

N.I.T. No. **02/EE/BD/2019-20 (01/CE/NDZ-I/2019-20)**

Comprehensive Maintenance (Civil & Electrical) of Hon'ble Ministers Bungalows in LBZ Area, New Delhi including Day to Day Maintenance, Ordinary & Special Repairs, Minor Works, Security Related Works and Upgradation Works.

**Executive Engineer (P)
New Delhi Zone-I
CPWD, New Delhi**

**Executive Engineer (E) (P)
New Delhi Zone-I
CPWD, New Delhi**

**Superintending Engineer (P)
New Delhi Zone-I
CPWD, New Delhi**

**Chief Engineer
New Delhi Zone-I
CPWD, New Delhi**

Comprehensive Maintenance (Civil & Electrical) of Hon“ble Ministers Bungalows in LBZ Area, New Delhi including Day to Day Maintenance, Ordinary & Special Repairs, Minor Works, Security Related Works and Upgradation Works.

INDEX

Sl. No.	Description	Page No.
	Index	2
	Press Notice	3
	PART – A	4
	Information & instructions for Bidders‘ for e-tendering	5
	List of documents to be uploaded by the Bidders	9
	NIT Form CPWD-6	10
	Criteria of Evaluation	16
	Section –I Brief Particulars of the work	17
	Section II Information & Instruction For Bidders	19
	Section III Information regarding Eligibility	26
	Form A to Form E	27
	NIT Form CPWD-7 (percentage rate tender and contract for works)	31
	Schedules (A to F)	34
	Integrity Pact & other Forms	41
	Form for deposition of Earnest Money	48
	Form of Performance Security/Form of Earnest Money Deposit	49
	General Terms & conditions for Civil & Electrical	53
	Part B Civil Work	65
	General Conditions	66
	Special Conditions	71
	Office Memorandums	76
	General Conditions For Civil Works	80
	List of Materials for Day to Day Maintenance	97
	Additional Conditions for Civil Work for ARMO	98
	Additional Conditions for Civil Work Special Repairs	102
	List of Approved Make Civil work	113
	Additional Conditions for Furniture	116
	Special Condition for Furniture	119
	Particular Specifications for Furnishing	120
	List of Approved Make - Furniture	121
	Part – C (E & M Works)	122
	Schedule A to F	123
	General Terms & Condition	128
	List of Approved Make (Electrical Work) for Upgradation	157
	Abstract of Cost	162
	Schedule of Quantity- Civil- (SH –I to SH-VI)	163
	Schedule of Quantity –Electrical (SH-I to SH-IV)	280

CERTIFIED THAT THIS NIT DOCUMENT CONSISTS OF TOTAL 313 PAGES

PRESS NOTICE

CENTRAL PUBLIC WORKS DEPARTMENT NOTICE INVITING e-TENDER

The Executive Engineer, 'B' - Division, Room No. C-232, CPWD, I.P. Bhawan, New Delhi (email: cpwdbdivision@gmail.com) on behalf of the President of India invites online percentage rate bids from CPWD enlisted contractors of appropriate class in composite category and firms/ contractors of repute in two bid system

NIT No.02/EE/BD/2019-20 (01/CE/NDZ-I/2019-20)

Name of work: Comprehensive Maintenance (Civil & Electrical) of Hon'ble Ministers Bungalows in LBZ Area, New Delhi including Day to Day Maintenance, Ordinary & Special Repairs, Minor Works, Security Related Works and Upgradation Works.

Period of completion :- 36 Months,
Last date and time of submission of bid 29.05.2019 upto 3.00 PM.

The Bid forms and other details can be obtained from the website www.tenderwizard.com/CPWD or www.cpwd.gov.in. The press notice is also available on www.eprocure.gov.in.

** To be filled by EE

PART- A

INFORMATION AND INSTRUCTIONS FOR BIDDERS FOR e-TENDERING FORMING PART OF BID DOCUMENT AND TO BE POSTED ON WEBSITE

The Executive Engineer, 'B'- Division, Room No. C-232, CPWD, I.P. Bhawan, New Delhi (email: cpwdbdivision@gmail.com) on behalf of the President of India invites online percentage rate bids from CPWD enlisted contractors of appropriate class in composite category and firms/contractors of repute in two bid system for the following works.

S. No.	NIT No.	Name of work & Location	Period of Completion	Date of Pre-Bid meeting	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 Eligibility bid
1	2	3	6		7	
1	02/EE/BD/2019-20 (01/CE/NDZ-I/2019-20)	Comprehensive Maintenance (Civil & Electrical) of Hon'ble Ministers Bungalows in LBZ Area, New Delhi including Day to Day Maintenance, Ordinary & Special Repairs, Minor Works, Security Related Works and Upgradation Works	36 months	24.05.2019 at 11.00 AM	29.05.2019 Upto 3.00 PM	29.05.2019 at 3.30 PM

** To be filled by EE.

- Contractors who fulfil the following requirements shall be eligible to apply. Joint ventures are not accepted.

Eligibility Criteria

A. Eligibility criteria for approved and eligible contractors of CPWD

The contractor shall have valid enlistment in CPWD Composite category of appropriate class (Scanned copy of valid CPWD enlistment order in composite category of appropriate class to be uploaded)

B. Eligibility criteria for Non-CPWD contractors and CPWD contractors not registered in appropriate class.

The agencies who fulfill the following eligibility criteria shall be eligible to apply.

Joint ventures are not accepted.

(a) Should have satisfactory completed similar work(s) as mentioned below during the last Seven years ending previous day of last date of submission of bids.-

Three similar works each costing not less than Rs. 37,87,58,500/-

or

Two similar works each costing not less than Rs.56,81,37,800/-

or

One similar work costing not less than Rs.75,75,17,100/-

Similar work means : Construction and / or Maintenance of Residential and / or Non-residential buildings involving Civil and / or Electrical works

Note : The works / component of work (In case of composite contract of Construction / Maintenance) related to Housekeeping, Watch and Ward, Horticulture and Road works, Flyovers & Bridges shall not be considered while working out the value of similar work. Bidder shall upload complete BOQ/ Abstract of cost of work of final bill so as to evaluate eligibility bid in support of this condition.

- (b) Should have Average Annual financial turnover of Rs. 47,34,48,100/- on construction works during the last three years ending **31st March 2018.(Scanned copy of Certificate from Chartered Accountant to be uploaded)**-Form **_A'**
- (c) 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 2018**-Form **_A'**
- (d) Should have a **Solvency of Rs. 37,87,58,500/-**(Scanned copy of original solvency to be uploaded), Form **_B'**with date of issue not older than one year from the last date of receipt of bid.
- (e) In case works are executed in Private Sector, then TDS Certificate for Income Tax for the works executed are also required to be submitted along with details of works.
- (f) The value of executed work 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 last date of online receipt of tender.
- (g) Components of work executed other than those included in definition of similar work shall be deducted while calculating cost of similar work. Bidder may be required to submit complete BOQ/ Abstract of cost of work of final bill (or last paid bill) so as to evaluate eligibility bid in support of this condition.

2. The intending bidder must read the terms and conditions of **CPWD-6** carefully. He should only submit his bid if he considers himself eligible and he is in possession of all the documents required.
3. Information and Instructions for bidders posted on website shall form part of the bid document.
4. The bid document consisting of 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 can be seen and downloaded from **website www.tenderwizard.com/CPWD or www.eprocure.gov.in** free of cost.
5. The bid can only be submitted after deposition of EMD either in the office of Executive Engineer inviting bids or Division office of any Executive Engineer, CPWD, 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 Executive Engineer as mentioned in NIT, receipt for deposition of original EMD to division office of any Executive Engineer (including NIT issuing EE/AE), CPWD 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 Turn over:** At the time of submission of bid Contractor may upload Affidavit/ Certificate from **Chartered Accountant** 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 eligibility bids. There is no need to upload entire voluminous balance sheet.
11. Contractor must ensure to quote percentage rate above or below the estimated cost for civil and electrical component of work separately as per template provided in the NIT. The column meant for quoting rate in figures appears in pink colour and the moment rate is entered, it turns sky blue.

In addition to this, while selecting any of the cells a warning appears that if any cell is left blank the same shall be treated as "0". Therefore, if any cell is left blank and no rate is quoted by the bidder, rate of such item shall be treated as "0" (ZERO).

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 eligibility 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 eligibility bid shall be communicated to them at a later date.
13. Pre-Bid conference shall be held in the chamber of Chief Engineer, NDZ-I, CPWD, Nirman Bhawan, New Delhi at 11.00 AM on 24.05.2019 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.
15. 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.
16. While submitting the revised bid, Contractor can revise the rate/percentage of one or more item(s)/subheads any number of times (he need not re-enter rate of all the items) but before last time and date of submission of bid as notified.
17. It is mandatory to upload scanned copies of all the documents **stipulated in the bid document. If the documents stipulated in the bid document** are not uploaded, then bid will become invalid and shall summarily be rejected.
18. If the Contractor is found ineligible after opening of bids, his bid shall become invalid.
19. 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 Contractor, the bid shall become invalid.

** To be filled in By EE

List of Documents to be filled in by the bidders in various forms as indicated in Section III, to be scanned and uploaded in JPG format and PDF format within the period of bid submission:

1.	Certificate of Registration in appropriate class in composite category in CPWD
2.	Treasury challan / Demand draft/Pay order or Banker's Cheque / Deposit at Call Receipt / Fixed Deposit Receipt of a Scheduled Bank/ Bank Guarantee of any Scheduled Bank against EMD as per para 9 of CPWD-6 of the NIT.
3.	Copy of receipt for deposition of original EMD issued from Division office of any Executive Engineer, CPWD (including NIT issuing EE/AE).
4.	Certificate of Financial Turnover and Profit/loss statements from Chartered Accountant (Form _A') on Proforma as per page No. 28 of NIT.
5.	Bank Solvency Certificate (Form _B') on Proforma as per page No. 29.
6.	Certificates of Similar Works Experience & Performance (Form _C' & _D') on Proforma as per page No. 29 - 30
7.	Organizational Structure (Form _E') on page No. 31 including that of associate firm as applicable.
8.	Letter of Transmittal
9.	<p>GST Registration Certificate of the State in which the work is to be taken up, if already obtained by the bidder.</p> <p>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 undertaking along with other bid documents.</p> <p>-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 CPWD, whichever is earlier, failing which I/We shall be responsible for any delay in payments which will be due towards me/us on account of the work executed and /or for any action taken by CPWD or GST department in this regard.</p>
10.	Affidavit as per para 1.2.2 of CPWD 6
11.	Any other document as specified in the NIT

Note :The documents at Sl. No. 4 to 7 are not applicable for CPWD enlisted contractors of appropriate class in composite category.

CPWD-6 FOR E- TENDERING

1. Percentage rate bids are invited on behalf of President of India from approved and eligible contractors of CPWD and those of appropriate class in Composite category and firms /contractors of repute in two bid system for the work **“Comprehensive Maintenance (Civil & Electrical) of Hon“ble Ministers Bungalows in LBZ Area, New Delhi including Day to Day Maintenance, Ordinary & Special Repairs, Minor Works, Security Related Works and Upgradation Works”**

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.

The authority competent to approve NIT for the combined cost and belonging to the major discipline will consolidate NITs for calling the bids. He will also nominate Division which will deal with all matters relating to the invitation of bids.

For composite bid, besides indicating the combined estimated cost put to bid, should clearly indicate the estimated cost of each component separately. The eligibility of bidders will correspond to the combined estimated cost of different components put to bid.

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

Criteria of eligibility for submission of bid documents

~~Conditions for Non-CPWD registered contractors only, if bids are also open to non-CPWD contractors.~~

~~For works estimated cost upto tendering limit of class I composite category Contractor (However, for Horticulture and Furniture etc. discipline, it may be modified as per bidding limit of CPWD class I contractors of respective discipline as the case may be)~~

~~Three similar works each of value not less than Rs. 37,87,58,500/-~~

~~Or~~

~~two similar work each of value not less than Rs. 56,81,37,800/-~~

~~or~~

~~one similar work of value not less than Rs. 75,75,17,100/-~~

~~(all figures rounded to nearest convenient figure) in last 7 years ending previous day of last date of submission of bids.~~

Note:-

~~For works costing above tendering limit of class II composite category contractors but upto tendering limit of Clause I composite category Contractor (However, for Horticulture and discipline, it may be modified as per bidding limit of CPWD class II and CPWD Class I contractors respectively of respective discipline as the case may be) when bids are open to non-CPWD contractors also, then class II contractors of CPWD registered shall also be eligible if they satisfy the eligibility criteria specified in 1.2.1 above.~~

Criteria of eligibility for CPWD as well as non-CPWD contractors,

For works estimated to cost above the tendering limit of class -1 composite category

Contractor (However for Horticulture and Furniture discipline, it may be modified as per bidding limit of CPWD class I contractors of respective discipline as the case may be.)

Three similar works each of value not less than Rs. 37,87,58,500/-

OR

Two similar work each of value not less than Rs. 56,81,37,800/-

OR

One similar work of value not less than Rs. 75,75,17,100/-

(all figures rounded to nearest convenient figure) in last 7 years ending previous day of last date of submission of bids.

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 the last date of submission of bid. This is applicable for 1.2.1 as well as 1.2.2 (This is not applicable for CPWD enlisted contractors of appropriate class in composite category)

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 CPWD 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. Agreement shall be drawn with the successful bidders on prescribed Form No. **CPWD 7** (or other Standard Form as mentioned) which is available as a Govt. of India Publication and also available on website **www.cpwd.gov.in**. Bidders shall quote his rates as per various terms and conditions of the said form which will form part of the agreement.
3. The time allowed for carrying out the work will be 36 Months from the date of start as defined in schedule 'F' or from the first date of handing over of the site, whichever is later, in accordance with the phasing, if any, indicated in the bid documents.
4. The site for the work is available.

OR

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

- (ii) The architectural and structural drawing for the work is available

or

~~The architectural and structural drawings shall be made available in phased manner, as per requirement of the same as per approved programme of completion submitted by the contractor after award of work.~~

- 5 The bid document consisting of ~~plans~~, specifications, the schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and

other necessary documents except Standard General Conditions of Contract Form can be seen on website www.tenderwizard.com/CPWD or www.cpwd.gov.in free of cost.

6. After submission of the bid the contractor can re-submit revised bid any number of times but before last time and date of submission of bid as notified.
7. While submitting the revised bid, contractor can revise the rate of one or more item(s) any number of times (he need not re-enter rate of all the items) but before last time and date of submission of bid as notified.
8. When bids are invited in three stage system and if it is desired to submit revised financial bid then it shall be mandatory to submit revised financial bid. If not submitted then the bid submitted earlier shall become invalid.
9. 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 **Executive Engineer, B-Division, CPWD, New Delhi**) 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, CPWD within the period of bid submission. The EMD receiving Executive Engineer (including NIT issuing EE/AE) shall issue a receipt of deposit 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 CPWD and other documents scanned and uploaded are found in order.

- 9A The contractors registered prior to 01.04.2015 on e-tendering portal of CPWD shall have to deposit tender processing fee at existing rates, or they have option to switch over to the new registration system without tender processing fee any time.

The bid submitted shall be opened at 03:30 PM on 29.05.2019 .

* to be filled by EE, B-Division

10. The bid submitted shall become invalid and e-Tender processing fee shall not be refunded if:
- (i) The bidder is found ineligible.
 - (ii) The bidder does not upload scanned copies of all the documents stipulated in the Biddocument.
 - (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.
11. The contractor whose bid is accepted will be required to furnish performance guarantee of 5% (Five 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.
12. **The description of the work is as follows:**
- Intending Bidders are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their bids as to the nature of the ground and sub-soil (so far as is practicable), the form and nature of the site, the means of access to the site, the accommodation they may require and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their bid. A bidder shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charge consequent on any misunderstanding or otherwise shall be allowed. The bidder shall be responsible for arranging and maintaining at his own cost all materials, tools & plants, water, electricity access, facilities for workers and all other services required for executing the work unless otherwise specifically provided for in the contract documents. Submission of a bid by a bidder implies that he has read this notice and all other contract documents and has made himself aware of the scope and specifications of the work to be done and of conditions and rates at which stores, tools and plant, etc. will be issued to him by the Government and local conditions and other factors having a bearing on the execution of the work.
13. The competent authority on behalf of the President of India does not bind itself to accept the lowest or any other bid and reserves to itself the authority to reject any or all the bids received without the assignment of any reason. All bids in which any of the prescribed condition is not fulfilled or any condition including that of conditional rebate is put forth by the bidder shall be summarily rejected.
14. 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.

15. 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.
16. The contractor shall not be permitted to bid for works in the CPWD Circle (Division in case of contractors of Horticulture/Nursery category) 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 Central Public Works Department or in the Ministry of Urban Development. Any breach of this condition by the contractor would render him liable to be removed from the approved list of contractors of this Department.
17. No Engineer of Gazetted Rank or other Gazetted Officer employed in Engineering or Administrative duties in an Engineering Department of the Government of India is allowed to work as a contractor for a period of one year after his retirement from Government service, without the prior permission of the Government of India in writing. This contract is liable to be cancelled if either the contractor or any of his employees is found any time to be such a person who had not obtained the permission of the Government of India as aforesaid before submission of the bid or engagement in the contractor's service.
18. The bid for the works shall remain open for acceptance for a period of seventy five (75) days from the date of opening of eligibility bid. If any bidder withdraws his bid before the said period or issue of letter of acceptance, whichever is earlier, or makes any modifications in the terms and conditions of the bid which are not acceptable to the department, then the Government shall, without prejudice to any other right or remedy, be at liberty to forfeit 50% of the said earnest money as aforesaid. Further the bidders shall not be allowed to participate in the rebidding process of the work.
19. This notice inviting Bid shall form a part of the contract document. The successful bidder/contractor, on acceptance of his bid by the Accepting Authority shall within 15 days from the stipulated date of start of the work, sign the contract consisting of:-
 - (a) The Notice Inviting Bid, all the documents including additional conditions, specifications and drawings, if any, forming part of the bid as uploaded at the time of invitation of bid and the rates quoted online at the time of submission of bid and acceptance thereof together with any correspondence leading thereto.
 - (b) Standard C.P.W.D. Form 7/8 or other Standard C.P.W.D. Form as applicable.

20. For Composite Bids

The Executive Engineer in charge of the major component will call bids for the composite work. The cost of bid document and Earnest Money will be fixed with respect to the combined estimated cost put to tender for the composite bid.

The bid document will include following three components:

Part A:- CPWD-6, CPWD-7 including schedule A to F for the major component of

the work, Standard General Conditions of Contract for CPWD 2014 as amended/modified up to the date of submission of bid.

Part B:- General / specific conditions, specifications and schedule of quantities

Applicable to major component of the work.

Part C:-Schedule A to F for minor component of the work (competent authority under

Clause 2 and Clause 5 shall be same authority as mentioned in schedule A to F for major components), General/specific conditions, specifications and schedule of quantities applicable to minor component(s) of the work.

The bidders must associate him self, with agencies as per NIT conditions

The eligible bidders shall quote rates for all items of major component as well as for all items of minor components of work.

After acceptance of the bid by competent authority, the EE in charge of major component of the work shall issue letter of award on behalf of the President of India. After the work is awarded, the main contractor will have to enter into one agreement with EE in charge of major component and has also to sign two or more copies of agreement depending upon number of EE's/DDH in charge of minor components. One such signed set of agreement shall be handed over to EE/DDH in charge of minor component(s). EE of major component will operate **Part A** and **Part B** of the agreement. EE/DDH in charge of minor component(s) shall operate **Part C** along with **Part A** of the agreement.

Entire work under the scope of composite bid including major and all minor components shall be executed under one agreement.

Security Deposit will be worked out separately for each component corresponding to the estimated cost of the respective component of works.

The main contractor has to associate agencies for specialized component(s) conforming to eligibility criteria as defined in the bid document and has to submit detail of such agency(s) to Engineer-in-charge of relevant component(s) within prescribed time. Name of the agency(s) to be associated shall be approved by Engineer-in-charge of relevant component(s).

In case the main contractor intends to change any of the above agency/agencies during the operation of the contract, he shall obtain prior approval of Engineer-in-charge of relevant specialized component(s).

The new agency/agencies shall also have to satisfy the laid down eligibility criteria. In case Engineer-in-charge is not satisfied with the performance of any agency, he can direct the contractor to change the agency executing such items of work and this shall be binding on the contractor.

The main contractor has to enter into MoU with agency(s) associated by him. Copy of such MoU shall be submitted to EE/ DDH in charge of each relevant component as well as to EE in charge of major component. In case of change of associate contractor, the main agency(s) has to enter into MoU/agreement with the new contractor associated by him.

Running payment for the major component shall be made by EE of major discipline to the main contractor. Running payment for minor components shall be made by the Engineer-in-charge of the discipline of minor component directly to the main contractor.

A. The composite work shall be treated as complete when all the components of the work are complete. The completion certificate of the composite work shall be recorded by Engineer-in-charge of major component after record of completion certificate of all other components.

20.1.12B. Final bill of whole work shall be finalized and paid by the EE of major component. Engineer(s) in charge of minor component(s) will prepare and pass the final bill for their component of work and pass on the same to the EE of major component for including in the final bill for composite contract.

PROFORMA – 1

**CRITERIA FOR EVALUATION OF THE PERFORMANCE OF CONTRACTORS
FOR PRE-ELIGIBILITY**

(a)	Attributes		Evaluation			
	Financial strength	(20 marks)				
(i) Average annual Turnover	16 marks	(i) 60% marks for minimum eligibility criteria				
(ii) Solvency Certificate	4 marks	(ii) 100% marks for twice the minimum eligibility criteria or more				
		In between (i) & (ii) - on pro-rata basis				
(b)	Experience in similar class of works	(20 marks)	(i) 60% marks for minimum eligibility criteria			
			(ii) 100% marks for twice the minimum eligibility criteria or more			
			In between (i) & (ii) - on pro-rata basis			
(c)	Performance on works (time over run)	(20 marks)				
	Parameter Calculation For points		Score			Maximum Marks
	If TOR =		1.00	2.00	3.00	>3.50
	(i) Without levy of compensation		20	15	10	10
	(ii) With levy of compensation		20	5 0	-5	
	(iii) Levy of compensation not decided		20	10	0	0
(d)	Performance of works (Quality)	(40 marks)				
	(i) Outstanding	40				
	(ii) Very Good	30				
	(iii) Good / Satisfactory	20				
	(iv) Poor	0				

Note:-The evaluation shall be carried out strictly as per submitted documents. No further clarification or whatsoever (except genuineness of the documents)in respect of submitted documents shall be sought.

SECTION-I

BRIEF PARTICULARS OF THE WORK

1. Salient details of the work for which bids are invited, are as under:

Sl. No.	Name of work	Period of completion
1.	Comprehensive Maintenance (Civil & Electrical) of Hon'ble Ministers Bungalows in LBZ Area, New Delhi including Day to Day Maintenance, Ordinary & Special Repairs, Minor Works, Security Related Works and Upgradation Works	36 Months

2. The work site is situated in LBZ Area under the jurisdiction of B-Division, CPWD, New Delhi for Civil and Electrical works.

3. General features and major components of the work are as under:-

Civil works :-

(A) Day to Day Maintenance – It shall consist of the following operations:-

- (i) Receiving, recording, distributing & updating/downloading the day to day complaints at Service Centre through IVRS/e-Sewa / Any other means.
- (ii) Attending the daily complaints with required labour & material etc.
- (iii) Monitoring of receipt, distribution, attending the complaints as required to fulfill the direction of CPWD e-Sewa including recording the attended complaints in e-Sewa Software.
- (iv) Other miscellaneous operations as referred in schedule of quantity for day to day maintenance.
- (v) Running and maintenance of CPWD Service Centre in coordination with JE-in Charge of CPWD. .
- (vi) Safety & security of govt. assets & vacant bungalows.

(B) Ordinary and special repairs

The scope shall consist of Ordinary and special repairs maintenance and furnishing, Parliamentary works as per SOQ carried out for residential & non-residential areas.

- (i) White washing, distempering, plastic emulsion painting, synthetic enamel painting etc.
- (ii) Cleaning of Terrace tanks & Sewer lines / Man holes at six months interval or as per requirement
- (iii) Other misc. items as per schedule of quantity.
- (iv) Anti termite treatment in bungalow as per requirement.

(C) Minor Works:-

The scope shall consist of minor repair of works as per SOQ

- (i) Change of damaged doors/windows, Tiles, Glass Panes, Wire mesh etc.
- (ii) Laying and Fixing of Floor Tile.
- (iii) Other misc. items as per schedule of quantity.

(D) **Security related works:-**

The scope shall consist of security related works in the Bungalow as per SOQ. like fixing of porta cabin, frisking shed, sentry post, barbered wire, concertina coil and M.S. profile sheet.

(E) Upgradation Works:-

The scope shall consist of upgradation of bungalows.

Electrical works :-

As per Schedule of Quantities attached in part-C.

4. Work shall be executed according to the General Conditions of Contract for Central PWD works available separately at Printer's outlets. The bidder may obtain the address of the outlets of the Printer from the Executive Engineer, B-Division, I.P.Bhawan, I.P.Estate, New Delhi.

SECTION II

INFORMATION & INSTRUCTION FOR BIDDERS

1 GENERAL

Letter for transmittal and forms for deciding eligibility are given in Section-III.

All information called for in the enclosed forms should be furnished against the relevant columns in the forms. If for any reason, information is furnished on a separate sheet, this fact should be mentioned against the relevant column. Even if no information is to be provided in a column, a -NIL or -no such case entry should be made in the column. If any of the particulars/query is not applicable in case of the bidder, it should be stated as -not applicable. The bidders are cautioned that not giving complete information called for in the application forms or not giving it in clear terms or making any change in the prescribed forms or deliberately suppressing the information may result in the bidder being summarily disqualified. Bids made by telegram or telex and those received late will not be entertained.

Overwriting should be avoided. Correction, if any, should be made by neatly crossing out, initialing, dating and rewriting. Pages of the eligibility criteria document should be numbered. Additional sheets, if any added by the bidder, should also be numbered by him. They should be submitted as a package with signed letter of transmittal.

- a. References, information and certificates from the respective Clients certifying suitability, technical knowledge or capability of the bidder should be signed by an officer not below the rank of Executive Engineer/Project Manager or equivalent.
- b. The bidder may furnish any additional information which he thinks is necessary to establish his capabilities to successfully complete the envisaged work. He is, however, advised not to furnish superfluous information. No information shall be entertained after submission of eligibility criteria document unless it is called for by the employer.

The credentials submitted in respect of pre-qualification of the tender/ tender for specialized work by the first lowest bidder after opening of the financial bid shall be verified before award of work. Any information furnished by the bidder found to be incorrect either immediately or at a later date, would render him liable to be debarred from tendering/taking up of work in CPWD. If such bidder happens to be enlisted Contractor of any class in CPWD, his name shall also be removed from the approved list of Contractors.

DEFINITIONS

In this document the following words and expressions have the meaning hereby assigned to them.

EMPLOYER: Means the President of India, acting through the Executive Engineer, 'B' Division CPWD, I.P. Bhawan, New Delhi.

Bidder: Means the individual, proprietary firm, firm in partnership, limited company private or public or corporation.

-Year|| means -Financial Year|| unless stated otherwise.

METHOD OF APPLICATION

If the bidder is an individual, the application shall be signed by him above his full type written name and current address.

If the bidder is a proprietary firm, the application shall be signed by the proprietor above his full typewritten name and the full name of his firm with its current address.

If the bidder is a firm in partnership, the application shall be signed by all the partners of the firm above their full typewritten name and current addresses or alternatively by a partner holding power of attorney for the firm. In the later case a certified copy of the power of attorney should accompany the application. In both cases a certified copy of the partnership deed and current address of all the partners of the firm should accompany the application.

If the bidder is limited company or a corporation, the application shall be signed by a duly authorized person holding power of attorney for signing the application accompanied by a copy of the power of attorney. The bidder should also furnish a copy of the Memorandum of Articles of Association duly attested by a public Notary.

4.0 FINAL DECISION MAKING AUTHORITY

The employer reserves the right to accept or reject any bid and to annul the process and reject all bids at any time, without assigning any reason or incurring any liability to the bidder.

5.0 PARTICULARS PROVISIONAL

The particulars of the work given in Section I are provisional. They are liable to change and must be considered only as advance information to assist the bidder.

6.0 SITE VISIT

The bidder is advised to visit the site of work, at his own cost, and examine it and its surroundings and himself collect all information that he considers necessary for proper assessment of the prospective assignment.

7.0 INITIAL CRITERIA FOR ELIGIBILITY

(A) **Eligibility criteria for approved and eligible contractors of CPWD**

The contractor shall have valid enlistment in CPWD Composite category of appropriate class (Scanned copy of valid CPWD enlistment order in composite category of appropriate class to be uploaded)

(B) **Eligibility criteria for Non-CPWD contractors and CPWD contractors not registered in appropriate class.**

The agencies who fulfill the following eligibility criteria shall be eligible to apply.
Joint ventures are not accepted.

- (a) Should have satisfactory completed similar work(s) as mentioned below during the last Seven years ending previous day of last date of submission of bids.-

Three similar works each costing not less than Rs. 37,87,58,500/-

or

Two similar works each costing not less than Rs.56,81,37,800/-

or

One similar work costing not less than Rs.75,75,17,100/-

Similar work means : Construction and / or Maintenance of Residential and / or Non-residential buildings involving Civil and / or Electrical works

Note : The works / component of work (In case of composite contract of Construction / Maintenance) related to Housekeeping, Watch and Ward, Horticulture and Road works, Flyovers & Bridges shall not be considered while working out the value of similar work. Bidder shall upload complete BOQ/ Abstract of cost of work of final bill so as to evaluate eligibility bid in support of this condition.

- (b) Should have Average Annual financial turnover of Rs. 47,34,48,100/- on construction works during the last three years ending **31st March 2018.(Scanned copy of Certificate from Chartered Accountant to be uploaded)**-Form **_A'**
- (c) 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 2018**-Form **_A'**
- (d) Should have a **Solvency of Rs. 37,87,58,500/-**(Scanned copy of original solvency to be uploaded), Form **_B'** with date of issue not older than one year from the last date of receipt of bid.
- (e) In case works are executed in Private Sector, then TDS Certificate for Income Tax for the works executed are also required to be submitted along with details of works.
- (f) The value of executed work 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 last date of online receipt of tender.
- (g) Components of work executed other than those included in definition of similar work shall be deducted while calculating cost of similar work. Bidder may be required to submit complete BOQ/ Abstract of cost of work of final bill (or last paid bill) so as to evaluate eligibility bid in support of this condition.

(C) Conditions related to specialized works in present tender-

The present work also involves specialized works (Civil & Electrical) for which the agency should either have work experience themselves or they may associate specialized agencies having work experience after award of work.

- i. After award of work the agency (main contractor) shall submit the details of proposed associate firms (including himself in case the main contractor fulfils the eligibility conditions for specialized works as given below) for specialized works for approval of Engineer in charge. Based on the proposed names of associate firms, department shall approve such associate/s for this work who satisfy the eligibility criteria. Thereafter, the main contractor shall be having option to associate any of these approved firms.
- ii. The main contractor will enter into MoU with associate firm, having terms & conditions for the primary and secondary responsibilities for the specialized works. The signed MoU shall be submitted to the Engineer-in-charge.
- iii. The agency shall submit the similar work experience documents in respect of experience of having satisfactory completed similar works as defined below during last seven years ending previous date to the last date of submission of the bid.

Sl. No.	Specialized work	Eligibility Criteria for approval of specialized agency
1.	Day to Day Maintenance (Civil + Electrical)	<p>Three similar works each costing not less than Rs. 1,34,04,900/- per annum.</p> <p style="text-align: center;">OR</p> <p>Two similar works each costing not less than Rs.2,01,07,300/-per annum.</p> <p style="text-align: center;">OR</p> <p>One similar work of aggregate cost not less than Rs.2,68,09,700/-per annum.</p> <p>(Annualized estimated cost of Day to Day Maintenance (inclusive of Civil & Electrical)</p> <p>Similar work means work of day to day maintenance of Civil and Electrical works.</p> <p>Note: 1. The component of works related to Housekeeping, Horticulture and Road work shall not be considered while working out the value of similar work.</p> <p>2. The cost of completed similar work shall be worked out on yearly basis. If the work experience submitted in support of eligibility is for a period of more than one year of comprehensive maintenance then the eligible amount shall be worked out for the period of one year and same shall be considered as cost of similar work for eligibility. If the work experience certificate submitted is less than one</p>

		<p>year then same amount shall be considered without any extrapolation.</p> <p>3. The Associate Agency should have Valid Electrical License.</p> <p>4. The Associate Agency has to engage OEM/authorised re-presentative (as per detailed terms & condition of E&M Works) for Comprehensive Maintenance of following E&M installations :-</p> <p>(a) Lifts</p> <p>(b) Solar Water Heating System</p> <p>(c) Water Purify System</p> <p>(d) Electric Chimney</p> <p>(e) DG Set</p> <p>(f) AC Units</p> <p>(g) Hydraulic Bollards</p> <p>(h) CCTV System</p>
2.	Furniture works	<p>Three similar works each costing not less than Rs. 1,91,54,100/.</p> <p style="text-align: center;">OR</p> <p>Two similar works each costing not less than Rs. 2,87,31,100/-</p> <p style="text-align: center;">OR</p> <p>One similar work of aggregate cost not less than Rs. 3,83,08,100/-</p> <p>Similar work means furniture works.</p>
3.	E & M	Eligibility condition for other E&M works mention in Part C .

The value of executed work 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 last date of online receipt of tender. Components of work executed other than those included in definition of similar work shall be deducted while calculating cost of similar work. Bidder shall submit complete BOQ/ Abstract of cost of work of final bill and any other document/s in support of this condition as directed by Engineer-in-charge.

EVALUATION CRITERIA

The details submitted by the bidders will be evaluated in the following manner.

The initial criteria prescribed in para 7.0 above in respect of experience of eligible similar works completed, loss, solvency and financial turn over etc. will first be scrutinized and the bidder's eligibility for the work be determined.

The bidders qualifying the initial criteria as set out in 7.0 above will be evaluated for following criteria by scoring method on the basis of details furnished by them:-

	ATTRIBUTES	MAXIMUM MARKS
(a)	Financial strength/ information (Form _A' & _B')	20
(b)	Experience in eligible similar nature of works during last Seven years (Form _C',)	20
(c)	Performance on works (Form _D',) – Time over run	20
(d)	Performance on works (Form _D') – Quality	40
	TOTAL	100

Further breakup of marks in each attribute, as mentioned above, is given at Section-III

To become eligible for short listing the bidder must secure at least fifty percent marks in each (sections a, b, c & d) and sixty percent marks in aggregate.

The department, however, reserves the right to restrict the list of such pre-qualified Contractors to any number deemed suitable by it.

Note: - The average value of performance of work for time over run and quality shall be taken on the basis of performance report of the eligible similar works.

9.0 FINANCIAL INFORMATION

Bidder should furnish the Annual financial statement in the last five years in (Form _A') and Solvency Certificate in (Form _B').

EXPERIENCES OF SIMILAR WORKS

Bidder should furnish the

- a) List of eligible works of similar nature successfully completed during the last seven years in (Form _C‘).
- b) The Performance Report of Similar works in Form _D‘.

11.0 ORGANIZATION INFORMATION

Bidder is required to submit the information in respect of his organization in Form _E‘.

12.0 LETTER OF TRANSMITTAL

The bidder should submit the Letter of Transmittal attached with the document.

13.0 OPENING THE PRICE BID & ITS VALIDITY

After evaluation of applications, a list of short listed agencies will be prepared. Thereafter, financial bids of only the qualified and technically acceptable bidders shall be opened at the notified time, date and place informed by the Executive Engineer later, in presence of qualified bidders or their representatives.

AWARD CRITERIA

The employer reserves the right, without being liable for any damages or obligation to inform the bidder, to:

- a) Amend the scope and value of contract.
- b) Reject any or all the tenders without assigning any reason.

Any effort on the part of the bidder or his agent to exercise influence or to pressurize the employer would result in rejection of his bid. Canvassing of any kind is prohibited.

SECTION III
INFORMATION REGARDING ELIGIBILITY
LETTER OF TRANSMITTAL

From:

To

The Executive Engineer

.....

Subject: Submission of bids for the work of

Sir,

Having examined the details given in the bid document for the above work, I/we hereby submit the relevant information.

1. I/we hereby certify that all the statement made and information supplied in the enclosed forms A to Hand accompanying statement are true and correct.
2. I/we have furnished all information and details necessary for eligibility and have no further pertinent information to supply.
3. I/we submit the requisite certified solvency certificate and authorize the Executive Engineer.....to approach the Bank issuing the solvency certificate to confirm the correctness thereof. I/we also authorize Executive Engineer to approach individuals, employers, firms and corporation to verify our competence and general reputation.
4. I/we submit the following certificates in support of our suitability, technical knowledge and capability for having successfully completed the following eligible similar works:

Name of Work	Certificate from

Certificate : It is certified that the information given in the enclosed eligibility bid are correct. It is also certified that I / We shall be liable to be debarred, disqualified / cancellation of enlistment in case any information furnished by me / us is found to be incorrect.

Enclosures: Seal of bidder

Date of submission:

Signature(s) of Bidder(s).

**FINANCIAL
INFORMATION (FORM „A“)**

- I. Financial Analysis – Details to be furnished duly supported by figures in balance sheet/ profit & loss account for the last five financial years duly certified by the Chartered Accountant, as submitted by the applicant to the Income Tax Department (Copies to be attached).

Financials Years				
------------------	--	--	--	--

- (i) Gross Annual Turn Over on construction works.
(ii) Profit/Loss.
- II. Financial arrangements for carrying out the proposed work.
Signature of Chartered Accountant with Seal

Signature of Bidder(s)

FORM "B"

BANKERS' CERTIFICATE FROM A SCHEDULED BANK

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.....), with date of validity.

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.
2. In case of Partnership firm, certificate should include names of all partners as recorded with the Bank.

FORM 'C'

DETAILS OF ELIGIBLE SIMILAR NATURE OF WORKS COMPLETED DURING THE LAST SEVEN YEARS ENDING PREVIOUS DAY OF LAST DAY OF SUBMISSION OF TENDERS

Sl. No.	Name of work / project and location	Owner or sponsoring organization	Cost of work in Crores of rupees	Date of Commencement as per contract	Stipulated date of completion	Actual date of completion	Litigation / arbitration cases pending / in progress with details*	Name and Address (Postal & E-mail) / telephone number of officer to whom reference may be made	Whether the work was done on back to back basis Yes / No
1	2	3	4	5	6	7	8	9	10

* Indicate gross amount claimed and amount awarded by the Arbitrator.

Signature of Bidder(s)

FORM 'D'

PERFORMANCE REPORT OF WORKS REFERRED TO IN FORMS "C"

1. Name of work/project & location
2. Agreement no.
3. Estimated cost
4. Tendered cost
5. Date of start
6. Date of completion
 - (i) Stipulated date of completion
 - (ii) Actual date of completion
7. Amount of compensation levied for delayed completion, if any
 - (a) Whether case of levy of compensation for delay has been decided or not Yes/No
 - (b) If decided, amount of compensation levied for delayed completion, if any
8. Amount of reduced rate items, if any
9. Performance Report
 - (1) Quality of work Outstanding/Very Good/Good/Poor
 - (2) Financial soundness Outstanding/Very Good/Good/Poor
 - (3) Technical Proficiency Outstanding/Very Good/Good/Poor
 - (4) Resourcefulness Outstanding/Very Good/Good/Poor
 - (5) General Behaviour Outstanding/Very Good/Good/Poor

Dated: Executive Engineer or Equivalent

FORM "E"
STRUCTURE & ORGANISATION

1. Name & address of the bidder
2. Telephone no./Telex no./Fax no.
3. Legal status of the bidder (Scan & upload copies of original document defining the legal status)
 - (a) An Individual
 - (b) A proprietary firm
 - (c) A firm in partnership
 - (d) A limited Company or Corporation
4. Particulars of registration with various Government Bodies (Scan & upload attested photocopy)

Organisation/Place of registration

Registration No.

- 1.
 - 2.
 - 3.
5. Names and titles of Directors & Officers with designation to be concerned with this work.
 6. Designation of individuals authorized to act for the organization
 7. Has the bidder, or any constituent partner in case of partnership firm, limited company / Joint Venture, ever been convicted by the court of Law? If so, give details
 9. In which field of Civil Engineering construction the bidder has specialization and interest?
 10. Any other information considered necessary but not included above.

Signature of Bidder(s)

**GOVERNMENT OF INDIA
CENTRAL PUBLIC WORKS DEPARTMENT**

STATE	Delhi	CIRCLE	Delhi Central Circle- 2, CPWD
BRANCH	B & R	DIVISION	_B' Division, CPWD
ZONE	NDZ -I	SUB-DIVISION	*

Percentage Rate Tender & Contract for Works

Tender for the work of:-

Comprehensive Maintenance (Civil & Electrical) of Hon“ble Ministers Bungalows in LBZ Area, New Delhi including Day to Day Maintenance, Ordinary & Special Repairs, Minor Works, Security Related Works and Upgradation Works.

(i) To be submitted online upto 3.00 PM on _____** to Executive Engineer, _B' Division, CPWD, I.P. Bhawan, New Delhi.

(ii) Eligibility bid to be opened online in presence of tenderers who may be present at 3.30 PM on _____** in the office of Executive Engineer, _B' Division, CPWD, I.P. Bhawan, New Delhi

TENDER

I/We have read and examined the notice inviting tender, schedule, part A, B, C, D & E, Specifications applicable, Drawings & Designs, General Rules and Directions, Conditions of Contract, of 2014 as amended/modified up to the previous day to last date of submission of Bid, clauses of contract, Special conditions, Schedule of Rate & other documents and Rules referred to in the conditions of contract and all other contents in the tender document for the work.

I/We hereby tender for the execution of the work specified for the President of India within the time specified in Schedule _F' viz., schedule of quantities and in accordance in all respect with the specifications, designs, drawing and instructions in writing referred to in Rule-1 of General Rules and Directions and in Clause 11 of the Conditions of contract of 2014 as amended/modified up to the previous day to last date of submission of Bid, and with such materials as are provided for, by, and in respect of accordance with, such conditions so far as applicable.

We agree to keep the tender open for **Seventy Five (75) days** from the date of opening of Eligibility bid and not to make any modification in its terms and conditions.

A sum of Rs _____*/- is hereby forwarded in cash/receipt treasury challan / deposit at call receipt of a scheduled bank/fixed deposit receipt of scheduled bank/demand draft of a scheduled bank/bank guarantee issued by a scheduled bank as earnest money. A copy of earnest money in receipt treasury challan/deposit at call receipt of a scheduled bank/ fix deposit receipt of schedule bank/ demand draft of a scheduled bank/ bank guarantee issued by a scheduled bank is scanned and uploaded. If/We, fail to furnish the prescribed performance guarantee within

prescribed period, I/We agree that the said President of India or his successors, in office shall without prejudice to any other right or remedy, be at liberty to forfeit the said earnest money absolutely. Further, if I/We fail to commence work as specified, I/We agree that President of India or the successors in office shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the said performance guarantee absolutely. The said Performance Guarantee shall be a guarantee to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to those in excess of that limit at the rates to be determined in accordance with the provision contained in Clause 12.2 and 12.3 of the tender form.

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

I/We undertake and confirm that eligible similar work(s) has/have not been got executed through another Contractor on back to back basis. Further that, if such a violation comes to the notice of Department, then I/We shall be debarred for tendering in CPWD 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 Deposited/ 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 therefrom 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:**

Signature of Contractor **

Witness: **

Address: **

Postal Address **

Occupation: **

** To be filled in By EE

ACCEPTANCE

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

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

(a) *

(b) *

(c) *

For & on behalf of the President of India

Signature.....*

Dated*

Designation.....*

-*- To be filled by EE.

The Proforma of Schedule is separate for Civil & Electrical component. The schedules of quantities of different components are as pages mentioned below:

PROFORMA OF SCHEDULES (A to F)				
SCHEDULE 'A' Schedule of quantities, enclosed on separate sheets for:- 163-313				
SCHEDULE 'B' Schedule of materials to be issued to the Contractor				
Sl. No.	Description of item	Qty.	Rates in figures & words at which the material will be charged to the Contractor	Place of issue
1	2	3	4	5
NIL				
SCHEDULE 'C' Tools and plants to be hired to the Contractor				
Sl. No.	Description	Hire charges per day	Place of Issue	
1	2	3	4	
NIL				
SCHEDULE 'D' Extra schedule for specific requirements/document for the work - As Attached				
SCHEDULE 'E'				
Reference to General Conditions of contract			General Conditions of Contract for CPWD works -2014 as amended/modified upto the previous day to last date of submission of Bid.	
Name of work :			Comprehensive Maintenance (Civil & Electrical) of Hon'ble Ministers Bungalows in LBZ Area, New Delhi including Day to Day Maintenance, Ordinary & Special Repairs, Minor Works, Security Related Works and Upgradation Works	

(ii)	Performance Guarantee	5% of contract amount of work	
(iii)	Security Deposit	2.5% of contract amount of work Subject to maximum of 5% of awarded cost of work	
SCHEDULE 'F': GENERAL RULES & DIRECTIONS:			
Officer Inviting Tender :		Executive Engineer, 'B' Division, CPWD, I.P. Bhawan, New Delhi	
Maximum percentage for quantity of items of work to be executed beyond which rates are to be determined in accordance with clauses 12.2 & 12.3.		As per clause 12 mentioned below	
2 (v)	Definitions:		
	Engineer-in-charge	i	Executive Engineer, 'B' Division, Room No. 232, CPWD, I.P. Bhawan, New Delhi (For Major Component i.e. Civil Work)
		ii	Executive Engineer (E), 'ED-II', CPWD, I.P. Bhawan, New Delhi (For Minor Component i.e. Electrical Component of Work)
2(viii)	Accepting Authority	Chief Engineer, NDZ-I, CPWD	
2 (x)	Percentage on cost of material and labour to cover all overheads and profits	15 %	
2 (xi)	Standard Schedule of Rates	DSR 2018 for Civil works	
2 (xii)	Department	CPWD	
9(ii)	Standard CPWD contract form :	GCC 2014, CPWD Form 7 as amended/ modified up to the previous day to last date of submission of bid.	
Clause 1:			

(i) Time allowed for submission of Performance Guarantee, Programme Chart (Time and Progress) and applicable labour licenses, registration with EPFO, ESIC and BOCW Welfare Board or proof of applying thereof from the date of issue of letter of acceptance, in days	10 days		
(ii) Maximum allowable extension with late fee @0.1% of Performance Guarantee amount per day beyond the period provided in (i) above.	5 days		
Clause 2:			
Authority for fixing compensation under clause 2 of bid.	Superintending Engineer, DCC-2, CPWD/ Authority as intimated by Engineer in Charge.		
Clause 2A:			
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	15 days		
Mile stone(s) as per table given below:-			
Sl. No.	Description of mile stone (s) (Physical)	Time allowed in days (From date of start)	Amount to be withheld in case of Non-achievement of Mile stone(s)
	NOT APPLICABLE		
TIME ALLOWED FOR EXECUTION OF WORK— 36 MONTHS			
Authority to decide:			
(i) Extension of time	Superintending Engineer, DCC-2, CPWD/ Authority as intimated by Engineer in Charge.		
(ii) Rescheduling of mile stones	NA		
(iii) Shifting of date of start in case of delay in handing over of site	Superintending Engineer, DCC-2, CPWD/ Authority as intimated by Engineer in Charge.		
Clause 6,6 A			
Clause applicable – (6,or 6A)		6 A	
Clause 7: Gross work to be done together with net payment /adjustment of advances for material collected, if any, since the last such payment for being eligible to interim payment		For Civil work Rs. 1.5 crore	

Clause 7A: Whether Clause 7A shall be applicable.	Yes.	
Clause 10 A: List of testing equipment to be provided by the Contractor at site lab.	Equipments required for field test as per Specification for the item under execution as per agreement.	
Clause : 10B(ii)		
Whether clause 10B (ii) shall be applicable	No	
Clause 10 C:-	Not Applicable	
Clause 10 CA	Applicable	
Materials Covered under this clause	Nearest material (other than cement, reinforcement bars and structural steel) for which All India Wholesale Price Index is to be followed	Base Price of all the materials covered under Clause10CA (Rs.) as on Jan 2019.
1. Cement (OPC) (OM No. DG/10CA/45 dated 28.03.2019 for the month of Jan.2019)	Nil	Rs. 4968/-per MT
2. TMT bars	Nil	Rs. 41500/- per MT
3. Structural Steel	Nil	Rs. 39409/- per MT
Clause 10 CC to be applicable in contracts with stipulated period of completion exceeding the period shown in next column.	12 MONTHS	
Schedule of component of other Materials, Labour, POL etc. for price escalation	Day to day maintenance work	Other works except day to day maintenance work
Component of material (Except materials covered under clause 10 CA)/ expressed as percent of total value of work. - Xm.....%	5%	75%
Component of labour expressed as percent of total value of work.-Y.....%	95%	25%
Component of POL expressed as percent of total value of work- Z.....%	Nil	Nil

Note:- Xm.....% should be equal to (100%)- (materials covered under clause 10CA i.e cement, Steel & other material specified in clause 10CA + Component of labour + Component of P.O.L)		
Clause 11: Specifications to be followed for execution of Civil work		CPWD Specifications 2009 (Vol-I & II) with modified & corrected upto the last date of receipt of bid and General Conditions & additional specifications as attached in part 'B' of the NIT.
Clause 12:		
	Type of work	Maintenance work
12.2 & 12.3	Deviation limit beyond which clause 12.2 & 12.3 shall apply for building work	50%
12.5:	(i) Deviation Limit beyond which clauses 12.2 & 12.3 shall apply for foundation Work (except earth work)	50%
	(ii) Deviation Limit for items in earth work subhead of DSR or related items	100%
Clause 16:		
Competent Authority for deciding reduced rates		Superintending Engineer, DCC-2, CPWD/ Authority as intimated by Engineer in Charge.
Clause 18 List of Mandatory Machinery, tools and plants to be deployed by the Contractor at site.		
As per requirement of work at site.		
Clause 25		
Clause 25 :Constitution of Dispute Redressal Committee		Competent Authority to appoint DRC
(A) For total Claims more than Rs. 25.00 Lakh. Chairman: CE (NDZ-II), Member-I-Director (Works-Cum-TLQA)NDR Member-II-SE, President Estate Circle, CPWD, NDZ-I, New Delhi SE(DCC-II) or as communicated by Engineer-in-charge, shall present the case before DRC but shall not have any part in decision making.		ADG (NDR)
(B) For total claims upto Rs. 25.00 Lakh. Chairman - Director (Works-Cum-TLQA)NDR, Member – I-EE-I-Divn., CPWD EE B-Divn. shall present the case before DRC but shall not have any part in decision making.		

Clause 36(i) Requirement of Technical Representative (s) & recovery Rate:						
S.No.	Discipline	Designation (Principal Technical/ Technical Representative	Requirement of Technical Staff		Minimum Experience	Rate at which recovery shall be made from the Contractor in the event of not fulfilling provision of Clause 36(i)
			Qualification	Number		
1.	-----Civil +Electrical Works-----	Project Manager	Graduate Engineer (Civil)	1	20	Rs. 60,000/- (Rupees Sixty thousand only) per month
		Deputy Project Manager	Graduate Engineer (Civil)	1	12	Rs.40,000/- (Rupees Forty thousand only) per month per person
			Graduate Engineer (Electrical)	1		
		Project / Site Engineer	Graduate Engineer or Diploma Engineer (Civil)	1	5 or 10 years for Graduate & Diploma Respectively	Rs.25,000/- (Rupees Twenty five Thousand) per month per person
			Graduate Engineer or Diploma Engineer (Electrical)	1		
		Quality Engineer	Grduate Engineer		8 Years	Rs.25,000/- (Rupees Twenty five thousand only) per month
			Civil	1		
			Electrical	1		
		Surveyor	Diploma Engineer	1	8 Years	Rs.15,000/- (Rupees Fifteen thousand only) per month
		Project Planning/ Billing Engineer	Graduate Engineer		6 Years	Rs.20,000/- (Rupees Twenty thousand only) per month per person
Civil	1					
Electrical	1					

Clause 42			
(a) Schedule/statement for determining theoretical quantity of cement & bitumen on the basis of Delhi Schedule of Rates 2016 modified/corrected upto last date of submission of tender.			
(ii) Variations permissible on theoretical quantities			
a) Cement for works with estimated cost put to tender more than Rs. 5 lakh.		2% plus / minus	
b) Bitumen for all work		2.5% plus only & Nil on minus side	
c) Steel reinforcement and structural steel sections for each diameter, section and category		2% plus / minus	
d) All other materials.		Nil	
RECOVERY RATES FOR QUANTITIES BEYOND PERMISSIBLE VARIATION			
S.No.	Description of Item	Rates in figures and words at which recovery shall be made from the Contractor.	
		Excess beyond permissible variation	Less use beyond the Permissible variation.
1.	Cement	Nil	Not Acceptable
2.	Steel Reinforcement	Nil	Not Acceptable

INTEGRITY PACT CPWD

To

.....,
.....,
.....

Sub: Comprehensive Maintenance (Civil & Electrical) of Hon'ble Ministers Bungalows in LBZ Area, New Delhi including Day to Day Maintenance, Ordinary & Special Repairs, Minor Works, Security Related Works and Upgradation Works

Dear Sir,

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

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

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

Executive Engineer,
B-Division, CPWD,
I.P.Bhawan, New Delhi

To

Executive Engineer,
B-Division, CPWD,
I.P.Bhawan, New Delhi

Sub: Submission of Bids for the work of “Comprehensive Maintenance (Civil & Electrical) of Hon“ble Ministers Bungalows in LBZ Area, New Delhi including Day to Day Maintenance, Ordinary & Special Repairs, Minor Works, Security Related Works and Upgradation Works.

Dear Sir,

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

I/We agree that the Notice Inviting Tender (NIT) is an invitation to offer made on the condition that I/We will sign the enclosed integrity Agreement, which is an integral part of tender documents, failing which I/We will stand disqualified from the tendering process. I/We acknowledge that THE MAKING OF THE BID SHALL BE REGARDED AS AN UNCONDITIONAL AND ABSOLUTE ACCEPTANCE of this condition of the NIT.

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

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

Yours faithfully

(Duly authorized signatory of the Bidder)

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

INTEGRITY AGREEMENT

This Integrity Agreement is made at on this..... day of..... 2016

BETWEEN

President of India represented through Executive Engineer, B-Division, CPWD, I.P.Bhawan, New Delhi. (Hereinafter referred as the 'Principal/Owner', which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns)

AND

.....(Name and Address of the Individual/firm/Company)
..... through(Details of duly authorized signatory).....
(Hereinafter referred to as the 'Bidder/Contractor' and which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns)

Preamble

WHEREAS the Principal / Owner has floated the Tender NIT No.....(hereinafter referred to as 'Tender/Bid') and intends to award, under laid down organizational procedure, contract for the work Comprehensive Maintenance (Civil & Electrical) of Hon'ble Ministers Bungalows in LBZ Area, New Delhi including Day to Day Maintenance, Ordinary & Special Repairs, Minor Works, Security Related Works and Upgradation Works.

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

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

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

Article 1: Commitment of the Principal/Owner

- 1) The Principal/Owner commits itself to take all measures necessary to prevent corruption and to observe the following principles:
 - (a) No employee of the Principal/Owner, personally or through any of his/her family members, will in connection with the Tender, or the execution of the Contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.
 - (b) The Principal/Owner will, during the Tender process, treat all Bidder(s) with equity and reason. The Principal/Owner will, in particular, before and during the Tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential / additional information through which the Bidder(s) could obtain an advantage in relation to the Tender process or the Contract execution.
 - (c) The Principal/Owner shall endeavor to exclude from the Tender process any person, whose conduct in the past has been of biased nature.

- 2) If the Principal/ Owner obtains information on the conduct of any of its employees which is a criminal offence under the Indian Penal code (IPC)/Prevention of Corruption Act, 1948 (PC Act) or is in violation of the principles herein mentioned or if there be a substantive suspicion in this regard, the Principal/Owner will inform the Chief Vigilance Officer and in addition can also initiate disciplinary actions as per its internal laid down policies and procedures.

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

- 1) It is required that each Bidder/Contractor (including their respective officers, employees and agents) adhere to the highest ethical standards, and report to the Government / Department all suspected acts of fraud or corruption or Coercion or Collusion of which it has knowledge or becomes aware, during the tendering process and throughout the negotiation or award of a contract.
- 2) The Bidder(s)/Contractor(s) commit himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the Tender process and during the Contract execution:
 - a) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm, offer, promise or give to any of the Principal/Owner's employees involved in the Tender process or execution of the Contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the Tender process or during the execution of the Contract.
 - b) The Bidder(s)/Contractor(s) will not enter with other Bidder(s) into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to cartelize in the bidding process.
 - c) The Bidder(s)/Contractor(s) will not commit any offence under the relevant IPC/PC Act. Further the Bidder(s)/Contractor(s) will not use improperly, (for the purpose of competition or personal gain), or pass on to others, any information or documents provided by the Principal/Owner as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
 - d) The Bidder(s)/Contractor(s) of foreign origin shall disclose the names and addresses of agents/representatives in India, if any. Similarly Bidder(s)/Contractor(s) of Indian Nationality shall disclose names and addresses of foreign agents/representatives, if any. Either the Indian agent on behalf of the foreign principal or the foreign principal directly could bid in a tender but not both. Further, in cases where an agent participate in a tender on behalf of one manufacturer, he shall not be allowed to quote on behalf of another manufacturer along with the first manufacturer in a subsequent/parallel tender for the same item.
 - e) The Bidder(s)/Contractor(s) will, when presenting his bid, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the Contract.
- 3) The Bidder(s)/Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.
- 4) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm indulge in fraudulent practice means a willful misrepresentation or omission of facts or submission of fake/forged documents in order to induce public official to act in reliance thereof, with the purpose of obtaining unjust advantage by or causing damage to justified interest of

others and/or to influence the procurement process to the detriment of the Government interests.

- 5) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm use Coercive Practices (means the act of obtaining something, compelling an action or influencing a decision through intimidation, threat or the use of force directly or indirectly, where potential or actual injury may befall upon a person, his/ her reputation or property to influence their participation in the tendering process).

Article 3: Consequences of Breach

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

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

Article 4: Previous Transgression

- 1) The Bidder declares that no previous transgressions occurred in the last 5 years with any other Company in any country confirming to the anticorruption approach or with Central Government or State Government or any other Central/State Public Sector Enterprises in India that could justify his exclusion from the Tender process.
- 2) If the Bidder makes incorrect statement on this subject, he can be disqualified from the Tender process or action can be taken for banning of business dealings/ holiday listing of the Bidder/Contractor as deemed fit by the Principal/ Owner.

- 3) If the Bidder/Contractor can prove that he has resorted / recouped the damage caused by him and has installed a suitable corruption prevention system, the Principal/Owner may, at its own discretion, revoke the exclusion prematurely.

Article 5: Equal Treatment of all Bidders/Contractors/Sub-Contractors

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

Article 6: Duration of the Pact

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

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

Article 7: Other Provisions

- 1) This Pact is subject to Indian Law, place of performance and jurisdiction is the Headquarters of the Division of the Principal/Owner, who has floated the Tender.
- 2) Changes and supplements need to be made in writing. Side agreements have not been made.
- 3) If the Contractor is a partnership or a consortium, this Pact must be signed by all the partners or by one or more partner holding power of attorney signed by all partners and consortium members. In case of a Company, the Pact must be signed by a representative duly authorized by board resolution.
- 4) Should one or several provisions of this Pact turn out to be invalid; the remainder of this Pact remains valid. In this case, the parties will strive to come to an agreement to their original intentions.
- 5) It is agreed term and condition that any dispute or difference arising between the parties with regard to the terms of this Integrity Agreement/Pact, any action taken by the Owner/Principal in accordance with this Integrity Agreement/Pact or interpretation thereof shall not be subject to arbitration.

Article 8: Legal and Prior Rights

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

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

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

.....
(For and on behalf of the Bidder)

WITNESSES:

1.
(Signature, name and address)

2.
(Signature, name and address)

Dated :
Place :

Format of Receipt of deposition of original Bank Guarantee as EMD

Receipt of deposition of original Bank guarantee as EMD (Receipt No...../ date.....)
Name of work:Comprehensive Maintenance (Civil & Electrical) of Hon'ble Ministers Bungalows in LBZ Area, New Delhi including Day to Day Maintenance, Ordinary & Special Repairs, Minor Works, Security Related Works and Upgradation Works NIT No. 02/EE/BD/2019-20 (01/CE/NDZ-I/2019-20) Last date of submission of bid: 29.05.2019 upto 3.00PM (*To be filled by NIT approving authority/EE at the time of issue of NIT and uploaded alongwith NIT)
Name of Contractor.....# Amount of original Bank guarantee Earnest Money Deposit..... # Date of submission of EMD... ..#
Signature, Name and Designation of EMD receiving officer (EE/AE(P)/AE/AAO) alongwith Stamp (# to be filled by EMD receiving EE)

Form of Performance Security (Guarantee)/Bank Guarantee Bond

In consideration of the President of India (hereinafter called -The Government)) 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.

We,(hereinafter referred to as -the Bank)) hereby undertake to pay to the Government an amount not exceeding Rs. (Rupees.....Only) on demand by the Government.

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 Government stating 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. (Rupees..... only)

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

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 Government under or by virtue of the said agreement have been fully paid and its claims satisfied or discharged or till Engineer-in-Charge on behalf of the Government 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.

We, (indicate the name of the Bank) further agree with the Government that the Government 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 Government against the said Contractor(s) and to forbear or enforce any of the terms and conditions relating to the said agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Contractor(s) or for any forbearance, act of omission on the part of the Government or any indulgence by the Government to the said Contractor(s) or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.

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

We,.....(indicate the name of the Bank) lastly undertake not to revoke

this guarantee except with the previous consent of the Government in writing.

This guarantee shall be valid up to.....unless extended on demand by the Government. Notwithstanding anything mentioned above, our liability against this guarantee is restricted to Rs.

..... (Rupees) 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

Form of Earnest Money Deposit (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 unto Executive Engineer, B-Division, CPWD, New Delhi (Hereinafter called -the Engineer-in-charge) in the sum of Rs. (Rs. in words) for which payment well and truly to be made to the said Engineer-in-Charge the Bank binds itself, his successors and assigns by these presents.

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

- (1) If after Eligibility Bid opening of tender; 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 Engineer-in-Charge either up to the above amount or part thereof upon receipt of his first written demand, without the Engineer-in-Charge having to substantiate his demand, provided that in his demand the Engineer-in-Charge will note that the amount claimed by him is due to him owing to the occurrence of one or any of the above conditions, specifying the occurred condition or conditions.

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

DATE
WITNESS
(SIGNATURE, NAME AND ADDRESS)

SIGNATURE OF THE BANK
SEAL

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

GENERAL TERMS AND CONDITIONS FOR CIVIL & ELECTRICAL WORK

1. **100 Nos bungalows of Hon“ble Ministers are covered for maintenance under the scope of this work. However, these may vary plus minus 10% depending on the exigencies, for which nothing extra shall be paid/deducted by the department in respect of day to day maintenance.**

General specifications of structure –

The common & general specifications for bungalows are mentioned below for guidance only.

Structure	Constructed partly framed and partly load bearing structure.
Masonry	Brick work.
External Plaster	Cement plaster
External Finishing	As per existing
Internal finishing	As per existing
Doors	Aluminium, Wooden, Steel, PVC/FRP.
Windows	Aluminium, Wooden & Steel.
Flooring	Cement concrete, Mosaic flooring, Vitrified / Ceramic Tile flooring & Wooden Flooring
Sanitary Fitting	CP Brass

2. The Contractor shall employ their regular staff in the works and credentials of employees shall have to be given by the Contractor. No claim of Contractors' employees/staff employed for subject work in any form shall be entertained by the department. Police verification of every staff deployed by the Contractor shall be got done by the Contractor compulsorily and a copy of police verification shall be provided to Engineer-in-Charge after which an identity card duly countersigned by Engineer-in-Charge or his representative shall be issued to each employee of the Contractor for proper identification.
3. The Contractor shall provide uniform to each employee/worker along with Name Badge and CPWD Logo and appropriate Shoes within 15 days of start of work. In the event of non compliance, a recovery of Rs. 50/- per day per Employee/worker shall be made. The employee/worker engaged by the Contractor under this contract shall wear neat and clean uniforms along with name badges (duly countersigned by CPWD) and CPWD Logo as approved by Engineer-in-Charge. The Contractor shall also provide the basic PPEs (Personal Protection Equipments)/ Safety equipment like Helmet, Safety belt/harness, Safety Shoes, Gloves etc. to each worker and supervisor, whosoever is directly connected with the work.
4. All T&P including Ladder's, Wire drawing equipment, Chase cutting equipment, Drilling machine Megger insulation, Earth resistance testing equipment etc. required for the work shall have to be arranged by the Contractor. No T&P shall be issued by the Department.

5. Unless otherwise specified, the agreement rates for all items of work of the schedule of quantities are for all heights, depths, leads and lifts involved in the execution of work.
6. The Contractor shall make his own arrangements for obtaining electric connection for carrying out any maintenance activity and make necessary payment directly to the department concerned. In the absence of electric connection or failure of power supply, the Contractor shall make his own arrangement of silent type generators.
7. The Contractor shall comply with proper and legal orders and directions of the local or public authority or Municipality and abide by their rules and regulations and pay all fees and charges of which he may be liable.
8. The Contractor shall take all precautions to avoid accidents by exhibiting caution boards/signages, warning boards, red flags, red lights and providing necessary barriers/ barricading of the construction area and all other measures required from time to time. The Contractor shall be responsible for all damages and accidents due to negligence on his part.
9. The Contractor shall give due notices to Municipality, Police and/ or other authorities that may be required under the law/ rules under force and obtain all requisite licenses for temporary obstructions/ enclosures and pay all charges which may be leviable on account of his execution of the work under the agreement. Nothing extra shall be payable on this account.
10. After award of work the agency shall prepare an Action Plan in consultation with CPWD and shall submit along with complete procurement plan of all materials, deployment of work force duly signed within 15 days.
11. No A/R & M/O, Special repairs & addition / alteration or upgradation work shall carried out in any bungalow(s) / premise(s) without approval of the Engineer-in-charge or his authorize representative in writing. Any work carried out without approval of the Engineer-in-charge or his authorized representative shall be treated as rejected & no such work shall be measured.
12. Other agencies may also be simultaneously executing some other work entrusted to them by the Engineer-in-charge and the Contractor shall offer necessary co-operation wherever required to these agencies so as not to interfere with or hinder the progress or completion of the work being performed by other Contractor (s). He shall as far as possible arrange his work and shall place and dispose off the materials being used or removed, so as not to interfere with the operations of other Contractors, or he shall arrange his work with that of the others in an acceptable and coordinated manner and shall perform it in proper sequence to the complete satisfaction of Engineer-in-charge.

13. On account of security consideration, there could be some restrictions on the working hours, movement of vehicles for transportation of materials, the contractor shall be bound to follow all such restrictions and adjust the programme for execution accordingly.
14. The work shall be carried out in a manner complying in all respects with the requirements of relevant bye laws of the local bodies, labour laws, minimum wages act, workmen compensation act and other statutory laws enacted by Central Govt. as well as State Govt.
15. All the malba or rubbish obtained from dismantling or otherwise during the execution of the work shall be brought down through the stair case and shall not be thrown to the ground directly from first floor or second floor etc. Malba rubbish generated due to any operation from Bungalows and there open spaces whatsoever shall be disposed off on daily basis by the Contractor to the specified common dumping point at site which shall be disposed off on same day by the Contractor to the authorized municipal dhalao/ dumping ground and nothing extra shall be paid on this account. The dumping point should be properly barricaded at all the time and should not give ugly look. The Malba/rubbish kept inside the dumping point should be covered with sheet or any other suitable material to avoid dust pollution. In case of non-removal/disposal in the specified period, a recovery of Rs.1000/- (rupees One thousand) per day shall be recovered from the Contractor after issuing notice in writing by the Engineer in charge of work. If the malba is not removed within three days of notice, the same shall be got removed by the department at the risk and cost of the Contractor and the amount shall be recovered from the bill of Contractor. This is in addition to the recovery of Rs. 1000/- per day for delay in removal of malba.
16. No residential accommodation shall be provided to any of the staff engaged by the Contractor. The Contractor shall also not be allowed to erect any temporary set up for staff in the campus for this purpose.
17. The Contractor shall depute required Technical Staff each for civil and electrical works as per Clause 36 of Schedule F who shall remain present at CPWD Service Center dg. the time and days as provided in Schedule of Quantity part A. The agency shall submit the credential of proposed staff & shall be taken on roll only after approval of Engineer-in-charge. The attendance shall be accepted through Biometric Attendance System only.
18. The procurement & issue/consumption of all materials shall be maintained through material management software & online /LAN. The issue / consumption shall be linked with reference of complaints (e-sewa) & receipt shall be linked with item of agreement. The complete material management shall be online/LAN. The material management system shall include dismantle materials also (though being property of the contractor)
19. Service Centres will operate round the clock on all days including Sundays and National Holidays.
20. The Contractor shall be required to use Computerized Complaints receiving and monitoring system and login to CPWD SEWA (Web based application) round the clock. The Contractor will have to arrange and maintain Telephones, Computers along with peripherals and Broadband Internet connections to operate CPWD SEWA. The Contractor shall also bear

the cost of all the bills/running cost of Computer and its connection(s). The Computer and service connections available at the Service Centre can be used by the Contractor, if he so desires.

21. The Contractor shall take immediate action to attend any complaint received on CPWD Sewa Website or assigned to him through Site Order Book/verbal instructions from Engineer-in-charge or on Telephone/ CPWD SEWA from occupants. Contractor shall endeavor to attend the complaints within the stipulated Time Frame as mentioned in CPWD Sewa Portal.
22. The compliance all complainants (day today or minor or upgradadtion) shall be maintained through specially developed software. It shall be made compatible with all software functional in CPWD from time to time.
23. In the CPWD E-Sewa Portal, the Complaints attended in the stipulated time frame are shown as Green & Complaints attended with moderate delay are shown in Yellow. The percentage of complaints attended in GREEN benchmark time every calendar month shall not be less than 90% in case of civil complaints as well as electrical complaints. In case of percentage of complaints attended in Green benchmark time for any calendar month falls below 90 % but not less than or equal to 80 % then a lump sum amount of Rs. 20,000/- shall be recovered from Contractors bill for every such month of default from respective civil and electrical bills separately. If this percentage falls below 80% but not less than or equal to 70% in case of civil complaints as well as electrical complaints, a lump sum amount of Rs. 50,000 shall be recovered from Contractors bill for every such month of default from respective civil and electrical bills separately.
24. If the percentage of complaints attended in green bench mark time for any calendar month falls below 70 %, for civil complaints as well as electrical complaints, no payment shall be made to the contractor for day to day component of that work for that particular month.
25. In addition to this, based on feedback taken by Call Centre, if the percentage of satisfied allottees falls below 90% for Civil complaints as well as Electrical complaints, a lump sum amount of Rs. 20,000/- shall be recovered from Contractor's bill for every such month of default from civil and electrical bills respectively. If this percentage falls below 90% but not less than or equal to 80% in case of Civil complaints as well as Electrical complaints, a lump sum amount of Rs. 50,000/- shall be recovered from Contractor's bill for every such month of default from civil and electrical bills respectively.
26. Main agency shall ensure that the day to day complaints are attended timely and there is satisfaction among the allottees. In case there is default of not complying to the bench mark standard in respect of timely attending the complaints and satisfaction level then the Engineer-in-charge reserves the right to ask the main agency to replace the sub agency duly fulfilling the eligibility criteria.

The reports generated by CPWD Sewa every month shall form the basis of above recoveries and shall be binding on the Contractor. No dispute on this matter shall be entertained.

TARGET TIME FRAME FOR ATTENDING CIVIL COMPLAINTS

S No	Complaint Type	Time
1	Emergency Complaints (blocked drains, no water etc.)	3 Hours
2	Minor Complaints (cleaning of drains, water overflow etc.)	2 Days
3	Major Complaints (repairs to doors, windows, plumbing, etc.)	7 Days
4	Periodical Complaints (White washing, painting, cleaning water tanks etc.)	10 Days

27. **If the individual emergent civil complaint is not attended within Benchmark time (GREEN) as prescribed in CPWD E-Sewa then recovery of Rs 500/- (Rupees Five Hundred Only) per complaint per day of delay shall be made from the contractor's bill.**
28. Quick Response System (QRS) shall be provided for 24x7 in working condition. Under QRS, the agency shall provide, maintain & operate motorized four wheelers specially designed for maintenance work having seating capacity of three workers, equipped with all essential spare parts for regular / emergent maintenance and all required T&P for plumbing, carpentry, sewerman tools, electrician tools i/c ladder, cables fault locator, pressure pump (to clear blockage of sewer lines or water supply lines), drilling machine (all types) and all other necessary for attending the emergent complaints etc. complete. Failure in maintaining 24x7 QRS shall attract Rs10000.00 per day for such absences.
29. All required Registers will be issued by Engineer-in-Charge duly marked in chronological order but the Contractor will have to arrange all such registers/stationery etc. Nothing extra shall be paid on this account.
30. The Contractor will have to arrange all the required Computer, furniture etc. at his own cost pertaining to his job and he will take all these things back only after the expiry of the agreement for which nothing extra shall be paid.
31. The Engineers, Supervisors and staff including skilled and unskilled workers of the agency shall carry mobile telephone(s) to enable the Engineer-in-charge to have easy and quick communication. Nothing extra shall be paid to the Contractor on this account and his quoted rates for various items under this contract will be deemed to be inclusive of the expenditure towards such Mobile connections and use thereof.
32. Staff employed by the Contractor should be well behaved, polite & courteous. The worker will clean the place/site thoroughly before leaving the site while attending the complaints. Any complaint against staff on behavior will be taken seriously and such staff should be removed by the Contractor immediately from the site and arrange replacement for the same failing which the Engineer-in-Charge has to recover as per corresponding conditions in this NIT.

33. Safety of the staff employed will be the responsibility of the Contractor. It shall be the prime duty of the Contractor to provide requisite safety equipments to all the workers and supervisors for their protection. CPWD will not be responsible for any mishap, injury/accident or death of the staff. No claim in this regard shall be entertained/ accepted by the department.
34. Contractor shall be fully responsible for any damages caused to govt. property or allottee's property by his labour in carrying out the work and the damage shall be rectified/made good by the Contractor at his own cost.
35. The Contractor shall maintain/stock sufficient quantity of materials and spares at site to meet the requirement of attending the complaints as per direction of the Engineer-in-charge. Stores/ bins if available shall be handed over to the Contractor for storing the material. The material management shall be operated with online/LAN system as narrated above. No manual system shall be accepted.
36. Operations in which assistance shall be provided by the agency to the CPWD:-
- a) Assistance for occupation and vacation for the bungalows and visit of allottees.
 - b) Informing to the CPWD engineers regarding the failure in any service being provided by other departments, in so far as they affect the assets being maintained under this contract, so that they can be taken up with the concerned local body / department for rectification.
 - c) Assisting the department in detection of unauthorized encroachments in the area being maintained.
 - d) Assistance for showing the vacant bungalows to the Hon'ble Ministers.
 - e) **Vacant Bungalows will be locked by the Contractor at his cost and Bungalows will not be allowed to be occupied or used by him/his staff/his workers. In case any quarter has been found to be occupied unauthorizedly, a recovery @ Rs 5000/- (Rupees Five Thousand Only) per day per bungalows shall be made and the Contractor will also be liable for action for loss caused due to theft or any other cause, and such loss shall be made good by the Contractor at his own cost. The repetition of such instance may attract criminal action also.**
 - f) **Contractor shall ensure the cleanness of vacant bungalow(s) till the allotment & shall be fully responsible for its watch & ward till handing over to occupant(s).**

- g) Contractor or his authorized representative shall be responsible during the occupancy and vacation of bungalow.
 - h) Contractor or his authorized representative shall be responsible for inventory like furniture, electrical items and ensure after the vacation of bungalow all the inventory items shall be in place.
 - i) Contractor or his authorized representative shall ensure wet cleaning inside the bungalow area and dry cleaning outside the bungalow immediately after the vacation of bungalow by the allottee.
 - j) Contractor or his authorized representative shall be responsible for Security and Safety vacant bungalow.
 - k) Contractor or his authorized representative shall ensure connectivity/availability on mobile phone round the clock.
 - l) Contractor shall provide alternate mobile/telephone no. for ease of communication, if so required.
 - m) Contractor shall ensure to attend/respond to the individual complaints within the time prescribed in CPWD e-sewa.
 - n) Contractor shall follow the Department's Citizen Charter and Model Code of Conduct for workers behavior as decided by Engineer-in-Charge.
 - o) The Contractor or his Engineer at the Service centre shall also maintain Complaint register for recording the complaints.
 - p) Contractor shall facilitate Visitors while they visit to Service Centre for lodging complaint in person.
 - q) Complaints received telephonically, personally or through a mode other than CPWD Sewa shall be entered into CPWD Sewa and attended in the same manner as prescribed for the complaints received through CPWD Sewa.
37. The contractor shall provide Cell Phone to each skilled worker for receiving and furnishing the compliance of complaints. The Cell Phone should be made compatible with e-Sewa.
38. The Contractor shall have to carry out the work other than Day to Day Maintenance according to programme given by the Executive Engineer/ Assistant Engineer / Junior Engineer-in-Charge. The Contractor shall have to adhere to this programme failing which he shall be wholly responsible for any inconvenience caused to the occupants. No claim for idle labour on any account shall be entertained. The Contractor shall depute his representative daily to the site of work. His name and Signature shall be attested by the Contractor for record in the department.

39. No A/R & M/O, Part work, Security work, Upgradation work Special repairs and addition/alteration work shall be carried out in any bungalows without the approval of the Engineer-in-Charge or his authorized representative. The labour deployed for 'Day to Day Maintenance' work should not be used for any other works except day to day maintenance.
40. The cement mortar/cement concrete shall not be mixed or mixed cement mortar / cement concrete shall not be placed on the ground /roads/pucca floor in any case during the execution of work at site. The cement mortar / cement concrete will only be mixed on MS sheet/sheet of other material suitable size. In case of default, the Engineer-in-charge of work shall reject the cement mortar / cement concrete out rightly if cement mortar/cement concrete mixed on ground/floor/slab/road and such cement mortar/cement concrete shall be removed from the site of work by the agency at his own cost.
41. It is mandatory on the part of Contractor to update the position of complaint assigned to worker with Name, Monitoring of the complaint and final disposal.
42. All dismantled material shall remain the property of the Contractor and shall be taken away by the Contractor after taking approval of Engineer-in-Charge in writing.
43. GST/WCT/Income Tax/ any other taxes as applicable shall be recovered from the Contractor's bill.
44. Chases, Holes & drilling works etc. shall be done using power operated tools.
45. In case of any accident during the Operation/Maintenance of the equipment leading to injuries/damages to human being, or loss of life, the Contractor shall be fully responsible for settling all claims & indemnify the department against any claims arising out of such accidents.
46. The quoted rate shall be inclusive of any prevailing taxes, duties, levies imposed by the Central /State government/Local bodies. Any new taxes shall be governed as per clause 38 of GCC-2014 for CPWD work, with up-to-date Correction slip.
47. The rates shall be quoted for schedule of quantity (civil & Electrical). Nothing shall be paid for any of activities narrated in the agreement.
48. This contract includes providing the Emergency Services whenever required after normal working hours; no extra charge will be entertained for attending such complaints.
49. The Contractor will carry out preventive maintenance / Checks as per CPWD Specifications / respective Standard trade practice and as per direction of Engineer-in-Charge. The result of such tests will be recorded in proforma as decided by the Engineer-in- Charge.

50. The Contractor shall give due notices to Municipality, Police and/ or other authorities under intimation to the Engineer in Charge that may be required under the law/ rules under force and obtain all requisite licenses for temporary obstructions/ enclosures and pay all charges which may be liveable on account of the execution of the work under the agreement. Nothing extra shall be payable on this account.
51. Materials used shall be in order of preferences as under:-
- i. Description/Nomenclature in Schedule of Quantities.
 - ii. Particular Specifications and Special Conditions.
 - iii. Relevant Drawings.
 - iv. CPWD Specifications, 2009 Vol- 1 & Vol-II with upto date correction slips.
 - v. Relevant Indian Standard Specifications of B.I.S.
 - vi. Manufacturer's Specification
 - vii. Sound Engineering Practice
52. The Engineer-in-Charge shall be at liberty to take respective sample(s) of each item of schedule of quantities in any approved laboratory as decided by him. The sample for testing shall be provided by the Contractor free of cost. All expenditure required to be incurred for taking sample, conveyance and packing & testing charges etc. shall be borne by the Contractor himself. In case any sample of particular lot fails in testing the Contractor shall be bound to replace the entire lot with fresh material of prescribed specification and the rejected lot shall be returned to the Contractor only after fresh lot is supplied. Testing charges in respect of failed sample will be borne by the Contractor himself.
53. Rejected materials shall have to be removed by the Contractor at his own cost immediately after the instructions of doing so.
54. In case of any dispute regarding rejection of quality of materials, the decision of the Engineer-in-Charge shall be final and binding upon the Contractor.
55. The Contractor shall be bound to provide services as per provisions applicable to services regarding duration for attending complaint, performance and bench marking etc. as defined on CPWD e-Sewa (details available on <http://cpwdsewa.gov.in>) including future amendment of CPWD e-Sewa.
56. No vegetation shall be allowed to grow on walls, roofs, staircase, chajjas, berms, roads etc.
57. All the roofs, sunseds and chajjas etc. shall be kept clean all the time to prevent water stagnation and seepage in the buildings.
58. The maintenance work is to be carried out in the bungalows of Hon'ble Ministers and other VVIP's located in Ashoka Road, Akbar Road, GRG Road, Jantar Mantar, Janpath, Kushak Road, K.Kamraj Marg, Krishna Menon Lane, Lodhi Estate, Mother Teresa Crescent, Moti Lal Nehru Place, Safdarjung Road, Sunehari Bagh Road/ Lane, Teen

Murti Lane/Marg, Talkatora Road, Tuglak Road/Lane/Crescent etc., which includes maintenance under all branches like Civil & Electrical as detailed in the General Terms and Conditions for Civil & Electrical. However the list of area is indicative & not exhaustive which may vary from time to time.

59. The Contractor shall take immediate action to attend to any complaint assigned to him through site order book/ verbal instructions from Engineer-in-Charge or on telephones/ Internet/ CPWD Sewa from occupants. In all cases, he shall attend the complaint in the specified duration as mentioned below :-
- iv. No delay/emergent complaints – Complaints of emergent nature such as short-circuiting, electricity not being available, Plumbing or sewerage systems not working etc. are to be attended to immediately or at the most within 6 hours of receipt of the complaints.
 - v. Minor Complaints – Complaints relating to the trades of Mason and Carpenter are to be attended within 3 days.
 - vi. Major Complaints – Complaints other than Emergent and Minor complaints. Such complaints are to be attended within shortest reasonable time which shall not be more than 10 days in any case in consultation with Engineer-in-Charge. Minor Complaint shall be converted to Major Complaint only with the Consultation/Approval of Engineer-In-Charge or his Authorized Representative only.
60. Necessary registers/complaint- attendance books duly machine numbered and authenticated by Engineer-in-Charge shall be maintained by the Contractor for each Service Centre in respect of complaints received and shall be got signed by the allottees, after attendance.
61. The following facilities shall be made available to the agency at the Service Center (s):-
- i) Appropriate Size Counter (free of charge) for the Receptionist to interact with Allotees and receive complaints.
 - ii) Two rooms (free of charge) in each Sub-Division for the use of the workers and other staff deployed by the agency at 5 Ashoka Road and Krishna Menon Lane.
 - iii) All furniture etc required for Contractor's staff shall be arranged by the Contractor at his own cost.
 - iv) Electric connection for general purpose at the service center already exists. In case additional load is required for some purpose this shall be arranged by the agency. The payment of Electricity consumed shall be made by the Contractor.
 - v) The agency shall restore back the premises and other articles provided by the department to the Contractor at the time of closure of the contract in good condition.
 - vi) The space in the occupation of the Contractor shall be kept neat and clean daily by the Contractor at his own cost.
- 62 The Contractor shall engage computer literate staff that should be able to use computerized complaints receiving and monitoring system. The Contractor will have to arrange and maintain telephone, computers along with peripherals and broadband internet connections (including standby connection from other service provider) to operate IVRS/ CPWD Sewa system. The Contractor shall also pay all the bills/ running cost of the computer and its peripherals, consumable, landline telephone and broadband connections etc. Land Line Telephone connections available at the Service Centers can be used by the Contractor if he so desires however bill will have to be paid by the Contractor.

62. The Contractor shall be provided with an inventory list of items in campus to be maintained. The Contractor shall be responsible for watch and ward of such items. The loss, if any shall be made good by the Contractor at his cost. The decision of Engineer-in-Charge in this respect shall be final and binding on the Contractor.
63. The contractor shall prepare a digitized inventory of all existing fixtures, major items (flooring, doors, windows shutters & frame of each bungalow. The inventory shall also be prepared for all services such as sewerage, manholes, water supply, STP, UGT & OHT etc., if not available with CPWD. The inventory shall be updated at completion of up-gradation work in each bungalow through digitized mode & online / LAN. The online / LAN up-dation shall be made online / LAN to (i). Engineer-in-charge & his authorized representative(s) (ii). The contractor & his authorized representative and (iii). any entity of CPWD or client as approved by Engineer-in-charge. In case of failure on the part of contractor for not preparing updated digitized plan, the Engineer-in-charge shall be at liberty to get prepared at his risk and cost.
64. The Contractor shall provide his mobile number or the mobile number of his representative to the Engineer-in-Charge for ease of communication with the controlling staff.
65. If any dismantled material has been received after attending complaint in lieu of new material provided shall be the property of the Contractor and a recovery for the same will be made from the bill of the Contractor at the rate quoted by him.
66. The labour deployed for attending complaints should carry necessary tool kit, container (Tasla), required for mixing any cement sand or other material and should carry with them water bottle and waste bag for collection of minor rubbish material if received during attending the complaints, so that the site of work shall remain neat and clean.
67. The Contractor shall have registration with EPFO and ESIC for safeguarding interest of his workmen. The Contractor shall make deduction on account of E.P.F & E.S.I to labour / staff deployed by him on the work and will furnish detail of each worker at division office every month. The Contractor shall have to follow all statutory rules and regulations.
68. The Contractor will arrange & store all the materials at Enquiry office, required for attending day to day maintenance complaints for at least 3 months or as decided by Engineer-in-Charge, throughout agreement period. A material at site (MAS a/c.) register shall be maintained by the Contractor for materials brought at site & used in day-to day maintenance work. The material management shall be maintained online through software. The contractor shall make Material management system compatible with ant software or online system implemented in CPWD form time to time. Nothing shall be paid. The MAS a/c. shall be kept at service centre so that officers of CPWD can review the quantity and quality of material present in store. The Management system of MAS a/c. shall be the property of Engineer-in-Charge after the completion of work.

69. Stores as available shall be handed over to the Contractor for storing the materials. Total two stores at different locations shall be made available free of cost.
70. The qualification of staff should be as below:

Sl. No.	Staff	Qualification
1	Mason	Should have passed ITI Diploma or equivalent Qualification in the trade with minimum five years experience.
2	Plumber	-do-
3	Carpenter	-do-
4	Beldar	Should be physically fit for unskilled work
5	Chowkidar	Should be physically fit for the work/job.
6	Computer Operator/Enquiry Clerk/Supervisor	Graduate with certificate course in basic computers from reputed institute.

71. The contractor shall provide capacity building of all the workers for adopting latest mechanism for attending the day-to-day complaints, execution of Special Repairs Addition/alteration and up-gradation works. The contractor shall tie up with Govt. Institute or any private institute (having certification of MSME, Central or State Govt.) as approved by Engineer-in-charge.
72. The contractor shall submit a training calendar with complete details of training schedule & training contents shall be submitted within 15 days for approval of Engineer-in-charge.
73. The Contractor shall submit measurement of work section wise to each Junior Engineer (Civil/Electrical). However, the measurement shall be compiled by the Nodal Assistant Engineer (Civil/Electrical) for preparation of running Account Bill.
74. Nothing extra shall be paid for any activity narrated in the agreement except Schedule of Quantity (Civil & Electrical).

SIGNATURE OF BIDDER(S)

P A R T – B
CIVIL WORK

GENERAL CONDITIONS

1. The Contractor shall make his own arrangements for electricity required for the execution of the work and nothing extra shall be paid for the same. However, for electrical connection, Engineer-In-Charge shall recommend the application of the Contractor to concerned Local authorities, if so desired by the Contractor. Necessary fees and i/c consumption charges shall be paid by the Contractor directly to the department concerned. In case the authorities fail to sanction the electric connection or delay the sanction of electric connection, the Contractor shall make his own arrangements by providing diesel generators of adequate capacity at his own cost. He shall also make his own arrangement for obtaining telephone connections for his own use.
2. Income tax, GST, Labour Welfare Cess and other statutory taxes, if applicable, shall be deducted from the gross amount of the work as per prevailing rules.
3. All the materials will be arranged by the Contractor himself. If any material is issued by the department, the Contractor shall bear all incidental charges for cartage, storage and safe custody of such material.
4. The Contractor shall quote the percentage rates for each component in figures and words accurately so that there is no discrepancy in rates written in figures and words and totals. In case of discrepancy, procedure specified in the Contract document of CPWD shall be followed.
5. All materials shall only be brought at site as per programme finalized with the Engineer-in-Charge. Any pre-delivery of the material, not required for immediate consumption shall not be accepted and thus not paid for. The complete material management system shall be maintained online through software. The updated status shall be made online to (i). Engineer-in-charge & his authorized representative(s) (ii). The contractor & his authorized representative and (iii). any entity of CPWD or Client as approved by Engineer-in-charge.
6. Except for the items, for which Particular Specifications are given or where it is specifically mentioned otherwise in the description of the items in the schedule of quantities, the work shall generally be carried out in accordance with the -CPWD Specifications 2009, Vol. I & II with up to date correction slips and instructions of Engineer-In-Charge. Wherever CPWD Specifications are silent, the latest IS Codes / Specifications shall be followed.
7. A reference made to any Indian Standard Specifications in these documents, shall imply to the latest version of that Standard, including such revisions / amendments as issued by the Bureau of Indian Standards up to last date of receipt of tenders. The Contractor shall keep at his own cost all such publications of relevant Indian Standards applicable to the work at site.
8. The rates for all items of work shall, unless clearly specified otherwise, include cost of all labour, material, tools and plants and other inputs involved in the execution of the item.

9. The Contractor(s) shall quote all-inclusive rates against the items in the schedule of quantities and nothing extra shall be payable for any of the conditions and specifications mentioned in the tender documents unless specifically specified otherwise.
10. Unless otherwise specified in the Schedule of Quantities, the rates for all items shall be considered as inclusive of pumping / bailing out water, if necessary, for which no extra payment shall be made.
11. The rate for all items, in which the use of cement is involved, is inclusive of charges for curing.
12. The work shall be executed and measured as per metric dimensions given in the Schedule of Quantities, drawings etc. (FPS units wherever indicated are for guidelines only)
13. Any legal or financial implications resulting out of disposal of earth shall be the sole responsibility of the Contractor. Nothing extra shall be paid on this account.
14. All the hidden items such as water supply lines, drainage pipes, conduits, sewers etc. are to be properly tested as per the design conditions before covering.
15. The Contractor shall indemnify the Govt. against any claims or obligations arising out of any damage to adjacent property, structure or to building work done by him.
16. Licenses:-
 - (i) The Contractor shall pay to the Municipal, Police or other authorities all the fees etc. that may be required by law, obtain requisite licenses for temporary constructions, enclosures and pay all fees/taxes and charges which shall be levyable on account of his obligations in executions of the Contract. No claim will be entertained on this account.
 - (ii) All licensing fees, Royalty charges for property rights etc. shall be paid by the Contractor direct to the authorities concerned. No claim will be entertained on this account.
17. In case Services like Water Supply, Sewer line or other Services are encountered during excavation / earthwork, and if such Services are required to be shifted, the Contractor is bound to carryout the shifting operation as per guidance / instructions and with the approval of the Engineer-In-Charge. However, necessary payments shall be made in this regard as per provision of the agreement.
18. The Water Supply Installations, Internal Sanitary Installations and Drainage work etc. shall be carried out in the manner complying in all respects with the requirements of relevant byelaws of the Local body under the jurisdiction of which the work is to be executed or as directed by the Engineer in Charge and nothing extra shall be paid on this account.
19. Existing drains, Cables, Pipes, Overhead wires, Sewer lines, Water lines and similar Services encountered in the course of execution of work shall be protected against the damages by the Contractor at his own expense. The Contractor shall not store materials

or otherwise occupy any part of the site in a manner likely to hinder the operation of such services.

20. Contractor shall take all precautionary measures to avoid any damage to adjoining property/ building. All necessary arrangements shall be made on his own cost by the Contractor.
21. The Contractor shall be responsible for the Watch and Ward / Guarding of the relevant provision of the buildings, safety of all fittings and fixtures including sanitary and water supply fittings and fixtures provided by him against pilferage and breakage during the period of installations and thereafter till the building part is physically handed over to the client department. No extra payment shall be made on this account.
22. The order of preference in case of any discrepancy as indicated under Conditions of Contract given in the -General Conditions of Contract for Central P.W.D. Works, 2014 may be read as the following:-
 - i. Description/Nomenclature in Schedule of Quantities.
 - ii. Particular Specifications and Special Conditions.
 - iii. Relevant Drawings.
 - iv. CPWD Specifications, 2009 Vol- 1 & Vol-II with upto date correction slips.
 - v. Relevant Indian Standard Specifications of B.I.S.
 - vi. Manufacturer's Specifications
 - vii. Sound Engineering Practice.

Any reference made to any Indian Standard Specifications in these documents, shall imply to the latest version of that Standard, including such revisions/amendments as issued by the Bureau of Indian Standards up to last date of receipt of tenders. The Contractor shall keep at his own cost all such publications of relevant Indian Standards applicable to the work at site.

23. The Contractor shall take all precautions to avoid accidents by exhibiting caution boards day and night. The Contractor shall be responsible for all damages and accident due to negligence on his part and no claims shall be entertained in this regard.
24. No foreign exchange shall be made available by the department for the purchase of equipments, plants, machinery, material of any kind or other items required to be carried out in execution of work.
25. If due to exigency of work, the work is required to be carried out in more than one shift or during night then Contractor will be bound to execute the work accordingly and arrange the T & P and labour etc. No extra claim on this account shall be entertained.
26. The Contractor shall be bound to follow the instructions and restrictions imposed by the local Administration/Police authorities on the working and/or movement of labour, materials etc. and if due to stated instructions and restrictions it lead to less/restricted

working hours or suspension of work or any detours in movement of vehicles then nothing extra shall be payable.

27. The Contractor shall also be required to follow the rules & restrictions imposed on working /movement/stacking of materials by the local competent authority at all times. Nothing extra shall be payable on this account.
28. Any damage caused by the Contractor to the existing building/installations/roads/boundary walls shall be made good by him (the Contractor) at his own cost.
29. Site is located in sensitive and high security & VVIP area, where movement and routes are restricted. The Contractor shall have to apply for passes well in advance for carrying out the work. No claim whatsoever shall be entertained for any loss on this account. Some restrictions may be imposed by the Security staff/ Delhi police on the working and for movement of labour, materials etc.
 - (i) The movement of trucks and vehicles shall be regulated in accordance with rules and regulations as approved by competent authority.
 - (ii) The Contractor shall be bound to follow all such restrictions / instructions and nothing extra shall be payable on this account.
 - (iii) No claim whatsoever will be entertained by the department on account of any, restrictions (including temporary suspension of work) imposed by the security agencies in execution of work.
 - (iv) The Contractor is required to prepare and install appropriate number of Display Boards at suitable locations in the colony/office and also at the Service Centre, to apprise the Residents about the details of Contractor, Supervisor, Executive Engineer, Assistant Engineer and Junior Engineer etc.
30. Before start of work, the Contractor keeping in view that the space available is limited, shall furnish a construction yard layout, specifying area for construction, positioning of machinery, material yard, cement and other storage, steel fabrication yard, site laboratory, water tank, conveyers belt, etc. and seek formal approval of the Engineer-in-charge. No space will be available at site of work for the fabrication of steel / aluminum work grating, railing, etc. The Contractor should make his own arrangement for the same in his workshop. Nothing shall be paid for the carriage of such manufactured items from workshop to site of work. The Contractor shall not stack building material / malba on NDMC land or road or on the land owned by any other authority and in case of failure to do so, he shall face penal action as per the rules, regulation and bye-laws of the said body or authority. The Engineer-in-Charge shall be at liberty to recover the amount due but not paid to the concerned authorities on account of the above from any amount due to the Contractor including amount of the security deposit or retention money in respect of this Contractor or any other Contract.

31. No labour huts shall be kept at the site of work. Tenderers shall quote their rates accordingly and nothing extra shall be paid on this account.
32. The Contractor shall take all necessary measures for the safety of traffic during construction and provide, erect and maintain such barricades, including signs, marking, flags lights and flagman as necessary, at either end of the excavation / embankment and at such intermediate points, as directed by the Engineer-in-Charge for the proper identification of construction area. He shall be responsible for all damages and accidents caused due to negligence on his part. Nothing extra shall be paid on this account.
33. In order to adhere to the Committed Program and requirement of allottees, the work shall be carried out in more than one shift and Contractor will deploy the resources accordingly. No extra claim on this account shall be entertained. Contractor should give advance notice in writing to Engineer-in-charge for doing any work in odd hours and arrange permission accordingly. Contractor shall arrange for transportation of CPWD site staff to their residences, in case the site staff is required to stay beyond office hours or during odd hours.
34. The contractor shall establish a laboratory at site for carrying out tests at site as per CPWD Specifications 2009(Vol.I& Vol. II) with up date correction slips or as directed by Engineer-in-charge.
35. Medical facilities shall be provide at CPWD service centre 24x7. The medicl facility shall include for primary medical services and shall be managed by a qualified medical professional of minimum qualification of MBBS or equivalent.

SPECIAL CONDITIONS.

1. 1% (One percent) Water charges shall be recovered from the gross amount of the work done.
2. All materials obtained from Govt. stores or otherwise shall be got checked by the Engineer-in-charge or his authorized representative of the work on receipt of the same at site of work before use.
3. The Contractor has to make his own arrangement for all T & P like ladders, gohree, sutli, empty containers, brushes, and paper, kuchies etc. required for work and nothing extra shall be paid for the same.
4. The Contractor shall have to get approved the brands/shades of Acrylic Distemper, Synthetic Enamel Paint, Plastic Emulsion Paint, Exterior Paint etc. from the Engineer-in-Charge before execution of same.
5. Materials shall be brought to the site of work in original containers with the Manufacturers seal intact.
6. The materials required for day's work shall be issued to the Contractor or his authorized representative daily by the Junior Engineer-in-charge of the work. Any balance of the material left at end of the days of work and the empty containers shall be returned to the Junior Engineer. The day to day issue account of the materials shall be maintained by the Junior Engineer-in-Charge and shall be signed daily by the Contractor or his authorized agent in token of receipt of the materials failing which no payment of bill shall be made to the Contractor. The empty containers shall not be removed from the site of work without written orders of the Engineer-in-charge.
7. Before the commencement of work, the Contractor shall prepare one sample as instructed by the Engineer-in-charge for approval of the Engineer-in-charge. After the sample is approved by the Engineer-in-Charge, the Contractor shall be allowed to commence the work and the quality of work shall confirm to the approved sample.
8. Before the commencement of work, the Contractor shall draw up a programme in consultation with the Engineer-in-charge for the execution of work so as to inform the occupants of the office bungalows at least one week in advance regarding the execution of the work.
9. In case the Bungalows are not made available to the Contractor according to the programme, the Contractor shall not be entitled for any claim for idle labour or any other claim on any account what-so-ever.
10. Defective work/Sub-standard work or work not done according to the specifications of the contract shall be liable for summary rejection & shall not be measured and paid for.

This shall be without prejudice to taking any other action against the Contractor in accordance with the terms & conditions of contract.

11. The Contractor shall depute his representative daily to the site of work. The name and signature of his representative attested by the Contractor shall be intimated to the Engineer-in-charge.
12. The entire work shall be carried out in close co-operation and Co-ordination with all other agencies working in the building. The Contractor (s) shall not be entitled to any compensation on account of temporary stoppage of work due to other construction.
13. No payment will be made to the Contractor for damage caused by rains during the execution of the works and no claim on this account will be entertained.
14. It will be the responsibility of the Contractor for damage caused by rains during the execution of the works and no claim on this account will be entertained.
15. Scrapping shall be shown to the Assistant Engineer and got approved and test checked by him prior to Painting or other finishing work.
16. Deviation in quantities shall be done only with prior written permission of the Engineer-in-charge. Deviation in quantities done on the order of other than the Engineer-in-charge shall not be measure and paid for.
17. To avoid disputes later on, Contractor is advised to get the measurement recorded within a week's time and shall submit his bills as per relevant Clause (7) of Contract. Any dispute regarding measurement including work done shall be judged within a week's time failing which measurement, certified and recorded, shall be entertained.
18. Any damage to the building, furniture, fittings or any other articles etc. done by the Contractor or his workmen during the execution of work, shall be made good by the Contractor, failing which the same shall be made good by the Engineer-in-charge or his authorized representative at the risk and cost of the Contractor.
19. All doors, windows, floors, furniture, electrical fittings and other articles shall be protected from dust, splashes & damage Splashes & droppings from white washing, colour washing, distempering painting etc. on walls, floors, doors and window, down take pipes/furniture shall be removed by the Contractor at his own cost and the surface cleaned simultaneously after the completion of the day's work is done, without waiting for the actual completion of the other items of work of the contract.
20. The Contractor should write their correct postal address on the application for tender papers. In case it is found that the address given in their application is not correct and as a consequence of the same if any registered letter sent through postal authorities is received back by the department undelivered to the Contractor, the Contractor shall be fully responsible for all the consequence and by such letter sent through registered post shall be deemed to have been delivered to him.

21. Full quantity of material or quantity approved by Engineer-in- Charge. such as paint plastic emulsion paint, Acrylic distemper etc. shall be deposited in sealed containers in advance and get it checked by Engineer-in-Charge before use.
22. The Contractor will be required to shift the existing furniture such as Sofa, Tables, Chairs, Carpets, Glasses and other items for execution of work, whenever required, as per direction of Engineer-in-Charge and make necessary arrangements to protect the furniture, carpets, floors etc. from any damage during the execution of work. Also the said shifted items will be required to be placed again by the Contractor as per direction of Engineer-in-Charge. Nothing extra will be paid in this regard. Any damage if done, shall be made good by the Contractor at his own cost and nothing shall be paid extra in this regard.
23. No labour huts shall be allowed inside the campus of above said work. The Contractor shall arrange for the stay of labours outside the campus including transport and nothing extra shall be payable on this account.
24. The Contractor shall comply with the provisions of ‘_Construction and Demolition Waste Management Rules, 2016’ as notified by the Ministry of Environment and Forest vide notification dated 29.03.2016 (available at web address www.moef.gov.in).
25. The Contractor shall comply with the Orders and Guidelines of NGT, MoEF and instructions regarding Disposal of Waste, as applicable from time to time.
The same are summarized as under:-
 - (a) The Contractor shall not store/dump construction material or debris on metalled road.
 - (b) The Contractor shall get prior approval from Engineer-in-Charge for the area where the construction material or debris can be stored beyond the metalled road. This area shall not cause any obstruction to the free flow of traffic/inconvenience to the pedestrians. It should be ensured by the contractor that no accidents occur on account of such permissible storage.
 - (c) The Contractor shall take appropriate protection measures like raising wind breakers of appropriate height on all sides of the plot/area using CGI sheets or plastic and /or other similar material to ensure that no construction material dust fly outside the plot area.
 - (d) The Contractor shall ensure that all the trucks or vehicles of any kind which are used for construction purposes/or are carrying construction material like Cement, Sand and other allied material are fully covered. The Contractor shall take every necessary precautions that the vehicles are properly cleaned and dust free to ensure that enroute their destination, the dust, sand or any other particles are not released in air/contaminate air.
 - (e) The Contractor shall provide mask to every worker working on the construction site and involved in loading, unloading and carriage of construction material and construction debris to prevent inhalation of dust particles.

- (f) The Contractor shall provide all medical help, investigation and treatment to the workers involved in the construction of building and carry of construction material and debris relatable to dust emission.
 - (g) The Contractor shall ensure that C&D Waste is transported to the C&D Waste site only and due record shall be maintained by the Contractor.
 - (h) The Contractor shall compulsory use of wet jet in grinding and stone cutting.
 - (i) The Contractor shall comply all the preventive and protective environmental steps as stated in the MoEF guideline, 2010.
 - (j) The Contractor shall carry out on-Road-Inspection for black smoke generating machinery. The Contractor shall use cleaner fuel.
 - (k) The Contractor shall ensure that all DG sets comply emission norms notified by MoEF.
 - (l) The Contractor shall use vehicles having pollution under control certificates. The emissions can be reduced by a large extent by reducing the speed of a vehicle to 20 kmph. Speed bumps shall be used to ensure speed reduction. In cases where speed reduction cannot effectively reduce fugitive dust, the Contractor shall divert traffic to nearby paved areas.
 - (m) The Contractor shall ensure that the construction material is covered by tarpaulin. The Contractor shall take all other precaution to ensure that no dust particles are permitted to pollute air quality as a result of such storage.
 - (n) The paving of the path for paying of vehicles carrying construction material is more permanent solution to dust control and suitable for longer duration projects. The NIT approving authority shall carry out cost benefit ratio analysis of the same.
26. To exercise the control on the quantum of the different items under execution, the following procedure shall be adopted.
- (i) Whenever any need of work arises in the subhead of ‘_Special Repair work’, the concerned AE shall prepare the Schedule of the Quantities by selecting the items and quantities available in the schedule of this subhead quoting locations, requisition reference and time allowed.
 - (ii) If the cost of the work on the basis of rates quoted by the Contractor is upto Rs. 20,000/- (Rupees twenty thousand only), the Assistant Engineer will sign the Schedule and put proper serial number and the same will be issued to the Contractor for carrying out the work.
 - (iii) All such schedules are to be monitored properly and recorded in the register in each service centre. No work shall be carried out by the Contractor without getting the signed, dated and serially numbered schedule from the AE.

- (iv) If the cost of the work is more than Rs. 20,000/-, then EE will sign the schedule and issue to the Contractor for carrying out the work.
- (v) The measurements shall be recorded in the MB giving reference of Schedule issued to the Contractor.
- (vi) The EE will monitor monthly the quantities being executed in this sub head. He will ensure that no work is carried out unless the proper serial numbered and signed schedule is issued to the Contractor.

No. 1(10)/T&PR/2016
Government of India
Directorate General
Central Public Works Department
Technical & Public Relations Unit
Tel No. 23061584 Email: dirtech-pr.cpwd@nic.in

105-A, Nirman Bhawan,
New Delhi, Dated: 27.01.2016

OFFICE MEMORANDUM

Sub.: Directives of the Hon'ble Supreme Court and Hon'ble National Green Tribunal on air pollution from construction and demolition activity.

Attention is drawn to the Hon'ble National Green Tribunal earlier orders dated 4.12.2014 and 10.4.2015 in OA No. 21/2014 and OA No. 95/2014 and MoEF guidelines of 2010 regarding dealing with air pollution from construction and demolition sites. The directives in this regard are restated in the Annexure enclosed.


2. Hon'ble Tribunal had directed for mandatory strict adherence and compliance of above referred orders as well as MoEF guidelines 2010 while carrying out the construction activity.

3. Hon'ble Supreme Court, in a recent judgment has favoured imposing a fine of Rs. 50,000/- on a daily basis on construction sites for generating high levels of dust in Delhi and NCR. It has been directed by the apex court that EPCA may go around and check polluting construction sites with the help of the volunteers for strict compliance of its order.

4. Accordingly, all SDGs, ADGs, CEs, CPMs, PMs are enjoined upon to strictly comply with the directives of Hon'ble Supreme Court & Hon'ble NGT and MoEF guidelines 2010 to control air pollution at CPWD construction sites. Any laxity found or reported by the checking authorities in this regard shall be viewed seriously.

This issues with the approval of Director General, CPWD.

Encl. As above.


(S. P. Chaudhary)
Director (Tech & PR)

To **(through CPWD website)**

All SDGs, CPWD
All ADGs, CPWD
All CEs/CPMs/PMs, CPWD

Directives of Hon'ble National Green Tribunal in O.A. No.21 of 2014 and O.A. No. 95 of 2014 and MoEF guidelines 2010 on Air Pollution from Construction and Demolition activity.

(A) NGT order dated 04.12.2014:

- No government, authority, contractor, builders or any person would be permitted to store/dump construction material or debris on metalled road.
- Beyond the metalled road the area where such the construction material or debris can be stored shall be physically demarcated by officers of all the concerned Authorities/Corporation ensuring that it would not cause any obstruction to the free flow of traffic/inconvenience to the pedestrians. It should be ensured that no accidents occur on account of such permissible storage.
- Every builder, contractor or person shall ensure that the construction material is covered by tarpaulin and all other precaution should be taken to ensure that no dust particles are permitted to pollute air quality as a result of such storage. It shall also be ensured that appropriate protection measures are taken by raising wind breakers of appropriate height on all sides of the plot/area using plastic and /or other similar material to ensure that no construction material dust fly outside the plot area and it will be the builder/contractor responsibility to ensure that their activity does not cause any air pollution during course of construction and/or storage of material or construction activity. This condition shall be strictly adhered to by every builder, contractor, person or authority. In the event of default they shall be liable to be prosecuted under the law in force, as well as for causing environmental pollution and will be liable to pay compensation which would be determined by Tribunal in accordance with law.
- All the trucks or vehicles of any kind which are used for construction purposes/or are carrying construction material like cement, sand and other allied material should be fully covered. The vehicles should be properly cleaned, should be dust free and every necessary precautions is to be taken to ensure that enroute their destination, the dust, sand or any other particles are not permitted to be released in air/contaminate air. Any truck not complying with the above directions would not be permitted to enter NCR, Delhi.

(B) NGT order dated 10.04.2015:

- Every builder or owner shall put tarpaulin on scaffolding around the area of construction and the building. No person including builder, owner can be permitted to store any construction material particularly sand on any part of the street, roads in any colony.

(C) Environmental Impact Assessment Guidance Manual for Building, Construction, Township and area Development Projects of February, 2010 envisages the following guidelines for mitigation measures in respect of dust control from Building, Construction projects:

"Adopting techniques like, air extraction equipment, and covering scaffolding, hosing down road surfaces and cleaning of vehicles can reduce dust and vapour emissions. Measures include appropriate containment around bulk storage tanks and materials stores to prevent spillages entering watercourses."

The other measures to reduce the air pollution on site are:

- Sprinkling of water and fine spray from nozzles to suppress the dust.
- On-Road- Inspection should be done for black smoke generating machinery.
- Promotion of use of cleaner fuel should be done.
- All DG sets should comply emission norms notified by MoEF
- Vehicles having pollution under control certificate may be allowed to ply.
- Use of covering sheet to prevent dust dispersion at buildings and infrastructure sites, which are being constructed
- Use of covering sheets should be done for trucks to prevent dust dispersion from the trucks, implemented by district offices.
- Paving is a more permanent solution to dust control, suitable for longer duration projects. High cost is the major drawback to paving.
- Reducing the speed of a vehicle to 20 kmph can reduce emissions by a large extent.

Speed humps are commonly used to ensure speed reduction. In cases where speed reduction cannot effectively reduce fugitive dust, it may be necessary to divert traffic to nearby paved areas.

Material storages / warehouses — Care should be taken to keep all material storages adequately covered and contained so that they are not exposed to situations where winds on site could lead to dust / particulate emissions. Fabrics and plastics for covering piles of soils and debris is an effective means to reduce fugitive dust.

(D) Copy of NGT orders dated 04.12.2014, 10.04.2015, copy of MoEF guidelines 2010 are available at the DPCC website "<http://dpcc.delhigovt.nic.in>".

- The construction material of any kind that is stored in the site will be fully covered in all respects so that it does not disperse in the Air in any form.
- All the construction material and debris shall be carried in the trucks or other vehicles which are fully covered and protected so as to ensure that the construction debris or the construction material does not get dispersed into the air or atmosphere, in any form whatsoever.
- The dust emissions from the construction site should be completely controlled and all precautions taken in that behalf.
- The vehicles carrying construction material and construction debris of any kind should be cleaned before it is permitted to ply on the road after unloading of such material.
- Every worker working on the construction site and involved in loading, unloading and carriage of construction material and construction debris shall be provided with mask to prevent inhalation of dust particles.
- Every owner and or builder shall be under obligation to provide all medical help, investigation and treatment to the workers involved in the construction of building and carry of construction material and debris relatable to dust emission.
- It shall be the responsibility of every builder to transport construction material and debris waste to construction site, dumping site or any other place in accordance with rules and in terms of this order.
- All to take appropriate measures and to ensure that the terms and conditions of the earlier order and these orders should strictly comply with by fixing sprinklers, creations of green air barriers.
- Compulsory use of wetjet in grinding and stone cutting.
- Wind breaking walls around construction site.
- All the builders who are building commercial, residential complexes which are covered under the EIA Notification of 2006 shall provide green belt around the building that they construct. All Authorities shall ensure that such green belts are in existence prior to issuance of occupancy certificate.
- All builders shall ensure that C&D waste is transported in terms of this order to the C & D Waste site only and due record in that behalf shall be maintained by the builders, transporters and NCR of Delhi.
- Even if constructions have been started after seeking Environmental Clearance under the EIA notification 2006 and after taking other travel but is being carried out without taking the preventive and protective environmental steps as stated in this order and MoEF guidelines, 2010, the State Government, SPCB and any officer of any department as afore stated shall be entitled to direct stoppage of work.

General Conditions for Civil

General.

Unless otherwise specified in the schedule of quantities, the rates tendered by the Contractor shall be all inclusive and shall apply to all lifts & all heights, floors including terrace, leads and depths and nothing extra shall be payable on this account. Centering, shuttering, however if required to be done for RCC beams, RCC floor slabs and landings only for centering heights greater than 3.5m, shall be measured and paid for separately.

Water tanks, taps, sanitary, water supply and drainage pipes, fittings and accessories should conform to bylaws and municipal body / corporation where CPWD Specifications are not available.

The Contractor shall give performance test of the entire installation(s) as per the standing specifications before the work is finally accepted and nothing extra whatsoever shall be payable to the Contractor for the test,

Any cement slurry added over base surface (or) for continuation of concreting for better bond is deemed to have been included in the items and nothing extra shall be payable For RCC work, only factory made round type cover blocks shall be used. For Brick work, unless otherwise specified FPS bricks shall be used in all items of work. The classification of bricks brought by the Contractor shall conform to the CPWD Specifications.

The work shall be carried out in accordance with the Architectural drawings and Structural drawings, to be issued from time to time, by the Engineer-in-Charge. Before commencement of any item of work, the Contractor shall correlate all the relevant Architectural and Structural drawings issued for the work and satisfy himself that the information available there from is complete and unambiguous. The discrepancy, if any, shall be brought to the notice of the Engineer-In-Charge before execution of the work. The Contractor alone shall be responsible for any loss or damage occurred by the commencement of work on the basis of any erroneous and or incomplete information resulting in infructuous hours.

Other agencies will also simultaneously execute and install the works of internal electrical installations, sub-station / generating sets, air-conditioning, lifts, etc. for the work and the Contractor shall afford necessary facilities for the same. The Contractor shall leave such recesses, holes, openings trenches etc. as may be required for such related works (for which inserts, sleeves, brackets, conduits, base plates, clamps etc. shall be supplied free of cost by the department unless otherwise specifically mentioned) and the Contractor shall fix the same at the time of casting of concrete, stone work and brick work, if required, and nothing extra shall be payable on this account.

Sampling and testing

All materials and fittings brought by the Contractor to the site for use shall conform to the samples approved by the Engineer-in-charge, which shall be preserved till the completion of the work. If a particular brand of material is specified in the item of work in Schedule of Quantity, the same shall be used after getting the same approved from Engineer-In-Charge. Wherever brand / quality of material is not specified in the item of work, the Contractor shall submit the samples as per Approved list of brand names given in the tender document / Particular Specifications for approval of Engineer-In-Charge. For all other items, not having approved make list in the tender documents, The Materials and Fittings carrying ISI Mark shall be used with the approval of Engineer-In-Charge. Wherever ISI Marked Material / Fittings are not available, the

Contractor shall submit samples of materials / fittings manufactured by firms of repute conforming to relevant specifications or IS codes and use the same only after getting the approval of Engineer-In-Charge. To avoid delay, Contractor should submit samples as stated above, well in advance so as to give timely orders for procurement. If any material, even though approved by Engineer-In-Charge is found defective or not conforming to Specifications shall be replaced / removed by the Contractor at his own risk & cost.

The Contractor shall ensure quality construction in a planned and time bound manner. Any sub-standard material / work beyond set-out tolerance limit shall be summarily rejected by the Engineer-in-charge & Contractor shall be bound to replace / remove such Sub-Standard / defective work immediately at his on cast.

BIS marked materials except otherwise specified shall be subjected to Quality test besides testing of other materials as per the specifications described for the items/material. Wherever BIS marked materials are brought to the site of work, the Contractor shall furnish Manufacturer's test certificate or test certificate from approved testing laboratory to establish that the material produced by the Contractor for incorporation in the work satisfies the provisions of BIS codes relevant to the material and / or the work done.

BIS marked items (except Cement & Steel) required on the work shall be got tested. Only important tests, which govern the quality of the product, shall be carried out. The frequency of such tests shall be 25% of the frequency specified in the CPWD Specifications 2009 vol I & II with upto date correction slips.

For certain items, if frequency of tests is not mentioned in the CPWD Specifications then relevant IS code shall be followed and tests shall be carried out @ 25% of the frequency specified therein. Wherever Tender Documents/CPWD Specifications/relevant BIS codes do not specify the frequency of tests, the same shall be carried out as per direction of the Engineer in charge.

All the materials obtained from Govt. Store or otherwise shall be got checked by the Engineer in Charge or his authorized supervisory staff, on receipt of the same at site before use.

All materials which are specified to be tested at the Manufacturer's work shop shall satisfactorily pass the tests in presence of the authorized representative of Engineer in charge before being used in this work. In case all requisite testing facilities are not available at the Manufacturer's premises, such testing shall be conducted at laboratory approved by the Engineer in charge. The charges for such testing shall be borne by the Contractor.

The cost of samples including packing, sealing, transportation and other incidental charges shall be borne by the Contractor. However the cost of tests shall be borne by the Contractor/department in the manner indicated below:

- (i) By the Contractor if the results show that the Material do not confirm to relevant BIS Codes/Specifications.
- (ii) By the department if the results show that the Material conforms to relevant BIS Codes/specification. In this case, the testing charges will be reimbursed to the agency by the department after submission of reimbursement claim by the agency along with original vouchers.

In all cases, cost of samples and To & Fro carriage/transportation charges shall be borne by the Contractor.

The Contractor has to establish field laboratory at site and employ skilled manpower for the following tests and as per clause 10 A of Schedule F (Civil Component) at his own cost.

- Particle size distribution and shape.
- Ten percent fine value
- Aggregate Impact Test
- Surface Moisture test
- Slump Test
- Flakiness and Elongation Index tests.
- Rebound Hammer test, if required by Engineer-in-Charge.
- Bulking of sand
- Silt content of Sand
- Thermometer with brass protected end (0-1000 C) if required by Engineer-in- Charge.
- Electric operated compressive strength testing machine.
- Water absorption test for bricks and wood.
- Moisture test.
- Site survey instruments.

The Contractor should remove from site, the net surplus earth only on the direction of Engineer-in-Charge. If he disposes earth more than the surplus quantity and earth is required later to be brought from outside, the Contractor shall be liable to supply at site the such required quantity of earth of required quality at his own cost and nothing shall be paid on this account. The quantity of the surplus earth to be disposed off from the site shall be worked out on the basis of levels to be taken before and after the excavation. The decision of the Engineer-in-Charge regarding the quantity of net surplus earth shall be final & binding. Nothing extra shall be payable to the Contractor for stacking the excavated earth.

Equipments like Excavators/Mixers, Vibrators, Generators etc. shall be allowed to be moved away from the site when, in written opinion of Engineer-in-Charge, the same are no longer required at site, of work.

All the equipments shall be brought, installed and commissioned at site of work at least one week before their actual planned use at site.

All the item of works related to foundation and plinth includes the work of basements also.

Deviation in quantities shall be done only with prior written permission of the Engineer in charge. Deviation in quantities done on the order of other than the Engineer in charge shall not be measured and paid for.

To avoid disputes later on, Contractor is advised to get the measurements recorded within a week's time and shall submit his bills as per relevant Clause (7/7A) of the Contract as applicable. Any dispute regarding measurements including work done shall be judged within a week's time failing which measurements certified and recorded shall be entertained.

FLOORING :

The Granite stones, Marble, Kota stone, Chittor stone, Jaisalmer stone, white sand stone and black Cuddapah or any other stones mentioned in the tender document and as directed by Engineer in Charge shall be executed as per patterns and cuttings or patterns of various combinations of marbles/granite/stones shown in the architectural drawings and or as directed by Engineer in Charge. Nothing extra shall be payable on this account. Samples of Marbles/Stones/Granites etc. shall be deposited well in advance with the Engineer in Charge for

approval. Approved samples should be kept at site with the Engineer in Charge and the same shall not be removed except with the written permission of Engineer in Charge. No payment whatsoever shall be made for these samples. The granite/stone/marble mentioned herein shall conform to the requirements given in CPWD specifications 2009, Volume I & II. (with up-to-date correction slips).

Marble / Granite flooring:

These will be read in addition to the specifications of marble flooring given in CPWD specifications 2009, Volume I & II. (With up-to-date correction slips). The sample shall not be of size less than 600 mm x 600 mm or as decided by the Engineer-in-charge. The samples shall be fully supported by the details of the quarry and location. The Contractor shall use necessary pigments to match the colour of the marble with pointing/jointing. The pigments shall be got approved, from the Engineer in Charge prior to commencement of flooring item. Samples for sand blasted granite shall be produced separately. Sand blasting shall be carried out after the selection of the basic granite sample. The rate of items of flooring is inclusive of providing sunken flooring in bathrooms, kitchen etc. and nothing extra on this account is admissible. The Granite/marble stone flooring in treads and risers of stair case is to be laid in single piece. Nothing extra shall be paid on these accounts. The measurement shall be made for finished work of flooring.

WATER SUPPLY AND SANITARY INSTALLATIONS :

The Contractor shall submit completion plans for water supply, internal sanitary installations and building drainage work on drawings prepared preferably through computers (1 original copy plus 3 Photostat) on suitable scales to show the general arrangement and desired details. In case the Contractor fails to submit the completion plans as aforesaid, security deposit shall not be released.

General requirements

Sanitary fixtures shall be of the best quality and shall be of approved make and manufacture (wherever specified) as defined in the item of work or defined any where in this document otherwise shall be as mentioned in the CPWD specifications failing which the same shall be of ISI mark duly approved by the Engineer-in-Charge.

All fixtures and fittings shall be provided with all such accessories as are required to complete the item in working condition whether specifically mentioned or not in the Schedule of Quantities, specifications, elsewhere in this tender document & drawings. The quoted rates shall be deemed to be all inclusive for a complete item fit for use including all materials, labour, T&P, specials, equipments, testing & commissioning etc. Accessories shall include proper fixing arrangement, brackets, nuts, bolts, screws and required connection pieces. All the accessories shall be of the quality and make as per manufacturer's specifications except otherwise specified in specifications, schedule of quantities and elsewhere in this tender document. Nothing extra whatsoever shall be payable on aforesaid account.

Fixing screws shall be half round head chromium plated brass screws with C.P. washers where necessary or otherwise as provided in the item.

Porcelain sanitary ware shall be glazed vitreous china of first quality free from warps, cracks and glazing defects and shall conform to I.S. 2556-1967.

All fittings and fixtures shall be fixed in a neat workmanlike manner true to required level and heights and in accordance with the manufacturer's recommendations and

directions of Engineer-in-charge. Care shall be taken to fix all inlet and outlet pipes at correct positions.

All holes or chases shall be properly made good by C.C 1:2:4 (in brick wall) or the concrete mix of RCC element as directed by the Engineer-in-Charge. Nothing extra shall be payable on this account.

Wherever M.S. clamps are required to be anchored directly to brick walls, concrete slabs, beams, walls or columns, nothing extra shall be payable for making good the same.

The soil waste and vent pipes & its related fitting shall conform to IS 3989-84 with latest amendments.

Nothing extra for providing and fixing CP Brass caps/extension pieces wherever required for CP Brass fittings shall be paid beyond the rates payable for corresponding CP Brass fittings.

Urinals with infra-red No-touch flushing system

Urinals shall be half stall white glazed vitreous china of size as specified in Schedule of Quantities.

Half stall urinals shall be provided with 15 mm dia C.P. spreader, 32 mm dia C.P. domestic waste and C.P. cast brass bottle trap with pipe and wall flange, and shall be fixed to wall by cutting necessary chases, fixing C.I. brackets and C.I. wall clips as recommended by manufacturer, and making good the surface as directed by Engineer-in Charge all complete.

Drain pipes shall be G.I. pipes concealed in wall chase but with chromium plated bends at inlet and outlet or as given in Schedule of Quantities. Cost of the G.I. drain pipes concealed in wall shall be paid for separately.

Urinals shall be flushed with No-touch electric operated automatic infra-red flushing system operated by a solenoid valve. The infra-red unit shall be vandal proof type with no exposed screw.

Urinals shall be measured by numbers.

Rate for providing and fixing of urinals shall include all items and operations stated in the respective specifications except G.I. drain pipes as mentioned above and Schedule of Quantities to provide a complete item fixed for use and nothing extra is payable. Quoted rates above shall be inclusive of cutting required holes and chases and making good the same, C.P.brass screws, nuts, bolts and any fixing arrangements required and recommended by manufacturer including testing and commissioning.

Urinal bowl: shall be of Hindustan model 60006 or equivalent. Urinal No-touch flush valve shall be of Robo flush or Toshi or Utec.

Pig Lead

The pig lead to be used in jointing 150mm, 100 mm, 75 mm, 50 mm S&S centrifugally pipe joints shall not be less than 1.76 kg., 0.98 kg., 0.88 kg and 0.77 kg. per joint respectively. However, in case of less use of pig lead by more than 5% the quantity of pig lead used less than the quantity specified above shall be recovered from the Contractor at market rate to be determined by Engineer in Charge whose decision in the matter will be final.

ALUMINIUM DOORS, WINDOWS, VENTILATORS ETC. GLAZING SPECIFICATIONS:-

The work in general shall be executed as per the CPWD specifications supplemented by the following:-

The work shall be carried out through an approved firm, who shall furnish all materials, labour, accessories, equipment, tool and plant and incidentals required for providing and installing powder coated aluminium doors, windows, claddings, louvers and other items as per architectural drawings. The agency shall be got approved from Engineer in Charge before execution. The architectural drawings of the Deptt. and these specifications cover the major requirements and are for guidance only, required fastenings, accessories, features, and all other items which are not mentioned specifically therein, but are necessary to make a complete installation shall be provided by the Contractor at his cost.

General:-

Aluminium doors, windows etc. shall be of sizes, section as per details as shown in the drawings. The details shown on the drawings indicate generally the sizes of components parts and general standards. These may be varied slightly to suit the standard adopted by the manufacture. Before proceeding with manufacturing, the Contractor shall prepare and submit complete manufacturing and installation drawings for approval of the Engineer-in-Charge and no work shall be performed until the approval of these drawings is obtained.

Shop Drawings:-

The Contractor shall submit the shop drawings of doors, windows, louver, cladding and other aluminium work, to the Engineer-in-Charge for his approval. The shop drawing shall show full size and sections of doors, windows etc., thickness of metal (i.e. wall thickness) details of constructions, sub frame/rough ground profile, anchoring details hardware as well as connection of windows, doors and other metal work to adjacent work. Samples of all joints and methods of fastening and joining shall be submitted to the Engineer-in-Charge for approval well in advance of commencing the work.

a. Samples:-

Samples of doors, windows, louver etc. shall be fabricated, assembled and submitted to Engineer-in-Charge for his approval. They shall be of size types etc. as decided by Engineer-in-Charge. All samples shall be provided at the cost of the Contractor.

Sections:-

Aluminium doors and windows shall be fabricated from extruded sections of profiles as detailed on drawings. The sections shall be extruded by the manufacturers approved by the Engineer-in-Charge. The aluminium extruded sections shall conform to BIS designation IIE/IIV 9 WP alloy, with chemical composition and mechanical properties, strength and durability. The permissible dimensional tolerance of the extruded sections shall be such as not to impair the proper and smooth function/operation and appearance of doors and windows.

Fabrication:-

Door, windows etc. shall be fabricated to sizes in factory and shall be of section sizes, combinations and details as per architectural drawings. All doors, windows etc. shall have mechanical joints. All members shall be accurately machined and fitted to form hairline joints prior to assembly. The joints accessories such as cleats, brackets, etc. shall be of such material as not to cause any bimetallic action. The design of the joints and accessories shall be such that the accessories are fully concealed. The fabrication of door, windows etc. shall be done in suitable

sections to facilitate easy transportation, handling and installation. Adequate provision shall be made in the door and window members for anchoring for support and fixing of hardware and other fixtures as approved by the Engineer-in-charge.

Anodizing (This specification is applicable to Aluminium sections anodized wherever mentioned in schedule of quantities.):

The anodizing shall be done by specialized firm who shall be got approved from the Engineer-in-charge.

The anodizing operation shall be done after cutting the members to requisite sizes before the final assembly. Aluminium sections shall be anodized as per IS : 7088-1973. Anodizing to be as per grade AC 15 and not less than 15 microns thick when measured as per IS 6012, and electro colour with colour fastness rating No. 8 of IS 1888-1882. Colour anodizing would be done only by electro colour process. No visual variation in colour shall be permitted. The tenderer shall clearly indicate the shade variation tolerance as measured by standard equipments.

The anodic coating shall be properly sealed by steam or by boiling in deodorized water as per IS 1868 and or IS 6057. Sealing quality shall be tested in accordance with the relevant standards. Nothing extra shall be paid for above.

The Contractor shall satisfy himself by 100% checking in the factory that the thickness of the anodic coating is found to be minimum 15 microns and sealing quality appropriate every where. The testing shall be done by EDDY CURRENT METHOD as per IS 6012 for thickness. If any material is found substandard, this shall be totally rejected. Requisite tests shall also be required to be carried out at site as instructed by the Engineer-in-Charge and the Contractor shall arrange all the equipments required for these tests at site. Nothing extra shall be paid for above.

All anodized aluminium works shall conform to relevant IS standards relating to materials, workmanship, fabrications, finishing, erection, installation etc. In this connection IS codes including IS 1868-1982, IS 1948-1961, IS 7088-1973, 6012-1970, IS 740-1975 are considered relevant and applicable.

A thick layer of clear transparent lacquer based on methacrylates or cellulose acetate shall be applied on the anodized sections, before they are brought at site. The lacquer shall be removed after installations are complete or as an alternative, the exposed surface of the aluminum sections shall be provided with gummed paper tape protective. After fixing and assuring of proper functioning of doors, windows etc. such protective layer shall be cleaned out/removed. Nothing extra shall be paid for above.

Required No. of tests as per relevant I.S. Codes shall be carried out.

Protection of Finish:-

All aluminum members shall be wrapped with approved self adhesive non-staining PVC tapes before they are brought to site. All care shall be taken to ensure surface protection during transportation, storage at site and installation. The tape protection shall be removed as installation.

Handling and Stacking:-

Fabricated material shall be protected against any damage during transportation. Loading and unloading shall be carried out with utmost care. On receipt of materials at site, they shall be carefully examined to detect any damaged pieces. Arrangements shall be made for expeditious replacement of damaged pieces, parts Materials found to be acceptable on inspection shall be repacked in crates and stored safely.

In the case of composite windows and doors, different units are to be assembled first. The assembled composite units should be checked for line, level and plumb before final fixing is done. Units may be assembled at their final location as situation warrants.

The Contractor shall be responsible for assembling composite, bedding and filling the groove with polysulphide sealant inside and outside, at transoms and mullions, placing the doors, windows etc. in their respective opening. After the door/windows have been fixed in their correct assigned position, the open hollow sections abutting masonry concrete shall be filled up with approved polysulphide densely packed and finished neat.

The Contractor shall be responsible for doors, windows etc. being set straight, plumb, level and for their satisfactory operation after fixing is complete.

Installation:-

Just prior to installation, the doors, windows etc. shall be uncrated and stacked on edge on level bearers and supported evenly. The frame shall be fixed into position with hard wood backing, true to line and level using adequate number of expansion machine bolts, anchor fasteners of approved size and manufacture and in an approved manner. The holes in concrete/masonry members for housing anchor bolts shall be drilled with an electric drilling machine.

The door/windows assembled as shown on drawings shall be placed in correct final position in the opening and marks made on concrete members at jambs, sills and heads against the holes/provided in frames for anchoring. The frame shall then be removed from the opening and laid aside. Neat holes with parallel sides of appropriate size shall then be drilled in the concrete members with an electric drilling machine at the marking to house the expansion bolts. The expansion bolt shall then be inserted in the holes, struck with a light hammer till the nut is forced into the anchor shell. The frame shall then be placed in final position in the opening and anchored to the support through cadmium plated machine screws of required size threaded to expansion bolts. The frame shall be set in the opening by using wooden wedges at supports and be plumbed in position. The wedges shall invariably be placed at the meeting points of glazing bars and frame.

Fittings:

Hinges, stays, handles, tower bolts, locks and other fittings shall be stainless steel fittings conforming to the required specifications.

EPDM Gaskets:

Contractor shall provide and install EPDM gaskets of approved size and profile at all locations as shown and as required to render the doors windows completely air tight and weather tight. The samples of EPDM gaskets/neoprene gaskets shall be got approved from Engineer in Charge before procurement.

Mastic Cement:

The gaps between frames and supports and also any gaps in the door and windows section shall be raked out as directed and filled with mastic cement of approved colour and make to ensure complete water tightness. The mastic cement shall be of such colour and composition that it would not stain the masonry/concrete work, shall received paint without bleeding, will not sag or run and shall not set hard or dry out under any conditions of weather.

The various tests on aluminum sections shall be conducted in accordance with the CPWD specification and the relevant IS Codes. The testing charges shall be born as per condition of NIT.

Acceptance Criteria

The aluminum sections shall conform to the provisions of relevant items of work of the schedule of quantities.

Measurement: Measurements shall be as per CPWD specifications payment by weight shall be made for aluminum sections including beading only. All fixing angles, fittings and fixtures such as handles etc. shall not be included in the weight to be paid. For payment purposes only actual weight of sections shall be taken into account. If however the sectional weight of any Aluminium section is higher than the permissible variation then the weight payable shall be restricted to the weight of section including permissible variation.

Rates:

The rates of item shall include the cost of materials, labour required in all the above operations.

The rates shall include the cost of hinges but shall exclude cost of fixing angles and fittings.

WATER PROOFING:

The work in general shall be executed as per CPWD specifications:-

The water proofing compound used in integral water proofing treatment shall satisfy all the requirements indicated in IS:2645 and shall be got tested before its use.

Total quantity of the water proofing compound required shall be arranged only after obtaining the prior approval of the Engineer in Charge in writing. Materials shall be kept under double lock and key and proper account of water proofing compound used in the work shall be maintained. It shall be ensured that the consumption of the compound is as per specified requirements.

The finished surface after water proofing treatment for floor in sunken portion shall have minimum slope of 1 in 48 unless otherwise decided by the Engineer in Charge.

Before commencement of treatment on floor surface, it shall be ensured that the outlet drain pipes/spouts have been fixed and the spout openings have been eased and rounded off properly for easy flow of water.

Contractor shall associate himself with anyone of the specialist firms mentioned in relevant para of specifications for the work relating to any kind of Water Proofing Treatment. In case the Contractor intends to get the water proofing work executed from an agency other than as specified in relevant para of the specifications, he shall apply to the Engineer-in-Charge in writing along with the credentials and relevant details including name of owner/company, its

location, capacity technical establishment, past experience etc. Engineer-in-Charge shall give approval in writing and the work shall not be started without said written approval of the Engineer-in-Charge. The entire responsibility for the quality of this treatment and its efficiency shall however, rest with the main Contractor only.

The Contractor shall ensure that the basement of the building shall be absolutely water tight and seepage/leak free. In case any seepage/leakage etc. is noticed the Contractor shall make it water tight & seepage/leak proof at his own cost.

Expansion Joints:PVC water stops shall conform to IS:12200 (Code of practice for provision of water stop at Transverse contraction joints in masonry and concrete dams).

Construction Joints:The Contractor shall give his proposal for location and treatment of construction joints. The construction joints shall be provided only at places and in the manner as approved by Engineer-in-Charge. Except where shown otherwise on the drawing, reinforcement shall continue through construction joints. The foreign matter and laitance shall be cleaned properly by compressed air before starting further work.

Door shutters frames of M.S. tube.

The M.S. Tube shall be hot fusion welded type of steel grade ST 32. The door shutter frames shall be factory manufactured as per drawings & specifications.

Vertical styles, top rail and bottom rail shall be of size 25 mm x 50mm of tube thickness 1.25mm.

Lock rail shall be of size 25 x 75mm of tube thickness 1.25mm. The shutter frames shall be made of tubes which have been cut to length & mitered. The corners shall be welded to form a solid fused welded joint conforming the requirements of the CPWD Specifications 2009, Volume I & II. (with up-to-date correction slips). The process of welding shall be flash butt welding.

Actual size of shutter frame shall not vary by more than ± 2 mm than those shown in drawings.

Necessary holes and slots for hinges & fittings shall be made.

Priming coat of red oxide zinc chrome primer conforming to I.S. 2074-1979 shall be given. Before priming coat the steel surface shall be thoroughly cleaned of rust, scale & dust.

The door shutter frame shall be measured in running metre, along the centre line of the frame correct to a 1 mm & weight calculated according to standard tables. No deduction or extra payment shall be made for making holes/slots and making arrangements for fixing fittings.

The rate includes cost of material and labour involved in all the operations described above.

7 M.S. Sheet Door

M.S. Sheet and the welding shall be as per CPWD Specifications 2009, Volume I & II (with up-to-date correction slips). The M.S. Sheet on each face shall be in each piece. No joints in

M.S. Sheets shall be permitted. The doors shall be factory manufactured as per drawings & specifications.

The M.S. Sheet shall be cut to size and welded to the M.S. Tube door shutter frames at the junctions. Tack welds 1 cm long @ 30 cm c/c shall be provided to each junction of M.S. Sheet & M.S. Tube vertical styles & horizontal rails. Tack welds between lock rail of M.S. tube shutter frame & the outer M.S. Sheet shall be provided before welding the inner sheet to the door shutter frame. Necessary slots for providing 1 cm long tack welds between lock rail of M.S. tube door shutter & inner M.S. Sheet shall be made in the M.S. Sheet and tack welds provided.

2 cm tack welds shall be provided at each corner in addition to the 1 cm tack welds has to be done.

Painting shall be as per CPWD Specifications 2009, Volume I & II. (with up-to-date correction slips)

Necessary holes/slots/arrangements for fittings shall be made.

Measurements shall be as per CPWD Specifications 2009, Volume I & II. (with up-to-date correction slips).

8.7 The rate shall include the cost of materials and labour involved in all the operations described above.

Powder coating on aluminum sections & fittings/fixtures

Wherever specified the aluminum sections and fittings/fixture shall be coated in approved colour and shade with pure polyester powder of Berger/ Interpon/ Hardcastle/Nerocoat or equivalent to a minimum thickness of 50 microns.

The pure polyester powder coating shall be got executed from specialised agency. The Contractor shall submit names of at least three specialised agencies with details of their experience, capability etc. to the Engineer-in-Charge who after satisfying himself shall give the approval in writing. The work shall start only after approval of specialised agency.

The pure polyester powder shall have following properties:-

Free Flow-ability	-	Satisfactory
Particle size	:	< 100 microns suitable for electrostatic spray.
Specific gravity	:	1.1 to 1.5 depending on the colour.
Shelf life	:	6 months.
Stoving Schedule	:	200 ⁰ C for 10 mins. (metal temp.)

Test Certificates from approved laboratory for the representative samples shall be submitted by the Contractor.

The curing schedule shall be as specified by the manufacturer of pure polyester powder.

The properties of cured powder films shall be:-

Scratch hardness	:	Equal to or more than 4 Kg.
Impact resistance	:	Min 150 Kg cm

Pencil hardness	:	3H to 4H
Salt spray resistance	:	500 Hrs.
Water soak at room temperature	:	No change after 500 Hrs.
Detergent resistance	:	No attack after 500 Hrs.
Cross Hatch adhesion	:	GT= O (ASTM D-3359)
Cured Film thickness	:	Min 75 microns.

Tests for properties of cured film as given in 4 above shall be carried out at frequency specified in relevant BIS/BS/ASTM codes.

The surface of aluminum shall be prepared and pretreated as follows before powder coating:-

Removal of all foreign matter.

Chromatisation of aluminum surface as specified by the manufacturer of pure polyester powder by at least a five stage process consisting of alkali degrease, rinse and chromate conversion followed by two rinses. The chromate coating and alkali degrease shall be as per requirement of the pure polyester powder manufacturer

Proper curing at required temperature shall be done for specified time period so as to achieve the desired properties.

The pure polyester coated surface shall be of uniform texture, colour and gloss and shall be free from cracks, warps and other imperfections.

INTEGRAL WATER PROOFING TREATMENT

Treatment for roof surface with integral cement based compound

The execution of work shall have to under taken strictly as per relevant item of work.

MEASUREMENTS: The measurements shall be taken along the finished surface of treatment including the rounded and tapered portion at junction of parapet wall. Length and breadth shall be measured correct to one centimeter and area shall be worked out to nearest 0.01 sqm. No deduction in measurements shall be made for either opening or recesses for chimneys, stacks, roof lights and the like of areas upto 0.10 sqm. Nor anything extra shall be paid for forming such openings. For similar areas exceeding 0.10 sqm. Deductions will be made in measurements for full openings and nothing extra shall be paid for making such opening.

Rates: The rate shall include the cost of all labour and materials involved in all the operation described above.

ACRYLIC BASED TEXTURE PAINT

The acrylic based texture paint shall be of make, composition, texture and shade as per item of work and as approved by the Engineer-in-charge.

The surface on which the paint is to be applied shall be smooth, regular and free from dust etc. Undulations, broken edges, minor imperfections and irregularities shall be rectified as specified by manufacturer and approved by Engineer-in-charge so as to make the surface smooth and regular.

The texture paint shall be applied in a single coat on the surface as per specifications of the manufacturer.

During application, the surface should be well protected from strong winds, hot sun and cold weather. Adequate arrangement in this regard shall be made by the Contractor.

The film thickness shall be 1.5 to 2 mm. The consumption rate of the texture paint for film thickness of 1.5 to 2 mm shall be average 2.5 kg / sqm.

Specifications in respect of scaffolding, protective measures, measurement and rate shall be as CPWD Specifications 2009 (with upto date correction slips).

TECHNICAL SPECIFICATIONS FOR PRE-CAST CONCRETE PAVING BLOCKS

BASE

The finished surface of the concrete base shall match the design the profile of the concrete blocks with + or – 20 mm.

Compaction shall be done with vibrating roller.

BEDDING LAYER

The bedding shall be from either a single source or blended to achieve the following grading.

Sieve Size	% Passing
9.52 mm	100
4.75 mm	95-100
2.36 mm	80-100
1.18 mm	50-100
600 microns	25-60
300 microns	10-30
150 microns	5-15
75 microns	0-10

Single sized, gap-graded sands or those containing an excessive amount of fines will not be used. The sand particles should preferably be sharp not rounded. The joint-filling sand should pass a 2.35 mm sieve and be well graded. The following grading has been shown to give good results.

Sieve Size	% Passing
2.36 mm	100
1.18 mm	90-100
600 microns	60-90
300 microns	30-60
150 microns	15-30
75 microns	0-10

The use of cement in the joint-filling sand is not recommended as a general practice as the cemented sand is likely to crack into segments which are easily dislodged.

Average thickness of this laying course shall be 50mm with minimum of 40mm and a maximum of 80mm.

Humidity contents shall be at least 4% by weight.

It should contain not more than 3% by weight of clay and silt and the materials shall be free from deleterious or contaminates.

The finished surface of the bedding layer shall match exactly the design profile as indicated on the drawings.

Before placing the bedding layers, clean the surface of concrete by sweeping.

During construction the draining of the bedding and / or concrete use assured by perforations in the gully chambers at a matching level.

Do not allow any walking or driving on the finished surface of the bedding layers.

CONCRETE PAVING BLOCKS.

Laying of the blocks shall be done, precisely at the indicated level and profile and in a way that good surface draining to the gully chambers is assured.

Around gully chambers inspection pits etc. the pavement shall have a level of 5mm higher than the above mentioned elements.

The blocks shall be laid in an elbow pattern. The blocks shall be laid as tight as possible to each other and also along connections. The maximum joint width is limited to 4mm.

Laying of broken blocks is not allowed except along connections. The maximum length of a purpose broken block is 100mm. Breaking of the blocks shall be done with a block —block splitter.

Fine angular sand as per specification shall be brushed into the joints, thereafter compaction shall be done with a vibrating plate compactor on clean surface. After compaction again fine angular sand shall be brushed into the joints.

As well as before as after the compacting the maximum tolerance in profile under a lineal with a length of 3m shall be within + or – 5mm.

- 12.0** The **vitreous china oval type counter top wash basin** of size 580 x 450 mm shall be of make and colour as approved by the Engineer-in-charge. The Contractor shall submit samples of various makes & colours to the Engineer-in-charge in advance for approval. The item of work shall include cutting the counter to the required shape as required, fixing the wash basin & making necessary repairs to the counter. The item of work shall, however, not include providing and fixing of CI brackets in the walls to support the wash basin.

+

ADDITIONAL CONDITIONS FOR CIVIL WORK DAY TO DAY MAINTENANCE

1. The minimum labour for ‘Day to Day Maintenance’ service shall be provided for each Sub-division as under :

Category	Nos.
Computer Operator	2
Enquiry Clerk cum Computer Operator	3
Beldar	7
Mason	3
Plumber	4
Carpenter	3
Sewerman	3
Welder	2
Sweepers	1
Security Guard (in three shifts) round the clock.	3
Painter	2

The above deployment of Staff/Labour is indicative only. The Staff/Labour may be shifted/deployed as per the requirement of site as per direction of Engineer-in-Charge.

2. There will be daily **Biometric Attendance system** of the labours and workers mentioned in the table above. These labours/ workers shall be available at all the times from 9 AM to 5 PM. However, in case of any urgency or time bound work, the Contractor shall deploy extra labour for timely completion of work at NO Extra Cost. No half done/ incomplete work shall be left for the next day for *Day to Day* maintenance unless and until it does not cause inconvenience to the allottee. The Contractor shall arrange required number of devices for Biometric attendance as approved by the Engineer-in-Charge at his own Cost.
3. The labour/workers/staff deployed by the Contractor against ‘Day to Day Maintenance’ work shall not be used for A/R & M/O or Special Repair work. If it is found that the labour deployed for ‘Day to Day Maintenance’ work has been engaged on ‘Special Repair Work’, necessary recovery shall be made on the basis of double the rate of Wages for particular day in respective category.
4. Site Engineer shall monitor the ‘Day to Day Maintenance’ work being carried out by the labour engaged by the Contractor for each Service Centre to interact with the allottees. **The Site Engineers shall be properly and neatly dressed, well trained, courteous, well behaved, soft spoken and should have basic knowledge of Civil, Electrical and Horticulture work. He will not enter into argument with the Allottee for any reason. All the contentious issues will be brought by him to the notice of CPWD officials. These Site Engineers are also required to mark their attendance through Biometric Attendance System.**
5. The Site Engineer will be an **interface between the Allottee and the CPWD**. No labour will directly go to attend the Complaint. Instead Site Engineer will go alongwith the labour and guide the labour to carry out the work. The Site Engineer will get the complaint attended and will get the receipt signed from the Allottee in token of having attended the complaint satisfactory.
6. The Complaints are being lodged in the CPWD Sewa – a Web portal (cpwdsewa.nic.in) and all the complaints are being forwarded to respective Service Centres. The Contractor shall use web portal CPWDSEWA for receiving and attending complaints and monitoring the same.

7. The Complaints are required to be attended as per Stipulated Time Frame mentioned on page No. 59. The entry of having attended complaint shall be recorded in the CPWD Sewa system by the Contractor or as per direction of J.E./A.E. in charge.
8. All the labours engaged by the Contractor should be skilled labour, courteous, well dressed in uniform, well trained and should wear the Personal Protection Equipments at all the time. They should be present at site/ office at all time and will not leave the site/office before time without approval of the J.E./A.E. in charge.
9. The Contractor will maintain attendance records of his Staff deployed, which will be checked by the Junior Engineer/Assistant Engineer/Executive Engineer-in-charge of the work. In case of absence of any staff prescribed at S.No. 1 above from duty, recovery shall be made at the following rates:
 - i. For Enquiry Clerk/Supervisor/Computer Operator recovery @ Rs.2000/- Per day per person.
 - ii. For Skilled labour i.e. Plumber/Mason/Carpenter/Welder/Sewer man etc. recovery @ Rs.2000/- per day per person.
 - iii. For Unskilled labour i.e. Beldar/Sweeper/Office boy recovery @ Rs.1500/- per day per person.
 - iv. For Chowkidar recovery @ Rs. 1300/- per day per person.
10. For the purpose of categorization of staff as skilled and unskilled, the Sweepers/Beldars/Office Boy shall be considered as unskilled, the Mason/Plumber/Sewer man/Carpenter/Welder shall be considered as skilled.
11. Before the start of execution of work, materials shall be brought in adequate quantity to be sufficient at least for 1/4th of the total requirement of the whole work per year and deposited with the Department. All samples of Sanitary, Water supply and Fittings required for wood work shall be got approved from Engineer-in-Charge and shall be displayed on board in each Enquiry office.
12. The materials with Manufacturing Date and Batch No. inscribed or printed on packs/containers by Manufacturers shall only be acceptable. No material shall be used after expiry of useable life.
13. After use, the empty container shall have to be returned to the Department and shall be preserved by JE In charge and will be disposed off after getting of written approval of Engineer in Charge of respective discipline.
14. The site for the collection and stacking of the material shall be got approved from the Engineer-In-charge.
15. In order that the Contractor may take daily instructions regarding all complaints / works except day to day maintenance, a site order book will be maintained at the Enquiry Office. The JE will note down the details of works in flats to be taken up and the dates on which the works in these flats are to be started.
16. The labour for attending complaints shall carry necessary tool kit, container (Tasla), required for mixing any cement sand or other material, water bottle and waste bag for collection of minor rubbish material, if received, during attending the complaints, so that the site of work remains neat and clean.

17. The material such as Sanitary items / Water supply items / Aluminium fittings etc. as required shall be of approved brand and manufacturer as given in the list of approved makes of materials or as approved by the Engineer-in-Charge.
18. The sample of all the items shall have to be got approved by the Contractor from the Engineer-in-charge before the commencement of supply and shall be without prejudice to the right of Engineer-in-Charge to get random samples tested out of the actual lot received.
19. The Engineer-in-Charge shall be at liberty to take respective sample(s) of each item of schedule of quantity in any approved laboratory as decided by him. The sample for testing shall be provided by the Contractor. All expenditure required to be incurred for taking sample, conveyance and packing & testing charges etc. shall be borne by the Contractor himself. In case any sample particular lot fails in testing the Contractor shall be bound to replace the entire lot with fresh material of prescribed specification and the rejected lot shall be returned to the Contractor only after fresh lot is supplied. The testing charges will be reimbursed to the Contractor on production of proof/receipt of payment of Testing charges in respect of failed sample will be borne by the Contractor himself.
20. Rejected materials shall have to be removed by the Contractor at his own cost immediately after issue of the instructions of doing so.
21. In case of any dispute regarding rejection of materials, the decision of the Engineer-in-Charge shall be final and binding upon the Contractor.
22. Royalty, Octroi, Terminal-tax etc. at prevalent rates shall have to paid by the Contractor himself and the rates quoted by him shall include these duties and nothing extra on, this account shall be payable.
23. The Contractor shall have registration with EPFO and ESIC for safeguarding interest of his workmen. The Contractor shall make deduction on account of E.P.F & E.S.I to labour / staff deployed by him on the work and will furnish detail of each worker at division office every month. The Contractor has to follow are statutory rules and regulation in force.
25. The material is to be provided as per the preferred make list available in the tender document or as per direction of engineer-in –charge.

Broad list of Material considered in the item of Day to Day Maintenance and upkeep of all internal and external assets of Bunglows for which no payment shall be made separately.

Sl. No.	Description of Item
1	Low level cistern fitting set (P.V.C) with ball cock (Hindware, Parryware or equivalent)
2	CP brass waste 32mm dia for wash basin
3	CP brass waste 40mm dia for sink
4	PVC flexible waste pipe 32 mm dia with length not less than 700 mm including PVC waste fittings
5	Stainless steel grating 125mm dia
6	P.V.C flush bend 1.20m long 32mm dia with PVCcoupling for flush valve
7	PVC connection pipe 15mm dia 45cm long
8	PVC connection pipe 15mm dia 60cm long
9	CI brackets for wash basin
10	CP brass face for pillar cock
11	CP brass face for concealed stop cock
12	CP brass face of different size for bib cock
13	Cement / White cement
14	12mm Commercial Ply
15	Glass putty
16	M-seal
17	GI binding wire
18	MS butt hinges of sizes
19	MS nails of sizes
20	MS screws of sizes
21	GI elbow of sizes
22	GI socket of sizes
23	GI Tee of sizes
24	GI plug of sizes
25	GI Nipple of sizes
26	GI Union of Sizes
27	Hexa nipple of sizes
28	PVC Cistern handles for low level cistern
29	PVC washer for bib cock
30	PVC washer of siphon
31	Soot gola
32	Safeda
33	PTMT ball cock with rod 15mm and HD ball
34	Pre-caste RCC gully trap cover of SS, KK or equivalent of size 300x300mm
35	Threaded PVC Tank lid
36	Portland gray cement 43 grade
37	Coarse sand
38	Fine sand /Jamuna Sand)
39	Stone aggregate 20mm nominal size
40	Stainless steel screws of sizes
41	Brass sliding door bolts of sizes
42	Brass Tower bolts of sizes
43	Brass handles of sizes
44	Binding wire
45	Fevicol

ADDITIONAL CONDITIONS (CIVIL WORKS) - A/R & M/O WORKS & Day to Day MAINTENANCE

1. For all items of Civil works, CPWD Specifications 2009 Vol - I to Vol - II with correction slips upto previous day of uploading of online Tender/NIT shall be followed. For the items which are not covered under CPWD specifications; the special conditions/B.I.S. specifications, best engineering practice shall apply. In this regard the decision of Engineer-in-Charge shall be final.
2. Wherever any reference is made of any Indian Standards, it shall be taken as reference to the latest edition with all amendments/revision issued there upto previous day of uploading of online tender.
3. Unless otherwise specified, the agreement rates for all items of work of the schedule of quantities are for all heights, depths, leads and lifts involved in the execution of work.
4. The Contractor shall make his own arrangements for obtaining electric connection for carrying out any maintenance activity and make necessary payment directly to the department concerned.
5. Other agencies working at site will also simultaneously execute the work entrusted to them and the Contractor shall offer necessary co-operation wherever required to other agencies.
6. On account of security consideration, there could be some restrictions on the working hours, movement of vehicles for transportation of materials. The Contractor shall be bound of follow all such restrictions and adjust the programme for execution accordingly.
7. The work shall be carried out in a manner complying in all respects with the requirements of relevant bye laws of the Local Bodies, Labour laws, Minimum wages Act, Workmen Compensation Act and other Statutory Laws enacted by Central Govt. as well as by State Govt.
8. No residential accommodation shall be provided to any of the staff engaged by the Contractor. The Contractor shall also not be allowed to erect any temporary set up for staff/labours in the campus.
9. The Engineers who are employed by the Contractor under clause-36 of the agreement shall be present at the site from 9:00 AM to 5:00 PM on all working days and shall carry mobile telephone(s) to enable the Engineer-in-Charge to have easy and quick communication. Nothing extra shall be paid to the Contractor on this account and his quoted rates for various items under this contract will be inclusive of this obligation.
10. All Materials, T & P, consumable and contingent required for the work articles shall be arranged by the Contractor. Materials used shall be in order of preferences.
 - i. **Description/Nomenclature in Schedule of Quantities.**
 - ii. **Particular Specifications and Special Conditions.**
 - iii. **Relevant Drawings.**
 - iv. **CPWD Specifications, 2009 Vol- 1 & Vol-II with upto date correction slips.**
 - v. **Relevant Indian Standard Specifications of B.I.S.**
 - vi. **Manufacturer's Specification**
 - vii. **Sound Engineering Practice**

Replaced material used shall have same or richer specifications to the original materials and compatible to the work.

11. Staff employed by the Contractor shall be well behaved, well trained, neatly dressed, Polite & courteous. Any complaint against staff on behaviour shall be taken very seriously and such staff shall be replaced by the Contractor on demand from Engineer-in-Charge. The decision of Engineer-in-Charge shall be final and binding in this case.
12. The Contractor shall make all safety arrangements required for the labour engaged by him at his own cost. All consequences due to negligence or due to lapse of security/safety or otherwise shall remain with the Contractor. The department shall not be responsible for any mishap, injury, accident or death of the Contractor's staff. No claim in this regard shall be entertained /accepted by the department.
13. Contractor shall be fully responsible for any damages caused to Govt. property or allottee's property by him or his labour in carrying out the work and the same shall be rectified by the Contractor at his own cost.
14. GST/WCT/Income Tax/other taxes as applicable shall be recovered from the Contractor's bill.
15. Chases, holes & drilling works etc. shall be done using only power operated tools.
16. For non-compliance or partial compliance of satisfactory execution of items, the Engineer-in-Charge reserves his rights to levy compensation in accordance with the scale of non-conformity and the period for which this non-conformity continues. However, the total amount of this compensation for the whole contract shall not exceed 10% of the tendered value of this contract. This shall be without prejudice to other remedies available to Engineer-in-Charge under this contract to take action against the Contractor.
17. In the case of discrepancy between the Schedule of Quantities, the Specifications and/or the Drawings, the following order of preferences shall be observed:-
 - I. Description/Nomenclature in Schedule of Quantities.**
 - II. Particular Specifications and Special Conditions.**
 - III. Relevant Drawings.**
 - IV. CPWD Specifications, 2009 Vol- 1 & Vol-II with upto date correction slips.**
 - V. Relevant Indian Standard Specifications of B.I.S.**
 - VI. Manufacturer's Specification**
 - VII. Sound Engineering Practice**
18. Any references made to any Indian Standards Specifications in these shall imply to the latest version of that standard, including such revisions/amendments as issued by the Bureau of Indian standards up to last date of receipt of tenders. The Contractor shall keep at his own cost all such publications of relevant Indian Standards applicable to the work at site.
19. The Contractor shall have to carry out the work other than day to day maintenance according to programme given by the Engineer-in-Charge or his representative. The Contractor shall not carry out any work in any building without permission of Engineer-in-Charge. The Contractor shall adhere to this programme failing which he shall be wholly responsible. No claim for idle labour on any account shall be entertained. The Contractor shall depute his representative daily to the site of work. His name and signature shall be attested by the Contractor for record in the department.
20. The quarters/flats and portions of quarters/flats where the work is to be executed on any day shall be got approved from the representative of Engineer-in-Charge at the site of work in writing. No

work shall be carried out in any quarters/flats without the approval of the representative of the Engineer-in-Charge.

21. Any work carried out without the approval of the representative of the Engineer-in-Charge at the site of work shall be rejected and will not be measured and paid for.
22. The material such as paints, varnish, distempers, water proofing cement paint and primers etc. as required shall be of approved brand and manufacturers, and of required shade and conforming in all respects to the relevant I.S. specifications.
23. The manufacturing date and batch No. inscribed or printed on packs/containers by manufacturers are only acceptable for all the above said materials. Fresh material shall be brought at site as far as possible. The material shall be used within its shelf-life as prescribed by the manufacturer. Any material which has out lived its life shall not be permitted to be used in the work and removed immediately from the site. The decision of the Engineer-in-Charge shall be final & binding.
24. The Contractor shall get the shades of all types of paints, distemper, water proofing cement paint etc. approved from the Engineer-in-Charge before procurement of materials.
25. The paints/other material shall be issued by the Junior Engineer/Assistant Engineer to the Contractors after breaking the seal of the containers/packing and quantity to be issued shall be as per the daily requirement at the site. After day's use balance quantity of paints etc., if any left, will be returned by the Contractor to the Engineer-in-Charge or his representative. After use the empty container shall have to be returned to the Engineer-in-Charge or his representative and will not be disposed off till the completion of the work.
26. The site for the collection and stacking of the material shall be got approved from the Engineer-in-Charge.
27. Nothing extra shall be paid to the Contractor for excess consumption of material.
28. The Contractors shall quote their rates inclusive of all taxes, cartage, royalties etc, complete.
29. The Contractor shall prepare one sample of item which shall be got approved from the Engineer-in-Charge. Only on acceptance of sample work, Contractor will be allowed to commence the work and sample is to be preserved with the JE-in-Charge of work till the whole work is completed. The quality of entire work should conform to the approved samples.
30. **Contractor shall take daily instructions from Junior Engineer. A register will be maintained at the Enquiry Office for this purpose. The JE will note down the work in flats to be attended to and the dates on which the work in these flats is to be started. This duty shall be performed by the supervisor deployed by the Contractor and he has to visit the Enquiry Office daily and note down the instructions from the register.**
31. The Contractor and/or his authorized agent should see the site order book every day and get the compliance noted by the Junior Engineer/Assistant Engineer/Engineer-in-Charge. The Contractor or his representative will put dated signature in the site order book in token of having seen and noted the instructions.
32. All the items of work in a quarter/flat shall have to be taken up-sequentially i.e. after the patch repairs are carried out in one quarter, white/colour washing will be taken in the same quarter and thereafter painting shall have to be got completed.

33. All the malba or rubbish obtained from dismantling or otherwise during the execution of the work shall be brought down through the staircase and shall not be thrown to the ground directly from first floor or second floor etc. This shall be carried and stacked properly to the specified common disposal point on the same day and site shall be left clear as per the instructions of the Engineer-in-Charge. If due to some reason, the Malba could not be removed on the same day, then the Contractor will cover the Rubbish/Malba with the plastic sheet or any other material/sheet to avoid the pollution and to keep the site neat and tidy. A compensation of Rs. 2000/- (Rupees Two Thousand Only) shall be levied from the Contractor for each complaint/default/per day.
34. Any damage to the building structure, fitting or any other articles etc. done by the Contractor or his workman during the execution of the work shall be made good by the Contractor at his own cost.
35. The Contractor shall clear the site properly before the completion of the work.
36. For each Residential quarter, the measurements as recorded in S.M.B./M.B., if available, will be paid. Any portion of the quarters such as store rooms, inside Almirahs/Cupboards, etc. in which white/colour wash, could not be done for any reasons, suitable deduction will be made.
37. The Contractor shall also assist inspection and collection of samples by Engineer-in Charge for testing. The samples of materials/ items of work required for testing by Engineer-in Charge or his representative shall be provided free of charge by the Contractor. The cost incurred in collection of samples and its packing and transportation to the approved lab/field laboratory shall be borne by the Contractor. The test out side field laboratory shall be got done from the laboratory approved by Engineer-in-Charge. The cost of test shall be borne by the Contractor for failed samples.
38. All doors, Windows, Floors, furniture, Electrical and other fittings shall be cleaned from all splashes, dust, dirt and mortars etc. The rate for the white washing/colour washing / distempering / painting etc. includes the cost of removal of splashes and paint marks. In the event of failure on the part of Contractor to remove the splashes and the paint mark, the **recoveries will be made at the following rates.**

Type of Bungalows	For Splashes/Marks of White Wash/ Distemper/ Emulsion Paints	For Splashes/Marks of Synthetic Enamel Paint	For Splashes/Marks of External finishing work
Type-VII	Rs. 2500- each Qtr.	Rs.3000/- each Qtr.	Rs. 2500/- each Qtr.
Type-VIII	Rs. 2500- each Qtr.	Rs.3000/- each Qtr.	Rs. 2500/- each Qtr.

Additional Specifications/ Conditions for Special Repair Works

- 1. General:** The work in general shall be executed as per the description of items, special specifications provision of this NIT and CPWD Specifications with correction slips upto previous day of uploading of online tender as referred to in schedule –II of NIT supplemented with the following specifications.

The work shall be executed and measured as per metric dimensions given in the schedule of quantities, drawings etc. (FPS units wherever indicated are for guidance only).

All stone aggregate and stone ballast shall be of hard stone variety to be obtained from approved quarries and or any other source to be got approved from the Engineer-in-Charge.

- 2.** The rates quoted by the Contractor shall be inclusive of working in under water, mud or foul conditions and including pumping or bailing out water encountered from any source such as rains, floods, leakage from sewer and water mains, sub soil water table being high or for reasons of stability of structure or any other cause whatsoever. Disposal of water shall not cause inconvenience or nuisance in the area or cause damage to the property and structure nearby. The extent and decision of pumping or bailing out of water shall be as per requirements of site and stability of structure and decision of the Engineer-in- Charge in this regard shall be final and binding on the Contractor. Nothing extra shall be payable on this account.

3. Special Conditions for Cement

The Contractor shall procure 43 grade (conforming to IS 8112) ordinary Portland cement, as required in the work, from reputed manufacturers of cement having a production capacity not less than one million tones or more per annum, such as ACC, Ultra Tech, J.P. Rewa, Vikram, Shri Cement, Ambuja Cement, Birla Jute & Cement Corporation of India etc. as approved by the Ministry of Indstry, Government of India, and holding license to use ISI certification mark for their product. The tenderers may also submit a list of names of cement manufacturers which they propose to use in the work. The tender accepting authority reserves right to accept or reject name(s) of cement manufacturer(s) which the tenderer proposes to use in the work. No change in the tendered rates will be accepted if the tender accepting authority does not accept the list of cement manufacturers, given by the tenderer, fully or partially.

The supply of cement shall be taken in **50kg.** bags bearing manufacturer's name and ISI marking. Samples of cement arranged by the Contractor shall be taken by the Engineer-in charge and got tested in accordance with provisions of relevant BIS codes. In case test results indicate that the cement arranged by the Contractor does not conform to the relevant BIS codes, the same shall stand rejected and shall be removed from the site by the Contractor at his own cost within a week's time of written order from the Engineer-in- charge to do so.

The cement shall be brought at site in bulk supply of approximately 20 tonnes or more as decided by the Engineer-in-charge.

Every delivery of cement shall be accompanied by producer's certificate confirming that the supplied cement conforms to relevant specifications. These certificates shall be endorsed to the engineer in charge for his record.

Double lock provision shall be made to the door of the cement godown. The keys of one lock shall remain with the Engineer-in-charge or his authorized representative and the keys of the other lock shall remain with the Contractor. The Contractor shall be responsible for the watch and ward and safety of the cement godown. The Contractor shall facilitate the inspection of the cement godown by the Engineer-in- Charge at any time.

The cement shall be got tested by the Engineer-in-Charge and shall be used on the work only after satisfactory test result have been received. The Contractor shall supply free of charge the cement required for testing including its transportation cost to testing laboratories. The cost of tests shall be born by the the Contractor/Department in the manner indicated below :
By the Contractor, if the results show that the cement does not conform to relevant BIS codes. By the Department, if the results show that the cement conform to relevant BIS codes.

The actual issue and consumption of cement on work shall be regulated and proper accounts maintained as provided in clause 10 of the contract. The theoretical, consumption of cement shall be worked out as per procedure prescribed in clause 42 of the contract and shall be governed by conditions laid therein. In case the cement consumption is less than the theoretical consumption including permissible variation, recovery at the rate show prescribed shall be made. In case of excess consumption no adjustment will be made. No payment for excess consumption of cement will be allowed. However, for consumption lesser beyond permissible theoretical variation recovery shall be made in accordance with conditions of contract at Schedule A to F (CPWD-8) without prejudice to action for acceptance of work/item at reduced rate or rejection as the case may be.

Cement brought to site and remaining unused after completion of work shall not be removed from site without written permission of the Engineer-in-charge.

The damaged cement shall be removed from the site immediately by the Contractor on receipt of a notice in writing from the Engineer-in-charge. If he does not do so within 3 days of receipt of such notice, the Engineer-in-charge shall get it removed at the cost of the Contractor.

4.	SPECIAL CONDITIONS FOR STEEL REINFORCEMENT
4.1	<p>1. (a) The CPWD/Contractor shall procure IS marked TMT bars of various grades from the steel manufacturers or their authorized dealers (as per following selection criteria) having valid BIS license for IS: 1786-2008 (Amendment – 1 November 2012)</p> <p>The procured steel should have following qualities:-</p> <ol style="list-style-type: none"> i. Excellent ductility, bend ability and elongation of finished product due to possible refining technology. ii. Consumption of steel should be accurate as per design. iii. Steel should have no brittleness problem in finished product. iv. Steel should carry the quality of corrosion and earthquake resistance. v. Quality steel with achievement of proper level of sulphur and phosphorus as per IS:1786-2008. <p>64. Selection Criteria of steel manufacturers</p> <p>The supply of reinforcement steel for all CPWD works should have following selection criteria of steel manufactures:-</p> <p>Steel producers of any capacity using iron ore/processed iron ore as the basic raw material adopting advanced refining technologies as given hereunder,</p> <ol style="list-style-type: none"> (i) DRI-EAF = Direct Reduced iron – Electric arc furnace. (ii) BF-BOF = Blast furnace – Basic oxygen furnace (iii) COREX-BOX = COREX – Basic oxygen furnace <p>for production of liquid steel to finish product at single/multiple locations with NABL or any other similarly placed accrediting Government body which operates in accordance with ISO/IEC170011 and accredits labs as per ISO/IEC 17025 confirming to IS:1786-2008 (Amendment – 1 November 2012). The check list for incorporation any quality steel producer is enclosed for technical assessment is given in Annexure-I.</p> <p>Chief Engineer, CSQ(Civil) unit, Directorate of CPWD, shall approve the steel manufacturers.</p>
4.2	The Contractor shall have to obtain and furnish test certificates to the Engineer-in-Charge in respect of all supplies of steel brought by him to the site of work.
4.3	Samples shall also be taken and got tested by the Engineer-in-Charge as per the provisions in this regard in relevant BIS codes. In case the test results indicate that the steel arranged by the Contractor does not conform to the specifications, the same shall stand rejected, and it shall be removed from the site of work by the Contractor at his cost work within a week the steel time of written orders from the Engineer-in-Charge to do so.
4.4	The steel reinforcement bars shall be brought to the site in bulk supply of 10 tonnes or more, or as decided by the Engineer-in-charge.
4.5	The steel reinforcement bars shall be stored by the Contractor at site of work in such a way as to prevent their distortion and corrosion, and nothing extra shall be paid on this account. Bars of different sizes and lengths shall be stored separately to facilitate easy counting and checking.

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

Size of bar	For consignment below 100 tonnes	For consignment above 100 tonnes
Under 10 mm dia bars	One sample for each 25 tonnes or part thereof	One sample for each 40 tonnes or part thereof
10 mm to 16 mm dia bars	One sample for each 35 tonnes or part thereof	One sample for each 45 tonnes or part thereof
Over 16 mm dia bars	One sample for each 45 tonnes or part thereof	One sample for each 60 tonnes or part thereof

The Contractor shall supply free of charge the steel required for testing including its transportation to testing laboratories. The cost of tests shall be borne by the Contractor.

The actual issue and consumption of steel on work shall be regulated and proper accounts maintained as provided in clause 10 of the contract. The theoretical consumption of steel shall be worked out as per procedure prescribed in clause 42 of contract and shall be governed by conditions laid therein. In case the consumption is less than the theoretical consumption including permissible variations recovery at the rate so prescribed shall be made. In case of excess consumption no adjustment need to be made. The steel brought to site and the steel remaining unused shall not be removed from site without the written permission of the Engineer-in-Charge.

Annexure as mentioned in 4.1 (b) above:

Annexure-I
Special Conditions for Steel

Sl.	Item	Checkpoint	Remarks
1.	Steel Producer having manufacturing facilities at Plant	a. Factory address and Registration No.	
		b. Certificate of manufacturing process	
		c. Refining process of steel Producer	
		c.1 Bf-BOF route	
		c.2 Corex – BOF route	
		c.3 DRI – EAF route	
		With documentary evidence either for BOF or EAF	
		d. Steel plant having infrastructure for producing Spongeliron, Billete and TMT Rebars.	
		e. Production and Quality Flow Chart	
		f. Plant Evaluation and Process Verification.	
		g. List of Plant & Machinery	
2.	Established	Document verification for:	
		a. Govt./PSU Approvals	
		b. Supply orders of TMT Re-bars in Govt. Projects (Minimum – 5 years)	
		c. Verification of direct supply orders to any State/Central Govt. Department	
		d. User Certificate issued by any Govt. Department directly.	
3.	Indigenous	Documentary evidence like;	
		a. Certificate of Incorporation	
		b. Memorandum of Articles of Association	
		c. Credit rating of the company from CARE/CRISIL/ICRA should not be C/D grade (minimum last 3 year)	
4.	Reliable	a. Test Results from Govt. /NABL accredited Laboratories	
		b. In-house testing facility for physical/ Chemical tests (NABL accredited)	
		d. Calibration Certificates	
		e. List of Lab equipments:	
		e.1 Spectrometer	
		e.2 Computerized UTM	
5.	Use of Iron-Ore/ Process Iron are as basic raw materials	Verification of Iron-Ore/Process Iron Ore Invoices	
6.	In-house rolling facility	Plant verification to identify in-house rolling facilities, production of Liquid Steel &Crude Steel	
7.	Licenses & Certificates	a. ISO 9001: 2008 Certification	
		b. ISO 14001:2004 Certification	
		c. OHSAS 18001:2007 Certification	
		d. IS 1786:2008 (TMT Re-bars)	
		e. IS 2830:1992 (Billets)	
8.	Product Range	TMT Re-bars FE 415/415D/500/500D/550/550D	
		CRS (Corrosion Resistant) & EQR (Earthquake	

		Resistant) TMT Re-bars Size 8 to 36 mm dia	
--	--	--	--

Note:

DRI-EAF-> Direct Reduce Iron – Electric ARC Furnace

BF- BOF-> Blast Furnace – Basic Oxygen Furnace

COREX-BOF-> COREX Furnace – Basic Oxygen Furnace

5	Removal of rejected / sub-standard materials
	The following procedure shall be followed for the removal of rejected / sub-standard materials from the site of work.
(i)	Whenever any material brought by the Contractor to the site of work is rejected, entry thereof should invariably be made in the site Order Book under the signature of the Assistant Engineer, giving the approximate quantity of such materials.
7	As soon as the material is removed, a certificate to that effect shall be recorded by the Assistant Engineer against the original entry, giving the date of removal and mode or removal, i.e., whether by truck, carts, or by manual labour. If the removal is by truck, the registration number of the truck should be recorded.
7.1	
(iii)	When it is not possible for the Assistant Engineer to be present at the site of work at the time of actual removal of the rejected/sub-standard materials from the site, the required certificate should be recorded by the Junior Engineer and the Assistant Engineer should countersign the certificate recorded by the Junior Engineer.
6.	Periodical checking of cement
6.1	The theoretical consumption statement for consumption of cement on the work executed from the start of the work up to and including the work included in the bill should be invariably prepared along with every running bill. This should be got signed from the Contractor at the time of obtaining his signature on the running account bill so that he is aware of the basis on which the theoretical quantity of cement is worked out, and it may be possible for the Contractor as well as the Department to exercise a check over the consumption of cement during the execution of the work. The theoretical quantity so worked out should be compared with the actual issue of cement as per cement register as on the last date of the measurement of the work. Should there be any difference beyond the normal permissible limits of variations between these two quantities, such difference should be properly explained both for less or more consumption by the Assistant Engineer, and the Executive Engineer should go into such explanations and take remedial
6.2	In order to have an effective control over the issue of cement, the following drill should be observed:
(i)	The cement godown(s) should be properly and effectively double locked, keys of one of the locks remaining with the department and that of the other with the Contractor.
(ii)	Periodical checking of cement godown-
	The cement godown and the Cement Register should be checked by the Assistant Engineer/ Executive Engineer-in-charge of the work as per following schedule:

(a)	At least weekly or fortnightly, respectively, in case of works at the headquarters of the Assistant Engineer/Executive Engineer.
(b)	Whenever they visit the site of work in case of works that are located outside the Sub- Divisional/Divisional headquarters, and
11. 2	The rate of item of reinforcement of RCC work includes all operations including straightening, cutting, bending, welding, binding with annealed steel or welding and placing in position at all the floors with all leads and lift complete as per CPWD Specifications. The Contractor shall provide approved type of support for maintaining the bars in position and ensuring required spacing and correct cover of concrete to reinforcement as called for in the drawings, spacer blocks of required shape and size. Chairs and spacer bars shall be used in order to ensure accurate positioning of reinforcement. To ensure proper cover, only factory made round type cover blocks will be used to avoid displacement of bars in any direction
12.	WATER PROOFING:
12. 1	The work in general shall be executed by specialized agencies and as per Manufacturers Specifications or CPWD Specifications as applicable and directed by Engineer-in-charge.
12. 2	Total quantity of the water proofing compound required shall be arranged only after obtaining the prior approval of the Engineer in Charge in writing. Materials shall be kept under double lock and key and proper account of water proofing compound used in the work shall be maintained. It shall be ensured that the consumption of the compound is as per specified requirements.
12. 3	The finished surface after water proofing treatment for floor in sunken portion shall have minimum slope of 1 in 48 unless otherwise decided by the Engineer in Charge.
12. 4	Before commencement of treatment on floor surface, it shall be ensured that the outlet drain/spouts have been fixed and the spout openings have been eased and rounded off properly for easy flow of water.
12. 5	Contractor shall associate himself with one of the specialist firms relating to the water proofing treatment with the approval of Engineer in charge with eligibility criteria as follows :- a) Experience of having successfully completed works during last 7 years . (i) Two similar works of value not less than 60 % of the tendered cost of water proofing items of work or one similar work of value not less than 80 % of tendered cost of water proofing items of work. b) Similar work shall be as work of water proofing. The value of executed work 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 the date of submission of request to Engineer-in-charge.

13	Expansion Joints:
	PVC water stops shall conform to IS:12200 (Code of practice for provision of water stop at Transverse contraction joints in masonry and concrete dams)
14.	Construction Joints: The Contractor shall give his proposal for location and treatment of construction joints. The construction joints shall be provided only at places and in the manner as approved by Engineer in Charge. Except where shown otherwise on the drawing, reinforcement shall continue through construction joints.
15	GUARANTEE BOND FOR WATER PROOFING WORKS: Ten years guarantee bond in prescribed proforma attached herewith shall be submitted by the Contractor which shall also be signed by both the specialized agency and the Contractor to meet their liability/liabilities under the guarantee bond. However, the sole responsibility of above efficiency of water proofing treatment shall rest with the Contractor. Separate guarantee bonds shall be submitted by the Contractor for different types of water proofing work. Ten per cent of the cost of water proofing work shall be retained as security deposit and the amount so withheld would be released after ten years from the date of expiry of maintenance period under the agreement, if the performance of the work done is found satisfactory. If any defect is noticed during the guarantee period, it shall be rectified by the Contractor within seven days of receipt of intimation of defects. If the defects pointed out are not attended within the specified period, the same will be got done from other agency at the risk and cost of Contractor. The security deposit against this item of work shall be in addition to the security deposit mentioned elsewhere in contract form. The proforma for Guarantee bond is enclosed at Annexure II on page.....

ANNEXURE-II

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

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

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

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

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

Providing that the Guarantor will not be responsible for leakage caused by earthquake or structural defects or misuse of roof or alteration and for such purpose.

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

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

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

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

Signed, sealed and delivered by Obligor in the presence of –

1. _____

2. _____

Signed for and on behalf of the President of India by

In the presence of -

1. _____ 2. _____

Minimum Quality Assurance Plan

1). Maintenance of Register of Tests

- i) The details of all Tests carried out at Construction/Maintenance Site or at outside Laboratories shall be maintained by the Contractor in the Test Register which shall be issued to the Contractor by Engineer-in-charge in the same manner as being issued to CPWD field staff.
 - ii) All Samples of materials including Cement Concrete Cubes shall be taken jointly with Contractor by JE and out of this at least 50% samples shall be taken in presence of AE in charge. If there is no JE, all Samples of materials including Cement Concrete Cubes shall be taken by AE jointly with Contractor. All the necessary assistance shall be provided by the Contractor. Cost of sample materials is to be borne by the Contractor and he shall be responsible for safe custody of samples to be tested at site.
 - iii) All the test in field lab setup at Site shall be carried out by the Engineering Staff deployed by the Contractor which shall be 100% witnessed by JE and 50% of tests shall be witnessed by AE-in-charge. At least 10% of the tests are to be witnessed by the Executive Engineer.
 - iv) All the entries in the registers will be made by the designated Engineer Staff of the Contractor and same should be regularly reviewed by JE/AE/EE. The registers shall be produced before senior officers inspecting the work.
 - v) Contractor shall be responsible for safe custody of all the test registers.
- 2). Submission of copy of all Test Registers, Material at Site (MAS) Register and Hindrance Register along with each alternate Running Account Bill and Final Bill shall be mandatory. These registers should be duly checked by AE(P) in Division Office and receipts of registers should also be acknowledged by Accounts Officer by signing the copies and register to confirm receipt in Division office.

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

- i) All the MAS Registers including Cement and Steel Registers shall be maintained by Contractor which shall be issued to the Contractor by Engineer-in-charge.
- ii) Each of the entry of receipt of material at site shall be 100% test checked by JE or by AE if there is no JE.
- iii) Each of the entry shall be checked by JE at least twice a week and at least once a week by AE. If there is no JE then MAS registers will be checked by AE at least twice a week.
- iv) Cement Register shall be reviewed by EE at least once in a month.

LIST OF APPROVED MAKES

Specification/brands names of materials (Refer materials, whichever are applicable for the scope of work) and finishes approved by the Engineer-in-Charge are listed below. However approved equivalent materials and finishes of any other specialized firms may be used, in case it is established that the brands specified below are not available the market and subject to approval of the alternate brand by the Engineer-in-Charge (See also conditions of contract)

Sl. No.	Materials	Approved make
1	Tiles	
A.	Ceramic Glazed Wall Tiles	JOHNSON, SOMANY, KAJARIA, NITCO,
B.	Ceramic Glazed Floor Tiles	JOHNSON, SOMANY, KAJARIA, NITCO, ASIAN
C.	Chequered Tiles	NITCO, KK MANHOLE & GRATINGS CO. PVT. LTD. , MODERN, ULTRA,UNISTONE, ADVENT, DALAL
D.	Rectified Glazed Ceramic Floor Tiles	JOHNSON, SOMANY, KAJARIA, NITCO, ASIAN
E.	Vitrified Tiles	KAJARIA, JOHNSON, OASIS, MARBIITO, NITCO, ASIAN, SOMANY, RAK
F.	Terrazzo Tiles	NITCO, MODERN, SWASTIK
2	Bathroom Fittings	Jaquar, Kohler, MARC,Hindware
3	Sanitary Ware	Hindware, Neycer, Parry ware, Kohler
4	Kitchen Sink (steel)	Neelkanth, Jayna, Anupam, Nirali
5	PVC Tank	ISI marked sintex, SPL, Storex, Unitank
6	PVC Cistern	Commander, Duralite, Hindware, Coral, Speed Flow
7	Fibre Glass sheet and Chajjas	Rooffit of Shiv Shakti fiber udhyog make, Fibreways Technology, Simba
8	Precast Cement concrete slab	Nitco, KK MANHOLE & GRATINGS CO. PVT. LTD., KONKRETE PRODUCTS CO, DALAL
9	G.I. Sheet	SAIL, Tata shakti, jindal, Swastik
10	G.I. pipe	ISI marked jindal Hissar, Tata, Prakash
11	G.I. fittings	ISI marked Unik, UK, Surya, Prakash,
12	Structural M.S. Sections I & Channels	ISI marked Tisco, Jindal, Sail, Rana, Rathi
13	Structural Extruded Sections Tee iron, Angle iron, Flats etc and TMT bars	ISI marked Rana, Tata, Rathi
14	Steel work with hot finished welded type tubes for tubular trusses	BST, Jindal, Ravindra, Surya
15	Block Board & Ply Wood & Lamination Sheet, veneering	ISI marked Century, Duro, Greenply, Merino, National

16	Factory made chamfered edge CC Interlocking paver Block, Kerb Stone	Nitco, KK MANHOLE & GRATINGS CO. PVT. LTD., KONKRETE PRODUCTS CO , Terra Firma, DALAL, ADVENT
17	Precast R.C.C. manhole & gully trap covers, frames and gratings	KK MANHOLE & GRATINGS CO. PVT. LTD., KONKRETE PRODUCTS CO,
18	Oil bound washable distemper	Berger, Asian, Nerolac, ICI
19	Acrylic Distemper with or without VOC content	Berger, Asian, Nerolac, ICI
20	Acrylic Emulsion paint/premium Emulsion paint having VOC content	Berger, Asian, Nerolac, ICI
21	Exterior Acrylic paint/ Premium acrylic paint	Berger, Asian, Nerolac, ICI
22	Primer for all work with or without VOC content	Berger, Asian, Nerolac, ICI
23	Synthetic enamel paint with or without VOC content	Berger, Asian, Nerolac, ICI
24	Waterproofing cement paint	Berger, Snowcem India Ltd, Asian paints
25	Cement	OPC 43 Grade/PPC (ISI) ACC, Birla, Jaypee, L&T, Shree, J.K.
26	Modular kitchen Accessories	Stallion , Sparkle Top,Hettich
27	Brass Door window fittings	Sigma, Brasses, Bush
28	Dash Fastner	Hilti, Fisher, Canon
29	Hydraulic door closer	Hardwyn, Godrej, Dorma
30	Lock & Latcher	Godrej, Harrison, Plaza, Golden
31	Cement wall putty	Birla wall care, J.K. wall care
32	APP	Bitumat co. Ltd., Roflex, STP, Dermabit Apex, Asian Paint
33	Aluminum Sections	Jindal, Hindalco, Indalco
34	Centrifugally Cast & Pipe	NECo, Truform, Tecno sales Corporations
35	Tempered glass/ glass pan	Modi float, saint Gobain, Asahi
36	BEVELLED EDGE MIRROR	ATUL,SAINT GOBAIN,MODI GUARD, GOLDEN FISH
37	PTMT Fittings	Prayag,Wilson
38	Polymer Modified Cementitious Grout	Ardex Endura/Laticrete/Ferrous Crete
39	Non shrink Cementous Grout	Xypex/Fosroc/Krytone/Ferocrete
40	Polycarbonate Sheets	Danpalon / Bayer Makrolon / G.E.Lexan
41	Cement Board	Bison/Everest
42.	Aluminium Composite Panels	Alucobond/ /Alstone/Durlom/Armstrong
43	Wood Polish	Asian Paints/Pidlite Industries/ICI Dulux/Wembley
44	Gypsum Board	St. Gobain Gyproc Gypsum/Boral
45	Calcium Silicate False Ceiling System Along with supporting	Aerolite/Everest/NCL/Hilux
46	All hardware and fittings for all types of glazing, doors, windows	Dorma/Hafele/Geze/Ozone

47	Glass hardware and patch fittings	Dorma/Hafele/Geze/Ozone/Hardwyn/Dorset
48	Adhesive /Epoxy Grout for floor tiles, marble stone, Granite stone etc.	Ferrous Crete/Ardex endure (GOLDSTAR)/Pidlite (Fevimate XL) LATA POXY SP-100, MYK LATICRETE India Pvt Ltd.
49	Toughened Glass	Saint Gobain, Asahi, Haryana Sheet Glass Limited
50	Laminated Wooden Flooring	Pergo/Vista/Golden floor for laminate flooring

Note:- The weight and thickness of the material should be as per CPWD Specification/relevant IS code/ manufacturer specification.

ADDITIONAL CONDITIONS FOR FURNITURE

- 1) The bidder shall be required to prepare shop drawings as per the approved drawings and images for all the furniture items. Any corrections suggested shall be made in drawings for which nothing extra shall be paid. Mass production of various furniture shall be taken up only after final approval of shop drawings by the Engineer - in - Charge.
- 2) All furniture shall be manufactured at factory only. Each unit shall be dimensionally checked at factory before dispatching to site. All individual components shall be packed to protect finish of laminates/veneer and edges for which nothing extra shall be paid. The factory shall have sufficient space for storage of raw materials and finished products.
- 3) The bidder shall procure raw material such as plywood, laminates, edge banding tape and hardware etc. in bulk quantity. The material shall be inspected by the Engineer- in - Charge or his authorized representative, if required, before preparation of furniture.
- 4) The Engineer- in - Charge or his authorized representative or Third party QA team shall inspect manufacturing of furniture at factory time to time, if required.
- 5) Installation of furniture to make units as per drawings shall be done with required necessary joinery fittings such as connecting fittings, plastic dowels, push fix, clips, Leveling screws, plinth bushes/ buffers, brackets, washers, screws etc. of approved make compatible to thickness of board and hardware for which nothing extra shall be paid.
- 6) The cost includes installing at site for all leads and lifts.
- 7) All furniture shall be made with single piece of plywood. No joints is allowed.
- 8) All panels shall be made with single piece of laminates except joints, if any, shown in the architectural drawings. After installation, if any panel found with joint in plywood/ laminate, the entire unit will be treated as rejected and shall be replaced and nothing extra shall be paid..
- 9) All furniture shall be made as per architectural drawings and approved mock up. Any variation in dimensions shall not be acceptable and the same shall be treated as rejected for which nothing extra shall be paid.
- 10) All furniture shall be provided with necessary hardware as specified along with necessary accessories complete for all heights and all leads. Screws used for fixing shall be of the same metal, and finish as of the fittings. However, stainless steel screws of grade SS 304 shall be used for fixing fittings (where no screws are provided along with fittings) for which nothing extra shall be paid.
- 11) Fittings shall be fixed in proper position as shown in the drawings or as directed by the Engineer-in-Charge. These shall be truly vertical or horizontal as the case may be. Screws shall be driven home with screw driver and not hammered in. Recesses shall be cut to the exact size and depth for the counter sunking of fittings.
- 12) Plywood /Plywood Boards: All plywood boards shall be of BWR grade plywood confirming to IS 303 of approved make. Material Specifications, sampling, testing, acceptability shall be as per CPWD specifications 2009 Vol. 1 & 2 and relevant IS codes.

13) Laminated/veneer Sheets: All laminated/ veneer sheets shall generally conform to IS. Material Specifications, sampling, testing, acceptability shall be as per CPWD specifications 2009 Vol. 1 & 2 and relevant IS codes. 43 Addition: NIL Overwriting: NIL Correction: NIL Deletion: NIL AEE AE-II EE AE(P)

14) Block board: All block boards shall be minimum 18 mm thick with commercial ply veneering on both sides confirming to IS: 1659 of approved make. Material Specifications, sampling, testing, acceptability shall be as per CPWD specifications 2009 Vol 1 & 2 and relevant IS codes.

15) The plywood/ block board/ laminate shall be got tested by the Engineer-in-charge and shall be used on the work only after satisfactory test results have been received. Frequency of testing shall be as per the CPWD specifications. The contractor shall supply free of charge plywood/ block board/ laminate required for testing including its transportation cost to testing laboratories. The cost of tests shall be borne by the contractor/Department in the manner indicated below: (a) By the contractor, if the results show that the plywood/ block board/ laminate does not conform to relevant BIS codes/ CPWD Specifications. (b) By the Department, if the results show that the plywood/ block board/ laminate conforms to relevant BIS codes/ CPWD Specifications.

16) Furnitures are to be installed in ongoing work of hostels buildings. The bidder shall take extreme care not to damage any civil work. While transporting the material to various places, utmost care shall be taken not to damage wall corners, wall finish, flooring etc. If any such damages made, the same shall be made good by him only, for which nothing extra shall be paid. If the contractor fails to rectify damages made by him, the same shall be got rectified by the Department at the risk and cost of the contractor.

17) No labour will be allowed to stay in the existing building. Labour huts to be provided at pre decided location as per direction of Engineer-in-Charge.

18) The bidder shall be required to make own store at pre decided location as per direction of Engineer-in-Charge.

19) After installation of furniture, the contractor shall remove all the packing waste & other unsued material immediately from site and maintain the work place neat and clean.

20) The contractor shall be required to make own arrangement of power and water supply for which nothing extra shall be paid.

21) Furniture such as bed / Wardrobe/ study table/side unit are to be made as per site dimensions after final wall finishes. The bidder shall be required to take exact measurement of each location and accordingly furniture to be prepared. Necessary cost adjustment shall be made for over/ under size of furniture.

22) While installation of furniture, existing flooring shall be protected by using PVC sheet/ card board/ foam sheet to avoid scratches/ damages for which nothing extra shall be paid.

23) In the work site, various other agencies may be working. The bidder shall be required to coordinate with other agencies while executing their work for which nothing extra shall be paid.

24. The nomenclature of the item given in the schedule of quantities gives in general the work content but is not exhaustive i.e. does not mention all the incidental works required to be carried out for complete execution of the item of work. The work shall be carried out, all in accordance with true intent and meaning of the specifications and the drawings taken together, regardless of whether the same may or may not be particularly shown on the drawings and/or described in the specifications, provided that the same can be reasonably inferred there from may be several incidental works, which are not mentioned in the nomenclature of each item but will be necessary to complete the item in all respect. All these incidental works / costs which are not mentioned in item nomenclature but are necessary to complete the item shall be deemed to have been included in the rates quoted by the contractor for various items in the schedule of quantities. No adjustment of rates shall be made for any variation in quantum of incidental works due to variation / change in actual working drawings. Also, no adjustment of rates shall be made due to any change in incidental works or any other deviation in such element of work (which is incidental to the items of work and are necessary to complete such items in all respects) on account of the directions of Engineer-in-Charge. Nothing extra shall be payable on this account.

25. QUALITY ASSURANCE -The proposed work is for the VVIP areas and quality of work is of paramount importance. Contractor shall have to engage well-experienced skilled labour and deploy modern T&P and other equipment to execute the work of furniture. All Items will specially require engagement of skilled workers having experience particularly in execution of such items.

26. INSPECTION OF WORK- Senior Officers of CPWD, Dignitaries from Central Ministry / Department, shall be inspecting the on-going work at site/factory at any time with or without prior intimation. The contractor shall, therefore, keep updates.

27. FINAL TESTING OF THE INSTALLATION- The Contractor shall demonstrate trouble free use of all the furniture installation and services provided thereon. The Engineer-in-Charge or his authorized representatives shall carry out final inspection of the various installations. Any defect(s) noticed during demonstration shall be rectified by the Contractor at his own cost to the entire satisfaction of the Engineer-in-Charge. Nothing extra shall be payable on this account.

28. All paints, adhesives and sealants should comply with the VOC limits prescribed by GRIHA, as follows: Table 1- VOC limits for paints, adhesives and sealants

Non-flat paints	150		
Flat (Mat) paints	50		
Anti-corrosive/anti- rust paints	250		
Varnish	350	Wood	30
Lacquer	550	Stains Water proofing sealer	250

SPECIAL CONDITIONS FOR FURNITURE

- 1 Agency will bring the sample to Sub Division Office for approval of competent authority. Failing which no supply will be entertained by department.
- 2 The material supplied without its proof of purchase/certificate of material from required manufacturer shall not be considered for release of payments.
- 3 The order of preference in case of any discrepancy as indicated in condition No. under —Conditions of Contractl give in standard CPWD contract form may be read as the following:
 - i) Nomenclature of items as per schedule of quantities.
 - ii) Particular specification and special condition, if any.
 - iii) CPWD specifications.
 - iv) Architectural Drawings
 - v) Indian standard specifications of B.I.S.
 - vi) Sound Engineering Practice

A reference made to any Indian Standard specification in these documents, shall imply to the latest version of that standard. Including such revision/amendments as issued by the bureau of Indian standard upto last date of receipt of tenders. The contractor shall keep at his own cost all such publications of relevant Indian standard applicable to the work at site.

- 4 Except for the items, for which particular specifications are given or where it is specifically mentioned otherwise in the description of items in the schedule of quantities the work shall generally be carried out in accordance with the —CPWD specifications 2009 Vol. 1 and Vol. 2 (with upto date corrections slips). (Hereinafter to be referred to as CPWD specifications) and instructions of Engineer-in-Charge. Wherever CPWD specifications are silent the latest IS codes/specification shall be followed.
- 5 The contractor shall submit for the approval of Engineer-in-Charge names of specialized agencies of repute along with their technical capacity proposed to be engaged by him, who must have executed satisfactorily works of value as specified in mandatory conditions.
- 6 Samples of all materials and fittings to be used in the work in respect of brand manufacturer and quality shall be got approved from the Engineer-in-Charge, well in advance of actual execution and shall be preserved till the completion of the work. Articles bearing BIS certifications mark shall only be used unless no manufacturer has got BIS mark for the particular material. Any material/fitting whose sample has not been approved in advance and any other unapproved material brought by the contractor shall be immediately removed as soon as directed.

Particular Specifications for Furnishing

1. Terrace and Window Awning work :-

Five years Guarantee bond in prescribed proforma at Sheet No. of Part- shall be submitted by the contractor which shall also be signed by both the specialized agency and the contractor to meet their liability / liabilities under the guarantee bond. However, the sole responsibility about efficiency of the work shall rest with the building contractor. (Ten per cent) of the cost of Awning work shall be retained as Security Deposit and the amount so deducted would be released after Five years from the date of completion of the entire work under the agreement, if the performance of the work is found satisfactory. If any defect is noticed during the guarantee period, the contractor shall rectify it in time bound manner. If the defects pointed out are not attended to within the specified period, the same will be got done from another agency at the risk and cost of contractor.

2. Wall paper and Blind fixing work :-

Five years Guarantee bond in prescribed proforma at Sheet No. of Part- shall be submitted by the contractor which shall also be signed by both the specialized agency and the contractor to meet their liability / liabilities under the guarantee bond. However, the sole responsibility about efficiency of the work shall rest with the building contractor. (Ten per cent) of the cost of fixing of wallpaper and Blind work shall be retained as Security Deposit and the amount so deducted would be released after Five years from the date of completion of the entire work under the agreement, if the performance of the work is found satisfactory. If any defect is noticed during the guarantee period, the contractor shall rectify it in time bound manner. If the defects pointed out are not attended to within the specified period, the same will be got done from another agency at the risk and cost of contractor.

3. Storage Space :-

Agency should have minimum Two Storage unit of minimum area 20 Sqm each for Stacking of furniture . The unit should be free from moisture and termite resistant.

LIST OF APPROVED MAKES

Specification/brands names of materials (Refers materials, whichever are applicable for the scope of work) and finishes approved by the Engineer in Charge are listed below. However approved equivalent materials and finishes of any other specialised firms may be used, in case it is established that the brands specified below are not available in the market and subject to approval of the alternate brand by the Engineer-in-charge (See also conditions of contract)

Sl.no.	Materials	Approved make
1	Lock & Latch	Godrej, Harrison, Plaza, Golden Or ISI
2	BEVELLED EDGE MIRROR	ATUL, SAINT GOBAIN, MODI GUARD GOLDEN FISH
3	Wood Polish	Asian Paints, Pidlite Industries/ICI Dulux/ Wembley
4	Block Board, Plywood	Century, Duro, Greenply, Merino, National
5	Sunmica, Veneering	Centruply, Duro, Greenply, Merino, National
6	Toughened Glass	Saint Gobain, Haryana Sheet Glass Limited., Modiguard, Aashi,
7	All hardware and S.S. Fitting i.e handle, Knob, Sliding channel etc.	Dorma, Hafele, Geze, Ozone
8	Chair i.e Revolving & Visitor	Indo Innovation, Godrej, Hawarth
9	Almirah & Book Case	Indo Innovation, Godrej, Hawarth, Fetherlite
10	Moulded Plastic Chair & Table	Supreme, Neel Kamal, Cello
11	Mattresses	Sleepwell, Kurlon,
12	Foam Sheet, Cushions	Sleepwell, Kurlon,
13	Curtain Cloth	D Decor, GM Fabric, GM Syntex, New Castle, Reliable Drape, Response
14	Upholster Cloth	Ddecor, Reliable Drapes, New Castle, Response
15	Curtain Rod & Channel	MAC, Vista & Magnum
16	Hardware	Hettich, Hafele, Blum, Dorma, Kich
17	Screws	All shall be of SS-304 Grade

Note:- The weight and thickness of the material should be as per CPWD specification/ relevant IS code/ Manufacturer specification.

Part – C

(E&M Works)

PERFORMA OF SCHEDULES for Electrical Works

SCHEDULE „A“

Schedule of quantities (As per PWD-3)

:As attached

SCHEDULE „B“

Schedule of materials to be issued to the contractor :

S. No.	Description of Item	Quantity	Rate in figures & words at which the material will be charged to the contractor	Place of issue
1	2	3	4	5
NIL				

SCHEDULE „C“

Tool and plants to be hired to the Contractor:

Sl. No.	Description of Item	Hire Charges per day	Place of Issue
1	2	3	4
N/A			

SCHEDULE „D“

Extra schedule for specific requirement/document for the work, if any.

Attached Additional Conditions & Specification - **:As attached**

SCHEDULE „E“

Reference to General Conditions of contract :

General Conditions of contract for Central PWD Works 2014 as amended upto date receipt of tender.

As per Part „A“

SCHEDULE „F“

General Rules & Directions:

Officer inviting tender

Executive Engineer, B-Division,
CPWD, IP Bhawan, New Delhi
Or
his successor-in-charge of work

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

50%

Definitions:

2(v) Engineer-in-charge

Executive Engineer (E), ED-II,
CPWD, IP Bhawan, New Delhi
Or
his successor-in-charge of work

2(viii) Accepting Authority:

As per part „A“

2(x) Percentage on cost of materials and

15 %

labour to cover all overheads and profits.

- 2(xi) Standard Schedule of Rates DSR 2018 (E&M) amended upto Date, Market Rate and minimum wages of Govt. of India.
- 2(xii) Department **C.P.W.D.**
- 9(ii) Standard CPWD contract Form GCC 2014, CPWD works Manual 2019 as amended up to date.

Clause 1

- (i) Time allowed for submission of Performance Guarantee, **Programme Chart (Time and Progress) and applicable labour licenses, registration with EPFO, ESIC** or proof of applying thereof from the date of issue of letter of acceptance - As per Schedule _F' Part _A'
- (ii) Maximum allowable extension **with late fee @0.1% per day** of Performance Guarantee amount beyond the period provided in (i) above - As per civil Schedule _F' Part _A'

Clause 2

Authority for fixing Compensation under clause 2

Superintending Engineer, DCC-2, CPWD/ Authority as intimated by Engineer in Charge.

Clause 2 A

Whether clause 2A shall applicable Yes / No

: No

Clause 5

- (i) Number of days from the date of issue of letter of acceptance for reckoning date of Start As per civil Schedule _F' Part _A'
- (ii) Time allowed for execution of work As per civil Schedule _F' Part _A'
- (iii) Extension of time Superintending Engineer, DCC-2, CPWD/ Authority as intimated by Engineer in Charge.
- (iv) Rescheduling of mile stones Superintending Engineer, DCC-2, CPWD/ Authority as intimated by Engineer in Charge.
- (v) Shifting of date of start in case of delay in handing over of site. Superintending Engineer DCC-II, CPWD/ Authority as intimated by Engineer in Charge

Milestone(s) : - As per civil part „A“

Clause 6, 6A

Clause applicable (6 or 6A)

: As per civil Schedule _F' Part _A'

Clause 7

Gross work to be done together with net Payment / adjustment of advances for Material collected, if any, since the last Such payment for being eligible to Interim payment.

: **Rs. 50.00 Lakh**

Clause 10 A

List of testing equipment to be provided by the contractor at site lab. :

All measuring and testing equipments for testing during the progress of work and final testing and commissioning shall be provided by contractor as per CPWD General Specifications for Electrical Work Part-I 2013.

Clause 10 B (ii)

Whether clauses 10 B (ii) shall be applicable Yes / No

: No

Clause 10C

Component of labour expressed as percent of value of work.

: N.A.

Clause 10CA

Sr. No.	Material covered under this clause	Nearest Materials (Other than cement, reinforcement bars and the structural steel) for which All India wholesale Price Index to be followed	Base Price of all Materials covered under clause 10 CA*
1			
2		N/A	
3			

- Base price of all the materials covered under clause 10 CA is to be mentioned at the time of approval of NIT.

Clause 10CC

: **Applicable**

Clause 10CC to be applicable in contract with stipulated period of completion exceeding the period shown in next column.

: 12 Months

Schedule of component of other materials, Labour, POL etc. for price escalation.

Component of civil (Except materials covered under clause 10 CA) /

Electrical construction Materials expressed as percent of total value of work

: N/A

Component of Labour

Expressed as percent total value of work

:

i) All items of outsourcing/ARMO/Operation/Comprehensive Maintenance (SH-I of BOQ):

65%

ii) All items Upgradation/Minor work (SH- 2 & 3 of BOQ)

: 25%

Component of P.O.L

Expressed as percent total value of work

:

N/A

Clause 11

Specifications to be followed for execution of work:

- a) CPWD General Specifications for Electrical work Part I Internal - 2013, amended upto date.
- b) CPWD General Specifications for Electrical work Part II External -1994, amended upto date.
- c) General Specifications for Heating, Ventilation & Air-Conditioning(HVAC) - 2017, as amended upto date.
- d) CPWD General Specifications for Electrical Works Part VII D.G. Sets/Substation - 2013.,amended upto date.
- e) General Specifications for Electrical Works (Part-III-LITS & Escalators) - 2003,amended upto date.

Clause 12

12.2 & 12.3 Deviation Limit beyond which clauses

12.2 & 12.3 shall apply for building work : **50%**

12.5 Deviation limit beyond which clauses

12.2 & 12.3 shall apply for foundation work : **N/A**

Clause 16

Competent Authority for deciding reduced rates

Superintending Engineer (E),
DCEC-1 CPWD/Authority as
intimated by Engineer in Charge

Clause 18

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

- | | |
|-------------------|--------------------------|
| 1. EARTH TESTER | 2. MEGGER 500 V |
| 3. LINE TESTER | 4. TEST LAMP |
| 5. DIE & VICE | 6. CHASE CUTTING MACHINE |
| 7. CRIMPING TOOLS | 8. TONGUE TESTER |

Clause 25 : As per Civil Schedule _F‘ Part _A‘

Clause 36 (i)

Requirement of Technical Representative(s) and recovery Rate :As per Civil Part _A‘

Clause 42

- (i) (a) Schedule / statements for determining theoretical quantity of cement and bitumen on the basis of Delhi Schedule of rates : **N/A**
- (ii) Variations permissible on theoretical quantities. :
 - (a) Cement :

For works with estimated cost put to tender not more than Rs. 5 lakhs. : **N/A.**

For works with estimated cost put to tender more than Rs. 5 lakhs. : **N/A.**
 - (b) Bitumen for all works : **N/A.**
 - (c) Steel reinforcement and structural steel sections for each diameter, section and category. : **N/A**
 - (d) All other materials : **N/A**

**RECOVERY RATES FOR QUANTITIES BEYOND PERMISSIBLE VARIATION:
N.A**

Sl. No.	Description of Item	Rate in figures and works at which recovery shall be made from the Contractor	
		Excess beyond permissible variation	Less use beyond the permissible variation
1	Cement	NIL	NIL
2	Steel Reinforcement		
3	Structural Sections		
4	Bitumen issued free		

Name of work :Comprehensive Maintenance (Civil & Electrical) of Hon'ble Ministers Bungalows in LBZ Area, New Delhi including Day to Day Maintenance, Ordinary & Special Repairs, Minor Works, Security Related Works and Upgradation Works

GENERAL CONDITIONS (FOR ELECTRICAL WORK)

- 1 The scope of work comprises of all the electrical & mechanical installations in Hon'ble Minister's, Ex. P.M, Former President of India, Former Vice President of India and C.M Residence at Kushak Road (Service Center no. 145) and Ferozshah Road (Service Center no.148) which includes Bungalows as per list attached in NIT by Civil along with their offices, servant quarters, garages, sentry post, guard rooms etc., located under Electrical Enquiry, New Delhi
- 2 The scope of work consists of :-
 - a. Comprehensive maintenance of all E&M installations including fittings, fixtures, equipments, gadgets etc. installed as per inventory, in the above bungalows. **The works includes men and materials required for repair, replacement and normal working of these E&M installations.** Nothing extra shall be paid on this account.
 - b. Minor E&M, required in the existing bungalows, as per the directions/request from VVIP allottees.
 - c. Upgradation of E&M services in the newly allotted bungalows, as per direction of Engineer – in - charge.
 - d. Security related E&M works. This includes comprehensive maintenance/operation of E&M equipments, installed with MHA funds and new work required in security establishment in newly allotted bungalows.
- 3 The contractors are advised to visit the site of work to have an idea of the execution of the work; failure to do so will not absolve their responsibility to do the work as specified in agreement.
- 4 The contractor shall manage all complaints received under Service Centre No. 145 (Kushak Road) and 148 (Ferozshah Road). These complaints can be received through CPWD eSewa/verbally/telephonically/through CPWD officer etc. All the complaints which are received through any mode, other than CPWDeSewa are to be first entered in complaint register and then are to be uploaded on ESewa by the contractor. The contractor shall make all the arrangement of hardware, internet, computer operator etc. that is required to carry this out.
- 5 Attendance register/record of Biometric attendance of staff deputed shall be maintained and kept at site office and duty chart of workers shall be displayed at site office/service centre. The Biometric Machine for attendance will be provided by the contractor.
- 6 All the material to be used on this work by the contractor shall be got approved from the Engineer-in-Charge before supplying at site.
- 7 The bad workmanship will not be accepted and defects shall be rectified at contractor's cost to the satisfaction of the Engineer-in-Charge. The electrical works are to be executed in coordination with the building work and no claim for idle labour will be entertained.
- 8 All the debris of the works should be removed and the site should be cleared by the contractor immediately after accumulating of debris. Similarly, any rejected material should be immediately cleared off from the site by the contractor.
- 9 The contractor shall make his own arrangement at his own cost for general tools and plants required for the work.

- 10 The contractor shall have to store, at any point of time, at least 10% of stock of material required for comprehensive maintenance/ARMO/Minor work/upgradation. The space for storage/staff shall be provided (As per Civil).
- 11 The work shall be carried out in such a manner so as not to interfere or effect or disturb other works, being executed by other agencies, if any. He shall arrange his work with that of the other in an acceptable and coordinated manner and shall perform it, in proper sequence to the complete satisfaction of the Engineer-in-Charge. Any damage done by the contractor to any existing work shall be made good by him at his own cost. Otherwise the same shall be got done at his risk and cost.
- 12 The contractor shall take all necessary precautions to prevent any nuisance or inconvenience to the owners, tenants of adjacent properties and to the public in general and to prevent any damage to such properties and any pollution of smoke, streams and waterways. He shall make good at his cost and to the satisfaction of the Engineer-in-Charge, any damage to roads, paths, cross drainage works or public or private property whatsoever caused by the execution of the work or by traffic brought thereon by the contractor. Utmost care shall be taken to keep the noise level to the barest minimum so that no disturbance as far as possible is caused to the occupants/users of adjoining buildings.
- 13 Any damage to the Govt. Property shall be made good by the Contractor and nothing extra shall be paid on this account.
- 14 The main/associated contractor shall have registration with Employee Provident Fund Commissioner and Employee's Estate Insurance Corporation for safe guarding the interest of his workmen. The contractor shall obtain all necessary approval from state/Local Body as per law in vogue.
- 15 All staff employed by the contractor should be issued uniform, name badges and identity cards by the contractor. The staff deployed by the contractor should wear neat and clean uniform daily.
- 16 The character and antecedents of staff employed by the contractor shall be got verified from the police by the contractor.
- 17 The staff engaged by the contractor should be well behaved, polite and courteous. Any complaints against staff misbehavior should be taken very seriously and such staff should be removed by the contractor immediately from the site and arrange replacement for the same failing which the Engineer-in-charge has the power to cancel the contract and the contractor shall have no right to claim of loss/compensation.
- 18 Safety of the staff employed will be the responsibility of the contractor. CPWD will not be responsible for any mishap, injury/accident or death of the staff. No claim in this regard shall be entertained/accepted by the Department.
- 19 The contractor has to work in restricted area and in restricted time due to security reasons. He shall be bound by the instructions of security staff and Engineer-in-Charge in this respect.
- 20 Contractor shall provide name, father's name, residential address and other details i/c photo as may be required by the security staff for issue of photo pass to the labour engaged on work.
- 21 The Department shall arrange entry passes to the residences of Hon'ble Ministers.
- 22 If the behavior of the worker is not found satisfactory, the contractor has to change staff within 3 days, failing which, the Engineer-in-Charge has the power to cancel the contract, and the contractor shall have no claim of compensation.

- 23 All the complaint registers, log books, MAS, Task Register, workers diary, test result registers or any other record shall be supplied by the contractor, maintained by the staff of the contractor and handed over to the department on the completion/ termination of the contract or duly filled up the register.
- 24 Proof of deposit of provident fund and ESI contribution can be demanded any time by the Engineer in Charge.
- 25 The contractors shall pay the wages & allowances as applicable and revised time to time by the Govt. and submit the proof of increasing wages paid to the workers deployed for reimbursement/claim under Clause 10CC of agreement.
- 26 The contractor whose bid is accepted will also be required to furnish labour licenses registration with EPFO, ESIC and electrical contractor license from appropriate authority.
- 27 The contractor shall monitor the complaints lodged by the occupants of Bungalows, by any made such as verbally, telephonically, CPWD Sewa website etc., by receiving, attending and closing the case with suitable remarks, after duly attending the complaints. Computer & Operator shall be of the firm's responsibility.
- 28 The scope of work for E&M services is for Bungalows as prelist attached in NIT by Civil. However, the above quantity may vary. Contractor has to maintain the change quantities without additional cost.
- 29 The contractor shall carry out a survey every month covering at least 20% of the complaints received during the month and submit feedback to the Engineer-in-charge.
- 30 No running bill will be paid to the contractor unless he produces the proof of paid receipt of ESI / EPF contribution to concerned authority.
- 31 Safety of staff will be the responsibility of the contractor as per labour law. The department will not be a party in such litigation.
- 32 The staff deployed by the contractor for services shall be their employees. The department will not be responsible for their regularization.
- 33 The contractor shall be registered with ESI & EPF authority.
- 34 The contractor is responsible of all types of liabilities of the staff and they are not entitled for regular services in the department.
- 35 The Electrical items of supply should be duly ISI marked and as per the approved list enclosed. If any of the accessories available in the market is not ISI marked then decision of engineer in charge is final and will be binding to the contractor.
- 36 The contractor or his representative is bound to sign the site order book as and when required by the Engineer-in-Charge and to comply with the remarks therein.
- 37 All staff employed by the contractor should be issued uniform, name badges and identity cards by the contractor. The staff deployed by the contractor should wear neat and clean uniform daily otherwise recovery shall be made @ Rs 100/- per person per day.

- 38 The agency shall provide, within the duration of contract, 1 No. commercial registered inspection vehicle along with driver. This inspection vehicle should be 4 wheeler sedan range and the model should not be earlier than 2018. The inspection vehicle is likely to run 2000KM per month with in area of Delhi NCR. The driver should be available for at least 10 hour per day, as per direction of Engineer-in-charge. The agency shall bear the cost of POL, Maintenances and repair of vehicle and all levies due to insurance, registration tax, octroi, toll taxes etc. No payment will be made to the contractor in this regard.
- 39 It shall be the responsibility of the agency to transport all the items required for comprehensive maintenance/ Upgradation of bungalows from store and to carry dismantled material from site to store and nothing extra shall be paid on this account.
- 40 The agency shall provide computers, printers bio-metric machine etc. required for running of Electrical Sewa Kendra and nothing extra shall be paid on this account.
- 41 The contractors are advised not to submit any conditional tender. All conditional tenders shall be summarily rejected.
- 42 The Firm /Contractor shall maintain wage record of workers and he should not pay wage less than the minimum wages as prescribed/amended by the Labour Department/Ministry.
- 43 After the expiry of the contract, the firm shall have to hand over complete installation to the department in proper working order. All defects and deficiencies shall have to be rectified by the firm to the entire satisfaction of Engineer-in-charge failing which, the work shall be got done at the risk and cost of the firm.
- 44 The Contractor shall provide all necessary tools and plants to his workmen nothing extra will be paid on this account.
- 45 The contractors are advised to visit the site of work to have an idea of the execution of the work; failure to do so will not absolve their responsibility to do the work as specified in agreement.
- 46 The materials used in the work will be got approved from the Engineer-in-charge before use in work.
- 47 In case any accidents during the Operation / maintenance of the equipment leading to injuries / damages to human beings / equipments and / or loss of life , the contractor shall be fully responsible for settling all claims and indemnify the department against any claim arising out of such accidents.
- 48 The contractor shall arrange to render efficient services as outlined above. However in case he fails to maintain the services to the satisfaction of the Engineer-in-charge and the department has to incur any expenditure to maintain the installations by alternative arrangement the expenditure thus incurred will be recovered from the contractor, for which decision of the Engineer-in-Charge shall be final and binding.
- 49 Terms of payment and other facilities for workers.
- a) The payment to the workers shall be made through NEFT / RTGS / ECS.
 - b) The payment to the workers shall be made upto 7th day of next month positively otherwise legal action can be initiated against the contractor as per labour laws.
 - c) ESI / EPF of deployed staff will be deposited on regular basis, the same shall be reimbursed to the contractor, on production of proof of deposit of the same with respective Govt. department.
 - d) The contractor shall take all precaution for safety of the workmen. If any accident/mishap occurs, the department shall not be responsible for the same. Consequently any compensation payable shall be at the contractor's cost.
 - e) Staff on duty shall wear prescribed uniform, and contractor shall provide them I-cards within 15 days of LOI. Absence of any i.e. uniform or I-card will be considered as absence from duty & a suitable recovery also will be made from the bills of contractor as decided by Engineer-in-charge.

50 Terms of payment for the contractor.

Payment to the contractor shall be made after production of following proof :-

- a) Documentary proof of disbursement of wages of workers. The copy of ECS/NEFT/RTGS computerized transfer of payments of workers shall be enclosed with every bill.
- b) Copy of relevant period physical attendance sheet /register.
- c) Fortnightlylabour report.

51 All the dismantled materials are to be removed immediately, form the site of work, by the contractor. All the dismantled material received under SH: 1 (Outsourcing & Comprehensive maintenance) shall be the property of the contractor. All dismantled materials received under SH: 2 (Minor works) SH:3 (Upgradation works) and SH:4 (Security related works) are to be deposited to JE(E)-in-charge.

52 The contractor shall under take replacement/substitution of any staff, found unfit for duty due to any circumstances, with in 24 hour, as per directions of Engineer-in-charge. The contractor shall make local arrangements, for the short fall in staff, during interviewing period.

TERMS AND CONDITIONS

SH:1 - Day to Day Maintenance (E&M) - ITEM No. 1

- 1 All the works shall be carried out as per CPWD specification, Indian Electricity Rules-1965 amended up to date and to the entire satisfaction of Engineer-in-Charge.
- 2 The contractor has to depute following minimum staff with proper uniform. The duties of the staff shall be decided by Engineer-in-charge. The staff deployed shall be mark their attendance on bio-metric machine, provided by the agency and attendance sheet of all staff shall be submitted alongwith running bills.

i) Supervisor	3
ii) Skilled	17
iii) Semi-skilled	3
iv) Unskilled	9

The above staff is minimum required at site. **If at any time, any additional staff is required, the same shall be deployed by the contractor, at no extra cost.**

- 3 The installations shall be maintained on all days of the month including Sundays & holidays and weekly rest of the staff shall be given by making alternative arrangement for which no extra payment shall be made.
- 4 The contractor shall depute staff with minimum qualification and experience, as under:

Sl. No.	Designation	Minimum Academic Qualification	Experience
a)	Supervisor	Diploma in Electrical Engineering	3 Years in same position with reputed firm.
b)	Skilled	i) ITI certificate or Diploma Course in Electrician Trade from any Central/State Govt. approved training institute. ii) Wireman licence from electrical inspector, if required	2 Years in same line.
c)	Semi-skilled	10 th Pass	- Do -
d)	Unskilled	10 th Pass, Physically & Mentally fit	6 Months in same line.

Duty chart, with name & telephone number of all staff, is to be displayed at Sewa Kendra, at all times.

- 5 In case of absence of any staff prescribed at S.No. 2 above from duty, the following recoveries shall be made from the contractor
- a) Supervisor @ Rs. 2000/- per person per shift
 - b) Skilled @ Rs. 1800/- per person per shift
 - c) Semi-skilled @ Rs. 1500/- per person per shift
 - d) Unskilled @ Rs. 1300/- per person per shift
- 6 Emergency complaints such as no current, leakage of current, sparks short circuiting, fire hazards of any nature etc. shall be attended **within CPWD E-Sewa Benchmark (GREEN)**, otherwise a recovery of Rs.700/- per Emergency complaints per day shall be made from the contractor's bill, till the complaint is attended.
- 7 The Engineer-in-Charge has the right to remove/terminate the services of any worker without assigning any reason.
- 8 The workers can be deployed in shift duty as per requirement of the deptt. at the discretion of the Engineer-in-charge.

- 9 The contractor has to arrange the consumable items like hole fastner, chimney switches, hook for ceiling fan, PVC tape, nut-bolts, saddles, tie, clip for wire/cables etc. or as required should be free of cost.
- 10 The scope of work includes attending day-to-day complaints, repair/comprehensive maintenance of all existing electrical installation. The scope of work includes all men and material required to keep all electrical fixtures/equipments/systems in healthy working condition and includes replacement of all parts that have become defective due to any reason.
- 11 Painting of outdoor electrical installation such as street light / compound light poles or other items has to be done once in a year with superior quality one / two coats of paint as per instructions of Engineer-in-Charge. Nothing extra will be paid on this account. The decision of the Engineer-in-Charge shall be final and binding.
- 12 The contractor has to make his own arrangement of the tools for use by his skilled staffs. Further T&P required at site shall be arranged by contractor. Following T&P shall always be available at site of work otherwise recovery at the rate of Rs. 500/- per day for number of days it is not found at site of work :-
- | | | |
|---|---|-------------|
| 1. Meggar, (0-1000 Watt) | : | 2 Nos. |
| 2. Earth tester | : | 2 Nos. |
| 3. Crimping tools | : | 1 Set |
| 4. Spanner set | : | 3 Set |
| 5. ALAN Keys set | : | 3 Set |
| 6. Hammer Drill | : | 3 Nos. |
| 7. Hexa | : | 3 Nos. |
| 8. Tongtester | : | 2 Nos. |
| 9. PiPe wrench & Chain Wrench (2l to 6l) | : | 2 Nos. |
| Tachometer/Hydrometer/Luxmeter (Digital)/ Vernier; Screw gauge (Digital)/ Dial Guage (as per site requirement) | | |
| 10. Ladder of different size (suitable for internal and external electrical work) | : | 4 Set |
| 11. Tool Bags with required tools such as Plier, Tester, Knifes Screw Driver set, Rawl Plug with different size of screws Dhوتي & PVC tape etc. | : | All wireman |
12. All the equipments and installations shall be maintained in neat and clean condition. The watch and ward of installation shall be the responsibility of the contractor.
13. Any damage caused to the fittings/switch gears/installations/machinery as a result of execution of this work shall have to be made good by the contractor at his own risk and cost.
14. The contractor shall assess the requirement of material for preventive maintenance & break down and intimate the Engineer in charge of work well in advance for taking procurement action by the department.
15. The number of points and fixture as per enclosed inventory are indicative only. All points & fixture installed in the building has to be maintained under this contract, for which noting extra shall be paid.
16. All the material to be used on this work by the contractor shall be got approved from the Engineer-in-Charge before supplying at site.
17. All the debries of the electrical works should be removed and the site should be cleared by the contractor immediately after the accumulating of debries. Similarly, any rejected material should be immediately cleared off from the site by the contractor.

18. The contractor shall make his own arrangement at his own cost for general tools and plants required for the work. Nothing extra will be paid on this account.
19. The agency has to carry out fall preventative maintenance schedule as per Chapter 14 of CPWD General Specification for Electrical works Part-I (Internal) 2013.
- a) Keep all areas neat and clean.
 - b) Have schematic diagram for each installation.
 - c) No loose wiring.
 - d) No overloading
 - e) Preventive maintenance of switchboards, DBs every six months.
 - f) For multi story building go for fuseless switchgear like ACBs, MCBs and MCB as per a precaution against fire on account of short circuit.
 - g) Prepare preventive maintenance schedule for each installation.
 - h) Proper manning supervision of installation.
 - i) Maintenance of log record and history sheet of events and breakdowns. Ensure working of all measuring and indicating instruments.
 - j) Take safety measures.
 - k) Annual inspection to ensure system adequacy, safety, efficiency and take remedial measures.
 - l) Replacement of old/outlived equipments.
 - m) Six monthly survey report of dismantled materials.
 - n) Display important telephone numbers.
 - o) Entrust repairs and maintenance to only skilled personnel and firms.
 - p) No short circuit to problem kike patchy repairs.
 - q) Compound Lighting

Annual painting of poles.3 monthly cleaning of fittings.Weekly check of working of all fittings. This ensures a bright and same premises during night.

- r) For proper maintenance of electrical installations, the following items of work shall be carried out regularly as per periodically slated below and a proper record of such work shall be maintained.
- i) Earth testing – Once in a year
 - ii) Insulation test – Once in a year.
 - iii) Cleaning of EI

Residential Building	-	Once in a year.
Non-residential Building	-	Once in a year.
 - iv) Painting of EI

Residential Building	-	Once in 3 years.
Office Building	-	Once in 2 years.
Important Public Building	-	Once in a year.
Spray painting of ceiling fan	-	Once in 5 years.
 - v) Painting of outdoor metallic items like MS poles, Feeder Pillar etc. - Once in a year.
 - vi) Oiling and greasing of fan - As and when required.
 - vii) Checking regulators, replacement of carbon brushes etc. - Once in a year.
 - viii) Polarity test - Once in 5 years.
- a. Inspection of electrical installation is intended primarily from fire safety considerations. Following points need to be observed as part of inspection, and corrective measures as necessary should be taken immediately, including coordination with the client or departments concerned official, as may be required.

- b. Check that – there is no sign of heating up, burning smell, sparking at any of the boards (SDBs as well as main boards), and Rising Mains. These may occur due to overloading or loose terminations. Highly unbalanced loading may cause heavy neutral currents and consequent heating of neutral conductors and terminals.
 - c. No temporary wiring exists anywhere in the building as far as possible.
 - d. There should not be any joint in cords connecting the All AC units, voltage regulators/ Stabilizer, office equipments like photocopier, PC etc.
 - e. The shafts/spaces for electrical services should not be misused, for storage or for dumping rubbish.
 - f. While cleaning fittings and fans, the fixing/suspending arrangements should also be checked and attended to as necessary. Care should be taken that the alignment is not disturbed.
 - g. In the case of ceiling fans, remove the blades, and wash the same with detergent, without causing any deformation of blade angle. Check the shackle/reel insulator and replace if damaged. Check that down rod is fully screwed upto the last thread on both ends and that threads are not loose. Check split pins and quarter pins and replace if any strain deformation or damage is observed. If any other system of suspension had been adopted, check the soundness of the same and tighten as necessary. Fix fan blades tightly to the body, Operate the fan at different speeds; to ensure no wobbling/noise.
 - h. As per specifications; lubrication needs to be done as necessary. In such cases, the fan needs to be brought down, after removing the blades. The old grease should be replaced with a fresh one, after cleaning the bearing. If damaged, the bearing should be replaced. (The bearing will be supplied by the department). When reinstalling the fan, the suspension bolts should be well tightened.
20. Insulation test should be done during monsoon season, as per clause 16.2 of CPWD specifications or elect. Works Part I Internal 2005.
21. Earth continuity test and earth electrode resistance test should be conducted during summer season, as per clauses 16.4 and 16.5 of CPWD specifications or elect. Works Part-I Internal 2005.
- Record the test results giving identification references. If results are not satisfactory in any part of the installation, reason should be checked and corrective measures be taken immediately.
22. The periodically cleaning with baking soda & dish soap, servicing of electrical chimney shall be done at least once in two months or as and when required.
23. The sundry materials like insulation tape, grease, oil for ceiling / exhaust fan, screws, nut & bolts, detergent for cleaning, dhoti, cotton waste, split pin, quarter pin etc. are to be arranged by the contractor for which nothing extra will be paid.
24. **The contractor shall always keep ready a quick response team at CPWD Sewa Kendra for any materials/T&P etc. that is required to be transported to the site of work, in minimum possible time. Nothing shall be paid in this regard.**
25. Makes of material should be as per the list of approved makes (Maintenance works). All spare parts to be replaced in electrical fittings/fixtures should be as per the OEM and has to be got approved by Engineer – in – charge.
26. The contractor has to provide staff, for performing duty during functions at VVIP bungalows as per requisition of allottee as and when required as per direction of Engineer – in – charge.. Payment, if any, shall be made as per decision of Engineer – in – charge.

TERMS AND CONDITIONS FOR ITEM NO. 5 OF SUB HEAD –1 : (LIFT)

1. The work is to be carried out to the entire satisfaction of the Engineer-in-charge and as CPWD specification.
2. The operation work shall be done as per rules & specifications of CPWD and as per i.e. rules and acts amended up to date.
3. The contractor shall be fully responsible for the safe operation of the lift.
4. The contractor shall have to depute trained and qualified staff.
5. After the completion of the contract, the contractor shall have to handover the lift in perfect working condition to the department if the contract is not extended.
6. The Engineer-in-charge reserves the right to ask the contractor to remove any of the staff without assigning any reasons what so ever. The decision of the Engineer-in-charges shall be final and binding on the part of the contractor.
7. Recording of all necessary parameter in log-books as prescribed by the deptt.
8. Bringing to the notice of the Deptt. any defect, malfunctioning of any associated equipment or machinery which requires immediate attention of the Deptt.
9. Keeping proper watch and ward of the equipment and machinery installed.
10. Informing the Deptt. Well in advance about the requirement of any spares, consumable items.
11. The contractor shall have to depute the following staff for operation & routine maintenance
 - a. Skilled – 2Nos. (6AM to 2PM & 2PM to 10 PM)
12. The contractor shall depute staff with minimum qualification and experience, as under:

Sl. No.	Designation	Minimum Academic Qualification	Experience
a)	Skilled	i) ITI certificate or Diploma Course in Electrician Trade from any Central/State Govt. approved training institute. ii) Wireman licence from electrical inspector, if required	2 Years in same line.

Duty chart, with name & telephone number of all staff, is to be displayed at Sewa Kendra, at all times.

13. Recovery of the following rates shall be made from the contractor`s bill if the staff is found absent from duty.
 - a. Skilled @Rs. 1800/- each per person per shift.
14. The Lift is to be comprehensively maintained only by the respective lift manufacturer. The Lift manufacturer in this case is M/s Schindler.
15. The Lift is installed at 10 Rajaji Marg r/o Former President of India. This is a 4 Passenger lift with 2 landings (GF & FF) having 2 side car door opening.
16. Any complaint regarding Lift is to be attended **within CPWD E-Sewa Benchmark (GREEN)**, failing which, the contractor shall be penalized @ Rs. 1600/- per day per lift.

(COMPREHENSIVE MAINTENANCE OF SOLAR WATER HEATING SYSTEM)

TERMS AND CONDITIONS
(FOR SOLAR WATER HEATING SYSTEM)

(ITEM NO. 7 OF SUB HEAD- 1)

1. The scope of work includes repair and replacement of all spare parts like PVC tank cover, float valve, tee, elbow, union, socket, glass of solar panel etc. required for effective functioning of the system, periodical check of water in water make up tank and cleaning of solar panel glass, regular checking of instrument and control system, taking remedial action for keeping the system functional, checking / repairing of cold water and hot water line and their insulation and packing, hot water tank, cold water tank, gate valve and bib cock tap, gate valve, Bib cock tap and GI pipe with insulation..
2. It is the responsibility of contractor to ensure proper functioning of Solar Water Heating System.
3. Penalty for not attending complaints **within CPWD E-Sewa Benchmark (GREEN)**, will be @ Rs. 700/- per complaint per day.
4. De-scaling of water storage tank and solar collectors shall be done once in a year preferably prior to onset of winter season as and when required.. Draining the system in April, if it is not be used in summer.
5. Routine fortnightly visit to clean the complete installation and checking of water in the make-up tank of primary as well as secondary circuit of heat exchangers.
6. The contractor shall maintain service card for detail record of job done for each Flats/Bungalows. And date wise entry of servicing/cleaning done and complaint attend shall be entered in the card and same shall be produced while submitting the bill.
7. The contractor has to arrange T & P's required for the work at site.
8. The contractor has to arrange the PVC tape, nut-bolts etc. should be free of cost.
9. Safety of the staff employed will be the responsibility of the contractor who must insure the staff adequately. This office will not be responsible for any mishap, injury/death of the staff.
10. All the equipments and installations shall be maintained in neat and clean condition. The watch and ward of installation shall be the responsibility of the contractor.
11. The repairs like replacement of solar hot water tanks, cold water tanks, solar panel are not covered in the scope of work.
12. The installations shall be maintained on all days of the month including Sundays & holidays.
13. Comprehensive maintenance of solar water heating system shall be got done by respective manufacturer as per the solar water heating system as installed at site.M/s Emmvee Solar system, M/s Tata BP Solar, M/s Kotak Urja, M/s BHEL or their authorized service provider. The contractor shall submit a copy of agreement between them and OEM, in this regard.
14. All the exposed M.S. Parts are to be pointed at least once a year.
15. The contractor shall make arrangements for cleaning of collector plates, at least once fortnight.

Terms & Conditions for inverter (SH: 1 Item 1)

1. The work shall be carried out at various bungalows as per direction of Engineer-in-Charge.
2. The periodically cleaning & servicing shall be done at least once in two month or as & when required.
3. The firm shall take inventory of inverter installed at the HM/DHM, Ex. P.M, Ex.Vice President bungalow to keep up the system trouble free.
4. The system shall be manned for 24-Hrs. round the clock including Sunday & other Public Holidays for which nothing extra shall be paid. The complaint shall be attended **within CPWD E-Sewa Benchmark (GREEN)**, otherwise the contractor shall be penalized @ Rs. 700/- per complaint per day.
5. Scope under AMC will be
 - (a) Preventive Maintenance and general checking twice in a month
 - (b) Checking the health of batteries and units.
 - (c) Waxing/soldering of terminals of batteries.
 - (d) Checking of MCBs, transformer, instruments, and controls & wiring terminals.
 - (e) Decommissioning.
 - (f) Putting unit on battery load for checking the unit time of batteries.
 - (g) Breakdown calls are to be attended within four hours.
 - (h) If the units required major repair or overhauling a stand by unit is to be placed by the form at free of cost for the period of repairs of the unit.
 - (i) The cost of parts and components to be replaced shall, be under AMC and nothing extra will be paid on account of cost, cartage and taxes etc.
6. Only qualified and trained staff are to be deputed for repair and checking.
7. Security restrictions are to be followed by the firm.
8. Any damage done to the equipment, building during maintenance shall be responsibility of the contractor and thus contractor shall have to make good the same.
9. The cost of replacement of batteries is not included in the scope of work.

Terms & Conditions for RO Filter/Water Purification System
(Item No. 4 of Sub Head – 1)

1. The work shall be carried out at various bungalows as per direction of Engineer-in-Charge.
2. The complaint shall be attended **within CPWD E-Sewa Benchmark (GREEN)**, otherwise contractor shall be penalized @ Rs. 700/- per complaint per day.
3. Scope under AMC will be
 - (j) Work is to be carried out as per CPWD specification amended upto date.
 - (k) Pre-filter shall be changed at least once in every 6 month & all filters shall be changed at least once in a year.
 - (l) The periodic cleaning & servicing shall be done at least one in every two months or as and when required.
 - (m) TDS level of RO water should be maintained below 80 (Eighty)
 - (n) AMC shall include repair/replacement sediment filter, membrane filter, pre-filter, pump, and all electrical & electronic parts and nothing extra shall be paid on this account.
 - (o) Work is to be carried out as per the entire satisfaction of the Engineer in charge.
 - (p) Nothing shall be paid extra on account of any idle labour.
 - (q) Material shall be got approved from Engineer – in – charge, before install action at site.
4. Only qualified and trained staff is to be deputed for repair and checking.
5. Security restrictions are to be followed by the firm.
6. Any damage done to the equipment, building during maintenance shall be responsibility of the contractor and thus contractor shall have to make good the same.
7. The RO filter/Water purification system is to be comprehensively maintained by respective OEM or their authorized service partner by given annual AMC to the respective OEM or their authorized service partner. Copy of agreement between the contractor and OEM, in this regard, is to be submitted to Engineer – in – charge.

Terms & Conditions for Chimney (SH: 1 Item 1)

1. The work shall be carried out at various bungalows as per direction of Engineer-in-Charge.
2. The periodically cleaning & servicing shall be done at least once in two month or as & when required.
3. The firm shall take over the inventory of electric chimney installed at the HM/DHM, Ex. P.M, Ex.Vice President bungalow to keep up the system trouble free.
4. The complaint shall be attended **within CPWD E-Sewa Benchmark (GREEN)**, otherwise the contractor shall be penalized @ Rs. 700/- per complaint per day.
5. The firm shall depute suitable technically qualified & experienced staff for maintenance of equipment. The service team shall be meant for exclusively.
6. The firm should maintained the complaint attending register duly signed by the occupant and the same is to be produced whenever required by deptt./kept in office of site-in-charge.
7. Name and address of technicians to be deputed for this work shall be furnished before start of work and identity card of technician shall be issued by the firm.
8. The department shall not be responsible for any idle labour claim during the course of work.
9. No T&P shall be issued by department.
10. If any spare part need to be replaced the same shall be done under intimation of site-in-charge and nothing shall be paid account of labour.
11. The work includes repair/replacement of all parts such as bulb, motor, blower fan, filter etc.
12. The Chimney is to be comprehensively maintained by respective OEM or their authorized service partner, whenever any breakdown/fault in the chimney the same can be rectified by OEM only .

TERMS & CONDITIONS:

Maintenance of DG Sets: Item No. 3 of Sub-Head -1

1. The contractor shall have to depute trained and qualified staff for adjustment, repair, replacement and periodical maintenance of all equipment within quoted rates.
2. The Engineer shall visit at least once a month for preventive Maintenance and as and when required on call basis, for attending any complaint.
3. In emergency odd hours servicing shall also be provided.
4. Sundry material such as soap, duster, broom, old dhoti, cotton waste fuse wire, PVC tape, Grease, Test Lamp, Torch etc. required for the work shall be arranged by the contractor with in their quoted rates.
5. The scope of work includes:-
 - a. Comprehensive maintenance of all DG Sets with AMF Panel, Battery & Battery charger of worn out/defective/burnt out parts to keep them in proper working condition.
 - b. Preventive maintenance of each DG Set at least once a month.
 - c. Servicing of DG Set as per the schedule of OEM standards including replacement of lube oil.
 - d. Tapping up of HSD oil, as and when required.
6. All the installation/equipments shall always be maintained by the contractor in proper working condition i/c cleaning.
7. No Contractor or his staff shall be allowed to use or shall stay in service centre, pump house, switch room, D G set room and as such other place at site after duty hours.
8. The contractor will have to arrange his own T & P required for the work within the scope of work. The department will not arrange any T & P and nothing shall be paid on this account.
9. The contractor will be fully responsible for the conduct of the staff deputed at site. The Engineer in- Charge reserves the right to ask the contractor to remove any of the staff without assigning any reason what so ever Decision of the Engineer-in-Charge shall be final and binding on the contractor.
10. Conformity with statutory acts, rules, standards and codes

All electrical works shall be carried out in accordance with the provisions of Indian Electricity Act, 2003 and Indian Electricity Rules, 1956 as amended up to date. They shall also conform to CPWD General Specification for Electrical Works, part-I (internal, 2013 and Part-II (External), 1994 and Part-IV (Sub Station)2013 as amended up to date, DG Set Part-VII 2013.
11. Safety codes and Labour Regulations:- (a) In respect of all labour employed directly or indirectly on the work for the performance of the contractor's part of work, the contractor at his own expense, will arrange for safety provision as per the statutory provisions, B.I.S. recommendations, factory act, workman's compensation act, CPWD code and instruction issued from time to time. Failure to provide such safety requirement would make the tenderer liable for penalty for Rs. 200/- for each violation. In addition the Engineer-in-charge, shall be at liberty to make arrangements and provide facilities as aforesaid and recover the cost from the contractor.

- (b) The contractor shall provide necessary barriers, warning signals and other safety measures while executing the work or wherever necessary so as to avoid accidents. He shall also indemnify CPWD against claims for compensation arising out of negligence in this respect. Contractor shall be liable, in accordance with the Indian law and Regulations for any accidents occurring due to any cause. The department shall not be responsible for any accidents occurred or damaged incurred or claims arising there from during the execution of work. The contractor shall also provide all insurance including third party insurance as may be necessary to cover the risk. No extra payment would be made to the contractor due to the above provisions thereof.
12. Any damage caused due to negligence of contractor during the routine maintenance shall be of firm responsibility. The firm will made good the same within quoted rate.
 13. In case of any mis-happening due to any reason, the contractor will be fully responsible for his deputed staff. No claim shall be admissible on this account.
 14. The department shall be at liberty to discontinue/cancel the contract/agreement if the work found unsatisfactory without giving any notice in accordance with the above terms and conditions or otherwise, without assigning and reason thereof. Decision of Engineer in charge shall be final and binding on the contractor for which no claim in any account shall be entertained by the department.
 15. The contractor has to carry out the routine / preventative maintenance as per CPWD specification & maintenance manual.
 16. The Engineer-in-charge reserves the right to ask the contractor to remove any of the staff without assigning any reasons what so ever. The decision of the Engineer-in-charges shall be final and binding on the part of the contractor.
 17. Nothing shall be paid extra on account of cartage of material.
 18. The contractor shall use following material within the scope of maint of D.G. set along with AMF panels for which nothing extra shall be paid.
 - a. Indication lamps.
 - b. White Petroleum Jelly.
 - c. Battery Water/Acid.
 - d. CRC for cleaning of relays, contractors, alternators carbon brushes etc.
 - e. Proper grade of grease oil for greasing lubricating bearings etc.
 - f. Protection metering fuses, control wiring etc.
 19. Boarding and lodging of the personnel of the contractor will be the responsibility of the contractor. The arrangement will not be permitted inside the campus.
 20. All installation shall be kept clean and safe from risk of fire/theft/accidents and damages etc.
 21. The Contractor will keep department indemnified against all losses or damage or liability arising out of/or imposed in the context of employment of person by him.
 22. The rates should be quoted inclusive of all taxes, levies, cartage etc.
 23. However, in respect of EPFO and ESIC same shall be paid by the contractor to the concerned department on demand and it will be reimbursed to him by the Engineer-in-charge after satisfying documentary proof that it has been actually and genuinely paid by the contractor.

24. The DG set are to be comprehensive maintained by respective OEM or their authorizes representative.
25. All complaints are to be attended **within CPWD E-Sewa Benchmark (GREEN)**, failing which, the contractor shall be penalized @ Rs. 700/- per complaint per day.
26. The make of materials used for servicing/repair shall only be as per OEM or their authorized vendors.
27. The inventory and make of DG sets are as follows:-

	Location	Rating	Make
a)	17 Akbar Road	125 KVA	Kirloskar
b)	9 Krishna Menon Marg	125 KVA	Sudhir
c)	2 Krishna Menon Marg	62.5 KVA	Kirloskar
d)	2 Moti Lal Nehru Place	62.5 KVA	Kirloskar
e)	8 Safderjung Lane	40 KVA	Kirloskar
f)	36 APJ Abdul Kalam Road	40 KVA	Kirloskar

28. The replacement of battery is covered in the scope of work.
29. All DG Sets are to be checked, every alternate day, with running of DG Set, on test mode, for at least 10 minutes, to check healthiness of all system. The DG Set should be tested ON-Load, at least once a month.

fu;e ,o'kr

SH: 1 Item No. 2

Maintenance of AC, Refrigerator, Water Cooler & Desert Cooler Appliances :-

The Scope of work include repair and replacement of all spare parts like compressor, thermostat, relay, PCB, All type capacitor, blower, fan, remote hand set, gas charging etc required for effective functioning of the AC unit, periodical check and cleaning of system, stand of outdoor, indoor.

1/4½ **okf"kZdvuqj(k)k ,o j[k&j[kko] ejfer d dk;Z gsrq**

1- **lfoZflax ds dk;Zgsrq&,lh d ,-,e-lh d fy, Bdsnkj }kjkU;wuredk;fuEufyf[krgksxs& Servicing**

lhdks^o iz es de ls de ,d ckj vkSj tc vko ;drk gksA

gkV ,oadisYM ,lhdk de ls de nis ckj djuk vko ;d gksxk vkSj tc vko ;drk gksA

,-,e-lh l IEcf/krMhlesUVyeSlsfj;yfoHkkxdk sokfil ugh djukglsxkA

gj 15 fnue ,lh- ;wfuV dh IQkbZ ,oapSfdaxdjukA

2- **dk;Z d-yis-fu-fo- dh fofuns'ksavkSj ,lh- VsmizsSDV l d vulkjgksxk A 3-**

dk;Z bZUKthfu; j bUpk t dh iwckZLohdfr o funi kk ds vulkj djukgSA

4 foHkkx }kjkdk sbVh- ,aMih- tkjh ugh fd;ktk;sxh A

5- ;gdk;Zekuuh; eaf=;k] mief=;k] Hw riqoZjk'Vifr;ks d ljdkjhfuokl ij yxh gqbI okrkudwyu l ;a=sa@ **Refrigerator, Desert Cooler & Room Cooler** d fy, gSvr% dk;Z mudhlqfo/kk vulkj djukgSA

6- **gj 15 fnu es ,lh- ;wfuV dh IQkbZ ,oa pSfdax dju rFkk ,lh- ;wfuV dk mrkju] neckjk yxk us,] Testing & Commissioning gsr fuEufyf[kr de l de LVkQ j[kuk glsxk%&**

i) Skilled – 6

ii) Unskilled – 6

¼;g LVkQ U;wure gS rFkk vko ;Drkulkj ,tsUlh dls vfrfrDr LVkQ nsuk gksxk] fcuk fdlh vfrfrDr O;; d%SA

7. The contractor shall depute staff with minimum qualification and experience, as under:

Sl. No.	Designation	Minimum Academic Qualification	Experience
a)	Skilled	i) 10 th Pass ii) ITI Certificate or Diploma Course in A/C & Refrigeration trade from any Central/State Govt. approved institute	2 Years practical experience as AC & Refrigeration service man.
b)	Unskilled	10 th Pass, Physically & Mentally fit	6 Months in same line.

Duty chart, with name & telephone number of all staff, is to be displayed at Sewa Kendra, at all times.

7- **gj 15 fnueizR;sd ,lh- ;wfuV d l IQkbZ ,o ;Sfdx dk ikZfid lMZ j[kukglsxkrFkk bl caxy d fuoklh l IR;kfirdjukglsxk ;g fjd kMzizR;sd fcy ds lkFk nsukgksxkA**

8- **f[kMdhuekokrkuqdwyu l ;a=lsadksyxsgq, LFkku ls fudkydjckgjykdjlf oZldjukgksxk o iqu% LFkklfirdjukglsxk o fxyyxxkukgksxkrFkku% duSD kudjpkjywdjukgksxk A**

9- **dk;Z dh izxfr bl izdkj l gksdIHkhl;a= xeiz d igyslfoZldjrS;kj gksA caxy can gksusvFkokdk;Z u djusnsusijmlhfnudk; d izHkkjhlgk;d bath- dyf[kr =l esalwfrprdjukglsxk A**

10- **LifyV;wfuV d l fcu kmrkj soghamlhLFkku ij foZldjukgksxkrFkk bl d sdiyax ;wfuV dh iwckZ% IQkbZ d jM'SuikbilkQdjukgksxk o daMsUl j ;wfuV dh ;FkklLFkfresalfolkfndjukgksxkA**

11- **eSaVhuUl dk dk;Zekuuh; eaf=;ksd] mief=;k] Hw riqoZjk'Vifr;k d ljdkjh fuokl eI djukglsxktgkW f[kMdhuekvkSjLifyVVkbiokrk- la;= yxsgSA**

- 12- D;ks#deSaVhuUl dk dk;Zvfr#asnu khy {ks= ls lacfU/krGsvr# Bdsdnkj dksIH; ,oavPNsvkpkjokyseSds#udghdk;ZijyxksugxsA vxj bud }kjkdksbVwV&QwV ;k dk;Zevfu;ferrkikbZtkrhg] r#bldh#EesnkjhBdsdnkj dh gksxh o mlsviu [kps# # Lo;aBhddjukg#sxkA
- 13- EkSaVhuUl d nkSjku#tk#HkLis;jikVyxsxkogBdsdnkjnsxkvkSijq#kuk [kjkcikVdkso#kildjukg#sxk A 14- ;fnik;ktkrkgSfdeSds#fudvj [kyklh de g#rksBdsdnkj ls izfreSds#ud = 1400@&izfr f k#V vkSjzfr [kyklh = 1100@& dh dV#rhizfr f k#V d fglkc ls dh tk;sxhA vxjd#bsn?kVukg#rhg#reqv#otkgsrwBdsdnkj#i#i # ftEesnkjg#sxkA foHkx dh d#bZftEesnkjh ugh g#sxh A
- 15- iwjkdk;bathfu;#bapktZv#jmiHkksDrk dh lra#Vh d vk/kk#jijg#sxkA vxjdk; ls fdlhHkhrjg dh vf#ferrkikb#tkrhg#r#foHkxd# ;g vf/kdkjg#sxkfdoguks#V#nsdjdk;ZdksrRdkyfujLrdjn# A
- 16- Bdsdnkj }kj#f#qDrdeZpkjhBdsdnkj d izfrmR#rjnk;hg#xsamudkfoHkx ls d#bZeryc ugh gksxkvk#Sj u ghogfoHkkesaiqu# dk;Zdju ;k iDdkgsu# dk nok#i# kdjs# A
- 17- Bdsdnkj dksdk;Z {#= ij#tu d fy, viusdeZpkfj;ksad#siwjhlqfo/kk nsuhg#sxhrkfdf kd;r 'kh?knwj dh tkld A v#jdepkj#hiqu# f kdk;rnwjdju d cknfo# #Salj#kswfprdj#s A vr# deZpkfj;ksad#E#ud kuv#j#V#ksV ku dh iwjhO;oLFk#Bdsdnkj#d#juhg#sxhv#k#SfoHkks#bldy, vyx ls dN ugh nsxk A
- 18- Bdsdnkj dksviusdeZpkfj;kes ls lHkhVhed# ,d&,deksckbynsukg#sxkrkfdv#kikr#LFkfr ;k vfrvko ;d fLFk#resam#ldan# kfn;ktkld#r#k#f#dekuuh; eaf=#ks ekuuh; laln #anL; ,oavU; fof k#VO;fDr;# d ljdkj#fuoklijdk ,lh- lqfo/kk y#k#k ;Fk# 'kh?kfn;ktkld#sA
- 19- Bdsdnkj dksvius#lHkheSds#fud#d#okgu# fo/kk&LdwV#j#FkokeksV#l#k#b#f#y#Petrol #fgrvko ;d =iesal#ansuhg#sxhrkfdf kdk;rsr#j#Urn#jg#s#l#s#ar#Fk#bldy, d#bZvfr#j#Drifri#r#foHkks# }kj# ugh fn;ktk;sxkA v#Fk#Zr#Bdsdnkj#vyx # d#bZ#j#f# kDyse ugh d#js#k A
- 20- PkkjQqVmapk#Z ls vf/kd#mapk#b#Zokyhe khuls d j#k&j#kko@fuj#h#k#k#r d fy, Bdsdnkj#h#<h (Ladder)#k O;oLFk#Lo;adjug#sxk A
- 21- Bdsdnkj dks#l#Hk#f# kdk;r#Kushak Road & Ferozshah Road ubZ#n#Yy#h fLFk#r #sok dn# ls y#suh gksxhAo f kdk;r# n#wjg#ks#s#i#s#ok#dn#s#ada#E#l#w#V#j#i#j#i#f#o#V#r#j#ard#j#kuhg#sxh#Aizfo#V#dj#r# le; fd;s#sd#k;Z o cnys#;sl#keku#fooj#k#h# nsuhg#sxh A
- 22- Bdsdnkj d ikl ,d] m#ld#l#V#k#Q d ikl ,d&,d# eksck#b#Zy#Q#s#ug#s#k#v#k#o ;d g#r#k#f#d#f#l#h#Hk#h# le; mu#l#s#l#aid#dj#f# kdk;r#@#l#sok#l#x# d# ck#jesam#Ug#s#l#p#r#f#d#;k#tkld#sA
- 23- Bdsdnkj vius#d#k#e#k#j#ks#ad#s#fu;evul#k#j#k#l#r#k#f#gd#vod#k# kv#k#fn#ns#x#k#i#j#U#n# mud L#F#k#ui#j#k#l#r#k#f#gd#vod#k# k# d# fnuv#F#ok#j#k#V#h; ,oaj#k#t#i#f#=#r# vod#k# k# d# fnun#wi#s#d#k#e#k#j#mi#y#C#k# dj#k#us#g#s#s#A# bldy#;s#Bdsdnkj#d#d#b#Z#v#r#f#j#Dr#H#k#q#x#r#ku# ugh g#s#x#k#A
- 24- Bdsdnkj#t#ks#l#k#e#k#uc#nyu# d# fy, #l#y#k#b#Z#d#j#s#k#og#v#P#N#h#Dok#f#y#V#h# o# v#k#b#Z# ,l#v#k#b#e#k#d#g#s#k#p#k#f#g#;sf#Q#Y#V#j# o# Q#s#ue#k#s#V#j#e#q# k#d#k#N#s#M#d#j#r#F#k#k#v#ue#k#s#i#n#e#k#d#l# d# g#k#s#s#p#k#f#g#;s# ,oa#Bdsdnkj#l#k#e#k#uc#nyu# ls igy# ,d# ,d# #SEiy#bathfu;#j#&#bu#&#pkt# ls v#ue#k#s#r#rd#j#ok#ug#k#s#x#k# A
- 26- Bdsdnkj }kj#k#f#o#Z#flax# o# vuj#{k#k#k# dk iwjk#f#d#M#Z#mi#H#k#s#Drk }kj#k#g#L#r#k#{k#j#d#j#d#j# j#k#k#g#s#x#k# ,o#e#k#i#x#s# ij# foHkx# d#s# fn#k#k#k# g#s#x#k#A
- 27- en d v#U#r#Z#r#fu;#D#r#v#u#q#{k#k#k#de#Z#p#k#j#hok#r#k#ud#wy#d#s# ls l#E#cf#U#kr#P#M#k#b#Z#l#fo#Z#flax#B#l#f#gr#l#H#k#h#d#k#;Z#d#j#s#s#r#F#k#b#l#d#k#i#k#Z#fooj# k#f#y#[kr# =i# el#E#cf#U#kr#d# b#Z# %o#S#-%@#l#-#b#Z#-%o#S#-% d#k#s#iz#L#r#rd#j#s#s#A
- 28- Bdsdnkj }kj#k#d#k#;Z#ij#fu;#D#r#de#p#k#j#d#i#g#p#k#ui#=# tk#j#h#d#j#ug#k#s#x#k#f#t#s# laO# v#f#H#k#O# %o#S#O#% }kj#k#i#f#r#g#L#r#k#{k#f#r#d#j#ok#ug#k#s#x#k# o# dk;Z#ij#fu;#D#r#de#Z#p#k#j#h# dh iqfy#l# }kj#k#i#R#;kiud#j#k#ug#k#s#x#k#A
- 29- Bdsdnkj }kj#k# ekuuh; v#VIP#s# d# fuokl#L#F#k#k#s#A# d# fy, Air Conditioner r#F#k# v#U#;mid#j#k#k# d#s# f#My#hoj#h# ,o#f#l#f#V#ax# dk# dk;#k#i#H#k#h# bathfu;#j#&#bu#&#pkt# d# v#k#n# k#k#u#l#k#j#d#j#ok#ug#k#s#x#k#A

- 30- izR;sd ,-lh- ;wfuV dk ejEer mld OEMAuthorisedlfoZI btifuj }kjk dh tk,xhA
 bld fy, bLreky gksus oky lkeku dh make as per OEM/OEM authorized vendorgh
 gksxhA
- 31- izR;sd f kdk;r dk CPWD E-Sewa Benchmark (GREEN), le; lhek d rgr attend
 djuk vfuok;Z gS] ugh rks = 500@&izfr f kdk;r izfr fnu d fglkc ls penalty yh
 tk,xhA

**COMPREHENSIVE MAINTENANCE OF EPABX SYSTEM
TERMS & CONDITIONS (SH: 1 Item No. 8)**

1. All complaint shall be attended **within CPWD E-Sewa Benchmark (GREEN)**, otherwise the contractor shall be penalized @ Rs. 500/- per complaint per day.
2. Contract includes replacement of all parts to be changed as & when required.
3. Routine visit by technician shall be made two times a month besides any no. of complaints made.
4. No. T & P shall be issued by department.
5. The makes of materials to be used shall be as per OEM/OEM approved vendor only and have to be got approved by Engineer – in- charge before use at site.
6. Any damage to buildings shall be made good by the contractor, at his own cost.
7. Work is to be carried out as per CPWD Specifications, amended up to date.

SH:4 (SH: (i) Item 1)

Terms & Conditions for comprehensive maintenance of Hydraulic Bollard:

1. Two set of Hydraulic Bollards are installed at 17 Akbar Road with each having 3 rising bollards.
2. No T&P shall be issued to contractor.
3. Unlimited Callouts for repair are included in the scope of work.
4. Any defective spares shall be changed/repared under the contract except the damages caused to equipment under accidental cases.
5. The contractor has to follow following maintenance schedule:
 - a) **Weekly Maintenance:**
 - i. Observation of Bollard/s in operation and checking for:
Erratic operation; Unusual noises; Damage to safety devices; Operation of traffic lights and induction loop systems. Opening of cabinet door and checking for signs of damage and oil leaks.
 - b) **Monthly Maintenance:**
 - i. Same as weekly checks and following to be done additionally:
 - ii. Checking of oil level by using sight glass on front of oil tank and top up if required.
 - iii. Removal of Bollard covers and checking the hoses and hydraulic ram for signs of damage and oil leaks.
 - iv. Checking of the limit switches for tightness.
 - v. Cleaning of the photocells/sensors.
 - c) **Six Monthly Maintenance:**
 - i. Same as weekly and monthly checks and following to be done additionally:
 - ii. Checking of hydraulic hoses for signs of damage or abrasion.
 - iii. Removal of all debris around Bollard and if necessary removal of complete Bollard for cleaning and bearing inspection.
 - iv. Check all fasteners for tightness.
 - d) **Annual Maintenance:**
 - i. Same as 6 monthly maintenance and following to be done additionally:
 - ii. After 3000 operational hours (One operational hour is equal to approx 200 raise & lower cycles) or 12 months, whichever is earlier, the hydraulic oil is be changed and the filter screens are be cleaned.
 - iii. Annual maintenance is to be carried out in presence of Maintenance Engineer from OEM's principal office, who shall certify K4/ DOS crash rating of the bollards.
6. Topping up of oil is to be done with Hydraulic Mineral Oil, as per the manufacturer's specifications and as per the way prescribed by OEM.
7. Attention should be paid if frequent topping up is required, as this will be a sign of leakage and if leakage is found, the same shall be rectified as early as possible, without any extra charges.
8. The contractor shall be fully responsible for the conduct of the staff deputed by him.
9. All material required for maintenance shall be supplied by contractor except UG cable.

10. In case of any damage to any equipment and installation on account of negligence or fault of the contractor's staff the same shall have to be made good by the contractor at his own risk and cost.
11. The department reserves the right to close the agreement any time with assigning any reasons.
12. Call back services shall be required to be provided within 24 hrs. of registering of complaint.
13. The breakdown complaints shall be attended within 24 hrs. otherwise recovery @ Rs. 5000/- per day will be made from the bill.
14. Replacement of Drive motor with Hydraulic Ram, if required, is also covered under this contract.
15. As this is a VVIP installation, contractor shall replace the following parts every year per barrier, irrespective of their condition:
 - a. All Push Button Switches
 - b. Hydraulic Hoses.
16. All complaints are to be attended **within CPWD E-Sewa Benchmark (GREEN)**, otherwise the contractor shall be penalized @ Rs. 700/- per complaint per day.
17. All the materials/spares shall be as per OEM/OEM authorized vendor only.
18. The work is to be carried out at VVIP site and no claim shall be entertained for any labour wastage due to security reasons.
19. The Hydraulic Bollards are to be comprehensively maintained/Service by OEM/their authorized service partner. The OEM in the is Delta. The contractor shall submit a copy of agreement between them and OEM, in this regard, to the Engineer-in-charge.

Comprehensive maintenance of CCTV System:

TERMS AND CONDITIONS:- SH: 4 (SH: (ii) Item 1)

1. The work shall be carried out as per C.P.W.D specification under the direction of Engineer- in- charge at site.
2. No T&P shall be issued to the contractor by the department.
3. Contactor has to depute highly skilled technician to carry out cleaning and maintenance work.
4. Contractor has to be depute trained/specialized staff of CCTV for cleaning, checking and Preventive Maintenance of complete system at least twice in a month.
5. The contractor shall be fully responsible for employees' behavior and salary of the staff deputed by him.
6. The contractor has to maintain a register for preventive maintenance and cleaning duty as required at site.
7. Any damage done to the existing installed/ building during the operation and maintenance of work shall be responsibility of the contractor. The Damage so caused shall be made good by the contractor at his cost to the entire satisfaction of engineer- in – Charge.
8. The makes of materials/spares shall be as per OEM/OEM Authorised vendors only. All materials are to be got approved by Engineer – in – charge, before use at site.
9. The scope of work includes repair/replacement of all parts required for normal running of system.
10. All complaints are to be attended **within CPWD E-Sewa Benchmark (GREEN)**, otherwise the contractor shall be penalized @ Rs. 700/- per complaint per day.

TERMS & CONDITIONS: (SH: 4 (SH(iii) Item 1)

Operation and routine maintenance of DG Set.

1. The work is to be carried out at Bungalow No. 17 Akbar Road, New Delhi, which is very high security VVIP Site.
2. The contractor has to keep the sensitiveness of site in mind while execution the work and deployment of staff.
3. Details of installation to be operated & maintained as follows:
 - a. DG Set 125 KVA complete with control panel – 1 Set.
 - b. AMF Panel – 1 No.
 - c. Battery – 2 Nos.
4. The contractor shall have to depute the following minimum Skilled/Unskilled staff for operation & routine maintenance, on all days i/c Sunday & holidays:-
 - a. Skilled labour: 3 Nos. (6:00AM to 2:00PM – 1 No., 2:00PM to 10:00PM – 1 No. & 10:00PM to 6:00AM – 1 No.)

Qualification of Skilled staff: Should have passed ITI in Electrical/Mechanical trade with minimum two year practical experience in E&M Operation.

5. The contractor is free to change the staff employed by him at the site by giving 15 days notice in advance and the proposed changed staff will be interviewed for technical proficiency and behavior before engaging him at site.
6. No staff shall leave his duty unless relieved by his relievers. Engineer-in-charge reserve the right to detain the staff for next shift if relievers fail to turn up. The OTA applicable in this case shall be borne by the contractor.
7. In case of any staff found absence from duty, the recovery will be made at the following rates from the contractor bill.
 - a. Skilled labour – Rs. 1800/- per day/shift.
8. The contractor shall have to depute trained and qualified staff for adjustment, repair, replacement and periodical maintenance of all equipment within quoted rates.
9. After the completion of the contract, the contractor shall have to handover the DG Set and associated installation in perfect working condition to the department, if the contract is not extended
10. Sundry material such as soap, duster, broom, old dhoti, cotton waste fuse wire, PVC tape, Grease, Test Lamp, Torch etc. required for the work shall be arranged by the contractor with in their quoted rates.
11. Major repairing of Installation is not covered in the scope of work.
12. All the installation/equipments shall always be maintained by the contractor in proper working condition i/c cleaning.
13. No Contractor or his staff shall be allowed to use or shall stay in service centre, pump house, switch room, D G set room and as such other place at site after duty hours.
14. The contractor will have to arrange his own T & P required for the work within the scope of work. The department will not arrange any T & P and nothing shall be paid on this account.
15. The contractor will be fully responsible for the conduct of the staff deputed at site. The Engineer in- Charge reserves the right to ask the contractor to remove any of the staff

without assigning any reason what so ever Decision of the Engineer-in-Charge shall be final and binding on the contractor.

16. Conformity with statutory acts, rules, standards and codes

All electrical works shall be carried out in accordance with the provisions of Indian Electricity Act, 2003 and Indian Electricity Rules, 1956 as amended up to date. They shall also conform to CPWD General Specification for Electrical Works, part-I (internal, 2013 and Part-II (External), 1994 and Part-IV (Sub Station)2013 as amended up to date.

17. Safety codes and Labour Regulations:- (a) In respect of all labour employed directly or indirectly on the work for the performance of the contractor's part of work, the contractor at his own expense, will arrange for safety provision as per the statutory provisions, B.I.S. recommendations, factory act, workman's compensation act, CPWD code and instruction issued from time to time. Failure to provide such safety requirement would make the tenderer liable for penalty for Rs. 200/- for each violation. In addition the Engineer-in-charge, shall be at liberty to make arrangements and provide facilities as aforesaid and recover the cost from the contractor.

(b) The contractor shall provide necessary barriers, warning signals and other safety measures while executing the work or wherever necessary so as to avoid accidents. He shall also indemnify CPWD against claims for compensation arising out of negligence in this respect. Contractor shall be liable, in accordance with the Indian law and Regulations for any accidents occurring due to any cause. The department shall not be responsible for any accidents occurred or damaged incurred or claims arising there from during the execution of work. The contractor shall also provide all insurance including third party insurance as may be necessary to cover the risk. No extra payment would be made to the contractor due to the above provisions thereof.

18. The staff employed by the firm for the maintenance works shall wear proper uniform. Nothing extra shall be paid on this account. The Monogram/ badges shall be fixed on the uniform. The contractor shall have to arrange for issue of identity cards as per direction of the Engineer in charge for all the staff members deployed within one week of the start of the work at his own cost and also submit two extra photographs with full address of each worker for record. If contractor fails to do so, the department shall recover Rs.250/- Per person for this default from the monthly bill.

19. Any damage caused due to negligence of contractor during the routine maintenance shall be of firm responsibility. The firm will made good the same within quoted rate.

20. In case of any mis-happening due to any reason, the contractor will be fully responsible for his deputed staff. No claim shall be admissible on this account.

21. The department shall be at liberty to discontinue/cancel the contract/agreement if the work found unsatisfactory without giving any notice in accordance with the above terms and conditions or otherwise, without assigning and reason thereof. Decision of Engineer in charge shall be final and binding on the contractor for which no claim in any account shall be entertained by the department.

22. The contractor shall submit duty roaster in duplicate within once week from the date of start of work and thereafter two days before the close of every month if staff is changed. Attendance shall be done through Biometric machines.

23. Shift timings can be changed as per the requirement at site and as per the decision of Engineer in- Charge.

24. The contractor has to carry out the routine / preventative maintenance as per CPWD specification & maintenance manual.

25. The Engineer-in-charge reserves the right to ask the contractor to remove any of the staff without assigning any reasons what so ever. The decision of the Engineer-in-charges shall be final and binding on the part of the contractor.
26. Nothing shall be paid extra on account of cartage of material.
27. The staff, deputed at site, shall carry out the following in course of operation/maintenance work:
 - a. Recording of all necessary parameter in log-books as prescribed by the deptt.
 - b. Bringing to the notice of the Deptt. any defect, malfunctioning of any associated equipment or machinery which requires immediate attention of the Deptt.
 - c. Keeping proper watch and ward of the equipment and machinery installed.
 - d. Servicing and comprehensive maintenance of DG Set with AMF Panel, Battery and battery charger are covered in item No.3, SH:1 of the contract.
 - e. Making good losses or damages to the equipment and machinery or any part thereof if as a result of negligence or default of operating staff.
 - f. Informing the Deptt. Well in advance about the requirement of any spares, consumable items (such as HSD oil, Lub Oil) necessary for satisfactory operation of the D.G. Set.
 - g. Replacement of spares, filling of H.S.D. oil & Lub Oil in Diesel Tank etc. is covered in item No. 3 of SH: 1 of this contract.
 - h. Measuring and recording of efficiencies of D.G. set, consumption of H.S.D. oil etc in prescribed log book.
28. Boarding and lodging of the personnel of the contractor will be the responsibility of the contractor. The arrangement will not be permitted inside the campus.
29. All installation shall be kept clean and safe from risk of fire/theft/accidents and damages etc.
30. The Contractor will keep department indemnified against all losses or damage or liability arising out of/or imposed in the context of employment of person by him.
31. The firm must observe all the necessary precautions/measures so that there should not be any breakdown during the meeting/conferences/events. The firm has to attend to any fault immediately or has to provide suitable alternative immediately so that programmes/proceedings should not be disturbed.
32. Qualified technical personnel (minimum, diploma holder) should be available round the clock on mobile phone and should be in a position to reach the site with in two hour of the intimation of a complaint.
33. The Firm /Contractor shall maintain wage record of workers and he should not pay wage less than the minimum wages as prescribed/amended by the Labour Department/Ministry.
34. The contractor will pay the salary through cheque/RTGS (As per minimum wages) in workers bank account and submit the receipt of same to the Engineer-in-Charge.

Terms & Conditions for (Minor works (SH:2), Upgradation works (SH:3) and Security related upgradation work (SH:4) - Item No. :4

1. All hardware items such as screws, thimbles, connectors, earth/neutral terminals, wires etc. which are essentially required for completing any item as per specifications will be deemed to have been included in the item even when the same have not been specifically mentioned.
2. All hardware material such as nuts/bolts/screws/washers etc. to be used in the work shall be zinc/cadmium plated iron. The galvanised boxes of modular switch/sockets etc. shall be of the same make as of switch/socket etc.
3. While laying conduit, suitable minimum number of junction boxes shall be left for pulling the wires. These shall be placed in such a way that the same do not remain noticeable.
4. The contractor shall follow the shortest route for circuits, submain, point wiring etc.
5. The connections of switches, sensors, earthing conductors & interconnections cables shall be made by adequate rating thimbles of approved standard makes only and nothing extra on this account shall be paid.
6. Check nuts shall be provided while terminating the M.S. conduits in switch board boxes for which nothing extra shall be paid.
7. All distribution boards shall be marked with circuits controlling the rooms/area/SDB controlled.
8. Material to be used in the work shall be ISI marked. The preferred makes of material have been indicated in the list of preferred makes. No other make will be acceptable. The material to be used in the work shall be got approved from the Engineer-in-charge before its use at site. The Engineer-in-charge shall reserve the right to instruct the contractor to remove the material which, in his opinion, is not as per specifications.
9. While deciding the size of switch boxes for light points/fan point, exhaust fan point items, extra two modules will be provided for each fan point for fixing of regulator(s) (fan regulator is to be provided under different item). Wherever extra modules are available, the same shall be provided with blanking plates without any extra cost.
10. Modular type switches/sockets/telephone outlets/TV sockets are to be provided wherever indicated in the items. The same shall be of only one make. The modular plates of switches, sockets, telephone & TV sockets etc. shall be in two parts i.e. plates with frames with in quoted rates.
11. The building shall be provided with false ceiling in various areas. In order to avoid maintenance problem the contractor will not provide any ceiling rose/connector/looping box etc. above the false ceiling. The point wiring in that case will be extended up to the fitting/fan etc. directly without provisions of any termination arrangement in between. The wire from the end point up to the fixture shall be considered to be included in the point wiring. Nothing extra shall be paid for the same.
12. Wherever it is not possible to provide rigid conduits, flexible conduit pipe shall be provided for drawing/running the wires. However, such arrangement has to be kept to the barest minimum and only with the prior approval of Engineer-in-charge.
13. Earthing and all hidden items of work shall be carried out in the presence of the Engineer-in-charge or his authorized representative.
14. The fan box cover shall be made from 3mm thick phenolic laminated sheet as per CPWD specification.
15. The contractor shall provide only metallic junction boxes/looping boxes with cover of required sizes even in PVC conducting and such boxes shall be measured as a part of conduit/wiring without any extra payment.
16. The metallic junction boxes & looping boxes shall be covered with approved makes of phenolic laminated sheet. For telephone, television & fire alarm system shall be

- provided at all the floors with in scope of work without any extra cost as per requirement & layout approved by Engineer- in-charge.
17. The firm has to go through the site order book kept with the Junior Engineer(E) regularly and has to sign the same and carryout the instructions recorded therein by various officers of the department.
 18. The quantities of various items may vary from the quantities given in schedule of work. The agency shall bring the various items & materials as per actual requirement at site at the time of execution of work. Excess quantities shall not be accepted & paid by the department.
 19. The ceiling roses wherever required to be provided are included in the scope of work without extra payment and the same shall also be of modular type & of the same make as that of switches & sockets along with earthing provision.
 20. The order of preference in case of any discrepancy —Conditions of contractl given in the Standard CPWD Contract form may be read as the following:
 - (a) Nomenclature of item as per Schedule of Quantities.
 - (b) Additional specifications, particular specifications and special conditions for Electrical Works.
 - (c) General conditions.
 - (d) Contract Clauses of General conditions of contract for CPWD 2014.
 - (e) CPWD specifications for electrical works as applicable.
 - (f) Architectural/structural drawings and specifications mentioned in drawings.
 - (g) Indian standard specifications of BIS.
 - (h) Sound engineering practice as per directions of the Engineer-in-charge.
 - (i) Manufacturers specifications.

A reference made to any Indian Standard Specifications in these documents, shall imply reference to the latest version of that standard, including such revisions/amendments as issued by the Bureau of Indian Standards upto last date of receipt of tenders. The contractor shall keep at his own cost all such publications of relevant Indian Standards applicable to the work at site.
 21. The contractor shall be responsible for the watch and ward of the site/property/material provided by him and materials issued by the department against pilferage and breakage during the period of execution and thereafter till the work is completed and physically handed over to the department.
 22. Samples of all materials, fittings and other materials/articles required for execution of the work shall be got approved from the Engineer-in-charge. Materials/articles manufactured by the firms of repute as indicated in tender documents and approved by the Engineer-in-charge shall only be used.
 23. All the MCB DB, Isolator, MCB, RCCB, ELCB, MCCB shall be of the same make.
 24. Colour coding shall have to be adopted in the wiring system as per specification.
 25. Tinned copper Earthing lugs/Thimbles/ferrules shall be provided for termination of earth wire to all Metallic outlet boxes/fittings/fixtures/fan regulator/MCB DB/switch board/Meter board etc., properly crimped/brazed/soldered for which nothing extra shall be paid.
 26. A suitable brass/tinned copper neutral link shall be fixed at suitable place in the Metallic outlet boxes of all sizes to terminate neutral wire properly. Nothing extra shall be paid on this account.
 27. Metal sheath of Co-axial T.V. cable shall be terminated using 'U' shape thimble/lugs/ferrules. Nothing extra shall be paid on this account.
 28. To facilitate drawing of wires 16/18 SWG GI fish wire be provided along with laying of recessed conduit. Nothing extra shall be paid on this account.
 29. The firm shall use only electrically operated chase cutting machine for cutting the chases in the wall for recessed conduit wiring.
 30. Since the upgradation works involves VVIP bungalows, the works at site may be allotted as per the allottee in phase wise manner. The allotted component of work shall be required to be completed in allotted time by the client and if required the work shall be required to be carried out on day and night basis.

List of Approved Make for Upgradation Work		
S. No.	ITEMS	MAKE
1.	PVC INSULATED FRLS COPPER WIRE/ TELEPHONE CABLE/ TV CABLE (ISI MARK)	Havells/ Polycab/ Finolex/ Skytone/ World CAB/ Rallison/ RR Kabel
2.	MODULAR SWITCH, SOCKET, PLATES, GI BOX, RJ11 SOCKET, RJ 45 SOCKET AND ALL OTHER MODULAR ACCESSORIES, FOOTLIGHT, STEP TYPE FAN REGULATOR, SHAVER SOCKET OUTLET POINT, CARD SWITCH, COURTESY PANEL, USB Point, Blanking Plate	MK Honeywell (Blenze Plus)/ Legrand (Arteor)/ Schneider Electric (Opale)/Crabtree/Havells
3.	STEEL CONDUIT AND ACCESSORIES ISI MARK	AKG/ BEC/ /NIC/Steel Kraft/Vikas
4.	PVC CONDUIT AND ACCESSORIES	PRECISON/ MODI/AKG/FINOLEX/ MK
5.	XLPE INSULATED, PVC SHEATHED, ARMOURED/UNARMOURED 1.1 KV GRADE LT CABLE/ CONTROL CABLE ISI MARK	Havells/ Polycab/ Finolex/ Skytone/ World CAB/ Rallison/ RR Kabel
6.	CABLE GLAND	JAINSON/ BRACO/ COMET/ GRIPWELL
7.	CABLE LUGS/ THIMBLE	DOWELLS/ JAINSON/ BRACO/ COMET
8.	DWC PIPES, HDPE PIPES I/C ACCESSORIES	REX/ DURALINE/ TIJERIA/ Tirupati
9.	MCB DB, MCB'S, ISOLATORS, INDUSTRIAL SOCKET, ETC I/C ACCESSORIES	LEGRAND/ HAGER/ SEIMENS/ SCHNEIDER ELECTRIC/ ABB/ C&S
10.	LED LIGHTING FIXTURE, LED STREET LIGHT, LED BOLLARDS, LED POST TOP, LED Lamp, Chandelier AND ACCESSORIES	AS PER THE BOQ
11.	CEILING FANS I/C ACCESSORIES	AS PER THE BOQ
12.	WALL BRACKET FANS I/C ACCESSORIES	AS PER THE BOQ
13.	EXHAUST FAN I/C ACCESSORIES	AS PER THE BOQ
14.	CAT6 UTP CABLE, PATCH PANEL, 10"S, PATCH CORD	LEGRAND/ BELDON/ PANDUIT/ MOLLEX/ LAPP KABLE

15.	LT PANEL, APFC PANEL MANUFACTURER/ FABRICATORS CPRI APPROVED	ADVANCE PANEL AND SWITCHGEARS PVT LTD TRICOLITE ELECTRICAL INDUSTRIES (PVT) LTD/ ADLEC MUNDKA CONTROL & SWITCHGEARS PVT LTD Associates Switch Gear & Project Ltd. NEPTUNE APPLICATION CONTROL PANEL PVT LTD BSPL BHOPAL Milestone
16.	MCCB'S (ICS=100%ICU)/ MPCB I/C ACCESSORIES	L&T (DN/DNX)/ SEIMENS (3VL)/ SCHNEIDER ELECTRIC (COMPACT NS)/ ABB (PMA)/ LEGRAND
17.	DIGITAL PANEL METER/ ELECTRONIC LOAD MANAGER/ MULTIFUNCTION METER	CONZERV/ AE/ KRYKARD/ ENERCON/ NEPTUNE
18.	INDICATING LAMP (LED TYPE)	SEIMENS/ TEKNIC/ L&T
19.	METAL PIPES (M S / G I)	TATA/ JINDAL HISSAR/ PRAKASH SURYA/ ZENITH
20.	Ventilating Fan	Havells/Crompton/Usha/Almonard
21.	Pump & Accessories	Kiriloskar/Crompton/KSB/CRI
22.	Thermostat Switch	ISI Mark
23.	Capacitor	Havells/Usha/Crompton
24.	SMC Box	Stanlac/Sintex/Boxxman
25.	UPVC Pipe	Supreme/Ashirvad/Prince
26.	Kitchen Chimney	As per the BOQ
27.	Fresh Air Fan	As per the BOQ
28.	Storage type Electric water heater	As per the BOQ

SUB-HEAD-1
LIST OF ACCEPTABLE MAKES OF ELECTRICAL MATERIALS
(FOR MAINTENANCE WORKS - ELECTRICAL)

S. No.	Materials	Acceptable Make
I	Consumable Items	
1	Insulation Tape	Anchor/Steel grip
2	LED Lamps	Philips/Wipro/Havells/Crompton/Osram/Surya
3	LED Fixtures	As per already installed.
II	Accessories	
1	5/15 amp./switch/socket piano type	As per already installed.
2	Plug top 5/15 amp.	Anchor/SSK/Cona/Antex
3	5/15 amp. modular switch/socket and accessories to be fixed on metallic frame/G.I. Box	As per already installed.
4	GI modular box of size with cover plate	- Do -
5	MCB	- Do -
6	MCCB	- Do -
7	Lamp Holders	Anchor/Legrand/SSK
8	Ceiling Fan Regulator (step type)	As per already installed.
9	Call Bell	Anchor/SSK/Cona
10	Ceiling Fan Regulator (resistance type)	Crompton/Khaitan
11	Ball Bearing	NBC/SKF/Tata
12	Capacitor	Asian/Epcos
13	Geyser Element	As per already installed.
14	Heat Convector Element (ISI Marked)	Ditz/Novex/Heat Master/Power Pack
15	Thermostate for geyser	Venus/Racold/Power Pack
16	Copper choke for Fl. Fitting/Driver for LED fitting	As per already installed.
17	Electronic choke for CFL fitting/Driver for LED fitting	- Do -
18	Electronic choke for Fl. Fitting/Driver for LED fitting	- Do -
19	Copper choke for street light luminaires/Driver for LED fitting	- Do -
20	Tube starter	Philips/Crompton
21	Ignitor for HPSV/Metal Halide lamp	As per already installed.
22	Capacitor for HPSV fitting	- Do -
23	Phinolic laminated sheet	Hylem/Formica (White colour) ISI Marked
24	P.T. Switches & Accessories	Kinjal/Anchor/Sanico
III	Fixtures and Gadget	
1	Brass wall bracket	As per Sample
2	Box type Fl. Fitting/T-5 Fl. Fitting	As per already installed.
3	Mirror Light Fitting	- Do -
4	Steel Finish Decorative Wall Fitting	- Do -
5	Bulk Head (CFL Lamp Type)	- Do -
7	Pole Box	- Do -
8	Gate Light Fitting	- Do -
9	Lawn Light Fitting of types	- Do -
10	Flood Light Fitting	- Do -
11	Ventilating Fan	- Do -

12	Fresh Air Fan	- Do -
13	Geysers	- Do -
14	Pump Set	Kiriloskar/Crompton/KSB/CRI
15	LED garden light/LED compound light/street light	As per already installed.
16	Electrical Chimney	- Do -
17	Steel Conduit	AKG/ BEC/ /NIC/Steel Kraft/Vikas
IV	Wire/ Pipe	
1	PVC insulated copper conductor cable/T.V. Coaxial wire/Telephone Wire.	Polycab/Havell's/National/Finolex/L&T/Anchor ISI marked
2	FRLS PVC insulated wires/cables (ISI marked)	Havells/ Polycab/ Finolex/ Skytone/ World CAB/ Rallison/ RR Kabel
3	PVC Conduit	PRECISON/ MODI/AKG/FINOLEX/ MK
4	UG Cable for street light and compound light	Gloscer/Havell's/Polycab/ICI/ ICC
5	Telephone Cables	Phenolix/Plaza/Havell's
6	MS Conduit pipe (ISI Marked-ERW)	BEC/M kay/AKG ISI Mark
7	Lugs/Ferrules	Dowells/Johnson/BRACO/ COMET
8	Brass Compression gland (Heavy Duty)	Commex/Griwell/Hansel/Johnson
9	DWC HPPE pipe	REX (ISI Marked)/Dura Line/Pioneer
10	G.I. Pipe (ISI Marked)	Jindal/Tata/Prakash
11	T.V. Coaxial Wire	Polycab/Finolex/Delton
12	Feeder pillar/Cubical panel. CPRI Approved	ADVANCE PANEL AND SWITCHGEARS PVT LTD TRICOLITE ELECTRICAL INDUSTRIES (PVT) LTD/ ADLEC MUNDKA CONTROL & SWITCHGEARS PVT LTD Associates Switch Gear & Project Ltd. NEPTUNE APPLICATION CONTROL PANEL PVT LTD BSPL BHOPAL Milestone
13	W.P. Cable End Box	Sintex/Hansel
14	Bollard Light	As per already installed.
15	Lighting Globes	- Do -
16	Garden light fitting	- Do -
17	Post Top decorative luminaries	- Do -
18	Wall Fan	Crompton/Orient/Usha/Khaitan/Polar.
19	Exhaust Fan	Crompton/Usha/Almonard/Khaitan/Polar
20	Kitchen Chimney	Glen Cat. No. GL 6001 SS SL CF/Faber.
21	Picture light fitting	As per already installed.
22	Amp Meter/Volt Meter with selector switch	AE/HPL/Havells
23	Solar Water Heating System	BOSCH/EMMVEE/Racold/TATA/BIPSUN/Electra/Nova Energie
24	MS Angle	TATA/ Jindal/ or equivalent
25	Valves/NRV etc.	Sant/Unik/Zolato/BS/Leader
26	Cold water tank	Sintex/Plasto/Modi Cold

Note :-

The firm should note that the existing modular switch, socket piano type switch, socket and electrical fixtures are of different make, hence the firm have to supply all type of switch, socket fixtures etc. remaining the total quantity as per BOQ.

SH – I (Civil Work) :Day to Day Maintenance

S. No.	DSR code	Description of Item	Qty	Unit	Rate	Estimated Amuont
1		Attending day to day complaints received through CPWD e-sewa or any other mode in respect of internal & external assets, building services and installations in various bungalows as per Annexure I complete with all materials, labour, T & P etc. comprising of following operations:-				
1.1		Attending day to day routine and emergent plumbing complaints round the clock, including Sunday and National Holidays, regarding repair of plumbing/sanitary system including repairing leakages or over flows of water from PVC/RCC overhead tanks, cisterns, replacement of GI pipes, fitting and fixtures etc. to keep the entire water supply/ sanitary system functional to the entire satisfaction and as per direction of the Engineer-in-charge.				
1.2		Attending day to day routine and emergent complaints round the clock, including Sunday and National Holidays, related to complaints of sewerage / drainage system of all depths upto 1st manhole of NDMC, including opening / cleaning of choked sewer pipes, drains, manholes, gully traps, water closet, wash basins, floor/gully traps etc. at all floors and vertical stacks of services of all sizes to keep sewerage and drainage system functional and all other sewer/drainage/water stagnation complaints, to the entire satisfaction and as per the direction of Engineer-in-Charge.				

1.3		<p>Attending day to day routine complaints related to carpentry work during 9.00 AM to 5.00 PM, Including Sunday and National Holidays, regarding repair of damaged doors, windows, ventilators of steel/wood/PVC etc. at all floors, fixing of glass panes of doors/windows, repairs to furniture, fixing all types of fittings, looking mirrors, cabinets, photo frames, cupboards etc. and all other carpentry works required to keep them in proper functional conditions to the entire satisfaction and as per direction of the Engineer-in-charge.</p>				
1.4		<p>Attending day to day routine complaints related to mason work during 9.00 AM to 5.00 PM, including Sunday and National Holidays, regarding repair of all internal and external plaster, flooring, masonry work, RCC, CC, leakages of roofs, floor, traps, W.C., joints of pipes & fittings and fixing frames of manholes, traps etc. to the entire satisfaction and as per direction of Engineer-in-Charge.</p>				
1.5		<p>Attending day to day routine complaints related to painting and polishing work during 9.00 AM to 5.00 PM, including Sunday and National Holidays, including finishing the repaired/damaged wall/wooden/steel surfaces (Internal & External) etc to the entire satisfaction of Engineer-in-charge.</p>				
1.6		<p>Attending day to day routine complaints related to welding works during 9.00 AM to 5.00 PM, including Sunday and National Holidays, by using electric welding plant, gas cutter, welding rods (ISI) including hire charges of welding plant, cost of welding rods, transportation of plant at site and carrying out other associated operations for attending the complaints to entire satisfaction at all levels and at all heights (Cost of all the T & P such as welding plant, welding rods, electric cables etc to be born by agency) complete as per the direction of Engineer-in-charge.</p>				

1.7	Providing services of beldar for assistance in attending day to day complaints pertaining to carpentry work, plumbing work, mason work, paint/polishing work, sewerman work and other works like roof cleaning, uprooting of vegetation and loading & unloading of furniture and any other service as desired by Engineer-in charge during 9.00 AM to 5.00 PM, including Sundays & National Holidays, to the entire satisfaction of Engineer-in-charge.				
1.8	Maintaining the Service Centre Premise neat & clean and in hygienic condition round the clock by required Sweeping, Scavenging, Mopping & Cleaning and ensuring watch and ward of the service center round the clock to the entire satisfaction of Engineer-in-Charge including Sundays & National Holidays.				
1.9	Establishing, operating and maintaining the service centre round the clock, by providing trained personal, required computer system including printer and peripherals, telephone connection, broad band connection, furniture and furnishing items for smooth operation of service centre, including close monitoring, downloading, receiving & recording of complaints through any mode, assigning the complaints, updating the same to CPWD e-Sewa after attending the complaints, generation of vacation / occupation report. This shall also include all requirement of CPWD e-Sewa. Complaints received at service centre in person or through any other source shall be lodged to CPWD Call Centre.				
1.10	Providing services of data entry computer operator (minimum qualification graduate & proficient in MS Office) for preparing estimates, reports, letters, handling CPWD complaint monitoring system (http://cpwdsewa.nic.in) and any other computer related office work etc. complete in Sub Division as per direction of Engineer-in-charge during 9.00 AM to 5.00 PM, excluding Sundays & National Holidays.				
	Cost of all operations/work(1.1 to 1.10) including labour, material and T & P as described above.	36	Per month job	766410.00	27590760

SH-II (Civil Work) - Ordinary and special repairs

S. No.	DSR code	Description of Item	Qty.	Unit	Rate	Amuont
1	2.8	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.				
	2.8.1	All kinds of soil.	244.00	cum	252.30	61561.00
2	2.1	Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth upto 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m :				
	2.10.1	All kinds of soil				
	2.10.1.2	Pipes, cables etc. exceeding 80 mm dia. but not exceeding 300 mm dia	3120.00	metre	364.20	1136304.00
3	2.25	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	384.00	cum	219.65	84346.00
4	2.30	Excavating holes more than 0.10 cum & upto 0.5 cum including getting out the excavated soil, then returning the soil as required in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering etc, disposing of surplus excavated soil, as directed within a lead of 50 m and lift upto 1.5 m.				
a	2.30.1	All kinds of soil	2160.00	each	79.30	171288.00
5	2.34	Supplying chemical emulsion in sealed containers including delivery as specified.				

	2.34.1	Chlorpyriphos/ Lindane emulsifiable concentrate of 20%	7200.00	litre	200.85	1446120.00
6	2.35.2	Along the external wall below concrete or masonry apron using chemical emulsion @ 2.25 litres per linear metre including drilling and plugging holes etc.:				
	2.35.2.1	With Chlorpyriphos/ Lindane E.C. 20% with 1% concentration	3600.00	metre	39.45	142020.00
7	2.35.3	Treatment of soil under existing floors using chemical emulsion @ one litre per hole, 300 mm apart including drilling 12 mm diameter holes and plugging with cement mortar 1 :2 (1 cement : 2 Coarse sand) to match the existing floor:				
	2.35.3.1	With Chlorpyriphos/Lindane E.C. 20% with 1% concentration	3600.00	sqm	227.05	817380.00
8	2.35.4	Treatment of existing masonry using chemical emulsion @ one litre per hole at 300 mm interval including drilling holes at 45 degree and plugging them with cement mortar 1:2 (1 cement : 2 coarse sand) to the full depth of the hole :				
	2.35.4.1	With Chlorpyriphos/Lindane E.C. 20% with 1% concentration	10800.00	metre	31.75	342900.00
9	2.35.5	Treatment at points of contact of wood work by chemical emulsion Chlorpyriphos/ Lindane (in oil or kerosene based solution) @ 0.5 litres per hole by drilling 6 mm dia holes at downward angle of 45 degree at 150 mm centre to centre and sealing the same.	18000.00	metre	254.00	4572000.00
10	4.1	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :				
a	4.1.3	1:2:4 (1 cement : 2 coarse sand (Zone-III) : 4 graded stone aggregate 20 mm nominal size)	480.00	cum	6788.60	3258528.00
b	4.1.6	1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size)	308.00	cum	6126.25	1886885.00
c	4.1.10	1:5:10 (1 cement : 5 coarse sand (Zone-III) : 10 graded stone aggregate 40 mm nominal size)	308.00	cum	5520.30	1700252.00

11	5.18	Providing precast cement concrete Jali 1:2:4 (1 cement : 2 coarse sand: 4 graded stone aggregate 6 mm nominal size), reinforced with 1.6 mm dia mild steel wire, including centering and shuttering, roughening cleaning, fixing and finishing in cement mortar 1:3 (1 cement: 3 fine sand) etc. complete, excluding plastering of the jambs, sills and soffits.				
a	5.18.2	40 mm thick	1080.00	sqm	1329.75	1436130.00
12	6.1	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundation and plinth in:				
a	6.1.2	Cement mortar 1:6 (1 cement : 6 coarse sand)	184.00	cum	6175.45	1136283.00
13	6.4	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level in all shapes and sizes in :				
a	6.4.2	Cement mortar 1:6 (1 cement : 6 coarse sand)	171.00	cum	7590.45	1297967.00
14	8.2	Providing and fixing 18 mm thick gang saw cut, mirror polished, premoulded and prepolished, machine cut for kitchen platforms, vanity counters, window sills, facias and similar locations of required size, approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 coarse sand), joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing to edges to give high gloss finish etc. complete at all levels.				
a	8.2.2	Granite of any colour and shade				
b	8.2.2.1	Area of slab upto 0.50 sqm	70.00	sqm	4217.35	295215.00
15	8.3	Providing edge moulding to 18 mm thick marble stone counters, Vanities etc., including machine polishing to edge to give high gloss finish etc. complete as per design approved by Engineer-in-Charge.				
a	8.3.2	Granite work	122.00	metre	376.25	45903.00
16	8.4	Extra for fixing marble /granite stone, over and above corresponding basic item, in facia and drops of width upto 150 mm with epoxy resin based adhesive, including cleaning etc. complete.	244.00	metre	434.25	105957.00

17	8.5	Extra for providing opening of required size & shape for wash basin/ kitchen sink in kitchen platform, vanity counter and similar location in marble/ Granite/ stone work, including necessary holes for pillar taps etc. including moulding, rubbing and polishing of cut edges etc. complete.	30.00	each	734.55	22037.00
18	8.6	Mirror polishing on marble work/Granite work/stone work where ever required to give high gloss finish complete.	2400.00	sqm	368.00	883200.00
19	9.1	Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia & length (hold fast lugs or dash fastener shall be paid for separately).				
a	9.1.1	Second class teak wood	11.40	cum	130183.05	1484087.00
b	9.1.3	Kiln seasoned and chemically treated hollock wood	11.40	cum	71746.40	817909.00
20	9.5	Providing and fixing panelled or panelled and glazed shutters for doors, windows and clerestory windows including ISI marked M.S pressed butt hinges bright finished of required size with necessary screws excluding, panelling which will be paid for separately all complete as per direction of Engineer in charge				
a		Second class teak wood				
	9.5.1.1	35 mm thick shutters	358.00	sqm	3613.35	1293579.00
b	9.5.2	Kiln seasoned and chemically treated Hollock wood.				
	9.5.2.1	35 mm thick shutters	114.00	sqm	2381.55	271497.00
21	9.9	Providing and fixing glazed shutters for doors, windows and clerestory windows using 4 mm thick float glass panes including ISI marked M.S pressed butt hinges bright finished of required size with necessary screws.				
a		Second class teak wood				
	9.9.1.1	35 mm thick	343.00	sqm	4353.75	1493336.00
b	9.9.2	Kiln seasoned and chemically treated Hollock wood.				
	9.9.2.1	35mm thick	280.00	sqm	2951.35	826378.00
22	9.27	Providing and fixing 35mm thick wire gauze shutters using galvanised M.S. wire gauze of average width of aperture 1.4mm with wire of dia. 0.63 mm for doors, windows and clerestory windows including ISI marked M.S. pressed butt hinges bright finished of required size with necessary screws :				

	9.27.1	35mm thick shutters				
	9.27.1.1	with ISI marked MS pressed butt hinges bright finished of required size:				
a	9.27.1.1.1	Second class teak wood.	602.00	sqm	4221.20	2541162.00
b	9.27.1.1.2	Kiln seasoned and chemically treated Hollock wood.	244.00	sqm	2979.50	726998.00
23	9.48	Providing and fixing M.S. grills of required pattern in frames of windows etc. with M.S. flats, square or round bars etc. including priming coat with approved steel primer all complete.				
a	9.48.2	Fixed to openings /wooden frames with rawl plugs screws etc.	2440.00	kg	183.50	447740.00
24	9.53	Providing 40x5 mm flat iron hold fast 40 cm long including fixing to frame with 10 mm diameter bolts, nuts and wooden plugs and embeddings in cement concrete block 30x10x15cm 1:3:6 mix (1 cement : 3 coarse sand : 6 graded stone aggregate 20mm nominal size)	840.00	each	179.20	150528.00
25	9.72	Providing and fixing bright finished brass butt hinges with necessary screws etc. complete :				
a	9.72.3	100x85x5.5 mm (heavy type)	1414.00	each	173.60	245470.00
b	9.72.5	75x65x4 mm (heavy type)	1220.00	each	145.40	177388.00
26	9.81	Providing and fixing bright finished brass handles with screws etc. complete :				
a	9.81.1	125 mm	1414.00	each	204.65	289375.00
b	9.81.2	100 mm	1220.00	each	189.45	231129.00
27	9.122	Providing and fixing to existing door frames.				
a	9.122.2	30 mm thick Fiberglass Reinforced Plastic (F.R.P.) flush door shutter in different plain and wood finish made with fire retardant grade unsaturated polyester resin, moulded to 3 mm thick FRP laminate all around, with suitable wooden blocks inside at required places for fixing of fittings and polyurethane foam (PUF)/ Polystyrene foam to be used as filler material throughout the hollow panel, casted monolithically with testing parameters of F.R.P. laminate conforming to table - 3 of IS: 14856, complete as per direction of Engineer-in-charge.	488.00	sqm	3931.95	1918792.00

28	9.128	Providing and fixing factory made Fiberglass Reinforced plastics (F.R.P.) chajja 4 mm thick of required colour, size and design made by Resin Transfer Moulding (RTM) Machine Technology, resulting in void free compact laminate in single piece, having smooth gradual slope curvature for easy drainage of water and duly reinforced by 2 nos vertically and 1 nos horizontally 50x2 mm thick M.S. flat with 12 mm in built hole for grouting on the existing wall along with the 50 mm flanges duly inserted and sealed in the wall complete in one single piece casted monolithically, including all necessary fittings . The FRP Chajja should be manufactured using unsaturated Polyester resin as per IS: 6746, duly reinforced with fibre glass chopped strand mat (CSM) as per IS: 11551 complete with protective Gel coat U/V coating on Top for complete resistance from the extreme of temperature, weather & sunlight. (Note - Only plan area of chajjas shall be measured for making payment)	610.00	sqm	4851.25	2959263.00
29	9.142	35 mm thick factory made Solid panel PVC Door shutter, made out of single piece extruded solid PVC profiles, 5 mm (± 0.2 mm) thick, having styles & rails (except lock rail) of size 95 mm x 35 mm x 5 mm, out of which 75 mm shall be flat and 20 mm shall be tapered (on both side), having one side thickness of 15 mm integrally extruded on the hinge side of the profile for better screw holding power, including reinforcing with MS tube of size 40 mm X 20 mm x 1 mm, joints of styles & rails to be mitered cut & joint with the help of PVC solvent cement, self driven self tapping screws & M.S. rectangular pipes bracket of size 190 mm X100 mm of cross section size 35 mm x 17 mm x 1 mm at each corner. Single piece extruded 5 mm thick solid PVC Lock rail of size 115 mm x35 mm, out of which 75 mm to be flat and 20 mm to be tapered at both ends, having 15 mm solid core in middle of rail section integrally extruded, fixing the styles & rails with the help of solvent and self driven self tapping screws of 125 mm x 11 mm, including providing 5 mm Single piece solid PVC extruded sheet inserted in the door as panel, all complete as per manufacturer's specification and direction of Engineer-in-charge.				
a	9.142.2	Decorative finish (wood grained finish)	488.00	Sqm	3842.85	1875311.00

30	10.1	Structural steel work in single section, fixed with or without connecting plate, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	14140.00	kg	86.05	1216747.00
31	10.16	Steel work in built up tubular (round, square or rectangular hollow tubes etc.) trusses etc., including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washers etc. complete.				
a	10.16.1	Hot finished welded type tubes	19020.00	kg	143.45	2728419.00
32	10.25	Steel work welded in built up sections/ framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required.				
a	10.25.2	In gratings, frames, guard bar, ladder, railings, brackets, gates and similar works	13640.00	kg	131.00	1786840.00
33	11.26	Kota stone slab flooring over 20 mm (average) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab, including rubbing and polishing complete with base of cement mortar 1 : 4 (1 cement : 4 coarse sand) :				
a	11.26.1	25 mm thick	960.00	sqm	1531.85	1470576.00
34	8.31	Providing and fixing Ist quality ceramic glazed wall tiles conforming to IS: 15622 (thickness to be specified by the manufacturer), of approved make, in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge, in skirting, risers of steps and dados, over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete.	1080.00	sqm	1030.30	1112724.00

35	11.38	Providing and laying Ceramic glazed floor tiles of size 300x300 mm (thickness to be specified by the manufacturer), of 1st quality conforming to IS : 15622, of approved make, in all colours, shades, except White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick bed of cement mortar 1:4 (1 Cement : 4 Coarse sand), including pointing the joints with white cement and matching pigments etc., complete.	1080.00	sqm	996.70	1076436.00
36	11.47	Providing and laying Vitrified tiles in different sizes (thickness to be specified by the manufacturer), with water absorption less than 0.08% and conforming to IS: 15622, of approved brand & manufacturer, in all colours and shade, in skirting, riser of steps, laid with cement based high polymer modified quick set tile adhesive (water based) conforming to IS: 15477, in average 6 mm thickness, including grouting of joints (Payment for grouting of joints to be made separately).				
a	11.47.2	Size of Tile 600x600 mm	610.00	sqm	1734.00	1057740.00
b	11.47.3	Size of Tile 800x800 mm	610.00	sqm	1994.95	1216920.00
37	11.48	Grouting the joints of flooring tiles having joints of 3 mm width, using epoxy grout mix of 0.70 kg of organic coated filler of desired shade (0.10 kg of hardener and 0.20 kg of resin per kg), including filling / grouting and finishing complete as per direction of Engineer-in-charge.				
	11.48.2	Size of Tile 600x600 mm	488.00	sqm	241.45	117828.00
	11.48.3	Size of Tile 800x800 mm	488.00	sqm	191.85	93623.00
38	11.49	Providing and laying Vitrified tiles in floor with different sizes (thickness to be specified by the manufacturer), with water absorption less than 0.08% and conforming to IS:15622, of approved brand & manufacturer, in all colours and shade, laid with cement based high polymer modified quick set tile adhesive (water based) conforming to IS : 15477, in average 6 mm thickness, including grouting of joints (Payment for grouting of joints to be made separately).				
a	11.49.2	Size of Tile 600x600 mm	720.00	sqm	1609.95	1159164.00
b	11.49.3	Size of Tile 800x800 mm	684.00	sqm	1870.90	1279696.00

39	12.1	Providing corrugated G.S. sheet roofing including vertical / curved surface fixed with polymer coated J or L hooks, bolts and nuts 8 mm diameter with bitumen and G.I. limpet washers or with G.I. limpet washers filled with white lead, including a coat of approved steel primer and two coats of approved paint on overlapping of sheets complete (up to any pitch in horizontal/ vertical or curved surfaces), excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required.				
a	12.1.2	0.80 mm thick with zinc coating not less than 275 gm/m ²	700.00	sqm	1061.8	743260.00
40	12.21	Providing gola 75x75 mm in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 stone aggregate 10 mm and down gauge), including finishing with cement mortar 1:3 (1 cement : 3 fine sand) as per standard design :				
a	12.21.1	In 75x75 mm deep chase	2360.00	metre	237.25	559910.00
41	12.22	Making khurras 45x45 cm with average minimum thickness of 5 cm cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate of 20 mm nominal size) over P.V.C. sheet 1 m x 1 m x 400 micron, finished with 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) and a coat of neat cement, rounding the edges and making and finishing the outlet complete.	358.00	each	244.05	87370.00
42	12.23	Providing sand stone slab for roofing and laying them in cement mortar 1 : 4 (1 cement : 4 coarse sand) over wooden karries or R.C.C. battens or structural steel sections (Karries or battens or structural steel sections to be paid separately), including pointing the ceiling joints with cement mortar 1:3 (1 cement : 3 fine sand) complete :				
a	12.23.1	Red sand stone slab				
b	12.23.1.1	40 to 50 mm thick	488.00	sqm	793.10	387033.00
43	12.42	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10 mm gap for thermal expansion.				
	12.42.5	Bend 87.5°				
a	12.42.5.2	110 mm bend	358.00	each	129.85	46486.00

44	12.43	Providing and fixing unplasticised - PVC pipe clips of approved design to unplasticised - PVC rain water pipes by means of 50x50x50 mm hard wood plugs, screwed with M.S. screws of required length, including cutting brick work and fixing in cement mortar 1:4 (1 cement : 4 coarse sand) and making good the wall etc. complete.				
a	12.43.2	110 mm	732.00	each	288.80	211402.00
45	12.47	Providing & fixing UV stabilised fiberglass reinforced plastic sheet roofing up to any pitch, including fixing with polymer coated 'J' or 'L' hooks, bolts & nuts 8mm dia. G.I plain/bitumen washers complete but excluding the cost of purlins, rafters, trusses etc. The sheets shall be manufactured out of 2400 TEX panel rovigs incorporating minimum 0.3% ultra-violet stabiliser in resin system under approximately 2400 psi and hot cured. They shall be of uniform pigmentation and thickness without air pockets and shall conform to IS 10192 and IS 12866. The sheets shall be opaque or translucent, clear or pigmented, textured or smooth as specified.				
a	12.47.1	2 mm thick corrugated (2.5" or 4.2" or 6") or step-down (2" or 3" or 6") as specified	358.00	sqm	1095.20	392082.00
46	12.50	Providing and fixing pre-coated galvanised iron profile sheets (size, shape and pitch of corrugation as approved by Engineer-in-charge) 0.50 mm (+ 0.05 %) total coated thickness with zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns. Sheet should have protective guard film of 25 microns minimum to avoid scratches during transportation and should be supplied in single length upto 12 metre or as desired by Engineer-in-charge. The sheet shall be fixed using self drilling /self tapping screws of size (5.5x 55 mm) with EPDM seal, complete upto any pitch in horizontal/ vertical or curved surfaces, excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required.	1220.00	sqm	627.55	765611.00

47	12.53	<p>Providing and Fixing 15 mm thick densified tegular edged eco friendly light weight calcium silicate false ceiling tiles of approved texture spintone/ cosmos / Hexa or equivalent of size 595 x 595 mm in true horizontal level, suspended on inter locking metal grid of hot dipped galvanised steel sections (galvanising @ 120 grams per sqm including both side) consisting of main 'T' runner suitably spaced at joints to get required length and of size 24x38 mm made from 0.33 mm thick (minimum) sheet, spaced 1200 mm centre to centre, and cross 'T' of size 24x28 mm made out of 0.33 mm (Minimum) sheet, 1200 mm long spaced between main 'T' at 600 mm centre to centre to form a grid of 1200x600 mm and secondary cross 'T' of length 600 mm and size 24 x28 mm made of 0.33 mm thick (Minimum) sheet to be inter locked at middle of the 1200x 600 mm panel to form grid of size 600x600 mm, resting on periphery walls /partitions on a Perimeter wall angle pre-coated steel of size(24x24X3000 mm made of 0.40 mm thick (minimum) sheet with the help of rawl plugs at 450 mm centre to</p>				
		<p>centre with 25 mm long dry wall screws @ 230 mm interval and laying 15 mm thick densified edges calcium silicate ceiling tiles of approved texture (Spintone /Cosmos/ hexa) in the grid, including, cutting/ making opening for services like diffusers, grills, light fittings, fixtures, smoke detectors etc., wherever required. Main 'T' runners to be suspended from ceiling using G.I. slotted cleats of size 25x35x1.6 mm fixed to ceiling with 12.5 mm dia and 50 mm long dash fasteners, 4 mm G.I. adjustable rods with galvanised steel level clips of size 85 x 30 x 0.8 mm, spaced at 1200 mm centre to centre along main 'T', bottom exposed with 24 mm of all Tsections shall be pre-painted with polyester baked paint, for all heights, as per specifications, drawings and as directed by engineer-in-charge.</p>				

		NOTE:- only calcium silicate false ceiling area will be measured from wall to wall. No deduction shall be made for expose frames/opening (Cut outs) having Area less than 0.30 sqm. The calcium silicate ceiling tile shall have NRC value of 0.50 (Minimum). Light reflection> 85%, non-combustible as per B.S. 476 part IV, 100% humidity resistance and also having thermal conductivity <0.043 w/mK.	732.00	sqm	1643.95	1203371.00
48	13.4	12 mm cement plaster of mix :				
	13.4.2	1:6 (1 cement: 6 coarse sand)	2440.00	sqm	263.55	643062.00
49	13.5	15 mm cement plaster on rough side of single or half brick wall of mix:				
	13.5.2	1:6 (1 cement: 6 coarse sand)	2440.00	sqm	303.90	741516.00
50	13.26	Providing and applying plaster of paris putty of 2 mm thickness over plastered surface to prepare the surface even and smooth complete.	12000.00	sqm	196.70	2360400.00
51	13.41	Distempering with oil bound washable distemper of approved brand and manufacture to give an even shade :				
	13.41.1	New work (two or more coats) over and including water thinnable priming coat with cement primer	8860.00	sqm	153.45	1359567.00
52	13.43	Applying one coat of water thinnable cement primer of approved brand and manufacture on wall surface :				
	13.43.1	Water thinnable cement primer	17720.00	sqm	60.00	1063200.00
53	13.44	Finishing walls with water proofing cement paint of required shade :				
	13.44.1	New work (Two or more coats applied @ 3.84 kg/10 sqm)	8860.00	sqm	91.25	808475.00
54	13.47	Finishing walls with Premium Acrylic Smooth exterior paint with Silicone additives of required shade :				
	13.47.1	New work (Two or more coats applied @ 1.43 ltr/ 10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/ 10 sqm)	35600.00	sqm	161.15	5736940.00
55	13.60	Wall painting with acrylic emulsion paint of approved brand and manufacture to give an even shade :				
	13.60.1	Two or more coats on new work	35600.00	sqm	128.65	4579940.00

56	13.61	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade :				
	13.61.1	Two or more coats on new work	8860.00	sqm	121.55	1076933.00
57	13.80	Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete.				
			35600.00	sqm	115.15	4099340.00
58	13.90	Distempering with 1st quality acrylic distemper (Ready mix) having VOC content less than 50 grams/ litre of approved brand and manufacture to give an even shade :				
	13.90.1	Old work (one or more coats)	24000.00	sqm	54.30	1303200.00
59	13.91	Removing dry or oil bound distemper, water proofing cement paint and the like by scrapping, sand papering and preparing the surface smooth including necessary repairs to scratches etc. complete.				
			35600.00	sqm	18.25	649700.00
60	13.98	Wall painting with plastic emulsion paint of approved brand and manufacture to give an even shade :				
	13.98.1	One or more coats on old work	19200.00	sqm	84.65	1625280.00
61	13.99	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade :				
	13.99.1	One or more coats on old work	19200.00	sqm	79.95	1535040.00
62	13.103	French spirit polishing :				
	13.103.1	One or more coats on old work	2280.00	sqm	176.85	403218.00
63	13.109	Finishing walls with water proofing cement paint of required shade				
	13.109.1	Old work (one or more coats applied @ 2.20 kg/10 sqm) over priming coat of primer applied @ 0.80 litres/10 sqm complete including cost of Priming coat.	31200.00	sqm	87.20	2720640.00

64	14.75	Repairs to plaster of thickness 12 mm to 20 mm in patches of area 2.5 sq. meters and under, including cutting the patch in proper shape, raking out joints and preparing and plastering the wall Surface with white cement based Polymer modified self curing Mortar , including disposal of rubbish , all complete as per direction of Engineer in charge.	3480.00	sqm	512.00	1781760.00
65	14.75 A	Cleaning of terrace/loft water storage tank (inside surface area) upto 2000 litre capacity at all heights with coconut brushes, duster etc., removal of silt, rubbish from the tank and cleaning the tank with fresh water disinfecting with bleaching powder @ 0.5gm per litre capacity of tank, including marking the date of cleaning on the side of tank body with the help of stencil and paint and disposing of malba, all complete as per direction of Engineer-in-Charge. (The old date already written on tank should be removed with paint remover or black paint and if date is not written with the stencil or old date is not removed deduction will be made @ Rs. 0.10 per litre if during cleaning any GI fittings or ball cock is damaged that is to be repaired by contractor at his own cost and nothing extra will be paid on this account)	52800	litre	0.35	18480.00
66	14.76	Cleaning and desilting of gully trap chamber, including removal of rubbish mixed with earth etc. and disposal of same, all as per the direction of Engineer-in-charge.	5280	each	77.65	409992.00

67	14.77	Cleaning of choked sewer line by diesel running vehicle mounting hydraulic operated high pressure suction cum jetting sewer cleaning machine fitted with pump having 4000 litres suction capacity and 6000 litres water jetting tank capacity including skilled operator, supervising engineer etc. for cleaning and partial desilting of manholes and dechocking of sewer lines. Dechocking and flushing of sewer line from one manhole to another by high pressure jetting system of 2200 PSI for sewer line from 150mm dia upto 300mm dia for all depth.	18000	metre	256.90	4624200.00
68	15.2	Demolishing cement concrete manually/ by mechanical means including disposal of material within 50 metres lead as per direction of Engineer - in - charge.				
a	15.2.1	Nominal concrete 1:3:6 or richer mix (i/c equivalent design mix)	244.00	cum	1737.45	423938.00
69	15.7	Demolishing brick work manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge.				
a	15.7.4	In cement mortar	106.00	cum	1469.90	155809.00
70	15.12	Dismantling doors, windows and clerestory windows (steel or wood) shutter including chowkhats, architrave, holdfasts etc. complete and stacking within 50 metres lead :				
a	15.12.1	Of area 3 sq. metres and below	488.00	each	274.5	133956.00
b	15.12.2	Of area beyond 3 sq. metres	366.00	each	375.65	137488.00
71	15.18	Dismantling steel work in built up sections in angles, tees, flats and channels including all gusset plates, bolts, nuts, cutting rivets, welding etc. including dismembering and stacking within 50 metres lead.	488.00	kg	4.15	2025.00
72	15.23	Dismantling tile work in floors and roofs laid in cement mortar including stacking material within 50 metres lead.				
a	15.23.1	For thickness of tiles 10 mm to 25 mm	960.00	sqm	54.85	52656.00
73	15.25	Dismantling stone slab flooring laid in cement mortar including stacking of serviceable material and disposal of unserviceable material within 50 metres lead.	1080.00	sqm	190.30	205524.00

74	15.28	Dismantling roofing including ridges, hips, valleys and gutters etc., and stacking the material within 50 metres lead of:				
a	15.28.1	G.S. Sheet	244.00	sqm	121.90	29744.00
75	15.32	Demolishing thatch roofing including mats, bamboo, jaffari etc. complete including stacking of serviceable material and disposal of unserviceable material within 50 metres lead.	122.00	sqm	41.30	5039.00
76	15.56	Dismantling old plaster or skirting raking out joints and cleaning the surface for plaster including disposal of rubbish to the dumping ground within 50 metres lead.	1658.00	sqm	39.00	64662.00
77	15.60	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means, including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all leads including all lifts involved.	1414.00	cum	138.85	196334.00
78	16.42	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 40 mm nominal size) in pavements, laid to required slope and camber in panels as required including consolidation finishing and tamping complete.	122.00	cum	6840.85	834584.00
79	16.53	Providing and fixing concertina coil fencing with punched tape concertina coil 600 mm dia 10 metre openable length (total length 90 m), having 50 nos rounds per 6 metre length, upto 3 m height of wall with existing angle iron 'Y' shaped placed 2.4 m or 3.00 m apart and with 9 horizontal R.B.T. reinforced barbed wire, stud tied with G.I. staples and G.I. clips to retain horizontal, including necessary bolts or G.I. barbed wire tied to angle iron, all complete as per direction of Engineer-in-charge, with reinforced barbed tape(R.B.T.) / Spring core (2.5mm thick) wire of high tensile strength of 165 kg/ sq.mm with tape (0.52 mm thick) and weight 43.478 gm/ metre (cost of M.S. angle, C.C. blocks shall be paid separately)	1920.00	metre	290.80	558336.00

80	16.69	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	44.00	cum	8376.15	368551.00
81	16.91	Providing and laying factory made chamfered edge Cement Concrete paver block in foot path, park & lawns driveway or light & traffic parking etc. of required strength, thickness & size/shape, made by table vibratory method using PU mould, laid in required colour & pattern over 50mm thick compacted bed of course sand, compacting and proper embedding/laying of inter locking paver blocks into the sand bedding layer through vibratory compaction by using plate vibrator, filling the joints with sand and cutting of paver blocks as per required size and pattern, finishing and sweeping extra sand, all complete as per manufacture's specifications & direction of Engineer-in-Charge.				
a	16.91.1	(a) 60mm thick Cement concrete paver block of M-35 grade with approved colour, design & pattern.	960.00	sqm	884.75	849360.00
82	17.35	Providing and fixing soil, waste and vent pipes :				
a	17.35.1	100 mm dia				
b	17.35.1.1	Sand cast iron S&S pipe as per IS: 1729	358.00	metre	1008.20	360936.00
83	17.39	Providing and fixing plain bend of required degree.				
a	17.39.1	100 mm dia				
b	17.39.1.1	Sand cast iron S&S as per IS - 1729	358.00	each	381.35	136523.00
84	17.6	Providing and fixing trap of self cleansing design with screwed down or hinged grating with or without vent arm complete, including cost of cutting and making good the walls and floors :				
a	17.60.1	100 mm inlet and 100 mm outlet				
b	17.60.1.1	Sand cast iron S&S as per IS: 3989	120.00	each	1512.55	181506.00

85	18.1	Providing and fixing G.I. pipes complete with G.I. fittings and clamps, i/c cutting and making good the walls etc.				
		Internal work - Exposed on wall				
a	18.10.1	15 mm dia nominal bore	1080.00	metre	284.90	307692.00
b	18.10.2	20 mm dia nominal bore	358.00	metre	344.10	123188.00
	18.10.3	25 mm dia nominal bore	358.00	metre	438.00	156804.00
	18.10.4	32 mm dia nominal bore	244.00	metre	529.70	129247.00
86	18.11	Providing and fixing G.I. Pipes complete with G.I. fittings and clamps, i/c making good the walls etc. concealed pipe, including painting with anti corrosive bitumastic paint, cutting chases and making good the wall :				
a	18.11.1	15 mm dia nominal bore	840.00	metre	447.60	375984.00
	18.11.2	20 mm dia nominal bore	488.00	metre	494.10	241121.00
87	18.17	Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end) :				
a	18.17.1	25 mm nominal bore	180.00	each	497.15	89487.00
b	18.17.2	32 mm nominal bore.	171.00	each	581.25	99394.00
88	18.46	Providing and fixing G.I. Union in G.I. pipe including cutting and threading the pipe and making long screws etc. complete (New work) :				
a	18.46.1	15 mm nominal bore	732.00	each	235.75	172569.00
b	18.46.2	20 mm nominal bore	488.00	each	261.15	127441.00
	18.46.3	25 mm nominal bore	358.00	each	340.10	121756.00
	18.46.4	32 mm nominal bore	244.00	each	384.25	93757.00
89	18.76	Cutting holes up to 30x30 cm in walls including making good the same:				
a	18.76.1	With common burnt clay F.P.S. (non modular) bricks	488.00	each	327.25	159698.00
90	18.78	Making chases up to 7.5x7.5 cm in walls including making good and finishing with matching surface after housing G.I. pipe etc.	358.00	metre	154.15	55186.00
91	19.2	Providing and laying cement concrete 1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) all-round S.W. pipes including bed concrete as per standard design :				
a	19.2.3	200 mm diameter S.W. pipe	358.00	metre	1164.80	416998.00
92	19.4	Providing and fixing square-mouth S.W. gully trap class SP-1 complete with C.I. grating brick masonry chamber with water tight C.I. cover with frame of 300 x300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design:				
	19.4.1	100x100 mm size P type				

a	19.4.1.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	244.00	each	2307.00	562908.00
93	19.7	Constructing brick masonry manhole in cement mortar 1:4 (1 cement : 4 coarse sand) with R.C.C. top slab with 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), foundation concrete 1:4:8 mix (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement complete as per standard design :				
	19.7.1	Inside size 90x80 cm and 45 cm deep including CI cover with frame (Medium duty) 455x610 mm internal dimensions, of KK manhole & grating				
a	19.7.1.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	114.00	each	10905.05	1243176.00
94	19.27	Constructing brick masonry road gully chamber 50x45x60 cm with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) including 500x450 mm pre-cast R.C.C. horizontal grating with frame complete as per standard design :				
a	19.27.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	174.00	each	5209.10	906383.00
95	21.1	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) :				
a	21.1.1	For fixed portion				

	21.1.1.2	Powder coated aluminium (minimum thickness of powder coating 50 micron)	2440.00	kg	456.30	1113372.00
b	21.1.2	For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber / neoprene gasket required (Fittings shall be paid for separately)				
	21.1.2.2	Powder coated aluminium (minimum thickness of powder coating 50 micron)	1680.00	kg	546.35	917868.00
96	21.2	Providing and fixing 12 mm thick pre-laminated particle board flat pressed three layer or graded wood particle board conforming to IS: 12823 Grade I Type II, in panelling fixed in aluminum doors, windows shutters and partition frames with C.P. brass / stainless steel screws etc. complete as per architectural drawings and directions of engineer-in-charge.				
a	21.2.2	Pre-laminated particle board with decorative lamination on both sides	204.00	sqm	1046.90	213568.00
97	21.3	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge . (Cost of aluminium snap beading shall be paid in basic item):				
a	21.3.2	With float glass panes of 5.50 mm thickness	488.00	sqm	1296.40	632643.00

98	14.91	Providing and laying APP (Atactic Polypropylene Polymer) modified prefabricated five layer 3 mm thick water proofing membrane, black finished reinforced with non-woven polyester matt consisting of a coat of bitumen primer for bitumen membrane @ 0.40 litre/sqm by the same membrane manufacture of density at 25°C, 0.87-0.89 kg/ litre and viscosity 70-160 cps. Over the primer coat the layer of membrane shall be laid using Butane Torch and sealing all joints etc, and preparing the surface complete. The vital physical and chemical parameters of the membrane shall be as under : Joint strength in longitudinal and transverse direction at 23°C as 650/450N/5cm. Tear strength in longitudinal and transverse direction as 300/250N. Softening point of membrane not less than 150°C. Cold flexibility shall be upto -2°C when tested in accordance with ASTM, D - 5147. The laying of membrane shall be got done through the authorised applicator of the manufacturer of membrane :				
a	14.91.1	3 mm thick	2440.00	sqm	535.00	1305400.00
99	8.32	Designing, fabricating, testing, installing and fixing in position Curtain Wall with Aluminium Composite Panel Cladding, with open grooves for linear as well as curvilinear portions of the building , for all heights and all levels etc. including:				
		a) Structural analysis & design and preparation of shop drawings for pressure equalisation or rain screen principle as required, proper drainage of water to make it watertight including checking of all the structural and functional design.				

		b) Providing, fabricating and supplying and fixing panels of aluminium composite panel cladding in pan shape in metallic colour of approved shades made out of 4mm thick aluminium composite panel material consisting of 3mm thick FR grade mineral core sandwiched between two Aluminium sheets (each 0.5mm thick). The aluminium composite panel cladding sheet shall be coil coated, with Kynar 500 based PVDF / Lumiflon based fluoropolymer resin coating of approved colour and shade on face # 1 and polymer (Service) coating on face # 2 as specified using stainless steel screws, nuts, bolts, washers, cleats, weather silicone sealant, backer rods etc.				
		c) The fastening brackets of Aluminium alloy 6005 T5 / MS with Hot Dip Galvanised with serrations and serrated washers to arrest the wind load movement, fasteners, SS 316 Pins and anchor bolts of approved make in SS 316, Nylon separators to prevent bi-metallic contacts all complete required to perform as per specification and drawing The item includes cost of all material & labour component, the cost of all mock ups at site, cost of all samples of the individual components for testing in an approved laboratory, field tests on the assembled working curtain wall with aluminium composite panel cladding, cleaning and protection of the curtain wall with aluminium composite panel cladding till the handing over of the building for occupation. Base frame work for ACP cladding is payable under				
		the relevant aluminium item.s The Contractor shall provide curtain wall with aluminium composite panel cladding, having all the performance characteristics all complete , as per the Architectural drawings, as per item description, as specified, as per the approved shop drawings and as directed by the Engineer-in-Charge. However, for the purpose of payment, only the actual area on the external face of the curtain wall with Aluminum Composite Panel Cladding (including width of groove) shall be measured in sqm. up to two decimal places.	264.00	sqm	4309.80	1137787.00

100	NS	Providing and fixing panelling or panelling and glazing in panelled or panelled and glazed shutters for doors, windows and clerestory windows (Area of opening for panel inserts excluding portion inside grooves or rebates to be measured). Panelling for panelled or panelled and glazed shutters 25 mm to 40 mm thick :				
a		(a) 12mm thick ply board both side teak veneering (Duro, Green ply, Marino Make or equivalent)	200.00	sqm	3717.20	743440.00
101	NS	Providing & Fixing decorative high pressure laminated sheet of plain / wood grain in gloss / matt/ suede finish with high density protective surface layer and reverse side of adhesive bonding quality conforming to IS : 2046 Type S, including cost of adhesive of approved quality.(Marino lam, Green ply, Duro make or equivalent)				
a		1.0 mm thick	750.00	sqm	819.35	614513.00
b		0.8 mm thick	850.00	sqm	621.80	528530.00
102	NS	Providing and fixing ply wood in plain lining on frame with necessary glue, screws, priming coat on unexposed surface etc., complete as per direction of Engineer-in- charge (12mm thick BWP plywood (Duro, Green ply, Marino make or equivalent)	470.00	sqm	1851.85	870370.00
103	NS	Providing and fixing Ist quality glazed vitrified wall tiles of Kajaria eternity make polish metal series or equivalent of size 300x600 (thickness to be specified by the manufacturer), of approved make, in all colours and shades as approved by Engineer-in-Charge, in skirting, risers of steps and dados, over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete.	470.00	sqm	1902.20	894034.00

104	NS	Providing and fixing Ist quality glazed vitrified wall tiles of Kajaria eternity make metal decor series or equivalent of size 400x800 (thickness to be specified by the manufacturer), of approved make, in all colours and shades as approved by Engineer-in-Charge, in skirting, risers of steps and dados, over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete.	470.00	sqm	2080.15	977671.00
105	NS	Providing and laying glazed vitrified floor tiles of Kajaria eternity make metal series or equivalent of size 600x600 (thickness to be specified by the manufacturer), with water absorption less than 0.08% and conforming to IS: 15622, of approved brand & manufacturer, in all colours and shade, laid on 20 mm thick bed of cement mortar 1:4 (1 Cement : 4 Coarse sand), including pointing the joints with white cement and matching pigments etc., complete.	470.00	sqm	1980.45	930812.00
106	NS	Providing and laying glazed vitrified floor tiles of Kajaria eternity make HD polished, HD Sugar Hone, Rotto Matt, HD Satin, Accent series or equivalent of size 800x800 (thickness to be specified by the manufacturer), with water absorption less than 0.08% and conforming to IS: 15622, of approved brand & manufacturer, in all colours and shade, laid on 20 mm thick bed of cement mortar 1:4 (1 Cement : 4 Coarse sand), including pointing the joints with white cement and matching pigments etc., complete.	470.00	sqm	1741.65	818576.00
107	NS	Providing and fixing 12mm thick plain glass to shelves duly grinded and edges polished with necessary screws & washers and brackets etc. complete as per direction of Engineer-in -charge.	400.00	sqm	2465.35	986140.00
108	NS	Providing and fixing 10 mm thick plain, toughned glass for frames like kitchen window etc. fixing with 2nd class teak wood moulding of different sizes to fixing glass around the frame etc. complete as per direction of Engineer-in-Charge. (Wooden moulding will be paid separately)	400.00	sqm	2592.25	1036900.00

109	NS	Providing and fixing fly proof S.S. wire gauze to windows and clerestory windows using galvanised Stainless steel wire guage (Grade-304) aperture 1.4mm and 0.50 mm dia wire wherever required with beading/flats etc. complete as per direction of Engineer-in-charge. (Beading/ flats shall be paid separately)	540.00	sqm	1390.85	751059.00
110	NS	Removing and refixing of old doors / window /ventilator shutters from the wooden frames in fine fit position to existing wooden frames for door and window shutters respectively i/c necessary repairs to shutters and window frame work with second class teak wood with necessary glue, nails, etc. all complete as per direction of Engineer-in-Charge (New hinges to be paid separately and opening area i/c frame shall be measured for payment purpose and Old dismanteled hinges shall be the property of the contractor and shall be disposed off by him without any cost from site of work).	540.00	sqm	1408.25	760455.00
111	NS	Providing and fixing drawer with 19 mm thick block board of Duro make or equivalent having 6mm thick on base with telescopic channel of approved make in runners fixed with screws etc. complete i/c painting/ polishing etc. complete as per direction of Engineer-in-charge. (Plan area of drawer will be measured for payment)				
a		Size :- 15 cm high drawer	175.00	sqm	11574.95	2025616.00
b		Size :- 21 cm high drawer	175.00	sqm	13048.85	2283549.00
112	NS	Providing and fixing stainless steel oval shape hanger rod glossy finish of approved make with stainless steel bracket & screws etc. complete as per direction of Engineer-in-charge.	320.00	metre	473.30	151456.00
113	NS	Providing and fixing PVC adjustable legs load bearing capacity 350 kg/each wide foot diametre 80mm in a black polish finish etc. complete as per direction of Engineer-in-charge.	300.00	each	301.40	90420.00
114	NS	Providing and fixing stainless steel grain basket of stallion make or equivalent in cost of approved make with telescopic channels stainless steel patti / bracket, nails, stainless steel screws etc. complete as per direction of Engineer-in-charge.				
a		Grain Trolley (Base mounted) of size 21" x 20" x 12"	225.00	each	5729.60	1289160.00

115	NS	Providing and fixing stainless steel imported Dishrack of Stallion make or equivalent in cost of approved make with stainless steel patti/bracket, nails, S.S. screws etc. complete as per direction of Engineer-in-charge.				
a		Imported Dishrack of size 900mm.	250.00	each	4425.70	1106425.00
116	NS	Providing and fixing stainless steel pull out unit of Stallion make or equivalent in cost of approved make with telescopic channels, stainless steel patt / bracket, nails, stainless steel screws etc. complete as per direction of Engineer-in-charge.				
a		2 Basket Bottel Pull out unit (Base mounted) of size 9" x 20" x 19"	100.00	each	5559.55	555955.00
117	NS	Providing and fixing stainless steel right angle drawer of Stallion make or equivalent in cost of approved make with telescopic channels, stainless steel patti / bracket, nails, stainless steel screws etc. complete as per direction of Engineer-in-charge.				
a		Right angle drawer of size 22" x 20" x 6"	120.00	each	3632.00	435840.00
b		Large utensils basket of size 26" x 20" x 6"	120.00	each	3972.15	476658.00
c		Large utensils basket of size 34" x 20" x 6"	120.00	each	4652.45	558294.00
118	NS	Providing and fixing stainless steel Cup & Saucer basket of Stallion make or equivalent in cost of approved make with telescopic channels, stainless steel patti / bracket, nails, stainless steel screws etc. complete as per direction of Engineer-in-charge.				
a		Cup & Saucer Basket of size 22" x 20" x 4"	120.00	each	3802.10	456252.00
b		Cup & Saucer Basket of size 16" x 20" x 4"	140.00	each	3065.10	429114.00
119	NS	Providing and fixing stainless steel Plate basket of Stallion make or equivalent in cost of approved make with telescopic channels, stainless steel patt / bracket, nails, stainless steel screws etc. complete as per direction of Engineer-in-charge.				
a		Plate Basket of size 22" x 20" x 6".	140.00	each	3858.75	540225.00
120	NS	Providing and fixing stainless steel Cutery basket of Stallion make or equivalent in cost of approved make with telescopic channels, stainless steel patti/ bracket, nails , stainless steel screws etc. complete as per direction of Engineer-in-chargee.				
a		Cutlery Basket of size 22" x 20" x 4"	140.00	each	4482.40	627536.00

121	NS	Providing and fixing stainless steel Corrousel of Stallion make or equivalent in cost of approved make with stainless steel patti/bracket, nails, stainless steel screws etc. complete as per direction of Engineer-in-charge.				
a		Corrousel corner unit dia 28"	140.00	each	7713.85	1079939.00
122	NS	Providing and fixing stainless steel handles heavy type with golden back ground finish of approved make and pattern with nails, stainless steel screws etc. complete as per direction of Engineer-in-charge.				
a		S.S handle of size 230 mm	710.00	each	245.80	174518.00
123	NS	Providing and fixing designer wooden picture rail with 75mm long rawl plug and including melamine polish on surface etc. complete : (a) 2nd class teak wood				
a		Size :- 100 x 65 mm	710.00	metre	1042.70	740317.00
124	NS	Providing and fixing cup board door shutters one side teak interior grade commercial block board & well matched commercial ply veneering with vertical grains or cross bands on one side and teak veneering on other side of shutter.				
a		19mm thick (One side teak on one face) of Duro, Green ply, Marino make or equivalent including Nickle plated bright finished M.S. piano hinges with necessary screws.	500.00	sqm	3112.45	1556225.00
125	NS	Providing and fixing shelves of approved make complete as per direction of Engineer in charge.				
a		19 mm block board one side teak (of Duro, Green ply, Marino make or equivalent)	500.00	sqm	2500.05	1250025.00
126	NS	Providing and fixing 4mm thick Designer ply wood veneering plain lining of special design of approved maker4 on wooden frame with necessary screws and adhesive etc. Complete as per direction of Engineer-0in-charge. (a) Golden teak (Green ply make Cat-G, Golden teak species or equivalent as approved by Engineering in charge.	500.00	sqm	2052.20	1026100.00

127	NS	Providing and fixing 5mm thick looking mirror of superior quality (Modiguard / Atul make or equivalent) with 12mm thick commercial plywood in back of looking mirror & fixed to window cleats with CP brass screws & washers complete with 50mm wide 2nd class teak wood ornamental beading all around the mirror including polishing and fixing with teakwood plug etc. complete as per direction of Engineer-in-Charge	500.00	sqm	3409.55	1704775.00
128	NS	Providing and fixing ply wood, confirming to IS:1328 and adhesive : 848 in shelves backing and wherever necessary with glue, screws, priming coat on unexposed surface etc. Complete as per direction of Engineer-in-charge (a) 6mm thick ply board one side teak & other side commercial veneering (Duro make or equivalent)	600.00	sqm	1587.85	952710.00
129	NS	Providing & Fixing full bamboo Jaffrey of size 30mm to 40mm Ø (dia) bamboo placed vertically and fixed together with 2 nos. Hollack wood battens of size 5cm x 2.50cm with nails and G I wire on existng support including painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade with two or more coats on new work over an under coats of suitable shade with ordinary paint of approved brand and manufacture complete as per direction of Engineer in charge .	1800.00	sqm	1037.55	1867590.00
130	NS	Providing and fixing factory made cement concrete slab of size 400x400x50mm manufactured by using M-30 grade of concrete and by vibro compaction method of K.K. or equivalent including setting in position in pavement area of required level and line over a bed of 20 mm average thick base of cement mortar 1:4 (1 cement : 4 coarse sand) including filling the joints with same cement mortar etc. Complete as peer direction of the Engineer-in-charge.	1650.00	sqm	1160.35	1914578.00
131	NS	Providing and fixing unplastic PVC seal fit pipes of confirming to IS 13592 6kg/Cm2 working pressure class 3 including jointed with seal rings confirming to IS 5382 leaving 10 mm gap for thermal expansion(a) single socket pipes				
a		110mm dia	270.00	metre	738.25	199328.00
b		160mm dia	280.00	metre	1393.85	390278.00
c		200mm dia	290.00	metre	2129.70	617613.00

132	NS	Providing and fixing frameless shower enclosure 10mm thick plain toughened glass with door on one face (opening not less than 75cm) complete including necessary stainless steel hardware like handle, brackets, connectors, silicon etc. of approved make etc. complete as per direction of Engineer-in-charge.	120.00	sqm	7917.90	950148.00
133	NS	Providing and fixing C.P. Brass over head shower 150x150mm square shape single flow with rubit cleaning system Cat No. Ohs-1805+ with shower arm 400x25x25mm square shape for wall mounted shower with flange Cat No. SHA-455 L 400 of jaquar make or equivalent in cost of approved make complete as per direction of Engineer-in-charge	300.00	each	5438.60	1631580.00
134	NS	Providing and fixing CP 600mm long braided hose with M10x1 nipple, 15mm nut, O ring & rubber washer (suitable for tall boy basin mixers) Cat No. ALD-801B of jaquar make or equivalent make in cost of approved make as per direction of Engineer-in-Charge	300.00	each	279.65	83895.00
135	NS	P/F CP Brass cockroch Jali (Trap) round 127x127 mm size of Jaina make Glosy finish cat No. CBS 127 Classic series of jaina make or equivalent in cost of approved make as approved by Engineer-in-Charge.	630.00	each	546.05	344012.00
136	NS	Providing and fixing slim concealed cistern with wall mounting frame installation kit and drain pipe connection set wall hung EWC without flush control plate+ control plate reflect CP finish of Jaquar make complete Cat No. CIB-WHT 31801011XWD-CIS-CHR-31199019 as per direction of Engineer-in-Charge	110.00	each	15411.25	1695238.00
137	NS	Providing and fixing single lever exposed park kit of high flow diverter consisting of optertive lever, wall flange and button only Cat No. KUB 35079FK of Jaquar make or equivalent in cost of approved make as per direction of Engineer-in-Charge.	270.00	each	3329.65	899006.00
138	NS	Providing and fixing CP concealed body for single lever high flow diverter with button assembly, cartridge sleeve but without exposed part chrome finish cat no. ALD-079 of Jaquar make or equivalent in cost of approved make as approved by Engineer-in-Charge.	270.00	each	3136.90	846963.00

139	NS	Providing and Fixing C.P. Health Faucet with 1 Mtr. Long flexible tube with wall hook of Jaquar make (code-ALD-573) or equivalent in cost of approved make all complete as per direction of Engineer-in-Charge.	650.00	each	1436.15	933498.00
140	NS	Providing and fixing C.P. brass soap dish of Jaquar make (code-ACN-1131N) or equivalent in cost of approved make all complete as per direction of Engineer-in-charge.	650.00	each	562.20	365430.00
141	NS	Providing and fixing C.P. brass toilet paper holder with flap of Jaquar make (code-ACN-1153N) or equivalent in cost of approved make all complete as per direction of Engineer-in-Charge.	650.00	each	1183.15	769048.00
142	NS	Providing and fixing double armed wall mounted reversible plain/magnifying (X3) Pivotal Mirror cat no CAN-1193N of jaquar or equivalent in cost as approved by engineer-in-Charge	270.00	each	3873.90	1045953.00
143	NS	Providing and fixing pastel colour counter top self rimming wash basin of Hindware Italian collection make Cat No. 91028 (75x46) or equivalent in cost of approved as per direction of engineer-in-Charge	80.00	each	16286.20	1302896.00
144	NS	Providing and fixing single lever Angular stop cock with wall flange Cat No. KUB-35053F of jaquar make or equivalent in cost of approved make as per direction of Engineer-n-charge. .	650.00	each	1311.45	852443.00
145	NS	Providing and fixing single lever bib cock with wall flange Cat No. KUB 35037F of Jaquar make or equivalent in cost of approved make as per direction of Engineer-in-charge.	750.00	each	1572.20	1179150.00
146	NS	Providing and fixing Towel rack 600mm Long with Hangers Cat No. ACN-CHR-1181N of Jaquar make as per direction of Engineer-in-Charge	590.00	each	2536.00	1496240.00
147	NS	Providing and fixing Towel rail 600mm Long Cat No. ACN-CHR-1111NM of Jaquar make as per direction of Engineer-in-Charge	590.00	each	1130.00	666700.00
148	NS	Providing and fixing pastel colour Italian collection one piece Wave series closet EWC of Hindware Cat no. 92066 of Hindware make or equivalent in cost of approved make complete as per direction of Engineer -in-charge.	60.00	each	29316.65	1758999.00
149	NS	Providing and fixing pastel colour Table Top Wash basin MAGNA 63x50 of Hindware make Cat No. 10079 as per direction of Engineer -in-charge.	60.00	each	10485.45	629127.00

150	NS	Providing and fixing pastel colour complete set of Orrisa pan WC of Hindware Cat No. 20042 of Hindware make collection with PVC cistern Sleek Fresh ISI of Hindware make or equivalent in cost of approved make complete as per direction or Engineer-in-charge.	60.00	each	8031.75	481905.00
151	NS	Providing and fixing POP Cornice as per approved sample including curved portion etc. all complete as per the direction of Engineer-in-charge.				
a		Size 100x100 mm	760.00	metre	264.60	201096.00
152	NS	Preparation of surface by applying a coat of putty consisting of chalk mitti (whiting) and synthetic enamel paint in the ratio of 4 kg : 1 litre respectively and by adding water to achieve desire consistency on scrapped wall surface (cost of scrapping of wall, applying cement primer will be paid separately) and sand papering to make the surface level and smooth including making good the surface to proper shape and in presentable condition complete as per the direction of Engineer-in-Charge.	710.00	sqm	74.50	52895.00
153	N.S	Making of moulded cornice first dismantling of damaged /cracked cornice with high precision i.e. Without damaging of base, scrapping the surface with wire brushes etc. to receive new mortar, making new 18mm thick moulded cornice, with under layer of 12mm cement mortar 1:5 (1cement :5 fine sand) & top layer thick 6mm 1:4 (1 cement :4 fine sand) in identical shape, pattern & design as per direction of Engineer-in-charge.	15000.00	m/cm	41.45	621750.00
154	N.S	Recovery on account of credit of old dismantled material like angle iron, Tee iron, square or round MS pipes etc. (For the purpose of measurment length shall be measured and weighth calculated as per standard steel sections)	890.00	Kg	-20.00	-17800.00
155	N.S	Recovery on account of credit of old dismantled material like CP Brass Bib Cocks, wall mixers, piller cocks, Angle valve, Sink Mixers etc	190.00	Kg	-250.00	-47500.00
156		Recovery of old dismantled wooden doors, windows & chowkhat which will be the property of contractor and shall be disposed off by him without any cost.				
a		Panelled /glazed/ wire gauged doors shutter of any size	610.00	each	-1000.00	-610000.00
b		Window shutter/window chowkhat any size	470.00	each	-800.00	-376000.00

157	NS	P/L 40mm thick gang saw cut (selected) rubbed red sand stone flooring over 20mm (average) thick based cement mortar 1:5 (1 cement: 5 coarse sand) with joints 3mm thick side buttered with cement mortar 1:2 (1 cement: 2 stone dust) admixed with pigment to match the shade of stone and pointing with same mortar	740.00	sqm	1476.75	1092795.00
158	NS	Providing and fixing hard drawn sheet wire fabric 75x25 mesh of weight not less than 7.75 kg per sqm. To angle iron frame by welding etc. complete as per direction of Engineer-in-Charge (Welding angle iron will be paid separately)	740.00	sqm	746.90	552706.00
159	NS	Plastering of R.B. roof with 21mm thick cement plaster in two coats under laying 15mm thick cement mortar 1:3 (1 cement: 3 coarse sand) and top layer 6mm thick with cement mortar 1:3 (1 cement: 3 fine sand) i/c P/F rabbit wire mesh binding with old reinforcement with wire of dia 3mm and cement slurry @ 2kg/sqm complete as per direction of Engineer-in-Charge.	270.00	sqm	698.05	188474.00
160	NS	Providing & fixing 0.80mm thick aluminium sheet having 2.24 kg per sqm in back side of kitchen cabinet and existing door and almirah etc. including cutting hoisting and fixing with nails complete as per direction of engineer-in-charge.	270.00	sqm	228.25	61628.00
161	NS	Providing & fixing 25mm thick factory made coloured moulded permanent finish concrete GRC floor designer tiles of M-30 grade made as per manufacturer specification of approved make (UNISTONER, ULTRA, FLAG, STONE or equivalent) Design, shape & colour laid in required pattern over 20 mm thick cement mortar 1:4 (1 cement : 4 coarse sand) as per direction of Engineer-in-charge	740.00	sqm	1498.05	1108557.00
162	NS	Providing and placing on terrace white colour three layer Sintex make or equivalent (at all floor levels) polyethylene water storage tank, ISI : 12701 marked, with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank.	159000.00	litre	12.10	1923900.00

163	NS	Extra for providing and fixing as per ISI marked brass butt hinges 100x70x4mm and 50x40x2.5mm (sigma make or equivalent) instead of black enamelled M.S. butt hinges with necessary screws in door and window shutter. (Shutter area to be measured).				
	a	For single leaf shutter	395.00	sqm	508.75	200956.00
	b	For double leaf shutter	365.00	sqm	1017.45	371369.00
164	NS	Scrapping Old paint or polish from doors / windows etc. with help of paint remover machine with sand paper F-36 round of belt sand paper M-36 & M-100 in respectively order till original surface complete visible i/e manual scrapping and removing with blades / knives etc. stacking the scrapped door / windows at the location in the bungalow as per direction of Engineer-in-charge.	800.00	sqm	631.60	505280.00
165	NS	Providing and fixing 6mm thick polygal (Muticell/X structure) polycarbonbate sheet roofing up to any pitch, including fixing with aluminium strip of size 40x4mm i/c screws & washers complete but excluding the cost of purlins, rafters, trusses etc. as per direction of Engineer-in-charge.	800.00	sqm	2384.70	1907760.00
166	NS	Providing and fixing 8mm thick polygal (Muticell/X structure) polycarbonbate sheet roofing up to any pitch, including fixing with aluminium strip of size 40x4mm i/c screws & washers complete but excluding the cost of purlins, rafters, trusses etc. as per direction of Engineer-in-charge.	500.00	sqm	2561.30	1280650.00
167	NS	Providing and applying super fine plaster of paris 8 to 10 mm thickness in line level and plum over plastered surface to prepare the surface even smooth complete as per direction of Engineer-in-charge (a) With P.O.P. of sriram, sakarni or equivalent.	550.00	sqm	434.00	238700.00
168	NS	Making pillar base ornamental mouldings including base pedestal after dismantling damaged cracked moulding & bases of existing circular and square pillars with cement mortar 1:3 (1 cement : 3 coarse sand) as per existing patterns as per direction of the Engineer in charge. (The work shall be carried out by highly professionally skilled mason and labour etc, without causing any damages to the existing pillar/columns etc.	160.00	each	5318.00	850880.00

169	NS	Cleaning of choked sewerline pipe of any diameter by using rods disc rope or any other materials taking out silt and disposal of malba at dumping ground as per direction of Engineer-in-charge.	1700	metre	83.45	141865.00
170	NS	Cleaning of manhole of various size and depth including washing the walls and flushing out the line with water and taking all the silt rubbish etc. with is 50m lead as per direction of Engineer-in-charge.	5000	each	163.15	815750.00
171	NS	Cleaning roof by removing rubbish/malba, waste etc. including removing vegetation and all other foreign materials etc from all over terrace and also from the space under storage tanks and from khurras, sunshade etc. including brooming the terrace and stacking the rubbish/malba near central dome at terrace complete as per direction of Engineer-in-charge. (The terrace shall be cleaned periodically after every three months).	565000	sqm	1.90	1073500.00

SH – III (Civil Work) : Minor works

S. No	DSR Code	Description	Qty	Unit	Rate	Estimated Amount
1	2.1	Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth upto 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m :				
	2.10.1	All kinds of soil				
	2.10.1.2	Pipes, cables etc. exceeding 80 mm dia. but not exceeding 300 mm dia	120	metre	364.20	43704.00
2	2.25	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	28	cum	219.65	6150.00
3	2.30	Excavating holes more than 0.10 cum & upto 0.5 cum including getting out the excavated soil, then returning the soil as required in layers not exceeding 20cm in depth, including consolidating each deposited layer by ramming, watering etc, disposing of surplus excavated soil, as directed within a lead of 50 m and lift upto 1.5 m.				
a	2.30.1	All kinds of soil	40	each	79.30	3172.00
4	4.1	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :				
a	4.1.3	1:2:4 (1 cement : 2 coarse sand (Zone-III) : 4 graded stone aggregate 20 mm nominal size)	30	cum	6788.60	203658.00
b	4.1.10	1:5:10 (1 cement : 5 coarse sand (Zone-III) : 10 graded stone aggregate 40 mm nominal size)	30	cum	5520.30	165609.00

5	5.18	Providing precast cement concrete Jali 1:2:4 (1 cement : 2 coarse sand: 4 graded stone aggregate 6 mm nominal size), reinforced with 1.6 mm dia mild steel wire, including centering and shuttering, roughening cleaning, fixing and finishing in cement mortar 1:3 (1 cement: 3 fine sand) etc. complete, excluding plastering of the jambs, sills and soffits.				
a	5.18.2	40 mm thick	380	sqm	1329.75	505305.00
6	6.1	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundation and plinth in:				
a	6.1.2	Cement mortar 1:6 (1 cement : 6 coarse sand)	12	cum	6175.45	74105.00
7	6.4	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level in all shapes and sizes in :				
a	6.4.2	Cement mortar 1:6 (1 cement : 6 coarse sand)	60	cum	7590.45	455427.00
8	8.2	Providing and fixing 18 mm thick gang saw cut, mirror polished, premoulded and prepolished, machine cut for kitchen platforms, vanity counters, window sills, facias and similar locations of required size, approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 coarse sand), joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing to edges to give high gloss finish etc. complete at all levels.				
a	8.2.2	Granite of any colour and shade				
b	8.2.2.1	Area of slab upto 0.50 sqm	24	sqm	4217.35	101216.00
9	8.4	Extra for fixing marble /granite stone, over and above corresponding basic item, in facia and drops of width upto 150 mm with epoxy resin based adhesive, including cleaning etc. complete.	12	metre	434.25	5211.00

10	8.5	Extra for providing opening of required size & shape for wash basin/ kitchen sink in kitchen platform, vanity counter and similar location in marble/ Granite/ stone work, including necessary holes for pillar taps etc. including moulding, rubbing and polishing of cut edges etc. complete.	8	each	734.55	5876.00
11	8.6	Mirror polishing on marble work/Granite work/stone work where ever required to give high gloss finish complete.	4000	sqm	368.00	1472000.00
12	10.1	Structural steel work in single section, fixed with or without connecting plate, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	800	kg	86.05	68840.00
13	10.16	Steel work in built up tubular (round, square or rectangular hollow tubes etc.) trusses etc., including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washers etc. complete.				
a	10.16.1	Hot finished welded type tubes	1200	kg	143.45	172140.00
14	10.25	Steel work welded in built up sections/ framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required.				
a	10.25.2	In gratings, frames, guard bar, ladder, railings, brackets, gates and similar works	4800	kg	131.00	628800.00
15	11.26	Kota stone slab flooring over 20 mm (average) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab, including rubbing and polishing complete with base of cement mortar 1 : 4 (1 cement : 4 coarse sand) :				
a	11.26.1	25 mm thick	120	sqm	1531.85	183822.00

16	8.31	Providing and fixing Ist quality ceramic glazed wall tiles conforming to IS: 15622 (thickness to be specified by the manufacturer), of approved make, in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge, in skirting, risers of steps and dados, over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete.	480	sqm	1030.30	494544.00
17	11.38	Providing and laying Ceramic glazed floor tiles of size 300x300 mm (thickness to be specified by the manufacturer), of 1st quality conforming to IS : 15622, of approved make, in all colours, shades, except White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick bed of cement mortar 1:4 (1 Cement : 4 Coarse sand), including pointing the joints with white cement and matching pigments etc., complete.	240	sqm	996.70	239208.00
18	11.47	Providing and laying Vitrified tiles in different sizes (thickness to be specified by the manufacturer), with water absorption less than 0.08% and conforming to IS: 15622, of approved brand & manufacturer, in all colours and shade, in skirting, riser of steps, laid with cement based high polymer modified quick set tile adhesive (water based) conforming to IS: 15477, in average 6 mm thickness, including grouting of joints (Payment for grouting of joints to be made separately).				
	11.47.2	Size of Tile 600x600 mm	120	sqm	1734.00	208080.00
	11.47.3	Size of Tile 800x800 mm	40	sqm	1994.95	79798.00
19	12.21	Providing gola 75x75 mm in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 stone aggregate 10 mm and down gauge), including finishing with cement mortar 1:3 (1 cement : 3 fine sand) as per standard design :				
a	12.21.1	In 75x75 mm deep chase	120	metre	237.25	28470.00

20	12.22	Making khurras 45x45 cm with average minimum thickness of 5 cm cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate of 20 mm nominal size) over P.V.C. sheet 1 m x1 m x 400 micron, finished with 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) and a coat of neat cement, rounding the edges and making and finishing the outlet complete.	40	each	244.05	9762.00
21	12.23	Providing sand stone slab for roofing and laying them in cement mortar 1 : 4 (1 cement : 4 coarse sand) over wooden karries or R.C.C. battens or structural steel sections (Karries or battens or structural steel sections to be paid separately), including pointing the ceiling joints with cement mortar 1:3 (1 cement : 3 fine sand) complete :				
a	12.23.1	Red sand stone slab				
b	12.23.1.1	40 to 50 mm thick	120	sqm	793.10	95172.00
22	12.42	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10 mm gap for thermal expansion.				
	12.42.5	Bend 87.5°				
a	12.42.5.2	110 mm bend	12	each	129.85	1558.00
23	12.43	Providing and fixing unplasticised - PVC pipe clips of approved design to unplasticised - PVC rain water pipes by means of 50x50x50 mm hard wood plugs, screwed with M.S. screws of required length, including cutting brick work and fixing in cement mortar 1:4 (1 cement : 4 coarse sand) and making good the wall etc. complete.				
a	12.43.2	110 mm	60	each	288.80	17328.00

24	12.47	Providing & fixing UV stabilised fiberglass reinforced plastic sheet roofing up to any pitch, including fixing with polymer coated 'J' or 'L' hooks, bolts & nuts 8mm dia. G.I plain/bitumen washers complete but excluding the cost of purlins, rafters, trusses etc. The sheets shall be manufactured out of 2400 TEX panel rovigs incorporating minimum 0.3% ultra-violet stabiliser in resin system under approximately 2400 psi and hot cured. They shall be of uniform pigmentation and thickness without air pockets and shall conform to IS 10192 and IS 12866. The sheets shall be opaque or translucent, clear or pigmented, textured or smooth as specified.				
a	12.47.1	2 mm thick corrugated (2.5" or 4.2" or 6") or step-down (2" or 3" or 6") as specified	60	sqm	1095.20	65712.00
25	12.50	Providing and fixing precoated galvanised iron profile sheets (size, shape and pitch of corrugation as approved by Engineer-in-charge) 0.50 mm (+ 0.05 %) total coated thickness with zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns. Sheet should have protective guard film of 25 microns minimum to avoid scratches during transportation and should be supplied in single length upto 12 metre or as desired by Engineer-in-charge. The sheet shall be fixed using self drilling /self tapping screws of size (5.5x 55 mm) with EPDM seal, complete upto any pitch in horizontal/ vertical or curved surfaces, excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required.	60	sqm	627.55	37653.00

26	12.53	<p>Providing and Fixing 15 mm thick densified tegular edged eco friendly light weight calcium silicate false ceiling tiles of approved texture spintone/ cosmos / Hexa or equivalent of size 595 x 595 mm in true horizontal level, suspended on inter locking metal grid of hot dipped galvanised steel sections (galvanising @ 120 grams per sqm including both side) consisting of main 'T' runner suitably spaced at joints to get required length and of size 24x38 mm made from 0.33 mm thick (minimum) sheet, spaced 1200 mm centre to centre, and cross 'T' of size 24x28 mm made out of 0.33 mm (Minimum) sheet, 1200 mm long spaced between main 'T' at 600 mm centre to centre to form a grid of 1200x600 mm and secondary cross 'T' of length 600 mm and size 24 x28 mm made of 0.33 mm thick (Minimum) sheet to be inter locked at middle of the 1200x 600 mm panel to form grid of size 600x600 mm, resting on periphery walls /partitions on a Perimeter wall angle pre-coated steel of size(24x24X3000 mm made of 0.40 mm thick (minimum) sheet with the help of rawl plugs at 450 mm centre to</p>				
		<p>centre with 25 mm long dry wall screws @ 230 mm interval and laying 15 mm thick densified edges calicum silicate ceiling tiles of approved texture (Spintone /Cosmos/ hexa) in the grid, including, cutting/ making opening for services like diffusers, grills, light fittings, fixtures, smoke detectors etc., wherever required. Main 'T' runners to be suspended from ceiling using G.I. slotted cleats of size 25x35x1.6 mm fixed to ceiling with 12.5 mm dia and 50 mm long dash fasteners, 4 mm G.I. adjustable rods with galvanised steel level clips of size 85 x 30 x 0.8 mm, spaced at 1200 mm centre to centre along main 'T', bottom exposed with 24 mm of all Tsections shall be pre-painted with polyster baked paint, for all heights, as per specifications, drawings and as directed by engineer-in-charge.</p>				

		NOTE:- only calcium silicate false ceiling area will be measured from wall to wall. No deduction shall be made for expose frames/opening (Cut outs) having Area less than 0.30 sqm. The calcium silicate ceiling tile shall have NRC value of 0.50 (Minimum). Light reflection > 85%, non-combustible as per B.S. 476 part IV, 100% humidity resistance and also having thermal conductivity <0.043 w/mK.	60	sqm	1643.95	98637.00
27	13.4	12 mm cement plaster of mix :				
	13.4.1	1:4 (1 cement: 4 coarse sand)	2400	sqm	276.15	662760.00
28	13.5	15 mm cement plaster on rough side of single or half brick wall of mix:				
	13.5.2	1:6 (1 cement: 6 coarse sand)	3200	sqm	303.90	972480.00
29	15.2	Demolishing cement concrete manually/ by mechanical means including disposal of material within 50 metres lead as per direction of Engineer - in - charge.				
a	15.2.1	Nominal concrete 1:3:6 or richer mix (i/c equivalent design mix)	8	cum	1737.45	13900.00
b	15.2.2	Nominal concrete 1:4:8 or leaner mix(i/c equivalent design mix)	12	cum	1072.80	12874.00
30	15.7	Demolishing brick work manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge.				
a	15.7.4	In cement mortar	8	cum	1469.90	11759.00
31	15.18	Dismantling steel work in built up sections in angles, tees, flats and channels including all gusset plates, bolts, nuts, cutting rivets, welding etc. including dismembering and stacking within 50 metres lead.	4000	kg	4.15	16600.00
32	15.25	Dismantling stone slab flooring laid in cement mortar including stacking of serviceable material and disposal of unserviceable material within 50 metres lead.	400	sqm	190.30	76120.00
33	15.32	Demolishing thatch roofing including mats, bamboo, jaffari etc. complete including stacking of serviceable material and disposal of unserviceable material within 50 metres lead.	400	sqm	41.30	16520.00

34	15.56	Dismantling old plaster or skirting raking out joints and cleaning the surface for plaster including disposal of rubbish to the dumping ground within 50 metres lead.	4000	sqm	39.00	156000.00
35	15.60	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means, including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all leads including all lifts involved.	120	cum	138.85	16662.00
36	16.69	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	8	cum	8376.15	67009.00
37	16.91	Providing and laying factory made chamfered edge Cement Concrete paver block in foot path, park & lawns driveway or light & traffic parking etc. of required strength, thickness & size/shape, made by table vibratory method using PU mould, laid in required colour & pattern over 50mm thick compacted bed of coarse sand, compacting and proper embedding/laying of inter locking paver blocks into the sand bedding layer through vibratory compaction by using plate vibrator, filling the joints with sand and cutting of paver blocks as per required size and pattern, finishing and sweeping extra sand, all complete as per manufacture's specifications & direction of Engineer-in-Charge.				

	16.91.1	(a) 60mm thick Cement concrete paver block of M-35 grade with approved colour, design & pattern.	80	sqm	884.75	70780.00
38	18.10	Providing and fixing G.I. pipes complete with G.I. fittings and clamps, i/c cutting and making good the walls etc.				
		Internal work - Exposed on wall				
a	18.10.1	15 mm dia nominal bore	240	metre	284.90	68376.00
b	18.10.2	20 mm dia nominal bore	240	metre	344.10	82584.00
39	18.18	Providing and fixing ball valve (brass) of approved quality, High or low pressure, with plastic floats complete :				
a	18.18.3	25 mm nominal bore	12	each	394.00	4728.00
b	18.18.2	20 mm nominal bore.	12	each	386.40	4637.00
c	18.18.1	15 mm nominal bore	12	each	338.70	4064.00
40	18.46	Providing and fixing G.I. Union in G.I. pipe including cutting and threading the pipe and making long screws etc. complete (New work) :				
a	18.46.1	15 mm nominal bore	24	each	235.75	5658.00
b	18.46.2	20 mm nominal bore	12	each	261.15	3134.00
41	18.76	Cutting holes up to 30x30 cm in walls including making good the same:				
a	18.76.1	With common burnt clay F.P.S. (non modular) bricks	60	each	327.25	19635.00
42	18.78	Making chases up to 7.5x7.5 cm in walls including making good and finishing with matching surface after housing G.I. pipe etc.	24	metre	154.15	3700.00
43	19.4	Providing and fixing square-mouth S.W. gully trap class SP-1 complete with C.I. grating brick masonry chamber with water tight C.I. cover with frame of 300 x300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design:				
	19.4.1	100x100 mm size P type				
	19.4.1.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	40	each	2307.00	92280.00

44	19.7	Constructing brick masonry manhole in cement mortar 1:4 (1 cement : 4 coarse sand) with R.C.C. top slab with 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), foundation concrete 1:4:8 mix (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement complete as per standard design :				
	19.7.1	Inside size 90x80 cm and 45 cm deep including R.C.C. cover with frame (Medium duty) 455x610 mm internal dimensions, of KK manhole & grating				
	19.7.1.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	12	each	10905.05	130861.00
45	19.27	Constructing brick masonry road gully chamber 50x45x60 cm with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) including 500x450 mm pre-cast R.C.C. horizontal grating with frame complete as per standard design :				
	19.27.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	32	each	5209.10	166691.00
46	14.1	Repairs to plaster of thickness 12 mm to 20 mm in patches of area 2.5 sq. meters and under, including cutting the patch in proper shape, raking out joints and preparing and plastering the surface of the walls complete, including disposal of rubbish to the dumping ground, all complete as per direction of Engineer-in-Charge.				
	14.1.2	With cement mortar 1:4 (1cement: 4 coarse sand)	160	sqm	429.60	68736.00

47	N.S.	Providing & Fixing full bamboo Jaffrey of size 30mm to 40mm Ø (dia) bamboo placed vertically and fixed together with 2 nos. Hollock wood battens of size 5cm x 2.50cm with nails and G I wire on existng support including painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade with two or more coats on new work over an under coats of suitable shade with ordinary paint of approved brand and manufacture complete as per direction of Engineer in charge ..	100	sqm	1037.55	103755.00
48	N.S.	Providing and fixing factory made cement concrete slab of size 400x400x50mm manufactured by using M-30 grade of concrete and by vibro compaction method of K.K. or equivalent in cost of approved make including setting in position in pavement area of required level and line over a bed of 20 mm average thick base of cement mortar 1:4 (1 cement: 4 coarse sand) including filling the joints with same cement mortar etc. Complete as per direction of the Engineer-in-charge.	100	sqm	1160.35	116035.00
49	N.S.	Providing and fixing unplastic PVC seal fit pipes of conforming to IS 13592 6kg/Cm ² working pressure class 3 including jointed with seal rings conforming to IS 5382 leaving 10 mm gap for thermal expansion(a) single socket pipes				
		(a) 110mm dia	60	metre	738.25	44295.00
		(b) 160mm dia	60	metre	1393.85	83631.00
		(c) 200mm dia	60	metre	2129.70	127782.00
50	N.S.	Providing and fixing CP 600mm long braided hose with M10x1 nipple, 15mm nut, O ring & rubber washer (suitable for tall boy basin mixers) Cat No. ALD-801B of jaquar make or equivalent make in cost of approved make as per direction of Engineer-in-Charge	10	each	279.65	2797.00

51	N.S.	P/F CP Brass cockroch Jali (Trap) round 127x127 mm size of Jaina make Glosy finish cat No. CBS 127 Classic series of jaina make or equivalent in cost of approved make as approved by Engineer-in-Charge.	10	each	546.05	5461.00
52	N.S.	Providing and fixing single lever exposed park kit of high flow divertor consisting of opertive lever, wall flange and button only Cat No. KUB 35079FK of Jaquar make or equivalent in cost of approved make as per direction of Engineer-in-Charge.	10	each	3329.65	33297.00
53	N.S.	Providing and fixing CP concealed body for single lever high flow diverter with button assembly, cartridge sleeve but without exposed part chrome finish cat no. ALD-079 of Jaquar make or equivalent in cost of approved make as approved by Engineer-in-Charge.	10	each	3136.90	31369.00
54	N.S.	Providing and Fixing C.P. Health Faucet with 1 Mtr. Long flexible tube with wall hook of Jaquar make (code-ALD-573) or equivalent in cost of approved make all complete as per direction of Engineer-in-Charge.	60	each	1436.15	86169.00
55	N.S.	Providing and fixing C.P. brass soap dish of Jaquar make (code-ACN-1131N) or equivalent in cost of approved make all complete as per direction of Engineer-in-charge.	60	each	562.20	33732.00
56	N.S.	Providing and fixing C.P. brass toilet paper holder with flap of Jaquar make (code-ACN-1153N) or equivalent in cost of approved make all complete as per direction of Engineer-in-Charge.	30	each	1183.15	35495.00
57	N.S.	Providing and fixing single lever Angular stop cock with wall flange Cat No. KUB-35053F of jaquar make or equivalent in cost of approved make as per direction of Engineer-n-charge. .	30	each	1311.45	39344.00
58	N.S.	Providing and fixing single lever bib cock with wall flange Cat No. KUB 35037F of Jaquar make or equivalent in cost of approved make as per direction of Engineer-in-charge.	30	each	1572.20	47166.00

59	N.S.	Providing and fixing Towel rack 600mm Long with Hangers Cat No. ACN-CHR-1181N of Jaquar make or equivalent in cost of approved make as per direction of Engineer-in-Charge	15	each	2536.00	38040.00
60	N.S.	Providing and fixing Towel rail 600mm Long Cat No. ACN-CHR-1111NM of Jaquar make or equivalent in cost of approved make as per direction of Engineer-in-Charge	15	each	1130.00	16950.00
61	N.S.	Providing and fixing pastel colour Italian collection one piece Wave series closet EWC of Hindware Cat no. 92066 of Hindware make or equivalent in cost of approved make complete as per direction of Engineer -in-charge.	15	each	29316.65	439750.00
62	N.S.	Providing and fixing pastel colour Table Top Wash basin MAGNA 63x50 of Hindware make Cat No. 10079 as per direction of Engineer - in-charge.	6	each	10485.45	62913.00
63	N.S.	Providing and fixing pastel colour complete set of Orrisa pan WC of Hindware Cat No. 20042 of Hindware make collection with PVC cistern Sleek Fresh ISI of Hindware make or equivalent in cost of approved make complete as per direction or Engineer-in-charge.	20	each	8031.75	160635.00
64	N.S.	P/L 40mm thick gang saw cut (selected) rubbed red sand stone flooring over 20mm (average) thick based cement mortar 1:5(1cement:5coarse sand) with joints 3mm thick side buttered with cement mortar 1:2 (1cement:2 stone dust)admixed with pigment to match the shade of stone and pointing with same mortar	100	sqm	1476.75	147675.00
65	N.S.	Providing and fixing hard drawn sheet wire fabric 75x25mesh of weight not less than 7.75 kg per sqm. To angle iron frame by welding etc. complete as per direction of Engineer-in-Charge(Welding angle iron will be paid separately	150	sqm	746.90	112035.00

66	N.S.	Recovery on account of credit of old dismantled material like angle iron, Tee iron, square or round MS pipes etc. (For the purpose of measurement length shall be measured and weight calculated as per standard steel sections) .	300	Kg	-20.00	-6000.00
67	N.S.	Recovery on account of credit of old dismantled material like CP Brass Bib Cocks, wall mixers, pillar cocks, Angle valve, Sink Mixers etc.	75	Kg	-250.00	-18750.00

SH-IV (Civil Work) : Security related works

Sl.	DSR 16	DESCRIPTION OF ITEMS	QTY	UNIT	RATE	ESTIMATED AMOUNT
1	2.8	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.				
	2.8.1	All kinds of soil.	600.00	cum	252.30	151380.00
2	2.25	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	600.00	cum	219.65	131790.00
3	4.1	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :				
	4.1.3	1:2:4 (1 cement : 2 coarse sand (zone-III) : 4 graded stone aggregate 20 mm nominal size).	30.00	cum	6788.60	203658.00
	4.1.11	1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size).	175.00	cum	5225.15	914401.00
4	6.1	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundation and plinth in:				
	6.1.2	Cement mortar 1:6 (1 cement : 6 coarse sand)	100.00	cum	6175.45	617545.00
5	9.20	Providing and fixing ISI marked flush door shutters conforming to IS : 2202 (Part I) decorative type, core of block board construction with frame of 1st class hard wood and well matched teak 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters.				
	9.20.1	35 mm thick including ISI marked Stainless Steel butt hinges with necessary screws	35.00	sqm	3023.95	105838.00

6	9.96	Providing and fixing aluminium sliding door bolts, ISI marked anodised (anodic coating not less than grade AC 10 as per IS : 1868), transparent or dyed to required colour or shade, with nuts and screws etc. complete :				
	9.96.2	250x16 mm	20.00	each	231.70	4634.00
7	9.97	Providing and fixing aluminium tower bolts, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade, with necessary screws etc. complete :				
	9.97.3	200x10 mm	20.00	each	90.00	1800.00
8	9.100	Providing and fixing aluminium handles, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade, with necessary screws etc. complete :				
	9.100.1	125 mm	40.00	each	59.65	2386.00
9	9.101	Providing and fixing aluminium hanging floor door stopper, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour and shade, with necessary screws etc. complete.				
	9.101.2	Twin rubber stopper	20.00	each	62.05	1241.00
10	10.2	Structural steel work riveted, bolted or welded in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	900.00	kg	101.75	91575.00
11	10.16	Steel work in built up tubular (round, square or rectangular hollow tubes etc.) trusses etc., including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washers etc. complete.				
	10.16.1	Hot finished welded type tubes	9800.00	kg	143.45	1405810.00

12	11.38	Providing and laying Ceramic glazed floor tiles of size 300x300 mm (thickness to be specified by the manufacturer), of 1st quality conforming to IS : 15622, of approved make, in all colours, shades, except White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick bed of cement mortar 1:4 (1 Cement : 4 Coarse sand), jointing with grey cement slurry @ 3.3kg/sqm including pointing the joints with white cement and matching pigments etc., complete.	1100.00	sqm	996.70	1096370.00
13	12.50	Providing and fixing pre-coated galvanised iron profile sheets (size, shape and pitch of corrugation as approved by Engineer-in-charge) 0.50 mm (+ 0.05 %) total coated thickness with zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns. Sheet should have protective guard film of 25 microns minimum to avoid scratches during transportation and should be supplied in single length upto 12 metre or as desired by Engineer-in-charge. The sheet shall be fixed using self drilling /self tapping screws of size (5.5x 55 mm) with EPDM seal, complete upto any pitch in horizontal/ vertical or curved surfaces, excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required.	1800.00	sqm	627.55	1129590.00
14	13.1	12 mm cement plaster of mix :				
	13.1.2	1:6 (1 cement: 6 fine sand)	300.00	sqm	254.25	76275.00

15	16.18	Fencing with angle iron post placed at required distance embedded in cement concrete blocks, every 15th post, last but one end post and corner post shall be strutted on both sides and end post on one side only and provided with horizontal lines and two diagonals interwoven with horizontal wires, of barbed wire weighing 9.38 kg per 100 m (minimum), between the two posts fitted and fixed with G.I. staples, turn buckles etc. complete. (Cost of posts, struts, earth work and concrete work to be paid for separately). Payment to be made per metre cost of total length of barbed wire used.				
	16.18.1	With G.I. barbed wire	5100.00	metre	19.05	97155.00
16	16.53	Providing and fixing concertina coil fencing with punched tape concertina coil 600 mm dia 10 metre openable length (total length 90 m), having 50 nos rounds per 6 metre length, upto 3 m height of wall with existing angle iron 'Y' shaped placed 2.4 m or 3.00 m apart and with 9 horizontal R.B.T. reinforced barbed wire, stud tied with G.I. staples and G.I. clips to retain horizontal, including necessary bolts or G.I. barbed wire tied to angle iron, all complete as per direction of Engineer-in-charge, with reinforced barbed tape(R.B.T.) / Spring core (2.5mm thick) wire of high tensile strength of 165 kg/ sq.mm with tape (0.52 mm thick) and weight 43.478 gm/ metre (cost of M.S. angle, C.C. blocks shall be paid separately)	2700.00	metre	290.80	785160.00

17	NS	Providing & Erecting temporary portable structure guard room of size 16'x12' having internal height 2500 mm consisting of 12 mm thick cement particle board (Bison make) panels wall, 0.63 mm thick Plain, G.I. sheet on external face, 12 mm thick BWP plywood of ISI mark for false ceiling 1.60 mm thick M.S pipe frame for roofing with 0.63 mm G.I. corrugated sheet covering. Non decorative type flush door shutter 35mm thick with frame of 1st class bard wood lipping & M.S sectional window 3 nos. with grills etc. conforming to detailes technical specification enclosed and as per approved sample and direction of Engineer-in-charge complete including priming coat and painting etc.	20.00	Each	227547.00	4550940.00
18	NS	Providing and fixing pre-fabricated frisking shed of size 10' x 8' x 8' (external dimension) consisting of 12 mm thick cement particle board (Bison make) wall up to the height of 1.20 mtr.and rest shall be covered by 5.5 mm thick plain sliding glass on properly anodised Aluminium section E section 25mm X12mm, 1.60mm thick incased in M.S. tubular frame vertical post tube size 48 x 48 x 3mm thick and horizontal tube 48x24x2mm thick by M.S. angle from out side (size 25 x 25 mm) and M. S. channel (12x12x1mm thick) from inside. The roofing of the frisking shed will be in the shape of dome made of M.S. tubular frames with roofing of 12mm thick B.W.P. plywood of ISI make one which plain Aluminum sheet fixed on top with approved adhesive and nails as per standard design. The entire work shall be painted with synthetic enamel paint with base coat of primer all complete with transportation and erection at site. as per direction of Engineer-in-charge. as per sample/ pattern aprved.	30.00	Each	177083.00	5312490.00

19	NS	P/F temporary portable structure toilet of size 2.60x2.44(8'x8'x' external dimension) having internal height of 2500 mm consisting of 12mm thick cement particle board (Bison Make)panels wall 0.63 mm thick PGI sheet on externaql face, 12mm thick BWP plywood of ISI mark for false ceilling 50x25mm size and 1.60mm thick M.S. pipe frame for roofing with 0.63 mm GI corrugated sheet covering & flush door exterior grade of size 700x2000mm 35mm thick with complete fittings & section ventilators two Nos. of size 0.3mx0.6m with grill and 3mm plain patition wall will be same as outer wall of the toilet block. The exterior and interior surface of the porta cabin shall be painted with two or more coats with synthetic enamel paint of approved quality under base coat of primer & putty complete with transportation & erecting at site as per direction of Engineer-in-charge.	30.00	Each	158910.00	4767300.00
20	NS	Providing & Erecting temporary portable structure guard room of size 16'x20' having internal height 2500 mm consisting of 12 mm thick cement particle board (Bison make) panels wall, 0.63 mm thick Plain, G.I. sheet on external face, 12 mm thick BWP plywood of ISI mark for false ceilling 1.60 mm thick M.S pipe frame for roofing with 0.63 mm G.I. corrugated sheet covering. Non decorative type flush door shutter 35mm thick with frame of 1st class bard wood lipping & M.S sectional window 3 nos. with grills etc. conforming to detailes technical specification enclosed and as per approved sample and direction of Engineer-in-charge complete including priming coat and painting etc.	10.00	Each	314482.00	3144820.00
					Total	24592158.00

SH-V (Civil Work): Upgradation Works

S. No.	DSR '16	Description	Qty	Unit	Rate	Amount
1	2.8	Earth work in excavation by mechanical means (Hydraulic excavator) /manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.				
	2.8.1	All kinds of soil.	700.00	cum	252.30	176610.00
2	2.1	Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth upto 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m :				
	2.10.1	All kinds of soil				
	2.10.1.2	Pipes, cables etc. exceeding 80 mm dia. but not exceeding 300 mm dia	700.00	metre	364.20	254940.00
3	2.25	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	700.00	cum	219.65	153755.00
4	2.30	Excavating holes more than 0.10 cum & upto 0.5 cum including getting out the excavated soil, then returning the soil as required in layers not exceeding 20cm in depth, including consolidating each deposited layer by ramming, watering etc, disposing of surplus excavated soil, as directed within a lead of 50 m and lift upto 1.5 m.				
a	2.30.1	All kinds of soil	700.00	each	79.30	55510.00

5	4.1	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :				
a	4.1.3	1:2:4 (1 cement : 2 coarse sand (zone-III) : 4 graded stone aggregate 20 mm nominal size)	770.00	cum	6788.60	5227222.00
b	4.1.6	1:3:6 (1 Cement : 3 coarse sand (zone-III): 6 graded stone aggregate 40 mm nominal size)	2240.00	cum	6126.25	13722800.00
c	4.1.10	1:5:10 (1 cement : 5 coarse sand (zone-III): 10 graded stone aggregate 40 mm nominal size)	2800.00	cum	5520.30	15456840.00
6	5.18	Providing precast cement concrete Jali 1:2:4 (1 cement : 2 coarse sand(zone-III) : 4 graded stone aggregate 6mm nominal size), reinforced with 1.6 mm dia mild steel wire, including centering and shuttering, roughening cleaning, fixing and finishing in cement mortar 1:3 (1 cement: 3 fine sand) etc. complete, excluding plastering of the jambs, sills and soffits.				
a	5.18.2	40 mm thick	5600.00	sqm	1329.75	7446600.00
7	6.1	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundation and plinth in:				
a	6.1.2	Cement mortar 1:6 (1 cement : 6 coarse sand)	700.00	cum	6175.45	4322815.00
8	6.4	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level in all shapes and sizes in :				
a	6.4.2	Cement mortar 1:6 (1 cement : 6 coarse sand)	700.00	cum	7590.45	5313315.00
9	8.2	Providing and fixing 18 mm thick gang saw cut, mirror polished, premoulded and prepolished, machine cut for kitchen platforms, vanity counters, window sills, facias and similar locations of required size, approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 coarse sand), joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing to edges to give high gloss finish etc. complete at all levels.				
a	8.2.2	Granite of any colour and shade				
b	8.2.2.1	Area of slab upto 0.50 sqm	462.00	sqm	4217.35	1948416.00

10	8.3	Providing edge moulding to 18 mm thick marble stone counters, Vanities etc., including machine polishing to edge to give high gloss finish etc. complete as per design approved by Engineer-in-Charge.				
a	8.3.2	Granite work	462.00	metre	376.25	173828.00
11	8.4	Extra for fixing marble /granite stone, over and above corresponding basic item, in facia and drops of width upto 150 mm with epoxy resin based adhesive, including cleaning etc. complete.	369.60	metre	434.25	160499.00
12	8.5	Extra for providing opening of required size & shape for wash basin/ kitchen sink in kitchen platform, vanity counter and similar location in marble/ Granite/ stone work, including necessary holes for pillar taps etc. including moulding, rubbing and polishing of cut edges etc. complete.	37.00	each	734.55	27178.00
13	8.6	Mirror polishing on marble work/Granite work/stone work where ever required to give high gloss finish complete.	5544.00	sqm	368.00	2040192.00
14	9.1	Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia & length (hold fast lugs or dash fastener shall be paid for separately).				
a	9.1.1	Second class teak wood	22.40	cum	130183.05	2916100.00
b	9.1.3	Kiln seasoned and chemically treated hollock wood	16.80	cum	71746.40	1205340.00
15	9.5	Providing and fixing panelled or panelled and glazed shutters for doors, windows and clerestory windows fixing with butt hinges of required size with necessary screws, excluding panelling which will be paid for separately, all complete as per direction of Engineer-in-charge. (Note:- Butt hinges and necessary screws shall be paid separately)				
	9.5.1	Second class teak wood				
	9.5.1.1	35 mm thick shutters	560.00	sqm	3613.35	2023476.00
b	9.5.2	Kiln seasoned and chemically treated Hollock wood.				
	9.5.2.1	35 mm thick shutters	560.00	sqm	2381.55	1333668.00
16	9.9	Providing and fixing glazed shutters for doors, windows and clerestory windows using 4 mm thick float glass panes, including ISI marked M.S. pressed butt hinges bright finished of required size with necessary screws.				
a		Second class teak wood				

	9.9.1.1	35 mm thick	700.00	sqm	4353.75	3047625.00
b	9.9.2	Kiln seasoned and chemically treated Hollock wood.				
	9.9.2.1	35mm thick	700.00	sqm	2951.35	2065945.00
17	9.27	Providing and fixing wire gauge shutters using galvanized M.S. wire gauge of average width of aperture 1.4 mm in both directions with wire of dia 0.63 mm, for doors, windows and clerestory windows with hinges and necessary screws :				
	9.27.1	35mm thick shutters				
	9.27.1.1	with ISI marked MS pressed butt hinges bright finished of required size:				
a	9.27.1.1.1	Second class teak wood.	315.00	sqm	4221.20	1329678.00
b	9.27.1.1.2	Kiln seasoned and chemically treated Hollock wood.	350.00	sqm	2979.50	1042825.00
18	9.48	Providing and fixing M.S. grills of required pattern in frames of windows etc. with M.S. flats, square or round bars etc. including priming coat with approved steel primer all complete.				
a	9.48.2	Fixed to openings /wooden frames with rawl plugs screws etc.	4065.60	kg	183.50	746038.00
19	9.53	Providing 40x5 mm flat iron hold fast 40 cm long including fixing to frame with 10 mm diameter bolts, nuts and wooden plugs and embedding in cement concrete block 30x10x15cm 1:3:6 mix (1 cement : 3 coarse sand : 6 graded stone aggregate 20mm nominal size).	370.00	each	179.20	66304.00
20	9.72	Providing and fixing bright finished brass butt hinges with necessary screws etc. complete :				
a	9.72.3	100x85x5.5 mm (heavy type)	370.00	each	173.60	64232.00
b	9.72.5	75x65x4 mm (heavy type)	1294.00	each	145.40	188148.00
21	9.81	Providing and fixing bright finished brass handles with screws etc. complete :				
a	9.81.1	125 mm	370.00	each	204.65	75721.00
b	9.81.2	100 mm	370.00	each	189.45	70097.00
22	9.122	Providing and fixing to existing door frames.				

a	9.122.2	30 mm thick Fiberglass Reinforced Plastic (F.R.P.) flush door shutter in different plain and wood finish made with fire retardant grade unsaturated polyester resin, moulded to 3 mm thick FRP laminate all around, with suitable wooden blocks inside at required places for fixing of fittings and polyurethane foam (PUF)/Polystyrene foam to be used as filler material throughout the hollow panel, casted monolithically with testing parameters of F.R.P. laminate conforming to table - 3 of IS: 14856, complete as per direction of Engineer-in-charge.	280.00	sqm	3931.95	1100946.00
23	9.128	Providing and fixing factory made Fiberglass Reinforced plastics (F.R.P.) chajja 4 mm thick of required colour, size and design made by Resin Transfer Moulding (RTM) Machine Technology, resulting in void free compact laminate in single piece, having smooth gradual slope curvature for easy drainage of water and duly reinforced by 2 nos vertically and 1 nos horizontally 50x2 mm thick M.S. flat with 12 mm in built hole for grouting on the existing wall along with the 50 mm flanges duly inserted and sealed in the wall complete in one single piece casted monolithically, including all necessary fittings . The FRP Chajja should be manufactured using unsaturated Polyester resin as per IS: 6746, duly reinforced with fibre glass chopped strand mat (CSM) as per IS: 11551 complete with protective Gel coat U/V coating on Top for complete resistance from the extreme of temperature, weather & sunlight. Note - Only plan area of chajjas shall be measured for making payment]	739.20	sqm	4851.25	3586044.00

24	9.142	35 mm thick factory made Solid panel PVC Door shutter, made out of single piece extruded solid PVC profiles, 5 mm (\pm 0.2 mm) thick, having styles & rails (except lock rail) of size 95 mm x 35 mm x 5 mm, out of which 75 mm shall be flat and 20 mm shall be tapered (on both side), having one side thickness of 15 mm integrally extruded on the hinge side of the profile for better screw holding power, including reinforcing with MS tube of size 40 mm X 20 mm x 1 mm, joints of styles & rails to be mitered cut & joint with the help of PVC solvent cement, self driven self tapping screws & M.S. rectangular pipes bracket of size 190 mm X 100 mm of cross section size 35 mm x 17 mm x 1 mm at each corner. Single piece extruded 5 mm thick solid PVC Lock rail of size 115 mm x 35 mm, out of which 75 mm to be flat and 20 mm to be tapered at both ends, having 15 mm solid core in middle of rail section integrally extruded, fixing the styles & rails with the help of solvent and self driven self tapping screws of 125 mm x 11 mm, including providing 5 mm Single piece solid PVC extruded sheet inserted in the door as panel, all complete as per manufacturer's specification and direction of Engineer-in-charge.				
a	9.142.2	Decorative finish (wood grained finish)	231.00	Sqm	3842.85	887698.00
25	10.1	Structural steel work in single section, fixed with or without connecting plate, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	22400.00	kg	86.05	1927520.00
26	10.16	Steel work in built up tubular (round, square or rectangular hollow tubes etc.) trusses etc., including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washers etc. complete.				
a	10.16.1	Hot finished welded type tubes	67200.00	kg	143.45	9639840.00
27	10.25	Steel work welded in built up sections/ framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required.				
a	10.25.2	In gratings, frames, guard bar, ladder, railings, brackets, gates and similar works	56000.00	kg	131.00	7336000.00

28	11.26	Kota stone slab flooring over 20 mm (average) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab, including rubbing and polishing complete with base of cement mortar 1 : 4 (1 cement : 4 coarse sand) :				
a	11.26.1	25 mm thick	17920.00	sqm	1531.85	27450752.00
29	8.31	Providing and fixing 1st quality ceramic glazed wall tiles conforming to IS: 15622 (thickness to be specified by the manufacturer), of approved make, in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge, in skirting, risers of steps and dados, over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete.	9856.00	sqm	1030.30	10154637.00
30	11.38	Providing and laying Ceramic glazed floor tiles of size 300x300 mm (thickness to be specified by the manufacturer), of 1st quality conforming to IS : 15622, of approved make, in all colours, shades, except White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick bed of cement mortar 1:4 (1 Cement : 4 Coarse sand), jointing with grey cement slurry @ 3.3 kg/ sq.m including pointing the joints with white cement and matching pigments etc., complete.	17024.00	sqm	996.70	16967821.00
31	11.47	Providing and laying Vitrified tiles in different sizes (thickness to be specified by the manufacturer), with water absorption less than 0.08% and conforming to IS: 15622, of approved brand & manufacturer, in all colours and shade, in skirting, riser of steps, laid with cement based high polymer modified quick set tile adhesive (water based) conforming to IS: 15477, in average 6 mm thickness, including grouting of joints (Payment for grouting of joints to be made separately).				
a	11.47.2	Size of Tile 600x600 mm	4480.00	sqm	1734.00	7768320.00
b	11.47.3	Size of Tile 800x800 mm	2240.00	sqm	1994.95	4468688.00

32	11.48	Grouting the joints of flooring tiles having joints of 3 mm width, using epoxy grout mix of 0.70 kg of organic coated filler of desired shade (0.10 kg of hardener and 0.20 kg of resin per kg), including filling / grouting and finishing complete as per direction of Engineer-in-charge.				
	11.48.2	Size of Tile 600x600 mm	2912.00	sqm	241.45	703102.00
	11.48.3	Size of Tile 800x800 mm	2912.00	sqm	191.85	558667.00
33	11.49	Providing and laying Vitrified tiles in floor with different sizes (thickness to be specified by the manufacturer), with water absorption less than 0.08% and conforming to IS:15622, of approved brand & manufacturer, in all colours and shade, laid with cement based high polymer modified quick set tile adhesive (water based) conforming to IS : 15477, in average 6 mm thickness, including grouting of joints (Payment for grouting of joints to be made separately).				
a	11.49.2	Size of Tile 600x600 mm	1680.00	sqm	1609.95	2704716.00
b	11.49.3	Size of Tile 800x800 mm	1680.00	sqm	1870.90	3143112.00
34	12.1	Providing corrugated G.S. sheet roofing including vertical / curved surface fixed with polymer coated J or L hooks, bolts and nuts 8 mm diameter with bitumen and G.I. limpet washers or with G.I. limpet washers filled with white lead, including a coat of approved steel primer and two coats of approved paint on overlapping of sheets complete (up to any pitch in horizontal/ vertical or curved surfaces), excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required.				
a	12.1.2	0.80 mm thick with zinc coating not less than 275 gm/m ²	168.00	sqm	1061.80	178382.00
35	12.21	Providing gola 75x75 mm in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 stone aggregate 10 mm and down gauge), including finishing with cement mortar 1:3 (1 cement : 3 fine sand) as per standard design :				
a	12.21.1	In 75x75 mm deep chase	1680.00	metre	237.25	398580.00

36	12.22	Making khurras 45x45 cm with average minimum thickness of 5 cm cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate of 20 mm nominal size) over P.V.C. sheet 1 m x1 m x 400 micron, finished with 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) and a coat of neat cement, rounding the edges and making and finishing the outlet complete.	2800.00	each	244.05	683340.00
37	12.23	Providing sand stone slab for roofing and laying them in cement mortar 1 : 4 (1 cement : 4 coarse sand) over wooden karries or R.C.C. battens or structural steel sections (Karries or battens or structural steel sections to be paid separately), including pointing the ceiling joints with cement mortar 1:3 (1 cement : 3 fine sand) complete :				
a	12.23.1	Red sand stone slab				
b	12.23.1.1	40 to 50 mm thick	2800.00	sqm	793.10	2220680.00
38	12.42	Providing and fixing on wall face unplasticised - PVC moulded fittings/accessories for unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10 mm gap for thermal expansion.				
	12.42.5	Bend 87.5°				
a	12.42.5.2	110 mm bend	560.00	each	129.85	72716.00
39	12.43	Providing and fixing unplasticised -PVC pipe clips of approved design to unplasticised - PVC rain water pipes by means of 50x50x50 mm hard wood plugs, screwed with M.S. screws of required length, including cutting brick work and fixing in cement mortar 1:4 (1 cement : 4 coarse sand) and making good the wall etc. complete.				
a	12.43.2	110 mm	840.00	each	288.80	242592.00
40	12.47	Providing & fixing UV stabilised fiberglass reinforced plastic sheet roofing up to any pitch, including fixing with polymer coated 'J' or 'L' hooks, bolts & nuts 8mm dia. G.I plain/bitumen washers complete but excluding the cost of purlins, rafters, trusses etc. The sheets shall be manufactured out of 2400 TEX panel rovigs incorporating minimum 0.3% ultra-violet stabiliser in resin system under approximately 2400 psi and hot cured. They shall be of uniform pigmentation and thickness without air pockets and shall conform to IS 10192 and IS 12866.The sheets shall be opaque or translucent, clear or pigmented, textured or smooth as specified.				

a	12.47.1	2 mm thick corrugated (2.5" or 4.2" or 6") or step-down (2" or 3" or 6") as specified	1680.00	sqm	1095.20	1839936.00
a	12.47.2	2 mm thick flat	1680.00	sqm	999.35	1678908.00
41	12.50	Providing and fixing pre-coated galvanised iron profile sheets (size, shape and pitch of corrugation as approved by Engineer-in-charge) 0.50 mm (+ 0.05 %) total coated thickness with zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns. Sheet should have protective guard film of 25 microns minimum to avoid scratches during transportation and should be supplied in single length upto 12 metre or as desired by Engineer-in-charge. The sheet shall be fixed using self drilling /self tapping screws of size (5.5x 55 mm) with EPDM seal, complete upto any pitch in horizontal/ vertical or curved surfaces, excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required.	4480.00	sqm	627.55	2811424.00
42	12.53	Providing and Fixing 15 mm thick densified tegular edged eco friendly light weight calcium silicate false ceiling tiles of approved texture of size 595 x 595 mm in true horizontal level, suspended on inter locking metal grid of hot dipped galvanised steel sections (galvanising @ 120 grams per sqm including both side) consisting of main 'T' runner suitably spaced at joints to get required length and of size 24x38 mm made from 0.33 mm thick (minimum) sheet, spaced 1200 mm centre to centre, and cross 'T' of size 24x28 mm made out of 0.33 mm (Minimum) sheet, 1200 mm long spaced between main 'T' at 600 mm centre to centre to form a grid of 1200x600 mm and secondary cross 'T' of length 600 mm and size 24 x28 mm made of 0.33 mm thick (Minimum) sheet to be inter locked at middle of the 1200x 600 mm panel to form grid of size 600x600 mm, resting on periphery walls /partitions on a Perimeter wall angle pre-coated steel of size (24x24X3000 mm made of 0.40 mm thick (minimum) sheet with the help of rawl plugs at 450 mm centre to centre with 25 mm long dry wall screws @ 230 mm interval and laying 15 mm thick densified edges calcium silicate ceiling tiles of approved texture in the grid, including, cutting/ making opening for services like diffusers, grills, light fittings, fixtures, smoke detectors etc., wherever required. Main 'T' runners to				

		be suspended from ceiling using G.I. slotted cleats of size 25x35x1.6 mm fixed to ceiling with 12.5 mm dia and 50 mm long dash fasteners, 4 mm G.I. adjustable rods with galvanised steel level clips of size 85 x 30 x 0.8 mm, spaced at 1200 mm centre to centre along main _T', bottom exposed with 24 mm of all Tsections shall be pre-painted with polyster baked paint, for all heights, as per specifications, drawings and as directed by Engineer-in-Charge.				
		Note :- Only calcium silicate false ceiling area will be measured from wall to wall. No deduction shall be made for exposed frames/ opening (cut outs) having area less than 0.30 sqm. The calcium silicate ceiling tile shall have NRC value of 0.50 (Minimum), light reflection > 85%, non-combustible as per B.S. 476 part IV, 100% humidity resistance and also having thermal conductivity <0.043 w/ mK.	1120.00	sqm	1643.95	1841224.00
43	13.4	12 mm cement plaster of mix :				
a	13.4.1	1:4 (1 cement: 4 coarse sand)	1792.00	sqm	276.15	494861.00
44	13.5	15 mm cement plaster on rough side of single or half brick wall of mix:				
a	13.5.1	1:4 (1 cement: 4 coarse sand)	9800.00	sqm	318.95	3125710.00
b	13.5.2	1:6 (1 cement: 6 coarse sand)	16800.00	sqm	303.90	5105520.00
45	13.26	Providing and applying plaster of paris putty of 2 mm thickness over plastered surface to prepare the surface even and smooth complete.	14000.00	sqm	196.70	2753800.00
46	13.29	18 mm thick plain cement mortar band in cement mortar 1:4 (1 cement : 4 fine sand):				
a	13.29.3	Raised Band	33600.00	cm per metre	8.70	292320.00
47	13.43	Applying one coat of water thinnable cement primer of approved brand and manufacture on wall surface:				
a	13.43.1	Water thinnable cement primer:	33600.00	sqm	60.00	2016000.00
48	13.80	Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete.	38080.00	sqm	115.15	4384912.00

49	13.81	Distemping with 1st quality acrylic distemper, having VOC (Volatile Organic Compound) content less than 50 grams/ litre, of approved brand and manufacture, including applying additional coats wherever required, to achieve even shade and colour.				
a	13.81.2	Two coats	24640.00	sqm	81.90	2018016.00
50	13.83	Wall painting with premium acrylic emulsion paint of interior grade, having VOC (Volatile Organic Compound) content less than 50 grams/ litre of approved brand and manufacture, including applying additional coats wherever required to achieve even shade and colour.				
a	13.83.2	Two coats	22400.00	sqm	113.90	2551360.00
51	13.99	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade :				
a	13.99.1	One or more coats on old work	44800.00	sqm	79.95	3581760.00
52	13.103.1	French spirit polishing :				
a		One or more coats on old work	22400.00	sqm	176.85	3961440.00
53	13.112.1	Finishing walls with Premium Acrylic Smooth exterior paint with Silicone additives of required shade				
a		Old work (Two or more coats applied @ 1.43 ltr/ 10 sqm) over existing cement paint surface	56000.00	sqm	97.75	5474000.00
54	13.114	Melamine polishing on wood work (one or more coat).	22400.00	sqm	110.75	2480800.00
55	15.2	Demolishing cement concrete manually/ by mechanical means including disposal of material within 50 metres lead as per direction of Engineer - in - charge.				
a	15.2.1	Nominal concrete 1:3:6 or richer mix (i/c equivalent design mix)	2464.00	cum	1737.45	4281077.00
56	15.7	Demolishing brick work manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge.				
a	15.7.4	In cement mortar	1120.00	cum	1469.90	1646288.00
57		Dismantling doors, windows and clerestory windows (steel or wood) shutter including chowkhats, architrave, holdfasts etc. complete and stacking within 50 metres lead :				
	15.12					
a	15.12.1	Of area 3 sq. metres and below	1120.00	each	274.50	307440.00
b	15.12.2	Of area beyond 3 sq. metres	1120.00	each	375.65	420728.00

58	15.18	Dismantling steel work in built up sections in angles, tees, flats and channels including all gusset plates, bolts, nuts, cutting rivets, welding etc. including dismembering and stacking within 50 metres lead.	44800.00	kg	4.15	185920.00
59	15.23	Dismantling tile work in floors and roofs laid in cement mortar including stacking material within 50 metres lead.				
a	15.23.1	For thickness of tiles 10 mm to 25 mm	17920.00	sqm	54.85	982912.00
60	15.25	Dismantling stone slab flooring laid in cement mortar including stacking of serviceable material and disposal of unserviceable material within 50 metres lead.	8960.00	sqm	190.30	1705088.00
61	15.28	Dismantling roofing including ridges, hips, valleys and gutters etc., and stacking the material within 50 metres lead of:				
a	15.28.1	G.S. Sheet	5600.00	sqm	121.90	682640.00
62	15.32	Demolishing thatch roofing including mats, bamboo, jaffari etc. complete including stacking of serviceable material and disposal of unserviceable material within 50 metres lead.	5600.00	sqm	41.30	231280.00
63	15.56	Dismantling old plaster or skirting raking out joints and cleaning the surface for plaster including disposal of rubbish to the dumping ground within 50 metres lead.	31920.00	sqm	39.00	1244880.00
64	15.60	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means, including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all leads including all lifts involved.	22400.00	cum	138.85	3110240.00
65	16.42	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 40 mm nominal size) in pavements, laid to required slope and camber in panels as required including consolidation finishing and tamping complete.	1568.00	cum	6840.85	10726453.00

66	16.53	Providing and fixing concertina coil fencing with punched tapeconcertina coil 600 mm dia 10 metre openable length (total length90 m), having 50 nos rounds per 6 metre length, upto 3 m height of wall with existing angle iron 'Y' shaped placed 2.4m or 3.00 m apart and with 9 horizontal R.B.T. reinforced barbed wire, stud tied with G.I. staples and G.I. clips to retain horizontal, including necessary bolts or G.I. barbed wire tied to angle iron, all complete as per direction of Engineer-in-charge, with reinforced barbed tape(R.B.T.) / Spring core (2.5mm thick) wire of high tensile strength of 165 kg/sq.mm with tape (0.52 mm thick) and weight 43.478 gm/ metre (cost of M.S. angle, C.C. blocks shall be paid separately)	1120.00	metre	290.80	325696.00
67	16.69	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	1568.00	cum	8376.15	13133803.00
68	16.91	Providing and laying factory made chamfered edge Cement Concrete paver blocks in footpath, parks, lawns, drive ways or light traffic parking etc, of required strength, thickness & size/ shape, made by table vibratory method using PU mould, laid in required colour & pattern over 50mm thick compacted bed of sand, compacting and proper embedding/laying of inter locking paver blocks into the sand bedding layer through vibratory compaction by using plate vibrator, filling the joints with sand and cutting of paver blocks as per required size and pattern, finishing and sweeping extra sand. complete all as per direction of Engineer-in-Charge.				
a	16.91.1	60mm thick Cement concrete paver block of M-35 grade with approved colour, design & pattern.	11200.00	sqm	884.75	9909200.00

69	17.1	Providing and fixing water closet squatting pan (Indian type W.C. pan) with 100 mm sand cast Iron P or S trap, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever) conforming to IS : 7231, with all fittings and fixtures complete, including cutting and making good the walls and floors wherever required:				
	17.1.1	White Vitreous china Orissa pattern W.C. pan of size 580x440 mm with integral type foot rests	358.40	each	5421.50	1943066.00
70	17.7	Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require:				
	17.7.2	White Vitreous China Wash basin size 630x450 mm with a single 15 mm C.P. brass pillar tap	358.40	each	2751.30	986066.00
71	17.1	Providing and fixing Stainless Steel A ISi 304 (18/8) kitchen sink as per IS: 13983 with C.I. brackets and stainless steel plug 40 mm, including painting of fittings and brackets, cutting and making good the walls wherever required :				
	17.10.1	Kitchen sink with drain board				
	17.10.1.1	510x1040 mm bowl depth 250 mm	358.40	each	5155.95	1847892.00
72	17.31	Providing and fixing 600x450 mm beveled edge mirror of superior glass (of approved quality) complete with 6 mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers complete.	358.40	each	1283.05	459845.00
73	17.33	Providing and fixing 600x120x5 mm glass shelf with edges round off, supported on anodised aluminium angle frame with C.P. brass brackets and guard rail complete fixed with 40 mm long screws, rawl plugs etc., complete.	358.40	each	841.80	301701.00
74	17.35	Providing and fixing soil, waste and vent pipes :				
a	17.35.1	100 mm dia				
b	17.35.1.1	Sand cast iron S&S pipe as per IS: 1729	448.00	metre	1008.20	451674.00

75	17.39	Providing and fixing plain bend of required degree.				
a	17.39.1	100 mm dia				
b	17.39.1.1	Sand cast iron S&S as per IS - 1729	896.00	each	381.35	341690.00
76	17.60	Providing and fixing trap of self cleansing design with screwed down or hinged grating with or without vent arm complete, including cost of cutting and making good the walls and floors :				
a	17.60.1	100 mm inlet and 100 mm outlet				
b	17.60.1.1	Sand cast iron S&S as per IS: 3989	896.00	each	1512.55	1355245.00
77	18.10	Providing and fixing G.I. pipes complete with G.I. fittings and clamps, i/c cutting and making good the walls etc.				
		Internal work - Exposed on wall				
a	18.10.1	15 mm dia nominal bore	11200.00	metre	284.90	3190880.00
b	18.10.2	20 mm dia nominal bore	4480.00	metre	344.10	1541568.00
78	18.11	Providing and fixing G.I. Pipes complete with G.I. fittings and clamps, i/c making good the walls etc. concealed pipe, including painting with anti corrosive bitumastic paint, cutting chases and making good the wall :				
a	18.11.1	15 mm dia nominal bore	840.00	metre	447.60	375984.00
b	18.11.2	20 mm dia nominal bore	840.00	metre	494.10	415044.00
79	18.17	Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end) :				
a	18.17.1	25 mm nominal bore	1120.00	each	497.15	556808.00
b	18.17.2	32 mm nominal bore.	1120.00	each	581.25	651000.00
80	18.46	Providing and fixing G.I. Union in G.I. pipe including cutting and threading the pipe and making long screws etc. complete (New work) :				
a	18.46.1	15 mm nominal bore	560.00	each	235.75	132020.00
b	18.46.2	20 mm nominal bore	560.00	each	261.15	146244.00
81	18.76	Cutting holes up to 30x30 cm in walls including making good the same:				
a	18.76.1	With common burnt clay F.P.S. (non modular) bricks	896.00	each	327.25	293216.00

82	18.78	Making chases up to 7.5x7.5 cm in walls including making good and finishing with matching surface after housing G.I. pipe etc.	4480.00	metre	154.15	690592.00
83	19.2	Providing and laying cement concrete 1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) all-round S.W. pipes including bed concrete as per standard design :				
a	19.2.1	100 mm diameter S.W. pipe / PVC pipe	448.00	metre	817.00	366016.00
b	19.2.2	150 mm diameter S.W. pipe / PVC pipe	448.00	metre	999.15	447619.00
c	19.2.3	200 mm diameter S.W. pipe / PVC pipe	448.00	metre	1164.80	521830.00
84	19.4	Providing and fixing square-mouth S.W. gully trap class SP-1 complete with C.I. grating brick masonry chamber with water tight C.I. cover with frame of 300 x300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design:				
	19.4.1	100x100 mm size P type				
a	19.4.1.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	896.00	each	2307.00	2067072.00
85	19.7	Constructing brick masonry manhole in cement mortar 1:4 (1 cement : 4 coarse sand) with R.C.C. top slab with 1:1.5:3 mix (1 cement : 1.5 coarse sand (zone-III) : 3 graded stone aggregate 20 mm nominal size), foundation concrete 1:4:8 mix (1 cement : 4 coarse sand (zone- III) : 8 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement complete as per standard design :				

	19.7.1	Inside size 90x80 cm and 45 cm deep including C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover and frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg) :				
a	19.7.1.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	560.00	each	10905.05	6106828.00
86	21.1	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) :				
a	21.1.1	For fixed portion				
	21.1.1.2	Powder coated aluminium (minimum thickness of powder coating 50 micron)	4480.00	kg	456.30	2044224.00
b	21.1.2	For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber / neoprene gasket required (Fittings shall be paid for separately)				
	21.1.2.2	Powder coated aluminium (minimum thickness of powder coating 50 micron)	4480.00	kg	546.35	2447648.00

87	21.2	Providing and fixing 12 mm thick prelaminated particle board flat pressed three layer or graded wood particle board conforming to IS: 12823 Grade 1 Type II, in panelling fixed in aluminum doors, windows shutters and partition frames with C.P. brass / stainless steel screws etc. complete as per architectural drawings and directions of engineer-in-charge.				
a	21.2.2	Pre-laminated particle board with decorative lamination on both sides	3136.00	sqm	1046.90	3283078.00
88	21.3	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge . (Cost of aluminium snap beading shall be paid in basic item):				
a	21.3.2	With float glass panes of 5 mm thickness (weight not less than 12.50 kg/sqm)	1120.00	sqm	1296.40	1451968.00

89	14.91	Providing and laying APP (Atactic Polypropylene Polymer) modified prefabricated five layer 3 mm thick water proofing membrane, black finished reinforced with non-woven polyester matt consisting of a coat of bitumen primer for bitumen membrane @ 0.40 litre/sqm by the same membrane manufacture of density at 25°C, 0.87-0.89 kg/ litre and viscosity 70-160 cps. Over the primer coat the layer of membrane shall be laid using Butane Torch and sealing all joints etc, and preparing the surface complete. The vital physical and chemical parameters of the membrane shall be as under : Joint strength in longitudinal and transverse direction at 23°C as 650/ 450N/ 5cm. Tear strength in longitudinal and transverse direction as 300/250N. Softening point of membrane not less than 150°C. Cold flexibility shall be upto -2°C when tested in accordance with ASTM, D - 5147. The laying of membrane shall be got done through the authorised applicator of the manufacturer of membrane :				
a	14.91.1	3 mm thick	11200.00	sqm	535.00	5992000.00
90	8.32	Designing, fabricating, testing, installing and fixing in position Curtain Wall with Aluminium Composite Panel Cladding, with open grooves for linear as well as curvilinear portions of the building , for all heights and all levels etc. including:				
		a) Structural analysis & design and preparation of shop drawings for pressure equalisation or rain screen principle as required, proper drainage of water to make it watertight including checking of all the structural and functional design.				

		<p>b) Providing, fabricating and supplying and fixing panels of aluminium composite panel cladding in pan shape in metallic colour of approved shades made out of 4mm thick aluminium composite panel material consisting of 3mm thick FR grade mineral core sandwiched between two Aluminium sheets (each 0.5mm thick). The aluminium composite panel cladding sheet shall be coil coated, with Kynar 500 based PVDF / Lumiflon based fluoropolymer resin coating of approved colour and shade on face # 1 and polymer (Service) coating on face # 2 as specified using stainless steel screws, nuts, bolts, washers, cleats, weather silicone sealant, backer rods etc.</p>				
		<p>c) The fastening brackets of Aluminium alloy 6005 T5 / MS with Hot Dip Galvanised with serrations and serrated washers to arrest the wind load movement, fasteners, SS 316 Pins and anchor bolts of approved make in SS 316, Nylon separators to prevent bi-metallic contacts all complete required to perform as per specification and drawing The item includes cost of all material & labour component, the cost of all mock ups at site, cost of all samples of the individual components for testing in an approved laboratory, field tests on the assembled working curtain wall with aluminium composite panel cladding, cleaning and protection of the curtain wall with aluminium composite panel cladding till the handing over of the building for occupation. Base frame work for ACP cladding is payable under</p>				

		the relevant aluminium items The Contractor shall provide curtain wall with aluminium composite panel cladding, having all the performance characteristics all complete, as per the Architectural drawings, as per item description, as specified, as per the approved shop drawings and as directed by the Engineer-in-Charge. However, for the purpose of payment, only the actual area on the external face of the curtain wall with Aluminum Composite Panel Cladding (including width of groove) shall be measured in sqm. up to two decimal places.	2800.00	sqm	4309.80	12067440.00
91	NS	Providing and fixing panelling or panelling and glazing in panelled or panelled and glazed shutters for doors, windows and clerestory windows (Area of opening for panel inserts excluding portion inside grooves or rebates to be measured). Panelling for panelled or panelled and glazed shutters 25 mm to 40 mm thick :				
a		(a) 12mm thick ply board both side teak veneering (Duro, Green ply, Marino Make or equivalent)	1225.00	sqm	3717.20	4553570.00
92	NS	Providing & Fixing decorative high pressure laminated sheet of plain / wood grain in gloss / matt/ suede finish with high density protective surface layer and reverse side of adhesive bonding quality conforming to IS : 2046 Type S, including cost of adhesive of approved quality.(Marino lam, Green ply, Duro make or equivalent)				
a		1.0 mm thick	545.00	sqm	819.35	446546.00
b		0.8 mm thick	2000.00	sqm	621.80	1243600.00

93	NS	Providing and fixing ply wood in plain lining on frame with necessary glue, screws, priming coat on unexposed surface etc., complete as per direction of Engineer-in- charge (12mm thick BWP plywood (Duro, Green ply, Marino make or equivalent)	1050.00	sqm	1851.85	1944443.00
94	NS	Providing and fixing Ist quality glazed vitrified wall tiles of Kajaria eternity make polish metal series or equivalent of size 300x600 (thickness to be specified by the manufacturer), of approved make, in all colours and shades as approved by Engineer-in-Charge, in skirting, risers of steps and dados, over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete.	3000.00	sqm	1902.20	5706600.00
95	NS	Providing and fixing Ist quality glazed vitrified wall tiles of Kajaria eternity make metal decor series or equivalent of size 400x800 (thickness to be specified by the manufacturer), of approved make, in all colours and shades as approved by Engineer-in-Charge, in skirting, risers of steps and dados, over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete.	3000.00	sqm	2080.15	6240450.00

96	NS	Providing and laying glazed vitrified floor tiles of Kajaria eternity make metal series or equivalent of size 600x600 (thickness to be specified by the manufacturer), with water absorption less than 0.08% and conforming to IS: 15622, of approved brand & manufacturer, in all colours and shade, laid on 20 mm thick bed of cement mortar 1:4 (1 Cement : 4 Coarse sand), including pointing the joints with white cement and matching pigments etc., complete.	3000.00	sqm	1980.45	5941350.00
97	NS	Providing and laying glazed vitrified floor tiles of Kajaria eternity make HD polished, HD Sugar Hone, Rotto Matt, HD Satin, Accent series or equivalent of size 800x800 (thickness to be specified by the manufacturer), with water absorption less than 0.08% and conforming to IS: 15622, of approved brand & manufacturer, in all colours and shade, laid on 20 mm thick bed of cement mortar 1:4 (1 Cement : 4 Coarse sand), including pointing the joints with white cement and matching pigments etc., complete.	3000.00	sqm	1741.65	5224950.00
98	NS	Providing and fixing 12mm thick plain glass to shelves duly grinded and edges polished with necessary screws & washers and brackets etc. complete as per direction of Engineer-in -charge.	1200.00	sqm	2465.35	2958420.00
99	NS	Providing and fixing 10 mm thick plain, toughened glass for frames like kitchen window etc. fixing with 2nd class teak wood moulding of different sizes to fixing glass around the frame etc. complete as per direction of Engineer-in-Charge. (Wooden moulding will be paid separately)	750.00	sqm	2592.25	1944188.00

100	NS	Providing and fixing fly proof S.S. wire gauze to windows and clerestory windows using galvanised Stainless steel wire gauge (Grade-304) aperture 1.4mm and 0.50 mm dia wire wherever required with beading/flats etc. complete as per direction of Engineer-in-charge. (Beading/ flats shall be paid separately)	750.00	sqm	1390.85	1043138.00
101	NS	Removing and refixing of old doors / window /ventilator shutters from the wooden frames in fine fit position to existing wooden frames for door and window shutters respectively i/c necessary repairs to shutters and window frame work with second class teak wood with necessary glue, nails, etc. all complete as per direction of Engineer-in-Charge (New hinges to be paid separately and opening area i/c frame shall be measured for payment purpose and Old dismanted hinges shall be the property of the contractor and shall be disposed off by him without any cost from site of work).	525.00	sqm	1408.25	739331.00
102	NS	Providing and fixing drawer with 19 mm thick block board of Duro make or equivalent having 6mm thick on base with telescopic channel of approved make in runners fixed with screws etc. complete i/c painting/ polishing etc. complete as per direction of Engineer-in-charge. (Plan area of drawer will be measured for payment)				
a		Size :- 15 cm high drawer	1000.00	sqm	11574.95	11574950.00
b		Size :- 21 cm high drawer	670.00	sqm	13048.85	8742730.00
103	NS	Providing and fixing stainless steel oval shape hanger rod glossy finish of approved make with stainless steel bracket & screws etc. complete as per direction of Engineer-in-charge.	350.00	metre	473.30	165655.00

104	NS	Providing and fixing PVC adjustable legs load bearing capacity 350 kg/each wide foot diameter 80mm in a black polish finish etc. complete as per direction of Engineer-in-charge.	1350.00	each	301.40	406890.00
105	NS	Providing and fixing stainless steel grain basket of stallion make or equivalent in cost of approved make with telescopic channels stainless steel patti / bracket, nails, stainless steel screws etc. complete as per direction of Engineer-in-charge.				
a		Grain Trolley (Base mounted) of size 21" x 20" x 12"	305.00	each	5729.60	1747528.00
106	NS	Providing and fixing stainless steel imported Dishrack of Stallion make or equivalent in cost of approved make with stainless steel patti/bracket, nails, S.S. screws etc. complete as per direction of Engineer-in-charge.				
a		Imported Dishrack of size 900mm.	340.00	each	4425.70	1504738.00
107	NS	Providing and fixing stainless steel pull out unit of Stallion make or equivalent in cost of approved make with telescopic channels, stainless steel patti / bracket, nails, stainless steel screws etc. complete as per direction of Engineer-in-charge.				
a		2 Basket Bottel Pull out unit (Base mounted) of size 9" x 20" x 19"	66.00	each	5559.55	366930.00
108	NS	Providing and fixing stainless steel right angle drawer of Stallion make or equivalent in cost of approved make with telescopic channels, stainless steel patti / bracket, nails, stainless steel screws etc. complete as per direction of Engineer-in-charge.				
a		Right angle drawer of size 22" x 20" x 6"	270.00	each	3632.00	980640.00
b		Large utensils basket of size 26" x 20" x 6"	270.00	each	3972.15	1072481.00
c		Large utensils basket of size 34" x 20" x 6"	270.00	each	4652.45	1256162.00

109	NS	Providing and fixing stainless steel Cup & Saucer basket of Stallion make or equivalent in cost of approved make with telescopic channels, stainless steel patti / bracket, nails, stainless steel screws etc. complete as per direction of Engineer-in-charge.				
a		Cup & Saucer Basket of size 22" x 20" x 4"	270.00	each	3802.10	1026567.00
b		Cup & Saucer Basket of size 16" x 20" x 4"	270.00	each	3065.10	827577.00
110	NS	Providing and fixing stainless steel Plate basket of Stallion make or equivalent in cost of approved make with telescopic channels, stainless steel patt / bracket, nails, stainless steel screws etc. complete as per direction of Engineer-in-charge.				
a		Plate Basket of size 22" x 20" x 6".	270.00	each	3858.75	1041863.00
111	NS	Providing and fixing stainless steel Cutery basket of Stallion make or equivalent in cost of approved make with telescopic channels, stainless steel patti/ bracket, nails , staines steel screws etc. complete as per direction of Engineer-in-chargee.				
a		Cutlery Basket of size 22" x 20" x 4"	270.00	each	4482.40	1210248.00
112	NS	Providing and fixing stainless steel Corrousel of Stallion make or equivalent in cost of approved make with stainless steel patti/bracket, nails, stainless steel screws etc. complete as per direction of Engineer-in-charge.				
a		Corrousel corner unit dia 28"	270.00	each	7713.85	2082740.00
113	NS	Providing and fixing stainless steel handles heavy type with golden back ground finish of approved make and pattern with nails, stainless steel screws etc. complete as per direction of Engineer-in-charge.				
a		S.S handle of size 230 mm	1400.00	each	245.80	344120.00

114	NS	Providing and fixing designer wooden picture rail with 75mm long rawl plug and including melamine polish on surface etc. complete : (a) 2nd class teak wood				
a		Size :- 100 x 65 mm	3080.00	metre	1042.70	3211516.00
115	NS	Providing and fixing cup board door shutters one side teak interior grade commercial block board & well matched commercial ply veneering with vertical grains or cross bands on one side and teak veneering on other side of shutter.	1940.00			
a		19mm thick (One side teak on one face) of Duro, Green ply, Marino make or equivalent including Nickle plated bright finished M.S. piano hinges with necessary screws.		sqm	3112.45	6038153.00
116	NS	Providing and fixing shelves of approved make complete as per direction of Engineer in charge.				
a		19 mm block board one side teak (of Duro, Green ply, Marino make or equivalent)	2060.00	sqm	2500.05	5150103.00
117	NS	Providing and fixing 4mm thick Designer ply wood veneering plain lining of special design of approved maker4 on wooden frame with necessary screws and adhesive etc. Complete as per direction of Engineer-0in-charge. (a) Golden teak (Green ply make Cat-G, Golden teak species or equivalent as approved by Engineering in charge.	1500.00	sqm	2052.20	3078300.00
118	NS	Providing and fixing 5mm thick looking mirror of superior quality (Modiguard / Atul make or equivalent) with 12mm thick commercial plywood in back of looking mirror & fixed to window cleats with CP brass screws & washers complete with 50mm wide 2nd class teak wood ornamental beading all around the mirror including polishing and fixing with teakwood plug etc. complete as per direction of Engineer-in-Charge	400.00	sqm	3409.55	1363820.00

119	NS	Melamine polishing on wooden door/window/ventilator / cupboard shutter and frame on new work after preparation the surface of wooden shutters to receive coats of melamine polish and applying coats of sealer till the veinis of wood is filled up properly and sand papering & applying two or more coats of sprit polishing of required shade to achieve the surface in presentable condition for melamine polish and two or more coats of melamine polish till to achieve glossy or matt finish etc. Complete as per direction of Engineer-in- charge. (Nothing extra shall be payable beyong above operation, if carried out by the contractor.)	15000.00	sqm	675.40	10131000.00
120	NS	Providing and fixing ply wood, confirming to IS:1328 and adhesive : 848 in shelves backing and wherever necessary with glue, screws, priming coat on unexposed surface etc. Complete as per direction of Engineer-in-charge (a) 6mm thick ply board one side teak & other side commercial veneering (Duro make or equivalent)	1050.00	sqm	1587.85	1667243.00
121	NS	Providing & Fixing full bamboo Jaffrey of size 30mm to 40mm Ø (dia) bamboo placed vertically and fixed together with 2 nos. Hollack wood battens of size 5cm x 2.50cm with nails and G I wire on existng support including painting with synthetic enamel paint of approved brand ans manufacture of required colour to give an even shade with two or more coats on new work over an under coats of suitable shade with ordinary paint of approved brand and manufacture complete as per direction of Engineer in charge .	6000.00	sqm	1037.55	6225300.00

122	NS	<p>Providing and fixing modular kitchen (factory made) machine made of ISI marked 19mm thick waterproof blockboard (of Duro, Green ply, Marino make or equivalent) having 2.50mm veneering on side, back panel of 6mm waterproof ply of ISI marked laminate with matt finish sunmica 0.80mm thick ISI marked on all inner portions i/c fixing PVC edge bending tape of size 20mm x 1mm(Machine pressed) on edges i/c nails, screws etc. complete. Carcases will be assembled with Rastex cam fittings. The dowel is always tightened centrally there by ruling out displacement of the furniture components. Rastex shall be nickel plated and 18mm thick die cast Zinc used for connecting fittings for panels. The 8mm wood dowel shank will also be used in connecting the panels. All the carcasses will be connected together with VHS 32 make connecting screws of 5mm dia. Concealed hinges (Hettich) with slide-on assembling for overlay door mounting and opening angle of 95 degrees cup diameter of 35mm will be</p>				
		<p>used in shutters. Shallow cup for door shall be of 14mm thick slide on hinges are attached by sliding them onto the mounting plate, height adjustment of the mounting plate will be 2mm. The shutter shall be made of approved quality of 19mm thick ply with postform laminate of 1 mm thick on front side and back with 0.80 mm thick laminate. Edges will be covered by 2mm thick PVC edge bending tape as per pattern / drawing attached and directions of Engineer-in-charge i/c Ari-biari hinges as per requirement with stainless steel screws, nails etc. complete. (The work will be executed as per drawing attached. Only face area of shutter shall be measured for payment).</p>				

a)		530 mm to 580 mm depth.	70.00	Sqm	16502.60	1155182.00
b)		300 mm depth	70.00	Sqm	10725.35	750775.00
123	NS	Providing and fixing factory made cement concrete slab of size 400x400x50mm manufactured by using M-30 grade of concrete and by vibro compaction method of K.K. or equivalent including setting in position in pavement area of required level and line over a bed of 20 mm average thick base of cement mortar 1:4 (1 cement : 4 coarse sand) including filling the joints with same cement mortar etc. Complete as per direction of the Engineer-in-charge.	3500.00	sqm	1160.35	4061225.00
124	NS	Providing and fixing unplastic PVC seal fit pipes of conforming to IS 13592 6kg/Cm2 working pressure class 3 including jointed with seal rings conforming to IS 5382 leaving 10 mm gap for thermal expansion(a) single socket pipes				
a		110mm dia	585.00	metre	738.25	431876.00
b		160mm dia	585.00	metre	1393.85	815402.00
c		200mm dia	585.00	metre	2129.70	1245875.00
125	NS	Providing and fixing frameless shower enclosure 10mm thick plain toughened glass with door on one face (opening not less than 75cm) complete including necessary stainless steel hardware like handle, brackets, connectors, silicon etc. of approved make etc. complete as per direction of Engineer-in-charge.	375.00	sqm	7917.90	2969213.00
126	NS	Providing and fixing C.P. Brass over head shower 150x150mm square shape single flow with rubit cleaning system Cat No. Ohs-1805+ with shower arm 400x25x25mm square shape for wall mounted shower with flange Cat No. SHA-455 L 400 of jaquar make or equivalent in cost of approved make complete as per direction of Engineer-in-charge	350.00	each	5438.60	1903510.00

127	NS	Providing and fixing CP 600mm long braided house with M10x1 nipple, 15mm nut, O ring & rubber washer (suitable for tall boy basin mixers) Cat No. ALD-801B of Jaquar make or equivalent make in cost of approved make as per direction of Engineer-in-Charge	280.00	each	279.65	78302.00
128	NS	P/F CP Brass cockroch Jali (Trap) round 127x127 mm size of Jaina make Glosy finish cat No. CBS 127 Classic series of jaina make or equivalent in cost of approved make as approved by Engineer-in-Charge.	670.00	each	546.05	365854.00
129	NS	Providing and fixing slim concealed cistern with wall mounting frame installation kit and drain pipe connection set wall hung EWC without flush control plate+ control plate reflect CP finish of Jaquar make complete Cat No. CIB-WHT 31801011XWD-CIS-CHR-31199019 as per direction of Engineer-in-Charge	120.00	each	15411.25	1849350.00
130	NS	Providing and fixing single lever exposed park kit of high flow divertor consisting of opertive lever, wall flange and button only Cat No. KUB 35079FK of Jaquar make or equivalent in cost of approved make as per direction of Engineer-in-Charge.	95.00	each	3329.65	316317.00
131	NS	Providing and fixing CP concealed body for single lever high flow diverter with button assembly, cartridge sleeve but without exposed part chrome finish cat no. ALD-079 of Jaquar make or equivalent in cost of approved make as approved by Engineer-in-Charge.	95.00	each	3136.90	298006.00
132	NS	Providing and Fixing C.P. Health Faucet with 1 Mtr. Long flexible tube with wall hook of Jaquar make (code-ALD-573) or equivalent in cost of approved make all complete as per direction of Engineer-in-Charge.	95.00	each	1436.15	136434.00

133	NS	Providing and fixing C.P. brass soap dish of Jaquar make (code-ACN-1131N) or equivalent in cost of approved make all complete as per direction of Engineer-in-charge.	95.00	each	562.20	53409.00
134	NS	Providing and fixing C.P. brass toilet paper holder with flap of Jaquar make (code-ACN-1153N) or equivalent in cost of approved make all complete as per direction of Engineer-in-Charge.	95.00	each	1183.15	112399.00
135	NS	Providing and fixing double armed wall mounted reversible plain/magnifying (X3) Pivotal Mirror cat no CAN-1193N of jaquar or equivalent in cost as approved by engineer-in-Charge	340.00	each	3873.90	1317126.00
136	NS	Providing and fixing pastel colour counter top self rimming wash basin of Hindware Italian collection make Cat No. 91028 (75x46) or equivalent in cost of approved as per direction of engineer-in-Charge	340.00	each	16286.20	5537308.00
137	NS	Providing and laying at site 8.3mm thick laminated floor (Vista/Pergo make) premium AC4 having multilayer composite high pressure laminate surface treated with (aluminium oxide) surface guard TM + top of high density fibre beard subtract (density 910 kg/m3 specially developed core of plank size 1288x196mm having click teak system launge and green joints to secure/long lasting joints. The laminate shall be spread over 2mm thick green profile and green polythene as per manufactures specification.	95.00	sqm	1605.55	152527.00
138	NS	Providing and fixing single lever Angular stop cock with wall flange Cat No. KUB-35053F of jaquar make or equivalent in cost of approved make as per direction of Engineer-n-charge. .	670.00	each	1311.45	878672.00

139	NS	Providing and fixing single lever bib cock with wall flange Cat No. KUB 35037F of Jaquar make or equivalent in cost of approved make as per direction of Engineer-in-charge.	105.00	each	1572.20	165081.00
140	NS	Providing and fixing Towel rack 600mm Long with Hangers Cat No. ACN-CHR-1181N of Jaquar make as per direction of Engineer-in-Charge	105.00	each	2536.00	266280.00
141	NS	Providing and fixing Towel rail 600mm Long Cat No. ACN-CHR-1111NM of Jaquar make as per direction of Engineer-in-Charge	105.00	each	1130.00	118650.00
142	NS	Providing and fixing pastel colour Italian collection one piece Wave series closet EWC of Hindware Cat no. 92066 of Hindware make or equivalent in cost of approved make complete as per direction of Engineer -in-charge.	105.00	each	29316.65	3078248.00
143	NS	Providing and fixing pastel colour Table Top Wash basin MAGNA 63x50 of Hindware make Cat No. 10079 as per direction of Engineer -in-charge.	105.00	each	10485.45	1100972.00
144	NS	Providing and fixing pastel colour complete set of Orrisa pan WC of Hindware Cat No. 20042 of Hindware make collection with PVC cistern Sleek Fresh ISI of Hindware make or equivalent in cost of approved make complete as per direction or Engineer-in-charge.	105.00	each	8031.75	843334.00
145	NS	Providing and fixing POP Cornice as per approved sample including curved portion etc. all complete as per the direction of Engineer-in-charge.				
a		Size 100x100 mm	6700.00	metre	264.60	1772820.00

146	NS	Preparation of surface by applying a coat of putty consisting of chalk mitti (whiting) and synthetic enamel paint in the ratio of 4 kg : 1 litre respectively and by adding water to achieve desire consistency on scrapped wall surface (cost of scrapping of wall, applying cement primer will be paid separately) and sand papering to make the surface level and smooth including making good the surface to proper shape and in presentable condition complete as per the direction of Engineer-in-Charge.	11000.00	sqm	74.50	819500.00
147	N.S	Making of moulded cornice first dismantling of damaged /cracked cornice with high precision i.e. Without damaging of base, scrapping the surface with wire brushes etc. to receive new mortar, making new 18mm thick moulded cornice, with under layer of 12mm cement mortar 1:5 (1cement :5 fine sand) & top layer thick 6mm 1:4 (1 cement :4 fine sand) in identical shape, pattern & design as per direction of Engineer-in-charge.	27600.00	m/cm	41.45	1144020.00
148	N.S	Recovery on account of credit of old dismantled material like angle iron, Tee iron, square or round MS pipes etc. (For the purpose of measurement length shall be measured and weight calculated as per standard steel sections)	27600.00	Kg	-20.00	-552000.00
149	N.S	Recovery on account of credit of old dismantled material like CP Brass Bib Cocks, wall mixers, pillar cocks, Angle valve, Sink Mixers etc	2700.00	Kg	-250.00	-675000.00
150		Recovery of old dismantled wooden doors, windows & chowkhat which will be the property of contractor and shall be disposed off by him without any cost.				
a		Panelled /glazed/ wire gauged doors shutter of any size	2700.00	each	-1000.00	-2700000

b		Window shutter/window chowkhat any size	1900.00	each	-800.00	-1520000
151	NS	P/L 40mm thickk gang saw cut (selected) rubbed red sand stone flooring over 20mm (average) thick based cement mortar 1:5(1cement:5coarse sand) with joints 3mm thick side buttered with cement mortar 1:2 (1cement:2 stone dust)admixed with pigment to match the shade of stone and pointing with same mortar	530.00	sqm	1476.75	782678.00
152	NS	Providing and fixing hard drawn sheet wire fabric 75x25mesh of weight not less than 7.75 kg per sqm. To angle iron frame by welding etc. complete as per direction of Engineer-in-Charge(Welding angle iron will be paid separately	505.00	sqm	746.90	377185.00
153	NS	Plastering of R.B. roof with 21mm thick cement plaster in two coats under laying 15mm thick cement mortar 1:3 (1 cement: 3 coarse sand) and top layer 6mm thick with cement mortar 1:3 (1 cement: 3 fine sand) i/c P/F rabbit wire mesh binding with old reinforcement with wire of dia 3mm and cement slurry @ 2kg/sqm complete as per direction of Engineer-in-Charge.	1350.00	sqm	698.05	942368.00
154	NS	Providing & fixing 0.80mm thick aluminium sheet having 2.24 kg per sqm in back side of kitchen cabinet and existing door and almirah etc. including cutting hoisting and fixing with nails complete as per direction of engineer-in-charge.	95.00	sqm	228.25	21684.00

155	NS	Providing & fixing 25mm thick factory made coloured moulded permanent finish concrete GRC floor designer tiles of M-30 grade made as per manufacturer specification of approved make (UNISTONER, ULTRA, FLAG, STONE or equivalent) Design, shape & colour laid in required pattern over 20 mm thick cement mortar 1:4 (1 cement : 4 coarse sand) as per direction of Engineer-in-charge	1800.00	sqm	1498.05	2696490.00
156	NS	Providing and placing on terrace white colour three layer Sintex make or equivalent (at all floor levels) polyethylene water storage tank, ISI : 12701 marked, with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank.	220000.00	litre	12.10	2662000.00
157	NS	Extra for providing and fixing as per ISI marked brass butt hinges 100x70x4mm and 50x40x2.5mm (sigma make or equivalent) instead of black enamelled M.S. butt hinges with necessary screws in door and window shutter. (Shutter area to be measured).				
	a	For single leaf shutter	575.00	sqm	508.75	292531.00
	b	For double leaf shutter	575.00	sqm	1017.45	585034.00
158	NS	Scrapping Old paint or polish from doors / windows etc. with help of paint remover machine with sand paper F-36 round of belt sand paper M-36 & M-100 in respectively order till original surface complete visible i/e manual scrapping and removing with blades / knives etc. stacking the scrapped door / windows at the location in the bungalow as per direction of Engineer-in-charge.	1000.00	sqm	631.60	631600.00

159	NS	Providing and fixing 6mm thick polygal (Muticell/X structure) polycarbonbate sheet roofing up to any pitch, including fixing with aluminium strip of size 40x4mm i/c screws & washers complete but excluding the cost of purlins, rafters, trusses etc. as per direction of Engineer-in-charge.	300.00	sqm	2384.70	715410.00
160	NS	Providing and fixing 8mm thick polygal (Muticell/X structure) polycarbonbate sheet roofing up to any pitch, including fixing with aluminium strip of size 40x4mm i/c screws & washers complete but excluding the cost of purlins, rafters, trusses etc. as per direction of Engineer-in-charge.	300.00	sqm	2561.30	768390.00
161	NS	Providing and applying super fine plaster of paris 8 to 10 mm thickness in line level and plum over plastered sufrage to prepare the surface even smooth complete as per direction of Engineer-in-charge (a) With P.O.P. of sriram, sakarni or equivalent.	8000.00	sqm	434.00	3472000.00
162	NS	Making pillar base ornamental mouldings including base pedestal after dismantling damaged cracked moulding & bases of existing circular and square pillars with cement mortar 1:3 (1 cement : 3 coarse sand) as per existing patterns as per direction of the Engineer in charge. (The work shall be carried out by highly professionally skilled mason and labour etc, without causing any damages to the existing pillar/columns etc.	200.00	each	5318.00	1063600.00
163	NS	Scrapping / sand papering of existing textured surface with the help of mechanized sanders of Asian Paint Trucare sanders or equivalent make (having to mechanical vaccum machine to make the surface smooth) as per direction of Engineer-in-charge.	37500.00	sqm	14.95	560625.00

164	NS	Providing and laying broken glazed tiles on top of hot blown type bitumen applied @ 1.70 kg/sqm (1.40 kg/sqm of bitumen grade 85/25 @ 0.30 kg/sqm of bitumen grade 80/100) and joints filled with cement mortar 1:2 (1 Cement : 2 marble dust) mixed with water proofing cement compound all complete as per the direction of the Engineer-in-Charge.	1180.00	sqm	357.90	422322.00
165	NS	Grinding, Sanding and PU Polishing of existing parquet flooring in following stage:-				
		(a) Sanding parquet floor with 36 No sand dish and filling the joints with filler and adhesive.				
		(b) Sanding of parquet floor after 1st stage with 60 no sand dish and filling the joints with filler and adhesive.				
		(c) Sanding of parquet floor after 2nd stage with 120 no sand dish and filling the joints with filler and adhesive.				
		(d) Finally PU polishing in two or more coat after completion of 1 to 3rd step.	800.00	sqm	1080.11	864088.00
166	NS	PU Polishing of existing parquet flooring in following stage:-				
		Finally PU polishing in two or more coat after completion of 1 to 3rd step.	2000.00	sqm	484.85	969700.00
167	NS	P/F 10mm thick 1st class wooden parquet flooring including skirting, grinding and teak polishing as per approved pattern, layer and direction Engineer in-charge. (a) Size of tile 70 x 10 x 300 mm	800.00	sqm	2998.00	2398400.00

168	NS	Providing and laying at site 12 mm thick laminated flooring with tongue and groove construction edges duly impregnated to secure long lasting joints secured together with interlocking arrangement including underlay material and installation etc., complete work as per direction of Engineer-in-charge. Pergo, Vista, Golden floor or equivalent of approved make.	1200.00	sqm	2852.06	3422472.00
-----	----	---	---------	-----	---------	------------

SH-VI (Civil Work) : Furniture and furnishing works

S.No	Description of Item	Qty.	Unit	Rate	Estimated Amount
1	Manufacturing & Supplying of Ornamental Double Bed with box of size 1900X1880X430mm. The bed shall consist of 19mm thick commercial block board finished with 6 mm thick OST Ply on Leg & Head side and with 4mm OST ply on left & Right sides of Bed. The Box top sized 1900x900mm made out of 12mm commercial Ply and the bottom shall be of 6mm commercial ply resting on 2nd Class teak wood sizing 70x40mm in frame work in centre top and bottom of box. The vertical support in frame work of bottom support shall be of 2nd class teak wood size 50x40mm. The front of Head and Leg of Bed should be provided with Groove in pattern as per the sample . Bed shall be finished completing the edges with lipping and wooden margins as wherever required and complete in all respect as per direction of Engineer in charge .(All type of board/ply shall be of DURO make only.) (As per sample at Kushak Road Enquiry office and as photograph attached.)				
1.1	(i). Double Bed Size : 1900X1880X430mm	15	Each	34170.00	512550.00
2	Manufacturing & supplying of Ornamental Single Hard bed of size 1.90 x 1.22(inner dimension) with 2nos. 2nd class teak wood long arms 125 x 35mm. Head Side shall be in round shape at top, 85 cm at center & 80cm at ends high, consisting of 65 x 35mm thick vertical teak wood section & 19mm commercial board duly fixed inside horizontally finish with 4 mm teak veneer, 12mm commercial ply & 12mm x 12mm teak wood corner molding. The foot rest shall be in round shape at top, 50cm at center and 45 cm at ends high, consisting of 65x50mm thick vertical ornamental teak wood legs & 19mm commercial board duly fixed 12mm commercial ply outside portion finish with 4 mm teak veneer on both side in natural teak shade. Top of the bed shall be covered with 12mm thick commercial ply (Approved ISI marked) over the arms after giving rebate of 12 mm to make top flush and supported over five seasoned hard wood cross runners of section 50 x 35 mm. Teak wood moulding of section 45 x 20mm shall be provided on top of head & foot rest. Arms to be fixed with head and foot rest by Iron Grove & Bracket as per approved sample. The bed shall be finished in melamine polish with two or more coats on all exposed surface (Portions) to the entire satisfaction of Engineer in Charge. (As per sample at Kushak Road Enquiry office.	40	Each	12991.00	519640.00

3	<p>Manufacturing & Supplying of Wooden Writing Table of size 1360X750X750mm. The table shall consist of 19mm thick commercial block board finished with 6 mm thick OST Board . The table top shall be of two adjoined 19mm board supported on two members of 19mm OST Board of size 750x650 mm along with the one partition at the centre also the Top of Table shall be providing by 8mm thcik Glass size 350mmx600 bevelled edge and the remaining portion will be finished by 1mm thick laminate . The writing table shall have three drawer and foot rest . The drawer shall be made of 19mm OST board on the front and sides , back and bottom shall be of 6mm thick OST ply. Table shall be finished completing the edges with lipping and wooden margins as wherever required and complete in all respect as per direction of Engineer in charge .(All type of board/ply shall be of DURO make only.)</p>	20	Each	20422.00	408440.00
4	<p>Manufacturing & Supplying of Single hard bed of size 1.90 x 0.91 (inner dimension) with 2nos. 2nd class teak wood long arms 100x35mm & 78cm high head side consisting of 65x40mm thick vertical teak wood section connected with two no. horizontal members size 65x40mm and one vertical member at middle of same sections finish with 4mm teak veneer on both sides. The foot rest shall be 52cm high consisting of 65x40 mm thick section forming frame & vertical teak wood legs 65x40mm and 91 high connected with frame & finish with 4mm teak veneer on one side in natural teak shade. Top of the bed shall be covered with 12mm thick commercial ply of approved make over the arms after giving rebate of 12mm to make top flush & supported over 5 nos seasoned hollock wood cross runners of section 50x30 mm. Teak wood beading shall be provided on three sides of head & four side foot rest. Arms to be jointed with head and foot rest by mortice and tennon joints along with dub fixed with steel screws. The bed shall be finished in melamine polish with two or more coats on all exposed surface (Portions) to the entire satisfaction of Engineer-In-Charge.</p>	50	Each	8053.00	402650.00
5	<p>Manufacturing and Supply of ornamental Peg table of 2nd class teak wood section of 60x60mm for legs, side and top frame at size : 75x25mm and 8mm thick bevelled edge glass and finished with lacquer polish complete as per direction of Engineer-in-charge. (Size : 45x45cm & 42cm ht.). As per photograph attached.</p>	50	Each	3935.00	196750.00

6	Manufacturing and supplying of Bed Side Table of size : 450mm x 300mm x 450mm (18"x12"x18") made of 19mm thick block board of teak vaneer on all outer side and teak margin 20mm x 4mm along with approved shade/ colour. The bed side table shall be consist of one drawer of 10cm deep on top portion along with side hinge shutter for the opening below drawer portion. The bottom portion of bed side table shall be consist of 4nos. 15cm high 2nd class teak wood legs of cornical shape of average dia of 4.45cm with necessary screws, knobs etc. finished with lacquer polish as per sample approved by Engineer-in-charge and as per photograph attached. d as per photograph attached. Size : 18" x 12"x18"	75	Each	3665.00	274875.00
7	Manufacturing and supplying of Center Table made of 2nd class teak wood having section 75mm x 75mm for legs, 70mm x 25mm for upper side frame, 80mm x 35mm for top frame and bottom side frame of section 60mm x 45mm, 40mm x 40mm respectively with 6 nos. strips of 30mm x12mm and middle strips of 50mm x 25mm, fitted with 12mm thick beveld edge glass and finished with lequir polish complete as per direction of Engineer-in- charge and as per photograph attached.	25			
7.1	Size : 90 x 45x45cm.	25	Each	5010.00	125250.00
8	Manufacturing and supplying of Center Table made of 2nd class teak wood having section 75mm x 75mm for legs, 70mm x 25mm for upper side frame, 80mm x 35mm for top frame and bottom side frame of section 60mm x 45mm, 40mm x 40mm respectively with 8 nos. strips of 30mm x12mm and middle strips of 50mm x 25mm, fitted with 12mm thick beveld edge glass and finished with lequir polish complete as per direction of Engineer-in- charge and as per photograph attached.				
8.1	Size : 122 x 60x 45cm.	35	Each	15992.00	559720.00
9	Manufacturer & supplying of writing chair as per photogrash attached, having section 100x40mm for legs sides 60mmx40mm arms 25x50mm back and front section 50mmx50mm for back support. Seat and back will have hollock wood of section 70x50mm fitted with 75mm thick 21"x22" cushion seat of 40 density and back shall be of 50mm thickness of 40 density over all size of chair shall be 58cm x 56cmx86cm (TFabric shall be supplied by the department free of cost).	35	Each	13496.00	472360.00

10	Manufacturing and Supplying of ornamental Dining Table of approved design with 4 nos. ornamental legs made out of 100x100mm 1st class C.P. teak wood section connected with frame of 100x35mm C.P. teak wood section. The top shall be made out of 19mm thick ISI marked commercial board projected 75mm around the table. Laminated with 1mm thick Sunmica & edges shall be made 38mm thick by jointing a strip of commercial board 19mm thick & 75mm wide around the top. The edge shall be finished with 40x19mm ornamental teak wood moulding. The table shall be finished in melamine polish all complete as per the instruction/direction of Engineer in charge.				
10.1	size 6'0" x 3'0" x 2'6"	30	Each	15012.00	450360.00
10.2	size 7'0" x 3'6" x 2'6"	30	Each	17468.00	524040.00
11	Manufacturing and supplying of Dining Chair in 2nd Class Teak Wood as per design approved and as per photograph attached. Height of back shall be 530mm and having 7nos. Vertical support of height 46cm of section 50mm x 30mm. Front legs shall be made out of section 50mm x 50mm and shall be 40cm high, back legs shall be made out of section 50mm x 35mm and height shall be 95mm. The seat frame shall have section 75mm x 30 mm and length 36mm. The back side of seat frame shall be in curve having length 37cm & section 75mm x 30mm and supporting member of section 25mm x 25mm. The seat shall have necessary padding of 50mm thick foam sheet over 12mm thick commercial ply duly covered with markin cloth (Febric shall be supplied by the department free of cost) the chair shall be finished in melamine polish with two or more coat complete as per direction of Engineer in charge.	75	Each	6518.00	488850.00
12	Manufacturing & supplying of Dressing Table with required size made out of 19mm thick OST board of approved quality. The table shall consist of open shelf and and drawer of 19mm OST board i/c fixing of 6mm thick looking mirror of size: 450 x 1300mm of modi guard with 6mm thick ply backing and 40mm thick teak wood moulding around edges and lipping wherever required and complete in all respect as per direction of Engineer in charge .(All type of board/ply shall be of DURO make only.)	30	Each	17929.00	537870.00

13	Manufacturing & Supplying of Wooden Computer Table of size 950x650x750 mm. The table shall consist of 19mm thick commercial block board finished with 6 mm thick OST Board . The table top shall be supported on two members of 19mm OST Board of size 650x750 mm concave shaped and 19mm block board (O.S.T) shall be provided 250mm inside from the back edge of writing table length wise leaving a vertical gap of 150mm from the bottom of the floor level. The writing table shall have two drawer one for keeping key board and other for accesories having teak wood knob of size 500x300 and 400x300mm respectively clear inside . The drawer shall be made of 19mm OST board on the front and sides , back and bottom shall be of 6mm thick OST ply. Table shall be finished completing the edges with lipping and wooden margins as wherever required and complete in all respect as per direction of Engineer in charge .(All type of board/ply shall be of DURO make only.)	30	Each	7997.00	239910.00
14	Providing and placing of High Back Revolving Chair having Chair seat and back made up of 12mm thick hot pressed moulded BWP ply cushioned with 45mm thick moulded foam of density 40-45 kg. Cum with PVC lipping upholster with fabric and PU Ffixed arms,Center tilt mechanism for height adjustment resting on nylon base with superior quality castor wheel etc. model no.Duke (IHT -1184) of Indo make or equivalent model in godrej,Howarth.	50	Each	6534.00	326700.00
15	Providing and placing Medium Back Revolving Chair having Chair seat and back made up of 12mm thick hot pressed moulded BWP ply cushioned with 45mm thick moulded foam of density 40-45kg./Cum withPVC lipping upholstered with fabric and PU fixed arms, Center tilt mechanism for height adjustment resting on Nylon base with superior quality castor wheel etc. Model : Duke (IMT -1185) of Indo make or equivalent model in godrej,howarth.	50	Each	6262.00	313100.00
16	Providing and placing Medium Back Visitor Chair having Chair seat and back made up of 12mm thick hot pressed moulded BWP ply cushioned with 45mm thick moulded foam of density 40-45kg./Cum withPVC lipping upholstered with fabric and PU fixed arms, MS power coated fixed mechanism Model : Duke (IVT -1186) of indo make or equivalent model in godrej,howarth.	100	Each	4901.00	490100.00

17	Providing and placing High back revolving chair having The seat and back of the chair is upholstered with fabric & net and cut foam on 12mm thick BWP Plywood. The chair shall be have deep cushioned, posture and all day comfort. The PU adjustable arms. The chair is featured with synchro tilt mechanism with locking system and nylon base. The chair is featured with GAS lift mechanism for seat height adjustment. The prong (base) telescopic bellow is 3 piece telescopic type and injection molded in black polyurethane of Model no. Grace IHF -1139 of indo make or equivalent model in godrej,howarth.	50	Each	8848.00	442400.00
18	Providing and placing in position of Medium Back Visitor Chair of as per photograph. The seat and back of the chair is upholstered with fabric & net and cut foam on 12mm thick BWP Plywood. The chair shall be have deep cushioned, back and seat comfort to body contours for proper alignment, posture and all day comfort The PU Fixed arms. The chair is featured with fixed chromed base. model no. Grace IVF -1141 of indo make or equivalent model in Godrej, howarth .	100	Each	7896.00	789600.00
19	Providing and Placing of Steel Book Case with locker of size : 914mm(W) x320mm(D)x1742mm (H) with knock down It is made from combination of CRCA sheet of thickness 0.7mm and 0.8 mm of 'D' grade high yield strength as per IS:513 and 3mm thick glass in doors. The Book Case should have four compartments having locking mechanism of 6 lever can lock with common key with each door.The body and door are powder coated in 50 (+/- 10) microns thickness. All complete as per manufacturers specification, approved sample and direction of Engineer-in-Charge. Model No. 4 door book case make Godrej or equivalent.	20	Each	28663.00	573260.00
20	Providing and Placing of Domestic Steel Almira with Locker which shall have an overall size of 900mm(W)x507mm(D)x1950mm(H) with knock down construction. It is made from combination of CRCA sheet of thickness 0.6mm and 0.8 mm of 'D' grade high yield strength as per IS:513. The main hinged door has 3 way 90 degree removable key type cam lock & locking mechanism. It has a fixed half locker in RH side with hinged door and 2 way cam lock with knob type handle. The top shelf is fixed and adjustable half shelves 2 on the LH side and 1 on the RH Side of vertical partition. The body and door are powder coated in 50 (+/- 10) microns thickness. All complete as per manufacturers specification, approved sample and direction of Engineer-in-Charge. Model No. Slimline Locker of make Godrej or equivalent.	50	Each	17840.00	892000.00

21	<p>Providing and Placing of 4 Door Book Case (File Cabinet) which shall have the configuration of 914mm (W) x 320mm (D) x 1742 mm (H). The unique design provides the right rigidity to the Top hinged door, which shall facilitate easy use. The Book Case shall be made from prim quality CRCA steel with anti rusting treatment. It shall have a Rigid Knock Down Construction. The Top Panel, Back Panel and side Panel are made from 0.7mm high yield CRCA and other components from 0.8mm CRCA. Each door shall have a 6 lever Cam Lock with common key 3mm thick glass should be used in each door each clear inside vision which shall be secured in a metal frame though a rubber gasket. Scissor Mechanism should be provided in each door for receding inside the top of every compartment and it shall ensure parallel in each door for receding inside the top of every compartment and it shall ensure parallel and smooth movement. Each door compartment shall have a storage shelf with a UDL capacity of max 80 kg. The 4 door book case shall have metal inside top panel. The finishing shall include Epoxy powder coated to the thickness of 50 microns (± 10). All complete as per manufacturers specification, approved sample and direction of Engineer in charge.</p>	15	Each	18591.00	278865.00
22	<p>Providing and Placing of Office steel Almirah which shall have an overall size of 916mm(W)x486mm(D)x1980mm(H) with welded construction. It should have the shelf thickness of 0.7 mm, Back thickness of 0.8mm, Door thickness of 0.8mm (high yield strength) and all other components shall have a thickness of 0.9mm. These components shall be made of CRCA 'D' grade high yield strength as per IS:513. The Almirah should have a Mazak handle and Three way locking mechanism with Shooting Bolts. It should have a height wise adjustable shelf mounting which shall have a Uniformly Distributed Load Capacity of max 40 Kg. It shall have 4 no.s full shelves. A4 size box file(85 W x 285 D x 345 H mm) can be stored vertically on three shelves and the clear space above fourth shelf is 240mm. It should also have a M10 Screw type Leveller with Hex plastic base. The finishing shall include Epoxy powder coated to the thickness of 50 microns (± 10). Plenty of colour options and shelving options shall be available. There shall be 5 loading levels in storewell plain. All complete as per manufacturers specification, approved sample and direction of Engineer-in-charge. Model No Storewell plain of make Godrej or equivalent.</p>	20	Each	22827.00	456540.00

23	<p>Manufacturing & Supplying of Ornamental pattern Sofa Set. The inner frame shall be of seasoned hollock wood. The main 4 nos. vertical support (Legs) shall be of section 75 x 38 mm and it shall be made curved at top by fixing 90 x 25 mm pieces of top. The arms shall be of section 100 x 25 mm supported on horizontal members of section 35 x 25 mm. The secondary supports for resting of spring shall be of 50 x 25mm. Bottom frame shall consist of 4 nos. horizontal members of section 75 x 38mm. The middle frame shall consist of 4 nos. horizontal members of section 50 x 35 mm. The inner frame for resting of seat shall be of section 50 x 35 mm (below the arms) fixed with member of section 35 x 25 mm. The inner frame for resting of back shall be of 45x25mm two members fixed with each other. Two slanting supports on back shall be of 50 x 38 mm. The top horizontal members of back shall be of curved shaped two members joined together of section 45 x 35 mm and 45 x 35 mm. For making curve shape of back two members shall be fixed on top back end of section 50 x 90 x 170 mm. Two members of wood to be fixed with top of back legs of section 100 x 70 x 50 mm. Resting members at four corners shall be angle in shape of size 150 x 150 mm end of section 40 x 50 mm and as per approved drawing and sample at site. Two extra vertical member equally spaced in back of section 50 x 35 mm joined with two horizontal members of section 35 x 50 mm shall be provided in three seater sofa. All wood shall be of seasoned hollock wood. All joints shall be tongued & groove. Arms, seat and back shall be upholstered with foam and cushion. Cushion shall be of 100mm thick rubberized Kool Foam (Multi core) / Prima Foam (Pin hole) with ISI marked and shall be covered with 25mm thick Sleep well foam (32 kg/cum Density) around. 50 mm thick Sleep well foam (32 kg/cum Density) shall be provided in back and side of the sofa. Bottom to be provided with best quality springs and necessary padding of cotton and coir fiber etc. and covered with Jute canvas & cloth as well as bottom of seats to be covered with markin cloth. The sofa set shall have teak wood curved legs in ornamental shape duly fixed in bottom with two or more coats of melamine polish. Complete as per the direction of the Engineer in Charge.</p>				
23.1	a). Sofa Three Seater	20	Each	28413.00	568260.00
23.2	b). Sofa Single Seater	40	Each	12350.00	494000.00
24	Supply of Moulded Plastic chair of " Sigma/Supreme make of approved quality as per approved sample, manufacturer specification & direction of Engineer-in-charge.	500	Each	613.00	306500.00
25	Supply of Moulded Plastic Table of " Anchor/Supreme make of approved quality as per approved sample, manufacturer specification & direction of Engineer-in-charge.	500	Each	552.00	276000.00

26	Supply of Cane Garden Chair wicker type in oval shape of dimension 34 ¹ / ₂ " x 27" made out of superior quality indian cane with 18 nos. 10mm dia. Cane with four legs support consisting of 4 nos. cane of 25mm dia oval shape peripheral made out by 3 nos. members of 25mm dia cane and as per photograph -I attached.	100	Each	2274.00	227400.00
27	Supply of Cane Garden Table of 60mm dia. Made out of superior quality indian cane with 8mm dia cane & 11 nos. cane member made out of 25mm dia consisting of 3 nos. cane members, overall height 50cm with 6mm thick glass top & as per photograph-1 attached.	100	Each	2781.00	278100.00
28	Supply of Steel folding bed with 12mm thick ISI marked commercial ply including rounding the corner of size 194cm x 92cm and height 44cm. The frame should be consisting of 25mm dia M.S. pipe of 20 gauge having two nos. extra support at center including a coat of primer and two coats of synthetic enamel paint on M.S. pipe and wood primer on ply wood as per photograph attached and sample approved by Engineer-in-charge.	180	Each	1722.00	309960.00
29	Supply of PVC dust bin with lid of superior quality as approved by Engineer-in-charge with 60 ltr. Capacity of NAYASA SUPERPLAST, Model no. NP 4358 (Super strong - 62 or equivalent make of Suprem/Polly Plast.	475	Each	1472.00	699200.00
30	Supply of PVC Mat in roll having width 1.22mtr. (4'0") of Prestige/Durosoft or equivalent of superior quality and required shade as per direction of Engineer-in-charge.	2000	Feet	45.00	90000.00
31	Supply of Coir Door Mat FF quality printed as per direction of Engineer in Charge.				
31.1	600mm x 1220mm	600	Each	1915.00	1149000.00
32.2	750mm x 450mm	600	Each	866.00	519600.00
33	Supply of Cotton mattress of size : 1905 x915mm, made of ticken cloth having weight 8 kg net excluding the wt. of cloth filled with new raw cotton i/c stitching the cover and filling the new cotton in cover and stitching with 32 ticklies on either side of the mattress and bringing the same at CPWD Engineer office at Kushak Road as per direction of Engineer-in-charge.	600	Each	2473.00	1483800.00
34	Supply of mattress, specification are as :- Layered quilting of vertifoam on both side with supportac core of resilience foam cushioning with high density molecules foam mattress total height 115 mm. Make of Sleepwell- Inspire & Kurlon Bounty.	300	Each	8594.00	2578200.00
35	Supply of foam sheet 40 density make of Sleepwell or Kurlon Heera as per direction of Engineer-in-charge.				
35.1	Size : 1829x914x12mm	300	Each	577.00	173100.00
35.2	Size : 1829x914x25mm	300	Each	1173.00	351900.00

36	Supply of foam sheet 40 density make of Sleepwell or Kurlon Heera of size 1829x914x50mm as per direction of Engineer in charge.	300	Each	2345.00	703500.00
37	Supply of foam sheet 40 density make of sleepwell or Kurlon Heera size : 1829 x914x100mm as per direction of Engineer in charge	300	Each	5526.00	1657800.00
38	Supply of Rubberized Sofa cushions of 4” thick of Sleepwell or Kurlon Heera make & approved quality as per direction of Engineer incharge. (a) Size 211x221.	300	Each	1269.00	380700.00
39	Supplying of Curtain cloth of make (New Castle / GM fabric / GM syntex/D Decor/Reliable Drape)- Book Name : Regal Collection, Milano Collection Sania Collection) with 120 cm. width, 240 to 266 gm. per meter minimum weight, made of 50 to 55% polyester & 45 to 50% cotton as per approved sample available at kushak road enquiry office and as per direction of the Engineer in charge.	5000	Meter	450.00	2250000.00
40	Supply of Upholstery cloth of 137cm width and weight from 550gm/sqm to 725gms/ sqm of (D/Decor, new castle, reliable drapes) Book name : Pioneer collection, Vision collection Ashley collection & Eshma Collection /kundan furnishing of approved sample available at Kushak Road enquiry office and as per direction of engineer in charge.	2500.00	Meter	713.00	1782500.00
41	Supply of Casement Cloth of superior quality of approved sample of required shade and design as per direction of Engineer-in-charge.	2500	Meter	179.00	447500.00
42	Supply of Jute Canvas Superior Quality 36cm width of approved sample of required shade & design as per direction of Engineer-in-charge.	2500	Meter	61.00	152500.00
43	Supply of Hession Cloth Superior Quality 90cm width of approved sample of required shade & design as per direction of Engineer-in-charge.	2500	Meter	49.00	122500.00
44	Supply of Markin Cloth 150 cms. Width of approved sample and as per direction of Engineer-in-charge.	2500	Meter	84.00	210000.00
45	Providing and laying 10mm thick underlay profeel i/c wastage as per direction of Engineer-in-charge.	600	sqm.	235.10	141060.00
46	Providing and fixing woolen carpet having pile height 9mm. ± 1mm and weight 1000gm/-sqmtr. ± 10 percent of the pile and gross weight of the carpet 1500gm/-sq.mtr. i/c cutting to the reqd. Size and shape with rubber adhesive wall to wall i/c wastage and as per direction of Engineer-in-charge.	600	sqm.	2227.30	1336380.00

47	Providing & fixing new bamboo chicks of required size with new cotton cloth (Markin) New newar and chicks Dori 4mm thick having arrangement of wooden pulley & Bamboo at top & bottom dia 50mm minimum. As per direction of Engineer-In-Charge.	350	Sqm	460.00	161000.00
48	Providing and fixing fancy mat bamboo chicks as per approved colour & design having arrangement of wooden pulley and bamboo at top and bottom edge of minimum dia 5mm including all other accessories etc. complete as per direction of Engineer-in-charge.	150	Sqm	1557.00	233550.00
49	Providing and fixing of 0.5 mm thick PVC Sheet on fancy chicks as per requirement of client and as per direction of Engineer-in-charge.	150	sqm	543.50	81525.00
50	Providing and Fixing Sun Control Film/reflective thermal insulation window film/one way mirror privacy tint film of "Garware" or "3M make" or equivalent over window glass panes i/c cleaning of glass panes all complete as per direction of Engineer-in-Charge. (Net surface area of fixed portion shall be measured for payment)	75	sqm	1241.95	93146.00
51	Measuring at site and stitching of three pleated curtains for doors and windows; curtains to be stitched with approved quality curtain cloth and will have a minimum fold of 15cm at bottom and 10cm at top including buckram, tape, thread, rings etc. of approved quality and ironing/ pressing, hanging of newly stitched curtains in place & de-hanging the old curtain and deposited the same with JE including cost of all cartage, materials and operations described above except the cost of curtain cloth (Which shall be supplied free of cost by the department), complete as per the direction of Engineer-in-charge.				
51.1	Curtain with Lining	200	Each panel	80.00	16000.00
51.2	Curtain without Lining.	200	Each panel	75.00	15000.00
52	Measuring at site and stitching of Eyelet curtains for doors and windows; curtains to be stitched with approved quality curtain cloth and will have a minimum fold of 15cm at bottom and 10cm at top including matching thread, S.S eyelets rings etc of approved quality and ironing/ pressing, hanging of newly stitched curtains in place & de-hanging the old curtain and depositing the same with JE including cost of all cartage, materials and operations described above except the cost of curtain cloth (which shall be supplied free of cost by the department), complete as per the direction of Engineer-in-charge.	3000	Each panel	294.00	882000.00

53	Supplying & stacking of 19MM Thick One Side Teak (OST) Ply of MR grade of Hardwood having manufacturing process of Triple Heated Treatment (THT) and as per IS:1328 of premium quality of approved make Duro or equivalent and as per direction of Engineer incharge.	180.00	sqm.	1967.00	354060.00
54	Supplying & stacking of 19MM Thick Block Board of BWP grade of Hardwood confirming to IS:1659 having manufacturing process of Triple Heated Treatment (THT) as per IS:1659 of premium quality of approved make Duro or equivalent and as per direction of Engineer incharge.	180.00	sqm.	1458.00	262440.00
55	Supplying & stacking of 4MM Thick One Side Teak (OST) Plywood of MR grade of hardwood having manufacturing process of Triple Heated Treatment (THT) as per IS:1328 of premium quality of approved make Duro or equivalent and as per direction of Engineer incharge.	180.00	sqm.	900.00	162000.00
56	Supplying & stacking of 4MM Thick One Side Teak (OST) Plywood of MR grade of hardwood size 3*6 feet having manufacturing process of Triple Heated Treatment (THT) and as per IS:1328 of premium quality of approved make Duro or equivalent and as per direction of Engineer incharge.	150.00	sqm.	900.00	135000.00
57	Supplying & stacking of 6MM Thick One Side Teak (OST) Plywood of MR grade of hardwood having manufacturing process of Triple Heated Treatment (THT) and as per IS:1328 of premium quality of approved make Duro or equivalent and as per direction of Engineer incharge.	180.00	sqm.	1071.00	192780.00
58	Supplying & stacking of 12MM Thick One Side Teak (OST) Plywood of MR grade of hardwood having manufacturing process of Triple Heated Treatment (THT) and as per IS:1328 of premium quality of approved make Duro or equivalent and as per direction of Engineer incharge.	150.00	sqm.	1557.80	233670.00
59	Supplying & stacking of 12MM Thick commercial Plywood of MR grade size 3*6 feet of hardwood having manufacturing process of Triple Heated Treatment (THT) and as per IS:1328 approved /premium quality of make Duro or equivalent and as per direction of Engineer incharge.	150.00	sqm.	965.00	144750.00
60	Supplying & stacking of 1.00 mm Thick decorative high pressure laminated sheet of plain /wood grain in gloss / matt/ suede finish with high density protective surface layer and reverse side of adhesive bonding quality conforming to IS : 2046 Type S of approved make Century Ply or equivalent.	150.00	sqm.	388.00	58200.00

61	Supplying & stacking of 0.80 mm Thick decorative high pressure laminated sheet of plain /wood grain in gloss / matt/ suede finish with high density protective surface layer and reverse side of adhesive bonding quality conforming to IS : 2046 Type S of approved make Century Ply or equivalent.	200.00	sqm.	259.00	51800.00
62	Supplying & stacking of following materials for day to day maintenance work.				
62.1	12mm x 20mm (1/2" x3/4") Teak half round	400	mtr.	51.63	20652.70
62.2	25mm x 6mm Teak Margin	400	mtr.	14.73	5893.45
62.3	20mm x 7mm Teak Margin	400	mtr.	16.60	6641.66
62.4	50mm x 12mm Teak Margin	400	mtr.	71.49	28596.05
63	Supplying & stacking of Selected 2nd Class Teak Wood in scantling of required size with length more than 6' as per direction of Engineer-in-charge.				
63.1	50mm x 50mm	300	mtr.	226.90	68069.36
63.2	100mm x 100mm	300	mtr.	924.50	277350.93
63.3	100mm x 40mm	300	mtr.	344.60	103380.00
63.4	75mm x 40mm	300	mtr.	256.20	76860.00
64	Supply of Selected 2nd Class Teak Wood in Planks as per direction of Engineer-in-charge.	3.5	cum.	79100.00	276850.00
65	Supplying & stacking of Cornish Moulding of				
65.1	size : 3/4" x 3/4"	300	mtr.	42.00	12600.00
65.2	size : 1" x 1"	300	mtr.	44.80	13440.00
66	Supply of 2nd quality Lakhdana. and as per direction of engineer-in-charge.	150	Kg.	728.81	109322.03
67	Supplying & stacking of Spirit of approved brand of Perfect/Star/Wembley and as per direction of engineer-in-charge.	500	Ltr.	51.60	25800.00
68	Supply of Thinner of approved brand of Perfect/Murga/Wembley and as per direction of engineer-in-charge.	500	Ltr.	228.00	114000.00
69	Supply of Lequer for furniture of approved brand of Asian/Berger/Wembley and as per direction of engineer-in-charge.	500	Ltr.	219.00	109500.00
70	Supply of Sealer for furniture of approved brand of Asian/Berger/Wembley and as per direction of engineer-in-charge.	500	Ltr.	210.00	105000.00
71	Supply of regmal 100 no. Of milton brand or equivalent and as per direction of engineer-in-charge.	1500	Each	36.00	54000.00
72	Supply of regmal 80 no. Of milton brand or equivalent for new furniture and as per direction of engineer-in-charge.	400	Mtr.	36.00	14400.00

73	Supply of Pili Mitti of Key brand or equivalent in 400 gm capacity and as per direction of engineer-in-charge.	250	Pkt.	23.00	5750.00
74	Supply of Lal Sena of Key brand or equivalent in 400 gm capacity and as per direction of engineer-in-charge.	250	Pkt.	23.00	5750.00
75	Supply of Tarki Amber of Key brand or equivalent in 400 gm capacity and as per direction of engineer-in-charge	200	Pkt.	23.00	4600.00
76	Supply of Chak Mitti for polishing work of Approved quality and as per direction of engineer-in-charge.	200	Kg.	18.00	3600.00
77	Supply of Cotton dhoti having size 2 yard of Approved quality and as per direction of engineer-in-charge.	1000	Each	18.00	18000.00
78	Supply of Clear Varnish of approved brand of Sparx/Asian/berger and as per direction of engineer-in-charge.	100	Ltr.	228.00	22800.00
79	Supply of Fevicol in 5 Kg. Packing of approved brand Jivan Jor/DDL/Aircol and as per direction of engineer-in-charge.	600	Kg.	237.00	142200.00
80	Supply of chromium plated S.S knob (with plate) 50 mm.	250	Each	108.00	27000.00
81	Supply of chromium plated S.S knob 25 mm.	250	Each	75.00	18750.00
82	Supply of chromium plated S.S handle 100 mm with plate 150 x 32 mm.	250	Each	129.00	32250.00
83	Supply of chromium plated S.S handle 75 mm with plate 125 x 32 mm.	250	Each	97.00	24250.00
84	Supply of Chromium plated S.S screw 50 mm.	2000	Each	3.00	6000.00
85	Supply of Chromium plated S.S screw 40 mm.	2000	Each	2.00	4000.00
86	Supply of Chromium plated S.S screw 30 mm.	2000	Each	1.88	3760.00
87	Supply of Chromium plated S.S screw 25 mm.	2000	Each	2.00	4000.00
88	Supply of Chromium plated S.S screw 20 mm.	2000	Each	1.00	2000.00
89	Supply of Bright finished or black enameled mild steel screw 50 mm.	2000	Each	2.00	4000.00
90	Supply of Bright finished or black enameled mild steel screw 40 mm.	2000	Each	1.00	2000.00
91	Supply of Bright finished or black enameled mild steel screw 30 mm.	2000	Each	1.00	2000.00
92	Supply of Bright finished or black enameled mild steel screw 25 mm.	2000	Each	1.00	2000.00
93	Supply of Bright finished or black enameled mild steel screw 20 mm.	2000	Each	1.00	2000.00
94	Supply of nickel plated mild steel piano hinges 1 mm thick 35 mm wide.	50	Per Metre	215.00	10750.00
95	Supply of Joint tape roll good quality	100	Each	65.00	6500.00
96	Supply of teak wood lipping of size 25 x 3 mm	500	Per Metre	17.00	8500.00

97	Supply of telescopic drawer channels 300 mm long, & 450mm of Ozone make	100	Each Set	323.00	32300.00
98	Supply of 2nd class teak wood lipping/moulded beading/taj beading/ornamental beading of size 18 x 5 mm.	500	Per Metre	38.00	19000.00
99	<p>P/Fixing MAC Terrace Awning. The system shall be mounted on 40mm x 40mm pipe made of steel duly powder coated. The rooling tube in 63mm dia shall be fixed to the square, tube mounting with steel plates. All components including installation bracket & plates shall be painted.</p> <p>The awning shall move with the help of spring loaded arms attached with the front channel at a distance of 5' to 6' depending upon the width and projection of the awning. The arm sections and front channel shall be extruded aluminum section with minimum wall thickness of 1.5mm & shall powdercoated.</p> <p>Awning shall be made out of acrylic fabric . Projection 325cm-350cm.</p> <p>The awning shall open and close with the help of one Gear Box attached with the steel pipe on left or right of the awning. (Having projection 325-350cm.)</p>	300	sqm.	7894.00	2368200.00
100	<p>P/Fixing the structure MAC Window Awning. Awning shall be made out of aluminum extruded section 45mmx 18mm, U shaped with minimum wall thickness of 1.5mm. The section shall be so designed to have a pocket for inserting a PVC extruded beeding for fixing the fabric on the frame. The section shall be power coated in a colour of choice. The frame shall be so designed to unable awning to fold up. the hinges shall be moulded form nylon. The bends shall be made of aluminum with Nylon caps to give neat finish to the structure. The awning shall be made out of acrylic fabrics. The fabric shall be fixed to the structure using long staples and a beeding in a colour matching to the fabric shall be provided.(Having projection 60cm-100cm).</p>	250	mtr.	7346.00	1836500.00
101	<p>Providing and Fixing wall paper of "Ultra walls" make or equivalent of patterns flora fairy, unique wall, fritistic American Jaipur, Leasent, Double Shotor equivalent with required adhesive all complete as per direction of Engineer-in-Charge. (Net surface area of fixed portion shall be measured for payment</p>	550	Sqm.	698.55	384202.50
102	<p>Providing and fixing of Roman Blind as per design and fixing roman thread and clips as per design and direction of Engineer-in-charge.</p>	350	Sqm.	1229.50	430326.17
103	<p>P/F Double Roller Blind Zebrano MAC Brand in required size and selected colour and design with all necessary components such as top channel, double shade fabric, bottom channel and operating systems as per manufacturers specification and direction of the Engineer-in-charge.</p>	200	sqm.	7508.00	1501600.00

104	Providing and fixing Roller Blind Bloom with powder coated palmet MAC Brand in required size and selected colour and design with all necessary components such as top channel, fabric, bottom channel and operating systems as per manufacturers specification and direction of the Engineer-in-charge.	170	sqm.	5865.00	997050.00
105	Providing & fixing MAC/ VISTA brand aluminium powder cotted Roman Channel i/c operating system and all necessary items in required sizes and selected colour and design with all necessary components as per manufacturers specification and direction of the Engineer-in-charge.	180	R.mtr	1526.00	274680.00
106	Providing & fixing Globus Track 1 Channel of MAC brand including channel, runners, brackets, finals in required sizes and selected colour and design with all necessary components as per manufacturers specification and direction of the Engineer-in-charge.				
106.1	(i). Length up to 0.91 mtr.	80	Each	983.00	78640.00
106.2	(ii) Additional Length per mtr. Beyond 0.91 mtr	40	R.mtr	791.74	31669.68
107	Providing and fixing 25mm Steelex Steel Cult Rod Magnum/MAC brand including Rod, Ring, Finals, Brackets as per manufacturers specification and direction of the engineer in charge.				
107.1	(i) Length upto 0.91 mtr.	400	Each	2015.00	806000.00
107.2	(ii) Additional Length per meter.	200	R.mtr	1187.61	237522.58
108	100mm Vertical Blind (Fabric) Blackout of MAC Brand including top channel, fabric, bottom weight, Link Chain, Tilting chain, etc. as per manufacture specification and direction of the Engineer-in-charge.	100	sqm.	1484.00	148400.00
109	28mm excel wood rod Magnum brand including rod, ring, finals, brackets as per manufacturers specification and direction of the Engineer-in-charge.				
109.1	(i) Length upto 0.91 mtr.	300	Each	1038.00	311400.00
109.2	(ii) Additional length per mtr. Beyond 0.91mtr.	150	R.mtr	890.71	133606.45
110	Providing and fixing of Drapery Rod of MAC brand of different model in required sizes and selected colour and design with all necessary components as per manufacturers specification and direction of the Engineer in charge .				
	Soft Line Plain Gold:-				
110.1	(i) Length upto 0.91 mtr.	200	Each	848.00	169600.00
110.2	(ii) Additional length per mtr. Beyond 0.91mtr.	200	R.mtr	593.81	118761.29
111	Providing and fixing 25mm S.Sex Majestic Magnum/Vista brand including rod, ring, finals, brackets as per manufacturers specification and direction of Engineer-in-charge.				

111.1	(i) Length upto 0.91 mtr.	150	Each	3687.00	553050.00
111.2	(ii) Additional Length per mtr. Beyond 0.91 mtr	70	R.mtr	2335.64	163494.71
112	Washing of loose cover for sofa set including cover of cushion, sofa half cover including pressing complete as per direction of Engineer-in-charge.				
112.1	Half Cover	300	Each	25.00	7500.00
112.2	Full Cover	300	Each Seat	50.00	15000.00
113	Dry cleaning of curtains with lining or without lining of all size including pressing etc. complete as per direction of Engineer in charge.	2000	Each Panel	128.00	256000.00
114	Dry cleaning shampooing of woolen/synthetic carpets/ cotton durrets of all size complete as per direction of Engineer-in-charge.	150	sqm.	70.00	10500.00
115	Chemical cleaning of upholstered sofa/dunlop sofa (three seater) complete as per direction of Engineer-in-charge.	150	Each	450.00	67500.00
116	Chemical cleaning of upholstered sofa/dunlop sofa chair (single/ two seater) complete as per direction of Engineer-in-charge.	150	Each	190.00	28500.00
117	Chemical cleaing of upholstered writing chair, computer chair, executive chair, visitor chair and dining chair complete as per the direction of Engineer-in-charge.	150	Each	120.00	18000.00
118	Dry cleaning of blinds with petrol including remoing of stains, steam pressing including Hanging/ Dehanging loading & unloading and cartage as per direction of Engineer-in-charge.	80	Each	280.00	22400.00
119	Dry cleaning of vertical blinds with petrol including dehanging , fixing, removing of stains, steam pressing loading & unloading and cartage etc. as per direction of Engineer in charge.	50	Each	95.00	4750.00
120	Cleaning of window awning/canopy at site of all size (the rate are i/c dehanging/hanging, cleaning with cleaner and material, necessary required T & P etc).	2000	Sqft.	48.00	96000.00
121	Re-upholstery of sofa including opening of old upholstery and fixing of jute markeen as required in sofa and cutting to shape the upholstery cloth properly fixing excluding the cost of materials (the material shall be supplied by the department free of cost) but including the cost of blue cut, nails, cotton real and boslic etc.				
121.1	3 Seater Sofa	150	Each	1450.00	217500.00
121.2	2 Seater Sofa	50	Each	847.00	42350.00
121.3	1 Seater Sofa	300	Each	626.00	187800.00

122	Remoulding of sofa including opening of old upholstery (i/c removal of all item) and fixing of rubber sheet, jute markeen/jute kanwas, padding of cotton/coir fibre, new foam sheet wherever required in the back, arms and cushion required in sofa and cutting to shape the upholstery cloth properly fixing and fixing of spring as required excluding the cost of materials and complete as per direction of Engineer in Charge. (the material shall be supplied by the department free of cost) but including the cost of blue cut, nails, cotton real and boslic etc.				
122.1	3 Seater Sofa	50	Each	2887.00	144350.00
122.2	2 Seater Sofa	25	Each	2215.00	55375.00
122.3	1 Seater Sofa	100	Each	1449.00	144900.00
123	Re-upholstering of dining chair or writing chair with straight or curved back or visitor chair or computer chair or executive chair or easy chair including marking, tapestry cloth, cutting ot shape, stitching and fixing padding with foam and coir wherever required and cotton/latex foam of approved quality including opening out upholstery of old dining chair/writing chair/ visitor chair/ computer chair/ executive chair/easy chair but excluding the cost of materials all complete as per direction of Engineer-in-charge but including the cost of blue cut, nails, cotton real and boslic etc.				
123.1	Dining chair/Writing chair/Visitor chair/computer chair -With seat and back	350	Each	580.00	203000.00
123.2	Dining chair/Writing chair/Visitor chair/computer chair -With seat only.	350	Each	371.00	129850.00
124	Denting, painting (powder coating), replacing of legs and repairing of damaged old steel almirah (domestic/office) including removing the dent and making it in proper shape, scrapping the old paint and existing putty, applying new putty, sand papering and spray painting. Providing and fixing new lock, new handle of superior quality etc. complete in all respect as per direction of Engineer-in-charge. (Note:- Rate includes carrying of steel almirah to workshop for powder coating from enquiry office at Kushak Road and return the same to equiry office at Kushak Road. Nothing extra shall be paid on account of this).	50	Each	5465.00	273250.00
125	Repair of Revolving Chair by replacing of uphostery, foam seat, back side handle, new wheel black shade, all welding works, new hydrolic machine, black spray paint, wooden seat and black ply with loading unloading and carriage as per direction of Engineer-in-charge.	50	Each	2296.00	114800.00
126	Providing and fixing of new hydrolic machine for Revolving Chair complete as per direction of Engineer in charge	50	Each	890.00	44500.00

127	Providing and fixing of new side handle for Revolving Chair/ Visitor Chair complete as per direction of Engineer in charge.	50	Each	761.00	38050.00
128	Providing and fixing frame made from stainless steel of approved make & design and as per direction of Engineer in charge.	50	Each	1739.00	86950.00
129	Repair of Computer chair by replacing of upholstery,foam seat, back side handle, new wheel black shade, all welding works, new hydrolic machine, black spray paint, wooden seat and black ply with loading unloading and carriage as per direction of Engineer-in-charge.	50	Each	2002.00	100100.00
130	Repair of Steel Visitor Chair by replacing of upholstery,foam seat, back side handle, all welding works, black spray paint, wooden seat and back ply with loading unloading and carriage as per direction of Engineer-in-charge.	50	Each	1567.00	78350.00
131	Providing and Fixing of toughned glass of required shape and size including grinding, moulding, bevelling, polishing etc. complete as per direction of Engineer -in-charge.				
131.1	(i) 12 mm thick	100	Sqm.	2568.60	256860.00
131.2	(ii) 10 mm thick	125	Sqm.	2398.70	299837.50
131.3	(iii) 8 mm thick	150	Sqm.	1958.75	293812.50
132	Making Key of CRC wardrobe, steel book case, table lock etc. including labour, material etc. complete at various bunaglows as and when required as per direction of Engineer-in-charge	150	Each	118.00	17700.00
133	Making Key of domestic steel almirah, office steel almirah etc including labour material etc. complete at various bungalow as and when required as per direction of Engineer in charge	150	Each	177.00	26550.00
134	Replacement of domestic steel almirah lock and office steel almirah lock etc. including labour material etc. complete at various bungalows as and when required as per direction of Engineer-in-charge.	150	Each	882.65	132397.50
135	Replacement of handle of steel almirah and office steel almirah lock etc. including labour material etc. complete at various bungalows as and when required as per direction of Engineer-in-charge.	150	Each	174.65	26197.50
136	Supply of magnetic catcher double strip horizontal type of Ozone make	250	Each	86.00	21500.00

SH-I (Electrical) :Day to Day Maintenance

S.No	Description of Items	Qty.		Rate	Unit	Estimated Amount
	SH: 1 - Out sourcing i/c ordinary and special repairs, Maintenance and furnishing, parliamentary works including A/R & M/O.					
1	Comprehensive maintenance for upkeepment of all internal & external electrical installations, fans, Room Heater, Oil Heater, Chimney, Inverter etc at various bungalows i/c all days Sunday and Holidays including men (round the clock) and all materials complete as per additional terms & conditions.	36	Month	1339238	PM	48212568.00
2	Comprehensive maintenance for upkeepment of all capacity ACs, Refrigerators, Desert Cooler, Water Cooler, etc. at various bungalows i/c all days Sunday and Holidays completes with men (round the clock) and all materials as per additional terms & conditions. (This Item i/c provision for dismantling, re-installation, testing and commissioning of existing equipment as per requirement of V.V.I.P. allottee and checking and cleaning of each AC unit, at least once a fortnightly)	36	Month	390687	PM	14064732.00
3	Comprehensive maintenance for upkeepment of following capacity of DG sets including repair replacement all defective/wornout parts with new original parts certified by OEM installations at various bungalows i/c Sunday and Holidays completes with Fuel as per additional terms & conditions.					
a)	2x125KVA (17 Akbar Road & 9 Krishna Menon Marge)	36	Month	29774	PM	1071864.00
b)	2x62.5 KVA DG Sets (2 Krishna Menon Marge & 2 Moti Lal Neharu Place)	36	Month	25568	PM	920448.00
c)	2x40 KVA DG Sets (8 Safdarjung Lane & 36 APJ Abdul Kalam Road)	36	Month	23299	PM	838764.00

4	Comprehensive maintenance of different capacity water purifiers including repair replacement all defective/wornout parts with new original parts certified by OEM at Hon'ble Ministers Bungalows as per list attached, staff quarters, guard rooms etc. round the clock including Sundays and Holidays. As per direction of the Engineer-in-charge and as per attached inventory, term and conditions. The include monthly visit of staff for servicing of RO per Month etc complete as attached terms & conditions 105 for Nos.	105 Nos. for 36	Months	350	PM	1323000.00
5	Operation & Comprehensive maintenance of one No. 4-Passenger lift Schindler Elevator Make i/c all repairs/replacement spare parts with original certified by OEM, serving Ground Floor to Ist Floor 6:00 AM to 2:00 PM & 2:00 PM to 10:00 PM including Sundays and Holidays including cleaning of machine room and lift as required, as per terms and conditions attached.	36	Months	61799	P/Mo nth	2224764.00
6	Establishing, operating and maintaining the service centre round the clock, by providing 1no. trained personal in following shift required computer system including printer and peripheral, telephone connection, broad band connection, furniture and furnishing items for smooth operation of service centre, including close monitoring, downloading, receiving & recording of complaints through any mode, assigning the complaints, updating the same to CPWD e-Sewa after attending the complaints report. This shall also include all requirement of CPWD e-Sewa. Complaints received at service centre in person or through any other source shall be lodged to CPWD Call Centre. (a) 6.00 AM to 2.00 PM, 9:00 Am to 5:00 PM, 2.00PM to 10.00 PM, 10.00 PM to 6.00AM,	36	Months	107335	P/ Month	3864060.00
7	Comprehensive maintenanceof different capacity solar heating system including repair replacement all defective spare parts with original parts original certified by OEM at Hon'ble Ministers Bungalows as per list attached. round the clock including Sundays and Holidays. As per direction of the Engineer-in-charge and as per attached inventory, term and conditions. The include monthly visit of staff for servicing of solar heating system per month etc complete as attached terms & conditions.	65 Nos. for 36	Months	515	PM	1205100.00

8	Comprehensive maintenance of EPABX system with telephone intercom sets installed at Following bungalows i/c all days Sunday and Holidays completes with men and replacement of all defective spare parts as and when required.					
(a)	32 Prithviraj Road					
(b)	17 Akbar Road					
(c)	10 Akbar Road					
(d)	Sewa Kendra	1	Job			
(e)	Division Office	36	Month	11428	P/M	411408.00

SH-II (Electrical) - Minor Works

S. N	Description of Items	Quantity		Rate	Unit	Estimated Amount
	Sub-Head- 2 (Minor Works)					
1	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed steel conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc as required.					
a)	Group A	100	Pts	845	P/Pts	84500.00
b)	Group B	150	Pts	961	P/Pts	144150.00
2	Wiring for twin control light point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed steel conduit, 2 way modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc as required.	50	Pts	1290	P/Pts	64500.00
3	Rewiring for light points/fan points/exhaust fan point/call bell point with 1.5 sqmm FRLS PVC insulated copper conductor single core cable and 1.5 sqmm FRLS PVC insulated copper conductor single core cable as earth wire in existing surface/recessed/steel conduit / PVC conduit i/c dismantling etc. as reqd.					
a)	Group A	100	Pts	416	P/Pts	41600.00
b)	Group B	200	pts	447	P/Pts	89400.00
4	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable etc. as required					
a)	Group B	90	Pts	783	P/Pts	70470.00
5	Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface/ recessed steel / PVC conduit as required.					

a)	3 x 1.5 sqmm	1000	Mtrs	54	P/Mtr	54000.00
b)	6 x 1.5 sqmm	300	Mtrs	100	P/Mtr	30000.00
c)	3 x 4 sqmm	1000	Mtrs	117	P/Mtr	117000.00
d)	3 x 6 sqmm	150	Mtrs	167	P/Mtr	25050.00
6	Wiring for light/ power plug with 4X4 sq. mm FRLS PVC insulated copper conductor single core cable in surface/recessed steel conduit alongwith 2 Nos 4 sq. mm FRLS PVC insulated copper conductor single core cable for loop earthing as required.	200	Mtrs	392	Mtr	78400.00
7	Wiring for light/ power plug with 2X4 sq. mm FRLS PVC insulated copper conductor single core cable in surface/recessed steel conduit alongwith 1 No 4 sq. mm FRLS PVC insulated copper conductor single core cable for loop earthing as required.	200	Mtrs	265	Mtr	53000.00
8	Supplying and drawing following pair 0.5 mm dia FRLS PVC insulated annealed copper conductor, unarmored telephone cable in the existing surface/ recessed steel/ PVC conduit as required.					
a)	4 Pair	300	Mtrs	29	P/Mtr	8700.00
9	Supplying and drawing co-axial TV cable RG-6 grade, 0.7 mm solid copper conductor PE insulated, shielded with fine tinned copper braid and protected with PVC sheath in the existing surface/ recessed steel/ PVC conduit as required.	200	Mtrs	33	P/Mtr	6600.00
10	Supplying and fixing of following sizes of steel conduit along with accessories in surface/recess including painting in case of surface conduit, or cutting the wall and making good the same in case of recessed conduit as required.					
a)	20mm	800	Mtrs	146	P/Mtr	116800.00
b)	25mm	1500	Mtrs	165	P/Mtr	247500.00
11	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required.					
a)	25mm	200	Mtrs	90	P/Mtr	18000.00
12	Supplying and fixing metal box of following sizes (nominal size) on surface or in recess with suitable size of phenolic laminated sheet cover in front including painting etc as required.					

a)	180 mm X 100 mm X 60 mm deep	30	Nos.	183	Each	5490.00
b)	200 mm X 250 mm X 75 mm deep	20	Nos.	351	Each	7020.00
13	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.					
a)	5/6 Amp. Switch	1200	Nos.	85	Each	102000.00
b)	2 way 5/6 Amp. Switch	100	Nos.	123	Each	12300.00
c)	15/16 Amp. Switch	1000	Nos.	132	Each	132000.00
d)	3 Pin 5/6 Amp. Socket outlet	500	Nos.	111	Each	55500.00
e)	6 Pin 15/16 Amp. Socket outlet	1000	Nos.	175	Each	175000.00
f)	Telephone socket outlet	200	Nos.	119	Each	23800.00
g)	T.V. Antenna Socket outlet	100	Nos.	119	Each	11900.00
h)	32 Amp. DP MCB modular	100	Nos.	416	Each	41600.00
i)	Bell push (Modular)	200	Nos.	126	Each	25200.00
j)	USB Point	100	Nos.	535	Each	53500.00
14	Supplying and fixing two module stepped type electronic fan regulator on the existing modular plate switch box including connections but excluding modular plate etc. as required	200	Nos.	342	Each	68400.00
15	Supplying and fixing brass batten/ angle holder including connection etc. as required.	400	Nos.	117	Each	46800.00
16	Supplying and fixing modular blanking plate on the existing modular plate & switch box excluding modular plate as required.	100	Nos.	32	Each	3200.00
17	Supplying and fixing following size/ modules, GI box alongwith modular base & cover plate for modular switches in recess etc as required.					
a)	2 Module (75mm X 75mm)	90	Nos.	243	Each	21870.00
b)	3 Module (100mm X 75mm)	60	Nos.	267	Each	16020.00
c)	4 Module (125mm X 75mm)	90	Nos.	287	Each	25830.00
d)	6 Module (200mm X 75mm)	150	Nos.	333	Each	49950.00
e)	8 Module (125mm X 125mm)	200	Nos.	383	Each	76600.00
f)	12 Module (200mm X 150mm)	100	Nos.	434	Each	43400.00
18	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 6 pin 5/6 & 15/16 amps modular socket outlet and 15/16 amps modular switch, connection etc. as required.	200	Nos.	495	Each	99000.00
19	Supplying and Laying of one number armoured XLPE aluminium conductor power cable of 1.1 KV grade of following size direct in ground including excavation and refilling the					

	trench etc as required, but excluding sand cushioning and protective covering.					
a)	2 x 10 sqmm	1000	Mtrs	238	P/Mtr	238000.00
b)	4 x 25 sqmm	500	Mtrs	303	P/Mtr	151500.00
c)	3.5 x 70 sqmm	200	Mtrs	461	P/Mtr	92200.00
20	Supplying and Laying of one number armourd XLPE aluminium conductor power cable of 1.1 KV grade of following size in the existing masonry open duct as required.					
a)	2 x 10 sqmm	500	Mtrs	94	P/Mtr	47000.00
b)	4 x 25 sqmm	800	Mtrs	159	P/Mtr	127200.00
21	Supplying and Laying and fixing of one number armourd XLPE aluminium power cable of 1.1 KV grade of following size on wall surface as required.					
a)	2 x 10 sqmm	300	Mtrs	110	P/Mtr	33000.00
b)	4 x 25 sqmm	500	Mtrs	175	P/Mtr	87500.00
c)	3.5 x 70 sqmm	200	Mtrs	383	P/Mtr	76600.00
22	Providing and fixing 6 SWG dia G.I. wire on surface or in recess for loop earthing along with existing surface/ recessed conduit/ submain wiring/ cable as required.	4000	Mtrs	37	P/Mtr	148000.00
23	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.					
a)	2 x 10 sqmm	300	Sets	198	P/Sets	59400.00
b)	3.5 x 70 sqmm	10	Sets	368	P/Sets	3680.00
c)	4 x 25 sqmm	100	Sets	250	P/Sets	25000.00
24	Supplying and laying of following size DWC HDPE pipe ISI marked along with all accessories like socket, bend, couplers etc. conforming to IS 14930, Part II complete with fitting and cutting, jointing etc. in the existing trench, complete as required.					
a)	63 mm dia (OD-63 mm & ID-51 mm nominal)	300	Mtrs	109	P/Mtr	32700.00
b)	90 mm dia (OD-90 mm & ID-76 mm nominal)	100	Mtrs	149	P/Mtr	14900.00
25	Supplying and fixing 5 A to 32 A rating, 240/415 V, 10 kA, —C curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with					

	connections, testing and commissioning etc. as required					
a)	Single pole	200	Nos	199	Each	39800.00
26	Supplying and fixing of following ways surface/ recess mounting, vertical type, 415 V, TPN MCB distribution board of sheet steel, dust protected, duly powder painted, inclusive of 200 A, tinned copper bus bar, common neutral link, earth bar, din bar for mounting MCBs (but without MCBs and incomer) as required. (Note : Vertical type MCB TPDB is normally used where 3 phase outlets are required.)					
a)	4 way (4 + 12), Double door	5	Nos	5651	Each	28255.00
b)	8 way (4 + 24), Double door	5	Nos	7744	Each	38720.00
27	Supplying and fixing following way, single pole and neutral, sheet steel, MCB distribution board, 240 V, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator)					
a)	8 way, Double door	6	Nos	1760	Each	10560.00
b)	12 way, Double door	6	Nos	2053	Each	12318.00
28	Supplying and fixing of hinged 300x200x105mm deep hot pressed moulded SMC boxes hinged door type on the existing G.I. pipe pole with G.I. clamping arrangement hinged type cover with locking arrangement I/c Pdg. & Fixing one number SPMCB (10 to 20 amp) and 2 Nos 4way 30 amp brass N.L. with bakelite base i/c connection testing & earthing the box etc as reqd.	100	Nos.	1395	Each	139500.00
Fan & Fittings						
29	SITC of 6-7 watt LED type Down Lighter fitting direct in the false ceiling (Recessed) type i/c testing commissioning and connection etc complete as required. (Make: Crompton, Model: Pearl, /Bajaj, Model: Sleek RD/Jaquar, Model: Nero Round/Surya, Model: Steller Round)	200	Nos	490	Each	98000.00

30	SITC of 10-12 watt LED type Down Lighter fitting direct in the false ceiling (Recessed) type i/c testing commissioning and connection etc complete as required. (Make: Crompton, Model: Pearl, /Bajaj, Model: Sleek RD/Jaquar, Model: Nero Round/Surya, Model: Steller Round)	200	Nos	701	Each	140200.00
31	Supplying and fixing of 34-36W Recess mounting LED 2x2 luminaire i/c connection, testing etc. complete as reqd. (Crompton make Cat. No. LCPL-36-CDL /Havells Pluto 2x2/Philips RC380 BLED 34S-6500-L60W60 PSU ODSI/Wipro: CRCO10R036HP57G	100	Nos.	2899	Each	289900.00
32	Supplying and drawing of UTP 4 pair CAT 6 LAN Cable in the existing surface/ recessed Steel/ PVC conduit as required					
a)	1 run of cable	1500	mtr	49	P/Mtr	73500.00
33	Supply, Installation, testing and commissioning of 1400 mm ceiling fan, ISI Marked including wiring the down rods of standard length (upto 30 cm) with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable etc. as required.(Make: Crompton, Model: Riviera Hi Speed/Havells, Model: XP-390/Orient, Model: New Air Plus)	200	Nos.	1911.00	Each	382200.00
34	Supply, Installation, testing and commissioning of 1200 mm ceiling fan, ISI Marked 5 Star rating including wiring the down rods of standard length (upto 30 cm) with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable etc. as required.(Make: Orient, Model: New Energy Star/Havells, Model: ES-50/Crompton, Model: HS-Decora Plus - 5 star)	150	Nos.	1899.00	Each	284850.00
35	S/Fixing following capacity mono block centrifugal pump suitable for 230V/50Hz AC supply on existing foundation/c Connections, Testing and Commissioning etc as reqd.					
i)	1 HP (Make Crompton Model: Minimaster-I/Or equivalent in cost & specification of Kirloskar/KSB)	5	Nos	6518.00	Each	32590.00
ii)	1/2 HP (Make Crompton Model: Minimaster-II/Or equivalent in cost & specification of Kirloskar/KSB)	5	Nos	4286.00	Each	21430.00

36	Supplying & fixing of LED tube Fitting 4' 18-20W polycarbonate housing minimum efficiency 100 lumen/watt indoor batten tube light i/c all accessories etc. complete as required. (Make: HPL, Model: Neptune Silver /Crompton, Model: Trim Linea/Bajaj, Model: Baton/Surya, Model: Arrow /Jaquar, Glaze LED Batten (PC)/Havells, Model: Lumiline)	150	Nos	491.00	Each	73650.00
37	Supplying & fixing of LED tube Fitting 4' 36-40W Aluminum housing minimum efficiency 100 lumen/watt indoor batten tube light i/c all accessories etc. complete as required. (Make: Wipro/Helonix/Havells/Philips/HPL)	150	Nos	1197.00	Each	179550.00
38	Supplying & fixing suitable size of copper refrigerant piping for suction & discharge of 1.5Tr/2.0Tr split type AC unit duly insulated with nitrile insulation tube complete with 4-core 80/20mm dia PVC insulated PVC sheathed copper conductor cable in recess/Surface i/c Cutting the wall of size 75mm deep x 75mm wide with the help of wall cutter, drilling with the help of hammer drill etc as reqd.	300	Mtrs	570	P/Mtr.	171000.00
39	Insulation of 1.5/2.0 Tr. Cap. Split type AC unit's refrigerant piping with Polyethylene Preformed (UV Barrier/Metalise/Polyster foil) Pipe Sections for copper tubes of size 5/8" & 1/4" dia complete with 50mm (NS) dia flexible pipe with clamp, saddles (without Refrigerant pipe, Drain pipe & wire.) etc as reqd at site of work.	200	Mtrs	70	P/Mtr.	14000.00
40	Supplying and fixing of 25mm dia (OD) schedule 40 & UPVC drain pipe on surface/in recess white in colour for AC condensation water drain complete with tee, elbow, socket jointing etc. with GI hook of suitable size in recess/surface etc as reqd.	1000	Mtrs	108	P/Mtr.	108000.00
41	Supply and installation of monkey deterrent spikers with specification as under:- a) Maximum linear distance between spikes (center to center) 32mm ±3mm b) Total width-90mm to 100mm ±5mm c) Height of spikes - 5mm to 50mm (±2mm) d) Rows of spikes - 5number should have horizontal & vertical spikers e)minimum number of spikes in 1	300	Mtr	677.00	Mtr	203100.00

	<p>running feet-100 nos. f)Should Glow in Dark. Made of transparent polycarbonate, flame retardant and stabilized against ultra violet radiation modular fitment to form chain interlocked using screws/ revets. To be fixed using screws & anchors/ adhesive/ steel wire. etc as reqd. (Equivalent make monkey scare in price & specification of Model M.S -3R of Indolite Devices Pvt Ltd /Vission Engineering /Parry Moulding)</p>					
42	<p>Supply and installation of monkey deterrent spikers with specification as under</p> <p>a) Maximum linear distance between spikes (center to center) 5mm ±2mm total b) Width-11mm to 1mm height of spikes - 5mm to 50mm (±2mm) c) Rows of spikes -1number should have horizontal & vertical spikers e) Minimum number of spikes in 1 running feet-35 nos. f) Should Glow in Dark. Made of transparent polycarbonate, flame retardant and stabilized against ultra violet radiation modular fitment to form chain interlocked using screws/ revets. To be fixed using screws & anchors/ adhesive/ steel wire etc as reqd.(Equivalent make monkey scare in price & specification of Model M.S -1R of Indolite Devices Pvt Ltd /Vission Engineering /Parry Moulding)</p>	80	Mtr	459.00	Mtr	36720.00

SH-III (Electrical) :Upgradation Works

S. No.	Description of Items	Quantity		Rate (Rs.)	Unit	Estimated Amount
	Sub-Head- 3 (Upgradation Work)					
1	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed steel conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc as required.					
a)	Group A	1440	Pts	845	P/Pts	1216800.00
b)	Group B	2640	Pts	961	P/Pts	2537040.00
2	Wiring for twin control light point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed steel conduit, 2 way modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc as required.	240	Pts	1290	P/Pts	309600.00
3	Rewiring for light points/fan points/exhaust fan point/call bell point with 1.5 sqmm FRLS PVC insulated copper conductor single core cable and 1.5 sqmm FRLS PVC insulated copper conductor single core cable as earth wire in existing surface/recessed/steel conduit / PVC conduit i/c dismantling etc. as reqd.					
a)	Group A	1680	Pts	416	P/Pts	698880.00
b)	Group B	4320	pts	447	P/Pts	1931040.00
4	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable etc. as required					
a)	Group B	240	Pts	783	P/Pts	187920.00
5	Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface/ recessed steel / PVC conduit as required.					

a)	3 x 1.5 sqmm	14400	Mtrs	54	P/Mtr	777600.00
b)	6 x 1.5 sqmm	2880	Mtrs	100	P/Mtr	288000.00
c)	3 x 4 sqmm	12000	Mtrs	117	P/Mtr	1404000.00
d)	3 x 6 sqmm	4800	Mtrs	167	P/Mtr	801600.00
6	Wiring for light/ power plug with 4X4 sq. mm FRLS PVC insulated copper conductor single core cable in surface/ recessed steel conduit alongwith 2 Nos 4 sq. mm FRLS PVC insulated copper conductor single core cable for loop earthing as required.	2400	Mtrs	392	Mtr	940800.00
7	Wiring for light/ power plug with 2X4 sq. mm FRLS PVC insulated copper conductor single core cable in surface/ recessed steel conduit alongwith 1 No 4 sq. mm FRLS PVC insulated copper conductor single core cable for loop earthing as required.	2400	Mtrs	265	Mtr	636000.00
8	Supplying and drawing following pair 0.5 mm dia FRLS PVC insulated annealed copper conductor, unarmored telephone cable in the existing surface/ recessed steel/ PVC conduit as required.					
a)	4 Pair	9600	Mtrs	29	P/Mtr	278400.00
9	Supplying and drawing co-axial TV cable RG-6 grade, 0.7 mm solid copper conductor PE insulated, shielded with fine tinned copper braid and protected with PVC sheath in the existing surface/ recessed steel/ PVC conduit as required.	6000	Mtrs	33	P/Mtr	198000.00
10	Supplying and fixing of following sizes of steel conduit along with accessories in surface/recess including painting in case of surface conduit, or cutting the wall and making good the same in case of recessed conduit as required.					
a)	20mm	8400	Mtrs	146	P/Mtr	1226400.00
b)	25mm	9600	Mtrs	165	P/Mtr	1584000.00
11	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required.					
a)	25mm	4800	Mtrs	90	P/Mtr	432000.00
12	Supplying and fixing metal box of following sizes (nominal size) on surface or in recess with suitable size of phenolic laminated sheet cover in					

	front including painting etc as required.					
a)	180 mm X 100 mm X 60 mm deep	192	Nos.	183	Each	35136.00
b)	200 mm X 250 mm X 75 mm deep	96	Nos.	351	Each	33696.00
13	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.					
a)	5/6 Amp. Switch	6000	Nos.	85	Each	510000.00
b)	2 way 5/6 Amp. Switch	240	Nos.	123	Each	29520.00
c)	15/16 Amp. Switch	2400	Nos.	132	Each	316800.00
d)	3 Pin 5/6 Amp. Socket outlet	1052	Nos.	111	Each	116772.00
e)	6 Pin 15/16 Amp. Socket outlet	2400	Nos.	175	Each	420000.00
f)	Telephone socket outlet	960	Nos.	119	Each	114240.00
g)	T.V. Antenna Socket outlet	480	Nos.	119	Each	57120.00
h)	32 Amp. DP MCB modular	720	Nos.	416	Each	299520.00
i)	Bell push (Modular)	480	Nos.	126	Each	60480.00
j)	USB Point	192	Nos.	535	Each	102720.00
14	Supplying and fixing two module stepped type electronic fan regulator on the existing modular plate switch box including connections but excluding modular plate etc. as required	960	Nos.	342	Each	328320.00
15	Supplying and fixing brass batten/ angle holder including connection etc. as required.	1200	Nos.	117	Each	140400.00
16	Supplying and fixing modular blanking plate on the existing modular plate & switch box excluding modular plate as required.	480	Nos.	32	Each	15360.00
17	Supplying and fixing following size/ modules, GI box alongwith modular base & cover plate for modular switches in recess etc as required.					
a)	2 Module (75mm X 75mm)	480	Nos.	243	Each	116640.00
b)	3 Module (100mm X 75mm)	960	Nos.	267	Each	256320.00
c)	4 Module (125mm X 75mm)	480	Nos.	287	Each	137760.00
d)	6 Module (200mm X 75mm)	1920	Nos.	333	Each	639360.00
e)	8 Module (125mm X 125mm)	384	Nos.	383	Each	147072.00
f)	12 Module (200mm X 150mm)	384	Nos.	434	Each	166656.00
18	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 6 pin 5/6 & 15/16 amps modular socket outlet and 15/16 amps modular switch, connection etc. as required.	1440	Nos.	495	Each	712800.00

19	Supplying and Laying of one number armoured XLPE aluminium conductor power cable of 1.1 KV grade of following size direct in ground including excavation and refilling the trench etc as required, but excluding sand cushioning and protective covering.					
a)	2 x 10 sqmm	14400	Mtrs	238	P/Mtr	3427200.00
b)	4 x 25 sqmm	4800	Mtrs	303	P/Mtr	1454400.00
c)	3.5 x 70 sqmm	240	Mtrs	461	P/Mtr	110640.00
20	Supplying and Laying of one number armoured XLPE aluminium conductor power cable of 1.1 KV grade of following size in the existing RCC/ HUME/ METAL pipe as required.					
a)	2 x 10 sqmm	1440	Mtrs	102	P/Mtr	146880.00
b)	4 x 25 sqmm	1440	Mtrs	167	P/Mtr	240480.00
21	Supplying and Laying of one number armoured XLPE aluminium conductor power cable of 1.1 KV grade of following size in the existing masonry open duct as required.					
a)	2 x 10 sqmm	2400	Mtrs	94	P/Mtr	225600.00
b)	4 x 25 sqmm	1200	Mtrs	159	P/Mtr	190800.00
22	Supplying and Laying and fixing of one number armoured XLPE aluminium power cable of 1.1 KV grade of following size on wall surface as required.					
a)	2 x 10 sqmm	4800	Mtrs	110	P/Mtr	528000.00
b)	4 x 25 sqmm	2400	Mtrs	175	P/Mtr	420000.00
c)	3.5 x 70 sqmm	240	Mtrs	383	P/Mtr	91920.00
23	Providing and fixing 6 SWG dia G.I. wire on surface or in recess for loop earthing along with existing surface/ recessed conduit/ submain wiring/ cable as required.	41088	Mtrs	37	P/Mtr	1520256.00
24	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.					
a)	2 x 10 sqmm	1200	Sets	198	P/Sets	237600.00
b)	3.5 x 70 sqmm	50	Sets	368	P/Sets	18400.00
c)	4 x 25 sqmm	240	Sets	250	P/Sets	60000.00

25	Supplying and laying of following size DWC HDPE pipe ISI marked along with all accessories like socket, bend, couplers etc. conforming to IS 14930, Part II complete with fitting and cutting, jointing etc. in the existing trench, complete as required.					
a)	63 mm dia (OD-63 mm & ID-51 mm nominal)	1200	Mtrs	109	P/Mtr	130800.00
b)	90 mm dia (OD-90 mm & ID-76 mm nominal)	400	Mtrs	149	P/Mtr	59600.00
26	S.I.T.C. of compartmentalised wall/floor mounted cubical L.T. panel board of depth upto 300mm on surface /recess, on wall fabricated out of 2mm thick CRCA sheet, having separate compartments with hinged with spring leaded siemens type knob complete with 4 strips 200mp with copper busbar of suitable length with bakelite/DNC busbar supports GI earth strip of size 20mm x 3mm along with full width wall of panel, interconnection with solid copper strip of suitable rating from busbar to various MCCB's providing and fixing thimble /Ferrule of suitable rating, earthing cutting the wall (For recess mounting) or making back masonry pedestal and grouting the board (Floor mounted) making the good the surface to original finish, painting with synthetic enamel paint etc. as reqd.	48	Sq.mts	27002	P/sq.mts	1296096.00
27	Pdg. & fixing of following accessories i/c making interconnections with solid copper conductor cable between main (incoming) MCCB to busbar and suitable cables from busbars to DPMCB's and with solid copper conductor from the busbar to MCCB with copper thimbles/Ferrules etc. as reqd.					
a)	S/F of 250 Amp TPMCCB suitable for 415 volt AC supply with breaking capacity 35 KA i/c 6 Nos. terminals & 4 Nos. separator complete with connection etc as reqd.	24	Nos.	11140	Each	267360.00
b)	125 Amp. 16 KA TPMCCB i/c 6 Nos. terminals & 4 Nos. separator	120	Nos.	4145	Each	497400.00
c)	Neon indication lamp LED type (R/Y/B) (3 No in one set)	24	Sets	388	P/Sets	9312.00
d)	63Amp DPMCB	144	Nos.	921	Each	132624.00
e)	Multi function meter (100x100)	24	Nos.	3000	Each	72000.00

28	Supplying and fixing 5 A to 32 A rating, 240/415 V, 10 kA, —C curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required					
a)	Single pole	6816	Nos	199	Each	1356384.00
29	Supplying and fixing of following ways surface/ recess mounting, vertical type, 415 V, TPN MCB distribution board of sheet steel, dust protected, duly powder painted, inclusive of 200 A, tinned copper bus bar, common neutral link, earth bar, din bar for mounting MCBs (but without MCBs and incomer) as required. (Note : Vertical type MCB TPDB is normally used where 3 phase outlets are required.)					
a)	4 way (4 + 12), Double door	48	Nos	5651	Each	271248.00
b)	8 way (4 + 24), Double door	144	Nos	7744	Each	1115136.00
30	Supplying and fixing following way, single pole and neutral, sheet steel, MCB distribution board, 240 V, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator)					
a)	8 way, Double door	144	Nos	1760	Each	253440.00
b)	12 way, Double door	192	Nos	2053	Each	394176.00
31	Supplying and fixing of hinged 300x200x105mm deep hot pressed moulded SMC boxes hinged door type on the existing G.I. pipe pole with G.I. clamping arrangement hinged type cover with locking arrangement I/c Pdg. & Fixing one number SPMCB (10 to 20 amp) and 2 Nos 4way 30 amp brass N.L. with bakelite base i/c connection testing & earthing the box etc as reqd.	960	Nos.	1395	Each	1339200.00
Fan & Fittings						
32	S/F of decorative fancy wall bracket fitting including 7-9 watt lamp, holder and all other accessories i/c connections etc as required.					
a)	Single fitting (Make Lustre Cat L13346/1/W/ Philips wall light 45129/43/C7/Tisva VLTIS item code WL1030/Jaquar: KCH-CHR-MB160275211A.	480	Nos	1972	Each	946560.00

b)	Double fitting (Make Lustre Cat L13346/2/W/ Tisva VLTIS WL2003/Jaquar: KCH-CHR-MB160275212A .	480	Nos	3847	Each	1846560.00
33	S/F of decorative wall bracket fitting including 9 watt lamp, holder and all other accessories i/c connections etc as required. (As per sample approved)					
a)	Single fitting (Make: Lustre, Model: L13314/1/W/ Hi-Lite, Model: HL-318 Conical Brass S/L or equivalent specification in Twinkle ind./Hi-lite/Decon/Jaquar/philips)	480	Nos	1608	Each	771840.00
b)	Double fitting (Make: Lustre, Model: L13314/2/W/Hi-Lite, Model: HL-318 Conical Brass D/L or equivalent specification in Twinkle ind./Hi-lite/Decon/Jaquar/philips)	720	Nos	2814	Each	2026080.00
34	S/Installation of 4.5 mtrs long 65 mm dia G.I. pipe pole medium class(Duly ISI marked) with base plate of size of 300mmx300mmx6mm thick (N.S.) welded at the bottom of pole i/c earth stud & making suitable size of hole for drawing the cable i/c S/Laying of 2x1.5 Sqmm FRLS PVC copper conductor S/C cable etc in cement concrete 1:3:6 foundation (1 Cement 3 coarse sand 6 graded stone Agg 40mm Nominal size) with a collar of size 45 cm x 45 cm x 10 cm above ground level i/c Primer & painting the pole with two coats of synthetic enamel paint etc as reqd.	240	Nos	7724	Each	1853760.00
35	Supplying and fixing of picture light 5/6 Watt LED fitting on the existing light point connections, testing etc. as reqd. (Make: Philips, cat. No. - 30973 silver or equivalent specification in Lustre/Hi-Lite/Jaquar/Tisva)	192	Nos	1148	Each	220416.00
36	SITC of 6-7 watt LED type Down Lighter fitting direct in the false ceiling (Recessed) type i/c testing commissioning and connection etc complete as required. (Make: Crompton, Model: Pearl, /Bajaj, Model: Sleek RD/Jaquar, Model: Nero Round/Surya, Model: Steller Round)	480	Nos	490	Each	235200.00

37	SITC of 10-12 watt LED type Down Lighter fitting direct in the false ceiling (Recessed) type i/c testing commissioning and connection etc complete as required. (Make: Crompton, Model: Pearl, /Bajaj, Model: Sleek RD/Jaquar, Model: Nero Round/Surya, Model: Steller Round)	480	Nos	701	Each	336480.00
38	Supplying and fixing 9-10W LED Bulk Head luminaire comprises of pressure die cast housing, Acrylic diffuser & frame. Provided with IP-65 protection with suitable LED lamp working with 230volt 50Hz including connection etc. complete as reqd. (Make: Surya, Model: LED Bulkhead /Crompton, Model: Sunrise/Bajaj, Model: WeePlus/Jaquar, Model: LED Buklhead)	960	Nos	1298	Each	1246080.00
39	Supplying and fixing of 34-36W Recess mounting LED 2x2 luminaire i/c connection, testing etc. complete as reqd. (Crompton make Cat. No. LCPL-36-CDL /Havells Pluto 2x2/Philips RC380 BLED 34S-6500-L60W60 PSU ODSI/Wipro: CRCO10R036HP57G	480	Nos.	2899	Each	1391520.00
40	Supplying and drawing of UTP 4 pair CAT 6 LAN Cable in the existing surface/ recessed Steel/ PVC conduit as required					
a)	1 run of cable	9600	mtr	49	P/Mtr	470400.00
41	Supplying and fixing of chandelier suitable for 5/6 arms with LED lamp i/c hanging arrangement of brass chain connection,testing commissioning etc. complete as reqd. (Lustre LI 3315/5/ Philips 45128/43/C7/Jaquar KCH-CHR-MDJ 60275216A/Tisva VISCARIA CP5002.	144	No	10883	Each	1567152.00

42	<p>Providing and fixing of stainless steel kitchen chimney for ventilation on surface and drilling the hole in wall and fixing with 4 Nos reg bolts and making good the same connection testing and along with the following technical specifications as reqd.</p> <p>a) Suction capacity - 1000 m3/hr b) Width - 60cm c) Cassette filter d) motor with top e) 2 LED lamps f) Body - Stainless Steel g) Flexible pipe of size - 100mm dia - 3 Mtr (Make: Kaff, Model: Ideal MX BF 60 /Faber, Model: Tratto Plus/Glen, Model: GL 6002 SL BF)</p>	48	Nos.	10499	Each	503952.00
43	<p>S.I.T.C of post top lantern cast aluminium fitting with stainless steel screw, UV ray resistant coating, sand blasted glass diffuser suitable for B-22 /E-27 LED Lamp holder i/c S/F 1No. 17 watt LED Lamp i/c connection earthing etc. as required. (Make: Twinkle, Model: LuxMax-PT-165/Hi-Lite, Model: Mini Antique/Lustre, Model: LI - 5042/Philips 15332/54/86</p>	720	Nos.	2702	Each	1945440.00
44	<p>S.I.T.C of 40w LED post of fitting made out of die cast alu. base with span alum. top and fitting with power LED's are directly on Heat sinks. A UV stabilized PC diffuser is provided for glare free lighting with high visual comfort. on exiting pole i/c connection testing etc as required (Twinkle ind. cat TPLED 908/Bajaj BGCTW4-LEDWW/CORAL LHEVBHP7P96K040.</p>	720	Nos.	12754	Each	9182880.00
45	<p>Supply and fixing of compact type mirror light fitting suitable for energy efficient having 3 no 6 watt LED Spot light fitting alongwith all accessories make crystal / lite - elite / Philips 34034/14/86/Jaquar KWB-CHR-MB120 21172A/ Libra: LHJE 02206499</p>	192	Nos	4200	Each	806400.00
46	<p>Painting of following size of compound light poles at different location with one or more coats of synthetic enamel paint of approved brand and shade complete with scratching of existing defective paint, smoothening the surface as required.</p>					

a)	50/65 mm dia x 4.5 Mtr high pole	480	Nos.	146	Each	70080.00
b)	50/65 mm dia x 3 Mtr high pole	960	Nos.	125	Each	120000.00
47	Supply, Installation, testing and commissioning of 1400 mm ceiling fan, ISI Marked including wiring the down rods of standard length (upto 30 cm) with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable etc. as required.(Make: Crompton, Model: Riviera Hi Speed/Havells, Model: XP-390/Orient, Model: New Air Plus)	1200	Nos.	1911.00	Each	2293200.00
48	Supply, Installation, testing and commissioning of 1200 mm ceiling fan, ISI Marked 5 Star rating including wiring the down rods of standard length (upto 30 cm) with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable etc. as required.(Make: Orient, Model: New Energy Star/Havells, Model: ES-50/Crompton, Model: HS-Decora Plus - 5 star)	480	Nos.	1899.00	Each	911520.00
49	S/F of 250mm plastic body fresh air fan having 5 blade in the existing opening i/c making the hole to suit the size of the above fan making good the damages connection, testing, commissioning etc. as reqd. (Make: Bajaj, Model: Maxima Dxl 250mm/Havells, Model: Ventil Air DX White/Crompton, Model: Brisk Air)	288	Nos.	1255.00	Each	361440.00
50	S/Installation of 400mm sweep, 50 Hz 230 Volts AC wall bracket fan complete with built in regulator i/c connection etc as reqd. (Make: Orient, Model: 400 mm or 16 wall 43/Havells, Model: Sameera/Crompton, Model: WM Wind Flo (High Speed))	288	Nos.	1947.00	Each	560736.00
51	Supply & Installation of 300 mm heavy duty exhaust fan 900 RPM in the existing opening, including making good the damage, connection, testing, commissioning etc. as required. (Make: Orient, Model: Industrial Heavy duty /Havells, Model: Turbo Force SP/Crompton, Model: EXHD300- 6-1)					
a)	300 mm sweep	96	Nos.	2588.00	Each	248448.00

52	Supplying installation testing commissioning of 50-60W LED flood light luminaire with single piece die cast aluminium housing reflector and heat resistant toughened glass cover having minimum efficacy of 100 Lumens/watt & minimum protection rating of IP 65 etc complete as required. (Make: HPL, Model: Galaxy/Bajaj, Model: Magnum/Crompton, Model: Profile+/Havells, Model: JetaCompacto IP 65)	720	Nos	3183.00	Each	2291760.00
53	Supplying installation testing commissioning of 60W LED street light luminaire with single piece die cast aluminium housing reflector and heat resistant toughened glass cover having minimum efficacy of 100 Lumens/watt & minimum protection rating of IP -65 etc complete as required.(Make: Crompton, Model: Nexus+/ HPL, Model: City Vision/Surya, Model: Lexon/Havells, Model: Endura Pearl Plus)	720	Nos	4674.00	Each	3365280.00
54	Supply, Installation, Testing and Commissioning of straight Garden Bollard decorative luminaire Light with 8-9 watt inbuilt LED i/c precast cement concrete foundation block on exiting surface i/c digging of all type of soil upto required depth and minimum IP 65 and height 0.9-1.0 mtr . The block shall have suitable foundation bolts for Installation of Bollard Fitting complete etc. as required. (Make: Crompton Cat No. LBLA1-10-CDL/Havells, Model: Bamboo-IP65/Bajaj, Model: Flute)	480	Nos.	3537.00	Each	1697760.00
55	Supply, Installation, Testing and Commissioning of retrofit Garden Bollard decorative luminaire Light suitable of B-22/B-27 LED lamp with 12 watt LED Lamp i/c precast cement concrete foundation block on exiting surface i/c digging of all type of soil upto required depth and minimum IP 65 and height 0.8-1.0 mtr. The block shall have suitable foundation bolts for Installation of Bollard Fitting complete etc. as required. (Make: Lustre, Model: LI 8100/Twinkle, Model: LuxMax-TLSB-173-R/Hi-Lite, Model: HL-132)	720	Nos.	4064.00	Each	2926080.00

56	S/Fixing following capacity mono block centrifugal pump suitable for 230V/50Hz AC supply on existing foundation i/c Connections, Testing and Commissioning etc as reqd.					
i)	1 HP (Make Crompton Model: Minimaster-I/Or equivalent in cost & specification of Kirloskar/KSB)	48	Nos	6518.00	Each	312864.00
ii)	1/2 HP (Make Crompton Model: Minimaster-II/Or equivalent in cost & specification of Kirloskar/KSB)	48	Nos	4286.00	Each	205728.00
57	SITC of Storage Type Electric Water Heater Type: Vertical, Material of the inner container: Stainless steel/polymer coated, capacity (Ltrs): 25, Wattage(W) : 2000, rated pressure (bar) : 8 power supply 230 Volt AC 50 Hz single phase. and 5 star rating etc. complete as required (Make: Racold, Model: Eterno 2/Venus, Model: Magma Vertical /Havells, Model: Monza EC)	192	Nos	9049.00	Each	1737408.00
58	SITC of Storage Type Electric Water Heater Closed/Vented Type: Vertical, Material of the inner container: Stainless steel/polymer coated, capacity (Ltrs): 35, Wattage(W) : 2000, rated pressure (bar) : 8 power supply 230 Volt AC 50 Hz single phase. and 5 star rating etc. complete as required (Make: Racold, Model: Eterno 2/Venus, Model: Magma Vertical /Havells, Model: Monza EC)	48	Nos	10670.00	Each	512160.00
59	SITC of Storage Type Electric Water Heater Closed/Vented Type: Vertical, Material of the inner container: Stainless steel/polymer coated, capacity (Ltrs): 50, Wattage(W) : 2000, rated pressure (bar) : 8 power supply 230 Volt AC 50 Hz single phase. and 5 star rating etc. complete as required (Make: Racold, Model: 50 L/Venus, Model: Magma Vertical /Havells, Model: Monza EC)	48	Nos	13003.00	Each	624144.00
60	Supply, Installation, Testing and Commissioning of Garden Bollard decorative luminaire Light with 9-10 watt inbuilt LED i/c precast cement concrete foundation block on exiting surface i/c digging of all type of soil upto required depth and minimum IP 65 and height 0.75-0.85 mtr. The block shall have suitable foundation bolts for Installation of Bollard Fitting complete etc. as required.	240	Nos	4105.00	Each	985200.00

	(Make: Twinkle, Model: LUX- Max-TBLED-1(A)/Lustre, Model: LI-80002-9 /Crompton, Model: Liara/Hi-Lite, Model: HL-130)					
61	Supplying & fixing of LED tube Fitting 4' 18-20W polycarbonate housing minimum efficiency 100 lumen/watt indoor batten tube light i/c all accessories etc. complete as required. (Make: HPL, Model: Neptune Silver /Crompton, Model: Trim Linea/Bajaj, Model: Baton/Surya, Model: Arrow /Jaquar, Glaze LED Batten (PC)/Havells, Model: Lumiline)	2160	Nos	491.00	Each	1060560.00
62	Supplying & fixing of LED tube Fitting 4' 36-40W Aluminum housing minimum efficiency 100 lumen/watt indoor batten tube light i/c all accessories etc. complete as required. (Make: Wipro/Helonix/Havells/Philips/HPL)	480	Nos	1197.00	Each	574560.00
63	Supplying & fixing suitable size of copper refrigerant piping for suction & discharge of 1.5Tr/2.0Tr split type AC unit duly insulated with nitrile insulation tube complete with 4-core 80/20mm dia PVC insulated PVC sheathed copper conductor cable in recess/Surface i/c Cutting the wall of size 75mm deep x 75mm wide with the help of wall cutter, drilling with the help of hammer drill etc as reqd.	1500	Mtrs	570	P/Mtr.	855000.00
64	Supplying and fixing of 25mm dia (OD) schedule 40 & UPVC drain pipe on surface/in recess white in colour for AC condensation water drain complete with tee, elbow, socket jointing etc. with GI hook of suitable size in recess/surface etc as reqd.	1500	Mtrs	108	P/Mtr.	162000.00
65	Providing and fixing prefabricated expandable MS sheet wall/floor mounted stand duly powder coated suitable for 1.5/2.0 Ton STAC's outdoor units of various make with suitable size of nut-bolt with double washer, rubber pads etc as required at site of work.	100	Nos	724	Each	72400.00
66	Supply and installation of monkey deterrent spikers with specification as under:-	1500	Mtr	677.00	Mtr	1015500.00

	<p>a) Maximum linear distance between spikes (center to center) 32mm ±3mm</p> <p>b) Total width-90mm to 100mm ±5mm</p> <p>c) Height of spikes - 5mm to 50mm (±2mm)</p> <p>d) Rows of spikes - 5number should have horizontal & vertical spikers</p> <p>e)minimum number of spikes in 1 running feet-100 nos.</p> <p>f)Should Glow in Dark. Made of transparent polycarbonate, flame retardant and stabilized against ultra violet radiation modular fitment to form chain interlocked using screws/ revets. To be fixed using screws & anchors/ adhesive/ steel wire. etc as reqd. (Equivalent make monkey scare in price & specification of Model M.S -3R of Indolite Devices Pvt Ltd /Vission Engineering /Parry Moulding)</p>					
67	<p>Supply and installation of monkey derterrent spikers with specification as under</p> <p>a) Maximum linear distance between spikes (center to center) 5mm ±2mm total</p> <p>b) Width-11mm to 1mm height of spikes - 5mm to 50mm (±2mm)</p> <p>c) Rows of spikes -1number should have horizontal & vertical spikers</p> <p>e) Minimum number of spikes in 1 running feet-35 nos.</p> <p>f) Should Glow in Dark. Made of transparent polycarbonate, flame retardant and stabilized against ultra violet radiation modular fitment to form chain interlocked using screws/ revets. To be fixed using screws & anchors/ adhesive/ steel wire etc as reqd.(Equivalent make monkey scare in price & specification of Model M.S -1R of Indolite Devices Pvt Ltd /Vission Engineering /Parry Moulding)</p>	600	Mtr	459.00	Mtr	275400.00

SH-IV (Electrical) : Security Related Works

S. No.	Description of Items	Quantity	Rate (Rs.)	Unit	Estimated Amount	
Sub-Head- 4 (Security related Works)						
1	Comprehensive maintenance of hydraulic Bollards					
	Comprehensive maintenance of following high security crash rated hydraulic Bollards installed at 17 Akbar Road, New Delhi for five years as per terms & conditions attached.					
(a)	3(Three) high security hydraulic Bollard with 1(One) hydraulic power pack.	2 Job for 36	Month	6558	P/M	472176.00
2	Comprehensive Maintenance of CCTV system					
	Comprehensive Maintenance of existing installed CCTV system i/c checking and necessary adjustment routine maintenance of the CCTV system & Equipments installed at various important site as follows:					
(a)	17 Akbar Road					
(b)	10 Rajaji Marg					
(c)	10 Akbar Road	1 Job for 36	Month	25000	P/M	900000.00
3	operation of DG Sets					
	Round the clock operation and routine maintenance of 125 KVA DG set alongwith AMF panel complete as reqd at 17 Akbar Road, R/o Hon'ble Home Minister. (6:00am to 2:00pm, 2:00pm to 10:00pm, 10:00pm to 6:00am three shift)	36	Month	81547	Each	2935692.00
4	Security Related Upgradation Works					
1	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed steel conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc as required.					
b)	Group B	200	Pts	961	P/Pts	192200.00
2	Wiring for twin control light point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed steel conduit, 2 way modular switch, modular plate, suitable GI box and earthing the point	150	Pts	1290	P/Pts	193500.00

	with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc as required.					
3	Rewiring for light points/fan points/exhaust fan point/call bell point with 1.5 sqmm FRLS PVC insulated copper conductor single core cable and 1.5 sqmm FRLS PVC insulated copper conductor single core cable as earth wire in existing surface/recessed/steel conduit / PVC conduit i/c dismantling etc. as reqd.					
b)	Group B	200	pts	447	P/Pts	89400.00
4	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable etc. as required					
a)	Group B	150	Pts	783	P/Pts	117450.00
5	Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface/ recessed steel / PVC conduit as required.					
a)	3 x 1.5 sqmm	1000	Mtrs	54	P/Mtr	54000.00
b)	6 x 1.5 sqmm	500	Mtrs	100	P/Mtr	50000.00
c)	3 x 4 sqmm	1000	Mtrs	117	P/Mtr	117000.00
6	Wiring for light/ power plug with 4X4 sq. mm FRLS PVC insulated copper conductor single core cable in surface/recessed steel conduit alongwith 2 Nos 4 sq. mm FRLS PVC insulated copper conductor single core cable for loop earthing as required.	200	Mtrs	392	Mtr	78400.00
7	Wiring for light/ power plug with 2X4 sq. mm FRLS PVC insulated copper conductor single core cable in surface/recessed steel conduit alongwith 1 No 4 sq. mm FRLS PVC insulated copper conductor single core cable for loop earthing as required.	400	Mtrs	265	Mtr	106000.00
8	Supplying and drawing following pair 0.5 mm dia FRLS PVC insulated annealed copper conductor, unarmored telephone cable in the existing surface/ recessed steel/ PVC conduit as required.					
a)	4 Pair	800	Mtrs	29	P/Mtr	23200.00

9	Supplying and fixing of following sizes of steel conduit along with accessories in surface/recess including painting in case of surface conduit, or cutting the wall and making good the same in case of recessed conduit as required.					
a)	20mm	2000	Mtrs	146	P/Mtr	292000.00
b)	25mm	3000	Mtrs	165	P/Mtr	495000.00
10	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required.					
a)	25mm	500	Mtrs	90	P/Mtr	45000.00
11	Supplying and fixing metal box of following sizes (nominal size) on surface or in recess with suitable size of phenolic laminated sheet cover in front including painting etc as required.					
a)	180 mm X 100 mm X 60 mm deep	80	Nos.	183	Each	14640.00
b)	200 mm X 250 mm X 75 mm deep	40	Nos.	351	Each	14040.00
12	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.					
a)	5/6 Amp. Switch	500	Nos.	85	Each	42500.00
b)	2 way 5/6 Amp. Switch	150	Nos.	123	Each	18450.00
c)	15/16 Amp. Switch	1500	Nos.	132	Each	198000.00
d)	3 Pin 5/6 Amp. Socket outlet	100	Nos.	111	Each	11100.00
e)	6 Pin 15/16 Amp. Socket outlet	1500	Nos.	175	Each	262500.00
13	Supplying and fixing two module stepped type electronic fan regulator on the existing modular plate switch box including connections but excluding modular plate etc. as required	200	Nos.	342	Each	68400.00
14	Supplying and fixing brass batten/ angle holder including connection etc. as required.	300	Nos.	117	Each	35100.00
15	Supplying and fixing modular blanking plate on the existing modular plate & switch box excluding modular plate as required.	100	Nos.	32	Each	3200.00
16	Supplying and fixing following size/ modules, GI box alongwith modular base & cover plate for modular switches in recess etc as required.					
a)	2 Module (75mm X 75mm)	70	Nos.	243	Each	17010.00
b)	3 Module (100mm X 75mm)	50	Nos.	267	Each	13350.00

c)	4 Module (125mm X 75mm)	100	Nos.	287	Each	28700.00
d)	6 Module (200mm X 75mm)	120	Nos.	333	Each	39960.00
e)	8 Module (125mm X 125mm)	150	Nos.	383	Each	57450.00
f)	12 Module (200mm X 150mm)	150	Nos.	434	Each	65100.00
17	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 6 pin 5/6 & 15/16 amps modular socket outlet and 15/16 amps modular switch, connection etc. as required.	300	Nos.	495	Each	148500.00
18	Supplying and Laying of one number armoured XLPE aluminium conductor power cable of 1.1 KV grade of following size direct in ground including excavation and refilling the trench etc as required, but excluding sand cushioning and protective covering.					
a)	2 x 10 sqmm	500	Mtrs	238	P/Mtr	119000.00
b)	4 x 25 sqmm	400	Mtrs	303	P/Mtr	121200.00
c)	3.5 x 50 sqmm	200	Mtrs	461	P/Mtr	92200.00
19	Supplying and Laying of one number armoured XLPE aluminium conductor power cable of 1.1 KV grade of following size in the existing RCC/ HUME/ METAL pipe as required.					
a)	2 x 10 sqmm	500	Mtrs	102	P/Mtr	51000.00
b)	4 x 25 sqmm	300	Mtrs	167	P/Mtr	50100.00
20	Supplying and Laying of one number armoured XLPE aluminium conductor power cable of 1.1 KV grade of following size in the existing masonry open duct as required.					
a)	2 x 10 sqmm	500	Mtrs	94	P/Mtr	47000.00
b)	4 x 25 sqmm	800	Mtrs	159	P/Mtr	127200.00
21	Supplying and Laying and fixing of one number armoured XLPE aluminium power cable of 1.1 KV grade of following size on wall surface as required.					
a)	2 x 10 sqmm	500	Mtrs	110	P/Mtr	55000.00
b)	4 x 25 sqmm	600	Mtrs	175	P/Mtr	105000.00
c)	3.5 x 50 sqmm	200	Mtrs	383	P/Mtr	76600.00
22	Providing and fixing 6 SWG dia G.I. wire on surface or in recess for loop earthing along with existing surface/ recessed conduit/ submain wiring/ cable as required.	4500	Mtrs	37	P/Mtr	166500.00

23	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.					
a)	2 x 10 sqmm	300	Sets	198	P/Sets	59400.00
b)	3.5 x 50 sqmm	20	Sets	368	P/Sets	7360.00
c)	4 x 25 sqmm	50	Sets	250	P/Sets	12500.00
24	Supplying and laying of following size DWC HDPE pipe ISI marked along with all accessories like socket, bend, couplers etc. conforming to IS 14930, Part II complete with fitting and cutting, jointing etc. in the existing trench, complete as required.					
a)	63 mm dia (OD-63 mm & ID-51 mm nominal)	200	Mtrs	109	P/Mtr	21800.00
b)	90 mm dia (OD-90 mm & ID-76 mm nominal)	100	Mtrs	149	P/Mtr	14900.00
25	Supplying and fixing 5 A to 32 A rating, 240/415 V, 10 kA, —Cllcurve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required					
a)	Single pole	300	Nos	199	Each	59700.00
26	Supplying and fixing of following ways surface/ recess mounting, vertical type, 415 V, TPN MCB distribution board of sheet steel, dust protected, duly powder painted, inclusive of 200 A, tinned copper bus bar, common neutral link, earth bar, din bar for mounting MCBs (but without MCBs and incomer) as required. (Note : Vertical type MCB TPDB is normally used where 3 phase outlets are required.)					
a)	4 way (4 + 12), Double door	10	Nos	5651	Each	56510.00
27	Supplying and fixing following way, single pole and neutral, sheet steel, MCB distribution board, 240 V, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator)					
a)	8 way, Double door	20	Nos	1760	Each	35200.00
b)	12 way, Double door	15	Nos	2053	Each	30795.00

28	Supplying and fixing of hinged 300x200x105mm deep hot pressed moulded SMC boxes hinged door type on the existing G.I. pipe pole with G.I. clamping arrangement hinged type cover with locking arrangement I/c Pdg. & Fixing one number SPMCB (10 to 20 amp) and 2 Nos 4way 30 amp brass N.L. with bakelite base i/c connection testing & earthing the box etc as reqd.	150	Nos.	1395	Each	209250.00
Fan & Fittings						
29	S/Installation of 4.5 mtrs long 65 mm dia G.I. pipe pole medium class(Duly ISI marked) with base plate of size of 300mmx300mmx6mm thick (N.S.) welded at the bottom of pole i/c earth stud & making suitable size of hole for drawing the cable i/c S/Laying of 2x1.5 Sqmm FRLS PVC copper conductor S/C cable etc in cement concrete 1:3:6 foundation (1 Cement 3 coarse sand 6 graded stone Agg 40mm Nominal size) with a collar of size 45 cm x 45 cm x 10 cm above ground level i/c Primer & painting the pole with two coats of synthetic enamel paint etc as reqd.	200	Nos	7724	Each	1544800.00
30	Supplying and fixing 9-10W LED Bulk Head luminaire comprises of pressure die cast housing, Acrylic diffuser & frame. Provided with IP-65 protection with suitable LED lamp working with 230volt 50Hz including connection etc. complete as reqd. (Make: Surya, Model: LED Bulkhead /Crompton, Model: Sunrise/Bajaj, Model: WeePlus/Jaquar, Model: LED Buklhead)	150	Nos	1298	Each	194700.00
31	Supplying and drawing of UTP 4 pair CAT 6 LAN Cable in the existing surface/ recessed Steel/ PVC conduit as required					
a)	1 run of cable	2000	mtr	49	P/Mtr	98000.00
32	S.I.T.C of 40w LED post of fitting made out of die cast alu. base with span alum. top and fitting with power LED's are directly on Heat sinks. A UV stabilized PC diffuser is provided for glare free lighting with high visual comfort. on exiting pole i/c connection testing etc as required (Twinkle ind. cat TPLED 908/Bajaj BGCTW4-LEDWW/CORAL LHEVBHP7P96K040.	150	Nos.	12754	Each	1913100.00

33	Painting of following size of compound light poles at different location with one or more coats of synthetic enamel paint of approved brand and shade complete with scratching of existing defective paint, smoothening the surface as required.					
a)	50/65 mm dia x 4.5 Mtr high pole	50	Nos.	146	Each	7300.00
b)	50/65 mm dia x 3 Mtr high pole	100	Nos.	125	Each	12500.00
34	Supply, Installation, testing and commissioning of 1400 mm ceiling fan, ISI Marked including wiring the down rods of standard length (upto 30 cm) with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable etc. as required.(Make: Crompton, Model: Riviera Hi Speed/Havells, Model: XP-390/Orient, Model: New Air Plus)	150	Nos.	1911.00	Each	286650.00
35	Supply, Installation, testing and commissioning of 1200 mm ceiling fan, ISI Marked 5 Star rating including wiring the down rods of standard length (upto 30 cm) with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable etc. as required.(Make: Orient, Model: New Energy Star/Havells, Model: ES-50/Crompton, Model: HS-Decora Plus - 5 star)	150	Nos.	1899.00	Each	284850.00
36	S/F of 250mm plastic body fresh air fan having 5 blade in the existing opening i/c making the hole to suit the size of the above fan making good the damages connection, testing, commissioning etc. as reqd. (Make: Bajaj, Model: Maxima Dx1 250mm/Havells, Model: Ventil Air DX White/Crompton, Model: Brisk Air)	50	Nos.	1255.00	Each	62750.00
37	S/Installation of 400mm sweep, 50 Hz 230 Volts AC wall bracket fan complete with built in regulator i/c connection etc as reqd. (Make: Orient, Model: 400 mm or 16 wall 43/Havells, Model: Sameera/Crompton, Model: WM Wind Flo (High Speed))	100	Nos.	1947.00	Each	194700.00
38	Supplying installation testing commissioning of 50-60W LED flood light luminaire with single piece die cast aluminium housing reflector and heat resistant toughened glass cover having minimum efficacy of 100 Lumens/watt & minimum protection rating of IP 65 etc	150	Nos	3183.00	Each	477450.00

	complete as required. (Make: HPL, Model: Galaxy/Bajaj, Model: Magnum/Crompton, Model: Profile+/Havells, Model: JetaCompacto IP 65)					
39	Supplying installation testing commissioning of 60W LED street light luminaire with single piece die cast aluminium housing reflector and heat resistant toughened glass cover having minimum efficacy of 100 Lumens/watt & minimum protection rating of IP -65 etc complete as required.(Make: Crompton, Model: Nexus+/ HPL, Model: City Vision/Surya, Model: Lexon/Havells, Model: Endura Pearl Plus)	100	Nos	4674.00	Each	467400.00
40	Supplying & fixing of LED tube Fitting 4' 18-20W polycarbonate housing minimum efficiency 100 lumen/watt indoor batten tube light i/c all accessories etc. complete as required. (Make: HPL, Model: Neptune Silver /Crompton, Model: Trim Linea/Bajaj, Model: Baton/Surya, Model: Arrow /Jaquar, Glaze LED Batten (PC)/Havells, Model: Lumiline)	150	Nos	491.00	Each	73650.00
41	Supplying & fixing of LED tube Fitting 4' 36-40W Aluminum housing minimum efficiency 100 lumen/watt indoor batten tube light i/c all accessories etc. complete as required. (Make: Wipro/Helonix/Havells/Philips/HPL)	200	Nos	1197.00	Each	239400.00
42	Supply and installation of monkey deterrent spikers with specification as under:- a) Maximum linear distance between spikes (center to center) 32mm \pm 3mm b) Total width-90mm to 100mm \pm 5mm c) Height of spikes - 5mm to 50mm (\pm 2mm) d) Rows of spikes - 5number should have horizontal & vertical spikers e)minimum number of spikes in 1 running feet-100 nos. f)Should Glow in Dark. Made of transparent polycarbonate, flame retardant and stabilized against ultra violet radiation modular fitment to form chain interlocked using screws/ revets. To be fixed using screws & anchors/ adhesive/ steel	400	Mtr	677.00	Mtr	270800.00

	wire. etc as reqd. (Equivalent make monkey scare in price & specification of Model M.S -3R of Indolite Devices Pvt Ltd /Vission Engineering /Parry Moulding)					
43	<p>Supply and installation of monkey deterrent spikers with specification as under:</p> <p>a) Maximum linear distance between spikes (center to center) 5mm ±2mm total</p> <p>b) Width-11mm to 1mm height of spikes - 5mm to 50mm (±2mm)</p> <p>c) Rows of spikes -1number should have horizontal & vertical spikers</p> <p>e) Minimum number of spikes in 1 running feet-35 nos.</p> <p>f) Should Glow in Dark.</p> <p>Made of transparent polycarbonate, flame retardant and stabilized against ultra violet radiation modular fitment to form chain interlocked using screws/ revets. To be fixed using screws & anchors/ adhesive/ steel wire etc as reqd.(Equivalent make monkey scare in price & specification of Model M.S -1R of Indolite Devices Pvt Ltd /Vission Engineering /Parry Moulding)</p>	100	Mtr	459.00	Mtr	45900.00

Assistant Engineer (P)
NDZ-1, CPWD, IP Bhawan,
New Delhi

Executive Engineer (P) -I
NDZ-1, CPWD, IP Bhawan,
New Delhi