

BORDER ROADS ORGANISATION
Ministry of Defence
CHIEF ENGINEER PROJECT DANTAK

NAME OF WORK: **ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343**

Name of Contractor: _____

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(Signature of the Contractor)

EE(C) SG
SW
For Accepting Officer

http : //www.gref.gov.in
http : //www.bro.gov.in
E-mail : brodtk@gmail.com
Tele : **009752 - 351082/351086/351088**
Fax : **009752 – 351285**

Headquarters
Chief Engineer
Project Dantak
PIN : 931708
C/O 99 APO

80600/ /E8

Dec 2023

M/s _____

**NAME OF WORK : ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF
AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF
UNDER PROJECT DANTAK : JOB NO. 60/343**

Dear Sir (s),

1. A set of tender documents for the above work is forwarded herewith. Please note that tender will be received by the Accepting Officer at the office of the Chief Engineer (P) Dantak C/O 99 APO or at OIC liaison cell located at Supervisor Mess, 19 BRTF, Jaigaon, West Bengal PIN-736182, Ph **8145087696/9970889254** up to **1700 hrs (BST)/1630 hrs (IST) on 08 Jan 2024 and Technical Bid (Part-I) of the tender documents will be opened at 1530 hrs (BST) on the 11 Jan 2024.** Tender received after the due date and time will not be considered.

2. Tenderers or their duly authorized representative who have submitted their tenders and who wish to be present at the time of opening of tenders may attend the office of Accepting officer **Chief Engineer (P) Dantak C/O 99 APO** at the above mentioned time.

3. Tender documents may also be downloaded from CPP Portal www.eprocure.gov.in/epublish/app and printout is to be taken on A4 size paper. It is advisable that downloaded tender document preferably to be printed through laser printer only. Submission of photocopy of tender is not permitted. **Earnest money**, Integrity Pact duly signed on each page by the bidder(s) and undertaking given at **Page No. 21** of tender must be delivered to the Chief Engineer Project along with the T Bid and if **Earnest money** and integrity pact is not submitted along with the T Bid, same shall be rejected by the Accepting officer.

4. Tendering procedure shall be single stage-two bid System and tender documents shall be prepared in two parts as under :-

Part-I ('Technical Bid' – 'T' Bid)

Part-II ('Price/commercial' – 'Q' Bid)

(Signature of the Contractor)

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For Accepting Officer

5. **Part-I ('Technical Bid' – 'T' Bid)**

5.1 (a) The tender to be submitted (physically) by the bidder will be comprised of following documents: -

- (i) Blank.
- (ii) Bid security declaration by un-enlisted contractor and enlisted contractors who have submitted/not submitted standing security deposit.
- (iii) Signed copy of all the Eligibility/Qualification documents required as per tender conditions given at **Page No. 03** to **Page No.11** of tender documents.
- (iv) Signed copy of Integrity Pact.
- (v) Signed copy of undertaking by tenderer given at Serial **Page No. 21** of tender.

(b) Following documents will be deemed to be part of the contract during the time of acceptance of contract: -

- (i) Part-I Technical Bid of the tender document
- (ii) Notice Inviting Tender
- (iii) Special Conditions of Contract
- (iv) Particular/Technical Specifications including Drawings, if any
- (v) Any other Amendment/errata to tender document

5.2 **Technical evaluation criteria**

5.2.1 If contractor is not enlisted with BRO or enlisted with BRO but has not submitted Standing Security Deposit, he should have submitted **Earnest money**.

5.2.2 All the pages of T-Bid should have been duly signed by the bidder/authorized representative having valid Power of Attorney.

6. **Eligibility Criteria**:- (A) Tenderers shall meet the following eligibility criteria for qualifying in Technical bid:-

- (a) The tenderer should have working capital and/or credit facilities of at least 10% (**i.e. 43.45 Lakh**) of the estimated cost of the work (Applicable only for non – enlisted Contractors)

6.1 **Experience**: -

Tenderer should have successfully completed or substantially completed with any Govt agencies/PSU/Municipal Corporation/local Govt bodies three similar works costing not less than the amount equal to 40% of estimated cost of work **i.e. Rs 173.78 Lakhs** or two similar works costing not less than the amount equal to 50% of estimated cost of work **i.e. Rs 217.23 Lakhs** or one similar work costing not less than the amount equal to 80% of estimated cost of work **i.e. Rs 347.57 Lakhs** in last seven & current financial years.

Similar works means- Construction of building works

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For Accepting Officer

Notes: -

1. Substantially completed works means those works which are 90% completed on the date of submission (i.e. gross value of work done up to the last date of submission is 90% or more of the original contract price) and continuing satisfactorily.
2. Tenderer shall submit list of work executed in the past 7 years in their letter head duly signed by the proprietor/partner/director of the firm in the proforma contained in Clause 8 .1
3. Completion cost of works shall be brought to common base date of receipt of tender as per following formula: -

Completion cost X (1 +Period in days from date of completion to date of receipt of tender/365 days) X 0.10)

6.2 Available Bid Capacity (ABC)

6.2.1 ABC as per formula given here-in-after should be more than the estimated cost of work given in NIT (i.e. **ABC>434.46 Lakh**). Tenderers shall calculate ABC and submit details duly signed on letter head.

Available Bid Capacity = 2.5 x A x N – B

A.- Maximum value of all Civil Engineering works in any one year during the last 5 financial years (Updated to the current price level with enhancement factor as given below) supported with duly certified Balance Sheets/ Certificates from Chartered Accountant.

<u>Year</u>	<u>Multiplying factor</u>
Last first year	1.10
Last second year	1.20
Last third year	1.30
Last fourth year	1.40
Last fifth year	1.50

N- Number of years prescribed for completion of work for which the current bid is invited.

B- Value of the balance ongoing works to be executed in period N.

6.2.2 The tenderers shall indicate actual figures of completion cost of work and value of A without any enhancement as stated above.

6.2.3 The tenderer may be accorded an opportunity to clarify or modify his qualification documents, if necessary, with respect to any rectifiable defects through option of short fall in tender documents to be submitted by the bidder. The tenderer will respond in not more than 07 days of issuance of the clarification letter through shortfall option failing which his tender is liable to be rejected.

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6.3 Vehicles, Equipments and Plants (VEP) :

6.4 Performance and other requirements:

- (a) There should not be poor/slow progress in running work. (If yes, submit details and reasons of delay to check that these are not attributable to him or are beyond his control).
- (b) There are no serious defect observed in works which stand unrectified (If yes, submit details and reasons)
- (c) There are no cancelled/ abandoned contracts in which Govt unrealized recoveries exist (If yes, submit details and reasons)
- (d) He/They have not been blacklisted by any Govt Deptt (If yes, submit details and reasons)
- (e) There are no any Govt dues outstanding against the firm (If yes, submit details and reasons)
- (f) Tenderer should not be habitual litigant i.e., having more than 3 unsuccessful arbitration/court cases during last years in which his views/claims are substantially rejected.
- (g) Proprietor/partners/directors of firm are not involved in anti-national/anti-social activities and have neither been convicted nor any proceeding are pending in court for such activities.
- (h) Firm should have been considered capable of taking more load in work load return circulated by DGBR. In case the firm is not considered capable for taking more work load due to unsatisfactory performance in the running works, in the prevailing report circulated by DGBR their technical bid shall be rejected.

6.5 Disqualification

6.5.1 Even though the tenderers meet the above criteria, they are liable to be disqualified if they have made misleading or false information in bidding documents submitted.

7. JOINT VENTURE IN BRO WORKS (Except for EPC Tenders)

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For Accepting Officer

8 List & format of eligibility documents to be attached alongwith Part-I of tender documents to prove eligibility: -

8.1 List of works completed/substantially completed in “last seven and current” financial years and ongoing works in following format: -

Name of work & CA No	Brief scope of work	Name & address of employer /client	Accepted contract amount	Date of commencement of work	Original date of completion	Extended date of completion	Actual date of completion /present progress	Cost of completed work	Cost of balance Work	Remarks explaining reasons of delay if any

Note : Works proving eligibility criteria of experience shall be highlighted and performance certificate from client in respect of these works shall be submitted.

8.2 Available Bid Capacity:

For -A :- Balance sheets/certificates from Chartered Accountant indicating annual turnover of Civil Engineering works constructed in last 5 years.

For-B: - Contractors shall submit details of ongoing works as per format stated in Clause 8.1 of above.

Tenderers shall calculate ABC and submit details duly signed.

8.3 Equipments, Plants and Vehicles: Adequate no of Vehicles and Equipments shall be provided during execution of works as per ground requirement.

(Signature of the Contractor)

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For Accepting Officer

8.4. Integrity Pact (IP) (applicable for tender with estimated cost of **Rs. 5.00 Crore and above for all contract works and in tender for procurement services, stores, equipment & plants with estimated cost of **Rs. 1.00 Crore** and above).**

IP duly signed by Accepting Officer/ authorized officer has been uploaded along with this tender as **Annx-II** same shall be signed by bidder(s) on each page and scanned copy shall be submitted as part of Technical bid (cover-1) and original IP duly signed on each page shall be forwarded by post along with tender fee and EMD (if applicable). IP will be an integral part of the Contract and both parties are bound by its provision.

8.5 Performance and other requirements.

8.5.1 Tenderer shall submit undertaking that:-

- (a) There is no poor/slow progress in running works. (If yes, he will submit details and reasons of delay to check that these are not attributable to him or are beyond his control).
- (b) There are no serious defects observed in works which stand un-rectified (If yes, he will submit details and reasons).
- (c) There are no cancelled/abandoned contracts in which Govt. unrealized recoveries exist (If yes, he will submit details and reasons).
- (d) He/They have not been blacklisted by any Govt. Deptt (If yes, he will submit details and reasons).
- (e) There are no any Govt. dues outstanding against the firm (If yes, he will submit details and reasons).
- (f) Proprietor/partners/directors of firm are not involved in anti national/social activities and have neither been convicted nor are any proceedings pending in court for such activities (If yes, he will submit details).

8.5.2 Tenderer shall submit information of all arbitration/court cases decided during last five & current financial years and also presently in progress as per following format: -

- (a) Name and address of employer.
- (b) Cause of dispute.
- (c) Amount involved.
- (d) Brief of Court judgment/arbitration award (if published) otherwise present progress.

8.6 Working capital: -

Copy of Latest balance sheet/income tax return for working capital and/or Banker's certificate for credit facilities. If necessary, Department will make inquiries with the tenderer's Banker.

8.7 Constitution of firm along with copy of partnership deed (in case of partnership firms) and memorandum of articles and association (in case of limited companies).

8.8 In case of unenlisted firms, Copies of Passport of proprietor/partners/directors (if available). Present address & photograph for verification of character and antecedents of proprietor/partners/directors from police authorities.

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8.9 Copies of PAN Card of proprietor/partners/directors.

8.10 Lowest bidder if unenlisted firm in BRO (if his offer is decided for acceptance) will be required to fill enlistment form for provisional enlistment.

Notes:-

1 Documents as listed at clause 8.6 to 8.8 above are exempted for tenderers enlisted with BRO in any class.

2 Affidavits shall be submitted on Non-Judicial stamp papers of appropriate values duly attested by the Magistrate/Notary Public.

3 Photocopies of documents shall be attested by Gazetted officer/Public notary and also self attested.

4 **The bidder should meet all the technical evaluation criteria indicated in the bid documents in order that the bid is considered to be technically responsive and the bidder qualifying to have its Financial Bid opened.**

9. Part-II ('Price/commercial' – 'Q' Bid)

9.1 Part-II 'Price/commercial Bid' – 'Q' Bid) shall comprise of the following: -

- (i) Schedule- 'A' Notes.
- (ii) Schedule 'A' (to be quoted by Bidder)
- (iii) Schedules 'B', 'C', & 'D'.
- (iv) Tender page

10 Q bid evaluation

(i) Arithmetical corrections shall be made as per General condition of contracts **6(A)(A) of IAFW-2249.**

(ii) Commercial bids will be reviewed to ensure that the figures indicated therein are consistent with the details of the corresponding Technical bids.

(iii) For the purpose of evaluation "cost" shall be inclusive of all taxes and duties.

(iv) Cost of all items of Schedule A shall be totaled and the bidder who has quoted lowest total cost in Schedule A (L-1) shall be considered successful bidder and all other bidders shall be considered unsuccessful. Offer of successful bidder (L-1) shall only be considered for acceptance. If L-1 backs out, re-tendering shall be resorted in a fair and transparent manner. Completion period as indicated in Tender Document have been accepted.

10.1 The **Chief Engineer Project Dantak** will be Accepting Officer here-in-after referred to as such for the purpose of this contract.

(Signature of the Contractor)

EE(C) SG
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For Accepting Officer

10.2 If tenderers desire that any condition or stipulation given in the tender documents is to be modified or deleted, they may submit their comments/suggestions before last working date of clarification as shown in critical date details in subject tender ID for consideration by the Deptt for issue of corrigendum/amendments to tender documents. If Deptt considers comments/ suggestions suitable, corrigendum/amendments to tender documents shall be issued and also uploaded on E-tendering Portal. If Deptt does not consider comments/suggestion suitable, corrigendum/amendments to tender documents shall not be issued/uploaded on E- tendering Portal and tenderers shall quote strictly complying with the various provisions given in the tender documents. Any tender who stipulates any alterations to any of the conditions/provisions laid down in tender documents (including corrigendum/amendments) or which proposes any other conditions of any description whatsoever is liable to be rejected.

10.3 The tenderers are advised to visit the work site to acquaint themselves of working and site conditions, before submitting their tender. The submission of tender by a person implies that he has read this tender forwarding letter, the conditions of contract and has made himself aware of the scope and specifications of the work to be done and of the conditions and other factors, site conditions, taxes & levies prevailing etc which may affect the quotation and execution of the work.

10.4 Tenderer must be very careful to deliver a bonafide tender, failing which the tenders are liable to be rejected. Tenderers are, therefore, advised to ensure that their tender must satisfy each and every condition laid down in the tender documents.

10.5 Your attention is drawn to the Indian Official Secret Act-1923 (**XIX** of 1923) as amended up to date particularly section 5 thereof.

11. **Earnest Money** :-

(a) Earnest money is not required to be attached with tender by the enlisted contractor with BRO (term "enlisted contractor" used in tender documents means "enlisted contractor with BRO") who have submitted standing security but same is required from unenlisted contractor/enlisted contractors with BRO, who have not submitted standing security deposit.

(b) Unenlisted contractors with BRO/enlisted contractors with BRO, who have not submitted standing security deposit will submit the tender accompanied with Earnest Money amounting to **5,09,460.00 (Rupees Five Lakhs Nine Thousand Four Hundred Sixty only)** in the form of Deposit at call receipt/Term deposit receipt/Special Term deposit receipt issued in favour of Chief Engineer (P) Dantak C/O 99 APO by Nationalised/ Scheduled Bank. Tender not accompanied with earnest money will not be considered for acceptance. The amount of this receipt should be basic amount and not their maturity value. Any deposit lying with the department in any form against any other tender and/or contract shall not be considered for adjustment as the earnest money in the form as indicated here-in

–before or accompanied with any letter/communication containing any request for adjustment of any other deposit as earnest money shall be treated as non bonafied tender.

(c) Earnest money shall be returned to unsuccessful bidder (other than L-1) after opening of price bids and to successful(L-1) bidder after receipt of security deposit.

(d) However, MSME registered firm should be exempted for submission of EMD.

12. **Performance security** :-

12.1 Within 28 days of receipt of the letter of acceptance, the successful contractor shall deliver to the accepting Officer a Performance Security for an amount equivalent to **5% (Vide HQ DGBR letter No. 24228/DGBR/Policy Instr/2023/32/E8 dated 28 Mar 2023)** of the Contract sum as laid down under condition 19 of IAFW-2249 / Condition 14 A of IAFW -1815 Z (General Conditions of Contract). Work order No 1 shall be placed only after submission of Performance Security Deposit.

(Signature of the Contractor)

EE(C) SG
SW
For Accepting Officer

12.2 Failure of the successful contractor to comply with the requirement of sub clause 12.1 shall constitute sufficient grounds for cancellation of award of work and forfeiture of the Earnest Money. In case of BRO enlisted contractor amount equal to the Earnest Money stipulated in the Notice Inviting Tender, shall be notified to the tenderer for depositing the amount through MRO, issue of tender to such tenderers shall remain suspended till the aforesaid amount equal to the earnest Money is deposited in Government Treasury.

12.3 In the event of contract being cancelled, under Condition 52, 53 & 54 of IAFW-2249 or under conditions 26, 27 & 28 of IAFW -1815Z General Conditions of Contracts the Performance Security & retention money as per last RAR shall be forfeited. ALL T&P and material of contractor lying at site shall be confiscated by the Government and shall be absolutely at the disposal of the President of India and no compensation whatsoever shall be allowed by department.

12.4 Form for Bank Guarantee Bond against Performance Security Deposit shall be as per **Annx-III**.

12.5 The period of validity of the Bank Guarantee Bond against Performance Security shall be upto and including the scheduled date of expiry of Defects Liability Period.

13. The Accepting Officer reserves the right to accept a tender submitted by a Public Undertaking, giving a purchase preference over other tender(s) as are admissible under the Government Policy. No claim for any compensation or otherwise shall be admissible to such tenders whose tenders may be rejected on account of the said policy.

14. **The tender shall remain open for acceptance for a period of 120 days from bid submission end date.**

15. On acceptance of tender, the name of authorized representative (s) of the contractors who would be responsible for taking instructions from Engineer-in-Charge or its authorized representative shall be intimated by the contractor within 7 days of issue of Acceptance letters.

16. **Revision/Modification of quoted Price**

(a) In case the tenderer has to revise /modify /withdraw his quoted rates / offer after it is uploaded in e-tendering portal he may do so on before bid submission end date & time in in e-tendering portal only. Any revision/ modification in offer / withdrawal of offer in the form of an open letter after bid submission end date & time and the same shall be considered as revocation of offer and shall not be taken into account, while considering his originally quoted offer.

17. **Revocation of offer**

In the event of lowest tenderer revokes his offer or revise his rates upward (which will be treated as revocation of offer), after bid submission end date and before expiry of original validity period stipulated in tender documents, the earnest money deposited by him shall be forfeited. In case of BRO enlisted contractors, the amount equal to the earnest money stipulated in the Notice Tender, shall be notified to the tenderer for depositing the amount through MRO, failing which the amount shall be recovered from any payment due to such contractor or shall be adjusted from the Standing Security Deposit. In addition, L-1 tenderer revoking offer and his related firms shall not be issued the tender in second or subsequent calls of subject work.

(Signature of the Contractor)

EE(C) SG
SW
For Accepting Officer

18. **Tenderers are requested to quote rates both in figure and words against each item of Schedule 'A' and extend the amount in Schedule 'A'.**

19. **All the tender documents (Part-I & Part-II) shall be submitted together at one stage but placed in separate sealed envelopes (supplied by the tenderer) duly marked Part I and Part II as stated above.** All the two envelopes containing Part I and Part II duly sealed shall be put in one large size envelope (cloth lined, outer cover to be supplied by the tenderer). This outer cover shall indicate name of work, name of tenderer, last date and time of receipt of tender prominently.

20. **The tender documents (Part-I and Part-II) should be submitted/should be dropped in Tender Box kept at the office of Accepting Officer HQ CE (P) Dantak, C/O 99 APO before the date and time fixed for receipt of tender.** The tender received after due date and time shall not be considered for acceptance. BRO shall not be responsible for any postal or other delay and shall not take care to ensure the submission of tender at place and time fixed for receipt of tender.

21. Tender shall be opened immediately after time indicated in Para 1 herein before in the presence of the tenderers or their authorized representative whoever wish to be present. Part-I only shall be opened first **on 11 Jan 2024 at 1530 hrs (BST)**. Part II (Priced bid) shall not be opened. Part II (Price bid) envelopes shall be signed by the tender opening officers and some bidders present and shall be put in separate large envelope and sealed by the opening officers. Large envelop shall also be signed by the tender opening officers and some bidders present. This large size envelope containing unopened price bids shall be kept in safe custody of the officer nominated by the Accepting officer for this purpose. Part I (Technical Bid) will be evaluated as per technical evaluation criteria given in the tender documents. Unqualified tenders will also be informed and their Part II (Price Bid) shall be returned unopened separately. The date of opening of price bids will be intimated separately to the qualified firms and the Part II (Priced Bid as sealed in large size envelope) will be opened on the scheduled date in the presence of such tenderers who choose to be present and the amounts quoted by the tenderers shall be read out by the opening officer(s) to the tenderers.

Yours Faithfully

(Signature of the Contractor)

For Accepting Officer

Enclosures: Tender Documents

(Signature of the Contractor)

EE(C) SG
SW
For Accepting Officer

ANNEXURE -II

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

INTEGRITY PACT

This Integrity Pact is made aton this day of..... 2023

BETWEEN

President of India represented through **Chief Engineer Border Roads Organisation, Ministry of Defence, CE (P) Dantak PIN : 931708, C/O 99 APO.**

‘**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 Bidder/Contractor)

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

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

Preamble

WHEREAS the Principal / Owner has floated the Tender (NIT NO. **CE (P) DTK/ 10 OF 2023-24** (hereinafter referred to as “Tender/Bid”) and intends to award, under laid down, organizational procedure, contract for

.....
NAME OF WORK: - ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

hereinafter referred to as the “Contract”.

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

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

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

(Signature of the Contractor)

EE(C) SG
SW
For Accepting Officer

1. Commitment of the Principal/Owner

(a) The Principal/Owner commits itself to take all measures necessary to prevent corruption and to observe the following principles:

(i) 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. “

(ii) 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

(iii) The Principal/Owner shall endeavor to exclude from the Tender process any person, whose conduct in the past has been of biased nature.

(b) If the Principal/Owner obtains information on the conduct of any of its employees which is a criminal offence under the Indian Penal code (IPC)/Prevention of Corruption Act, 1988 (PC Act) or is in violation of the principles herein mentioned or if there be a substantive suspicion in this regard, the Principal/owner will inform the Chief Vigilance Officer and in addition can also initiate disciplinary actions as per its internal laid down policies and procedures.

2. Commitment of the Bidder (s)/Contractor(s)

(a) 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,

(b) The Bidder(s)/Contractor (s) commits himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the Tender process and during the Contract execution:

(i) 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.

(ii) 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.

(iii) The Bidder(s)/Contractor(s) will not commit any offence under the relevant IPC/PC Act. Further the Bidder(s)/ Contract(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.

(Signature of the Contractor)

EE(C) SG
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For Accepting Officer

- (iv) 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.
- (v) 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.
- (c) The Bidder(s)/Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.
- (d) 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.
- (e) 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).

3. Consequences of Breach

Without prejudice to any rights that may be available to the Principal/owner under law or the Contractor 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:

- (a) If the Bidder(s)/Contractor(s), either before award or during execution of Contract has committed a transgression through a violation of Para 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.
- (b) 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 para 3(a), the Principal/owner apart from exercising any legal rights that may have accrued to the Principal/Owner, may in

(Signature of the Contractor)

EE(C) SG
SW
For Accepting Officer

its considered opinion forfeit the entire amount of Earnest Money Deposit / Performance Guarantee / Security Deposit of the Bidder/Contractor.

(c) 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.

4. Blank

5. Previous Transgression

(a) 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.

(b) 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.

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

6. Equal Treatment of all Bidders/Contractors/Subcontractors

(a) 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/P act by any of its Subcontractors/sub-vendors.

(b) The Principal/Owner will enter into Pacts on identical terms as this one with all Bidders and Contractors.

(c) The Principal/owner will disqualify Bidders, who do not submit, the any 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.

7. Duration of the Pact

This Pact begins when both the parties have legally signed it. It expires for the Contractor/Vendor after the final payment under the contract has been made 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, BRO.

(Signature of the Contractor)

EE(C) SG
SW
For Accepting Officer

8. Other Provisions

- a. This Pact is subject to Indian Law, place of performance and jurisdiction is the Headquarters of the formation of the Principal/Owner, who has floated the Tender.
- b. Changes and supplements need to be made in writing. Side agreements have not been made.
- c. 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.
- d. 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.
- e. 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.

9. 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.

10. Independent Monitors

- a. That the MoD has appointed following Independent Monitors for this Pact :-
 - (i) **Shri Sudhir Bhargava, IAS Retd,**
e-mail : subhrqv@gmail.com Mob No : 9818271861
 - (ii) **Shri Vikram Srivastava , IPS Retd ,**
e-mail : vikramsrivastava1973@gmail.com Mob No : 9810642323
 - (iii) **Shri Rakesh Kureel, Dir(Contracts),**
e-mail : ddgepcncontract@bro.gov.in

Any complaint with regard to violation of IP, whenever received, will be referred to the Independent Monitors for their comments / enquiry.

- b. The task of the Monitor is to review independently and objectively, any complaint received with regard to violation of Integrity Pact and offer comments or carry out enquiry as deemed fit.
- c. That the Monitor is not subject to any instructions by the representatives of the parties and would perform his functions neutrally and independently.
- d. That the, Bidder/Contractor accepts that if the Monitor needs to access any records then the Monitor shall have the right to access without restriction to all project documentation of the Principal / owner including that provided by the Bidder/Contractor. The Bidder/Contractor will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation including minutes of meeting. The same is applicable to Sub - Contractors and Associates. The Monitor is under obligation to treat the information and documents of the principal/owner and Bidder/Contractor/ Sub- Contractors/ Associates with confidentiality.

(Signature of the Contractor)

EE(C) SG
SW
For Accepting Officer

e. That if the Monitor has reported to the Principal/Owner a substantiated suspicion of an offence under relevant Anti Corruption Laws of India and the Principal/owner has not, within reasonable time, taken visible action to proceed against such offence or reported it to the Vigilance Department, the Monitor may also transmit this information directly to the Central Vigilance Commissioner, Government of India.

f. The word 'Monitor' would include singular and plural.

(For and on behalf of Bidder/Contractor)

(For and on behalf of Principal/Owner)

WITNESSES:

1.....
(Signature, name and address)

2.....
(Signature, name and address)

Dated:

(Signature of the Contractor)

EE(C) SG
SW
For Accepting Officer

INTEGRITY PACT

To,

The Chief Engineer
HQ Project Dantak
Accepting Officer

Sub: **ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343**

Dear Sir,

I/We acknowledge that BRO is committed to follow the principles thereof as enumerated in the integrity Pact 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 integrity Pact, which is an integral part of tender document, 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 the conditions of the NIT.

I/We confirm acceptance and compliance with the Integrity Pact in letter and spirit and further agree that execution of the said integrity Pact shall be separate and distinct from the main contract, which will come into existence when tender/bid is finally accepted by BRO. I/We acknowledge and accept the validity of the Integrity Pact, which shall be in line with para 15 of the enclosed Integrity Pact

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

Yours faithfully

(Duly authorized signatory of the Bidder)

(Signature of the Contractor)

EE(C) SG
SW
For Accepting Officer

INTEGRITY PACT

To,

Sub: ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

Dear Sir,

It is hereby declared that BRO 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 Pact which is an integral part of tender/bid documents, falling which the tender/bidder will stand disqualified from the tendering process and the bid of the bidder would be summarily rejected.

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

Yours faithfully

Chief Engineer
Project Dantak

EE(C) SG
SW
For Accepting Officer

(Signature of the Contractor)

ANNEXURE -III
PERFORMANCE GUARANTEE BOND

1. In consideration of the President of India (hereinafter called "the government") having agreed to **exempt**..... (hereinafter called "the said Contractor's) from the demand. under the terms and conditions of an Agreement dated.....Made between..... and.....for..... (hereinafter called "the said Agreement") of Security deposit for the due fulfilment by the said contractors of the terms and conditions contained in the said Agreement on production of a Bank Guarantee for Rs(Rupees.....only) we..... bank Ltd (hereinafter referred as the Bank) do hereby undertake to pay to the Government an amount not exceeding. RsAgainst any loss or damage caused to or would be caused to or suffered by the Government, by reason of any breach by the said contractor(s) of any the terms or conditions contained in the said Agreement.

2. We..... Bank Ltd. Do hereby undertake to pay the amounts due and payable under this guarantee without any demur, merely on a demand from the Government, stating that the amount claimed is due by way of loss or damage caused to or would be caused to or suffered by the Government by reason of any breach by the said Contractor(s) of any of the terms or conditions contained in the said Agreement or by reason of the contractor's (s) failure to perform the said Agreement. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee shall be restricted to an amount not exceeding Rs.. ..

3. We..... Bank Ltd. Further agree that 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 the virtue of the said Agreement have been fully paid and its claims satisfied or discharged or till... ..(Office/ Department). Ministry of..... Certifies that the terms and conditions of the said Agreement have been fully and properly carried out by the said Contractor(s) and accordingly discharges the guarantee. Unless a demand or claim under this guarantee is made to us in writing on a before thewe shall be discharged from all liability: under this guarantee thereafter.

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

5. We..... Bank Ltd. lastly undertakes not to revoke this guarantee during its currency except with the previous consent of the Government in writing.

(Signature of the Contractor)

EE(C) SG
SW
For Accepting Officer

UNDERTAKING BY AUTHORISED SIGNATORY

I, the undersigned do hereby under take that our firm M/s _____

agree to abide by Terms and Conditions of subject Tender for **ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343** from Page No. 01 to **432** is advertised on the **www.eprocure/epublish/app** and it shall be binding on us and may be accepted at any time before the expiration of stipulated tender conditions.

(Signed by an Authorized Officer of the firm)

Title of Officer

Name of Firm

Date

(Signature of the Contractor)

EE(C) SG
SW
For Accepting Officer

[In lieu of IAFW-1779-A (to be use in conjunction with General Conditions
Of Contract based on and IAFW-2249) (1989 Print)]

CHIEF ENGINEER PROJECT DANTAK

http : //www.gref.gov.in
http : //www.bro.gov.in
E-mail : brodtk@gmail.com
Tele : **009752 - 351082/351086/351088**
Fax : **009752 – 351285**

Headquarters
Chief Engineer
Project Dantak
PIN : 931708
C/o 99 APO

80600/ /E8

Oct 2023

**ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED
UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER
PROJECT DANTAK : JOB NO. 60/343**

Dear Sir (s),

Messrs/Mr _____ of _____ is/are hereby authorised to tender for the above work. The tender is to be delivered at the Office of the Chief Engineer, Project DANTAK, PIN 931708, C/O 99 APO or at OIC liaison cell located at Supervisor Mess 19 BRTF, Jaigaon, West Bengal, PIN-736182, Ph **8145087696/9970889254** at **1700 hrs (BST)/1630 hrs(IST) on 08 Jan 2024** addressed to Headquarters, Chief Engineer, Project Dantak, PIN – 931708, C/o 99 APO for **ADDITION/ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343** and Part-I (Unpriced-Bid) **to be opened on 11 Jan 2024 at 1530 hrs (BST).**

All documents must be returned whether or not a tender has been submitted.

Any correction concerning this tender should be addressed as indicated at the top of this sheet, quoting the reference as given.

**THE PRESIDENT OF INDIA DOES NOT BIND HIMSELF
TO ACCEPT THE LOWEST TENDER OR ANY TENDER**

(Signature of the Contractor)

EE(C) SG
SW
For Accepting Officer

BORDER ROADS ORGANISATION
CHIEF ENGINEER PROJECT DANTAK
NOTICE INVITING TENDER- 10/2023-24

1. A sealed tender is invited for “**ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343**”

2. Tender documents may be downloaded from central public procurement portal site <http://eprocure.gov.in/epublish/app>, BRO website www.bro.gov.in and CAB website www.cab.org.bt as per the schedule as given in **CRITICAL DATE SHEET** as under and printout is to be taken on A4 size paper. It is advisable that the downloaded tender document to be printed through laser printer preferably. Submission of photocopy of tender is not permitted.

CRITICAL DATE SHEET

01	Publishing date & time on CPPP website	13 Dec 2023 at 1700 Hrs
02	Bid document download start date	13 Dec 2023 at 1730 Hrs
03	Clarification start date & time (Pre Bid queries)	13 Dec 2023 at 1730 Hrs
04	Clarification end date & time	21 Dec 2023 at 1100 Hrs
05	Bid submission start date & time	14 Dec 2023 at 1100 Hrs
06	Bid submission end date & time	08 Jan 2024 at 1700 Hrs
07	Opening date & time of Technical bid	11 Jan 2024 at 1530 Hrs
08	Opening date of Financial bid	Will be intimated later

3. The estimated cost of work is **Rs 434.46 Lakhs (Rupees Four Crore Thirty Four Lakh Forty Six Thousand only)** approximately or as subsequently amended in tender documents and uploaded in central public procurement portal site <http://eprocure.gov.in/epublish/app>, BRO website www.bro.gov.in and CAB website www.cab.org.bt. This estimate, however, is not a guarantee and is merely given as a rough guide, and if work costs more or less, tenderer shall have no claim on that account of what so ever nature.

4. The tender shall be based on Specifications, **General Conditions of Contracts IAFW-2249 and item rate contract form based on IAFW 1779-A with Schedule "A"** (List of works) to be priced by tenderers.

5. Not more than one tender shall be submitted by one contractor or contractors having business relationship. Under no circumstances will a father or his son(s) or other close relations who have business relationship with one another (i.e. when one or more partner(s)/director(s) are common), be allowed to tender for the same contract as separate competitors. A breach of this condition will render the tenders of both the parties liable to rejection.

6. The work is to be completed within **780 days** or as subsequently amended in tender documents or uploaded on central public procurement portal site <http://eprocure.gov.in/epublish/app>, BRO website www.bro.gov.in and CAB website www.cab.org.bt in accordance with the phasing, if any, indicated in the tender from the date of handing over the site, which will be generally within one month from the date of issue of Acceptance letter.

7. Tender (in full) either downloaded from CPP Portal website will be received at HQ CE (P) Dantak, C/o 99 APO or at OIC liaison cell located at Supervisor Mess 19 BRTF, Jaigaon, West Bengal, PIN-736182, Ph **8145087696/9970889254** at **1700 hrs (BST)/1630 hrs(IST) on 08 Jan 2024**. Part - I un-priced bid will be opened on **11 Jan 2024 at 1530 hrs (BST)**. Tender received after due date shall not be considered for opening and no reason for delay or claim whatsoever shall be entertained.

(Signature of the Contractor)

EE(C) SG
SW
For Accepting Officer

NOTICE INVITING TENDER (CONTD)

8. **The Chief Engineer (P) Dantak, C/O 99 APO will be Accepting Officer** hereinafter, referred to as such for the purpose of this contract.

9. Intending tenderers are advised to visit central public procurement portal site <http://eprocure.gov.in/epublish/app>, BRO website www.bro.gov.in and CAB website www.cab.org.bt three days prior to date of opening of tender for any corrigendum/addendum /amendment.

10. Earnest money is not required to be attached with tender by the valid enlisted contractors with BRO who have submitted standing security deposit and MSME registered firms as per Rule 170 (i) of GFR 2017 but it is required from other contractors and to be attached with Technical Bid for **Rs. 5,09,460.00 (Rupees Five Lakhs Nine Thousand Four Hundred Sixty only)** in the shape of Call Deposit Receipt/Term Deposit Receipt/Special Term Deposit Receipt /Bank Guarantee in favour of Chief Engineer Project Dantak C/o 99 APO obtained from any Nationalized /Schedule Bank having maturity/validity period 90 days more than validity period of his offer.

11. **Successful Bidder (L-1) shall deposit to Accepting Officer a Performance Security for an amount of 5% of contract sum (Vide HQ DGBR letter No. 24228/DGBR/Policy Instr/2023/32/E8 dated 28 Mar 2023) in the shape of Bank Guarantee or FDR within 28 days of issue of LoA.**

12. Copies of drawings (if applicable) and other documents pertaining to the work (signed for the purpose of identification by the Accepting Officer or his accredited representative) and sample of materials and stores to be supplied by the contractor will be opened for inspection at the following locations:-

Chief Engineer (P) Dantak, C/o 99 APO

13. The tenderer are advised to visit the site by making prior appointment with Commander, 19 Border Roads Task Force, C/o 99 APO sufficiently in advance (Telephone No of Commander, 19 BRTF at **009755- 252201**). A tenderer shall be deemed to have full knowledge of all relevant documents, local conditions, sites etc. For further details tenderer may contact telephonically if required, SW, Project DANTAK at **009752 – 351082/351086** during office hours.

14. A tenderer shall be deemed to have full knowledge of all relevant documents, samples, site etc whether he has inspected them or not.

15. Any qualification documents/tender which stipulates any alterations to any of the conditions laid down or proposes any other conditions of any description what so ever, is liable to be rejected.

16. The Accepting Officer reserves his right to accept a tender submitted by a public undertaking, giving a price preference over other tender (s) which may be lower, as are admissible under the Govt. policy. No claim for any compensation or otherwise shall be admissible from such tenderer (s) whose tenders may be rejected on account of the said policy.

17. **The submission of tender by a tenderer implies that he had read this notice and conditions of contract and has made himself aware of the scope and specifications of the work to be done and of the conditions rates at which stores, tools and plants etc will be issued to him, local conditions and other factors bearing on the execution of the work**

18. The Pre-Contract Integrity Pact has been signed by Accepting Officer or by the Officer specifically designated by him and scanned copy uploaded as part of NIT along with tender documents. Integrity Pact duly signed on each page by the bidder(s) shall be submitted as part of technical bid (Cover-I).

(Signature of the Contractor)

EE(C) SG
SW
For Accepting Officer

NOTICE INVITING TENDER (CONTD)

19. The hard copy of original instruments in respect of earnest money, under taking regarding acceptance of tender conditions, Enlistment letter if firm is enlisted in BRO, EPFO, Registration letter, GST Registration and any other document required to be submitted with respect to various conditions mentioned in the tender documents should be attached with tender documents
20. Blank.
21. Blank.
22. Blank.
23. In case of rejection of technical bid, contractor may appeal to next higher engineer authority i.e. HQ DGBR on email bro-ddgepcncontract@bro.gov.in with copy to the Accepting Officer i.e. CE on email bro-dtk@nic.in against rejection within 05 days from the date of publishing of result of technical bid qualification on CPP Portal whose decision shall be final and binding. If the appeal is not made within this period, the bidder shall forfeit his right of appeal against rejection of his technical bid. Any appeal received after 05 days of such publication of result shall not be entertained under any circumstances. The next higher engineering authority shall preferably try to resolve the issue within 05 days of such representation. However, contractor/bidder shall not be entitled for any compensation whatsoever on account of rejection of technical bid.
24. For any further particulars, you may refer central public procurement portal site <http://eprocure.gov.in/epublish/app>, BRO website www.bro.gov.in and CAB website www.cab.org.bt.
25. Blank.
26. In the event of lowest tenderer revoking his offer or revising his rates upward (which will be treated as revocation of offer), after opening of tenders, the earnest money deposited by him shall be forfeited. In case of BRO enlisted contractors, the amount equal to the earnest money stipulated in the Notice of tender, shall be notified to the tenderer for depositing the amount through MRO, failing which the amount shall be recovered from payment due to such Contractor or shall be adjusted from the Standing Security Deposit. In addition, such tenderer and his related firm shall not be issued the tender in second or subsequent calls.
27. Important- Above particulars may change due to Administrative or any other reasons and shall be available in central public procurement portal site <http://eprocure.gov.in/epublish/app>, BRO website www.bro.gov.in and CAB website www.cab.org.bt Therefore, bidders/contractors are requested to visit central public procurement portal site <http://eprocure.gov.in/epublish/app>, BRO website www.bro.gov.in and CAB website www.cab.org.bt frequently and at least once again 03 (three) days prior to bid submission date as per critical date sheet, for any changes in above particulars.
28. Blank
29. The tender shall remain open for acceptance for a period of **120 days** from bid submission end date.
30. The tender may be accepted as whole.
31. This notice of tender shall form part of the contract.

No.80600/ /E8

Headquarter
Chief Engineer
Project Dantak
PIN : 931 708
C/O 99 APO

EE (Civ) SG
SW
For Accepting Officer
Dated : Dec 2023

NOTICE INVITING TENDER (CONTD)

Distribution :- For info and wide publicity please.

1.	HQ DGBR/E8 Seema Sadak Bhawan Ring Road, Delhi Cantt New Delhi – 110 010	2.	HQ DGBR/B&T Dte Seema Sadak Bhawan Ring Road, Delhi Cantt New Delhi – 110 010	3.	HQ DGBR/East Dte Seema Sadak Bhawan Ring Road, Delhi Cantt New Delhi – 110 010
4.	HQ ADGBR (North-West), Sec-48-C, Near Motor Market, Chandigarh-160047	5.	HQ ADGBR (East) PIN-900885 C/o 99 APO	6.	R&D Estt PIN-931723 C/o 99 APO
7.	The Chief Engineer, MES, Shillong Zone, Shillong, Meghalaya	8.	MES Builders Association of India, 807, Sahyog 58, Nehru Place, New Delhi-110 019.	9.	HQ 19 BRTF PIN : 930019 C/O 99 APO
10.	60 RCC (GREF) PIN : 930060 C/O 99 APO	11	63 RCC (GREF) PIN : 930 063 C/O 99 APO	12	64 RCC (GREF) PIN : 930 064 C/O 99 APO
13.	102 RCC (GREF) PIN : 930102 C/O 99 APO	14	Builder Association of India, G1/G20 Commerce Centre, Dodajee Road, Tardeo, Mumbai-400034.	15	CPWD Contractor's Association, B-Wing, I.P. Bhawan, New Delhi-110002
16.	HQ CE (P) Arunank, PIN 931719, C/o 99 APO	17	HQ CE (P) Brahmanak, PIN 931722, C/o 99 APO	18	HQ CE (P) Beacon, PIN 931706, C/o 56 APO
19	HQ CE (P) Chetak, PIN 931707, C/o 56 APO	20	HQ CE (P) Deepak, PIN 931709, C/o 56 APO	21	HQ CE (P) Himank, PIN 931710, C/o 56 APO
22.	HQ CE (P) Sampark, PIN 931712, C/o 56 APO	23	HQ STF Hirak, PIN 931724, C/o 56 APO	24	HQ CE (P) Shivalik, PIN 931718, C/o 56 APO
25.	HQ CE (P) Yojak, PIN 931720, C/o 56 APO	26	HQ CE (P) Vijayak, PIN 931721, C/o 56 APO	27	HQ CE (P) Pushpak, PIN 931711, C/o 99 APO
28.	HQ CE (P) Sewak, PIN 931714, C/o 99 APO	29	HQ CE (P) Vartak, PIN 931716, C/o 99 APO	30	HQ CE (P) Udayak, PIN 931715, C/o 99 APO
31.	HQ CE (P) Swastik, PIN 931717, C/o 99 APO				

(Signature of the Contractor)

EE(C) SG
SW
For Accepting Officer

NAME OF WORK:	<u>ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343</u>
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GENERAL CONDITION OF CONTRACTS
IAFW -2249
FOR
ITEM RATE CONTRACTS (IAFW-1779 A)

1. A copy of General Conditions of Contract (IAFW-2249: Print 1989) with Errata 1 to 20 **and Amendments Nos. 1 to 48** is in my/our possession. I/we has/have read and understood the provisions contained in the aforesaid GENERAL CONDITIONS OF CONTRACTS before submission of this tender and I/we agree that I/we shall abide by the terms and conditions thereof.
2. It is hereby further agreed and declared by me/us that the GENERAL CONDITIONS OF CONTRACT, including Condition No. 70 thereof pertaining to the settlement of disputes by Arbitration (IAFW-2249) and Condition No 71 pertaining to appointment of Dispute resolution Board shall form part of this tender documents.
3. Wherever the phrases Commander Works Engineer (CWE) and Garrison Engineer (GE) have been used in the General Conditions of Contract (IAFW-2249) the same are considered as Task Force Commander (TFC) and OC Contract respectively as applicable in Border Roads Organisation.

Note: - Copy of General Condition of Contracts IAFW-2249 can be referred in the office of HQ CE (P) Danntak/HQ 19 BRTF (GREF), if required.

(Signature of the Contractor)

EE(C) SG
SW
For Accepting Officer

SPECIAL CONDITIONS

**ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS
AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT
DANTAK : JOB NO. 60/343**

1. GENERAL

1.1 The following special Conditions shall be read in conjunction with General Conditions of Contracts, IAFW-2249 and IAFW-2159/IAFW- 1779 'A' including Errata/amendments thereto. If any provision in these Special Conditions is at variance with that of the aforesaid documents, the former shall be deemed to take precedence there over.

1.2 The work under this contract shall be carried out in accordance with Schedule 'A'/BOQ, the Particular Specifications, Drawings and other provisions in MES Schedule.

1.3 The term 'General Specifications' referred to here in before, as well as referred to in General Conditions of Contracts (IAFW-2249) shall mean the specifications contained in the MES schedule.

1.4 General Rules, Specifications, Special Conditions and all preambles in the MES Schedule shall be deemed to apply to the works under this contract. In case of any discrepancy, the provisions in these tender documents shall take precedence over the aforesaid provision in the MES Schedule.

2. INSPECTION OF SITES

The contractor is particularly advised to inspect the site (s) of work by making prior appointment with the **Chief Engineer Project Dantak, C/o 99 APO/Commander 19 BRTF, C/o 99 APO** so as to acquaint himself with regard to the nature and conditions of site, nature and means of local communication, working hours, conditions of access and all other cognate matters concerning the execution and completion of the work. Any paths, tracks, approaches etc, required for the movement of plants, equipments, machines and vehicles etc to the work site and plate form, bund etc required for the execution of work will be responsibility of the contractor and rates quoted must include these aspects also where required. The tenderer shall be deemed to have inspected the site and made himself familiar with various factors which may affect his quotation where he actually inspects the site or not. No extra charges consequent on misunderstanding or otherwise will be allowed.

3. LAND FOR OFFICES ETC

The contractor shall have to make his/her own arrangements for the land as may be required by him/her for housing of staff and labour and for erection of store sheds, offices, godowns etc., required by him/her for this work. The contractor must ensure that the staff, labour, plant, equipments, machines, vehicles, stores etc., employed or collected in connection with the work are so located that there is no hindrance to free flow of traffic on the roads/highway. Suitable cautionary and warning signs and other measures are to be installed/provided by the contractor at his own cost for the safety of traffic.

(Signature of the Contractor)

EE(C) SG
SW
For Accepting Officer

SPECIAL CONDITIONS (CONTD)

4. MINIMUM FAIR WAGES PAYMENT TO LABOUR

(a) The contractor shall pay wages not less than the minimum fair wages fixed from time to time by the Central Govt/State Govt/Local Authorities. He shall have no claim whatsoever, if on account of any local regulations and/or otherwise, he is required to pay wages in excess of the wages so fixed.

(b) The contractor shall observe the laws/regulations applicable in the area regarding the employment of labour, payment of wages and other cognate matters relating to the conditions.

(a) In case local labourers are not available, the contractor may have to obtain written permit from the appropriate authority of State Govt. to import labour from outside the state.

(d). The contractor shall ensure compliance to all the labour wages laws and benefit rules for the labour employed by him.

(e) The contractor shall maintain muster roll of labourer engaged in the work along with wages being paid to labourer (trade wise). The muster roll shall be available at site for inspection by Engineer-in-Charge or any authorized Govt. Officials.

5. ROYALTIES. The Contractor shall make his own arrangement for procuring materials required under the contract and he shall ensure that the royalty for the material procured by him under this CA has been correctly paid to the concerned authority. Any claim of royalty by the concerned department on the material procured under this CA shall be settled with concerned authority directly by Contractor. Further the contractor should ensure that the supply of material is not arranged illegally. An undertaking to this account will be given by contractor before payment of RAR/Final bill

SPECIMEN COPY OF UNDERTAKING

I / We, M/s _____ hereby declare that I /We have supplied the following materials against CA No. CE (P) Dantak/ / 2023-24 during the period from _____ to _____.

<u>Srl No.</u>	<u>Materials</u>	<u>Gross Quantity supplied</u>
(a)		
(b)		
(c)		

It is further certified that the royalty for the above quantity of materials at the applicable rates have been paid by us to the concerned department of the Govt.

(M/s _____)

.
.

(Signature of the Contractor)

EE(C) SG
SW
For Accepting Officer

SPECIAL CONDITIONS (CONTD)

6. ALLOTMENT OF DEFENCE LAND FOR STORAGE OF MATERIALS, WORKSHOP ETC (INCLUDING TEMPORARY SHEDS)

6.1 Refer to conditions 24 of IAFW-2249. The contractor shall be permitted to store his materials including erecting temporary sheds, workshop etc. there for at the areas of land marked on the site plan and he shall pay a license fee for Re. 1/- per year or part thereof in respect of each and every separate area of land so allotted to him.

6.2 The contractor shall submit the application to HQ DGBR through PC Contract for allotment of temp land.

7. MOVEMENT OF CONTRACTOR VEHICLES

7.1. Minimum classification of existing bridges on the roads are Class 70 R bridges, contractor should not bring any heavier vehicle/plnt/equipment as such vehicle/plant/equipment shall not be allowed on the bridges. The contractor's vehicle may be required to ply in convoys as per directions given by the concerned Civil/Military authorities. No extra payment/time will be admissible on this account.

7.2. In case the condition of these bridges warrant further downwards load classification due to any unforeseen circumstances, the same will be done by OC Contract whose decision shall be final and binding. In case of any such eventuality, the contractor may have to unload his heavy load carried at locations, indicated to suit the load classification indicated by the OC Contract. Any such heavy load carriage thus necessitated across such indicated bridge(s) shall have to be done by the contractor without any additional payment and no claim whatsoever on this account will be entertained.

8. SECURITY RESTRICTIONS

8.1 Contractor intention is invited to condition 25 of IAFW-2249 contractor shall employ only Indian National/Bhutanese after verifying their antecedents and loyalty. The contractor shall on demand by the Engineer-in-Charge / OC Contract, submit list of his agents, employees and work people concerned and shall satisfy the Engineer-in-Charge / OC Contract as to the bonafide credential of such people.

8.2 The contractor and his workmen shall observe all the rules promulgated by the authority controlling the area in which work is to be carried out e.g. prohibition of smoking, lighting, fire precautions, search of persons on entry and exit, keeping to specified routes and restricted hours of work etc. Thorough search of all persons and transport may be conducted by the departmental authorities at the site of works at any time and any number of times for security reasons Necessary Permits are to be obtained from Civil Authorities by the contractor, for himself, his staff and labour. Nothing shall be paid extra on this account. During currency of the contract, if anybody is suspected to have any connection with anti-national elements/activities, he will immediately be removed and contractor shall have no claim whatsoever on this account.

8.3 Necessary assistance will be extended to the contractor by the department for providing passes/permits to the contractor, his representative and workmen to enter the state.

9. FREE ACCESS TO SITES AND LOOKING AFTER OF WORKS

The contractor shall give all reasonable facilities to this department personal for the inspection of the works being executed under this contract. He will also provide free access to the works if being executed by this department or other agencies and if such works are located near the sites covered under this contract. Responsibility of all the works covered in this contract will lie on the contractor and these works will be fully completed and accordingly handed over to this department.

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SPECIAL CONDITIONS (CONTD)

10. **TAXES ETC**

The tendered amount shall inter-alia be deemed to be inclusive of all taxes, viz work Contract Tax, terminal taxes, toll taxes, Royalty, octroi, **GST**, sale tax/VAT, Service Tax, or any other taxes and the like levies payable under the respective existing country/states etc. No claim on account of any taxes will be payable to contractor whatsoever except as provided in sub Para 11 (b) here-in-after.

10.1 **GST/Sales Tax are not applicable for the works to be executed inside Bhutan for Project Dantak.** For any query regarding **exemption of GST** on import of goods and services **from India to Bhutan**, kindly refer to the following websites for detail information.

- (aa) www.cbec.gov.in/htdocs-cbec/gst/index.
- (ab) www.cbec.gov.in/resources/htdocs-cbec/gst/notfctn-42-igst-rate-english.pdf.
- (ac) www.cbec.gov.in/resources/htdocs-cbec/gst/notfctn-300CGST-rate-english.pdf.

10.2 As the works to be executed to Project Dantak located in both India and Bhutan, hence, no GST is applicable for the works to be executed inside Bhutan only. The rates of all items to be quoted by the contractor(s) for delivery of stores in Phuentsholing and their rates will be deemed to have incorporated additional taxes/expenditure for execution of works in rear location. Contractor shall submit bill/invoice address to 19 TF/Phuentsholing.

UNDERTAKING CERTIFICATE

"It is certified that the goods / materials given in the CA No _____ of HQ CE (P) Dantak will be supplied by me / our firm as export and for use in Bhutan. It is declared that no GST cost has been included by me in the rates quoted in above mentioned enquiry".

Signature with date :
Name of the bidder :
Name of firm with address :

Certificate on account of GST as per Rule No 16 (1) of IGST Act 2017 will be issued on receipt of stores as format of certificate is as given under:-

GST : ZERO RATED SUPPLY CERTIFICATE

1. It is certified that the goods supplied by your firm against CA No _____ for the cost of Rs. _____/- (Rupees _____ only) is a zero rated Supply as per **GST Rule No 16 (1) of IGST Act 2017** as the goods were supplied as an export and to be used in Bhutan by this Project.
2. It is further certified that no amount was paid to your firm by this Project on account of GST

Consignee Unit

Indian firms may refer to rule 16 of IGST Act 2017 and Notification No. 42/2017-Integrated Tax (Rate) Ministry of Finance dated 27 Oct 2017.

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SPECIAL CONDITIONS (CONTD)

11. RE-IMBURSEMENT/REFUND ON VARIATION IN "TAXES DIRECTLY RELATED TO CONTRACT VALUE"(As per latest policy dated 24228/DGBR/Policy Instr/2017/100/E8 dated 25 Aug 2017)

(a) The rates quoted by the contractor shall be deemed to be inclusive of all taxes, (including GST on materials, GST on Work Contracts, turnover tax, Labour Welfare cess /tax Ecological and Environment cess etc), duties, Royalties, Octroi & other levies payable under the respective statutes. No re-imburement /refund for variation in rates of taxes, duties royalties, Octroi & other levies, and / or imposition / abolition of any new/existing taxes, duties, royalties, Octroi & other levies shall be made except as provided in sub Para (b) here-in-below:-

(b) (i) The taxes which are levied by Govt. at certain percentage rates of Contract Sum / Amount shall be termed as "taxes directly related to contract value" such as GST on works contracts, turnover tax, Labour Welfare Cess /Tax and like but excluding Income Tax. The tendered rates shall be deemed to be inclusive of all "taxes directly related to contract value" with existing percentage rates as prevailing on last due date for receipt of tenders. Any increase in percentage rates of "taxes directly related to contract value" with reference to prevailing rates on last due date for receipt of tenders shall be reimbursed to the contractor and any decrease in percentage rates of "taxes directly related to contract value" with reference to prevailing rates on last due date for receipt of tenders shall be refunded by the contractor to the Govt. / deducted by the Govt. from any payment due to the contractor. Similarly, imposition of any new "taxes directly related to contract value" after the last due date for receipt of tenders shall be reimbursed to the contractor and abolition of any "taxes directly related to contract value" prevailing on last due date for receipt of tenders shall be refunded by the contractor to the Govt. /deducted by the Govt. from the payments due to the contractor.

(b) (ii) The contractor shall, within a reasonable time of his becoming aware of variation in percentage rates and/or imposition of any "taxes directly related to contract value" give written notice thereof to the OC Contract stating that the same is given pursuant to this Special Condition, together with all information relating thereto which he may be in a position to supply. The contractors shall submit the other documentary proof /information as the OC may require.

(b) (iii) The contractor shall, for the purpose of this condition keep such books of account and other documents as are necessary and shall allow inspection of the same by a duly authorized representative of Govt., and shall further, at the request of the OC furnish, verified in such a manner as the OC Contract may require, any documents so kept and such other information as the OC may require.

(b) (iv) Reimbursement for increase in percentage rates /imposition of "taxes directly related to contract value" shall be made only if the contractor necessarily & properly pays additional "taxes directly related to contract value" to the Govt. without getting the same adjusted, against any other tax liability or without getting the same refunded from the concerned Govt. Authority and submits documentary proof for the same as the OC may require".

12. SECURITY OF DOCUMENTS

The contractor shall not communicate any classified information regarding works/organisation either to the sub contractor or others without prior approval of the Engineer-in-Charge. Any violation on this aspect will be forfeit the right of the contractor to claim any amount due to the contractor whatsoever held with organisation.

13. FOREIGN EXCHANGE/IMPORT LICENCE

No foreign exchange and/or import license will be arranged by the Department in the connection of work under this contract.

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SPECIAL CONDITIONS (CONTD)

14. CONTRACTOR'S VEHICLES/PLANT AND EQUIPMENT AT SITE

(a) The contractor shall furnish to the Engineer-in-Charge a distribution return of his plant/equipment on the site of works, stating the following particulars: -

- i) Particulars of Plant/equipment i.e. Make, Manufacture's No, Model No, if any, Registration No, if any, capacity, yearn of manufacture, year of purchase etc.
- ii) Total quantity on site of work.
- iii) Location indicating quantity at the site of work.

(b) For the purpose of this condition, plant/equipment shall include vehicles, trucks, Cranes, Heavy Lifting Equipment, Welding Machine, Gas cutter and lorries but not the workmen's tools and/or any manually operated tools/equipment.

(c) The Engineer-in-Charge shall record the particulars supplied by the contractor as aforesaid, in the works diary and send a return to OC Contract for record in his office.

(d) The first return shall be submitted immediately after any plant or equipment is brought to the site. Thereafter every week changes in the return shall be furnished in the following form: -

S/No	Particulars of plant/ equipment	Total No at site of work	Location	Remarks

Addition Since.....

Reduction Since.....

(e) A complete return showing the upto-date position of plant/equipment at site shall be submitted on 15th of every month till the works are completed and the site cleared.

(f) The contractor's attention is invited to condition 34 of General Conditions of Contracts according to which no tool, plant/equipment shall be removed off the site without written approval of the OC Contract.

15. RECORD OF CONSUMPTION OF CEMENT:

15.1 The contractor shall maintain a "bound register" with serially numbered pages with all pages initialed by Engineer-in-Charge against numbering showing quantities of cement received, used in work and balance at the end of each day. The form of record shall be as approved by representative of BRO and the contractor in token of verification of its correctness and will be checked by Engineer-in- Charge, at least once a week and on the day, cement is brought by the contractor to the site.

15.2 The register shall be kept at site in safe custody of the contractor's representative during the progress of the work and shall on demand be produced for verification to the inspecting officer(s).

15.3 On completion of the work, the contractor shall deposit the cement register with the Engineer-in-Charge for record.

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SPECIAL CONDITIONS (CONTD)

16. SECURITY OF CLASSIFIED DOCUMENTS

Contractor's special attention is drawn to Condition 2-A and 3 of General Conditions of Contracts (IAFW-2249). The contractor shall not communicate any classified information regarding works either to sub-contractors or others without prior approval of the Engineer- in-Charge. The contractor shall also not make copies of the design/drawings and other documents furnished to him in respect of the works and he shall return all documents on completion of the work or on earlier determination of the contract. The contractor shall alongwith final bill attach a receipt from Engineer-in-Charge in respect of his having returned the classified documents as per Condition 3 of General Conditions of Contracts (IAFW-2249).

17. MOBILISATION ADVANCE : Blank

18. Blank

19. RECORD OF MATERIALS AND PURCHASE VOUCHERS

19.1 The quantity of materials such as cement, steel, paints, water proofing compound, chemicals for anti-termite treatment and the like, as directed by Engineer-in-Charge (the quantity of which cannot be checked after incorporation in the works), shall be recorded in Measurement Books and signed by the contractor and the Engineer-in-Charge as a check to ensure that the required quantity has been brought to site for incorporation in the work.

19.2 Materials brought to site shall be stored as directed by the Engineer-in-Charge and those already recorded in Measurement Book shall be suitably marked for identification.

19.3 Contractor shall produce vouchers/invoices from the manufacturers and/or their authorised agents for the full quantity of the following materials as applicable as a pre-requisite before submitting claims for payment for advance on account of the work done and/or materials collected in accordance with Condition 64 of General Conditions of Contracts (IAFW-2249):-

- (i) Water proofing compound.
- (ii) Chemicals for Anti-termite Treatment.
- (iii) Paints, Distempers, Cement base paints & like.
- (iv) Cast iron pipes and fittings.
- (v) Sanitary fittings.
- (vi) Steel windows/ventilators.
- (vii) Factory made door shutters.
- (viii) Floor/Wall tiles
- (ix) Iron Mongery
- (x) Tarfelt/bituminous products.
- (xi) Salt glazed stoneware pipes.
- (xii) Electrical and Water Supply fittings/fixtures where names of manufacturers/brands are specified or approved.
- (xiii) Cables.
- (xiv) Cement
- (xv) Steel

(Signature of the Contractor)

EE(C) SG
SW
For Accepting Officer

SPECIAL CONDITIONS (CONTD)

19.4 The contractor shall, on demand, produce to the OC Contract, original receipted vouchers/invoices in respect of the materials other than as stated in condition 18.3 above. Vouchers/invoices so produced and verified shall be stamped by Engineer-in-Charge indicating contract number. The contractor shall ensure that the materials are brought to site, in original sealed containers/packing, bearing manufacturer's marking except in the case of the requirement of materials(s) being less than smallest packing.

19.5 Bitumen shall be purchased directly from manufacturers only. These vouchers/invoices shall be defaced by the Engineer-in-Charge, indicating reference to the contract number, under his dated signature, and CTC thereof shall be kept on record so as to avoid their being used again.

19.6 The vouchers/invoices will clearly indicate the contract number and the IS No., specific alternative to which the material conforms in case of various alternative in IS.

20. TIME AND PROGRESS CHART

(a) The time and progress chart to be prepared as per the General Condition of Contract shall consist of detailed network analysis and a time schedule. The critical path network will be drawn jointly by the OC Contract and the Contractor soon after acceptance of the Tender. The time scheduling of the activities including a network for the preliminary arrangements for mobilization of resources e.g. manpower, plants and machineries will be done by the Contractor, so as to complete the work within stipulated time.

(b) On completion of the time schedule a firm calendar date schedule will be prepared and submitted by the contractor to the OC Contract who will approve if after due scrutiny. The schedule will be submitted in quadruplicate within six weeks from the date of handing over the site.

(c) During the currency of work, the Contractor is expected to adhere to the time schedule and this adherence will be a part of the contractor's performance under the contract. During the execution of the work, the Contractor is expected to participate in the review and updating the network undertaken by OC Contract. These reviews may be undertaken at the discretion of the OC Contract either as periodical appraisal measure or when the quantum of work ordered on the Contractor is substantially changed through deviation order or amendments. Any revision of the schedule as a result of the review will be submitted by the Contractor to the OC Contract within a week who will approve it after due scrutiny. The Contractor will adhere to the revised schedule thereafter. In case of the contractor's not agreeing to the revised schedule the same will be referred to the Accepting Officer whose decision will be final, conclusive and binding. OC's approval to the revised schedule resulting in a completion date beyond the stipulated date(s) of completion shall not automatically amount to grant of extension of time. Extension of time shall be considered and decided by the appropriate authority mentioned in condition 11 of General Conditions of Contracts and separately regulated.

(d) The Contractor is expected to mobilize and employ sufficient resources to achieve the detailed time schedule within the broad framework of the accepted methods of working and safety.

(e) No additional payment will be made to the contractor for any multiple shift work or other incentive methods contemplated by him in his work schedule even though the time schedule is approved by the department.

(Signature of the Contractor)

EE(C) SG
SW
For Accepting Officer

SPECIAL CONDITIONS (CONTD)

21. PERMIT FROM LOCAL AUTHORITIES FOR PLYING VEHICLES

Contractor shall make his own arrangements for obtaining necessary permit from local authorities for plying his equipments for the work in accordance with the rules and regulations of the land.

22. ELECTRICITY AND WATER SUPPLY

No electricity or water will be supplied by the department. The contractor shall make his own arrangement for execution of the work.

23. RATE QUOTED

(a) Unit rate shall be deemed to include the provisions for all materials, stores, labour, process, operations and requirements detailed in particular specifications irrespective of whether these appear as specific items or not in the Schedule A.

(b) The rate quoted shall also include transportation of equipment upto work site including loading/unloading.

24. **OFFICIAL SECRET ACT:** The contractor shall be bound by the Official Secret Act 1923.

25. **CLEANING DOWN:** Refer Condition 49 of General Conditions of Contracts (IAFW-2249). The Contractor shall clean all floors, remove cement, lime or paint drops, clean joinery, glass panels etc, touch up all paint work and carryout all necessary items of work in connection therewith and have the whole premises clean and tidy to the entire satisfaction of Engineer-in-Charge before handing over the items/works. No extra payment shall be admissible to the contractor for the operation.

26. **OCTROI, SALES TAX AND OTHER DUTIES:** The tenderer's rates shall be deemed to include all Duties, such as Octroi, GST, Excise, etc as referred in condition 10 of General Conditions of Contracts (IAFW-2249) and also include state Govt. sales tax on works contracts payable under respective states according to the condition (46th Amendment Act 1982). Any other conditions stipulated by the tenderer regarding sales tax on works contracts would not be considered and such tender shall be liable for rejection.

27. **DAMAGE TO EXISTING STRUCTURES:** Any damage to the existing structures, any existing road etc., during the execution of work shall be made good by the contractor at his own expense. Rectification, replacement, making good and touching up etc, shall be carried out, conforming to the materials and workmanship originally provided and to the satisfaction of the Engineer-in-Charge. In case of any dispute on this account, the decision of the OC Contract shall be final, binding and conclusive.

28. **APPROACHES:** The contractor shall make arrangements for and provide at his own cost all temporary approaches, if required to the site(s), after obtaining approval in writing of the OC Contract to the layout of such approaches.

27. **WATCH/LIGHTING:** The contractor shall at his own cost take all possible precautions to ensure safety of life and property by providing necessary fencing, barrier, light, watchmen etc., during the progress of work and as directed by the Engineer-in-Charge.

28. **HANDING OVER OF SITE:** Site for execution of work will be available as soon as the work is awarded. In case it is not possible to make the entire site available on the award of work, the contractor will have to arrange his working programme accordingly. No claim whatsoever, for not giving entire site on award of work and for giving site gradually, will be tenable.

(Signature of the Contractor)

EE(C) SG
SW
For Accepting Officer

SPECIAL CONDITIONS (CONTD)

29. **QUALIFIED TRADESMEN** In compliance with the condition 26 of IAFW-2249 (General Condition of Contracts), the contractor shall employ skilled/semi skilled tradesmen who are qualified and possessing certificate in particular trade from Industrial Training Institute (ITI)/National Institute of Construction Management and Research (NICMAR)/National Academy of Construction (NAC) Hyderabad, similar reputed and recognized-Institutes by State/Central Government, to execute the works of their respective trade. The number of such qualified tradesmen shall not be less than 25% of total skilled/semi skilled tradesmen required in each trade. The contractor shall submit the list of such tradesmen along with requisite certificate to OC Contract for verification and approval. Notwithstanding the approval of such tradesmen by OC Contract, if the tradesmen are found to have inadequate skill to execute the work of their trades, leading to unsatisfactory workmanship, the contractor shall remove such tradesmen within a week after written notice to this effect by the OC Contract and shall engage other qualified tradesmen after prior approval of OC Contract. OC Contract decision whether a particular tradesman possesses requisite qualification, skill and expertise commensurate with nature of work, shall be final and binding. No compensation what so ever on this account shall be admissible.

30. **Fossils:**

30.1 All fossils, coins, articles of value of antiquity, and structures and other remains or items of geological or archaeological interest found on the Site shall be placed under the care and authority of the Employer. The contractor's Personnel or other persons form removing or damaging any of these findings.

30.2 The Contractor shall, upon discovery of any such findings, promptly give notice to the Engineer-in-Charge/OC Contract. Who shall issue instructions for dealing with oit. If the Contractor suffers delay and/or incurs Cost from complying with the instructions, the Contractor shall give a further notice the Engineer-in-Charge/OC Contract describing in detail the delay sustained by him and cost measured by him for following the instructions of the Engineer-in-Charge Contract in dealing with the fossils along with all supporting documents/proof, within 7 days of the occurrence. The Contractor then be certified for the following:-

- (a) An extension of time for any such delay, if completion is or will be delayed due to such act in following the instructions of the Engineer-in-Charge/OC Contract.
- (b) Payment of any such Cost, which shall be included in the Contract Price.

30.3 After receiving this further notice, the Engineer-in- Charge/OC Contract shall examine the case with facts and figures and disagreements if any will be communicated to the contractor.

30.4 In case of any disputes, the matter shall be referred to the Accepting Officer whose decision shall be final and binding.

31. **RATE QUOTED.**

- (a) Unit rates shall be deemed to include the provisions for all materials, stores, labour, process, operations and requirements detailed in technical specifications irrespective of whether these appear as specific items or not in the Schedule 'A'.
- (b) The rate quoted shall also include transportation of materials required for completing the work including loading/unloading charges.

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SPECIAL CONDITIONS (CONTD)

32. APPOINTMENT OF ARBITRATOR IN CASE OF CONTRACT AGREEMENTS TO BE EXECUTED BETWEEN BRO AND GOVT OF INDIA UNDERTAKINGS/ ENTERPRISES.

In the event of any dispute or difference between the parties hereto, such dispute of difference shall be resolved amicably by mutual consultation or through the good offices of empowered agencies of the Government. In the event of any such dispute or differences relating to the interpretation and application of the provisions of contracts where such resolution is not possible then the unresolved dispute or differences shall be referred by either party to the Arbitration of one of the Arbitrators in the department of Public Enterprises to be nominated by the Secretary to the Government of India In charge of the Bureau of Public Enterprises, and in such case the **Arbitration and Conciliation Act** shall not be applicable to the arbitration under this clause. The award of the Arbitrator shall be binding upon both the parties in the dispute. Provided, however, any party, aggrieved by such award, may make a further reference for setting aside or revision of the award to the Law Secretary, Department of Legal Affairs, Ministry of Law & Justice, Govt. of India. Upon such reference the dispute shall be decided by the Law Secretary or the Special Secretary/Additional Secretary when so authorized by the Law Secretary, whose decision shall bind the parties finally and conclusively. The parties to the dispute will share equally the cost of arbitration as intimated by the Arbitrator.

33. MEASUREMENT

Measurements pertaining to the work completed under this contract will be recorded and signed in the measurement book (IAFW-2261) by the Junior Engineer after taking in to account that the required laboratory tests have been done as per the limits stipulated and as per the frequencies laid down in the "Particular Specifications" of this contract agreement and MORTH Specifications for Road and Bridge Works (Latest revision) and connected documents thereof and test results are found satisfactory and proper records are maintained.

- (a) The measurement recorded by the Junior Engineer shall be 100% checked and signed by the Engineer-in-Charge.
- (b) 25% test check will be carried out by OC Contract on each day of measurement by the Engineer-in-Charge.
- (c) 5% test check will be carried out by the Cdr Task Force before making payment to the Contractor.
- (d) The measurements should also be signed by the contractor as token of acceptance of the measurement.
- (e) In case of discrepancies in arriving out work done details, the decision of the Accepting Officer will be final and binding for both the parties.

34. ACCEPTANCE OF WORK DONE

The Engineer-In-Charge shall exercise control over the quality of materials and work done by carrying out tests for the specified properties as per frequencies given in particular specifications and specifications of MoRT&H (Ministry of Road Transports and Highways) for Roads And Bridge (latest revision).

35. -BLANK-

36. -BLANK-

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SPECIAL CONDITIONS CONTD

37. RECORD/CONSUMPTION OF MAJOR CONSTRUCTION STORES / MATERIALS

- (a) (i) For the purpose of keeping a record of Major Construction Stores like **cement, steel, paints, water proofing compound, chemicals for anti-termite treatment and the like** consumed in works, the contractor shall maintain a pucca bound register in the form approved by the Engineer-in-Charge/OC Contract showing daily quantity used in works. The register shall be signed daily by the contractor's representative and the Engineer-in-Charge/OC Contract in token of their verification of its correctness. The check will not, however, absolve the contractor of his responsibility to justify the consumption of bitumen at the time of finalization of his work.
- (ii) The register shall be kept at site in the safe custody of the contractor during progress of the work and shall, on demand, be produced for verification of inspecting officers.
- (b) (i) The quantity of materials such as paints, water proofing compound and the like as directed by the Engineer-in-Charge (the quantity of which cannot be checked after incorporation in the works), shall be recorded in the register and signed by the contractor and the Engineer-in-Charge as a check to ensure that the required quantity has been brought to site for incorporation in the work.
- (ii) Materials brought to site shall be stored as directed by the Engineer-in-Charge in Measurement Book and shall be suitably marked for identification.
- (iii) The contractor shall, on demand produce the OC original receipted vouchers in respect of the supplies. Vouchers so produced shall be verified and stamped by Engineer-in-Charge indicating contract number. The contractor shall ensure that the materials are brought to site in original sealed containers/packing, bearing manufacturer's marking except in the case of the requirement of materials(s) being less than smallest packing.
- (iv) Contractor shall produce original vouchers from the manufactures and/ or their authorized agents for the full quantity of the following materials, as applicable as a prerequisite before submitting for payment for any advances on account of the work done and/or materials collected in accordance with condition 64 of General Condition of Contracts IAFW-2249.
- (a) Cement / Lime.
(b) Steel items.
(c) Bitumen.
(d) Paint
(e) LDO

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SPECIAL CONDITIONS (CONTD)

38. PAYMENT

Payment to the parties will be made in INR in the following manner: -

- (a) No advance payment will be made to the contractor against any material if not properly safeguarded against loss / damage due to natural calamities / theft. (Condition 64 of IAFW-2249 shall be deemed amended to this extent).
- (b) No payment shall be made for any rejected work.
- (c) Taxes (Income tax, GST, Labour Cess etc) shall be deducted at source from the payment due to contractors as per prevailing laws / statutory orders and TDS certificate shall be issued to the contractor.
- (d) All payments will be made by e-payment / account payee cheque.

39. CO-OPERATION WITH OTHER AGENCIES

The contractor shall permit free access and generally afforded reasonable facilities to other agencies or departmentally workmen engaged by the Govt to carry out their part of the work, is any, under separate arrangements.

40. SUPPLY OF COLOUR RECORD PHOTOGRAPHS, ALBUMS AND VIDEO CDs

Contractor shall provide/supply of colour record photographs, Album and video CDs at various stages/facts of the work without any extra cost as per clause 121 of MoRT&H specification for road and bridge works (Fifth Revision).

41. TRAFFIC MOVEMENT

Contractor shall ensure that no hindrance to traffic movement shall occur during execution of work. However, if the traffic movement is disrupted due to land slide or any other unforeseen reason, then contractor shall make all efforts to restore traffic movement within time as directed by the OC Contract/Engineer-in-Charge. If contractor is unable or unwilling to restore traffic movement, Engineer-in-Charge may take action as per condition 8 of IAFW-2249. Contractor shall immediately intimate regarding closure of the road to Engineer-in-Charge and local administrative authorities.

42. VENUE OF ARBITRATION: Place of arbitration hearing shall be fixed by sole Arbitrator.

43. DEFECT LIABILITY PERIOD (Refer Condition 46 of IAFW 2249).

Defect Liability period shall be **thirty six calendar months** irrespective of what is specified in Condition 46 of IAFW 2249. Performance Guarantee of **5% of contract sum (Vide HQ DGBR letter No. 24228/DGBR/Policy Instr/2023/32/E8 dated 28 Mar 2023)** as submitted in terms of Condition 19 of IAFW-2249 shall be retained till expiry of defect liability period and shall be refunded to the contractor after the expiration of defect liability period provided always that the contractor shall first have been paid the final bill and have rendered a No-demand certificate (IAFA-451) in terms of condition 68 of IAFW-2249.

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For Accepting Officer

SPECIAL CONDITIONS (CONTD)

44. CONCILIATION

1. Conciliation shall be conducted as laid down u/s 61 to 81 of Arbitration and Conciliation Act 1996 (Part III) unless specified otherwise here-in-after.

44.1.1 The scope of conciliation shall be restricted to the following types of disputes with financial limits as indicated therein: -

- (a) Disputes relating to levy of compensation for delay in completion, actual amount of compensation.
- (b) Disputes relating to technical examination of works.
- (c) Disputes relating to interpretation of the provisions of the contract with reference to their application to parties.
- (d) Disputes relating to non return of Schedule 'B' stores over-issued to contractor.
- (e) Disputes relating to assessment of loss/damage occurred in executed work only (and not for contractor's material & V/E/P) due to natural calamities.
- (f) Any other disputes having fair chances of being resolved by conciliation and considered fit to be conciliation by the parties.

44.2 COMMENCEMENT OF CONCILIATION PROCEEDINGS

44.2.1 The party initiating conciliation shall send to the other party a written invitation to conciliate, briefly identifying the subject of the dispute.

44.2.2 Conciliation proceedings shall commence when the other party accepts in writing the invitation to conciliate.

44.3 Number of Conciliators

44.3.1 There shall be a sole conciliator.

44.4 Appointment of Conciliator

34.4.1 All disputes brought out in Para 1.1.1 (a) to (f) above shall be referred to the Sole Conciliator viz Serving Officer not below the rank of Superintending Engineer having degree in Engineering or equivalent to be appointed by the concerned ADGBR or in his absence the Officer Officiating as ADGBR specifically delegated by the ADGBR in writing.

44.5 STATUS OF EFFECT OF SETTLEMENT AGREEMENT

38.5.1 The settlement agreement signed by the parties as a result of conciliation proceedings shall have the same status and effect as it is an arbitral award on agreed terms.

(a) During execution of this works or after completion or after determination/cancellation/termination of the contract all disputes between the parties to contract arising out of the contract (except those for which decision of Accepting Officer or any other officer is expressed to be final and binding). Including any disagreement by either party with any action, inaction, opinion, instruction, certificate or valuation by the Accepting Officer or his nominee, the matter in dispute shall, in the first place be referred to the Dispute Resolution Board (DRB). In case of disagreement with the decision of such DRB, any party may invoke arbitration clause.

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For Accepting Officer

SPECIAL CONDITIONS (CONTD)

46. DISPUTE RESOLUTION BOARD (DRB) APPLICABLE FOR CONTRACTS OF VALUE MORE THAN Rs.10 crore.

- (b) The constitution of the DRB shall be a three member body as under:-
- (a) Chairman : DDG of the concerned ADGBR. Where DDG is not posted in the ADGBR, any other senior level Col/Director posted in ADGBR shall be nominated by ADGBR at his sole discretion.
 - (a) Member 1 } Col/Director rank Officers of ADGBR or of any other
 - (b) Member 2 } CE (Project) be nominated by ADGBR
- (c) The name of Chairman and members shall be notified by the Accepting Officer within one month of the date of acceptance of Contract.
- (d) Once the DRB is constituted the members and Chairman shall disclose in writing their neutrality and impartiality about any personal interest in the work.
- (e) The dispute shall be referred to the Chairman of DRB by the concerned party after giving notice to the other party for invoking of this clause.
- (f) The DRB shall decide the dispute in accordance with the terms of the Contract, principle of natural justice, equity and fair play.
- (g) The DRB may fix oral hearing at a place, date and time as decided by the Chairman.
- (h) The requisite administrative support to the DRB shall be provided by the Accepting Officer.
- (i) All the contract documents pertaining to the case shall be provided by the Accepting Office for reference by the DRB.
- (j) DRB shall give its decision on the disputes within three months of notice from any party invoking the DRB clause. This period can be extended by one month with the consent of the parties.
- (k) All the decisions given by the DRB shall be by majority and such decisions shall be communicated in writing by Chairman to the parties.
- (l) If the decision of the DRB is not to the satisfaction of either party or if the DRB fails to give decision within the laid down time either party shall indicate his reservations on the decision to Accepting Officer within 30 days of such decision and to refer that dispute for arbitration.
- (m) It shall be mandatory for the party invoking arbitration on any particular dispute to have first exhausted the remedy provided under the DRB clause for that particular dispute.
- (n) The mandate of the DRB shall terminate on completion of one year from the date of completion/determination/cancellation/termination of the contract.

(Signature of the Contractor)

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For Accepting Officer

SPECIAL CONDITIONS (CONTD)

- (o) If any member or Chairman of the DRB is unable to function due to any reason whatsoever, or he resigns his appointment, concerned ADGBR shall fill the vacancy so caused within 125 days of happening of such vacancy.
- (p) Any dispute referred to the DRB and having been decided by the DRB and not objected to by either party within 30 days shall attain finality and shall not be referable to arbitration.
- (q) Accepting Officer shall ensure implementation of the decisions of the DRB dwhich attain finality, i.e. except those which are objected by him or by contractor within 30 days as per Para 2 above.
- (r) Findings and decision of DRB shall be admissible as evidence, to the extent permissible as per law, in the subsequent Arbitration and/ or litigation.
- (s) DRB Chairman/member shall not in any case, be liable to be called as witness or to produce any evidence in any Arbitration or departmental proceedings of any kind.
- (t) During execution of work the disputes may be referred to the DRB as per the requirement of each party after having exhausted the decision making process provided in the contracts. In case of completion of work or after determination/cancellation/termination of the contract all the disputes including payment/non-payment/delay in final bill shall be simultaneously referred to the DRB within six months of completion/determination/cancellation/termination of contract.
- (u) The department case before the DRB shall be presented by Accepting Officer himself and/ or Dir (Contract) of CE Project assisted by Task Force Commander and his SW, OC RCC/BCC and any other officer and legal counsel nominated by Accepting Officer. The Contractor may present his case by himself and/ or by his nominated reps & authorized legal/technical counsel.

47. ARBITRATION (REFER CLAUSE 70 OF CONDITION OF CONTRACT OF IAFW-2249)

All disputes or differences arising as aforementioned, other than those for which the decision of the Accepting Officer or any other person is by the contract expressed to be final and binding shall be referred to sole arbitrator under condition No 70 of General Conditions of contract IAFW-2249 after written notice by either party of the contract to the other of them. In addition to above Arbitration and conciliation (Amendment) Act 2015 will also prevail.

48. LEGAL JURISDICTION: Legal jurisdiction for this contract agreement shall be “**Courts at Siliguri/Kolkata in the State of West Bengal**”.

49. HIRING CHARGES OF LAND: Payment of rent for road side land if any where crusher and HMP plants will be installed based on the requirement of Daily works will be payable by Contractor and this will not be reimbursable by the Deptt.

50. CONTRACT LABOUR (R&A) ACT 1970

The contractor shall get himself registered with Asst Labour Commisiioner, Siliguri as required under contract labour (Regulation and Abolition) Act 1970. If he does not fall within the purview of said act, he shall obtain a no objection certificate from ALC, Jalpaiguri to above effect. A copy of the certificate of registration or the no objection certificate (as the case may be) shall be submitted by him to the Accepting Officer within 15 days of the award of the work. In the event of his non-compliance, the contractor shall be liable for punitive action under CL (R&A) Act 1970.

(Signature of the Contractor)

EE (C) SG
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For Accepting Officer

SPECIAL CONDITIONS (CONTD)

51. LOSS OR DAMAGE ON ACCOUNT OF ENEMY ACTION

(a) If as a result of enemy action, the contractor suffers any loss or damage, the Government shall reimburse to the contractor such loss or damages, to the extent and in the manner herein after provided:-

(i) The loss suffered by him on account of any damage or destruction of his equipment (as defined in condition 11 (2) above), the amount of losses assessed by the Accepting Officer of the contract on this account shall be final and binding.

(ii) Compensation paid by him under any law for the time being in force to any workmen employed by him for any injury caused to him or the workmen's legal successor for loss of the workmen's life.

(b) No requirement shall be made nor shall any compensation be payable under the above provisions unless the contractor had taken Air Defence Precautions ordered in writing by OC concerned or in the absence of such orders, reasonable precautions. No re-imbusement shall be made nor shall any compensation be payable for any equipments not laying on the site of work at the time of enemy action.

52. REGISTRATION FEE/TRADE TAX/INCOME TAX ETC.

Tendered rates/amount shall also be deemed to include the payment of all taxes like Registration fee, Trade Tax, Income Tax and other taxes/levies to be paid to the Govt of India/Royal Govt of Bhutan already in force and as may be modified from time to time. The contractor may ascertain full details on this respect from the concerned department(s).

53. ADJUSTMENT OF TAX CONSEQUENT UPON AMENDMENT TO CONSTITUTION

The tendered rate shall also be inclusive of all statute levies and State / Union Territory / shall tax on works contract payable under the respective statutes pursuant to the constitution stipulated by the tenderers regarding sales tax on works contracts will not be considered and such tender will be liable for reject.

54. ESCALATION:- No claim of reimbursement in increase of labour wages, cost of POL and materials is admissible under this contract including extended period, if any.

55. INCOME TAX:- Indian Income Tax @ 2% and BCT (@ 3% for Indian Contractors and @ 2% for Bhutaneese Contractors) will be deducted at source as applicable.

56. DEDUCTION OF TAX AT SOURCE:- Indian Income tax and BCT shall be deducted at source as applicable

57. REGISTRATION:- Contractor is required to get his firm registered with GST and Asst Labour Commissioner of the area under Contract Labour (R&A) Act and Building and other construction workers Act. A Copy of valid registration certificate issued will be submitted to OC Contract while processing RARs / Bills.

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SPECIAL CONDITIONS (CONTD)

58. MANDATORY REQUIREMENT FOR MAKING PAYMENTS: E-PAYMENT THROUGH NEFT/RTGS/ECS/EBS (THIS SUPERSEDES CONDITION 66 OF GENERAL CONDITIONS OF CONTRACT OF IAFW-2249.)

51.1 All payment will be made through E-payment and hence tenderers must furnish NEFT Form duly signed by the Bank Authorities.

Appendix-A to special conditions No 51

NEFT / RTGS MANDATE FORM

1.	Name of Firm / contractor as per account in the Bank	
2.	Beneficiary's Account Number (As appearing on the Cheque Book)	
3.	Name of Bank where a/c is held	
4.	Name of Branch	
5.	Address of Branch	
6.	Telephone No. of Branch	
7.	IFSC Code of Branch	
8.	9-digit MICR Code Number of the Bank & Branch	
9.	E-mail ID of Contractor	

Note:- Please attach a blank cancelled cheque for verification of the above particulars.

I, hereby, declare that the particulars given above are correct and complete. If the transaction is delayed or not effected due to incomplete or incorrect information of the bank details, I will not hold the payment releasing authority responsible for it.

Dated:

Signature of the Contractor (Seal)

CERTIFICATE BY BANK

Certified that the particulars furnished above are correct as per our records.

Seal of Bank

(Signature of the branch manager of the Bank)

Dated :

59. COMPLETION DRAWINGS

The contractor shall submit to the OC Contract within 2 months of completion but before final payment, completion drawings (accurate and correct in all respects), in bound copies, 3 sets of prints and one polyester film of quality to be approved by T.F.C.

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SPECIAL CONDITIONS (CONTD)

Annexure-I to special conditions

FORMAT FOR BANK GURANTEE FOR ADVANCE PAYMENT

From:
Bank _____
To
The President of India
Sir,

1. With reference to contract Agreement No _____ concluded between the president of India, hereinafter referred to as "The Government" and M/S _____ hereinafter referred to as the "the contractor" for _____ as detailed in the above contract agreement hereinafter referred to as "the said contract" and in consideration of the Government having agreed to make an advance payment in accordance with the terms of the said contract to the said contractor, we the _____ bank, hereinafter call 'the Bank' hereby irrevocably undertake and guarantee to you that if the said contractor would fail to provide works in accordance with the terms & conditions of the said contract for any reason whatsoever or fail to perform the said contract in any respect or should whole or part of the said on account payments at any time become repayable to you for any reason whatsoever, we shall, on demand and without demur pay to you all and any sum up to a maximum of Rs. _____ (Rupees _____ only) paid as advance to the Contractor in accordance with the provisions contained in clause _____ of the said contract.

2. We further agree that the Government shall be the sole judge as to whether the contract has failed to provide works in accordance with the terms & conditions of the said contract or has failed to perform the said contract in any respect or the whole or part of the advance payment made to contractor has become repayable to the Government and to the extent and monetary consequences thereof by the Government.

3 We further hereby undertake to pay the amount due and payable under this Guarantee without any demur merely on a demand from the Government stating the amount claimed. Any such demand made on the Bank shall be conclusive and binding upon us as regards the amounts due and payable by us under this Guarantee and without demur, However, our liability under this Guarantee shall be restricted to an amount not exceeding Rs _____ Rupees _____ only).

4. We further agree that the Guarantee herein contained shall remain in full force and effect for a period upto _____ (03 months+due date of recovery of advance) unless the Government in his sole discretion discharges the Guarantee earlier.

5. We further agree that any change in the constitution of the Bank or the constitution of the contractor shall not discharge our liability hereunder

6. We further agree that the Government shall have that fullest liberty without affecting in any way our obligations hereunder with or without our consent or knowledge to vary any of the terms and conditions of the said contract or extend the time of development/delivery from time to time or to post pone for any time or from time to time any of the powers exercisable by the Government against the contractor and either to forebear or enforce any of the terms and conditions relating to the said contract and we shall not be relieved from our liability by reason of any such variation or any indulgence or for bearance shown or any act omission on the Government or by any such matter or thing whatsoever which under the law relating to sureties would but for this provision have the effect of so relieving us.

7. We lastly undertake not to revoke the Guarantee during the currency of the above said contract except with the prior consent of the Government in writing.

Yours faithfully,
Place: _____

Date : _____

For _____ Bank
(Authorised Attorney)
Seal of Bank

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

PARTICULAR SPECIFICATIONS

**ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS
AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT
DANTAK : JOB NO. 60/343**

1. GENERAL

1.1 Work under this contract shall be carried out in accordance with Schedule 'A', Particular Specifications, drawings, IAFW-2249 (General Conditions of contracts), General Specifications and other provisions contained in MES SSR (Schedule) Specifications Part-I (2009) and Rates Part-II (2010) read in conjunction with each other.

1.2 Term "General specifications" referred to hereinbefore as well as referred in IAFW-2249 (General Conditions of contracts) shall mean the specifications contained in the MES SSR (Schedule) Specifications Part-I (2009).

1.3 General Rules, specifications, special conditions and all preambles in the MES Schedule shall be deemed to be applicable to the work under this contract, unless specifically stated otherwise in these documents and in case of any conflicting provisions in MES schedule and in these tender documents, the provisions in these documents shall take precedence over the aforesaid provisions in the MES Schedule. The term "as specified" wherever appears in the tender documents and drawings, relates to relevant particular specifications and in its absence, general specifications. All references to MES Schedule/SSR in these specifications relate to Part-I of MES Schedule 2009 unless otherwise mentioned. Reference to only some paragraphs of MES Schedule have been made in these particular specifications but other paragraphs and provisions, as applicable, are also to be followed for all parts of Schedule 'A', if any, though not particularly mentioned hereinafter.

1.4 Where specifications for any item of work are not given in MES Schedule or in these Particular Specifications, specifications as given in relevant Indian Standard Code of Practice shall be followed.

1.5 Rates for the item quoted by the tenderer under BOQ shall be deemed to be included for all minor details/items of work and/or constructions which are obviously and fairly intended and which may not have been included in these documents but which are essential for the execution and entire completion of work. Decision of the Accepting Officer as to whether any minor detail of work and/or construction is obviously and fairly intended to be included in the contract or not, shall be final, conclusive and binding. In the absence of any other similar or near details, minimum essential requirement for completion of the work from structural and utility point of view shall be deemed to be included in the quoted rate. In the event of any dispute, decision of the Accepting Officer shall be final, binding and conclusive.

1.6 MATERIALS

1.6.1 Unless specific makes/manufacturers are specified in the tender documents all the materials to be procured by the contractor for incorporation in the work under this contract (with the exception of local materials like bricks, stone aggregate, stones, sand etc) shall be with ISI certifications mark. For materials of specific make/manufacturer's names refer Para 1.6.2 here- in -below.

1.6.2 If any specific makes/manufacturers names are specified in Sch 'A' or Particular specifications or in Appendix 'D' & 'E' to particular specifications, materials shall be of these specific makes/manufacturers only. However, makes specified in Sch 'A', if any, shall take precedence over Appendix 'D'. ISI marking will not be mandatory for such items where makes/manufacturers have been specified unless the items of makes/manufacturers

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For Accepting Officer

PARTICULAR SPECIFICATIONS CONTD...

specified are available both with ISI marking and without ISI marking. If any material is not manufactured with IS certifications mark in the country, it shall be conforming to relevant IS and other specifications specified elsewhere and shall also conform to samples displayed in OC Contract's office as applicable. However steel windows/ventilators and doors shutters shall be of makes specified in Appendix 'D' to these particular specifications' and conforming to relevant IS (ISI marking is not mandatory).

1.6.3 Indian Standard (IS) of the year of publication/edition listed or specified in the SSR (part-I) or revised thereafter shall be applicable for the work under this contract unless specifically indicated otherwise elsewhere in these tender documents.

1.6.4 LOCAL MATERIALS: Irrespective of actual distance involved, local materials such as stones, aggregates, sand, road metals etc shall conform to or superior to the specifications given here in after and to the samples kept in the office of OC Contract. The tenderers are advised to inspect these samples. The tenderers shall be deemed to have inspected the samples and have full knowledge thereof whether they inspected them or not before quoting their tender.

1.6.5 SAMPLES OF MATERIALS:

- (a) Refer condition 10 of IAFW-2249 (General Conditions of contracts).
- (b) Specific requirements regarding dimensions, strength, weight and finishes, as per IS, MES SSR and the Particular Specifications given hereinafter vis-à-vis actual properties check, tests carried out, reference to test certificates and markings, etc based on which samples of each materials are approved as conforming to relevant specification shall be recorded in the sample approval register.
- (c) The contractor shall produce samples of all materials and shall obtain approval in writing from OC Contract before he places bulk order for the materials for incorporation in the work. The contractor shall not procure materials unless the samples are first got approved from the OC Contract.

1.6.6 RECORD OF MATERIALS (Refer Special conditions here-in-before)

- (a) The quantity of all the proprietary materials (including the materials the quantity of which cannot be checked after incorporation in the works) shall be recorded in measurement books and signed by the contractor and the Engineer-in-Charge as a check to ensure that the required quantity has been brought at site for incorporation in the work.
- (b) Materials brought to site shall be stored as directed by the Engineer-in-Charge and shall be suitably marked for identification.
- (c) The contractor shall procure all the materials (where specific makes/manufacturer's specified) directly from their manufacturers or from their authorized dealers only. The contractor shall ensure that the materials are brought to site, in original sealed containers/packing, bearing manufacturers marking except in the case of the requirement of material(s) being less than smallest packing.

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(d) The contractor shall produce to the OC Contract original printed and machine numbered purchase vouchers/invoices including manufacturer's test certificate (where applicable) for all the materials mentioned here-in-before in Special Conditions. Copies of orders placed on the manufacturer/authorized dealers shall also be provided by the contractor to Engineer in Charge along with above documents. Whenever procured and brought to site of work for incorporation in the work, a Xerox copy of such vouchers/invoices shall be stamped (office stamp) and defaced in ink by the Engineer-in-Charge stating "verified for materials purchased and brought to the site of work for incorporation in the work under CA NO.... " and signed with date before allowing payment for these materials through RAR.

(e) Payment for the materials shall neither be made in the RARs nor will these be allowed for incorporation in the work unless documents as stated above are produced by the contractor and are verified by the Engineer-in-Charge. In case of any disputes on account of above Accepting Officer's decision shall be final and binding.

1.7 STANDARD OF WORKMANSHIP

To determine the acceptable standard of workmanship and of fittings, wiring etc, the OC Contract shall order the contractor to execute certain typical portion of work (different trades) and services sufficiently in advance of other work in one portion of the building. These shall be executed and completed under the close supervision of the Engineer-in-charge and shall be got approved from OC Contract. On approval by the OC Contract of such items, these items shall signed and/or suitably identified by the OC Contract and labeled as guiding samples. The record of such inspection and passing of each stage of these samples shall be recorded by OC Contract under his dated signatures. Work on such sample/portion of the building shall be progressed well ahead (minimum two stages ahead) of other portions of the building. Approved finishes/workmanship shall be followed in the work as a whole.

1.8 MAKING GOOD :-

The contractor shall cut, leave or form holes, recesses, chases etc, in concrete, brick work, walls, ceilings, floors and in any other situations as required or as directed by the Engineer-in-Charge and make good in cement and sand mortar (1:3)/ PCC (1:2:4) type B-0 as decided by Engineer-in-Charge and finish to match the adjoining surfaces without extra cost to the deptt.

1.9 SCOPE OF WORK:-

The scope of work under this contract comprises of full, final and entire completion of works and services described in schedule 'A' and as specified in these particular specifications, general specifications and in the Contract Agreement elsewhere.

2. EXCAVATION AND EARTH WORK

2.1 EXCAVATION:

(a) Unit rates for shall be deemed to include for excavation and earth work in type of soil for foundation (i.e. loose/soft/hard/dense) as described under respective item of Schedule 'A'/ BOQ.

(b) If rock (soft/hard/disintegrated) is met at site, contractor shall immediately notify the fact to the OC Contract in writing, who will after due verification, regularize the change through a proper deviation order along with provisions read in conjunction with Schedule 'A' Notes. It shall be excavated by chisel cutting or by use of mechanical plant or by any other suitable method/techniques which have been

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evaluated by contractor as ordered, in lieu of blasting by a prior written approval of OC Contract. Blasting of hard rock by using explosives shall not be permitted. Payment shall however, be made as per respective items of SSR subject to provisions of clause 3.12 on page 23 of SSR-2010, Part II and percentage for pricing of deviation as specified in Schedule 'A' Notes.

(c) Boulders and stones (size 80mm and above) obtained from excavation shall be sorted out and neatly stacked at site by the contractor as directed by the Engineer-in-Charge, without any extra cost to the Govt. The aforesaid boulders and stones in stacks shall become contractor's property once the recovery for same as indicated in Sch 'A' Notes is effected from payments due to the contractor, these boulders may be used in the work after breaking them into specified size as approved by Engineer-in-charge or alternatively disposed off from the site for further disposal as deemed appropriate by the contractor.

(d) Excavation in any type of soil/rock shall be carried out to the extent shown in drawings or as ordered. Any extra excavation done by the contractor on his own shall be made good with PCC (1:5:10) type E-2 at the bottom without any extra cost to the department.

(e) In case timbering for excavation is essentially required and directed by the Engineer-in-Charge in writing this shall be without any extra cost to the department.

2.2 METHOD OF MEASUREMENTS OF EXCAVATION

(i) Where soft/loose soil, hard/dense soil, soft/disintegrated rock and hard rock are mixed, the measurement for the total quantity shall be made by taking levels of the ground as directed by OC Contract and the total quantity of excavation shall be computed from these levels. The soft/disintegrated rock and the hard rock excavated shall then be stacked separately and measured in stacks. The quantity of soft/disintegrated rock and hard rock so measured shall be reduced by 50% to allow for voids. These reduced quantities of soft/ disintegrated rock and hard rock shall only be admissible for payment under item of excavation of soft/disintegrated rock and hard rock respectively. From the total qty of the mixture the quantity of soft disintegrated rock and hard rock excavated thus arrived and shall be deducted to work out the quantity of soil i.e. soft/loose/hard dense soil excavated.

(ii) Where only soft /disintegrated rock and hard rock are mixed, the measurement for the total quantity shall be made by taking levels of the ground as directed by EIC and the total quantity of the excavation shall be computed from these levels. The hard rock excavated shall then be stacked and measured in stacks. The quantity of hard rock so measured shall be reduced by 50% to allow for voids. This reduce quantity of hard rock shall only be admissible for payment under item of excavation of hard rock. From the total quantity of the mixture, the quantity of hard rock excavated thus arrived at, shall be deducted to work out the quantity of soft/disintegrated rock excavated.

(iii) All excavation shall be measured in successive stages of 1.5 meter depth starting from the commencing level. In case of excavation in rocks, if the depth of successive stage slightly exceeds 1.5 meter the levels shall be taken at that stage but excavated rock though obtained from this deeper depth, shall be measured in the previous successive stage only.

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EE (C) SG
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For Accepting Officer

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2.3 The contractor's quoted rates for item of excavation shall include for dewatering/pumping/bailing out water, if met with during excavation due to high water table and no extra payment shall be admissible to the contractor on any such account

2.4 **Site levels:** Before the work commenced, the contractor shall carry out a survey of the levels of the site and obtain verification from Engineer in Charge of these levels. Levels shall be taken on a grid at 3 mtr interval and record of level shall be jointly signed by the contractor and the EIC.

2.5 **FILLING IN TRENCHES / UNDER FLOORS:** The approved earth obtained from excavation in foundations shall be used for filling in trenches, under floors and any other situation as specified after removing big stones, grass roots and vegetable moulds, or other organic matter. Earth mixed with small stones/pebbles (if approved by OC Contract) is permitted for use in filling under floors and foundations. The filling around pipes after the pipes are laid and tested shall however be with earth-free from pebbles/stones. Any additional earth required for the purpose of filling for building(s)/items in respect of Schedule 'A' shall be arranged by the contractor at contract rates from outside of MD land.

2.6 Filling under floors/sides of trenches shall be in layers not exceeding 25cm thick, and each layer shall be watered and well rammed.

2.7 Surplus spoil shall be removed, spread and leveled at places as directed by the Engineer-in-Charge outside the MD land.

2.8 **TRENCHES FOR FOUNDATIONS AND PIPES:** The excavation shall be restricted to dimensions shown on the drawings. Excavation made, if any, in excess of required depth/width shall be made good by the contractor with cement concrete mix (1:5:10) without extra cost to the Govt.

2.8.1 The bed of the trenches, if in soft or made up earth, shall be watered and well rammed and any depressions thus formed shall be filled with approved earth as required to the level and slope as directed by Engineer-in-Charge.

2.9 **HARD CORE:** Unless otherwise specified, the hard core shall be of hard broken stone or boulders broken to gauge not exceeding 63mm. The material of hard core shall be well graded for providing dense and compact sub grade. Hard core shall be deposited, spread and levelled in layers not exceeding 15cm thick and watered and well rammed to a true surface and compacted with sufficient fine material. The thickness of hard core specified or indicated in the drawing, is the thickness after consolidation.

2.10 **BLANK**

3. **CONCRETE**

3.1 **Materials for Concrete**

LIME: Lime shall be eminently hydraulic lime (Class 'A') and shall conform to IS: 712 as specified in para 4.2 of SSR (Part I).

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CEMENT: Cement shall not be issued under Sch 'B'. The contractor shall procure cement from any of the main producers of cement as specified here-in-after. Cement shall be stored in dry a place covered all round and no stacks shall be more than 10 bags high.

COARSE AGGREGATE: Coarse aggregate shall be crushed stone aggregate and shall conform to specifications given in para 4.4 of SSR (Part I). However, in case of controlled quality concrete the provisions made in IS-456-2000 shall be applicable.

3.1.1 Contractor shall make his own arrangements to procure cement as specified here-in-after. The cost of cement, its transportation, storage, testing charges, its accounting and preservation etc till consumed in work shall be borne by the contractor.

3.1.2 Type of cement to be used in this contract shall be ordinary Portland cement, grade 43, conforming to IS-8112-1989/Portland Pozzolana Cement conforming to IS-1489-1991, unless otherwise specifically specified. Different type of cement, if so required, as per contract provisions, shall also be arranged by contractor at no extra cost to Govt. However, in water retaining structure such as overhead tank, static tank, floatation tank, etc. OPC shall only be used.

3.2 **PROCUREMENT**

3.2.1 Cement shall only be procured by the contractor directly from any of the main producers of cement as listed in **list of preferred makes for civil & electrical works**.

3.2.2 Where total estimated requirement of cement in the work is less than 1200 bags, contractor can procure cement from the authorised distributor/dealers of the main approved producers as mentioned in **list of preferred makes for civil & electrical works** here-in-after.

3.2.3 Use of PPC : While using PPC, the following requirements shall be met with:-

- a) PPC shall meet the strength criteria of 43 grade OPC as laid down in IS 8112.
- b) The minimum period before striking formwork given in clause 11.3.1 of IS-456 shall be suitably modified at site by the OC Contract. The contractor shall not claim any extra cost on this account.
- c) Mixing of OPC and PPC shall not be allowed in a work.
- d) While procuring PPC, the following requirements are to be ensured and certificate to that effect from the manufacturer shall be submitted by the contractor for each batch:-
 - (i) The quality of fly ash used is strictly as per IS-1489 (Part-I).
 - (ii) The fly ash is inter ground with clinker and not mixed with clinker.
 - (iii) The dry fly ash is transported in closed containers and stored in silos. Only pneumatic pumping has been used.

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(iv) The fly ash has been received from thermal power plants using high temperature combustion above 1000 Degree Centigrade.

(v) The fly ash content in PPC is as per IS provision to achieve desired consistency.

3.2.4 Cement brought by the contractor at site(s) of work shall be in jute/polythene/paper bags containing 50Kg cement in each bag originally sealed by manufacturer. Cement for purpose of accounting shall be on the basis of the number of bags. Minor variation in contents of cement not more than 2% of weight of cement in a bag shall be permissible for purpose of accounting of cement bag. However, cement shall be incorporated in the work on actual weight basis without any additional cost.

3.2.5 Contractor shall produce purchase vouchers, test certificates and other valid documentary proof to the entire satisfaction of the OC Contract for entire quantity of each consignment to prove that cement has been purchased from the main producers. The contractor shall also submit particulars of the manufacturer of cement for every lot for verification by the site staff and OC Contract.

3.3 TESTING OF CEMENT

3.3.1 The manufacturer is to carry out inspections and testing of cement in accordance with relevant BIS provision. The contractor shall submit the manufacturer's test certificate in original along with the test sheets giving the result of each physical test as applicable and the chemical composition of the cement or authenticated copy thereof, duly signed by the manufacturer with each consignment. The Engineer-in-Charge shall record these particulars in the Cement Acceptance Register.

3.3.2 Cement brought to site of work shall remain the property of Govt. Contractor shall in no case, remove any bag of cement unless permitted in writing by the OC Contract. In addition to manufacturer's test certificate, the OC Contract shall also take random samples of cement drawn from various lots of each consignment as specified in IS Codes and get them tested from any one of the Govt. approved laboratories at his discretion or from SEMT CME, Regional Research Laboratory or Zonal Laboratory, all as per IS-3535(Method of Sampling Hydraulic Cement), IS-4031 (Method of Physical Test of Hydraulic Cement) and IS-4032 (Method of Chemical Analysis of Hydraulic Cement). Irrespective of results, cost of materials for such samples, cost of requisite handling & conveyance etc shall be borne by the contractor. Cement from each consignment shall be allowed to be incorporated in the work only after the OC Contract is satisfied with the quality of cement brought by contractor.

3.3.3 It shall be ensured that tested and untested cement is segregated and stored separately with distinct identification. Cement of different brands shall be stacked separately by the contractor.

3.3.4 If the test results on samples of a particular consignment are not within acceptable limits, the same shall be rejected and/or any bag of cement in godown showing indication of any setting shall be segregated and removed by contractor from the site within a week's time, with due permission of the OC Contract for their removal.

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3.3.5 Cement brought by the contractor shall be allowed to be incorporated in the work after satisfactory test results as per IS, of the sample sent for testing. OC Contract shall inform the contractor, about the test result and permission to incorporate in the work, in writing. OC Contract shall ensure that work 'Pass' is embossed on both side of the cement bags of lot which has been found as per specification as per test result.

3.4 STORAGE/CONSUMPTION OF CEMENT

3.4.1 Cement in bags shall be stored in proper leak proof/damp proof storage godown, at least a 20cm high platform, away from walls, in such manner as to prevent deterioration due to moisture or intrusion of foreign matter. The stacking of cement shall not be more than 10 bags.

3.4.2 For the purpose of keeping a record of cement procured and consumed in works, the contractor shall maintain a properly bound register in the form approved by the Engineer-in-Charge showing all procurements, quantity used in the work and balance in hand, at the end of each day and such other information as may be required to control the consumption of cement. Pages of the register shall be numbered and initialled by Engineer-in-Charge. This register shall be signed daily by the contractor or his representative as token of correctness of the entries made. In token to check, it shall be signed by BRO representative also as follows :-

- a) Daily by JE(Civil) in-charge of works.
- b) Twice in a week by the Engineer-in-Charge.

3.4.3 The said register shall remain at site of work, in the safe custody of the contractor and on demand same shall be produced for verification of Inspecting Officer. On completion of the work, the register shall be returned to BRO. The cement godown shall be provided with two locks on each door. The key of one lock on each door shall remain with the Engineer-in-Charge or his authorised representative and that of the other lock with the contractor's authorised agent at site of work so that cement is removed from the godown according to daily requirements and with the knowledge of both the parties.

3.4.4 Foregoing provisions shall not, however absolve the contractor of his responsibility of incorporating required quantity of cement in various items of works as per contract provisions.

3.4.5. Cement shall be used in order of which it is received. It shall be ensured that only one type/make of cement is used in any structural member.

3.4.6 Cement shall not be more than 02 months old and shall be consumed within next 02 months of its packing.

3.5 DOCUMENTATION

3.5.1 The contractor shall submit original purchase vouchers from the main producer for the total quantity of cement supplied under each consignment to be incorporated in the work. All consignment received at the work site shall be inspected by the OC Contract along with the relevant documents before acceptance. The original vouchers and the test certificates shall be defaced by the Engineer-in-Charge and kept on record in the office of the OC Contract duly authenticated and with cross reference to the control number recorded in the Cement Acceptance Register. The cement Acceptance Register will be signed by the JE(Civil), Engineer-in-Charge, OC Contract and the contractor. The Accepting Officer may order a Board of Officers for random check of cement and verification of connected documents.

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3.6 SCHEDULE OF SUPPLY

3.6.1 It shall be the responsibility of the contractor to arrange cement well in advance, to facilitate its testing, before use in the work. The contractor shall submit the programme of procurement of cement to the OC Contract before the date of commencement of the works indicating date of procurement and quantity.

3.6.2 The Contractor shall ensure that procurement action is taken immediately after acceptance of the contract so as to adhere to schedule of activities as per CPM Net Work.

4. FINE AGGREGATE (SAND): (As per clause 1008 of MoRT&H specifications for Road and Bridge (fifth revision))

Natural sand, crushed stone sand or crushed gravel sand or a suitable combination of natural sand, crushed stone or gravel, shall be used as a fine aggregates in plain, reinforced and prestressed concrete work. The fine shall be dense, durable, clean and free from veins and adherent coating and their deleterious substances. They shall not contain dust, lumps, soft or flaky materials, mica or other deleterious materials in such quantities as to reduce the strength and durability of concrete, or to attack the embedded steel. Mechanised sand washing machine should be used to remove impurities from sand. Fine aggregates having positive alkali-silica reaction shall not be used. All fine aggregate shall conform to IS:383 and tests for conformity shall be carried out as per IS: 2386, (Part I to VIII). The contractor shall submit to the Engineer the entire information indicated in Appendix A of IS:383. The fineness modulus of fine aggregate shall neither be less than 2.0 nor greater than 3.5.

The sand/fine aggregate used shall conform to as per Table 1000-2 of MoRT&H specifications (fifth revision)

4.2 MIX OF CEMENT CONCRETE

3.5.1 Cement concrete shall be of the mix as described in BOQ/Schedule 'A'

3.5.2 Minimum cement content and max water cement ratio for PCC nominal mix of various grades shall be as per Table 5 and 6 of IS-456-2000.

3.5.3 Unless otherwise mentioned elsewhere, all RCC work in buildings covered under Schedule 'A' Part I shall be M-25 (Design mix concrete) except under ground sump for which it shall be M-30 grade (Design mix concrete).

4.2.1 SAMPLING AND ACCEPTANCE CRITERIA FOR CONCRETE: The criteria for sampling and acceptance of the concrete shall be as per Para 15.1 to 16.1 of IS-456:2000, (Code of practice for plain and reinforced concrete). The minimum frequency for the work tests shall be as specified therein and as specified here in after.

4.2.2 PACKING AND TRANSPORTATION OF SAMPLES: The Contractor must, at his own expenses, properly pack the samples. The Contractor shall bear the cost of transportation of the samples required to be tested from site of work to the laboratory of 60 RCC/19 BRTF/Chief Engineer (P) Dantak or any other laboratory.

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4.2.3 **TESTS:** The following tests shall be carried out during the execution of work. Tests shall be carried out in accordance with IS-516 and IS-1199. The contractor shall provide all facilities and equipment for casting and curing of test cubes.

(A) **SLUMP TEST:** The frequency of the test shall be decided by the OC Contract. The slump for the vibrated concrete shall be as specified in IS-456. The OC Contract, however, reserves the right to vary the limit which will be ascertained at the time of deciding the mix design for each grade. Any batch from which a slump test is being made shall not be transferred to the places of laying until the slump in excess of the required for the particular batch is not removed from the site.

(B) **COMPRESSIVE STRENGTH TEST:** Three cubes shall be tested at 7 days and three at 28 days for crushing and the remaining three cubes shall be kept as reserved exclusively for Govt use for subsequent testing (if so desired by Govt) and preserved for one year from certified date of completion of work under the contract. The contractor cannot object testing of other cubes for the purpose as a matter of right.

(C) For the purpose of subsequent identification of the work test cubes, the concrete to which these pertains shall be cross referred and record of this maintained and signed by the Engineer-in-Charge and Contractor or his authorized representative.

4.2.4 **TRANSPORTING, PLACING, COMPACTION and CURING:**

(i) It should be as per clause 13 of IS 456:2000. Concrete shall be transported without delay and incorporated in works at the position of laying within 20 minutes from the time of discharge from the mixer.

(ii) Mixed concrete shall be deposited in final position and solidly packed around reinforcement, carefully poured and consolidated by means of portable vibrators or mechanically operated and of the kind as suitable for a particular situation as directed by the OC Contract. Care shall be exercised that no voids or honey comb pockets are formed. The concrete shall not be laid in position for more than 1 metre in height in one concrete operation. The compaction of concrete in RCC roof and floor slabs shall be done with plate vibrators.

(iii) Exposed surfaces of concrete shall be kept continuously in a damp or wet Condition by pounding or by covering with a layer of sack, canvas, lenin and kept constantly wet for at least 14 days. The concrete shall be protected from premature drying for at least 8 days after pouring and shall be cured as directed by the Engineer-in- Charge for a period of not less than 14 days.

4.2.5 **SITE LABORATORY: -**

(A) The contractor shall establish a laboratory at site of work consisting of the equipments - Sieves, Core Cutter, Cone for slump test, Compression Testing Machine, Vicats apparatus, Weighing Machine, Spirit Level, Smoke Test Equipments, Jars for silt content of sand, Cube moulds in sufficient numbers, Efflorescence test tray, Multi meter Earth resistance test kit, Vernier calipers, Screw gauge, Oven of required capacity, Timber moisture tester, Electronic dimension / verticality tester

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(B) Inspection & testing of structure shall be as per clause 17 of IS: 456:2000. The Contractor & OC Contract shall implement quality assurance plan for its participation in the project. A quality assurance plan shall define the tests and responsibilities of all persons involved, adequate control and checking procedure and the organisation and Maintaining adequate documentation of the building process & its results. The following documents shall be maintained by the Contractor & GE at site jointly:-

- (a) Test reports and manufacturers certificate for materials, concrete mix design details.
- (b) Pour cards for site organisation & clearance for concrete placement.
- (c) Record of site inspection of workmanship, field tests.
- (d) Non-conformance reports, change orders.
- (e) Quality control charts.
- (f) Statistical analysis.

4.3 Curing and Minimum Period for Striking of Form Work with Pozzolana Cement used

4.3.1 Where Pozzolana cement is used for RCC works in various locations, the minimum period for curing and striking off form work shall be as under in lieu of that specified in clause 4.11.6.3 of MES Schedule Part-I:

- (a) Curing: Structural RCC work, PCC work, Plastering etc. : 14 days
- (b) Striking off Form Work Walls, columns and vertical sides of beams : 3 to 4 days
- (c) Slabs (Props left under) : 8 days
- (d) Beams soffits (Props left under) : 9 days
- (e) Removal of props to slab/beam
 - (i) Spanning upto 6 M span : 16 days
 - (ii) Spanning beyond 6 M span : 22 days
- (f) For cantilever portion of slab form work with support shall be retained until the completion of the casting of the entire frame work of the building.

4.3.2 In case of bad weather, periods mentioned above may be revised at the discretion of the Engineer-in-Charge. The contractor shall be deemed to have considered the above provision before tendering and quote lump sum accordingly. No claim will be entertained if longer periods required for striking off form work and curing and all such effected matters is looked into upon the use of pozzolana cement as a result being issued to the contractor in full or in part or for bad weather.

4.3.3. Curing shall be carried out using pump of suitable capacity at no extra cost to the Govt. all as directed by Engineer-in-Charge.

4.3.4 However, for smaller quantity i.e. for concreting to lintels, chajjas, shelves, etc mechanical mixer may be used with prior approval of the OC Contract and mixing of concrete shall be as per clause 10.3 of IS:456-2000.

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4.4 FORM WORK

4.4.1 Formwork shall comply with the requirement specified in para 11 of IS-456:2000 & IS 14687 used, deformed and dented steel sheets shall not be permitted for use as form work.

4.4.2 All formwork including plates and props shall be of Steel of adequate strength. Props shall be adjustable type, to avoid slant props. However, the form work to be used for surfaces specified in these specifications to be plastered shall be such that after application of the specified thickness, fair finished surface is achieved as specified herein. Wall thickness shall not be made use of as formwork. Wall shall be built after the columns are cast. In the event of deviation, rates in MES Schedule for clean sawn formwork will be applicable. In this connection also refer to para 7.15 of SSR Part I. In case of bad weather stripping time for form work as specified may be increased as directed by Engineer-in-charge without additional payment to contractor

4.4.3 The Contractor shall excavate for the RCC footing, walls to their exact size after accounting for formwork to sides. If the excavation is more than required size extra excavation shall be made good as mentioned in clause 3.13.4 and 3.15.5 of SSR Part I. However, form work shall be provided to vertical sides of column pedestals as necessary and as directed by OC Contract. Slopped portion & RCC Column footing if any, under brick work shall be filled with PCC M15 Nominal mix using 40mm aggregate to maintain continuity and level of brick work and rates quoted by the Contractor shall deemed to be included for the same.

4.5 **CASTING OF CONCRETE:** PCC sills, RCC lintels (except these with chajjas), RCC shelves and fins may be cast-in-situ or Precast at the discretion of the Contractor without any extracost to the Deptt.

4.6 **PLINTH PROTECTION:** Plinth protection shall be laid to a slope of 1 in 24 in alternate bays system. Each bay shall not exceed 3m in length. 12 mm wide and 75mm deep joint shall be formed between the bays which shall be filled with mastic filling to full depth, comprising a mixture of 1 part of heated hot blown bitumen 85/25 penetration and two parts of heated river Sand (by volume).

4.7 **DAMP PROOF COURSE:** Damp proof course shall be provided on brick walls and brick pillars for their full length. Damp proof course shall also be provided under openings/door opening at depressed level including vertical faces of depressed level and including vertical faces of depressed portion of opening as per requirement of clause 5.8.1.3 of IS-2212. However damp proof course shall not be provided over dwarf walls / RCC columns.

4.8 **SPLASH STONE:** The top surface shall be prepared even and smooth using extra cement.

4.9 **RCC JALLI:** RCC Jalli (with mix 1:2:4 using aggregates of size 6mm and below) shall be precast with wire reinforcement and jointed in cement mortar (1:4). Thickness shall be as mentioned in Schedule 'A'. Faces of RCC Jalli shall have fair and even surfaces. The type of RCC Jalli shall be as approved by OC CONTRACT. The edges of RCC shelves shall be rounded off to a minimum radius of 5mm.

5. BRICK WORK

5.1 MATERIALS

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5.1.1 Bricks to be used in this contract & **any brickwork below ground level in the building works of Sch 'A'/ BOQ** shall be best available kiln burnt clay bricks of size 230 x 115 x 75 mm with frog size 100x40x10-20mm having minimum compressive strength of 75 Kgs per sqcm and shall comply with the requirements of Sub Class 'B' as specified in IS-1077. However, Fly ash Bricks can be used in the works, after written approval of OC Contract. Fly ash Bricks shall be Fly Ash cement bricks of size 230x115x75mm with frog size 100x40x10-20mm having minimum compressive strength 75Kg/Cm², best locally available and shall comply with the requirements as specified in IS- 12894: 2002 for all aspects except that the word 'lime' shall be replaced with the word 'cement' in the above code. Cement shall be OPC 43 Grade and shall be minimum 10% by weight.

5.1.2 Fly ash to be used in the manufacturer of fly ash cement bricks shall conform to Grade 1 or 2 of IS-3812-1981.

5.1.3 Minimum percentage of fly ash to be used in the fly ash cement bricks shall not be less than 25%. Manufacturers and test certificate and independent testing conforming chemical and physical requirement / characteristics and proportion of fly ash shall be produced by the contractor to the OC Contract for approval. Fly ash shall be procured from coal / lignite based thermal power plants.

5.1.4 Water absorption for the fly ash cement bricks shall not be more than 20% of weight.

5.1.5 Efflorescence when tested according to IS-3495(Part III) 1976 shall have the rating of efflorescence not more than 12.5%.

5.1.6 Testing of fly ash cement bricks shall be carried out in accordance with procedures listed in IS-13757-1993. Frequency of test shall be as per IS-1077 and IS-5454.

5.1.7 Handling and storage of bricks shall be as per clause 5.6.9 of SSR Part I.

5.1.8 Sand for mortar in all the brick work and concrete works shall be river sand and free from organic materials/impurities.

5.2 **WORKMANSHIP**

5.2.1 All brick work unless mentioned otherwise in particular specifications shall be built in CM as indicated in Schedule 'A'.

5.2.2 Brick shall be uniform in colour, texture and shall have arises so that true horizontal and vertical joints are formed in the facing. Nothing extra shall be admissible on this account.

5.2.3 Nominal width of brick shall be considered 115mm

6. **WOOD WORK (CARPENTERS WORK)**

6.1 Maximum permissible moisture content in timber used for various purposes is 14%. The contractor shall get the timber (except that required for temporary use such as formwork etc kiln seasoned to ensure that permissible moisture content is not exceeded.

6.2 **SURFACE FINISH:-** Exposed faces of carpenters work shall be wrought except surfaces buried or in contact with concrete/ brickwork etc which shall be left clean sawn.

6.3 **TOLERANCE:-** Tolerance upto 1.5mm for each wrought face for carpenter work shall be allowed except for fillets, beads and wooden shutters, which should be of specified thickness/size.

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6.4 **PLY WOOD** :- Plywood shall comply with IS-303 and shall be BWP superior grade and shall be as indicated in item of schedule 'A'/BOQ. The bonding shall be done with phenol formaldehyde synthetic resin.

6.5 **VENEERED PARTICLE BOARD** :- Veneered particle board shall be of exterior grade, solid core three layered flat pressed teak wood particle board with commercial veneered facing on both sides and bonded with BWP type phenol formaldehyde synthetic resin and shall conform to IS-3097. Thickness of veneered particle board shall be as indicated in Schedule 'A'. Edges of all particleboards shall be sealed with tipping/beading as directed by the Engineer-in-Charge.

6.6 **PRELAMINATED PARTICLE BOARD** : Prelaminated Particle Board shall be melamine faced both sides, three layered, flat pressed, exterior grade bonded with phenol formaldehyde synthetic resin. The board shall be grade- I, Type-I, conforming to IS-12823 –1990 and shall be ISI marked. Shade shall be as approved by OC Contract.

6.7 **JOINERY**

6.7.1 **TIMBER FOR JOINERY**: For seasoning of timber for Joiners work refer Clause 7.6 & 7.7 of SSR Pt I.

6.7.2 Provision of clause 7.7 of SSR Pt I regarding moisture contents shall equally apply to timber for factory made shutters.

6.8 **PANELLED GLAZED AND GAUZED SHUTTER**

6.8.1 Refer to Para 8.2.1 of MES Schedule Part I. All paneled and glazed/wire gauzed shutters shall conforming to IS : 1003 (Part-I) manufactured from well selected kiln seasoned chemically treated for anti-termite second class hard wood with frame (except Mango). The panel inserts shall be 12 mm thick exterior grade wood veneered particle board as specified in Para 8.8 of MES Schedule Part I and shutters shall be of approved make as per Appendix 'D'. Shisham wood may be used by the contractor in styles and rails of doors without any price adjustment.

6.8.2 All shutter shall be flush shutter. Cost of testing, transportation & materials used in testing for paneled shutters shall be borne by the contractor and no extra claim what so ever shall be admissible whether the results are acceptable or not. The OC Contract shall organize testing at frequency as laid down in IS `1003 from CBRI Roorkee/National Test House/IIT Kanpur/Regional Research Lab/NABL approved Lab for each lot at random from samples of doors brought out by the contractor before making his payment or incorporating in the work.

6.9 **FLUSH SHUTTERS** :- Flush shutters shall have teak wood edging/lipping conforming to IS-2202 Part- I. The flush shutters shall be non-decorative commercial type, ISI marked. The makes of flush shutters shall be got approved from the Accepting Officer.

6.10 **TOLERRANCE AND WIDTH OF BOARDS:-** Frames (styles, rails etc) for glazed and gauzed shutters shall be out of one plank upto 230mm width, Boards exceeding 230mm width shall be out of one plank or shall be in two equal planks with a central tongued and grooved joint.

6.11 **TREATMENT WITH CHLOROPYRIPHOS/ CHLORDANE**

6.11.1. All woodwork and joinery except plywood, veneered particle boards and timber formwork shall be given treatment with Chloropyriphos / chlordane. The quantity of Chloropyriphos / Chlordane to be used and method of application shall be as given in clause here in after. The cost of Chloropyriphos /Chlordane treatment specified in the clause shall be deemed to be included in the unit rates of buildings in Schedule 'A' Section I.

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6.11.2. The components of joinery and wood work as mentioned in clause above before their assembling, shall be dipped completely in solution of Chloropyriphos / Chlordane and Kerosene oil in the proportion as mentioned in the relevant IS for at least one hour.

6.11.3 After the operation as specified in clause above the components of the aforesaid joinery and wood work shall be assembled as required and planing and sand papering done if required, at any portion of the surface, a coat of the solution mentioned in above shall be properly applied with brush on the assembled surfaces of joinery and wood work.

6.12. BUILDERS HARDWARE FITTINGS

6.12.1 Iron mongery (Hardware fittings) shall ISI marked or shall be of approved make and as specified here in after. All fittings (Aluminum alloy anodised) shall be ISI marked and as approved by OC Contract. All screws shall be of cadmium plated steel.

6.12.2 The dia of conduit pipe shall be 19/20 mm and wall thickness shall not be less than 1.0mm.

6.12.3 Hinges shall be as described below: -

5.12.3.1 Butt hinges shall be cold rolled pressed mild steel ISI marked (IS-1341) and shall be medium weight. Hinges for steel windows shall be box type and as specified in clause 10.25.3 of SSR Part I.

5.12.3.2 Single action spring hinges of mild steel with steel wire spring enameled black, ISI marked.

5.12.3.3 Hinges shall be fixed to wood and wood based members with CP steel screws. Hinges shall be welded to mild steel frames irrespective of what is shown on drawings.

6.12.4 Mild steel pressed handle shall be ISI marked {IS-208 (Revised)}. Mild steel handles shall be pressed oval type with 32mmx 3mm plate. The handles for steel windows shall be steel heavy duty mounted on steel plate and shall have a two point nose which shall engage with steel striking plate on the fixed frame and all as specified in clause 10.25.4 of SSR Part I.

6.12.5 Stainless steel sliding bolts (aldrop bolts).

6.12.6 Tower bolt shall be barrel tower bolt, ISI marked (IS-204). However, the diameter of the bolts shall be 10mm.

6.12.7 Double action spring hinges shall be of mild steel with steel wire spring stove enameled and shall be ISI marked (IS-453).

6.12.8 Hasps and staples shall be ISI Marked (IS-363). These shall be anodised aluminium safety type, including bolt to hinge plate and fixed with chromium plated steel screws.

6.12.9 Flush bolt shall comply with IS-5187. It shall be type 2, aluminum with cast aluminum alloy or extruded aluminium alloy body and plate & extruded aluminum alloy bolt and steel strip spring.

6.12.10 to 5.12.12 **Blank**

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6.12.13 Aluminum alloy (anodised) aldrop bolts (Sliding bolts) shall be ISI marked (IS-2681).

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6.12.15 Ball catch spring shall be of brass heavy duty complying with the requirement of IS-8756.

6.12.16 Hook and eye shall be of mild steel chromium plated type 2 and of size as shown in Sch 'A'.

6.13 **WIRE CLOTH:** The edges of wire gauze (in the case of wooden shutters) shall be bent over wooden beads and the beads pressed well into the angle of the rebate to hold the gauze on two faces. The wooden beads shall be fixed to the wooden members of the shutters with steel panel pins. In case of steel windows/CSWs, the edges of wire gauze should be bent over MS Beads and the heads pressed well into the angle of the steel section to hold the gauze on two faces and fixed to steel window with round headed steel screws all as specified.

6.14 **Door Closers:-** These shall comply with IS-3564-1975. Door closers shall have aluminum extruded body. Closers shall be universal type suitable for both anti clockwise and clockwise doors, without any change in parts of the closers.

6.15 **HYDRAULIC DOOR CLOSER / FLOOR SPRING (Floor Type):-** These shall be of approved brand and manufacturer as above (Confirming to IS 6315) for aluminum door including cost of cutting floor as required, embedding in floors and cover plate etc. These shall be provided to aluminum door.

NOTE :-

(i) One sample piece of each fitting shall be produced for approval of OC Contract. The bulk supply order shall be placed by the contractor only after approval is accorded by OC Contract.

(ii) It shall be ensured that all builder's hardware are from one manufacturers only for the entire work, However, if due to any reason contractor proposes to provide part quantity from other manufacturer given in Para 2 hereinbefore, then he may be permitted but he will have to obtain specific approval of OC Contract for this change in brand. This will be subject to that all items and fixtures in any particular blocks/building shall be always of one manufacturer only. In no circumstances items of two manufacturers shall be used in any of the particular blocks/Building.

(iii) Contractor shall obtain the approval for the name of the manufacturer of builder's hardware from the OC Contract before placing the supply order. While asking for the approval, copy of the "Bureau of Indian Standard" letter under which manufacturer has been authorised to mark the product with ISI marking should be attached. OC Contract before giving the approval shall ensure that the validity date of license has not expired.

7. **STEEL AND IRON WORK:** The entire steel required for incorporation in the work shall be arranged by the contractor and shall comply with the requirement of following specifications:-

(a) **Reinforcement Steel:** High strength deformed steel bars produced by Thermo Mechanical Treatment process (TMT) steel bars of Grade Fe 500 (D) meeting all other requirements of IS-1786-2008. The procurement shall be done as per procedure given below.

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- (b) **Structural Steel**: Standard quality: Fe-410-S Conforming to IS-2062, Structural Steel Tube shall be YST-310 grade.
- (c) **Hold fasts ,grills etc & other than structural**: Fe-310-0 conforming to IS –1977
- (d) **Galvanised sheets Plain or Corrugated** : Conforming to IS -277
- (e) **Fabric reinforcement for concrete** : Conforming to IS- 1566 . Wire fabric for General use, window Grills, etc shall be conforming to IS- 4948 and all as per MES Sch Part I clause 10.33

7.1 **PROCUREMENT**

8. **STEEL AND IRON WORK**

8.1 **GENERAL**

8.1.1 All items of steel and iron work including steel for reinforcement required for incorporation in this contract shall not be issued under Schedule 'B'. Contractor shall make his own arrangements to procure steel and iron all as specified here-in-after.

8.1.2 Items of steel and iron brought to site by the contractor for incorporation in the work shall be free from defects all as specified in clause 10.4.5 and 10.17.6 of SSR Part-I and shall be conforming to IS specifications as given below :-

- (i) Structural steel standard quality- Conforming to IS-2062.
- (ii) Structural steel ordinary quality - Conforming to IS : 1977
- (iii) Reinforcement steel - High strength deformed steel bars produced (TMT bars) by Thermo Mechanical Treatment Process (**TMT steel bars of grades Fe 500/Fe 500D and Fe 550/Fe 550D**) meeting all other requirements of IS:1786
- (iv) Galvanised steel sheet (plain & corrugated) - Conforming to IS-277
- (v) Fabric Reinforcement for concrete - Conforming to IS-1566

8.2 **MATERIALS**

8.2.1 **REINFORCEMENT STEEL**

8.2.1.1 TMT steel bars for the works shall be procured directly from any of the main producers of steel as listed in **list of preferred makes for civil & electrical works** here in after.

8.2.1.2 Independent testing of steel by the OC Contract shall be optional at the discretion of the OC Contract in case of procurement of steel from main producers and testing charges shall be borne in accordance with Condition 10A of IAFW-2249 i.e. testing charges shall be borne by the Deptt if the test results are found in order otherwise these shall be borne by the contractor. However, the contractor at his cost shall provide all facilities required for the testing and cost of materials consumed in tests shall also be borne by the contractor.

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8.2.2 STRUCTURAL STEEL

8.2.2.1 Structural steel shall also be procured from primary producers i.e. SAIL/RINL/TISCO/JINDAL. In case of non availability with primary producers, the structural steel can be procured from approved secondary producers (as mentioned in **list of preferred makes for civil & electrical works**) who manufacture structural steel out of ISI marked billet and are having BIS Certification of ISI marking on their products with a reduction of 5% (five percent) of the accepted rate of structural steel. In case the desired section of structural steel is not rolled/manufactured by primary producers, there shall not be no price adjustment in use of structural steel procured from secondary producers.

8.2.2.2 Independent testing of structural steel by the OC Contract shall be at the discretion of the OC Contract in case of procurement from main producers and testing charges shall be borne in accordance with Condition 10A of IAFW-2249 i.e. testing charges shall be borne by the Deptt if the test results are found in order.

8.2.2.3 Independent testing of structural steel by the OC Contract shall be mandatory in case of procurement from secondary producers and testing charges shall be borne by the contractor irrespective of outcome of test results.

8.2.2.4 In both the cases at sub Para 7.2.2.2 & 7.2.2.3 above, the contractor at his cost shall provide all facilities required for the testing and cost of materials consumed in tests shall also be borne by the contractor.

8.3 TESTING OF STEEL

8.3.1 The contractor shall submit the manufacturer's test certificate in original along with the test sheet giving the results of each mechanical test as applicable and the chemical composition of the steel or authenticated copy thereof, duly signed by the manufacturer with each consignment. The Engineer-in-Charge shall record these details in steel Acceptance register, as given at Appendix 'B' after due verification and send a certified true copy of test sheet to OC Contract for his records. The EIC shall also organise independent test of random samples of steel drawn from various lots from National Test House, SEMT wing CME, Regional Research Labs, NABL approved labs etc as per the recommended minimum frequency shown in Table at Appendix below. Sample from each lot should be tested for quality and elongation. The elongation shall not be less than 18%. Cost of samples, transportation and testing shall be borne by the contractor. The records of such checks shall be maintained in steel test register.

Note : For various tests, acceptance criteria, tolerance etc refer to Appendix below and relevant BIS code.

Sl No	Nominal size of steel for concrete Reinforcement	Quantity
1.	Bars of size less than 10mm	1 sample (3 specimen) for each test for every 25 tonne of steel or part thereof
2.	Bars size 10mm to 16mm	1 sample (3 specimen) for each test for every 35 tonne of steel or part thereof
3.	Bars size over 16mm	1 sample (3 specimen) for each test for every 45 tonne of steel or part thereof
STRUCTURAL STEEL		
4.	Tensile Test	1 Test for every 25 tonne of steel or part thereof
5.	Bend Test	1 Test for every 25 tonne of steel or part thereof

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8.3.2 Independent testing of reinforcement steel by OC Contract is optional at the discretion of OC Contract in case of procurement of steel from main producers and in case of testing, testing charges shall be borne in accordance with condition 10 A of IAFW-2249. i.e. testing charges shall be borne by the Deptt if test results are found in order otherwise these shall be borne by the contractor.

8.3.3 Independent testing of reinforcement steel by the OC Contract is mandatory in case of procurement of steel from conversion Agents, authorized dealers and testing charges shall be borne by contractor irrespective of outcome of test results.

8.4.4 Independent testing of structural steel by OC Contract is optional at the discretion of OC Contract in case of procurement of steel from main producers and in case of testing, testing charges shall be borne in accordance with condition 10 A of IAFW-2249. i.e. testing charges shall be borne by the Deptt if test results are found in order otherwise these shall be born by the contractor.

8.4.5 Independent testing of Structural steel by the OC Contract is mandatory in case of procurement of steel from secondary producers and testing charges shall be borne by contractor irrespective of outcome of test results.

8.4.6 In all cases, the contractor at his own cost shall provide all facilities required for testing and cost of material consumed in tests and transportation charges shall be borne by contractor.

8.5 **DOCUMENTATION:** The contractor shall submit original purchase vouchers from the manufacturer for the total quantity of steel supplied under each consignment to be incorporated in the work. The EIC shall inspect all the consignments received at the work site alongwith relevant documents before acceptance. The original purchase vouchers and test certificates shall be defaced by Engineer-in-Charge and kept on records in the office of the OC Contract duly authenticated and with cross reference to the control number recorded in the steel acceptance register.

8.5.1 The Steel Acceptance register shall be signed by JE, Engineer-in-Charge, OC Contract and contractor. The entire quantity of steel be suitably recorded in the measurement book "not to be abstracted" before incorporation in the work and shall be signed by Engineer-in-charge and contractor.

8.6 **STEEL IN COILS ETC:-** Any bar of any dia for reinforcement may be procured in round bundles or coils and the cost of straightening the same shall be borne by the contractor. When bars are procured in bundles, the length of each bundle shall be worked out on the basis of unit weight predetermined by the EIC by getting suitable length (not less than 3 meters) out of each consignment received, getting it straightened, length measured and weighed in presence of contractor's accredited representative. The said length and the weight shall be recorded from which unit weight (weight per unit length) shall be calculated. The length of bars worked out on the basis of unit weight determined as above shall form the basis for the purpose of calculating quantity of steel used/to be used in work and making payment of materials lying at site. However, if the unit weight works out more than the unit weight given in SSR, then unit weight given in SSR shall be followed for computing weight of steel for the purpose of making payment of steel lying at site.

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8.7 **STORAGE:** - Steel of different sizes shall be stacked separately. For each classification of steel, separate areas shall be earmarked. Steel shall be marked with distinct painting marks for easy identification. All steel shall be so stored that it is always at least 15cm above the GL Steel shall be stored in a manner so as to prevent distortion and corrosion. All section of steel that has deteriorated and corroded or if considered defective by Engineer-in-Charge shall not be used in the work and shall be removed immediately by the contractor without any extra cost. It will be the responsibility of the contractor to make sure that all possible arrangements are made for the safe custody of the steel. In case of any loss of steel only contractor will be responsible and the loss will/shall be made good without any delay or claim what so ever.

8.8 **SCHEDULING AND SUPPLY:** Schedule of supply of steel shall be finalised by contractor with OC CONTRACT and shall be incorporated in CPM chart so that supply of steel is monitored in a way to avoid any delay in completion of the work. The complete requirement of steel of various sizes will be worked out before making any RAR payment and procurement of steel by the contractor will be completed sufficiently in advance of the date of completion, **No extension of time will be considered for non availability of any section of steel.**

8.9. **Assembly of reinforcement shall be as per clause 12 of IS 456-2000.**

8.10 **Normal cover to reinforcement** : Nominal cover shall be as under :-

Exposure	Nominal cover in mm and less than**	Slab	Wall	Beams	Columns
Mild	20mm	20mm	20mm	20mm	40mm *
Moderate	30mm	30mm	30mm	30mm	40mm *

*** In case of columns of minimum dimension of 200mm or under, whose reinforcing bars do not exceed 12mm, a nominal cover may be of 25mm.**

**** For further details refer clause 26.4 of IS 456:2000.**

8.11 **WELDING :-** Welding where specified or shown on drawings shall be gas or arc electric welding at the contractor's option and as per IS: 816 and IS: 1323 as applicable.

8.12 **EXPANDED METAL:** - Where indicated XPM shall be conforming to IS: 412.

8.13 **STEEL WINDOWS/VENTS:**

8.13.1 Steel window/vents shall conform to IS-1038 and shall be procured from any of the approved firms/manufacturers specified in Appendix 'D'. Process of flush butt-welding may be adopted for fabrications. However, the contractor is permitted to use electric arc welding in lieu of flash butt welding without any price adjustment. Fixing of steel windows/vents shall be done in accordance with IS-1081. However instead of mastic filling specified in IS, cement and Yamuna sand mortar (1:1) mixed with 5% crude oil by weight of cement can be used. Lugs to steel windows/vents shall be provided as specified in IS. However, no lug will be provided in lintels and cills. Sub dividing bars of units shall be tenanted & riveted to the frame. Before fixing both the steel window (fly proof and glazed shutter) shall be jointed with spacer bars of 10mm dia MS bar.

8.13.2 Side hung shutters shall be provided with projecting type/non projecting type steel hinges as shown on drgs. Handles for stay arms and casement stays shall be mild steel stove enameled black japanned. For fly proof shutter the hinges shall also be projected/non projected type steel hinges but the handles shall be of one point type. Hardware fittings/iron mongery for steel windows/vents shall be provided as specified in relevant IS.

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8.13.3 Sample for each type of window/vents with complete fittings shall be produced for approvals of the OC Contract. Manufacturer's certificate to the effect that their product conforms to IS specifications, shall be produced by the contractor at the time of submitting samples for approval before procurement of bulk quantity of the materials for incorporation in the works. Samples shall be retained in the sample room of the OC Contract till completion of the work.

8.13.4 Steel windows/vents shall be obtained for any one of the makes as specified in Appendix 'D'.

8.13.5 Steel windows/vents shall be obtained from the firm of which the samples have been approved by the OC Contract.

8.14 Steel Angle Iron Chowkhats & Pressed Steel Chowkhats For Doors & Cupboards

8.14.1 Pressed steel frame Chowkhats where specified to be provided shall be made out of mild steel sheet (PBI) of 1.25 mm thick and shall comply with requirements of IS-4351 of 1976 (specification for steel doors frames). The threshold to the feet of frames shall be provided & including providing shock absorbers all as specified in clause 10.27 on page 16-17 of SSR part-I (1991). To avoid bulging of frame during back fill, 2 Nos flat iron 25x3mm horizontal member and 3 Nos each in vertical member to be provided in each frame & shall be 200 mm long. Frames shall be of cold formed section manufactured by standard rolling mills as specified in clause 6.16.3 hereinafter. Pressed steel framed Chowkhats shall be factory made from any of the firms as specified in Appendix 'D'.

8.14.2 Angle iron frame where specified to be provided shall be of mild steel angle iron frame of sizes as directed. Hold fasts shall be welded with the angle frame as indicated. Vertical members of chowkhats shall be connected at bottom by means of 10mm dia MS round bars welded to both the verticals. The round bar shall be embedded in floors.

8.14.3 Frames of pressed steel chowkhats shall be of cold framed section manufactured by slanted rolling mills i.e. from any of the following firms :-

SAIL or their authorized agents.

8.14.4 Pressed steel framed chowkhats shall be factory made from any of the make as specified in Appendix 'D' here-in-after.

9.0 **PVC SHUTTER**:- These shall be factory made solid panel PVC door shutter consisting of frame, If not mentioned in BOQ/sch of works the frame shall be made out of MS tubes of 19mm x 19mm for stiles, and 15mm x 15mm for top and bottom rails and shall be covered with 5mm thick heat moulded plain PVC sheet 'C' channel having a 5mm thick PVC sheets for top rail, lock rail and bottom rail on either side, and 10mm (5mm x 2) thick, 20mm wide cross PVC sheet as gap insert for top rail and bottom rail and single side prelaminate PVC sheet and stile and rail having one side feathered edge and on other side 10mm 90 degree bent edge. PVC door shutter shall be all as shown on sketch on SI Page No 156 (for item No 08080) of SSR Part II and all as specified on Serial page No.142 to 146 of SSR Part II.

9.1 **ALUMINIUM JOINERY DOOR/WINDOWS/VENTS**: All aluminium sections and fittings shall be anodised aluminium with minimum anodizing thickness of 15 micron.

Aluminium sections shall conform to IS: 737 and IS: 1285. 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 the directions of Engineer-in-Charge. These shall be of procured from approved manufacturers as specified. Aluminium joinery shall be manufactured out of heavy extruded section.

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9.1.1 **The size of various components such as frame, styles and rails, beading and other components, the thickness of aluminium sheet out of which these are fabricated shall be all as directed by the EIC.**

9.1.2 The aluminium fittings shall be fitted/fixed all as per manufacturer's instructions and as directed by EIC.

9.1.3 The panels such as Glass panels/Prelaminated particle board panel with decorative lamination on both sides etc, shall be all as described elsewhere in the specifications. The panels shall be fixed with standard aluminium beading self interlocking type with EDPM rubber gasket.

9.1.4 All screws shall be cadmium plated. EDPM rubber shall be provided for all glazing for giving cushion to glass. Everite/Hardwyn make floor spring conforming to IS-6315 with set of special brass pivot with weighing capacity up to 130 Kg with stainless steel cover plate of ISI mark shall be provided to the door shutters.

9.1.5 **Grill for Aluminum Windows/Vents.** Aluminium gills shall be of the designed DG-205 of HINDALCO. The aluminium grills shall be anodized with minimum thickness of 15 micron.

9.1.6 **DOOR CLOSER (HYDRAULICALLY REGULATED):** Door closer shall be of EVERITE make, suitable for doors weighing 45 to 90 Kg. Door closer shall be of aluminium extruded section, universal type suitable for both anticlockwise and clockwise doors, without any change in parts of closers all as specified in clause 9.16 of MES Schedule Part I.

9.2 BLANK

8.2.1 **WATER PROOFING TREATMENT TO ALL RCC ROOF SLABS:-** Water proofing treatment to RCC roof slabs including terrace as per IS: 7290-1979 Clause 6 & 7 shall be provided with following modifications, if not specified in BOQ/Schedule of Works :-

(a) Prepare surface even, smooth and clean for laying APP modified water proofing membrane 3 mm thick(weighing not less than 3.00 Kg/Sqm).

(b) Provide 10 mm thick screed bed in cement mortar 1:4 mixed with water proofing compound as per manufacturer's instructions while the concrete is green.

(c) The surface shall be painted with one coat of bitumen primer conforming to IS : 3384 - 1965 @ 0.3 Kg/Sqm.

(d) Apply a layer of APP based polymeric membrane 3 mm thick (minimum) and weighing not less than 3.00 Kg/Sqm reinforced with polyester non woven mat 160 GSM thick. The membrane will be laid by torch application side over lap of 75 mm and end lap of 100 mm shall be provided. The joints /overlap shall be sealed with torch application. For parapet, the membrane shall be taken up to 30 cm and then inserted inside the parapet in a groove.

(e) Apply semi-hot straight run bitumen grade 30/40 (Grade S-35) conforming to IS 73-1961 @ 0.70 Kg/SM over the APP membrane.

(f) 20-22 mm thick PCC tiles laid over 20 mm thick cement screed in cement mortar (1:4) by mixing water proofing compound as per manufacturers instructions.

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NOTES :

(i) *Roof projection beyond the wall, junctions of roof with parapet and opening to rain water pipes shall be treated as per Clause 7.26 of IS : 7290-1979.*

(ii) *Wherever APP membrane is to be tucked into a chase cut in vertical wall (as shown in fig.5 and fit 6 of IS: 7290 – 1979), The bottom of such chase shall be 150 mm above the top level of roof slab.*

(iii) Before taking up roof treatment, RCC roof slab shall be tested by pounding with 25mm height of water for 72 hours. Testing by pounding shall be done after completion of curing of slab and removal of formwork.

(iv) Roof surface over mumty shall not be provided brick tiles over mud phaska.

(v) The contractor shall give a written guarantee for a period of 10 years from the certified date of completion of work for the effectiveness of waterproofing treatment. OC Contract shall retain an amount of 5% of cost of water proofing treatment or Rs 10,000/- which ever is more for a period of 10 years till expiry of guarantee period.

(vi) *Should OC Contract at any time during construction or prior to the expiry of the guarantee period, find that there is leakage/seepage in the buildings , the contractor shall on demand in writing from the OC Contract specifying the building complained of notwithstanding that the same may have been inadvertently passed, certified and paid for, undertake to carry out such treatment as may be necessary forthwith to render the building(s) free from all leakage/seepage at his own expense, till expiry of the guarantee period. In the event of his failure to do so, within the specified period to be specified by the OC Contract in his aforesaid demand, the OC Contract may undertake such treatment at the risk and expense in all respects of the contractor. The liability of the contractor under this condition shall not extend beyond the period of ten years from the certified date of completion, unless the OC Contract had previously given notice to the contractor to rectify the defects.*

9.2.2 The work shall be carried out by any of the listed manufacturer (i.e. approved list of makes) and through their authorised applicators only. The responsibility for carrying out work in respect of waterproofing treatment shall rest with the main manufacturer and in case of any adverse effect of treatment (i.e. leakage, seepage) on account of default of their respective applicator, stern action shall be taken against the main firm for removal from the approved list of makes. No claim whatsoever shall be entertained on this account.”

9.2.3 The overall responsibility for rendering the work of waterproofing treatment within the guarantee period of ten years shall remain with the main contractor only. No claim whatsoever shall be entertained on this account.”

9.3 BLANK

10.0 RAIN WATER PIPES

10.1 Rain water pipes shall be UPVC (SWR) pipes conforming to IS –13592-1992 of pressure rating 4 kg/Sqcm and as specified in clause 18.27A, 18.27 A I to 4 of MES Schedule Part I. Wherever “PVC” in specified in these clauses shall be read as “UPVC (Un-plasticized polyvinyl chloride). The colour of pipes shall be as decided by **OC Contract**. The pipes shall be jointed with rubber rings and fixed to wall as indicated. All rain water pipes shall have mild steel grating flat or dome type weighing not less than ½ Kg each.

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10.2 Where the pipes have been encased in masonry/brick work/concrete works, bracket/bricks bats/clamps etc. need not be provided for fixing the pipes. Bends will be acceptable In lieu of shoe or nose, with out any price adjustment. Irrespective of what is shown on drg. The gap between shoe/bend & plinth protection/splash stone shall be packed with PCC (1:2:4) type B-1. Sealing compound "M" seal or equivalent shall be provided around rain water pipes passing through RCC chajjas/roof projections as directed by EIC. Rates for quoted by the contractor for PVC (SWR) pipes shall deemed to be included this factor in to account and nothing extra shall be admissible.

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11.1 **FALSE CEILING**

11.2 False ceiling shall be carried out as mentioned in respective item of Sch of Wks and as specified in SSR Part-I 2009

11.3 **GI Frame for False Ceiling:** Unless otherwise mentioned in 'Schedule of Works', the GI Frame work for seamless ceiling shall comprise of GI Perimeter channel 0.55 mm thick with two unequal flanges of 20mm & 30mm & web of 27mm fixed to surrounding wall using mylon sleeves & screws at 450mm c/c inter mediate channel 0.9mm thick having two equal flanges of 15mm each & web of 45mm suspended using 6mm dia GI hanges (upto 1200mm length) from soffit at appx 900mm c/c with GI cleat made out of GI flat 40 x 3mm size 60mm long and steel expansion hold fastners 12.50mm dia, 40mm long with & incl ceiling section (nexc 1.2mm long) of 0.55mm thickness having kurlled web of 50mm and flange of 26mm each with lips of 10.5mm fixed to intermediate channel with connecting lips across the intermediate channel at 457mm c/c complete all as directed.

12. **FLOORING GENERAL**

12.1 Floor finish shall be carried over all openings and dwarf walls.

12.2 Surface of concrete floors specified finished even & smooth using extra cement shall be using with steel trowels.

12.3 Concrete sub base shall be laid in bays not exceeding 20 square meters.

12.4 Cement concrete sub base or sub base floor and wearing coat shall be laid separately and not monolithically.

12.5 PCC floor topping shall be laid in square or rectangular panels with each side not exceeding 1.2 meters.

12.6 If any extra thickness of concrete is required to provide to maintain slope in the floor as directed by the Engineer-in-Charge, the same shall be provided by the contractor at no extra cost to the department.

12.7 Surface of concrete floors, PCC skirting/ dado shall be treated with sodium silicate all as specified in para 13.35 SSR Part-I without extra cost to the department.

12.8 **NON SKID CERAMIC TILES FLOORING**

Non skid ceramic tiles shall be ceramic rectified tiles 1st Quality of shade as approved by OC Contract, hydraulically pressed, high temperature (around 1200 degree ⁰C) in single operation having breaking strength 350 to 400 kg per sq.m and weighing not less than 14 kg per Sqm and shall be laid and jointed/with white cement paste with pigment to match.

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12.9 GLAZED CERAMIC TILE SKIRTING/DADO:-

The workmanship and laying of tiles shall be all as specified in clause 13.40 of MES Sch Part-I.

Glazed tiles shall be free from crack twist, uneven edge, crazing and such other defects. The tiles shall, be grooved and/or recessed to provide an adequate key for the screed. The tiles shall be firm set in the mortar bedding. The joints shall be tight regular uniform. After fixing, tiles shall be thoroughly washed and cleaned to the satisfaction of the OC Contract.

12.10 BLANK

12.11 KOTA STONE SLAB FLOORING/SKIRTING/DADO: Kota stone slab flooring shall be provided as described under item of Schedule 'A'/BOQ. Stone shall be hard, durable, regular in shape, of uniform colour and free from cracks, decay and weathering as approved by the OC CONTRACT. The size of slabs and thickness shall be as indicated and shall be set, jointed and pointed in neat cement slurry mixed with pigment to match with the colour of stone. The slabs used in one location shall be of uniform size. Kota stone slabs shall be machine cut and shall have polished top surface with glossy finish and true fine cut dressing on all sides up to full depth. All angles and edges shall be true, square and free from chipping and surface shall be true and plain. Kota stone flooring shall be cut to achieve mirror finish. The pattern of flooring shall be as directed by OC Contract. The joints of the stone slab shall not be more than 1mm.

12.12 GRANITE STONE SLAB:-The granite stone slab shall be provided with 18 to 20 mm thick machine cut granite stone slab, if otherwise not mentioned in Schedule 'A'. The stone slab shall be provided in one piece or to the requirement as directed by OC Contract. The edges of stone should be bull nosed/plain as directed.

12.13 VITRIFIED TILES. These shall be of double charged/ ultra charged dark shade vitrified ceramic tiles (Acid & Alkali Resistant) of size as indicated of approved shade. Grouting material manufactured by Roffe Construction Chemical or Ball Adhesive or Dr. Back shall be filled up to depth of the tiles. All the work shall be neatly finished & completed as per the manufacturer specifications & as directed by the OC Contract.

12.14 INTERLOCKING TILES/PAVERS. Interlocking tiles/pavers shall be solid rock pavers of 'OASIS' pattern of make NITCO or equivalent pattern of make CICO/Ultra tiles, Hindustan tiles of 100mm thickness if otherwise not mentioned in Schedule 'A'. The pavers shall be laid and jointed as directed. The void space in between pavers shall be filled with Cement mortar (1:3). The pavers shall be cemented in cement mortar (1:3) along the periphery to avoid shifting at the edges.

12.15 MARBLE STONE SLAB IN FLOORS/ DADO/SKIRTING: Marble stone slab flooring shall be set, jointed and pointed as specified in SSR Part I. Polishing shall be Glossy finish and as directed by Engineer-in-Charge. The thickness of joints shall not exceed 1mm. Marble skirting shall be wax polished. Marble tiles laid in each room shall be uniform.

12.16 CEMENT CONCRETE CHEQUERED TILES:-

12.16.1 These shall be of type as specified & shall conform to IS-13801-1953.

12.16.2 Material and workman ship of cement concrete tiles shall be as specified in clause No 13.17, 13.17.1, 13.17.1 13.39, 13.39.1 TO 13.39.5 of SSR Part – I unless otherwise specified.

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13. PLASTERING AND POINTING

13.1 GENERAL

13.1.1 External finish shall be taken 15cm below the ground level except where plinth protection/ramp and the like is provided, in which case, it shall be taken up to the bottom of the plinth protection/ramp etc.

13.1.2 Plaster/pointing, skirting/dado shall be returned to in jambs reveals and soffits of lintels/windows etc.

13.1.3 All plastered/rendered surfaces shall be trowled to even and smooth surface with steel trowel (without using extra cement).

13.1.4 100% river sand shall be used for plastering works conforming to the samples approved by the OC Contract.

13.1.5 12mm deep 10mm wide groove shall be formed on the internal and external surface shall be provided with chicken wire mesh 150 mm wide at places like junction of RCC Columns, beams, lintel, etc and brick work.

13.2 PLASTERING

13.2.1. Cement plaster on internal/external surfaces shall be done in cement and sand mortar as specified in Schedule 'A' in one coat and shall be of fair finished surface unless specified otherwise elsewhere in particular specifications. Irrespective of unless specified otherwise elsewhere plaster shall be provided with WPC below GL 15 cm depth on external surface of the brick wall and below DPC level 15 cm depth on internal wall surface.

14. WHITE WASHING/COLOUR WASHING

14.1 White wash/colour wash shall be provided where shown on drawings. A lime wash/colour wash shall be done in no of coats as mentioned in Schedule 'A'/BOQ. The colour of colour washes (off white shade No 3.033 or No 4.05 as per IS-1650). Lime/Colour wash shall be carried out all as specified in 15.2 & 15.11 & 15.12 of SSR Part I). Pigment for colour wash shall be pigdilate colour strainer as approved by OC CONTRACT. To achieve better finish of white wash Zinc oxide shall be mixed with lime wash at the rate of 2 percent of slaked lime. In final coat of white wash fevicol DDL shall be mixed as per manufacturers instructions. No ultramarine blue shall be mixed in any coat. However, sodium chloride, as specified in clause 15.12.3 on page 15-2 of SSR part I shall be mixed in first and second coats. White/colour wash shall be applied with the brush in place of Moonj brush as per clause 15.12 of SSR Part-I. The finish shall be true and mixture without patches and brush marks.

15. **ALUMINUM PAINT:** Aluminum paint shall be of first and best quality and shall be applied as directed.

16. **DRY DISTEMPER:** Dry distemper shall be provided of approved make: Good Less Nerolac/Shalimar/Jenson & Nicholson/Asian/Berger and shall be applied as specified in SSR Part I DDL. Fevicol/Synthetic resin in the preparation as recommended by manufacturer shall also be added in distemper solution.

17. GLAZING:

17.1 The glazing shall be done with selected quality float glass conforming to IS-2835, unless otherwise specified in particular specifications here-in-after. All glass shall be of good quality, free from specks, bubbles, smoke wanes, air holes and other defects.

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17.2 Glass shall be fixed to steel windows/vents with oil putty all as specified in clause 16.10 of SSR (PART-1).

17.3 The glass shall be fixed to wooden shutters with wooden beads as shown on drawings and as specified in clause 16.9 of MES Schedule (Part-I). Wooden beads shall be of teak of size shown on drawings.

17.4 The contractor shall produce vouchers/certificates from suppliers/manufacturers to the OC Contract as a proof that the putty conforms to IS-419.

18. PAINTING

18.1 GENERAL

18.1.1 The word "Paint and/or painting" wherever specified/indicated/shown on drawing shall be deemed to be synthetic enamel paint.

18.1.2 The tint of the paint shall be as approved by OC Contract.

18.1.3 The Contractor shall use fresh and best quality paint. The Contractor's rates shall also be deemed to include for the preparation of surfaces and application of primer. The Contractor shall obtain the permission of OC Contract in writing well in advance for the makes/brands of paint that he will use in the work. He shall also submit samples thereof. The synthetic enamel paint shall be from any of the following firms/brands: -

- i) Berger paints - LUXOL, ii) Jenson & Nicholson (India) Ltd – BOROLAC iii) Nerolac (paints)- NEROLAC iv) Asian Paints – APCOLITE v) Shalimar Paints - SUPERLAC

18.1.4 The Contractor shall, if so required by the OC CONTRACT, produce certificate from the manufacturers or their representatives to establish that the brands of paints used by him are of the approval make. Paints shall be brought at the site in manufacturer's drums with seal intact.

18.1.5 Paints used in priming coat, under coat and finishing coat shall be of the same manufacturer. The paints shall be applied first using vertical strokes until the surfaces are covered and then brushed cross wise for complete coverage with light strokes so as to smooth out laps and brush marks and finally laid off with vertical strokes. This constitutes single coating of paint.

18.1.6 Surfaces painted shall be passed by the EIC and marked as such before each coat is applied. Each coat shall be of slightly varying shade (not applicable to white shade) and shall be passed by the EIC before next coat is applied.

18.1.7 Unless specified to be treated otherwise in specifications here-in-after, all wood based surfaces shall be given the priming coat of pink primer, one under coat and one finishing coat of synthetic enamel paint. The priming coat of paint shall be applied before fixing.

18.1.8 If the under coat of the paints is not executed within six months after applying the priming coat of paint, the priming coat shall be done again by the Contractor at no extra cost to the Govt.

18.2 **CEMENT BASE PAINT:** cement paint & shall be of approved tint and applied as specified in para 15.7 & para 15.15 of MES Schedule (part-I). First quality brand of the following makes shall be used: -

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(a) Super snocem Plus (M/S Snowcem India Ltd) (b) Durocem (M/S Berger) (c) Super Acrocem (M/S Acropaints Ltd)

19. **OIL BOUND DISTEMPER:** Oil bound distemper shall be applied as specified in SSR Part I. (Make : Nerolac/Shalimar /Jonson & Nicholson/Asian/Berger). The gypsum powder shall be ISI marked.

20. **EXTERIOR ACRYLIC EMULSION PAINT.**

20.1 Exterior acrylic emulsion paint shall be of quality conforming the relevant Indian Standard. These shall be procured directly from manufacturer's or their authorized dealer in sealed & in tacked container.

21. **PLUMBING, DRAINS AND SANITARY FITTINGS**

21.1 **MATERIALS/ FITTINGS/ FIXING ACCESSORIES:** All Sanitary fittings (except flushing cistern) shall be of white vitreous china of best quality ISI marked. The samples of sanitary fittings, fixing accessories shall be approved by the OC Contract before bulk procurement for incorporation in the work. Sanitary fittings shall be of one of the brands/ manufacturers as mentioned in Appendix 'D/E' conforming to the catalogue numbers where referred to in these tender documents. ISI marked sanitary fittings of the brands shall be provided instead of those without IS marking.

21.2 All the specials viz single & double branch pieces, bends, ducks foot bends etc shall be provided with access door fitted with 3mm rubber washer screwed with set screws. The outlet of 'P' trap of WC shall be jointed with connecting pipe/branch piece.

21.3 The Contractor shall employ qualified & licensed plumber for supervision of installation & testing of the sanitary fitting & plumbing. The connection shall be provided conform to sound engineering practice. The layout of soil, waste vent & anti syphonage pipes shall be marked on the walls in coloured chalk & approved by the OC Contract before execution of work.

21.4 **SINKS**

Kitchen Sink and Drain Board: Stainless steel kitchen sinks and draining boards (Salem Stainless Steel ISI-304, 1mm thick) shall be provided in kitchen of all residential blocks, family quarters and other required places as directed by Engr-In Charge/OC Contract. The sink and drain board shall be in one piece and of over all size 510x1155mm and bowl size of 508x405x200mm complete with 40mm dia. C.P. waste with chain and rubber plug and PVC waste pipe, if otherwise not described in BOQ/item of Schedule 'A'

21.4.1 The stainless steel sink and draining board shall be one of the following makes:
(a) Alex (B) Jayna (C) Jmd International (D) Steel Craft

21.5 **EUROPEAN TYPE WATER CLOSET:** All European type water closets shall be vitreous China, white glazed of shape and size (with provision of health faucet of approved make) as per Hindustan Sanitary Ware Cat. No. 20001 with P or S trap (as required at site) or equivalent of other makes mentioned in Appendix 'D/E'.

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21.5.1 **CISTERN:** Low level flushing cistern 10 liter capacity : Hindustan Sanitary ware Cat No. 21001 or equivalent of other make as specified in Appendix 'D' HDPE, 'Feather touch' operated, conforming to IS-7231. The cistern shall with 32 mm bore polythene flush pipe of sufficient length internal fittings (valve less symphonic) brass handle and pair of painted cast iron brackets HDPE Dual flush with 10 liters also be provided to conserve water complete including all accessories.

21.5.2 Seat and cover shall be solid Bakelite ISI marked type IA (IS-2548-1983) with CP brass hinges COMMANDER or equivalent MAKE of colour as approved.

21.6 **INDIAN STYLE WATER CLOSET:** All Indian style water closet shall be vitreous China, white glazed of size as indicated, Orissa pattern as per Hindustan Sanitary Ware Cat. No. 20004 with P or S trap no. 21003 without vent horn (as required at site) or equivalent of other makes as specified in Appendix 'D/E'. The pan shall be set in the lime concrete (1:2) at least 15cm around and finished just below the rim to receive the specified thickness of floor finish. Where flushing cistern cannot be fixed in wall due to window/lintel as per sanitary plan, the same shall be fixed in the side wall with additional bend. The cost of bend shall be deemed to be included in the lump sum cost of buildings given in schedule 'A' Section-I

21.6.1 **URINALS :** shall be Large Flat Back of size as indicated, white, with CP brass angle valve and bottle trap as per Cat Part no 60002 of Hindustan Sanitary Ware or equivalent makes with GI waste pipe 32 mm bore is to be provided all as directed by EIC/ OC Contract.

21.6.2 **MARBLE PARTITION SLAB FOR URINALS:** shall be 20-25 mm thick white marble (Makrana/Rajnagar) stone slab in one piece of size 750x400mm, as approved by OC Contract. Marble slab shall be hard, even, durable, of uniform colour and shall not show disintegration or cracks. It shall have round corners, duly machine cut and polished all as specified in SSR Part I. Marble partition slab shall be fixed all as directed by OC Contract.

21.6.3 **TOILET PAPER HOLDER** Toilet paper holder as per Hindustan sanitary ware Cat. No. 40051 or equivalent of other makes as specified in Appendix 'D/E' shall be provided with screwed to wall with brass screws to lugs embedded in walls/fixing material such as dotofix, rod of toilet paper holder shall be of steel chromium plated 19mm dia with a spring complete all as specified.

21.7 **Wash Hand Basins :** All wash hand basins (except oval type WHB) shall be of size as indicated, wall mounting type of shape as per Hindustan Sanitary ware Cat. No. 10001 or equivalent of other makes as specified in Appendix 'D'. The brackets shall be embedded in walls in cement concrete (1:2:4) type BI block of size 10 cm x 10 cm x 23 cm. Oval type wash hand basin shall be of Hindustan Sanitary ware or equivalent make as specified in Appendix " D" of size as indicated. These WHB shall be fixed with Granite Stone counter of size as per sample. The rate quoted by the tenderer shall include for this provision.

21.8 **TOWEL RAIL:** Towel rail, shall be of mild steel chromium plated of 19mm bore tube conforming to sample. These shall be fixed to walls with steel cadmium screw or wooden plugs/fixing material, such as deta-fix. The length of towel rail shall be as.

21.9 **GRATINGS:** All floor traps (FT) and floor drains (FD) shall be provided of approved design and shape. The weight of 125mm dia and 100 mm dia gratings shall not be less than 130 grms and 100 grms respectively. Gratings for floor drain (FD) below sunken kitchen shall have paintable holes for passing PVC pipe (water) from sink.

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21.10 **MIRROR OVER WASH HAND BASIN** : Thickness of mirror shall be as indicated. The mirror shall be tested by the Engineer in Charge by viewing in at distance up to 3 meters from its face to make sure that the image is undistorted. If found other wise, the mirror shall be rejected. It shall be free from all flaws, specks or pebbles. The glass shall be uniformly silver plated on the back silvering shall have a uniform protective coating of red lead paint. Aluminium angles at sides and plain AC Sheet 6mm thick backing shall be given for Mirrors. Mirror shall be any of the following manufacturers viz (a) Atul Glass House (b) AIS (c) Hindustan safety Glass works Pvt Ltd (d) Saint Gobain, Fixing of mirror shall be as specified in Clause 18.91 of SSR (Part-I)

21.11 **PIPE AND FITTINGS:** Detailed lay out shall be marked on the walls in coloured chalk approved by OC CONTRACT before execution of work.

21.12 Cast iron soil, waste, vent and anti syphonage pipes including fittings shall be of spigot and socket spun pipes conforming to IS-3989. Jointing shall be done with lead caulked joints except vent pipes fittings which shall be jointed with cement joints. The pipes and fittings shall be either without ears or with ears.

21.13 All other specifications regarding materials and workmanship shall be as per clause 18.23 and 18.67 of MES Schedule (part-I) respectively.

21.14 The vent pipes shall be taken from soil pipes to a height of 120 cm, height measured from top of roof (of last storey) to the bottom of the cowl, CI cowl shall be provided on top of vent pipes and shall be fixed with cement joints.

21.15 Cost iron bends/branches and other junctions shall be provided with oval pattern access doors with bolts as per relevant IS and 3mm rubber insert packing to make them air and water tight.

21.16 The branch connection with the vertical pipes shall be so arranged that the vertical pipe is at least 5 cm away from the face of the wall. It should also be ensured that no joint between branch piece and vertical pipe terminates in the wall thickness. Irrespective of what is shown on drawings, separate stacks for soil, waste and anti syphonage pipes shall be provided.

21.17 If otherwise not described elsewhere in tender, sizes of cast iron pipes shall be as follows:-

- | | | |
|-----|--------------------------------------|--------------------|
| (a) | Soil pipes | - 100mm dia (bore) |
| (b) | Waste pipes | - 75mm dia (bore) |
| (c) | Anti syphonage pipes and vent pipes. | - 50mm dia (bore) |

21.18 **SALT GLAZED STONE WARE (SGSW) PIPES**

21.18.1 Salt glazed stone ware pipes and fittings shall be grade `A` conforming to `I.S : 651 and shall be laid all as specified in clause 18.69 and 18.70 of SSR (Part I).

21.18.2 **CONCRETE BEDDING HAUNCHING FOR SGSW PIPES. Bedding**, haunching and surrounding/encasing to salt glazed stone ware pipes shall be with PCC (1:3:6) type C-2 all as directed by Engineer-in-Charge and all as specified under clause 18.68 of MES schedule Part I 1991. However, thickness of concrete bed below pipe shall be 10cm for pipes upto and including 150mm dia and 15 cm for pipes more than 150 mm dia.

22. **TRAPS**

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22.1. **FLOOR TRAP:** - Floor trap shall conform to IS-3989 and shall be of cast iron with CI grating (without hinges) & outlet with nominal diameter of 75mm if otherwise not indicated in BOQ/Schedule 'A'. The outlet of floor trap shall be with long arm and shall be jointed to connecting pipe/branch pieces with lead joint. Floor trap shall be provided in lieu of nahani trap wherever shown/specified on drawings.

22.2 **GULLY TRAP:** If otherwise not indicated in BOQ/Schedule 'A,' Gully trap shall be salt glazed stone ware with rebated top and 100mm dia (bore) outlet and cast iron or mild steel grating of size 15cm x 15 cm. It shall be set in cement concrete (1:3:6) type 1 C-1 foundation of size 53cm x 53cm with overall depth equal to depth gully trap + 10cm (10cm below gully trap) and kerb of P.C.C (1:2:4) type B-1 on top of PCC foundation block around CI or MS grating of size 32.5cm x 32.5cm. Gully trap shall be provided in the situations where shown on the drawings.

22.3 Weight of jointing material of cast iron pipes shall be as under:-

S.No	Dia bore of pipe/fittings	spun yarn/jute per joint	pig lead per joint
1	100mm	0.04kg	1.30kg
2	75mm	0.03kg	1.00kg
3	50mm	0.02kg	0.80kg

In case the quantity of lead and spun yarn/ jute mentioned above is insufficient or it can not be accommodated in joints, the variation of quantity of lead specified above and actually provided in joint shall be regularised through deviation order.

23. **SMOKE TEST** :- Soil waste vent and anti-syphonage pipes shall be subject to smoke test of specified in MES Schedule Part I.

24. **INTERNAL WATER SUPPLY**

24.1 **SCOPE OF WORK**

24.1.1 Internal water supply includes water meters, all water tubing and tube fittings, except those specified in particular specifications here- in-before such as flush pipes, waste pipes and over flow pipes of overhead tank and cutting chases and making good which are included in the unit rates quoted in BOQ/Schedule 'A' Part-I.

24.1.2 Work under this contract shall consist of furnishing all labour materials equipment and appliances necessary and required for all items of works given in Schedule 'A' /BOQ. The contractor is required to completely furnish all the plumbing and other specialized services as described.

25. **Inspection and testing of materials:** Contractor shall be required, if requested, to produce manufacturers test certificate for the particular batch of materials supplied to him. The tests carried out shall be as per the relevant Indian Standards.

25.1 For examination and testing of materials and works at the site contractor shall provide all testing and gauging equipment necessary but not limited to the following:-

- a.Theodolite
- b.Dumpy level
- c.Steel tapes
- d.Weighing machine
- e.Plumb bobs, spirit levels, hammers
- f.Micrometers, tachometers
- g.Thermometers, stoves
- h.Hydraulic test machine

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25.2 Smoke test machine All such equipment shall be tested for calibration at any approved laboratory, if required by the Engineer- In- Charge.

25.3 All testing equipment shall be preferably located in special room meant for the purpose

25.4 Samples of all materials shall be got approved before placing order and the approved samples shall be deposited with the Architects. Any materials declared defective by Engineer In Charge shall be removed from the site within 48 hours.

25.5 All warranty cards given by the manufactures shall be handed over to the Engineer-In-Charge.

26. **Testing**

26.1.1 All materials and equipment found defective shall be replaced and whole work tested to meet the requirements of the specifications.

26.1.2 Contractor shall perform all such tests as may be necessary and required by the local authorities to meet municipal or other bye-laws in force.

26.1.3 Contractor shall provide all labour, equipment and materials for the performance of the tests.

26.2 **Site clearance and cleanup**

26.2.1 The contractor shall from time to time, clear away all debris and excess materials accumulated at the site. After the fixtures, equipment and appliances have been installed and commissioned, contractor shall clean-up the same and remove all plaster, paints, stains, stickers and other foreign matter or discoloration leaving the same in a ready to use condition.

26.3 **License permits and authorities**

26.3.1 Contractor must hold a valid plumbing or any other as required license by the municipal authority or other competent authority under whose jurisdiction the work falls.

26.3.2 Contractor must keep constant liaison with the municipal/statutory authority and obtain approval of all drainage, water supply and other works carried out by him.

26.4 **Cutting of water proofing Membrane :-**

Cutting of water proofing membrane shall be done very carefully so as other portion of water proofing is not damaged. On completion of work at such place the water proofing membrane shall be made good and ensured that the opening/cutting is made fully water proof as per direction of EIC, contractor's quoted rates shall deemed to be included this fact in to account, and nothing extra shall be admissible.

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26.5 **Cutting of structural members** : - No structural member shall be chased or cut without the written permission of the Engineer-In-Charge.

26.6 **BLANK**

26.7 **Materials**

26.7.1 Unless otherwise specified and expressly approved in writing by the OC Contract, only materials of makes and specification as mentioned in the list of approved makes attached with the specifications shall be used. If required, the contractor shall submit samples of materials proposed to be used in the works. Approved samples shall be kept in the office of the Engineer-In-Charge and returned to the contractor at the appropriate time.

26.8 **BLANK**

26.9 **Galvanized steel tubing** : - Pipes shall be provided with all required fittings e.g. tees, couplings, bends, elbows unions reducers nipples plugs all GI waste pipes shall be terminated at the point of connection with the appliances with an outlet of suitable diameter. Pipes in chase shall be painted with two coats of red oxide primer and two or more coats of synthetic enamel paint contractor's quoted rates shall deemed to be included this fact in to account, and nothing extra shall be admissible.

26.10 **G.I. pipes fittings & valves**

26.10.1 Galvanized steel tubes medium grade shall be conforming to I.S. 1239 of class C of approved make as specified.

26.10.2 Fittings shall be of malleable iron galvanized of approved make. Each fitting shall have manufacturer's trade mark stamped on it. Fittings for G.I pipes shall include couplings, bends tees, reduced nipples unions bushes. Fittings shall conform to IS 1879- (Part – I to X).

26.10.3 Pipes and fittings shall be jointed with screwed joints. Care shall be taken to remove burr from the end of the pipe after cutting by a round file. Genuine red lead with grommet and a few strands of fine hemp shall be applied. All pipes shall be fixed in accordance with layout and alignment as directed. Care shall be taken to avoid air pockets.

26.10.4 Pipe protection:- Whether specified or not all pipes in chase or below floor shall be protected against corrosion by the application of two coats of bitumen's paint covered with polythene tape and a final coat of bitumen paint contractor's quoted rates shall deemed to be included this fact in to account, and nothing extra shall be admissible.

26.10.5 All water supply pipes below ground shall be protected against corrosion by one layer of 4 mm thick multilayer anticorrosive polymeric mix tape applied over a coat of primer as per recommendations of the manufactures.

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26.11 Gun metal's valves

26.11.1 Valves 65 mm dia and below shall be heavy gunmetal full way valves or globe valves conforming to IS 778 class I. Valves shall be tested at manufacturer's work shop and the same stamped on it.

26.11.2 All valves shall be approved by the OC Contract before they are allowed to be used on work.

26.12 **Ball Valve**. The ball valve shall be brass high-pressure type and shall conform to IS-1703. The ball shall be of high quality polythene to with stand the required pressure with all necessary fittings and shall conform to relevant IS.

26.13 **TESTING OF PIPE LINES**. Pressure and leakage tests of pipelines and fittings shall be carried out as per clause 18.48.7 on page 18-17 & 18.18 of MES Schedule (Part-I).

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28. CPVC PIPES & FITTINGS

28.1 Refer specification on sl page 374 of SSR 2010 (Part-II). Solvant for CPVC Pipe shall be ISI marked and as approved by OC Contract.

29 Solid PVC Sheet

29.1 The work shall be carried out by the approved manufacturer's fabricator only.

29.2 Contractor shall submit test report/ test certificate obtained from the manufacturer along with purchase vouchers with every payment.

29.3 Solid PVC sheet having minimum density 620 Kg/Cum shall be used, necessary jointing materials such as adhesive, brass screws, wax,filler etc. shall deemed to be included in quoted rates. The all edges of sheet shall be finished with 0.5mm thick beading/ lipping of same lamination PVC sheet pasting or bonding tape etc complete all as per manufacture's instruction.

29.4 The guarantee period for effectiveness of these works shall be 05 yrs. The contractor shall give a written guarantee for a period of 05 years from the certified date of completion of work.

30. CHECKING AND ATTENDING THE COMPLAINT BY THE TRADESMAN

30.1 Attendance register to monitor the arrival and departure of tradesmen shall be maintained by JE in-charge and signed by the contractor or his authorized rep on daily basis.

30.2 The contractor should submit labour report daily in writing to Engineer-in-Charge.

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30.3 The complaints as attended by the tradesmen employed by the contractor shall be recorded and maintained by them in proper log sheet as shown under and will be submitted to JE in charge alongwith **users signed completion slip having name & Mob No.** for records.

Ser No	Dt and time when complaints lodged	Bldg No & area of complaint	Nature of complaint	Dt and time when complaint rectified	Name & Initial of personnel attended to complaint rectified	Initial of JE's	Remarks

30.7 All T&P as required for rectification of defect attending to complaints shall be arranged by contractor and cost of same will be deemed to be included in the unit rate quoted against respective items.

30.8 The documents viz Complaint slips, attendance register, complaint register log sheet/record of complaint made/attended shall be maintained separately for each locations/complaint centre. The cost of all stationeries including printing of complaint slip in approved format shall deemed to be included in quoted rate/amount and nothing extra shall be paid to the contractor on this account.

31. **DEMOLITION/DISMANTLING / TAKING DOWN**

31.1 The contractor shall carry out demolition/dismantling carefully without any damages to the existing structure. In the event of any loss or damage, the contractor shall at his own expense reinstate and make good to the full satisfaction of Engineer-in-Charges. During demolition/dismantling all necessary precaution shall be taken by the contractor as per "MES Safety Code" mentioned in General Condition of contracts (IAFW-2249). The demolition/dismantling materials which are not covered under Schedule of credit shall remain Govt. property and the contractor shall remove the materials to the BRO Store/places outside of the Defence land as directed by Engineer-in-Charge without any extra cost to the Govt.

32. **CONTRACTOR'S SUPERVISION**

32.1 Contractor's contention is drawn to condition 25 of IAFW-2249 forming part of contract agreements.

33. **PRODUCTION OF VOUCHERS**

33.1 The contractor shall to submit original purchase vouchers duly machine numbered and dated in respect of items to be claimed in RAR as material lying at site. Purchase voucher for cement, steel, E/M equipments, Bitumen shall also be submitted in variably. However, if the cost of particular item of material in a contract exceed Rs 1 (one) Lakhs, these materials shall be procured only from the manufactures or from their authorized dealers/stockiest (except in case of material of local origin) and the contractor shall furnish proof (i.e. purchase vouchers) there of to the satisfaction of the OC Contract that the material so comply.

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PART-II PRICED BID

SCHEDULE - "A" NOTES

**ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS
AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT
DANTAK : JOB NO. 60/343**

1. Quantity shown in Schedule 'A' is approximate and is inserted as guide only. These shall, however not be varied beyond the limits laid down in condition 7 of IAFW-2249 General Condition of contracts. **The tender shall be accepted as a whole for which the contractor shall have no claim on this account.**
2. The rates and amount in Schedule 'A' are to be filled in by the tenderer. The rates shall be filled both in figures as well as in words. In case of variation between the rates quoted in figure and words, the rates in words shall take precedence.
3. **Period of Completion** :- The entire works of Schedule 'A' under this contract shall be completed within **780** days in accordance with the phasing, if any, indicated in the tender from the date of placing of work order, which will be usually within two week from the date of issue of Acceptance letter.
4. Any drawings mentioned in the tender documents/particular specifications but it is inadvertently not included in the list of drawings, shall also be deemed to form part of the contract and Tenderer may see such drawings/details in the office of Accepting Officer/concerned OC Contracts and shall be supplied by Deptt.
5. The layout of work as indicated in site plan/layout plan is tentative and may be varied where necessary at the discretion of the OC Contact. The contractor shall not be entitled for any claim on account of any such variation.
6. The rates to be quoted by the tenderer in the schedule 'A' shall be deemed to include for the provision of all labour and materials, loading and unloading of materials and transportation if required, tools, plant, equipment and tackle, process, operations and specific requirements details in the schedule in the particular specification and elsewhere in this tender documents and for the full, entire and final completion of the work in accordance with the provisions of these tender documents.
7. The rate quoted by the contractor shall be deemed to be inclusive of all Taxes (including Sales Tax/VAT on materials, Sales, Tax/VAT on works contracts, Turnover Tax, Service Tax, etc), duties, Royalties, Octroi, State Entry Tax & other levies payable under the respective statutes. No re-imburement/refund for variation in rates of taxes, duties royalties, Octroi, State Entry tax & other levies, and or imposition/abolition of any new/existing taxes, duties, royalties, octroi, state entry Tax & other levies shall be made except as provided in Special Condition.
8. The rate to be quoted by the tenderer in respect of these work shall be deemed to include for all minor details of construction which are obviously and fairly intended and which may not have been specifically mentioned in the tender documents but which are essential for satisfactory execution and completion of work. In case of difference of opinion between the OC Contract and the Contractor as to what constitutes a minor details of construction, the decision of Accepting Officer shall be final and binding.

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SCHEDULE – ‘A’ NOTES (CONTD.....)

9. Rates to be quoted by the contractors shall be deemed to include for all items of work as described, specified in particular specification and on drawing.
10. The rates to be quoted by the contractor for various items shall include for “material and labour”/”Supply and fix” connecting’ Jointing, Testing and Commissioning complete unless otherwise specifically mentioned therein.
11. The amount of contract is not firm but shall be treated as the contract sum as referred to in condition 1 (n) of IAFW-2249.
12. Work shall be executed on locations as shown in site plan or as directed by the OC Contract/Engineer-in-Charge.
13. Measurements of work done shall be as per units of items given in Schedule ‘A’ and this mode of measurement shall take as per Clause 113 of MoRT&H Specification for road & Bridge works (Fifth Revision). The rate be quoted considering Clause 114 of MoRT&H Specification road & Bridge works (Fifth Revision)
14. Unit RM, mm, Cum or Cm, Sqm, Kg and quintal or Qtl wherever mentioned in the tender documents denotes the unit, Running Metre, Millimetre, Cubic Metre, Square Metre, Kilogram and Quintal respectively.
15. The works under this contract will be carried out within the working hours as per directions of Accepting Officer or the officer so detailed by him for administration of this contract.
16. The security will be arranged by the contractor for his personnel and equipment during the execution of work. No compensation will be paid by BRO on account of any loss/damage to personnel, property, veh/eqpt/plant of contractor during execution of work or on any account.
17. Site for execution of work shall be handed over on the date of commencement of the work as indicated in the work order No 01. In case it is not possible for the department to handover the entire site on the date of commencement and certain portion of the site is handed over later on then contractor shall make his planning/deployment of resources accordingly and no claims of whatsoever nature on the account shall be entertained.
- 18. All drawings will be available at HQ CE(P) Dantak, HQ 19 BRTF & HQ 60 RCC.**
- 19. Unforeseen items (MES SSR Items) which are not covered in the Schedule “A” but essentially required as per ground requirement. The contractor shall be provided and execute the items under lumpsum amount which has been cattered at Schedule “A” for amounting to Rs. 15.00 Lakh. The amount Rs. 15.00 Lakh will be added with the schedule “A” amount. The rates of the unforeseen items (MES SSR Items) will be paid to the contractor as per item rate of MES SSR 2020 including present applicable escalation charges (i.e escalation charges up to year 2023).**

(Signature of the Contractor)

EE(C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
A	Addition / Alteration of Office Complex & Living area of 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 180 to 200						
1	Excavation in trenches soft/loose soil not exceeding 1.5m wide and not exceeding 1.5m in depth: for foundation etc complete all as specified and directed.	Cum	12.00				
02.	Demolition of Brick work built in cement mortar or cement lime mortar incl all quoins, pillars etc., separation of serviceable materials from the unserviceable, stacking the serviceable materials within 100M and disposal of unserviceable materials, debris and rubbish to a distance not exceeding 100M etc complete all as specified and directed.	Cum	18.00				
03	Materials & Labour for Pre-cast cement concrete block masonry with solid blocks, Type 1:3:6 using (16mm graded aggregate) and set in cement mortar 1:6 exceeding 10 cm in width etc complete all as specified and directed.	Cum	32.00				
04	-ditto- all as per above but except blocks or slab etc complete all as specified and directed.	Cum	0.25				
05	Returning, filling in, including spreading, levelling watering and well ramming in layers not exceeding 25cm all types of soil etc complete all as specified and directed.	Cum	5.00				
6	Removal excavated material not exceeding 50m and depositing where directed at a level not exceeding 1.5m above the starting point etc complete all as specified and directed.	Cum	7.00				
7	Materials & Labour for broken stone aggregate of hard core gauge not exceeding 63mm in deposited, spreaded and levelled in layers not exceeding 15cm thick watered and rammered to true surface all as specified and directed.	Cum	41.00				
	Total of srl page No. 180						

(Signature of the Contractor)

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SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
A	Addition / Alteration of Office Complex & Living area of 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 180 to 200						
8	Cement concrete type D-2,1:4:8(40mm graded aggregate) as in subbase, rough surface complete all as specified and directed.	Cum	33.00				
9	Taking down Cement Plaster on brick work or concrete surfaces incl racking out joints etc complete all as specified and directed.	Sqm	1300.00				
10	Materials & Labour for 15mm thick Rendering in CM 1:6 on fair faces of brick work or concrete surfaces finished fair and even etc complete all as specified and directed.	Sqm	665.00				
11	Materials & Labour for 15mm thick Rendering in CM 1:4 on fair faces of brick work or concrete surfaces finished even and smooth incl WPC 3% by weight of cement etc complete all as specified and directed.	Sqm	1105.00				
12	Supply only Integral Water Proofing compound of approved quality etc complete all as specified and directed.	Kgs	102.00				
13	Materials & Labour for preparation of Newly plaster surfaces and applying two coats of Oil Bound Distemper on walls etc complete all as specified and directed.	Sqm	590.00				
14	Materials & Labour for preparation of Newly plaster surfaces and applying two coats of Oil Bound Distemper on ceiling etc complete all as specified and directed.	Sqm	75.00				
	Total of srl page No. 181						

(Signature of the Contractor)

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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
A	Addition / Alteration of Office Complex & Living area of 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 180 to 200						
15	Materials & Labour for preparation of Old plaster or Un-plastered surfaces (by brooming down or steel wire brushing, scrapping down smoke soot, moulds, moss and efflorescent salts and treating oil and greasy spots) and applying one coats of Oil Bound Distemper of any colour on walls etc complete all as specified and directed.	Sqm	1850.00				
16	Materials & Labour for preparation of Newly plastered surfaces and applying two coats of White Wash on walls etc complete all as specified and directed.	Sqm	785.00				
17	Materials & Labour for preparation of Old plastered or Un-plastered surfaces (by brooming down or steel wire brushing, scrapping down smoke soot, moulds, moss and efflorescent salts and treating oil and greasy spots) and applying one coats of White Wash on walls etc complete all as specified and directed.	Sqm	1080.00				
18	Materials & Labour for preparation of Newly plastered surfaces and applying two coats of Colour Wash on walls etc complete all as specified and directed.	Sqm	340.00				
19	Materials & Labour for preparation of Old plastered or Un-plastered surfaces (by brooming down or steel wire brushing, scrapping down smoke soot, moulds, moss and efflorescent salts and treating oil and greasy spots) and applying one coats of Colour Wash on walls etc complete all as specified and directed.	Sqm	100.00				
	Total of srl page No. 182						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
A	Addition / Alteration of Office Complex & Living area of 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 180 to 200						
20	Dismantling Plain or corrugated steel sheeting, any gauge, thickness , including roof covering etc complete all as specified and directed.	Sqm	756.00				
21	Supply & fixing of Wind tie for roof including securing bolts: flat iron fillets including all necessary drilling, bolting or riveting, etc, and similar work conforming to Fe 410-0 or Fe 310-0 etc complete all as specified and directed.	Kgs	145.00				
22	Materials & Labour for prepainted galvalume aluminium zinc coating, G.I. based corrugated steel sheet, 0.50 mm thick (total coated thickness) of any colour, having tensile strength of 550 MPA as in roof covering/ wall cladding, fixed with low carbon self tapping screw & EPDM washers all as per manufacturer's instructions etc complete all as specified and directed.	Sqm	1076.00				
23	Materials & Labour for prepainted galvalume aluminium zinc coating, G.I. based plain steel sheet, 0.50 mm thick (total coated thickness) of any colour, having tensile strength of 550 MPA as in Ridge/ valley, fixed with low carbon self tapping screw & EPDM washers all as per manufacturer's instructions etc complete all as specified and directed.	Sqm	55.00				
24	All as per above item but as in Eaves board etc complete all as specified and directed.	Sqm	58.00				
25	Supply & fixing of Mild steel framed work of angle or any other section (grade 410 - 0 or Fe 310-0) as in Door and Door frame, ceiling frame work, purline, rafter, truss, gusset plates, all types of related works with necessary welding incl dismantling old wooden/iron all types of related works etc complete all as specified and directed.	Kgs	4925.00				
	Total of srl page No. 183						

(Signature of the Contractor)

EE (C) SG
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For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
A	Addition / Alteration of Office Complex & Living area of 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 180 to 200						
26	Fixing only Mild steel framed work of angle or any other section (grade 410 - 0 or Fe 310-0) as in Door and Door frame, ceiling frame work, purline, rafter, truss, gusset plates, all types of related works with necessary welding incl dismantling old wooden/iron all types of related works etc complete all as specified and directed.	Kgs	1991.00				
27	Excavation in post holes in soft/loose soil each n exc 0.5 cum, getting out, returing filling in and ramming earth or broken rubble mixed with earth around in layers not exceeding 25 cm, watering and removing surplus soil to a distance n exc 50 m and making good surface.	Each	30.00				
28	Supply & fixing of Mild Steel Bolts (purpose made) with hexagonal or square one end and screwed the other or screwed both ends each screwed end to be fitted with washers and one hexagonal or square not exceeding 30cm long dia of neck 12mm & not exceeding 20mm etc complete all as specified and directed.	Kgs	215.00				
29	Dismantling of Wall and Ceiling boards (fiber, pulp, insulation etc) or insulation boards/slab/blankets any thickness incl cover fillets. of any thickness incl cover fillets etc complete all as specified and directed.	Sqm	1267.00				
30	Cutting holes into or through brick wall built in any mortar and making good in PCC 1:2:4 type B-1 using 20mm graded stone aggregate or in CM 1:3 as required superficial area not exc 150 sqcm etc complete all as specified and directed.	Per CM of depth	3.50				
31	Supply & fixing of Mild Steel Angle or Tee Section, fixed as in ceiling frame work without connecting plate confirm to grade Fe 410-0 or Fe 310-0 etc complete all as specified.	Kgs	1140.00				
	Total of srl page No. 184						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
A	Addition / Alteration of Office Complex & Living area of 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 180 to 200						
32	Materials & Labour for 4mm thick Non asbestos fibre cement building boards fixed or laid/ inserted to timber framework with screws fixed in jointless finish with jointing compound and jointing tape as per instructions etc complete all as specified and directed.	Sqm	500.00				
33	Materials & Labour for 4mm thick Non Asbestos fibre reinforced designer cement ceiling board (610mm x 610mm) with hot-dip GI heavy duty suspended ceiling grid system T-2430 all as per manufacturers instructions etc complete all as specified and directed. (Make: MIS Everest Industries Ltd. or Equivalent)	Sqm	1003.00				
34	Demolition of PCC in Ground floors/PCC Path/Plinth Protection and paving (below or above ground level) and disposal of unserviceable materials, debris and rubbish to a distance not.excc 100M etc complete all as specified and directed.	Cum	30.00				
35	Materials & Labour for PCC type B-1 (1:2:4) using (20mm graded stone aggregate) as in bed blocks, cast in situ in cills, parapets, hold fasts and coping etc including slightly rounded or chamfered angle fast, bed plates, all types of related works and the like incl use and waste of form work etc complete all as specified and directed.	Cum	10.25				
36	Materials & Labour for PCC type C-1 (1:3:6) using (20mm graded stone aggregate) as in bed blocks, cast in situ in cills, parapets, hold fasts and coping etc including slightly rounded or chamfered angle fast, bed plates and the like incl use and waste of form work etc complete all as specified and directed.	Cum	10.00				
	Total of srl page No. 185						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
A	Addition / Alteration of Office Complex & Living area of 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 180 to 200						
37	Dismantling Floor, hearth, Wall tiling or Kota stone including cement mortar bedding (but not baking), removing serviceable tiles to store and rubbish off the premises etc complete all as specified and directed.	Sqm	378.00				
38	Materials & Labour for Glazed ceramic coloured tiles (450x300)mm x 7mm thick or (350x250)mm x 7mm thick as in Vertical surfaces set and jointed in neat cement slurry and jointed or coloured cement to match incl over 15mm thick rendering of mortar CM (1:4) etc complete all as specified and directed.	Sqm	90.00				
39	Materials & Labour for Glazed ceramic coloured tiles (300x200)mm x 7mm thick as in Vertical surfaces set and jointed in neat cement slurry and jointed or coloured cement to match incl over 15mm thick rendering of mortar CM (1:4) etc complete all as specified and directed.	Sqm	90.00				
40	Materials & Labour for for Non skid coloured ceramic tiles 7to 8 mm thick(square/Rectanglar) area of each tiles exc 0.18 Sqm but not exc 0.38 Sqm in floor including screed bed 15mm thick or beding laye for laying floor finishes CM 1:4 etc set and jointed in neat cement slurry and pointed in white or coloured cement to match.Make : Somany,/Johnson/Kajariya	Sqm	330.00				
41	All as specifed above here in before but Vertical surface such as skirting/dado incl all necessary cutting incl over 15mm thick rendering of mortar CM (1:4) etc complete all as specified and directed.	Sqm	19.00				
	Total of srl page No. 186						

(Signature of the Contractor)

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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
A	Addition / Alteration of Office Complex & Living area of 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 180 to 200						
42	Materials & Labour for Vitrified coloured tiles of size (600 x 600)mm x 10mm thick of approved make as in Flooring, set and jointed in neat cement slurry and pointed in white cement to match incl over 15mm thick screed bed of mortar CM (1:6) etc complete all as specified and directed.	Sqm	282.00				
43	Materials & Labour for vitrified ceramics coloured dark shade tiles 10mm thick polished, area of each tiles not exceeding 0.38 Sqm laid as in floors/skirting etc, set and jointed in neat cement slurry and pointed in white/coloured cement to match in light shade incl 10 mm thick screed/rendering in CM 1:4 & incl dismantling of tiles ,all as specified and approved by the GE/Engr-in-Charge	Sqm	15.00				
44	Materials & Labour for vitrified ceramics coloured dark shade tiles 10-15mm thick polished, area of each tiles not exceeding 0.81Sqm laid as in floors/skirting etc, set and jointed in neat cement slurry and pointed in white/coloured cement to match in light shade incl 15mm thick screed bed/base in CM 1:4 & roughening /cleaning to existing surfaces of old conc floor by picking, sweeping clean and washing down with water to remove dirt/dust and brushing neat cement slurry with 3.00 Kg of cement per sqm incl dismantling of tiles ,all as specified and approved by the GE/Engr-in-Charge	Sqm	70.00				
	Total of srl page No. 187						

(Signature of the Contractor)

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SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
A	Addition / Alteration of Office Complex & Living area of 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 180 to 200						
45	Materials & Labour for vitrified ceramics coloured dark shade tiles 10-15mm thick polished, area of each tiles not exceeding 0.81 Sqm laid as in floors/skirting etc, set and jointed in neat cement slurry and pointed in whitc/coloured cement to match in light shade incl 10 mm thick screed/rendering e in CM 1:4 & incl dismantling of tiles ,all as spd and approved by the GE/Engr-in-Charge	Sqm	10.00				
46	Materials & Labour for Machine cut Kota stone slab flooring 20-25mm thick over screed base laid and jointed with grey cement slurry mixed with pigment to match the shade of the slab including rubbing and polishing complete including 20mm thick screed bed in CM 1:6 etc complete all as specified and directed.	Sqm	525.00				
47	All as per item above but on Vertical surface on 15mm thick screed bedding layer CM (1:4) etc complete all as specified and directed.	Sqm	55.00				
48	Materials & Labour for Pre polished Granite slab 20mm thick machine cut bedded and jointed with gray cement slurry and pointed with white cement with admixture of pigment to match the shade of granite stone in floorings / cooking platform / shelves or similar works etc complete all as specified and directed.	Sqm	10.00				
49	Taking down Chowkhats incl shutters (without taking off shutters from the frame) not exceeding 1.5 sqm each etc complete all as specified and directed.	Each	79.00				
	Total of srl page No. 188						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
A	Addition / Alteration of Office Complex & Living area of 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 180 to 200						
50	Taking down Chowkhats incl shutters (without taking off shutters from the frame) exc 1.5 sqm and not exceeding 4.00 sqm each etc complete all as specified and directed.	Each	41.00				
51	Supply & fixing of pressed steel frame made out of MS sheet 1.25 mm thick of size 125x60mm for doors/windows with one or more rebates including necessary fixing lugs, hinges, lock strike plate etc including filling of concrete 1:3:6 type C-1 back of chowkhats all as specified.	RM	119.20				
52	Pressed steel frames factory made for doors out of 1.25 mm thick PBI sheet with one of more rebates including necessary flat iron lugs, hinges, lock strike plate, hinges etc complete, size of frame 105x60mm including tarring ends and back of chowkats and lugs including back filling of PCC 1:3:6 for chowkats including two coats of synthetic enamel paint over a coat of red oxide primer on exposed surfaces all as specified and directed	RM	10.10				
53	35mm thick, 2nd class hard wood plain framed, panelled (factory made) shutters (two panels) with lock rail and panel of 9mm BWP commercial ply or 12mm veneered particle board with commercial veneering on both faces, The size of rail and stile as per IS-1003 (Part-I) (Larger size to be provided) kiln seasoned and chemically pressure treated fitted to chowkats including two coats of synthetic enamel paint over a coat of pink primer all as specified and directed	Sqm	50.00				
	Total of srl page No. 189						

(Signature of the Contractor)

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For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
A	Addition / Alteration of Office Complex & Living area of 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 180 to 200						
54	2nd class hard wood 35mm thick glazed and skeleton door shutters factory made, open rebated and prepared to receive glass or gauge etc with rounded, chamfered or mitred sash bars edges of framing plain chamfered or rounded fitted with cut and mitred beads and fitted to chowkats for securing glass/gauge, size of stiles rails and other parts as per clause 8.20 (a) of SSR Part-I 1991 (Larger size to be provided) complete including two coats of synthetic enamel paint over a coat of pink primer all as specified and directed	Sqm	46.00				
55	Materials & Labour for two coats of synthetic enamel paint over a coat of primer over steel surface of any description, over 10 cm in width or girth including necessary preparation.	Sqm	1678.00				
56	Supply & fixing of 250mm long aluminium alloy, anodised, Sliding Door Bolt with hasp, staple (bolt type) and fixing clips of sheet, cast or extruded sections and fixing bolts and sliding bolts of extruded sections or cast aluminium alloy and fixed etc complete all as specified and directed.	Each	45.00				
57	Supply & fixing of 1st class hard wood small fittings such as Brackets of any type latch and hinges blocks, shaped door and window stoppers articles not exceeding 200 cum each etc complete all as specified and directed.	Each	120.00				
	Total of srl page No. 190						

(Signature of the Contractor)

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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
A	Addition / Alteration of Office Complex & Living area of 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 180 to 200						
58	Supply & fixing of Mild steel barrel Tower Bolts, stove enamelled black with bright bolt and fixed of 150mm size etc complete all as specified and directed.	Each	128.00				
59	Supply & fixing of Mild steel pressed Handles, oval type stove enamelled black of size 125mm etc complete all as specified and directed.	Each	128.00				
60	Supply & fixing of Mild steel 300mm , ordinary rat tail rod pattern Springs including roller plate etc complete all as specified and directed.	Each	27.00				
61	Supply & fixing of Door stopper, overall length of cover plate 150mm of aluminium alloy body and tongue, anodised, with hard drawn steel spring etc complete all as specified and directed.	Each	76.00				
62	Steel windows with tubular frame factory made with double shutter (wire gauged shutter & glass/glazed shutter, (wire cloth and glass panes shall be measured and paid separately) of size 79mmx39mm,16 gauge rectangular tubular frame with side hung shutter with glazing bars 12x3mm flat iron incl box type hinges with steel handle and steel peg stay dovetailed or welded incl 2 Nos tower bolts 100mm long and 10mm square bar grills complete,including two coats of synthetic enamel paint over one coat of red oxide primer all as specified	Sqm	114.68				
63	Supply & fixing of 3mm thick Sheet Glass ordinary quality and glazing with oil putty or wooden beading in square n'exc 0.5 sqm in each pane etc complete all as specified and directed.	Sqm	96.20				
	Total of srl page No. 191						

(Signature of the Contractor)

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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
A	Addition / Alteration of Office Complex & Living area of 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 180 to 200						
64	Supply & fixing of Galvanised Mild Steel Wire Cloth 0.56mm nominal dia of wire and average width of aperature 1.18mm and fixed with tinned tacks or galvanised wire staples etc complete all as specified and directed.	Sqm	103.20				
65	Supply & fixing of 25mm dia MS Cherry Colour Decorative type PC Coated Curtain Rod with Fancy type Hanging arrangment in wall as per sample etc complete all as specified and directed.	RM	273.00				
66	Materials & Labour for prepration of Newly Steel Surface over 10cm width or girth and applying Two Coats of Synthetic Enamel Paint over red oxide primer etc complete all as specified and directed.	Sqm	123.00				
67	Materials & Labour for prepration of Old Steel Surface over 10cm width or girth and applying one coats of Syntheic Enamel Paint etc complete all as specified and directed.	Sqm	1180.00				
68	Materials & Labour for prepration of Newly Wooden Surface over 10cm width or girth and applying two coats of Syntheic Enamel Paint over pink primer etc complete all as specified and directed.	Sqm	46.00				
69	Supply & fixing of in repairs Stop valves/Angle stop valves/consealed stop cock, cast copper alloy, bore dia of pipe in 15mm, screwed down, high pressure, with crutch or but-terfly handle, screwed both ends for iron pipe and fixed but fancy type, Chromium Plated and cup (concealed type) etc complete all as specified and directed.	Each	10.00				
	Total of srl page No. 192						

(Signature of the Contractor)

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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
A	Addition / Alteration of Office Complex & Living area of 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 180 to 200						
70	Supply & fixing of Bib taps bore dia of pipe in 15mm, cast copper alloy with crutch or butterfly handle, screwed down, screwed for iron pipe or for brass ferrule but fancy type long Chromium Plated and fixed etc complete all as specified and directed.	Each	10.00				
71	Supply & fixing of Pillar taps, cast copper alloy with capstan heads Chromium Plated, screwed down high pressure, with or without lettered with long screwed shanks and fly-nuts, screwed for iron pipe but fancy type and fixed etc complete all as specified and directed.	Each	2.00				
72	Supply & fixing of PVC connection 15mm size with PTMT nuts of length 450mm etc complete all as specified and directed.	Each	4.00				
73	Supply & fixing of in repair Low Level Flushing System PVC valveless syphonic action type, 10 ltrs capacity including supply pipe & fixing brackets of M.S. angle of size (25mmx25mmx3mm), 30 cm long in PCC (1:2:4) type B-1, block of size (10cmx10cmx10cm) on walls etc complete all as specified and directed.	Each	2.00				
74	Supply & fixing and of repair Vitreous China Wash Basin, white, flat back, size (550x400)mm including brackets, cutting for and pinning in ends of brackets or erecting stand & waste pipe, coupling etc complete all as specified and directed.	Each	1.00				
	Total of srl page No. 193						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
A	Addition / Alteration of Office Complex & Living area of 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 180 to 200						
75	Supply & fixing of Vitreous China Bowl Urinal flat back size of (465x355x265)mm white bowl type with grating and union for discharge pipe complete including providing and fixing plugs, bedding urinal against wall in cement mortar 1:2, securing urinal to plugs with and including 60mm long brass screws, painting around urinal back in cement, fixing automatic flushing cistern with brackets, flush pipe, waste pipe. PVC connection with complete all fitting etc complete all as specified and directed.	Each	2.00				
76	Supply & fixing of 600mmx450mm Bevelled Edge Mirror of selected quality glass, mounted on 6mm thick AC building board or commercial plywood and fixed to wooden plugs with chromium plated brass screws and cup washers etc complete all as specified and directed.	Each	4.00				
77	Supply & fixing of Stainless Steel Sink with Draining Board, made out of 1.00mm thick sheet for kitchen or laboratory with plug, washers waste pipe, cast iron cantilever brackets, connecting union overall size 915mmx460mm with bowl size 410mmx330mmx160mm etc complete all as specified and directed.	Each	1.00				
78	Supply & fixing of in repair Towel Rail 600mm long of CP fixed with and including chromium plated fixed to plugs with CP brass screws and wooden/plastic cleats (min wt 190 gms) etc complete all as specified and directed.	Each	2.00				
	Total of srl page No. 194						

(Signature of the Contractor)

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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
A	Addition / Alteration of Office Complex & Living area of 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 180 to 200						
79	Supply & fixing of Soap Dish, vitreous china white, approximate size (190x160x90)mm fixed to plugs with CP brass screws etc complete all as specified and directed.	Each	1.00				
80	Supply & fixing of Grating Doom 100mm dia with waste hole of CP etc complete all as specified and directed.	Each	1.00				
81	Supply & fixing of Cast Iron Floor Trap with Grating CP including jointing to waste pipe with dia of 100mm fixed in cement concrete type B-1 (1:2:4) etc complete all as specified and directed.	Each	1.00				
82	Supply & fixing of Cast Iron Soil, Sand Cast pipes 100mm dia bore waste and vent pipes in any length with or without ears with cement joints, laid in trenches or in floors incl all connected fitting items etc complete all as specified and directed.	RM	3.00				
83	Supply & fixing of PVC (SWR) pipes bore in 110mm single socketed, in any length with rubber ring joints, laid in trenches or in floors incl all connected fitting items etc complete all as specified and directed.	RM	5.00				
84	Taking up or down Steel Tubing/CPVC Tubing bore of pipe in 20mm dia and connections, including cleaning for refixing or removal to store etc complete all as specified and directed.	RM	45.00				
85	Supply & fixing of CPVC Tube Medium Grade Bore of tube in 20mm dia with all fitting and fixtures laid in trenches, walls, ceiling or laid in floors etc complete all as specified and directed.	RM	50.00				
	Total of srl page No. 195						

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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
A	Addition / Alteration of Office Complex & Living area of 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 180 to 200						
86	Refixing Old Steel Tubing/CPVC Tubing bore of pipe in 20mm and connections in new or old position (Walls, ceiling, floors) etc complete all as specified and directed.	RM	10.00				
87	Supply & fixing of Stop valves, bore of dia 20mm, cast copper alloy, screwed down, high pressure, with crutch or butterfly handle, screwed both ends for iron pipe or for unions and fixed etc complete all as specified and directed.	Each	4.00				
88	Materials & Labour for Precast RCC 1:2:4 type B 1 using (20mm graded stone aggregates) as in P/beam, L/beam, Chajja, Slab or similar works etc complete all as specified and directed.	Cum	2.00				
89	Materials & Labour for TMT 10mm dia bar and over, cut to length, bent to shape required, including cranking, bending spirally for hooping for columns, hooking ends and binding with and including mild steel wire (annealed) not less than 0.9mm dia or securing with clips conforming to FE-410-0 or Gde-410-0 etc complete all as specified and directed.	Kgs	30.00				
90	-ditto- but 6mm to 8mm dia etc complete all as specified and directed.	Kgs	10.00				
91	Dismantling Water Tanks exc 500 & not exceeding 1000 ltrs and removing to store etc complete all as specified and directed.	Each	4.00				
92	Supply & fixing of Rotational Moulded Polyethylene Water Storage Tanks (cylindrical vertical with closed up, capacity in 1000 Ltrs, hoisted and fixed in position with all fittings and fixtures in position incl float valve complete all as specified in SSR Part-I etc complete all as specified and directed.	Each	4.00				
	Total of srl page No. 196						

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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
A	Addition / Alteration of Office Complex & Living area of 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 180 to 200						
93	Materials & Labour for Salt Glazed Stone Ware Pipe 150mm bore internally grade `A' laid in trenches and jointed and tested etc complete all as specified and directed.	RM	3.00				
94	Construction of Soakage well exc in ordinary soil foundation in PCC 1:5:10 wells of honey combed and solid in M-20 concrete including intercepting chamber screen chamber brick work in CM RCC cover slab in M-20/RR masonry/filling with bricks bats complete of Size Inner dia 2.40 Mtrs & 3.00 Mtrs deep etc complete all as specified and directed.	Each Job	1.00				
95	12mm Gypsum board false ceiling using grid of Gyp steel ultra Make: Saint Gobain Gyproc India Ltd. Frame size 1200mmX600mm using GI main of 26x51x10.5mm (0.5mm thick), intermediate channel 15x15x45mm perimeter of 20x28x30(0.5mm thick) angle 25x10mm(0.5mm thick) including jointing and finishing and surface filled with Gyproc Universal putty of Saint Gobain to make the surface to desired standard in design as approved including preparation of surface and apply three coats of emulsion paint interior grade with POP finish to surface of make: Kamdhenu/Asian Apex, complete all as spd and directed.	Sqm	70.00				
	Total of srl page No. 197						

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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
A	Addition / Alteration of Office Complex & Living area of 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 180 to 200						
96	Supply & fixing of Powder Coated Coloured Aluminium Door Shutter, comprising of frame of size 101.60 mm x 44.45 mm x 2.40 mm thick , size of styles, top rails and lock rails 101.60mm x 44.45mm x 2.40mm thick, bottom rails 150mm x 44.45mm x 2.40mm thick including all necessary jointing cleats, rubber packing, anodized aluminium beading for fixing glass pane and including 5mm thick tinted frosted glass as per direction (Make : Modi guard / Saint gobain) in both panels, Hinges, Hydraulic door spring, mortice lock, stays, door stoppers and aluminium fancy type handles of size 150mm etc complete all as specified and as directed.	Sqm	22.00				
97	Supply & fixing of Powder Coated Coloured Aluminium Windows with frame comprising of 3 track sliding window made out of aluminium extruded section of bottom frame of weight not less than 1.175 Kg/M, top and side frame of weighing not less than 1.174 Kg/M, the vertical styles of shutters of weighing not less than 0.423 Kg/M, top and bottom rail of shutters of weighing not less than 0.368 Kg/M, in two pannels and shutter with and including 5mm thick tinted glass reflective one side mirror finish & third one with and incl stainless steel wiremesh and overall aluminium decogrill . as approved by GE fixed with standard aluminium channel out side, with and including handles, cleat, glazing clip, special auto lock, dry set rubber gasket etc complete all as specified and directed.	Sqm	32.00				
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(Signature of the Contractor)

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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
A	Addition / Alteration of Office Complex & Living area of 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 180 to 200						
98	Supply & fixing of Powder Coated Coloured Aluminum Ventilator with Chowkat of section 89mm x 32mm with wall thickness 2.75mm (weight 1.81kg/Rm) incl double shutter of section 50mm x 35mm with wall thickness 1.5mm including double shutter (glazed and gauzed shutter) of section 50mm x 35mm with wall thickness 1.5mm including 5mm thick tinted frosted glass, wire cloth 0.45mm nominal dia of wire cloth and average width of aperture 1.25mm including aluminium grill, fittings such as aluminium towar bolt, handles, etc complete all as specifed and directed.	Sqm	2.00				
99	Supply & fixing of Powder Coated Coloured Partition Consisting of Aluminium Frame of section 89mm x 32mm with wall thickness 2.75mm (weight 1.81Kg/Rm) with 5mm thick tinted glass reflective one side mirror finish incl fixing arrangement in wall as well as in floor etc complete all as specifed and directed.	Sqm	60.00				
100	Supply & fixing of Powder Coating Coloured Aluminium frame for doors, windows, ventilators, partitions with one or more rebates including joining cleat for fixing incl fixing arrangement in wall as well as in floor etc complete all as specifed and directed.	Kgs	270.00				
101	Brass handle cast type polished bright of size 150mm all as specified and directed	Each	2.00				
102	Brass sliding door bolt with sand or die cast of length 300 mm with hasp, staple (bolt type) and fixing bolts with rolled or drawn brass bolt.	Each	1.00				
	Total of srl page No. 199						

(Signature of the Contractor)

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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
A	Addition / Alteration of Office Complex & Living area of 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 180 to 200						
103	Brass barrel tower bolts with cast or sheet barrel and rolled or cast bolt and fixed of size 200mm, all as specified and directed	Each	2.00				
104	Supply & fixing of Second class hard wood plain, solid, straight chowkats and frames, wrought, framed rebated on the solid, rounded or chamfered, put together with glue, pinned at joints etc complete all as specified and directed.	Cum	0.90				
105	Supply & fixing of 35mm thick factory made flush shutters, solid core construction, with block board core and plywood face panels, commercial type on both sides covered with deco rative face veneer with lipping/frame to match and etc complete all as specified and directed.	Sqm	2.00				
	Total of srl page No. 200						

(Signature of the Contractor)

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SW
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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
A	Addition / Alteration of Office Complex & Living area of 19 BRTF at Phuentsholing (Bhutan) (E/M Works) from Page No. 201 to 207						
1	Taking down carefully point wiring of any type, size and description from hard/ teak wood batten/through pipes/casing capping (light, fan, sockets and socket outlets etc) including removal of battens, pipes, plug sockets, socket outlets, switches, shades, ceiling roses, light fittings etc. complete and making good the disturbed surface to match with existing etc complete all as specified and directed	Per Point	30				
2	Materials & Labour for Point wiring complete with PVC insulated unsheathed, 1100 volts grade copper cable 1.5 Sqmm (nominal area) FR type multi stranded copper conductor, single core drawn in and including not less than 20 mm dia rigid PVC conduit 'medium grade' ISI marked/casing capping including all conduit/casing capping accessories for concealed/open wiring including concealed pressed steel terminal box of required size factory made duly painted inside & outside with two coats of black bituminous paint over & including a coat of red oxide primer, with top cover of ISI Marked plastic laminated sheet of required colour for mounting switch, sockets, fan regulator etc including 1.5 Sqmm FR type PVC insulated unsheathed cable multi-stranded copper conductor as continuous earth wire and connected to earth dolly as required at site& including chases cutting & making good disturbed surface & applying finishes to match existing surface etc. all as specified for the following :- Note : The cost of sunken boxes and bakelite sheet or PVC board required sizes is included in the quoted rate)						
2(a)	All as per Srl item No 2 above but for one light /fan/ buzzer point controlled by one 5 Amp switch one way complete all as specified.	Per Point	60				
2(b)	All as per Srl item No 2 above but for one 5 amps socket out let independent complete all as specified.	Per Point	15				
	Total of srl page No. 201						

(Signature of the Contractor)

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SW
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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
A	Addition / Alteration of Office Complex & Living area of 19 BRTF at Phuentsholing (Bhutan) (E/M Works) from Page No. 201 to 207						
2(c)	All as per Srl item No 2 above but on the same board complete all as specified	Per Point	10				
2(d)	All a per item No 2 above but with 2.5 Sq mm size cable multi stranded FRLS copper wire unsheathed for one 3 pin socket outlet 15 Amps on independent board including continuous earth wire of PVC insulated 1.5 Sq mm copper solid conductor connecting to common earth dolly complete.	Per Point	10				
3	Supply and Fixing in replacement switch piano type 6 Amps one way 230 volts AC complete all as specified and as directed (Make - Havells/Phillips/Anchor).	Each	50				
4	Supply and Fixing in replacement heavy duty socket type regulator 5 step 230 volts AC complete all as specified and as directed (Make - Havells/Phillips/Anchor).	Each	10				
5	Supply and Fixing in replacement socket outlet 5 pin, 6 Amps flush type 230 volts AC complete all as specified and as directed (Make - Havells/Phillips/Anchor).	Each	15				
6	Supply and Fixing in replacement switch piano 16 Amps type one way 230 volts AC complete all as specified and as directed (Make - Havells/Phillips/Anchor).	Each	5				
7	Supply and Fixing in replacement socket outlet 5 pin 16 Amps multi purpose flush type 230 volts AC complete all as specified and as directed (Make - Havells/Phillips/Anchor).	Each	5				
8	Supply and fixing in replacement ceiling rose 65X50 mm two to three terminals etc complete all as specified and directed.	Each	20				
	Total of srl page No. 202						

(Signature of the Contractor)

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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
A	Addition / Alteration of Office Complex & Living area of 19 BRTF at Phuentsholing (Bhutan) (E/M Works) from Page No. 201 to 207						
9	Supply and fixing Lamp holder any type, PVC/Polycarbonate type with cord grip cap suitable for pendant fittings etc complete all as specified and directed.	Each	20				
10	Supply & fixing of Switch socket combination 2 in 1, 5 pin, 6 Amps flush type all as specified and directed. (Make - Havells/ Phillips/ Anchor).	Each	30				
11	Supply & fixing of Switch socket combination flush type multi purpose 2 in 1 type (3 pin 6 Amps and 16 Amps) all as specified. (Make - Havells/Phillips/Anchor).	Each	20				
12	Supply and Fixing Modular switch 6 Amps one module 230 volts AC complete all as specified and as directed (Make - Havells/Phillips/Anchor).	Each	53				
13	Supply and Fixing only in replacement modular fan step regulator, heavy duty 230 volts, 2 module complete all as specified and as directed. (Make - Havells/Phillips/Anchor).	Each	15				
14	Supply and Fixing Modular socket, 6A -2/3 pin combined 2 module, 230 volts AC complete all as specified and as directed (Make - Havells/Phillips/Anchor).	Each	20				
15	Supply and Fixing Modular switch 16 Amps one module 230 volts AC complete all as specified and as directed (Make - Havells/Phillips/Anchor).	Each	20				
16	Supply and Fixing Modular socket 6A/16A, 2/3 pin combined, two module 230 volts AC complete all as specified and as directed	Each	10				
17	Supply only LED 3 W etc complete all as specified and directed. (Make - Havells/Phillips/Anchor).	Each	20				
18	Supply only LED 7 W etc complete all as specified and directed. (Make - Havells/Phillips/Anchor).	Each	20				
	Total of srl page No. 203						

(Signature of the Contractor)

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SW
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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
A	Addition / Alteration of Office Complex & Living area of 19 BRTF at Phuentsholing (Bhutan) (E/M Works) from Page No. 201 to 207						
19	Supply only LED 9 W etc complete all as specified and directed. (Make - Havells/Phillips/Anchor).	Each	20				
20	Supply only LED 12 W etc complete all as specified and directed. (Make - Havells/Phillips/Anchor).	Each	20				
21	Supply only LED 15 W etc complete all as specified and directed. (Make - Havells/Phillips/Anchor).	Each	20				
22	Supply only LED 18 W etc complete all as specified and directed. (Make - Havells/Phillips/Anchor).	Each	10				
23	Supply and fixing in repair energy efficient security light in 'Lexon 25 W LED luminaire with Aluminium PDC housing, toughened glass cover with IP66 protection. Make: Surya Cat Ref SLE UL 25W IP66 LXN or Equivalent.	Each	4				
24	Supply & fixing of new generation energy saving LED bulkhead fittings, 10W made up of aluminium PDC housing with opal diffuser with LED lamp, 9 Watt and connecting up complete all as specified and directed. (Make: Surya Cat No. SLE BLH 10W and equivalent model of make as specified in list of manufacturer).	Each	10				
25	Supply and fixing in replacement Environment friendly, energy efficient, aesthetically designed circular shaped decorative wall/ceiling light LED Fixture 12 W LED 6000K with opal diffuser to give glare free light complete all as specified and directed, Havells Cat Part No. 12W LED 6K LHEHCGP 7UL6K012 or equivalent in bajaj.	Nos	30				
	Total of srl page No. 204						

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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
A	Addition / Alteration of Office Complex & Living area of 19 BRTF at Phuentsholing (Bhutan) (E/M Works) from Page No. 201 to 207						
26	Supply only 1.50 sqmm copper single core cable PVC insulated etc complete all as specified and as directed. (Make - Havells).	RM	180				
27	Supply only 2.50 sqmm copper single core cable PVC insulated etc complete all as specified and as directed. (Make - Havells).	RM	180				
28	Supply only 4.00 sqmm copper single core cable PVC insulated etc complete all as specified and as directed. (Make - Havells).	RM	180				
29	Supply only PVC board 4"x4" etc complete all as specified and as directed.	Each	10				
30	Supply only PVC board 4"x7" etc complete all as specified and as directed.	Each	10				
31	Supply only PVC board 6"x8" etc complete all as specified and as directed.	Each	4				
32	Supply only Modular board 4"x4" etc complete all as specified and as directed.	Each	10				
33	Supply only Modular board 4"x7" etc complete all as specified and as directed.	Each	10				
34	Supply only Modular board 6"x8" etc complete all as specified and as directed.	Each	4				
35	Supply and fixing sheet metal enclosure for single/double door MCB DBs, phosphatised, powder coated, Single Pole & Neutral (SPN), suitable for 2/4 way, 240 volts, IP 43 & IK 09 fixed on wall with din rail, neutral and earth bar, in proper position all as directed by the Engineer-in-Charge. (Make: Legrand Cat No: 5076 10 or equivalent siemens/ ABB/Havells).	Each	6				
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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
A	Addition / Alteration of Office Complex & Living area of 19 BRTF at Phuentsholing (Bhutan) (E/M Works) from Page No. 201 to 207						
36	Supply & fixing MCB Single Pole SPN of capacity 6 to 32 Amps, 240 Volts, breaking capacity 10 KA, 'C' series, fixed in proper position all as directed by the Engineer-in-Charge. Make Cat No 4086 07 to 4086 17 of legrand/equivalent	Each	6				
37	Supply & fixing MCB Single Pole SP of capacity 6 to 32 Amps, 240 Volts, breaking capacity 1 0 KA, 'C' series, fixed in proper position all as directed by the Engineer-in-Charge.Make Cat No 4085 87 to 408595 of legrand/equivalent	Each	6				
38	Supply and fixing of LED T-8 tube light fitting with single side connection LED tube rod 18/20W 4 feet 1 x 18/20 Watt MS CRCA box type including rotary type bipin holder and connection with PVC insulated twin core 23/0.0076 twisted copper cable from ceiling rose to tube light fitting complete all as specified and directed. Make:- C&S Cat No LTIC00120WLED/WD or equivalent in Havells/Philips/Bajaj/wipro	Each	20				
39	Supply and fixing ceiling fan 1200mm sweep 65 watt power consumption 410 RPM air delivery 220 CMM, motor 14 Poles highspeed Aluminium body with blade double ball bearing of BEE star rated Including accessories connector, canopy, Hanging Rod and clamps complete all as specified and directed make USHA/Bajaj/Havells/Khaitan/Crompton	Each	8				
40	Supply & fixing 16 sqmm aluminium double core cable PVC insulated etc complete all as specified and as directed. (Make - Havells).	RM	60				
41	Supply & fixing 16 sqmm aluminium three core cable PVC insulated etc complete all as specified and as directed. (Make - Havells).	RM	60				
	Total of srl page No. 206						

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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
A	Addition / Alteration of Office Complex & Living area of 19 BRTF at Phuentsholing (Bhutan) (E/M Works) from Page No. 201 to 207						
42	Supply and fixing Single phase propeller type ventilating (Exhaust fan) heavy duty AC 230 volts 300 mm sweep, metallic body complete with louvrers and shutters including making and finishing good hole in wall for fixing Exhaust fan of 450mm sweep including necessary brick work and plaster to match the existing surface complete all as specified. Make:- Khaitan/CG/Bajaj/Usha	Each	2				
43	Supply and fixing heavy duty Exhaust fan 450 mm including making of necessary circular hole in the brick wall for fixing of exhaust fan and making good disturbed surface by plastering to the original finish of the wall and making connection from ceiling rose to fan complete all as specified and as directed. Make:- Khaitan/CG/Bajaj/Usha	Each	2				
44	Materials & Labour for earthing complete with galvanised steel earth plate electrode of size 600 mm x 600 mm x 6 mm thick buried directly in ground (earth pit not less than 2.25 mtr deep below normal ground level) with top edge of the plate not less than 1.5 mtr below ground level, connected to galvanized earth lead wire 4.00 mm dia by means of bolts nuts check nuts & washers of galvanized iron or steel , protected by GI pipe 15 mm bore(light grade) and watering pipe 20 mm bore GI pipe (light grade) and chamber of pcc 1:4:8 type D2 using 40 mm graded stone aggregate and coping shall be in PCC 1:3:6 type C1 using 20mm graded stone agg. 50 mm thick cover of RCC 1:2:4 type B1 using 20 mm graded stone agg. reinforced with 8 mm dia MS tor bar @ 80 mm c/c both ways including excvaton and earth work and removal of surplus soil complete all as shown in electrical plate no 5 of SSR PART 1 , with charcoal dust and salt complete and earth lead connected to earthing test point (up to main switche, DBs) complete all as specified & testing on completion.	Each	2				
45	Supply and fixing geyser 25 Ltrs capacity, after connecting electric and including necessary water connection GI Pipe, cast copper alloy screwed stop cock, chromium plated cast copper alloy 15mm bib tap and 2 nos PVC hot water connection pipe and screwing nut and bolts to fixed on wall and make surface good complete all as specified and directed.	Each Job	2				
Total of srl page No. 207							

EE (C) SG

SW

For Accepting Officer

(Signature of the Contractor)

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
B	Addition / Alteration of Covered shed in front of Office Building at HQ 19 BRTF at Phuentsholing (Bhutan) (B/R Works) Page No. 208						
01	Materials & Labour for prepainted galvalume aluminium zinc coating, G.I. based plain steel sheet, 0.50 mm thick (total coated thickness) of any colour, having tensile strength of 550 MPA as in Ridge/ valley, fixed with low carbon self tapping screw & EPDM washers all as per manufacturer's instructions etc complete all as specified and directed.	Sqm	250.00				
02	All as per above item but as in Eaves board etc complete all as specified and directed.	Sqm	25.00				
03	Supply & fixing of Mild steel framed work of angle or any other section (grade 410 - 0 or Fe 310-0) as in Door and Door frame, ceiling frame work, purline, rafter, truss, gusset plates, all types of related works with necessary welding complete all as specified and directed.	Kgs	1200.00				
04	Excavation in post holes in soft/loose soil each n exc 0.5 cum, getting out, returing filling in and ramming earth or broken rubble mixed with earth around in layers not exceeding 25 cm, watering and removing surplus soil to a distance n exc 50 m and making good surface.	Each	20.00				
05	Materials & Labour for PCC type C-1 (1:3:6) using (20mm graded stone aggregate) as in bed blocks, cast in situ in cills, parapets, hold fasts and coping etc including slightly rounded or chamfered angle fast, bed plates and the like incl use and waste of form work etc complete all as specified and directed.	Cum	5.00				
	Total of srl page No. 208						

(Signature of the Contractor)

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SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
C	Addition / Alteration of office complex and living area of 1055 Fd Wksp under 19 BRTF at Phuentsholing (Bhutan) (Bhutan) (B/R Works) from Page No. 209 to 225						
01	Excavation in trenches soft/loose soil not exceeding 1.5m wide and not exceeding 1.5m in depth: for foundation etc complete all as specified and directed.	Cum	8.50				
02	Demolition of Brick work built in cement mortar or cement lime mortar incl all quoins, pillars etc., separation of serviceable materials from the unserviceable, stacking the serviceable materials within 100M and disposal of unserviceable materials, debris and rubbish to a distance not exceeding 100M etc complete all as specified and directed.	Cum	1.50				
03	Materials & Labour for Brick work with sub class 'B' bricks using old size bricks straight or curved on plan exc 6m mean radius built in CM 1:6 etc complete all as specified and directed.	Cum	6.00				
04	-ditto- all as per above but except Bricks etc complete all as specified and directed.	Cum	0.50				
05	Materials & Labour for Pre-cast cement concrete block masonry with solid blocks, Type 1:3:6 using (16mm graded aggregate) and set in cement mortar 1:6 exceeding 10 cm in width etc complete all as specified and directed.	Cum	18.75				
06	-ditto- all as per above but except blocks or slab etc complete all as specified and directed.	Cum	0.25				
07	Returning, filling in, including spreading, levelling watering and well ramming in layers not exceeding 25 cm all types of soil etc complete all as specified and directed.	Cum	0.40				
	Total of srl page No. 209						

(Signature of the Contractor)

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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
C	Addition / Alteration of office complex and living area of 1055 Fd Wksp under 19 BRTF at Phuentsholing (Bhutan) (Bhutan) (B/R Works) from Page No. 209 to 225						
8	Removal excavated material not exceeding 50m and depositing where directed at a level not exceeding 1.5m above the starting point etc complete all as specified and directed.	Cum	0.60				
9	Taking down Cement Plaster on brick work or concrete surfaces incl racking out joints etc complete all as specified and directed.	Sqm	65.00				
10	Materials & Labour for 15mm thick Rendering in CM 1:6 on fair faces of brick work or concrete surfaces finished fair and even etc complete all as specified and directed.	Sqm	539.00				
11	Materials & Labour for 15mm thick Rendering in CM 1:4 on fair faces of brick work or concrete surfaces finished even and smooth incl WPC 3% by weight of cement etc complete all as specified and directed.	Sqm	1035.00				
12	Supply only Integral Water Proofing compound of approved quality etc complete all as specified and directed.	Kgs	287.04				
13	Materials & Labour for preparation of Newly plaster surfaces and applying two coats of Oil Bound Distemper on walls etc complete all as specified and directed.	Sqm	254.00				
14	Materials & Labour for preparation of old plaster or Un-plastered surfaces (by brooming down or steel wire brushing, scrapping down smoke soot, moulds, moss and efflorescent salts and treating oil and greasy spots) and applying one coats of Oil Bound Distemper of any colour on walls etc complete all as specified and directed.	Sqm	1358.00				
	Total of srl page No. 210						

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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
C	Addition / Alteration of office complex and living area of 1055 Fd Wksp under 19 BRTF at Phuentsholing (Bhutan) (Bhutan) (B/R Works) from Page No. 209 to 225						
15	Materials & Labour for preparation of old plaster or Un-plastered surfaces (by brooming down or steel wire brushing, scrapping down smoke soot, moulds, moss and efflorescent salts and treating oil and greasy spots) and applying one coats of Oil Bound Distemper of any colour on ceiling etc complete all as specified and directed.	Sqm	278.00				
16	Materials & Labour for preparation of newly plastered surfaces and applying two coats of White Wash on walls etc complete all as specified and directed.	Sqm	815.00				
17	Materials & Labour for preparation of newly plastered surfaces and applying two coats of White Wash on ceiling etc complete all as specified and directed.	Sqm	627.00				
18	Materials & Labour for preparation of Old plastered or Un-plastered surfaces (by brooming down or steel wire brushing, scrapping down smoke soot, moulds, moss and efflorescent salts and treating oil and greasy spots) and applying one coats of White Wash on walls etc complete all as specified and directed.	Sqm	610.00				
19	Materials & Labour for preparation of Old plastered or Un-plastered surfaces (by brooming down or steel wire brushing, scrapping down smoke soot, moulds, moss and efflorescent salts and treating oil and greasy spots) and applying one coat of White Wash on ceiling etc complete all as specified and directed.	Sqm	300.00				
20	Materials & Labour for preparation of newly plastered surfaces and applying two coats of Colour Wash on walls etc complete all as specified and directed.	Sqm	100.00				
	Total of srl page No. 211						

(Signature of the Contractor)

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For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
C	Addition / Alteration of office complex and living area of 1055 Fd Wksp under 19 BRTF at Phuentsholing (Bhutan) (Bhutan) (B/R Works) from Page No. 209 to 225						
21	Materials & Labour for preparation of Old plastered or Un-plastered surfaces (by brooming down or steel wire brushing, scrapping down smoke soot, moulds, moss and efflorescent salts and treating oil and greasy spots) and applying one coats of Colour Wash on walls etc complete all as specified and directed.	Sqm	105.00				
22	Materials & Labour for preparation of New/Old plastered surfaces and applying two coats painting with acrylic emulsion Weather Proof, anti fungle paint (Appex ultima or equivalent) including making good undulations on plastered / concrete surfaces etc complete all as specified and directed.	Sqm	1898.00				
23	Materials & Labour for preparation of Old/New plastered surfaces and two coat Wall care putty including making good undulations etc complete all as specified and directed.	Sqm	400.00				
24	Dismantling Plain or corrugated steel sheeting, any gauge, thickness, including roof covering etc complete all as specified and directed.	Sqm	1430.00				
25	Supply & fixing of Wind tie for roof including securing bolts: flat iron fillets including all necessary drilling, bolting or riveting, etc, and similar work conforming to Fe 410-0 or Fe 310-0 etc complete all as specified and directed.	Kgs	138.00				
26	Materials & Labour for Prepainted galvalume aluminium zinc coating, G.I. based corrugated steel sheet, 0.50 mm thick (total coated thickness) of any colour, having tensile strength of 550 MPA as in roof covering/ wall cladding, fixed with low carbon self tapping screw & EPDM washers all as per manufacturer's instructions etc complete all as specified and directed.	Sqm	1010.00				
	Total of srl page No. 212						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
C	Addition / Alteration of office complex and living area of 1055 Fd Wksp under 19 BRTF at Phuentsholing (Bhutan) (Bhutan) (B/R Works) from Page No. 209 to 225						
27	Materials & Labour for prepainted galvalume aluminium zinc coating, G.I. based plain steel sheet, 0.50 mm thick (total coated thickness) of any colour, having tensile strength of 550 MPA as in Ridge/Valley/Gutter fixed with low carbon self tapping screw & EPDM washers all as per manufacturer's instructions etc complete all as specified and directed.	Sqm	98.00				
28	All as per above item but as in Eaves board etc complete all as specified and directed.	Sqm	92.00				
29	Materials & Labour for repairs to roof screws `J' or `L' type hook/nut bolts/bitumen washer by providing reqired quantity of M-Seal to prevent roof leaking etc complete all as specified and directed.	Each	225.00				
30	Materials & Labour for Taking down existing treatment and cleaning CGI/PGI sheets roof surfaces and sealing joints with and incl self adhesive water proofing membrane over a coat of primer as recommended by manufacturer. (Make of Adhesive - SUPERTENE of MS STP Ltd. or equivalent TEXA as approved etc complete all as specified and directed.	Sqm	180.00				
31	Supply & fixing of 2mm thick Fibre glass reinforced translucent corrugated sheeting with two corrugation side lap fixed with L-type or J-type or cranked hook bolts in lieu of screw wall etc complete all as specified and directed.	Sqm	115.00				
32	Supply & fixing of Mild steel framed work of angle or any other section (grade 410 - 0 or Fe 310-0) as in Door and Door frame, ceiling frame work, purline, rafter, truss, gusset plates, all types of related works with necessary welding incl dismantling of existing old wooden/old iron works & all types of related works etc complete all as specified and directed.	Kgs	5010.00				
	Total of srl page No. 213						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
C	Addition / Alteration of office complex and living area of 1055 Fd Wksp under 19 BRTF at Phuentsholing (Bhutan) (Bhutan) (B/R Works) from Page No. 209 to 225						
33	Supply & fixing of Mild Steel Bolts (purpose made) with hexagonal or square one end and screwed the other or screwed both ends each screwed end to be fitted with washers and one hexagonal or square not exceeding 30cm long dia of neck 12mm & not exceeding 20mm etc complete all as specified and directed.	Kgs	20.00				
34	Dismantling of Wall and Ceiling boards (fiber, pulp, insulation etc) or insulation boards/slab/blankets any thickness incl cover fillets. of any thickness incl cover fillets etc complete all as specified and directed.	Sqm	135.00				
35	Cutting holes into or through brick wall built in any mortar and making good in PCC 1:2:4 type B-1 using 20mm graded stone aggregate or in CM 1:3 as required superficial area not exc 150 sqcm etc complete all as specified and directed.	Per CM of depth	2700.00				
36	Supply & fixing of Mild Steel Angle or Tee Section, fixed as in ceiling frame work without connecting plate conform to grade Fe 410-0 or Fe 310-0 etc complete all as specified.	Kgs	2600.00				
37	Materials & Labour for 4mm thick Non asbestos fibre cement building boards fixed or laid/ inserted to timber framework with screws fixed in jointless finish with jointing compound and jointing tape as per instructions etc complete all as specified and directed.	Sqm	417.00				
38	Demolition of PCC in Ground floors/PCC Path/Plinth Protection and paving (below or above ground level) and disposal of unserviceable materials, debris and rubbish to a distance not.exc 100M etc complete all as specified and directed.	Cum	33.80				
	Total of srl page No. 214						

(Signature of the Contractor)

EE (C) SG
SW
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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
C	Addition / Alteration of office complex and living area of 1055 Fd Wksp under 19 BRTF at Phuentsholing (Bhutan) (Bhutan) (B/R Works) from Page No. 209 to 225						
39	Materials & Labour for PCC type B-1 (1:2:4) using (20mm graded stone aggregate) as in bed blocks, cast in situ in cills, parapets, hold fasts and coping etc including slightly rounded or chamfered angle fast, bed plates, all types of related works and the like incl use and waste of form work etc complete all as specified and directed.	Cum	7.25				
40	Materials & Labour for PCC type C-1 (1:3:6) using (20mm graded stone aggregate) as in bed blocks, cast in situ in cills, parapets, hold fasts and coping etc including slightly rounded or chamfered angle fast, bed plates and the like incl use and waste of form work etc complete all as specified and directed.	Cum	5.75				
41	Materials & Labour for PCC type B-2 (1:2:4) (20mm stone graded aggregate), 50mm thick as in Floor, Plinth Protection finished even and smooth w/out using extra cement etc complete all as specified and directed.	Sqm	690.00				
42	Materials & Labour for Glass dividing strips, 3mm thick 38 mm wide and inserting in position confirm to design etc complete all as specified and directed.	RM	1255.00				
43	Dismantling Floor, hearth, Wall tiling or Kota stone including cement mortar bedding (but not baking), removing serviceable tiles to store and rubbish off the premises etc complete all as specified and directed.	Sqm	991.00				
44	Materials & Labour for Non-skid ceramic tiles 7 to 8mm thick (square/rectangular) area of each tile (300x300) mm in Floors coloured tiles etc set and jointed in neat cement slurry and pointed in white or coloured cement to match incl over 15mm thick screed bed of mortar CM (1:6) etc complete all as specified and directed.	Sqm	35.00				
	Total of srl page No. 215						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
C	Addition / Alteration of office complex and living area of 1055 Fd Wksp under 19 BRTF at Phuentsholing (Bhutan) (Bhutan) (B/R Works) from Page No. 209 to 225						
45	Materials & Labour for Glazed ceramic coloured tiles (450x300) mm x 7mm thick or (350x250) mm x 7mm thick as in Vertical surfaces set and jointed in neat cement slurry and jointed or coloured cement to match incl over 15mm thick rendering of mortar CM (1:4) etc complete all as specified and directed.	Sqm	35.00				
46	Materials & Labour for Non-skid ceramic tiles 7 to 8mm thick (square/rectangular) area of each tile (400x400) mm in Floors coloured tiles etc set and jointed in neat cement slurry and pointed in white or coloured cement to match incl over 15mm thick screed bed of mortar CM (1:6) etc complete all as specified and directed.	Sqm	410.00				
47	All as specified above here in before but Vertical surface such as skirting/dado incl all necessary cutting incl over 15mm thick rendering of mortar CM (1:4) etc complete all as specified and directed.	Sqm	46.00				
48	Materials & Labour for Vitrified coloured tiles of size (600 x 600) mm x 10mm thick of approved make as in Flooring, set and jointed in neat cement slurry and pointed in white cement to match incl over 15mm thick screed bed of mortar CM (1:6) etc complete all as specified and directed.	Sqm	567.00				
49	All as specified above here in before but Vertical surface such as skirting/dado incl all necessary cutting incl over 15mm thick rendering of mortar CM (1:4) etc complete all as specified and directed.	Sqm	45.00				
	Total of srl page No. 216						

(Signature of the Contractor)

EE (C) SG
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For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
C	Addition / Alteration of office complex and living area of 1055 Fd Wksp under 19 BRTF at Phuentsholing (Bhutan) (Bhutan) (B/R Works) from Page No. 209 to 225						
50	Materials & Labour for Chequarred Cement Concrete tiles (20x20)cmx25mm thick set and jointed and pointed in neat cement slurry in floors with grey cement & pigment incl over 15mm thick screed bed of mortar CM (1:6) etc complete all specified and directed.	Sqm	52.20				
51	Taking down Chowkhats incl shutters (without taking off shutters from the frame) not exceeding 1.5 sqm each etc complete all as specified and directed.	Each	16.00				
52	Taking down Chowkhats incl shutters (without taking off shutters from the frame) exc 1.5 sqm and not exceeding 4.00 sqm each etc complete all as specified and directed.	Each	11.00				
53	Taking down & Refixing of shutters of any description exc 1.00 Sqm but not exceeding 2.00 sqm each in same opening after some repair etc complete all as specified and directed.	Per Leaf	24.00				
54	Supply & fixing of Second class hard wood plain, solid, straight chowkats and frames, truss, wrought, framed rebated on the solid, rounded or chamfered, put together with glue, pinned at joints etc complete all as specified and directed.	Cum	4.60				
55	Supply & fixing of 35mm thick 2nd class H/wood plain framed factory made shutter panels shutters (Two panel) with lock rail and panel of 9mm or 12mm B.W.P Commercial ply. The size of rail and style as per IS : 1003 (Part I), Kiln seasoned and chemically pressure treated etc complete all as specified and directed.	Sqm	24.00				
	Total of srl page No. 217						

(Signature of the Contractor)

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SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
C	Addition / Alteration of office complex and living area of 1055 Fd Wksp under 19 BRTF at Phuentsholing (Bhutan) (Bhutan) (B/R Works) from Page No. 209 to 225						
56	Supply & fixing of 35mm thick 2nd class H/wood plain framed factory made shutter glazed and skeleton shutters open rebated with glazed or gauge etc. Divided into squares with plain chamfered or rounded, rebated without sash bars, sizes of the members of the shutters as specified in SSR Part- I, section 8 etc complete all as specified and directed.	Sqm	24.00				
57	Supply & fixing of Butt hinges medium grade cold rolled 125mm mild steel and fixed etc complete all as specified and directed.	Each	72.00				
58	S&F Aluminium anodised barrel tower bolts of extruded section of 125mm size etc complete all as specified and directed.	Each	24.00				
59	Supply & fixing of Aluminium handles, cast type anodised of size 125mm etc complete all as specified and directed.	Each	48.00				
60	Supply & fixing of 250mm long aluminium alloy, anodised, Sliding Door Bolt with hasp, staple (bolt type) and fixing clips of sheet, cast or extruded sections and fixing bolts and sliding bolts of extruded sections or cast aluminium alloy and fixed etc complete all as specified and directed.	Each	24.00				
61	Supply & fixing of 1st class hard wood small fittings such as Brackets of any type latch and hinges blocks, shaped door and window stoppers articles n' exc 200 cum each etc complete all as specified and directed.	Each	11.00				
62	Supply & fixing of Mild steel 300mm , ordinary rat tail rod pattern Springs including roller plate etc complete all as specified and directed.	Each	9.00				
	Total of srl page No. 218						

(Signature of the Contractor)

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For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
C	Addition / Alteration of office complex and living area of 1055 Fd Wksp under 19 BRTF at Phuentsholing (Bhutan) (Bhutan) (B/R Works) from Page No. 209 to 225						
63	Supply & fixing of Door stopper, overall length of cover plate 150mm of aluminium alloy body and tongue, anodised, with hard drawn steel spring etc complete all as specified and directed.	Each	10.00				
64	Supply & fixing of Steel Window 1.25mm thick Box Type (primer coated) ERW hollow P section of size 60mm x 25mm, 1.25 thick sheet single rebated comprises glazed Skelton shutter ERW Sec 50mm x 20mm and 1mm thick with one or two openable leaf consisting two Nos sash bar of T- Section 20mm x 3mm complete welded to frame with one vertical mullion of ERW box type T- Section of size 60mm x 25mm and 1.25mm thick including cutting holes and making good dismantled portion in PCC (1:2:4) type B-1 Four Nos for each window) including following fitting welded to frame shutter: (a) Hold Fast, 150mm long of 12mm square bar made to shape – 04 Nos per window (b) Handles of Z Sec 100mm long (c) Stopper – 01 No per leaf (d) Cleat 55mm long of hollow square 15mm x 20mm x 63mm welded to hinges – 01 No per leaf (e) MS Pintal hinges of size 75mmx75mmx12mm-02 Nos per leaf (f) Fabrication & fixing arrangement as per drg No. CEJZ/TD-7/07 sheet 1/3 of 3/3. Including Glass and two coat synthetic enamel painting etc complete all as specified and directed.	Sqm	22.00				
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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
C	Addition / Alteration of office complex and living area of 1055 Fd Wksp under 19 BRTF at Phuentsholing (Bhutan) (Bhutan) (B/R Works) from Page No. 209 to 225						
65	Supply & fixing of Steel Window 1.25mm thick Box Type (primer coated) ERW hollow P section of size 60mm x 25mm single rebated comprises gauged Skelton shutter ERW Sec 50mm x 20mm and 1mm thick with one or two openable leaf consisting two Nos sash bar of T-Section 20mm x 3mm complete welded to frame with one vertical mullion of ERW box type T- Section of size 60mm x 25mm and 1.25mm thick including cutting holes and making good dismantled portion in PCC (1:3:6) type C-1 Four Nos for each window) including following fitting welded to frame shutter: (a) Mild Steel Hold Fast,150mm long of 12mm Square bar made to shape – 04 Nos per window (b) Handles of Z Sec 20mm x 100mm long (c) stopper – 01 No per leaf (d) Cleat 55mm long of hollow square 15mm x 20mmx63mm welded to hinges – 01 No per leaf (e) Mild steel Pintal hinges of size 75mmx75mmx12mm-02 Nos per leaf (f) Grills made out of MS square bar 12mm dia welded to FI frame of MS flat 25mm x 3mm complete all as specified and shown on drawings. Including Wire mesh and two coat synthetic enamel painting etc complete all as specified and directed.	Sqm	22.00				
66	All as per above item but ventilator fixed type with glazing bar with wire mesh and glass etc complete all as specified and directed.	Sqm	0.20				
67	Hacking out Old Broken Glass any thickness/ size from wooden/mental frame, glazed with putty or fixed with beading etc complete all as specified and directed.	Sqm	19.00				
	Total of srl page No. 220						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
C	Addition / Alteration of office complex and living area of 1055 Fd Wksp under 19 BRTF at Phuentsholing (Bhutan) (Bhutan) (B/R Works) from Page No. 209 to 225						
68	Supply & fixing of 3mm thick Sheet Glass ordinary quality and glazing with oil putty or wooden beading in square n'exc 0.5 sqm in each pane etc complete all as specified and directed.	Sqm	17.00				
69	Supply & fixing of 3mm thick frosted glass and glazing with oil putty in squares not exceeding. 0.5 sqm in each pane etc complete all as specified and directed.	Sqm	1.00				
70	Supply & fixing of 5.5 mm thick select quality frosted/float glass in panels of Aluminium windows and door exc. 0.5 Sqm in each pane with glazing clips, rubber beading etc complete all as specified and directed.	Sqm	1.00				
71	Supply & fixing of Galvanised Mild Steel Wire Cloth 0.56mm nominal dia of wire and average width of aperature 1.18mm and fixed with tinned tacks or galvanised wire staples etc complete all as specified and directed.	Sqm	39.00				
72	Supply & fixing of Galvanised Mild Steel Wire Cloth 1.40mm nominal dia of wire and Size of mesh in 12mm and fixed with tinned tacks or galvanised wire staples etc complete all as specified and directed.	Sqm	15.00				
73	Supply & fixing of 25mm dia MS Cherry Colour Decorative type PC Coated Curtain Rod with Fancy type Hanging arrangement in wall as per sample etc complete all as specified and directed.	RM	156.00				
74	Materials & Labour for prepration of Newly Steel Surface over 10cm width or girth and applying Two Coats of Synthetic Enamel Paint over red oxide primer etc complete all as specified and directed.	Sqm	8.00				
	Total of srl page No. 221						

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EE (C) SG
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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
C	Addition / Alteration of office complex and living area of 1055 Fd Wksp under 19 BRTF at Phuentsholing (Bhutan) (Bhutan) (B/R Works) from Page No. 209 to 225						
75	Materials & Labour for preparation of Old Steel Surface over 10cm width or girth and applying one coats of Syntheic Enamel Paint etc complete all as specified and directed.	Sqm	830.00				
76	Materials & Labour for preparation of Newly Wooden Surface over 10cm width or girth and applying two coats of Syntheic Enamel Paint over pink primer etc complete all as specified and directed.	Sqm	145.00				
77	Materials & Labour for preparation of Old Wooden Surface over 10cm width or girth and applying one coats of Syntheic Enamel Paint etc complete all as specified and directed.	Sqm	600.00				
78	Materials & Labour for preparation of Old Steel Surface over 10cm width or girth and applying Two coats of Syntheic Enamel Paint etc complete all as specified and directed.	Sqm	1450.00				
79	Supply & fixing of in repairs Stop valves/Angle stop valves/consealed stop cock, cast copper alloy, bore dia of pipe in 15mm, screwed down, high pressure, with crutch or but-terfly handle, screwed both ends for iron pipe and fixed but fancy type, Chromium Plated and cup (concealed type) etc complete all as specified and directed.	Each	6.00				
80	S&F Bib taps bore dia of pipe in 15mm, cast copper alloy with crutch or butterfly handle, screwed down, screwed for iron pipe or for brass ferrule but fancy type long Chromium Plated and fixed etc complete all as specified and directed.	Each	2.00				
81	Supply & fixing of PVC connection 15mm size with PTMT nuts of length 450mm etc complete all as specified and directed.	Each	4.00				
	Total of srl page No. 222						

(Signature of the Contractor)

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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
C	Addition / Alteration of office complex and living area of 1055 Fd Wksp under 19 BRTF at Phuentsholing (Bhutan) (Bhutan) (B/R Works) from Page No. 209 to 225						
82	Supply & fixing of Vitreous China Wash down water closet pan (Padestal Pattern) white including fixing bolts, white seat cover, Cast iron S or P trap & Jet etc complete all as specified and directed.	Each	2.00				
83	Supply & fixing of in repair Low Level Flushing System PVC valveless syphonic action type, 10 ltrs capacity including supply pipe & fixing brackets of M.S. angle of size (25mmx25mmx3mm), 30 cm long in PCC (1:2:4) type B-1, block of size (10cmx10cmx10cm) on walls etc complete all as specified and directed.	Each	2.00				
84	Supply & fixing of 600mmx450mm Bevelled Edge Mirror of selected quality glass, mounted on 6mm thick AC building board or commercial plywood and fixed to wooden plugs with chromium plated brass screws and cup washers etc complete all as specified and directed.	Each	2.00				
85	Supply & fixing of in repair Towel Rail 600mm long of CP fixed with and including choromium plated fixed to plugs with CP brass screws and wooden/plastic cleats (min wt 190 gms) etc complete all as specified and directed.	Each	2.00				
86	Supply & fixing of Soap Dish, vitreous china white, approximate size (190x160x90)mm fixed to plugs with CP brass screws etc complete all as specified and directed.	Each	2.00				
87	Supply & fixing of Shower rose brass chromium plated 125mm size etc complete all specified and directed..	Each	6.00				
88	Supply & fixing of Grating Doom 100mm dia with waste hole of CP etc complete all as specified and directed.	Each	2.00				
	Total of srl page No. 223						

(Signature of the Contractor)

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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
C	Addition / Alteration of office complex and living area of 1055 Fd Wksp under 19 BRTF at Phuentsholing (Bhutan) (Bhutan) (B/R Works) from Page No. 209 to 225						
89	Supply & fixing of PVC (SWR) pipes bore in 110mm single socketed, in any length with rubber ring joints, laid in trenches or in floors incl all connected fitting items etc complete all as specified and directed.	RM	15.00				
90	Taking up or down Steel Tubing/CPVC Tubing bore of pipe in 20mm dia and connections, including cleaning for refixing or removal to store etc complete all as specified and directed.	RM	30.00				
91	Supply & fixing of CPVC Tube Medium Grade Bore of tube in 20mm dia with all fitting and fixtures laid in trenches, walls, ceiling or laid in floors etc complete all as specified and directed.	RM	35.00				
92	Supply & fixing of Stop valves, bore of dia 20mm, cast copper alloy, screwed down, high pressure, with crutch or butterfly handle, screwed both ends for iron pipe or for unions and fixed etc complete all as specified and directed.	Each	2.00				
93	Materials & Labour for Precast RCC 1:2:4 type B 1 using (20mm graded stone aggregates) as in P/beam, L/beam, Chajja, Slab or similar works etc complete all as specified and directed.	Cum	1.00				
94	Materials & Labour for TMT 10mm dia bar and over, cut to length, bent to shape required, including cranking, bending spirally for hooping for columns, hooking ends and binding with and including mild steel wire (annealed) not less than 0.9mm dia or securing with clips conforming to FE-410-0 or Gde-410-0 etc complete all as specified and directed.	Kgs	100.00				
95	-ditto- but 6mm to 8mm dia etc complete all as specified and directed.	Kgs	100.00				
	Total of srl page No. 224						

(Signature of the Contractor)

EE (C) SG
SW
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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
C	Addition / Alteration of office complex and living area of 1055 Fd Wksp under 19 BRTF at Phuentsholing (Bhutan) (Bhutan) (B/R Works) from Page No. 209 to 225						
96	Supply & fixing of Rotational Moulded Polyethylene Water Storage Tanks (cylindrical vertical with closed up, capacity in 500 Ltrs, hoisted and fixed in position with all fittings and fixtures in position incl float valve complete all as specified in SSR Part-I. etc complete all as specified and directed.	Each	1.00				
97	Materials & Labour for cement concrete 1:3:6 type C-2 in bed to pipe incl packing under and haunching against the pipes 150mm internal dia after the pipes are paid jointed and tested etc complete.	RM	20.00				
98	Materials & Labour for Salt Glazed Stone Ware Pipe 150mm bore internally grade `A' laid in trenches and jointed and tested etc complete all as specified and directed.	RM	20.00				
99	Construction of Septic tank, excavation in ordinary soil, foundation in PCC 1:5:10, brick work in CM 1:4, RCC slab covers in PCC 1:2:4 including RCC precast manhole cover having 6mm plate embedded all around/fibre reinforced cover with angle iron frame vent shaft and sludge chambers etc, complete for 10 Users etc complete all as specified and directed.	Each Job	1.00				
100	Construction of Soakge well exc in ordinary soil foundation in PCC 1:5:10 wells of honey combed and solid in M-20 concrete including intercepting chamber screen chamber brick work in CM RCC cover slab in M-20/RR masonry/filling with bricks bats complete of Size Inner dia 1.20 Mtrs & 3.00 Mtrs deep etc complete all as specified and directed.	Each Job	1.00				
	Total of srl page No. 225						

(Signature of the Contractor)

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For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
C	Addition / Alteration of office complex and living area of 1055 Fd Wksp under 19 BRTF at Phuentsholing (Bhutan) (Bhutan) (E/M Works) from Page No. 226 to 233						
1	Taking down carefully point wiring of any type, size and description from hard/teak wood batten/through pipes/casing capping (light, fan, sockets and socket outlets etc) including removal of battens, pipes, plug sockets, socket outlets, switches, shades, ceiling roses, light fittings etc. complete and making good the disturbed surface to match with existing etc complete all as specified and directed	Per Point	30				
2	Materials & Labour for Point wiring complete with PVC insulated unsheathed, 1100 volts grade copper cable 1.5 Sqmm (nominal area) FR type multi stranded copper conductor, single core drawn in and including not less than 20 mm dia rigid PVC conduit 'medium grade' ISI marked/casing capping including all conduit/casing capping accessories for concealed/open wiring including concealed pressed steel terminal box of required size factory made duly painted inside & outside with two coats of black bituminous paint over & including a coat of red oxide primer, with top cover of ISI Marked plastic laminated sheet of required colour for mounting switch, sockets, fan regulator etc including 1.5 Sqmm FR type PVC insulated unsheathed cable multi-stranded copper conductor as continuous earth wire and connected to earth dolly as required at site& including chases cutting & making good disturbed surface & applying finishes to match existing surface etc. all as specified for the following :- Note : The cost of sunken boxes and bakelite sheet or PVC board required sizes is included in the quoted rate)						
2(a)	All as per Srl item No 2 above but for one light /fan/ buzzer point controlled by one 5 Amp switch one way complete all as specified.	Per Point	60				
	Total of srl page No. 226						

(Signature of the Contractor)

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SW
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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
C	Addition / Alteration of office complex and living area of 1055 Fd Wksp under 19 BRTF at Phuentsholing (Bhutan) (Bhutan) (E/M Works) from Page No. 226 to 233						
2(b)	All as per Srl item No 2 above but for one 5 amps socket out let independent complete all as specified.	Per Point	15				
2(c)	All as per Srl item No 2 above but on the same board complete all as specified	Per Point	10				
2(d)	All a per item No 2 above but with 2.5 Sq mm size cable multi stranded FRLS copper wire unsheathed for one 3 pin socket outlet 15 Amps on independent board including continuous earth wire of PVC insulated 1.5 Sq mm copper solid conductor connecting to common earth dolly complete.	Per Point	10				
3	Supply and Fixing in replacement switch piano type 6 Amps one way 230 volts AC complete all as specified and as directed (Make - Havells/Phillips/Anchor).	Each	50				
4	Supply and Fixing in replacement heavy duty socket type regulator 5 step 230 volts AC complete all as specified and as directed (Make - Havells/Phillips/Anchor).	Each	10				
5	Supply and Fixing in replacement socket outlet 5 pin, 6 Amps flush type 230 volts AC complete all as specified and as directed (Make - Havells/Phillips/Anchor).	Each	15				
6	Supply and Fixing in replacement switch piano 16 Amps type one way 230 volts AC complete all as specified and as directed (Make - Havells/Phillips/Anchor).	Each	5				
7	Supply and Fixing in replacement socket outlet 5 pin 16 Amps multi purpose flush type 230 volts AC complete all as specified and as directed (Make - Havells/Phillips/Anchor).	Each	5				
	Total of srl page No. 227						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
C	Addition / Alteration of office complex and living area of 1055 Fd Wksp under 19 BRTF at Phuentsholing (Bhutan) (Bhutan) (E/M Works) from Page No. 226 to 233						
8	Supply and fixing in replacement ceiling rose 65X50 mm two to three terminals etc complete all as specified and directed.	Each	20				
9	Supply and fixing Lamp holder any type, PVC/Polycarbonate type with cord grip cap suitable for pendant fittings etc complete all as specified and directed.	Each	30				
10	Supply & fixing of Switch socket combination 2 in 1, 5 pin, 6 Amps flush type all as specified and directed.(Make - Havells/ Phillips/ Anchor).	Each	30				
11	Supply & fixing of Switch socket combination flush type multi purpose 2 in 1 type (3 pin 6 Amps and 16 Amps) all as specified. (Make - Havells/Phillips/Anchor).	Each	20				
12	Supply and Fixing Modular switch 6 Amps one module 230 volts AC complete all as specified and as directed (Make - Havells/Phillips/Anchor).	Each	10				
13	Supply and Fixing only in replacement modular fan step regulator, heavy duty 230 volts , 2 module complete all as specified and as directed. (Make - Havells/Phillips/Anchor).	Each	5				
14	Supply and Fixing Modular socket, 6A -2/3 pin combined 2 module, 230 volts AC complete all as specified and as directed (Make - Havells/Phillips/Anchor).	Each	5				
15	Supply and Fixing Modular switch 16 Amps one module 230 volts AC complete all as specified and as directed (Make - Havells/Phillips/Anchor).	Each	5				
16	Supply and Fixing Modular socket 6A/16A, 2/3 pin combined, two module 230 volts AC complete all as specified and as directed	Each	5				
17	Supply only LED 3 W etc complete all as specified and directed. (Make - Havells/Phillips/Anchor).	Each	20				
	Total of srl page No. 228						

(Signature of the Contractor)

EE (C) SG
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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
C	Addition / Alteration of office complex and living area of 1055 Fd Wksp under 19 BRTF at Phuentsholing (Bhutan) (Bhutan) (E/M Works) from Page No. 226 to 233						
18	Supply only LED 7 W etc complete all as specified and directed. (Make - Havells/Phillips/Anchor).	Each	25				
19	Supply only LED 9 W etc complete all as specified and directed. (Make - Havells/Phillips/Anchor).	Each	25				
20	Supply only LED 12 W etc complete all as specified and directed. (Make - Havells/Phillips/Anchor).	Each	25				
21	Supply only LED 15 W etc complete all as specified and directed. (Make - Havells/Phillips/Anchor).	Each	25				
22	Supply only LED 18 W etc complete all as specified and directed. (Make - Havells/Phillips/Anchor).	Each	10				
23	Supply and fixing in repair energy efficient security light in 'Lexon 25 W LED luminaire with Aluminium PDC housing, toughened glass cover with IP66 protection.. Make : Surya Cat Ref SLE UL 25W IP66 LXN or Equivalent.	Each	4				
24	Supply & fixing of new generation energy saving LED bulkhead fittings, 10W made up of aluminium PDC housing with opal diffuser with LED lamp, 9 Watt and connecting up complete all as specified and directed. (Make : Surya Cat No. SLE BLH 10W and equivalent model of make as specified in list of manufacturer).	Each	10				
25	Supply and fixing in replacement Environment friendly , energy efficient , aesthetically designed circular shaped decorative wall/ceiling light LED Fixture 12 W LED 6000K with opal diffuser to give glare free light complete all as specified and directed, Havells Cat Part No. 12W LED 6K LHEHCGP 7UL6K012 or equivalent in bajaj.	Nos	8				
	Total of srl page No. 229						

(Signature of the Contractor)

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SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
C	Addition / Alteration of office complex and living area of 1055 Fd Wksp under 19 BRTF at Phuentsholing (Bhutan) (Bhutan) (E/M Works) from Page No. 226 to 233						
26	Supply only 1.50 sqmm copper single core cable PVC insulated etc complete all as specified and as directed. (Make - Havells).	RM	180				
27	Supply only 2.50 sqmm copper single core cable PVC insulated etc complete all as specified and as directed. (Make - Havells).	RM	180				
28	Supply only 4.00 sqmm copper single core cable PVC insulated etc complete all as specified and as directed. (Make - Havells).	RM	180				
29	Supply only PVC board 4"x4" etc complete all as specified and as directed.	Each	10				
30	Supply only PVC board 4"x7" etc complete all as specified and as directed.	Each	10				
31	Supply only PVC board 6"x8" etc complete all as specified and as directed.	Each	4				
32	Supply and fixing sheet metal enclosure for single/double door MCB DBs, phosphatised, powder coated, Single Pole & Neutral (SPN), suitable for 2/4 way, 240 volts, IP 43 & IK 09 fixed on wall with din rail, neutral and earth bar, in proper position all as directed by the Engineer-in-Charge. (Make: Legrand Cat No : 5076 10 or equivalent siemens/ABB/Havells).	Each	6				
33	Supply & fixing MCB Single Pole SPN of capacity 6 to 32 Amps, 240 Volts, breaking capacity 10 KA, 'C' series, fixed in proper position all as directed by the Engineer-in-Charge. Make Cat No 4086 07 to 4086 17 of legrand/equivalent	Each	6				
	Total of srl page No. 230						

(Signature of the Contractor)

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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
C	Addition / Alteration of office complex and living area of 1055 Fd Wksp under 19 BRTF at Phuentsholing (Bhutan) (Bhutan) (E/M Works) from Page No. 226 to 233						
34	Supply & fixing MCB Single Pole SP of capacity 6 to 32 Amps, 240 Volts, breaking capacity 1 0 KA, 'C' series, fixed in proper position all as directed by the Engineer-in-Charge. Make Cat No 4085 87 to 408595 of legrand/equivalent	Each	6				
35	Supply and fixing of LED T-8 tube light fitting with single side connection LED tube rod 18/20W 4 feet 1 x 18/20 watt MS CRCA box type including rotary type bipin holder and connection with PVC insulated twin core 23/0.0076 twisted copper cable from ceiling rose to tube light fitting complete all as specified and directed. Make:- C&S Cat No LTIC00120WLED/WD or equivalent in Havells/Philips/Bajaj/Wipro	Each	20				
36	Supply and fixing ceiling fan 1200mm sweep 65 watt power consumption 410 RPM air delivery 220 CMM, motor 14 Poles highspeed Aluminium body with blade double ball bearing of BEE star rated Including accessories connector, canopy, Hanging Rod and clamps complete all as specified and directed make USHA/ Bajaj/Havells/Khaitan/Crompton	Each	8				
37	Supply & fixing 16 sqmm aluminium double core cable PVC insulated etc complete all as specified and as directed. (Make - Havells).	RM	60				
38	Supply & fixing 16 sqmm aluminium three core cable PVC insulated etc complete all as specified and as directed. (Make - Havells).	RM	60				
	Total of srl page No. 231						

(Signature of the Contractor)

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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
C	Addition / Alteration of office complex and living area of 1055 Fd Wksp under 19 BRTF at Phuentsholing (Bhutan) (Bhutan) (E/M Works) from Page No. 226 to 233						
39	Supply and fixing Single phase propeller type ventilating (Exhaust fan) heavy duty AC 230 volts 300 mm sweep, metallic body complete with louvres and shutters including making and finishing good hole in wall for fixing Exhaust fan of 450mm sweep including necessary brick work and plaster to match the existing surface complete all as specified. Make:- Khaitan/CG/Bajaj/Usha	Each	2				
40	Supply and fixing heavy duty Exhaust fan 450 mm including making of necessary circular hole in the brick wall for fixing of exhaust fan and making good disturbed surface by plastering to the original finish of the wall and making connection from ceiling rose to fan complete all as specified and as directed. Make:- Khaitan/CG/Bajaj/Usha	Each	2				
	Total of srl page No. 232						

(Signature of the Contractor)

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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
C	Addition / Alteration of office complex and living area of 1055 Fd Wksp under 19 BRTF at Phuentsholing (Bhutan) (Bhutan) (E/M Works) from Page No. 226 to 233						
41	Materials & Labour for earthing complete with galvanised steel earth plate electrode of size 600 mm x 600 mm x 6 mm thick buried directly in ground (earth pit not less than 2.25 mtr deep below normal ground level) with top edge of the plate not less than 1.5 mtr below ground level, connected to galvanized earth lead wire 4.00 mm dia by means of bolts nuts check nuts & washers of galvanized iron or steel , protected by GI pipe 15 mm bore(light grade) and watering pipe 20 mm bore GI pipe (light grade) and chamber of pcc 1:4:8 type D2 using 40 mm graded stone aggregate and coping shall be in PCC 1:3:6 type C1 using 20mm graded stone agg. 50 mm thick cover of RCC 1:2:4 type B1 using 20 mm graded stone agg. reinforced with 8 mm dia MS tor bar @ 80 mm c/c both ways including excvaton and earth work and removal of surplus soil complete all as shown in electrical plate no 5 of SSR PART 1 , with charcoal dust and salt complete and earth lead connected to earthing test point (up to main switche, DBs) complete all as specified & testing on completion.	Each	2				
42	Supply and fixing geyser 25 Ltrs capacity, after connecting electric and including necessary water connection GI Pipe, cast copper alloy screwed stop cock, chromium plated cast copper alloy 15 mm bib tap and 2 nos PVC hot water connection pipe and screwing nut and bolts to fixed on wall and make surface good complete all as specified and directed.	Each Job	2				
	Total of srl page No. 233						

EE (C) SG

SW

For Accepting Officer

(Signature of the Contractor)

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
D	Addition / Alteration of 504 SS&TC Complex & Living Area under 19 BRTF at Phuentsholing (Bhutan). (B/R Works) from Page No. 234 to 251						
1	Excavation in trenches soft/loose soil not exceeding 1.5m wide and not exceeding 1.5m in depth: for foundation etc complete all as specified and directed.	Cum	16.35				
2	Materials & Labour for Hardcore of broken bricks guage not exceeding 63mm, deposited, spread and levelled in layers not exceeding 15cm thick, watered and rammed to a true surface etc complete all as specified and directed.	Cum	16.35				
3	Demolition of Brick work built in cement mortar or cement lime mortar incl all quoins, pillars etc., separation of serviceable materials from the unserviceable, stacking the serviceable materials within 100M and disposal of unserviceable materials, debris and rubbish to a distance not.exc 100M etc complete all as specified and directed.	Cum	85.00				
4	Materials & Labour for Brick work with sub class 'B' bricks using old size bricks straight or curved on plan exc 6m mean radius built in CM 1:6 etc complete all as specified and directed.	Cum	2.00				
5	MATERIALS & LABOUR for Pre-cast cement concrete block masonry with solid blocks, Type 1:3:6 using (16mm graded aggregate) and set in cement mortar 1:6 exc.10 cm in width etc complete all as specified and directed.	Cum	88.00				
6	-ditto- all as per above but except blocks or slab etc complete all as specified and directed.	Cum	2.50				
7	Removal excavated material not exceeding 50m and depositing where directed at a level not exceeding 1.5m above the starting point etc complete all as specified and directed.	Cum	16.35				
	Total of srl page No. 234						

(Signature of the Contractor)

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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
D	Addition / Alteration of 504 SS&TC Complex & Living Area under 19 BRTF at Phuentsholing (Bhutan). (B/R Works) from Page No. 234 to 251						
8	Taking down Cement Plaster on brick work or concrete surfaces incl racking out joints etc complete all as specified and directed.	Sqm	90.00				
9	Materials & Labour for 15mm thick Rendering in CM 1:6 on fair faces of brick work or concrete surfaces finished fair and even etc complete all as specified and directed.	Sqm	765.00				
10	Materials & Labour for 15mm thick Rendering in CM 1:4 on fair faces of brick work or concrete surfaces finished even and smooth incl WPC 3% by weight of cement etc complete all as specified and directed.	Sqm	870.00				
11	Materials & Labour for rendering 20mm thick on fair faces of brick work in CM 1:3 on internal surfaces and finished even and smooth with using extra cement and mixed with WPC at the rate of 3% by weight of cement etc complete all as specified and directed.	Sqm	150.00				
12	Supply only Integral Water Proofing compound of approved quality etc complete all as specified and directed.	Kgs	287.41				
13	Materials & Labour for preparation of Newly plaster surfaces and applying two coats of Oil Bound Distemper on walls etc complete all as specified and directed.	Sqm	220.00				
14	Materials & Labour for preparation of Newly plaster surfaces and applying two coats of Oil Bound Distemper on ceiling etc complete all as specified and directed.	Sqm	40.00				
	Total of srl page No. 235						

(Signature of the Contractor)

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For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
D	Addition / Alteration of 504 SS&TC Complex & Living Area under 19 BRTF at Phuentsholing (Bhutan). (B/R Works) from Page No. 234 to 251						
15	Materials & Labour for preparation of Old plaster or Un-plastered surfaces (by brooming down or steel wire brushing, scrapping down smoke soot, moulds, moss and efflorescent salts and treating oil and greasy spots) and applying one coats of Oil Bound Distemper of any colour on walls etc complete all as specified and directed.	Sqm	1,470.00				
16	Materials & Labour for preparation of Old plaster or Un-plastered surfaces (by brooming down or steel wire brushing, scrapping down smoke soot, moulds, moss and efflorescent salts and treating oil and greasy spots) and applying one coats of Oil Bound Distemper of any colour on ceiling etc complete all as specified and directed.	Sqm	430.00				
17	Materials & Labour for preparation of Newly plastered surfaces and applying two coats of White Wash on walls etc complete all as specified and directed.	Sqm	1,225.00				
18	Materials & Labour for preparation of Newly plastered surfaces and applying two coats of White Wash on ceiling etc complete all as specified and directed.	Sqm	200.00				
19	Materials & Labour for preparation of Old plastered or Un-plastered surfaces (by brooming down or steel wire brushing, scrapping down smoke soot, moulds, moss and efflorescent salts and treating oil and greasy spots) and applying one coats of White Wash on walls etc complete all as specified and directed.	Sqm	4,095.00				
	Total of srl page No. 236						

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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
D	Addition / Alteration of 504 SS&TC Complex & Living Area under 19 BRTF at Phuentsholing (Bhutan). (B/R Works) from Page No. 234 to 251						
20	Materials & Labour for preparation of Old plastered or Un-plastered surfaces (by brooming down or steel wire brushing, scrapping down smoke soot, moulds, moss and efflorescent salts and treating oil and greasy spots) and applying one coat of White Wash on ceiling etc complete all as specified and directed.	Sqm	204.00				
21	Materials & Labour for preparation of Newly plastered surfaces and applying two coats of Colour Wash on walls etc complete all as specified and directed.	Sqm	300.00				
22	Materials & Labour for preparation of Old plastered or Un-plastered surfaces (by brooming down or steel wire brushing, scrapping down smoke soot, moulds, moss and efflorescent salts and treating oil and greasy spots) and applying one coats of Colour Wash on walls etc complete all as specified and directed.	Sqm	20.00				
23	Materials & Labour for preparation of New/Old plastered surfaces and applying two coats painting with acrylic emulsion Weather Proof, anti fungle paint (Appex ultima or equivalent) including making good undulations on plastered / concrete surfaces etc complete all as specified and directed.	Sqm	1,065.00				
24	Materials & Labour for preparation of Old/New plastered surfaces and two coat Wall care putty including making good undulations etc complete all as specified and directed.	Sqm	160.00				
25	Dismantling Plain or corrugated steel sheeting, any gauge, thickness , including roof covering etc complete all as specified and directed.	Sqm	416.00				
	Total of srl page No. 237						

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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
D	Addition / Alteration of 504 SS&TC Complex & Living Area under 19 BRTF at Phuentsholing (Bhutan). (B/R Works) from Page No. 234 to 251						
26	Supply & fixing of Wind tie for roof including securing bolts: flat iron fillets including all necessary drilling, bolting or riveting, etc, and similar work conforming to Fe 410-0 or Fe 310-0 etc complete all as specified and directed.	Kgs	83.00				
27	Materials & Labour for Prepainted galvalume aluminium zinc coating, G.I. based corrugated steel sheet, 0.50 mm thick (total coated thickness) of any colour, having tensile strength of 550 MPA as in roof covering/ wall cladding, fixed with low carbon self tapping screw & EPDM washers all as per manufacturer's instructions etc complete all as specified and directed.	Sqm	506.00				
28	Materials & Labour for prepainted galvalume aluminium zinc coating, G.I. based plain steel sheet, 0.50 mm thick (total coated thickness) of any colour, having tensile strength of 550 MPA as in Ridge/Valley/Gutter fixed with low carbon self tapping screw & EPDM washers all as per manufacturer's instructions etc complete all as specified and directed.	Sqm	61.50				
29	All as per above item but as in Eaves board etc complete all as specified and directed.	Sqm	27.00				
30	Materials & Labour for repairs to roof screws `J' or `L' type hook/nut bolts/bitumen washer by providing reqired quantity of M-Seal to prevent roof leaking etc complete all as specified and directed.	Each	205.00				
	Total of srl page No. 238						

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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
D	Addition / Alteration of 504 SS&TC Complex & Living Area under 19 BRTF at Phuentsholing (Bhutan). (B/R Works) from Page No. 234 to 251						
31	Materials & Labour for Taking down existing treatment and cleaning CGI/PGL sheets roof surfaces and sealing joints with and incl self adhesive water proofing membrane over a coat of primer as recommended by manufacturer. (Make of Adhesive - SUPERTENE of MS STP Ltd. or equivalent TEXA as approved etc complete all as specified and directed.	Sqm	235.00				
32	Supply & fixing of Mild steel framed work of angle or any other section (grade 410 - 0 or Fe 310-0) as in Door and Door frame, ceiling frame work, purline, rafter, truss, gusset plates, all types of related works with necessary welding incl dismantling of existing old wooden/old iron works & all types of related works etc complete all as specified and directed.	Kgs	8,420.00				
33	Supply & fixing of Mild Steel Bolts (purpose made) with hexagonal or square one end and screwed the other or screwed both ends each screwed end to be fitted with washers and one hexagonal or square not exceeding 30cm long dia of neck 12mm & not exceeding 20mm etc complete all as specified and directed.	Kgs	20.00				
34	Dismantling of Wall and Ceiling boards (fiber, pulp, insulation etc) or insulation boards/slab/blankets any thickness incl cover fillets. of any thickness incl cover fillets etc complete all as specified and directed.	Sqm	275.00				
35	Cutting holes into or through brick wall built in any mortar and making good in PCC 1:2:4 type B-1 using 20mm graded stone aggregate or in CM 1:3 as required superficial area not exc 150 sqcm etc complete all as specified and directed.	Per CM of depth	1,600.00				
	Total of srl page No. 239						

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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
D	Addition / Alteration of 504 SS&TC Complex & Living Area under 19 BRTF at Phuentsholing (Bhutan). (B/R Works) from Page No. 234 to 251						
36	Supply & fixing of Mild Steel Angle or Tee Section, fixed as in ceiling frame work without connecting plate conform to grade Fe 410-0 or Fe 310-0 etc complete all as specified.	Kgs	500.00				
37	Materials & Labour for 4mm thick Non asbestos fibre cement building boards fixed or laid/ inserted to timber framework with screws fixed in jointless finish with jointing compound and jointing tape as per instructions etc complete all as specified and directed.	Sqm	100.00				
38	Materials & Labour for 4mm thick Non Asbestos fibre reinforced designer cement ceiling board (610mm x 610mm) with hot-dip GI heavy duty suspended ceiling grid system T-2430 all as per manufacturers instructions etc complete all as specified and directed. (Make: MIS Everest Industries Ltd. or Equivalent)	Sqm	230.00				
39	Demolition of PCC in Ground floors/PCC Path/Plinth Protection and paving (below or above ground level) and disposal of unserviceable materials, debris and rubbish to a distance not.excl 100M etc complete all as specified and directed.	Cum	25.35				
40	Materials & Labour for PCC type B-1 (1:2:4) using (20mm graded stone aggregate) as in bed blocks, cast in situ in cills, parapets, hold fasts and coping etc including slightly rounded or chamfered angle fast, bed plates, all types of related works and the like incl use and waste of form work etc complete all as specified and directed.	Cum	7.50				
	Total of srl page No. 240						

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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
D	Addition / Alteration of 504 SS&TC Complex & Living Area under 19 BRTF at Phuentsholing (Bhutan). (B/R Works) from Page No. 234 to 251						
41	Materials & Labour for PCC type C-1 (1:3:6) using (20mm graded stone aggregate) as in bed blocks, cast in situ in cills, parapets, hold fasts and coping etc including slightly rounded or chamfered angle fast, bed plates and the like incl use and waste of form work etc complete all as specified and directed.	Cum	5.65				
42	Materials & Labour for PCC type B-2 (1:2:4) (20mm stone graded aggregate), 50mm thick as in Floor, Plinth Protection finished even and smooth w/out using extra cement etc complete all as specified and directed.	Sqm	611.50				
43	Materials & Labour for Glass dividing strips, 3mm thick 38 mm wide and inserting in position confirm to design etc complete all as specified and directed.	RM	40.00				
44	Dismantling Floor, hearth, Wall tiling or Kota stone including cement mortar bedding (but not baking), removing serviceable tiles to store and rubbish off the premises etc complete all as specified and directed.	Sqm	1,079.50				
45	Materials & Labour for Non-skid ceramic tiles 7 to 8mm thick (square/rectangular) area of each tile (300x300)mm in Floors coloured tiles etc set and jointed in neat cement slurry and pointed in white or coloured cement to match incl over 15mm thick screed bed of mortar CM (1:6) etc complete all as specified and directed.	Sqm	51.00				
46	Materials & Labour for Glazed ceramic coloured tiles (450x300)mm x 7mm thick or (350x250)mm x 7mm thick as in Vertical surfaces set and jointed in neat cement slurry and jointed or coloured cement to match incl over 15mm thick rendering of mortar CM (1:4) etc complete all as specified and directed.	Sqm	13.50				
	Total of srl page No. 241						

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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
D	Addition / Alteration of 504 SS&TC Complex & Living Area under 19 BRTF at Phuentsholing (Bhutan). (B/R Works) from Page No. 234 to 251						
47	Materials & Labour for Non-skid ceramic tiles 7 to 8mm thick (square/rectangular) area of each tile (400x400)mm in Floors coloured tiles etc set and jointed in neat cement slurry and pointed in white or coloured cement to match incl over 15mm thick screed bed of mortar CM (1:6) etc complete all as specified and directed.	Sqm	583.00				
48	All as specifed above here in before but Vertical surface such as skirting/dado incl all necessary cutting incl over 15mm thick rendering of mortar CM (1:4) etc complete all as specified and directed.	Sqm	99.00				
49	Materials & Labour for Vitrified coloured tiles of size (600 x 600)mm x 10mm thick of approvaed make as in Flooring, set and jointed in neat cement slurry and pointed in white cement to match incl over 15mm thick screed bed of mortar CM (1:6) etc complete all as specified and directed.	Sqm	427.00				
50	All as specifed above here in before but Vertical surface such as skirting/dado incl all necessary cutting incl over 15mm thick rendering of mortar CM (1:4) etc complete all as specified and directed.	Sqm	29.00				
51	Materials & Labour for Chequarred Cement Concrete tiles (20x20)cmx25mm thich set and jointed and pointed in neat cement slurry in floors with grey cement & pigment incl over 15mm thick screed bed of mortar CM (1:6) etc complete all as specified and directed.	Sqm	165.75				
52	Taking down Shutters of any description exc 1.00 Sqm but not exceeding 2.00 sqm each etc complete all as specified and directed.	Per Leaf	9.00				
	Total of srl page No. 242						

(Signature of the Contractor)

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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
D	Addition / Alteration of 504 SS&TC Complex & Living Area under 19 BRTF at Phuentsholing (Bhutan). (B/R Works) from Page No. 234 to 251						
53	Taking down Chowkhats incl shutters (without taking off shutters from the frame) not exceeding 1.5 sqm each etc complete all as specified and directed.	Each	48.00				
54	Taking down Chowkhats incl shutters (without taking off shutters from the frame) exc 1.5 sqm and not exceeding 4.00 sqm each etc complete all as specified and directed.	Each	34.00				
55	Taking down & Refixing of shutters of any description exc 1.00 Sqm but not exceeding 2.00 sqm each in same opening after some repair etc complete all as specified and directed.	Per Leaf	30.00				
56	S&F Second class hard wood plain, solid, straight chowkats and frames, truss, wrought, framed rebated on the solid, rounded or chamfered, put together with glue, pinned at joints etc complete all as specified and directed.	Cum	10.25				
57	Supply & fixing of 35mm thick 2nd class H/wood plain framed factory made shutter glazed and skeleton shutters open rebated with glazed or gauge etc. Divided into squares with plain chamfered or rounded, rebated without sash bars, sizes of the members of the shutters as specified in SSR Part I, section 8 etc complete all as specified and directed.	Sqm	24.00				
58	Supply & fixing of 35mm thick factory made Flush shutters, solid core construction, with block board core and plywood face panels, commercial type on both sides etc complete all as specified and directed.	Sqm	40.00				
	Total of srl page No. 243						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
D	Addition / Alteration of 504 SS&TC Complex & Living Area under 19 BRTF at Phuentsholing (Bhutan). (B/R Works) from Page No. 234 to 251						
59	Supply & fixing of Solid PVC Door Frame of size 50mmx47mm made out of 5mm plain colour PVC sheet reinforced with MS square tube and fixing in opening as per specification & drawing given in SSR 2004(Part-II). etc complete all as specified and directed.	RM	4.95				
60	Supply & fixing of Factory made solid panel PVC door shutter 30mm thick style consisting of frame made out of MS tubes for top and bottom rails, MS frame shall be covered with heat moulded plain colour PVC 'C' channel having a PVC sheet strip of 20mm width & stuck inside with solvent cement for stile and plain colour PVC sheets for top rail, lock rail and bottom rail on either side and as gap insert for top rail and bottom rail, panelling of plain colour PVC sheet to be fitted in the MS frame welded/sealed to the stiles & rails with suitable PVC sheet beading and jointed together with solvent cement, supplying & fixing in the frame at site as per specification & drawing etc complete all as specified and directed.	Sqm	17.00				
61	Materials & Labour for Mild steel sheet 1.25mm thick plain, black sheet in steel gates & similar work, cut to size, holes punched, including round headed screws, clout nails or rivets and fixed to steel framing with plain 40mm lap joints with riveted or welded seams, including bending etc complete all as specified and directed.	Sqm	14.50				
	Total of srl page No. 244						

(Signature of the Contractor)

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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
D	Addition / Alteration of 504 SS&TC Complex & Living Area under 19 BRTF at Phuentsholing (Bhutan). (B/R Works) from Page No. 234 to 251						
62	Supply & fixing of Butt hinges medium grade cold rolled 125mm mild steel and fixed etc complete all as specified and directed.	Each	150.00				
63	Supply & fixing of Aluminium anodised barrel tower bolts of extruded section of 125mm size etc complete all as specified and directed.	Each	52.00				
64	Supply & fixing of Aluminium handles, cast type anodised of size 125mm etc complete all as specified and directed.	Each	84.00				
65	Supply & fixing of 250mm long aluminium alloy, anodised, Sliding Door Bolt with hasp, staple (bolt type) and fixing clips of sheet, cast or extruded sections and fixing bolts and sliding bolts of extruded sections or cast aluminium alloy and fixed etc complete all as specified and directed.	Each	31.00				
66	Supply & fixing of 1st class hard wood small fittings such as Brackets of any type latch and hinges blocks, shaped door and window stoppers articles n' exc 200 cum each etc complete all as specified and directed.	Each	14.00				
67	Supply & fixing of Mild steel barrel Tower Bolts, stove enamelled black with bright bolt and fixed of 150mm size etc complete all as specified and directed.	Each	8.00				
68	Supply & fixing of Mild steel pressed Handles, oval type stove enamelled black of size 125mm etc complete all as specified and directed.	Each	16.00				
69	Supply & fixing of 250mm long Mild steel Sliding Door Bolts, plate type, stove enamelled black, with bright bolt n.less than 12mm dia with and including a minimum of 6 bolts and nuts, four on bolt plate and two on staple plate and fixed etc complete all as specified and directed.	Each	10.00				
	Total of srl page No. 245						

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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
D	Addition / Alteration of 504 SS&TC Complex & Living Area under 19 BRTF at Phuentsholing (Bhutan). (B/R Works) from Page No. 234 to 251						
70	Supply & fixing of Mild steel 300mm , ordinary rat tail rod pattern Springs including roller plate etc complete all as specified and directed.	Each	10.00				
71	Supply & fixing of Door stopper, overall length of cover plate 150mm of aluminium alloy body and tongue, anodised, with hard drawn steel spring etc complete all as specified and directed.	Each	12.00				
72	Supply & fixing of Steel Window 1.25mm thick Box Type (primer coated) ERW hollow P section of size 60mm x 25mm, 1.25 thick sheet single rebated comprises glazed Skelton shutter ERW Sec 50mm x 20mm and 1mm thick with one or two openable leaf consisting two Nos sash bar of T- Section 20mm x 3mm complete welded to frame with one vertical mullion of ERW box type T- Section of size 60mm x 25mm and 1.25mm thick including cutting holes and making good dismantled portion in PCC (1:2:4) type B-1 Four Nos for each window) including following fitting welded to frame shutter: (a) Hold Fast, 150mm long of 12mm square bar made to shape – 04 Nos per window (b) Handles of Z Sec 100mm long (c) Stopper – 01 No per leaf (d) Cleat 55mm long of hollow square 15mm x 20mm x 63mm welded to hinges – 01 No per leaf (e) MS Pintal hinges of size 75mmx75mmx12mm-02 Nos per leaf (f) Fabrication & fixing arrangement as per drg No. CEJZ/TD-7/07 sheet 1/3 of 3/3. Includng Glass and two coat synthetic enamel painting etc complete all as specified and directed.	Sqm	23.60				
	Total of srl page No. 246						

(Signature of the Contractor)

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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
D	Addition / Alteration of 504 SS&TC Complex & Living Area under 19 BRTF at Phuentsholing (Bhutan). (B/R Works) from Page No. 234 to 251						
73	Supply & fixing of Steel Window 1.25mm thick Box Type (primer coated) ERW hollow P section of size 60mm x 25mm single rebated comprises gauged Skelton shutter ERW Sec 50mm x 20mm and 1mm thick with one or two openable leaf consisting two Nos sash bar of T-Section 20mm x 3mm complete welded to frame with one vertical mullion of ERW box type T- Section of size 60mm x 25mm and 1.25mm thick including cutting holes and making good dismantled portion in PCC (1:3:6) type C-1 Four Nos for each window) including following fitting welded to frame shutter: (a) Mild Steel Hold Fast,150mm long of 12mm Square bar made to shape – 04 Nos per window (b) Handles of Z Sec 20mm x 100mm long (c) stopper – 01 No per leaf (d) Cleat 55mm long of hollow square 15mm x 20mmx63mm welded to hinges – 01 No per leaf (e) Mild steel Pintal hinges of size 75mmx75mmx12mm-02 Nos per leaf (f) Grills made out of MS square bar 12mm dia welded to FI frame of MS flat 25mm x 3mm complete all as specified and shown on drawings. Including Wire mesh and two coat synthetic enamel painting etc complete all as specified and directed.	Sqm	38.60				
74	All as per above item but ventilator fixed type with glazing bar with wire mesh and glass etc complete all as specified and directed.	Sqm	10.00				
75	Hacking out Old Broken Glass any thickness/ size from wooden/mental frame, glazed with putty or fixed with beading etc complete all as specified and directed.	Sqm	27.00				
	Total of srl page No. 247						

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For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
D	Addition / Alteration of 504 SS&TC Complex & Living Area under 19 BRTF at Phuentsholing (Bhutan). (B/R Works) from Page No. 234 to 251						
76	Supply & fixing of 3mm thick Sheet Glass ordinary quality and glazing with oil putty or wooden beading in square n'exc 0.5 sqm in each pane etc complete all as specified and directed.	Sqm	25.00				
77	Supply & fixing of 3mm thick frosted glass and glazing with oil putty in squares not exceeding. 0.5 sqm in each pane etc complete all as specified and directed.	Sqm	2.00				
78	Supply & fixing of Galvanised Mild Steel Wire Cloth 0.56mm nominal dia of wire and average width of aperature 1.18mm and fixed with tinned tacks or galvanised wire staples etc complete all as specified and directed.	Sqm	22.00				
79	Supply & fixing of Galvanised Mild Steel Wire Cloth 1.40mm nominal dia of wire and Size of mesh in 12mm and fixed with tinned tacks or galvanised wire staples etc complete all as specified and directed.	Sqm	18.00				
80	Supply & fixing of 25mm dia MS Cherry Colour Decorative type PC Coated Curtain Rod with Fancy type Hanging arrangment in wall as per sample etc complete all as specified and directed.	RM	62.00				
81	Materials & Labour for prepration of Newly Steel Surface over 10cm width or girth and applying Two Coats of Synthetic Enamel Paint over red oxide primer etc complete all as specified and directed.	Sqm	172.00				
82	Materials & Labour for prepration of Old Steel Surface over 10cm width or girth and applying one coats of Syntheic Enamel Paint etc complete all as specified and directed.	Sqm	3,062.00				
83	Materials & Labour for prepration of Newly Wooden Surface over 10cm width or girth and applying two coats of Syntheic Enamel Paint over pink primer etc complete all as specified and directed.	Sqm	146.00				
	Total of srl page No. 248						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
D	Addition / Alteration of 504 SS&TC Complex & Living Area under 19 BRTF at Phuentsholing (Bhutan). (B/R Works) from Page No. 234 to 251						
84	Materials & Labour for prepration of Old Wooden Surface over 10cm width or girth and applying one coats of Syntheic Enamel Paint etc complete all as specified and directed.	Sqm	280.00				
85	Materials & Labour for applying two coats of Creosote Oil including preparing surfaces of wood and wood baced materials new or old of any description and girth not otherwise described etc complete all as specified and directed.	Sqm	105.00				
86	Supply & fixing of in repairs Stop valves/Angle stop valves/consealed stop cock, cast copper alloy, bore dia of pipe in 15mm, screwed down, high pressure, with crutch or but-terfly handle, screwed both ends for iron pipe and fixed but fancy type, Chromium Plated and cup (concealed type) etc complete all as specified and directed.	Each	3.00				
87	Supply & fixing of Bib taps bore dia of pipe in 15mm, cast copper alloy with crutch or butterfly handle, screwed down, screwed for iron pipe or for brass ferrule but fancy type long Chromium Plated and fixed etc complete all as specified and directed.	Each	4.00				
88	Supply & fixing of Pillar taps, cast copper alloy with capstan heads Chromium Plated, screwed down high pressure, with or without lettered with long screwed shanks and fly-nuts, screwed for iron pipe but fancy type and fixed etc complete all as specified and directed.	Each	4.00				
89	Supply & fixing of PVC connection 15mm size with PTMT nuts of length 450mm etc complete all as specified and directed.	Each	5.00				
	Total of srl page No. 249						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
D	Addition / Alteration of 504 SS&TC Complex & Living Area under 19 BRTF at Phuentsholing (Bhutan). (B/R Works) from Page No. 234 to 251						
90	Supply & fixing of in repair Vitreous China Wash Basin, white, flat back, size (550x400)mm including brackets, cutting for and pinning in ends of brackets or erecting stand & waste pipe, coupling etc complete all as specified and directed.	Each	3.00				
91	Supply & fixing of Grating Doom 100mm dia with waste hole of CP etc complete all as specified and directed.	Each	2.00				
92	Supply & fixing of Cast Iron Soil, Sand Cast pipes 100mm dia bore waste and vent pipes in any length with or without ears with cement joints, laid in trenches or in floors incl all connected fitting items etc complete all as specified and directed.	RM	10.00				
93	Supply & fixing of PVC (SWR) pipes bore in 110mm single socketed, in any length with rubber ring joints, laid in trenches or in floors incl all connected fitting items etc complete all as specified and directed.	RM	10.00				
94	Taking up or down Steel Tubing/CPVC Tubing bore of pipe in 20mm dia and connections, including cleaning for refixing or removal to store etc complete all as specified and directed.	RM	10.00				
95	Supply & fixing of CPVC Tube Medium Grade Bore of tube in 20mm dia with all fitting and fixtures laid in trenches, walls, ceiling or laid in floors etc complete all as specified and directed.	RM	30.00				
96	Refixing Old Steel Tubing/CPVC Tubing bore of pipe in 20mm and connections in new or old position (Walls, ceiling, floors) etc complete all as specified and directed.	RM	10.00				
	Total of srl page No. 250						

(Signature of the Contractor)

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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343.

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
D	Addition / Alteration of 504 SS&TC Complex & Living Area under 19 BRTF at Phuentsholing (Bhutan). (B/R Works) from Page No. 234 to 251						
97	Materials & Labour for Precast RCC 1:2:4 type B 1 using (20mm graded stone aggregates) as in P/beam, L/beam, Chajja, Slab or similar works etc complete all as specified and directed.	Cum	1.00				
98	Materials & Labour for TMT 10mm dia bar and over, cut to length, bent to shape required, including cranking, bending spirally for hooping for columns, hooking ends and binding with and including mild steel wire (annealed) not less than 0.9mm dia or securing with clips conforming to FE-410-0 or Gde-410-0 etc complete all as specified and directed.	Kgs	100.00				
99	-ditto- but 6mm to 8mm dia etc complete all as specified and directed.	Kgs	150.00				
100	Supply & fixing of Rotational Moulded Polyethylene Water Storage Tanks (cylindrical vertical with closed up, capacity in 1000 Ltrs, hoisted and fixed in position with all fittings and fixtures in position incl float valve complete all as specified in SSR Part-I etc complete all as specified and directed.	Each	2.00				
	Total of srl page No. 251						

(Signature of the Contractor)

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For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
D	Addition / Alteration of 504 SS&TC Complex & Living Area under 19 BRTF at Phuentsholing (Bhutan). (E/M Works) from Page No. 252 to 259						
1	Taking down carefully point wiring of any type, size and description from hard/teak wood batten/through pipes/casing capping (light, fan, sockets and socket outlets etc) including removal of battens, pipes, plug sockets, socket outlets, switches, shades, ceiling roses, light fittings etc. complete and making good the disturbed surface to match with existing etc complete all as specified and directed	Per Point	30				
2	Materials & Labour for Point wiring complete with PVC insulated unsheathed, 1100 volts grade copper cable 1.5 Sqmm (nominal area) FR type multi stranded copper conductor, single core drawn in and including not less than 20 mm dia rigid PVC conduit 'medium grade' ISI marked/casing capping including all conduit/casing capping accessories for concealed/open wiring including concealed pressed steel terminal box of required size factory made duly painted inside & outside with two coats of black bituminous paint over & including a coat of red oxide primer, with top cover of ISI Marked plastic laminated sheet of required colour for mounting switch, sockets, fan regulator etc including 1.5 Sqmm FR type PVC insulated unsheathed cable multi-stranded copper conductor as continuous earth wire and connected to earth dolly as required at site& including chases cutting & making good disturbed surface & applying finishes to match existing surface etc. all as specified for the following :- Note : The cost of sunken boxes and bakelite sheet or PVC board required sizes is included in the quoted rate)						
2(a)	All as per Srl item No 2 above but for one light /fan/ buzzer point controlled by one 5 Amp switch one way complete all as specified.	Per Point	60				
2(b)	All as per Srl item No 2 above but for one 5 amps socket out let independent complete all as specified.	Per Point	15				
2(c)	All as per Srl item No 2 above but on the same board complete all as specified	Per Point	10				
	Total of srl page No. 252						

(Signature of the Contractor)

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SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
D	Addition / Alteration of 504 SS&TC Complex & Living Area under 19 BRTF at Phuentsholing (Bhutan). (E/M Works) from Page No. 252 to 259						
2(d)	All a per item No 2 above but with 2.5 Sq mm size cable multi stranded FRLS copper wire unsheathed for one 3 pin socket outlet 15 Amps on independent board including continuous earth wire of PVC insulated 1.5 Sq mm copper solid conductor connecting to common earth dolly complete.	Per Point	10				
3	Supply and Fixing in replacement switch piano type 6 Amps one way 230 volts AC complete all as specified and as directed (Make - Havells/Phillips/Anchor).	Each	50				
4	Supply and Fixing in replacement heavy duty socket type regulator 5 step 230 volts AC complete all as specified and as directed (Make - Havells/Phillips/Anchor).	Each	10				
5	Supply and Fixing in replacement socket outlet 5 pin, 6 Amps flush type 230 volts AC complete all as specified and as directed (Make - Havells/Phillips/Anchor).	Each	15				
6	Supply and Fixing in replacement switch piano 16 Amps type one way 230 volts AC complete all as specified and as directed (Make - Havells/Phillips/Anchor).	Each	5				
7	Supply and Fixing in replacement socket outlet 5 pin 16 Amps multi purpose flush type 230 volts AC complete all as specified and as directed (Make - Havells/Phillips/Anchor).	Each	5				
8	Supply and fixing in replacement ceiling rose 65X50 mm two to three terminals etc complete all as specified and directed.	Each	20				
9	Supply and fixing Lamp holder any type, PVC/Polycarbonate type with cord grip cap suitable for pendant fittings etc complete all as specified and directed.	Each	30				
10	Supply & fixing of Switch socket combination 2 in 1, 5 pin, 6 Amps flush type all as specified and directed. (Make - Havells/ Phillips/ Anchor).	Each	30				
	Total of srl page No. 253						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
D	Addition / Alteration of 504 SS&TC Complex & Living Area under 19 BRTF at Phuentsholing (Bhutan). (E/M Works) from Page No. 252 to 259						
11	Supply & fixing of Switch socket combination flush type multi purpose 2 in 1 type (3 pin 6 Amps and 16 Amps) all as specified. (Make - Havells/Phillips/Anchor).	Each	20				
12	Supply and Fixing Modular switch 6 Amps one module 230 volts AC complete all as specified and as directed (Make - Havells/Phillips/Anchor).	Each	10				
13	Supply and Fixing only in replacement modular fan step regulator, heavy duty 230 volts , 2 module complete all as specified and as directed. (Make - Havells/Phillips/Anchor).	Each	5				
14	Supply and Fixing Modular socket, 6A -2/3 pin combined 2 module, 230 volts AC complete all as specified and as directed (Make - Havells/Phillips/Anchor).	Each	5				
15	Supply and Fixing Modular switch 16 Amps one module 230 volts AC complete all as specified and as directed (Make - Havells/Phillips/Anchor).	Each	5				
16	Supply and Fixing Modular socket 6A/16A, 2/3 pin combined, two module 230 volts AC complete all as specified and as directed	Each	5				
17	Supply only LED 3 W etc complete all as specified and directed. (Make - Havells/Phillips/Anchor).	Each	20				
18	Supply only LED 7 W etc complete all as specified and directed. (Make - Havells/Phillips/Anchor).	Each	25				
19	Supply only LED 9 W etc complete all as specified and directed. (Make - Havells/Phillips/Anchor).	Each	25				
20	Supply only LED 12 W etc complete all as specified and directed. (Make - Havells/Phillips/Anchor).	Each	25				
21	Supply only LED 15 W etc complete all as specified and directed. (Make - Havells/Phillips/Anchor).	Each	25				
	Total of srl page No. 254						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
D	Addition / Alteration of 504 SS&TC Complex & Living Area under 19 BRTF at Phuentsholing (Bhutan). (E/M Works) from Page No. 252 to 259						
22	Supply only LED 18 W etc complete all as specified and directed. (Make - Havells/Phillips/Anchor).	Each	10				
23	Supply and fixing in repair energy efficient security light in 'Lexon 25 W LED luminaire with Aluminium PDC housing, toughened glass cover with IP66 protection.. Make : Surya Cat Ref SLE UL 25W IP66 LXN or Equivalent.	Each	4				
24	Supply & fixing of new generation energy saving LED bulkhead fittings, 10W made up of aluminium PDC housing with opal diffuser with LED lamp, 9 Watt and connecting up complete all as specified and directed. (Make : Surya Cat No. SLE BLH 10W and equivalent model of make as specified in list of manufacturer).	Each	10				
25	Supply and fixing in replacement Environment friendly, energy efficient, aesthetically designed circular shaped decorative wall/ceiling light LED Fixture 12 W LED 6000K with opal diffuser to give glare free light complete all as specified and directed, Havells Cat Part No. 12W LED 6K LHEHCGP 7UL6K012 or equivalent in bajaj.	Nos	8				
26	Supply only 1.50 sqmm copper single core cable PVC insulated etc complete all as specified and as directed. (Make - Havells).	RM	180				
37	Supply only 2.50 sqmm copper single core cable PVC insulated etc complete all as specified and as directed. (Make - Havells).	RM	180				
28	Supply only 4.00 sqmm copper single core cable PVC insulated etc complete all as specified and as directed. (Make - Havells).	RM	180				
	Total of srl page No. 255						

(Signature of the Contractor)

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SW
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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
D	Addition / Alteration of 504 SS&TC Complex & Living Area under 19 BRTF at Phuentsholing (Bhutan). (E/M Works) from Page No. 252 to 259						
29	Supply only PVC board 4"x4" etc complete all as specified and as directed.	Each	10				
30	Supply only PVC board 4"x7" etc complete all as specified and as directed.	Each	10				
31	Supply only PVC board 6"x8" etc complete all as specified and as directed.	Each	4				
32	Supply and fixing sheet metal enclosure for single/double door MCB DBs, phosphatised, powder coated, Single Pole & Neutral (SPN), suitable for 2/4 way, 240 volts, IP 43 & IK 09 fixed on wall with din rail, neutral and earth bar, in proper position all as directed by the Engineer-in-Charge. (Make: Legrand Cat No : 5076 10 or equivalent siemens/ ABB/Havells).	Each	6				
33	Supply & fixing MCB Single Pole SPN of capacity 6 to 32 Amps, 240 Volts, breaking capacity 10 KA, 'C' series, fixed in proper position all as directed by the Engineer-in-Charge. Make Cat No 4086 07 to 4086 17 of legrand/equivalent	Each	6				
34	Supply & fixing MCB Single Pole SP of capacity 6 to 32 Amps, 240 Volts, breaking capacity 10 KA, 'C' series, fixed in proper position all as directed by the Engineer-in-Charge. Make Cat No 4085 87 to 408595 of legrand/equivalent	Each	6				
	Total of srl page No. 256						

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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
D	Addition / Alteration of 504 SS&TC Complex & Living Area under 19 BRTF at Phuentsholing (Bhutan). (E/M Works) from Page No. 252 to 259						
35	Supply and fixing of LED T-8 tube light fitting with single side connection LED tube rod 18/20W 4 feet 1 x 18/20 watt MS CRCA box type including rotary type bipin holder and connection with PVC insulated twin core 23/0.0076 twisted copper cable from ceiling rose to tube light fitting complete all as specified and directed. Make:- C&S Cat No LTIC00120WLED/WD or equivalent in Havells/Philips/Bajaj/wipro	Each	20				
36	Supply and fixing ceiling fan 1200mm sweep 65 watt power consumption 410 RPM air delivery 220 CMM, motor 14 Poles highspeed Aluminium body with blade double ball bearing of BEE star rated Including accessories connector, canopy, Hanging Rod and clamps complete all as specified and directed make USHA/Bajaj/Havells/Khaitan/Crompton	Each	8				
37	Supply & fixing 16 sqmm aluminium double core cable PVC insulated etc complete all as specified and as directed. (Make - Havells).	RM	60				
38	Supply & fixing 16 sqmm aluminium three core cable PVC insulated etc complete all as specified and as directed. (Make - Havells).	RM	60				
39	Supply and fixing Single phase propeller type ventilating (Exhaust fan) heavy duty AC 230 volts 300 mm sweep, metallic body complete with louvers and shutters including making and finishing good hole in wall for fixing Exhaust fan of 450mm sweep including necessary brick work and plaster to match the existing surface complete all as specified. Make:- Khaitan/CG/Bajaj/Usha	Each	2				
	Total of srl page No. 257						

(Signature of the Contractor)

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SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
D	Addition / Alteration of 504 SS&TC Complex & Living Area under 19 BRTF at Phuentsholing (Bhutan). (E/M Works) from Page No. 252 to 259						
40	Supply and fixing heavy duty Exhaust fan 450 mm including making of necessary circular hole in the brick wall for fixing of exhaust fan and making good disturbed surface by plastering to the original finish of the wall and making connection from ceiling rose to fan complete all as specified and as directed. Make:- Khaitan/CG/Bajaj/Usha	Each	2				
41	Materials & Labour for earthing complete with galvanised steel earth plate electrode of size 600 mm x 600 mm x 6 mm thick buried directly in ground (earth pit not less than 2.25 mtr deep below normal ground level) with top edge of the plate not less than 1.5 mtr below ground level, connected to galvanized earth lead wire 4.00 mm dia by means of bolts nuts check nuts & washers of galvanized iron or steel , protected by GI pipe 15 mm bore(light grade) and watering pipe 20 mm bore GI pipe (light grade) and chamber of pcc 1:4:8 type D2 using 40 mm graded stone aggregate and coping shall be in PCC 1:3:6 type C1 using 20mm graded stone agg. 50 mm thick cover of RCC 1:2:4 type B1 using 20 mm graded stone agg. reinforced with 8 mm dia MS tor bar @ 80 mm c/c both ways including excvaton and earth work and removal of surplus soil complete all as shown in electrical plate no 5 of SSR PART 1 , with charcoal dust and salt complete and earth lead connected to earthing test point (up to main switche, DBs) complete all as specified & testing on completion.	Each	2				
	Total of srl page No. 258						

(Signature of the Contractor)

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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
D	Addition / Alteration of 504 SS&TC Complex & Living Area under 19 BRTF at Phuentsholing (Bhutan). (E/M Works) from Page No. 252 to 259						
42	Supply and fixing geyser 25 Ltrs capacity, after connecting electric and including necessary water connection GI Pipe, cast copper alloy screwed stop cock, chromium plated cast copper alloy 15 mm bib tap and 2 nos PVC hot water connection pipe and screwing nut and bolts to fixed on wall and make surface good complete all as specified and directed.	Each Job	2				
	Total of srl page No. 259						

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ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
E	Addition / Alteration of Offr Mess, Cdr Resident & Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 260 to 289						
1	Rough excavation not exceeding 1.5 m deep and getting out in soft/loose soil etc complete all as specified and directed.	Cum	6.00				
2	Excavation in trenches soft/loose soil not exceeding 1.5m wide and not exceeding 1.5m in depth: for foundation etc complete all as specified and directed.	Cum	10.00				
3	Materials & Labour for Hardcore of broken bricks guage not exceeding 63mm, deposited, spread and levelled in layers not exceeding 15cm thick, watered and rammed to a true surface etc complete all as specified and directed.	Cum	3.00				
4	Demolition of Brick work built in cement mortar or cement lime mortar incl all quoins, pillars etc., separation of serviceable materials from the unserviceable, stacking the serviceable materials within 100M and disposal of unserviceable materials, debris and rubbish to a distance not.exc 100M etc complete all as specified and directed.	Cum	6.00				
5	Materials & Labour for Brick work with sub class 'B' bricks using old size bricks straight or curved on plan exc 6m mean radius built in CM 1:6 etc complete all as specified and directed.	Cum	28.00				
6	-ditto- all as per above but except Bricks etc complete all as specified and directed.	Cum	2.00				
7	Returning, filling in, including spreading, levelling watering and well ramming in layers not exceeding 25cm all types of soil etc complete all as specified and directed.	Cum	10.00				
	Total of srl page No. 260						

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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
E	Addition / Alteration of Offr Mess, Cdr Resident & Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 260 to 289						
8	Removal excavated material not exceeding 50m and depositing where directed at a level not exceeding 1.5m above the starting point etc complete all as specified and directed.	Cum	6.00				
9	Materials & Labour for ATT Treating the bottom and sides of excavation at the rate of 5 litres of emulsion per square metre of surface area etc complete all as specified and directed.	Sqm	50.00				
10	Materials & Labour for 40mm thick DPC in PCC type B-0 (1:2:4) (12.50 mm graded stone aggregate) mixed with water proofing compound @ 3% by wt of cement including necessary form work etc complete all as specified and directed.	Sqm	10.00				
11	Taking down Cement Plaster on brick work or concrete surfaces incl racking out joints etc complete all as specified and directed.	Sqm	20.00				
12	Materials & Labour for 15mm thick Rendering in CM 1:6 on fair faces of brick work or concrete surfaces finished fair and even etc complete all as specified and directed.	Sqm	300.00				
13	Materials & Labour for 15mm thick Rendering in CM 1:4 on fair faces of brick work or concrete surfaces finished even and smooth incl WPC 3% by weight of cement etc complete all as specified and directed.	Sqm	150.00				
14	Supply only Integral Water Proofing compound of approved quality etc complete all as specified and directed.	Kgs	49.12				
	Total of srl page No. 261						

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ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
E	Addition / Alteration of Offr Mess, Cdr Resi & Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 260 to 289						
15	Materials & Labour for preparation of new surfaces of wall and applying two coats of Oil bound distemper over a coat of alkali resistant primer etc complete all as specified and directed.	Sqm	200.00				
16	Materials & Labour for preparation of Old plaster or Un-plastered surfaces (by brooming down or steel wire brushing, scrapping down smoke soot, moulds, moss and efflorescent salts and treating oil and greasy spots) and applying one coats of Oil Bound Distemper on walls etc complete all as specified and directed.	Sqm	3500.00				
17	Materials & Labour for preparation of Old plaster or Un-plastered surfaces (by brooming down or steel wire brushing, scrapping down smoke soot, moulds, moss and efflorescent salts and treating oil and greasy spots) and applying one coats of Oil Bound Distemper on ceiling etc complete all as specified and directed.	Sqm	550.00				
18	Materials & Labour for preparation of Newly plastered surfaces and applying two coats of White Wash on walls etc complete all as specified and directed.	Sqm	100.00				
19	Materials & Labour for preparation of Newly plastered surfaces and applying two coats of White Wash on ceiling etc complete all as specified and directed.	Sqm	10.00				
20	Materials & Labour for preparation of Old plastered or Un-plastered surfaces (by brooming down or steel wire brushing, scrapping down smoke soot, moulds, moss and efflorescent salts and treating oil and greasy spots) and applying one coats of White Wash on walls etc complete all as specified and directed.	Sqm	2500.00				
	Total of srl page No. 262						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
E	Addition / Alteration of Offr Mess, Cdr Resident & Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 260 to 289						
21	Materials & Labour for preparation of Old plastered or Un-plastered surfaces (by brooming down or steel wire brushing, scrapping down smoke soot, moulds, moss and efflorescent salts and treating oil and greasy spots) and applying one coat of White Wash on ceiling etc complete all as specified and directed.	Sqm	150.00				
22	Materials & Labour for preparation of new surfaces of wall and applying two coats of cement base paint to walls etc complete all as specified and directed.	Sqm	150.00				
23	Materials & Labour for preparation of New/Old plastered surfaces and applying two coats painting with acrylic emulsion Weather Proof, anti fungle paint (Appex ultima or equivalent) including making good undulations on plastered / concrete surfaces etc complete all as specified and directed.	Sqm	2200.00				
24	Materials & Labour for preparation of Old/New plastered surfaces and wall care putty including making good undulations etc complete all as specified and directed.	Sqm	300.00				
25	Dismantling Plain or corrugated steel sheeting, any gauge, thickness, including roof covering etc complete all as specified and directed.	Sqm	1400.00				
26	Supply & fixing of Wind tie for roof including securing bolts: flat iron fillets including all necessary drilling, bolting or riveting, etc, and similar work conforming to Fe 410-0 or Fe 310-0 etc complete all as specified and directed.	Kgs	150.00				
	Total of srl page No. 263						

(Signature of the Contractor)

EE (C) SG
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For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
E	Addition / Alteration of Offr Mess, Cdr Resident & Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 260 to 289						
27	Materials & Labour for Prepainted galvalume aluminium zinc coating, G.I. based corrugated steel sheet, 0.50 mm thick (total coated thickness) of any colour, having tensile strength of 550 MPA as in roof covering/ wall cladding, fixed with low carbon self tapping screw & EPDM washers all as per manufacturer's instructions etc complete all as specified and directed.	Sqm	1550.00				
28	Materials & Labour for prepainted galvalume aluminium zinc coating, G.I. based plain steel sheet, 0.50 mm thick (total coated thickness) of any colour, having tensile strength of 550 MPA as in Ridge/Valley/Gutter fixed with low carbon self tapping screw & EPDM washers all as per manufacturer's instructions etc complete all as specified and directed.	Sqm	50.00				
29	All as per above item but as in Eaves board etc complete all as specified and directed.	Sqm	80.00				
30	Materials & Labour for repairs to roof screws `J' or `L' type hook/nut bolts/bitumen washer by providing reqired quantity of M-Seal to prevent roof leaking etc complete all as specified and directed.	Each	100.00				
31	Materials & Labour for Taking down existing treatment and cleaning CGI/PGI sheets roof surfaces and sealing joints with and incl self adhesive water proofing membrane over a coat of primer as recommended by manufacturer. (Make of Adhesive - SUPERTENE of MS STP Ltd. or equivalent TEXA as approved etc complete all as specified and directed.	Sqm	80.00				
	Total of srl page No. 264						

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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
E	Addition / Alteration of Offr Mess, Cdr Resident & Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 260 to 289						
32	Supply & fixing of Mild steel framed work of angle or any other section (grade 410 - 0 or Fe 310-0) as in Door and Door frame, ceiling frame work, purline, rafter, truss, gusset plates, all types of related works with necessary welding incl dismantling of existing old wooden/old iron works & all types of related works etc complete all as specified and directed.	Kgs	2000.00				
33	Dismantling of Wall and Ceiling boards (fiber, pulp, insulation etc) or insulation boards/slab/blankets any thickness incl cover fillets. of any thickness incl cover fillets etc complete all as specified and directed.	Sqm	750.00				
34	Cutting holes into or through brick wall built in any mortar and making good in PCC 1:2:4 type B-1 using 20mm graded stone aggregate or in CM 1:3 as required superficial area not exc 150 sqcm etc complete all as specified and directed.	Per cm of depth	600.00				
35	Supply & fixing of Mild Steel Angle or Tee Section, fixed as in ceiling frame work without connecting plate conform to grade Fe 410-0 or Fe 310-0 etc complete all as specified.	Kgs	500.00				
36	Materials & Labour for 4mm thick Non asbestos fibre cement building boards fixed or laid/ inserted to timber framework with screws fixed in jointless finish with jointing compound and jointing tape as per instructions etc complete all as specified and directed.	Sqm	150.00				
	Total of srl page No. 265						

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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
E	Addition / Alteration of Offr Mess, Cdr Resident & Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 260 to 289						
37	Materials & Labour for 4mm thick for Non-Asbestos, fibre reinforced designer cement ceiling board (610mm x 610mm) with hot-dip GI heavy duty suspended ceiling grid system T-2430 all as per manufacturers instructions etc complete all as specified and directed. (Make: MIS Everest Industries Ltd. or Equivalent)	Sqm	600.00				
38	Dismantling & Refixing of Wall and Ceiling boards (fiber, pulp, insulation etc) or insulation boards/slab/blankets any thickness incl cover fillets. of any thickness incl cover fillets in same or other places etc complete all as specified and directed.	Sqm	100.00				
	Total of srl page No. 266						

(Signature of the Contractor)

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For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
E	Addition / Alteration of Offr Mess, Cdr Resident & Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 260 to 289						
39	Supply & fixing of Suspended Gypsum False Ceiling, which includes providing and fixing GI ultra perimeter channels of size 0.55 mm thick having one flange of 20 mm and another flange of 30 mm and a web of 27 mm alongwith perimeter of ceiling, screw fixed to brickwall/partition with the help of nylon sleeves and screws, at 610 mm centres. then suspending GI ultra intermidieate channels of size 45 mm , 0.9 mm thick with two flanges of 15 mm each from the soffit at 1220 mm centres with ultra ceiling angle of width 25mmx10mmx0.55 mm thick fixed to soffit with GI cleat and steel expansion fasteners. Ultra ceiling section of 0.55 mm thickness having knurled web of 51.5 mm and two flanges of 26 mm each with lips of 10.5 mm are then fixed to the ultra intermidieate channel with the help of connecting clips and in direction perpendicular to the ultra intermidieate channel at 457 mm centres. 12.5 mm tapered edge Gypboard (Confirming to IS-2095-1982) is then screw fixing is done mechanically either with screw driver or drilling machine with suitable attachment. Finally, the boards are to be jointed and finished so as to have a flush look which includes filling & finishing the tapered and square edges of the boards with jointing compound, paper tape and one coat of primer suitable over wall care putty finish etc complete and all as specified and directed.	Sqm	400.00				
40	Materials & Labour for Newly plaster surfaces or any type of boards and applying two coat of Plastic Emulsion Paint on ceiling etc complete all as specified and directed.	Sqm	400.00				
	Total of srl page No. 267						

(Signature of the Contractor)

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SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
E	Addition / Alteration of Offr Mess, Cdr Resident & Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 260 to 289						
41	Materials & Labour for POP with fibre moulded ceiling cornices, decorative type, design as approved of size not exceeding 200 mm fixed with screws complete as per manufacturer's & instruction etc complete all as specified and directed.	RM	200.00				
42	Materials & Labour for POP with fibre moulded ceiling rounded, decorative type, design as approved of size not exceeding 0.75 Sqm fixed with screws complete as per manufacturer's & instruction etc complete all as specified and directed.	Each	12.00				
43	Dismantling timber scantlings 40 Sqcm and over in section and in any position, framed work and set aside for reuse or removing from site etc complete all as specified and directed.	Cum	2.00				
44	Demolition of PCC in Ground floors/PCC Path/Plinth Protection and paving n'exc 15cm thickness (below or above ground level) and disposal of unserviceable materials, debris and rubbish to a distance not.exc 100M etc complete all as specified and directed.	Cum	4.00				
45	Materials & Labour for Coarse sand filling including watering and consolidation etc complete all as specified and directed.	Cum	4.00				
46	Materials & Labour for PCC type D-2 (1:4:8) (40mm stone graded aggregate), 75mm thick as in Sub base of Floor finished even and smooth etc complete all as specified and directed.	Sqm	30.00				
47	Materials & Labour for PCC type B-2 (1:2:4) (20mm stone graded aggregate), 50mm thick as in Floor finished even and smooth w/out using extra cement etc complete all as specified and directed.	Sqm	30.00				
	Total of srl page No. 268						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
E	Addition / Alteration of Offr Mess, Cdr Resident & Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 260 to 289						
48	Materials & Labour for Glass dividing strips, 3mm thick 38 mm wide and inserting in position confirm to design etc complete all as specified and directed.	RM	30.00				
49	Materials & Labour for PCC type C-1 (1:3:6) (20mm stone graded aggregate), 50 mm thick as in Plinth Protection finished even and smooth etc complete all as specified and directed.	Cum	2.00				
50	Materials & Labour for PCC type B-2 (1:2:4) (40mm graded aggregate), 75 mm thick as in PCC Foot path finished even and smooth etc complete all as specified and directed.	Sqm	30.00				
51	Materials & Labour for PCC type B-1 (1:2:4) using (20 mm graded stone aggregate) as in bed blocks, cast in situ in cills, parapets, hold fasts and coping etc including slightly rounded or chamfered angle fast, bed plates and the like incl use and waste of form work etc complete all as specified and directed.	Cum	5.00				
52	Materials & Labour for for PCC type C-1 (1:3:6) using (20mm graded stone aggregate) as in bed blocks, cast in situ in cills, parapets, hold fasts and coping etc including slightly rounded or chamfered angle fast, bed plates and the like incl use and waste of form work etc complete all as specified and directed.	Cum	5.00				
53	Dismantling Floor, hearth or Wall tiling including cement mortar bedding (but not baking), removing serviceable tiles to store and rubbish off the premises etc complete all as specified and directed.	Sqm	500.00				
	Total of srl page No. 269						

(Signature of the Contractor)

EE (C) SG
SW
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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
E	Addition / Alteration of Offr Mess, Cdr Resident & Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 260 to 289						
54	Materials & Labour for Non-skid ceramic tiles 7 to 8mm thick (square/rectangular) area of each tile (400x400)mm in Floors coloured tiles etc set and jointed in neat cement slurry and pointed in white or coloured cement to match incl over 15mm thick screed bed of mortar CM (1:6) etc complete all as specified and directed.	Sqm	70.00				
55	All as specifed above here in before but Vertical surface such as skirting/dado incl all necessary cutting incl over 15mm thick rendering of mortar CM (1:4) etc complete all as specified and directed.	Sqm	100.00				
56	Materials & Labour for Vitrified Ceramic tiles 10 mm thick (square/rectangular) polished, (Dark Shade/Double charged/ultracharged) area of each tiles exc 0.42sqm but not exceeding 1.00sqm, in floors etc. set and jointed in neat cement slurry and pointed in white or coloured cement to match incl over 15mm thick screed bed of mortar CM (1:6) etc complete all as specified and directed.	Sqm	550.00				
57	All as specifed above here in before but Vertical surface such as skirting/dado incl all necessary cutting incl over 15mm thick rendering of mortar CM (1:4) etc complete all as specified and directed.	Sqm	25.00				
58	Materials & Labour for Vitrified coloured tiles of size (600 x 600)mm x 10mm thick of approvaed make as in Flooring, set and jointed in neat cement slurry and pointed in white cement to match incl over 15mm thick screed bed of mortar CM (1:6) etc complete all as specified and directed.	Sqm	209.00				
	Total of srl page No. 270						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
E	Addition / Alteration of Offr Mess, Cdr Resident & Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 260 to 289						
59	Materials & Labour for Glazed ceramic coloured tiles not exceeding 0.36 sqm x 7mm thick as in Vertical surfaces set and jointed in neat cement slurry and jointed or coloured cement to match incl over 15mm thick rendering of mortar CM (1:4) etc complete all as specified and directed.	Sqm	20.00				
60	Materials & Labour for Non Skid Ceramic Coloured Heavy Duty Out Door Tiles (400x400)mm x 10mm thick in floor set & jointed in neat cement slurry & pointed in white or colored cement to match incl over 15mm thick screed bed of mortar CM (1:6) etc complete all as specified and directed.	Sqm	20.00				
61	Materials & Labour for prepolished chequered cement concrete coloured tiles, Cadbury red prepolished and chemically treated, 300mm x 300 mm x 25 mm thick with grey cement and pigment, set, jointed and pointed in neat cement slurry over & including 20mm thick screed bed in cement mortar (1:6). (Make : LOVELY tiles manufactures by HARSARU Industries or equivalent as approved).	Sqm	20.00				
62	Materials & Labour for Machine cut Kota stone slab flooring 20-25mm thick over screed base laid and jointed with grey cement slurry mixed with pigment to match the shade of the slab including rubbing and polishing complete including 20mm thick screed bed in CM 1:6 etc complete all as specified and directed.	Sqm	80.00				
63	All as per item above but on Vertical surface on 15mm thick screed bedding layer CM (1:4) etc complete all as specified and directed.	Sqm	10.00				
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(Signature of the Contractor)

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SW
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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
E	Addition / Alteration of Offr Mess, Cdr Resident & Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 260 to 289						
64	Materials & Labour for Pre polished Granite slab 20mm thick machine cut bedded and jointed with gray cement slurry and pointed with white cement with admixture of pigment to match the shade of granite stone in floorings / cooking platform / shelves or similar works etc complete all as specified and directed.	Sqm	20.00				
65	Supply & fixing of Powder Coated Coloured Aluminium Door Shutter, comprising of frame of size 101.60 mm x 44.45 mm x 2.40 mm thick , size of styles, top rails and lock rails 101.60mm x 44.45mm x 2.40mm thick, bottom rails 150mm x 44.45mm x 2.40mm thick including all necessary jointing cleats, rubber packing, anodized aluminium beading for fixing glass pane/both side prelaminated board/ACP sheet and including 5mm thick tinted/frosted glass/reflective one side mirror finish/both side prelaminated board/ACP sheet as per direction (Make : Modi guard / Saint gobain) in both panels, Hinges, Hydraulic door spring, mortice lock, stays, door stoppers and aluminium fancy type handles of size 150mm etc complete all as specified and as directed.	Sqm	8.00				
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(Signature of the Contractor)

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SW
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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
E	Addition / Alteration of Offr Mess, Cdr Resident & Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 260 to 289						
66	Supply & fixing of Powder Coated Coloured Aluminium Windows with frame comprising of 3 track sliding window made out of aluminium extruded section of bottom frame of weight not less than 1.175 Kg/M, top and side frame of weighing not less than 1.174 Kg/M, the vertical styles of shutters of weighing not less than 0.423 Kg/M, top and bottom rail of shutters of weighing not less than 0.368 Kg/M, in two pannels and shutter with and including 5mm thick tinted glass reflective one side mirror finish & third one with and incl stainless steel wiremesh and overall aluminium decogril . as approved by GE fixed with standard aluminium channel out side, with and including handles, cleat, glazing clip, special auto lock, dry set rubber gasket etc complete all as specified and directed.	Sqm	8.00				
67	Supply & fixing of Powder Coated Coloured Aluminum Ventilator with Chowkat of section 89mm x 32mm with wall thickness 2.75mm (weight 1.81kg/Rm) incl double shutter of section 50mm x 35mm with wall thickness 1.5mm including double shutter (glazed and gauzed shutter) of section 50mm x 35mm with wall thickness 1.5mm including 5mm thick tinted frosted glass, wire cloth 0.45mm nominal dia of wire cloth and average width of aperture 1.25mm including aluminium grill, fittings such as aluminium towar bolt, handles, etc complete all as specified and directed.	Sqm	2.00				
	Total of srl page No. 273						

(Signature of the Contractor)

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SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
E	Addition / Alteration of Offr Mess, Cdr Resident & Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 260 to 289						
68	Supply & fixing of 12 mm thick tinted reflective one side mirror finish (Make : Modi guard / Saint gobain) Door Shutter Single/Double leaf/Fix work including all necessary fitting and fixtures and require Hinges, Hydraulic Floor door Spring, mortice lock, stays, door stoppers and fancy type handles of size 200mm etc complete all as specified and as directed.	Sqm	16.00				
69	Supply & fixing of Powder Coated Coloured Partition Consisting of Aluminium Frame f section 89mm x 32mm with wall thickness 2.75mm (weight 1.81Kg/Rm) with 5mm thick tinted glass reflective one side mirror finish incl fixing arrangement in wall as well as in floor etc complete all as specifed and directed.	Sqm	10.00				
70	Supply & fixing of Anodised Aluminium frame for doors, windows, ventilators, partitions with one or more rebates including joining cleat for fixing incl fixing arrangement in wall as well as in floor etc complete all as specified and directed.	Kgs	10.00				
71	Supply & fixing of Powder Coating Coloured Aluminium frame for doors, windows, ventilators, partitions with one or more rebates including joining cleat for fixing incl fixing arrangement in wall as well as in floor etc complete all as specified and directed.	Kgs	10.00				
72	Taking down Shutters of any description not exceeding 1.00 sqm each etc complete all as specified and directed.	Per Leaf	10.00				
	Total of srl page No. 274						

(Signature of the Contractor)

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SW
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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
E	Addition / Alteration of Offr Mess, Cdr Resident & Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 260 to 289						
73	Taking down Shutters of any description exc 1.00 Sqm but not exceeding 2.00 sqm each etc complete all as specified and directed.	Per Leaf	5.00				
74	Taking down Chowkhats incl shutters (without taking off shutters from the frame) not exceeding 1.5 sqm each etc complete all as specified and directed.	Each	10.00				
75	Taking down Chowkhats incl shutters (without taking off shutters from the frame) exc 1.5 sqm and not exceeding 4.00 sqm each etc complete all as specified and directed.	Each	10.00				
76	Taking down & Refixing of shutters of any description exc 1.00 Sqm but not exceeding 2.00 sqm each in same opening after some repair etc complete all as specified and directed.	Per Leaf	20.00				
77	Supply & fixing of Second class hard wood plain, solid, straight chowkats and frames, wrought, framed rebated on the solid, rounded or chamfered, put together with glue, pinned at joints etc complete all as specified and directed.	Cum	1.50				
78	Supply & fixing of 35mm thick glazed and skeleton shutters open rebated and prepared to receive glass gauge etc. Divided into squares with plain chamfered or rounded, rebated without sash bars, sizes of the members of the shutters as specified in SSR Part I, section 8 etc complete all as specified and directed.	Sqm	20.00				
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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
E	Addition / Alteration of Offr Mess, Cdr Resident & Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 260 to 289						
79	Materials & Labour for 30mm thick second class hard wood glazed and skeleton shutters, open rebated and prepared to receive glass, gauze, etc (with sash bars), divided in to squares, with plain, chamfered or rounded, and rebated sash bars, any numbers for securing glass etc for windows, ventilators are provided with stiles and rails as specified in SSR part I section 8 clause 8.24 (b) etc complete all as specified and directed.	Sqm	10.00				
80	Supply & fixing of 35mm thick factory made flush shutters, solid core construction, with block board core and plywood face panels, commercial type on both sides etc complete all as specified and directed.	Sqm	20.00				
81	Supply & fixing of Butt Hinges medium grade cold rolled 100mm mild steel and fixed etc complete all as specified and directed.	Each	60.00				
82	Supply & fixing of 1st class hard wood small fittings such as Brackets of any type latch and hinges blocks, shaped door and window stoppers articles n' exc 200 cum each etc complete all as specified and directed.	Each	10.00				
83	Supply & fixing of mild steel 300 mm, ordinary rat tail rod pattern Springs including roller plate etc complete all as specified and directed.	Each	10.00				
84	Supply & fixing of Door stopper, overall length of cover plate 150mm of aluminium alloy body and tongue, anodised, with hard drawn steel spring etc complete all as specified and directed.	Each	10.00				
85	Supply & fixing of Solid PVC Door Frame of size 50mmx47mm made out of 5mm plain colour PVC sheet reinforced with MS square tube and fixing in opening as per specification & drawing given in SSR 2004(Part-II). etc complete all as specified and directed.	RM	50.00				
	Total of srl page No. 276						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
E	Addition / Alteration of Offr Mess, Cdr Resident & Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 260 to 289						
86	Supply & fixing of Factory made solid panel PVC door shutter 30mm thick style consisting of frame made out of MS tubes for top and bottom rails, MS frame shall be covered with heat moulded plain colour PVC 'C' channel having a PVC sheet strip of 20mm width & stuck inside with solvent cement for stile and plain colour PVC sheets for top rail, lock rail and bottom rail on either side and as gap insert for top rail and bottom rail, panelling of plain colour PVC sheet to be fitted in the MS frame welded/sealed to the stiles & rails with suitable PVC sheet beading and jointed together with solvent cement, suppling & fixing in the frame at site as per specification & drawing etc complete all as specified and directed.	Sqm	14.00				
87	Supply & fixing of Aluminium anodised barrel tower bolts of extruded section of 125mm size etc complete all as specified and directed.	Each	25.00				
88	Supply & fixing of Aluminium handles, cast type anodised of size 125mm etc complete all as specified and directed.	Each	50.00				
89	Supply & fixing of 250mm long aluminium alloy, anodised, Sliding Door Bolt with hasp, staple (bolt type) and fixing clips of sheet, cast or extruded sections and fixing bolts and sliding bolts of extruded sections or cast aluminium alloy and fixed etc complete all as specified and directed.	Each	10.00				
90	Supply & fixing of 5.5 mm thick select quality frosted/float glass in panels of Aluminium windows and door exc. 0.5 Sqm in each pane with glazing clips, rubber beading etc complete all as specified and directed.	Sqm	1.00				
	Total of srl page No. 277						

(Signature of the Contractor)

EE (C) SG
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For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
E	Addition / Alteration of Offr Mess, Cdr Resident & Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 260 to 289						
91	Supply & fixing of 5 mm thick ACP sheet in panels of Aluminium door exc.0.5 Sqm in each pane with rubber beading etc complete all as specified and directed.	Sqm	5.00				
92	Supply & fixing of Steel Window 1.25 mm thick Box Type (primer coated) ERW hollow P section of size 60mm x 25mm, 1.25 thick sheet single rebated comprises glazed Skelton shutter ERW Sec 50mm x 20mm and 1mm thick with one or two openable leaf consisting two Nos sash bar of T- Section 20mm x 3mm complete welded to frame with one vertical mullion of ERW box type T- Section of size 60mm x 25mm and 1.25mm thick including cutting holes and making good dismantled portion in PCC (1:2:4) type B-1 Four Nos for each window) including following fitting welded to frame shutter: (a) Hold Fast, 150mm long of 12mm square bar made to shape – 04 Nos per window (b) Handles of Z Sec 100mm long (c) Stopper – 01 No per leaf (d) Cleat 55mm long of hollow square 15mm x 20mm x 63mm welded to hinges – 01 No per leaf (e) MS Pintal hinges of size 75mmx75mmx12mm-02 Nos per leaf (f) Fabrication & fixing arrangement as per drg No. CEJZ/TD-7/07 sheet 1/3 of 3/3. Includkng Glass and two coat synthetic enamel painting etc complete all as specified and directed.	Sqm	14.00				
	Total of srl page No. 278						

(Signature of the Contractor)

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For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
E	Addition / Alteration of Offr Mess, Cdr Resident & Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 260 to 289						
93	Supply & fixing of Steel Window 1.25mm thick Box Type (primer coated) ERW hollow P section of size 60mm x 25mm single rebated comprises gauged Skelton shutter ERW Sec 50mm x 20mm and 1mm thick with one or two openable leaf consisting two Nos sash bar of T-Section 20mm x 3mm complete welded to frame with one vertical mullion of ERW box type T- Section of size 60mm x 25mm and 1.25mm thick including cutting holes and making good dismantled portion in PCC (1:3:6) type C-1 Four Nos for each window) including following fitting welded to frame shutter: (a) Mild Steel Hold Fast,150mm long of 12mm Square bar made to shape – 04 Nos per window (b) Handles of Z Sec 20mm x 100mm long (c) stopper – 01 No per leaf (d) Cleat 55mm long of hollow square 15mm x 20mmx63mm welded to hinges – 01 No per leaf (e) Mild steel Pintal hinges of size 75mmx75mmx12mm-02 Nos per leaf (f) Grills made out of MS square bar 12mm dia welded to FI frame of MS flat 25mm x 3mm complete all as specified and shown on drawings. Including Wire mesh and two coat synthetic enamel painting etc complete all as specified and directed.	Sqm	14.00				
94	All as per above item but ventilator fixed type with glazing bar with wire mesh and glass etc complete all as specified and directed.	Sqm	2.00				
95	Hacking out Old Broken Glass any thickness/ size from wooden/mental frame, glazed with putty or fixed with beading etc complete all as specified and directed.	Sqm	1.00				
	Total of srl page No. 279						

(Signature of the Contractor)

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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
E	Addition / Alteration of Offr Mess, Cdr Resident & Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 260 to 289						
96	Supply & fixing of 3mm thick Sheet Glass ordinary quality and glazing with oil putty in square n'exc 0.5 sqm in each pane etc complete all as specified and directed.	Sqm	5.00				
97	Supply & fixing of 3mm thick frosted glass and glazing with oil putty in squares not exceeding. 0.5 sqm in each pane etc complete all as specified and directed.	Sqm	1.00				
98	Supply & fixing of Galvanised Mild Steel Wire Cloth 0.56mm nominal dia of wire and average width of aperature 1.18mm and fixed with tinned tacks or galvanised wire staples etc complete all as specified and directed.	Sqm	9.00				
99	Materials & Labour for prepration of Newly Steel Surface over 10cm width or girth and applying Two Coats of Synthetic Enamel Paint over red oxide primer etc complete all as specified and directed.	Sqm	50.00				
100	Materials & Labour for prepration of Old Steel Surface over 10cm width or girth and applying one coats of Syntheic Enamel Paint etc complete all as specified and directed.	Sqm	2400.00				
101	Materials & Labour for prepration of Newly Wooden Surface over 10cm width or girth and applying two coats of Syntheic Enamel Paint over pink primer etc complete all as specified and directed.	Sqm	20.00				
102	Materials & Labour for prepration of Old Wooden Surface over 10cm width or girth and applying one coats of Syntheic Enamel Paint etc complete all as specified and directed.	Sqm	200.00				
	Total of srl page No. 280						

(Signature of the Contractor)

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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
E	Addition / Alteration of Offr Mess, Cdr Resident & Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 260 to 289						
103	Supply & fixing of in repairs Stop valves/Angle stop valves/consealed stop cock, cast copper alloy, bore dia of pipe in 15mm, screwed down, high pressure, with crutch or but-terfly handle, screwed both ends for iron pipe and fixed but fancy type, Chromium Plated and cup (concealed type) etc complete all as specified and directed.	Each	4.00				
104	Supply & fixing of Bib taps bore dia of pipe in 15mm, cast copper alloy with crutch or butterfly handle, screwed down, screwed for iron pipe or for brass ferrule but fancy type long Chromium Plated and fixed etc complete all as specified and directed.	Each	6.00				
105	Supply & fixing of Pillar taps, cast copper alloy with capstan heads Chromium Plated, screwed down high pressure, with or without lettered with long screwed shanks and fly-nuts, screwed for iron pipe but fancy type and fixed etc complete all as specified and directed.	Each	2.00				
106	Supply & fixing of in repairs Vitreous China Squatting Pan "Orissa Pattern" of size 580mm x 440mm, white with, integral foot rests front or back inlets with trap including lime concrete bedding complete all as specified and as directed by Engr-in-Charge etc complete all as specified and directed.	Each	2.00				
107	Supply & fixing of in repairs Vitreous China Wash down water closet pan (Pedestal Pattern) white including fixing bolts, White seat cover & Jet etc complete all as specified and directed.	Each	2.00				
	Total of srl page No. 281						

(Signature of the Contractor)

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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
E	Addition / Alteration of Offr Mess, Cdr Resident & Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 260 to 289						
108	Supply & fixing of Low Level Flushing System PVC valveless syphonic action type, 10 ltrs capacity including supply pipe & fixing brackets of M.S. angle of size (25mmx25mmx3mm), 30 cm long in PCC (1:2:4) type B-1, block of size (10cmx10cmx10cm) on walls etc complete all as specified and directed.	Each	2.00				
109	Supply & fixing of in repair Low Level Flushing System PVC valveless syphonic action type, 10 ltrs capacity including supply pipe & fixing brackets of M.S. angle of size (25mmx25mmx3mm), 30 cm long in PCC (1:2:4) type B-1, block of size (10cmx10cmx10cm) on walls etc complete all as specified and directed.	Each	1.00				
110	Supply & fixing of in repair Vitreous China Wash Basin, white, flat back, size (550x400)mm including brackets, cutting for and pinning in ends of brackets or erecting stand & waste pipe, coupling etc complete all as specified and directed.	Each	2.00				
111	Supply & fixing of Vitreous China Bowl Urinal flat back size of (465x355x265)mm white bowl type with grating and union for discharge pipe complete including providing and fixing plugs, bedding urinal against wall in cement mortar 1:2, securing urinal to plugs with and including 60mm long brass screws, painting around urinal back in cement, fining automatic flushing cistern with brackets, flush pipe, waste pipe. PVC connection with complete all fitting etc complete all as specified and directed.	Each	1.00				
	Total of srl page No. 282						

(Signature of the Contractor)

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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
E	Addition / Alteration of Offr Mess, Cdr Resident & Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 260 to 289						
112	Supply & fixing of Bevelled Edge Looking Mirror of selected quality glass, mounted on wall 5mm to 6mm thick fixed with fancy frame arrangement etc complete all as specified and directed.	Sqm	3.00				
113	Supply & fixing of in repairs Hindware Extended Wall Mounted Closets Crystal (Starwhite) EWC with Seat Cover, Cistern with Lid (with fittings) complete set with all fittings & fixtures etc complete all as specified and directed. (Cat No - 20048 (P-24) (Cist - 21032).	Each	4.00				
114	Supply & fixing of in repairs Hindware Counter Top Self Rimming Basins (Starwhite) Table Top Basins complete set with all fittings & fixtures etc complete all as specified and directed. (Cat No - 91054 Size – (72x46.5) CM.	Each	3.00				
115	Supply & fixing of in repairs Hindware Pillar Cock complete set with all fittings & fixtures etc complete all as specified and directed. (Cat No - F190001).	Each	4.00				
116	Supply & fixing of in repairs Hindware Bib Cock complete set with all fittings & fixtures etc complete all as specified and directed. (Cat No - F190002).	Each	6.00				
117	Supply & fixing of in repairs Hindware Angular Stop Cock complete set with all fittings & fixtures etc complete all as specified and directed. (Cat No - F190003).	Each	12.00				
118	Supply & fixing of in repairs Hindware Consealed Stop Cock with Adjustable Wall Flange (15mm) complete set with all fittings & fixtures etc complete all as specified and directed. (Cat No - F190004).	Each	4.00				
	Total of srl page No. 283						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
E	Addition / Alteration of Offr Mess, Cdr Resident & Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 260 to 289						
119	Supply & fixing of in repairs Hindware Health Faucet Abs with Rubbit Cleaning System 1.25m Long PVC Flexible Tube Abs Wall Hook complete set with all fittings & fixtures etc complete all as specified and directed. (Cat No - F160027).	Each	3.00				
120	Supply & fixing of in repairs Hindware Immacula Paper Holder with cover complete set with all fittings & fixtures etc complete all as specified and directed. (Cat No - F840009).	Each	4.00				
121	Supply & fixing of in repairs Hindware Othello Soap Dish (Brass) complete set with all fittings & fixtures etc complete all as specified and directed. (Cat No - F890005).	Each	4.00				
122	Supply & fixing of in repairs Hindware Othello Robe Hook complete set with all fittings & fixtures etc complete all as specified and directed. (Cat No - F890001).	Each	2.00				
123	Supply & fixing of in repairs Hindware Bottle Trap 32mm with 190mm & 250mm Long with Wall Connection Pipe & Wall Flange (Economy Model) complete set with all fittings & fixtures etc complete all as specified and directed. (Cat No - F850015).	Each	4.00				
124	Supply & fixing of in repairs Hindware Sensor Operated Urinal (Senso Art) (Starwhite) complete set with all fittings & fixtures etc complete all as specified and directed. (Cat No - 60018).	Each	2.00				
	Total of srl page No. 284						

(Signature of the Contractor)

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SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
E	Addition / Alteration of Offr Mess, Cdr Resident & Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 260 to 289						
125	Supply & fixing of 600mmx450mm Bevelled Edge Mirror of selected quality glass, mounted on 6mm thick AC building board or commercial plywood and fixed to wooden plugs with chromium plated brass screws and cup washers etc complete all as specified and directed.	Each	2.00				
126	Supply & fixing of Stainless Steel Sink with Draining Board, made out of 1.00mm thick sheet for kitchen or laboratory with plug, washers waste pipe, cast iron cantilever brackets, connecting union overall size 915mmx460mm with bowl size 410mmx330mmx160mm etc complete all as specified and directed.	Each	1.00				
127	Supply & fixing of in repair Towel Rail 600mm long of CP fixed with and including choromium plated fixed to plugs with CP brass screws and wooden/plastic cleats (min wt 190 gms) etc complete all as specified and directed.	Each	4.00				
128	Supply & fixing of in repair Soap Dish of CP, approximate size (190x160x90)mm fixed to plugs with CP brass screws etc complete all as specified and directed.	Each	4.00				
129	Supply & fixing of Shower rose brass chromium plated 125mm size etc complete all specified and directed.	Each	2.00				
130	Supply & fixing of Grating Doom 100mm dia with waste hole of CP etc complete all as specified and directed.	Each	10.00				
	Total of srl page No. 285						

(Signature of the Contractor)

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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
E	Addition / Alteration of Offr Mess, Cdr Resident & Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 260 to 289						
131	Supply & fixing of Cast Iron Floor Trap with Grating CP including jointing to waste pipe with dia of 100mm fixed in cement concrete type B-1 (1:2:4) etc complete all as specified and directed.	Each	2.00				
132	Supply & fixing of Brass CP Mixer, Bore of pipe in 15mm for mixing hot & cold water screwed down for iron pipe with hand shower cp etc complete all as specified and directed.	Each	4.00				
133	Supply & fixing of in repairs Paper Holder CP fixed to plugs with CP brass screws etc complete all as specified and directed.	Each	2.00				
134	Supply & fixing of in repairs Bottle Trap of CP 32mm with 190mm & 250mm Long with Wall Connection Pipe & Wall Flange complete set with all fittings & fixtures etc complete all as specified and directed.	Each	2.00				
135	Supply & fixing of Cast Iron Soil, Sand Cast pipes 100mm dia bore waste and vent pipes in any length with or without ears with cement joints, laid in trenches or in floor etc complete all as specified and directed.	RM	10.00				
136	Supply & fixing of PVC (SWR) pipes bore in 110mm single socketed, in any length with rubber ring joints, laid in trenches or in floors incl concern fittings etc complete all as specified and directed.	RM	10.00				
137	Taking up or down Steel Tubing/CPVC Tubing bore of pipe in 20mm dia and connections, including cleaning for refixing or removal to store etc complete all as specified and directed.	RM	5.00				
	Total of srl page No. 286						

(Signature of the Contractor)

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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
E	Addition / Alteration of Offr Mess, Cdr Resident & Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 260 to 289						
138	Supply & fixing of CPVC Tube Medium Grade Bore of tube in 20mm dia with all fitting and fixtures laid in trenches, walls, ceiling or laid in floors etc complete all as specified and directed.	RM	50.00				
139	Refixing Old Steel Tubing/CPVC Tubing bore of pipe in 20mm and connections in new or old position (Walls, ceiling, floors) etc complete all as specified and directed.	RM	5.00				
140	Supply & fixing of Stop valves, bore of dia 20mm, cast copper alloy, screwed down, high pressure, with crutch or butterfly handle, screwed both ends for iron pipe or for unions and fixed etc complete all as specified and directed.	Each	2.00				
141	Demolition of RCC cut as required to facilitate demolition in any position or section (below or above ground level) etc complete all as specified and directed.	Cum	1.00				
142	Materials & Labour for Precast RCC 1:2:4 type B 1 using (20mm graded stone aggregates) as in P/beam, L/beam, Chajja, Slab or similar works etc complete all as specified and directed.	Cum	3.00				
143	Materials & Labour for TMT 10mm dia bar and over, cut to length, bent to shape required, including cranking, bending spirally for hooping for columns, hooking ends and binding with and including mild steel wire (annealed) not less than 0.9mm dia or securing with clips conforming to FE-410-0 or Gde-410-0 etc complete all as specified and directed.	Kgs	150.00				
144	-ditto- but 6mm to 8mm dia etc complete all as specified and directed.	Kgs	150.00				
	Total of srl page No. 287						

(Signature of the Contractor)

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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
E	Addition / Alteration of Offr Mess, Cdr Resident & Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 260 to 289						
145	Dismantling Water Tanks exc 250 & not exceeding 500 ltrs and removing to store etc complete all as specified and directed.	Each	1.00				
146	Dismantling Water Tanks exc 500 & not exceeding 1000 ltrs and removing to store etc complete all as specified and directed.	Each	1.00				
147	Supply & fixing of Rotational Moulded Polyethylene Water Storage Tanks (cylindrical vertical with closed up, capacity in 500 Ltrs, hoisted and fixed in position with all fittings and fixtures in position incl float valve complete all as specified in SSR Part-I. etc complete all as specified and directed.	Each	1.00				
148	S&F Rotational Moulded Polyethylene Water Storage Tanks (cylindrical vertical with closed up, capacity in 1000 Ltrs, hoisted and fixed in position with all fittings and fixtures in position incl float valve complete all as specified in SSR Part-I etc complete all as specified and directed.	Each	1.00				
149	Demolition of PCC in Precast cement concrete Jalli 35mm thick or any section and disposal of unserviceable materials, debris and rubbish to a distance not.exc 100M etc complete all as specified and directed.	Cum	5.90				
150	Materials & Labour for Precast cement concrete Jalli 35mm thick get in cement mortar (1:4), type B0 (1:2:4) (12.5mm stone graded agregate) including all moulding, fittings in frame etc complete all as specified and directed.	Sqm	5.00				
151	Materials & Labour for Precast cement concrete frame anchorage block for PCC jalli fitting in cement mortar (1:4) type B-1 (1:2:4) (20mm stone graded aggregate) etc complete all as specified and directed.	Cum	0.50				
	Total of srl page No. 288						

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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
E	Addition / Alteration of Offr Mess, Cdr Resident & Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 260 to 289						
152	Supply & fixing of 2mm thick Fibre glass reinforced translucent corrugated sheeting with two corrugation side lap fixed with L-type or J-type or cranked hook bolts in lieu of screw wall etc complete all as specified and directed.	Sqm	2.00				
153	Supply & fixing of in repair 12mm thick prelaminated particle board, exterior grade prelaminated one sides with decorative choice laminateson other side balancing white lamination, fixed with screws to timber frame work / mild steel framing etc complete all as specified and directed.	Sqm	5.00				
154	Supply & fixing of in repair 18/19mm thick prelaminated particle board, exterior grade prelaminated one sides with decorative choice laminateson other side balancing white lamination as in furniture items & similar works fixed with screws in floor as well as wall incl PVC leaping alround exposed edges etc complete all as specified and directed.	Sqm	5.00				
155	Construction of Septic tank, excavation in ordinary soil, foundation in PCC 1:5:10, brick work in CM 1:4, RCC slab covers in PCC 1:2:4 including RCC precast manhole cover having 6mm plate embedded all around/fibre reinforced cover with angle iron frame vent shaft and sludge chambers etc, complete for 10 Users etc complete all as specified and directed.	Each Job	1.00				
156	Construction of Soakge well exc in ordinary soil foundation in PCC 1:5:10 wells of honey combed and solid in M-20 concrete including intercepting chamber screen chamber brick work in CM RCC cover slab in M-20/RR masonry/filling with bricks bats complete of Size Inner dia 1.20 Mtrs & 3.00 Mtrs deep etc complete all as specified and directed.	Each Job	1.00				
	Total of srl page No. 289						

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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
E	Addition / Alteration of Offr Mess, Cdr Resi & Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (E/M Works) from Page No. 290 to 297						
1	Taking down carefully point wiring of any type, size and description from hard/ teak wood batten/through pipes/casing capping (light, fan, sockets and socket outlets etc) including removal of battens, pipes, plug sockets, socket outlets, switches, shades, ceiling roses, light fittings etc. complete and making good the disturbed surface to match with existing etc complete all as specified and directed	Per Point	30				
2	Materials & Labour for Point wiring complete with PVC insulated unsheathed, 1100 volts grade copper cable 1.5 Sqmm (nominal area) FR type multi stranded copper conductor, single core drawn in and including not less than 20 mm dia rigid PVC conduit 'medium grade' ISI marked/casing capping including all conduit/casing capping accessories for concealed/open wiring including concealed pressed steel terminal box of required size factory made duly painted inside & outside with two coats of black bituminous paint over & including a coat of red oxide primer, with top cover of ISI Marked plastic laminated sheet of required colour for mounting switch, sockets, fan regulator etc including 1.5 Sqmm FR type PVC insulated unsheathed cable multi-stranded copper conductor as continuous earth wire and connected to earth dolly as required at site& including chases cutting & making good disturbed surface & applying finishes to match existing surface etc. all as specified for the following :- Note : The cost of sunken boxes and bakelite sheet or PVC board required sizes is included in the quoted rate)						
2(a)	All as per Srl item No 2 above but for one light /fan/ buzzer point controlled by one 5 Amp switch one way complete all as specified.	Per Point	60				
2(b)	All as per Srl item No 2 above but for one 5 amps socket out let independent complete all as specified.	Per Point	15				
2(c)	All as per Srl item No 2 above but on the same board complete all as specified	Per Point	10				
	Total of srl page No. 290						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
E	Addition / Alteration of Offr Mess, Cdr Resi & Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (E/M Works) from Page No. 290 to 297						
2(d)	All a per item No 2 above but with 2.5 Sq mm size cable multi stranded FRLS copper wire unsheathed for one 3 pin socket outlet 15 Amps on independent board including continuous earth wire of PVC insulated 1.5 Sq mm copper solid conductor connecting to common earth dolly complete.	Per Point	10				
3	Supply and Fixing in replacement switch piano type 6 Amps one way 230 volts AC complete all as specified and as directed (Make - Havells/Phillips/Anchor).	Each	50				
4	Supply and Fixing in replacement heavy duty socket type regulator 5 step 230 volts AC complete all as specified and as directed (Make - Havells/Phillips/Anchor).	Each	10				
5	Supply and Fixing in replacement socket outlet 5 pin, 6 Amps flush type 230 volts AC complete all as specified and as directed (Make - Havells/Phillips/Anchor).	Each	15				
6	Supply and Fixing in replacement switch piano 16 Amps type one way 230 volts AC complete all as specified and as directed (Make - Havells/Phillips/Anchor).	Each	5				
7	Supply and Fixing in replacement socket outlet 5 pin 16 Amps multi purpose flush type 230 volts AC complete all as specified and as directed (Make - Havells/Phillips/Anchor).	Each	5				
8	Supply and fixing in replacement ceiling rose 65X50 mm two to three terminals etc complete all as specified and directed.	Each	20				
9	Supply and fixing Lamp holder any type, PVC/Polycarbonate type with cord grip cap suitable for pendant fittings etc complete all as specified and directed.	Each	20				
	Total of srl page No. 291						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
E	Addition / Alteration of Offr Mess, Cdr Resi & Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (E/M Works) from Page No. 290 to 297						
10	Supply & fixing of Switch socket combination 2 in 1, 5 pin, 6 Amps flush type all as specified and directed.(Make - Havells/ Phillips/ Anchor).	Each	30				
11	S&F Switch socket combination flush type multi purpose 2 in 1 type (3 pin 6 Amps and 16 Amps) all as specified. (Make - Havells/Phillips/Anchor).	Each	20				
12	Supply and Fixing Modular switch 6 Amps one module 230 volts AC complete all as specified and as directed (Make - Havells/Phillips/Anchor).	Each	50				
13	Supply and Fixing only in replacement modular fan step regulator, heavy duty 230 volts , 2 module complete all as specified and as directed. (Make - Havells/Phillips/Anchor).	Each	15				
14	Supply and Fixing Modular socket, 6A -2/3 pin combined 2 module, 230 volts AC complete all as specified and as directed (Make - Havells/Phillips/Anchor).	Each	20				
15	Supply and Fixing Modular switch 16 Amps one module 230 volts AC complete all as specified and as directed (Make - Havells/Phillips/Anchor).	Each	20				
16	Supply and Fixing Modular socket 6A/16A, 2/3 pin combined, two module 230 volts AC complete all as specified and as directed	Each	10				
17	Supply only LED 3 W etc complete all as specified and directed. (Make - Havells/Phillips/Anchor).	Each	20				
18	Supply only LED 7 W etc complete all as specified and directed. (Make - Havells/Phillips/Anchor).	Each	20				
19	Supply only LED 9 W etc complete all as specified and directed. (Make - Havells/Phillips/Anchor).	Each	20				
	Total of srl page No. 292						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
E	Addition / Alteration of Offr Mess, Cdr Resi & Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (E/M Works) from Page No. 290 to 297						
20	Supply only LED 12 W etc complete all as specified and directed. (Make - Havells/Phillips/Anchor).	Each	20				
21	Supply only LED 15 W etc complete all as specified and directed. (Make - Havells/Phillips/Anchor).	Each	20				
22	Supply only LED 18 W etc complete all as specified and directed. (Make - Havells/Phillips/Anchor).	Each	10				
23	Supply and fixing in repair energy efficient security light in 'Lexon 25 W LED luminaire with Aluminium PDC housing, toughened glass cover with IP66 protection.. Make : Surya Cat Ref SLE UL 25W IP66 LXN or Equivalent.	Each	4				
24	Supply & fixing of new generation energy saving LED bulkhead fittings, 10W made up of aluminium PDC housing with opal diffuser with LED lamp, 9 Watt and connecting up complete all as specified and directed. (Make : Surya Cat No. SLE BLH 10W and equivalent model of make as specified in list of manufacturer).	Each	10				
25	Supply and fixing in replacement Environment friendly , energy efficient , aesthetically designed circular shaped decorative wall/ceiling light LED Fixture 12 W LED 6000K with opal diffuser to give glare free light complete all as specified and directed, Havells Cat Part No. 12W LED 6K LHEHCGP 7UL6K012 or equivalent in bajaj.	Nos	30				
	Total of srl page No. 293						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
E	Addition / Alteration of Offr Mess, Cdr Resi & Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (E/M Works) from Page No. 290 to 297						
26	Supply only 1.50 sqmm copper single core cable PVC insulated etc complete all as specified and as directed. (Make - Havells).	RM	180				
27	Supply only 2.50 sqmm copper single core cable PVC insulated etc complete all as specified and as directed. (Make - Havells).	RM	180				
28	Supply only 4.00 sqmm copper single core cable PVC insulated etc complete all as specified and as directed. (Make - Havells).	RM	180				
29	Supply only PVC board 4"x4" etc complete all as specified and as directed.	Each	10				
30	Supply only PVC board 4"x7" etc complete all as specified and as directed.	Each	10				
31	Supply only PVC board 6"x8" etc complete all as specified and as directed.	Each	4				
32	Supply and fixing sheet metal enclosure for single/double door MCB DBs, phosphatised, powder coated, Single Pole & Neutral (SPN), suitable for 2/4 way, 240 volts, IP 43 & IK 09 fixed on wall with din rail, neutral and earth bar, in proper position all as directed by the Engineer-in-Charge. (Make: Legrand Cat No: 5076 10 or equivalent siemens/ABB/Havells).	Each	6				
33	Supply & fixing MCB Single Pole SPN of capacity 6 to 32 Amps, 240 Volts, breaking capacity 10 KA, 'C' series, fixed in proper position all as directed by the Engineer-in-Charge. Make Cat No 4086 07 to 4086 17 of legrand/equivalent	Each	6				
	Total of srl page No. 294						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
E	Addition / Alteration of Offr Mess, Cdr Resi & Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (E/M Works) from Page No. 290 to 297						
34	Supply & fixing MCB Single Pole SP of capacity 6 to 32 Amps, 240 Volts, breaking capacity 1 0 KA, 'C' series, fixed in proper position all as directed by the Engineer-in-Charge. Make Cat No 4085 87 to 408595 of legrand/equivalent	Each	6				
35	Supply and fixing of LED T-8 tube light fitting with single side connection LED tube rod 18/20W 4 feet 1 x 18/20 watt MS CRCA box type including rotary type bipin holder and connection with PVC insulated twin core 23/0.0076 twisted copper cable from ceiling rose to tube light fitting complete all as specified and directed. Make:- C&S Cat No LTIC00120WLED/WD or equivalent in Havells/Philips/Bajaj/Wipro	Each	20				
36	Supply and fixing ceiling fan 1200mm sweep 65 watt power consumption 410 RPM air delivery 220 CMM, motor 14 Poles highspeed Aluminium body with blade double ball bearing of BEE star rated Including accessories connector, canopy, Hanging Rod and clamps complete all as specified and directed make USHA/ Bajaj/Havells/Khaitan/Crompton	Each	8				
37	Supply & fixing 16 sqmm aluminium double core cable PVC insulated etc complete all as specified and as directed. (Make - Havells).	RM	60				
38	Supply & fixing 16 sqmm aluminium three core cable PVC insulated etc complete all as specified and as directed. (Make - Havells).	RM	60				
	Total of srl page No. 295						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
E	Addition / Alteration of Offr Mess, Cdr Resi & Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (E/M Works) from Page No. 290 to 297						
39	Supply and fixing Single phase propeller type ventilating (Exhaust fan) heavy duty AC 230 volts 300 mm sweep, metallic body complete with louvrers and shutters including making and finishing good hole in wall for fixing Exhaust fan of 450mm sweep including necessary brick work and plaster to match the existing surface complete all as specified. Make:- Khaitan/CG/Bajaj/Usha	Each	2				
40	Supply and fixing heavy duty Exhaust fan 450 mm including making of necessary circular hole in the brick wall for fixing of exhaust fan and making good disturbed surface by plastering to the original finish of the wall and making connection from ceiling rose to fan complete all as specified and as directed. Make:- Khaitan/CG/Bajaj/Usha	Each	2				
	Total of srl page No. 296						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
E	Addition / Alteration of Offr Mess, Cdr Resi & Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (E/M Works) from Page No. 290 to 297						
41	Materials & Labour for earthing complete with galvanised steel earth plate electrode of size 600 mm x 600 mm x 6 mm thick buried directly in ground (earth pit not less than 2.25 mtr deep below normal ground level) with top edge of the plate not less than 1.5 mtr below ground level, connected to galvanized earth lead wire 4.00 mm dia by means of bolts nuts check nuts & washers of galvanized iron or steel , procteded by GI pipe 15 mm bore(light grade) and watering pipe 20 mm bore GI pipe (light grade) and chamber of pcc 1:4:8 type D2 using 40 mm graded stone aggregate and coping shall be in PCC 1:3:6 type C1 using 20mm graded stone agg. 50 mm thick cover of RCC 1:2:4 type B1 using 20 mm graded stone agg. reinforced with 8 mm dia MS tor bar @ 80 mm c/c both ways including excvation and earth work and removal of surplus soil complete all as shown in electrical plate no 5 of SSR PART 1 , with charcoal dust and salt complete and earth lead connected to earthing test point (up to main switche, DBs) complete all as specified & testing on completion.	Each	2				
42	Supply and fixing geyser 25 Ltrs capacity , after connecting electric and including necessary water connection GI Pipe, cast copper alloy screwed stop cock, chromium plated cast copper alloy 15mm bib tap and 2 nos PVC hot water connection pipe and screwing nut and bolts to fixed on wall and make surface good complete all as specified and directed.	Each Job	2				
	Total of srl page No. 297						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
F	Addition / Alteration of Paved Path in Budha Garden in HQ 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 298 to 299						
1	Surface excavation not exceeding 30 cm deep and averaging 15 cm and getting out in soft/loose soil complete all as specified and directed	Sqm	100.00				
2	Materials & Labour for broken stone aggregate of hard core gauge not exceeding 63mm in plinth protection deposited, spreaded and levelled in layers not exceeding 15cm thick watered and rammered to true surface all as specified and directed.	Cum	10.00				
3	Sand filling under floors or in foundation including watering and consolidation complete all as spd and directed.	Cum	5.00				
4	Cement concrete type D-2,1:4:8(40mm graded aggregate) as in subbase, rough surface complete all as spd and directed.	Cum	10.00				
5	Providing cement concrete Type B-1 (1:2:4), 20 mm graded aggregate as in coping, benching etc complete all as specified and directed.	Cum	2.00				
	Total of srl page No. 298						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
F	Addition / Alteration of Paved Path in Budha Garden in HQ 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 298 to 299						
6	Machine pressed precast concrete pre-laminated coloured interlocking paver block any shape and conforming IS 15658-2006 of 60mm thickness M-50 grade complete all as specified and directed.	Sqm	100.00				
7	Materials & Labour for Pre polished Granite slab 20mm thick machine cut bedded and jointed with gray cement slurry and pointed with white cement with admixture of pigment to match the shade of granite stone in floorings / cooking platform / shelves or vertical surface etc complete all as specified and directed.	Sqm	15.00				
	Total of srl page No. 299						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
G	Addition / Alteration of Rear 60 RCC at Phuentsholing (Bhutan) (B/R Works) from Page No. 300 to 322						
1	Excavation in trenches soft/loose soil not exceeding 1.5m wide and not exceeding 1.5m in depth: for foundation etc complete all as specified and directed.	Cum	8.00				
2	Demolition of Brick work built in cement mortar or cement lime mortar incl all quoins, pillars etc., separation of serviceable materials from the unserviceable, stacking the serviceable materials within 100M and disposal of unserviceable materials, debris and rubbish to a distance not.exc 100M etc complete all as specified and directed.	Cum	12.00				
3	Materials & Labour for Pre-cast cement concrete block masonry with solid blocks, Type 1:3:6 using (16mm graded aggregate) and set in cement mortar 1:6 exc.10 cm in width etc complete all as specified and directed.	Cum	38.75				
4	-ditto- all as per above but except blocks or slab etc complete all as specified and directed.	Cum	2.25				
5	Returning, filling in, including spreading, levelling watering and well ramming in layers not exceeding 25cm all types of soil etc complete all as specified and directed.	Cum	3.95				
6	Removal excavated material not exceeding 50m and depositing where directed at a level not exceeding 1.5m above the starting point etc complete all as specified and directed.	Cum	4.05				
	Total of srl page No. 300						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
G	Addition / Alteration of Rear 60 RCC at Phuentsholing (Bhutan) (B/R Works) from Page No. 300 to 322						
7	Taking down Cement Plaster on brick work or concrete surfaces incl racking out joints etc complete all as specified and directed.	Sqm	80.00				
8	Materials & Labour for 15mm thick Rendering in CM 1:6 on fair faces of brick work or concrete surfaces finished fair and even etc complete all as specified and directed.	Sqm	220.00				
9	Materials & Labour for 15mm thick Rendering in CM 1:4 on fair faces of brick work or concrete surfaces finished even and smooth incl WPC 3% by weight of cement etc complete all as specified and directed.	Sqm	420.00				
10	Supply only Integral Water Proofing compound of approved quality etc complete all as specified and directed.	Kgs	116.49				
11	Materials & Labour for preparation of newly plaster surfaces and applying two coats of Oil Bound Distemper on walls etc complete all as specified and directed.	Sqm	70.00				
12	Materials & Labour for preparation of old plaster or Un-plastered surfaces (by brooming down or steel wire brushing, scrapping down smoke soot, moulds, moss and efflorescent salts and treating oil and greasy spots) and applying one coats of Oil Bound Distemper of any colour on walls etc complete all as specified and directed.	Sqm	625.00				
	Total of srl page No. 301						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
G	Addition / Alteration of Rear 60 RCC at Phuentsholing (Bhutan) (B/R Works) from Page No. 300 to 322						
13	Materials & Labour for preparation of old plaster or Un-plastered surfaces (by brooming down or steel wire brushing, scrapping down smoke soot, moulds, moss and efflorescent salts and treating oil and greasy spots) and applying one coats of Oil Bound Distemper of any colour on ceiling etc complete all as specified and directed.	Sqm	180.00				
14	Materials & Labour for preparation of Newly plastered surfaces and applying two coats of White Wash on walls etc complete all as specified and directed.	Sqm	520.00				
15	Materials & Labour for preparation of Newly plastered surfaces and applying two coats of White Wash on ceiling etc complete all as specified and directed.	Sqm	285.00				
16	Materials & Labour for preparation of Old plastered or Un-plastered surfaces (by brooming down or steel wire brushing, scrapping down smoke soot, moulds, moss and efflorescent salts and treating oil and greasy spots) and applying one coats of White Wash on walls etc complete all as specified and directed.	Sqm	1,623.0				
17	Materials & Labour for preparation of Old plastered or Un-plastered surfaces (by brooming down or steel wire brushing, scrapping down smoke soot, moulds, moss and efflorescent salts and treating oil and greasy spots) and applying one coat of White Wash on ceiling etc complete all as specified and directed.	Sqm	252.00				
	Total of srl page No. 302						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
G	Addition / Alteration of Rear 60 RCC at Phuentsholing (Bhutan) (B/R Works) from Page No. 300 to 322						
18	Materials & Labour for preparation of Newly plastered surfaces and applying two coats of Colour Wash on walls etc complete all as specified and directed.	Sqm	45.00				
19	Materials & Labour for preparation of Old plastered or Un-plastered surfaces (by brooming down or steel wire brushing, scrapping down smoke soot, moulds, moss and efflorescent salts and treating oil and greasy spots) and applying one coats of Colour Wash on walls etc complete all as specified and directed.	Sqm	125.00				
20	Dismantling Plain or corrugated steel sheeting, any gauge, thickness , including roof covering etc complete all as specified and directed.	Sqm	870.00				
21	Supply & fixing of Wind tie for roof including securing bolts: flat iron fillets including all necessary drilling, bolting or riveting, etc, and similar work conforming to Fe 410-0 or Fe 310-0 etc complete all as specified and directed.	Kgs	90.00				
22	Materials & Labour for prepainted galvalume aluminium zinc coating, G.I. based corrugated steel sheet, 0.50 mm thick (total coated thickness) of any colour, having tensile strength of 550 MPA as in roof covering/ wall cladding, fixed with low carbon self tapping screw & EPDM washers all as per manufacturer's instructions etc complete all as specified and directed.	Sqm	870.00				
	Total of srl page No. 303						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
G	Addition / Alteration of Rear 60 RCC at Phuentsholing (Bhutan) (B/R Works) from Page No. 300 to 322						
23	Materials & Labour for prepainted galvalume aluminium zinc coating, G.I. based plain steel sheet, 0.50 mm thick (total coated thickness) of any colour, having tensile strength of 550 MPA as in Ridge/Valley/Gutter fixed with low carbon self tapping screw & EPDM washers all as per manufacturer's instructions etc complete all as specified and directed.	Sqm	104.00				
24	All as per above item but as in Eaves board etc complete all as specified and directed.	Sqm	85.00				
25	Supply & fixing of Mild steel framed work of angle or any other section (grade 410 - 0 or Fe 310-0) as in Door and Door frame, ceiling frame work, purline, rafter, truss, gusset plates, all types of related works with necessary welding incl dismantling of existing old wooden/old iron works & all types of related works etc complete all as specified and directed.	Kgs	9,650.0				
26	S&F Mild Steel Bolts (purpose made) with hexagonal or square one end and screwed the other or screwed both ends each screwed end to be fitted with washers and one hexagonal or square not exceeding 30cm long dia of neck 12mm & not exceeding 20mm etc complete all as specified and directed.	Kgs	41.00				
	Total of srl page No. 304						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
G	Addition / Alteration of Rear 60 RCC at Phuentsholing (Bhutan) (B/R Works) from Page No. 300 to 322						
27	Dismantling of Wall and Ceiling boards (fiber, pulp, insulation etc) or insulation boards/slab/blankets any thickness incl cover fillets. of any thickness incl cover fillets etc complete all as specified and directed.	Sqm	195.00				
28	Cutting holes into or through brick wall built in any mortar and making good in PCC 1:2:4 type B-1 using 20mm graded stone aggregate or in CM 1:3 as required superficial area not exc 150 sqcm etc complete all as specified and directed.	Per CM of depth	2,050.00				
29	Supply & fixing of Mild Steel Angle or Tee Section, fixed as in ceiling frame work without connecting plate confirm to grade Fe 410-0 or Fe 310-0 etc complete all as specified.	Kgs	1,700.00				
30	Materials & Labour for 4mm thick Non asbestos fibre cement building boards fixed or laid/ inserted to timber framework with screws fixed in jointless finish with jointing compound and jointing tape as per instructions etc complete all as specified and directed.	Sqm	232.00				
31	Demolition of PCC in Ground floors/PCC Path/Plinth Protection and paving (below or above ground level) and disposal of unserviceable materials, debris and rubbish to a distance not.exc 100M etc complete all as specified and directed.	Cum	7.50				
	Total of srl page No. 305						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
G	Addition / Alteration of Rear 60 RCC at Phuentsholing (Bhutan) (B/R Works) from Page No. 300 to 322						
32	Materials & Labour for PCC type B-1 (1:2:4) using (20mm graded stone aggregate) as in bed blocks, cast in situ in cills, parapets, hold fasts and coping etc including slightly rounded or chamfered angle fast, bed plates, all types of related works and the like incl use and waste of form work etc complete all as specified and directed.	Cum	25.50				
33	Materials & Labour for PCC type C-1 (1:3:6) using (20mm graded stone aggregate) as in bed blocks, cast in situ in cills, parapets, hold fasts and coping etc including slightly rounded or chamfered angle fast, bed plates and the like incl use and waste of form work etc complete all as specified and directed.	Cum	10.00				
34	Dismantling Floor, hearth, Wall tiling or Kota stone including cement mortar bedding (but not baking), removing serviceable tiles to store and rubbish off the premises etc complete all as specified and directed.	Sqm	700.50				
35	Materials & Labour for Non-skid ceramic tiles 7 to 8mm thick (square/rectangular) area of each tile (300x300)mm in Floors coloured tiles etc set and jointed in neat cement slurry and pointed in white or coloured cement to match incl over 15mm thick screed bed of mortar CM (1:6) etc complete all as specified and directed.	Sqm	56.00				
	Total of srl page No. 306						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
G	Addition / Alteration of Rear 60 RCC at Phuentsholing (Bhutan) (B/R Works) from Page No. 300 to 322						
36	Materials & Labour for Glazed ceramic coloured tiles (450x300)mm x 7mm thick or (350x250)mm x 7mm thick as in Vertical surfaces set and jointed in neat cement slurry and jointed or coloured cement to match incl over 15mm thick rendering of mortar CM (1:4) etc complete all as specified and directed.	Sqm	61.00				
37	Materials & Labour for Non-skid ceramic tiles 7 to 8mm thick (square/rectangular) area of each tile (400x400)mm in Floors coloured tiles etc set and jointed in neat cement slurry and pointed in white or coloured cement to match incl over 15mm thick screed bed of mortar CM (1:6) etc complete all as specified and directed.	Sqm	251.00				
38	All as specifed above here in before but Vertical surface such as skirting/dado incl all necessary cutting incl over 15mm thick rendering of mortar CM (1:4) etc complete all as specified and directed.	Sqm	95.50				
39	Materials & Labour for Vitrified coloured tiles of size (600 x 600)mm x 10mm thick of approvaed make as in Flooring, set and jointed in neat cement slurry and pointed in white cement to match incl over 15mm thick screed bed of mortar CM (1:6) etc complete all as specified and directed.	Sqm	32.00				
	Total of srl page No. 307						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
G	Addition / Alteration of Rear 60 RCC at Phuentsholing (Bhutan) (B/R Works) from Page No. 300 to 322						
40	Materials & Labour for Machine cut Kota stone slab flooring 20-25mm thick over screed base laid and jointed with grey cement slurry mixed with pigment to match the shade of the slab including rubbing and polishing complete including 20mm thick screed bed in CM 1:6 etc complete all as specified and directed.	Sqm	205.00				
41	All as per item above but on Vertical surface on 15mm thick screed bedding layer CM (1:4) etc complete all as specified and directed.	Sqm	20.00				
42	Materials & Labour for Pre polished Granite slab 20mm thick machine cut bedded and jointed with gray cement slurry and pointed with white cement with admixture of pigment to match the shade of granite stone in floorings / cooking platform / shelves or similar works etc complete all as specified and directed.	Sqm	7.50				
43	Taking down Shutters of any description exc 2.00 Sqm each etc complete all as specified and directed.	Per Leaf	2.00				
44	Taking down Chowkhats incl shutters (without taking off shutters from the frame) not exceeding 1.5 sqm each etc complete all as specified and directed.	Each	37.00				
45	Taking down Chowkhats incl shutters (without taking off shutters from the frame) exc 1.5 sqm and not exceeding 4.00 sqm each etc complete all as specified and directed.	Each	29.00				
	Total of srl page No. 308						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
G	Addition / Alteration of Rear 60 RCC at Phuentsholing (Bhutan) (B/R Works) from Page No. 300 to 322						
46	Taking down & Refixing of shutters of any description exc 1.00 Sqm but not exceeding 2.00 sqm each in same opening after some repair etc complete all as specified and directed.	Per Leaf	10.00				
47	Supply & fixing of Second class hard wood plain, solid, straight chowkats and frames, truss, wrought, framed rebated on the solid, rounded or chamfered, put together with glue, pinned at joints etc complete all as specified and directed.	Cum	1.10				
48	Supply & fixing of 35mm thick 2nd class H/wood plain framed factory made shutter panels shutters (Two panel) with lock rail and panel of 9mm or 12mm B.W.P Commercial ply. The size of rail and style as per IS : 1003 (Part I), Kiln seasoned and chemically pressure treated etc complete all as specified and directed.	Sqm	25.00				
49	Supply & fixing of 35mm thick 2nd class H/wood plain framed factory made shutter glazed and skeleton shutters open rebated with glazed or gauge etc. Divided into squares with plain chamfered or rounded, rebated without sash bars, sizes of the members of the shutters as specified in SSR Part I, section 8 etc complete all as specified and directed.	Sqm	25.00				
50	Supply & fixing of 35mm thick factory made flush shutters, solid core construction, with block board core and plywood face panels, commercial type on both sides etc complete all as specified and directed.	Sqm	4.00				
	Total of srl page No. 309						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
G	Addition / Alteration of Rear 60 RCC at Phuentsholing (Bhutan) (B/R Works) from Page No. 300 to 322						
51	Supply & fixing of Solid PVC Door Frame of size 50mmx47mm made out of 5mm plain colour PVC sheet reinforced with MS square tube and fixing in opening as per specification & drawing given in SSR 2004(Part-II). etc complete all as specified and directed.	RM	70.00				
52	Supply & fixing of Factory made solid panel PVC door shutter 30mm thick style consisting of frame made out of MS tubes for top and bottom rails, MS frame shall be covered with heat moulded plain colour PVC 'C' channel having a PVC sheet strip of 20mm width & stuck inside with solvent cement for stile and plain colour PVC sheets for top rail, lock rail and bottom rail on either side and as gap insert for top rail and bottom rail, panelling of plain colour PVC sheet to be fitted in the MS frame welded/sealed to the stiles & rails with suitable PVC sheet beading and jointed together with solvent cement, suppling & fixing in the frame at site as per specification & drawing etc complete all as specified and directed.	Sqm	23.00				
53	Materials & Labour for Mild steel sheet 1.25mm thick plain, black sheet in steel gates & similar work, cut to size, holes punched, including round headed screws, clout nails or rivets and fixed to steel framing with plain 40mm lap joints with riveted or welded seams, including bending etc complete all as specified and directed.	Sqm	15.00				
	Total of srl page No. 310						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
G	Addition / Alteration of Rear 60 RCC at Phuentsholing (Bhutan) (B/R Works) from Page No. 300 to 322						
54	Supply & fixing of Butt hinges medium grade cold rolled 125mm mild steel and fixed etc complete all as specified and directed.	Each	168.00				
55	Supply & fixing of Aluminium anodised barrel tower bolts of extruded section of 125mm size etc complete all as specified and directed.	Each	60.00				
56	Supply & fixing of Aluminium handles, cast type anodised of size 125mm etc complete all as specified and directed.	Each	104.00				
57	Supply & fixing of 250mm long aluminium alloy, anodised, Sliding Door Bolt with hasp, staple (bolt type) and fixing clips of sheet, cast or extruded sections and fixing bolts and sliding bolts of extruded sections or cast aluminium alloy and fixed etc complete all as specified and directed.	Each	29.00				
58	Supply & fixing of 1st class hard wood small fittings such as Brackets of any type latch and hinges blocks, shaped door and window stoppers articles n' exc 200 cum each etc complete all as specified and directed.	Each	27.00				
59	Supply & fixing of Mild steel barrel Tower Bolts, stove enamelled black with bright bolt and fixed of 150mm size etc complete all as specified and directed.	Each	10.00				
60	Supply & fixing of Mild steel pressed Handles, oval type stove enamelled black of size 125mm etc complete all as specified and directed.	Each	14.00				
	Total of srl page No. 311						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
G	Addition / Alteration of Rear 60 RCC at Phuentsholing (Bhutan) (B/R Works) from Page No. 300 to 322						
61	Supply & fixing of 250mm long Mild steel Sliding Door Bolts, plate type, stove enamelled black, with bright bolt n.less than 12mm dia with and including a minimum of 6 bolts and nuts, four on bolt plate and two on staple plate and fixed etc complete all as specified and directed.	Each	7.00				
62	Supply & fixing of Mild steel 300mm , ordinary rat tail rod pattern Springs including roller plate etc complete all as specified and directed.	Each	16.00				
63	Supply & fixing of Door stopper, overall length of cover plate 150mm of aluminium alloy body and tongue, anodised, with hard drawn steel spring etc complete all as specified and directed.	Each	8.00				
	Total of srl page No. 312						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
G	Addition / Alteration of Rear 60 RCC at Phuentsholing (Bhutan) (B/R Works) from Page No. 300 to 322						
64	Supply & fixing of Steel Window 1.25mm thick Box Type (primer coated) ERW hollow P section of size 60mm x 25mm, 1.25 thick sheet single rebated comprises glazed Skelton shutter ERW Sec 50mm x 20mm and 1mm thick with one or two openable leaf consisting two Nos sash bar of T- Section 20mm x 3mm complete welded to frame with one vertical mullion of ERW box type T- Section of size 60mm x 25mm and 1.25mm thick including cutting holes and making good dismantled portion in PCC (1:2:4) type B-1 Four Nos for each window) including following fitting welded to frame shutter: (a) Hold Fast, 150mm long of 12mm square bar made to shape – 04 Nos per window (b) Handles of Z Sec 100mm long (c) Stopper – 01 No per leaf (d) Cleat 55mm long of hollow square 15mm x 20mm x 63mm welded to hinges – 01 No per leaf (e) MS Pintal hinges of size 75mmx75mmx12mm-02 Nos per leaf (f) Fabrication & fixing arrangement as per drg No. CEJZ/TD-7/07 sheet 1/3 of 3/3. Includng Glass and two coat synthetic enamel painting etc complete all as specified and directed.	Sqm	34.50				
	Total of srl page No. 313						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
G	Addition / Alteration of Rear 60 RCC at Phuentsholing (Bhutan) (B/R Works) from Page No. 300 to 322						
65	Supply & fixing of Steel Window 1.25mm thick Box Type (primer coated) ERW hollow P section of size 60mm x 25mm single rebated comprises gauged Skelton shutter ERW Sec 50mm x 20mm and 1mm thick with one or two openable leaf consisting two Nos sash bar of T- Section 20mm x 3mm complete welded to frame with one vertical mullion of ERW box type T- Section of size 60mm x 25mm and 1.25mm thick including cutting holes and making good dismantled portion in PCC (1:3:6) type C-1 Four Nos for each window) including following fitting welded to frame shutter: (a) Mild Steel Hold Fast,150mm long of 12mm Square bar made to shape – 04 Nos per window (b) Handles of Z Sec 20mm x 100mm long (c) stopper – 01 No per leaf (d) Cleat 55mm long of hollow square 15mm x 20mmx63mm welded to hinges – 01 No per leaf (e) Mild steel Pintal hinges of size 75mmx75mmx12mm-02 Nos per leaf (f) Grills made out of MS square bar 12mm dia welded to FI frame of MS flat 25mm x 3mm complete all as specified and shown on drawings. Including Wire mesh and two coat synthetic enamel painting etc complete all as specified and directed.	Sqm	40.50				
	Total of srl page No. 314						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
G	Addition / Alteration of Rear 60 RCC at Phuentsholing (Bhutan) (B/R Works) from Page No. 300 to 322						
66	All as per above item but ventilator fixed type with glazing bar with wire mesh and glass etc complete all as specified and directed.	Sqm	13.11				
67	Hacking out Old Broken Glass any thickness/ size from wooden/mental frame, glazed with putty or fixed with beading etc complete all as specified and directed.	Sqm	20.00				
68	Supply & fixing of 3mm thick Sheet Glass ordinary quality and glazing with oil putty or wooden beading in square n'exc 0.5 sqm in each pane etc complete all as specified and directed.	Sqm	13.00				
69	Supply & fixing of 3mm thick frosted glass and glazing with oil putty in squares not exceeding. 0.5 sqm in each pane etc complete all as specified and directed.	Sqm	9.00				
70	Supply & fixing of Galvanised Mild Steel Wire Cloth 0.56mm nominal dia of wire and average width of aperature 1.18mm and fixed with tinned tacks or galvanised wire staples etc complete all as specified and directed.	Sqm	32.00				
71	Supply & fixing of 25mm dia MS Cherry Colour Decorative type PC Coated Curtain Rod with Fancy type Hanging arrangment in wall as per sample etc complete all as specified and directed.	RM	91.00				
72	Materials & Labour for prepration of Newly Steel Surface over 10cm width or girth and applying Two Coats of Synthetic Enamel Paint over red oxide primer etc complete all as specified and directed.	Sqm	225.00				
	Total of srl page No. 315						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
G	Addition / Alteration of Rear 60 RCC at Phuentsholing (Bhutan) (B/R Works) from Page No. 300 to 322						
73	Materials & Labour for prepration of Old Steel Surface over 10cm width or girth and applying one coats of Syntheic Enamel Paint etc complete all as specified and directed.	Sqm	278.00				
74	Materials & Labour for prepration of Newly Wooden Surface over 10cm width or girth and applying two coats of Syntheic Enamel Paint over pink primer etc complete all as specified and directed.	Sqm	120.00				
75	Materials & Labour for prepration of Old Wooden Surface over 10cm width or girth and applying one coats of Syntheic Enamel Paint etc complete all as specified and directed.	Sqm	110.00				
76	Supply & fixing of in repairs Stop valves/Angle stop valves/consealed stop cock, cast copper alloy, bore dia of pipe in 15mm, screwed down, high pressure, with crutch or but-terfly handle, screwed both ends for iron pipe and fixed but fancy type, Chromium Plated and cup (concealed type) etc complete all as specified and directed.	Each	39.00				
77	Supply & fixing of Bib taps bore dia of pipe in 15mm, cast copper alloy with crutch or butterfly handle, screwed down, screwed for iron pipe or for brass ferrule but fancy type long Chromium Plated and fixed etc complete all as specified and directed.	Each	28.00				
	Total of srl page No. 316						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
G	Addition / Alteration of Rear 60 RCC at Phuentsholing (Bhutan) (B/R Works) from Page No. 300 to 322						
78	Supply & fixing of Pillar taps, cast copper alloy with capstan heads Chromium Plated, screwed down high pressure, with or without lettered with long screwed shanks and fly-nuts, screwed for iron pipe but fancy type and fixed etc complete all as specified and directed.	Each	8.00				
79	Supply & fixing of PVC connection 15mm size with PTMT nuts of length 450mm etc complete all as specified and directed.	Each	26.00				
80	Supply & fixing of in repairs Vitreous China Squatting Pan "Orissa Pattern" of size 580mm x 440mm, white with, integral foot rests front or back inlets including lime concrete bedding complete & Cast iron trap all as specified and as directed by Engr-in-Charge etc complete all as specified and directed.	Each	7.00				
81	Supply & fixing of in repair Low Level Flushing System PVC valveless syphonic action type, 10 ltrs capacity including supply pipe & fixing brackets of M.S. angle of size (25mmx25mmx3mm), 30 cm long in PCC (1:2:4) type B-1, block of size (10cmx10cmx10cm) on walls etc complete all as specified and directed.	Each	7.00				
82	Supply & fixing of in repair Vitreous China Wash Basin, white, flat back, size (550x400)mm including brackets, cutting for and pinning in ends of brackets or erecting stand & waste pipe, coupling etc complete all as specified and directed.	Each	6.00				
	Total of srl page No. 317						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
G	Addition / Alteration of Rear 60 RCC at Phuentsholing (Bhutan) (B/R Works) from Page No. 300 to 322						
83	Supply & fixing of Vitreous China Bowl Urinal flat back size of (465x355x265)mm white bowl type with grating and union for discharge pipe complete including providing and fixing plugs, bedding urinal against wall in cement mortar 1:2, securing urinal to plugs with and including 60mm long brass screws, painting around urinal back in cement, fixing automatic flushing cistern with brackets, flush pipe, waste pipe. PVC connection with complete all fitting etc complete all as specified and directed.	Each	3.00				
84	Supply & fixing of 600mmx450mm Bevelled Edge Mirror of selected quality glass, mounted on 6mm thick AC building board or commercial plywood and fixed to wooden plugs with chromium plated brass screws and cup washers etc complete all as specified and directed.	Each	11.00				
85	Supply & fixing of Stainless Steel Sink with Draining Board, made out of 1.00mm thick sheet for kitchen or laboratory with plug, washers waste pipe, cast iron cantilever brackets, connecting union overall size 915mmx460mm with bowl size 410mmx330mmx160mm etc complete all as specified and directed.	Each	1.00				
86	Supply & fixing of in repair Towel Rail 600mm long of CP fixed with and including chromium plated fixed to plugs with CP brass screws and wooden/plastic cleats (min wt 190 gms) etc complete all as specified and directed.	Each	10.00				
	Total of srl page No. 318						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
G	Addition / Alteration of Rear 60 RCC at Phuentsholing (Bhutan) (B/R Works) from Page No. 300 to 322						
87	Supply & fixing of Soap Dish, vitreous china white, approximate size (190x160x90)mm fixed to plugs with CP brass screws etc complete all as specified and directed.	Each	15.00				
88	Supply & fixing of Waste Coupling bore dia of discharge pipe (mm) of PTMT (half or full threaded) (Min wt 32mm-45gms/40mm-60gms) etc complete all as specified and directed.	Each	3.00				
89	Supply & fixing of Shower rose brass chromium plated 125mm size etc complete all specified and directed..	Each	7.00				
90	S&F Grating Doom 100mm dia with waste hole of CP etc complete all as specified and directed.	Each	8.00				
91	Supply & fixing of Cast Iron Floor Trap with Grating CP including jointing to waste pipe with dia of 100mm fixed in cement concrete type B-1 (1:2:4) etc complete all as specified and directed.	Each	9.00				
92	Supply & fixing of Cast Iron Soil, Sand Cast pipes 100mm dia bore waste and vent pipes in any length with or without ears with cement joints, laid in trenches or in floors incl all connected fitting items etc complete all as specified and directed.	RM	47.00				
93	Supply & fixing of PVC (SWR) pipes bore in 110mm single socketed, in any length with rubber ring joints, laid in trenches or in floors incl all connected fitting items etc complete all as specified and directed.	RM	55.00				
	Total of srl page No. 319						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
G	Addition / Alteration of Rear 60 RCC at Phuentsholing (Bhutan) (B/R Works) from Page No. 300 to 322						
94	Taking up or down Steel Tubing/CPVC Tubing bore of pipe in 20mm dia and connections, including cleaning for refixing or removal to store etc complete all as specified and directed.	RM	42.00				
95	Supply & fixing of CPVC Tube Medium Grade Bore of tube in 20mm dia with all fitting and fixtures laid in trenches, walls, ceiling or laid in floors etc complete all as specified and directed.	RM	135.00				
96	Refixing Old Steel Tubing/CPVC Tubing bore of pipe in 20mm and connections in new or old position (Walls, ceiling, floors) etc complete all as specified and directed.	RM	22.00				
97	Supply & fixing of Stop valves, bore of dia 20mm, cast copper alloy, screwed down, high pressure, with crutch or butterfly handle, screwed both ends for iron pipe or for unions and fixed etc complete all as specified and directed.	Each	13.00				
98	Materials & Labour for Precast RCC 1:2:4 type B 1 using (20mm graded stone aggregates) as in P/beam, L/beam, Chajja, Slab or similar works etc complete all as specified and directed.	Cum	4.75				
99	Materials & Labour for TMT 10mm dia bar and over, cut to length, bent to shape required, including cranking, bending spirally for hooping for columns, hooking ends and binding with and including mild steel wire (annealed) not less than 0.9mm dia or securing with clips conforming to FE-410-0 or Gde-410-0 etc complete all as specified and directed.	Kgs	610.00				
	Total of srl page No. 320						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
G	Addition / Alteration of Rear 60 RCC at Phuentsholing (Bhutan) (B/R Works) from Page No. 300 to 322						
100	-ditto- but 6mm to 8mm dia etc complete all as specified and directed.	Kgs	575.00				
101	Dismantling Water Tanks exc 500 & not exceeding 1000 ltrs and removing to store etc complete all as specified and directed.	Each	5.00				
102	Supply & fixing of Rotational Moulded Polyethylene Water Storage Tanks (cylindrical vertical with closed up, capacity in 1000 Ltrs, hoisted and fixed in position with all fittings and fixtures in position incl float valve complete all as specified in SSR Part-I etc complete all as specified and directed.	Each	6.00				
103	Materials & Labour for cement concrete 1:3:6 type C-2 in bed to pipe incl packing under and haunching against the pipes 150mm internal dia after the pipes are paid jointed and tested etc complete.	RM	30.00				
104	Materials & Labour for Salt Glazed Stone Ware Pipe 150mm bore internally grade 'A' laid in trenches and jointed and tested etc complete all as specified and directed.	RM	30.00				
	Total of srl page No. 321						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
G	Addition / Alteration of Rear 60 RCC at Phuentsholing (Bhutan) (B/R Works) from Page No. 300 to 322						
105	Construction of Septic tank, excavation in ordinary soil, foundation in PCC 1:5:10, brick work in CM 1:4, RCC slab covers in PCC 1:2:4 including RCC precast manhole cover having 6mm plate embedded all around/fibre reinforced cover with angle iron frame vent shaft and sludge chambers etc, complete for 10 Users etc complete all as specified and directed.	Each Job	1.00				
106	Construction of Soakge well exc in ordinary soil foundation in PCC 1:5:10 wells of honey combed and solid in M-20 concrete including intercepting chamber screen chamber brick work in CM RCC cover slab in M-20/RR masonry/filling with bricks bats complete of Size Inner dia 1.20 Mtrs & 3.00 Mtrs deep etc complete all as specified and directed.	Each Job	1.00				
	Total of srl page No. 322						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
G	Addition / Alteration of Rear 60 RCC at Phuentsholing (Bhutan) (E/M Works) from Page No. 323 to 329						
1	Taking down carefully point wiring of any type, size and description from hard/ teak wood batten/through pipes/casing capping (light, fan, sockets and socket outlets etc) including removal of battens, pipes, plug sockets, socket outlets, switches, shades, ceiling roses, light fittings etc. complete and making good the disturbed surface to match with existing etc complete all as specified and directed	Per Point	30				
2	Materials & Labour for Point wiring complete with PVC insulated unsheathed, 1100 volts grade copper cable 1.5 Sqmm (nominal area) FR type multi stranded copper conductor, single core drawn in and including not less than 20 mm dia rigid PVC conduit 'medium grade' ISI marked/casing capping including all conduit/casing capping accessories for concealed/open wiring including concealed pressed steel terminal box of required size factory made duly painted inside & outside with two coats of black bituminous paint over & including a coat of red oxide primer, with top cover of ISI Marked plastic laminated sheet of required colour for mounting switch, sockets, fan regulator etc including 1.5 Sqmm FR type PVC insulated unsheathed cable multi-stranded copper conductor as continuous earth wire and connected to earth dolly as required at site& including chases cutting & making good disturbed surface & applying finishes to match existing surface etc. all as specified for the following :- Note : The cost of sunken boxes and bakelite sheet or PVC board required sizes is included in the quoted rate)						
2(a)	All as per Srl item No 2 above but for one light /fan/ buzzer point controlled by one 5 Amp switch one way complete all as specified.	Per Point	15				
2(b)	All as per Srl item No 2 above but for one 5 amps socket out let independent complete all as specified.	Per Point	15				
	Total of srl page No. 323						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
G	Addition / Alteration of Rear 60 RCC at Phuentsholing (Bhutan) (E/M Works) from Page No. 323 to 329						
2(c)	All as per Srl item No 2 above but on the same board complete all as specified	Per Point	10				
2(d)	All a per item No 2 above but with 2.5 Sq mm size cable multi stranded FRLS copper wire unsheathed for one 3 pin socket outlet 15 Amps on independent board including continuous earth wire of PVC insulated 1.5 Sq mm copper solid conductor connecting to common earth dolly complete.	Per Point	5				
3	Supply and Fixing in replacement switch piano type 6 Amps one way 230 volts AC complete all as specified and as directed (Make - Havells/Phillips/Anchor).	Each	40				
4	Supply and Fixing in replacement heavy duty socket type regulator 5 step 230 volts AC complete all as specified and as directed (Make - Havells/Phillips/Anchor).	Each	6				
5	Supply and Fixing in replacement socket outlet 5 pin, 6 Amps flush type 230 volts AC complete all as specified and as directed (Make - Havells/Phillips/Anchor).	Each	20				
6	Supply and Fixing in replacement switch piano 16 Amps type one way 230 volts AC complete all as specified and as directed (Make - Havells/Phillips/Anchor).	Each	10				
7	Supply and Fixing in replacement socket outlet 5 pin 6A/16 Amps multi purpose flush type 230 volts AC complete all as specified and as directed (Make - Havells/Phillips/Anchor).	Each	10				
8	Supply and fixing in replacement ceiling rose 65X50 mm two to three terminals etc complete all as specified and directed.	Each	12				
9	Supply and fixing Lamp holder any type, PVC/Polycarbonate type with cord grip cap suitable for pendant fittings etc complete all as specified and directed.	Each	20				
	Total of srl page No. 324						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
G	Addition / Alteration of Rear 60 RCC at Phuentsholing (Bhutan) (E/M Works) from Page No. 323 to 329						
10	Supply & fixing of Switch socket combination 2 in 1, 5 pin, 6 Amps flush type all as specified and directed.(Make - Havells/ Phillips/ Anchor).	Each	15				
11	Supply & fixing of Switch socket combination flush type multi purpose 2 in 1 type (3 pin 6 Amps and 16 Amps) all as specified. (Make - Havells/Phillips/Anchor).	Each	15				
12	Supply only LED 3 W etc complete all as specified and directed. (Make - Havells/Phillips/Anchor).	Each	20				
13	Supply only LED 7 W etc complete all as specified and directed. (Make - Havells/Phillips/Anchor).	Each	20				
14	Supply only LED 9 W etc complete all as specified and directed. (Make - Havells/Phillips/Anchor).	Each	20				
15	Supply only LED 12 W etc complete all as specified and directed. (Make - Havells/Phillips/Anchor).	Each	20				
16	Supply only LED 15 W etc complete all as specified and directed. (Make - Havells/Phillips/Anchor).	Each	20				
17	Supply only LED 18 W etc complete all as specified and directed. (Make - Havells/Phillips/Anchor).	Each	20				
18	Supply and fixing in repair energy efficient security light in 'Lexon 25 W LED luminaire with Aluminium PDC housing, toughened glass cover with IP66 protection.. Make : Surya Cat Ref SLE UL 25W IP66 LXN or Equivalent.	Each	4				
19	Supply & fixing of new generation energy saving LED bulkhead fittings, 10W made up of aluminium PDC housing with opal diffuser with LED lamp, 9 Watt and connecting up complete all as specified and directed. (Make : Surya Cat No. SLE BLH 10W and equivalent model of make as specified in list of manufacturer).	Each	12				
	Total of srl page No. 325						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
G	Addition / Alteration of Rear 60 RCC at Phuentsholing (Bhutan) (E/M Works) from Page No. 323 to 329						
20	Supply and fixing in replacement Environment friendly , energy efficient , aesthetically designed circular shaped decorative wall/ceiling light LED Fixture 12 W LED 6000K with opal diffuser to give glare free light complete all as specified and directed, Havells Cat Part No. 12W LED 6K LHEHCGP 7UL6K012 or equivalent in bajaj.	Nos	4				
21	Supply only 1.50 sqmm copper single core cable PVC insulated etc complete all as specified and as directed. (Make - Havells).	RM	270				
22	Supply only 2.50 sqmm copper single core cable PVC insulated etc complete all as specified and as directed. (Make - Havells).	RM	180				
23	Supply only 4.00 sqmm copper single core cable PVC insulated etc complete all as specified and as directed. (Make - Havells).	RM	90				
24	Supply only PVC board 4"x4" etc complete all as specified and as directed.	Each	4				
25	Supply only PVC board 4"x7" etc complete all as specified and as directed.	Each	4				
26	Supply only PVC board 6"x8" etc complete all as specified and as directed.	Each	2				
27	Supply and fixing sheet metal enclosure for single/double door MCB DBs, phosphatised, powder coated, Single Pole & Neutral (SPN), suitable for 2/4 way, 240 volts, IP 43 & IK 09 fixed on wall with din rail, neutral and earth bar, in proper position all as directed by the Engineer-in-Charge. (Make: Legrand Cat No : 5076 10 or equivalent siemens/ ABB/Havells).	Each	2				
	Total of srl page No. 326						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
G	Addition / Alteration of Rear 60 RCC at Phuentsholing (Bhutan) (E/M Works) from Page No. 323 to 329						
28	Supply & fixing MCB Single Pole SPN of capacity 6 to 32 Amps, 240 Volts, breaking capacity 10 KA, 'C' series, fixed in proper position all as directed by the Engineer-in-Charge. Make Cat No 4086 07 to 4086 17 of legrand/equivalent	Each	2				
29	Supply & fixing MCB Single Pole SP of capacity 6 to 32 Amps, 240 Volts, breaking capacity 1 0 KA, 'C' series, fixed in proper position all as directed by the Engineer-in-Charge. Make Cat No 4085 87 to 408595 of legrand/equivalent	Each	2				
30	Supply and fixing of LED T-8 tube light fitting with single side connection LED tube rod 18/20W 4 feet 1 x 18/20 watt MS CRCA box type including rotary type bipin holder and connection with PVC insulated twin core 23/0.0076 twisted copper cable from ceiling rose to tube light fitting complete all as specified and directed. Make:- C&S Cat No LTIC00120WLED/WD or equivalent in Havells/Philips/Bajaj/wipro	Each	12				
31	Supply and fixing ceiling fan 1200mm sweep 65 watt power consumption 410 RPM air delivery 220 CMM, motor 14 Poles highspeed Aluminium body with blade double ball bearing of BEE star rated Including accessories connector, canopy, Hanging Rod and clamps complete all as specified and directed make USHA/ Bajaj/Havells/Khaitan/Crompton	Each	2				
32	Supply & fixing 16 sqmm aluminium double core cable PVC insulated etc complete all as specified and as directed. (Make - Havells).	RM	60				
	Total of srl page No. 327						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
G	Addition / Alteration of Rear 60 RCC at Phuentsholing (Bhutan) (E/M Works) from Page No. 323 to 329						
33	Supply & fixing 16 sqmm aluminium three core cable PVC insulated etc complete all as specified and as directed. (Make - Havells).	RM	60				
34	Supply and fixing Single phase propeller type ventilating (Exhaust fan) heavy duty AC 230 volts 300 mm sweep, metallic body complete with louvrers and shutters including making and finishing good hole in wall for fixing Exhaust fan of 450mm sweep including necessary brick work and plaster to match the existing surface complete all as specified. Make:- Khaitan/CG/Bajaj/Usha	Each	1				
35	Supply and fixing heavy duty Exhaust fan 450 mm including making of necessary circular hole in the brick wall for fixing of exhaust fan and making good disturbed surface by plastering to the original finish of the wall and making connection from ceiling rose to fan complete all as specified and as directed. Make:- Khaitan/CG/Bajaj/Usha	EAC H	1				
	Total of srl page No. 328						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
G	Addition / Alteration of Rear 60 RCC at Phuentsholing (Bhutan) (E/M Works) from Page No. 323 to 329						
36	Materials & Labour for earthing complete with galvanised steel earth plate electrode of size 600 mm x 600 mm x 6 mm thick buried directly in ground (earth pit not less than 2.25 mtr deep below normal ground level) with top edge of the plate not less than 1.5 mtr below ground level, connected to galvanized earth lead wire 4.00 mm dia by means of bolts nuts check nuts & washers of galvanized iron or steel , protected by GI pipe 15 mm bore(light grade) and watering pipe 20 mm bore GI pipe (light grade) and chamber of pcc 1:4:8 type D2 using 40 mm graded stone aggregate and coping shall be in PCC 1:3:6 type C1 using 20mm graded stone agg. 50 mm thick cover of RCC 1:2:4 type B1 using 20 mm graded stone agg. reinforced with 8 mm dia MS tor bar @ 80 mm c/c both ways including excvaton and earth work and removal of surplus soil complete all as shown in electrical plate no 5 of SSR PART 1, with charcoal dust and salt complete and earth lead connected to earthing test point (up to main switche, DBs) complete all as specified & testing on completion.	Each	1				
37	Supply and fixing geyser 25 Ltrs capacity, after connecting electric and including necessary water connection GI Pipe, cast copper alloy screwed stop cock, chromium plated cast copper alloy 15mm bib tap and 2 nos PVC hot water connection pipe and screwing nut and bolts to fixed on wall and make surface good complete all as specified and directed.	Each Job	2				
	Total of srl page No. 329						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
H	Addition / Alteration of Rear 102 RCC under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 330 to 345						
1	Excavation in trenches soft/loose soil not exceeding 1.5m wide and not exceeding 1.5m in depth: for foundation etc complete all as specified and directed.	Cum	15.00				
2	Materials & Labour for Hardcore of broken bricks guage not exceeding 63mm, deposited, spread and levelled in layers not exceeding 15cm thick, watered and rammed to a true surface etc complete all as specified and directed.	Cum	5.00				
3	Demolition of Brick work built in cement mortar or cement lime mortar incl all quoins, pillars etc., separation of serviceable materials from the unserviceable, stacking the serviceable materials within 100M and disposal of unserviceable materials, debris and rubbish to a distance not.exc 100M etc complete all as specified and directed.	Cum	2.00				
4	Materials & Labour for Pre-cast cement concrete block masonry with solid blocks, Type 1:3:6 using (16mm graded aggregate) and set in cement mortar 1:6 exc.10 cm in width etc complete all as specified and directed.	Cum	12.00				
5	-ditto- all as per above but except blocks or slab etc complete all as specified and directed.	Cum	0.50				
6	Returning, filling in, including spreading, levelling watering and well ramming in layers not exceeding 25cm all types of soil etc complete all as specified and directed.	Cum	10.00				
7	Removal excavated material not exceeding 50m and depositing where directed at a level not exceeding 1.5m above the starting point etc complete all as specified and directed.	Cum	5.00				
8	Taking down Cement Plaster on brick work or concrete surfaces incl racking out joints etc complete all as specified and directed.	Sqm	20.00				
	Total of srl page No. 330						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
H	Addition / Alteration of Rear 102 RCC under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 330 to 345						
9	Materials & Labour for 15mm thick Rendering in CM 1:6 on fair faces of brick work or concrete surfaces finished fair and even etc complete all as specified and directed.	Sqm	100.00				
10	Materials & Labour for 15mm thick Rendering in CM 1:4 on fair faces of brick work or concrete surfaces finished even and smooth incl WPC 3% by weight of cement etc complete all as specified and directed.	Sqm	200.00				
11	Supply only Integral Water Proofing compound of approved quality etc complete all as specified and directed.	Kgs	55.50				
12	Materials & Labour for preparation of Newly plaster surfaces and applying two coats of Oil Bound Distemper on walls etc complete all as specified and directed.	Sqm	20.00				
13	Materials & Labour for preparation of Newly plaster surfaces and applying two coats of Oil Bound Distemper on ceiling etc complete all as specified and directed.	Sqm	5.00				
14	Materials & Labour for preparation of Old plaster or Un-plastered surfaces (by brooming down or steel wire brushing, scrapping down smoke soot, moulds, moss and efflorescent salts and treating oil and greasy spots) and applying one coats of Oil Bound Distemper of any colour on walls etc complete all as specified and directed.	Sqm	500.00				
15	Materials & Labour for preparation of Old plaster or Un-plastered surfaces (by brooming down or steel wire brushing, scrapping down smoke soot, moulds, moss and efflorescent salts and treating oil and greasy spots) and applying one coats of Oil Bound Distemper of any colour on ceiling etc complete all as specified and directed.	Sqm	10.00				
	Total of srl page No. 331						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
H	Addition / Alteration of Rear 102 RCC under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 330 to 345						
16	Materials & Labour for preparation of Newly plastered surfaces and applying two coats of White Wash on walls etc complete all as specified and directed.	Sqm	265.00				
17	Materials & Labour for preparation of Newly plastered surfaces and applying two coats of White Wash on ceiling etc complete all as specified and directed.	Sqm	10.00				
18	Materials & Labour for preparation of Old plastered or Un-plastered surfaces (by brooming down or steel wire brushing, scrapping down smoke soot, moulds, moss and efflorescent salts and treating oil and greasy spots) and applying one coats of White Wash on walls etc complete all as specified and directed.	Sqm	2500.00				
19	Materials & Labour for preparation of Old plastered or Un-plastered surfaces (by brooming down or steel wire brushing, scrapping down smoke soot, moulds, moss and efflorescent salts and treating oil and greasy spots) and applying one coat of White Wash on ceiling etc complete all as specified and directed.	Sqm	200.00				
20	Materials & Labour for preparation of Newly plastered surfaces and applying two coats of Colour Wash on walls etc complete all as specified and directed.	Sqm	10.00				
21	Materials & Labour for preparation of Old plastered or Un-plastered surfaces (by brooming down or steel wire brushing, scrapping down smoke soot, moulds, moss and efflorescent salts and treating oil and greasy spots) and applying one coats of Colour Wash on walls etc complete all as specified and directed.	Sqm	100.00				
22	Dismantling Plain or corrugated steel sheeting, any gauge, thickness , including roof covering etc complete all as specified and directed.	Sqm	120.00				
	Total of srl page No. 332						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
H	Addition / Alteration of Rear 102 RCC under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 330 to 345						
23	Supply & fixing of Wind tie for roof including securing bolts: flat iron fillets including all necessary drilling, bolting or riveting, etc, and similar work conforming to Fe 410-0 or Fe 310-0 etc complete all as specified and directed.	Kgs	10.00				
24	Materials & Labour for Prepainted galvalume aluminium zinc coating, G.I. based corrugated steel sheet, 0.50 mm thick (total coated thickness) of any colour, having tensile strength of 550 MPA as in roof covering/ wall cladding, fixed with low carbon self tapping screw & EPDM washers all as per manufacturer's instructions etc complete all as specified and directed.	Sqm	80.00				
25	Materials & Labour for prepainted galvalume aluminium zinc coating, G.I. based plain steel sheet, 0.50 mm thick (total coated thickness) of any colour, having tensile strength of 550 MPA as in Ridge/Valley/Gutter fixed with low carbon self tapping screw & EPDM washers all as per manufacturer's instructions etc complete all as specified and directed.	Sqm	15.00				
26	All as per above item but as in Eaves board etc complete all as specified and directed.	Sqm	15.00				
27	Materials & Labour for repairs to roof screws `J' or `L' type hook/nut bolts/bitumen washer by providing reqired quantity of M-Seal to prevent roof leaking etc complete all as specified and directed.	Each	100.00				
28	Materials & Labour for Taking down existing treatment and cleaning CGI/PGI sheets roof surfaces and sealing joints with and incl self adhesive water proofing membrane over a coat of primer as recommended by manufacturer. (Make of Adhesive - SUPERTENE of MS STP Ltd. or equivalent TEXA as approved etc complete all as specified and directed.	Sqm	100.00				
	Total of srl page No. 333						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
H	Addition / Alteration of Rear 102 RCC under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 330 to 345						
29	Supply & fixing of Mild steel framed work of angle or any other section (grade 410 - 0 or Fe 310-0) as in Door and Door frame, ceiling frame work, purline, rafter, truss, gusset plates, all types of related works with necessary welding incl dismantling of existing old wooden/old iron works & all types of related works etc complete all as specified and directed.	Kgs	300.00				
30	Supply & fixing of Mild Steel Bolts (purpose made) with hexagonal or square one end and screwed the other or screwed both ends each screwed end to be fitted with washers and one hexagonal or square not exceeding 30cm long dia of neck 12mm & not exceeding 20mm etc complete all as specified and directed.	Kgs	5.00				
31	Dismantling of Wall and Ceiling boards (fiber, pulp, insulation etc) or insulation boards/slab/blankets any thickness incl cover fillets. of any thickness incl cover fillets etc complete all as specified and directed.	Sqm	40.00				
32	Cutting holes into or through brick wall built in any mortar and making good in PCC 1:2:4 type B-1 using 20mm graded stone aggregate or in CM 1:3 as required superficial area not exc 150 sqcm etc complete all as specified and directed.	Per CM of depth	400.00				
33	Supply & fixing of Mild Steel Angle or Tee Section, fixed as in ceiling frame work without connecting plate conform to grade Fe 410-0 or Fe 310-0 etc complete all as specified.	Kgs	200.00				
34	Materials & Labour for 4mm thick Non asbestos fibre cement building boards fixed or laid/ inserted to timber framework with screws fixed in jointless finish with jointing compound and jointing tape as per instructions etc complete all as specified and directed.	Sqm	40.00				
	Total of srl page No. 334						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
H	Addition / Alteration of Rear 102 RCC under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 330 to 345						
35	Demolition of PCC in Ground floors/PCC Path/Plinth Protection and paving (below or above ground level) and disposal of unserviceable materials, debris and rubbish to a distance not.excc 100M etc complete all as specified and directed.	Cum	2.00				
36	Materials & Labour for PCC type B-1 (1:2:4) using (20mm graded stone aggregate) as in bed blocks, cast in situ in cills, parapets, hold fasts and coping etc including slightly rounded or chamfered angle fast, bed plates, all types of related works and the like incl use and waste of form work etc complete all as specified and directed.	Cum	4.00				
37	Materials & Labour for PCC type C-1 (1:3:6) using (20mm graded stone aggregate) as in bed blocks, cast in situ in cills, parapets, hold fasts and coping etc including slightly rounded or chamfered angle fast, bed plates and the like incl use and waste of form work etc complete all as specified and directed.	Cum	4.00				
38	Materials & Labour for Glass dividing strips, 3mm thick 38 mm wide and inserting in position confirm to design etc complete all as specified and directed.	RM	80.00				
39	Dismantling Floor, hearth, Wall tiling or Kota stone including cement mortar bedding (but not baking), removing serviceable tiles to store and rubbish off the premises etc complete all as specified and directed.	Sqm	260.00				
40	Materials & Labour for Non-skid ceramic tiles 7 to 8mm thick (square/rectangular) area of each tile (400x400)mm in Floors coloured tiles etc set and jointed in neat cement slurry and pointed in white or coloured cement to match incl over 15mm thick screed bed of mortar CM (1:6) etc complete all as specified and directed.	Sqm	230.00				
	Total of srl page No. 335						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
H	Addition / Alteration of Rear 102 RCC under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 330 to 345						
41	All as specified above here in before but Vertical surface such as skirting/dado incl all necessary cutting incl over 15mm thick rendering of mortar CM (1:4) etc complete all as specified and directed.	Sqm	30.00				
42	Materials & Labour for Machine cut Kota stone slab flooring 20-25mm thick over screed base laid and jointed with grey cement slurry mixed with pigment to match the shade of the slab including rubbing and polishing complete including 20mm thick screed bed in CM 1:6 etc complete all as specified and directed.	Sqm	130.00				
43	All as per item above but on Vertical surface on 15mm thick screed bedding layer CM (1:4) etc complete all as specified and directed.	Sqm	10.00				
44	Materials & Labour for Chequarred Cement Concrete tiles (20x20)cmx25mm thick set and jointed and pointed in neat cement slurry in floors with grey cement & pigment incl over 15mm thick screed bed of mortar CM (1:6) etc complete all specified and directed.	Sqm	50.00				
45	Materials & Labour for Pre polished Granite slab 20mm thick machine cut bedded and jointed with gray cement slurry and pointed with white cement with admixture of pigment to match the shade of granite stone in floorings / cooking platform / shelves or similar works etc complete all as specified and directed.	Sqm	6.30				
46	Taking down Chowkhats incl shutters (without taking off shutters from the frame) not exceeding 1.5 sqm each etc complete all as specified and directed.	Each	10.00				
	Total of srl page No. 336						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
H	Addition / Alteration of Rear 102 RCC under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 330 to 345						
47	Taking down Chowkhats incl shutters (without taking off shutters from the frame) exc 1.5 sqm and not exceeding 4.00 sqm each etc complete all as specified and directed.	Each	15.00				
48	Taking down & Refixing of shutters of any description exc 1.00 Sqm but not exceeding 2.00 sqm each in same opening after some repair etc complete all as specified and directed.	Per Leaf	20.00				
49	Supply & fixing of Second class hard wood plain, solid, straight chowkats and frames, truss, wrought, framed rebated on the solid, rounded or chamfered, put together with glue, pinned at joints etc complete all as specified and directed.	Cum	2.00				
50	Supply & fixing of 35mm thick 2nd class H/wood plain framed factory made shutter panels shutters (Two panel) with lock rail and panel of 9mm or 12mm B.W.P Commercial ply. The size of rail and style as per IS : 1003 (Part I), Kiln seasoned and chemically pressure treated etc complete all as specified and directed.	Sqm	10.00				
51	Supply & fixing of 35mm thick 2nd class H/wood plain framed factory made shutter glazed and skeleton shutters open rebated with glazed or gauge etc. Divided into squares with plain chamfered or rounded, rebated without sash bars, sizes of the members of the shutters as specified in SSR Part I, section 8 etc complete all as specified and directed.	Sqm	10.00				
52	Supply & fixing of Solid PVC Door Frame of size 50mmx47mm made out of 5mm plain colour PVC sheet reinforced with MS square tube and fixing in opening as per specification & drawing given in SSR 2004(Part-II). etc complete all as specified and directed.	RM	25.00				
	Total of srl page No. 337						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
H	Addition / Alteration of Rear 102 RCC under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 330 to 345						
53	Supply & fixing of Factory made solid panel PVC door shutter 30mm thick style consisting of frame made out of MS tubes for top and bottom rails, MS frame shall be covered with heat moulded plain colour PVC 'C' channel having a PVC sheet strip of 20mm width & stuck inside with solvent cement for stile and plain colour PVC sheets for top rail, lock rail and bottom rail on either side and as gap insert for top rail and bottom rail, panelling of plain colour PVC sheet to be fitted in the MS frame welded/sealed to the stiles & rails with suitable PVC sheet beading and jointed together with solvent cement, supplying & fixing in the frame at site as per specification & drawing etc complete all as specified and directed.	Sqm	8.00				
54	Supply & fixing of Butt hinges medium grade cold rolled 125mm mild steel and fixed etc complete all as specified and directed.	Each	45.00				
55	Supply & fixing of Aluminium anodised barrel tower bolts of extruded section of 125mm size etc complete all as specified and directed.	Each	20.00				
56	Supply & fixing of Aluminium handles, cast type anodised of size 125mm etc complete all as specified and directed.	Each	40.00				
57	Supply & fixing of 250mm long aluminium alloy, anodised, Sliding Door Bolt with hasp, staple (bolt type) and fixing clips of sheet, cast or extruded sections and fixing bolts and sliding bolts of extruded sections or cast aluminium alloy and fixed etc complete all as specified and directed.	Each	10.00				
	Total of srl page No. 338						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
H	Addition / Alteration of Rear 102 RCC under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 330 to 345						
58	Supply & fixing of 1st class hard wood small fittings such as Brackets of any type latch and hinges blocks, shaped door and window stoppers articles n' exc 200 cum each etc complete all as specified and directed.	Each	5.00				
59	Supply & fixing of Mild steel 300mm , ordinary rat tail rod pattern Springs including roller plate etc complete all as specified and directed.	Each	6.00				
60	Supply & fixing of Door stopper, overall length of cover plate 150mm of aluminium alloy body and tongue, anodised, with hard drawn steel spring etc complete all as specified and directed.	Each	4.00				
61	Supply & fixing of Steel Window 1.25mm thick Box Type (primer coated) ERW hollow P section of size 60mm x 25mm, 1.25 thick sheet single rebated comprises glazed Skelton shutter ERW Sec 50mm x 20mm and 1mm thick with one or two openable leaf consisting two Nos sash bar of T- Section 20mm x 3mm complete welded to frame with one vertical mullion of ERW box type T- Section of size 60mm x 25mm and 1.25mm thick including cutting holes and making good dismantled portion in PCC (1:2:4) type B-1 Four Nos for each window) including following fitting welded to frame shutter: (a) Hold Fast, 150mm long of 12mm square bar made to shape – 04 Nos per window (b) Handles of Z Sec 100mm long (c) Stopper – 01 No per leaf (d) Cleat 55mm long of hollow square 15mm x 20mm x 63mm welded to hinges – 01 No per leaf (e) MS Pintal hinges of size 75mmx75mmx12mm-02 Nos per leaf (f) Fabrication & fixing arrangement as per drg No. CEJZ/TD-7/07 sheet 1/3 of 3/3. Includng Glass and two coat synthetic enamel painting etc complete all as specified and directed.	Sqm	8.00				
	Total of srl page No. 339						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
H	Addition / Alteration of Rear 102 RCC under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 330 to 345						
62	Supply & fixing of Steel Window 1.25mm thick Box Type (primer coated) ERW hollow P section of size 60mm x 25mm single rebated comprises gauged Skelton shutter ERW Sec 50mm x 20mm and 1mm thick with one or two openable leaf consisting two Nos sash bar of T-Section 20mm x 3mm complete welded to frame with one vertical mullion of ERW box type T- Section of size 60mm x 25mm and 1.25mm thick including cutting holes and making good dismantled portion in PCC (1:3:6) type C-1 Four Nos for each window) including following fitting welded to frame shutter: (a) Mild Steel Hold Fast,150mm long of 12mm Square bar made to shape – 04 Nos per window (b) Handles of Z Sec 20mm x 100mm long (c) stopper – 01 No per leaf (d) Cleat 55mm long of hollow square 15mm x 20mmx63mm welded to hinges – 01 No per leaf (e) Mild steel Pintal hinges of size 75mmx75mmx12mm-02 Nos per leaf (f) Grills made out of MS square bar 12mm dia welded to FI frame of MS flat 25mm x 3mm complete all as specified and shown on drawings. Including Wire mesh and two coat synthetic enamel painting etc complete all as specified and directed.	Sqm	8.00				
63	All as per above item but ventilator fixed type with glazing bar with wire mesh and glass etc complete all as specified and directed.	Sqm	2.00				
64	Hacking out Old Broken Glass any thickness/ size from wooden/mental frame, glazed with putty or fixed with beading etc complete all as specified and directed.	Sqm	4.00				
	Total of srl page No. 340						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
H	Addition / Alteration of Rear 102 RCC under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 330 to 345						
65	Supply & fixing of 3mm thick Sheet Glass ordinary quality and glazing with oil putty or wooden beading in square n'exc 0.5 sqm in each pane etc complete all as specified and directed.	Sqm	4.00				
66	Supply & fixing of Galvanised Mild Steel Wire Cloth 0.56mm nominal dia of wire and average width of aperature 1.18mm and fixed with tinned tacks or galvanised wire staples etc complete all as specified and directed.	Sqm	4.00				
67	Supply & fixing of Galvanised Mild Steel Wire Cloth 1.40mm nominal dia of wire and Size of mesh in 12mm and fixed with tinned tacks or galvanised wire staples etc complete all as specified and directed.	Sqm	8.00				
68	Supply & fixing of 25mm dia MS Cherry Colour Decorative type PC Coated Curtain Rod with Fancy type Hanging arrangment in wall as per sample etc complete all as specified and directed.	RM	30.00				
69	Materials & Labour for prepration of Newly Steel Surface over 10cm width or girth and applying Two Coats of Synthetic Enamel Paint over red oxide primer etc complete all as specified and directed.	Sqm	20.00				
70	Materials & Labour for prepration of Old Steel Surface over 10cm width or girth and applying one coats of Syntheic Enamel Paint etc complete all as specified and directed.	Sqm	1500.00				
71	Materials & Labour for prepration of Newly Wooden Surface over 10cm width or girth and applying two coats of Syntheic Enamel Paint over pink primer etc complete all as specified and directed.	Sqm	30.00				
72	Materials & Labour for prepration of Old Wooden Surface over 10cm width or girth and applying one coats of Syntheic Enamel Paint etc complete all as specified and directed.	Sqm	50.00				
	Total of srl page No. 341						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
H	Addition / Alteration of Rear 102 RCC under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 330 to 345						
73	Materials & Labour for applying two coats of Creosote Oil including preparing surfaces of wood and wood based materials new or old of any description and girth not otherwise described etc complete all as specified and directed.	Sqm	50.00				
74	Supply & fixing of in repairs Stop valves/Angle stop valves/consealed stop cock, cast copper alloy, bore dia of pipe in 15mm, screwed down, high pressure, with crutch or but-terfly handle, screwed both ends for iron pipe and fixed but fancy type, Chromium Plated and cup (concealed type) etc complete all as specified and directed.	Each	4.00				
75	Supply & fixing of Bib taps bore dia of pipe in 15mm, cast copper alloy with crutch or butterfly handle, screwed down, screwed for iron pipe or for brass ferrule but fancy type long Chromium Plated and fixed etc complete all as specified and directed.	Each	6.00				
76	Supply & fixing of Pillar taps, cast copper alloy with capstan heads Chromium Plated, screwed down high pressure, with or without lettered with long screwed shanks and fly-nuts, screwed for iron pipe but fancy type and fixed etc complete all as specified and directed.	Each	2.00				
77	Supply & fixing of PVC connection 15mm size with PTMT nuts of length 450mm etc complete all as specified and directed.	Each	4.00				
78	Supply & fixing of in repairs Vitreous China Squatting Pan "Orissa Pattern" of size 580mm x 440mm, white with, integral foot rests front or back inlets including lime concrete bedding complete & Cast iron trap all as specified and as directed by Engr-in-Charge etc complete all as specified and directed.	Each	1.00				
	Total of srl page No. 342						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
H	Addition / Alteration of Rear 102 RCC under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 330 to 345						
79	Supply & fixing of Vitreous China Wash down water closet pan (Pedestal Pattern) white including fixing bolts, white seat cover, Cast iron S or P trap & Jet etc complete all as specified and directed.	Each	1.00				
80	Supply & fixing of in repair Low Level Flushing System PVC valveless syphonic action type, 10 ltrs capacity including supply pipe & fixing brackets of M.S. angle of size (25mmx25mmx3mm), 30 cm long in PCC (1:2:4) type B-1, block of size (10cmx10cmx10cm) on walls etc complete all as specified and directed.	Each	1.00				
81	Supply & fixing of in repair Vitreous China Wash Basin, white, flat back, size (550x400)mm including brackets, cutting for and pinning in ends of brackets or erecting stand & waste pipe, coupling etc complete all as specified and directed.	Each	1.00				
82	Supply & fixing of Vitreous China Bowl Urinal flat back size of (465x355x265)mm white bowl type with grating and union for discharge pipe complete including providing and fixing plugs, bedding urinal against wall in cement mortar 1:2, securing urinal to plugs with and including 60mm long brass screws, painting around urinal back in cement, fining automatic flushing cistern with brackets, flush pipe, waste pipe. PVC connection with complete all fitting etc complete all as specified and directed.	Each	1.00				
83	Supply & fixing of 600mmx450mm Bevelled Edge Mirror of selected quality glass, mounted on 6mm thick AC building board or commercial plywood and fixed to wooden plugs with chromium plated brass screws and cup washers etc complete all as specified and directed.	Each	2.00				
	Total of srl page No. 343						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
H	Addition / Alteration of Rear 102 RCC under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 330 to 345						
84	Supply & fixing of Stainless Steel Sink with Draining Board, made out of 1.00mm thick sheet for kitchen or laboratory with plug, washers waste pipe, cast iron cantilever brackets, connecting union overall size 915mmx460mm with bowl size 410mmx330mmx160mm etc complete all as specified and directed.	Each	1.00				
85	Supply & fixing of in repair Towel Rail 600mm long of CP fixed with and including chromomium plated fixed to plugs with CP brass screws and wooden/plastic cleats (min wt 190 gms) etc complete all as specified and directed.	Each	2.00				
86	Supply & fixing of Soap Dish, vitreous china white, approximate size (190x160x90)mm fixed to plugs with CP brass screws etc complete all as specified and directed.	Each	2.00				
87	Supply & fixing of Grating Doom 100mm dia with waste hole of CP etc complete all as specified and directed.	Each	2.00				
88	Supply & fixing of Cast Iron Floor Trap with Grating CP including jointing to waste pipe with dia of 100mm fixed in cement concrete type B-1 (1:2:4) etc complete all as specified and directed.	Each	1.00				
89	Supply & fixing of Cast Iron Soil, Sand Cast pipes 100mm dia bore waste and vent pipes in any length with or without ears with cement joints, laid in trenches or in floors incl all connected fitting items etc complete all as specified and directed.	RM	10.00				
90	Supply & fixing of PVC (SWR) pipes bore in 110mm single socketed, in any length with rubber ring joints, laid in trenches or in floors incl all connected fitting items etc complete all as specified and directed.	RM	10.00				
	Total of srl page No. 344						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
H	Addition / Alteration of Rear 102 RCC under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 330 to 345						
91	Taking up or down Steel Tubing/CPVC Tubing bore of pipe in 20mm dia and connections, including cleaning for refixing or removal to store etc complete all as specified and directed.	RM	20.00				
92	Supply & fixing of CPVC Tube Medium Grade Bore of tube in 20mm dia with all fitting and fixtures laid in trenches, walls, ceiling or laid in floors etc complete all as specified and directed.	RM	30.00				
93	Refixing Old Steel Tubing/CPVC Tubing bore of pipe in 20mm and connections in new or old position (Walls, ceiling, floors) etc complete all as specified and directed.	RM	10.00				
94	Supply & fixing of Stop valves, bore of dia 20mm, cast copper alloy, screwed down, high pressure, with crutch or butterfly handle, screwed both ends for iron pipe or for unions and fixed etc complete all as specified and directed.	Each	1.00				
95	Materials & Labour for Precast RCC 1:2:4 type B 1 using (20mm graded stone aggregates) as in P/beam, L/beam, Chajja, Slab or similar works etc complete all as specified and directed.	Cum	0.25				
96	Materials & Labour for TMT 10mm dia bar and over, cut to length, bent to shape required, including cranking, bending spirally for hooping for columns, hooking ends and binding with and including mild steel wire (annealed) not less than 0.9mm dia or securing with clips conforming to FE-410-0 or Gde-410-0 etc complete all as specified and directed.	Kgs	25.00				
97	-ditto- but 6mm to 8mm dia etc complete all as specified and directed.	Kgs	25.00				
98	Supply & fixing of Rotational Moulded Polyethylene Water Storage Tanks (cylindrical vertical with closed up, capacity in 500 Ltrs, hoisted and fixed in position with all fittings and fixtures in position incl float valve complete all as specified in SSR Part-I. etc complete all as specified and directed.	Each	1.00				
	Total of srl page No. 345						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
H	Addition / Alteration of Rear 102 RCC under 19 BRTF at Phuentsholing (Bhutan) (E/M Works) from Page No. 346 to 352						
1	Taking down carefully point wiring of any type, size and description from hard/ teak wood batten/through pipes/casing capping (light, fan, sockets and socket outlets etc) including removal of battens, pipes, plug sockets, socket outlets, switches, shades, ceiling roses, light fittings etc. complete and making good the disturbed surface to match with existing etc complete all as specified and directed	Per Point	30				
2	Materials & Labour for Point wiring complete with PVC insulated unsheathed, 1100 volts grade copper cable 1.5 Sqmm (nominal area) FR type multi stranded copper conductor, single core drawn in and including not less than 20 mm dia rigid PVC conduit 'medium grade' ISI marked/casing capping including all conduit/casing capping accessories for concealed/open wiring including concealed pressed steel terminal box of required size factory made duly painted inside & outside with two coats of black bituminous paint over & including a coat of red oxide primer, with top cover of ISI Marked plastic laminated sheet of required colour for mounting switch, sockets, fan regulator etc including 1.5 Sqmm FR type PVC insulated unsheathed cable multi-stranded copper conductor as continuous earth wire and connected to earth dolly as required at site& including chases cutting & making good disturbed surface & applying finishes to match existing surface etc. all as specified for the following :- Note : The cost of sunken boxes and bakelite sheet or PVC board required sizes is included in the quoted rate)						
2(a)	All as per Srl item No 2 above but for one light /fan/ buzzer point controlled by one 5 Amp switch one way complete all as specified.	Per Point	15				
2(b)	All as per Srl item No 2 above but for one 5 amps socket out let independent complete all as specified.	Per Point	10				
	Total of srl page No. 346						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
H	Addition / Alteration of Rear 102 RCC under 19 BRTF at Phuentsholing (Bhutan) (E/M Works) from Page No. 346 to 352						
2(c)	All as per Srl item No 2 above but on the same board complete all as specified	Per Point	6				
2(d)	All a per item No 2 above but with 2.5 Sq mm size cable multi stranded FRLS copper wire unsheathed for one 3 pin socket outlet 15 Amps on independent board including continuous earth wire of PVC insulated 1.5 Sq mm copper solid conductor connecting to common earth dolly complete.	Per Point	5				
3	Supply and Fixing in replacement switch piano type 6 Amps one way 230 volts AC complete all as specified and as directed (Make - Havells/Phillips/Anchor).	Each	20				
4	Supply and Fixing in replacement heavy duty socket type regulator 5 step 230 volts AC complete all as specified and as directed (Make - Havells/Phillips/Anchor).	Each	4				
5	Supply and Fixing in replacement socket outlet 5 pin, 6 Amps flush type 230 volts AC complete all as specified and as directed (Make - Havells/Phillips/Anchor).	Each	10				
6	Supply and Fixing in replacement switch piano 16 Amps type one way 230 volts AC complete all as specified and as directed (Make - Havells/Phillips/Anchor).	Each	8				
7	Supply and Fixing in replacement socket outlet 5 pin 6A/16 Amps multi purpose flush type 230 volts AC complete all as specified and as directed (Make - Havells/Phillips/Anchor).	Each	8				
8	Supply and fixing in replacement ceiling rose 65X50 mm two to three terminals etc complete all as specified and directed.	Each	8				
9	Supply and fixing Lamp holder any type, PVC/Polycarbonate type with cord grip cap suitable for pendant fittings etc complete all as specified and directed.	Each	20				
	Total of srl page No. 347						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
H	Addition / Alteration of Rear 102 RCC under 19 BRTF at Phuentsholing (Bhutan) (E/M Works) from Page No. 346 to 352						
10	Supply & fixing of Switch socket combination 2 in 1, 5 pin, 6 Amps flush type all as specified and directed.(Make - Havells/ Phillips/ Anchor).	Each	10				
11	Supply & fixing of Switch socket combination flush type multi purpose 2 in 1 type (3 pin 6 Amps and 16 Amps) all as specified. (Make - Havells/Phillips/Anchor).	Each	10				
12	Supply only LED 3 W etc complete all as specified and directed. (Make - Havells/Phillips/Anchor).	Each	10				
13	Supply only LED 7 W etc complete all as specified and directed. (Make - Havells/Phillips/Anchor).	Each	10				
14	Supply only LED 9 W etc complete all as specified and directed. (Make - Havells/Phillips/Anchor).	Each	10				
15	Supply only LED 12 W etc complete all as specified and directed. (Make - Havells/Phillips/Anchor).	Each	10				
16	Supply only LED 15 W etc complete all as specified and directed. (Make - Havells/Phillips/Anchor).	Each	10				
17	Supply only LED 18 W etc complete all as specified and directed. (Make - Havells/Phillips/Anchor).	Each	10				
18	Supply and fixing in repair energy efficient security light in 'Lexon 25 W LED luminaire with Aluminium PDC housing, toughened glass cover with IP66 protection.. Make : Surya Cat Ref SLE UL 25W IP66 LXN or Equivalent.	Each	1				
	Total of srl page No. 348						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
H	Addition / Alteration of Rear 102 RCC under 19 BRTF at Phuentsholing (Bhutan) (E/M Works) from Page No. 346 to 352						
19	Supply & fixing of new generation energy saving LED bulkhead fittings, 10W made up of aluminium PDC housing with opal diffuser with LED lamp, 9 Watt and connecting up complete all as specified and directed. (Make : Surya Cat No. SLE BLH 10W and equivalent model of make as specified in list of manufacturer).	Each	8				
20	Supply only 1.50 sqmm copper single core cable PVC insulated etc complete all as specified and as directed. (Make - Havells).	RM	180				
21	Supply only 2.50 sqmm copper single core cable PVC insulated etc complete all as specified and as directed. (Make - Havells).	RM	90				
22	Supply only 4.00 sqmm copper single core cable PVC insulated etc complete all as specified and as directed. (Make - Havells).	RM	90				
23	Supply only PVC board 4"x4" etc complete all as specified and as directed.	Each	4				
24	Supply only PVC board 4"x7" etc complete all as specified and as directed.	Each	4				
25	Supply only PVC board 6"x8" etc complete all as specified and as directed.	Each	2				
26	Supply and fixing sheet metal enclosure for single/double door MCB DBs, phosphatised, powder coated, Single Pole & Neutral (SPN), suitable for 2/4 way, 240 volts, IP 43 & IK 09 fixed on wall with din rail, neutral and earth bar, in proper position all as directed by the Engineer-in-Charge. (Make: Legrand Cat No : 5076 10 or equivalent siemens/ ABB/Havells).	Each	2				
	Total of srl page No. 349						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
H	Addition / Alteration of Rear 102 RCC under 19 BRTF at Phuentsholing (Bhutan) (E/M Works) from Page No. 346 to 352						
27	Supply & fixing MCB Single Pole SPN of capacity 6 to 32 Amps, 240 Volts, breaking capacity 10 KA, 'C' series, fixed in proper position all as directed by the Engineer-in-Charge. Make Cat No 4086 07 to 4086 17 of legrand/equivalent	Each	2				
28	Supply & fixing MCB Single Pole SP of capacity 6 to 32 Amps, 240 Volts, breaking capacity 10 KA, 'C' series, fixed in proper position all as directed by the Engineer-in-Charge. Make Cat No 4085 87 to 408595 of legrand/equivalent	Each	2				
29	Supply and fixing of LED T-8 tube light fitting with single side connection LED tube rod 18/20W 4 feet 1 x 18/20 watt MS CRCA box type including rotary type bipin holder and connection with PVC insulated twin core 23/0.0076 twisted copper cable from ceiling rose to tube light fitting complete all as specified and directed. Make:- C&S Cat No LTIC00120WLED/WD or equivalent in Havells/Philips/Bajaj/wipro	Each	12				
30	Supply and fixing ceiling fan 1200mm sweep 65 watt power consumption 410 RPM air delivery 220 CMM, motor 14 Poles highspeed Aluminium body with blade double ball bearing of BEE star rated Including accessories connector, canopy, Hanging Rod and clamps complete all as specified and directed make USHA/ Bajaj/Havells/Khaitan/Crompton	Each	2				
31	Supply & fixing 16 sqmm aluminium double core cable PVC insulated etc complete all as specified and as directed. (Make - Havells).	RM	60				
32	Supply & fixing 16 sqmm aluminium three core cable PVC insulated etc complete all as specified and as directed. (Make - Havells).	RM	60				
	Total of srl page No. 350						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
H	Addition / Alteration of Rear 102 RCC under 19 BRTF at Phuentsholing (Bhutan) (E/M Works) from Page No. 346 to 352						
33	Supply and fixing Single phase propeller type ventilating (Exhaust fan) heavy duty AC 230 volts 300 mm sweep, metallic body complete with louvres and shutters including making and finishing good hole in wall for fixing Exhaust fan of 450mm sweep including necessary brick work and plaster to match the existing surface complete all as specified. Make:- Khaitan/CG/Bajaj/Usha	Each	1				
34	Supply and fixing heavy duty Exhaust fan 450 mm including making of necessary circular hole in the brick wall for fixing of exhaust fan and making good disturbed surface by plastering to the original finish of the wall and making connection from ceiling rose to fan complete all as specified and as directed. Make:- Khaitan/CG/Bajaj/Usha	EAC H	1				
35	Materials & Labour for earthing complete with galvanised steel earth plate electrode of size 600 mm x 600 mm x 6 mm thick buried directly in ground (earth pit not less than 2.25 mtr deep below normal ground level) with top edge of the plate not less than 1.5 mtr below ground level, connected to galvanized earth lead wire 4.00 mm dia by means of bolts nuts check nuts & washers of galvanized iron or steel , protected by GI pipe 15 mm bore(light grade) and watering pipe 20 mm bore GI pipe (light grade) and chamber of pcc 1:4:8 type D2 using 40 mm graded stone aggregate and coping shall be in PCC 1:3:6 type C1 using 20mm graded stone agg. 50 mm thick cover of RCC 1:2:4 type B1 using 20 mm graded stone agg. reinforced with 8 mm dia MS tor bar @ 80 mm c/c both ways including excvaton and earth work and removal of surplus soil complete all as shown in electrical plate no 5 of SSR PART 1 , with charcoal dust and salt complete and earth lead connected to earthing test point (up to main switche, DBs) complete all as specified & testing on completion.	Each	1				
	Total of srl page No. 351						

(Signature of the Contractor)

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SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
H	Addition / Alteration of Rear 102 RCC under 19 BRTF at Phuentsholing (Bhutan) (E/M Works) from Page No. 346 to 352						
36	Supply and fixing geyser 25 Ltrs capacity, after connecting electric and including necessary water connection GI Pipe, cast copper alloy screwed stop cock, chromium plated cast copper alloy 15mm bib tap and 2 nos PVC hot water connection pipe and screwing nut and bolts to fixed on wall and make surface good complete all as specified and directed.	Each Job	1				
	Total of srl page No. 352						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
J	Addition / Alteration of Supvr Family Qtrs, CMI Room, DAD Mess with Living & Family Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 353 to 368						
1	Excavation in trenches soft/loose soil not exceeding 1.5m wide and not exceeding 1.5m in depth: for foundation etc complete all as specified and directed.	Cum	7.00				
2	Materials & Labour for Hardcore of broken bricks guage not exceeding 63mm, deposited, spread and levelled in layers not exceeding 15cm thick, watered and rammed to a true surface etc complete all as specified and directed.	Cum	3.50				
3	Demolition of Brick work built in cement mortar or cement lime mortar incl all quoins, pillars etc., separation of serviceable materials from the unserviceable, stacking the serviceable materials within 100M and disposal of unserviceable materials, debris and rubbish to a distance not.exc 100M etc complete all as specified and directed.	Cum	1.00				
4	Materials & Labour for Pre-cast cement concrete block masonry with solid blocks, Type 1:3:6 using (16mm graded aggregate) and set in cement mortar 1:6 exc.10 cm in width etc complete all as specified and directed.	Cum	6.00				
5	-ditto- all as per above but except blocks or slab etc complete all as specified and directed.	Cum	0.50				
6	Returning, filling in, including spreading, levelling watering and well ramming in layers not exceeding 25cm all types of soil etc complete all as specified and directed.	Cum	3.50				
7	Removal excavated material not exceeding 50m and depositing where directed at a level not exceeding 1.5m above the starting point etc complete all as specified and directed.	Cum	3.50				
8	Taking down Cement Plaster on brick work or concrete surfaces incl racking out joints etc complete all as specified and directed.	Sqm	40.00				
	Total of srl page No. 353						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
J	Addition / Alteration of Supvr Family Qtrs, CMI Room, DAD Mess with Living & Family Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 353 to 368						
9	Materials & Labour for 15mm thick Rendering in CM 1:6 on fair faces of brick work or concrete surfaces finished fair and even etc complete all as specified and directed.	Sqm	80.00				
10	Materials & Labour for 15mm thick Rendering in CM 1:4 on fair faces of brick work or concrete surfaces finished even and smooth incl WPC 3% by weight of cement etc complete all as specified and directed.	Sqm	80.00				
11	Supply only Integral Water Proofing compound of approved quality etc complete all as specified and directed.	Kgs	22.20				
12	Materials & Labour for preparation of Newly plaster surfaces and applying two coats of Oil Bound Distemper on walls etc complete all as specified and directed.	Sqm	80.00				
13	Materials & Labour for preparation of Old plaster or Un-plastered surfaces (by brooming down or steel wire brushing, scrapping down smoke soot, moulds, moss and efflorescent salts and treating oil and greasy spots) and applying one coats of Oil Bound Distemper of any colour on walls etc complete all as specified and directed.	Sqm	3,550.00				
14	Materials & Labour for preparation of Old plaster or Un-plastered surfaces (by brooming down or steel wire brushing, scrapping down smoke soot, moulds, moss and efflorescent salts and treating oil and greasy spots) and applying one coats of Oil Bound Distemper of any colour on ceiling etc complete all as specified and directed.	Sqm	1,140.00				
15	Materials & Labour for preparation of Newly plastered surfaces and applying two coats of White Wash on walls etc complete all as specified and directed.	Sqm	10.00				
	Total of srl page No. 354						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
J	Addition / Alteration of Supvr Family Qtrs, CMI Room, DAD Mess with Living & Family Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 353 to 368						
16	Materials & Labour for preparation of Newly plastered surfaces and applying two coats of White Wash on ceiling etc complete all as specified and directed.	Sqm	10.00				
17	Materials & Labour for preparation of Old plastered or Un-plastered surfaces (by brooming down or steel wire brushing, scrapping down smoke soot, moulds, moss and efflorescent salts and treating oil and greasy spots) and applying one coats of White Wash on walls etc complete all as specified and directed.	Sqm	40.00				
18	Materials & Labour for preparation of Old plastered or Un-plastered surfaces (by brooming down or steel wire brushing, scrapping down smoke soot, moulds, moss and efflorescent salts and treating oil and greasy spots) and applying one coat of White Wash on ceiling etc complete all as specified and directed.	Sqm	10.00				
19	Materials & Labour for preparation of Old plastered or Un-plastered surfaces (by brooming down or steel wire brushing, scrapping down smoke soot, moulds, moss and efflorescent salts and treating oil and greasy spots) and applying one coats of Colour Wash on walls etc complete all as specified and directed.	Sqm	40.00				
20	Materials & Labour for preparation of New/Old plastered surfaces and applying two coats painting with acrylic emulsion Weather Proof, anti fungle paint (Appex ultima or equivalent) including making good undulations on plastered / concrete surfaces etc complete all as specified and directed.	Sqm	1,900.00				
21	Dismantling Plain or corrugated steel sheeting, any gauge, thickness , including roof covering etc complete all as specified and directed.	Sqm	470.00				
	Total of srl page No. 355						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
J	Addition / Alteration of Supvr Family Qtrs, CMI Room, DAD Mess with Living & Family Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 353 to 368						
22	Supply & fixing of Wind tie for roof including securing bolts: flat iron fillets including all necessary drilling, bolting or riveting, etc, and similar work conforming to Fe 410-0 or Fe 310-0 etc complete all as specified and directed.	Kgs	20.00				
23	Materials & Labour for Prepainted galvalume aluminium zinc coating, G.I. based corrugated steel sheet, 0.50 mm thick (total coated thickness) of any colour, having tensile strength of 550 MPA as in roof covering/ wall cladding, fixed with low carbon self tapping screw & EPDM washers all as per manufacturer's instructions etc complete all as specified and directed.	Sqm	520.00				
24	Materials & Labour for prepainted galvalume aluminium zinc coating, G.I. based plain steel sheet, 0.50 mm thick (total coated thickness) of any colour, having tensile strength of 550 MPA as in Ridge/Valley/Gutter fixed with low carbon self tapping screw & EPDM washers all as per manufacturer's instructions etc complete all as specified and directed.	Sqm	35.00				
25	All as per above item but as in Eaves board etc complete all as specified and directed.	Sqm	10.00				
26	Materials & Labour for repairs to roof screws `J' or `L' type hook/nut bolts/bitumen washer by providing reqired quantity of M-Seal to prevent roof leaking etc complete all as specified and directed.	Each	50.00				
	Total of srl page No. 356						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
J	Addition / Alteration of Supvr Family Qtrs, CMI Room, DAD Mess with Living & Family Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 353 to 368						
27	Materials & Labour for Taking down existing treatment and cleaning CGI/PGL sheets roof surfaces and sealing joints with and incl self adhesive water proofing membrane over a coat of primer as recommended by manufacturer. (Make of Adhesive - SUPERTENE of MS STP Ltd. or equivalent TEXA as approved etc complete all as specified and directed.	Sqm	20.00				
28	Supply & fixing of Mild steel framed work of angle or any other section (grade 410 - 0 or Fe 310-0) as in Door and Door frame, ceiling frame work, purline, rafter, truss, gusset plates, all types of related works with necessary welding incl dismantling of existing old wooden/old iron works & all types of related works etc complete all as specified and directed.	Kgs	30.00				
29	Dismantling of Wall and Ceiling boards (fiber, pulp, insulation etc) or insulation boards/slab/blankets any thickness incl cover fillets. of any thickness incl cover fillets etc complete all as specified and directed.	Sqm	50.00				
30	Materials & Labour for 4mm thick Non asbestos fibre cement building boards fixed or laid/ inserted to timber framework with screws fixed in jointless finish with jointing compound and jointing tape as per instructions etc complete all as specified and directed.	Sqm	6.00				
31	Materials & Labour for 4mm thick Non Asbestos fibre reinforced designer cement ceiling board (610mm x 610mm) with hot-dip GI heavy duty suspended ceiling grid system T-2430 all as per manufacturers instructions etc complete all as specified and directed. (Make: MIS Everest Industries Ltd. or Equivalent)	Sqm	50.00				
	Total of srl page No. 357						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
J	Addition / Alteration of Supvr Family Qtrs, CMI Room, DAD Mess with Living & Family Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 353 to 368						
32	Demolition of PCC in Ground floors/PCC Path/Plinth Protection and paving (below or above ground level) and disposal of unserviceable materials, debris and rubbish to a distance not exc 100M etc complete all as specified and directed.	Cum	0.50				
33	Materials & Labour for PCC type B-1 (1:2:4) using (20mm graded stone aggregate) as in bed blocks, cast in situ in cills, parapets, hold fasts and coping etc including slightly rounded or chamfered angle fast, bed plates, all types of related works and the like incl use and waste of form work etc complete all as specified and directed.	Cum	2.00				
34	Materials & Labour for PCC type C-1 (1:3:6) using (20mm graded stone aggregate) as in bed blocks, cast in situ in cills, parapets, hold fasts and coping etc including slightly rounded or chamfered angle fast, bed plates and the like incl use and waste of form work etc complete all as specified and directed.	Cum	2.00				
35	Materials & Labour for Glass dividing strips, 3mm thick 38 mm wide and inserting in position confirm to design etc complete all as specified and directed.	RM	15.00				
36	Dismantling Floor, hearth, Wall tiling or Kota stone including cement mortar bedding (but not baking), removing serviceable tiles to store and rubbish off the premises etc complete all as specified and directed.	Sqm	910.00				
	Total of srl page No. 358						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
J	Addition / Alteration of Supvr Family Qtrs, CMI Room, DAD Mess with Living & Family Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 353 to 368						
37	Materials & Labour for Non-skid ceramic tiles 7 to 8mm thick (square/rectangular) area of each tile (400x400)mm in Floors coloured tiles etc set and jointed in neat cement slurry and pointed in white or coloured cement to match incl over 15mm thick screed bed of mortar CM (1:6) etc complete all as specified and directed.	Sqm	590.00				
38	All as specifed above here in before but Vertical surface such as skirting/dado incl all necessary cutting incl over 15mm thick rendering of mortar CM (1:4) etc complete all as specified and directed.	Sqm	75.00				
39	Materials & Labour for Vitrified coloured tiles of size (600 x 600)mm x 10mm thick of approvaed make as in Flooring, set and jointed in neat cement slurry and pointed in white cement to match incl over 15mm thick screed bed of mortar CM (1:6) etc complete all as specified and directed.	Sqm	215.00				
40	All as specifed above here in before but Vertical surface such as skirting/dado incl all necessary cutting incl over 15mm thick rendering of mortar CM (1:4) etc complete all as specified and directed.	Sqm	30.00				
41	Materials & Labour for Pre polished Granite slab 20mm thick machine cut bedded and jointed with gray cement slurry and pointed with white cement with admixture of pigment to match the shade of granite stone in floorings / cooking platform / shelves or similar works etc complete all as specified and directed.	Sqm	10.00				
42	Taking down Chowkhats incl shutters (without taking off shutters from the frame) not exceeding 1.5 sqm each etc complete all as specified and directed.	Each	8.00				
	Total of srl page No. 359						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
J	Addition / Alteration of Supvr Family Qtrs, CMI Room, DAD Mess with Living & Family Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 353 to 368						
43	Taking down Chowkhats incl shutters (without taking off shutters from the frame) exc 1.5 sqm and not exceeding 4.00 sqm each etc complete all as specified and directed.	Each	30.00				
44	Taking down & Refixing of shutters of any description exc 1.00 Sqm but not exceeding 2.00 sqm each in same opening after some repair etc complete all as specified and directed.	Per Leaf	30.00				
45	Supply & fixing of Second class hard wood plain, solid, straight chowkats and frames, truss, wrought, framed rebated on the solid, rounded or chamfered, put together with glue, pinned at joints etc complete all as specified and directed.	Cum	2.00				
46	Supply & fixing of 35mm thick 2nd class H/wood plain framed factory made shutter glazed and skeleton shutters open rebated with glazed or gauge etc. Divided into squares with plain chamfered or rounded, rebated without sash bars, sizes of the members of the shutters as specified in SSR Part I, section 8 etc complete all as specified and directed.	Sqm	36.00				
47	Supply & fixing of 35mm thick factory made Flush shutters, solid core construction, with block board core and plywood face panels, commercial type on both sides etc complete all as specified and directed.	Sqm	20.00				
48	Supply & fixing of Solid PVC Door Frame of size 50mmx47mm made out of 5mm plain colour PVC sheet reinforced with MS square tube and fixing in opening as per specification & drawing given in SSR 2004(Part-II). etc complete all as specified and directed.	RM	25.00				
	Total of srl page No. 360						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
J	Addition / Alteration of Supvr Family Qtrs, CMI Room, DAD Mess with Living & Family Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 353 to 368						
49	Supply & fixing of Factory made solid panel PVC door shutter 30mm thick style consisting of frame made out of MS tubes for top and bottom rails, MS frame shall be covered with heat moulded plain colour PVC 'C' channel having a PVC sheet strip of 20mm width & stuck inside with solvent cement for stile and plain colour PVC sheets for top rail, lock rail and bottom rail on either side and as gap insert for top rail and bottom rail, panelling of plain colour PVC sheet to be fitted in the MS frame welded/sealed to the stiles & rails with suitable PVC sheet beading and jointed together with solvent cement, suppling & fixing in the frame at site as per specification & drawing etc complete all as specified and directed.	Sqm	10.00				
50	Supply & fixing of Butt hinges medium grade cold rolled 125mm mild steel and fixed etc complete all as specified and directed.	Each	102.00				
51	Supply & fixing of Aluminium anodised barrel tower bolts of extruded section of 125mm size etc complete all as specified and directed.	Each	40.00				
52	Supply & fixing of Aluminium handles, cast type anodised of size 125mm etc complete all as specified and directed.	Each	68.00				
53	Supply & fixing of 250mm long aluminium alloy, anodised, Sliding Door Bolt with hasp, staple (bolt type) and fixing clips of sheet, cast or extruded sections and fixing bolts and sliding bolts of extruded sections or cast aluminium alloy and fixed etc complete all as specified and directed.	Each	31.00				
	Total of srl page No. 361						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
J	Addition / Alteration of Supvr Family Qtrs, CMI Room, DAD Mess with Living & Family Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 353 to 368						
54	Supply & fixing of 1st class hard wood small fittings such as Brackets of any type latch and hinges blocks, shaped door and window stoppers articles n' exc 200 cum each etc complete all as specified and directed.	Each	27.00				
55	Supply & fixing of Mild steel 300mm , ordinary rat tail rod pattern Springs including roller plate etc complete all as specified and directed.	Each	22.00				
56	Supply & fixing of Door stopper, overall length of cover plate 150mm of aluminium alloy body and tongue, anodised, with hard drawn steel spring etc complete all as specified and directed.	Each	22.00				
57	Supply & fixing of Steel Window 1.25mm thick Box Type (primer coated) ERW hollow P section of size 60mm x 25mm, 1.25 thick sheet single rebated comprises glazed Skelton shutter ERW Sec 50mm x 20mm and 1mm thick with one or two openable leaf consisting two Nos sash bar of T- Section 20mm x 3mm complete welded to frame with one vertical mullion of ERW box type T- Section of size 60mm x 25mm and 1.25mm thick including cutting holes and making good dismantled portion in PCC (1:2:4) type B-1 Four Nos for each window) including following fitting welded to frame shutter: (a) Hold Fast, 150mm long of 12mm square bar made to shape – 04 Nos per window (b) Handles of Z Sec 100mm long (c) Stopper – 01 No per leaf (d) Cleat 55mm long of hollow square 15mm x 20mm x 63mm welded to hinges – 01 No per leaf (e) MS Pintal hinges of size 75mmx75mmx12mm-02 Nos per leaf (f) Fabrication & fixing arrangement as per drg No. CEJZ/TD-7/07 sheet 1/3 of 3/3. Includng Glass and two coat synthetic enamel painting etc complete all as specified and directed.	Sqm	10.00				
	Total of srl page No. 362						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
J	Addition / Alteration of Supvr Family Qtrs, CMI Room, DAD Mess with Living & Family Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 353 to 368						
58	Supply & fixing of Steel Window 1.25mm thick Box Type (primer coated) ERW hollow P section of size 60mm x 25mm single rebated comprises gauged Skelton shutter ERW Sec 50mm x 20mm and 1mm thick with one or two openable leaf consisting two Nos sash bar of T-Section 20mm x 3mm complete welded to frame with one vertical mullion of ERW box type T- Section of size 60mm x 25mm and 1.25mm thick including cutting holes and making good dismantled portion in PCC (1:3:6) type C-1 Four Nos for each window) including following fitting welded to frame shutter: (a) Mild Steel Hold Fast,150mm long of 12mm Square bar made to shape – 04 Nos per window (b) Handles of Z Sec 20mm x 100mm long (c) stopper – 01 No per leaf (d) Cleat 55mm long of hollow square 15mm x 20mmx63mm welded to hinges – 01 No per leaf (e) Mild steel Pintal hinges of size 75mmx75mmx12mm-02 Nos per leaf (f) Grills made out of MS square bar 12mm dia welded to FI frame of MS flat 25mm x 3mm complete all as specified and shown on drawings. Including Wire mesh and two coat synthetic enamel painting etc complete all as specified and directed.	Sqm	10.00				
59	All as per above item but ventilator fixed type with glazing bar with wire mesh and glass etc complete all as specified and directed.	Sqm	1.50				
60	Hacking out Old Broken Glass any thickness/ size from wooden/mental frame, glazed with putty or fixed with beading etc complete all as specified and directed.	Sqm	6.00				
	Total of srl page No. 363						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
J	Addition / Alteration of Supvr Family Qtrs, CMI Room, DAD Mess with Living & Family Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 353 to 368						
61	Supply & fixing of 3mm thick Sheet Glass ordinary quality and glazing with oil putty or wooden beading in square n'exc 0.5 sqm in each pane etc complete all as specified and directed.	Sqm	6.00				
62	Supply & fixing of Galvanised Mild Steel Wire Cloth 0.56mm nominal dia of wire and average width of aperature 1.18mm and fixed with tinned tacks or galvanised wire staples etc complete all as specified and directed.	Sqm	14.00				
63	Supply & fixing of 25mm dia MS Cherry Colour Decorative type PC Coated Curtain Rod with Fancy type Hanging arrangement in wall as per sample etc complete all as specified and directed.	RM	60.00				
64	Materials & Labour for prepration of Newly Steel Surface over 10cm width or girth and applying Two Coats of Synthetic Enamel Paint over red oxide primer etc complete all as specified and directed.	Sqm	5.00				
65	Materials & Labour for prepration of Old Steel Surface over 10cm width or girth and applying one coats of Syntheic Enamel Paint etc complete all as specified and directed.	Sqm	1,400.00				
66	Materials & Labour for prepration of Newly Wooden Surface over 10cm width or girth and applying two coats of Syntheic Enamel Paint over pink primer etc complete all as specified and directed.	Sqm	150.00				
67	Materials & Labour for prepration of Old Wooden Surface over 10cm width or girth and applying one coats of Syntheic Enamel Paint etc complete all as specified and directed.	Sqm	290.00				
	Total of srl page No. 364						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
J	Addition / Alteration of Supvr Family Qtrs, CMI Room, DAD Mess with Living & Family Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 353 to 368						
68	Supply & fixing of in repairs Stop valves/Angle stop valves/consealed stop cock, cast copper alloy, bore dia of pipe in 15mm, screwed down, high pressure, with crutch or but-terfly handle, screwed both ends for iron pipe and fixed but fancy type, Chromium Plated and cup (concealed type) etc complete all as specified and directed.	Each	7.00				
69	Supply & fixing of Bib taps bore dia of pipe in 15mm, cast copper alloy with crutch or butterfly handle, screwed down, screwed for iron pipe or for brass ferrule but fancy type long Chromium Plated and fixed etc complete all as specified and directed.	Each	18.00				
70	Supply & fixing of Pillar taps, cast copper alloy with capstan heads Chromium Plated, screwed down high pressure, with or without lettered with long screwed shanks and fly-nuts, screwed for iron pipe but fancy type and fixed etc complete all as specified and directed.	Each	4.00				
71	Supply & fixing of PVC connection 15mm size with PTMT nuts of length 450mm etc complete all as specified and directed.	Each	16.00				
72	Supply & fixing of in repairs Vitreous China Squatting Pan "Orissa Pattern" of size 580mm x 440mm, white with, integral foot rests front or back inlets including lime concrete bedding complete & Cast iron trap all as specified and as directed by Engr-in-Charge etc complete all as specified and directed.	Each	1.00				
73	Supply & fixing of Vitreous China Wash down water closet pan (Padestal Pattern) white including fixing bolts, white seat cover, Cast iron S or P trap & Jet etc complete all as specified and directed.	Each	2.00				
	Total of srl page No. 365						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
J	Addition / Alteration of Supvr Family Qtrs, CMI Room, DAD Mess with Living & Family Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 353 to 368						
74	Supply & fixing of in repair Low Level Flushing System PVC valveless syphonic action type, 10 ltrs capacity including supply pipe & fixing brackets of M.S. angle of size (25mmx25mmx3mm), 30 cm long in PCC (1:2:4) type B-1, block of size (10cmx10cmx10cm) on walls etc complete all as specified and directed.	Each	4.00				
75	Supply & fixing of in repair Vitreous China Wash Basin, white, flat back, size (550x400)mm including brackets, cutting for and pinning in ends of brackets or erecting stand & waste pipe, coupling etc complete all as specified and directed.	Each	3.00				
76	Supply & fixing of 600mmx450mm Bevelled Edge Mirror of selected quality glass, mounted on 6mm thick AC building board or commercial plywood and fixed to wooden plugs with chromium plated brass screws and cup washers etc complete all as specified and directed.	Each	6.00				
77	Supply & fixing of Stainless Steel Sink with Draining Board, made out of 1.00mm thick sheet for kitchen or laboratory with plug, washers waste pipe, cast iron cantilever brackets, connecting union overall size 915mmx460mm with bowl size 410mmx330mmx160mm etc complete all as specified and directed.	Each	2.00				
78	Supply & fixing of in repair Towel Rail 600mm long of CP fixed with and including chromium plated fixed to plugs with CP brass screws and wooden/plastic cleats (min wt 190 gms) etc complete all as specified and directed.	Each	4.00				
	Total of srl page No. 366						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
J	Addition / Alteration of Supvr Family Qtrs, CMI Room, DAD Mess with Living & Family Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 353 to 368						
79	Supply & fixing of Soap Dish, vitreous china white, approximate size (190x160x90)mm fixed to plugs with CP brass screws etc complete all as specified and directed.	Each	4.00				
80	Supply & fixing of Grating Doom 100mm dia with waste hole of CP etc complete all as specified and directed.	Each	8.00				
81	Supply & fixing of Cast Iron Floor Trap with Grating CP including jointing to waste pipe with dia of 100mm fixed in cement concrete type B-1 (1:2:4) etc complete all as specified and directed.	Each	11.00				
82	Supply & fixing of Cast Iron Soil, Sand Cast pipes 100mm dia bore waste and vent pipes in any length with or without ears with cement joints, laid in trenches or in floors incl all connected fitting items etc complete all as specified and directed.	RM	5.00				
83	Supply & fixing of PVC (SWR) pipes bore in 110mm single socketed, in any length with rubber ring joints, laid in trenches or in floors incl all connected fitting items etc complete all as specified and directed.	RM	20.00				
84	Taking up or down Steel Tubing/CPVC Tubing bore of pipe in 20mm dia and connections, including cleaning for refixing or removal to store etc complete all as specified and directed.	RM	10.00				
85	Supply & fixing of CPVC Tube Medium Grade Bore of tube in 20mm dia with all fitting and fixtures laid in trenches, walls, ceiling or laid in floors etc complete all as specified and directed.	RM	40.00				
	Total of srl page No. 367						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
J	Addition / Alteration of Supvr Family Qtrs, CMI Room, DAD Mess with Living & Family Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 353 to 368						
86	Refixing Old Steel Tubing/CPVC Tubing bore of pipe in 20mm and connections in new or old position (Walls, ceiling, floors) etc complete all as specified and directed.	RM	10.00				
87	Supply & fixing of Stop valves, bore of dia 20mm, cast copper alloy, screwed down, high pressure, with crutch or butterfly handle, screwed both ends for iron pipe or for unions and fixed etc complete all as specified and directed.	Each	2.00				
88	Materials & Labour for Precast RCC 1:2:4 type B 1 using (20mm graded stone aggregates) as in P/beam, L/beam, Chajja, Slab or similar works etc complete all as specified and directed.	Cum	0.25				
89	Materials & Labour for TMT 10mm dia bar and over, cut to length, bent to shape required, including cranking, bending spirally for hooping for columns, hooking ends and binding with and including mild steel wire (annealed) not less than 0.9mm dia or securing with clips conforming to FE-410-0 or Gde-410-0 etc complete all as specified and directed.	Kgs	25.00				
90	-ditto- but 6mm to 8mm dia etc complete all as specified and directed.	Kgs	25.00				
91	Dismantling Water Tanks exc 500 & not exceeding 1000 ltrs and removing to store etc complete all as specified and directed.	Each	2.00				
92	Supply & fixing of Rotational Moulded Polyethylene Water Storage Tanks (cylindrical vertical with closed up, capacity in 500 Ltrs, hoisted and fixed in position with all fittings and fixtures in position incl float valve complete all as specified in SSR Part-I. etc complete all as specified and directed.	Each	2.00				
	Total of srl page No. 368						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
J	Addition / Alteration of Supvr Family Qtrs, CMI Room, DAD Mess with Living & Family Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (E/M Works) from Page No. 369 to 376						
1	Taking down carefully point wiring of any type, size and description from hard/teak wood batten/through pipes/casing capping (light, fan, sockets and socket outlets etc) including removal of battens, pipes, plug sockets, socket outlets, switches, shades, ceiling roses, light fittings etc. complete and making good the disturbed surface to match with existing etc complete all as specified and directed	Per Point	30				
2	Materials & Labour for Point wiring complete with PVC insulated unsheathed, 1100 volts grade copper cable 1.5 Sqmm (nominal area) FR type multi stranded copper conductor, single core drawn in and including not less than 20 mm dia rigid PVC conduit 'medium grade' ISI marked/casing capping including all conduit/casing capping accessories for concealed/open wiring including concealed pressed steel terminal box of required size factory made duly painted inside & outside with two coats of black bituminous paint over & including a coat of red oxide primer, with top cover of ISI Marked plastic laminated sheet of required colour for mounting switch, sockets, fan regulator etc including 1.5 Sqmm FR type PVC insulated unsheathed cable multi-stranded copper conductor as continuous earth wire and connected to earth dolly as required at site& including chases cutting & making good disturbed surface & applying finishes to match existing surface etc. all as specified for the following :- Note : The cost of sunken boxes and bakelite sheet or PVC board required sizes is included in the quoted rate)						
2(a)	All as per Srl item No 2 above but for one light /fan/ buzzer point controlled by one 5 Amp switch one way complete all as specified.	Per Point	15				
	Total of srl page No. 369						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
J	Addition / Alteration of Supvr Family Qtrs, CMI Room, DAD Mess with Living & Family Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (E/M Works) from Page No. 369 to 376						
2(b)	All as per Srl item No 2 above but for one 5 amps socket out let independent complete all as specified.	Per Point	10				
2(c)	All as per Srl item No 2 above but on the same board complete all as specified	Per Point	6				
2(d)	All a per item No 2 above but with 2.5 Sq mm size cable multi stranded FRLS copper wire unsheathed for one 3 pin socket outlet 15 Amps on independent board including continuous earth wire of PVC insulated 1.5 Sq mm copper solid conductor connecting to common earth dolly complete.	Per Point	5				
3	Supply and Fixing in replacement switch piano type 6 Amps one way 230 volts AC complete all as specified and as directed (Make - Havells/Phillips/Anchor).	Each	20				
4	Supply and Fixing in replacement heavy duty socket type regulator 5 step 230 volts AC complete all as specified and as directed (Make - Havells/Phillips/Anchor).	Each	4				
5	Supply and Fixing in replacement socket outlet 5 pin, 6 Amps flush type 230 volts AC complete all as specified and as directed (Make - Havells/Phillips/Anchor).	Each	15				
6	Supply and Fixing in replacement switch piano 16 Amps type one way 230 volts AC complete all as specified and as directed (Make - Havells/Phillips/Anchor).	Each	8				
7	Supply and Fixing in replacement socket outlet 5 pin 16 Amps multi purpose flush type 230 volts AC complete all as specified and as directed (Make - Havells/Phillips/Anchor).	Each	8				
	Total of srl page No. 370						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
J	Addition / Alteration of Supvr Family Qtrs, CMI Room, DAD Mess with Living & Family Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (E/M Works) from Page No. 369 to 376						
8	Supply and fixing in replacement ceiling rose 65X50 mm two to three terminals etc complete all as specified and directed.	Each	8				
9	Supply and fixing Lamp holder any type, PVC/Polycarbonate type with cord grip cap suitable for pendant fittings etc complete all as specified and directed.	Each	20				
10	S&F Switch socket combination 2 in 1, 5 pin, 6 Amps flush type all as specified and directed.(Make - Havells/ Phillips/ Anchor).	Each	10				
11	Supply & fixing of Switch socket combination flush type multi purpose 2 in 1 type (3 pin 6 Amps and 16 Amps) all as specified. (Make - Havells/Phillips/Anchor).	Each	10				
12	Supply and Fixing Modular switch 6 Amps one module 230 volts AC complete all as specified and as directed (Make - Havells/Phillips/Anchor).	Each	10				
13	Supply and Fixing only in replacement modular fan step regulator, heavy duty 230 volts , 2 module complete all as specified and as directed. (Make - Havells/Phillips/Anchor).	Each	4				
14	Supply and Fixing Modular socket, 6A -2/3 pin combined 2 module, 230 volts AC complete all as specified and as directed (Make - Havells/Phillips/Anchor).	Each	10				
15	Supply and Fixing Modular switch 16 Amps one module 230 volts AC complete all as specified and as directed (Make - Havells/Phillips/Anchor).	Each	8				
	Total of srl page No. 371						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
J	Addition / Alteration of Supvr Family Qtrs, CMI Room, DAD Mess with Living & Family Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (E/M Works) from Page No. 369 to 376						
16	Supply and Fixing Modular socket 6A/16A, 2/3 pin combined, two module 230 volts AC complete all as specified and as directed	Each	8				
17	Supply only LED 3 W etc complete all as specified and directed. (Make - Havells/Phillips/Anchor).	Each	10				
18	Supply only LED 7 W etc complete all as specified and directed. (Make - Havells/Phillips/Anchor).	Each	10				
19	Supply only LED 9 W etc complete all as specified and directed. (Make - Havells/Phillips/Anchor).	Each	10				
20	Supply only LED 12 W etc complete all as specified and directed. (Make - Havells/Phillips/Anchor).	Each	10				
21	Supply only LED 15 W etc complete all as specified and directed. (Make - Havells/Phillips/Anchor).	Each	10				
22	Supply only LED 18 W etc complete all as specified and directed. (Make - Havells/Phillips/Anchor).	Each	10				
23	Supply and fixing in repair energy efficient security light in 'Lexon 25 W LED luminaire with Aluminium PDC housing, toughened glass cover with IP66 protection.. Make : Surya Cat Ref SLE UL 25W IP66 LXN or Equivalent.	Each	2				
24	Supply & fixing of new generation energy saving LED bulkhead fittings, 10W made up of aluminium PDC housing with opal diffuser with LED lamp, 9 Watt and connecting up complete all as specified and directed. (Make : Surya Cat No. SLE BLH 10W and equivalent model of make as specified in list of manufacturer).	Each	10				
	Total of srl page No. 372						

(Signature of the Contractor)

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For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
J	Addition / Alteration of Supvr Family Qtrs, CMI Room, DAD Mess with Living & Family Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (E/M Works) from Page No. 369 to 376						
25	Supply and fixing in replacement Environment friendly , energy efficient , aesthetically designed circular shaped decorative wall/ceiling light LED Fixture 12 W LED 6000K with opal diffuser to give glare free light complete all as specified and directed, Havells Cat Part No. 12W LED 6K LHEHCGP 7UL6K012 or equivalent in bajaj.	Nos	2				
26	Supply only 1.50 sqmm copper single core cable PVC insulated etc complete all as specified and as directed. (Make - Havells).	RM	180				
27	Supply only 2.50 sqmm copper single core cable PVC insulated etc complete all as specified and as directed. (Make - Havells).	RM	180				
28	Supply only 4.00 sqmm copper single core cable PVC insulated etc complete all as specified and as directed. (Make - Havells).	RM	90				
29	Supply only PVC board 4"x4" etc complete all as specified and as directed.	Each	6				
30	Supply only PVC board 4"x7" etc complete all as specified and as directed.	Each	6				
31	Supply only PVC board 6"x8" etc complete all as specified and as directed.	Each	2				
32	Supply and fixing sheet metal enclosure for single/double door MCB DBs, phosphatised, powder coated, Single Pole & Neutral (SPN), suitable for 2/4 way, 240 volts, IP 43 & IK 09 fixed on wall with din rail, neutral and earth bar, in proper position all as directed by the Engineer-in-Charge. (Make: Legrand Cat No : 5076 10 or equivalent siemens/ ABB/Havells).	Each	2				
	Total of srl page No. 373						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
J	Addition / Alteration of Supvr Family Qtrs, CMI Room, DAD Mess with Living & Family Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (E/M Works) from Page No. 369 to 376						
33	Supply & fixing MCB Single Pole SPN of capacity 6 to 32 Amps, 240 Volts, breaking capacity 10 KA, 'C' series, fixed in proper position all as directed by the Engineer-in-Charge. Make Cat No 4086 07 to 4086 17 of legrand/equivalent	Each	2				
34	Supply & fixing MCB Single Pole SP of capacity 6 to 32 Amps, 240 Volts, breaking capacity 10 KA, 'C' series, fixed in proper position all as directed by the Engineer-in-Charge. Make Cat No 4085 87 to 408595 of legrand/equivalent	Each	2				
35	Supply and fixing of LED T-8 tube light fitting with single side connection LED tube rod 18/20W 4 feet 1 x 18/20 watt MS CRCA box type including rotary type bipin holder and connection with PVC insulated twin core 23/0.0076 twisted copper cable from ceiling rose to tube light fitting complete all as specified and directed. Make:- C&S Cat No LTIC00120WLED/WD or equivalent in Havells/Philips/Bajaj/wipro	Each	12				
36	Supply and fixing ceiling fan 1200mm sweep 65 watt power consumption 410 RPM air delivery 220 CMM, motor 14 Poles highspeed Aluminium body with blade double ball bearing of BEE star rated Including accessories connector, canopy, Hanging Rod and clamps complete all as specified and directed make USHA/ Bajaj/Havells/Khaitan/Crompton	Each	2				
37	Supply & fixing 16 sqmm aluminium double core cable PVC insulated etc complete all as specified and as directed. (Make - Havells).	RM	60				
38	Supply & fixing 16 sqmm aluminium three core cable PVC insulated etc complete all as specified and as directed. (Make - Havells).	RM	60				
	Total of srl page No. 374						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
J	Addition / Alteration of Supvr Family Qtrs, CMI Room, DAD Mess with Living & Family Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (E/M Works) from Page No. 369 to 376						
39	Supply and fixing Single phase propeller type ventilating (Exhaust fan) heavy duty AC 230 volts 300 mm sweep, metallic body complete with louvrers and shutters including making and finishing good hole in wall for fixing Exhaust fan of 450mm sweep including necessary brick work and plaster to match the existing surface complete all as specified. Make:- Khaitan/CG/Bajaj/Usha	Each	2				
40	Supply and fixing heavy duty Exhaust fan 450 mm including making of necessary circular hole in the brick wall for fixing of exhaust fan and making good disturbed surface by plastering to the original finish of the wall and making connection from ceiling rose to fan complete all as specified and as directed. Make:- Khaitan/CG/Bajaj/Usha	Each	2				
41	Materials & Labour for earthing complete with galvanised steel earth plate electrode of size 600 mm x 600 mm x 6 mm thick buried directly in ground (earth pit not less than 2.25 mtr deep below normal ground level) with top edge of the plate not less than 1.5 mtr below ground level, connected to galvanized earth lead wire 4.00 mm dia by means of bolts nuts check nuts & washers of galvanized iron or steel , protected by GI pipe 15 mm bore(light grade) and watering pipe 20 mm bore GI pipe (light grade) and chamber of pcc 1:4:8 type D2 using 40 mm graded stone aggregate and coping shall be in PCC 1:3:6 type C1 using 20mm graded stone agg. 50 mm thick cover of RCC 1:2:4 type B1 using 20 mm graded stone agg. reinforced with 8 mm dia MS tor bar @ 80 mm c/c both ways including excvaton and earth work and removal of surplus soil complete all as shown in electrical plate no 5 of SSR PART 1, with charcoal dust and salt complete and earth lead connected to earthing test point (up to main switche, DBs) complete all as specified & testing on completion.	Each	1				
	Total of srl page No. 375						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
J	Addition / Alteration of Supvr Family Qtrs, CMI Room, DAD Mess with Living & Family Offrs Qtrs under 19 BRTF at Phuentsholing (Bhutan) (E/M Works) from Page No. 369 to 376						
42	Supply and fixing geyser 25 Ltrs capacity, after connecting electric and including necessary water connection GI Pipe, cast copper alloy screwed stop cock, chromium plated cast copper alloy 15mm bib tap and 2 nos PVC hot water connection pipe and screwing nut and bolts to fixed on wall and make surface good complete all as specified and directed.	Each Job	2				
	Total of srl page No. 376						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
K	Addition / Alteration of Supvr Mess cum Dining Hall & Single Living Accommodation under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 377 to 393						
01.	Excavation in trenches soft/loose soil not exceeding 1.5m wide and not exceeding 1.5m in depth: for foundation etc complete all as specified and directed.	cum	2.00				
02.	Materials & Labour for Hardcore of broken bricks guage not exceeding 63mm, deposited, spread and levelled in layers not exceeding 15cm thick, watered and rammed to a true surface etc complete all as specified and directed	cum	1.5				
03	Demolition of Brick work built in cement mortar or cement lime mortar incl all quoins, pillars etc., separation of serviceable materials from the unserviceable, stacking the serviceable materials within 100M and disposal of unserviceable materials, debris and rubbish to a distance not.exc 100M etc complete all as specified and directed.	cum	0.50				
04	Materials & Labour for Pre-cast cement concrete block masonry with solid blocks, Type 1:3:6 using (16mm graded aggregate) and set in cement mortar 1:6 exc.10 cm in width etc complete all as specified and directed.	cum	5.00				
05	-ditto- all as per above but except blocks or slab etc complete all as specified and directed.	cum	0.25				
	Total of srl page No. 377						

(Signature of the Contractor)

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SW
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SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
K	Addition / Alteration of Supvr Mess cum Dining Hall & Single Living Accommodation under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 377 to 393						
06.	Returning, filling in, including spreading, levelling watering and well ramming in layers not exceeding 25cm all types of soil etc complete all as specified and directed.	cum	0.50				
07.	Removal excavated material not exceeding 50m and depositing where directed at a level not exceeding 1.5m above the starting point etc complete all as specified and directed.	cum	1.50				
08	Taking down Cement Plaster on brick work or concrete surfaces incl racking out joints etc complete all as specified and directed.	Sqm	20.00				
09	Materials & Labour for 15mm thick Rendering in CM 1:6 on fair faces of brick work or concrete surfaces finished fair and even etc complete all as specified and directed.	Sqm	80.00				
10	Materials & Labour for 15mm thick Rendering in CM 1:4 on fair faces of brick work or concrete surfaces finished even and smooth incl WPC 3% by weight of cement etc complete all as specified and directed.	Sqm	200.00				
11	Supply only Integral Water Proofing compound of approved quality etc complete all as specified and directed.	Kgs	55.50				
	Total of srl page No. 378						

(Signature of the Contractor)

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For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
K	Addition / Alteration of Supvr Mess cum Dining Hall & Single Living Accommodation under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 377 to 393						
12.	Materials & Labour for preparation of Newly plaster surfaces and applying two coats of Oil Bound Distemper on walls etc complete all as specified and directed.	Sqm	60.00				
13.	Materials & Labour for preparation of Old plaster or Un-plastered surfaces (by brooming down or steel wire brushing, scrapping down smoke soot, moulds, moss and efflorescent salts and treating oil and greasy spots) and applying one coats of Oil Bound Distemper of any colour on walls etc complete all as specified and directed.	Sqm	2800.00				
14.	Materials & Labour for preparation of Old plaster or Un-plastered surfaces (by brooming down or steel wire brushing, scrapping down smoke soot, moulds, moss and efflorescent salts and treating oil and greasy spots) and applying one coats of Oil Bound Distemper of any colour on ceiling etc complete all as specified and directed.	Sqm	800.00				
15.	Materials & Labour for preparation of Newly plastered surfaces and applying two coats of White Wash on walls etc complete all as specified and directed.	Sqm	150.00				
16.	Materials & Labour for preparation of Old plastered or Un-plastered surfaces (by brooming down or steel wire brushing, scrapping down smoke soot, moulds, moss and efflorescent salts and treating oil and greasy spots) and applying one coats of White Wash on walls etc complete all as specified and directed.	Sqm	130.00				
	Total of srl page No. 379						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
K	Addition / Alteration of Supvr Mess cum Dining Hall & Single Living Accommodation under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 377 to 393						
17.	Materials & Labour for preparation of Old plastered or Un-plastered surfaces (by brooming down or steel wire brushing, scrapping down smoke soot, moulds, moss and efflorescent salts and treating oil and greasy spots) and applying one coats of Colour Wash on walls etc complete all as specified and directed.	Sqm	90.00				
18.	Materials & Labour for preparation of New/Old plastered surfaces and applying two coats painting with acrylic emulsion Weather Proof, anti fungle paint (Appex ultima or equivalent) including making good undulations on plastered / concrete surfaces etc complete all as specified and directed.	Sqm	1740.00				
19.	Dismantling Plain or corrugated steel sheeting, any gauge, thickness , including roof covering etc complete all as specified and directed.	Sqm	25.00				
20.	Supply & fixing of Wind tie for roof including securing bolts: flat iron fillets including all necessary drilling, bolting or riveting, etc, and similar work conforming to Fe 410-0 or Fe 310-0 etc complete all as specified and directed.	Kgs	5.00				
21.	Materials & Labour for Prepainted galvalume aluminium zinc coating, G.I. based corrugated steel sheet, 0.50 mm thick (total coated thickness) of any colour, having tensile strength of 550 MPA as in roof covering/ wall cladding, fixed with low carbon self tapping screw & EPDM washers all as per manufacturer's instructions etc complete all as specified and directed.	Sqm	25.00				
	Total of srl page No. 380						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
K	Addition / Alteration of Supvr Mess cum Dining Hall & Single Living Accommodation under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 377 to 393						
22.	Materials & Labour for prepainted galvalume aluminium zinc coating, G.I. based plain steel sheet, 0.50 mm thick (total coated thickness) of any colour, having tensile strength of 550 MPA as in Ridge/Valley/Gutter fixed with low carbon self tapping screw & EPDM washers all as per manufacturer's instructions etc complete all as specified and directed.	Sqm	5.00				
23.	All as per above item but as in Eaves board etc complete all as specified and directed.	Sqm	5.00				
24.	Materials & Labour for repairs to roof screws `J' or `L' type hook/nut bolts/bitumen washer by providing reqired quantity of M-Seal to prevent roof leaking etc complete all as specified and directed.	Each	50.00				
25.	Materials & Labour for Taking down existing treatment and cleaning CGI/PGL sheets roof surfaces and sealing joints with and incl self adhesive water proofing membrane over a coat of primer as recommended by manufacturer. (Make of Adhesive - SUPERTENE of MS STP Ltd. or equivalent TEXA as approved etc complete all as specified and directed.	Sqm	20.00				
26.	Supply & fixing of Mild steel framed work of angle or any other section (grade 410 - 0 or Fe 310-0) as in Door and Door frame, ceiling frame work, purline, rafter, truss, gusset plates, all types of related works with necessary welding incl dismantling of existing old wooden/old iron works & all types of related works etc complete all as specified and directed.	Kgs	400.00				
	Total of srl page No. 381						

(Signature of the Contractor)

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SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
K	Addition / Alteration of Supvr Mess cum Dining Hall & Single Living Accommodation under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 377 to 393						
27.	Dismantling of Wall and Ceiling boards (fiber, pulp, insulation etc) or insulation boards/slab/blankets any thickness incl cover fillets. of any thickness incl cover fillets etc complete all as specified and directed.	Sqm	60.00				
28.	Materials & Labour for 4mm thick Non Asbestos fibre reinforced designer cement ceiling board (610mm x 610mm) with hot-dip GI heavy duty suspended ceiling grid system T-2430 all as per manufacturers instructions etc complete all as specified and directed. (Make: MIS Everest Industries Ltd. or Equivalent)	Sqm	60.00				
29.	Demolition of PCC in Ground floors/PCC Path/Plinth Protection and paving (below or above ground level) and disposal of unserviceable materials, debris and rubbish to a distance not.exc 100M etc complete all as specified and directed.	Cum	0.50				
30.	Materials & Labour for PCC type B-1 (1:2:4) using (20mm graded stone aggregate) as in bed blocks, cast in situ in cills, parapets, hold fasts and coping etc including slightly rounded or chamfered angle fast, bed plates, all types of related works and the like incl use and waste of form work etc complete all as specified and directed.	Cum	2.00				
31.	Materials & Labour for PCC type C-1 (1:3:6) using (20mm graded stone aggregate) as in bed blocks, cast in situ in cills, parapets, hold fasts and coping etc including slightly rounded or chamfered angle fast, bed plates and the like incl use and waste of form work etc complete all as specified and directed.	Cum	2.00				
	Total of srl page No. 382						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
K	Addition / Alteration of Supvr Mess cum Dining Hall & Single Living Accommodation under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 377 to 393						
32	Materials & Labour for Glass dividing strips, 3mm thick 38 mm wide and inserting in position confirm to design etc complete all as specified and directed.	RM	20.00				
33	Dismantling Floor, hearth, Wall tiling or Kota stone including cement mortar bedding (but not baking), removing serviceable tiles to store and rubbish off the premises etc complete all as specified and directed.	Sqm	10.00				
34	Materials & Labour for Non-skid ceramic tiles 7 to 8mm thick (square/rectangular) area of each tile (400x400)mm in Floors coloured tiles etc set and jointed in neat cement slurry and pointed in white or coloured cement to match incl over 15mm thick screed bed of mortar CM (1:6) etc complete all as specified and directed.	Sqm	905.00				
35	All as specied above here in before but Vertical surface such as skirting/dado incl all necessary cutting incl over 15mm thick rendering of mortar CM (1:4) etc complete all as specified and directed.	Sqm	30.00				
36	Materials & Labour for Chequarred Cement Concrete tiles (20x20)cmx25mm thich set and jointed and pointed in neat cement slurry in floors with grey cement & pigment incl over 15mm thick screed bed of mortar CM (1:6) etc complete all specified and directed.	Sqm	60.00				
	Total of srl page No. 383						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
K	Addition / Alteration of Supvr Mess cum Dining Hall & Single Living Accommodation under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 377 to 393						
37.	Taking down Chowkhats incl shutters (without taking off shutters from the frame) not exceeding 1.5 sqm each etc complete all as specified and directed.	Each	6.00				
38.	Taking down Chowkhats incl shutters (without taking off shutters from the frame) exc 1.5 sqm and not exceeding 4.00 sqm each etc complete all as specified and directed.	Each	38.00				
39.	Taking down & Refixing of shutters of any description exc 1.00 Sqm but not exceeding 2.00 sqm each in same opening after some repair etc complete all as specified and directed.	Per Leaf	20.00				
40.	Supply & fixing of Second class hard wood plain, solid, straight chowkats and frames, truss, wrought, framed rebated on the solid, rounded or chamfered, put together with glue, pinned at joints etc complete all as specified and directed.	Cum	1.00				
41.	Supply & fixing of 35mm thick 2nd class H/wood plain framed factory made shutter panels shutters (Two panel) with lock rail and panel of 9mm or 12mm B.W.P Commercial ply. The size of rail and style as per IS : 1003 (Part I), Kiln seasoned and chemically pressure treated etc complete all as specified and directed.	Sqm	4.00				
	Total of srl page No. 384						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
K	Addition / Alteration of Supvr Mess cum Dining Hall & Single Living Accommodation under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 377 to 393						
42.	Supply & fixing of 35mm thick 2nd class H/wood plain framed factory made shutter glazed and skeleton shutters open rebated with glazed or gauge etc. Divided into squares with plain chamfered or rounded, rebated without sash bars, sizes of the members of the shutters as specified in SSR Part I, section 8 etc complete all as specified and directed.	Sqm	34.00				
43.	Supply & fixing of Butt hinges medium grade cold rolled 125mm mild steel and fixed etc complete all as specified and directed.	Each	120.00				
44.	Supply & fixing of Aluminium anodised barrel tower bolts of extruded section of 125mm size etc complete all as specified and directed.	Each	50.00				
45.	Supply & fixing of Aluminium handles, cast type anodised of size 125mm etc complete all as specified and directed.	Each	80.00				
46.	Supply & fixing of 250mm long aluminium alloy, anodised, Sliding Door Bolt with hasp, staple (bolt type) and fixing clips of sheet, cast or extruded sections and fixing bolts and sliding bolts of extruded sections or cast aluminium alloy and fixed etc complete all as specified and directed.	Each	36.00				
47.	Supply & fixing of Mild steel 300mm , ordinary rat tail rod pattern Springs including roller plate etc complete all as specified and directed.	Each	36.00				
48.	Supply & fixing of Door stopper, overall length of cover plate 150mm of aluminium alloy body and tongue, anodised, with hard drawn steel spring etc complete all as specified and directed.	Each	36.00				
	Total of srl page No. 385						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
K	Addition / Alteration of Supvr Mess cum Dining Hall & Single Living Accommodation under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 377 to 393						
49.	Supply & fixing of Steel Window 1.25mm thick Box Type (primer coated) ERW hollow P section of size 60mm x 25mm, 1.25 thick sheet single rebated comprises glazed Skelton shutter ERW Sec 50mm x 20mm and 1mm thick with one or two openable leaf consisting two Nos sash bar of T- Section 20mm x 3mm complete welded to frame with one vertical mullion of ERW box type T- Section of size 60mm x 25mm and 1.25mm thick including cutting holes and making good dismantled portion in PCC (1:2:4) type B-1 Four Nos for each window) including following fitting welded to frame shutter: (a) Hold Fast, 150mm long of 12mm square bar made to shape – 04 Nos per window (b) Handles of Z Sec 100mm long (c) Stopper – 01 No per leaf (d) Cleat 55mm long of hollow square 15mm x 20mm x 63mm welded to hinges – 01 No per leaf (e) MS Pintal hinges of size 75mmx75mmx12mm-02 Nos per leaf (f) Fabrication & fixing arrangement as per drg No. CEJZ/TD-7/07 sheet 1/3 of 3/3. Includng Glass and two coat synthetic enamel painting etc complete all as specified and directed.	Sqm	5.00				
	Total of srl page No. 386						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
K	Addition / Alteration of Supvr Mess cum Dining Hall & Single Living Accommodation under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 377 to 393						
50.	Supply & fixing of Steel Window 1.25mm thick Box Type (primer coated) ERW hollow P section of size 60mm x 25mm single rebated comprises gauged Skelton shutter ERW Sec 50mm x 20mm and 1mm thick with one or two openable leaf consisting two Nos sash bar of T-Section 20mm x 3mm complete welded to frame with one vertical mullion of ERW box type T- Section of size 60mm x 25mm and 1.25mm thick including cutting holes and making good dismantled portion in PCC (1:3:6) type C-1 Four Nos for each window) including following fitting welded to frame shutter: (a) Mild Steel Hold Fast,150mm long of 12mm Square bar made to shape – 04 Nos per window (b) Handles of Z Sec 20mm x 100mm long (c) stopper – 01 No per leaf (d) Cleat 55mm long of hollow square 15mm x 20mmx63mm welded to hinges – 01 No per leaf (e) Mild steel Pintal hinges of size 75mmx75mmx12mm-02 Nos per leaf (f) Grills made out of MS square bar 12mm dia welded to FI frame of MS flat 25mm x 3mm complete all as specified and shown on drawings. Including Wire mesh and two coat synthetic enamel painting etc complete all as specified and directed.	Sqm	5.00				
51	All as per above item but ventilator fixed type with glazing bar with wire mesh and glass etc complete all as specified and directed.	Sqm	2.00				
52	Hacking out Old Broken Glass any thickness/ size from wooden/mental frame, glazed with putty or fixed with beading etc complete all as specified and directed.	Sqm	5.00				
	Total of srl page No. 387						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
K	Addition / Alteration of Supvr Mess cum Dining Hall & Single Living Accommodation under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 377 to 393						
53	Supply & fixing of 3mm thick Sheet Glass ordinary quality and glazing with oil putty or wooden beading in square n'exc 0.5 sqm in each pane etc complete all as specified and directed.	Sqm	5.00				
54	Supply & fixing of Galvanised Mild Steel Wire Cloth 0.56mm nominal dia of wire and average width of aperature 1.18mm and fixed with tinned tacks or galvanised wire staples etc complete all as specified and directed.	Sqm	20.00				
55	Supply & fixing of 25mm dia MS Cherry Colour Decorative type PC Coated Curtain Rod with Fancy type Hanging arrangment in wall as per sample etc complete all as specified and directed.	RM	10.00				
56	Materials & Labour for prepration of Newly Steel Surface over 10cm width or girth and applying Two Coats of Synthetic Enamel Paint over red oxide primer etc complete all as specified and directed.	Sqm	20.00				
57	Materials & Labour for prepration of Old Steel Surface over 10cm width or girth and applying one coats of Syntheic Enamel Paint etc complete all as specified and directed.	Sqm	2000.00				
58	Materials & Labour for prepration of Newly Wooden Surface over 10cm width or girth and applying two coats of Syntheic Enamel Paint over pink primer etc complete all as specified and directed.	Sqm	35.00				
59	Materials & Labour for prepration of Old Wooden Surface over 10cm width or girth and applying one coats of Syntheic Enamel Paint etc complete all as specified and directed.	Sqm	430.00				
	Total of srl page No. 388						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
K	Addition / Alteration of Supvr Mess cum Dining Hall & Single Living Accommodation under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 377 to 393						
60	Supply & fixing of in repairs Stop valves/Angle stop valves/consealed stop cock, cast copper alloy, bore dia of pipe in 15mm, screwed down, high pressure, with crutch or but-terfly handle, screwed both ends for iron pipe and fixed but fancy type, Chromium Plated and cup (concealed type) etc complete all as specified and directed.	Each	8.00				
61	Supply & fixing of Bib taps bore dia of pipe in 15mm, cast copper alloy with crutch or butterfly handle, screwed down, screwed for iron pipe or for brass ferrule but fancy type long Chromium Plated and fixed etc complete all as specified and directed.	Each	12.00				
62	Supply & fixing of Pillar taps, cast copper alloy with capstan heads Chromium Plated, screwed down high pressure, with or without lettered with long screwed shanks and fly-nuts, screwed for iron pipe but fancy type and fixed etc complete all as specified and directed.	Each	2.00				
63	Supply & fixing of PVC connection 15mm size with PTMT nuts of length 450mm etc complete all as specified and directed.	Each	8.00				
64	Supply & fixing of in repairs Vitreous China Squatting Pan "Orissa Pattern" of size 580mm x 440mm, white with, integral foot rests front or back inlets including lime concrete bedding complete & Cast iron trap all as specified and as directed by Engr-in-Charge etc complete all as specified and directed.	Each	4.00				
	Total of srl page No. 389						

(Signature of the Contractor)

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SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
K	Addition / Alteration of Supvr Mess cum Dining Hall & Single Living Accommodation under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 377 to 393						
65	Supply & fixing of in repair Low Level Flushing System PVC valveless syphonic action type, 10 ltrs capacity including supply pipe & fixing brackets of M.S. angle of size (25mmx25mmx3mm), 30 cm long in PCC (1:2:4) type B-1, block of size (10cmx10cmx10cm) on walls etc complete all as specified and directed.	Each	4.00				
66	Supply & fixing of in repair Vitreous China Wash Basin, white, flat back, size (550x400)mm including brackets, cutting for and pinning in ends of brackets or erecting stand & waste pipe, coupling etc complete all as specified and directed.	Each	1.00				
67	Supply & fixing of 600mmx450mm Bevelled Edge Mirror of selected quality glass, mounted on 6mm thick AC building board or commercial plywood and fixed to wooden plugs with chromium plated brass screws and cup washers etc complete all as specified and directed.	Each	4.00				
68	Supply & fixing of Stainless Steel Sink with Draining Board, made out of 1.00mm thick sheet for kitchen or laboratory with plug, washers waste pipe, cast iron cantilever brackets, connecting union overall size 915mmx460mm with bowl size 410mmx330mmx160mm etc complete all as specified and directed.	Each	1.00				
69	Supply & fixing of in repair Towel Rail 600mm long of CP fixed with and including choromium plated fixed to plugs with CP brass screws and wooden/plastic cleats (min wt 190 gms) etc complete all as specified and directed.	Each	2.00				
	Total of srl page No. 390						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
K	Addition / Alteration of Supvr Mess cum Dining Hall & Single Living Accommodation under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 377 to 393						
70	Supply & fixing of Soap Dish, vitreous china white, approximate size (190x160x90)mm fixed to plugs with CP brass screws etc complete all as specified and directed.	Each	2.00				
71	Supply & fixing of Grating Doom 100mm dia with waste hole of CP etc complete all as specified and directed.	Each	4.00				
72	Supply & fixing of Cast Iron Floor Trap with Grating CP including jointing to waste pipe with dia of 100mm fixed in cement concrete type B-1 (1:2:4) etc complete all as specified and directed.	Each	1.00				
73	Supply & fixing of Cast Iron Soil, Sand Cast pipes 100mm dia bore waste and vent pipes in any length with or without ears with cement joints, laid in trenches or in floors incl all connected fitting items etc complete all as specified and directed.	RM	5.00				
74	Supply & fixing of PVC (SWR) pipes bore in 110mm single socketed, in any length with rubber ring joints, laid in trenches or in floors incl all connected fitting items etc complete all as specified and directed.	RM	5.00				
75	Taking up or down Steel Tubing/CPVC Tubing bore of pipe in 20mm dia and connections, including cleaning for refixing or removal to store etc complete all as specified and directed.	RM	5.00				
	Total of srl page No. 391						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
K	Addition / Alteration of Supvr Mess cum Dining Hall & Single Living Accommodation under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 377 to 393						
76	Supply & fixing of CPVC Tube Medium Grade Bore of tube in 20mm dia with all fitting and fixtures laid in trenches, walls, ceiling or laid in floors etc complete all as specified and directed.	RM	30.00				
77	Refixing Old Steel Tubing/CPVC Tubing bore of pipe in 20mm and connections in new or old position (Walls, ceiling, floors) etc complete all as specified and directed.	RM	5.00				
78	Supply & fixing of Stop valves, bore of dia 20mm, cast copper alloy, screwed down, high pressure, with crutch or butterfly handle, screwed both ends for iron pipe or for unions and fixed etc complete all as specified and directed.	Each	2.00				
79	Materials & Labour for Precast RCC 1:2:4 type B 1 using (20mm graded stone aggregates) as in P/beam, L/beam, Chajja, Slab or similar works etc complete all as specified and directed.	Cum	0.50				
80	Materials & Labour for TMT 10mm dia bar and over, cut to length, bent to shape required, including cranking, bending spirally for hooping for columns, hooking ends and binding with and including mild steel wire (annealed) not less than 0.9mm dia or securing with clips conforming to FE-410-0 or Gde-410-0 etc complete all as specified and directed.	Kgs	50.00				
81	-ditto- but 6mm to 8mm dia etc complete all as specified and directed.	Kgs	50.00				
	Total of srl page No. 392						

(Signature of the Contractor)

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For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
K	Addition / Alteration of Supvr Mess cum Dining Hall & Single Living Accommodation under 19 BRTF at Phuentsholing (Bhutan) (B/R Works) from Page No. 377 to 393						
82	Dismantling Water Tanks exc 500 & not exceeding 1000 ltrs and removing to store etc complete all as specified and directed.	Each	1.00				
83	Supply & fixing of Rotational Moulded Polyethylene Water Storage Tanks (cylindrical vertical with closed up, capacity in 500 Ltrs, hoisted and fixed in position with all fittings and fixtures in position incl float valve complete all as specified in SSR Part-I. etc complete all as specified and directed.	Each	1.00				
	Total of srl page No. 393						

(Signature of the Contractor)

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For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
K	Addition / Alteration of <u>Supvr Mess cum Dining Hall & Single Living Accommodation</u> under 19 BRTF at Phuentsholing (Bhutan) (E/M Works) from Page No. 394 to 400						
1	Taking down carefully point wiring of any type, size and description from hard/ teak wood batten/through pipes/casing capping (light, fan, sockets and socket outlets etc) including removal of battens, pipes, plug sockets, socket outlets, switches, shades, ceiling roses, light fittings etc. complete and making good the disturbed surface to match with existing etc complete all as specified and directed	Per Point	30				
2	Materials & Labour for Point wiring complete with PVC insulated unsheathed, 1100 volts grade copper cable 1.5 Sqmm (nominal area) FR type multi stranded copper conductor, single core drawn in and including not less than 20 mm dia rigid PVC conduit 'medium grade' ISI marked/casing capping including all conduit/casing capping accessories for concealed/open wiring including concealed pressed steel terminal box of required size factory made duly painted inside & outside with two coats of black bituminous paint over & including a coat of red oxide primer, with top cover of ISI Marked plastic laminated sheet of required colour for mounting switch, sockets, fan regulator etc including 1.5 Sqmm FR type PVC insulated unsheathed cable multi-stranded copper conductor as continuous earth wire and connected to earth dolly as required at site& including chases cutting & making good disturbed surface & applying finishes to match existing surface etc. all as specified for the following :- Note : The cost of sunken boxes and bakelite sheet or PVC board required sizes is included in the quoted rate)						
	Total of srl page No. 394						

(Signature of the Contractor)

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SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
K	Addition / Alteration of Supvr Mess cum Dining Hall & Single Living Accommodation under 19 BRTF at Phuentsholing (Bhutan) (E/M Works) from Page No. 394 to 400						
2(a)	All as per Srl item No 2 above but for one light /fan/ buzzer point controlled by one 5 Amp switch one way complete all as specified.	Per Point	15				
2(b)	All as per Srl item No 2 above but for one 5 amps socket out let independent complete all as specified.	Per Point	10				
2(c)	All as per Srl item No 2 above but on the same board complete all as specified	Per Point	6				
2(d)	All a per item No 2 above but with 2.5 Sq mm size cable multi stranded FRLS copper wire unsheathed for one 3 pin socket outlet 15 Amps on independent board including continuous earth wire of PVC insulated 1.5 Sq mm copper solid conductor connecting to common earth dolly complete.	Per Point	5				
3	Supply and Fixing in replacement switch piano type 6 Amps one way 230 volts AC complete all as specified and as directed (Make - Havells/Phillips/Anchor).	Each	20				
4	Supply and Fixing in replacement heavy duty socket type regulator 5 step 230 volts AC complete all as specified and as directed (Make - Havells/Phillips/Anchor).	Each	4				
5	Supply and Fixing in replacement socket outlet 5 pin, 6 Amps flush type 230 volts AC complete all as specified and as directed (Make - Havells/Phillips/Anchor).	Each	10				
	Total of srl page No. 395						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
K	Addition / Alteration of Supvr Mess cum Dining Hall & Single Living Accommodation under 19 BRTF at Phuentsholing (Bhutan) (E/M Works) from Page No. 394 to 400						
6	Supply and Fixing in replacement switch piano 16 Amps type one way 230 volts AC complete all as specified and as directed (Make - Havells/Phillips/Anchor).	Each	8				
7	Supply and Fixing in replacement socket outlet 5 pin 6A/16 Amps multi purpose flush type 230 volts AC complete all as specified and as directed (Make - Havells/Phillips/Anchor).	Each	8				
8	Supply and fixing in replacement ceiling rose 65X50 mm two to three terminals etc complete all as specified and directed.	Each	8				
9	Supply and fixing Lamp holder any type, PVC/Polycarbonate type with cord grip cap suitable for pendant fittings etc complete all as specified and directed.	Each	20				
10	Supply & fixing of Switch socket combination 2 in 1, 5 pin, 6 Amps flush type all as specified and directed.(Make - Havells/ Phillips/ Anchor).	Each	10				
11	Supply & fixing of Switch socket combination flush type multi purpose 2 in 1 type (3 pin 6 Amps and 16 Amps) all as specified. (Make - Havells/Phillips/Anchor).	Each	10				
12	Supply only LED 3 W etc complete all as specified and directed. (Make - Havells/Phillips/Anchor).	Each	10				
13	Supply only LED 7 W etc complete all as specified and directed. (Make - Havells/Phillips/Anchor).	Each	10				
14	Supply only LED 9 W etc complete all as specified and directed. (Make - Havells/Phillips/Anchor).	Each	10				
	Total of srl page No. 396						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
K	Addition / Alteration of Supvr Mess cum Dining Hall & Single Living Accommodation under 19 BRTF at Phuentsholing (Bhutan) (E/M Works) from Page No. 394 to 400						
15	Supply only LED 12 W etc complete all as specified and directed. (Make - Havells/Phillips/Anchor).	Each	10				
16	Supply only LED 15 W etc complete all as specified and directed. (Make - Havells/Phillips/Anchor).	Each	10				
17	Supply only LED 18 W etc complete all as specified and directed. (Make - Havells/Phillips/Anchor).	Each	10				
18	Supply and fixing in repair energy efficient security light in 'Lexon 25 W LED luminaire with Aluminium PDC housing, toughened glass cover with IP66 protection.. Make : Surya Cat Ref SLE UL 25W IP66 LXN or Equivalent.	Each	1				
19	Supply & fixing of new generation energy saving LED bulkhead fittings, 10W made up of aluminium PDC housing with opal diffuser with LED lamp, 9 Watt and connecting up complete all as specified and directed. (Make : Surya Cat No. SLE BLH 10W and equivalent model of make as specified in list of manufacturer).	Each	8				
20	Supply only 1.50 sqmm copper single core cable PVC insulated etc complete all as specified and as directed. (Make - Havells).	RM	180				
21	Supply only 2.50 sqmm copper single core cable PVC insulated etc complete all as specified and as directed. (Make - Havells).	RM	90				
22	Supply only 4.00 sqmm copper single core cable PVC insulated etc complete all as specified and as directed. (Make - Havells).	RM	90				
	Total of srl page No. 397						

(Signature of the Contractor)

EE (C) SG
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For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
K	Addition / Alteration of Supvr Mess cum Dining Hall & Single Living Accommodation under 19 BRTF at Phuentsholing (Bhutan) (E/M Works) from Page No. 394 to 400						
23	Supply only PVC board 4"x4" etc complete all as specified and as directed.	Each	4				
24	Supply only PVC board 4"x7" etc complete all as specified and as directed.	Each	4				
25	Supply only PVC board 6"x8" etc complete all as specified and as directed.	Each	2				
26	Supply and fixing sheet metal enclosure for single/double door MCB DBs, phosphatised, powder coated, Single Pole & Neutral (SPN), suitable for 2/4 way, 240 volts, IP 43 & IK 09 fixed on wall with din rail, neutral and earth bar, in proper position all as directed by the Engineer-in-Charge. (Make: Legrand Cat No : 5076 10 or equivalent siemens/ ABB/Havells).	Each	2				
27	Supply & fixing MCB Single Pole SPN of capacity 6 to 32 Amps, 240 Volts, breaking capacity 10 KA, 'C' series, fixed in proper position all as directed by the Engineer-in-Charge. Make Cat No 4086 07 to 4086 17 of legrand/equivalent	Each	2				
28	Supply & fixing MCB Single Pole SP of capacity 6 to 32 Amps, 240 Volts, breaking capacity 10 KA, 'C' series, fixed in proper position all as directed by the Engineer-in-Charge. Make Cat No 4085 87 to 408595 of legrand/equivalent	Each	2				
	Total of srl page No. 398						

(Signature of the Contractor)

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SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
K	Addition / Alteration of Supvr Mess cum Dining Hall & Single Living Accommodation under 19 BRTF at Phuentsholing (Bhutan) (E/M Works) from Page No. 394 to 400						
29	Supply and fixing of LED T-8 tube light fitting with single side connection LED tube rod 18/20W 4 feet 1 x 18/20 watt MS CRCA box type including rotary type bipin holder and connection with PVC insulated twin core 23/0.0076 twisted copper cable from ceiling rose to tube light fitting complete all as specified and directed. Make:- C&S Cat No LTIC00120WLED/WD or equivalent in Havells/Philips/Bajaj/wipro	Each	12				
30	Supply and fixing ceiling fan 1200mm sweep 65 watt power consumption 410 RPM air delivery 220 CMM, motor 14 Poles highspeed Aluminium body with blade double ball bearing of BEE star rated Including accessories connector, canopy, Hanging Rod and clamps complete all as specified and directed make USHA/ Bajaj/Havells/Khaitan/Crompton	Each	2				
31	Supply & fixing 16 sqmm aluminium double core cable PVC insulated etc complete all as specified and as directed. (Make - Havells).	RM	60				
32	Supply & fixing 16 sqmm aluminium three core cable PVC insulated etc complete all as specified and as directed. (Make - Havells).	RM	60				
33	Supply and fixing Single phase propeller type ventilating (Exhaust fan) heavy duty AC 230 volts 300 mm sweep, metallic body complete with louvers and shutters including making and finishing good hole in wall for fixing Exhaust fan of 450mm sweep including necessary brick work and plaster to match the existing surface complete all as specified. Make:- Khaitan/CG/Bajaj/Usha	Each	1				
	Total of srl page No. 399						

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE 'A'/BILL OF QUANTITIES

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Description of Works	A/U	Qty	Rate per Unit to be quoted by the Bidder		Amount	
				Figures	Words	Figures	Words
K	Addition / Alteration of Supvr Mess cum Dining Hall & Single Living Accommodation under 19 BRTF at Phuentsholing (Bhutan) (E/M Works) from Page No. 394 to 400						
34	Supply and fixing heavy duty Exhaust fan 450 mm including making of necessary circular hole in the brick wall for fixing of exhaust fan and making good disturbed surface by plastering to the original finish of the wall and making connection from ceiling rose to fan complete all as specified and as directed. Make:- Khaitan/CG/Bajaj/Usha	EACH	1				
35	Materials & Labour for earthing complete with galvanised steel earth plate electrode of size 600 mm x 600 mm x 6 mm thick buried directly in ground (earth pit not less than 2.25 mtr deep below normal ground level) with top edge of the plate not less than 1.5 mtr below ground level, connected to galvanized earth lead wire 4.00 mm dia by means of bolts nuts check nuts & washers of galvanized iron or steel , protected by GI pipe 15 mm bore(light grade) and watering pipe 20 mm bore GI pipe (light grade) and chamber of pcc 1:4:8 type D2 using 40 mm graded stone aggregate and coping shall be in PCC 1:3:6 type C1 using 20mm graded stone agg. 50 mm thick cover of RCC 1:2:4 type B1 using 20 mm graded stone agg. reinforced with 8 mm dia MS tor bar @ 80 mm c/c both ways including excvaton and earth work and removal of surplus soil complete all as shown in electrical plate no 5 of SSR PART 1 , with charcoal dust and salt complete and earth lead connected to earthing test point (up to main switche, DBs) complete all as specified & testing on completion.	Each	1				
36	Supply and fixing geyser 25 Ltrs capacity , after connecting electric and including necessary water connection GI Pipe, cast copper alloy screwed stop cock, chromium plated cast copper alloy 15mm bib tap and 2 nos PVC hot water connection pipe and screwing nut and bolts to fixed on wall and make surface good complete all as specified and directed.	Each Job	1				
L	Providing and executng of unforeseen items (MES SSR Items) which are not covered in the Schedule "A" above but essentially required as per ground requirement as per direction of Engineer-In-Charge / OC Contract.	Job	-	-	-	1500000.00	Rupees Fifteen Lakh only
	Total of srl page No. 400						

EE (C) SG
SW

(Signature of the Contractor)

For Accepting Officer

SUMMARY OF SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

1	Total brought forward from srl page No.180	Rs.	
2	Total brought forward from srl page No.181	Rs.	
3	Total brought forward from srl page No.182	Rs.	
4	Total brought forward from srl page No.183	Rs.	
5	Total brought forward from srl page No.184	Rs.	
6	Total brought forward from srl page No.185	Rs.	
7	Total brought forward from srl page No.186	Rs.	
8	Total brought forward from srl page No.187	Rs	
9	Total brought forward from srl page No.188	Rs	
10	Total brought forward from srl page No.189	Rs	
11	Total brought forward from srl page No.190	Rs	
12	Total brought forward from srl page No.191	Rs	
13	Total brought forward from srl page No.192	Rs	

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EE (C) SG
SW
For Accepting Officer

SUMMARY OF SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

14	Total brought forward from srl page No.193	Rs.	
15	Total brought forward from srl page No.194	Rs.	
16	Total brought forward from srl page No.195	Rs.	
17	Total brought forward from srl page No.196	Rs.	
18	Total brought forward from srl page No.197	Rs.	
19	Total brought forward from srl page No.198	Rs.	
20	Total brought forward from srl page No.199	Rs.	
21	Total brought forward from srl page No.200	Rs	
22	Total brought forward from srl page No.201	Rs	
23	Total brought forward from srl page No.202	Rs	
24	Total brought forward from srl page No.203	Rs	
25	Total brought forward from srl page No.204	Rs	
26	Total brought forward from srl page No.205	Rs	

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SUMMARY OF SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

27	Total brought forward from srl page No.206	Rs.	
28	Total brought forward from srl page No.207	Rs.	
29	Total brought forward from srl page No.208	Rs.	
30	Total brought forward from srl page No.209	Rs.	
31	Total brought forward from srl page No.210	Rs.	
32	Total brought forward from srl page No.211	Rs.	
33	Total brought forward from srl page No.212	Rs.	
34	Total brought forward from srl page No.213	Rs	
35	Total brought forward from srl page No.214	Rs	
36	Total brought forward from srl page No.215	Rs	
37	Total brought forward from srl page No.216	Rs	
38	Total brought forward from srl page No.217	Rs	
39	Total brought forward from srl page No.218	Rs	

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EE (C) SG
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For Accepting Officer

SUMMARY OF SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

40	Total brought forward from srl page No.219	Rs.	
41	Total brought forward from srl page No.220	Rs.	
42	Total brought forward from srl page No.221	Rs.	
43	Total brought forward from srl page No.222	Rs.	
44	Total brought forward from srl page No.223	Rs.	
45	Total brought forward from srl page No.224	Rs.	
46	Total brought forward from srl page No.225	Rs.	
47	Total brought forward from srl page No.226	Rs	
48	Total brought forward from srl page No.227	Rs	
49	Total brought forward from srl page No.228	Rs	
50	Total brought forward from srl page No.229	Rs	
51	Total brought forward from srl page No.230	Rs	
52	Total brought forward from srl page No.231	Rs	

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EE (C) SG
SW
For Accepting Officer

SUMMARY OF SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

53	Total brought forward from srl page No.232	Rs.	
54	Total brought forward from srl page No.233	Rs.	
55	Total brought forward from srl page No.234	Rs.	
56	Total brought forward from srl page No.235	Rs.	
57	Total brought forward from srl page No.236	Rs.	
58	Total brought forward from srl page No.237	Rs.	
59	Total brought forward from srl page No.238	Rs.	
60	Total brought forward from srl page No.239	Rs	
61	Total brought forward from srl page No.240	Rs	
62	Total brought forward from srl page No.241	Rs	
63	Total brought forward from srl page No.242	Rs	
64	Total brought forward from srl page No.243	Rs	
65	Total brought forward from srl page No.244	Rs	

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EE (C) SG
SW
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SUMMARY OF SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

66	Total brought forward from srl page No.245	Rs.	
67	Total brought forward from srl page No.246	Rs.	
68	Total brought forward from srl page No.247	Rs.	
69	Total brought forward from srl page No.248	Rs.	
70	Total brought forward from srl page No.249	Rs.	
71	Total brought forward from srl page No.250	Rs.	
72	Total brought forward from srl page No.251	Rs.	
73	Total brought forward from srl page No.252	Rs	
74	Total brought forward from srl page No.253	Rs	
75	Total brought forward from srl page No.254	Rs	
76	Total brought forward from srl page No.255	Rs	
77	Total brought forward from srl page No.256	Rs	
78	Total brought forward from srl page No.257	Rs	

(Signature of the Contractor)

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For Accepting Officer

SUMMARY OF SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

79	Total brought forward from srl page No.258	Rs.	
80	Total brought forward from srl page No.259	Rs.	
81	Total brought forward from srl page No.260	Rs.	
82	Total brought forward from srl page No.261	Rs.	
83	Total brought forward from srl page No.262	Rs.	
84	Total brought forward from srl page No.263	Rs.	
85	Total brought forward from srl page No.264	Rs.	
86	Total brought forward from srl page No.265	Rs	
87	Total brought forward from srl page No.266	Rs	
88	Total brought forward from srl page No.267	Rs	
89	Total brought forward from srl page No.268	Rs	
90	Total brought forward from srl page No.269	Rs	
91	Total brought forward from srl page No.270	Rs	

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SUMMARY OF SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

92	Total brought forward from srl page No.271	Rs.	
93	Total brought forward from srl page No.272	Rs.	
94	Total brought forward from srl page No.273	Rs.	
95	Total brought forward from srl page No.274	Rs.	
96	Total brought forward from srl page No.275	Rs.	
97	Total brought forward from srl page No.276	Rs.	
98	Total brought forward from srl page No.277	Rs.	
99	Total brought forward from srl page No.278	Rs	
100	Total brought forward from srl page No.279	Rs	
101	Total brought forward from srl page No.280	Rs	
102	Total brought forward from srl page No.281	Rs	
103	Total brought forward from srl page No.282	Rs	
104	Total brought forward from srl page No.283	Rs	

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SUMMARY OF SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

105	Total brought forward from srl page No.284	Rs.	
106	Total brought forward from srl page No.285	Rs.	
107	Total brought forward from srl page No.286	Rs.	
108	Total brought forward from srl page No.287	Rs.	
109	Total brought forward from srl page No.288	Rs.	
110	Total brought forward from srl page No.289	Rs.	
111	Total brought forward from srl page No.290	Rs.	
112	Total brought forward from srl page No.291	Rs	
113	Total brought forward from srl page No.292	Rs	
114	Total brought forward from srl page No.293	Rs	
115	Total brought forward from srl page No.294	Rs	
116	Total brought forward from srl page No.295	Rs	
117	Total brought forward from srl page No.296	Rs	

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SUMMARY OF SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

118	Total brought forward from srl page No.297	Rs.	
119	Total brought forward from srl page No.298	Rs.	
120	Total brought forward from srl page No.299	Rs.	
121	Total brought forward from srl page No.300	Rs.	
122	Total brought forward from srl page No.301	Rs.	
123	Total brought forward from srl page No.302	Rs.	
124	Total brought forward from srl page No.303	Rs.	
125	Total brought forward from srl page No.304	Rs	
126	Total brought forward from srl page No.305	Rs	
127	Total brought forward from srl page No.306	Rs	
128	Total brought forward from srl page No.307	Rs	
129	Total brought forward from srl page No.308	Rs	
130	Total brought forward from srl page No.309	Rs	

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SUMMARY OF SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

131	Total brought forward from srl page No.310	Rs.	
132	Total brought forward from srl page No.311	Rs.	
133	Total brought forward from srl page No.312	Rs.	
134	Total brought forward from srl page No.313	Rs.	
135	Total brought forward from srl page No.314	Rs.	
136	Total brought forward from srl page No.315	Rs.	
137	Total brought forward from srl page No.316	Rs.	
138	Total brought forward from srl page No.317	Rs	
139	Total brought forward from srl page No.318	Rs	
140	Total brought forward from srl page No.319	Rs	
141	Total brought forward from srl page No.320	Rs	
142	Total brought forward from srl page No.321	Rs	
143	Total brought forward from srl page No.322	Rs	

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SUMMARY OF SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

144	Total brought forward from srl page No.323	Rs.	
145	Total brought forward from srl page No.324	Rs.	
146	Total brought forward from srl page No.325	Rs.	
147	Total brought forward from srl page No.326	Rs.	
148	Total brought forward from srl page No.327	Rs.	
149	Total brought forward from srl page No.328	Rs.	
150	Total brought forward from srl page No.329	Rs.	
151	Total brought forward from srl page No.330	Rs	
152	Total brought forward from srl page No.331	Rs	
153	Total brought forward from srl page No.332	Rs	
154	Total brought forward from srl page No.333	Rs	
155	Total brought forward from srl page No.334	Rs	
156	Total brought forward from srl page No.335	Rs	

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SUMMARY OF SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

157	Total brought forward from srl page No.336	Rs.	
158	Total brought forward from srl page No.337	Rs.	
159	Total brought forward from srl page No.338	Rs.	
160	Total brought forward from srl page No.339	Rs.	
161	Total brought forward from srl page No.340	Rs.	
162	Total brought forward from srl page No.341	Rs.	
163	Total brought forward from srl page No.342	Rs.	
164	Total brought forward from srl page No.343	Rs	
165	Total brought forward from srl page No.344	Rs	
166	Total brought forward from srl page No.345	Rs	
167	Total brought forward from srl page No.346	Rs	
168	Total brought forward from srl page No.347	Rs	
169	Total brought forward from srl page No.348	Rs	

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SUMMARY OF SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

170	Total brought forward from srl page No.349	Rs.	
171	Total brought forward from srl page No.350	Rs.	
172	Total brought forward from srl page No.351	Rs.	
173	Total brought forward from srl page No.352	Rs.	
174	Total brought forward from srl page No.353	Rs.	
175	Total brought forward from srl page No.354	Rs.	
176	Total brought forward from srl page No.355	Rs.	
177	Total brought forward from srl page No.356	Rs	
178	Total brought forward from srl page No.357	Rs	
179	Total brought forward from srl page No.358	Rs	
180	Total brought forward from srl page No.359	Rs	
181	Total brought forward from srl page No.360	Rs	
182	Total brought forward from srl page No.361	Rs	

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SUMMARY OF SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

183	Total brought forward from srl page No.362	Rs.	
184	Total brought forward from srl page No.363	Rs.	
185	Total brought forward from srl page No.364	Rs.	
186	Total brought forward from srl page No.365	Rs.	
187	Total brought forward from srl page No.366	Rs.	
188	Total brought forward from srl page No.367	Rs.	
189	Total brought forward from srl page No.368	Rs.	
190	Total brought forward from srl page No.369	Rs	
191	Total brought forward from srl page No.370	Rs	
192	Total brought forward from srl page No.371	Rs	
193	Total brought forward from srl page No.372	Rs	
194	Total brought forward from srl page No.373	Rs	
195	Total brought forward from srl page No.374	Rs	

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SUMMARY OF SCHEDULE 'A'/BILL OF QUANTITIES CONTD

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

196	Total brought forward from srl page No.375	Rs.	
197	Total brought forward from srl page No.376	Rs.	
198	Total brought forward from srl page No.377	Rs.	
199	Total brought forward from srl page No.378	Rs.	
200	Total brought forward from srl page No.379	Rs.	
201	Total brought forward from srl page No.380	Rs.	
202	Total brought forward from srl page No.381	Rs.	
203	Total brought forward from srl page No.382	Rs	
204	Total brought forward from srl page No.383	Rs	
205	Total brought forward from srl page No.384	Rs	
206	Total brought forward from srl page No.385	Rs	
207	Total brought forward from srl page No.386	Rs	
208	Total brought forward from srl page No.387	Rs	

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SUMMARY OF SCHEDULE 'A'/BILL OF QUANTITIES

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

209	Total brought forward from srl page No.388	Rs.	
210	Total brought forward from srl page No.389	Rs.	
211	Total brought forward from srl page No.390	Rs.	
212	Total brought forward from srl page No.391	Rs.	
213	Total brought forward from srl page No.392	Rs.	
214	Total brought forward from srl page No.393	Rs.	
215	Total brought forward from srl page No.394	Rs.	
216	Total brought forward from srl page No.395	Rs	
217	Total brought forward from srl page No.396	Rs	
218	Total brought forward from srl page No.397	Rs	
219	Total brought forward from srl page No.398	Rs	
220	Total brought forward from srl page No.399	Rs	
221	Total brought forward from srl page No.400	Rs	
Grand Total		Rs	

(Rupees _____)

(Signature of the Contractor)

EE (C) SG
SW
For Accepting Officer

SCHEDULE `B`

(ISSUE OF STORES TO THE CONTRACTOR)

**ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS
AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT
DANTAK : JOB NO. 60/343**

1. The contractor has to make his own arrangement for all stores/materials required for completion of the entire work contracted for.

S No	Particulars	A/U	Rate at which stores will be issued to the contractor	Place of issue	Remarks
		Nil			

(Signature of the Contractor)

EE(C) SG
SW
For Accepting Officer

SCHEDULE `C`

LIST OF TOOLS AND PLANT (OTHER THAN TRANSPORT) WHICH WILL BE HIRED TO THE CONTRACTOR)

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/ No	Quantity/ Particulars	Details of crew supplied	Hire charges per unit per working day	Stand by charges per unit per OFF day	Place of issue by name	Remarks
NIL						

SCHEDULE `D`

TRANSPORT TO BE HIRED TO THE CONTRACTOR

ADDITION/ ALTERATION TO ACCOMMODATION OF HQ 19 BRTF AND ALLIED UNITS AT PHUENTSHOLING AND JAIGAON UNDER 60 RCC/19 BRTF UNDER PROJECT DANTAK : JOB NO. 60/343

S/No	Quantity/Particulars	Rate per unit per working day	Place of issue	Remarks
NIL				

(Signature of the Contractor)

EE(C) SG
SSW
For Accepting Officer

ACCEPTANCE

_____alterations have been made in this documents and as evidence that these alterations were made before the execution of this contract agreement, they have been initialed by the contractor and Shri_____, HQ CE (P) DANTAK. The said Officer(s) is/are hereby authorised to sign and initial on my behalf the documents, forming part of the contract on my behalf.

The above tender was accepted by me on.....day of 2023, on behalf of the President of India for the contract sum of Rs _____ (Rupees

_____Only) at the item rates quoted in Schedule 'A' in favour of _____

Signature

Brig
Chief Engineer
Project Dantak
Accepting Officer

For and on behalf of the President of India

Signed this ____ day of _____ 2023

(Signature of the Contractor)

EE(C) SG
SW
For Accepting Officer

TENDER

To

The President of India
Through the Chief Engineer
Project DANTAK* (*Referred to also as Accepting Officer elsewhere in the tender documents).

Having examined and perused the following documents forming part of tender documents :-

1. Particular/technical specifications.
2. Ministry of Road Transport & Highways (MoRTH) specifications for Road and Bridge works (Fifth Revision) published by Indian Road Congress New Delhi.
3. Detailed specifications/other tender documents.
4. Schedule 'A', 'B', 'C' & 'D' attached here to
5. Special Conditions of the Contract
6. General Conditions of Contracts IAFW-2249 (1989 Print) including amendments 1 to 48 and errata No 1 to 20.
7. All other documents forming part of tender documents

Should this tender be accepted, I/We agree:-

To execute all the works referred to in the said documents upon the terms and conditions contained or referred to therein at the item rates continued in the aforesaid Schedule 'A' or at such other rates to be fixed under the provision of condition **62** of IAFW-2249 and to carry out such deviations as may be ordered vide condition **7** of General Condition of Contracts up to a maximum of **10 percent** and further agree to refer all disputes as required by condition **70 & 71** of the General Conditions of the contract (IAFW-2249) to the Sole Arbitration of an serving Engineer Officer to be appointed by **the Director General Border Roads, New Delhi or in his absence, by the officer officiating as Director General Border Roads**, whose decision shall be final, conclusive and binding. However, in case of disputes with **PSC** and or **PSU** the same will be referred to a Sole Arbitrator to be appointed by Secretary, Bureau of Public Sector Enterprises (refer Special condition **24** of tender documents).

Signature of Contractor

in the capacity of _____ duly

Witness:

authorized to sign the tender for and on behalf

(Name in Block letters)

of M/s _____

Address-----

(In Block letters)

Postal address: - _____

(Signature of the Contractor)

EE(C) SG
SW
For Accepting Officer

LIST OF PREFERRED MAKES FOR CIVIL & ELECTRICAL WORKS

Sr. No	Name of Product/ Material	Preferred Brand Names
1	ORDINARY PORTLAND CEMENT (GREY) (43 GRADE)	ACC, ULTRATECH, VIKRAM, SHREE CEMENT, AMBUJA, JAYPEE CEMENT, CENTURY CEMENT & J.K. CEMENT.
2	PORTLAND POZZOLONA CEMENT (GREY) (43 GRADE)	ACC, ULTRATECH, VIKRAM, SHREE CEMENT, AMBUJA, JAYPEE CEMENT, CENTURY CEMENT & J.K. CEMENT
3	WHITE CEMENT	J.K.WHITE, JAIPUR SUPREME PACKAGING PVT. LTD., ULTRATECH CEMENT LIMITED.
4	REINFORCEMENT STEEL	SAIL, TATA STEEL LTD., RINL, JINDAL STEEL & POWER LTD. AND JSW STEEL LTD.
5	ADMIXTURES	CICO, FAIRMATE, HIND PLAST SUPER, SUPAPLAST, SIKKA
6	WATER PROOFING COMPOUND	FOSROC, CICO, KRYTON BUILDMAT, PIDILITE, PRIYA ENTERPRISES, FAIRMATE
7	READY MIX CONCRETE	M/S L&T CONCRETE (LAFARGE), ULTRATECH CEMENT LTD., ACC CONCRETE LTD., RMC READY MIX (INDIA) PVT. LTD.
8	AUTOCLAVED AERATED BLOCKS	BILTECH, ECO GREEN, FINECRETE, J.K. LAKSHMI CEMENT LTD.
9	POLYMER MODIFIED ADHESIVE FOR AAC BLOCKS	MYK LATICRETE, FERROUS CRETE, ARDEX ENDURA, ULTRATECH, SIKKA
10	FACTORY MADE PANELLED & WIRE GAUGE WOODEN DOOR/ WINDOW SHUTTERS.	M/S JAIN WOOD INDUSTRIES, KUTTY DOORS, SAMRAT PLYWOOD, NEW JAGDAMBA DOORS, MERINO, KITPLY, AS TIMBER
11	FLUSH DOOR SHUTTERS	KUTTY FLUSH DOOR, SAMRAT LAMINATE, NATIONAL PLYWOODS, JAIN WOOD INDUSTRIES, MERINO, KITPLY, CENTURY, AS TIMBER.
12	BLOCK BOARD	MERINO, KITPLY, NATIONAL, ARCHIDPLY, CENT PLY, JAYNA, CENTURY.
13	LAMINATES	SAMRAT, VIRGO, MERINO, ARCHIDPLY, CENTURY LAMINATES, GREENLAM
14	PRE-LAMINATED PARTICLE BOARD	ARCHIDPLY, CENTURY PLY BOARDS, BALAJI ACTION BUILDWELL, ECOBOARD
15	PARTICLE BOARD (MEDIUM DENSITY)/ VENEERED PARTICLE BOARD	CENTURY PLYBOARDS (INDIAN) LTD., BALAJI ACTION BUILDWELL, EVERGREEN BOARDLAM, ECOBOARD INDUSTRIES LTD.

(Signature of the Contractor)

EE(C) SG
SW
For Accepting Officer

LIST OF PREFERRED MAKES FOR CIVIL & ELECTRICAL WORKS

Sr. No	Name of Product/ Material	Preferred Brand Names
16	PRE-LAMINATED MEDIUM DENSITY FIBRE BOARD	CENTURY PLYBOARDS, GREEN PLY, BALAJI ACTION BUILDWELL
17	OMS/ MS DOOR FITTINGS	ASHISH, AGGARWAL STEELS, DOOR DEVICES MANUFACTURING COMPANY, MANU ENGINEERING COMPANY, M.C. MOWJEE & CO., SHRI GANPATI DOORS
18	HYDRAULIC DOOR CLOSER	HARDWYN, EVEREST, HYPER, UNIVERSAL, SUDARSHAN INDUSTRIES
19	STAINLESS STEEL DOOR/ WINDOW HARDWARE FITTINGS (FIRE RATED AND NON-FIRE RATED)	DORMA, ASSA ABLOY, GEZE, D-LINE, GODREJ, HAFELE
20	ANODISED/ ZINC ALLOY/ ALUMINIUM HARDWARE DOOR/ WINDOW FITTINGS	PULSE, SAVIO, HOPPE, ALUTECH
21	FRP DOOR FRAMES & SHUTTERS	ASHISH INDUSTRIES, JAYNA, SAINIK (CENTURY PLYWOOD), SELECTED PRODUCTS CO.
22	UPVC WINDOWS/ DOORS	VEKA, FENESTA, REHAU, ALUPLAST
23	UPVC WINDOW/ DOOR HARDWARE FITTINGS (ZINC ALLOY)	PULSE, HOPPE, GU, ROTO
24	WIDOWS BLINDS	VISTA, MAC, HUNTER, DOUGLAS, DE-DÉCOR
25	STRUCTURAL STEEL SUCH AS MS FLATS, SQ.BARS ANGLES ETC.	SAIL, TATA STEEL, RINL, JINDAL STEEL & POWER LTD. AND JSW STEEL LTD.
26	FIRE RATED DOORS (METTALIC/ NON METTALIC)	KUTTY DOORS, NAVAIR, PROMAT, SYNERGY THRISLINGTON
27	HOT-ROLLED STEEL SECTIONS FOR MS DOORS, WINDOWS AND VENTILATORS	NAV DURGA STEEL CORPN, CRM STEELS P. LTD, SHYAM ISPAT UDYOG, VIMAL, SHIV
28	MILD STEEL DOOR, WINDOWS & VENTILATORS MANUFACTURERS	FRIENDS MANUFACTURING COMPANY, KOTKAPURA, PD INDUSTRIES, SHAKTI INDUSTRIES, STEELMAN INDUSTRIES, SKS STEEL INDUSTRIES, SHIVAM
29	PRESSED STEEL DOOR FRAMES MANUFACTURERS	KRISHNA STEEL FABRICATOR SIRSA, LAXMI STEEL WORKS BAHADURGARH, ASHISH INDUSTRIES GHAZIABAD, ASHWANI & SONS.
30	HOLLOW STEEL SECTIONS	JINDAL INDUSTRIES HISAR, TATA STEEL, STEEL & METAL TUBES (INDIA) LTD.
31	STEEL TUBES FOR STRUCTURAL STEEL	JINDAL INDUSTRIES HISAR, TATA STEEL, STEEL & METAL TUBES (INDIA) LTD.
32	DASH/ ANCHORING FASTENERS, BOLTS, SCREWS AND NUTS.	HILTI , FISCHER, CKW, ATUL, PRIYA
33	STAINLESS STEEL RAILING	DORMA, KICH, OM STEEL , D-LINE.
34	CHEQUERRED PRE-CAST CC TILES	NTC, SWASTIK TILE, POOJA CONCRETE FABRICATORS, GTC
35	CERAMIC TILES	SOMANY, ORIENTBELL, RAK, ASIAN GRANITO INDIA LTD.

(Signature of the Contractor)

EE(C) SG
SW
For Accepting Officer

LIST OF PREFERRED MAKES FOR CIVIL & ELECTRICAL WORKS

Sr. No	Name of Product/ Material	Preferred Brand Names
36	VITRIFIED TILES	SOMANY, ORIENTBELL, RAK, ASIAN GRANITO INDIA LTD.
37	ADHESIVE/ GROUTING FOR USE WITH TILES	FERROUS CRETE, MYK LATICRETE, ARDEX EDURA, FAIRMATE, DURA BUILD CARE, SIKKA
38	WOODEN LAMINATE FLOORING	PERGO, KRONOTEX, FLORENCE, UNITEX, ACTION TESA
39	UNPLASTICISED RIGID PVC PIPE & FITTINGS	SUPREME, FINOLEX, PRINCE, KISAN, DIPLAST
40	GALVANISED STEEL SHEETS (UNCOATED & PRE-COATED)	SAIL, TATA, BHUSHAN POWER STEELS, JINDAL
41	ROOFING SHEETS (GALVALUME)	CRIL, LLOYDS, INTERACH, MULTICOLOR, BHUSHAN POWER STEEL
42	FALSE CEILING- GYPSUM	SAINT GOBAIN, VANS GYPSUM, USG BORAL, LLYOD
43	FALSE CEILING- METAL	ARMSTRONG, DEXUNE, SAINT GOBAIN, HUNTER DOUGLAS.
44	FALSE CEILING- CALCIUM SILICATE	HILUX, AEROLITE, ARMSTRONG
45	FALSE CEILING-MINERAL FIBRE	ARMSTRONG, DEIKEN, DEXUNE, SAINT GOBAIN.
46	ACCOUSTIC: GLASS FIBRE FALSE CEILING AND WOODEN/ FABRIC WALL LINING	ARMSTRONG, DEXUNE, ACCOUSTIBLOK, HIMALYAN ACOUSTICS, ANUTONE
47	FALSE CEILING-ALUMINIUM POWDER COATED	ARMSTRONG, DEXUNE, SAINT GOBAIN, HUNTER DOUGLAS
48	LIGHT WEIGHT GYPSUM PLASTER	SAINT GOBAIN, ULTRATECH, FERROUS CRETE, USG BORAL.
49	OIL BOUND DISTEMPER/ ACRYLIC DISTEMPER *	NEROLAC ACRYLIC DISTEMPER, TRACTOR ACRYLIC DISTEMPER (ASIAN PAINTS) , MAXILITE ACRYLIC DISTEMPER (ICI), BISON ACRYLIC DISTEMPER (BERGER) NO.1 PREMIER ACRYLIC DISTEMPER OF SHALIMAR
50	INTERIOR EMULSION/ PLASTIC EMULSION *	DULUX ACRYLIC EMULSION/ SOLITAIRE A-1000 (ICI), APCOLITE PREMIMUM EMULSION (ASIAN), BEAUTY GOLD (NEROLAC), SILK (BERGER) SUPERLAC ADVANCE ACRYLIC PREMIUM SHALIMAR
51	ACRYLIC SMOOTH EXTERIOR PAINT *	APEX ULTIMA (ASIAN), DULUX WEATHERSHEILD MAX (ICI), EXCEL (NEROLAC), WEATHERCOAT ALL GUARD (BERGER) WEATHER PRO PLUS OF SHALIMAR
52	DRY DISTEMPER *	NEROLAC, BERGER, ASIAN PAINTS, ICI, JENSON & NICHOLSON (J&N)
53	TEXTURED EXTERIOR PAINT *	NEROLAC, BERGER, ASIAN PAINTS, ICI

(Signature of the Contractor)

EE(C) SG
SW
For Accepting Officer

LIST OF PREFERRED MAKES FOR CIVIL & ELECTRICAL WORKS

Sr. No	Name of Product/ Material	Preferred Brand Names
54	SYNTHETIC ENAMEL PAINTS *	DULUX HI-GLOSS (ICI), APCOLITE PREMIUM GLOSS (ASIAN), NEROLAC HIGH GLOSS (NEROLAC), LUXOL HI-GLOSS (BERGER) SUPERLAC HIGHGLOSS PREMIUM ENAMEL OF SHALIMAR
55	WOOD PRIMER*	NEROLAC, BERGER, ASIAN PAINTS, ICI, SHALIMAR
56	STEEL PRIMER*	NEROLAC, BERGER, ASIAN PAINTS, ICI, SHALIMAR
57	EXTERIOR WALL PRIMER*	EXTERIOR NEROLAC PRIMER, EXTERIOR BERGER PRIMER, EXTERIOR ASIAN PAINTS PRIMER, EXTERIOR ICI PRIMER, ACRYLIC EXTERIOR OF SHALIMAR
58	WALL PUTTY (WHITE CEMENT BASED)	BIRLA WALL CARE, JK WHITE, SARA WALL PUTTY
59	POLYMER MODIFIED SELF CURING PLASTER	MYK LATICRETE, FERROUS CRETE, ARDEX ENDURA, ULTRATECH
60	PAVER/ GRASS PAVER BLOCKS & KERB STONES	SHIV SHAKTI, PUNEET TILES, NATIONAL TILES CORPORATION, SARAL IMPEX, BALAJI TILES, METRO PAVERS, MGM INFRA, POOJA CONCRETE FABRICATORS.
61	VITREOUS CHINA SANITARY WARE	HINDWARE, CERA, PARRYWARE, JOHNSON PEDDER, NEY CER
62	PLASTIC FLUSHING CISTERN FOR WC AND URINALS	JINDAL, STEEL BIRD, SEEMLINE, VIKRAM PLASTIC, PRAYAG POLYMERS (P) LTD.
63	PLASTIC SEAT COVER OF W.C.	AJANTA POLYMERS, JINDAL MALPINE, JAIN POLYMERS
64	STAINLESS STEEL SINK	ALLEX, JAYNA, JMD INTERNATIONAL, STEEL CRAFT
65	MIRROR GLASS	ATUL, MODIGUARD, GOLDEN FISH
66	CENTRIFUGALLY CAST (SPUN) IRON PIPES	NECO, BENGAL IRON, DURGAPUR ISPAT UDYOG, SINGHAL IRON FOUNDRY (SKF), KAPILANSH DHATU UDYOG PVT. LTD., HIF, BINAY UDYOG
67	HUBLESS CENTRIFUGALLY CAST (SPUN) IRON PIPES	NECO, RAJ PATTERN MAKERS & FOUNDERS, GOLA STEEL AND CASTING
68	CP FITTINGS & ACCESSORIES	JAQUAR, HINDWARE, PRIMA, CERA, JAL
69	BRASS STOP & BIB COCK	DHAWAN SANITARY UDYOG, JAINKO, SHAKTI, VARDHMAN INDIA PRODUCTS
70	FERRULES FOR WATER SUPPLY	HIND METAL WORKS, KRITIKA, DRP, SHAKTI
71	BALL COCK WITH ROD	RESP FAUCET INDUSTRIES, DHAWAN SANITARY UDYOG, NEW METAL WORKS, KPR, PRAYAG.
72	POLYETHYLENE WATER STORAGE TANK	SINTEX, VECTUS, KAVERI

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LIST OF PREFERRED MAKES FOR CIVIL & ELECTRICAL WORKS

Sr. No	Name of Product/ Material	Preferred Brand Names
73	STONEWARE PIPES & GULLY TRAPS	SORKHI INDUSTRIES, RK INDUSTRIES, NAVNEET, MOLI CERAMICS, OCR, ANAND
74	PRE-CAST CONCRETE PIPES (NON-PRESSURE)	RAMNIK, BFSP, JAGDAMBAY SPUN PIPE, GURKIRPA SPUN PIPES
75	GI PIPE	JINDAL (HISSAR), TATA, PRAKASH SURYA, BST, BHUSHAN POWER STEEL
76	GI FITTINGS	UNIK, AVR, ZOLOTO, SANT, HBI, C-BRAND
77	C-PVC PIPE	PRINCE, JINDAL (FLOWKEM), ASTRAL, AJAY POLYMERS, SUPREME, ASHIRVAD, FINOLEX
78	WATER METER	CRESCENT, PRINCE, FEDREL, DASHMESH, NBESON, SANT
79	GUN METAL GATE, GLOBE, CHECK VALVES & NON-RETURN VALVES	LEADER, ZOLOTO, SANT, RAJAN METAL INDUSTRIES, H.B. METALS, HVI
80	CENTRIFUGALLY CAST (SPUN) IRON PIPES (CLASS LA).	TRU FORM ENGINEERS, KAPILANSH, ELECTROSTEEL, HITECH METAL CASTINGS.
81	C.I. SLUICE VALVES & REFLEX VALVES	ZOLOTO INDUSTRIES, SANT VALVES, AMCO INDUSTRIES, KIRLOSKAR, RATAN INDUSTRIAL CORPORATION, HVI
82	STAINLESS STEEL PIPES & FITTINGS	JINDAL STAINLESS STEEL, OM STEEL GROUP, V STEEL, VIEGA, RAMPART INDIA PVT. LTD.,
83	DUCTILE IRON PIPES & FITTINGS	JINDAL SAW LTD, ELECTRO STEEL, CHANDRANCHAL INFRA, ELECTROTHERAM
84	C.I./ D.I. MANHOLE COVERS & FRAMES	SWASTIKA ENTERPRISES, BENGAL IRON CORPORATION, NECO, BINAY UDYOG, CHANDERANCHAL
85	WATER REPELLANT SILANE CHEMICAL	PIDILITE, FERROUS CRETE, ARDEX ENDURA
86	ALUMINIUM SECTIONS	HINDALCO, JINDAL, INDIAN ALUMINIUM CO.
87	BASIC/ RAW GLASS	SAINT GOBAIN, ASAHI, MODI, GOLD PLUS GLASS, PILINGTON
88	APPROVED PROCESSORS FOR PERFORMANCE GLASS/ TOUGHENED GLASS/ HERMETICALLY SEALED/ LACQUERED GLASS etc.	ART & GLASS, MIRAGE TOUGHENED GLASSES (P) LTD.,AAR PAR GLASS, VERMA GLASS.
89	STRUCTURAL GLAZING	ALCOB, ALUPRO, ALUPLAX, SP FABRICATORS, SAINT GOBAIN, GLAVERBEL.
90	FAÇADE GLASS OPENABLE FITTINGS	ALUALPHA, SAVIO, HOPPE, ALUTECH
91	GLASS FAÇADE/ GLASS CANOPY WITH SS SPIDER FITTINGS	ALCOB, ALUPRO, ALUPLAX, SP FABRICATORS, SAINT GOBAIN, GLAVERBEL.
92	FRAMELESS GLAZING WITH SS PATCH FITTINGS	DORMA, ASSA ABLOY, GEZE, D-LINE

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Sr. No	Name of Product/ Material	Preferred Brand Names
93	PVC INSULATED CABLE UP TO 1100 VOLTS COPPER / ALUMINIUM CONDUCTOR, SHEATHED / UNSHEATHED AS PER IS – 694	HAVELLS / FINOLEX / NICCO / KEI / POLYCAB / RR KABEL LTD
94	PVC / XLPE INSULATED PVC SHEATHED HEAVY DUTY ARMoured / UNARMoured CABLES UP TO 1100 VOLTS, ALUMINIUM / COPPER CONDUCTORS, SOLID / STRANDED AS PER IS – 1554, PART – I & IS– 7098, PART – I.	HAVELLS / GLOSTER CABLES / KEI INDUSTRIES LTD / POLYCAB / ASIAN CABLES / FINOLEX
95	HT XLPE Cables	Havells / Gloster Cables / KEI Industries Ltd / Asian [RPG] / CCI / Polycab / Finolex
96	Other Category of Cables / ABC Cable	Ravin Cables Ltd
97	CI Pipes	Electrosteel / Kesoram / Tisco
98	DI Pipe, ISI Marked of bore 80 to 1000mm [Except DN 125 & 750mm] of Class K7, K8, & K9 Conforming to IS – 8329]	Jindal Saw Ltd / Electrosteel Casting Ltd. / Tata Metaliks / Tata Kabuto
99	ERW MS Pipes / GI Pipes / Fittings	Surya Roshni Ltd / Tata / Jindal steel / Prakash
100	PVC Pipes & Fittings	Ori-Plast / Supreme / Prince / Finolex / Kisan Mouldings Ltd.
101	UPVC / CPVC / RWP Pipes	Ori-Plast / Supreme / Prince / Finolex
102	UPVC Casing for Bore Wells	Kisan Mouldings Limited
103	UPVC / PPR / HDPE Pipes and Fittings	Kisan Mouldings Limited
104	PVC SWR Pipes	Kisan Mouldings Limited / Supreme / Prince
105	PPR Pipes & Fittings	Savoir-Fair Manufacturing Co. Pvt Ltd / Reliance / Vectus / Finolex / Supreme
106	Other Cat of Pipes	
107	Composite Pipes / ASTM / Plumbing Pipes / Submersible Pipes / Micro Irrigation Pipes / Casing Pipes / Underground Drainage Pipes / Hot & Cold Water Distribution System	Kisan Mouldings Limited / Jain Irrigation Systems Ltd / Savoir-Fair Manufacturing Co. Pvt Ltd.

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Sr. No	Name of Product/ Material	Preferred Brand Names
108	Conduit Steel ERW	Tata / Jindal / Kalinga / BEC
109	Conduit PVC	Presto Plast / Finolex / Indo American Electricals Ltd / Kalinga Gold / Richa Cables Pvt. Ltd.
110	PVC Casing Caping	Presto Plast / Finolex / Kalinga / Payal
111	Light Fittings / Lamps	
112	Street lights	Bajaj / Philips / Crompton Greaves / Havells / Syska
113	Frame Proof Light Fittings / Lamps	Bajaj / Crompton Greaves / Sudhir
114	Fluorescent Tube Light / CFL Fittings	Philips / Crompton Greaves / Havells / Surya Roshni Ltd / Bajaj / Wipro / C & S Electric Ltd
115	FTL / CFL / PLS / HPSV / HPMV / Metal Halide Fittings / Lamps [Outdoor Lighting]	Philips / Crompton Greaves / Havells / Surya Roshni Ltd / Bajaj / Wipro / C & S Electric Ltd
116	LED Light Fittings External / Internal	Philips / Havells / Surya Roshni Ltd / Wipro / GE / Bajaj
117	Switch Fuse / Changeover Switch	L & T / Legrand / ABB / Siemens / GE / C & S / Schneider / Havells
118	MCBs / RCCB / RCBO & DB for MCBs	Legrand / L & T [Hager] / Siemens / ABB / Schneider / GE / C & S
119	MCCB / ACB	Legrand / L & T / Siemens / ABB / C & S / Schneider / GE
120	Switches / Switch Socket / Bell Push / Ceiling Rose / Regulator Piano Type / Buzzer	Havells / Anchor / Legrand / Schneider
121	Modular Type Switches / Sockets / Regulator	Havells [Crabtree] / Anchor [Woods] / Legrand / RR Kabel Ltd. / MK Honey Wall / Schneider / C & S Electric
122	Substation / Transformer	
123	Power Transformers 33 / 11 KV	BHEL / ABB / Siemens / Andrew Yule / Alstom / Schneider / Bharat Bijlee
124	Transformers 11 KV, Distribution Type Step Down / Up <400 KVA	Voltamp / Siemens / Crompton Greaves / Alstom / Schneider / ABB / Bharat Bijlee/ Kanyaka parameswari Engineering Transformers and Electricals Pvt. Ltd

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LIST OF PREFERRED MAKES FOR CIVIL & ELECTRICAL WORKS

Sr. No	Name of Product/ Material	Preferred Brand Names
125	Transformers 11 KV, Distribution Type Step Down / Up ≥400 KVA	BHEL / ABB / Siemens / Schneider / Crompton Greaves / Bharat Bijlee/ Kanyaka parameswari Engineering Ltd/Indian Transformers and Electricals Pvt. Ltd
126	Packaged / Unified Substation	BHEL / ABB / Siemens / Andrew Yule / Schneider
127	VCB & SF6 [11 KV & 33 KV] & Ring Main Units	BHEL / ABB / Siemens / Andrew Yule / Schneider
128	Current & Potential Transformers [LT & HT]	AE / English Electric / Crompton Greaves / Schneider
129	Electronic Energy Meter [Tamper Proof with Optical Port]	Siemens / L & T / Havells / HPL / Schneider
130	Electrical Instrumentation / Measuring Instruments Digital / Analog / Energy Meters / Volt Meter / Ammeter	Havells / HPL / L & T / AE / Schneider / BCH
131	Water Heater [Geyser]	Bajaj / Usha / Crompton Greaves / Jaquar
132	Energy Saver	Mega Energy Solutions
133	Exhaust Fan / Ceiling Fan / Air Circulator / Wall Mounting Fan	Crompton Greaves / Havells / Almonard / Bajaj / Orient
134	Capacitor Bank / APFC Panel	ABB / Siemens [EPCOS] / L & T / BCH / Schneider
135	Thermoplastic Street Light Junction Box / DB	Hensel / Sintex / C & S
136	Nature Switch / Street Light Timer	Legrand / L & T / Bajaj / Schneider
137	LT Switch Board Panel [Indoor Wall Mounted Prewired]	Schneider / L & T / ABB / Havells / C & S
138	LT Control Panel / Feeder Pillar Box	L & T / Milestone / Advance / Unilec / C & S / Schneider/ M/s power system & controls
139	Steel Tubular Poles	Jindal Steel / National Tubing Co / Bombay Tubes & Store / Calcutta Poles & Tubes
140	Cable Joint LT & HT, Hot & Cold Shrinkable	M-Seal / Birla-3M / Denson / Raychem

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Sr. No	Name of Product/ Material	Preferred Brand Names
141	Air Break Switches / HT Isolators / Gang Switches	Pactil / BHEL / Jaipuria Brothers
142	DSC / Pin Type Porcelain Insulators	BHEL / Jaipuria Brothers / Pactil / Southern Insulators
143	Diesel Generating Set Engines	Kirloskar Green / Cummins / Ashok Leyland / Greaves Cotton
144	Alternator	Alstom / Crompton Greaves / Kirloskar Electric / Siemens / Bharat Bijlee
145	Lightning Arrester [Station Class]	Oblum / Elpro / BHEL / Schneider / Jaipuria Brothers
146	ACSR Conductor	Indian Aluminium Ltd / Alind / Bharat Conductors/Dynamic cables Ltd
147	Single Phase Preventor / Contactors / Thermal Overload Relay	ABB / BCH / L & T / Siemens / C & S / Schneider
148	Battery Maintenance Free	Exide / AMCO / Nicco / Amaron
149	Battery Chargers	Escorp / Su-Kam / Microtek
150	Servo Control LT Voltage Stabiliser	Voltamp / APLAB / Andrew Yule / Brentford / AE / Vintec [Volina]
151	HT Voltage Stabiliser [11 KV]	Andrew Yule / Brentford / APLAB
152	Indicator Lamp / Selector Switch	L & T / Siemens / GE / RR Micro / BCH / Schneider
153	Sluice Valve / Reflux Valve / Air Release Valve / Foot Valve / Non-Return Valve / Gate Valve / Butterfly Valve	Kirloskar / Leader / Zoloto / Audco / Venus / Upadhaya
154	DOL / Star-Delta Starter	BCH / Siemens / L & T / ABB / Schneider / C & S
155	Submersible Cable	Finolex / Havells / RR Kabel / Polycab
156	Centrifugal Pumps	Crompton Greaves / Kirloskar / KSB
157	Submersible Pumps	Crompton Greaves / Colama / KSB / Kirloskar
158	Bleaching Dozer	Ion Exchange / RMCO / Avon / Aquapura / Maic India
159	Chloronome Plant / Chlorinator	Auqa / Pearl Filters / Jesco / Advance – 2000
160	PVC Overhead Tank [ISI Mark]	Sintex / Polywell / Polycon

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Sr. No	Name of Product/ Material	Preferred Brand Names
161	Electric Motors	Crompton Greaves / Siemens / ABB / Kirloskar Electric / Havells
162	Monoblock Pumps	Crompton Greaves / Kirloskar / KSB
163	Chiller Units / Compressors, Scroll / Screw Type	Blue Star / Voltas / York / Kirloskar / Carrier / Daikin / Trane
164	Condenser & Chiller Pumps	Crompton Greaves / Kirloskar / KSB
165	Cooling Towers	Paharpur / Mihir / Delta
166	Cooling Coil / AHU	Blue Star / Voltas / Zeco / Llyod
167	Filters	Blue Star / Airtech / Thermodyne
168	Balancing Valves	Leader / Audco / C & R / Advance
169	Refrigerant Controls	Sporlan / ALCO / Honeywell / Danfoss / Jhonson Control
170	Strainer	Rapid Control / Emberland / Sant
171	Insulation Crosslink Polyethylene with Adhesive	Torcellen / Paramount / Thermoflex
172	Thermometers / Pressure Gauges	Hguru / Taylor / Fiebig
173	Thermostat / Humidistat	Honeywell / Jhonson Control / Danfoss / Siemens
174	Actuators	Siemens / Rapid Control / Honeywell
175	Heaters	Daspass / Racold / Bajaj
176	Thermostatic Expansion Valve	Siemens / Honeywell / Danfoss
177	Grills / Diffusers / Fire Dampers	Caryaire / Mapro / Conaire
178	Split Type AC / Package Type AC / Window Type AC	Blue Star / Voltas / Hitachi / Daikin / Carrier
179	Fire Pump	Crompton Greaves / Kirloskar / KSB
180	Fire Hose Real	Minimax / Firex / Safex
181	Stand Post Type Hydrant	Minimax / Firex / Safex
182	RRL Hose Pipe	Dunlop / Cosmos / Jayshree
183	Sprinkler Head	Minimax / Tyco / Ceasefire / Safex
184	Pressure Switch	Siemens / Honeywell / Danfoss / Schneider / Rapid Control
185	Fire Extinguisher [All Types]	Minimax / Firex / Newage / Cease Fire

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Sr. No	Name of Product/ Material	Preferred Brand Names
186	Single Head Landing Valves Three / Four Way Brigade Inlet Hose Reel Drum and Shut-Off Nozzle, Aluminium Branch Pipe	Minimax / Safex / Superex
187	20 mm dia Rubber Pipe	Jyothi / Dunlop / Minimax
188	Hooter	Safex / Honeywell / Mnimax
189	APP Modified Polymeric Membrane	Multiplas by STP Texas Limited, Gurgaon / STP Superior Poly Plus by STP Limited, Calcutta / Shivam Tar Products / Jainidhi Bitumen Specialities Pvt Ltd / Texsa India Ltd, Gurgaon / Tiki Tar Danosa [India] Ltd (Hydrostop) Gujarat.
190	EOT Cranes	Tyojam / Anupam / Mukund / Jessop / WMI / Dinesh Enterprises.
191	LLDPE Septic tanks	Sintex/Suprem
192	Lift	Otis/Thyseen Krupp/Mistubishi/Johnson/Escon/IES/JAKPOWER

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