TENDER DOCUMENT

TENDER No: NERO/CON/664/339 dated 14.11.2018

FOR

Tender for Construction of Balance works of Nakukchera (Platoon level) near BP 2327/M, Saisenchhera (Platoon level) near BP 2324/7S, Seisenbasti (Company level) near BP 2326/M BOP’s along Indo-Bangladesh border in the state of Mizoram for Ministry of Home Affairs (Pkg.-III).

FOR

Ministry of Home Affairs

VOLUME – II

NOTICE INVITING TENDER

ADDITIONAL CONDITIONS OF CONTRACT

TECHNICAL SPECIFICATIONS

&

DRAWINGS
NOTICE INVITING TENDER

Tender for Construction of Balance works of Nakukchera (Platoon level) near BP 2327/M, Saisenchhera (Platoon level) near BP 2324/7S, Seisenbasti (Company level) near BP 2326/M BOP’s along Indo-Bangladesh border in the state of Mizoram for Ministry of Home Affairs (Pkg.-III).

Engineering Projects (India) Ltd. invites the online open e-Tenders sealed percentage rate tender in two bid system through e tendering from the eligible contractors/ firms who fulfill the eligibility criteria as per the brief particulars of scope for Construction of Balance works of Nakukchera (Platoon level) near BP 2327/M, Saisenchhera (Platoon level) near BP 2324/7S, Seisenbasti (Company level) near BP 2326/M BOP’s along Indo-Bangladesh border in the state of Mizoram for Ministry of Home Affairs (Pkg.-III) on behalf of Ministry of Home Affairs from interested and eligible contractors in single stage Two Envelope system (Technical bid & Price bid) for the following works:

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>NAME OF WORK</th>
<th>ESTIMATED COST</th>
<th>TIME OF COMPLETION</th>
<th>EMD DEPOSIT (Rs.)</th>
<th>TENDER FEES (Rs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Construction of Balance works of Nakukchera (Platoon level) near BP 2327/M, Saisenchhera (Platoon level) near BP 2324/7S, Seisenbasti (Company level) near BP 2326/M BOP’s along Indo-Bangladesh border in the state of Mizoram for Ministry of Home Affairs (Pkg.-III)</td>
<td>Rs.16,87,61,225.00 (Rupees Sixteen Crore Eighty-Seven Lakhs Sixty-One Thousand Two Hundred Twenty-Five Only)</td>
<td>10 (Ten) Months</td>
<td>Rs.16,87,650.00</td>
<td>23,600 /- (Rupees Twenty Three Thousand Six Hundred only) (GST @ 18% included)</td>
</tr>
</tbody>
</table>

The brief scope of work in this tender shall include (but not limited to) Earth work in excavation, P.C.C & R.C.C, Brick masonry, steel work, roof truss, plumbing, sanitary, External & Internal Electrification etc. all complete.

The detailed scope of work is given in tender document.

Time schedule of Tender activities:
(i) Start of Date & Time of availability of documents: From 08:00 PM 14.11.2018
(ii) Last Date & Time for Downloading of tender documents: 05.12.2018 up to 11:00 AM
(iii) Last Date & Time of online submission of Tenders: on or before 05.12.2018 up to 12:00 Noon.
(iv) Date & Time of online opening of tenders (Techno-Commercial Bid): 05.12.2018 at 04:00 PM.
(v) Pre-bid meeting at 4th Floor, Hindustan Tower Block-A, Jawahar Nagar, N.H.37, Guwahati-781022 Assam on 29.11.2018 at 4.00 PM.
(vi) Date & Time of submission of documents in physical form: 05.12.2018 (upto 12:30 PM)
In case of any unscheduled holiday taking place on the last day of issue of tender/ submission of tender the next working day shall be treated as the scheduled time and day of issue of tenders/ submission of tenders.

The tenderers shall submit his query for the pre-bid meeting on or before 29.11.2018 by 12.00 hours to nerocontracts@gmail.com and neroguwahati@gmail.com or by post to the address given at sl. No. 14 below.

1.0 Contractors who fulfill the following basic qualifying requirements are eligible to participate in this tender. The joint ventures are not accepted.

a) The bidder must have experience of having satisfactorily completed following “similar works” during the last 7(seven) years ending last day of month previous to the one in which applications are invited.

i. Three similar works each of costing minimum 40% of the estimated cost of this work.

OR

ii. Two similar works each of costing minimum 50% of the estimated cost of this work.

OR

iii. One similar work costing minimum 80% of the estimated cost of this work.

a. The “similar works” shall mean Building works with RCC framed structure and infrastructure development work mainly etc.

b. The cost of free issue materials shall not be included in the completion cost of works.

c. For evaluation purpose, the completion cost of works mentioned in the completion certificate shall be enhanced by 7% per annum till the end of month prior to date of NIT.

b) Should have had average annual financial turnover of at least 30% of the estimated cost put to tender during the immediate last three consecutive financial years ending on 31.03.2017 duly supported by annual financial report (i.e. audited copies of balance sheet and profit and loss statement) or certified by Chartered Accountant along with Income Tax return for last three assessment years (i.e. 2017-18, 2016-17 and 2015-16). Turnover means income from construction works only.

c) Should not have incurred any loss in more than two years during the immediate last five consecutive financial years, ending 31.03.2017, Copies of balance sheet/Certificate from Chartered Accountant duly self attested by the tenderer shall be submitted.

d) Should have a Solvency of 40% of the estimated cost issued by his bankers in the name of the bidder. The Solvency Certificate should not have been issued earlier than one year of last date of submission of the tender.

e) Should have valid Permanent Account Number of Income Tax and GST registration certificate.

Tender No. NERO/CON/664/339 2
f) Should have valid PF Registration number. In case the bidder does not have this registration number, he shall remain bound to obtain them within one month from the date of LOI or before release of 1st R/A bill whichever is earlier.

g) Bid Capacity: The bidding capacity of the tenderer should be equal to or more than the estimated cost of the work put to Tender.

The Bidding capacity shall be worked out by the following formula:

\[
\text{Bidding Capacity} = [A \times N \times 2] - B
\]

Where,

\[A = \text{Maximum value of construction works executed in any one year during the last five years taking into account the Completed as well as works in progress ending last day of the month previous to the one in which applications invited.}\]

\[N = \text{Number of years prescribed for completion of work for which bids have been invited}\]

\[B = \text{Value of existing commitments and ongoing works to be completed during the period of completion of work for which bids have been invited. The Tenderer is requested to furnish the existing commitments of works under execution along with stipulated period for completion of remaining for each of the work should be furnished in an affidavit on non-judicial stamp paper of value of Rs. 100/- duly certified that the particulars furnished are correct as per the Performa in Annexure-A}\]

h) Site visit for the subject tender is mandatory. The bidders shall visit the site to Study/assess the tendered work and also acquaint themselves of the prevailing local conditions & detail requirement of the project work before submitting their bid. Bidder has to enclose a certificate counter signed by EPI official or furnish undertaking for having visited the site.

i) Bidders who intend to get exemption from submission of Tender fee and EMD shall submit confirmation letter whether they are registered under MSME Act or not and if yes, then relevant copies of the registration letter (Registered under single point registration scheme of NSIC, Govt. of India, Ministry of MSME, New Delhi) vide Gazette Notification dated 26.03.2012 along with the form of Memorandum-2 (with the concerned DIC) certificate in the appropriate category and limit as applicable under the present tender to be enclosed in Technical Bid and a request letter for exemption from submission of Tender fee and EMD.

j) Even though an applicant may satisfy the eligibility criteria, EPI reserves the right for not issuing the tender document if he has record of poor performance such as abandoning work, not properly completing the work, delay in execution of work, poor quality of work, financial failure / weakness etc.

k) The experience certificates issued by Government Organizations / Semi Government Organizations/ State Government / Public Works Department / Central Government / Public Sector Undertakings / Autonomous Bodies/Municipal Bodies/Public Limited Companies listed on BSE/NSE shall only be accepted for assessing the eligibility of the tenderer. However, the certificates issued by Public Limited Company and Private Party can be considered only if they are supported by TDS certificates/Turnover Certificate from Chartered Accountant in support of value of work done by the tenderer.

l) Completion certificates from the client shall be in the name of the company who is submitting the tender. The contractor has to produce original documents for their verification as and when demanded by EPI. The tender of any tenderer shall be rejected
if on detailed scrutiny; documents submitted along with the tender are found to be unsatisfactory / forged. The decision of EPI in this regard shall be final and the binding on the tenderer.

m) Relevant experience certificates and other documents as mentioned above fulfilling the qualifying criteria duly self-attested by the tenderer shall be enclosed in Envelope-1. Completion Certificates from clients shall be in the name of the Company who is submitting the tender. The bidder has to produce original documents for verification at the time of opening of tender or as and when demanded. The Tender of any tenderer shall be rejected if on detailed scrutiny, documents submitted along with the tender are found to be unsatisfactory. The decision of EPI in this regard shall be final and binding on the tenderer.

n) The tenderers may note that they are liable to be disqualified and not considered for the opening of Price Bid if;
   a) Representation in the forms, statements and attachments submitted in the pre-qualification document are proved to be incorrect, false and misleading.
   b) They have record of poor performance during the past 10 (ten) years such as abandoning the work, rescinding of contract for which the reasons are attributable to the non-performance of the contractor, inordinate delay in completion, consistent history of litigation / arbitration awarded against the contractor or any of its constituents or financial failures due to bankruptcy etc. in their ongoing / past projects.
   c) They have submitted incompletely filled in formats without attaching certified supporting documents and credentials to establish their eligibility to participate in the Tender.
   d) If the tenderers attempt to influence any member of the selection committee.

EPI reserves its right to take appropriate action including disqualification of tenderer(s) as may be deemed fit and proper by EPI at any time without giving any notice to the contractor in this regard. The decision of EPI in the matter of disqualification shall be final and binding on the Tenderers.

The credentials of the Bidders shall be verified and inspection of the works, if required, to be carried out by EPI. If not found satisfactory, their bid will be considered non-responsive.

2.0 Tender documents comprising of the following are available on the website of EPI: www.engineeringprojects.com, CPP-Portal: www.eprocure.gov.in and as well as on TCIL portal http://www.tcil-india-electronic tend er.com.

Volume I: Instructions to Tenderers, Addendum to Instructions to Tenderers, Special Instructions to Bidders for e-Tendering & General Conditions of Contract (ITT&GCC) of EPI

Volume II:
   a) Notice inviting Tender
   b) Additional Conditions of Contract
   c) Technical Specifications
   d) Tender Drawings (as mentioned in the list)

Volume III: Price bid/bill of quantity
3.0 In order to participate, the bidder should have Digital Signature Certificate (DSC) from one of the authorized Certifying Authorities.

4.0 Interested bidders have to necessarily register themselves on the portal https://www.tcil-india-electronic-tender.com through M/s Telecommunications Consultants India Limited, New Delhi to participate in the bidding under this invitation for bids. It shall be the sole responsibility of the interested bidders to get them registered at the aforesaid portal for which they are required to contact M/s Telecommunications Consultants India Limited, New Delhi at following address to complete the registration formalities:

M/s Telecommunications Consultants India Limited,
6th Floor, TCIL Bhawan, Greater Kailash – 1, New Delhi 110 048
Contact No.: 011-26241790, 98683 93717/75/92
Email-ID: ets_support@tcil-india.com

They may obtain further information regarding this tender from DGM (Contracts) at the address given at Clause No.14.0 below from 10:00 hours to 17:00 hours on all working days till the last date of online submission of Bidding Documents.

For proper uploading of the bids on the portal namely https://www.tcil-india-electronic-tender.com (hereinafter referred to as the “portal”), it shall be the sole responsibility of the bidders to apprise themselves adequately regarding all the relevant procedures and provisions as detailed at the portal as well as by contacting M/s Telecommunications Consultants India Limited, New Delhi directly, as and when required, for which contact details are mentioned above. The EPI in no case shall be responsible for any issues related to timely or properly uploading/submission of the bid in accordance with the relevant provisions of Section: Instruction to Bidders of the Bidding Documents.

5.0 Bidders can download the bid document from the portal without paying document fees in advance, any time from 20:00 Hrs on 14.11.2018; however, interested bidders have to pay tender fees for participating in the tendering and submitting the bid. For this purpose the interested bidders shall be required to pay Rs. 23,600.00 (Rupees Twenty Three Thousand Six Hundred only) (GST @ 18% included), the GSTIN of EPI for Assam is 18AAACE0061C1ZC as non-refundable document fees in the form of Demand Draft in favour of “Engineering Projects (India) Ltd.” payable at Guwahati. The fees to be paid to TCIL are separate.

6.0 E-Bids must be submitted/uploaded along with scanned copies of relevant documents as mentioned at clause no 2 of “Addendum to Instructions to Tenderers” under Single Stage Two Envelope Bidding Procedure on the TCIL portal on or before last date & time of online bid submission. Late bids will not be accepted. Under the above procedure, only first envelope (Technical Part) shall be opened in the presence of the bidders” representatives who choose to attend in person at the address given below on scheduled date & time of bid opening or may be viewed by the bidders by logging in to the portal as per features available to them. Second envelope i.e. Price part shall be opened of technically qualified bidders.

The bid must be accompanied by Earnest Money Deposit (EMD) of Rs. 16,87,650.00 (Rupees Sixteen Lakhs Eighty Seven Thousand Six Hundred Fifty only). This shall be in the form of Crossed Demand Draft or Pay Order (in CTS form) of any Nationalized Bank/Scheduled Bank for the full amount of EMD payable favouring “Engineering Projects (India) Ltd.”, payable at Guwahati. The EMD shall be valid for minimum period of 150 days (one hundred fifty days) from the last day of submission of tender. Tenders
submitted without EMD or inadequate amount of EMD shall be rejected. The bid shall be valid for 90 days from date of opening of Price Bid.

Tender fee, EMD (In original), Power of Attorney, NSIC/MSME(Registered under single point registration scheme of NSIC, Govt. of India, Ministry of MSME, New Delhi vide Gazette Notification dated 26.03.2012 along with the form of Memorandum-2 with the concerned DIC) certificate as per Clause No.1 (j) if bidder is claiming EMD/Tender fee exemption and Pass Phrase (Both for technical and financial bid in separate envelope) to decrypt the bid must be submitted in physical form at the address given at Clause No. 14.0 below as stipulated at sl. no iv of iv under Time Schedule of Tender Activities. If the above documents are not received in time then their offer shall not be considered and EPI shall not be responsible for any postal delay in respect of submission of hard copy part of the bids.

7.0 The Terms & Conditions contained in the NIT and tender document shall be applicable.

8.0 The tenderers should note that the credentials such as value and volume of works completed, as submitted by the tenderers along with their offers shall be forwarded by EPI to Client for his opinion. The offer of tenderers against whom client does not give satisfactory remarks shall be rejected by EPI.

9.0 The corrigendum or addendum, extension, cancellation of this NIT, if any, shall be hosted on the EPI’s website/CPP portal as well as on TCIL portal http://www.tcil-india-electronic tender.com the bidders are required to check these websites regularly for this purpose, to take into account before uploading/submission of tender. All Corrigendum and addendum are to be uploaded duly signed & stamped with tender documents as bid Annexure.

10.0 The tenderers should note that the credentials such as value and volume of works completed, as submitted by the tenderers along with their offers shall be forwarded by EPI to Client for his opinion. The offer of tenderers against whom client does not give satisfactory remarks shall be rejected by EPI.

11.0 The price bid of those bidders who are found to be prima-facie techno-commercially acceptable based on the documents submitted at the time of bid submission and subject to confirmation of authenticity of the PQ documents/ EMD / Tender fee from the concerned department/ bank with prior intimation to them. Hence the intending bidders must furnish their e-mail id and contact phone number along with the techno-commercial part. In case the PQ documents such as work experience certificate, bank solvency certificate etc submitted by a bidder is found to be fake the EMD submitted by him shall be forfeited by EPI without making any reference to him. Further such a tenderer shall be at a risk of losing his right to participate in any tender called by EPI for a minimum period of one year.

12.0 EPI reserves the right to accept any tender or reject any or all tenders or split the work of tender or annul this tendering process without assigning any reason and liability whatsoever and to re-invite tender at its sole discretion.

13.0 In case of tie-tender, where two firms are bidding lowest, EPI reserves the right to split the work among these bidders and / or EPI will reserve the right to award the tender to any one of such bidder.
14.0 Tender documents shall be issued by and submitted to:
   Dy. General Manager
   Engineering Projects (India) Ltd.
   North Eastern Regional Office
   4th Floor, Hindustan Tower,
   Jawahar Nagar, National Highway No.37,
   Guwahati (Assam) -781022 (Tel No. 0361-2314681)

15.0 Contact details for site related quarries:
   Shri U.Patowary, DGM, EPI (Mobile No. - +91 9436779102)
   For more information on EPI, visit our website at: http://www.engineeringprojects.com
   For more information on the e-tender, visit website of M/s Telecommunications Consultants India Limited, New Delhi at: https://www.tcil-india-electronic-tender.com
**Name of the Work:** Construction of Balance works of Nakukchera (Platoon level) near BP 2327/M, Saisenchhera (Platoon level) near BP 2324/7S, Seisenbasti (Company level) near BP 2326/M BOP's along Indo-Bangladesh border in the state of Mizoram for Ministry of Home Affairs, (Pkg.-III).

**ESTIMATED COST PUT TO TENDER:** Rs. 16,87,61,225.00

Bid Capacity: The bidding capacity of the contractor should be equal to or more than the estimated cost of the work put to Tender. The bidding capacity shall be worked out by the following formula:

\[
\text{Bidding Capacity} = \left[ A \times N \times 2 \right] - B
\]

Where,

- \(A\) = Maximum value of construction works executed in any one year during the last five years taking into account the completed as well as works in progress
- \(N\) = Number of years prescribed for completion of work for which bids have been invited
- \(B\) = Value of existing commitments and ongoing works to be completed during the period of completion of work for which bids have been invited (Format enclosed)

**BID CAPACITY CALCULATION BY BIDDER**

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**SIGN & STAMP OF BIDDER**
ANNEXURE-A

AFFIDAVIT
(To be typed on Rs. 100/- non-judicial stamp paper)

I/We .......................................aged ..............years son of ....................................................do hereby solemnly affirm and declare as follows for and on behalf of the Firm:

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of Works</th>
<th>Client Name &amp; Address</th>
<th>Work Order Value (in Rs.)</th>
<th>Work Executed till Date (Rs)</th>
<th>Balance Amount of work to be completed (Rs)</th>
<th>Balance period to complete the works (Total months)</th>
<th>Work to be completed in 10 months (Rs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6 (4 – 5)</td>
<td>7</td>
<td>8</td>
</tr>
</tbody>
</table>

Balance Commitments during 10 months as per NIT Rs.

It is certified that the above particulars furnished are true and correct. If any information given is found to be concealed at a later date, the Contract will be terminated forthwith without prejudice to the rights thereon consequent on termination and the bidder will be blacklisted. I/We agree for debarring tendering for one year if any facts are suppressed.

SIGN AND STAMP OF BIDDER
ADDITIONAL CONDITIONS OF CONTRACT

1.0 The following Additional Conditions of Contract shall read in conjunction with General Conditions of Contract. If there are any provisions in these Additional Conditions of Contract, which are at variance with the provisions of General Conditions of Contract, then provisions in these Additional Conditions of Contract shall take precedence over General Conditions of Contract.

2.0 INTRODUCTION:
Construction of Border Out Posts (BOP) for Border Security Forces along Indo-Bangladesh Border (IBB) in Mizoram Sector is a project of Govt. of India, Ministry of Home Affairs and Engineering Projects (India) Ltd. (A Govt. of India Enterprise) has been appointed as an “Executing Agency” for this project.
The works intended to be taken up under the instant contract pertains to execution of all the balance works required for completion of the BOP, mentioned under NIT Construction of Nakukchera (Platoon level) near BP Ref:2327/M, Saisenchhera (Platoon level) near BP Ref:2324/7S, Seisenbasti (Company level) near BP Ref:2326/M BOP’s along Indo-Bangladesh border in the state of Mizoram.
The Karnaphulli River and Harina Nala flowing from South to North are forming the Indo-Bangladesh Border and also coming across while approaching to site. The terrain of this stretch is hilly with rugged dense forest. The Karnaphulli is a perennial river and there is no bridge over this river. There is no bridge over Harina Nala also.

3.0 SCOPE OF WORK
The brief scope of work to be executed for 01 BOP under the present tender shall generally comprise of (but not limited to) the following such as:
• Civil work
• Structural work
• Plumbing work
• Electrical work
• Site development work
• Approach road construction
• Any other work not specified but required to be executed to complete the BOP.

Civil Construction work: This will generally comprise of constructing Office Block, Kitchen, Toilet, Barrack Type A Type B, Magazine, Kote, Wireless room, OP Towers, BOP Towers, Garage, Sentry post, Wash, Septic tank with Soak
pits, POL store, Bunkers & open court yard with all round peripheral boundary wall of the BOP.

**Services:** Internal water supply & sanitary installation, internal electric installation, external service connection, power wiring & plug, providing lightening conductors, telephone & computers, water tank & underground sump etc.

**Development of site:** Levelling including earth work, internal roads and paths, sewer, filter water supply with distribution lines, unfiltered water supply with distribution lines, storm water drains, horticulture, street lighting with fluorescent lamps etc.

Construction of approach road, brick/stone masonry retaining walls, tube well with submersible pump including pipe lines/plumbing & control panels, installation of solar panels, integrated RO plant/iron removing plant, entry barrier & sign board, rain water harvesting & providing movable fixtures. Contractor has to arrange to transport their construction materials to site.

The Cost of above arrangement shall be deemed to be included in their quoted rates and nothing extra shall be payable to the contractor on this account.

**Stone Quarry:** Stone quarry of sufficient capacity as required shall also be arranged by the contractor. Developing of stone quarry for quarrying the stone of desired quality and quantity shall be in the scope of the Contractor. The cost of this shall be deemed to be included in his quoted rates and nothing extra shall be payable to the contractor on this account.

3.1 The contractor shall also provide all assistance to EPI during handing over the Border Out Post & allied works after their completion to the designated agency nominated by Ministry of Home Affairs. In case the quality at any point is found not as per specification or deficiencies are found, the contractor will get it rectified at its own cost.

3.2 **Clause no 3.0 of GCC shall stand amended as below:**

The items of work given in the tender documents are for general guidance of the contractors and the works shall be carried out by the contractor on **Percentage Rate tender basis** in conformity with the detailed drawing, scope of work, technical specifications, additional conditions of contract (including any addition/modification/alteration/deletion made from time to time therein found essential for completion of works). The contractor shall be deemed to have satisfied himself before tendering as to the sufficiency and correctness of his tender for the works and of the rates and prices quoted in the brief specifications, drawings, scope of work and payment (billing) schedule, which rates and prices shall, except as otherwise provided, cover all obligations under the contract and all matters and things found necessary for proper completion and maintenance of the works. It shall be responsibility of the contractor to incorporate the changes that may be in the scope of work envisaged at the time of tendering and as
actually required to be executed. The contractor has quoted his rates after clearly
studying the scope of work given in Tender Documents availed by him by
downloading from the website at the tendering stage itself and getting fully
satisfied with the various items and technical intricacies involved in the work
under his scope of work as envisaged in the tender.

4.0 HANDING OVER THE SITE
4.1 Although as indicated by Border Security Force, the user of Border out Posts, the
land of all BOPs is available. However, handing over of sites for whole BOP area
may not be possible in one go due to deficiencies in total area of land required
for construction. Therefore, the site may be handed over in parts progressively in
phases to the contractor. The contractor shall take up the construction activities
on such released fronts in parts/ phase without any reservation whatsoever.
However, in case of any delay in handing over of the site to the contractor,
Owner/ EPI shall only consider suitable extension of time for the execution of
the work. It should be clearly understood that the Owner/ EPI shall not consider any
other compensation whatsoever towards idleness of contractor’s labour,
equipments etc.
4.2 The contractor shall make his own arrangement for approach to work site
including borrow/ disposal area and for movement of men, materials,
machineries, other equipment etc. required for carrying out the work under this
contract.
4.3 The access roads/ path near to the work site may or may not be available at all
places and at all time. The contractor shall plan his works as per the availability
of access roads / path at site. All drainage of works area and all weather
trackable/ haulage roads as required by the contractor shall be constructed and
maintained during the construction period by the contractor at his own cost.
4.4 Payment for clearance of jungle/ bushes including uprooting of rank vegetation
grass, brushwood, felling trees of beyond 30cm girth (measured at a height of 1m
above ground level) including cutting of trunks branches removing the roots and
stacking of serviceable material and disposal of unserviceable material with all
lead and lift will be done one time as per given BOQ only. Nothing shall be paid
extra on this account.

5.0 PRIORITY OF WORKS
5.1 If during the course of execution of work, EPI / MHA / BSF fixes priority of
execution of work/ fixes priority of execution of specific BOP location, the
contractor has to deploy resources and plan the work accordingly & nothing extra
shall be payable to the contractor on this account.
5.2 The work fronts of Border out Post may be released in progressive manner in phases. Nothing extra shall be payable to the contractor on account of carrying out the work in phases & sequences decided by Engineer-in-charge.

5.3 Contractor must arrange the approach road wherever necessary, nothing extra shall be payable on this account.

6.0 MOBILIZATION OF MEN, MATERIAL & MACHINERY

Further to Clause No. 11.0 for “Mobilization of Men, Material & Machinery” of General Conditions of Contract, it shall be contractor’s responsibility to arrange, operate & maintain the total station instrument and its accessories at his own cost to carry out levels (including initial & final levels of earth work), dimensions and alignment of all parts of the works.

Contractor shall provide Bench Marks and other reference points for the proper execution work and these shall be preserved till the end of work. Some construction materials may be lying at site which was procured by earlier contractor shall utilized for the project & recovery shall be made as per prevailing market rate basis. Decision in this regard by EPI shall be treated final & binding to the contractor.

7.0 COMPLETION TIME

7.1 The entire scope of the work covered under this contract shall be completed within 10 (Ten) calendar months from the date of issue of Letter of Intent (LOI). The completion time of 10 (Ten) months includes monsoon/ rainy season coming during the currency of the contract. Although, time of completion of total work has been stipulated of 08 months from the date of LOI, 50% works of the BOP is to be completed in all respect within six months from the date of LOI. The work shall be performed in time and to achieve the targets, the contractor shall have to plan required mobilization of all resources. Within 10 (ten) days of the date of letter of Intent. The contractor shall submit a Time and Progress Chart (CPM/ PERT/ Quantified Bar Chart) along with a detailed plan and programme of all the input resources commensurating with the various activities to be executed and get it approved by the Engineer-in-charge. The Chart shall be prepared in direct relation to the time stated in the contract documents for the completion of items/ scope of the work. It shall clearly stipulate the forecast milestones of the dates of commencement and completion of various items, sections of the work and may be amended as necessary by agreement between the Engineer-in-charge and the contractor within the limitations of time imposed in the contract documents, to ensure good progress during the execution of the work. The physical report
including photographs shall be submitted by the contractor on the prescribed format & at regular intervals (not later than a month) as decided by the Engineer-in-charge. The contractor shall also furnish along with Bar Chart, the methodology of construction, details of all equipment manpower, machineries, etc. required along with the date by which the equipment will be available at the site of work in working condition. All the activities shall be performed and completed strictly in accordance with approved work schedule.

The Engineer-in-charge, shall however, have the right to review the progress and modify the work schedule suiting the site conditions and contractor shall be required to complete the work in accordance thereof without any extra cost whatsoever to the Owner/EPI.

8.0 SITE LABORATORY

As part of the contract the contractor shall establish and maintain a site laboratory for the testing of the construction material under the direction and general supervision of Engineer-in-charge. The laboratory room shall be constructed and installed with the required and appropriate facilities. Temperature and humidity controls shall be made available wherever necessary during the testing of samples.

All equipments as required shall be provided by the contractor so as to be compatible with the testing requirements specified. The contractor shall maintain the equipment in good working conditions for the duration of the contract.

The contractor shall provide approved qualified personnel to run the laboratory for the duration of the contract. The number of staff and equipment available must at all times be sufficient to keep pace with sampling and testing programme as required by Engineer-in-charge.

The contractor shall fully service the site laboratory and shall supply everything necessary for its proper functioning including all transport needed to move equipment and samples to and from sampling points on the site etc.

The contractor shall re-calibrate all measuring devices whenever so required by the Engineer-in-charge and shall submit the results of such measurements without delay.

9.0 TEMPORARY WORKS

9.1 Further to Clause no. 82.00 for “Approval of temporary / Enabling works” of General Condition of contract, as far as possible the labour hutments, bulk Storage facilities and vehicle parking shall preferably be located near the
existing Border Out Post of Border Security Force. The area near BOP locations shall be levelled and developed; supply of water and electricity, constructions of approach road to these camps shall be arranged by the contractor at his own cost. In case the land in the vicinity of BOP is not of Govt., the contractor may have hire the land from the owner of the land. The rent / lease amount shall be borne by the contractor.

10.0 PLANT & MACHINERY

The contractor at his own cost shall arrange all Plant & machinery required for execution of work. However, in addition to Plant & equipment mentioned in the NIT, the contractor has to deploy the following minimum plant & machinery at site immediately after award of work:

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Description</th>
<th>Minimum Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Excavator</td>
<td>03</td>
</tr>
<tr>
<td>2.</td>
<td>Vibrators (petrol/ electrical)</td>
<td>06</td>
</tr>
<tr>
<td>3.</td>
<td>Concrete mixer</td>
<td>06</td>
</tr>
<tr>
<td>4.</td>
<td>DG Set (63 KVA)</td>
<td>03</td>
</tr>
<tr>
<td>5.</td>
<td>Digital theodolite &amp; auto level/ TOTAL STATION</td>
<td>03</td>
</tr>
<tr>
<td>6.</td>
<td>water tanker</td>
<td>03</td>
</tr>
<tr>
<td>7.</td>
<td>Tipper</td>
<td>09</td>
</tr>
<tr>
<td>8.</td>
<td>Vibratory Roller/Static Roller</td>
<td>03</td>
</tr>
</tbody>
</table>

NOTE:

a) Any other equipment for site test as outlined in CPWD/BIS specification and as directed by Engineer-in-charge.

b) The quantities of equipments indicated are tentative and can be increased as per the requirement of work or as per the direction of Engineer-in-charge. The above equipment list is indicative and not complete. The contractor has to deploy all the required equipment to complete all the works within stipulated specifications & time period as per contract documents.

c) The contractor will not be allowed to take out equipments from the site without the written permission of Engineer-in-charge.

11.0 The clause no 28.3 of the GCC shall stand deleted.
12.0 PAYMENT ON ACCOUNT

Further to Clause No.37.00 General Conditions of Contract, the payments shall be released after receipt of payment from MHA. Measurements of work carried out by contractors shall be recorded in the measurement books by Site Engineer. The measurement books shall be the basis of all accounts of quantities of work done.

The total balance executed quantity shall be finalized after successfully handed over the BOP to the client i.e BSF/MHA. Decision of EPI in this regard is to be treated final and binding to the contractor. No claim for delay in this regard shall be entertained.

13.0 ANTI MALARIA MEASURES

13.1 The contractor shall at his own expenses make necessary arrangement for undertaking anti-malaria measures as prescribed by Local Health Authorities or as directed by Engineer-in-charge.

14.0 THE FOLLOWING SHALL ALSO BE READ WITH CLAUSE NUMBER 13 OF THE GCC:

a) The bidder/contractor must be registered with GST and should have valid GSTIN number

b) The bidder/contractor must submit as an compliance under GST Act, the invoices in GST complaint format failing which the GST amount shall be recovered/adjusted without any prior notice from the next invoices or available dues with EPI.

c) The bidder/contractor are required to update/upload the GST/Taxes data periodically so as to avail ITC credit by EPI failing which it shall be recovered/adjusted by EPI without any prior intimation

d) The rates quoted by the contractor shall be “inclusive of all taxes and duties, cess including GST” which shall be reimbursed to him subject to raising of tax invoice and filing of return and payment of tax as per GST law, failing which EPI shall not be able to honour his claims for any payment. The contractor has quoted his rates knowing fully well that submission of return and display of the same on GSTN portal is mandatory.
Incase of any reduction in rate of GST or other taxes in future or the project getting exemption status prior to the last date of Bid submission or afterwards, the subcontractor shall pass on the benefit to EPIL immediately, failing which EPIL shall have the right to recover the differential amount from the amounts due to the subcontractor. Further in case of any increase in rate of GST or other taxes in future or the project losing exemption status prior to last date of bid submission or afterwards, the said increase of taxes shall be paid/reimbursed to the subcontractors, subject to the condition that the client reimburses the said increased taxes to EPIL.

15.0 SECURITY & SAFETY

15.1 The site is located near Indo-Bangladesh Border (IBB) wherein the movement of personnel is limited and regulated by Security agencies. The contractor has to work as per the permission given by these Security agencies from time to time and contractor must check before quoting for this job, the working hours, restriction in working and safety of their manpower, plant & equipment. The contractor shall mobilize and organize his resources accordingly to complete the work within stipulated time. The contractor shall have no claim on MHA/EPI or any other agency/ department for any loss of man hours/ machinery due to these restrictions/ regulations.

15.2 A general Security cover shall be provided by BSF/ State Police. However, the contractor shall make his own arrangements for security and safety of his manpower, plant & equipment, materials etc. Nothing extra shall be admissible on account of this and no compensation shall be paid by MHA/EPI in case the contractor’s personnel suffer body injury, loss of life or any damages caused to the plant and machinery of the contractor.

16.0 LAND ACQUISITION

16.1 The contractor should note that the Border out Post falls in agricultural land area/ forest area. The contractor shall extend all the necessary assistance for obtaining necessary approvals for acquisition of land and clearance from Department of Forest / State Government / Local Authority for carrying out construction of BOP & related work.
17.0 DEFECTS LIABILITY PERIOD:

17.1 Further to clause no.74.0 of General Conditions of contract, the contractor shall be responsible for rectification of defects during defect liability period of 12 months after Handing / Taking Over of completed project.

In case Ministry of Home Affairs appoints an independent and impartial inspection agency to be called as Third Party Inspection Agency. The contractor shall provide all assistance to the Third Party Inspection Agency to carry out the functions assigned to them & if quality at any point is not found as per specification, the contractor will get it rectified at its own cost.

18.0 COMPENSATION FOR DELAY

18.1 The contractor shall ensure adequate progress during the execution of work according to the bar-chart/ work schedule. The contractor shall also maintain monthly progress strictly in accordance with bar chart/ detailed work schedule that will be worked out and mutually agreed upon. If the contractor fails to maintain the above progress or fails to complete the work and clear the site on or before the contract or extended date of completion, he shall without prejudice to any other right or remedy of EPI on account of such breach, pay compensation at the rate of 2.00% (Two percent) of the balance value of work for each month of delay subject to maximum of 10 % (Ten percent) of the total Contract value of work.

In additional to above, the Contractor shall also compensate EPI to the tune of Rs. 50,000/- (Rupees Fifty Thousand only) per month towards extra expenditure on establishment of EPI for extended period of the job, if the delay is due to reasons solely attributable to the Contractor.

19.0 FINAL BILL

The final bill will be submitted by the contractor within 90 days from the date of acceptance of completion of work accompanied by the following documents:

a) Completion of work issued by the Engineer-in-charge specifying the handing over of the work including list of inventories (fittings & fixtures).
b) Computerized stage wise payment schedule.
c) No claim certificate by the contractor.
d) No claim certificate from the sub-agencies/ vendors, if any engaged by the contractor/ No dues from market.
e) ‘As built’ drawing
f) Measurement books.
g) Drawings for layout of underground cables and details showing location of sluice valves, electric cable joints etc.
h) All operation and maintenance manuals.
i) All statutory approvals from various State Govt. / Central Govt. / Local bodies/ BSF, if required for completion & handing over of the work as included in scope of contractor.
j) Manufacture’s guarantee of various machines/ equipments installed as part of works.
k) Labour clearance.

20.0 MODIFICATIONS OF CLAUSE NO.76.0 OF GENERAL CONDITIONS OF CONTRACT (GCC)

20.1 ARBITRATION: Clause no. 76.1 of GCC shall stand amended as below:
Before resorting to arbitration as per the clause given below, the parties if they so agree may explore the possibility of conciliation as per the provisions of Part III of the Arbitration and Conciliation Act, 1996 as amended by Arbitration and Conciliation (Amendment) Act, 2015. When such conciliation has failed, the parties shall adopt the following procedure for arbitration:
i) Except where otherwise provided for in the contract, any disputes and differences relating to the meaning of the Specifications, Design, Drawing and Instructions herein before mentioned and as to the quality of workmanship or materials used in the work or as to any other questions, claim, right, matter or things whatsoever in any way arising out of or relating to the Contract, Designs, Drawings, Specifications, Estimates, Instructions, or these conditions or otherwise concerning the works of the execution or failure to execute the same whether arising during the progress of the work or after the completion or abandonment thereof shall be referred to the Sole Arbitrator appointed by the Chairman & Managing Director (CMD) of Engineering Projects (India) Limited (EPI) or any other person discharging the functions of CMD of EPI. The person approached for appointment as Arbitrator shall disclose in writing circumstances, in terms of Sub-Section (1) of Section (12) of the Arbitration and Conciliation Act, 1996 as amended by Arbitration and Conciliation (Amendment) Act, 2015 as follows:
a) such as the existence either direct or indirect, of any past or present relationship with or interest in any of the parties or in relation to the subject-matter in dispute, whether financial, business, professional or other kind, which is likely to give rise to justifiable doubts as to his independence or impartiality; and
b) which are likely to affect his ability to devote sufficient time to the arbitration
and in particular his ability to complete the entire arbitration within a period
of twelve months.

The Arbitrator shall be appointed within 30 days of the receipt of letter of
invocation of arbitration duly satisfying the requirements of this clause.

ii) if the arbitrator so appointed resigns or is unable or unwilling to act due
to any reason whatsoever, or dies, the Chairman & Managing Director
aforesaid or in his absence the person discharging the duties of the CMD
of EPI may appoint a new arbitrator in accordance with these terms and
conditions of the contract, to act in his place and the new arbitrator so
appointed may proceed from the stage at which it was left by his
predecessor.

iii) It is a term of the contract that the party invoking the arbitration shall specify
the disputes, differences or questions to be referred to the Arbitrator under this
clause together with the amounts claimed in respect of each dispute.

iv) The Arbitrator may proceed with the arbitration ex-parte, if either party, in spite
of a notice from the arbitrator, fails to take part in the proceedings.

v) The work under the contract shall continue as directed by the Engineer-In-
Charge, during the arbitration proceedings.

vi) Unless otherwise agreed, the venue of arbitration proceedings shall be at the
venue given in the 'Memorandum' to the 'Form of Tender'.

vii) The award of the Arbitrator shall be final, conclusive and binding on both the
parties.

viii) Subject to the aforesaid, the provisions of the Arbitration and Conciliation Act,
1996 as amended by Arbitration and Conciliation (Amendment) Act, 2015 or
any statutory modifications or re-enactment thereof and the Rules made there
under and for the time being in force shall apply to the arbitration
proceedings and Arbitrator shall publish his Award accordingly.

20.2 Clause no 76.2 of GCC shall stand amended as under

“In the event of any dispute or difference relating to the interpretation and
application of the provisions of commercial contract(s) between Central Public
Sector Enterprises (CPSE) / Port Trust inter se and also between CPSE and
Government Departments / Organisations (excluding disputes concerning
Railways, Income Tax, Customs and Excise Departments), such dispute or
differences shall be taken up by either party for resolution through AMRCD as
mentioned in DPE OM No. 4(1)/2013-DPE(GM)/FTS-1835 dated 22.05.2018”.

20.3 Clause 76.3 of GCC shall remain unchanged.
21.0 Further to the Clause No.27.0 of General Conditions of Contract in respect of deployment of Technical Staff during execution of work, the contractor shall employ minimum following technical staffs as follows:

1. 01 (One) Civil Engineer (BE) of minimum 05 Years experience.
   Or
   01 (One) Diploma Civil Engineer of minimum 08 Years experience

2. 01 (One) Diploma Electrical Engineer of minimum 05 Years experience.

22.0 CLAUSE NO. 76.3 JURISDICTION

The Courts in Guwahati alone will have jurisdiction to deal with matters arising from the Contract, to the exclusion of all other courts.

23.0 SAFETY CODE:

General
Contractor shall adhere to safe construction practice and guard against hazardous and unsafe working conditions and shall comply with safety rules as stated forth herein for information and guidance:

First Aid and Industrial Injuries
(1) Contractor shall maintain first aid facilities for his employee and labours.

(2) Contractor shall make out side agreements for ambulance service and for the treatment of industrial injuries. Names of those providing these services shall be furnished to the EIC prior to start of construction and their telephone numbers shall be prominently posted in Contractor’s field office.

(3) All critical industrial injuries shall be reported promptly to the EIC, and a copy of Contractor’s report covering each personal injury requiring the attention of a physician shall be furnished to the EIC.

General Rules
Smoking within the battery area, tank farm or dock limits is strictly prohibited.
Violators of the no smoking rules shall be discharged immediately

Contractors Barricades
(1) Contractor shall erect and maintain barricades required in connection with his Operation to guard or protect.
   (a) Excavations.
   (b) Hoisting areas.
(c) Areas adjudged hazardous Contractor’s or Owner’s inspectors.
(d) Owner’s existing property subject to damage by Contractor’s operations.
(e) Rail road unloading spots.

(2) Contractors employee and these of his sub-contractors shall become acquainted with owner’s barricading practices and shall respect the provisions thereof.

(3) Barricades and hazardous areas adjacent to but not located in normal routes of travel shall be marked by red flasher lanterns at nights.

Scaffolding:
(i) Suitable scaffolding should be provided for workmen for all works that safety be done from the ground or from solid construction except such short period work as can be done safely from ladders. When a ladder is used an extra mazdoor shall be engaged for holding the ladder and if the ladder is used for carrying materials as well, suitable footholds and handholds shall be provided on the ladder shall be given an inclination not steeper more than 1 in 4 (1horizontal and 4 vertical)

(ii) Scaffolding or staging than 4 meters above the ground or floor, swing suspended from an overhead support or erected with stationary support shall have a guard rail properly attached, bolted, braced and otherwise rewarded at least 3 ft.

High above the floor or platform of such scaffolding or staging and extending along the entire length of the outside and ends thereof with only such openings as maybe necessary for the delivery of materials. Such scaffolding or staging shall be so fastened as to prevent it from swaying from the building or structure.

(iii) Every opening the floor of a building or in a working platform shall be provided with suitable means to prevent the fall of persons or materials by providing suitable fencing or railing whose minimum height shall be 1 meter.

(iv) Working platform, gangways and stairways should be so constructed that they should not sag unduly or unequally and if the height of the platform of the gangway or the stairway is more than 4 metres above ground level or floor level, they should be closely boarded, should have adequate width and should be suitably fastened as described in above.
(v) Safe-means of access shall be provided to all working platforms and other working places, every ladder should be securely fixed. No portable single ladder shall be over 9 meters in length while the width between side rails in rung ladder shall in no case be less than 30cms for ladder up to and including 3metres in length. For longer ladder this width should be increased at least 5 mm for each additional foot of length. Uniform steps spacing shall not exceed 30 cms. Adequate precautions shall be taken to prevent danger from electrical equipment. No materials on any of the site of work shall be so stacked or placed to caused anger or inconvenience to any person or public. The Contractor shall also provide all necessary fencing and light to protect the workers and staff from accidents, and shall be bound to bear the expenses of defense of every suit, action or other proceedings of law that may be brought by any person for injury sustained owing to neglect of the above precautions and pay any damages and costs which may be awarded in any such suit or action or proceedings to any such person or which may with the consent of the Contractor be paid to compromise any claim by any such person.

Excavation and Trenching
All trenches 1.2 meters or more in depth, shall at all times be supplied with at least one ladder for each 50 meters length or fraction thereof.

Ladder shall be extended from bottom of the trench to at least 1 meter above the surface of the ground. The sides of the trenches which are 1.5 meters in depth shall be stepped back to give suitable slope or securely held by timber bracing, so as to avoid the danger of sides to collapse. The excavated materials shall not be placed within 1.5 metres of the edge of the trench or half of the trench width whichever is more. Cutting shall be done from top to bottom. Under no circumstances undermining or undercutting shall be done.

Demolition:
(i) Before any demolition work is commenced and also during the progress of the work.
(a) All road and open areas adjacent to the work site shall either be closed or suitably protected
(b) No electric cable or apparatus which is liable to be a source of danger shall remain electrically charged.
(c) All practical cares shall be taken to prevent danger to persons employed from risk of fire or explosion or flooding. No floor, roof or
other part of the building shall be so over-loaded with debris or materials as to render it unsafe.

(ii) All necessary personal safety equipment as considered adequate by the Engineer-in-charge (i.e. EIC) should be kept available for the use of the persons employed on the site and maintained in condition suitable for immediate use, and the Contractor shall take adequate steps to ensure proper use of equipment by those concerned.

(a) Workers employed on mixing asphaltic materials, cement and lime mortars shall be provided with protective footwear and protective gloves.

(b) Those engaged in white washing and mixing or stacking of cement bags or any materials which are injurious to the eyes shall be provided with protective goggles.

(c) Those engaged in welding and cutting works shall be provided with protective face and eye shields, hand gloves etc.

(d) Stone breakers shall be provided with protective goggles and protective clothing, and seated at sufficiently safe intervals.

(e) When workers are employed in sewers and manholes, which are in use, the Contractor shall ensure that the manhole covers are opened and are ventilated at least for an hour before the workers are allowed to gate in to the manholes, and the manholes so opened shall be cordoned off with suitable railing and provided with warning signals or board to prevent accident to the public.

(f) The Contractor shall not employ men below the age of 18 years and women on the work of painting with products containing lead in any form. Wherever men above the age of 18 years are employed on the work of lead painting, the following precautions should be taken,

(1) No paint containing lead or lead product shall be used except in the form of paste or ready-made paint.

(2) Suitable face masks should be supplied for use by the workers when Paints are applied in the form of spray or a surface having lead paint dry rubbed and scrapped.
(3) Overalls shall be supplied by the Contractor to the workmen and adequate facilities shall be provided to enable the working painters to wash them during and on cessation of.

(iii) When the work is done near any place where there is a risk of drowning, all necessary safety equipment should be provided and kept ready for use and all necessary steps taken for prompt rescue of any person in danger and adequate provision should be made for prompt first aid treatment of all injuries likely to be sustained during the course of the work.

(iv) Use of hoisting machines and tackle including their attachments, anchorage and supports shall conform to the following standards or conditions:

(a) These shall be of good mechanical construction, sound materials and adequate strength and free from patent defect and shall be kept in good working order.

(b) Every rope used in hoisting or lowering materials or as means of suspension shall be of durable quality and adequate strength and free from patent defects.

(c) Every crane driver or hoisting appliance operator shall be properly qualified and no person under the age of 12 years should be in charge of any hoisting machine including any scaffolding, which or give signals to the operator.

(d) In case of every hoisting machine and of every chain ring hook, shackle, swivel, and pulley block used in hoisting or lowering or as means of suspension, the safe working load shall be ascertained by adequate means. Every hoisting machine and all gears referred to above shall be plainly marked with the safe working load of the conditions under which it is applicable which shall be clearly indicated. No part of any machine or any gear referred to above in this paragraph shall be loaded beyond the safe working load except for the purpose of testing.

(e) In case of departmental machine, the safe working load shall be notified by the Engineer-in-charge. As regards Contractor's machines, the Contractor shall notify the safe working load of the machine to the Engineer-in-charge whenever he brings any machinery to site of work and get it verified by the Engineers concerned.
(v) Motors, gearing transmission, electric wiring and other dangerous part of hoisting appliances should be provided with such means as to reduce to the minimum the accidental descent of the load, adequate precautions should be taken to reduce to the minimum the risk of any part or any part of a suspended load becoming accidentally displaced. When workers are employed on electrical installations which are already energized, insulating mats, wearing apparel, such as gloves, sleeves, and boots as may be necessary should be provided. The workers shall not wear any rings, watches and carry keys or other materials which are good conductors of electricity.

(vi) All Scaffolds, ladders and other safety devices mentioned or described herein shall be maintained in safe conditions and no scaffold, ladder or equipment shall be altered or removed while it is in use. Adequate washing facilities should be provided at or near places of work.

(vii) These safety provisions should be brought to the notice of all concerned by the displaying on a notice board at a prominent place at the work-spot. The person responsible for compliance of the safety code shall be named therein by the Contractor.

(viii) To ensure effective enforcement of the rules and regulations relating to safety precautions, the arrangements made by the Contractor shall be open to inspection by the Welfare Officer, Engineer-in-Charge or safety Engineer of the administration or their representatives.

(ix) Notwithstanding the above clauses there is nothing in these to exempt the contractor from the operations of any other Act or rules in force in the Republic of India. The works throughout including any temporary works shall be carried out in such a manner as not to interfere in any way whatsoever with the traffic on any roads or footpaths at the site or in the vicinity thereto or any exiting works whether the property of the Administration or of a third party. In addition to the above, the Contractor shall abide by the safety code provision as per C.P.W.D. Safety Code and Indian standard Safety Code framed from time to time.

(x) The contractor shall keep one earmarked vehicle such as Bolero or Scorpio or equivalent with driver, fuel & lubricant for meeting any emergent condition at site till the works under the instant contract are completed and taken over by the Owner.

The contractor shall also construct a suitable Project Office at site at his cost to ensure safe and proper custody of all drawings, documents, appliances including
easy access to them and relief to the staff and other personnel in case of any exigency. The office should be equipped with basic facilities such as telephone, internet, regular electric and water supply, computer/typing with printing facilities, storage of documents and data like almirahs or file cabinets etc.
TECHNICAL SPECIFICATIONS

1. The work shall be executed as per the description of item given in the ‘Bill of Quantities’, Specifications, Drawings, General Conditions of Contract, Additional Conditions of Contract, CPWD Specifications, New Delhi, for civil works (updated with correction slips issued upto last date of submission of tender) and latest CPWD specification, New Delhi, for electrical works (updated with correction slips issued upto last date of submission of tender), instructions & orders to the contractor from time to time during pendency of work.

2. For items not covered under latest CPWD specification, for civil works/ latest CPWD specification for Electrical works and in particular specification or nomenclature of the individual item as above, the work shall be done as per latest relevant BIS codes of practice.

3. In case of non-availability of any specification in the above paras or any overlapping provisions, non-clarity on any issue, applicability of particular provision out of above, shall be decided by Engineer-in-charge whose decision shall be final & binding on the contractor.

4. **THERMO MECHANICALLY TREATED BARS:**

   Thermo mechanically treated bars conforming to IS:1786 from preferred manufacturers from enclosed list of make or approved by MHA/EPI shall be used. The other provisions of clause 45.2 of GCC remains unchanged.

5. **CEMENT:**

   Ordinary Portland Cement (OPC) as per IS:8112:1989 shall be used on the works. In case of non-availability of Ordinary Portland Cement, the Portland Pozzolona Cement (PPC) as per IS:1489-1991 can be used. However, in case of using Portland Pozzolona Cement prior approval is to be taken from Engineer-in-charge and recovery of Difference of rates shall be made as per prevailing market rate.

6. **CONCRETING:**

   Concreting shall be machine mixed with equipment approved by the Engineer-in-charge.

7. **BRICK WORK**

   The brick should be minimum class designation 75 conforming to IS 1077: 1992. The brick work for all external walls should be done from outside. The contractor shall be responsible for providing and maintaining sufficiently strong scaffolding so
as to withstand all loads likely to come upon it. Due care shall be taken by contractor to ensure the execution of brick masonry walls in plumbs from outside. The contractor shall arrange sufficient quantity of scaffolding for this purpose so as to complete the project within stipulated time.

8. COLOUR COATED GALVALUME STEEL SHEET

The specification of color coated galvalume steel sheet shall be as under:-

I. Bare metal thickness = 0.60 mm (tolerance as per relevant ASTM/Indian standard)

II. Minimum yield strength 550 Mpa

III. Coating:
  • PVDF Top coat of 22-25 microns over 5 micron primer & 8-10 micron alkyd Backer on bottom side as per IS:1446
  • Metallic Coating – Hot dip Aluminum – Zinc alloy coating conforming to AS 1397, A792/A792M or equivalent with coating mass =150 gm/sqm on both sides.
  • Fastening for profile: Profile fixing using tight frame fabricated from 0.80mm GI sheet having 120 gsm & inbuilt stud profile shall be fixed on the structural purlin using stainless steel SDST screws.

The sheet shall be fixed to the respective purlins/runners with self drilling, self-tapping fasteners as per provision mentioned in relevant ASTM/ IS approved by Engineer-in-charge.

9. INSTALLATION PROCEDURES OF THE COLOUR COATED SHEET

Design and workmanship:

I. Before laying and fixing of sheets, the Contractor will check and satisfy himself about the straightness of the Purlins and also check for mutual variations in levels of top surfaces of all the Purlins along the roof slope at 2.0 M intervals along the length of the building. The Contractor shall carry out similar observations to satisfy him about the line and level of the outer surface of all side girths along a plumb line held at 3.0 M intervals along the length of the building. Any deviation of purlins/ side girths by more than ± 2 mm from the reference straight line shall be brought to the notice of the Engineer-in-charge for modification.

II. Laying of sheets shall start only from one end of the roof and shall be continued along building longitudinally towards the other direction to avoid mismatching of profile along lap joints. Fixing of roof sheets shall be carried out from the bottom of the slope keeping maximum projection of 300 mm from the edge of last purlin. Similarly, side/gable sheeting work is to be started from one end of the wall and
from bottom most side/gable runner keeping about 300 mm projection from the edge of the lowest girth or as shown in the approved drawing. The prospective sheeting contractor shall prepare working drawing.

III. Sheet installation shall be carried as per standard practice

IV. The end lap between two sheets on roof shall be 200 mm or more, depending upon roof slopes. Long sheets shall generally be used to minimize end laps.

**Sealing of laps and cut-outs**

I. Where ever the cutouts like truss bracing, opening like ducts, chimneys etc. or where the portable machine (seamer) can’t be moved or reached easily, manual bending up to $180^\circ$ will be allowed with special hand tools otherwise side lap is to be seamed with full 360 degree double lock system using electric portable seamer at site.

II. The end laps of roof and side laps of wall are to be sealed for preventing water entry with mastic tape or sealing beads of approved make applied along laps at positions directed by Employer/ Consultant. Such sealing material shall have more 15 years of expected service life and shall be capable of withstanding a service temperature of $95^\circ$ C. The sealants shall be soft enough to not interfere with the installation of the sheets and resilient enough to accommodate any variation of installation that may occur during lying.

III. Foam fillers (flute closures) or equivalent approved materials, which shall be capable of withstanding temperature of $95^\circ$C and having an expected service life of 15 years, of matching profile to be adopted at interfaces of roof ridge, valley gutters etc. to be adopted along with flashing material, as directed by employer/ Consultant.

IV. Gun applied sealant or sealing beads shall be used to seal joints between individual pieces of flashing. The sealant should be positioned near mid point of the overlap.

V. Gaps at notches and cut outs made in wall sheeting for allowing through the sheeting passage of structural members, pipes etc. shall be closed with suitably shaped flashing and sealed for preventing ingress of rain water by applying flexible sealants of approved make capable of withstanding a service temperature of $95^\circ$C and having an expected service life of 15 years.

**Fasteners:**

I. Using special size clip made of galvanized steel with clip of stainless steel fixed to perlins using 5.5 mm dia SDST Screws

II. To fill gaps in ridge special made steel fillers matching the profile will be used

III. Mastic tape sealants having longer life used to seal the metal joints

IV. Special A1 rebits of different & suitable size used whenever required
V. The surface of the sheets shall be made free of dust, dirt and oil immediately before fixing of fasteners.

VI. Power tool driven self tapping / drilling, galvanized steel screws of suitable size approved make, having steel washers built monolithically with the screw head and with bonded EPDM washers are to be installed. The coating of the screws should have good corrosion performance and a service life of not less than 15 years in polluted inland environment. All screws shall be driven at right angles to the sheet and the tightening of the screws shall be just enough to properly compress the EPDM washers without signs of over tightening. The screw end shall penetrate through top flange of the purlin/runner after installation.

VII. Fasteners at end laps of sheets are to be fixed along a straight line over the purlins/ runners. On purlins and runners over which sheets are continuous, fasteners [pop rivets] shall be fixed as recommended by manufacturer of sheets/ or as per approved drawings.

VIII. Stitch fastening at the side laps of profiled steel sheets shall be placed at the center of the crest and carried out with pop rivets. The spacing of these rivets shall not exceed 450 mm for side laps on roof and 500 mm for side laps on wall.

IX. All plain flashing shall be stitched on crest of profiled sheeting with pop rivets at positions indicated on approved drawing prepared by prospective contractor and as directed by the Engineer in charge.

Shop Drawings:

The Contractor should prepare the necessary cutting plan of sheets, details of fixing sheets including flashing and sealing arrangement for total water tightness. The cutting of sheets should be by machine as far as possible.

10. GENERAL

10.1 The Materials/ products used on the works shall be one of the preferred Make/ Brands/ Manufactures given in the tender documents/ approved by EPI/MHA.

10.2 Flooring shall be of Kota stone as per drawing/ design & specification. The pattern shown in the drawing if any, can be modified as per site requirement by Engineer-in-charge and nothing extra shall be payable over and above the rate quoted.

10.3 Mosquito proof shutters shall be provided on all external openings (doors & windows etc.) of the barrack, kitchen block of BOP.

10.4 Due care shall be given to HEL of the area while fixing plinth level of structures.

10.5 Built in cupboards shall be provided in the barrack.

10.6 Glaze the dados on kitchen & toilets

10.7 Movable fixtures to be provided in the barracks.

10.8 Plumbing & sanitary work to be executed by licensed/ expert plumber and the plumbing scheme/ drawing to be got approved from Engineer-in-charge.
10.9 The contractor shall be responsible for all protection of sanitary, water supply, electrical fittings & fixture against pilferage, breakage during period of installation unit, the completion of work and handed over to BSF.

10.10 The electrical works shall be executed only through licensed electrician and the agency shall have to submit the valid license of electricians before starting the work.

10.11 It will be the sole responsibility of contractor to obtain all statutory approvals/ compliance required, if any for construction/ implementation of the project including forest clearance and completion clearance from the all relevant statutory bodies for plumbing, sewerage, sanitary and PHE work, fire department for fire protection, fire fighting, electrical works, pollution control authorities etc. and for all other services as included in the scope of contract etc. from the concerned department as required within the stipulated time frame, only statutory charges shall be borne by the owner.

10.12 The contractor shall have to execute the work in place and in such a way to facilitate other agency, if any engaged simultaneously for execution of other works required for completion of the Border Out Posts.

10.13 Unless otherwise specified in the schedule of quantities, the rates tendered by the contractor shall be all inclusive and shall apply to all heights, leads, depths & nothing extra shall be payable on this account.

10.14 On completion of work, the tenderer shall submit four prints of “As built” drawings to Engineer-in-charge at no extra payment.
## LIST OF APPROVED VENDORS

### A. CIVIL WORKS

<table>
<thead>
<tr>
<th>1. Cement (ORDINARY Portland/ Pozzolana)</th>
<th>ACC/GRASIM/AMBUJA/ULTRA TECH/LAFARGE/ STAR/TOP CEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. TMT/ Tor Steel</td>
<td>SAIL /TISCO/RINL/SHYAM STEEL</td>
</tr>
<tr>
<td>3. Structural steel</td>
<td>SAIL /TISCO/RINL/SHYAM STEEL/JINDAL</td>
</tr>
<tr>
<td>4. Precast CC Titles</td>
<td>HINDUSTAN TILES/ NIMCO PREFEB/ NITCO KONKRETE</td>
</tr>
<tr>
<td>5. Ceramic Tiles</td>
<td>NITCO/ORIENT/SOMANY/KAJARIA/ANGE JOHNSON/GLORY</td>
</tr>
<tr>
<td>6. RCC Pipes</td>
<td>AKSHAY/KK/HINDUSTAN/PRAGATI</td>
</tr>
<tr>
<td>7. Manhole Covers (SFRC)</td>
<td>KK/HINDUSTAN</td>
</tr>
<tr>
<td>8. Kerb Stone (Precast CC)</td>
<td>NIMCO PREFAB/ SUBHASH FERRO CONCRETE/ HINDUSTAN TILES</td>
</tr>
<tr>
<td>9. Chain link Wire mesh</td>
<td>MITTAL/SHAKTI –WELD MESH</td>
</tr>
<tr>
<td>10. PVC Pipes/ Fittings</td>
<td>SUPREME/ PRAKASH/ORI PLAST/FINOLEX</td>
</tr>
<tr>
<td>11. Float Glass and Mirror</td>
<td>MODIGUARD/ ASAHI/ SAINT GOBAIN/GUARDIAN</td>
</tr>
<tr>
<td>12. Water-proofing Compound</td>
<td>CICO/ CHEMISTIK/ FOSROC/ MBT/ DEGUSSA</td>
</tr>
<tr>
<td>13. Cement/ Concrete Additives</td>
<td>CICO/ CHEMISTIK/ FOSROC/ MBT/ DEGUSSA/ FOSROC/ SIKA</td>
</tr>
<tr>
<td>14. Distemper- Dry/ Oil Board</td>
<td>ICI/ ASIAN/ BERGER</td>
</tr>
<tr>
<td>15. Aluminium Sections for Doors/ windows</td>
<td>HINDALCO/ JINDAL/ NEROLAC</td>
</tr>
<tr>
<td>16. Floor Hardener</td>
<td>SNOWCEM/ CHEMISTIK/FOSROC/SIKA</td>
</tr>
<tr>
<td>17. Cement Paint</td>
<td>SNOWCEM/ ICI/NEROLAC/ BERGER/ASIAN</td>
</tr>
<tr>
<td>18. Primer for steel</td>
<td>ICI/ASIAN/ BERGER/ NEROLAC</td>
</tr>
<tr>
<td>19. Synthetic Enamel Paint</td>
<td>ICI/ ASIAN/ BERGER/ NEROLAC</td>
</tr>
<tr>
<td>20. Plastic Emulsion</td>
<td>ICI/ ASIAN/ BERGER/ NEROLAC</td>
</tr>
<tr>
<td>21. Waterproof ply &amp; Board</td>
<td>DURO/ GRENPLY/ CENTURY/KITPLY</td>
</tr>
<tr>
<td>22. Flush Door Shutter</td>
<td>KITPLY/ SWASTIK/ DURO</td>
</tr>
<tr>
<td>23. Rolling Shutter</td>
<td>DIANA/ RAYMUS/ RAMA</td>
</tr>
<tr>
<td>24. Bituminous Sealant</td>
<td>STP/ LLOYD</td>
</tr>
<tr>
<td>25. PVC door Shutter</td>
<td>RAJSHRI/ SINTEX</td>
</tr>
<tr>
<td>26. PVC Tank</td>
<td>SINTEX/ ELECTROPLAST /STAR/ LOTUS</td>
</tr>
<tr>
<td>27. W/C Wash Basin</td>
<td>CERA/ PARRYWARE/ HINDUSTAN</td>
</tr>
<tr>
<td>28. C.P. Fittings</td>
<td>PARKO/ HINDUSTAN/ SEIKO/ ORIENT</td>
</tr>
<tr>
<td>29. S.C.I. Pipe</td>
<td>RIF/NITCO/ BENGAL IRON / IISCO</td>
</tr>
<tr>
<td>30. White Cement</td>
<td>BIRLA WHITE/ JK WHITE</td>
</tr>
<tr>
<td>31. Oxidized Aluminium Fittings</td>
<td>EBCO/ DOOR LINE</td>
</tr>
<tr>
<td>32. Gypsum False Ceiling</td>
<td>INDIA GYPSUM/ BORAL</td>
</tr>
</tbody>
</table>
### B. ELECTRICAL WORKS

<table>
<thead>
<tr>
<th>SL. NO.</th>
<th>ITEMS</th>
<th>PREFERRED MAKES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A.</strong></td>
<td>CABLES &amp; RELATED ITEMS:</td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>A) 33 KV XLPE POWER CABLES</td>
<td>GLOSTER/UNIVERSAL/CCI/ RPG (ASIAN) HAVELLS/SKYTONE</td>
</tr>
<tr>
<td></td>
<td>B) 1.1KV LT POWER CABLES</td>
<td>CCI/GLOSTER/ NITCO/ UNIVERSAL / NATIONAL/ RPG (ASIAN) HAVELLS/ INDUSTRIAL CABLES/ TORRENT/ POLYCB/ SKYTONE</td>
</tr>
<tr>
<td></td>
<td>C) 1.1KV CONTROL CABLES</td>
<td>ASIAN CABLE/ FINOLEX/ UNIVERSAL/ GLOSTAR/ CCI/ HAVELLS/ NITCO/ POLYCB/ TORRENT/ SKYTONE</td>
</tr>
<tr>
<td>2.</td>
<td>A) CABLES GLANDS</td>
<td>COMET/ DOWELL/ JAINSON</td>
</tr>
<tr>
<td></td>
<td>B) LUNGS &amp; THIMBLES</td>
<td>DOWELLS / JAINSON</td>
</tr>
<tr>
<td>3.</td>
<td>PRE FABRICATED CABLE TRAY</td>
<td>SLOTCO/ PILCO/ STEELWAYS / INDIANA/ PATNY</td>
</tr>
<tr>
<td><strong>B.</strong></td>
<td>INTERNAL WIRING, EXTERNAL LIGHTING RELATED ITEMS:</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>MCB, MCB DB, AND ISOLATORS</td>
<td>L &amp; T (HAGAR)/ SIEMENS/ MDS (LEGRAND)/ INDO ASIAN/ SCHNEIDER/ STANDARD/ HAVELLS/ GE</td>
</tr>
<tr>
<td>5.</td>
<td>RCCB</td>
<td>L &amp; T (HAGAR)/ SIEMENS/ MDS (LEGRAND)/ INDO ASIAN/ SCHNEIDER/ STANDARD/ HAVELLS/ GE</td>
</tr>
<tr>
<td>6.</td>
<td>MS CONDUIT</td>
<td>ISI MARKED</td>
</tr>
<tr>
<td>7.</td>
<td>INDUSTRIAL SOCKET IN SHEET STEEL INCLOSURE WITH MCB</td>
<td>MDS (LEGRAND)/ INDO ASIAN/ CROMPTON/ BCH/ SCHEIDER/ HAVELLS</td>
</tr>
<tr>
<td>8.</td>
<td>PVC INSULATED COPPER</td>
<td>SKYLINE / GRANDLAY / FINOLEX/</td>
</tr>
<tr>
<td></td>
<td>WIRE (ISI MARKED)</td>
<td>HEVELLS/ POLYCAB</td>
</tr>
<tr>
<td>---</td>
<td>------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>9.</td>
<td>CO-AXIAL CABLES</td>
<td>SKYTONE/DELTON/LAPP /FINOLEX</td>
</tr>
</tbody>
</table>

|   | SWITCH, TELEPHONE SOCKET & BOXES (MODULAR TYPE) | MK/ SSKAY/ HAVELLS (CRABTREE)/ ANCHOR/ NORTH WEST/ CLIPSAL/ INDO ASIAN/ MDS/ LEGRAND/ (MOSAIC) |
|   | PIANO TYPE SWITCHES / SOCKETS (ISI MARKED) | MK/SSKAY/ HAVELLS/ ANCHOR/ NORTH WEST/ CLIPSAL |

|   | LIGHTING FIXURES | PHILIP/GE/ BAJAJ/WIPRO/CROMPTON/ KESELEC |
|   | CELING FANS | ORIENT/ GEC/ POLAR/ USHA/ CROMPTON/BAJAJ/ KHAITAN/ ALMONARD |
|   | EXHAUST FANS | GEC/CROMPTON/KHAITAN/ ALMONARD |
|   | OLES -9M, 7M, & 5M | REPUTED (AS PER IS AND SUBJECT TO APPROVAL FROM ENGINEER-IN-CHARGE) |
|   | EARTHING PIPES | JINDAL/ TATA/ SAI |

|   | COMMUNICATION SYSTEM: | |
|   | TELEPHONE CABLES | DELTON/HAVELLS/LAPP/ FINOLEX/ NICCO |
|   | FIBRE OPTIC CABLE | FINOLEX/ STERLITE/ CLIPSAL/ MODEX |
|   | HDPE PIPE | DURALINE/ DUTRON |

<p>|   | LT PANELS, SWITCHGEARS AND RELATED ITEMS: | |
|   | LT PANELS/ FEEDER PILLAR | TRICOLITE/ JAKSON ENGINEERS / L &amp; T/ SCHNEIDER/ GE POWER/ ABB/ C&amp;S/ SUDHIR GENSETS/ SIEMENS |
|   | AIR CIRCUIT BREAKER | L &amp; T/ GE POWER/ SIEMENS/ ABB/ SCHNEIDER/ C&amp;S. |
|   | MOULDED CASE CIRCUIT BREAKERS | L &amp; T/ GE POWER/ SIEMENS/ ABB/ SCHNEIDER/ C&amp;S/ LEGRAND. |
|   | FUSE DISCONNECTOR SWITCH/ SWITCH FUSE UNITS | L &amp; T/ GE POWER/ SIEMENS/ ABB/ SCHNEIDER/ C&amp;S / HPL. |</p>
<table>
<thead>
<tr>
<th></th>
<th>Object</th>
<th>Suppliers</th>
</tr>
</thead>
<tbody>
<tr>
<td>24</td>
<td>HRC FUSES</td>
<td>L &amp; T / GE POWER/ SIEMENS/ ABB/ SCHNEINDERR/ C &amp; S.</td>
</tr>
<tr>
<td>25</td>
<td>AMMETER, VOLTMETER</td>
<td>AE/ MECO/ UNIVERSAL/ RISHAB/ IMP</td>
</tr>
<tr>
<td>26</td>
<td>SELECTOR SWITCH, PUSW</td>
<td>KAY CEE/ CONTROL &amp; SWITCH GEARS/ L&amp;T / GE POWER CONTROL/ SIEMENS/BCH.</td>
</tr>
<tr>
<td>27</td>
<td>LED INDICATION LAMPS</td>
<td>AE/C&amp;S / EASUN/KAY CEE/ SIEMENS/ VAISHNOV/ L&amp;T</td>
</tr>
<tr>
<td>28</td>
<td>CT’S</td>
<td>AE/KAPPA / UNIVERSAL/ KAYCEE/IMP/C &amp; S/ L&amp;T/ MECO</td>
</tr>
<tr>
<td>29</td>
<td>STARTERS</td>
<td>SIEMENS/ L&amp;T/ CUTTER HAMMER/ GE POWER/ ABB/ C&amp;S/ SCHNEIDER</td>
</tr>
<tr>
<td>30</td>
<td>SINGLE PHASING</td>
<td>L &amp; T/ GE POWER/ SIEMENS/ MINILEC/ ABB/SCHNEIDER</td>
</tr>
<tr>
<td>31</td>
<td>RELAYS</td>
<td>L&amp;T/ AREVA/ABB/SIEMENS</td>
</tr>
<tr>
<td>32</td>
<td>CHANGE OVER SWITCH</td>
<td>HH ELCO/C&amp;S/ INDO ASIAN/HPL/C &amp; S</td>
</tr>
<tr>
<td>33</td>
<td>CONTACTORS</td>
<td>L&amp;T/GE POWER/BCH/CON CORD/GE/ C &amp;S</td>
</tr>
<tr>
<td>34</td>
<td>KWH, PE, FREQUENCY METER</td>
<td>JAIPUR METER/ AE/ HAVELLS/ L&amp;T/ AREVA/ SECURE/ GENUS</td>
</tr>
<tr>
<td>35</td>
<td>PUSH BUTTONS</td>
<td>L &amp; T / SIEMENS/BCH/CON CORD/ GE/ C &amp; S</td>
</tr>
<tr>
<td>36</td>
<td>TIMERS</td>
<td>L &amp; T /BCH/ MDS/ INDO ASIAN/ SCHNEIDER/SIEMENS/ADVANI ORLIKON POWER CONTROL</td>
</tr>
<tr>
<td>37</td>
<td>DIGITAL METERS</td>
<td>ENERCON/NEPTONE/ AE/ L &amp; T</td>
</tr>
<tr>
<td>38</td>
<td>INTELLIGENT MULTI FUNCTION</td>
<td>ENERCON/NEPTUNE/AE/L &amp; T</td>
</tr>
<tr>
<td>39</td>
<td>PROTECTION &amp; OTHER RELAYS</td>
<td>AREVA/ L&amp;T/ ABB/ SIEMENS</td>
</tr>
</tbody>
</table>

In the event, any item is to be produced other than the preferred make specified above, proposal seeking approval for the same from the Competent authority is to be made in advance and procurement action to be initiated only after receipt of formal approval for the same.
1. Kota stone flooring polished
2. Ceramic Dado in kitchen
3. Kota stone marble granite work top
4. Flat roof (race) in dry area and slope roof in high rainfall areas to be made
5. Deep freeze refrigerator provision made
6. Solar powered hot water and solar cooler provision made

NOTE:

- The plan has been developed as per approved areas of AUIE composite BDP
- Approval letter No. 1103/14/2018 BIML

PRELIMINARY NOTE:

- This plan has been approved by BDP No. 12908/14/2018

APPROVAL NOTE:

- The plan has been approved by BDP No. 12808/14/2018

PLAN OF GARRAGE

PLANT AREA: 74.48 SQM

PLAN OF WASHING

PLANT AREA: 10.00 SQM
NOTES

1. Buildings to be set above high flood level.
2. Every flat must provide an area for cooking.
3. A roof stone finishing is to be made.
4. An emergency exit must be made.
5. A fire alarm system is to be fitted.

MORE SPECIFICATIONS

1. Electrical provision made.
2. Solar water heating provision to be made.
3. Rainwater harvesting provision to be kept.
4. Rainwater harvesting provision to be provided.
5. The area is high at the level of the area and slope roof.

APPROVAL NOTE

This plan has been approved by the Planning Authority.
Approved alphabets are provided.
Approved amended plans have been submitted for the purpose of the plan.

NOTE:

Plinth Area - 185.295 m²

PLAN OF BARRACK (B TYPE)
NOTES

1. Plan for Type 20Men. A Type Barrack

1. Plan for Type 20Men. A Type Barrack

N.B. - 16 Ply Ply 10.8

1. Shala Provided Hot Water and Solar
2. Diesel Power Provision Made
3. Gas Tube Provision Made
4. 2 K 오늘 Stoneware Granite Vanity Top
5. 1.5 Stone Plumbing Fitting Made

BREIFIED SPECIFICATIONS

1. Building to site Flooded with High Flooding Level.
2. Waterproofing Floor and Exposure
3. Dead Weight Insulation Roof.
4. 2.50+ Design in Kitchen

APPROVAL NOTE

THE PLAN HAVE BEEN DEVELOPED AS PER

APPROVED AREA OF AUSE DEPARTMENT

APPROVED BY VICE THEA LETTER NO. 110/2/2020

DATE: 23 MAY 2020

THEM. AREAS - 22 X 15 SM

EXECUTING AGENCY

NORTH BLOCK NEW DELHI

MINISTRY OF HOME AFFAIRS

AT LUNE BARRACK NEW DELHI

BOP AT BAHON (SHAHDAR FLOODED LEVEL)

EXECUTING AGENCY (M. L. P.)

NORTH BLOCK NEW DELHI

MINISTRY OF HOME AFFAIRS

AT LUNE BARRACK NEW DELHI

BOP AT BAHON (SHAHDAR FLOODED LEVEL)

EXECUTING AGENCY (M. L. P.)