaid, the engineer in charge on behalf of NDMC shall have powers.
 - a. To determine the contract as aforesaid (of which termination or rescission notice in writing to the contract under the hand of the Engineer-in-Charge shall be conclusive evidence). Upon such determination or rescission, security deposit already recovered and performance guarantee under the contract is liable to be forfeited and is absolutely at the disposal of the NDMC. Determine the contract as aforesaid upon which determination your security deposit already recoverd and performance guarantee absolutely forfeited to the NDMC and shall be at the absolutely disposal of NDMC.
 - b. After giving notice to the contractor to measure up the work of the contract and to take such whole, or the balance or part thereof as shall be un-executed out of his hands and to give it to another contractor to complete the work. The contractor whose contract is determined or rescinded as above, shall not be allowed to participate in the tendering process for the balance work.

In the event of above courses being adopted by the Engineer-in-Charge, the contractor shall have no claim to compensation for any loss sustained by him by reasons of his 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. And in case action is taken under any of the provisions aforesaid, the contractor shall not be entitled to recover or be paid any sum for any work thereof not actually performed under this contract unless and until the Engineer-in-Charge has certified in writing the performance of such work and the value payable in respect thereof and he shall only be entitled to be paid the value so certified

Clause 3A (Deleted)

~~In case, the work cannot be started due to reasons not within the control of the contractors within 1/8th of the stipulated time for completion of work, either party may close the contract. In such eventuality, the Performance Guarantee of the contractors shall be refunded, but no payment on account of interest, loss of profit or damages etc shall be payable at all.~~

Clause 4

Contractor liable to pay compensation even if action not taken under clause 3

If any case in which any of the power conferred upon the Engineer-in-Charge by Clause 3 hereof, shall have become exercisable and the same are not be exercised, the non-exercise thereof shall not constitute a waiver of any of the conditions hereof and such power shall notwithstanding be exercisable in the event of any future case of default by the contractor and the liability of the contractor for compensation shall remain unaffected. In the event of the Engineer-in-charge putting in force all or any of the powers vested in him under the preceding clause he may. If he so desires, after giving a notice in writing to the contractor, take possession of (or at the sole direction of the Engineer-in-charge which shall be final and binding on the contractor) use as on hire (the amount

of the hire money being also in the final determination of the Engineer-in-charge) all or any tools plant, materials and stores, in or upon the works, or the site thereof belonging to the contractor, or procured by the contractor and intended to be used for the execution of the work of any part thereof, paying or allowing for the same in account at the contract rates, or in the case of these not being applicable, at current market rates to be certified by the Engineer-in-charge whose certificate thereof shall be final and binding on the contractor, otherwise the Engineer-in-charge by notice in writing may order the contractor or his clerk of the works, foremen or other authorized agent to remove such tool plant materials or store from the premises (within a time to be specified in such notice) and in the event of the contractor failing to comply with any such requisition, the Engineer-in-charge may remove them at the contractor's expense or sell them by auction or priGSTe sale on account of the contractor and at his risk in all respect and the certificate of the Engineer-in-charge as to the expenses of any such removal and the amount of the proceeds and expenses of any such sale shall be final and conclusive against the contractor.

Clause 5

Time and extension for delay

The time allowed for execution of the works as entered in the tender or the extended time in accordance with these conditions shall be the essence of the contract. The execution of the works shall commence from **the 10th day of written order to commence the work** or such time period as mentioned in letter of award after the date on which the Engineer-in-charge issues written orders to commence the work or from the date of handing over of the site whichever is later. If the contractor commits default in commencing the execution of the work as aforesaid, the NDMC shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the earnest money and performance guarantee absolutely.

5.1 **The contractor shall submit a programme chart (time and progress) for each milestone along with performance guarantee** and get it approved by the Engineer-in-charge. The chart shall be prepared in direct relation to the time stated in the contract document for completion of item of the works. it shall indicate the forecast of the dates of commencement and completion of various trades or sections of the work and may be amended as necessary by agreement between the Engineer-in-charge and the contractor within the limitations of time imposed in the contract documents, and further to ensure good progress during the execution of the works, the contractor shall in all cases in which the time allowed for any work, exceeds one month (save for special jobs for which a separate programme has been agreed upon) complete the work as per milestone schedule 'A' given in Schedule 'A'.

5.2 If the work(s) be delayed by:-

- (i) Force majeure, or
- (ii) Abnormally bad weather, or
- (iii) Serious loss or damage by fire, or
- (iv) civil commotion, local commotion of workmen, strike or lockout, affecting any of the trade employed on the worker
- (v) delay on the part of other contractors or tradesmen engaged by Engineer-in charge in executing work not forming part of the contract, or
- (vi) non-availability of stores, which are the responsibility of the NDMC to supply, or
- (vii) non-availability or break down of tools and plant to be supplied or supplied by the NDMC or
- (viii) any other cause which, in the absolute discretion of the competent authority on behalf of the NDMC is beyond the contractor's control.

Then upon the happening of any such event causing delay, the contractor shall immediately given notice thereof in writing to the Engineer-in-charge but shall nevertheless use constantly his best endeavors to prevent or make good the delay and shall do all that may be reasonably required to the satisfaction of the Engineer-in-charge to proceed with the work.

5.3 Request for rescheduling of milestone and extension of time, to be eligible for consideration, shall be made by the contractor in writing within fourteen days of the happing of the event, causing delay on the prescribed from. The contractor may also if, practicable, indicate in such a request the period for which extension is desired.

- 5.4 In any such case, the competent authority on behalf of the NDMC may give a fair and reasonable extension of time and reschedule the milestones for completion of work. Such extension shall be communicated to the contractor by the Engineer-in-charge in writing within 3 months of the date of receipt of such request. Non application by the contractor for extension of time shall not be a bar for giving a fair and reasonable extension by the Engineer-in-charge and this shall be binding on the contractor.

Clause 6 (Deleted)

Measurement of work done

Engineer-in-charge shall except as otherwise provided, ascertain and determine, by measurement, the value in accordance with the contract, of the work done.

All measurements of all items having financial value shall be entered in measurement Book and/or level field book so that a complete record is obtained of all works performed under the contract.

All measurements and levels shall be taken jointly by the Engineer-in-charge or his authorized representative and by the contractor or his authorized representative from time to time during the progress of the work and such measurement shall be signed and dated by the Engineer-in-charge and the contractor or their representative in token of their acceptance. If the contractor objects to any of the measurement recorded, a note shall be made to that effect with reason and signed by both the parties.

If or any reason the contractor or his authorized representative is not available and the work of recording measurement is suspended by the Engineer-in-charge or his representative, the Engineer-in-charge shall not entertain any claim from contractor for any loss or damages on this account. If the contractor or his authorized representative does not remain present at the time of such measurement after the contractor or his authorized representative has been given a notice in writing three (3) days in advance or fails to countersign or to record objection within a week from the date of the measurement, the such measurement recorded in his absence by the Engineer-in-Charge or his representative shall be deemed to be accepted by the contractor.

The contractor shall, at his risk and cost, make all arrangements and shall provide all facilities as the Engineer in-charge 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 Engineer-in-charge and bear all charges and cost of testing unless specifically provided for otherwise elsewhere in the contract of specifications. The Engineer-in-charge or his authorized representative shall at all times have access to the works and to all workshop 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.

The contractor shall, without extra charge, provide all assistance with every appliance, labour and other things necessary for measurements and recording levels.

Except where any general or detailed description of the work expressly shows to the contrary, measurements shall be taken in accordance with the procedure set forth in the specifications notwithstanding any provision in the relevant Standard Method of measurement or any general or local custom. In the case of items which are not covered by specifications, measurements shall be taken in accordance with the relevant standard method of Measurements issued by the Bureau of Indian Standards and if for any item no such standard is available then a mutually agreed method shall be followed.

The contractor shall give not less than seven day's notice to the Engineer-in-charge or his authorized representative in-charge of the work before covering up or otherwise placing beyond the reach of measurement any work in order that the same may be measured and correct dimensions thereof be taken before the same is covered up or placed beyond the reach of measurement and shall not cover up and place beyond reach of measurement any work without consent in writing of the Engineer-in-charge or his authorized representative in charge of the work who shall within the aforesaid period of seven days inspect the work, and if any work shall be covered up or placed beyond the reach of measurements without such

notice having been given or the Engineer-in-charge's consent being obtained in writing the same shall be uncovered at the contractor's expense, or in default thereof no payment or allowance shall be made for such work or the materials with which the same was executed.

Engineer-in-charge or his authorized representative may cause either themselves or through another officer of the NDMC to check the measurements recorded jointly or otherwise as aforesaid and all provisions stipulated herein above shall be applicable to such checking of measurements or levels.

It is also a term of this contract that recording of measurements of any item of work in the measurement book and/or its payment in the interim, on account or final bill shall not be considered as conclusive evidence as to the sufficiency of any work or material to which it relates nor shall it relieve the contractor from liabilities from any over measurement or defects noticed till completion of the defects liability period.

CLAUSE 6 A

Computerized Measurement Book

Engineer in Charge shall, accept all otherwise provided, ascertain and determine by measurement the value of work done in accordance with the contract. All measurements of all items having financial value shall be entered by the contractor and compiled in the shape of computerized measurement book having pages of a size as per the format of the department so that complete record is obtain of all the items of works performed under the contract.

All such measurement and level recorded by the contractors or his authorized representative from time to time, during the progress of the work, shall be got checked by the contractor from the Engineer in Charge or his authorized representative as per interval or program fixed in consultation with Engineer in Charge or his authorized representative. After the necessary corrections made by Engineer in Charge, the measurement sheets shall be return to the contractor for incorporating the corrections and or resubmission to the Engineer in Charge for the dated signature by the Engineer in Charge and the contractor or their representatives in token of their acceptance.

Whenever bill is due for payment, the contractor would initially submit draft computerized measurement sheets and these measurement would be got checked / test checked from the Engineer in Charge and /or his authorized representative. The contractor will, therefore, incorporate such changes as may be done during these checks / test checks in his draft computerized measurements, and submit to the department a computerized measurement book, duly bound, and with its pages machine numbered. The Engineer in Charge and / or his authorized representative would thereafter check this MB, and record the necessary certificate for their check / test check.

The final, fair, computerized measurement book given by the contractor, duly bound, with its pages machines numbered, should be 100% correct, and no cutting or writing in the measurements would thereafter be allowed. If at all any error is noticed, the contractor shall have to submit a fresh computerized MB with its pages duly machine numbered and bound, after getting the earlier MB cancelled by the department. Thereafter, the MB shall be taken in the divisional office records, and allotted a number as per the Register of computerized MB's. This should be done before the corresponding bill is submitted to the Division office for payment. The contractor shall submit two spare copies of such computerized MB's for the purpose of reference and record by the various officers of the department.

The contractor shall also submit to the department separately his computerized abstract of cost and the bill based on these measurements, duly bound, and its pages machine numbered alongwith two spare copies of the bill. Therefore, this bill will be process by the division office and allotted a number as per the computerized record in the same way as the done for the measurement book meant for measurements.

The contractors shall, without extra charge, provides all assistance with every appliance, labour and other things necessary for checking of measurement of levels by the Engineer in Charge or his representative.

Except where any general or detailed description of the work expressly show to the contrary, measurements shall be taken in accordance with the procedure set forth in the specifications note-with-standing any provision in the relevant standard method of measurement or any general or local custom. In

the case of items which are not covered by specification, measurement shall be taken in accordance with the relevant standard method of measurement issued by the Bureau of Indian Standards and if for any item no standard is available than a mutually agreed method shall be followed.

The contractor shall give not less than seven day's notice to the Engineer in Charge or his authorized representative in charge of the work before covering up or otherwise placing beyond the reach of checking and / or test checking the measurement of any work in order that the same may be checked and / or test check and correct dimension thereof to be taken before the same is covered up or placed beyond the reach of checking and / or test checking measurement and shall not cover up and place beyond reach of measurement any work without consent in writing of the Engineer in Charge or his authorized representative in charge of the work who shall within the aforesaid period of seven day's inspect the work, and if any work shall be covered up or placed beyond the reach of checking and / or of test checking measurement without such notice having being given or the Engineer in Charge's consent being obtained in writing the same shall be uncovered at the contractor's expense, or in default thereof no payment or allowance shall be made for such work or the material with which the same was executed.

Engineer in Charge or his authorized representative may cause either themselves or through another officers of the department to check the measurement recorded by the contractor and all provision stipulated here in above shall be applicable to such checking of measurements or levels.

It is also a term of this contract that checking and / or test checking the measurements of any item of work in the measurement book and / or it payment in the interim, on account of final bill shall not be considered as conclusive evidence as to the sufficiency of any work or material to which it relates nor shall it relieve the contractor from liabilities from any or measurement of defects noticed till completion of the defects liability period.

CLAUSE 7

Payment on intermediate certificate to be regarded as advances

No payment shall be made for work, estimated to cost. Rs. twenty lac or less till after the whole of the work shall have been completed and certificate of completion given. For works estimated to cost over rupees twenty lac, the interim or running account bills shall be submitted by the contractor for the work executed on the basis of such recorded measurements on the format of the NDMC in triplicate on or before the date of every month fixed for the same by the Engineer-in-charge. The contractor shall not be entitled to be paid any such interim payment if the gross work done together with net payment/adjustment of advances for material collected, if any, since the last such payment is less than half the average monthly value of contract, in which case the interim bill shall be prepared on the appointed date of the month after the requisite progress is achieved. Engineer-in-charge shall arrange to have the bill verified by taking or causing to be taken, where necessary the requisite measurements of the work. In the event of the failure of the contractor to submit the bills, Engineer-in-charge shall prepare or cause to be prepared such bills in which event no claims whatsoever due to delays on payment including that of interest shall be payable to the contractor. Payment on account of amount admissible shall be made by the Engineer-in-charge certifying the sum to which the contractor is considered entitled by way of interim payment at such rates as decided by the Engineer-in-charge. The amount admissible shall be paid by 15th working day after of presentation of the bill by the contractor to the Engineer-in-charge together with the account of the material issued by the NDMC, or dismantled materials.

All such interim payments shall be regarded as payments by way of advances against final payment only and shall not preclude the requiring of bad, unsound and imperfect or unskilled work to be rejected, removed, taken away and reconstructed or re-erected. Any certificate given by the Engineer-in-charge relating to the work done or materials delivered forming part of such payment, may be modified or corrected by any subsequent such certificate(s) or by the final certificate and shall not by itself be conclusive evidence that any work or materials to which it relates is/are in accordance with the contract and specifications. Any such interim payment, or any part thereof shall not in any respect conclude, determine or affect in any way powers of the Engineer-in-charge under the contract or any of such payments be treated as final settlement and adjustment of accounts or in any way vary or affect the contract.

Pending consideration of extension of date of completion, interim payments shall continue to be made as herein provided, without prejudice to the right of the NDMC to take action under the terms of this

contract for delay in the completion of work, if the extension of date of completion is not granted by the competent authority.

The Engineer-in-charge in his sole discretion on the basis of a certificate from the Assistant Engineer to the effect that the work has been completed upto the level in quest make interim advance payments without detailed measurements for work done (other than foundations and items to be covered under finishing items) upto lintel level (including sunshade etc.) and slab level, for each floor working out at 75% of the assessed value. The advance payments so allowed shall be adjusted in the subsequent interim bill by taking detailed measurements thereof.

Clause 7 “A”

No running account bill shall be paid for the work till the applicable labour licensees, registration with EPFO, ESIC & BOCW Welfare Board, whatever applicable are submitted by the contractor to the Engineer-in-Charge.

CLAUSE 8

Completion Certificate and Completion Plans

Within ten days of the completion of the work, the contractor shall give notice of such completion of the Engineer-in-charge and within thirty days of the receipt of such notice the Engineer-in-charge shall inspect the work and if there is no defect in the work shall furnish the contractor with a final certificate of completion, otherwise provisional certificate of physical completion indicating defects (a) to be rectified by the contractor and/or (b) for which payment will be made at reduced rates, as decided by SE(E)/ACE shall be issued. But no final certificate of completion shall be issued, nor shall the work be considered to be complete until the contractor shall have removed all defects of works and also removed all scaffolding, surplus materials, rubbish and all tents and sanitary arrangements required for his work people on the site in connection with the execution of the works as shall have been erected or constructed by the contractor and cleaned off the dirt from all wood work, doors, windows, walls, floors or other parts of the building, in, upon, or about which the work has been executed of which he may have had possession for the purpose of the execution thereof, and not until the work shall have been measured by the Engineer-in-charge. If the contractor shall fail to comply with the requirements of this clause as to removal defects and scaffolding, surplus materials and rubbish and all tents and sanitary arrangements as aforesaid and cleaning off dirt on or before the date fixed for the completion of work, the Engineer-in-charge may at the expense of the contractor remove defects scaffolding, surplus materials and rubbish etc., and dispose of the same as he thinks fit and clean off such dirt as aforesaid, and the contractor shall have no claim in respect of scaffolding or surplus materials as aforesaid. The decision of SE(E)/ Additional Chief Engineer shall be final and binding to contractor.

CLAUSE 8 A

Contractor to keep site clean

When the annual repairs and maintenance of work are carried out, the splashes and droppings from white washing, colour washing, painting etc., on walls, floors, windows, etc. shall be removed and the surface cleaned simultaneously with the completion of these items of work in the individual rooms, quarters or premises etc. where the work is done without waiting for the actual completion of all the other items of work in the contract. In case the contractor fails to comply with the requirements of this clause, the Engineer-in-charge shall have the right to get this work done at the cost of the contractor either departmentally or through any other agency. Before taking such action the Engineer-in-charge shall give ten days notice in writing to the contractor.

CLAUSE 8 B

Completion Plans to be submitted by the contractor

The contractor shall submit completion plan as required vide General Specifications for Electrical works (Part-I internal) and (Part-II External) as applicable within thirty days of the completion of the work.

In case, the contractor fails to submit the completion plan as aforesaid, he shall be liable to pay a sum equivalent to 2.5% of the value of the work may be fixed by the Superintending Engineer/ Additional Chief Engineer/concerned and in this respect the decision of the Superintending Engineer/Additional Chief Engineer shall be final and binding on the contractor.

CLAUSE 9

Payment of final bill

The final bill shall be submitted by the contractor in the same manner as specified in interim bills within three months of physical completion of the work or within one month of the date of the final certificate of completion furnished by the Engineer-in-charge whichever is earlier. No further claims shall be made by the contractor after submission of the final bill and these shall be deemed to have been waived and extinguished. 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 Engineer-in-charge, will, as far as possible be made within the period specified herein under, the period reckoned from the date of receipt of the bill by the Engineer-in-charge complete with account of materials issued by the NDMC and dismantled materials.

- (i) If the tendered value of work is upto Rs. 15 Lacs : 3 months.
- (ii) If the tendered value of work exceeds Rs. 15 Lacs : 6 months.

CLAUSE 9A

Payment of contractor's bill to Banks

Payment due to the contractor may, if so desired by him, be made to his bank instead of direct to him provided that the contractor furnishes to the Engineer-in-charge (1) an authorization in the form of a legally valid document such as a power-of-attorney conferring authority on the bank to receive payments and (2) his own acceptance of the correctness of the amount made out as being due to him by the NDMC or his signature on the bill or other claim preferred against the NDMC before settlement by the Engineer-in-Charge of the account or claim by payment to the bank. While the receipt given by such bank shall constitute a full and sufficient discharge for the payment, to the contractor shall wherever possible present

his bills duly receipted and discharged through his bankers. Nothing herein contained shall operate to create in favour of the bank any rights or equities vis-à-vis the NDMC.

CLAUSE 10**Materials supplied by NDMC**

Materials which the NDMC will supply are shown in Schedule of Materials given herein after which stipulated quantity, place of issue and issue rate to be charged in respect thereof. The contractor shall be bound to procure them from the Engineer-in-charge.

As soon as the work is awarded, the contractor shall finalize the programme for the completion of work as per clause 5 of this contract and shall give his estimates of materials required on the basis of drawings/or schedule of quantities of the work. The contractor shall give in writing his requirement to the Engineer-in-charge which shall be issued to him keeping in view the progress of work as assessed by the Engineer-in-charge, in accordance with the agreed phased programme of work indicating monthly requirements of various materials. The contractor shall place his indent in writing for issue of such materials at least 7 days in advance of his requirement.

Such materials shall be supplied for the purpose of the contract only and the value of the materials so supplied at the rates specified in the aforesaid schedule shall be set off or deducted, as and when materials are consumed in items of work (including normal wastage) for which payment is being made to the contractor, from any sum then due or which may thereafter become due to the contractor under the contract or otherwise or from the security deposit. At the time of submission of bills, the contractor shall certify that balance of materials supplied is available at site in original good condition.

Stipulated materials shall be issued for use at site on work, for all the items where such materials are required. For factory made products like pre-cast cement tiles, pre-cast hollow concrete blocks, pre-cast foam concrete blocks, pre-cast RCC pipes, MS grills, railings, etc. stipulated materials shall not be issued.

The contractor shall submit along with every running bill (on account or interim bill) material wise reconciliation statement supported by complete calculations reconciling total issue, total consumption and certified balance (diameter/section-wise in the case of steel) and resulting variations and reasons therefore. Engineer-in-charge shall (whole decision shall be final and binding on the contractor) be within his rights to follow the procedure of recovery in clause 42 at any stage of the work if reconciliation is not found to be satisfactory.

The contractor shall bear the cost of getting the material issued, loading, transporting to site, unloading, storing under cover as required, cutting, assembling and joining the several parts together as necessary. Notwithstanding anything to the contrary contained in any other clause of the contract, all stores/materials so supplied to the contractor or procured with the assistance of the NDMC shall remain the absolute property of the NDMC and the contractor shall be the trustee of the stores/materials, and the said stores/materials shall not be removed/disposed off from the site of the work on any account and shall be at all times open to inspection by the Engineer-in-charge or his authorized representative. Any such stores/materials remaining unused shall be returned to the Engineer-in-charge in as good a condition in which they were originally supplied at a place directed by him, at place of issue or any other place specified by him as he shall require, but in case it is decided not to take back the stores/materials, the contractor shall have no claim for compensation on any account of such stores/materials so supplied to him as aforesaid and not used by him or for any wastage in or damage to such stores/materials.

On being required to return the stores/materials, the contractor shall hand over the stores/materials on being paid or credited such price as the Engineer-in-charge shall determine, having due regard to the condition of the stores/materials. The price allowed for credit to the contractor, however, shall be at the prevailing market rate not exceeding the amount charged to him, excluding the element of storage charges. The decision of the Engineer-in-charge shall be final and conclusive. In the event of breach of the aforesaid condition, the contractor shall in addition to throwing himself open to account for contravention of the terms of the licences or permit and/or for criminal breach of trust be liable to the NDMC for all advantages of profits resulting or which in the usual course would have resulted to him by reason of such breach. Provided that the contractor shall in no case be entitled to any compensation or damages on account of any delay in supply or non-supply thereof all or any such materials and stores. Provided further that the contractor shall be bound to execute the entire work if the materials are supplied by the NDMC within the original scheduled time for completion of the work plus 50% thereof or

scheduled time plus 6 months whichever is more if the time of completion of work exceeds 12 months but if a part of the materials only has been supplied within the aforesaid period then the contractor shall be bound to do so much of the work as may be possible with the materials and stores supplied in the aforesaid period. For the completion of the rest of the work, the contractor shall be entitled to such extension of time as may be determined by the competent authority on behalf of the NDMC whose decision in this regard shall be final and binding on the contractor.

The contractor shall see that only the required quantities of materials are got issued. Any such material remaining unused and in perfectly good/original condition at the time of completion or determination of the contract shall be returned to the Engineer-in-charge at the stores from which it was issued or at a place directed by him by a notice in writing. The contractor shall not be entitled for loading, transporting, unloading and stacking of such unused material except for the extra lead, if any involved, beyond the original place of issue.

CLAUSE 10 A

Materials to be provided by the contractor

The contractor shall, at his own expense, provide all materials, required for the work other than those which are stipulated to be supplied by the NDMC.

The contractor shall, at his own expense and without delay, supply to the Engineer-in-charge 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-in-charge furnish proof, to the satisfaction of the Engineer-in charge that the materials so comply. The Engineer-in-charge shall within thirty 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 no approved, the contractor shall forthwith arrange to supply to the Engineer-in-charge 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 Engineer-in-charge shall be issued after the test results are received.

The contractor shall at his risk and 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 Engineer-in-charge. 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. The contractor shall, at his risk and cost, make all arrangements and shall provide all facilities as the Engineer in-charge 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 Engineer-in-charge and bear all charges and cost of testing unless specifically provided for otherwise elsewhere in the contract or specifications. The Engineer-in-charge or his authorized representative 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.

Wherever testing charges, for getting the samples of materials/goods/articles tested in the testing laboratory approved by the Engineer-in-charge, are required to be borne by the NDMC as per specifications and conditions of contract, the testing charges shall be initially paid by the contractor and the amount so paid shall be reimbursed to the contractor in the running bills on receipt of test reports and submission of original cash receipt issued by such laboratory. But in case of failure of sample the testing charges shall be borne by the contractor.

The Engineer-in-charge 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 Engineer-in-charge 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 Engineer-in-charge shall also have full powers to require other proper materials to be substituted therefore and in case of default the Engineer-in-charge may cause the same to be supplied and all costs which may attend such removal and substitution shall be borne by the contractor.

Clause 10. B (Deleted)**Secured Advanced on non-perishable materials**

- (i) ~~The contractor, on signing as indenture in the from to be specified by the Engineer-in- charge shall be entitled to be paid during the progress of the execution of the work upto 75% of the assessed value of any materials which are in the opinion of the Engineer-in-charge, non perishable, non-fragile and non combustible and are in accordance with the contract and which have been brought on the site in connection therewith and are adequately stored and/or protected against damage by weather or other causes of but which have not at the time of advance been incorporated in the work. When material on account of which an advance has been made under this sub-clause are incorporated in the work, the amount of such advance shall be recovered/deducted from the next payment made under any of this clause of clauses of this contract.~~

~~Such secure advance shall also be payable on other items of perishable nature, fragile and combustible with the approval of the Engineer-in-charge provided the contract provides a comprehensive insurance cover for the full cost of such materials. The decision of the Engineer-in-charge shall be final and binding on the contract in this mater. No secured advance shall, however be paid on high-risk materials such as ordinary glass sand petrol, diesel etc.~~

Mobilization Advance---- DELETED

- (ii) ~~Mobilization advance not exceeding 10% of tendered value may be given, if requested by the contractor in writing within one month of the order to commence the work. Such advance shall be in two or more instalments to be determined by the Engineer-in-charge at his absolute discretion. The first instalment of such advance shall be released by the Engineer-in-charge to the contractor on a request made by the contractor to the Engineer-in-charge in this behalf. The second and subsequent instalments shall be released by the Engineer-in-charge only after the contractor furnishes a proof of the satisfactory utilization of the earlier instalment to the entire satisfaction of the Engineer-in-charge. Before any instalment of advance is released, the contractor shall execute a Bank Guarantee Bond from scheduled bank for the amount of advance and valid for the contract period. this shall be kept renewed from time to time to cover the balance amount and likely period of complete recovery, together with interest.~~

~~Provided always that provision of Clause 10B (ii) shall be applicable only when so provided in 'Schedule F'.~~

Plant & Machinery and shuttering material Advance --- DELETED

- (iii) ~~An advance for plant, machinery and shuttering material required for the work and brought to site by the contractor may be given if requested by the contractor in writing within one month of bringing such plant and machinery to site. Such advance shall be given on such plant and machinery, which in the opinion of the Engineer-in-Charge will add to the expeditious execution of work and improve the quality of work. The amount of advance shall be restricted to 5% of tendered value, in the case of new plant and equipment to be purchased for the work, the advance shall be restricted to 90% of the price of such new plant and equipment paid by the contractor for which the contractor shall produce evidence satisfactory to the Engineer-in-Charge. In the case of second hand and used plant and equipment, the amount of such advance shall be limited to 50% of the depreciated value of plant and equipment as may be decided by the Engineer-in-Charge. The contractor shall if so required by the Engineer-in-Charge, submit the statement of value of such old plant and equipment duly approved by a Registered Valuer recognized by the Central Board of Direct Taxes under the Income Tax Act, 1961. No. such advance shall be paid on any plant and equipment of perishable nature and on any plant and equipment of a value less than Rs. 50,000/-, 75% of such amount of advance shall be paid after the plant & equipment is brought to site and balance 25% on successfully commissioning the same.~~

~~Leasing of equipment shall be considered at par with purchase of equipment and shall be covered by tripartite agreement with the following~~

- ~~1. Leasing company which gives certificate of agreeing of lease equipment to the contractor~~
- ~~2. Engineer-in-Charge~~
- ~~3. Contractor~~

This advance shall further be subject to the condition that such plant and equipment (a) are considered by the Engineer-in-Charge to be necessary for the works; (b) and are in and are maintained in working order; (c) hypothecated to the NDMC as specified by the Engineer-in-Charge before the payment of advance is released. The contractor shall not be permitted to remove from site

such hypothecated plant and equipment without the prior written permission of the Engineer-in-Charge. The contractor shall be responsible for maintaining such plant and equipment in good working order during the entire period of hypothecation failing which such advance shall be entirely recovered in lump sum. For this purpose steel scaffolding and from work shall be treated as plant and equipment.

The contractor shall insure the plant and machinery, for which mobilization advance is sought and given, for a sum sufficient to provide for their replacement at site. Any amount not recovered from the insurer will be borne by the contractor.

Interest and recovery

- ~~(iv) The Mobilization advance and plant and machinery advance and in (ii) & (iii) above bear simple interest at the rate of 10 per cent per annum and shall be calculated from the date of payment to the date of recovery, both days inclusive, on the outstanding amount of advance. Recovery of such sums advanced shall be made by deduction from the contractor's bill commencing after first ten percent of gross value of the work is executed and paid and pro-rata percentage basic to the gross value of the work billed beyond 10% in such a way that the entire advance is recovered by the time eighty percent of the gross value of the contract is executed and paid, together with interest due on the entire outstanding amount upto the date of recovery of the instalment.~~
- ~~(v) If the circumstances are considered reasonable by the Engineer-in-Charge the period mentioned in (ii) and (iii) for request by the contractor in writing for grant of mobilization advance and plant and equipment advance may be extended in the discretion of the Engineer-in-Charge.~~
- ~~(vi) The said bank Guarantee for advances shall initially be made for the full amount and valid for the contract period and be kept renewed from time to time to cover the balance amount and likely period to complete recovery together with interest~~

CLAUSE 10 C (Deleted)

Payment on account of increase in Prices/Wages due to Statutory Order(s)

If after submission of the tender, the price of any material incorporated in the work (excluding the materials covered under 10CA and not being a material supplied from the NDMC stores in accordance with Clause 10 hereof) and/or wages of labour increases as a direct result of the coming in- to force of any fresh law, or statutory rule or order (but not due to any charge in sales tax/GST) beyond the prices/wages prevailing at the time of the last stipulated date of receipt of tenders including extensions, if any, for the work during contract period including the justified period extended under the provisions of Clause 5 of the contract without any action under Clause 2, the amount of the contract shall accordingly be varied and provided further that any such increase shall be limited to the price/wages prevailing at the time of stipulated date of completion or as prevailing for the period under consideration, whichever is less.

If after submission of the tender, the price of any material incorporated in the work (excluding the materials covered under Clause 10CA and not being a material supplied from the NDMC stores in accordance with Clause 10 thereof) and/or wages of labour as prevailing at the time of last stipulated date of receipt of tender including extensions, if any, is decreased as a direct result of the coming into force of any fresh law, or statutory rule or order (but not due to any changes in sales tax / GST) Government shall in respect of materials incorporated in the works (excluding the materials covered under Clause 10CA and not being materials supplied from the NDMC stores in accordance with Clause 10 hereof) and/or labour engaged on the execution of the work after the date of coming into force of such law, statutory rule or order be entitled to deduct from the dues of the contractor, such amount as shall be equivalent to the difference between the prices of the material and/or wages as prevailed at the time of the last stipulated date for receipt of tenders including extension if any for the work and the prices of materials and/or wages of labour on the coming in- to force of such law, statutory rule or order. This will be applicable for the contract period including the justified period extended under the provisions of Clause 5 of the contract without any action under Clause 2.

Engineer-in-Charge may call books of account and other relevant documents from the contractor to satisfy himself about reasonability of increase in prices of materials and wages.

The contractor shall within a reasonable time of his becoming aware of any alteration in the price of any such material(s) and/or wages of labour give notice thereof to the Engineer-in-Charge stating that the same is given pursuant to this condition together with all information relating thereof which he may be in position to supply.

For this purpose, the labour component of the work executed during any period shall be the percentage as specified in Schedule F, of the value of work done during that period and increase/decrease in labour shall be considered on the minimum daily wages in Rupees of any unskilled adult male mazdoor, fixed under any law, statutory rule or order.

CLAUSE 10 CA (Deleted)

Payment due to Variation in prices of materials after receipt of tender.

~~If after submission of the tender, the price of material specified in schedule "F" increases / decreases beyond the price(s) prevailing at the time of the last stipulated date of receipt of tenders (Including extensions, if any) for the work, then the amount of the contract shall accordingly be varied and provided further that any such variations shall be effected for stipulated period of contract including the justified period extended under the provision of clause 5 of the contract without any action under clause 2.~~

~~However for work done during the justified period extended as above, it will be limited to prevailing at the time of stipulated date of completion or as prevailing for the period under consideration, whichever is less.~~

~~The increase/decrease in prices of cement, steel reinforcement and structural steel shall be determined by the Prices Indices issued by the Chief Engineer (Civil), NDMC. For other items provided in Schedule 'F', this shall be determined by the All India Wholesale Price Indices of materials as published by Economic Advisor to Government of India, Ministry of Commerce and Industry and base price for cement, steel reinforcement and structural steel as issued under the authority of Chief Engineer (Civil), NDMC as indicated in Schedule 'F' as valid on the last stipulated date of receipt of tender, including extensions if any and for the period under consideration, in case, price index of a particular material is not issued by the Ministry of Commerce and Industry, then the price index of nearest similar material as indicated in Schedule 'F' shall be followed.~~

~~The amount of the contract shall accordingly be varied for all such materials and will be worked out as period the formula given below for individual material :-~~

$$V = P \times Q \times \frac{CI - C_{Io}}{C_{Io}}$$

Where,

V= Variation in material cost, i.e., increase or decrease in the amount in rupees to be paid or recovered.

P= Base Price of material as issued under the authority of Chief Engineer (Civil), NDMC as indicated in Schedule 'F' valid at the time of the last stipulated date of receipt of tender including extensions, if any,

Q= Quantity of material brought at site for bonafide use in the works since previous bill.

CI= Price Index for cement, steel reinforcement bars and structural steel as issued by the Chief Engineer (Civil), NDMC as valid on the last stipulated date of receipt of tenders including extensions, if any. For other items, if any, provided in Schedule 'F', All India Wholesale Price Index for the material as published by the Economic Advisor to Government of India, Ministry of Industry and Commerce as valid on the last stipulated date of receipt of tenders including extensions, if any.

CI = Price Index for cement, steel reinforcement bars and structural steel as issued under the authority of Chief Engineer (Civil), NDMC for period under consideration. For other items, if any, provided in Schedule 'F', All India Wholesale Price Index for the material for period under consideration as published by Economic Advisor to Government of India, Ministry of Industry and Commerce.

Note :-

- (i) In respect of the justified period extended under the provisions of clause 5 of the contract without any action under clause 5 of the contract without any action under clause 2, the index prevailing at the time of stipulated date of completion or the prevailing at the time of stipulated date of completion or the prevailing index of the period under consideration, whichever is less, shall be considered.
Provided always that provisions of the preceding Clause 10C shall not be applicable in respect of materials covered in this Clause.
- (ii) If during progress of work or at the time of completion of work, it is noticed that any material brought at site is in excess of requirement, then amount of escalation if paid earlier on such excess quantity of material shall be recovered on the basis of cost indices as applied at the time of payment of escalation or as prevailing at the time of effecting recovery, whichever is higher.

CLAUSE 10 CC (Deleted)

Payment due to increase/decrease Prices/Wages after receipt of tender for works.

~~If the prices of materials (not being materials supplied or services rendered at fixed prices by the Department in accordance with Clauses 10 or 34 thereof) and/or wages of labour required for execution of the work increase, the contractor shall be compensated for such increase as per provisions detailed below and the amount of the contract shall accordingly be varied, subject to the condition that such compensation for escalation in prices and wages shall be available only for the work done during the stipulated period of the contract including the justified period extended under the provisions of clause 5 of the contract without any action under clause 2. however, for the work done during the justified period extended as above, the compensation as detailed below will be limited to prices/wages prevailing at the time of stipulated date of completion or as prevailing for the period under consideration, whichever is less. No such compensation shall be payable for a work for which the stipulated period for completion is equal to or less than the time as specified in Schedule 'F'. Such compensation for escalation in the price of materials and labour, when due, shall be worked out based on the following provisions:-~~

- ~~(i) The base data for working out such escalation shall be the last stipulated date of receipt of tenders including extension, if any,~~
- ~~(ii) The cost of work on which the escalation will be payable shall be reckoned as below:~~

~~Gross value of work done upto this quarter : (A)~~

~~a) Gross value of work done upto the last quarter : (B)~~

~~b) Gross value of work done since previous quarter (A - B) : (C)~~

~~c) Full assessed value of Secured Advance fresh paid in this Quarter : (D)~~

~~d) Full assessed value of Secured Advance recovered in this quarter : (E)~~

~~e) Full assessed value of Secured Advance for which escalation is
Payable in this quarter (D - E) : (F)~~

~~f) Advance payment made during this quarter : (G)~~

~~g) Advance payment recovered during this quarter : (H)~~

~~h) Advance payment for which escalation is payable in this quarter (G - H) : (I)~~

~~i) Extra item paid as per Clause 12 based on prevailing market
rates during this quarter : (J)~~

~~Then $Q = C + F + I + J$~~

~~$R = 0.85M$~~

- ~~j) Less cost of material supplied by the Department as per Clause 10~~

- and recovered during the quarter: _____ (K)
- k) ~~Less cost of services rendered at fixed charges as per Clause 34 and recovered during the quarter: _____ (L)~~
- l) ~~Less cost of Cement — Quantity of cement brought at site for bonafide use in the work during the quarter X Base Price of Cement : (M)~~
- m) ~~Less cost of reinforcement bars — Quantity of reinforcement bars brought at site for bonafide use in the work during the quarter X Base Price of reinforcement bars : (N)~~
- n) ~~Less cost of structural steel — Quantity of structural steel brought at site for bonafide use in the work during the quarter X Base Price of Structural Steel : (O)~~
- o) ~~Less cost of other material covered under clause 10 CA — Quantity of such Material/Materials brought at site for bonafide use in the work during the quarter covered under clause 10CA X Base Price of such Material/Materials : (P)~~

Cost of work for which escalation is application: _____

$$W = R (K + L) - (M + N + O + P)$$

- (iii) ~~Components for materials (except cement, reinforcement bars, structural steel or others materials covered under Clause 10 CA), Labour P.O.L. etc. shall be pre-determined for every work and incorporated in the conditions of contract attached to the tender papers included in Schedule 'E'. The decision of the Engineer in Charge in working out such percentage shall be binding on the contractors.~~
- (iv) ~~The compensation for escalation for other materials (excluding cement, reinforcement bars, structural steel or other materials covered under clause 10 CA) and P.O.L shall be worked as per the formula given below:-~~
- (a) ~~Deleted~~
- (b) ~~Deleted~~
- (c) ~~Adjustment for civil component (except cement, Structural steel, reinforcement bars and other materials covered under clause 10CA) / electrical component of construction 'Materials'~~

$$V_m = \frac{W \times \frac{X_m}{100} \times \frac{MI - M_{Io}}{M_{Io}}}{100 - M_{Io}}$$

~~V_m = Variation in material cost i.e. increase or decrease in the amount in rupees to be paid or recovered.~~

~~W = Cost of work done worked out as indicated in sub para (ii) of Clause 10CC.~~

~~X_m = Component of 'materials' (except cement, Structural steel, reinforcement bars and other materials covered under clause 10CA) _____ expressed as percent of the total value of work. _____~~

~~MI = All India Wholesale Price Index for civil component/electrical component* of construction material as worked out on the basis of All India Wholesale Price Index for individual Commodities/Group items for the period under consideration as published by Economic Advisor to Govt. of India, Ministry of Industry & Commerce and applying weight ages to the individual Commodities/ Group Items. (In respect of the justified period extended under the provisions of clause 5 of the contract without any action under clause 2, the index prevailing at the time of stipulated date of completion or the prevailing index of the period under consideration, which ever is less shall be considered).~~

~~M_{Io} = All India Wholesale Price Index for civil component/electrical component * of construction material as worked out on the basis of All India Wholesale Price Index for individual Commodities/Group items valid on the last stipulated date of receipt of tender, including extension, if any, as published by the Economic Advisor to Govt. of India, Ministry of Industry & Commerce and applying weightages to the individual Commodities/Group items.~~

~~*Note : relevant component only will be applicable.~~

~~(d) Adjustment for component of 'POL'tender including extension, if any.~~

- (v) ~~The following principles..... falling within that period.~~

~~(vi) The component for escalationreceipt of tender including extension, if any.~~

~~(vii) The following principles.....on the labour component.~~

~~(viii) In the event of the pricebinding on the contractor.~~

~~(ix) Provided always that :~~

~~(a) Where provisions of clause 10CC are applicable, provisions of clause 10C will not be applicable but provisions of clause 10CA will be applicable.~~

~~(b) Where provisions of clause 10CC are not applicable, provisions of clause 10C and 10CA will become applicable.~~

CLAUSE 10 D

Dismantled Material-NDMC Property

The contractor shall treat all materials obtained during dismantling of a structure, excavation of the site for a work, etc. as NDMC property and such materials shall be disposed off to the best advantage of the NDMC according to the instructions in writing issued by the Engineer-in-charge.

CLAUSE 11

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 Central Public Works Department Specifications 1996 Vol. I to VI with amendments thereto, issued upto the date of receipt of the tender. The contractor shall also conform exactly, fully and faithfully to the designs, drawings and instructions in writing in respect of the work signed by the Engineer-in-charge 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 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 care and diligence execute and maintain the works and provide all labour and materials, tools and plants including for measurements and 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.

CLAUSE 12

Deviations/Variations-extent and pricing

The Engineer-in-charge shall have power (i) to make alterations 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 omit a part of the work 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 work in accordance with any instructions given to him in writing signed by the Engineer-in-charge and such alterations, omission, 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 work, 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.

12.1 The time for completion of the work 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 :

- i) In the proportion which the additional cost of the altered, additional or substituted work, bears to the original tendered value plus

- ii) 25% of the time calculated in (i) above or such further additional time as may be considered reasonable by the Engineer-in-charge.

Deviation, Extra items and pricing

12.2 A) For Project & Original Work

In the case of extra items (s) the contractor may be within fifteen days of receipt of order of occurrence of the item(s) claim rates, supported by proper analysis, for the work and Engineer-in-Charge shall within one month of the receipt of the claim supported by analysis after giving consideration to the analysis of the rates submitted by the contractor, determine the rates on the basis of the market rates and the contractor shall be paid in accordance with the rates so determined.

12.2 B) Deviation, Substituted Items, Pricing

In the case of substitute items, the rate for the agreement items (to be substituted) and substituted item shall also be determined in the manner as follows;

- a) If the market rate for the substituted item so determined is more than the market rate of the agreement item (to be substituted) the rate payable the contractor for the substituted item shall be the rate for the agreement item (to be substituted) so increased to the extent of the difference between the market rates for substituted item and the agreement item (to be substituted).
- b) If the market rate for the substituted item so determined is less than the market rate of the agreement item (to be substituted) the rate payable to the contractor for the substituted item shall be the rate for the agreement item (to be substituted) so decreased to the extent of the difference between the market rates of substituted item and the agreement item (to be substituted).

C) Deviation, Deviated Quantities, Pricing

In the case of contract items substituted items, contract cum substituted item which exceed the percentage set out in the tender documents (referred to as deviation limit), the contractor may within fifteen days of receipt of order or occurrence of the excess, claim revision of the rates, supported by proper analysis, for the work in excess of the above mentioned limits provided that if the rates so claimed are in excess of the rates specified in the schedule of quantities the Engineer-in-Charge shall within one month of receipt of the claim supported by analysis, after giving consideration to the analysis of the rates submitted by the contractor, determine the rates on the basis of the market rates and the contractor shall be paid in accordance with the rates so determined. **(Deviations in quantities of individual items up to $\pm 10\%$ of agreement quantity will no need any prior approval of TS authority and sanction of deviations is also not required).**

- 12.3 The provisions of the preceding paragraph shall also apply to the decrease in the rates of items for the work in excess of the percentage set out in the tender documents (referred to as deviation limit), and the Engineer-in-Charge shall after giving notice to the contractor within one month of occurrence of the excess and after taking into consideration any reply received from him within fifteen days of the receipt of the notice, revise the rates for the work in question within one month of the expiry of the said period fifteen days having regard to the market rates.

- 12.4 The contractor shall send to the Engineer-in-Charge once every three months an upto date account giving complete details of all claim for additional payments to which the contractor may consider himself entitled and all of additional work ordered by the Engineer-in-Charge which he has executed during the preceding quarter failing which the contractor shall be deemed to have waived his right. However, the Chief Engineer may authorize consideration of such claims on merits.

- 12.5 For the purpose of operation of Clause 12.2 & 12.3, the following works shall be treated as works relating to foundations for which deviation limits shall be 100 per cent.

- i) For buildings, compound walls; plinth level or 1.2 meters above ground level whichever is lower excluding items of flooring and D.P.C but including base concrete below the floors
- ii) For abutment, piers, retaining walls of culverts and bridges, walls of water reservoirs; the be door floor level.
- iii) For retaining walls where floor level is not determinate; 1.2 meters above the average ground level or bed level.
- iv) For roads; all items of excavation and filling including treatment of sub-base.
- v) For water supply lines, sewer lines, underground storm water drains and similar works; all items of work below ground level except items of pipe work, masonry work.

- vi) For open storm water drains; all items of work except lining of drains.
- 12.6 Any operation incidental to or necessarily has to be in contemplation of tenderer white filling tender, or necessary for proper execution of the item included in the Schedule of Quantities or in the schedule of rates mentioned above, whether or not specifically indicated in the description of the item and the relevant specifications, shall be deemed to be included in the rates quoted by the tenderer or the rate given in the said schedule of rates, as the case may be. Nothing extra shall be admissible for such operations.

CLAUSE 13

Fore closure of contract due to abandonment or reduction in scope of work.

If at any time after acceptance of the tender the NDMC shall decide to abandon or reduce the scope of the work for any reason whatsoever and hence not require the whole or any part of the works to be carried out, the Engineer-in-charge shall give notice in writing to that effect to the contractor 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 Engineer-in-charge for the items hereunder mentioned which could not be utilized on the work to the full extent in view of the for enclosure.

- i) Any expenditure incurred on preliminary site work, e.g. temporary access roads, temporary labour huts, staff quarters and site office, storage tanks.
- ii) The NDMC shall have the option to take over contractor's materials or any part thereof either brought to site or which the contractor is legally bound to accept delivery from suppliers (for incorporation in or incidental to the work) provided, however, the NDMC 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 the NDMC, cost of such materials as detailed by Engineer-in-charge 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) If any materials supplied by the NDMC are rendered surplus, the same except normal wastage shall be returned by the contractor to the NDMC at rates not exceeding those at which these were originally issued less allowance for any deterioration or damage which may have been caused whilst the materials were in the custody of the contractor. In addition cost of transporting such materials from site to the NDMC stores, if so required by the NDMC, shall be paid.
- iv) Reasonable compensation for transfer for 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.
- v) Reasonable compensation for repatriation of contractor's site staff and imported labour to the extent necessary.

The contractor shall, if required by the Engineer-in-charge 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), (iv) and (v) above shall not be 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 accepted tender less the cost of work actually executed under the contract and less the cost of contractor's materials at site taken over by the NDMC as per item (ii) above. Provided always that against any payments due to the contractor on this account or otherwise, the Engineer-in-charge shall be entitled to recover or be credited with any outstanding balances due from the contractor for advance paid in respect of any tools, plants and materials and any other sums which at the date of termination were recoverable by the NDMC from the contractor under the terms of the contract.

CLAUSE 14**Cancellation of contract in full or part**

If contractor:

- i) at any time makes default in proceeding with the works or any part of the work with the due diligence and continue to do so after a notice in writing of 7 days from the Engineer-in-charge; or
- ii) commits default to complying with any of the terms and conditions and does not remedy it or take effective steps to remedy it within 7 days after a notice in writing is given to him in that behalf by the Engineer-in-charge; or
- iii) fails to complete the works or items of work with individual dates of completion, on or before the date(s) of completion, and does not complete them within the period specified in a notice given in writing in that behalf by the Engineer-in-charge; or
- iv) shall offer or give or agree to give to any person in the NDMC 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 the NDMC; or
- v) shall enter into a contract with the NDMC in connection with which commission has been paid or agreed to be paid by him or to his knowledge, unless the particulars of any such commission and the terms of payment thereof have been previously disclosed in writing to the Engineer-in-charge;

or

- vi) shall obtain a contract with the NDMC as a result of wrong tendering or other non-bonafide methods of competitive tendering; or
- vii) being an individual, or if a firm, any partner thereof shall at any time be adjudged insolvent or have a receiving order or order for administration of his estate made against him or shall take any proceedings for liquidation or composition (other than a voluntary liquidation for the purpose of amalgamation or reconstruction) under any Insolvency Act for the time being in force or make any conveyance or assignment of his effects or composition or arrangement for the benefit of his creditors or purport so to do, or if any application be made under any Insolvency Act for the time being in force for the sequestration of his estate or if a trust deed be executed by him for benefit of his creditors; or
- viii) being a company, shall pass a resolution or the Court shall make an order for the winding up of the company, or a receiver or manager on behalf of the debenture holders or otherwise shall be appointed or circumstances shall arise which entitle the Court or debenture holders to appoint a receiver or manger; or
- ix) shall suffer an execution being levied on his goods and allow it to be continue for a period of 21 days; or
- x) assigns, transfers, sublets (engagement of labour on a piece-work basis or of labour with materials not be incorporated in the work, shall not be deemed to be subletting) or otherwise parts with or attempts to assign, transfer, sublet or otherwise parts with the entire works or any portion thereof without the prior written approval of the Engineer-in-charge. ;
- xi) The NDMC may, without prejudice to any other right or remedy which shall have accrued or shall accrue hereafter to the NDMC, by a notice in writing cancel the contract as a whole or only such items of work in default from the contract. The Engineer-in-charge shall on such cancellation by the NDMC have powers to take possession of the site and any materials, constructional plant, implements, stores, etc., thereon; and/or carry out the incomplete work by any means at the risk and cost of the contractor.
- xii) On cancellation of the contract in full or in part, the Engineer-in-charge shall determine what amount, if any, is recoverable from the contractor for completion of the works or in case the works or part of the works is not to be completed, the loss or damage suffered by the NDMC. In determining the amount, credit shall be given to the contractor for the value of the work executed by him up to the time of cancellation, the value of contractor's materials taken over and incorporated in the work and use of plant and machinery belonging to the contractor.
- xiii) Any excess expenditure incurred or to be incurred by the NDMC in completing the works or part of the works or the excess loss or damages suffered or may be suffered by the NDMC as aforesaid after allowing such credit shall without prejudice to any other right or remedy available to the NDMC in law be recovered from any moneys due to the contractor on any account, and if such moneys are not sufficient, the contractor shall be called upon in writing and shall be liable to pay the same within 30 days.

- xiv) If the contractor shall fail to pay the required sum within the aforesaid period of 30 days, the Engineer-in-charge shall have the right to sell any or all of the contractors unused materials, constructional plant, implements, temporary buildings, etc. and apply the proceeds of sale thereof towards the satisfaction of any sums due from the contractor under the contract and if thereafter there be any balance outstanding from the contractor, it shall be recovered in accordance with the provisions of the contract.
- xv) Any sums in excess of the amounts due to the NDMC and unsold materials, constructional plant, etc., shall be returned to the contractor, provided always that if cost or anticipated cost of completion by the NDMC of the works or part of the works is less than the amount which the contractor would have been paid had he completed the works or part of the works, such benefits shall not accrue to the contractor.

CLAUSE 15

Suspension of work

- I. The contractor shall, on receipt of the order in writing of the Engineer-in-charge, (whose decision shall be final and binding on the contractor) suspend the progress of the works or any part thereof for such time and in such manner as the Engineer-in-charge may consider necessary so as to cause any damage or injury to the work already done or endanger the safety thereof for any of the following reasons :
 - a) on account of any default on the part of the contractor; or
 - b) for proper execution of the works or part thereof for reasons other than the default of the contractor; or
 - c) for safety of the works or part thereof.

The contractor shall, during such suspension, properly protect and secure the works to the extent necessary and carry out the instructions given in that behalf by the Engineer-in-charge.

- II. If the suspension is ordered for reasons (b) and (c) in sub-para (i) above:
 - a) the contractor shall be entitled to an extension of time equal to the period of every such suspension plus 25%, for completion of the item or group of work for which a separate period of completion is specified in the contract and of which the suspended work forms a part, and ;
 - b) If the total period of all such suspensions in respect of an item or group of items of work for which a separate period of completion is specified in the contract exceeds thirty days, the contractor shall, in addition, be entitled to such compensation as the Engineer-in-charge may consider reasonable in respect of 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 Engineer-in-charge within fifteen days of the expiry of the period of 30 days.
- III. If the works or part thereof is suspended on the orders of the Engineer-in-charge for more than three months at a time, except when suspension is ordered for reasons (a) in sub-para (i) above, the contractor may after receipt of such order serve a written notice on the Engineer-in-charge of the said notice, to proceed with the work or part thereof in regard to which progress has been suspended and if such permission is not granted within that time, the contractor, if he intends to treat the suspension, where it affects only a part of the works as an omission of such part by the NDMC or where it affects whole of the works, as an abandonment of the works by the NDMC, shall within ten days of expiry of such period of 15 days give notice in writing of his intention to the Engineer-in-charge. In the event of the contractor treating the suspension as an abandonment of the contract by the NDMC, he shall have no 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. He shall, however, be entitled to such compensation, as the Engineer-in-charge may consider reasonable, in respect of salaries and/or wages paid by him to his employees and labour at site, remaining idle in consequence adding to the total thereof 2% to cover indirect expenses of the contractor provided the contractor submits his claim supported by details to the Engineer-in-charge within 30 days of the expiry of the period of 3 months.

Provided, further, that the contractor shall not be entitled to claim any compensation from the NDMC for the loss suffered by him on account of delay by the NDMC in the supply of materials where such delay is covered by difficulties relating to the supply of wagons, force majeure including non allotment of such materials by controlling authorities, acts of God, acts of enemies of the state/country or any reasonable cause beyond the control of the NDMC.

CLAUSE 16

Action in case work not done as per specifications.

All works under or in course of executed in pursuance of the contract shall at all times be open and accessible to the inspection and supervision of the Engineer-in-charge, his authorized subordinates in charge of the work and all the superior officers, officers of the Quality Control Organization of the NDMC 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.

If it shall appear to the Engineer-in-charge or his authorized subordinates in charge of the work or to the Chief Engineer-in-charge of Quality Control or his subordinate officers 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 of the completion of the work from the Engineer-in-charge specifying the work materials or articles complained of notwithstanding that the same may have been passed, certified and paid for, forthwith rectify, or remove and reconstruct the work so specified in whole or in part, as the case may require or as the case may be, remove the materials or articles so specified and provide other proper and suitable materials or articles at his own charge and cost. In the event of his failing to do so within a period specified by the Engineer-in-charge in his demand aforesaid, then the contractor shall be liable to pay compensation at the same rate as under clause 2 of the contract (for non-completion of the work in time) for this default.

In such case the Engineer-in-charge may not accept the item of work at the rates applicable under the contract but may accept such items at reduced rates as the Chief Engineer 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 incidental items rectified, or removed and re-executed at the risk and cost of the contractor. Decision of the Engineer-in-charge to be conveyed in writing in respect of the same will be final and binding on the contractor.

CLAUSE 17

Contractor liable for damages, defects during maintenance period

If the contractor or his working people or servants shall break, deface, injure or destroy any part of building in which they may be working, or any building, road, road curb, fence enclosure, water pipe, cables drains, electric or telephone post or wires, trees, grass or grassland, or cultivated ground contiguous to the premises on which the work or any part of it is being executed, or if any damage shall happen to the work while in progress, from any work or any part of it is being executed, or if any damage shall happen to the work while in progress, from any cause whatever or if any defect, shrinkage or other faults appear in the work within twelve months (6 months in the case of work other than road work costing Rs. 10 lacs and below) after a certificate final or otherwise of its completion shall have been given by the Engineer-in-charge as aforesaid arising out of defects or improper materials or workmanship the contractor shall upon receipt of a notice in writing on that behalf make the same good at his own expense or in default the Engineer-in-charge may cause the same to be made good by the other workmen and deduct the expense from any sums that may be due or at any time thereafter may become due to the contractor, or from his security deposit or the proceeds of sale thereof or of a sufficient portion thereof. The security deposit of the contractor shall not be refunded before the expiry of twelve months (6 months in the case of work other than road work costing Rs. 10 Lacs and below) after the issue of the certificate final or otherwise, of completion of work, or till the final bill has been prepared and passed whichever is later. Provided that in the case of road work if in the opinion of the Engineer-in-charge, half of the security deposit is sufficient to meet

all liabilities of the contractor under his contract, half of the security deposit will be refundable after six bill has been prepared and passed whichever is later.

CLAUSE 18

Contractor to supply tools and plants etc

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 NDMC stores), plant, tools, appliances, implements, 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 conditions or not, or which may be necessary for the purpose of satisfying or complying with the requirement of the Engineer-in-charge as any matter as to which under these conditions he is entitled to be satisfied, or which he is entitled 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 material, necessary for the purpose of setting out works, and counting, weighing and assisting in the measurement or 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 Engineer-in-charge 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 security deposit.

CLAUSE 18 A

Recovery of compensation paid to workman

In every case in which by virtue of the provisions of sub-section (1) of section 12 of Workmen's Compensation Act, 1923, the NDMC is obliged to pay compensation to a workman employed by the contractor in execution of the works, the NDMC will recover from the contractor the amount of the compensation so paid, and without prejudice to the rights of the NDMC under sub-section (2) of section 12 of the said Act, the NDMC 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 NDMC to the contractor whether under this contract or otherwise. The NDMC shall not be bound to contest any claim made against it under sub-section (1) of section 12 of said Act, except on the written request of the contractor and upon his giving to the NDMC full security for all costs for which the NDMC might become liable in consequence of contesting such claim.

CLAUSE 18 B

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 NDMC 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 19 H or under Contractor's Labour Regulations, or under the

Rules framed from time to time for the protection of contractor the amount of wages so paid or the amount of expenditure so incurred; and without prejudice to the rights of the NDMC under sub-section (2) of section 20 and sub-section (4) of section 21 of the Contract Labour (Regulation and Abolition) Act, 1970, the NDMC 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 NDMC to the contractor whether under this contract or otherwise. The NDMC shall not be bound to contest any claim made against it under sub-section (1) of section 20 and sub-section (4) of section 21 of the said Act, except on the written request of the contractor and upon his giving to the NDMC full security for all costs for which the NDMC might become liable in contesting such claim.

CLAUSE 19

Labour laws to be complied by the contractor

The contractor shall obtain a valid license 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 licence until the completion of the work. **The contractor shall also comply with provisions of the interstate migrant workmen (Regulation of employment and condition 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 fulfill this requirement shall attract the penal provisions of this contract arising out of the resultant non-execution of the work.

CLAUSE 19 A

No labourer below the age of eighteen years shall be employed of the work.

CLAUSE 19 B**Fair Wage Clause : Payment of Wages:-**

- a) **The contractor shall pay to labour employed by him directly**, wages not less than fair wages as defined in the Contractor's Labour Regulation 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 **through Bank or ECS or on line transfer to his Bank Account. All wages shall be paid through Bank or ECS or online transfer. It shall be duty of the contractor to ensure the disbursement of wages through bank account of labour.**

The contractor shall obtain from the Junior Engineer or any other authorize representative of the Engineer-in-Charge 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 bank account of labour on.....at....."

The filled units may also pursue with contractor of the existing contract to make payment to the labour by contractor through bank or ECS or online transfer also.

Labour employed by the contractor has obtained smart of ESI which is essential for imparting medical facility to labour.

- b) 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 subcontractors in connection with the said work, as if the labour had been immediately employed by him.
- c) 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 Contractor's Labour Regulation made by Government from time to time in regard to payment of wages, wage period, deductions from wages, recovery of wages not paid and deductions unauthorisedly made, maintenance of wage books or wage slips, publication of scale of wages 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 and Abolition) Act, 1970 and the Contract Labour (Regulation and Abolition) Central Rules, 1971, wherever applicable.
- d) The Engineer-in-charge shall have the right to deduct from the moneys 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 no fulfillment of the conditions of the contract for the benefit of the workers, non -payment of wages or of deductions made from his or their wages which are no justified by the terms of the contract or non-observance of the regulations.

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 Engineer-in-Charge 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 Engineer-in-charge concerned.

In the case of Union Territory of Delhi, however as the all inclusive minimum daily wages fixed under Notification of the Delhi Administration 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.

- e) 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, 1923, Industrial Disputes Act, 1947, Maternity Benefits Act, 1961 and the Contract Labour (Regulation and Abolition) Act, 1970 or the modification thereof or any other laws relating thereto and the rules made there under from time to time.
- f) The contractor shall indemnify and keep indemnified the NDMC against payments to be made under and for the observance of the laws aforesaid and the Contractor's Labour Regulations without prejudice to his right to claim indemnity from his sub-contractors.
- g) 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.
- h) Whatever is the minimum wage for the time being, or if the wages 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.
- I) 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.

CLAUSE 19 C

In respect of all labour directly or indirectly employed in the work 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 Safety Code framed from time to time and shall at his own expense provide for all facilities in connection therewith. In case the contractor fails to make arrangements and provide necessary facilities as aforesaid he shall be liable to pay a penalty of Rs. 200/- for each default and in addition the Engineer-in-charge shall be at liberty to make arrangements and provide facilities as aforesaid and recover the costs incurred in that behalf from the contractor.

CLAUSE 19 D

The contractor shall submit, by the 4th and 19th of every month, to the Engineer-in-charge a true statement showing in respect of the second half of the preceding month and the first half of the current month, respectively

- (1) the number of labourers employed by him on the work,
- (2) their working hours,
- (3) the wages paid to them,
- (4) the accidents that occurred during the said fortnight showing the circumstances under which they happened and extent of damage and injury caused by them, and
- (5) the number of female workers who have been allowed maternity benefit according to clause 19F and the amount paid to them

Failing which, the contractor shall be liable or pay to the NDMC a sum not exceeding Rs. 200/- for each default or materially incorrect statement. The decision of the Engineer-in-charge shall be final in deducting from any bill due to the contractor the amount levied as fine and be binding on the contractor.

CLAUSE 19 E

In respect of all labour directly or indirectly employed in the works for the performance of the contractor's part of this contract, the contractor shall comply with or cause to be complied with all the rules framed by the NDMC from time to time for the protection of health and sanitary arrangements for workers employed by the contractor.

CLAUSE 19 F

Leave and pay during leave shall be regulated as follows:

- a) **Leave :**

- (i) In 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 case of miscarriage: - upto 3 weeks from the date of miscarriage.
- b) Pay :-**
 - (i) In case of delivery: - leave pay during maternity leave will be at the rate of woman's average daily earnings, 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 on which she gives notice that she expects to be confined or at the rate of Rupees one only per day whichever is greater.
 - (ii) In case of miscarriage :- leave pay at the rate of average daily earnings calculated on the total wages earned on the days when full time work was done during a period of 3 months immediately preceding the date of such miscarriage.
- c) 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 6 months immediately preceding the date on which she proceeds on leave.
- d) The contractor shall maintain a register of maternity benefit in the following form and the same shall be kept at the place of work.

CLAUSE 19 G

In the event of the contractor committing a default or breach of any of the provisions of the Contractor's Labour Regulations and Model Rules for the protection of health and sanitary arrangements for the works as amended from time to time or furnishing any information or submitting or filling any statement under the provisions of the above regulations and rules which is materially incorrect, he shall, without prejudice to any other liability, pay to the NDMC a sum not exceeding Rs. 200/- for every default, breach or furnishing, making, submitting, filing such materially incorrect statements and in the event of the contractor defaulting continuously in this respect, the penalty may be enhanced to Rs. 200/- per day for each day of default subject to a maximum of 5percent of the estimated cost of the work put to tender. The decision of the Engineer-in-charge shall be final and binding on the parties.

Should it appear to the Engineer-in-charge that contractor is not properly observing and complying with the provisions of the Contractor's Labour Regulations and Model Rules for the protection of health and sanitary arrangements for work people employed by the contractor (hereinafter referred to as "the said rules") and the provisions of the Contract Labour (Regulation and Abolition Act, 1970 and the Contract Labour (R and A) Central Rules, 1971, the Engineer-in-charge shall have power to give notice in writing to the contractor requiring that the said rules be complied with and the amenities prescribed therein be provided to the workpeople within a reasonable time to be specified in the notice. If the contractor 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 Engineer-in-charge shall have the power to provide the amenities herein before mentioned at the cost of the contractor.

The contractor shall erect, make and maintain at his own expense and according to approved standards all necessary tents and sanitary arrangements required for his 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 Engineer-in-charge shall have power to give notice in writing to the contractor requiring that the said tents and sanitary arrangements be remodeled and/or reconstructed according to approved standards, and if the contractor shall fail to remodel or reconstruct such tents and sanitary arrangements according to approved standards within the period specified in the notice, the Engineer-in-charge shall have the power to remodel and reconstruct such tents and sanitary arrangements according to approved standards at the cost of contractor.

CLAUSE 19 H (Deleted)

~~The contractor shall at his own cost provide his labour with 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 Engineer in charge.~~

- ~~(i) (a) The minimum height of each hut at the eaves level shall be 2.10m and floor area to be provided will be at the rate of 2.70 sq.m. for each member of the worker's family staying with the labourer.~~
- ~~(b) The contractor shall in addition construct suitable cooking places having a minimum area of 1.80 m.~~
- ~~(c) The contractor shall also construct temporary latrines and urinals for the use of the labourers each on the scale of not of not less than four per each one hundred of the total strength, separate, separate latrines and urinals being provided for women~~
- ~~(d) The contractor 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 suitable screened.~~
- ~~(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 Engineer in charge. In case of sun dried bricks, the walls should be plastered with mud gobri on both sides. The floor may be katcha but plastered with mud gobri and shall be at least 15 cm. above the surrounding ground. The roofs shall be laid with thatch or any other materials as may be approved by the Engineer in charge and the contractor shall ensure that throughout the period of their occupation the roofs remain water tight.~~
- ~~(b) The contractor 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 7.20 m between the rows of huts which may be reduced to 6.0 m according to the availability of site with the approval of the Engineer in charge. Back to back construction will be allowed.~~

~~(iii) Water Supply :- The contractor shall provide adequate supply of water for the use of labourers. The provisions shall not be less than 10 litres of pure and wholesome water per head day for drinking purposes and 15 litres of clean water per head per day for bathing and washing purpose. 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 shall also at his own cost make arrangements for laying pipe lines for water supply to his labour camp from the existing main wherever available, and shall pay all fees and charges therefore.~~

~~(iv) The site selected for the camp shall be high ground, removed from jungle.~~

~~(v) Disposal of excreta: - The contractor shall make necessary arrangements for the disposal 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 shall make arrangements for the removal of the excreta through the Municipal Authority and inform it about the number of labourers employed so that arrangements may be made by such 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 Authority. The contractor shall provide one sweeper for every eight seats in case of dry system.~~

~~(vi) Drainage :- The contractor shall provide efficient arrangements for draining away sullage water so as to keep the camp neat and tidy.~~

~~(vii) The contractor shall make necessary arrangements for keeping the camp area sufficiently lighted to avoid accidents to the workers.~~

~~(viii) Sanitation :- The contractor shall make arrangements for conservance and sanitation in the labour camps according to the rules of the Local Public Health and Medical Authorities.~~

CLAUSE 19 I

The Engineer-in-charge may require the contractor to dismiss or remove from the site of the work any person or persons in the contractor's employ upon the work who may be incompetent or misconduct himself and the contractor shall forthwith comply with such requirements.

CLAUSE 19 J

It shall be the responsibility of the contractor to see that building under construction is not occupied by any body unauthorized during construction, and is handed over to the Engineer-in-charge with vacant possession of complete building. If such building though completed, is occupied illegally, then the Engineer-in-charge shall have the option to refuse to accept the said building/buildings in that position, any delay in acceptance on this account will be by

the treated as delay in completion and for such delay a levy upto 5% of the tendered value of work may be imposed by the Chief Engineer whose decision shall be final both with regard to the justification and quantum and be binding on the contractor.

However, the Chief Engineer may require the contractor through a notice to remove the illegal occupation any time on or before construction and delivery.

CLAUSE 19K

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 NDMC/CPWD Training Institute/Industrial Training, Institute/National Institute of construction Management and Research (NICMAR)/ National Academy of Construction, CIDC, **PMKVY (Pradhan Mantri Kaushal Vikas Yojana)** or any similar reputed and recognized Institute managed/ certified by State/Central Government the number of such qualified tradesmen shall **have skill card and skill certificate features a Quick response Code(QR Code)** skilled/semi skilled workers required in each trade at any stage of work. The contractor shall submit number of men days required in respect of each trade, its scheduling and the list of qualified tradesmen along with requisite certificate from recognized Institute to Engineer in charge 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 Engineer-in-Charge. Failure on the part of contractor to obtain approval of Engineer-in-charge or failure to deploy qualified tradesmen will attract a compensation to be paid by contractor at the rate of Rs. 100 per such tradesman per day. Decision of Engineer –in- charge as to whether particular tradesman possesses requisite skill and amount of compensation in case of default shall be final and binding.

Clause 19L ESI and EPF contributions **on the part of employer** in respect of this contract shall be payable by the contractor. **The contributions on the part of employer paid by the contractor shall be reimbursed by the Engineer-in-Charge to the contractor on actual basis. The applicable and eligible amount of EPF & ESI shall be reimburse preferably within 7 days but not later than 30 days of submission of documentary proof of payment provided same are in order.**

CLAUSE 20

Minimum Wages Act to be complied with

The contractor shall comply with all the provisions of the Minimum Wages Act., 1948, Contract Labour(Regulation and Abolition) ACT, 1970 amended from time to time and rules framed there under and other Labour laws affecting contract labour that may be brought into force from time to time.

CLAUSE 21

Work not be sublet. Action in case of insolvency.

The contract shall not be assigned or sublet without the written approval of the Engineer-in-charge. And if the contractor shall assign or sublet this contract, or attempt so to do, or become insolvent or commence any insolvency proceedings or make any composition with his creditors or attempt to do so, or bribe, gratuity, gift, loan, perquisite, reward or advantage pecuniary or otherwise, shall either directly or indirectly, be given, promised or offered by the contractor or any of his servants or agents or agents to any public officer or person in the employ of the NDMC in any way relating to his office or employment, or if any such officer or person shall become in any way directly or indirectly interested in the contract, the Engineer-in-charge on behalf of the NDMC shall have power to adopt any of the courses specified in Clause 3 in best suited to the interest of the NDMC and in the event of any such courses being adopted the consequences specified in the said Clause 3 shall ensue.

CLAUSE 22

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

CLAUSE 23**Changes in firm's constitution to be intimated.**

Where the contractor is a partnership firm, the previous approval in writing of the Engineer-in-charge shall be obtained before any change is made in the constitution of the firm. Where the contractor is an individual or a Hindu undivided family business concern such approval as aforesaid shall likewise be obtained before the contractor enters into any partnership agreement where under the partnership firm would have the right to carry out the work hereby undertaken by the contractor. If previous approval as aforesaid is not obtained, the contract shall be deemed to have been assigned in contravention of Clause 21 hereof and the same action may be taken, and the same consequences shall ensue as provided in the said Clause 21.

CLAUSE 24**Work to be under direction of Engineer-in-charge**

All works to be executed under the contract shall be executed under the direction and subject to the approval in all respects of the Engineer-in-charge who shall be entitled to direct at what point or points and in what manner they are to be commenced, and from time to time carried on.

CLAUSE 25**Settlement of disputed & Arbitration**

Except where otherwise provided in the contract, all questions and disputes relating to the meaning of the specifications, design, drawings and instructions here-in before mentioned and as to the quality of workmanship or materials used on the work or as to any other question, claim, right, matter or thing whatsoever in any way arising out of or relating to the contract, designs, drawings, specifications, estimates, instructions, orders or these conditions or otherwise concerning the works or the execution or failure to execute the same whether arising during the progress of the work or after the cancellation, termination, completion or abandonment thereof shall be dealt with as mentioned hereinafter:

(i) If the contractor considers any work demanded of him to be outside the requirements of the contract, or disputes any drawings, record or decision given in writing by the Engineer-in-Charge or if the Engineer in Charge considers any act or decision of the contractor on any matter in connection with or arising out of the contract or carrying out of the work, to be unacceptable and is disputed, such party shall promptly within 15 days of the arising of the disputes request the Chairman NDMC who shall refer the disputes to Dispute Redressal Committee (DRC) within 15 days along with a list of disputes with amounts claimed if any in respect of each such dispute. The Dispute Redressal Committee (DRC) shall give the opposing party two weeks for a written response, and, give its decision within a period of 60 days extendable by 30 days by consent of both the parties from the receipt of reference from CE. The constitution of Dispute Redressal Committee (DRC) shall be as indicated in Schedule 'F'. Provided that no party shall be represented before the Dispute Redressal Committee by an advocate/legal counsel etc.

The DRC will submit its decision to the concern Chairman NDMC for acceptance. Chairman in a time limit of 30 days from the receipt of the decision of Dispute Redressal Committee (DRC), will convey acceptance or otherwise on the said decision. If the DRC fails to give its decisions within aforesaid periods or the Chairman NDMC fails to give his decision in the aforesaid time limit or any other party is dissatisfied with the decision of DRC/Chairman NDMC then either party may within a period of 30 days from the receipt of the decision of DRC/Chairman or expiry of aforesaid time limits available to Chairman NDMC may give notice to the Chairman for appointment of arbitrator on prescribed Performa as per appendix XVII under intimation to the other party.

It is a term of contract that each party invoking arbitration must exhaust the aforesaid mechanism of settlement of claims/disputes prior to invoking arbitration.

It is a term of this contract that the party invoking arbitration must exhaust the aforesaid mechanism of settlement of claims/disputes prior to invoking arbitrations.

The Chairman NDMC shall in such case appoint the sole arbitrator or one of the three arbitrators as the case may be within 30 days of receipt of such a request and refer such dispute to arbitration. Wherever the Arbitral Tribunal consists of three Arbitrators, the Contactor shall appoint one Arbitrator within 30 days of making request for arbitration or of receipt of request by Division In charge to Chairman, NDMC for appointment of Arbitrator, as the case may be, and two appointed Arbitrators shall appoint the third arbitrator who shall act as the Presiding Arbitrator. In the even

- a. A party fails to appoint the second Arbitrator, or
- b. B. the two appointed Arbitrators fail to appoint the Presiding Arbitrator, then

The Chairman, NDMC shall appoint the second or Presiding Arbitrator as the case may be.

Disputes or difference shall be referred for adjudication through arbitration to a sole arbitrator where Tendered amount is Rs. 100 Crore or less. Where Tendered Value is more than Rs. 100 Crore, Tribunal shall consist of three Arbitrators as above. The requirements of the Arbitration and Conciliation Act, 1996 (26 of 1996) and any further statutory modifications or re-enactment thereof and the rules made there under and for the time being in force shall be applicable.

It is also a term of this contract that any member of the Arbitration Tribunal shall be a Graduate Engineer with experience in handling public works engineering contracts at a level not lower than Chief Engineer (Joint Secretary level of Government of India). This shall be treated as a mandatory qualification to be appointed as arbitrator.

Parties, before or at the time of appointment of Arbitral Tribunal may agree in writing for fast track arbitration as per the Arbitration and Conciliation Act, 1996 (26 of 1996) as amended in 2015.

Subject to provision in the Arbitration and Conciliation Act, 1996 (26 of 1996) as amended in 2015 whereby the counter claims if any can be directly filed before the arbitrator without any requirement of reference by the appointing authority, the arbitrator shall adjudicate on only such disputes as are referred to him by the appointing authority and give separate award against each dispute and claim referred to him and in all cases where the total amount of the claims by any party exceeds Rs. 1,00,000/-, the arbitrator shall give reasons for the award.

It is also a term of the contract that if any fees are payable to the arbitrator, these shall be approved by Chairman, NDMC OEM issued vide No. 02/2006SE(TLC)/CSQ/137 dated 19/11/2019 (or its latest amendment). This fee shall be shared equally by parties. The place of arbitration shall be as mentioned in Schedule F. In case there is no mention of place of arbitration, the arbitrator tribunal shall determine the place of arbitration. The fee shall be shared equally by parties.

The venue of the Arbitration shall be such place as may be fixed by the Arbitral Tribunal in consultation with both the parties. Failing any such agreement, then the Arbitral Tribunal shall decide the venue.

CLAUSE 26

Contractor to indemnify the NDMC against Patent Rights

The contractor shall fully indemnify and keep and indemnified the N.D.M.C against any action, claim or proceeding relating to infringement or use of any patent or design or any alleged patent or design rights and shall pay any royalties, which may be payable in respect of any article or part thereof included in the contract. In the event of any claims made under or action brought against the NDMC in respect of any such matters as aforesaid, the contract shall be immediately notified thereof and the contractor shall be at liberty, at his own expense, to settle any dispute or to conduct any litigation that may arise there from;

provided that the contractor shall be liable to indemnify the N.D.M.C, if the infringement of the patent or design or any alleged patent or design right is the direct result of an order passed by the Engineer-in-charge in this behalf.

CLAUSE 27

Lump sum provisions in tender.

When the estimate on which a tender is made includes lump sum in respect of parts of the work, the contractors shall be entitled to payment in respect of the items of work involved or the part of the work in question at the same rates, as are payable under this contract for such items, or if the part of the work in question is not, in the opinion of the Engineer-in-charge capable of measurement, the Engineer-in-charge may at his discretion pay the lump sum amount entered in the estimate, and the certificate in writing of the Engineer-in-charge shall be final and conclusive against the contractor with regard to any sum payable to him under the provisions of the clause.

CLAUSE 28

Action where no Specifications are specified.

In the case of any class of work for which there is no such specifications as referred to in Clause 11, such work shall be carried out in accordance with the Bureau of Indian Standards Specifications. In case there are no such specifications in Bureau of Indian Standards, the work shall be carried out as per manufacturer's 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 Engineer-in-charge.

CLAUSE 29

With holding and lien in respect of sums de from contractor.

Whenever any claim or claims for payment of a sum of money arises out of or under the contract or against the contractor, the Engineer-in-charge or the NDMC shall be entitled to withhold and also have a lien to retain such sum or sums in whole or in part from the security, if any deposited by the contractor and for the purpose aforesaid, the Engineer-in-charge or the N.D.M.C, shall be entitled to withhold the security deposit, if any, furnished as the case may be and also have a lien over the same pending finalization or adjudication of any such claim. In the event of the security being insufficient to cover the claimed amount or amounts or if no security has been taken from the contractor, the Engineer-in-charge or the N.D.M.C shall be entitled to withhold and have a lien to retain to the extent of such claimed amount or amounts referred to above, from any sum or sums found payable or which may at any time thereafter become payable to the contractor under the same contract or any other contract with the Engineer-in-charge or the N.D.M.C. or any contracting person through the Engineer-in-charge pending finalization or adjudication of any such claim.

It is an agreed term of the contract that the sum of money or moneys so withheld or retained under the lien referred to above by the Engineer-in-charge or N.D.M.C will be kept withheld or retained as such by the Engineer-in-charge or N.D.M.C till the claim arising out of or under the contract is determined by the arbitrator(if the contract is governed by the arbitration clause) or by the competent court, as the case may be and that the contractor will have no claim for interest or damages whatsoever on any account in respect of such withholding or retention under the lien referred to above and duly notified as such to the contractor. For the purpose of this clause, where the contractor is a partnership form or a limited company, the Engineer-in-charge or the N.D.M.C shall be entitled to withhold and also have a lien to retain towards such claimed amount or amounts in whole or in part from any sum found payable to any partner/limited company as the case may be, whether in his individual capacity or otherwise.

The N.D.M.C shall have the right to cause an audit and technical examination of the works and final bill of the contractor including all supporting vouchers, abstract etc., to be made after payment of the final bill and if as a result of such audit and technical examination any sum is found to have been overpaid in respect of any work done by the contractor under the contract or any work claimed to have been done by him under the contract and found not to have been executed, the contractor shall be liable to refund the amount of overpayment and it shall be lawful for the N.D.M.C to recover the same from him in the manner prescribed in sub-clause (1) of this clause or in any other manner legally permissible; and if it is found that the contractor was paid less than what was due to him under the contract in respect of any work

executed by him under it, the amount of such under payment shall be duly paid by the N.D.M.C to the contractor, without any interest thereon whatsoever.

CLAUSE 29 A

Lien in respect of claims in other contracts

Any sum of money due and payable to the contractor (including the security deposit returnable to him) under the contract may be withheld or retained by way of lien by the Engineer-in-charge or the NDMC or any other contracting person or persons through Engineer-in-charge against any claim of the Engineer-in-charge or NDMC or such other person or persons in respect of payment of a sum of money arising out of or under or any other contract made by the contractor with Engineer-in-charge of the NDMC or with such other person or persons.

It is agreed term of the contract that the sum of money so withheld or retained under this clause by the Engineer-in-charge or the N.D.M.C will be kept withheld or retained as such by the Engineer-in-charge or the NDMC or till his claim arising out of the same contract or any other contract is either mutually settled or determined by the arbitration clause or by the competent court, as the case may be, and that the contractor shall have no claim for interest or damages whatsoever on this account or on any other ground in respect of any sum of money withheld or retained under this clause and duly notified as such to the contractor.

CLAUSE 30 (Deleted)

Employment of coal mining or controlled area labour not permissible

~~The contractor shall not employ coal mining or controlled area labour falling under any category whatsoever on or in connection with the work or recruit labour from area within a radius of 32 km (20 miles) of the controlled area. Subject as above the contractor shall employ imported labour only i.e., deposit imported labour or labour imported by contractors from area, from which import is permitted.~~

~~Where ceiling price for imported labour has been fixed by State or Regional Labour Committee not more than that ceiling price shall be paid to the labour by the contractor.~~

~~The contractor shall immediately remove any labourer who may be pointed out by the Engineer-in-charge being a coal mining or controlled area labourer. Failure to do so shall render the contractor liable to pay to NDMC a sum calculated at the rate of Rs.10/- per day per labourer. The certificate of the Engineer-in-charge about the number of coal mining or controlled area labourer and the number of days for which they worked shall be final and binding upon all parties to this contract.~~

~~It is declared and agreed between the parties that the aforesaid stipulation in this clause is one in which the public are interested within the meaning of the exception in Section 74 of Indian Contract Act, 1872.~~

~~Explanation: Controlled Area means the following areas:~~

~~Districts of Dhanbad, Hazaribagh, Jamtara a Sub Division under Santhal Pargana Commissionery, Districts of Bankuara, Birbhum, Burdwan, District of Bilaspur.~~

~~Any other area which may be declared a Controlled Area by or with the approval of the Central Government.~~

CLAUSE 31

Unfiltered water supply

This will be subject to the following conditions regarding water supply:-

- (i) That the water used by the contractor shall be fit for construction purposes to the satisfaction of the Engineer-in-charge
- (ii) The Engineer-in-charge shall make alternative arrangements for supply of water at the risk and cost of contractor if the arrangements made by the contractor for procurement of water are in the opinion of the Engineer-in-charge unsatisfactory.

CLAUSE 32

Alternate water arrangements

- (i) Where there is no piped water supply arrangement and the water is taken by the contractor from the wells or hand pumps constructed by the NDMC no charge shall be recovered from the contractor on that account. The contractor shall, however, draw water at such hours of the day that it does not interfere with the normal use for which the hand pumps and wells are intended. He will also be responsible for all damages and abnormal repairs arising out of his use, the cost of which shall be recoverable from him. The

Engineer-in-charge shall be the final authority to determine the cost recoverable from the contractor on this account and his decision shall be binding on the contractor.

- (ii) The contractor shall be allowed to construct temporary wells in the NDMC land for taking water for construction purposes only after he has got permission of the Engineer-in-charge in writing. No charges shall be recovered from the contractor on this account, 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 conditions after the wells are dismantled on completion of the work.

CLAUSE 33

Return of surplus materials

Notwithstanding anything contained to the contrary in this contract, where any materials for the execution of the contract are procured with the assistance of the NDMC either by issue from the NDMC stores or purchase made under orders or permits or licences issued by the NDMC or Govt. the contractor shall hold the said materials economically and solely for the purpose of the contract and not dispose of them without the written permission of the NDMC and return, if required by the Engineer-in-charge, all surplus or serviceable materials that may be left with him after the completion of the contract or at its termination for any reason whatsoever on being paid or credited such price as the Engineer-in-charge shall determine having due regard to the conditions of the materials. The price allowed to the contractor, however, shall not exceed the amount charged to him excluding the element of storage charges. The decision of the Engineer-in-charge shall be final and conclusive. In the event of breach of the aforesaid condition, the contractor shall in addition to throwing himself open to action for contravention of the terms of the license or permit and/or for criminal breach of trust, be liable to the NDMC for all moneys, advantages or profits resulting or which in the usual course would have resulted to him by reason of such breach.

CLAUSE 34

Hire of Plant & Machinery

- i. The contractor shall arrange at his own expense all tools, plant, machinery and equipment (hereinafter referred to as T&P) required for execution of the work except for the Plant & Machinery listed in Schedule 'C' and stipulated for issue to the contractor. If the contractor requires any item of T&P on hire from the T&P available with the NDMC over and above the T&P stipulated for issue, the NDMC will, if such item is available, hire it to the contractor at rates to be agreed upon between him and the Engineer-in-charge. In such a case, all the conditions hereunder for issue of T&P shall also be applicable to such T&P as is agreed to be issued.
- ii. The Plant and Machinery when supplied on hire charges shown in Schedule 'C' shall be made over and taken back at the departmental equipment yard/shed shown in Schedule 'C' and the contractor shall bear the cost of carriage from the place of issue to the site of work and back.
- iii. The contractor shall be responsible to return the plant and machinery with condition in which it was handed over to him, and he shall be responsible for all damage caused to the said plant and machinery at the site of work or elsewhere in operation and otherwise during transit including damage to or loss of plant and for all losses due to his failure to return the same soon after the completion of the work for which it was issued. The Divisional Engineer shall be the sole judge to determine the liability of the contractor and its extent in this regard and his decision shall be final and binding on the contractor.
- iv. The plant and machinery as stipulated above will be issued as and when available and if required by the contractor. The contractor shall arrange his programme of work according to the availability of the plant and machinery and no claim, whatsoever, will be entertained from him for any delay in supply by the Department.
- v. The hire charges shall be recovered at the prescribed rates from and inclusive of the date the

plant and machinery made over upto and inclusive of the date of the return in good order even though the same may not have been working for any cause except major breakdown due to no fault of the contractor or faulty use requiring more than three working days continuously (excluding intervening holidays and Sundays) for bringing the plant in order. The contractor shall immediately intimate in writing to the Engineer-in-charge when any plant or machinery gets out of order requiring major repairs as aforesaid. The Engineer-in-Charge shall record the date and time of receipt of such intimation in the log sheet of the plant or machinery. Based on this if the breakdown before lunch period or major breakdown will be computed considering half a day's breakdown on the day of complaint. If the breakdown occurs in the post lunch period of major breakdown will be computed starting from the next working day. In case of any dispute under this clause, the decision of the

- Superintending Engineer shall be final and binding on the contractor.
- vi. The hire charges shown above are for each day of 8 hours (inclusive of the one hour lunch break) or part thereof.
 - vii. Hire charges will include service of operating staff as required and also supply of lubricating oil and stores for cleaning purposes. Power fuel of approved type, firewood, kerosene oil etc. for running the plant and machinery and also the full time *chowkidar* for guarding the plant and machinery against any loss or damage shall be arranged by the contractor who shall be fully responsible for the safeguard and security of plant and machinery. The contractor shall on or before the supply of plant and machinery sign an agreement indemnifying the Department against any loss or damage caused to the plant and machinery either during transit or at site of work.
 - viii. Ordinarily, no plant and machinery shall work for more than 8 hours a day inclusive of one hour lunch break. In case of an urgent work however, the Engineer-in-charge may, at his discretion, allow the plant and machinery to be worked for more than normal period of 8 hours a day. In that case, the hourly hire charges for overtime to be borne by the contractor shall be 50% more than the normal proportionate hourly charges ($\frac{1}{8}^{\text{th}}$ of the daily charges) subject to a minimum of half day's normal charges on any particular day. For working out hire charges for over time, a period of half an hour and above will be charged as one hour and a period of less than half an hour will be ignored.
 - ix. The contractor shall release the plant and machinery every seventh day for periodical servicing and/or wash out which may take about three to four hours or more. Hire charges for full day shall be recovered from the contractor for the day of servicing/ wash out irrespective of the period employed in servicing.
 - x. The plant and machinery once issued to the contractor shall not be returned by him on account of lack of arrangements of labour and materials, etc. on his part, the same will be returned only when they are required for major repairs or when in the opinion of the Engineer-in-charge, the work or a portion of work for which the same was issued is completed.
 - xi. Log Book for recording the hours of daily work for each of the plant and machinery supplied to the contractor will be maintained by the Department and will be countersigned by the contractor or his authorized agent daily. In case the contractor contests the correctness of the entries and/or fails to sign the Log Book, the decision of the Engineer-in-charge shall be final and binding on him. Hire charges will be calculated according to the entries in the Log Book and will be binding on the contractor.
 - xii. Recovery on account of hire charges for road rollers shall be made for the minimum number of days worked out on the assumption that a roller can consolidate per day and maximum quantity of materials or area surfacing as noted against each in the statement given herein after.
 - xiii. In the case of concrete mixers, the contractors shall arrange to get the hopper cleaned and the drum washed at the close of the work each day or each occasion.
 - xiv. In case rollers for consolidation are employed by the contractor himself, log book for such rollers shall be maintained in the same manner as is done in case of departmental rollers, maximum quantity of any items to be consolidated for each roller-day shall also be same as in Annexure to Clause 34(xii). For less use of rollers, recovery for the less roller days shall be made at the stipulated issue rate.
 - xv. The contractor will be exempted from levy of any hire charges for the number of days he is called upon in writing by the Engineer-in-charge to suspend execution of the work, provided Government plant & machinery in question have, in fact, remained idle with the contractor because of the suspension.
 - xvi. In the event of the contractor not requiring any item of plant and machinery issued by NDMC though not stipulated for issue in Schedule 'C' any time after taking delivery at the place of issue, he may return it after two days written notice or at any time without notice if he agrees to pay hire charges for two additional days without, in any way, affecting the right of the Engineer-in-charge to use the said plant and machinery during the said period of two days as he likes including hiring out to a third party.
 - xvii. The N.D.M.C. give no guarantee in respect of output of its T&P hired to the contractor and no reduction in rates or any compensation shall be allowed on the ground that output or performance of N.D.M.C.'s T&P was not to the contractors expectations.

CLAUSE 35 (Deleted)

Conditions relating to use of asphaltic materials

- (i) ~~The contractor undertakes to make arrangements for the supervision of the work by the firm supplying the tar or bitumen used.~~

- (ii) ~~The contractor shall collect the total quantity of tar or bitumen required for the work as per standard formula, before the asphaltic work is started and shall hypothecate it to the Engineer in charge. If any bitumen or tar remains unused on completion of the work on account of lesser use of materials in actual execution for reasons other than authorized changes of specification and abandonment of portion of work, a corresponding deduction equivalent to the cost of unused materials as determined by the Engineer in charge shall be made and the material returned to the contractor. Although the materials are hypothecated to the N.D.M.C., the contractor undertakes the responsibility for their proper watch, safe custody and protection against all risks. The materials shall not be removed from site of work without the consent of the Engineer in charge in writing.~~
- (iii) ~~The contractor shall be responsible for rectifying defects noticed within a year from the date of completion of the work and the portion of the security deposit relating to asphaltic work shall be refunded after the expiry of this period.~~

Clause 36

Employment of Technical Staff and employees

Contractors Superintendence Supervision, Technical Staff & Employee

- (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.

The contractor shall immediately after receiving letter of acceptance of the tender and before commencement of the work, intimate in writing to the Engineer-in-charge, 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 the work. Minimum requirement of such technical representative(s) and their qualifications and experience shall not be lower than specified in Schedule 'F'. The Engineer-in-charge shall within 3 days of receipt of such communication intimate in writing his approval or otherwise of such a representative(s) to the contractor. Any such approval may at any time be withdrawn and in case of such withdrawal, the contractor shall appoint another such representative(s) according to the provisions of this clause. Decision of the tender accepting authority shall be final and binding on the contractor in this respect. Such a principal technical representative and other technical representative(s) shall be appointed by the contractor soon after receipt of the approval from Engineer-in-charge and shall be available at site before start of work.

All the provisions applicable to the principal technical representative under the Clause will also be applicable to other technical representative(s). The principal technical representative and other technical representative(s) shall be present at the site of work for supervision at all times when any construction activity is in progress and also present himself/themselves, as required, to the Engineer-in-charge and/or his designated representative to take instructions. 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. The principal technical representative and other technical representative(s) shall be actually available at site fully during all stages of execution of work, during recording/checking/test checking of measurements of works and whenever so required by the Engineer-in-Charge and shall also note down instructions conveyed by the Engineer-in-charge or his designated representative(s) 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. The representative(s) shall not look after any other work. Substitutes, duly approved by Engineer-in-charge of the work in similar manner as aforesaid shall be provided in event of absence of any of the representative(s) by more than two days.

If the Engineer-in-charge, 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 'F' and the decision of the Engineer-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. 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 without duly approved substitute or do not discharge their responsibilities satisfactorily, the Engineer-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 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 Engineer-in-charge.

- (ii) 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 labour as is necessary for proper and timely execution of the work.

The Engineer-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 is incompetent or negligent in the performance of his duties or whose employment is otherwise considered by the Engineer-in-charge to be undesirable. Such person shall not be employed again at works site without the written permission of the Engineer-in-charge and the persons so removed shall be replaced as soon as possible by competent substitutes.

CLAUSE 37

Levy/Taxes payable by Contractor

- (i) GST or any other tax or Cess in respect of this contract shall be payable by the contractor and NDMC shall not entertain any claim whatsoever in this respect.
- (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 NDMC and does not any time become payable by the contractor to the State Government, 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 NDMC and it will have the right and be entitled to recover the amount paid in the circumstances as aforesaid from dues of the contractor.
- (iv) ESI and EPF contributions on the part of the employer in respect of this contract shall be payable by the contractor **The contributions on the part of employer paid by the contractor shall be reimbursed by the Engineer-in-Charge to the contractor on actual basis. The applicable and eligible amount of EPF & ESI shall be reimburse preferably within 7 days but not later than 30 days of submission of documentary proof of payment provided same are in order.**

CLAUSE 38

Conditions for reimbursement of levy/taxes if levied after receipt of tenders

- (i) All tendered rates shall be inclusive of all taxes and levies payable under respective statutes. However, if any further tax or levy or cess is imposed by Statute, after the last stipulated date for the receipt of tender including extensions if any and the contractor thereupon necessarily and properly pays such taxes/levies/cess, the contractor shall be reimbursement the amount so paid, provided such payments, if any, is not, in the opinion of the Additional Chief Engineer/Superintending engineer (whose decision shall be final and binding on the contractor) attributable to delay in execution of work within the control of the contractor.
- (ii) The contractor shall keep necessary books of accounts and other documents for the purpose of this condition as may be necessary and shall allow inspection of the same by a duly authorized representative of the NDMC and/or the Engineer-in-charge and shall also furnish such other information/document as the Engineer-in-charge may require from time to time.
- (iii) The contractor shall, within a period of 30 days of the imposition of any such further tax or levy or cess, give a written notice thereof to the Engineer-in-charge that the same is given pursuant to this condition, together with all necessary information relating thereto.

CLAUSE 39

Termination of Contract on death of contractor

Without prejudice to any of the rights or remedies under this contract, if the contractor dies, the Divisional Officer on behalf of the NDMC shall have the option of terminating the contract without compensation to the contractor.

CLAUSE 40

If relative working in NDMC then the contractor not allowed to tender

The contractor shall not be permitted to tender for works in the NDMC circle (Division in case of

contractors of Horticulture/Nursery categories) responsible for award and execution of contracts in which his near relative is posted as Divisional Accountant or as an officer in any capacity between the grades of the Chief Engineer and Junior Engineer (both inclusive). He shall also intimate the names of persons who are working with him in any capacity or are subsequently employed by him and who are near relatives to any Officer in the NDMC. Any breach of this condition by the contractor would render him liable to be removed from the approved list of contractors of this Department. If however the contractor is registered in any other department, he shall be debarred from tendering in NDMC for any breach of this condition.

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

CLAUSE 41

No Engineer to work as Contractor within one year of retirement

No engineer or other officer employed in NDMC shall work as a contractor or employee of a contractor for a period of one year after his retirement from NDMC service without the previous permission of NDMC 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 NDMC as aforesaid, before submission of the tender or engagement in the contractor's service, as the case may be.

CLAUSE 42

Return of material & recovery for excess material used

- i. After completion of the work and also at any intermediate stage in the event of non- reconciliation of materials issued, consumed and in balance (see Clause 10), theoretical quantity of materials issued by the NDMC for use in the work shall be calculated on the basis and method given hereunder:-
 - a. 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 'F'. 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/statement or cannot be derived from the same shall be calculated on the basis of standard formula to be laid down by the Engineer-in-Charge.
 - b. 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.
 - c. 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.
 - d. For any other material as per actual requirements.
- ii. Over the theoretical quantities of materials so computed a variation shall be allowed as specified in Schedule 'F'. The difference in the net quantities of material actually issued to the contractor and the theoretical quantities including such authorized variation, if not returned by the contractor or if not fully reconciled to the satisfaction of the Engineer-in- Charge within fifteen days of the issue of written notice by the Engineer-in-charge to this effect shall be recovered at the rates double the SIR/specified in Schedule 'F', without prejudice to the provision of the relevant conditions regarding return of materials governing the contract. Decision of Engineer-in-Charge in regard to theoretical quantities of materials, which should have been actually used as per the Annexure of the standard schedule of rates and recovery at rates specified in Schedule 'F', shall be final & binding on the contractor. For non scheduled items, the decision of the Additional Chief Engineer/Superintending Engineer regarding theoretical quantities of materials which should have been actually used, shall be final and binding on the contractor.
- iii. The said action under this clause is without prejudice to the right of the NDMC to take action against the contractor under any other conditions of contract for not doing the work according to the prescribed specifications.

CLAUSE 43

Compensation during war like situations

The work (whether fully constructed or not) and all materials, machines, tools and plants,

scaffolding, temporary buildings and other things connected therewith shall be at the risk of the contractor until the work has been delivered to the Engineer-in-charge and a certificate from him to that effect obtained. In the event of the work or any materials properly brought to the site for incorporation in the work being damaged or destroyed in consequence of hostilities or warlike operation, the contractor shall when ordered (in writing) by the Engineer-in-charge to remove any debris from the site, collect and properly stack or remove in store all serviceable materials salvaged from the damaged work and shall be paid at the contract rates in accordance with the provision of this agreement for

the work of clearing the site of debris, stacking or removal of serviceable material and for reconstruction of all works ordered by the Engineer-in-charge, such payments being in addition to compensation upto the value of the work originally executed before being damaged or destroyed and not paid for. In case of works damaged or destroyed but not already measured and paid for, the compensation shall be assessed by the Engineer-in-charge upto Rs.5,000/- and by the NDMC for a higher amount. The contractor shall be paid for the damages/destruction suffered and for restoring the material at the rate based on analysis of rates tendered for in accordance with the provision of the contract. The certificate of the Engineer-in-Charge regarding the quality and quantity of materials and the purpose for which they were collected shall be final and binding on all parties to this contract.

Provided always that no compensation shall be payable for any loss in consequence of hostilities or warlike operations (a) unless the contractor had taken all such precautions against air raid as are deemed necessary by the A.R.P. Officers or the Engineer-in-charge (b) for any material etc. not on the site of the work or for any tools, plant, machinery, scaffolding, temporary building and other things not intended for the work.

In the event of the contractor having to carry out reconstruction as aforesaid, he shall be allowed such extension of time for its completion as is considered reasonable by the Engineer-in-charge.

CLAUSE 44

Apprentices Act provisions to be complied with

The contractor shall comply with the provisions of the Apprentices Act, 1961 and the rules and orders issued there under from time to time. If he fails to do so, his failure will be a breach of the contract and the Superintending Engineer may, in his discretion, cancel the contract. The contractor shall also be liable for any pecuniary liability arising on account of any violation by him of the provisions of the said Act.

CLAUSE 45

Release of Security deposit after labour clearance.

Security Deposit of the work shall not be refunded till the contractor produces a clearance certificate from the Labour Officer. As soon as the work is virtually complete the contractor shall apply for the clearance certificate to the Labour Officer under intimation to the Engineer-in-charge. The Engineer-in-charge, on receipt of the said communication, shall write to the Labour Officer to intimate if any complaint is pending against the contractor in respect of the work. If no complaint is pending, on record till after 3 months after completion of the work and/or no communication is received from the Labour Officer to this effect till six months after the date of completion, it will be deemed to have received the clearance certificate and the Security Deposit will be released if otherwise due.

NOTE:-In case of difference or ambiguity in Hindi and English version, the English version will prevail.

N.D.M.C. 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 (12ft.) 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. (3ft.) 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 (12ft.) above ground level or floor level, they should be closely boarded, should have adequate width and should be suitably fastened as described in (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. (3ft.)
5. Safe means of access shall be provided to all working platforms and other working places. Every ladder shall be securely fixed. No portable single ladder shall be over 9m. (30ft.) 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 defense 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. Excavation and Trenching – All trenches 1.2 m. (4ft.) 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. (3ft.) above the surface of the ground. The side of the trenches which are 1.5 m. (5ft.) 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. (5ft.) 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.
 6. (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 50m around the point of drilling to avoid entry of people;
 - (iv). After drilling the borewell, a cement platform (0.50m x 0.50m x 1.20m) 0.60m above ground level and 0.60m below ground level should be constructed around the well casing;
 - (v). After the completion of the borewell, the contractor should cap the bore well properly by welding steel plate, cover the bore well with the drilled wet soil and fix thorny shrubs over the soil. This should be done even while repairing the pump;
 - (vi). After the borewell 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 Engineer-in-charge 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 JE 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 Engineer-in-charge may decide the time up to 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 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 metres away from the opening and on the leeward side protected from wind so that they will not be a source of friction on any inflammable gas that might be present.
 - l) The workers engaged for cleaning the manholes/sewers should be properly trained before allowing to work in the manhole.
 - m) The workers shall be provided with Gumboots or non sparking shoes bump helmets and gloves non sparking tools safety lights and 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 manhole well.
 - o) If a man has received a physical injury, he should be brought out of the sewer immediately and adequate medical aid should be provided to him.

- p) The extent to which these precautions are to be taken depend on individual situation but the decision of the Engineer-in-charge regarding the steps to be taken in this regard in an individual case will be final.
- vi) The Contractor shall not employ men and women below the age of 18 years on the work of painting with products containing lead in any form. Wherever men above the age of 18 are employed on the work of lead painting, the following precaution should be taken:-
 - a) No paint containing lead or lead products shall be used except in the form of paste or ready made paint.
 - b) Suitable face masks should be supplied for use by the workers when paint is applied in the form of 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.
- 9. An additional clause (viii)(i) of New Delhi Municipal Council 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 these pigment, shall not be used in painting operation 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 the application of a paint in the form of spray.
 - iii) Measures shall be taken, wherever practicable, to prevent danger arising out of from dust caused by dry rubbing down and scraping.
 - iv) Adequate facilities shall be provided to enable working painters to wash during and on cessation of 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 being spoiled 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 NDMC.
 - viii) NDMC may require, when necessary medical examination of workers.
 - ix) Instructions with regard to special hygienic precautions to be taken in the painting trade shall be distributed to working painters.
- 10. When the work is done near any place where there is risk of drowning, all necessary equipments should be 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 be obtained during the course of the work.
- 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 Engineer-in-Charge. As regards contractor's machines the contractors shall notify the safe working load of the machine to the Engineer-in-Charge 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 a 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 and 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 the operations of any other Act or Rule in force in the Republic of India.

Contractor

Executive Engineer (E) C-III

**Models Rules for the Protection of
Health and Sanitary Arrangements for Workers
Employed by N.D.M.C. or its Contractors**

1. APPLICATION

These rules shall apply to all buildings and construction works in charge of New Delhi Municipal Council in which twenty or more workers are ordinarily employed or are proposed to be employed in any day during the period during which 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 during which 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 back ground and shall contain the following equipment:-
 - a) For work places in which the number of contract labour employed does not exceed 50
Each first-aid box shall contain the following equipments:-
 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 salvolatile having the dose and mode of administration indicated on the label.
 7. 1 snakebite lancet.
 8. 1 (30 gms.) 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, Government of India.
 11. 1 bottle containing 100 tablets (each of 5 gms.) of aspirin.
 12. Ointment for burns.
 13. A bottle of suitable surgical antiseptic solution.
 - b) For work places in which the number of contract labour exceed 50.
Each first-aid box shall contain the following equipments.
 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 gms.) packets sterilized cotton wool.
 6. 1 (60 ml.) bottle containing two per cent alcoholic solution iodine.
 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 gms.) 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 gms.) of aspirin.
 14. Ointment for burns.
 15. A bottle of suitable surgical antiseptic solution.
- (iii) Adequate arrangements shall be made for immediate recoupment of the equipment when necessary.
- (iv) Nothing except the prescribed contents shall be kept in the First-aid box.
- (v) The first-aid box shall be kept in charge of a responsible person who shall always be readily available during the working hours of the work place.
- (vi) A person in charge of the First-aid box shall be a person trained in First-aid treatment in the work places where the number of contract labour employed is 150 or more.
- (viii) 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 50 feet 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 and waterproof.
- (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 female are employed, there shall be at least one latrine for every 25 females.
 - (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 nonabsorbent 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 fifty 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 Engineer-in-charge 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 metres (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 sq.m. (6 sft) per head.

Provided that the Engineer-in-charge 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) a,b & c.
- (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 the number of women workers does not exceed 50 and two when the number of women workers exceed 50.
- (v) The use of the rooms earmarked as creches 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, and 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 colour washed at least once in each year. Provided that the inside walls of the kitchen shall be lime-washed every four months.
- (vi) The 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) The 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 metre (10sqft) 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, chair or benches shall be available for the number of diners to be accommodated as prescribed in sub-Rule
- (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 and impervious material.
3. Suitable facilities including an adequate supply of hot water shall be provide for the cleaning of utensils and equipments.

- (xiv) The 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) The rent of land and building.
 - (b) The depreciation and maintenance charges for the building and equipments provided for the canteen.
 - (c) The cost of purchase, repairs and replacement of equipments including furniture, crockery, cutlery and utensils.
 - (d) The water charges and other charges incurred for lighting and ventilation.
 - (e) The interest and amounts spent on the provision and maintenance of equipments provided for the canteen.
- (xvii) The 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 Engineer-in-charge including the filling up of any borrow pits which may have been dug by him.

11. The above rules shall form an integral part of the contract.

12. AMENDMENTS

NDMC 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.

Contractor

Engineer-in-Charge
Executive Engineer (E) C-III
For & on behalf of NDMC

CONTRACTOR'S LABOUR REGULATIONS

1. SHORT TITLE

These regulations may be called the Contractors Labour Regulations.

2. DEFINITIONS

- i) Workman means any person employed by N.D.M.C or its contractor directly or indirectly through a subcontractor with or without the knowledge of the New Delhi Municipal Council 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 rupee 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 18 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 subcontractor.
 - iv) **Wages** shall have the same meaning as defined in the Payment of Wages Act.
- 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 Government under the Minimum Wages Act are not inclusive of the wages for the weekly day of rest, the worker shall be entitled rest day wages at the rate applicable to the next preceding day, provided he has worked under contractor for a continuous period of not less than 6 days.
 - c) Where a contractor is permitted by the Engineer-in-charge 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.

4. 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 and 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 'III'.

5. 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 or to other person authorized by him in this behalf.
- vii) All wages shall be paid in current coin or currency or in both.
- 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 Engineer-in-charge under acknowledgment.
- x) It shall be the duty of the contractor to ensure the disbursement of wages in the presence of the Junior Engineer or any other authorized representative of the Engineer-in-charge who will be required to be present at the place and time of disbursement of wages by the contractor to workmen.
- xi) The contractor shall obtain from the Junior Engineer or any other authorized representative of the Engineer-in-charge 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 Nohas been paid to the workman concerned in my presence on at" "

6. **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 to the period for which he was absent.
 - (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 NDMC Central Government / Delhi 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-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 installment, 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.

7. **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 IV)
- (i) 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 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 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 labourers 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-XI).
The contractor shall display in a good condition and in a conspicuous place of work the approved list of acts and omissions for which fines can be imposed (Appendix-X)
- (vi) The contractor shall maintain a Register of deductions for damage or loss in Form XX of the CL (R&A) Rules 1971 (Appendix-XII)
- (vii) The contractor shall maintain a Register of Advances in Form XXIII of the CL (R&A) Rules 1971 (Appendix-XIII)
- (viii) The contractor shall maintain a Register of Overtime in Form XXIII of the CL (R&A) Rules 1971 (Appendix-XIV)
5. **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 (Appendix-VII)
 - (ii) The card shall be valid for each wage period.
 - (iii) The contractor shall mark the 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 the signature or thumb impression of the worker on the wage slip at the time of disbursement of wages and retain the card with himself.
9. **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-VIII).
10. **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-IX).
11. **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 Engineer-in-charge or Labour Officer or any other officers authorized by the NDMC/Delhi Government in this behalf.
12. **POWER OF LABOUR OFFICER TO MAKE INVESTIGATIONS OR ENQUIRY**
- The Labour Officer or any person authorized by Central Government/NDMC/Delhi Govt. 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.
13. **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 Engineer-in-charge 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 labourers concerned. In case an appeal is made by the contractor under Clause 13 of these regulations, actual payment to labourers will be made by the Executive Engineer after the Superintending Engineer has given his decision on such appeal.

- (i) 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 Superintending Engineer as the case may be.

14. 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 Superintending Engineer concerned within 30 days from the date of decision, forwarding simultaneously a copy of his appeal to the Executive Engineer concerned but subject to such appeal, the decision of the officer shall be final and binding upon the contractor.

15. 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 of associations of employers to which association referred to in clause (a) is affiliated.
 - c) Where the employers 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.

16. 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/NDMC/Delhi Government on his behalf.

17. SUBMISSIONS OF RETURNS

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

8. AMENDMENTS

The Central Government/ NDMC/ Delhi Govt. 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.

Contractor

Engineer-in-Charge
Executive Engineer (E)C-III
For & on behalf of NDMC

PROFORMA OF REGISTER
REGISTER OF MATERNITY BENEFITS (Clause 19 F)

Name and address of the Contractor.....

Name and location of the work

Name of the employee	Father’s/husband’s name	Nature of employment	Period of actual employment	Date on which notice of confinement given
1	2	3	4	5

Date on which maternity leave commenced and ended

Date of delivery/ miscarriage	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
New Delhi Municipal Council 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 discharged/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 N.D.M.C. Division.....

Name of N.D.M.C. Labour Officer

Address of N.D.M.C. Labour Officer

Name of Labour Enforcement

Officer.....

Address of Labour Enforcement Officer

Sl. No.	Category	Minimum wage fixed	Actual wage paid	Number Present	Remarks
1	2	3	4	5	6

Weekly holiday.....

Wage period

Date of payment of wages

Working hours

Rest interval

Form-XIII (See Rule 75)
Register of Workmen Employed by Contractor
FORM XIII

Name & address of contractor.....
Name & location of work.....
Name & address of establishment in/under which contract is carried on.....
Name & address of Principal Employer.....

Sr. No.	Name & surname of workmen	Age and sex	Father’s/Husband Name	Nature of employment/ designation	Permanent home address of the workman (Village & The Tahsil, Taluk & District
1	2	3	4	5	6

Local address	Date of commencement of employment	Sig. or thumb impression of the workman	Date of termination of employment	Reasons for termination	Remarks
7	8	9	10	11	12

Name and address of contractor.....

Name and address of establishment under which contract is carried on.....

Nature and location of work.....

Name and address of Principal Employer.....For the Month of fortnight.....

[illegible]

FORM XVII (See Rule 78 (2)(a)
REGISTER OF WAGES

Name & address of contractor.....
Name & location of work.....
Name & address of establishment in/under which contract is carried on.....
Name & address of Principal Employer.....Wage period: Monthly/Fortnightly.....

Sl. No.	Name of workman	Sl. No. in the register of workman	Designation/nature of work done	No. of days worked	Units of work done	Daily rate of wages/piece rates
1	2	3	4	5	6	7

Amount of wages earned					Deductions if any (indicate nature)	Net amount paid	Sig. or thumb impression of the workman	Initials of contractor or his representative
Basic wages	Dearness allowances	Over time	Other case payment (indicate nature)	Total				
8	9	10	11	12	13	14	15	16

WAGE CARD

Wage Card No:.....
Name and address of Contractor :.....Date of issue :.....
Name and location of work :.....Designation :.....
Name of Workman..... Month/Fortnight.....
Rate of Wages:.....

Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Morning															
Evening															
initials															

Date	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Morning																
Evening																
initials																

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

The wage card is valid for one month from the date of issue
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

Initials 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. No. 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

Form-XV (See Rule 77)
Service Certificate

Name and address of contractor
Nature and location of work
Name and address of workman
Age or date of birth
Identification marks
Father’s Husband’s Name
Name and address of establishment in under which contract is carried on
Name and address of Principal Employer.....

Sr No.	Total Period for which employed		Nature of Work done	Rate of wages (with particulars of unit in case of piece work)	Remarks
	From	To			
	2	3	4	5	6

LIST OF ACTS AND OMISSIONS FOR WHICH FINES CAN BE IMPOSED

In accordance with rule 7(v) of the 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 dishonesty in connection with the contractors beside a business or property of NDMC.
3. Taking or giving bribes or any illegal gratifications.
4. Habitual late attendance.
5. Drunkenness lighting, 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 NDMC 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 Department and for which the contractors are compelled to undertake 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 the 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 employer during the working hours within the premises.

Form-XV (See Rule 77)
FORM XII (See Rule 78 (2) (d))
REGISTER OF FINES

Name & address of contractor.....
Name & location of work.....
Name & address of establishment in/under which contract is carried on.....
Name & address of Principal Employer.....

Sl. No.	Name of workman	Father's/Husband Name	Designation/nature of employment	Act/Omission for which the fine imposed	Date of offence	Whether workman showed cause against fine
1	2	3	4	5	6	7

Name of person in whose presence employee's explanation was heard	Wage period and wages payable	Amount of fine imposed	Date on which fine realized	Remarks
8	9	10	11	12

FORM XX (See Rule 78(2) (d))
REGISTER OF DEDUCTION FOR DAMAGE OR LOSS

Name & address of contractor.....

Name & location of work.....

Name & address of establishment in/under which contract is carried on.....

Name & address of Principal Employer.....

Sl. No.	Name of workman	Father’s/Husband Name	Designation/nature of employment	Particulars of damage or loss	Date of damage or loss	Whether workman showed cause against deduction
1	2	3	4	5	6	7

Name of person in whose presence employee’s explanation was heard	Amount of deduction imposed	No. of installments	Date of recovery First Installments	Date of Recovery Last Installment	Remarks
8	9	10	11	12	13

FORM XXII (See Rule 78(2)(d)
REGISTER OF ADVANCES

Name & address of contractor.....

Name & location of work.....

Name & address of establishment in/under which contract is carried on.....

Name & address of Principal Employer.....

Sl. No.	Name of workman	Father’s/Husband Name	Designation/ nature of employment	Wage period and wages payable	Date and amount of advance given
1	2	3	4	5	6

Purpose (s) for which advance made	No. of installments by which advance is to be repaid	Date & Amount of each installment repaid	Date on which last installment was repaid	Remarks
7	8	9	10	11

FORM XXIII (78(2) (e)
REGISTER OF OVERTIME

Name & address of contractor.....

Name & location of work.....

Name & address of establishment in/under which contract is carried on.....

Name & address of Principal Employer.....

Sl. No.	Name of workman	Father’s/Husband Name	Sex	Designation/ nature of employment	Date on which overtime worked
1	2	3	4	5	6

Total overtime worked or production in case of piece rated	Normal rate of wages	Overtime rate of wages	Overtime earnings	Rate at which overtime wages paid	Remarks
7	8	9	10	11	12

PROFORMA OF SCHEDULES

SCHEDULE ‘A’

Schedule of work (Elect) page No :- 119

SCHEDULE ‘B’

Schedule of materials to be issued to the contractor.

S. No.	Description of item	Quantity	Rates in figures & words at which the material will be charged to the contractor	Place of issue
-NIL-				

SCHEDULE ‘C’

Tools and plants to be hired by the contractor

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

SCHEDULE ‘D’

Extra schedule for specific requirements/document **As attached in tender form** for the work, if any.

SCHEDULE ‘E’

Reference to General Conditions of contract.

Name of work	Supply Installation Testing and Commissioning Grid connected Roof top Solar Power Plant at the 4 nos. Type-V quarters (Duplex type) at Prithviraj Lane in NDMC area
Estimated cost of the work:	8,10,000/-
Earnest money	16,200/-
Performance Guarantee	3% of the contract amount
Security Deposit	2.5% of the tendered value or 2.5% of tendered value plus 50% of PG for contracts involving maintenance of the building and services/ other work after construction of same building and services/ other work.

SCHEDULE ‘F’

GENERAL RULES & DIRECTIONS:

Officer inviting tender	Executive Engineer(), NDMC
Maximum percentage of quantity of items of work to be executed beyond which rates are to be determined in accordance with Clause 12.2.& 12.3	$\pm 25\%$

Definitions:

- 2(v)

Engineer-in-Charge

Executive Engineer (Elect.) C-III.
- 2(vii)

Accepting Authority

As per delegation of power in NDMC
- 2(x)

Percentage on cost of materials and labour to cover all overheads and profits

15%
- 2(xi)

Standard Schedule of Rates:

MNRE approved Rates
- Items of Work:

As per Schedule of work
- 2(xii)

Department:

Elect Engineering Department

9(ii) Standard NDMC contract Form: NDMC form 7 as modified & corrected up to (Whether correction vide latest circulars are incorporated or not in this document).

- Clause 1**
- i) Time allowed for submission of Performance Guarantee from the date of issue of letter of acceptance 7 Days
 - ii) Maximum allowable extension with late fee @ 0.1% per day of performance Guarantee amount beyond the period provided in (i) above 03 Days

Clause 2	Authority for fixing Compensation under Clause 2	As per delegation of power
Clause 2 A	Whether Clause 2A shall be applicable	No
Clause 5	Number of days from the date of issue of letter of acceptance for reckoning date of start.	From the 10 th day of written order to commence the work.
Time allowed for execution of work	The time allowed for carrying out the work will be 15 days reckoned from the 10 th day of written order to commence the work.	
Authority to decide: as per delegation of power.		

(i) Extension of time As per delegation of power

(ii) Rescheduling of milestones _____ NA _____

(ii) Shifting of date of start in case of delay in handing over of site - EE (E) C-III

Clause 6, 6A Clause applicable -

Clause 6A

Clause 10A List of testing equipment to be provided by the As directed by
contractor at site lab. Engineer-in-Charge

Clause 10 B Whether clause 10-B (ii) shall be applicable.

(ii)

Clause 11 Specification to be followed for execution of work: As per NIT

Clause 12

12.2 & 12.3 Deviation limit beyond which
clause 12.2 & 12.3 shall apply
for building work N.A.

12.5

Deviation limit beyond which clause 12.2 & 12.3 shall apply for foundation work

N.A.

Clause 16	Competent Authority for Deciding reduced rates:	
	For Elect. items of work	As per delegation of power
Clause 18	List of mandatory machinery, tools & plants to be deployed by the contractor at site.	As decided by Engineer-in-Charge

Requirement of Technical Representative(s) and Recovery Rate

Clause 36(i)

Sl. No.	Minimum Qualification of Technical Representative	Discipline	Designation	Minimum experience (in years)	number	Rate at which recovery shall be made from the contractor in the event of not fulfilling provision of Clause 36(i)	
						Figures	Words
1.	-----NA-----						

Performa for Bank Guarantee

In consideration of the New Delhi Municipal Council (hereinafter called "The NDMC ") having offered to accept the terms and conditions of the proposed agreement between.....and (hereinafter called "the said Contractor(s)") for the work..... (hereinafter called "the said agreement") having agreed to production of an irrevocable Bank Guarantee for Rs. (Rupees only) as a security/guarantee from the contractor(s) for compliance of his obligations in accordance with the terms and conditions in the said agreement.

1. We, (hereinafter referred to as "the Bank") hereby undertake to pay to the NDMC an amount not exceeding Rs. (Rupees..... Only) on demand by the NDMC.
2. We,(indicate the name of the Bank) do hereby undertake to pay the amounts due and payable under this guarantee without any demure, merely on a demand from the NDMCstating that the amount claimed as required to meet the recoveries due or likely to be due from the said contractor(s). Any such demand made on the bank shall be conclusive as regards the amount due and payable by the bank under this Guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs. (Rupeesonly)
3. We, the said bank further undertake to pay the NDMC any money so demanded notwithstanding any dispute or disputes raised by the contractor(s) in any suit or proceeding pending before any court or Tribunal relating thereto, our liability under this present being absolute and unequivocal.
The payment so made by us under this bond shall be a valid discharge of our liability for payment there under and the Contractor(s) shall have no claim against us for making such payment.
4. We, (indicate the name of the Bank) further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said agreement and that it shall continue to be enforceable till all the dues of the NDMC under or by virtue of the said agreement have been fully paid and its claims satisfied or discharged or till Secretary NDMC on behalf of the NDMC certified that the terms and conditions of the said agreement have been fully and properly carried out by the said Contractor(s) and accordingly discharges this guarantee.
5. We, (indicate the name of the Bank) further agree with the NDMCthat the NDMC shall have the fullest liberty without our consent and without affecting in any manner our obligation hereunder to vary any of the terms and conditions of the said agreement or to extend time of performance by the said Contractor(s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the NDMC against the said contractor(s) and to forbear or enforce any of the terms and conditions relating to the said agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Contractor(s) or for any forbearance, act of omission on the part of the NDMC or any indulgence by the NDMC to the said Contractor(s) or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.
6. This guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor(s).
7. We, (indicate the name of the Bank) lastly undertake not to revoke this guarantee except with the previous consent of the NDMC in writing.
8. This guarantee shall be valid up tounless extended on demand by the NDMC . Notwithstanding anything mentioned above, our liability against this guarantee is restricted to Rs..... (Rupees) and unless a claim in writing is lodged with us within six months of the date of expiry or the extended date of expiry of this guarantee all our liabilities under this guarantee shall stand discharged.

Dated theday offor.....(indicate the name of the Bank)

Bank Guarantee Bond

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

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

SEALED with the Common Seal of the said Bank this day of 20... . THE CONDITIONS of this obligation are:

- (1) If after tender opening the Contractor withdraws, his tender during the period of validity of tender (including extended validity of tender) specified in the Form of Tender;
- (2) If the contractor having been notified of the acceptance of his tender by the Engineer- in-Charge:
 - (a) fails or refuses to execute the Form of Agreement in accordance with the Instructions to contractor, if required; OR
 - (b) fails or refuses to furnish the Performance Guarantee, in accordance with the provisions of tender document and Instructions to contractor, OR
 - (c) fails or refuses to start the work, in accordance with the provisions of the contract and Instructions to contractor, OR
 - (d) fails or refuses to submit fresh Bank Guarantee of an equal amount of this Bank Guarantee, against Security Deposit after award of contract.

We undertake to pay to the Secretary NDMC either up to the above amount or part thereof upon receipt of first written demand, without the NDMC having to substantiates its demand, provided that in his demand the NDMC will note that the amount claimed by NDMC is due to him owing to the occurrence of one or any of the above conditions, specifying the occurred condition or conditions.
This Guarantee will remain in force up to and including the date* after the deadline for submission of tender as such deadline is stated in the Instructions to contractor or as it may be extended by the NDMC, notice of which extension(s) to the Bank is hereby waived. Any demand in respect of this Guarantee should reach the Bank not later than the above date.

DATE.....

WITNESS.....

SIGNATURE OF THE BANK
SEAL
(SIGNATURE, NAME AND ADDRESS)

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

GENERAL CONDITIONS:

1. Rates :- Unless otherwise provided in the description of various items of work, the rates tendered by the contractor shall be for completed items of work covering all materials, labour carriage, royalties, fees, rents, sales tax, octroi, wastage, tools, plant, equipment, transport, temporary constructions, overhead charges and profits as well as general liabilities, obligation and risks, arising out of the conditions of contract and carrying out of the work in part(s) or under/ across/along pipes cables ,drains etc. complete and shall apply to all heights, depths, lead and lifts. No extra charges, whatsoever, consequent on any misunderstanding or otherwise shall be allowed.

However, in case of building works extra payment for items of concrete work, RCC work, Brick work and Stone work only above different floor levels shall be made at the rates for such items only as are provided in the Delhi Schedule of Rates for operation of these rates the floor level shall be the top of RCC slab in main room and not at the top of any sunk or depressed floor slabs.
2. No. revision in rates due to change/closure of sources of materials:- Collection of materials at the site of work for the proper execution of the work as per specifications shall include all leads and lifts. The rates of various items of work shall hold good irrespective of the quarry or source from which materials are brought so long as these conform to the specifications. Closure or change of any particular quarry or source shall not entitle the contractor to claim any revision in rates.
3. Some restrictions may be imposed by the police authorities etc. on the working and/or movement of labour, materials etc. The contractor shall be bound to follow all such restrictions/instructions and no claim of payment on this account whatsoever shall be entertained.
4. **Compensation for damage by rains, floods or other natural calamities :-** No compensation for any damage caused to the work or materials by rains, floods or other natural calamities shall be paid to the contractor. The contractor shall have to make good all such damages at his own cost as per the directions of the Engineer-in-charge failing which the damages shall be made good by the Engineer-in-charge at the risk and cost of the contractor.
5. **Work on Sundays and holidays:-** If the contractor shall execute any work not in ordinary working hours in the absence of the Engineer-in-Charge or his authorized representative and without having previously given him sufficient notice in writing that such work were about to be executed, he shall take up and reconstruct any work so executed at his own cost and expenses if ordered to do so by the Engineer-in-Charge in writing under his hand.
6. **Work not done in ordinary working hours:-** If the contractor shall execute any work, not in ordinary working hours, in the absence of the Engineer-in-charge or his authorized representative and without having previously given him sufficient notice in writing that such work was about to be executed, he shall take up and reconstruct any work so executed at his own cost and expenses, if ordered to do so by the Engineer-in-charge in writing under his hand.
7. **Clearance of site :-** The contractor shall clear the site of work simultaneously as the work proceeds failing which the same shall be got cleared by the Engineer-in-charge at the risk and cost of the contractor by giving him one day notice.
8. **Disposal of materials of offensive nature :-** All night soil, filth or other materials of an offensive nature taken out of any trench, sewer, drain, cesspool or other place shall not be deposited on the

surface of any street, road or where it is likely to be a nuisance or passed into any sewer or drain, but shall at once be removed by the contractor from the site to suitable dumping ground.

9. **Facilities to other contractors :-** The contractor shall in accordance with the requirements of the Engineer-in-charge, afford all reasonable facilities to other contractors engaged contemporaneously on separate contracts in connection with the works and for departmental labour and labour of any other properly authorized agency which may be employed at the site on execution of any work not included in this contract or of any contract which the N.D.M.C may enter into in connection with or ancillary to the work.
10. **Work in different parts to be executed simultaneously:** - The contractor shall progress in the different parts of the work simultaneously as far as possible so that minimum breakage and repairs are involved. The entire work shall be handed over in a satisfactory finished state.
11. **Conditions regarding taking over completed portion of work :-** During the progress of the work, completed portions of the work may be put to use by the Engineer-in-charge and the contractor shall remain fully responsible for maintenance of the work till the entire work covered by the contract is satisfactorily completed and a certificate of completion given by the Engineer-in-charge. Maintenance of the work during the defect liability period shall be governed by the relevant clauses of conditions of contract.
12. **Possession of site:** - The contractor shall not be permitted to enter on (other than for inspection purposes) or take possession of the site until instructed to do so by the Engineer-in-charge in writing. The portion of the site to be occupied by the contractor shall be defined and/or marked on the site plan and the contractor shall on no account be allowed to extend his operations beyond these areas. In respect of any land allotted to the contractor for purposes of or in connection with the contract, such use or occupation shall not confer any right of tenancy of the land to the contractor and the contractor shall vacate the land on demand by the Engineer-in-charge.
13. **Occupation of private land:-** The contractor shall not, except with the consent of the occupiers thereof, form temporary roads nor cart any earth or materials nor place any excavated or other materials and T & P upon private land and any damage done to any property whatever contiguous to the work or otherwise shall be at the sole risk and cost of the contractor. The contractor shall also pay for all damages caused by or incidental to the work in whatever manner occasioned and shall indemnify the N.D.M.C from any liability in respect thereof, and the amount of any claim made upon it in consequence of such damages by the contractor, which it may have to pay, shall be deducted by the Engineer-in-charge from any money due to or may become due to the contractor.
14. The contractor shall not occupy or obstruct by his operations more than one half of the width of any road or street at any one time. However, in unavoidable conditions the contractor shall obtain the consent of the Engineer-in-charge in writing before closing any road to vehicular traffic and the foot walks shall be kept clear at all times. The contractor shall at his own expense and charges, provide and maintain in good working condition all fencing, boarding, strutting, diversions, barricades, cautionary signs, signals, speed limit boards, red and green flags and red light at night with sufficient number of chowkidars and other safety measures while the work is in progress or blocking or cutting roads and laying pipe lines or where ever otherwise necessary and all enclosures for materials or T & P on works, for protection of public and proper guidance of traffic. The signs set up shall be of approved design and

of reflectory type if so desired. Temporary warning lamps installed at all barricades during the hours of darkness shall be kept lit at all times. The contractor shall also provide suitable passage ways over the trenches for access to various buildings, roads and service lanes etc.

In case the contractor fails to comply with the aforesaid arrangements, the same shall be made by the Engineer-in-charge at the risk and cost of the contractor.

15. The contractor shall store materials, whether brought by the contractor or supplied by the N.D.M.C keep the T & P, install water & power system, electrical and mechanical equipments and construct all temporary structures etc. on the site only at places approved by the Engineer-in-charge. Should such places be required by the Engineer-in-charge for any other purposes,

the contractor shall clear the places within such time as may be instructed by the Engineer-in-charge. In case of default, the same shall be got cleared by the Engineer-in-charge at the risk and cost of the contractor.
16. Temporary access to the site :- The contractor shall provide on site temporary access to the site and shall alter, adapt and maintain the same as required from time to time and shall take up and clear them away as and when no longer required and as and when ordered by the Engineer-in-charge and make good all damages done to the site.
17. The contractor shall be bound to bear the expenses of defence of every suite, action or other proceedings at law that may be brought by any person for injury sustained or damages to any property, whatsoever, which may arise out of or in consequence of the construction and maintenance of works owing to neglect of the proper precautions and to pay any damages and costs which may be awarded in such suite, action or proceedings to any such person or which may with the consent of the contractor be paid to compromise any claim by such person. He shall also indemnify and keep indemnified the N.D.M.C against all damages and costs consequent upon such claims arising from any such injuries or damages to person(s) or property.
18. All other provisions remaining unchanged, the contractor shall be allowed to pitch tents only as per the instructions of the Engineer-in-charge in place of huts (now not allowed) of walls and roofs of prescribed specifications for labour and other alike structures, temporary or otherwise including sanitary arrangements, as per the provisions of Model Rules and Fair Wage Clause
19. **Income tax deductions :-** Income tax, as applicable under the Income Tax Rules framed from time to time by the Govt. of India, at the prescribed rates shall be recovered from each bill of the contractor.
- 19 A. **GST Tax deductions:** - GST as applicable shall be recovered from each bill of the contractor.
- 19 B. **Cess @ 1%** of the cost of construction/work incurred by an employer for the purpose of Building and other Construction workers (Regulation of Employment and conditions of service) Act 1996 shall be deducted at source from the Bills of the Contractor/firms.
- 19 C. The contractor have to submit a certificate along with copies of returns submitted to the Deptt. of Trade and Taxes that up to date returns have been filed by him/them.
- 19 D “The goods, including for works contract, shall be supplied by bidder or its authorized distributor in Delhi and against a sale invoice issued from Delhi. The delivery of goods shall also be made from Delhi. The bidder dealer or its authorized distributor, as the case may be, who supplies the goods should be registered with the Delhi GST Department and carry a valid Tax Identification Number issued by it.

The bidder shall, however, be responsible for compliance with all conditions, warranties/ guarantees, irrespective of the fact that the goods are supplied by him directly or through its authorized distributor. Further, the quoted bid price in the tender shall be inclusive of all taxes and duties.”

20. Treasure, trove, fossils, etc.: All fossils, coins, articles of value or antiquity, any structures and other remains or things of geological and archaeological interest discovered on the site shall be absolute property of the N.D.M.C and the contractor shall take reasonable precautions to prevent his workmen or any other persons from removing or damaging any such article or thing, shall immediately upon discovery thereof and before removal acquaint the Engineer-in-charge with such discovery and carry out the Engineer-in-charge’s directions as to the disposal of the same.
21. Arrangements for electric connection: - The contractor shall make his own arrangements for obtained electric connection, if required, and make necessary payments direct to the department concerned.
22. **Cutting of C.I. Pipes:** - The damages portion of the cracked C.I. pipes, if issued from the N.D.M.C stores, shall be cut at a point 15 cm. beyond the visible extremity of the crack and cracked portion received from the stores plus 15 cm shall be treated as C.I. scrap. No claim for cutting of C.I. pipes, carriage of cracked portion from the stores and returning back the scrap to the stores shall be entertained.
23. The costly parts such as spindles of valves etc. shall be removed by the contractor from the valves and kept in his safe custody and the same shall be refixed before completion of work or as and when desired by the Engineer-in-charge. No claim on this account whatsoever shall be entertained.
24. The contractor shall submit, if desired, samples, drawings, equipment characteristics and capacity data etc. of equipments, accessories, devices etc. that he proposes to use in the installations (if any) to the Engineer-in –charge for approval.
25. Provision of appliances at site: - The contractor shall provide and maintain at his own cost appliances at site in good working condition required for conducting tests at site such as balance, set of standard sieves and dial type thermometer etc. complete as per requirements of the Engineer-in-charge in order to enable the Engineer-in-charge or his representative to conduct field tests etc. to ensure that the quality of work is in accordance with the prescribed specifications.
26. Potholes and depressions shall be repaired at least one day prior to surfacing of the road.
27. The contractor shall remove all bitumen spots on kerbs and channels and all heaps of wasted mix from gully gratings, bell mouths and other interception arrangements at the end of day’s work failing which the same shall be got removed by the Engineer-in-charge at the risk and cost of the contractor.
28. Conditions for building and allied works:-
 - (a) Whenever recessed fittings are required to be provided, the contractor shall keep necessary recesses in building work during its execution itself failing which the contractor shall make all such recesses, grooves etc and make good the damages at his own cost unless otherwise specified in the schedule of quantities.
 - (b) The Engineer-in-Charge shall require, where he may deem so necessary, to provide grooves of approved pattern between various surfaces such as timber/plaster, concrete or exposed concrete/brick work, ceilings/wall, skirting/plaster, between contractor’s rates for various items are deemed to included the cost of making such grooves.
 - (c) For concrete and RCC work, no extra payment shall be made for leaving recesses, holes and other openings for services and finishing them to correct sizes and making sunk positions or troughs for carrying pipes or fixing other fittings, marking RCC members of different shapes and thick nesses as per drawings, embedding hooks, suspenders, dowels, clamps holts, pipe sleeves etc. as directed, leaving slits, grooves, rebates and drip moulds in required positions, providing holes for embedding railings, protecting fresh concrete against damage by rain, making brackets of required shapes, laying concrete

to different slopes, cambers and curves, allowing other authorizes agencies (if any) to work simultaneously for completing their part of the work and resetting minor displacements in form work or reinforcement after other agencies have completed their part of the work.

- (d) The structural and architectural drawings (if any) shall be properly correlated at all time before executing any work Architectural requirements shall be fully satisfied in those items where specific mention is made “Architect’s Drawings”, Architect’s design “Architect’s Approval”, etc. In addition, for finishing items samples shall be prepared for prior approval before starting the work on these items.
- 29. The aforesaid conditions shall be read and construed as forming integral part of contract.

Engineer-in-Charge
Executive Engineer (E)C-III

Additional Conditions

1. The contractor shall get himself registered as per section – 7 of the building and other construction workers (Regulation of Employment and Conditions of Service) Act, 1996 and all the workers employed on the work shall be registered as beneficiary as per section – 12 of the said act before release of payment.
2. The contractor shall properly maintain Register of Beneficiaries, Health Register, Register of wages / muster roll and report of accident as per various forms under the Delhi Building and other construction workers (Regulation of Employment and conditions of service) Rules, 2002.

Contractor

Engineer-in-Charge
Executive Engineer ()
For and on behalf of NDMC

Mile stones of the Contract

This is a simple mile stone chart. Mile stone chart to be decided & approved by NIT approving authority for individual cases.

Sl.No	Description of mile stone	Period for completion from date of start in days/ months	Withheld amount for non achievement of mile stone.
1.			
2.			
3.			
4.			

SCHEDULE OF MATERIALS TO BE SUPPLIED BY N.D.M.C UNDER CLAUSE 10 OF THE CONDITIONS OF CONTRACT

S. no.	Description of material	Approx. Qty.	Issue rate (Inclusive of 2% storage charges) at which materials will be issued	Units in words	Place of delivery
-----NIL-----					

Contractor

Engineer-in-charge

Schedule ‘A’
(As referred to in Clause 2)
Table of Milestone (s)

S.No.	Description of Milestone (Physical)	Time allowed in days (from date of start)	Amount to be withheld in case of non achievement of milestone

Or

S.No.	Financial Progress	Time allowed (from date of start)	Amount to be withheld in case of non achievement of milestone

SCHEDULE OF DEVIATION SHEET

(The tenderer should mention deviation, if any, in this sheet only. In case nothing is mentioned on this Deviation Sheet, the offer will be presumed as terms, conditions & specifications of NIT.)

SIGNATURE OF TENDERER

GENERAL CONDITIONS:

- (i) The contractor have to submit the list of the staff to engaged to the engneer in charge before the start of work.
- (ii) Only the authorized representative of the contractor shall be allowed to work and no part of the contract shall be further sublet to any of the sub-contractor without the specific approval of the Engineer-in-Charge.
- (iii) The contractor shall keep the site of the work absolutely clean and to the satisfaction of the Engineer-in-Charge.
- (iv) The contractor shall make his own arrangement for storage watch and ward of his materials and other items whatsoever and the NDMC shall not provide/assist in this regard. Only works those are actually measured shall be accepted.
- (v) The contractor will do the work in close co-ordination to avoid any inconvenience to the resident/occupant/other contractors.
- (vi) The contractor shall not be permitted to tender for works if his near relative is posted as a Divisional Accountant or an officer in an capacity between the grades of CE(E) and JE(E) in the NDMC.
- (vii) No Engineer or other officer employed in NDMC is allowed to work as a contractor for a period one year of his retirement from NDMC services without the previous permission of NDMC.
- (viii) The contractor must visit the site before quoting rates and the rates should be inclusive of all taxes etc.
- (ix) The NDMC shall not be responsible for any financial loss or any injury of major/minor accident with company's staff deputed for the work under the contract.
- (x) Free electricity and water will be provided by NDMC since the work needs much less quantity of electricity & water.
- (xi) The contractor shall be liable to make good the damage caused to property machinery of NDMC during the execution of work.
- (xii) Contractor shall maintain the maintenance book/ servicing book in triplicate copy in which the entries should be made after carrying out routine maintenance/ maintenance etc..
- (xiii) The contractor shall provide all necessary spare parts and T & P required for maintenance of the Solar Power Plants.
- (xiv) The Solar Power Plants should be checked regularly and services as per the Preventive maintenance schedule.
- (xv) The contractor shall be fully responsible for smooth functioning of Solar Power Plants and any other work required to make the Solar Power Plants fit for operation and shall have to be carried by the contractor within the quoted rates.
- (xvi) Staffs as per site requirement have to depute in case of fault/non functional Solar Power Plants.
- (xvii) The work should be done strictly as per specification /Annual comprehensive maintenance terms and conditions of work.
- (xviii) Old material wherever replaced with new shall be retained by the contractor during the maintenance contract.
- (xix) It should be ensured that the Solar Power Plants on all sites as listed must be in running condition. No plant will be disconnected / shutdown for more than 03 days in any circumstances except physical damages made by intruders or miscreants.
- (xx) Internet connection will be provided by NDMC, however, the LAN cable to connect the solar system with internet shall be provided and maintained by the contractor.
- (xxi) The net meter shall be provided by NDMC. However, the meter board and other accessories will be provided and installed by the contractor, in consultation with Engineer –in-charge. No extra cost shall be paid for this work.
- (xxii) 5 Nos. Earthings (2 for solar panel , 2 for inverter , 1 for lighting arrester) shall be provided for each solar power plant. The earth resistance of each earthing should be less than 5 ohm.

Service Level Agreement

Contractor shall guarantee minimum generation of 1250/KWh per annum per KWp of installed and commissioned generation capacity of Solar Power Plant, during the comprehensive maintenance period of five years.

For any short fall in the generation of Solar generation, the recovery @ Rs. 8.50 Per KWh shall be deducted from the bill/Performance guarantee/ Security deposited of the firm.

SCHEDULE OF MAINTENANCE

S.No.	Type of maintenance	Time period
1.	Cleaning of Solar Panel	15 days
2.	Thorough check up of plant including checking of wire and connections, maintenance of PV Modules, inverter/PCU and other electrical equipments.	Once in three months
3.	Un planned defect rectification.	On e-mail within 72 hours
4.	Checking of the earth resistance of each earthing	Six months

S.no.	List of Makes	
1	SPV mono crystalline module	VIKRAM SOLAR/TATA/ GREENTEK INDIA/WAAREE/ADANI
2	Junction Box	VNT/SUN GARNER/OEM OF SPV MODULES
3	SPV Inverter	DELTA/ABB/HAVELLS
4	MCCB & MCB’S	LEAGRAN /SIEMENS/ L&T/ HAGGER/ABB
5	Multi-function meter	L&T/SCHNEIDER/AE/SEIMENS/ABB/NEPTUNE
6	CT'S	AE / KAPPA/SIEMENS/ABB/L&T
7	Selector Switch	KAYEE/SEIMENS/L&T(SLAZER)
8	Indicating lights	L&T/SCHNEIDER/BCH
9	Aluminium Copper cables	POLYCAB/HAVELLS/FINOLEX(ISI MARKED)
10	G.I Pipe	JINDAL HISSAR/TATA(ISI Marked)
11	LT Panel	CPRI Approved Manufacturer

TECHNICAL SPECIFICATIONS

DEFINITION:-

A Grid Tied Solar Rooftop Photovoltaic (SPV) power plant consists of SPV array, Module Mounting Structure, Power Conditioning Unit (PCU) consisting of Maximum Power Point Tracker (MPPT), Inverter, and Controls & Protections, interconnect cables, Junction boxes, Distribution boxes and switches. PV Array is mounted on a suitable structure. Grid tied SPV system should be designed with necessary features to supplement the grid power during day time. Components and parts used in the SPV power plants including the PV modules, metallic structures, cables, junction box, switches, PCUs etc., should conform to the BIS or IEC or international specifications, wherever such specifications are available and applicable. Solar PV system shall consist of following equipments/components.

1. Solar PV modules consisting of required number of Crystalline PV cells.
2. Grid interactive Power Conditioning Unit with Remote Monitoring System Mounting structures Junction Boxes.
3. Earthing and lightening protections.
4. IR/UV protected PVC Cables, pipes and accessories.

➤ **SOLAR PHOTOVOLTAIC MODULES :-**

- a. The PV modules used should be made in India. PV Modules shall be reputed/standard makes only from OEM/Manufacturers having presence in India with after sales/service/spares support and strictly complying to latest applicable IEC/BIS Standards.
- b. PV Module makers/manufacturers with only Testing and Assembly facilities in India shall not be acceptable. However, other imported components like PV Array Junction Boxes, Cables etc. can be used /sourced from National/International vendors subject to adequate disclosure and compliance to specified quality norms and standards.
- c. The Supplier/manufacturer of PV Modules should have adequate set-up for providing after sales Services/Spares support for the modules. Necessary certificate towards guarantee/warranty and Services/Spares support for a period of at least 25 years shall be provided from the OEM. All relevant supporting documents/test certificates of the PV Modules shall be submitted by the contractor.
- d. The PV modules used must qualify to the latest edition of IEC PV module qualification test or equivalent BIS standards Crystalline Silicon Solar Cell Modules IEC

61215/IS14286. In addition, the modules must conform to IEC 61730 Part-1 - requirements for construction & Part 2 – requirements for testing, for safety qualification or equivalent IS.

- e. For the PV modules to be used in a highly corrosive atmosphere throughout their lifetime,

they must qualify to IEC 61701.

- f. The total solar PV array capacity should not be less than allocated capacity (kWp) and should comprise of solar crystalline modules of minimum 300 Wp and above wattage. Module capacity less than minimum 300 watts shall not be accepted.
- g. Adequate protective devices against surges at the PV module shall be provided. Low voltage drop bypass diodes shall be provided.
- h. PV modules must be tested and approved by one of the IEC authorized test centres.
- i. The module frame shall be made of corrosion resistant materials, preferably having anodized aluminium.
- j. The Contractor shall carefully design & accommodate requisite numbers of the modules to achieve the rated power in his contract.
- k. Other general requirement for the PV modules and subsystems shall be the Following:
 - The rated output power of any supplied module shall have tolerance within +/- 3%.
 - The peak-power point voltage and the peak-power point current of any supplied module and/or any module string (series connected modules) shall not vary by more than 2 (two) per cent from the respective arithmetic means for all modules and/or for all module strings, as the case may be.
 - The module shall be provided with a junction box with either provision of external screw terminal connection or sealed type and with arrangement for provision of by-pass diode. The box shall have hinged, weather proof lid with captive screws and cable gland entry points or may be of sealed type and IP-65 rated.
 - I-V curves at STC should be provided by Contractor.
- i. Modules deployed must use a RF identification tag. The following information must be mentioned in the RFID used on each modules. This should be inside the laminate only.
 1. Name of the manufacture of the PV module
 2. Name of the manufacture of Solar Cells.

3. Month & year of the manufacture (separate for solar cells and modules)
4. Country of origin (separately for solar cells and module)
5. I-V curve for the module Wattage, I_m , V_m and FF for the module
6. Unique Serial No and Model No of the module
7. Date and year of obtaining IEC PV module qualification certificate.
8. Name of the test lab issuing IEC certificate.
9. Other relevant information on traceability of solar cells and module as per ISO 9001

and ISO 14001.

-WARRANTIES :-

A. Material Warranty:

Material Warranty is defined as: The contractor should warrant the Solar Module(s) to be free from the defects and/or failures specified below for a period not less than five (05) years from the date of installation testing and commissioning.

- i) Defects and/or failures due to manufacturing
- ii) Defects and/or failures due to quality of materials
- iii) Non conformity to specifications due to faulty manufacturing and/or inspection processes. If the solar Module(s) fails to conform to this warranty, the contractor will repair or replace the solar module(s), at the Owners sole option.

B. Performance Warranty:

The predicted electrical degradation of power generated not exceeding 20% of the minimum rated power over the 25 year period and not more than 10% after ten years period of the full rated original output.

ARRAY STRUCTURE:-

- a. Hot dip galvanized MS mounting structures may be used for mounting the modules / panels / arrays. Minimum thickness of galvanization should be at least 80 microns.
- b. Each structure should have angle of inclination as per the site conditions to take maximum insolation. However to accommodate more capacity the angle inclination may be reduced until the plant meets the specified performance ratio requirements.
- c. The Mounting structure shall be so designed to withstand the speed for the wind zone of the location where a PV system is proposed to be installed (wind speed of 150 km/ hour). Suitable fastening arrangement such as grouting and calming should be provided to secure the installation against the specific wind speed.
- d. The mounting structure steel shall be as per latest IS 2062: 1992 and galvanization of the mounting structure shall be in compliance of latest IS 4759.
- e. Structural material shall be corrosion resistant and electrolytically compatible with the materials used in the module frame, its fasteners, nuts and bolts.
- f. Aluminium structures also can be used which can withstand the wind speed of respective wind zone. Necessary protection towards rusting need to be provided either by coating or anodization.
- g. The fasteners used should be made up of stainless steel. The structures shall be designed to allow easy replacement of any module. The array structure shall be so designed that it will

occupy minimum space without sacrificing the output from the SPV panels.

- h. Regarding civil structures the contractor need to take care of the load bearing capacity of the roof and need arrange suitable structures based on the quality of roof.
- i. The total load of the structure (when installed with PV modules) on the terrace should be less than 60 kg/m².
- j. The minimum clearance of the structure from the roof level should be 500 mm.

JUNCTION BOXES (JBs) :-

- a. The junction boxes are to be provided in the PV array for termination of connecting cables. The J. Boxes (JBs) shall be made of GRP / FRP / Powder Coated Aluminium /cast aluminium alloy with full dust, water & vermin proof arrangement. All wires / cables must be terminated through cable lugs. The JB's shall be such that input & output termination can be made through suitable cable glands.
- b. Copper bus bars / terminal blocks housed in the junction box with suitable termination threads Conforming to IP65 standard and IEC 62208 Hinged door with EPDM rubber gasket to prevent water entry. Single / double compression cable glands. Provision of earthings. It should be placed at 5 feet height or above for ease of accessibility.

- c. Each Junction Box shall have High quality Suitable capacity Metal Oxide Varistors (MOVs) / SPDs, suitable Reverse Blocking Diodes. The Junction Boxes shall have suitable arrangement monitoring and disconnection for each of the groups.
- d. Suitable markings shall be provided on the bus bar for easy identification and the cable ferrules must be fitted at the cable termination points for identification.
- e. All fuses shall have DIN rail mountable fuse holders and shall be housed in thermoplastic IP 65 enclosures with transparent covers.

DC DISTRIBUTION BOARD:-

- a. DC Distribution panel to receive the DC output from the array field.
- b. A DC Distribution Board? Combiner Box shall be provided between Solar Array and Power Conditioning Unit (Inverter) with DC Disconnect/MCCB, On/OFF indications, Fuses of suitable rating for connection/disconnection of the PV Arrays and separate Surge Protection Device (SPD) suitable for PV Applications (DC Side) with lifetime indicator. This SPD shall be provided in addition to any SPD already provided/installed in the Inverter.
- c. DC DPBs shall have sheet from enclosure of dust & vermin proof conform to IP 65 protection. Suitable capacity MCBs/MCCB shall be provided for controlling the DC power output to the PCU along with necessary surge arrestors.

AC DISTRIBUTION PANEL BOARD :-

- a. AC Distribution Panel Board (DPB) shall control the AC power from PCU/ inverter, and should have necessary surge arrestors. Interconnection from ACDB to mains at LT Bus bar while in grid tied mode.
- b. All switches and the circuit breakers, connectors should conform to IEC 60947, part I, II and III/ IS 60947 part I, II and III.
- c. The changeover switches, cabling work should be undertaken by the contractor as part of the project.
- d. All the Panel's shall be totally enclosed, rigid, wall mounted, air - insulated, cubical type suitable for operation on three phase / single phase, 415 or 230 volts, 50 Hz
- e. The panels shall be designed for minimum expected ambient temperature of 45 degree Celsius, 80 percent humidity and dusty weather.
- f. All indoor panels will have protection of IP54 or better. All outdoor panels will have protection of IP65 or better.
- g. Should conform to Indian Electricity Act and rules (till last amendment).
- h. All the 415 AC or 230 volts devices / equipment like bus support insulators, circuit

breakers, SPDs, VTs etc., mounted inside the switchgear shall be suitable for continuous operation and satisfactory performance under the following supply conditions

Variation in supply voltage	+/- 10 %
Variation in supply frequency	+/- 3 Hz

PCU / INVERTER:-

- i. As SPV array produce direct current electricity, it is necessary to convert this direct current into alternating current and adjust the voltage levels to match the grid voltage. Conversion shall be achieved using an electronic Inverter and the associated control and protection devices. All these components of the system are termed the “Power Conditioning Unit (PCU)”. In addition, the PCU shall also house MPPT (Maximum Power Point Tracker), an interface between Solar PV array & the Inverter, to the power conditioning unit/inverter should also be DG set interactive. If necessary. Inverter output should be compatible with the grid frequency. Typical technical features of the inverter shall be as follows:

Switching devices	IGBT/MOSFET
Control	Microprocessor /DSP
Nominal AC output voltage and frequency	240 V single phase/415V, 3 Phase, 50 Hz as per site requirement
Output frequency	50 Hz
Grid Frequency Synchronization range	± 3 Hz or more
Ambient temperature considered	-20° C to 50° C
Humidity	95 % Non-condensing
Protection of Enclosure	IP-20(Minimum) for indoor. IP-65(Minimum) for outdoor.
Grid Frequency Tolerance range	+ 3 or more
Grid Voltage tolerance	-0.20.15
No-load losses	Less than 1% of rated power

Inverter efficiency(minimum)	>93% (In case of 10 kW or above with in-built galvanic isolation) >97% (In case of 10 KW or above without in-built galvanic isolation)
Inverter efficiency (minimum)	> 90% (In case of less than 10 kW)
THD	< 3%
PF	> 0.9

ii.

Inverter must have in built connectivity through Wifi/GPRS for data monitoring. It shall also be able to communicate through RS232/485.

- iii. Three phase PCU/ inverter shall be used with each power plant system.
- iv. PCU / inverter shall be capable of complete automatic operation including wake-up, synchronization & shutdown.
- v. The output of power factor of PCU inverter is suitable for all voltage ranges or sink of reactive power, inverter should have internal protection arrangement against any sustainable fault in feeder line and against the lightning on feeder.
- vi. **Anti-islanding** (Protection against Islanding of grid): The PCU shall have anti islanding protection in conformity to IEEE 1547/UL 1741/ IEC 62116 or equivalent BIS standard.
- vii. The PCU/ inverter generated harmonics, flicker, DC injection limits, Voltage Range, Frequency Range and Anti-Islanding measures at the point of connection to the utility services should follow the latest CEA (Technical Standards for Connectivity Distribution Generation Resources) Guidelines.
- viii. The power conditioning units / inverters should comply with applicable IEC/ equivalent BIS standard for efficiency measurements and environmental tests as per standard codes IEC 61683/IS 61683 and IEC 60068-2 (1,2,14,30)/ Equivalent BIS Std.
- ix. The MPPT units environmental testing should qualify IEC 60068-2 (1, 2, 14, 30)/

Equivalent BIS std. The junction boxes/ enclosures should be IP 65 (for outdoor)/ IP 54 (indoor) and as per IEC 529 specifications.

- x. The PCU / inverters should be tested from the MNRE approved test centres / NABL / BIS / IEC accredited testing- calibration laboratories. In case of imported power conditioning units, these should be approved by international test houses.

INTEGRATION OF PV POWER WITH GRID :-

1. The output power from SPV would be fed to the inverters which converts DC produced by SPV array to AC and feeds it into the main electricity grid after synchronization. In case of grid failure, or low or high voltage, solar PV system shall be out of synchronization and shall be disconnected from the grid connection.

DATA ACQUISITION SYSTEM / PLANT MONITORING :-

2. The following parameters are accessible via the operating interface display in real time separately for solar power plant:
 - a. AC Voltage.
 - b. AC Output current.
 - c. Output Power
 - d. Power factor.
 - e. DC Input Voltage.
 - f. DC Input Current.
 - g. Time Active.
 - h. Time disabled.

- i. Time Idle.
 - j. Power produced
 - k. Protective function limits (Viz-AC Over voltage, AC Under voltage, over frequency, under frequency ground fault, PV starting voltage, PV stopping voltage.
3. Provision for instantaneous Internet monitoring and download of historical data shall be also incorporated.
 4. Remote Server and Software for centralized Internet monitoring system shall be also provided for download and analysis of cumulative data of all the plants and the data of the solar radiation and temperature monitoring system.
 5. Simultaneous monitoring of DC and AC electrical voltage, current, power, energy and other data of the plant for correlation with solar and environment data shall be provided.
 6. Remote Monitoring system at the NDMC location with latest software/hardware configuration for online / real time data monitoring to be supplied. The firm will provide API & password etc. to NDMC to integrate.
 7. The contractor shall be obligated to push real-time plant monitoring data on a specified intervals (say 15 minute) through open protocol at receiver location (cloud server) in XML/JSON format, preferably. Suitable provision in this regard will be intimated to the contractor.
 8. The contractor must take approval/NOC from the Concerned DISCOM for the connectivity, technical feasibility, and synchronization of SPV plant with distribution network before commissioning of SPV plant.
 9. Reverse power relay shall be provided by contractor (if necessary), as per the local DISCOM requirement.

PROTECTIONS :-

The system should be provided with all necessary protections like earthing, Lightning, and grid islanding as follows:

LIGHTNING PROTECTION :-

The SPV power plants shall be provided with lightning & overvoltage protection. The main aim in this protection shall be to reduce the over voltage to a tolerable value before it reaches the PV or other sub system components. The source of over voltage can be lightning, atmosphere disturbances etc. The entire space occupying the SPV array shall be suitably protected against Lightning by deploying required number of Lightning Arrestors. Lightning protection should be provided as per IEC 62305 standard. The protection against induced high-voltages shall be provided by the use of metal oxide varistors (MOVs) and suitable earthing such that induced transients find an alternate route to earth.

SURGE PROTECTION:-

Internal surge protection shall consist of three MOV type surge-arrestors connected from +ve and –ve terminals to earth (via Y arrangement).

EARTHING PROTECTION:-

- a. Each array structure of the PV yard should be double grounded/ earthed properly as per IS:3043-1987. In addition the lightning arrester should also be loop earthed inside the array field. PCU, ACDB and DCDB should also be double earthed properly.
- b. Earth resistance shall not be more than 5 ohms. It shall be ensured that all the earthing points are bonded together to make them at the same potential.

GRID ISLANDING :-

- a. In the event of a power failure on the electric grid, it is required that any independent power-producing inverters attached to the grid turn off in a short Period of time. This prevents the DC-to-AC inverters from continuing to feed power into small sections of the grid, known as “Islands.” Powered Islands present a risk to workers who may

expect the area to be unpowered, and they may also damage grid-tied equipment. The Rooftop PV system shall be equipped with islanding protection. In addition to disconnection from the grid (due to islanding protection) disconnection due to under and over voltage conditions shall also be provided.

- b. A manual disconnect 4-pole isolation switch beside automatic disconnection to grid would have to be provided at utility end to isolate the grid connection by the utility personnel to carry out any maintenance. This switch shall be locked by the utility personnel.

CABLES :-

Cables of appropriate size to be used in the system shall have the following characteristics:

- a. Shall meet IEC 60227/IS 694, IEC 60502/IS1554 standards
- b. Temp. Range: -10°C to $+80^{\circ}\text{C}$.
- c. Voltage rating 660/1000V
- d. Excellent resistance to heat, cold, water, oil, abrasion, UV radiation
- e. Flexible
- f. Sizes of cables between array interconnections, array to junction boxes, junction boxes to Inverter etc. shall be so selected to keep the voltage drop (power loss) of the entire solar system to the minimum (2%)
- g. For the DC cabling, XLPE or, XLPO insulated and sheathed, UV- stabilized single core multi-stranded flexible copper cables shall be used; Multi-core cables shall not be used.
- h. For the AC cabling, PVC or, XLPE insulated and PVC sheathed single or, multi-core multi-stranded flexible copper cables shall be used; Outdoor AC cables shall have a UV-stabilized outer sheath.
- i. The cables (as per IS) should be insulated with a special grade PVC compound formulated for outdoor use. Outer sheath of cables shall be electron beam cross-linked XLPO type and black in colour.

- j. The DC cables from the SPV module array shall run through a UV- stabilized PVC conduit pipe of adequate diameter with a minimum wall thickness of 1.5mm.
- k. Cables and wires used for the interconnection of solar PV modules shall be provided with solar PV connectors (MC4) and couplers.
- l. All cables and conduit pipes shall be clamped to the rooftop, walls and ceilings with thermo-plastic clamps at intervals not exceeding 50 cm; the minimum DC cable size shall be 4.0 mm² copper; the minimum AC cable size shall be 4.0 mm² copper. In three phase systems, the size of the neutral wire size shall be equal to the size of the phase wires.
- m. Cable Routing / Marking: All cable/wires are to be routed in a GI cable tray and suitably tagged and marked with proper manner by good quality ferule or by other means so that the cable easily identified. In addition, cable drum no. / Batch no. to be embossed/ printed at every one meter.
- n. Cable Jacket should also be electron beam cross-linked XLPO, flame retardant, UV resistant and black in colour.
- o. All cables and connectors for use for installation of solar field must be of solar grade which can withstand harsh environment conditions including High temperatures, UV radiation, rain, humidity, dirt, salt, burial and attack by moss and microbes for 25 years and voltages as per latest IEC standards. DC cables used from solar modules to array junction box shall be solar grade copper (Cu) with XLPO insulation and rated for 1.1kV as per relevant standards only.
- p. The ratings given are approximate. Contractor to indicate size and length as per system design requirement. All the cables required for the plant shall be provided by the contractor. Any change in cabling sizes if desired by the Contractor shall be approved after citing appropriate reasons. All cable schedules/ layout drawings shall be approved prior to installation.
- q. Multi Strand, Annealed high conductivity copper conductor PVC type 'A' pressure extruded insulation or XLPE insulation. Overall PVC/XLPE insulation for UV protection Armoured cable for underground laying. All cable trays including covers to be provided. All cables conform to latest edition of IEC/ equivalent BIS

Standards as specified below: BoS item / component Standard Description
Standard Number Cables General Test and Measuring Methods, PVC/XLPE insulated cables for working Voltage up to and including 1100 V, UV resistant for outdoor installation IS /IEC 69947.

- r. The total voltage drop on the cable segments from the solar PV modules to the solar grid inverter shall not exceed 2.0%.
- s. The total voltage drop on the cable segments from the solar grid inverter to the building distribution board shall not exceed 2.0%.

j. **CONNECTIVITY :-**

- a. The maximum capacity for interconnection with the grid at a specific voltage level shall be as specified in the Distribution Code/Supply Code of the State and amended from time to time. Following criteria have been suggested for selection of voltage level in the distribution system for ready reference of the solar suppliers.

Plant Capacity	Connecting voltage
Up to 10 kW	240V single phase/415V-three phase as per site requirement
Above 10kW and up to 100 kW	415V – three phase
Above 100kW	At HT/EHT level (11kV/33kV/66kV) as per DISCOM rules

- a. The maximum permissible capacity for rooftop shall be 1 MW for a single net metering point.
- b. Utilities may have voltage levels other than above, DISCOMS may be consulted before finalization of the voltage level and specification be made accordingly.

DANGER BOARDS AND SIGNAGES :-

Danger boards should be provided as and where necessary as per IE Act. /IE rules as amended up to date. Three signage shall be provided one each at battery –cum-

control room, solar array area and main entry. Text of the signage may be finalized in consultation with owner/NDMC.

DRAWINGS & MANUALS :-

- a. Two sets of Engineering, electrical drawings and Installation and O&M manuals are to be supplied. The contractor shall provide complete technical data sheets for each equipment giving details of the specifications along with model/makes with basic design of the power plant and power evacuation, synchronization along with protection equipment.
- b. Approved ISI and reputed makes for equipment be used.
- c. For complete electro-mechanical works, contractor shall supply complete design, details and drawings for approval to owners before progressing with the installation work.

PLANNING AND DESIGNING:

The contractor should carry out Shadow Analysis at the site and accordingly design strings & arrays layout considering optimal usage of space, material and labour. The contractor should submit the array layout drawings along with Shadow Analysis Report to owner for approval.

SAFETY MEASURES:-

- a. The contractor shall take entire responsibility for electrical safety of the installation(s) including connectivity with the grid and follow all the safety rules & regulations applicable as per Electricity Act, 2003 and CEA guidelines etc.

Other Details

1. True South Orientation
2. The Solar Panels and Array Junction Boxes shall be installed in areas free of shading on the roof at suitable height using necessary structural supports, so as not to disturb/exceed the buildings/structural height or spoil the overall look and shall be in compliance to the local building/rules/provisions as per local board/authorities.

3. All structural work for installation of the Solar Panels shall conform to the safety/design calculations considering the maximum wind load/structural integrity of the installation.
4. Following specific test certificates shall be provided for the Modules supplied:
 - a. Power module performance Test as per IEC 61215 & IEC61730.
 - b. Temperature Co-efficient for power.
 - c. Degradation test for potential induced degradation (PID), long-term degradation and for crystalline modules, light –induced degradation (LID) if any.
 - d. Position and number of Bypass Diodes to be mentioned.
 - e. Maximum system voltage under at extreme ambient temperatures. Limits and values of Temperature and Voltage.
 - f. Data sheet and Name plate information of the Solar PV Module as per EN 50380.
 - g. Solar cells in the SPV Module shall have anti-reflective coating to help absorb maximum light in all weather conditions. PV Modules should be 100% PID free of Robust and Durable Design, Micro/Snail Crack Free, 100% Electro luminance tested. Solar module shall be laminated using lamination technology using established polymer (EVA) and Pedlar/Polyester laminate.
 - h. Each module shall have low iron tempered glass for strength and superior light transmission, fitted on to Robust Anodized Non-corroding aluminium snap-fit frames with pre-drilled drainage and ground holes with tough multi-layered polymer back-sheet for protection against moisture and provide high voltage electric insulation.
 - i. Bird spikes shall be provided so as to avoid bird sitting on the solar modules at the highest point of the Array/Module structure.
 - j. The module mounting structure shall be designed, such that it will occupy minimum space without sacrificing the output of the SPV modules and with adequate provision for walkways in between for access to carry out maintenance/cleaning work on the modules. The SOLAR PV Panels shall be installed at optimum angle/Tilt to maximize the output considering site location

of various NDMC sites.

- k. All structural shall be dismountable structures with minimum welding joints, so as to allow easy installation and dismantling with adequate strength using non-corrosive components/fasteners/supports etc.
 - l. The surge protection device on the DC side of the SPV Array/Plant shall be of 3 module configuration with replaceable SPD Devices having visual indication of healthy condition of the device, meeting the system design requirements to protect from overvoltage/lightning surges. The SPD shall be of modular DIN rail mounting design with IP20 finger safe construction. The SPD shall be of Class-I as per IEC-61643-11 and provide multiple PV string protection using this device.
 - m. AC distribution board shall be provided in between the Inverter and loads. It shall have integrated Digital Energy Meter (if provided separately), voltmeter and ammeter, on/off indication lamps, disconnecter /MCCB. Separate class I+II Surge protection device with life time indicator, shall be provided in the AC Distribution board. SPD's on ACDB shall be provided in addition to any SPD already present in the PCU/Inverter for added safety.
 - n. The enclosure material shall be halogen, silicon free conforming to RoHS directive 2002/95/EC. The material of the enclosure shall be UV stabilized. Base part of polycarbonate enclosure shall be UL94-V-0 complaint and lid part of PC enclosure shall be UL-84-V-2 complaint.
 - o. The enclosure shall have rated insulated voltage of 1000V DC and dielectric strength of 4.65 KV DC.
5. The power Distribution to AC loads at the PCU/Inverter output shall be in compliance to the following:
- a) Cables connecting the PCU/Inverter to the ACDB Bus bar and from the ACDB output to the riser main of the NDMC's internal GRID supply should be sized considering the maximum current with appropriate over sizing factors to take care of maximum allowable voltage drops/losses. Design calculations considering the cable lengths and permissible voltage drops at maximum currents shall be provided and cables sizes

shall be selected accordingly.

- b) The SPV Power plant Power supply shall be connected and operated with the existing Grid Supply in parallel (synchronized).

PAYMENT CONDITIONS

Payments shall be made as basis of running account bill as per progress of execution of work. Stage of payments shall be as per following:

- i. 85% - Against satisfactory supplying, installation, testing and commissioning of material at site.
- ii. 3% - Against completion of one year.
- iii. 3% - Against completion of second year.
- iv. 3% - Against completion of Third year.
- v. 3% - Against completion of Forth year.
- vi. 3% + 7.5% (2.5%SD+5%PG) - Against completion of Fifth year.
- vii. Final payment shall be released after getting NOC from QCTA/IIIrd Party agency engaged if any.

SCHEDULE OF WORK

Name of work: Supply Installation Testing and Commissioning Grid connected Roof top Solar Power Plant at the 4 nos. Type-V quarters (Duplex type) at Prithviraj Lane in NDMC area.

S. No.	Description of Material	Qty.	Unit Price	Rate (In Rs.)	Amount (In Rs)
1.	Supply Installation and Testing and Commissioning of Grid connected Roof top Solar Power Plant of 5 KWp with 5 years Comprehensive Maintenance complete as required at the Type-V quarters (Duplex type) at Prithviraj Lane in NDMC area.	3 sets (5KWp X 3=15KWp)	Per set	2,70,000/-	8,10,000/-
	Total Amount Inclusive GST/Taxes				8,10,000/-