

IN THE HON'BLE NATIONAL GREEN TRIBUNAL,
PRINCIPLEBENCH
IN
ORIGINAL APPLICATION NO. 61 OF 2024

INTHEMATTEROF:

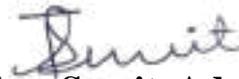
News Item titled "Assam:
PCCF MK Yadava accused of
illegally clearing protected forest for
Commando Battalion" appearing in
the Northeast Now News dated
25.12.2023

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PLACE: DELHI

DATED:28/03/2024


Thakur Sumit, Advocate
Counsel for Respondent No.1
Q-16B, Lower Ground Floor,
Jangpura Extention,
New Delhi-110014
Mobile No-9968454481

**IN THE HON'BLE NATIONAL GREEN TRIBUNAL,
PRINCIPLE BENCH
IN
ORIGINAL APPLICATION NO. 61 OF 2024**

IN THE MATTER OF:

News Item titled "Assam: PCCF MK Yadava accused of illegally clearing protected forest for Commando Battalion" appearing in the Northeast Now News dated 25.12.2023

Counter Affidavit On Behalf of Ministry of Environment, Forest and Climate Change (Respondent No.1)

IT IS MOST RESPECTFULLY SHOWETH:

I, Shri Wyatt Iroye Yatbon, S/o.- R. T Thangkhiw, aged about 50 years, working as Deputy Inspector General of Forests at Ministry of Environment, Forest and Climate Change, Regional Office, Shillong ('MoEFCC', RO, Shillong for short), do hereby solemnly affirm and state as follows:

1. That I am holding the post of Deputy Inspector General of Forests in the Ministry of Environment, Forest & Climate Change, Regional Office, Shillong. I have made myself acquainted with the facts and circumstances of this instant case and I have been duly authorized and

Wyatt Iroye Yatbon
उप वन महानिरीक्षक (केंद्रीय)

Deputy Inspector General of Forests (Central)
पर्यावरण, वन एवं जलवायु परिवर्तन विभाग
Ministry of Environment, Forest and Climate Change
क्षेत्रीय कार्यालय, शिल्लॉंग / Regional Office

Sr. Instrument No. 51
Date 28/03/2024



empowered to make and swear this affidavit for and on behalf of the Ministry of Environment, Forest & Climate Change and I am competent to do so.

2. That, the deponent has been served with a copy of the said application in which the deponent have perused and understood the contents/ allegations/averments/statements and/ or tenor thereof made in the petition. At the outset, the deponent denies all averments, submissions; statements and allegations made therein except as may be specifically admitted herein after.

Statement of Facts

3. It is humbly submitted that the 'land' is a subject matter of State Government. The forest areas and the legal boundaries thereof are determined and maintained by the concerned State Government. That, inter- alia, being the repository of land records, State Government has the primary responsibility to determine status of any parcel of land, giving due regards to gazette notifications, provisions under State and Central

(Signature)
 उप. वन महानिरीक्षक (केंद्रीय)
 Deputy Inspector General of Forests (Central)
 पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय
 Ministry of Environment, Forest and Climate Change
 क्षेत्रीय कार्यालय, शिलांग / Regional Office, Shillong



Acts and concerned judgments and directions of the Hon'ble Supreme Court.

4. It is submitted that prior approval of the Central Government under Section-2 (1) (ii) of the Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980 (earlier known as Forest (Conservation) Act) is required for carrying out any non- forestry activity on forest land.

उप वन संरक्षण (केंद्रीय)
Deputy Inspector-General of Forests (Central)
पर्यावरण, वन एवं जलवायु परिरक्षण मंत्रालय
Ministry of Environment, Forest and Climate Change
क्षेत्रीय कार्यालय, शिलांग / Regional Office, Shillong

5. That the answering Ministry vide its letter dated 16.01.2024 and subsequent reminders thereafter requested the State Govt. to furnish a detailed factual report in the wake of allegations of violation of statutory provisions of Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980 by the PCCF/HoFF, Assam. Additionally, the answering Ministry on 16.02.2024 also requested its Regional Office, Shillong to examine the matter and send a detailed report.

The copy of the letter dated 16.01.2024 and 16.02.2024 is enclosed as **Annexure- R 1**.

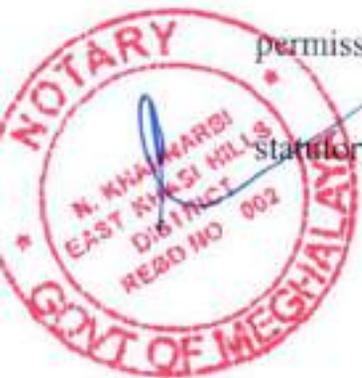


6. That the State Govt. vide its letter dated 11.03.2024 replied to the Ministry's letter dated 16.01.2024. The report received from District Commissioner, Hailakandi submitted by the state *inter alia* mentions that due to encroachment and law and order situation there is a need of Commando Battalion. The Battalion could be the driving force for forest conservation, reforestation, taming the smugglers and for peaceful Interstate Border. (Copy of the letter dated 11.03.2024 is annexed as **Annexure-R 2.**)


 Deputy Inspector General of Forests (Central)
 पारिवरण, वन एवं जलवायु परिवर्तन मंत्रालय
 Ministry of Environment, Forest and Climate Change
 क्षेत्रीय कार्यालय, रिजल्ट / Regional Office, Shillong

7. That the Regional Office Shillong of the Ministry vide its letter no. F.NO.- RONE/E/O.A.No.61/24/PB/S/4081 dated 12.03.2024 sent its detailed site inspection report vis-à-vis allegations of violation of statutory provisions of *Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980* by PCCF/HoFF, Assam. The said report has been examined in the Ministry and *prima facie* it has been observed that the use of forest land for non-forestry activities has been allowed without prior permission of the Central Government which is in contravention of the

statutory provisions and rules under *Van (Sanrakshan Evam*



Samvardhan) Adhiniyam, 1980 . (Copy of the Site Visit Report is annexed as **Annexure-R 3**.)

8. That taking note of the aforesaid, the answering Ministry vide its letter dated 18.03.2024 directed the State Govt. to stop and discontinue the alleged construction activities forthwith. That vide letter dated 18.03.2024 the Ministry also requested its Regional Office Shillong to initiate action as prescribed under section 3A and 3B of the *Van (Sanrakshan Evam Samvardhan) Adhiniyam*. (Copy of the letters dated 18.03.2024 annexed as **Annexure-R4**.)

9. It is respectfully submitted that this answering Ministry without prejudice reserves its right to file additional information till pendent-lite, if so required.

10. It is respectfully submitted that in view of the above mentioned facts, the replying Respondents humbly pray that the Hon'ble Tribunal may be

pleased to pass such order as deemed fit in the interest of the Justice.

Identified by
[Signature]
(Mr. G. K. Majumdar)
Advocate, Shillong



Solemnly Affirmed before me this Day
On 28/03/2024
By G. K. Majumdar Deponent is identified
I Certify that the contents of the Affidavit
are read over and Explained to the Deponent
who verified the same before me
NOTARY
East Khasi Hills
Govt. of Meghalaya

[Signature]
DEPONENT
उप निदेशक (केंद्रीय) /
Deputy Inspector General of Forests (Central)
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय
Ministry of Environment, Forest and Climate Change
क्षेत्रीय कार्यालय, शिल्लॉंग / Regional Office, Shillong

VERIFICATION:-

I, the above named Deponent, do hereby verify that the contents of the above counter affidavit are true and correct to my knowledge as per the records of the answering respondents. No part of it is false and nothing material has been concealed there from.

Verified at Shillong on this 28th day of March, 2024.


DEPONENT

उप वन महानिरीक्षक (केंद्रीय)/
Deputy Inspector General of Forests (Central)
पर्यावरण, वन एवं जलवायु परिवर्तन विभाग
Ministry of Environment, Forest and Climate Change
राज्य कार्यालय, शिल्लॉंग / Regional Office, Shillong



1/62825/2024

Government of India
Ministry of Environment, Forest and Climate Change
(Forest Conservation Division)

Indira Parayavaran Bhawan
Jor Bagh Road, Aliganj,
New Delhi-11003

Dated: January, 2024

To

The Additional Chief Secretary (Forests),
Government of Assam,
Guwahati

Sub: In Suo motu matter in re: News item appearing in The Northeast Now dated 25.12.2023 entitled "Assam: PCCF MK Yadava accused of illegally clearing protected forest for Commando Battalion" pending before Hon'ble NGT (PB)-Reg.

Madam/Sir,

This is in apropos with the above stated matter wherein the Hon'ble Tribunal based on the media report titled *Assam: PCCF MK Yadava accused of illegally clearing protected forest for Commando Battalion* took suo motu cognizance of the matter. The report further stated that PCCF MK Yadav allegedly bypassed mandatory procedures under the Forest (Conservation Act, 1980, to grant permission for the construction of the Assam Commando Battalion Unit headquarters. (Copy of the news report enclosed for ready reference).

In view of the aforesaid order, it is requested to furnish a detailed factual report in the instant matter to this Ministry for further necessary action.

The next date of Hearing in the matter is 23rd January, 2024.

Kindly treat it as most 'Urgent'.

Yours sincerely,

Encl. as above.

Signed by

Suneet Bhardwaj

Date: 16-01-2024 16:48:59

Sd/-

(Suneet Bhardwaj)

Assistant Inspector General of Forests

Copy to: Sub-office Guwahati of Regional Office, Shillong of MoEF&CC with a request to coordinate with the State Govt. for immediate necessary action in the matter.

Government of India
Ministry of Environment, Forest and Climate Change
(Forest Conservation Division)

Indira Parayavaran Bhawan
Jor Bagh Road, Aliganj,
New Delhi-11003

Dated: February, 2024

To

The DDG Forest(C),
MoEF&CC, Regional Office,
Shillong

Sub: In Suo motu matter in re: News item appearing in The Northeast Now dated 25.12.2023 entitled "Assam: PCCF MK Yadava accused of illegally clearing protected forest for Commando Battalion" pending before Hon'ble NGT (PB)-reg.

Madam/Sir,

Please refer to your letter No. RONE/E/O.A. No.61/24/PB/AS/3717 dated 14.02.2024 in the above stated matter wherein the Hon'ble Tribunal based on the media report titled *Assam: PCCF MK Yadava accused of illegally clearing protected forest for Commando Battalion* took suo motu cognizance of the matter. In this connection, a copy of reply affidavit filed by PCCF & HoFF in the Tribunal has been received in the Ministry vide letter No. FG.58/OA (Suo-Moto) No.61/2024 dated 7th February, 2024 which is enclosed for reference.

In view of the aforesaid, the Regional Office Shillong is requested to examine the matter in detail and submit a factual report with specific recommendations for further necessary action in the matter at the earliest.

Yours sincerely,

Encl. As above.

Signed by

Suneet Bhardwaj

Date: 16-02-2024 16:19:01

Sd/-

(**Suneet Bhardwaj**)

Assistant Inspector General of Forests

Copy for information and necessary action to: Guwahati Sub-office of Regional Office, Shillong of MoEF&CC .

ANNEXURE-R 2

GOVERNMENT OF ASSAM
ENVIRONMENT AND FORESTS DEPARTMENT
DISPUR, GUWAHATI.
Email. Id. environmentforestassam@gmail.com

ECF No.437034/180

Dated Dispur, the 11th March, 2024

From : Neera Daulagupu, ACS,
Secretary to the Govt. of Assam,
Environment and Forest Department

To : Shri Amit Anand
Assistant Inspector General of Forests
Indira Parayavaran Bhawan, Jor Bagh Road,
Aliganj, New Delhi-11003

Sub : Report on Suo moto matter on News item appearing in The Northeast Now dated 25.12.2023 entitled "Assam: PCCF MK Yadava accused of illegally clearing protected forest for Commando Battalion" pending before Hon'ble NGT (PB)-Reg.

Ref : i) Letter dated 16.01.2024 by AIG Forest, MoEF & CC
ii) Letter dated 06.02.2024 by AIG Forest, MoEF & CC.

Sir,

In inviting a reference to the subject cited above, I am directed to forward herewith the Report received from District Commissioner, Hailakandi as sought for, for your kind information and necessary action.

Encl: As stated above.

Yours faithfully,

Secretary to the Government of Assam
Environment and Forests Department.

Memo ECF No. 437034/180-A

Dated Dispur, the 11th March, 2024

Copy to:

1. P.S. to the Addl. Chief Secretary to the Govt. of Assam, Environment & Forest Department, Dispur, Guwahati-06.

(E-signed)
Secretary to the Government of Assam
Environment and Forests Department

291



GOVT. OF ASSAM
OFFICE OF THE DEPUTY COMMISSIONER
HAILAKANDI
(REVENUE BRANCH)

No.HRC.7/2024/18

Dated: Hailakandi the 28th February, 2024

To,

The Secretary to the Govt. of Assam,
Environment and Forests Department,
Dispur, Guwahati-6.

Sub:- Submission of report in OA No.61/2024 regarding Media report Northeast Now dated 25/12/2023 entitled "AssamPCCF MK Yadav accused of illegally clearing protected forest for Commando Battalion" .

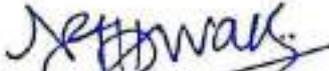
Ref:- Govt. letter ECF No.437034/145 dated 22/02/2024.

Sir,

With reference to the subject cited above, I have the honour to submit herewith a report/ comment in OA No.61/2024 in connection with Media report Northeast Now dated 25/12/2023 entitled "Assam PCCF MK Yadav accused of illegally clearing protected forest for Commando Battalion" for favour of your kind information & necessary action.

Encl:- As stated above= 35 sheets.

Yours faithfully,


District Commissioner,
Hailakandi

Comments/ Report on the Suo Moto matter "Assam PCCF MK Yadava accused of illegally clearing protected forest for Commando Battalion" in notice OA No.61/2024 of the Hon'ble National Green Tribunal, Faridkot House, Copernicus Marg, New Delhi.

1. Hailakandi district is situated in the southernmost tip of the State of Assam having an inter-state border with the state of Mizoram in the south-east direction and with Cachar and Karinganj district of Assam in east and in the west direction respectively.
2. As per the report submitted by the Divisional Forest Officer, Hailakandi (Annexure-A) there were constant attempts made by the miscreants inside the Inner Line Reserved Forest (ILRF). This attempts have also lead destruction of trees, huts etc. Following the sequence of event, then Divisional Forest Officer, Hailakandi had written to the Superintendent of Police, Hailakandi for provision of special Armed Forces for protection from further encroachment for forest conservation and for maintenance of law and order situation along the border (Annexure-B). Subsequently, the Superintendent of Police, Hailakandi has requested for Commando Battalion vide letter No.KHD/B/91/2021/324 dated 24/07/2021 to the higher authorities (Annexure-C). Also, in a letter written by Superintendent of Police, Hailakandi to the Divisional Forest Officer, Hailakandi vide No.KHD/B/91/Vol-III/2023/224 dated 26/06/2023 (Annexure-D) assurance has been given this Commando Battalion would be for preservation of natural resources, for stopping further encroachment and would ensure the ecological conservation and reforestation activities. As reported by Divisional Forest Officer, Hailakandi in his report that 189 trees are not required for felling because most of the proposed construction site for quarter and barracks have been selected in encroached agricultural land.
3. It is also pertinent to mention here that the Assistant Settlement Officer (ASO), Katlicherra in his letter No.ASO.KTC/Misc/2020-21/04 dated 22/07/2021 has stated that no suitable revenue land is available for the construction of the Battalion.
4. In conclusion and in view of the encroachment and law and order situation, there is a need of Commando Battalion. The Battalion could be the driving force for forest conservation, reforestation, taming the smugglers and for peaceful Interstate Border.


District Commissioner,
Hailakandi



GOVT. OF ASSAM
OFFICE OF THE DIVISIONAL FOREST OFFICER::HAILAKANDI FOREST
DIVISION::HAILAKANDI

Letter No. HKD/DFO(T)/Border/ 271

Dated, 17-01-2024

To,

The Principal Chief Conservator of Forests and
Head of Forest Force, Assam
Panjabar, Guwahati-37

Sub: Submission of report regarding encroachment by neighboring State Mizoram in adjoining area of interstate border boundary of Assam Mizoram in Inner Line R.F under Hailakandi District.

Ref:- This office letter No. HKD/DFO(T)/Border/2nd Commando Battalion Unit/255-58 Dtd. 13-01-2024

Sir,

With reference to the subject cited above, I have the honour to submit enclosing herewith the report on encroachment by neighboring State Mizoram in the adjoining area of interstate border boundary of Assam Mizoram within Inner-Line R.F under Hailakandi District together with photographs of encroached area occupied by Mizoram Govt., Mizo people in Dhalcherra Peisan area. In addition to that photographs of other intended encroachment activities in the areas under Gharmurah/Kukicherra and Matijuri Range which have been prevented time to time by the Police, Civil authority and Forest Personnel of the Hailakandi District. A Google map showing the area of encroachment and other activities of Mizoram Government is also appended herewith.

This is for favour of your kind information and necessary action.

Encl:- As specified.

Submitted

(A. Dutta, AFS)
Divisional Forest Officer,
Hailakandi Division, Hailakandi

Copy to the District Commissioner, Hailakandi For favour of his kind information and necessary action.


Divisional Forest Officer,
Hailakandi Division, Hailakandi

Brief History of Assam – Mizoram bordering area falls under Hailakandi Forest Division.

Length of bordering area under Hailakandi Forest Division – About 92.0KM.

Over 1000Ha reserved forest land in Inner line R.F under Hailakandi Forest Division has been illegally occupied by the Mizoram with a plea of interstate boundary dispute in eastern and southern boundary of the district.

As regards eastern boundary:- That, Government of Mizoram has occupied about 575 Hectares of reserved forest land within Inner Line Reserved Forests at Dhalcherra/ Phaisen area adjacent to the interstate border area of Assam and eastern boundary of the Hailakandi District since long back. It was before inception of this division i.e. 07-07-1992. Mizoram Govt. erected a boundary pillar depicting therein "WELL COME PHAISEN MIZORAM" covering the illegally occupied area of Assam land on the stretch of Samanikuna – Gaglacherra – Bilaiper-Phaisen Road at Dhalcherra. The said encroached area falls under Dhalcherra Beat, Matijuri Range, Hailakandi Forest Division. In the said encroached area Mizoram Govt. has installed/constructed various Govt. and private establishments. The area is under maintenance with implementation of different improvement works extended by the Mizoram Govt. time to time. The Border out-post(B.O.P) of both Assam and Mizoram now situated nearly 10km from Assam-Mizoram Border within Assam.

As regards southern boundary:- That, the tendency of occupying the R.F land of Assam in Kachurthal areas near interstate boundary of Assam Mizoram by the Mizo people in different events, such as construction of waiting shed, roads, installation of temporary porch etc. are chronic quandaries, though the endeavors of Mizoram have been prevented from this end time to time by immediate intervention of BOP, Police Forest and civil authorities.

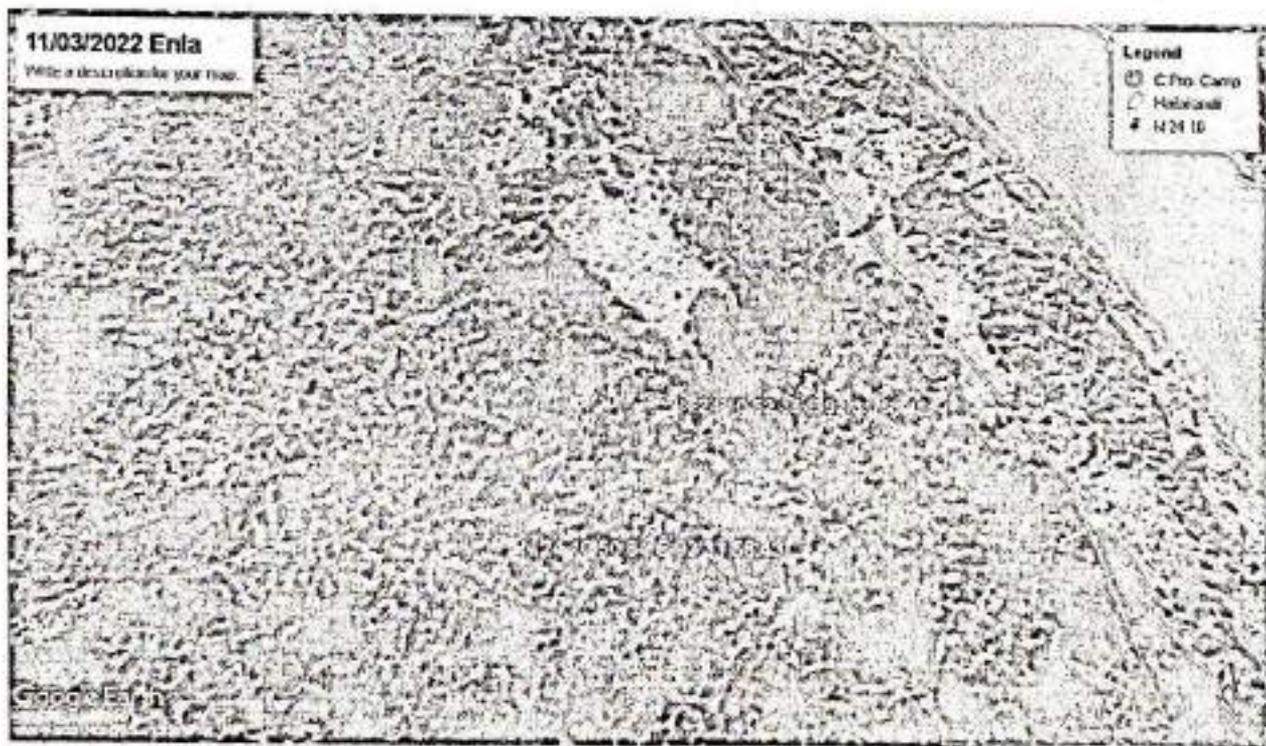
Readily available some photograph, maps and paper cutting etc. are annexed herewith for ready reference.

Illegal encroachment of two Nos. temporary Huts at Sahabmara area in Inner Line Reserved Forest under Gharmurah Range, Hailakandi District.

On 11-03-2022 the staff of Gharmura Range along with O.C. Ramnathpur Police Station and other Armed Personnel visited the place of occurrence and dismantled one abandoned temporary hut at Sahabmara area under Gharmurah Range in Inner Line Reserved Forest constructed by Bengali encroacher. As regards another illegally constructed temporary hut done by Mizo people, the local Circle Officer and Police Officer of Mizoram appeared at the place of occurrence and approached to O.C. Ramnathpur and the Staff of Gharmurah Range and requested not to dismantle the temporary hut at that moment because they will remove the said hut within three days. The area is adjacent to interest border boundary and hence to maintain the law and order situation. Our officers have returned back from the place of occurrence agreed with the assurance given by the counterpart officials.

A Googol Earth Map showing GPS, Coordinates of the recent detected encroached huts is annexed herewith for ready reference.

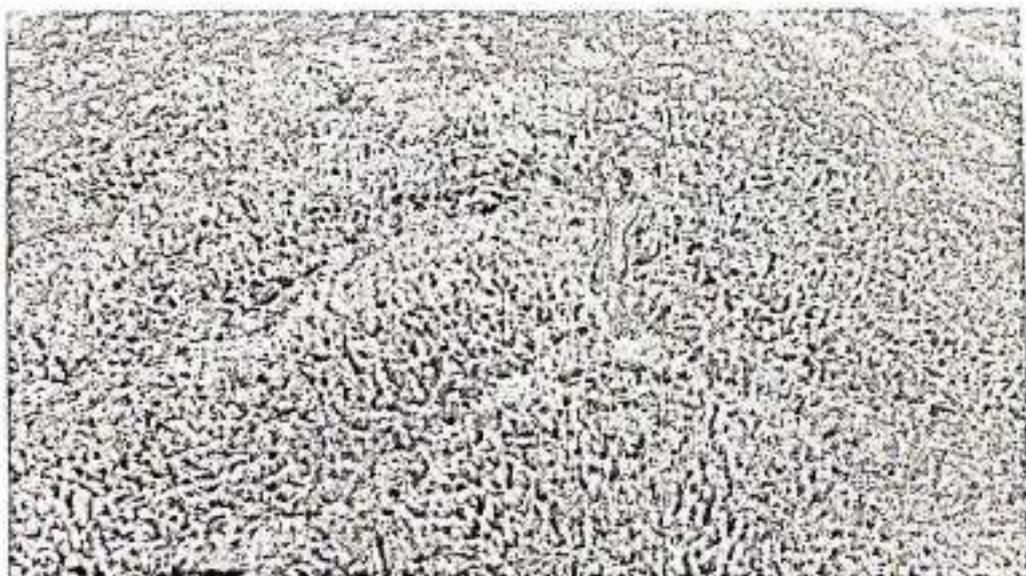
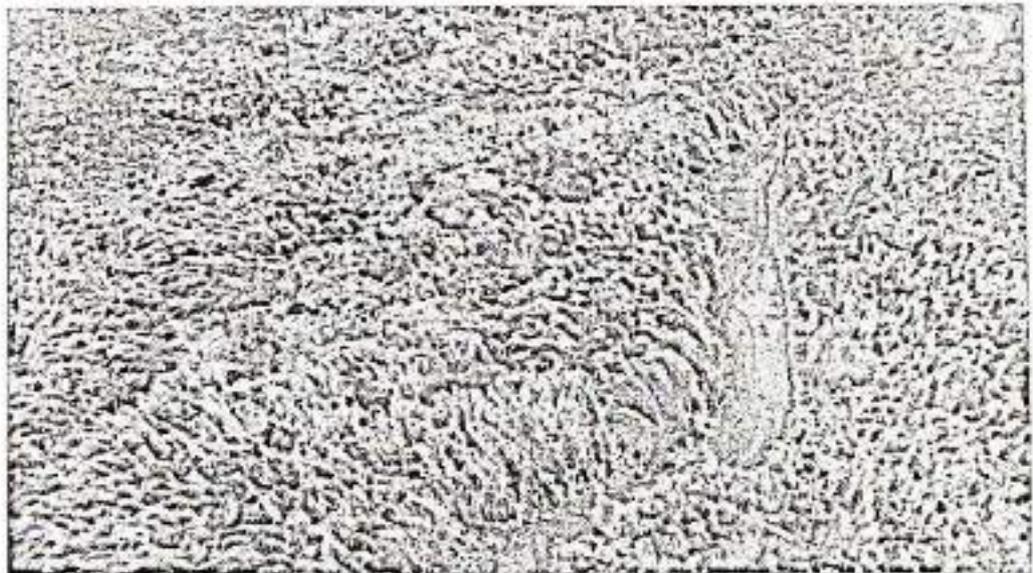
A Map Showing illegal encroachment of two Nos. temporary Huts at Sahabmara area in Inner Line Reserved Forest under Gharmurah Range, Hailakandi District.



Illegal construction of road At upstream of Haticherra within Inner Line Reserved Forest, Kukicherra Range under Hailakandi Forest Division.

On 21-11-2021 it is detected that Mizoram Govt. has started construction of a Road by Earth cutting at upstream of Haticherra area within ILRF under Kukicherra Range. The said road is about 2:00 KM (Aerial distance) inside Assam territory from the Inter State Border Boundary of Assam-Mizoram. A point of GPS Coordinates (N 24°21'15.5" E92°38'23.6") on the said road has been taken by the staff of, Kukicheera Range. The newly constructed road length is about 3.50 KM. There is no human habitation is in and around the vicinity of the road. Some photographs of the said road are enclosed herewith for ready reference alongwith Google Map

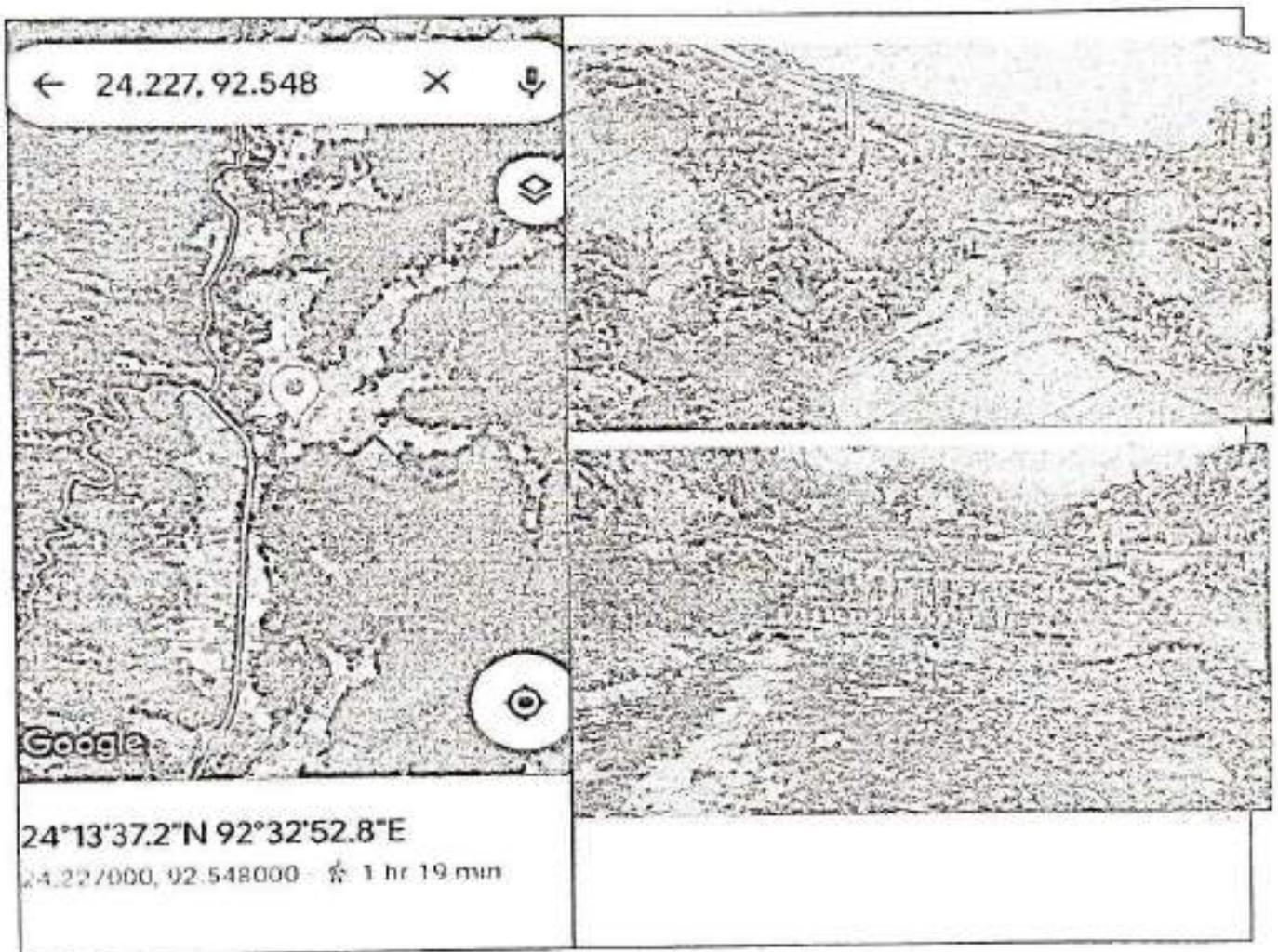
Photographs of Illegal construction of road At upstream of Haticherra within Inner Line Reserved Forest, Kukicherra Range under Hailakandi Forest Division.



Illegal construction of RCC culvert over Bhairabi cherra in Inner Line Reserved Forest under Gharmurah Range, Hailakandi District.

On 26-10-2021 the Range Forest Officer, Gharmurah Range has informed that the Mizoram Govt. has again started re-construction of incomplete RCC culvert over Bhairabi cherra. Three nos. Photographs of the constructional works of RCC culvert are annexed herewith.

PHOTOGRAPH TAKEN ON 29-09-2021 OF RCC CULVERT OVER BHAIRABI CHERRA, KACHURTHAL AREA, UNDER GHARMURAH RANGE.



Illegally construction of Temporary Camp along with 2 KM road have been constructed by Mizoram Police at Kachurthal - Balicherra area within Inner Line Reserved Forest under Matijuri Range, Hailakandi District

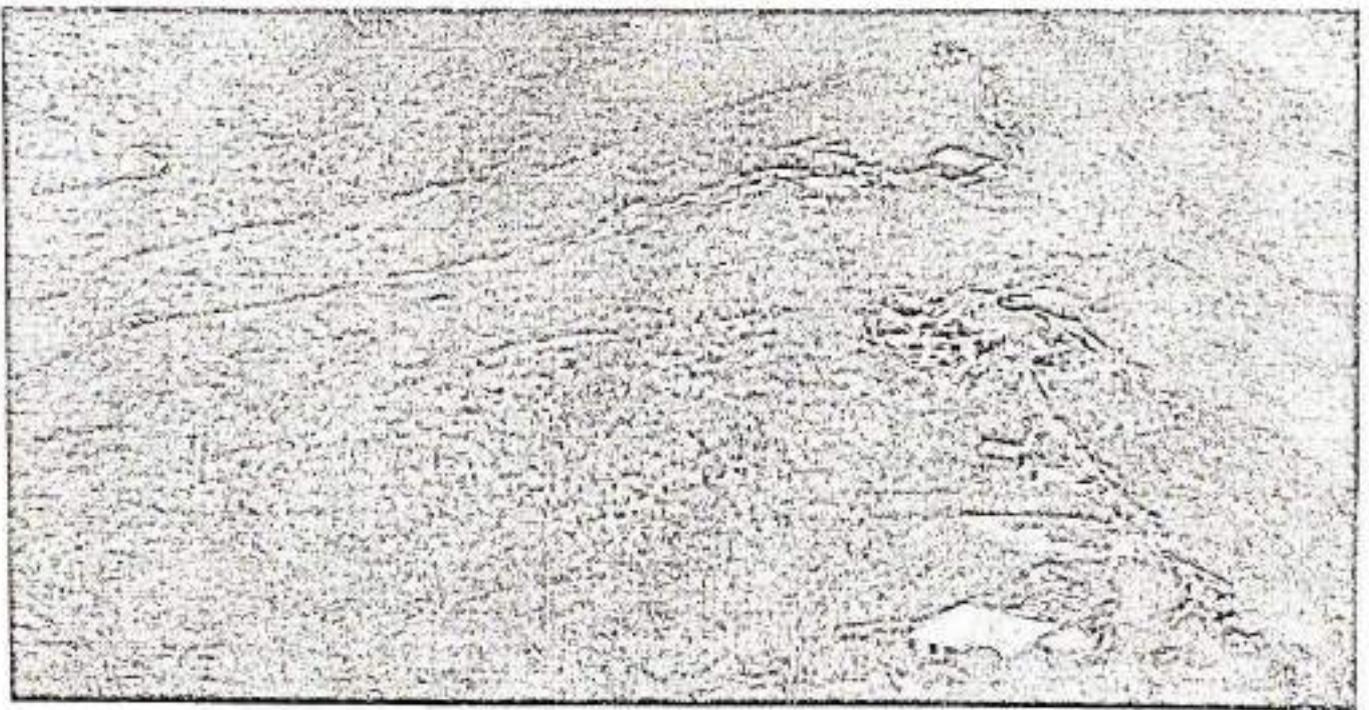
On 02-09-2021 accompanied with the Superintendent of Police, Hailakandi and other Police /Forest personnel have visited the Kachurithal-Balicherra area within Inner Line Reserved Forest under Matujuri Range, Hailakandi District, wherein it has been noticed that another Temporary Camp along with 2 KM road have been constructed by Mizoram Police at Kachurthal - Balicherra area within Inner Line Reserved Forest under Matijuri Range, Hailakandi District, Assam. Two numbers of photographs of the newly constructed camp and road are annexed herewith.

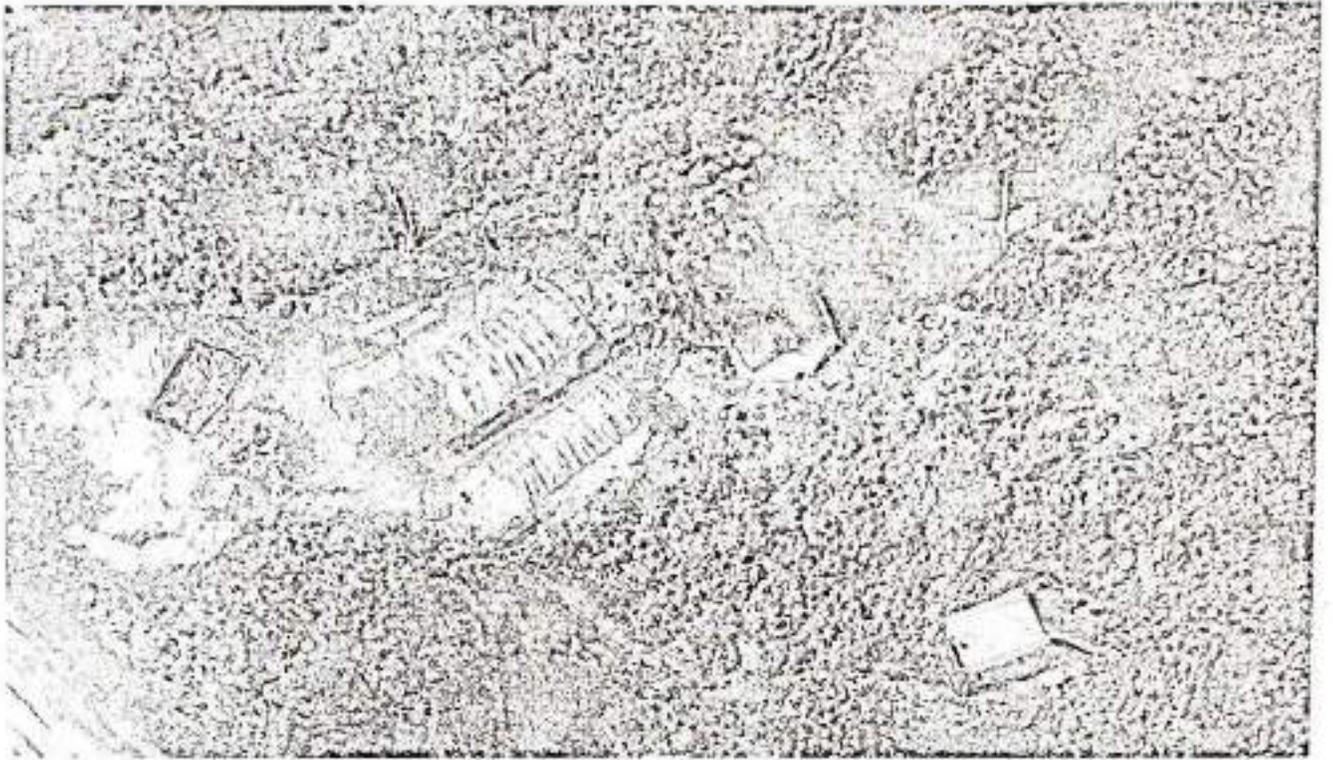
Drone Photograph of improvement of Road by Mizoram Govt. in Inncr Line Reserved Forest area under Matijuri Range, Hailakandi District, Assam.





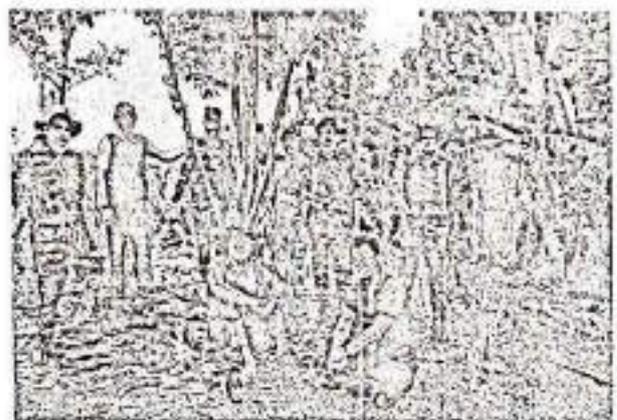
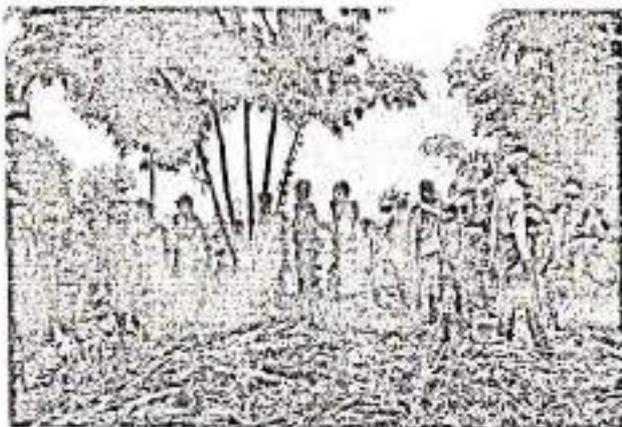
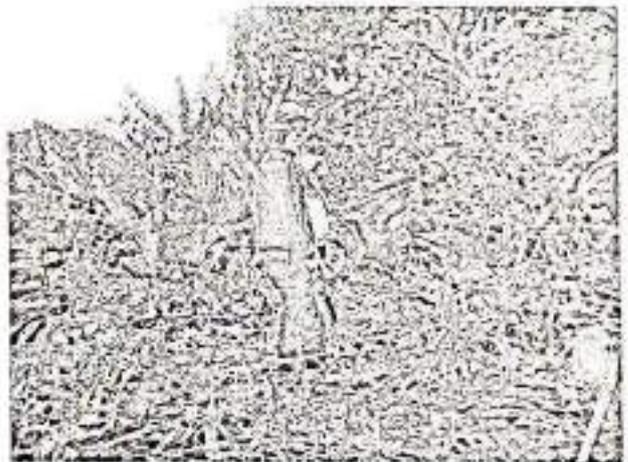
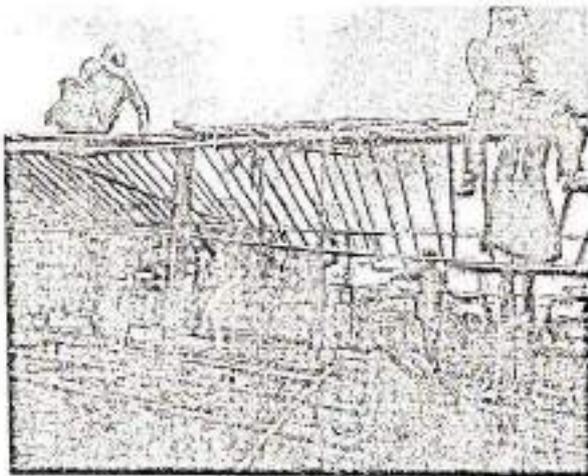
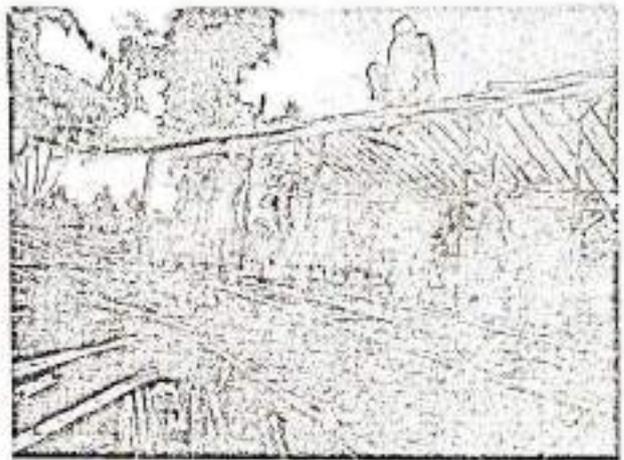
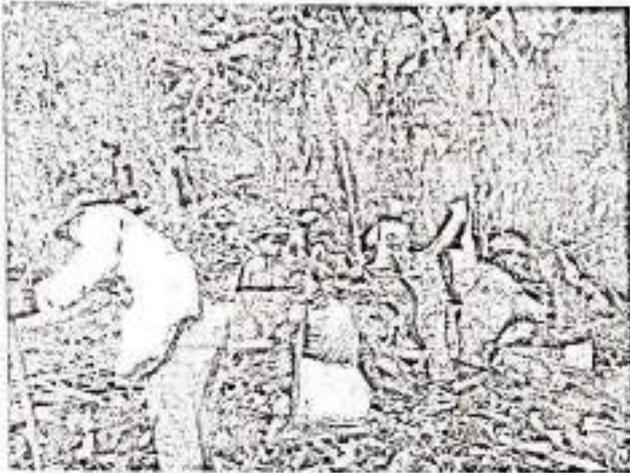
Photographs of temporary constructed camp hut by Mizoram Police clearing the Forest cover in Inner Line R.F.



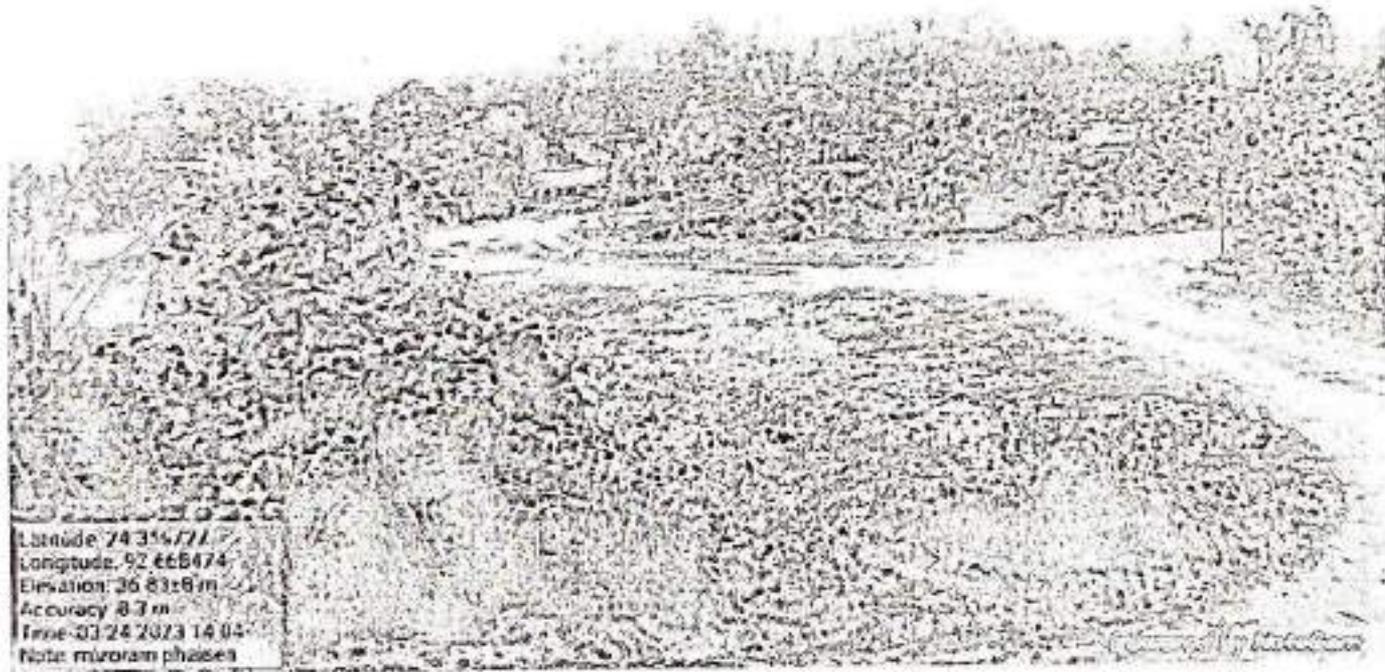
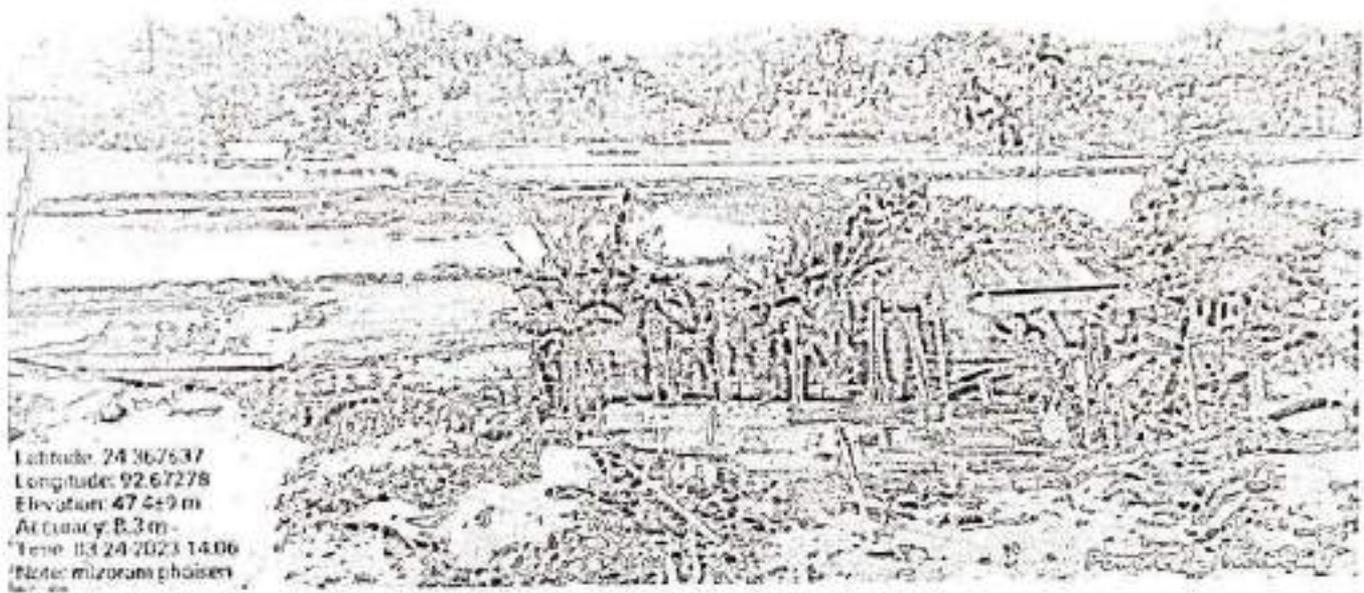


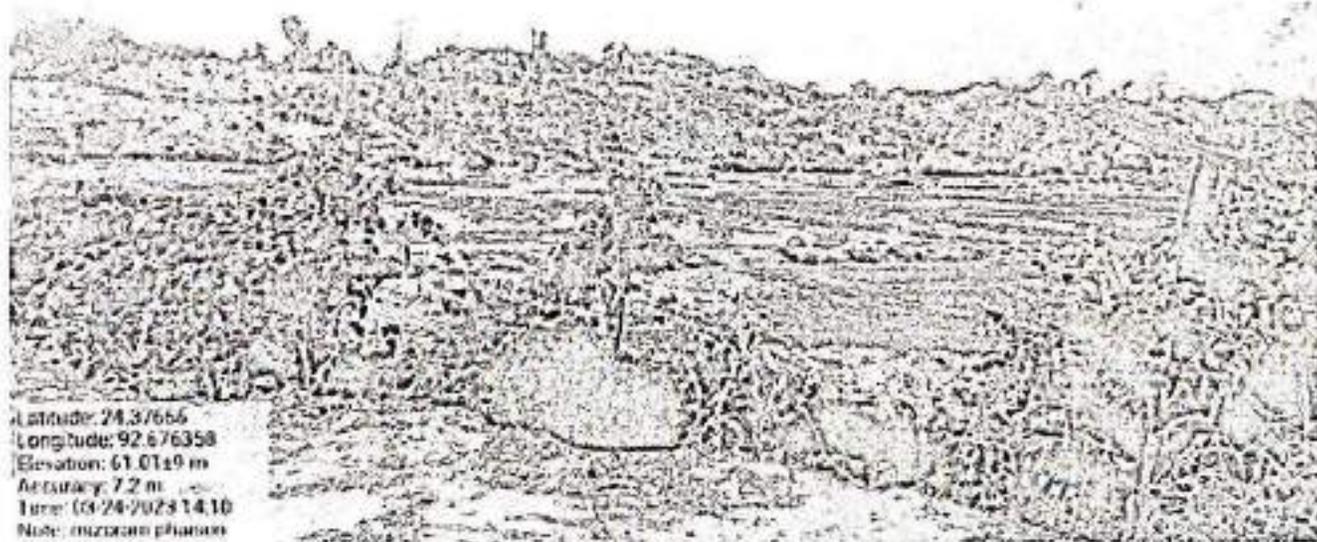
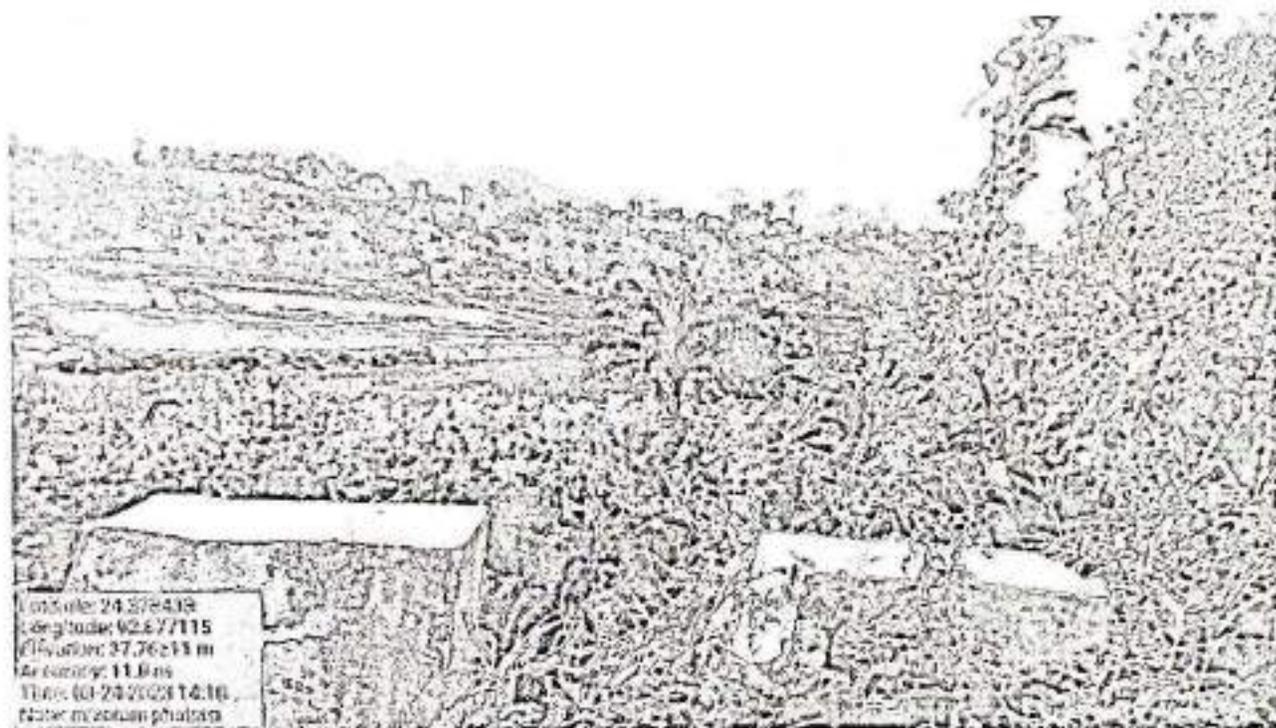
On 13-07-2021 it is detected that illegal Construction of Mizoram Police barrack in Inner Line Reserved Forest area under Gharmurah Range, Hailakandi District, Assam.

On Photographs of Illegal Construction of Mizoram Police barrack in Inner Line Reserve Forests under Gutguti BOP, Gharmurah Range.



Photograph of Mizo encroached area at Paisan in Inner Line R.F. under Hailakandi Forest Division





Add Paper cutting GPS coordinates and a Google MAP Showing the encroached area. Area in hectares etc. also fill up in the format.

ASOMIYA STATISTICAL SERVICE

অসমৰ ১৫ কিঃমিঃ ভিতৰলৈ সোমাই আহি গাঁও পাতিছে মিজোৰে

অসমৰ ১৫ কিঃমিঃ ভিতৰলৈ সোমাই আহি গাঁও পাতিছে মিজোৰে

নিৰ্মিত পৰিষ্কাৰ, পৰিষ্কাৰত পূৰ্ণাৰ্থিত হৈছে নিয়ম সংশোধন হৈছে

অসমৰ ১৫ কিঃমিঃ ভিতৰলৈ সোমাই আহি গাঁও পাতিছে মিজোৰে
এইখন পূৰ্ণাৰ্থ পৰ... অসমৰ ১৫ কিঃমিঃ ভিতৰলৈ সোমাই আহি গাঁও পাতিছে মিজোৰে
এইখন পূৰ্ণাৰ্থ পৰ... অসমৰ ১৫ কিঃমিঃ ভিতৰলৈ সোমাই আহি গাঁও পাতিছে মিজোৰে

হাইলাকান্ধিৰ মিজোদেৰ দখল কৰা জমিতে মাস্থান্ধাৰিদেৰ পুনৰ্বাসন!

নিৰ্মিত পৰিষ্কাৰ, পৰিষ্কাৰত পূৰ্ণাৰ্থিত হৈছে নিয়ম সংশোধন হৈছে

অসমৰ ১৫ কিঃমিঃ ভিতৰলৈ সোমাই আহি গাঁও পাতিছে মিজোৰে

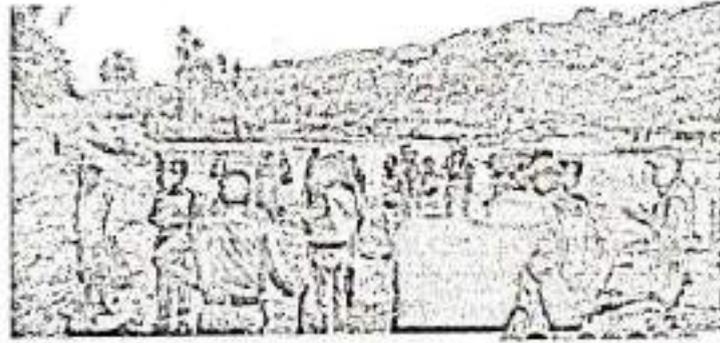
অসমৰ ১৫ কিঃমিঃ ভিতৰলৈ সোমাই আহি গাঁও পাতিছে মিজোৰে

হাইলাকান্ধিৰ মিজোদেৰ দখল

অসমৰ ১৫ কিঃমিঃ ভিতৰলৈ সোমাই আহি গাঁও পাতিছে মিজোৰে

Situation along Assam-Mizoram border continues to be tense as 2 houses burned down

By Chiranjitbari 13.6.2021 13:07 PM



Hailakandi, June 6: Tension continues in Assam-Mizoram bordering Gutguti area of Hailakandi district after the burning of two houses.

Hailakandi Superintendent of Police, Ramandeep Kaur today said that the two cases have been registered regarding the burning of houses and construction of structure by the miscreants from Mizoram within Assam land. She said that the inquiry has been initiated to find the miscreants behind the burning of houses and illegal construction of structure within 300 meters inside the Assam land from the border. She said that after the tension in the border a few months back, people vacated the houses near Gallacherra BoP and the miscreants burnt down the two houses in the area.

Also Read - ACKO conducts free health check-up camps for tea plantation workers in Assam

Gallacherra BoP is totally abandoned, she added. Regarding the construction of structure in Assam land by the Mizo miscreants, Kaur said that the area falls under inner line reserve forests covered by jungle and it is very difficult on the Assam side to reach the spot. SP Kaur informed that the matter has been taken up at the higher level in Mizoram and hoped that the issue would be sorted out shortly with the intervention of both the states. She admitted that the demarcation of the bordering area has not been accepted by all and problems created due to this. Security forces have been placed in the area, she added.

Also Read - Prez Murmu's visit to Assam's Karbi Anglong cancelled due to bad weather

Assam shares a 164.6 kms border area with Mizoram.

It is reported that the suspected Mizo miscreants set fire to the houses of Ali Hussain and Saiful Islam on Friday night in Gallacherra village bordering Mizoram under Ramnathpur police station area of Hailakandi district. Although they were not at home during the time of the incident. The deputy commissioner Rohan Kumar Jha, Superintendent of Police Ramandeep Kaur, Officer in Charge of Ramnathpur Police Station, Liton Nath and other forest officials rushed to the spot and took stock of the situation.

Correspondence made with District authorities

SENT BY
 MESSAGE NO
 DATED, 04-05-2021

GOVT OF ASSAM
 OFFICE OF THE DIVISIONAL FOREST OFFICER: HAILAKANDI FOREST DIVISION, HAILAKANDI

Letter No. HKD/DFO(T)/Border / Encroachment/1265-67

To, The Deputy Commissioner,
 Hailakandi

Sub: Regarding encroachment by Mizoram in Inner Line RF under Gharmurah Range, Hailakandi Forest Division, Hailakandi District, Assam.

Ref: Your telephonic instruction dt. 02-06-2021.

Sir,

I have the honour to inform you that as per your instruction under reference over the same regarding illegal encroachment by Mizo people in the adjoining area of Assam (Mizoram) interstate border boundary in Betcherra area under Gutguti BOP I along with District Development Commissioner, Hailakandi, Addl. S.P, Hailakandi, Range Officer, Gharmurah and other Police and Forest personnel we proceeded to Gutguti B.O.P. and have reached there in the evening on that day. Due to night hours we could not proceed to Betcherra area on the same day but all of us have stayed the night at Gutguti BOP. The next morning i.e. on 03-05-2021 we have proceeded to Betcherra area but before reaching at the alleged location it has been learned from a local Reang pedestrian that good nos. of armed battalions of Mizoram have been in ambushed position surrounding the alleged encroached house. As such myself, DDC and Addl. S.P have decided that it is not wise to proceed further more without ensuring the ground reality. Thus we have sit under a tree and armed forces along with us taken position to cover the operation. Thereafter we send only three persons i.e. The i/c Range Officer Sr Pransy (S.P.), Range Officer, one Police officer, one Forest Guard Kabir Hussain Mazumder and one daily labour Syab Uddin Barbhuiya to observe the situation. Accordingly, the Police Officer, Forest Guard Kabir Hussain Mazumder and one daily labour Syab Uddin Barbhuiya have approached near to the encroached house and request for providing drinking water saying that they are in Forest patrolling duty. While on the way found 12 Nos. IPBN under Mizoram Police are in ambushed position under different bushes to guard the encroached house. Forest Guard Kabir Hussain Mazumder asked the name of house holder. In reply the house holder denied to disclose his name and stated that now he is in Mizoram and his name may be known from the D.C. Mamit of Mizoram. Then the Forest Guard Kabir Hussain Mazumder fully taken the GPS coordinates of the house standing at the porch of the house and taken photographs of the house. As there is armed battalions and conversation is taking place in the area and doubtful approach. They have come back and stated the above facts and it is also the fact that work has been executing since last year. Thus we return back to Gutguti BOP and discuss the matter with you in presence of SP Hailakandi at Gutguti BOP on 01-06-2021 evening. After that I have only to sign H/Osr at Hailakandi.

Contd -2.

307

-2-

The Photographs and the taken GPS coordinate showing in Google Map are enclosed here with for ready reference.

Under the circumstances above I would like to inform you that as per Google Map the alleged encroached house under construction is within Inner Line Reserved Forest as per the recorded GPS coordinates. But the Mizo house holder stated the land is in Mizoram. Moreover the area is adjacent to border boundary of Assam Mizoram. As such there is a possibility of error on the part of the householder whereas the Mizoram Govt. is always confused about the border boundary of Assam Mizoram falls under Gharmurah Range along with inner line Reserved Forest boundary as revealed from the existing records. So the matter may be taken up with the counterpart D.C Mamit, Mizoram for discussion and to learn their opinion in to the matter for taken further step if deem fit and proper.

This is for your kind information and taking needful action.

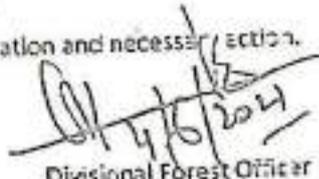
Encls:- As specified.

Yours faithfully

(M. Ali, AFS)
Divisional Forest Officer
Hailakandi Forest Division, Hailakandi

Copy to:-

1. The Chief Conservator of Forests Southern Assam Circle, Silchar for kind information and necessary action.
2. The Superintendent of Police, Hailakandi for kind information and necessary action.


4/6/2024
Divisional Forest Officer
Hailakandi Forest Division, Hailakandi

GOVT OF ASSAM
OFFICE OF THE DIVISIONAL FOREST OFFICER:-HAILAKANDI FOREST DIVISION:-HAILAKANDI

Letter No. HKD/DFD(T)/Border / Encroachment/1283-85

Dated, 05-06-2021

To, The Deputy Commissioner,
Hailakandi

Sub: Regarding the incident of burning of 2 (Two) nos. encroacher's house at Gollacherra within Inner Line Reserve Forest under Gharmurah Range, Hailakandi Forest Division during last night (04-06-2021).

Ref: Our telephonic discussion dated, 05-06-2021.

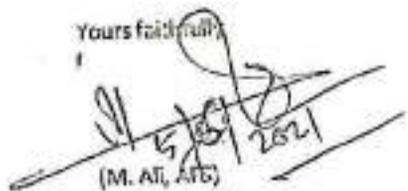
Sir,

With the subject cited above, I have the honour to inform you that an incident of Burning of 2 (Two) Nos. cottage of Encroachers took place on last night at Gollacherra within Inner Line Reserve Forest under Gharmurah Range by suspected Mizo miscreants as reported by the I/c Range Officer, Gharmurah. Photographs of burned down cottage along with GPS coordinates shown in the Google Map are enclosed herewith for ready reference. The detailed report will follow.

This is for favour of your kind information.

Encls:- As specified.

Yours faithfully,


(M. Ati, AFB)
Divisional Forest Officer
Hailakandi Forest Division, Hailakandi

Copy to:-

1. The Chief Conservator of Forests Southern Assam Circle, Silchar for kind information and necessary action.
2. The Superintendent of Police, Hailakandi for kind information and necessary action.


Divisional Forest Officer
Hailakandi Forest Division, Hailakandi

GOVT OF ASSAM
OFFICE OF THE DIVISIONAL FOREST OFFICER::HAILAKANDI FOREST DIVISION::HAILAKANDI

Letter No. HKD/DFO(T)/Border / Encroachment/Matijuri/1440-41

Dated, 27-06-2021

To,

The Deputy Commissioner,
Hailakandi

Sub: Regarding construction of most temporary shed at Kachurthol (Balicherra) encroached area under Dhalcherra BOP.

Ref: Your telephonic instruction dt. 27-06-2021.

Sir,

With the subject and reference above, I have the honour to inform you that on receipt of your instruction dt. 27-06-2021 I along with DSP, Border, Circle Inspector, Lala i/C Range Officer, Matijuri, armed police personnel, other forest and police staff went to Kachurthol area near Balicherra under Dhalcherra BOP and found a most temporary shed at Kachurthol (Balicherra) at GPS Coordinated $24^{\circ}29'12.35868''N$ $92^{\circ}44'28.13208''E$ in the Mizo encroached area occupied by Broom cultivation. The area of Broom cultivation is about 120 Hectors. During our visit nobody found in the location. The area is already encroached by Mizoram with the plea of interstate border boundary of Assam Mizoram since long back. As per Googol Map the area is within the Assam and distance of nearest border boundary is about 847 Meter. The said location is within Inner Line R.F and under Matijuri Range.

This is for favour of your kind information and necessary action.

Yours faithfully



(M. Ali, AFS)

Divisional Forest Officer
Hailakandi Forest Division, Hailakandi

Copy to the Chief Conservator of Forests, Southern Assam Circle, Silchar, for kind information and necessary action.

Copy to the Superintendent of Police, Hailakandi for kind information and necessary action.



Divisional Forest Officer
Hailakandi Forest Division, Hailakandi

GOVT OF ASSAM

OFFICE OF THE DIVISIONAL FOREST OFFICER: HAILAKANDI FOREST DIVISION: HAILAKANDI

Letter No. HKD/DFO(T)/Border / Encroachment/ 1795-67

Date: 14/07/2021

To,

The Deputy Commissioner,
Hailakandi.Sub: Illegal Construction of Mizoram Police barrack in Inner Line Reserved Forest area under
Gharmurah Range, Hailakandi District, Assam.

Ref:- Our discussion dt. 13-07-2021.

Sir,

With the subject cited above, I am to inform you that on 13-07-2021 the staff of Gharmurah Range have been reported regarding illegal construction of a new Police Barrack by the Mizoram Police and IR Battalion in Inner Line Reserved Forest under Gharmurah Range, Hailakandi District, Assam. On 14-07-2021 I along with S.P. Hailakandi and other Forest, Police personnel and Armed forces went near Boraghar area but could not proceed further more due to disorder of road condition. Another team together with C.O. Kallicherra, O/C Ramnathpur P.S, I/C Range Officer, Gharmurah, Forest and Police personnel proceeded through Gutguti BOP track and visited the aforementioned place of occurrence. And it is seen that huge nos. of Mizoram Police and IR Battalion are staying in the newly constructed Barrack. On conversation with the Mizoram Police and our team they stated that the area is within the Mizoram State and hence they are constructed the Barrack. The Mizoram officials at the Barrack are strictly rigid with their opinion. In view of maintenance of peace and tranquility in the interstate border area of Assam Mizoram no further step against the encroachment could be initiated. The GPS coordinates of the new encroached area is $24^{\circ} 09' 13.9'' N$ $92^{\circ} 27' 42.7'' E$ which is well inside the Assam territory. The location the encroachment is shown in the enclosed Google Map as per GPS coordinates together with some photographs.

In this regards, I would like to request you to take up the matter with the counterpart D.C, Mamit District, Mizoram to abstain from the illegal activities by Mizoram Police and IR Battalion in Inner Line Reserved Forest under Gharmurah Range, Hailakandi District, Assam.

This is for favour of your kind information and necessary action.

Endo:- AS specified.

Yours faithfully



(M. Ali, AFS)

Divisional Forest Officer
Hailakandi Division, Hailakandi

Copy to:-

1. The Chief Conservator of Forests Southern Assam Circle, Silchar for kind information.
2. The Superintendent of Police Hailakandi for kind information.



Divisional Forest Officer
Hailakandi Division, Hailakandi

GOVERNMENT OF ASSAM
OFFICE OF THE DIVISIONAL FOREST OFFICER; HAILAKANDI DIVISION
HAILAKANDI.

No. HKD/DFO(T)/Border-2/24/17-19

Dt/1-08-2021

To
The Chief Conservator of Forest,
Southern Assam Circle, Silchar

Sub:- Regarding illegal construction of a culvert over Bhairabi canal at Kachurhal area
Ref:- This office letter No. HKD/DFO(T)/Border/Enc-2/2413-15 Dated, 19-08-2021.

Sir,
With the subject and reference above, I have the honour to inform you that illegal construction of a culvert had been started few months ago over the Bhairahi canal located at the boundary of Assam Mizoram but due to objection and obstruction from Assam side the constructional works was stopped. On 19-08-2021 Mizoram Govt. has again started the works in the same culvert but the police have stopped the works. Today, Mizoram Govt. again intended to construct the same but failed to do the same due to intervention of Assam Police. As such the interstate border areas within Inner Line R.F under Hailakandi district is running with tense situation.

Under the circumstances, I would request your honour kindly to arrange for posting of staff against the vacant posts, allotment of departmental vehicles and sanction of fund for and cost of fuel, hiring of vehicle, etc. at the earliest so that border area duty can be done properly at the prevailing situation and according to the demand of the hours.

This is for favour of your kind information and necessary action

Yours faithfully


(J. Deka)
Divisional Forest Officer
Hailakandi Division, Hailakandi

Copy to for the Deputy Commissioner, Hailakandi kind information.
Copy to the Superintendent of Police, Hailakandi for kind information.


Divisional Forest Officer
Hailakandi Division, Hailakandi

GOVT OF ASSAM
OFFICE OF THE DIVISIONAL FOREST OFFICER
DIVISION: HAILAKANDI FOREST

Letter No. HKD/DFO(T)/Border/Enc-2/2378-80

Dated, 14-08-2021

To, The Deputy Commissioner,
Hailakandi.

Subj: Reg:- (a) Suspected to be low intensity blast and damage of Sahabnara Pakua Punji EGS L.P. School at Sahabnara Pakua Punji area under Gharmurah Range and (b) Illegal construction of Road near Dholaikhal Nala under Matijuri Range within Inner Line Reserved Forest under Hailakandi District, Assam.

Ref: Our telephonic discussion dated, 14-08-2021.

Sir,

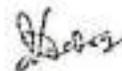
With the subject and reference above, I have the honour to furnish below the detailed information regarding (a) low intensity blast and damage of Sahabnara L.P. School at Sahabnara Pakua Punji area under Gharmurah Range and (b) illegal construction of Road near Dholaikhal Nala under Matijuri Range within Inner Line Reserved Forest under Hailakandi District, Assam as reported by the concerned i/c Range Officer.

1. On getting information regarding damage of Sahabnara Pakua Punji EGS L.P. School at Sahabnara Pakua Punji area under Gharmurah Range within Inner Line Reserved Forest in night hours of 13-08-2021 by low intensity blast the i/c Gharmurah Range along with Circle Officer Katlicherra, O.C Ramnathipur, Police Station and others Police and Forest personnel went to said place of occurrence on 14-08-2021. The GPS coordinates of the location is $24^{\circ} 10' 58.7''$ N $92^{\circ} 31' 32.9''$ E. Some photographs along with Google Map showing location of said school appended herewith.
2. That as per your instruction dt. 13-08-2021 the i/c Range Officer, Matijuri along with Circle Officer Lala, Circle Inspector, Lala Police and others Police and Forest personnel went to Dholaikhal Nala area on 14-08-2021 for field variation, wherein they have noticed that about 2.00 (Two) KM Kacha road (earthen road) constructed by the Mizoram Govt. in Inner Line Reserved Forest under Matijuri Range, Hailakandi District, Assam. But today no Mizo encroachers have been seen in the place of occurrence. The GPS coordinates of the end of newly constructed road is $24^{\circ}30'27.02''$ N $92^{\circ}44'52.6''$ E. Some photographs along with Google Map showing the end of constructed road is annexed herewith.

This is for your kind information and necessary action.

Encls:- As specified.

Yours faithfully



(J. Deka)
Divisional Forest Officer
Hailakandi Division, Hailakandi

Copy to:

1. The Chief Conservator of Forests, Southern Assam Circle, Silchar for kind information and necessary action.
2. The superintendent of Police, Hailakandi for kind information and necessary action.



Divisional Forest Officer
Hailakandi Division, Hailakandi

GOVERNMENT OF ASSAM
OFFICE OF THE DIVISIONAL FOREST OFFICER, HAILAKANDI DIVISION
HAILAKANDI.

No. HKLMDFO(T)/Border-2/ 2916(A) - (F).

Dt. 30-09-2021.

To
The Deputy Commissioner,
Hailakandi.

Sub:- Construction of road in Inner line R.F near eastern boundary of Assam Mizoram border under Matijuri Range, Hailakandi District by Mizoram Govt. is in progress and also in southern interstate boundary of Assam Mizoram under Gharmurah Range Mizoram Govt. has taken measurement of incomplete RCC culvert done by them over Dhairabi cherra on 29-09-2021 and which works was stymied in recent past by the Police of Hailakandi.

Ref:- Field visit of Police and Forest officials dt. 30-09-2021 reported by i/c R.O. Matijuri and report dt. 29-09-2021 received from i/c R.O. Gharmurah.

Sir,

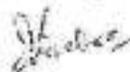
With the subject and reference above I would like to inform you that on today i.e. 30-09-2021 Forest Officer along with Police Officer and forces have been visited the Kachurthal - Balicherra area under Matijuri Range. In this regards the i/c Matijuri Range reported that the illegal road works is extended up to 3.00 Km recently within Inner Line R.F under the territorial jurisdiction of Hailakandi district by earth cutting with excavator and other equipments etc. by the Mizoram Govt. violating the role of statuesque decided by the both Govt. jointly. Some photographs of constructed road are appended herewith as ready reference.

Further, it is to be informed that the incomplete construction of RCC culvert over Dhairabi cherra, Kachurthal area located at southern interstate boundary of Assam Mizoram under Gharmurah Range by Mizoram Govt. and which works was stymied in recent past by the Police of Hailakandi. This RCC culvert has been visited by the officials of Mizoram Govt. and has taken its measurement etc on 29-09-2021 as reported by the i/c Gharmurah Range.

This is for favour of your kind information and necessary action.

Encls:- As specified.

Yours faithfully

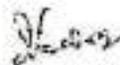


(J. Deka)

Divisional Forest Officer
Hailakandi Division, Hailakandi

Copy to:

1. The Addl. Principal Chief Conservator of Forests (T), Lower Assam Zone, Indira Nagar, Basitha, Guwahati-29 for favour of kind information.
2. The Chief Conservator of Forest, Southern Assam Circle, Silchar for favour of kind information.
3. The Superintendent of Police, Hailakandi for kind information.



Divisional Forest Officer
Hailakandi Division, Hailakandi

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Annexure-I

GOVERNMENT OF ASSAM
OFFICE OF THE DIVISIONAL FOREST OFFICER; HAILAKANDI DIVISION
HAILAKANDI

No. HKD/DFO(T)/Border-2/ 3263-66

Dt. 26-10-2021.

To
The Deputy Commissioner,
Hailakandi.

Sub:- Re-construction of incomplete RCC culvert over Bhairabi cherra and which works was stymied in recent past by the Police of Hailakandi.

Ref:- R.O. Gharmurah's letter No. Gm/31/Border/2021/234 dt. 26-10-2021.

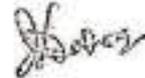
Sir,

With the subject and reference above I would like to inform you that on today i.e. 26-10-2021 the Range Forest Officer, Gharmurah Range has informed that the Mizoram Govt. has again started re-construction of incomplete RCC culvert over Bhairabi cherra. Three nos. Photographs of the constructional works of RCC culvert are annexed herewith.

This is for favour of your kind information and necessary action.

Encl:- As specified.

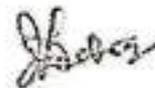
Yours faithfully



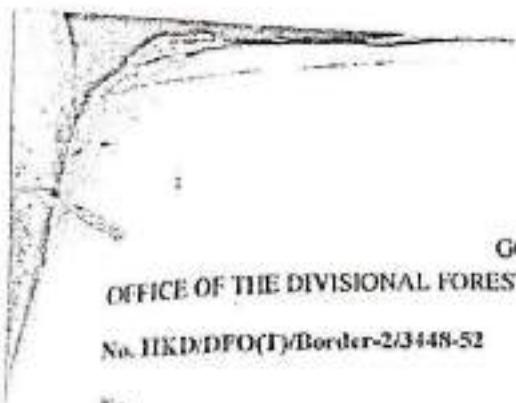
(J. Deka)
Divisional Forest Officer
Hailakandi Division, Hailakandi

Copy to:

1. The Addl. Principal Chief Conservator of Forests (T), Lower Assam Zone, Indira Nagar, Basitha, Guwahati-29 for favour of kind information.
2. The Chief Conservator of Forest, Southern Assam Circle, Silchar for favour of kind information.
3. The Superintendent of Police, Hailakandi for kind information.



Divisional Forest Officer
Hailakandi Division, Hailakandi



GOVT. OF ASSAM
OFFICE OF THE DIVISIONAL FOREST OFFICER, HAILAKANDI DIVISION, HAILAKANDI

No. HKD/DFO(I)/Border-2/3448-52

Dated 22/11/2021

To
The Deputy Commissioner,
Hailakandi.

Sub. Illegal Construction of Road in ILRF at upstream of Haticherra area by Mizoram Govt.

Ref. Our telephonic discussion dated, 21-11-2021.

Sir,

With the subject and reference above, I have the honour to inform you that Mizoram Govt. has started construction of a Road by Earth cutting at upstream of Haticherra area within ILRF under Kukicheera Range. The said road is about 2:00 KM (Aerial) inside Assam territory from the Inter State Border Boundary of Assam-Mizoram. A point of GPS Coordinates (N 24°21'15.5" E 92°38'23.6") on the said road has been taken by the staff of, Kukicheera Range. The newly constructed road length is about 3.50 KM. There is no human habitation is in and around the vicinity of the road. Some photographs of the said road are enclosed herewith for ready reference alongwith Google Map.

This is for favour of your kind information and necessary action.

Encl : As specified.

Yours faithfully


(Jayanta Deka)
Divisional Forest Officer
Hailakandi Division, Hailakandi

Copy to :

1. The Principal Chief Conservator of Forests and Head of Forest Force, Assam, Aranya Bhawan, Panjabari, Guwahati-37 for favour kind information.
2. The Addl. Principal Chief Conservator of Forests (T), Lower Assam Zone, Basistha, Guwahati-29 for favour kind information.
3. The Chief Conservator of Forests, Southern Assam Circle, Silchar for favour of his kind information.
4. The Superintendent of Police, Hailakandi for favour of his kind information and necessary action.


Divisional Forest Officer
Hailakandi Division, Hailakandi

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GOVERNMENT OF ASSAM
 OFFICE OF THE DIVISIONAL FOREST OFFICER, HAILAKANDI DIVISION HAILAKANDI.
 E-mail: hailakandiforests1992@gmail.com

No. HKD/DFO(T)/Border-2/ 261-61

Dt. 02-02-2022

To
 The Deputy Commissioner,
 Hailakandi.

Sub- Regarding encroachment by Mizo-Misceants of Mizoram at Gollacherra and Birsima area within Inner Line Reserved Forest under Gharmurah Range, Hailakandi district.
 Ref- Our telephonic discussion dt. 02-02-2022.

Sir,

With the subject and reference above I have the honour to inform you that the Range Officer, Gharmurah has reported that recently Mizo- people of Mizoram has cleared the natural forest cover of about 1.5 Hectors land in Gollacherra area within Inner Line Reserved Forest under Gharmurah Range. The place of occurrence is 500 meter (Aprox.) away from Interstate border boundary of Assam Mizoram and 500 to 600 meter (Aprox.) away from Gollacherra BOP. A Map showing the encroached area with GPS coordinates is annexed herewith as Annexure -1.

In another location at Birsima area Mizo-Misceants has started aggression in the Jhuming area of Reang encroachers. Temporary sheds of Reang encroachers in the Jhum cultivated area have been destroyed by Mizo-Misceants and obstructed the Reang encroachers in harvesting crops from their Jhum area. The place of occurrence is 600 meter (Aprox.) away from Interstate border boundary of Assam Mizoram and about 2.00Km. away from Birsima BOP and Gutguti BOP. A Map showing the encroached area with GPS coordinates is annexed herewith as Annexure -2.

This is for your kind information and necessary action.

Enck: As specified.

Yours faithfully

(J. Deka)

Divisional Forest Officer,
 Hailakandi Division: Hailakandi.

Copy to the Chief Conservator of Forest, Southern Assam Circle, Silchar, for favour of kind information.

Copy to the Superintendent of Police, Hailakandi for kind information and necessary action.

Copy to the Range Forest Officer, Gharmurah for information. He is directed to draw offence against the illegal encroacher immediately and report compliance. He should keep regular watch over the bordering areas under his Range jurisdiction and submit report regularly to the undersigned with due intimation to the Circle Officer, Katlicherra/ O.C. Ramathpur till the situation is over. This has reference to our telephonic discussion dt. 02-02-2022.

Divisional Forest Officer,
 Hailakandi Division: Hailakandi.



GOVERNMENT OF ASSAM
OFFICE OF THE DIVISIONAL FOREST OFFICER, HAILAKANDI DIVISION HAILAKANDI.
E-mail: Hailakandi forests1992@gmail.com

No. HKD/DFO(T)/Border-2/400-402

DL 09-02-2022

To
The Deputy Commissioner,
Hailakandi.

Sub:- Regarding encroachment by Mizo-Misceants of Mizoram at Gollacherra area within Inner Line Reserved Forest under Gharmurah Range, Hailakandi district.

Ref:- My visit dt. 08-02-2022 and this office letter No. HKD/DFO(T)/ Border-2/261 - 64 Dt. 02-02-2022

Sir,
With the subject and reference above I have the honour to inform you that I along with Circle Officer, Katlicherra, Range Officer, Gharmurah, O.C. Ramnathpur and other staff visited the Gollacherra area within Inner Line Reserved Forest under Gharmurah Range, Hailakandi district. During our visit it is seen that the earlier encroached area has been extended by cutting/clearing the bamboo etc. from the forest area, the total encroached area is about 3.00 Hectors. Four nos. of photographs of the area are annexed herewith for your kind apperition.

This is for your kind information and necessary action.

Encls: As specified.

Yours faithfully

(J. Deka)
Divisional Forest Officer,
Hailakandi Division: Hailakandi.

Copy forwarded together with photographs to:-

1. The Chief Conservator of Forest, Southern Assam Circle, Silchar, for favour of kind information.
2. The Superintendent of Police, Hailakandi for kind information and necessary action.

Divisional Forest Officer,
Hailakandi Division: Hailakandi.

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GOVERNMENT OF ASSAM
OFFICE OF THE DIVISIONAL FOREST OFFICER; HAILAKANDI DIVISION HAILAKANDI.
E-mail: hailakandi@forests1922@gmail.com

No. HKD/DFO(T)/Border-2/ OL/48-49

Dt. 27-02-2022

To
The Deputy Commissioner,
Hailakandi.

Subj- Regarding illegal construction of road by Mizoram Govt. at Kalapahar area within Inner Line Reserved Forest under Gharmurah Range, Hailakandi district.

Sir,

With the subject and reference above I have the honour to inform you that on 26-02-2022 I along with staff of Gharmurah Range, Gharmurah, went to foothill of Kalapahar ridge and it is learnt that about 2.00 Km away towards eastern direction from Gollacherra B.O.P Mizoram Govt have constructed new road at Kalapahar area within Inner Line Reserved Forest under Gharmurah Range, Hailakandi district. The said newly constructed road is ~~south~~ side of recent past Mizo encroached 3.00 Hectors area (Aprox.) as reported vide this office letter No. HKD/DFO(T)/Border-2/400 - 402 Dt. 09-02-2022 .

- (A). GPS Coordinates N 24°15'28.47" E92°33'12.80" is indicated for Gollacherra B.O.P in the annexed Google Earth Map).
(B). GPS Coordinates N 24°15'28.47" E92°33'12.80" is indicated the Encroached 3.00 Hectors area (Aprox.) done by Mizoram during 1st week of Feb/2022 in the annexed Google Earth Map)
(C). A point of GPS coordinates of the illegally constructed road is N 24°15'29.36" E92°34'0.23" indicated in the annexed Google Earth Map)

This is for your kind information and necessary action.

Encl: Google Earth Map.

Yours faithfully

(J. Deka)
Divisional Forest Officer,
Hailakandi Division: Hailakandi.

Copy forwarded together with photographs to:-

1. The Chief Conservator of Forest, Southern Assam Circle, Silchar, for favour of kind information.
2. The Superintendent of Police, Hailakandi for kind information and necessary action.

Divisional Forest Officer,
Hailakandi Division: Hailakandi.

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GOVT. OF ASSAM
OFFICE OF THE DIVISIONAL FOREST OFFICER, HAILAKANDI DIVISION,
HAILAKANDI

E-mail: hailakandiforests1992@gmail.com

No. HKD/DFO(T)/Border-2/OL/51-53

Date: 11/03/2022

To
The Deputy Commissioner,
Hailakandi

Sub:- Illegal Construction of temporary huts at Sahabmara area under Ghurmurah Range in Inner Line Reserved Forest.

Ref:- Our telephonic discussion dt. 11-03-2022 in the evening.

Sir,

With the above subject reference I have the honour to inform that on 11-03-2022 the staff of Ghurmura Range along with O.C. Ramnathpur Police Station and other Armed Personnel visited the place of occurrence and dismantled one abandoned temporary hut at Sahabmara area under Ghurmurah Range in Inner Line Reserved Forest constructed by Bengali encroacher. As regards another illegally constructed temporary hut done by Mizo people, the local Circle Officer and Police Officer of Mizoram appeared at the place of occurrence and approached to O.C. Ramnathpur and the Staff of Ghurmurah Range and requested not to dismantle the temporary hut at that moment because they will remove the said hut within three days. The area is adjacent to interest border boundary and hence to maintain the law and order situation. Our officers have returned back from the place of occurrence agreed with the assurance given by the counterpart officials.

A Googol Earth Map showing GPS, Coordinates of the recent detected encroached huts is annexed herewith for ready reference.

This is for your kind information and necessary action.

Encl : As specified.

Yours faithfully

(Jayanta Deka)
Divisional Forest Officer
Hailakandi Division, Hailakandi

Copy together with a Googol Earth Map forwarded to:

1. The Superintendent of Police, Hailakandi for favour of his kind information and necessary action. This has a reference to our telephonic discussion dt. 11-03-2022 in the evening.
2. The Range Forest Officer, Ghurmurah Range, Ghurmurah. This has a reference to our telephonic discussion dt. 11-03-2022 in the evening.

Divisional Forest Officer
Hailakandi Division, Hailakandi

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GOVERNMENT OF ASSAM
OFFICE OF THE DIVISIONAL FOREST OFFICER, HAILAKANDI DIVISION HAILAKANDI.
E-mail: hailakandi@forest1992a@gmail.com

No. HKD/DFO(T)/border-2/1010-12

DL 30 03 2022

To The Deputy Commissioner,
Hailakandi.

Sub- Regarding illegal digging of pits for installation of electrical post in Gollacherra area within Inner Line Reserved Forest under Gharmurah Range, Hailakandi District, Assam by the Mizoram Govt.

Sir,
With the subject and reference above, I have the honour to inform you that on today i.e 30-03-2022 the Range Officer, Gharmurah reported that Mizoram Govt. is illegally digging pits for installation of electric post meant for power supply in Gollacherra area within Inner Line Reserved Forest under Gharmurah Range, Hailakandi District, Assam. A photograph of pits is given below.
This is for your kind information and necessary action.

Yours faithfully

(J. Deka)

Divisional Forest Officer,
Hailakandi Division: Hailakandi

Copy forwarded to:-

1. The Chief Conservator of Forest, Southern Assam Circle, Silchar, for favour of kind information.
2. The Superintendent of Police, Hailakandi for kind information and necessary action.

9c

Divisional Forest Officer,
Hailakandi Division: Hailakandi.

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GOVERNMENT OF ASSAM

OFFICE OF THE DIVISIONAL FOREST OFFICER: HAILAKANDI DIVISION: HAILAKANDI.

Email: hailakandiforests1992@gmail.com.

Memo No. HKD/DFO(T)/ Border/ 309-312 1dt. 17/01/2023.

To,

The Deputy Commissioner,
Hailakandi.

Sub:- Regarding illegal activities by Mizo people near Gollacherra B.O.P. within Inner Line Reserved Forest under Gharmurah Range, Hailakandi District.

Ref:- R.O., Gharmurah's letter No. GM/31 /Border/2022/246 dt. 26.12.2022.

Sir,

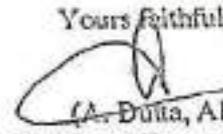
With reference to the subject cited above, I have the honour to inform you that on 26.12.2022, the Range Forest Officer, Gharmurah reported that some fresh clearing of jungle was perpetrated by Mizo people for Jhum Cultivation (Shifting cultivation) within Inner Line Reserved Forest near Gollacherra B.O.P. (G.P.S. Co-ordinate at N= 24° 25' 34" ; E= 92° 55' 66" .)

However, no Mizo people were found on the spot. The Range Officer, Gharmurah also reported that the B.O.P. personnel chased away the Mizo people and managed to secure the said areas. At present there is no any adverse situation/ tension.

This is for favour of your kind information and necessary action.

Encls:- As specified.

Yours faithfully,


(A. Dutta, AFS)
Divisional Forest Officer,
Hailakandi Divn. Hailakandi

Copy to:-

1. The Chief Conservator of Forests, Southern Assam Circle, Silchar for favour of kind information.
2. The Superintendent of Police, Hailakandi for kind information & necessary action.
3. The Range Forest Officer, Gharmurah Range, Gharmurah for information and necessary action. He is asked to regular patrolling duty and strict vigil over the area.


Divisional Forest Officer,
Hailakandi Divn. Hailakandi

1.



GOVT OF ASSAM
OFFICE OF THE DIVISIONAL FOREST OFFICER::HAILAKANDI DIVISION
HAILAKANDI

E-mail: hailakandiforests1997@gmail.com
Date: 19/03/2023

No. HKD/DFO(T)/Border/1260-63
To

The Deputy Commissioner
Hailakandi.

Subj- Report regarding Mizo encroachment at Birsima area in Inner Line Reserved Forest under Hailakandi District.

Sir,

In inviting reference to the captioned subject I have the honour to inform you that on receipt of an information regarding Mizo encroachment at Birsima area within Inner Line Reserved Forest under Hailakandi District on 08-03-2023 the Beat Forest Officer, Bhairabi Beat, Ramnathpur and O/C Ramnathpur Police Station along with other staffs proceeded to Birsima area and found that two Mizo miscreant were cleaning and dressing a hillock area for construction of a new road by an excavator. The Mizo people stated that they were engaged in the works by a Mizo contractor namely F, Zoasang of Aizawl (Mobile number of the contractor is 9612611013).

Therefore, our officials on duty have asked the miscreants to stop the works and vacate the area. The place is disputed border boundary area of Assam Mizoram and also under status-quo as per joint statement dtd. 05-08-2021 issued by the concerned authorities of the both States. A Google Map showing the location of the said encroachment is enclosed herewith.

This is for favour of your kind information and taking necessary action

Encl: As specified.

Yours faithfully

(A. Dutta, AFS)
Divisional Forest Officer
Hailakandi Division, Hailakandi.

Copy to:

1. The Chief Conservator of Forests, Southern Assam Circle, Silchar for kind information.
2. The Superintendent of Police, Hailakandi for kind information and necessary action.
3. The Range Forest Officer, Ghannurah Range for information. He is directed to arrange regular vigil over the area alongwith Birsima B.O.P. Personnel and report compliance time to time.

Divisional Forest Officer
Hailakandi Division, Hailakandi

Submitted

Divisional Forest Officer,
Hailakandi Division, Hailakandi

Annexure-B

ANNEXURE-B

Most Urgent
By Special Messenger

GOVT OF ASSAM

OFFICE OF THE DIVISIONAL FOREST OFFICER-HAILAKANDI FOREST DIVISION-HAILAKANDI

Letter No. HKD/DFO(T)/Border / Encroachment/ 1873

Date: 18/07/2021.

To,

The Superintendent of Police
Hailakandi.

Sub:- Requisition for special armed forces for Gharmurah Range under Hailakandi Forest Division

Madam,

With the subject cited above, I am to inform you that the about 80% Gharmurah Range boundary is along with Inter State Border Boundary of Assam Mizoram and the said border area is disputed area with Mizoram. Moreover the reserved forests area viz. Inner Line Reserved Forests under the Range has huge encroachment in bordering area by both Mizoram and Assam side.

Under the circumstances I would request you to provide special armed forces to conduct requisite protection measure toward prevention of further extension of encroachment and ejection of encroachers in face manners.

This is for favour of your kind information and necessary action.

Yours faithfully



(M. Ali, AFS)
Divisional Forest Officer
Hailakandi Division, Hailakandi

Copy to:-

1. The Addl. Principal Chief Conservator of Forests (T), Lower Assam Zone, Kacherighat, Guwahati-1, for kind information.
2. The Chief Conservator of Forests Southern Assam Circle, Silchar for kind information.
3. The Deputy Commissioner, Hailakandi for kind information.



Divisional Forest Officer
Hailakandi Division, Hailakandi

SEARCHED
INDEXED
SERIALIZED
FILED
18/07/2021
HAILAKANDI

ANNEXURE-C

ANNEXURE-C

OFFICE OF THE SUPERINTENDENT OF POLICE :: HAILAKANDI :: ASSAM.

Memo No. HKD/B/91/2021/324

Dated Hailakandi, the 24th July, 2021.

To

The Director General of Police,
Assam, Ulubari, Guwahati-7.

Subject:

Regarding establishing a base for special armed forces like
Commandos at Chaimursh Range of Inner-Line Reserve Forest area
under Hailakandi Forest Division.

Ref:-

Letter No. HKD/DFO(I)/Bord./Incrschsent/1373, dated 13.07.2021 of
D.F.O, Hailakandi.

Sir,

Apropos to above mentioned subject and reference, it is being brought to your kind notice that Chaimursh Range of Inner-Line Reserve Forest shares a substantial boundary with Mizoram and is under severe constant encroachment. The area is remote and due to absence of any communication in terms of roads and other facilities, it is very difficult to respond in case of any fresh encroachment attempt from Mizoram side. For the protection of the Reserve forest in this interstate border area, D.F.O, Hailakandi has requisitioned (vide above mentioned reference), Special armed forces. As the area is vast and of vital importance to the state, in view of the above, a full Battalion of Commandos etc. may be considered to be deployed in the area.

Submitted in anticipation of your kind consideration.

Yours faithfully,

Encl:- Above mentioned reference.


Superintendent of Police,
Hailakandi.

Memo No. HKD/B/91/2021/324-A

Dated Hailakandi, the 24th July, 2021.

Copy for favour of kind information to :-

1. The Spl. Director General of Police (B), Assam, Srimantapur, Guwahati-32.
2. The Spl. Director General of Police (I&AP), Assam, Ulubari, Guwahati-7.
3. The Principal Secretary to the Govt. of Assam, Home & Political Department, Assam, Dispur, Guwahati-6.
4. The Principal Secretary to the Govt. of Assam, Environment & Forest Department, Assam, Dispur, Guwahati-6.
5. The Addl. Principal Chief Conservator of Forests (I), Lower Assam Zone, Kacharighat, Guwahati-1.
6. The Commissioner & Secretary to the Govt. of Assam, Border Protection & Development, Dispur, Guwahati-6.
7. The Deputy Commissioner, Hailakandi.

Annexure 3

5/6/23
01-07/6/23



GOVT. OF ASSAM

OFFICE OF THE SUPERINTENDENT OF POLICE ::: HAILAKANDI :: ASSAM :::

Memo No. HKD/B/91/Vol-III/2023/224

Dated Hailakandi, the 26th June, 2023.

To,

The District Forest Officer,
Hailakandi Division,
Hailakandi.

Subj: -

Regarding Handing Allocation of Land at Damcherra Lyinh within Inner Line Reserve Forest under Gharmura Forest Range for Raising 2nd Commando Battalion.

Sir,

In inviting a reference to the subject cited above, I would like to bring to your kind notice that there are reports of numerous incidents of encroachments in and around Gharmura Range of Inner-Line Reserve Forest under Hailakandi Forest Division which shares a substantial boundary with Mizoram State which is a threat to the security and sanctity of the Forest lands of the State.

In view of the above, it is imperative to provide ample security with a strong and well equipped Police force in order to respond to any incident of attempt of encroachment from Mizoram side and to ensure protection of the Reserve Forest area along the inter-state border of Assam-Mizoram in order that the activities of the Forest Department to protect the Forest land, its flora and fauna is carried out without any threat of encroachment or any other disruption by miscreants.

In view of the above circumstances and keeping in mind the increasing challenges of safeguarding the Inter State Border boundaries and the evolving nature of encroachment by miscreants, it has become imperative to establish a Commando Battalion that is capable of effectively responding to such critical situations.

After careful consideration and evaluation, the authorities have identified a suitable Forest land that would be ideal for the construction of the Commando Battalion facility at Damcherra. The chosen location has been assessed to have the necessary attributes, including adequate space, accessibility and strategic positioning which are essential for the successful establishment and operation of the Commando Battalion.

Recd
17.6.23

Abhijit
17.6.23

The establishment of the Commando Battalion would be of significant value in preserving the natural resources. Further, every effort would be made to ensure minimal disruption to the environment during the construction and subsequent operation of the facility. Necessary measures such as reforestation initiatives and strict adherence to environmental regulations will be implemented to mitigate any adverse impact on the Forest ecosystem.

In view of the above, I request you to kindly hand over the aforementioned Forest land to the Hailakandi District Police accordingly.

Yours sincerely,

Superintendent of Police,
Hailakandi.

Memo No. HKD/B/91/Vol-III/2023/224-A

Dated Hailakandi, the 26th June, 2023.

Copy forwarded for favour of kind information to:-

1. The Director General of Police, Assam, Ulubari, Guwahati 7.
2. The Addl. Director General of Police (SB), Assam, Kahilipara, Guwahati 19.
3. The Inspector General of Police (TAP), Assam, Ulubari, Guwahati 7.
4. The Inspector General of Police, Border, Assam, Srimantapur, Guwahati-32.
5. The Commissioner & Secretary to the Govt. of Assam, Border Protection & Development, Dispur, Guwahati-6.
6. The Deputy Inspector General of Police (SR), Assam, Silchar.
7. The Managing Director, Assam Police Housing Corporation, Assam, Rehabari, Guwahati 8.
8. The Deputy Commissioner, Hailakandi.

Superintendent of Police,
Hailakandi.

**SITE VISIT REPORT ON 2nd COMMANDO BATTALION CAMP AT DAMCHERA WITHIN
INNERLINE RESERVE FOREST UNDER GHARMURA RANGE, HAILAKANDI FOREST
DIVISION**

1.1 INTRODUCTION

An environment activist has filed a complaint with the Ministry of Environment, Forest & Climate Change accusing the Assam Government's top Forest Official of illegally diverting 44 hectares of protected forest land for a Commando Battalion headquarters in Barak Valley. The complaint alleges that mandatory provisions under the Forest (Conservation) Act, 1980 were bypassed for the construction of the 2nd Assam Commando Battalion Unit Headquarters inside the Inner Line Reserved Forest in Hailakandi district. The said complaint was published in Northeast Now News dated 25.12.2023 titled "*Assam: PCCF MK Yadava accused of illegally clearing protected forest for Commando Battalion*".

The Hon'ble National Green Tribunal(NGT), Principal Bench (PB)vide Order dated 23.01.2024 had registered *Suo-Moto* Original Application No. 61/2024/PB on the basis of the said news item published in Northeast Now News dated 25.12.2023. Vide the said Order, the Hon'ble NGT observed that the News item raises a substantial issue regarding compliance of environmental norms and accordingly has impleaded and issued notices to the concerned authorities of the Central and State Government as Respondents in the instant proceedings.

Ministry, New Delhi vide letter dated 16.02.2024 has requested Regional Office, Shillong to examine the matter in detail and submit a factual report with specific recommendations.

1.2 STAND OF THE PCCF & HoFF, GOVT. OF ASSAM

The PCCF & HoFF, Govt. of Assam has filed an Affidavit dated 21.01.2024 before the Hon'ble NGT, Principal Bench in Original Application No. 61/2024/PB. The PCCF & HoFF in his Affidavit has taken a stand as under:

- i. no illegal diversion of 44 hectares of forest land has been done as it was only for the purpose of setting up camp for the Commando Battalion, which was created for protection of the Inner-line Reserved Forest, the space was allowed, as per the decision of the Cabinet of the Government of Assam, along the Assam-Mizoram border, which is under severe threat in the form of encroachment from the people of Mizoram wherein Assam is having border dispute and encroachment.
- ii. no mandatory procedure under the Forest Conservation Act, 1980, has been bypassed and/or violated to grant permission for the construction of the Assam Commando Battalion Headquarter inside the Inner Line Reserved Forest in Hailakandi district. The Forest Conservation Act, 1980, has adequate provisions for any work which is ancillary to conservation and the Commando Battalion, which is an "Operation Battalion" and which is not a regular law and order, enforced battalion, has been set up only with the sole objective of protection of the Inner Line Reserved Forest, solely on the request of the DFO, and Superintendent of Police, Hailakandi, made to the Director General of Police, Assam. The forest protection and ancillary activities do not require permission of the State or the Central Government under the Act.

- iii. no question of malafide intention on the part of the DFO and PCCF & HoFF in allowing the Commando Battalion to be set up inside the Inner Line Reserved Forest, which has been set up only for the protection of the Inner Line Reserved Forest and stopping further encroachment and aggression from Mizoram side as the sole objective.
- iv. The PCCF has referred to the explanation (b) of Section 2 of the Forest(Conservation) Act, 1980, which states that – ‘..... but does not include any work relating or ancillary to conservation, development and management of forests and wild life, namely, the establishment of check posts, fire lines, wireless communications and construction of fencing, bridges and culverts, dams, waterholes, trench marks, boundary marks, pipelines or other like purposes.’ Accordingly, the camp that has been set up with in the Inner Line Reserve Forests was only for the purpose of protection and conservation of forests.

1.3 CHRONOLOGICAL ORDER OF EVENTS W.R.T SETTING OF 2ND COMMANDO BATTALION CAMP AT DAMCHERA IN INNERLINE RESERVE FOREST UNDER GHARMURA RANGE, HAILAKANDI FOREST DIVISION:

This Office through Sub-Office Guwahati letter dated 08.02.2024 had requested the Addl. Chief Secretary, Environment & Forest Department, Govt. Of Assam seeking an appointment on 13.02.2024 for discussion on the matter in issue however due to other preoccupations the meeting could not happen and discussion was held with the PCCF and HoFF, Assam.

Regional Office, Shillong had sought details from the State Government on the alleged violation for setting of 2nd Commando Battalion Camp at Damchera within the Inner Line Reserve Forest. State Government has accordingly submitted the information and the following chronological order of events can be construed based on the submission of the State Govt and the Site visit of the Regional Office, as under:

Sl No.	Date	Brief Description of Event
1.	09.03.1933	Government Notification under Section 2 of the Bengal Eastern Frontier Regulation, 1873 prescribing boundaries of ‘Inner Line Reserved Forest’ Annexure-I
2.	18.07.2021	Divisional Forest Officer, Hailakandi requested Superintendent of Police, Hailakandi to provide special armed forces to conduct requisite protection measures toward prevention of further extension of encroachment and ejection of encroachers. Annexure-II
3.	24.07.2021	Superintending of Police, Hailakandi forwarded the request of DFO, Hailakandi letter dated 18.07.2021 to Director General of Police, Ulubari, Guwahati, Assam. Annexure-III
4.	28.07.2021	Cabinet’s approval for creation of five new Commando Battalions of Assam Police. Annexure-IV
5.	22.10.2021	Sanctioning Order from Home & Political Department, Govt. Of Assam for raising 1 (one) new Assam Commando Battalion i.e. 2 nd Assam Commando Battalion (Operation), Birsima, Hailakandi along with creation of posts. Annexure-V
6.	27.12.2021	Chief Engineer, Assam Police Housing Corporation vide Notice no. APHC/T/22/2021-22/02, dated 27/12/2021 floated the tender inviting eligible contractors for ‘Raising of New Assam Police Battalions at different location of Assam’. Annexure VI
7.	13.02.2023	Assam Police Housing Corporation issued Notice to proceed with Work for raising new Assam Police Commando Battalion at Damchera in Gharmura Range in favour of M/s. Badri Rai & Company with a tender value of Rs. 1,39,93,44,801.51 /-. Annexure-VII

8.	26.06.2023	Superintendent of Police, Hailakandi requested the Divisonal Forest Officer, Hailakandi to hand over the forest land in favour of the Hailakandi District Police. Annexure VIII
9.	20.07.2023	DFO, Hailakandi informed the CCF, Southern Assam Circle, Silchar to take up the matter with the higher authorities for strengthening the armed forces for protections duties in the interstate border area in ILRF to prevent further encroachment activities. It was also informed a proposal has already been submitted for departmental operation of 21 nos. of trees standing in the proposed area as per the provisions laid down in the approved Working Plan (2022-23 to 2032-33) for Hailakandi Forest Division. Accordingly, request was made to accord permission for establishment of 2 nd Battalion Unit at Damchera in Inner Line RF. Annexure-IX
10.	27.07.2023	CCF, Southern Assam Circle requested the Addl. Principal Chief Conservator of Forests (T), Lower Assam Zone to consider the proposal and request the PCCF & HoFF, Assam for according permission towards establishment of 2 nd Commando Battalion unit at Damchera area under Gharmura Range of Hailakandi Division of 43.99 Ha and also permission for felling 21 nos. of trees. Annexure-X
11.	28.07.2023	Addl. Principal Chief Conservator of Forests (T), Lower Assam Zone brought to notice of the Principal Chief Conservator of Forests, Assam certain points inter-alia ' <i>ideally, this calls for permission under the Forest (Conservation) Act, 1980 for diversion of forest area for non-forest purpose since Reserved Forest area is involved, unless Government decides otherwise</i> '. Accordingly request was made to the PCCF, Assam to take a suitable decision on the same. Annexure-XI
12.	03.08.2023	PCCF & HoFF, Assam returned the proposal to the Addl. PCCF (T), Lower Assam Zone with a request to look into the proposal and reconsider the same considering the merit of the requirement. Annexure-XII
13.	07.08.2023	Addl. PCCF (T), Lower Assam Zone submitted the proposal to the PCCF & HoFF, Assam for allotment of land for establishment of 2 nd Commando Battalion Unit inside Inner Line Reserved Forest of Damchera area under Gharmura Range, Hailakandi Division for consideration. Annexure-XIII
14.	28.09.2023	PCCF & HoFF, Assam wrote to the Addl. PCCF (T), Lower Assam Zone informing that the proposal for 43.99 Ha for establishment of 2 nd Commando Battalion Unit in the Inner Line RF is for protection and conservation of Reserved Forest and qualifies as an activity relating to conservation of forests mentioned under Section 2 (b) of the Forest (Conservation) Act, 1980. Accordingly permission was given for the establishment of the proposed 2 nd Commando Battalion Unit in the interest of conservation and protection of forest land. Annexure-XIV
15.	05.10.2023	CCF, Southern Assam Circle, Silchar informed the DFO, Hailakandi that the PCCF, Assam has allowed the establishment of 2 nd Commando Battalion inside Inner Line RF at Damchera under Gharmura Range in the interest of conservation and protection of forest land. Accordingly, CCF had requested DFO, to take necessary action strictly following the Forest Conservation Act, 1980 and related guidelines. Annexure XV
16.	26.10.2023	Range Forest Officer, Gharmura Range Office has informed the DFO, Hailakandi that after receiving due clearances from PCCF & HoFF, Assam, the construction work for establishment of 2 nd Commando Battalion unit at Damchera inside Inner Line RF has begun at the designated site measuring 43.99 Ha which has been degraded due to encroachment and paddy cultivation. Annexure XVI
17.	27.10.2023	DFO, Hailakandi informed the CCF, Southern Assam Circle that establishment of 2 nd Commando Battalion unit at Damchera inside Inner Line RF will not violate the Forest (Conservation) Act, 1980 and its related

	guidelines since the unit will vehemently be helpful in conservation and protection of forest land within the provision of Section 2 (b) of the Forest (Conservation) Act, 1980. Annexure XVII
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1.4 SITE VISIT ON THE 2nd COMMANDO BATTALION CAMP AT DAMCHERA WITHIN INNERLINE RESERVE FOREST UNDER GHARMURA RANGE, HAILAKANDI FOREST DIVISION:

The Site Visit was conducted by Ministry of Environment, Forest & Climate Change, Regional Office, Shillong, on the alleged illegal clearing of forest land for the 2nd Commando Battalion Camp at Damchera in Inner Line Reserve Forest under Gharmura Range, Hailakandi Forest Division on 8th March, 2024 represented by:

- (i) Shri W. I. Yatbon, Deputy Inspector General of Forests (Central) and
- (ii) Shri Gary R. Majaw, Legal Assistant/Consultant

Accompanying the team was Officials from the State Government and User Agency as under:

- (i) Shri M. Tunlung, Chief Conservator of Forests, Southern Assam Circle, Silchar,
- (ii) Shri Akhil Dutta, Divisional Forest Officer, Hailakandi Forest Division,
- (iii) Shri Paul Lalhlinsang, Officer-In-Charge, Ramnathpur Police Station, Hailakandi.
- (iv) Shri DhruvaJyoti Das, Range Officer, Range Forest Office, Gharmura Range,
- (v) Shri ChiranjitDutta, Executive Engineer, Assam Police Housing Corporation
- (vi) Shri Mobrur Ahmed, Assistant Engineer, Assam Police Housing Corporation
- (vii) Shri Ashish Kumar Jaiswal, Project Manager, M/s BadriRai& Company.

Prior to the Site visit, Regional Office, Shillong through Sub-Office, Guwahati (MoEF&CC) issued letter dated 01.03.2024 to the Addl. Chief Secretary, Environment & Forest Department, Govt. of Assam informing that site visit to ascertain the facts of the area in issue will be conducted on 7th and 8th March, 2024 and accordingly, State Government was requested to furnish the following information:

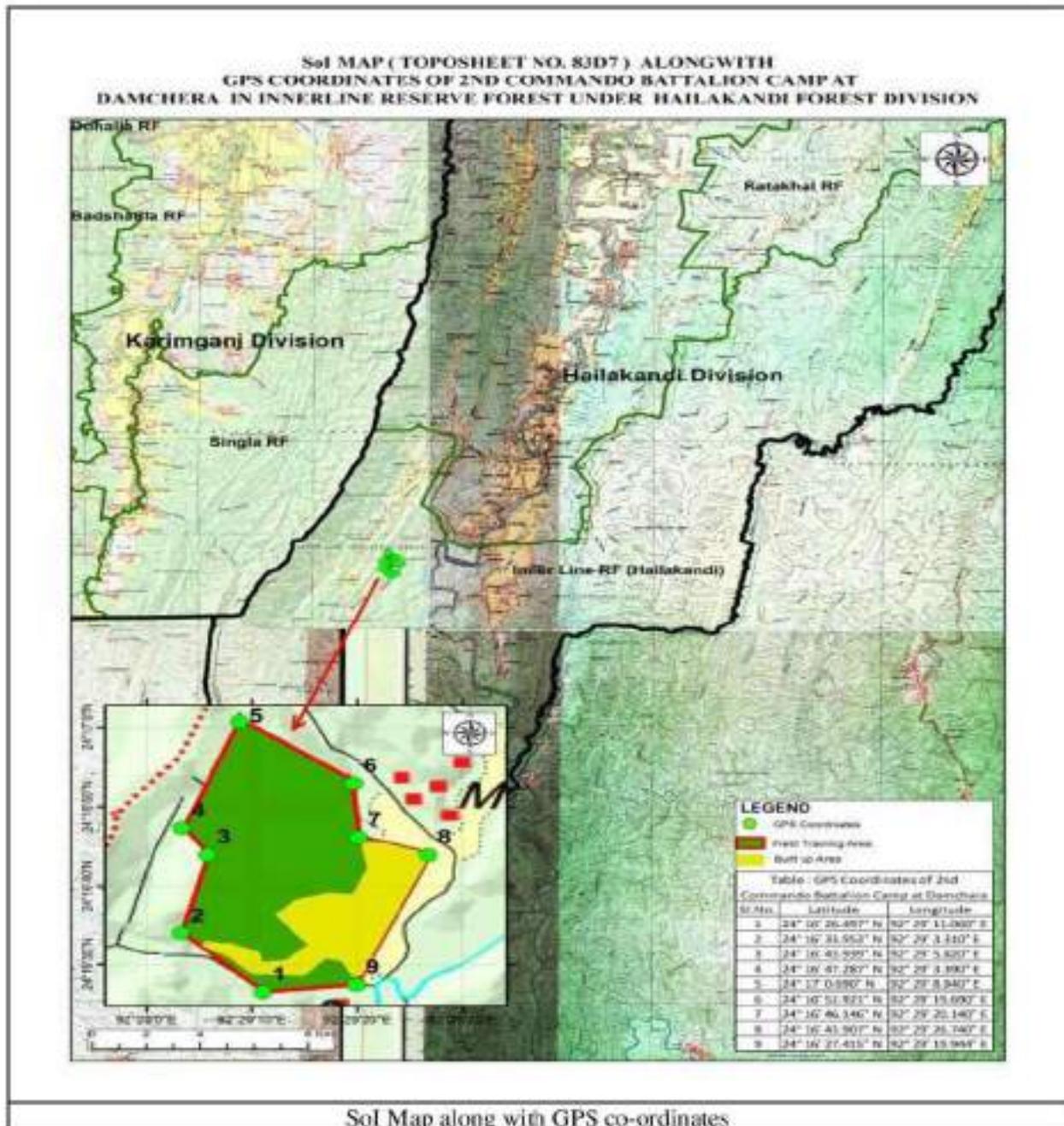
- 1) The purpose-wise break-up of the 44 ha land with layout map.
- 2) The detailed project report (DPR) of the construction of the Commando Battalion.
- 3) The original or colour scan Sol map along with GPS coordinates with proper legend.
- 4) The soft copy of the Kml/shape file.
- 5) The copy of Notification letter of the Reserved Forest land or which the Battalion is being established.
- 6) The order copy of the State Govt. for establishment of Commando Battalion at Hailakandi.
- 7) The order copy of (i) the State Govt./authority authorizing diversion of forest land for establishment of Commando Battalion at Hailakandi and (ii) order copy of handing over of land if any, from the Forest Department for construction/ establishment of the Commando Battalion.
- 8) The order copy of the State Govt. assigning duties to the Commando Battalion.
- 9) The rank-wise breakup of the officers and men to be stationed in the Battalion.

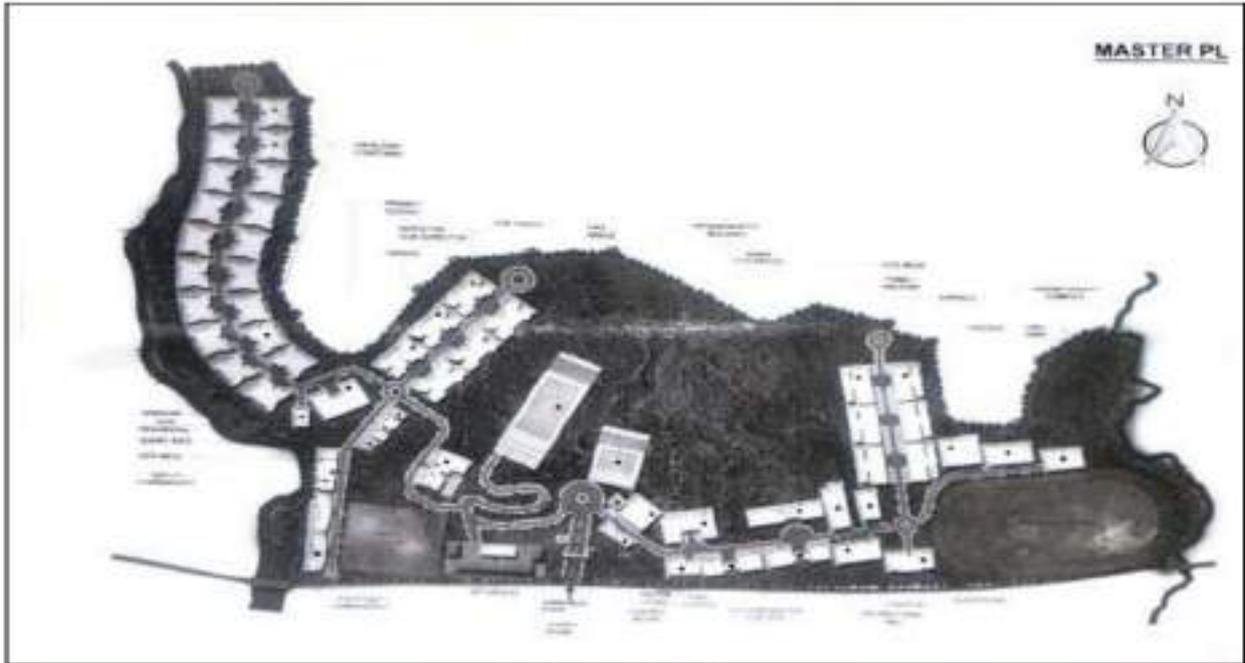
On the request made by Sub-Office, Guwahati, MoEF& CC, State Government vide letter dated 06.03.2024 has furnished the desired information which is marked as **Annexure-XVIII**

1.5 BRIEF OVERVIEW OF FINDINGS:

On reaching the site, it was observed that the construction was on-going in full swing with around 500 workers and construction vehicles wherein the issue is under consideration before the Hon'ble NGT, Principal Bench. The officials present on site informed that the construction is on-going day and night. Officials from Assam Police Housing Corporation Ltd. has shown the Master Plan map of the site (**Annexure-XIX**) and as per the Master Plan some of the building structures are about 50% completed and whereas some of the structures have just started construction wherein only pillars of the same have been erected. **Photos illustrated at table 1.1**

Table 1.1: Illustration of photos/maps





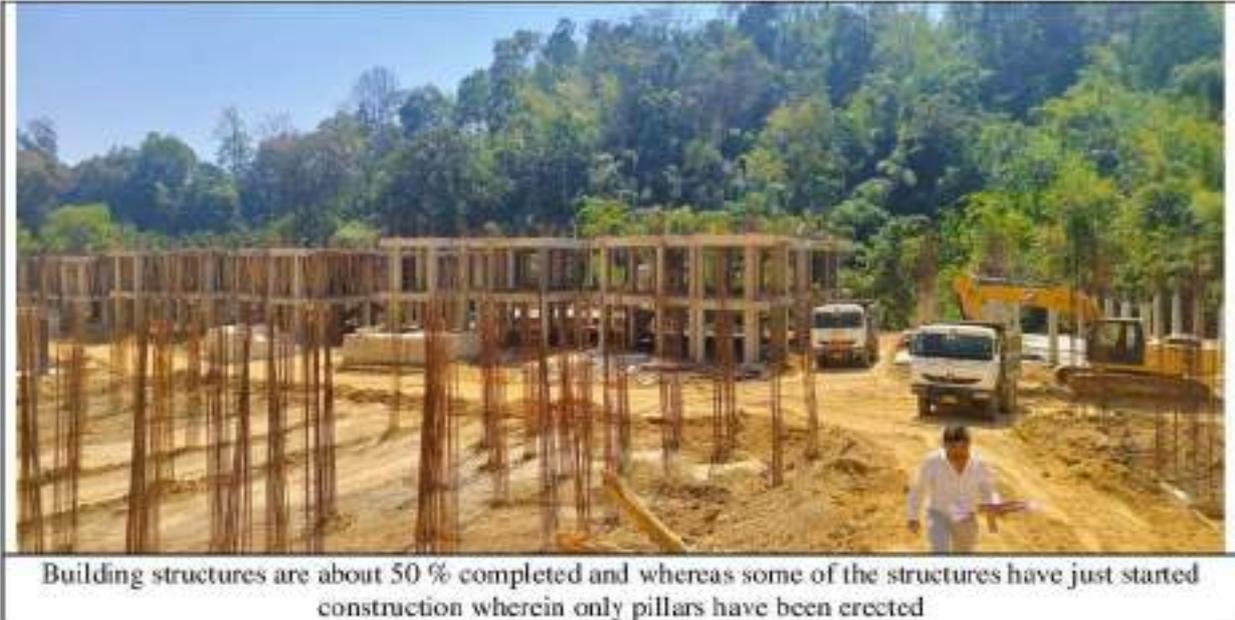
Master Plan of the Site



Overview of the Site



Workers in progress of the construction



Building structures are about 50 % completed and whereas some of the structures have just started construction wherein only pillars have been erected

1.6 AREA STATEMENT OF BUILDING STRUCTURES:

(A) RESIDENTIAL BUILDINGS as reflected in the Master Plan:

Sl No.	Name of Buildings	No. of Units	Floors	Built up area	Blocks	Total Area (in sqm.)	No. of Units	Blocks	Total Area (in sqm.)
1.	C.O's Residential	1	G+1	250.00	1	250.00	1	1	250.00
2.	Garage		G	40.00	1	40.00		1	40.00
3.	Sentry Post		G	16.00	1	16.00		1	16.00
4.	Guard Shed		G	74.00	1	74.00		1	74.00
5.	Deputy Commandant	4	G+1	720.00	1	720.00	4	1	720.00
6.	Assistant Commandant	8	G+1	600.00	2	1,200.00	8	2	1,200.00
7.	Inspector, SI	45	G+1	1,040.00	5	5,200.00	32	4	4,160.00
				650.00	1	650.00			
8.	Havaldar, ASI, Constable	190	G+1	744.00	23	17,112.00	96	12	8,928.00
				558.00	1	558.00			
9.	Followers	8	G+1	640.00	1	640.00	8	1	640.00
10.	Accommodation for SO's (Insp., SI)	40	G+1	600.00	2	1,200.00	20	1	600.00
11.	Barrack (Havaldar, Const., Followers)	504	G+1		8	8064.00	240	4	3,840.00
	Total Strength	800					409		
TOTAL BUILT UP AREA									20,468

(B) NON-RESIDENTIAL BUILDINGS:

Sl No.	Name of Buildings	No. of Units	Floors	Built up area	Blocks	Total Area (in sqm.)	No. of Units	Blocks	Total Area (in sqm.)
1.	C.O's Office Building		G+1	1083.00	1	1083.00		1	1083.00
2.	Garage		G	40.00	1	40.00		1	40.00
3.	Sentry Post		G	4.00	2	8.00		2	8.00
4.	M.T. Garage with office (20 vehicles)		G	870.00	1	870.00		1	870.00
5.	Ration Store and Clothing Store		G+1	300.00	1	300.00		1	300.00
6.	Magazine/Kote Building with explosive depot		B+G	350.00	1	350.00		1	350.00
7.	GO'S Mess/Guest House		G+1	650.00	1	650.00		1	650.00
8.	SO'S Mess		G+1	870.00	1	870.00		1	870.00
9.	Community Center with Canteen, Saloon, Laundry block		G	600.00	1	600.00		1	600.00
10.	Hospital (10 beds)		G	330.00	1	330.00		1	330.00
11.	Drill shed with stage		G	400.00	1	400.00		1	400.00
12.	Gate complex with 10 men barrack		G	175.00	1	175.00		1	175.00
13.	Watch Towers		G	5.00	10	50.00		10	50.00
14.	Fire Station with Barrack		G+1	350.00	1	350.00		1	350.00
15.	ATM		G	15.00	1	15.00		1	15.00
16.	Control Room		G	50.00	1	50.00		1	50.00
17.	Classroom Block with Computer lab		G+1	700.00	1	700.00		1	700.00
18.	Indoor sports complex with gym.		G+1	800.00	1	800.00		1	800.00
19.	Primary School		G	560.00	1	560.00		1	560.00
20.	Family Welfare		G	500.00	1	500.00		1	500.00
21.	Naamghar		G	300.00	1	300.00		1	300.00
22.	Recreation Hall		G	400.00	1	400.00		1	400.00
	Total Strength	800							
TOTAL BUILT UP AREA									9,201.00

(C) ABSTRACT:

Residential Buildings	20,468.00sqm.
Non Residential Buildings	9,201.00sqm.
Total Built Up Area	29,669.00sqm.

1.7 INSPECTION ON BUILDING STRUCTURES:

I. RESIDENTIAL BUILDINGS:

(i) Havaldar/Constable, Inspector/Sub-Inspector and Followers Building Quarters:

The site of the building structures for Havaldar/Constable, Inspector/Sub-Inspector and Followers Quarters are in the initial stages of construction with some structures having pillars and slabs and some structures have only pillars and rods erected. As per the Master Plan, the said building structures will be G+1 having 4 (four) blocks for Inspector/Sub-Inspector, 12 (twelve) blocks for Havaldar/Constable and 1 (one) block for Followers. The total built up areas of the structures is 13,728.00 sqm. **Photos illustrated at Table 1.2 below.**

Table 1.2: Havaldar /Constable, Inspector/Sub-Inspector and Followers Quarters



(ii) Assistant Commandant and Deputy Commandant Building Structures

As per the Master Plan the building structures for the Assistant Commandant and Deputy Commandant will be G+1. The Assistant Commandant will be of 1 (one) block and Deputy Commandant will be of 2 (two) blocks.

The site of the building structures for the Assistant Commandant has not yet been erected or constructed. However, the Deputy Commandant Building Structure are in the initial stages of construction with one block having only the pillars erected and the other block having pillars and slabs constructed. The total built up area of Deputy Commandant Building Structures is 720 sqm. **Photos illustrated at Table 1.3 below.**

Table 1.3: Deputy Commandant Building Structures



(iii) Barracks for Havildar, Constable, Followers;

As per the Master Plan the building structures of Barracks for Havildar, Constable and Followers will be G+1 of 4 (four) blocks having a built up area of 3,840.00 sqm. The building structures are at 40-50 % completion with rooms and staircase. **Photos illustrated at Table 1.4 below.**

Table 1.4: Barracks for Havildar, Constable and Followers



(iv) **Other observations w.r.t Residential Buildings:**

As per the Master Plan, the site for C.O's Residential Building, Garage, Sentry Post, Guard Shed and Accommodation for SO's (Insp., SI) were not observed on site and can be said that the construction for the said structures have not started. The built up area for these structures if constructed will be 2180 sqm.

II. **NON-RESIDENTIAL BUILDINGS:**

(i) **Primary School:**

As per the Master Plan, the building structure of the Primary will be G floor structure of 1 (one) block having a built up area of 560.00 sqm. However, on site, the building structure is only in the initial stages of construction with only pillars erected. **Photos illustrated at Table 1.5 below.**

Table 1.5: Primary School



(ii) **Naamghar**

As per the Master Plan, the building structure of the Naamghar will be G floor structure of 1 (one) block having a built up area of 100.00 sqm. However, on site, the building structure is only in the initial stages of construction with only pillars erected. **Photos illustrated at Table 1.6 below.**

Table 1.6: Naamghar**(iii) Magazine/Kote building with explosive depot**

As per the Master Plan, the building structure of the Magazine/Kote building will be B+G floor structure of 1 (one) block having a built up area of 350.00 sqm. However, on site, the building structure is only in the initial stages of construction with only pillars erected. **Photos illustrated at Table 1.7 below.**

Table 1.7: Magazine/Kote building with explosive depot**(iv) Ration Store & Clothing Store:**

As per the Master Plan, the building structure of the Ration Store & Clothing Store building will be G+1 structure of 1 (one) block having a built up area of 300.00 sqm. However, on site, the building structure is only in the initial stages of construction with only the ground floor having constructed rooms and the 1st floor having only pillars erected. **Photos illustrated at Table 1.8 below.**

Table 1.8: Ration Store& Clothing Store**(v) Admin, CO's Office Building:**

As per the Master Plan, the building structure of the Admin, CO's Office Building will be G+1 structure of 1 (one) block having a built up area of 1,083sqm. However, on site, the building structure is only in the initial stages of construction with only the ground floor having constructed rooms and the 1st floor having only pillars erected. **Photos illustrated at Table 1.9 below.**

Table 1.9: Admin, CO's Office Building**(vi) Hospital**

As per the Master Plan, the building structure of the Hospital Building of 10 (ten) beds will be G floor structure of 1 (one) block having a built up area of 330sqm. However, on site, the building structure is only in the initial stages of construction with only the pillars erected. **Photos illustrated at Table 1.10 below.**

Table 1.10: Hospital Building**(vii) SO's and GO's/ Guest House Mess Building**

As per the Master Plan, the building structure of the SO's and GO's/ Guest House Mess Building will be G+1 floor structure of 1 (one) block each having a built up area of 650.00sqm. for GO's/Guest House and 870.00sqm. for SO's Mess. However, on site, the building structure is only in the initial stages of construction with only the pillars erected. **Photos illustrated at Table 1.11 below.**

Table 1.11: SO's and GO's/ Guest House Mess Building**(viii) Recreational Hall**

As per the Master Plan, the building structure of the Recreational Hall will be G floor structure of 1 (one) block having a built up area of 400.00sqm. However, on site, the building structure is only in the initial stages of construction with only the pillars erected. **Photos illustrated at Table 1.12 below.**

Table 1.12: Recreational Hall**(ix) Family Welfare Center building:**

As per the Master Plan, the building structure of the Family Welfare Center building will be G floor structure of 1 (one) block having a built up area of 500.00 sqm. However, on site, the building structure is only in the initial stages of construction with only the pillars erected and on-going construction. **Photos illustrated at Table 1.13 below.**

Table 1.13: Family Welfare Center**(x) Classroom block with computer lab building**

As per the Master Plan, the building structure of the Classroom block building will be G+1 floor structure of 1 (one) block having a built up area of 700.00 sqm. However, on site, the building structure is only in the initial stages of construction with only the pillars erected and on-going construction. **Photos illustrated at Table 1.14 below.**

Table 1.14: Classroom block with computer lab building



(xi) **Community Center with Canteen, Saloon and Laundry block:**

As per the Master Plan, the building structure of the Community Center with Canteen, Saloon and Laundry block building will be G floor structure of 1 (one) block having a built up area of 600.00 sqm. However, on site, the building structure is only in the initial stages of construction with only the pillars erected and on-going construction. **Photos illustrated at Table 1.15 below.**

Table 1.15: Community Center with Canteen, Saloon and Laundry block



(xii) **Indoor Sports Complex with Gym:**

As per the Master Plan, the building structure of the Indoor Sports Complex with Gym building will be of G+1 floor structure of 1 (one) block having a built up area of 800.00 sqm. However, on site, the building structure is only in the initial stages of construction with only the pillars erected and on-going construction. **Photos illustrated at Table 1.16 below.**

Table 1.16: Indoor Sports Complex with Gym**(xiii) Drill Shed with stage:**

As per the Master Plan, the building structure of the Drill Shed with stage will be of G floor structure of 1 (one) block having a built up area of 400.00 sqm. However, on site, the building structure is only in the initial stages of construction with only small pillars and rods erected. Photos illustrated at Table 1.16 below.

Table 1.17: Drill Shed**(xiv) Other Observations w.r.t Non residential buildings:**

Besides the above observations, the site near the Halvadar/Constable Quarter buildings is a small stream running near the site, the soil from the construction site is being directly dump near the site thereby affecting the natural flow of the stream. A number of labour camps were seen

scattered throughout the site. A small stone crushing unit was also seen on the site for continuous supply of stones for the construction site. The site for firing range was observed. The Football field/running track was also observed with incomplete boundary walls surrounding the site. Photos illustrated at Table 1.18 below.

Table 1.18: Other observations w.r.t Non residential buildings

	
<p>Soil from the construction site is being directly dumped near the site thereby affecting the natural flow of the stream nearby.</p>	<p>A number of labour camps were seen scattered throughout the site</p>
	
<p>A number of labour camps were seen scattered throughout the site</p>	<p>A small stone crushing unit was also seen on the site for continuous supply of stones for the construction site</p>
	
<p>Site for firing range was observed</p>	<p>Football field/running track was also observed with incomplete boundary walls surrounding the site</p>

1.8 Observations made on the north-eastern side of the 32.5 ha plot (Field Training Area of the Battalion Camp)

The site has been perambulated on the east- north-eastern side and it was found that the boundary of the plot goes along an unmotorable old path/kaccha road. It is observed that some local encroachers house and bettlenut plantation are within the 32.5 ha plot. As per the local officers, these occupants within the 44 ha plot have agreed to vacate once the construction of the Battalion is complete. Such encroachments are also observed beyond the 44 ha plot. **Photos illustrated at Table 1.19 below:**

Table 1.19: Observations made on the north-eastern side of the 32.5 ha plot (Field Training Area of the Battalion Camp)

	
<p>Construction of boundary pillar of the 44 ha plot</p>	<p>View of the outside boundary wall of the 11.5 ha</p>
	
<p>View of the camp from 32.5 ha boundary kaccha road</p>	<p>32.5 ha boundary kaccha road</p>
	
<p>Encroached house within the 32.5 ha</p>	<p>View of dense forest beyond the 44 ha plot</p>

1.9: OBSERVATIONS:

From the papers made available to this office and at the time of site visit it is revealed that:

- i. The area on which the construction of the Battalion is in Inner Line RF declared as an RF vide Notification No. 2106A dated 9th March, 1933.
- ii. The area of 44 ha consists of 2 parts, 11.5 ha for build-up area and 32.5 ha for training purpose.
- iii. The area in 11.5 ha build up area is devoid of vegetation and found levelled. It was informed that the area is evicted encroachment area and was of rice fields and plantations before. The vegetation in the rest of the area of 32.5 ha is mostly covered with moderately dense forest interspersed with teak plantations mixed with Gmelinaarboreaor Gamari. There are extensive encroachment all over the area visited across the length and breadth of the RF in the form of rice fields, bettlenut plantation, dwelling houses etc.. The area of the RF does not appear to have been demarcated.
- iv. There is no report of wildlife presence in the area except wild boar, as informed by the field staff.
- v. The site of 11.5 ha does appear to have been encroached and evicted. The area is not fully cleared of the encroachment as seen from the presence of the mosque, and some settlements nearby and within the 44 ha itself being occupied by the local population of the state of Assam.
- vi. As per the forest officers accompanying the undersigned, no tree is being felled for the construction of the Battalion as the area is encroachment-eviction area.
- vii. The site for the construction of the Battalion was selected jointly by the DFO and the Police Deptt as per the letter dated 26.06.2023 keeping in view the strategic location and vicinity to the borders.
- viii. The DFO vide his letter dated 18.07.2021 has requested the SP, Hailakandi to provide Special Armed Forces to conduct requisite protection measures towards prevention of further extension of encroachment and ejection of encroachers.
- ix. The Home & Political Department, Govt. of Assam vide their letter dated 22.10.2021 Notified for raising 1 (one) new Assam Commando Battalion i.e. 2nd Assam Commando Battalion (Operation), Birsima, Hailakandi alongwith creation of posts.
- x. The Police Department, Govt. Of Assam issued order No HMA.113/2021/Pt/29 dated 22.10.2021, specifying the posts and force strength is the Battalion as follows:

Sl No.	Rank	Gazetted/Non-Gazetted posts	No. Of post for each Battalion
Force Personnel			
1.	Commandant (SP Rank)	Gazetted Post	1
2.	Deputy Commandant (Addl. SP Rank)	Gazetted Post	3
3.	Asstt. Commandant (Dy. SP Rank)	Gazetted Post	7
4.	Inspector	Non-Gazetted Post	16
5.	Sub-Inspector	Non-Gazetted Post	64
6.	Havildar	Non-Gazetted Post	112
7.	Constable	Non-Gazetted Post	480
8.	Followers		72

	Cook – 20 Multitasking and Maintenance Staff – 18 Water Carrier – 18 Dhubi – 8 Barber – 8	Non-Gazetted Post	
Medical Staff			
9.	Sr. Medical & Health Officer	Gazetted Post	1
10.	Medical & Health Officer	Gazetted Post	1
11.	Physio Therapist	Non-Gazetted Post	1
12.	ASI (Pharmacist)	Non-Gazetted Post	1
13.	Hav (X-ray Asstt)	Non-Gazetted Post	1
14.	Lab Technician	Non-Gazetted Post	1
15.	Staff Nurse	Non-Gazetted Post	2
16.	Hav. Nurse	Non-Gazetted Post	2
17.	Const. Nurse	Non-Gazetted Post	10
18.	Dhai	Non-Gazetted Post	1
APRO Staff			
19.	Inspector	Non-Gazetted Post	1
20.	S.I (Radio Operator)	Non-Gazetted Post	3
21.	S.I (Technician)	Non-Gazetted Post	1
22.	ASI (Radio Operator)	Non-Gazetted Post	4
23.	ASI (Cypher)	Non-Gazetted Post	1
24.	HC (WO/WT/Cy)/Cn (WO/WT/Cy)	Non-Gazetted Post	14
Grand Total			800

- xi. The work for the construction of the Battalion Camp was tendered by Assam Police Housing Corporation Ltd. vide Tender Notice no. APHC/T/22/2021-22/02, dated 27/12/2021.
- xii. The Work Order was issued by Assam Police Housing Corporation Ltd. vide Order No: APHC/CS/80/2021-22 dated 13.02.2023 to M/s. Badri Rai & Company.
- xiii. The PCCF and HoFF of Assam vide order dated 28.09.2023 gave a go-ahead for the construction of the Battalion on the ground that the work is ancillary to forest protection.
- xiv. The work was said to have started in October 2023 as per the Forest Department officers (DFO, RFO) and Assam Police Housing Corporation representatives.
- xv. As per the DPR of the project the plinth area is 29,669.00sq metre.
- xvi. The breakup of the land is as below:

Allotted Land for 2nd Commando Battalion Unit within the ILRF: **43,9900.00 sqm.**

Built up area : **11.5 ha**

Plinth area of the structures : **29,669.00sqm**

- xvii. The units to be constructed and the progress of their construction is as below:

Sl No	Name of the unit	Plinth area in sqm.	Status of construction
Residential Buildings			
1.	C.O's Residential	250.00	On-going construction
2.	Garage	40.00	On-going construction
3.	Sentry Post	16.00	On-going construction
4.	Guard Shed	74.00	On-going construction
5.	Deputy Commandant	720.00	On-going construction
6.	Assistant Commandant	1,200.00	On-going construction
7.	Inspector, SI	4,160.00	On-going construction
8.	Havaldar, ASI, Constable	8,928.00	On-going construction
9.	Followers	640.00	On-going construction
10.	Accommodation for SO's (Insp., SI)	600.00	On-going construction
11.	Barrack (Havaldar, Const., Followers)	3,840.00	On-going construction
Non- Residential Buildings			
12.	C.O's Office Building	1083.00	On-going construction
13.	Garage	40.00	On-going construction
14.	Sentry Post	8.00	On-going construction
15.	M.T. Garage with office (20 vehicles)	870.00	On-going construction
16.	Ration Store and Clothing Store	300.00	On-going construction
17.	Magazine/Kote Building with explosive depot	350.00	On-going construction
18.	GO'S Mess/Guest House	650.00	On-going construction
19.	SO'S Mess	870.00	On-going construction
20.	Community Center with Canteen, Saloon, Laundry block	600.00	On-going construction
21.	Hospital (10 beds)	330.00	On-going construction
22.	Drill shed with stage	400.00	On-going construction
23.	Gate complex with 10 men barrack	175.00	On-going construction
24.	Watch Towers	50.00	On-going construction
25.	Fire Station with Barrack	350.00	On-going construction
26.	ATM	15.00	On-going construction
27.	Control Room	50.00	On-going construction
28.	Classroom Block with Computer lab	700.00	On-going construction
29.	Indoor sports complex with gym.	800.00	On-going construction
30.	Primary School	560.00	On-going construction
31.	Family Welfare	500.00	On-going construction
32.	Naamghar	300.00	On-going construction
33.	Recreation Hall	400.00	On-going construction
Total		29,669.00sqm	

- xviii. The construction are of RCC permanent structures of mostly G and G+1
- xix. The rest of the area is kept for training and other needs. The vegetation is left intact as on the day of the visit.
- xx. During the course of discussion it was informed by the DFO, Hailakandi that there are 109 sanctioned posts of which 73 are in position as on date which include 1 (one) DCF, 1 (one) ACF, 5 (five) Forest Rangers, 4 (four) Deputy Rangers, 15 (fifteen) Forester-I and 30 Forest Guards.

- xxi. As per the local officers and staff, the establishment of this Battalion will go a long way in protecting the Inner Line RF forests from within the state and the neighbouring state. It is claimed that even now, some impact is felt by way of the morale of the staff being raised with the establishment of the same. During the visit, the visiting team was accompanied, among others, by some of the Commando staff currently attached with the DFO, Halilakandi. There is no dispute that the presence of such combat force in the Department will help the protection and conservation effort of the Division and State.
- xxii. The area being allowed for construction of the Battalion Camp to the Assam Police Housing Corporation could have been reduced had the construction been made more floors than G and G+1.

The construction is large-scale and of permanent concrete structures, considering the area of build-up is 11.5 ha and the plinth area being close to 30,000 sq.metre. The area of 11.5 ha does not appear to have much semblance to any of the activities mentioned in the explanation (b) of Section 2 of the Forest (C) Act, 1980 about ancillary activity for *conservation, development and management of forest and wildlife, namely, establishment of checkpoint, firelines, wireless communications and construction of fencing, bridges and culverts, dams, waterholes, trench marks, boundary marks, pipelines or other like purposes.*

The area of 32.5 ha set aside for training has not been broken by the current activity of the construction of the Camp Battalion. The site has been perambulated on the east- northeastern side and it was found that the boundary of the plot goes along an unmotorable old path/kaccha road. It is observed that some local encroachers house and bettlenut plantation are within the 32.5 ha plot. As per the local officers, these occupants within the 44 ha plot have agreed to vacate once the construction of the Battalion is complete. Such encroachments are also observed beyond the 44 ha plot.

The above are the facts gathered through correspondence and as observed and noted in the field.

Sd/-
(W. I. Yatbon)
DIGF, RO, Shillong

FAX 02012227099

CO TO CH

U 0011

(Copy)

Extract from - THE ASSAM GAZETTE - PART-II,
 Dated 13th March, 1933.

Ordered by the Governor in Council,
 The 9th March, 1933.

Page-225.

No. 2106A. In supersession of Government Notification No. 9102A.2., dated the 28th August, 1930, and in exercise of the powers conferred by section 2 of the Bengal Eastern Frontier Regulation, 1873 (V of 1873), as extended to the Lushai Hills District, the Governor in Council with the previous sanction of the Governor General in Council, is pleased to prescribe the line described below as the "Inner Line" of the Lushai Hills District :-

From the junction of the Lusding with the Lomk river, the Inner Line shall run up the midstream of the former to where it receives the Lungkhai Lai; thence up the midstream of that stream to its source, and crossing the range in a westerly direction down the right bank of small feeder flowing into the Tairangok stream; thence down the midstream of the latter to its junction with the Sonoi river. From this point the Inner Line shall run south-westwards up the midstream of the Sonoi river as far as its junction with the Sengdien Lai; thence up the midstream of this midstream of the Sengdien Lai to its junction with a large feeder that takes its rise near the deserted village of Sripoo; thence up the midstream of this feeder to the summit of Longkong range, and crossing that range down the midstream of the Teidu Lai to its junction with Lomk river. Then a straight line running in a north-westerly direction from this junction to the Dhalai bridge one furlong north of the Dhalai road on the Aijal-Dwarband road, this point is also the junction of the Dhalai Subdivision (District Cashier) with the Lushai Hills District; thence up the midstream of the Dhalai river to its source, where it crosses the watershed it strikes the headwaters of the Gihialang Lai and down the midstream of this Lai to its junction with the Barun Chuan; thence down the midstream of the Barun Chuan to its junction with the Sauriang Lai (r.); thence up the midstream of this Lai to its source in the Dhalai range, thence crossing the Dhalai range westwards to the western of the Dhalai stream; thence down the midstream of the Dhalai stream to its junction with the Dulakewari or Tlong river; thence up the midstream of the Dulakewari river

Contd...2/-

-2-

to its junction with the Bokwa river; thence up the midstream of the Bokwa river to the second large tributary met with on its left bank; thence up the midstream of this tributary to its source; thence in a northerly direction along a range to Cataracturra Peak (2071); thence due west in a straight line to the trifunction point of districts Sylhet, Lushai Hills (Assam) and Tripura state (Bengal) situated on the Langai river about $\frac{3}{4}$ th of a mile south-west of the confluence of the Medli Sherra with that river (vide Notification No. 33138 dated the 4th October, 1928); thence in a southerly direction up the midstream of the Langai river to its confluence with a small nameless tributary going west about 2 $\frac{1}{2}$ miles north-east of Batling Sib Peak height 3,083. thence in a south-westerly direction to Batling Sib Peak; thence in a southerly direction to Batling Peak height 2,234 which is the trifunction of district Lushai Hills (Assam), Tripura State and Chittagong Hill Tracts district (Bengal); thence in a south-easterly direction for about a mile to tributary of the Tuillanpai river, thence down the midstream of this tributary to its confluence with the Tuillanpai river thence down the midstream of Tuillanpai river to a point about 2 $\frac{1}{2}$ miles south-east of its confluence with the Nar river, which is the junction of the Aijal Langloh subdivision boundary; thence westwards in a straight line to the source of the Narina river; thence down midstream of the Narina river to its confluence with the Karnaphuli river; thence up the midstream of the Karnaphuli river to its confluence with the Tgega Khel; thence up the midstream of the Thaga Khel to its junction with two other tributaries about 4 $\frac{1}{2}$ miles south-west of height 2,096 and 5 $\frac{1}{2}$ miles north-west of Waibung Taung, height 3,083; thence in a south-easterly direction up the slope for about 2 miles to the Waibung Taung range; thence in a westerly, southerly and easterly direction respectively along the range to Waibung Taung Peak height 3,083; thence in a southerly direction to Kookradong, which is the trifunction of Chittagong Hill Tract (Bengal), Lushai Hills (Assam) and Northern Arakan district (Burma); thence eastwards to Mephrotong or Bengtiang; thence to source of a small stream called the South: Verangtui or Kzoikchaung whose source lies due east of the Peak, down the midstream of the Verangtui or Kzoikchaung to its junction with the Sekul (Kola) or Kaset stream (where a boundary stone has been placed); thence up the midstream of the Sekul (Kola) or Kaset stream to the south of the Khawtlang or Zyucho stream (where a boundary stone has been placed); thence up the midstream of the Khawtlang or Zyucho to its source on the Semang or Kuzman rang; thence south wards along the Semang or Kuzman range;

Contd.....3/-

to the source of the Samak or Kwiam stream (where a boundary stone has been placed); thence down the midstream of the Samak or Kwiam stream to its junction with the Kaladyne (Kaladan) river; thence straight across the Kaladyne (Kaladan) river to the mouth of the Khongza or Kwiam stream (where a boundary stone has been placed), (the mouths of these two streams are opposite one another); thence up the midstream of the Khongza or Kwiam stream to its source in the Kaisi Tieng (where a boundary stone has been placed); thence southwards to the source of the Rale or Shwelaik stream; thence down the midstream of the Rale or Shwelaik stream to its junction with the Sullu river; thence up the midstream of the Sullu river to its junction with the Kaikheo or Khinkom stream (where a boundary stone has been placed); thence up the midstream of the Kaikheo or Khinkom stream to its source on the Pashan or Pashay Kiang; thence northwards along the Pashan or Pashay Kiang to the source of the Fava stream; thence down the midstream of the Fava stream to its junction with the Mi (Tishi, Tuisi, or Myding) river; thence up the midstream of this river to its junction with the Hweisa stream; thence up the midstream of the Hweisa stream to its source on the Kahrin or Kughrin (Khasia) Kiang; thence south along the crest of the Kahrin or (Kughrin) Kiang to the source of the Ropu Vei; thence down the midstream of the Ropu Vei to its junction with the Emdu (Kalaina) river; thence down the midstream of the Emdu (Kalaina) river to the junction with Tyno; thence up the midstream of the Tyno to its source on the Viko Tieng; thence eastwards to the source of tributary of the Tufang river; thence down the midstream of the Tufang to its junction with the Tuisi; thence down the midstream of the Tuisi to its junction with the Tuivai river; thence down the midstream of the Tuivai river to its junction with the Vangvam Lui; thence up the midstream of the Vangvam Lui to its source at saddle known as Bengkot where a boundary pillar marked HL(1) has been erected; thence crossing to the west side of this saddle to the source of the Tutei stream; thence down the midstream of the Tutei stream to its junction with the Tuivai river; thence down the midstream of the Tuivai river to its junction with the Berek river; thence down the midstream of the Berek river to its junction with the Kuanding Lui, which is the trijunction of the Lushai Hills and Cachar Districts and Manipal State.

NOTE :- (1) The Inner Line falls in the following survey of India 1" = 4 miles and 1" = 1 miles publications :-
 North :- 83P, 83D, 83E/15, D/14, D/11 and D/7,
 West :- 83-D/7, 83-D, 84-A, 84-B and 84-C,
 South & East :- 84-B, 84-C, 84-E, 84-F, 83-D and 83-H.

(2) The northern western southern and eastern boundaries of the Lushai Hills district are co-incident with the Inner Line of the Lushai Hills District

Sd/- U.A. COSGRAVE,
 Chief Secretary to the Govt. of Assam.

Most Urgent
By Special Messenger

GOVT OF ASSAM

OFFICE OF THE DIVISIONAL FOREST OFFICER::HAILAKANDI FOREST DIVISION::HAILAKANDI
Letter No. HKD/DFO(T)/Border / Encroachment/ 1873

Date: 18/07/2021.

To,
The Superintendent of Police
Hailakandi.

Sub:- Requisition for special armed forces for Gharmurah Range under Hailakandi Forest Division

Madam,

With the subject cited above, I am to inform you that the about 80% Gharmurah Range boundary is along with Inter State Border Boundary of Assam Mizoram and the said border area is disputed area with Mizoram. Moreover the reserved forests area viz. Inner Line Reserved Forests under the Range has huge encroachment in bordering area by both Mizoram and Assam side.

Under the circumstances I would request you to provide special armed forces to conduct requisite protection measure toward prevention of further extension of encroachment and ejection of encroachers in face manners.

This is for favour of your kind information and necessary action.

Yours faithfully

(M. Ali, AFS)
Divisional Forest Officer
Hailakandi Division, Hailakandi

- Copy to:-
1. The Addl. Principal Chief Conservator of Forests (T), Lower Assam Zone, Kacharighat, Guwahati-1, for kind information.
 2. The Chief Conservator of Forests Southern Assam Circle, Silchar for kind information.
 3. The Deputy Commissioner, Hailakandi for kind information.

Divisional Forest Officer
Hailakandi Division, Hailakandi

Handwritten notes and stamps at the bottom left of the page, including a large 'U' and some illegible text.

ANNEXURE - III

271
 OFFICE OF THE SUPERINTENDENT OF POLICE, HAILAKANDI, ASSAM.

Memo No. HKD/B/91/2021/324

Dated Hailakandi, the 24th July, 2021.

To

The Director General of Police,
 Assam, Ulubari, Guwahati-7.

Subj:

Regarding establishing a base for special armed forces like
 Commandos at Chaimursh Range of Inner-Line Reserve Forest area
 under Hailakandi Forest Division.

Ref:

Letter No. HKD/DC/1/Border/Encroachment/1873, dated 18.07.2021 of
 D.F.O, Hailakandi.

Sir,

In pursuance of above mentioned subject and reference, it is being brought to your kind notice that Chaimursh Range of Inner-Line Reserve Forest shares a substantial boundary with Mizoram and is under severe constant encroachment. The area is remote and due to absence of any communication in terms of roads and other facilities, it is very difficult to respond in case of any fresh encroachment attempt from Mizoram side. For the protection of the Reserve forest in this interstate border area, D.F.O, Hailakandi has requisitioned (vide above mentioned reference), Special armed forces. As the area is vast and of vital importance to the state, in view of the above, a full Station of Commandos etc. may be considered to be deployed in the area.

Submitted in anticipation of your kind consideration.

Yours faithfully,

Encls:- Above mentioned reference.

Superintendent of Police,
 Hailakandi.

Memo No. HKD/B/91/2021/324-A

Dated Hailakandi, the 24th July, 2021.

Copy for favour of kind information to :-

1. The Spl. Director General of Police (B), Assam, Srimantapur, Guwahati-32.
2. The Spl. Director General of Police (T&AP), Assam, Ulubari, Guwahati-7.
3. The Principal Secretary to the Govt. of Assam, Home & Political Department, Assam, Dispur, Guwahati-6.
4. The Principal Secretary to the Govt. of Assam, Environment & Forest Department, Assam, Dispur, Guwahati-6.
5. The Addl. Principal Chief Conservator of Forests (F), Lower Assam Zone, Kacharighat, Guwahati-1.
6. The Commissioner & Secretary to the Govt. of Assam, Border Protection & Development, Dispur, Guwahati -6.
7. The Deputy Commissioner, Hailakandi.

SECRET

EXTRACT OF THE MINUTES OF THE CABINET MEETING HELD
ON 28-07-2021 AT 2-00 PM IN THE CABINET ROOM OF CHIEF MINISTER'S
OFFICE AT JANATA BHAWAN, DISPUR, GUWAHATI

Informal Item No.4
Home & Political Department

No. file

As part of the State Government's decision to appoint one lakh youths in Government jobs, the Cabinet decided to start the process to fill up vacant posts in Assam Police and the process will start from 1st September, 2021. The Cabinet also decided to create five new Commando battalions of Assam Police which will open up recruitment prospects for 6270 youths.

— 60 —


 Secretary
 Home & Political Department

GOVERNMENT OF ASSAM
 HOME (A) DEPARTMENT
 3rd Floor, CM's Block, Janata Bhawan, Dispur, Guwahati-6
 E-mail : assam.home@assam.gov.in

No. HMA.113/2021/Pt/29

Dated Dispur, the 22nd October, 2021

From : Shri Diganta Barah, IPS
 Secretary to the Govt. of Assam,
 Home & Political Department, Dispur

To : The Principal Accountant General, Assam, Maidamgaon,
 Beltola, Guwahati-29.

Sub : Sanction for raising of 1 (one) new Assam Commando Battalion i.e. 2nd Assam Commando Battalion (Operation), Birsima, Hailakandi alongwith creation of posts.

Sir,
 I am directed convey the sanction of the Governor of Assam to the raising of (one) new Assam Commando Battalion i.e. 2nd Assam Commando Battalion (Operation), Birsima, Hailakandi alongwith creation of 800 (eight hundred) nos. of post for this newly created Assam Commando Battalion (Operation) w.e.f. the date of sanction as per the following staffing pattern :

Sl. No.	Rank	Gazetted / Non-gazetted posts	No. of Posts for each Battalion	Scale of Pay
Force Personnel				
1.	Commandant (SP rank)	Gazetted post	1	As per RoP 2016
2.	Deputy Commandant (Addl. SP rank)	Gazetted post	3	
3.	Asstt. Commandant (Dy. SP rank)	Gazetted post	7	
4.	Inspector	Non-gazetted post	16	
5.	Sub-Inspector	Non-gazetted post	64	
6.	Havildar	Non-gazetted post	112	
7.	Constable	Non-gazetted post	480	
8.	Followers Cook = 20 Multitasking and Maintenance Staff = 18 Water carrier = 18 Dhobi = 8 Barber = 8	Non-gazetted post	72	As per RoP 2016

— 61 —

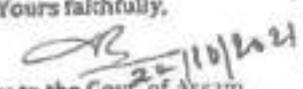
Medical Staff				
9.	Sr. Medical & Health Officer	Gazetted post	1	As per RoP 2016
10.	Medical & Health Officer	Gazetted post	1	
11.	Physio Therapist	Non-gazetted post	1	
12.	ASI (Pharmacist)	Non-gazetted post	1	
13.	Hav (X-ray Asst)	Non-gazetted post	1	
14.	Laboratory Technician	Non-gazetted post	1	
15.	Staff Nurse	Non-gazetted post	2	
16.	Hav Nursing	Non-gazetted post	2	
17.	Const. Nursing	Non-gazetted post	10	
18.	Dhai	Non-gazetted post	1	
APRO Staff				
19.	Inspector	Non-gazetted post	1	As per RoP 2016
20.	S.I. (Radio Operator)	Non-gazetted post	3	
21.	S.I. (Technician)	Non-gazetted post	1	
22.	A.S.I. (Radio Operator)	Non-gazetted post	4	
23.	A.S.I. (Cypher)	Non-gazetted post	1	
24.	HC (WO/WT/Cy) Co (WO/WT/Cy)	Non-gazetted post	14	
Grand Total:			800	

Govt. has no objection to the filling up of the newly created 800 posts during the current financial year as per approval conveyed by Finance (SIU) Department vide their U/O No.FSI No.467/2021 dated 21/10/2021.

Head of account will be communicated after creation of particular head against the organization by Finance Department.

This is issued with the concurrence of Finance (EC-II) Department vide their U/O. No.733/2021 dated 21/10/2021.

Yours faithfully,

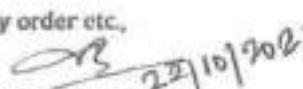

Secretary to the Govt. of Assam,
Home & Political Department
Dated Dispur, the 22nd October, 2021

Memo No.HMA.113/2021/Pt/29-A

Copy to:-

1. The Director General of Police, Assam, Ulubari, Guwahati-7 for information and necessary action.
2. The Finance (EC-II)/ (Budget) Department, Dispur, Guwahati-6.

By order etc.,


Secretary to the Govt. of Assam,
Home & Political Department
Dated Dispur, the 22nd October, 2021

Memo No.HMA.113/2021/Pt/29-B

ASSAM POLICE HOUSING CORPORATION LTD. REHABARI, GUWAHATI-8

No: APHC/T/22/2021-22/02

Dated: 27/12/2021

Notice inviting RFP (Request for proposal)

The Chief Engineer, Assam Police Housing Corporation Ltd., Rehabari, Guwahati-8 invites bids through **Engineering, Procurement and Construction (EPC)** mode of contract for the Construction of "Raising of New Assam Police Battalions at Different location of Assam" from the **eligible contractors**. Details may be seen in the website <https://assamtenders.gov.in> & also at the office of the undersigned during office hours.

Chief Engineer

Assam Police Housing Corporation Ltd.
Rehabari, Guwahati-8

Memo No: APHC/T/22/2021-22/02

Dated: 27/12/2021

Copy to:

1. The Director General of Police Assam, Guwahati for favour of kind information.
2. The Secretary to the Govt. of Assam, Home and Political Dept. Dispur, Guwahati-6, for favour of kind information.
3. The Advertising Manager, "The Assam Tribune" Chandmari, Guwahati-3 for information and requested to publish the above notice in 1 (one) issue of the Daily English News Paper "The Assam Tribune" on or before 29-12-2021.
4. The Advertising Manager, "Times of India" Christain Basti, Guwahati for information and requested to publish the above notice in 1 (one) issue of the Daily English News Paper "Times of India" on or before 29-12-2021.
5. The Advertising Manager, "The Indian Express" Dr. S K Bhuyan Road, 23, Dighali Pukhuri (East), Guwahati - 781 001 for information and requested to publish the above notice in 1 (one) issue of the Daily English News Paper "The Indian Express" on or before 29-12-2021.
6. The Advertising Manager, "The Telegraph" (India), ABP Pvt Limited, 3rd Floor, Jupitara Palace, Bhangagarh, G. S. Road, Guwahati - 781005 for information and requested to publish the above notice in 1 (one) issue of the Daily English News Paper "The Telegraph" (India) on or before 29-12-2021.
7. The Advertising Manager, "Asomiya Pratidin", Maniram Dewan Road, Voltas Lane, Guwahati 781003 for information and requested to publish the above notice in 1 (one) issue of the Daily Assamese News Paper "Asomiya Pratidin" on or before 29-12-2021.
8. The Advertising Manager, "Niyomiya Barta", News Live Building, Christian Basti, Guwahati 781005 for information and requested to publish the above notice in 1 (one) issue of the Daily Assamese News Paper "Niyomiya Barta" on or before 29-12-2021.
9. Account Branch, Assam Police Housing Corporation Ltd. for information.
10. All Executive Engineer, Jorhat / Guwahati / Dibrugarh / Silchar / Bongaigaon / Tezpur / Nagaon / Mandakata Sub-Unit, Assam Police Housing Corporation Ltd. for information & wide circulation.
11. Notice Board.

Chief Engineer

Assam Police Housing Corporation Ltd.
Rehabari, Guwahati-8

ISSUE NOTICE TO PROCEED WITH WORK

To,

M/S Bredel Rd & Company.
Station Road, Dohrajim, Dibrugarh,
Assam - 786060, Phone No: 0374 - 2800588, 97060 - 65837
Email id: bredelr@gmail.com

Sub:

"Raising of New Assam Police commando Battalion at **Kachurta in Hailakandi Dist, Assam** (Shifted presently to **Dancherra in Garmura Range under Ranmulpur Police Station**) on Engineering, Procurement & Construction (EPC) Mode."
(Online EPC Mode Tender) Tender Value: **Rs. 139,93,44,801.51** (Rupees One Hundred Thirty Nine Crore Ninety Three Lakhs Forty Four Thousand Eight Hundred One and Paise Fifty One) only.

Ref:

This office L.O.A No : APHC/CS/RP/2021-22/21

Date: 10-08-2022

Dear Sir,

Upon submission of Bank Guarantee of RCI bank Ltd. (Bank Name) for Performance Security bearing No.: 0543NDDG00020423, Dtd.: 13-10-2022 amounting Rs. 6,62,240.00 (Rupees Six Lakhs Sixty Two Thousand Two Hundred Forty) only and Bank Guarantee of HDEC Bank Ltd. (Bank Name) for Performance Security bearing No.: 264GT02222860001, Dtd.: 13-10-2022 amounting Rs. 6,93,05,000.00 (Rupees Six Crore Ninety Three Lakhs Five Thousand) only by you, the appointed date for the above mentioned project is hereby fixed as 720 (Seven Hundred Twenty) days from the date of handing over of site.

You are requested to start the work as per Contract Agreement.

Encl: Copy of Contract Agreement.

Yours faithfully

SA -
Chief Engineer,
Assam Police Housing Corporation Ltd.
Rehabari, Guwahati-8.

Date :- 13.02.2023

Memo No. APHC/CS/80/2021-22/ 119-11

Copy To:-

1. The Director General of Police Assam, Ulubari, Guwahati - 7, for favour of kind information.
2. The Principal Secretary to the Govt. of Assam, Home & Political Dept, Dispur, Guwahati - 6 for favour of kind information.
3. The Commissioner to the Govt. of Assam, Home & Political Dept, Dispur, Guwahati - 6 for favour of kind information.
4. The Secretary to the Govt. of Assam, Home & Political Dept, Dispur, Guwahati - 6 for favour of kind information.
5. The Managing Director, Assam Police Housing Corporation Ltd, Rehabari, Guwahati - 8, for favour of kind information.
6. The Deputy Inspector General of Police, (MPC) Assam, Guwahati for favour of your kind information.
7. The Commandant, 2nd Assam CDO Bn, Birsima, Hailakandi in 21st AP(IR) Bn, Kachicherra for favour of kind information.
8. The Executive Engineer (Eleet.), APHC Ltd. for information and necessary action.
9. The Executive Engineer, APHC Ltd. Silchar Sub - Unit for information and necessary action.
10. M/S Design Associate INC, PMC, A-163, Sector - 136, Noida - 201301, for favour of information.
11. Account Branch, APHC Ltd. for information.

Chief Engineer,
Assam Police Housing Corporation Ltd.
Rehabari, Guwahati-8



GOVT. OF ASSAM

OFFICE OF THE SUPERINTENDENT OF POLICE ::: HAILAKANDI :: ASSAM :::

Memo No. HKD/B/91/Vol-III/2023/224

Dated Hailakandi, the 26th June, 2023.

To,

The District Forest Officer,
Hailakandi Division,
Hailakandi.

Sub.: -

Regarding Handing Allocation of Land at Damcherra Lyinh
within Inner Line Reserve Forest under Gharmura Forest Range
for Raising 2nd Commando Battalion.

Sir,

In inviting a reference to the subject cited above, I would like to bring to your kind notice that there are reports of numerous incidents of encroachments in and around Gharmura Range of Inner-Line Reserve Forest under Hailakandi Forest Division which shares a substantial boundary with Mizoram State which is a threat to the security and sanctity of the Forest lands of the State.

In view of the above, it is imperative to provide ample security with a strong and well equipped Police force in order to respond to any incident of attempt of encroachment from Mizoram side and to ensure protection of the Reserve Forest area along the inter-state border of Assam-Mizoram in order that the activities of the Forest Department to protect the Forest land, its flora and fauna is carried out without any threat of encroachment or any other disruption by miscreants.

In view of the above circumstances and keeping in mind the increasing challenges of safeguarding the Inter State Border boundaries and the evolving nature of encroachment by miscreants, it has become imperative to establish a Commando Battalion that is capable of effectively responding to such critical situations.

After careful consideration and evaluation, the authorities have identified a suitable Forest land that would be ideal for the construction of the Commando Battalion facility at Damcherra. The chosen location has been assessed to have the necessary attributes, including adequate space, accessibility and strategic positioning which are essential for the successful establishment and operation of the Commando Battalion.

Dir
24.6.23

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put up
21/6/23

The establishment of the Commando Battalion would be of significant value in preserving the natural resources. Further, every effort would be made to ensure minimal disruption to the environment during the construction and subsequent operation of the facility. Necessary measures such as reforestation initiatives and strict adherence to environmental regulations will be implemented to mitigate any adverse impact on the Forest ecosystem.

In view of the above, I request you to kindly hand over the aforementioned Forest land to the Hailakandi District Police accordingly.

Yours sincerely,

Superintendent of Police,
Hailakandi.

Memo No. HKD/B/91/Vol-III/2023/224-A

Dated Hailakandi, the 26th June, 2023.

Copy forwarded for favour of kind information to:-

1. The Director General of Police, Assam, Ulubari, Guwahati 7.
2. The Addl. Director General of Police (SB), Assam, Kahilipara, Guwahati 19.
3. The Inspector General of Police (TAP), Assam, Ulubari, Guwahati 7.
4. The Inspector General of Police, Border, Assam, Srimantapur, Guwahati-32.
5. The Commissioner & Secretary to the Govt. of Assam, Border Protection & Development, Dispur, Guwahati-6.
6. The Deputy Inspector General of Police (SR), Assam, Silchar.
7. The Managing Director, Assam Police Housing Corporation, Assam, Rehabari, Guwahati 8.
8. The Deputy Commissioner, Hailakandi.

Superintendent of Police,
Hailakandi.



GOVT OF ASSAM
OFFICE OF THE DIVISIONAL FOREST OFFICER::HAILAKANDI DIVISION
HAILAKANDI

E-mail: hailakandiforests1992@gmail.com

No. HKD/DFO(T)/Border/2nd Commandant Battalion Unit/ 3745-47

Date: 20/07/2023.

To

✓ The Chief Conservator of Forests
Southern Assam Circle, Silchar

Sub:- Proposal for establishment of 2nd Commandant Battalion Unit near Assam-Mizoram Interstate border area of Inner Line Reserve Forest for protection and conservation of forest resources in Reserve Forest land and mitigation of Mizo aggressions in Assam-Mizoram Interstate border area of Assam - reg.

Ref:- Your letter No. FGS.13/ECD/Assam Mizoram Border/2018/Pt Dtd. 04-01-2023,

Sir,

With the subject & reference above, I have the honour to inform you that about 52.00 K.M disputed interstate border line of Assam Mizoram falls under Gharrurah Range within Inner Line Reserve Forest (ILRF). About 1000 Ha. land in the Inner Line Reserve Forest has long been occupied by the Mizo people in the name of inter-state boundary disputes and put to non-forest use under Hailakandi division. Since the said areas have been under Mizo aggressions by way of encroachment for a long time, it is pertinent to bring back the area under our control to boost up the conservation efforts. Moreover, it is noticed that there is a consistent endeavors of Mizoram State to occupy more R.F. land of Assam area in addition to aforementioned encroached land. It is a panic disorder to the District Civil, Police and Forest Authorities to prevent the encroachment activities of Mizoram Govt. without deployment of armed forces in a permanent infrastructure within the ILRF. In this regards S.P. Hailakandi was requested to provide special armed force for regular monitoring and needful protection measure in time vide this office letter No. HKD/DFO (T)/Border/Encroachment/1873 dt. 18-07-2021(Annexure-1). Most of the border line is located in remote areas without suitable communication facility. The deforestation activity of existing encroachers in and around their encroached land within the reserved forest area is required to be protected. Accordingly S.P. Hailakandi made necessary correspondence with the Director General of Police, Assam, Ulubari, Guwahati-7 regarding establishment a base for special armed forces like Commandos at Gharrurah Range in Inner Line Reserve Forest area under Hailakandi Forest Division vide Memo No. HKD/B/91/2021/324 Dtd. 24-07-2021(Annexure-2).

According to the need of the prevailing hours I have discussed the matter with the S.P. Hailakandi for establishment of 2nd Commandant Battalion Unit in the Inner Line R.F with sufficient strength of armed police to strengthen/ support the performance of interstate border area duty like border protection as well as protection of forests and guard against the scope of encroachment and step taken for ejection of

Contd.P-2



encroachment from the reserve forest area etc. In this regards the S.P. Hailakandi has communicated letter vide Memo No.HKD/II/91/Vol-III/2023/224 Dated Hailakandi, the 26th June,2023 (copy enclosed as Annexure 3) for allowing the establishment of 2nd Commandant Battalion Unit at Damchera area in ILRF under Gharmurah Range to protect the forest land including its flora and fauna, threat of encroachment or any other disruption by miscreants in addition to numerous incidents of encroachment by Mizoram State in and around the interstate border boundary of Assam Mizoram in Assam area within Inner Line Reserved Forests as ancillary activities to Forest Protection and Conservation.

Therefore, your honour is requested to take up the matter with the higher authority in view of strengthening the armed forces for protection duties in the interstate border area in ILRF to prevent further encroachment activities as well as preservation of forest cover. Also activities of natural and artificial re-generation can be enhanced in the deforested area after ejection of encroachers by way of exploring the activities of an Eco-Task force.

In view of the above facts for forest conservation including preservation of forest wealth, an area of 43.99 Hectors land is required for establishment of 2nd Commandant Battalion Unit at Damchera area within Inner Line Reserve Forest, under Gharmurah Range, Hailakandi Forest Division. The most of the proposed area is under encroachment and which will be vacated for the purpose with the help of Civil and Police authorities.

It is to be pointed out that a proposal has already been submitted for departmental operation of 21(Twenty one) nos. trees (Twenty Nos. Teak & One Cham) standing in the proposed area vide this office letter No. HKD/DFO(T)/Thinning /D.O/3629-30 date: 15/07/2023 as per provision laid down in the approved working plan (2022-23 to 2032-33) for Hailakandi Forest Division. (Annexure-4). Two Teak trees have already been uprooted by the recent rainfall and another 19 (Nineteen) nos. tree standing on steep loose tilla soil are also under soil erosion owing to rainfall that will fall at any time. Others existing 189 nos. miscellaneous trees standing in the areas are not required for felling because most of proposed construction site for quarter and barrack etc. selected in the encroached agricultural land. (Annexure-5). A Googol earth Map showing the proposed 2nd Commandant Battalion Unit is enclosed herewith (Annexure-6). A site Map with GPS co-ordinates of proposed unit is enclosed as (Annexure-7)

This is for favour of your kind information and taking necessary action for according permission towards establishment of 2nd Commandant Battalion Unit at Damchera area in Inner Line RF under Gharmurah Range, Hailakandi Forest Division to mitigate the concernment illustrated above.

Encl: As specified.

Yours faithfully

(A. Dutta, AFS)

Divisional Forest Officer
Hailakandi Division, Hailakandi

Contd.-3

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-3-

Copy to:

1. The Deputy Commissioner, Hailakandi for kind information and necessary action.
2. The Superintendent of Police, Hailakandi for kind information and necessary action.

Divisional Forest Officer
Hailakandi Division, Hailakandi

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G2C

GOVT. OF ASSAM
OFFICE OF THE CHIEF CONSERVATOR OF FORESTS
:: SOUTHERN ASSAM CIRCLE:: SILCHAR-788001 ::
Tel: +91(03842) 796017 (O) Email :conservator.sac@gmail.com
Letter No. FGS.13/ECD/Assam-Mizoram Border/2018/Pt. Date: 27/07/2023

S.D.
28/7/23

From
The Chief Conservator of Forests,
Southern Assam Circle,
Silchar.

To
The Addl. Principal Chief Conservator of Forests (T),
Lower Assam Zone,
Indira Nagar, Basistha, Guwahati-29.

28 JUL 23

Sub: - Proposal for establishment of 2nd Commando Battalion Unit near Assam-Mizoram Interstate border area of Inner Line Reserve Forest for protection and conservation of forest resources in Reserve Forest land and mitigation of Mizo aggressions in Assam-Mizoram Interstate border area of Assam- reg.

Ref: - 1) Your letter No. FGT.26/Border/Assam-Mizoram/Pt-II, dtd. 27-12-2022.
2) This office letter No. FGS.13/ECD/Assam-Mizoram Border/2018/Pt., dtd. 16-12-2022 & even no. dated 23-06-2023 & dated 03-06-2022
3) The DFO, Hailakandi Division's letter No. HKD/DFC(T)/Border/2nd Commandant Battalion Unit/3745-47, dtd. 20-07-2023.

Sir,

With reference to the subject and letters cited above, I have the honour to forward herewith a copy of the DFO, Hailakandi Division letter under reference No.3 alongwith its enclosures. Wherein he has requested for permission for establishment of 2nd Commando Battalion unit near Assam-Mizoram Interstate border area of Inner Line Reserve Forest at Damcherra area under Gharmurah Range of Hailakandi Division for favour of your kind information and necessary action.

In this regard, I would like to inform you that Mizoram is constantly trying to encroach the Assam forest area for non-forestry activities. Mizoram also has established BOP along with occupied area and giving protection to Mizo encroachers. Establishment of Commando Force at Damcherra area will help our department to protect the forest area from Mizoram supported encroachment. This force can support all three divisions under this circle to protect the boundary of Assam. Raising of Eco Task Force to protect the boundary was discussed with the SP. She informed that presence strong armed force is required to control the advancement of Mizoram into the Assam Territory. The following table shows the details of encroachment of forest area under this circle by Mizoram.

Table: Details of Assam Forest area encroached by Mizoram

S. No.	Name of the division	Length of border area (KM)	Area (Ha) of encroachment prior to June/2021	Area of encroachment post June/2021	Total (ha)
1	Cachar	52.00	1,548.70	725.00	2,273.70
2	Karimganj	14.50	377.58	0.00	377.58
3	Hailakandi	92.00	1,000.00	0.00	1,000.00
	Total	158.50	2,926.28	725.00	3,651.28

The proposed area for establishment of the unit is 43.99ha and no. of trees to felled in the said area is 21 nos.

Hence, I request you to kindly consider the proposal and request the PCCF & HoFF, Assam for according necessary permission towards establishment of 2nd Commando Battalion unit at Damcherra area under Gharmurah Range of Hailakandi Division and also permission for felling of 21 nos. of trees.

Encl:- As stated above

Yours faithfully



(P. Sivakumar, IFS)
Chief Conservator of Forests,
Southern Assam Circle,
Silchar

Copy to

1. The Principal Chief Conservator of Forests & Head of Forest Force, Assam, Aranya Bhawan, Panjabari, Guwahati-37 for favour of his kind information and necessary action.
2. The Divisional Forest Officer, Hailakandi Division for information and necessary action.



Chief Conservator of Forests,
Southern Assam Circle,
Silchar

GOVERNMENT OF ASSAM
OFFICE OF THE ADDL. PRINCIPAL CHIEF CONSERVATOR OF FORESTS (T)
LOWER ASSAM ZONE, ASSISTHA:GUWAHATI-29

86

2++

Email:ccft.laz@gmail.com

Date: 28/07/2023

No: FGT.26/Border/Assam-Mizoram/Pt.II

To

The Principal Chief Conservator of Forests
& Head of Forest Force, Assam,
Panjabari, Guwahati-37

ANNEXURE - XI

Sub: Assam -Mizoram Inter-State Border - Proposal for establishment of 2nd Commando Battalion Unit inside Inner Line Reserve Forest at Damcherra area under Gharmurah Range, Haliakandi Division - Reg

Ref: CCF SAC proposal Ref No. FGS.13/ECD/Assam-Mizoram Border/2018/Pt. Dated 27th July 2023

Sir,

While enclosing herewith a copy of the proposal received from the Chief Conservator of Forests, Southern Assam Circle, Silchar, the following few points are mentioned for your kind perusal and consideration:

1. The proposal was submitted seeking permission for establishment of 2nd Commando Battalion Unit inside Inner Line Reserve Forest at Damcherra area under Gharmurah Range, Haliakandi Division. The Proposal was originated from the Superintendent of Police, Hailakandi District.
2. Area of Inner Line RF proposed for establishment of 2nd Commando Battalion Unit is 43.99 Ha.
3. Number of standing trees enumerated by the DFO is 21 (Twenty-One), as per the list enclosed.
4. Law & Order situation in the said area has been a matter of concern and there have been recent incidence of violence due to aggression from Mizoram side. This has also created negative impact on the protection and development of Inner Line Reserve Forest areas. In this backdrop, establishment of the proposed 2nd Commando Battalion Unit inside Inner Line Reserve Forest at Damcherra area under Gharmurah Range, Haliakandi Division assumes significance.
5. Ideally, this calls for permission, under the Forest (Conservation) Act 1980, for diversion of forest area for non-forestry purpose since Reserve Forest area is involved, unless Government decides otherwise.

A suitable decision may be taken at your end and the same may be conveyed to this office in due course of time for further action.

Encl: As stated above.

Yours faithfully

(P.J. Vijayakar, IFS)

Addl. Principal Chief Conservator of Forests (T)
Lower Assam Zone, Guwahati-29

Copy to the Chief Conservator of Forests, Southern Assam Circle, Silchar for information.

Addl. Principal Chief Conservator of Forests (T)
Lower Assam Zone, Guwahati-29



GOVERNMENT OF ASSAM
OFFICE OF THE PRINCIPAL CHIEF CONSERVATOR OF FORESTS &
HEAD OF FOREST FORCE, ASSAM,
ARANYA BHAWAN, PANJABARI, GUWAHATI-781037

E mail: hoff-assam@gov.in

No. FG.32/Land Allotment/2023

Date: 03/08/2023

To

The Addl. Principal Chief Conservator of Forests (T)
Lower Assam Zone
Basistha, Guwahati-29.

Sub: Regarding Assam-Mizoram Inter-State Border- Proposal for establishment of 2nd Commando Battallion Unit inside Inner Line Reserve Forest at Damcherra area under Gharmurah Range, Hailakandi Division.

Ref: Your office letter No.FGT.26/Border/Assam-Mizoram/Pt-II dtd.28/07/2023.

In returning herewith the letter under reference, I am to request you to look into the proposal submitted by Superintendent of Police, Hailakandi District for allotment of land for establishment of 2nd Commando Battallion Unit inside Inner Line Reserve Forest at Damcherra area under Gharmurah Range, Hailakandi Division and reconsider the same considering the merit of the requirement.

This is for your information and necessary action.


Principal Chief Conservator of Forests &
Head of Forest Force, Assam

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GOVERNMENT OF ASSAM
OFFICE OF THE ADDL. PRINCIPAL CHIEF CONSERVATOR OF FORESTS (T)
LOWER ASSAM ZONE: BASISTHA: GUWAHATI-781029

Email: ccft.laz@gmail.com

Letter No. FGT.26/Border/Assam-Mizoram/Pt.II

Date: 07/08/2023

To,

The Principal Chief Conservator of Forests &
Head of Forest Force, Assam,
Panjabari, Guwahati-37.

Sub: Assam-Mizoram - Inter State Border- Proposal for establishment of 2nd Commando Battalion Unit inside Inner Line Reserve Forest at Damcherra area under Gharmurah Range, Hailakandi Division- Reg.

Ref: 1) This office letter No. FGT. 26/Border/Assam-Mizoram/Pt.II, dtd. 28th July/2023 — P. 69 ✓
2) PCCF & HoFF, Assam's letter No. FG.32/Land allotment/2023, dtd. 03/08/2023. — P. 22 ✓

Sir,

In continuation of this office letter under reference No.1, I have the honour to submit that the proposal for allotment of Land for Establishment of 2nd Commando Battalion Unit inside Inner line Reserve Forest of Damcherra area under Gharmurah Range, Hailakandi Division may kindly be considered.

Yours faithfully,

(P.J. Vijayakar, IFS)

Addl. Principal Chief Conservator of Forests (T),
Lower Assam Zone, Guwahati-29.

Copy to the Chief Conservator of Forests, Southern Assam Circle, Silchar for information.



Addl. Principal Chief Conservator of Forests (T),
Lower Assam Zone, Guwahati-29.

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ANNEXURE - XIV

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By e-mail

GOVERNMENT OF ASSAM
OFFICE OF THE PRINCIPAL CHIEF CONSERVATOR OF FORESTS AND
HEAD OF FOREST FORCE, ASSAM
ARANYA BHAWAN, PANJABARI, GUWAHATI-37

E-mail: hoff-assam@gov.in

Date: 28.09.2023

FG.40/14/Mizoram Border/Pt-II

To,

The Additional Principal Chief Conservator of Forests (T)
Lower Assam Zone, Basistha, Guwahati-29

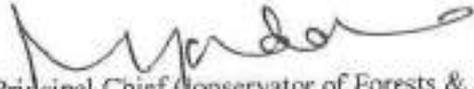
Sub: Assam-Mizoram Inter State Border -proposal for establishment of 2nd Commando Battalion Unit inside Inner Line Reserve Forest at Damcherra area under Gharmurah Range, Hailakandi Division-Reg.

Ref: Your office letter No. FGT.26/Border/Assam-Mizoram/Pt.II dated 07.08.2023.

With reference to the above, I am to inform you that As per Section 2 (b) of FC Act, 1980 the non-forest purpose means the following:

"any purpose other than re-afforestation; but does not include any work relating or ancillary to conservation, development and management of forests and wildlife, namely, the establishment of check-posts, fire lines, wireless communications and construction of fencing, bridges and culverts, dams, waterholes, trench marks, boundary marks, pipelines or other like purposes".

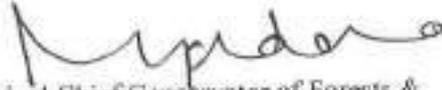
Since the purpose of proposal for 43.99 Ha. Forest land for establishment of 2nd Commando Battalion Unit in the Assam-Mizoram interstate border area of Inner Line Reserve Forest is for protection and conservation of Reserved Forest land, it qualifies as an activity relating to conservation of forests mentioned under Section 2 (b) of Forest Conservation Act, 1980. Therefore you are allowed to go ahead with the establishment of the proposed 2nd Commando Battalion Unit in the interest of conservation and protection of forest land.


Principal Chief Conservator of Forests &
Head of Forest Force, Assam

Copy for information and necessary action to:

1. The Chief Conservator of Forests, Southern Assam Circle, Silchar.
2. The Divisional Forest Officer, Hailakandi Division, Hailakandi.

28/9/2023
ISSUED ON


Principal Chief Conservator of Forests &
Head of Forest Force, Assam



BY E-MAIL

GOVT. OF ASSAM
OFFICE OF THE CHIEF CONSERVATOR OF FORESTS
: SOUTHERN ASSAM CIRCLE: SILCHAR-788001:

Tel: +91 (03842)796017 (O)

Email : conservator.sac@gmail.com

Letter No. FGS.13/ECD/Assam-Mizoram Border/2018/Pt.

Date: 05/10/2023

From

The Chief Conservator of Forests,
Southern Assam Circle, Silchar.

To

The Divisional Forest Officer,
Hailakandi Division, Hailakandi.

Sub: - Assam-Mizoram Inter-state Border-Proposal for establishment of 2nd Commando Battalion unit inside inner line Reserve Forest at Damcherra area under Gharmurah Range, Hailakandi Division-Reg.

- Ref: - 1. The PCCF & HoFF, Assam's letter No. FG.40/14/Mizoram Border/Pt-II, dtd. 28-09-2023.
2. This office letter No. FGS.13/ECD/Assam-Mizoram Border/2018/Pt, dtd. 27-07-2023.
3. Your letter No. HKD/DFO(T)/Border/2nd Commando Battalion Unit/3745-47, dtd. 20-07-2023.

With reference to the letters cited above, I am to inform that the PCCF & HoFF, Assam has allowed the establishment of the 2nd Commando Battalion Unit inside inner line Reserve Forest at Damcherra area under Gharmurah Range of your division in the interest of conservation and protection of forest land.

Therefore, you are requested to take necessary action strictly following the Forest Conservation Act, 1980 and related guidelines.


(P. Sivakumar, IFS)
Chief Conservator of Forests,
Southern Assam Circle, Silchar



22/10/23

Memo no: GM/31/BORDER/2023/236

Dtd: 26/10/2023

To
The Divisional Forest Officer
Hallakandi Division
Hallakandi

Sub: Progress report 2nd Commando Battalion unit at Damchera inside ILRF
Ref: Your letter No: HKD/DFO(T)/ASSAM-MIZORAM BORDER/6561 dtd: 28-09-2023
HKD/DFO(T)/ASSAM-MIZORAM BORDER/6731 dtd:05-10-2023

Sir,

With reference to the subject cited above, I have the honour to inform you that after receiving due clearances from respected PCCF & HoFF, Assam, vide letter no FG.40/14/Mizoram Border/Pt -II dtd:28-09-2023, the construction work for the establishment of 2nd Commando Battallon unit at Damchera inside Inner Line Reserve Forest under Gharmura Range, Hallakandi Division, has begun at the designated site measuring 43.99ha which has been degraded due to encroachment and paddy cultivation.

This is for favour of your kind information and necessary action.

Yours faithfully



Range Forest Officer
Gharmura Range Office
Gharmura

Range Forest Officer
Gharmura Range
Gharmura



GOVT OF ASSAM
OFFICE OF THE DIVISIONAL FOREST OFFICER::HAILAKANDI DIVISION
HAILAKANDI

No. HKD/DFO(T)/2nd C. Bn./7028-29

E-mail: hailakandiforests1992@gmail.com

Date: 27/10/2023.

To

The Chief Conservator of Forests
Southern Assam Circle, Silchar

Sub:- Assam-Mizoram Interstate border Proposal for establishment of 2nd Commandant Battalion Unit inside Inner Line Reserve Forest at Damcherra area under Gharmurah Range, Hailakandi Forest Division and execution thereof.

Ref:- (i) PCCF&HoFF, Assam's letter No. FG.40/14/Mizoram Border/ Pt-II Dtd. 28-09-2023.
(ii) Your letter No. FGS.13/ECD/Assam-Mizoram Border/2018/Pt Dtd. 05-10-2023.
(iii) This office letter No. HKD/DFO(T)/Border/2nd Commando Battalion Unit/3745-47 Dtd. 20-07-2023.

Sir,

With reference to the above, I have the honour to state that the Range Forest Officer, Gharmurah Range has informed vide his Memo No. GM/31/BORDER/2023/236 Dtd. 26-10-2023, that after allowing for establishment of the 2nd Commando Battalion unit inside Inner Line Reserve Forest (ILRF) from the respected PCCF&HoFF, Assam under above reference, the concerned Police Department has started execution of the said 2nd Commando Battalion unit inside Inner Line Reserve Forest (ILRF) at Damcherra area under Gharmurah Range, Hailakandi Forest Division in the interest of conservation and Protection of forest land including maintenance of Status-quo in the disputed border boundary of Assam-Mizoram under Hailakandi District.

It may be stated that most of proposed construction site for quarter and barrack etc. selected in the encroached agricultural land which involves 43.99Ha. land in Inner Line Reserve Forest (ILRF) of Gharmurah Range, Hailakandi Forest Division.

Again, the Superintendent of Police, Hailakandi had communicated earlier a letter vide memo no. HKD/B/91/Vol-III/2023/224 Dtd. 26-06-2023 stating that the said commando Battalion unit will be helpful in protection of forest land including its flora & Fauna, threat of encroachment or any other disruption by miscreants in addition to numerous incidents of encroachment by the Mizoram state in and around the interstate border boundary of Assam-Mizoram in Assam's areas within Inner Line Reserve Forest (ILRF) as ancillary activities to forest protection and conservation. Also activities of natural and artificial regeneration can be enhanced in the areas after ejection of encroachers in the nearby areas by way of exploring the activities of an Eco-Task force.



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Further, the establishment of the said 2nd Commando Battalion unit inside Inner Line Reserve Forest (ILRF) will not violate the Forest Conservation Act'1980 and its related guidelines since the unit will vehemently be helpful in conservation and protection of forest land within the provision of Section 2(b) of Forest Conservation Act'1980.

This is for favour of your kind information and necessary action.

Encl: As specified.

Yours faithfully

(A. Dutta, AFS)
Divisional Forest Officer
Hailakandi Division, Hailakandi

✓ Copy to the Principal Chief Conservator of Forests & Head of Forest Force, Assam, Aranya Bhawan, Panjabari, Guwahati-37 for favour of his kind information. This also refers to his letter No. FG.40/14/Mizoram Border/ Pt-II Dtd. 28-09-2023.


Divisional Forest Officer
Hailakandi Division, Hailakandi



GOVERNMENT OF ASSAM
OFFICE OF THE DIVISIONAL FOREST OFFICER: HAILAKANDI DIVISION::
HAILAKANDI

Email: hailakandi forests1992@gmail.com

No. HKD/DFO(T)/Border/2nd Commando Battalion Unit/1232

Date: 06/03/2024

To

The Deputy Inspector General of Forest (C)
MoEFCC Regional Office, Shillong.

Sub: Submission of point-wise report

Ref: F. No. 22-11/2000/RONE/2022/5284-85 Dated: 1-03-2024

Sir,

With reference to the subject cited above, I have the honour to submit the point wise response in connection with the letter no. mentioned in the reference which are as below:

- 1) The purpose-wise break-up of the 44 ha land with layout map: **Annexure 1**
- 2) The detailed project report (DPR) of the construction of the Commando Battalion: **Annexure 2**
- 3) The original or colour scan Sol Map along with GPS coordinates with proper legend: **Annexure 3**
- 4) The soft copy of the Km/shape file: **Annexure 4**
- 5) The copy of notification letter of the Reserve Forest land or which the Batalion is being Established: **Annexure 5**
- 6) The order copy of the State Govt. for establishment of Commando Battalion at Hailakandi: **Annexure 6**
- 7) The order copy of
 - i) No diversion of the area allotted for construction of second commando battalion was proposed as the work is relating or ancillary to conservation, development and management of forest and wildlife which is in adherence to section 2(b) of FC Act 1980. A copy of a letter issued by The PCCF & HoFF, Assam allowing the permission of establishment of the 2nd Commando Battalion at Damchera vide letter no FG.40/14/Mizoram Border/Pt-II dated:28-09-2023 is annexed herewith: **Annexure 7**
 - ii) Question of handing over of forest land does not arise as the reserved forest land in question remains under the disposal of the forest department.
- 8) The order copy of State Govt. assigning duties to the Commando Battalion: **Annexure 8**
- 9) The rank-wise break-up of the officers and men to be stationed in the Battalion: **Annexure 9**

This is for favour of your kind information and necessary action.

Encls. :- As Specified

Yours faithfully

(A. Dutta, AFS)
Divisional Forest Officer
Hailakandi Division, Hailakandi

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**ASSAM POLICE HOUSING CORPORATION LTD
REHABARI, GUWAHATI-8.**

NAME OF WORK: -

**Establishment of New Assam Police Battalions at
Hailakandi District of Assam**

**Chief Engineer, Assam Police Housing Corporation Ltd, Rehabari,
Guwahati-8.**

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INDIAN POLICE SYSTEM

BACKGROUND TO THE POLICE SERVICES IN INDIA

History of Indian police on modern lines dates to the dawn of the 19th century. The idea of a separate regular police force as it exists today was never in consideration before the British period and for a considerable time even after the commencement of the rule. It was only in 1774 that Warren Hastings introduced for the first time under the Company's rule several measures for police reforms, which later culminated in the Police Act of 1861. To tackle this crime-ridden and difficult area, reorganized the native police system so that it could function properly and produce desired results.

This system was based on two principles:

1. The police must be completely separated from the military.
2. They must act as an independent body.
3. Assisting the Collectors in the discharge of law-and-order responsibilities.

The system provided for an Inspector General of Police who was responsible for the law and order of the entire province. Provinces were divided into districts that were controlled by Superintendents of Police who headed the police administration under the control of the Magistrates. The main principles were not altered even by the Police Commission of 1860, which is responsible for the current police system in India. Recommendations of the Police Commission of 1902-03 further improved the system to some extent.

In 1917, Islington Commission Report referred to it as the Indian Police Service for the first time. After independence Sardar Vallabhbhai Patel, the first Union Home Minister saw the importance of organizing the Civil Services on an all-India basis. In 1949, in the Constituent Assembly, he emphasized the importance of having a ring of services to help the country remain intact under a federal constitution, saying "...the Union will go, you will not have a united India if you do not have a good All India Service, which has the independence to speak out its mind". And thus, the Indian Police Service was born as an All-India Service.

POLICE SYSTEM DURING ANCIENT INDIA

Origin of police can be traced to the early Vedic period as the Rig and the Atharva Veda mentions certain kinds of crimes known to the Vedic people. In fact, evidence indicates the existence of security forces even in the Harappan period. Though the exact reference of the criminal justice organization during the Vedic period is not available, the Mauryan period exhibits important features of the same. Kautilya's Arthushastra (310 BC) is a treatise on the criminal justice system. It reads like a manual for police in modern times. There is a reference to DANVARIKA, ANTEVANSIKA, PRADESIKAS, MAHAMATRAS, RAJJUKAS, and so on. There were 3 types of police—Dandpal, Durgapol, and Antpal.

Magasthenese, the GREEK Ambassador, and Fa Hein, the Chinese traveller have written detailed accounts of the Gupta administration. Dandikas were the highest officers then. Others like Nagar Shreshtha, Rahasika, also find mention. The criminal justice system developed during this period continued for five to six hundred years. The only difference between the two periods being that the Mauryan system was centralized whereas the Gupta system was decentralized. But the basic structure of the police system of village police, city police, and palace police was the same, suitably altered by various kings.

POLICE SYSTEM DURING MEDIEVAL INDIA

There is no mention of police organizations found anywhere. It may be so because more focus was on conquests and military occupation without any serious attempt to consolidate or run civil administration. The Muslim conquerors did try to implant the police system in line with one prevailing in their homeland trying to fit it with the Indian social setting. The system of administering justice, punishment, and policing was, however, Islamic and was based on the Holy Quran. During the Sultanate period, the Hindu population was subjected to a different law and the Pandits were associated to interpret the Hindu law and to give their opinion on it. Muhtasibs, Muqaddams, were ranks of officials in charge of administration.

Punishments were very harsh, following the Islamic law, such as faying alive, cutting of nose, ears, or forearms, trampling by elephants, and mutilation. All this must have led to the generation of deep-rooted hatred for the police functionaries.

During this period, the center of power and political activity was the Sultan, Faujdar being the head of the criminal justice delivery system at the provincial level entrusted to maintain its peace and security. Kotwal was magistrate, head of the police, and municipal officer, all rolled into one. Chaakidar was responsible for the village administration. The government under the Mughals was autocratic and military in nature. Justice delivery system and police organizations both were weak during this period.

POLICE SYSTEM IN MODERN INDIA

BRITISH INDIA PHASE

After the British victory in 1757 at Plassey and the decline of the Mughal Empire, whatever police system was then in vogue became further corrupted in the area.

In 1862, the Indian Penal Code and the Criminal Procedure Code came into force. The Evidence Act was enforced in 1872 and thus the Qazis, the Muftis, the Pandits along with the Islamic law and the Hindu law got replaced. Though changes were made in the administrative functioning by the Britishers yet the Mughal framework for policing was retained. Ranks such as Kotwals, Thanedar, Pargana, Durogah, continued. However, changes slowly came in the Perso-Arabic model and the British way of policing was adopted.

PRE-INDEPENDENCE ERA

By the early 19th century, the Mughal empire started disintegrating and till the middle of the 19th century, there was no satisfactory police system primarily because of British inexperience and lack of knowledge about the country. Zamindars retained policing till 1792 when Cornwallis was sent to India as Governor-General. He abolished the zamindari system and made Thanedars responsible for the maintenance of law and order. Some other reforms were also introduced. Later, a model of policing developed by Napier culminated into the Indian Police Act of 1861, on which the current police system is also based.

INDIAN POLICE ACT OF 1860

After the revolt of 1857, the British realized the threat of losing power and were determined to ensure complete suzerainty and suppression of all challenges to their power. Thus, a Police Commission was appointed in 1860, to make police an efficient instrument for the prevention and detection of crime.

However, the system so designed was sharply opposite to that of the Britishers, celebrated in the whole world as a symbol of democratic policing. The primary objective was to meet the exigencies of trade and company profit and to ensure that the trade route was safe, exploitation of resources continued unhindered. This system was based on the structure

developed by the Mughals in the 17th century incorporating many features and names of officials like Daroga, Faujdar, and Kotwal. The Act imposed in the whole country a uniform police system. It relieved the District Magistrate of his duty to keep a check over the local police and made it more professional, organized, and disciplined in nature. The system of policing instituted by the Act is still in force and brought uniformity in administration. However, the general conditions of crime control remained unsatisfactory probably due to poverty, famine, and other adverse conditions like shortage of force. The second All India Police Commission was formed in 1902 to conduct a comprehensive inquiry and recommend improvement in various aspects of the organization. But nothing concrete was done according to the recommendations to improve the forces till independence.

After 1920, the imperial forces were open for the Indians through entrance examinations. Indianisation of the services remained slow despite pronouncements and recommendations. Due to the unavailability of Europeans, more Indians started getting appointed to the services later. After independence, India adopted the 1861 system unaltered in any basic respect.

THE CURRENT STRUCTURE OF THE POLICE SYSTEM IN INDIA

After 1860 recruitment of senior police officers was done in two ways— first, by the appointment of officers from the British Army, and second, by nomination from amongst younger sons of landed gentry in the UK. Both ways were abolished in 1893. Recruitment of officers now was done through a combined competitive exam held in London which only Europeans could take. Later it was opened for Indians too. Today recruitment made through Combined Civil Services Examination is conducted annually by the Union Public Service Commission. Article 312 of the Constitution of India mentions about the All-India Services. Probationers recruited undergo very tough basic training in physical academics, arms, and other activities.

According to the Constitution, the police force is a state subject. States draw rules, regulations and guidelines for the police in the state police manual. The organization structure of police forces in India is uniform in all the states throughout the country. The head of the police force in a state is called the Director-General of Police (DGP). A state is further divided into several zones, ranges, and districts. The district force is headed by an officer of the rank of Superintendent of Police (SP). Group of districts forms a range which is headed by an officer of the rank Deputy Inspector General of Police (DIG). Zones are composed of two or more ranges headed by an officer of the rank Inspector General of Police (IG). Districts are further subdivided into sub-divisions like circles and police stations which are headed by officers of different ranks. The district police are also divided into two branches—the civil police and the armed police, where the former primarily controls crime, and the latter deals with law-and-order situations and is also the reserved police of the district kept meeting an emergency.

INFLUENCE OF PAST POLICE SYSTEM ON THE PRESENT

The Indian Police system and structure as presently organized are essentially based on an Act 131 years old, the Police Act of 1861. The working of the police has been analysed twice at an All-India level within a period of 90 years. First was the Indian Commission of 1902-03 during the British regime and second was in 1977 by the National Police Commission. They found police far from efficient, defective in training and organization, lacking in public relations, welfare measures, machinery for redressal of grievances, etc. and that it was generally regarded as corrupt and oppressive. Even after independence, we were devoid of a better police administration system. There is still a requirement for a reorientation of attitude and approach on the part of the police.

ASSAM POLICE

Assam Police comes under direct control of Department of Home Affairs, Government of Assam. The Assam Police is headed by a Director General of Police (DGP). The current DGP of the Assam Police is Bhaskar Jyoti Mahanta, IPS

Assam police forces are organized into police ranges, headed by an inspector general deputy inspector general, who controls several police districts.

The police district is the fulcrum of state police activity, and each district is headed by a superintendent. In many states a superintendent is assisted by one or more additional superintendents or deputy superintendents. Generally, a police district is same as a revenue district of a state.

The police district is divided into police sub-divisions under the command of a deputy superintendent of subdivision police officer.

The police sub-division is made up of one or more police circles, and is under the command of an inspector, often referred to as the circle inspector.

Under the police circles are the police stations, generally under the control of a sub-inspector.

Assam state police force also maintains its own Reserve Armed police force (special armed police and armed police) which is responsible for emergencies and crowd control issues.

HISTORY OF ASSAM POLICE

POLICING IN ASSAM DURING AHOM RULE

Before the advent of the British, there did not seem to be any organised police force in Assam, either under the Ahom Kings or earlier. The army as well as the various officers of the kingdom were responsible for the maintenance of peace and safeguarding the lives and properties of the people. Towards the end of the Ahom rule, during the reign of Kamalaxwar Singha (1795-1811), an armed force on the British model was raised to serve the dual functions of maintenance of law and order and border defence. It was, however, not a regular and fully organised police force.

ASSAM POLICE DURING BRITISH RULE

On taking over the administration of Assam, after the Yandabu treaty of 1826, the British also did not immediately introduce any revolutionary changes and the army was employed in the task of maintaining law and order. Army outposts were also set up at different places for this purpose. However, the high expenditure in maintaining a large body of troops reduced the number of troops to just four regiments by 1839-40. Steps were taken to increase the armed component of the Civil Police in the province. The necessity of raising a separate force under the civil government apart from the armed civil Police was also felt and the first unit of this new organisation was formed.

This was the 'Cachar Levy', formed in 1835 by the Civil Service Officer, in-charge of Nowgong district, Mr. Grange, to guard new settlements and tea estates. It consisted of 750 officers and men of different ranks, viz., Inspectors, Head Constables and Constables. Three years later, a similar body, called 'Jorhat Militia', was formed to protect the border areas against frequent border transgressions. It was also known as the 'Shan militia', as the recruits were mostly from the Shan community. Eventually it was merged with the 'Cachar Levy', which was subsequently renamed as 'Frontier Police' in 1883 and then as 'Assam Military Police' in 1891 and then again as 'Assam Rifles' in 1920.

After 1862, the British deployed regular troops in several parts of Assam to consolidate its occupation and a police establishment consisting of one Darogah, one Jamadhar and several constables was maintained at each district headquarters. The duties included guarding of the Eastern Frontier of Assam from the Brahmaputra River to Cachar. The Levy was a force of a semi-military nature. The men were poorly paid, and the duties were arduous and often involving fighting. It is important to note that at the initial stage most of the recruits were from Bengal, as the local Assamese were not interested in joining the low-paid police service. The Government found that the Police force inducted from outside was not only inefficient but also oppressive, and therefore, decided to attract local Assamese youth to improve the character and efficiency of the police force. In October 1843, the Government upgraded the salary of the Darogah from Rs. 25 to Rs. 100 and there was a corresponding hike of the salary of other police personnel. This development saw the gradual induction of Assamese youth into the police force.

ASSAM POLICE IN INDEPENDENT INDIA

The year 1947 saw the transfer of power from British to Indian hands. The preliminaries to Constitutional changes as well as the aftermath threw an unprecedented strain on the Police Force. Two important changes affected the Assam Police. The first was the transfer of the Sylhet district to Pakistan and second was the complete separation of the administration of the Assam Rifles from the Police. The retirement of many service officers mainly British, the release of personnel opting for Pakistan and the absorption of those serving in Sylhet who opted for India were some other major factors which caused a temporary setback in the strength and resilience of the Police force immediately after Independence.

Several problems connected with the partition of the country kept the Police busy during 1949 and there was hardly any time for them to attend to proper training in professional skills and discipline and the control of crime. The force proved inadequate for the various complex problems facing it. Large gaps in the cadre of superior officers led to rapid promotions of inexperienced or old officers. Demands on the armed reserve of the state by other departments and the requirements of security on the Pakistan border brought to the fore front the utter inadequacy of the armed police strength. Moreover, the appearance of the cult of violence propagated by certain elements made the situation menacing. It is gratifying to note, however, that despite all these short comings and difficulties, the Assam Police, by and large, managed to tide over this difficult transitional period without much of its reputation impaired.

The anti-terrorist operation carried out in 1950-51 with the help of the Army and the Assam Rifles brought to the surface both the weaknesses and the strengths of the Police organisation and indicated clearly what further measures should imperatively be taken to remove the deficiencies. To make the Police suited to the changed circumstances the Government set up a Police Reorganisation Committee in 1952 but due to financial stringency most of the recommendations of the Committee could not be implemented. Some urgent items were, however, pushed through and these included establishment of more Police Stations and Outposts, increase in the armed and unarmed police and construction of buildings. The Wireless and Fire Service Organisations were also reorganised during this period. The posts of Dy.IG, Range D/G, Armed Forces and Training and Dy.IG Administration were created. The disturbed conditions in the Naga Hills arising out of the activities of the followers of A. Z. Phizo claiming independence for the Nagas posed a new problem to the Assam Police in 1956 and in the following years. The Police force in the Naga Hills had to be reinforced and many platoons of the A. P. Battalions were drafted to cope with the situation. It is a matter of pride that the Assam Police gave a good account of themselves and proved equal to the task

and as good as any armed force deployed in the area. When the Naga Hills district was separated from Assam in 1958, the Assam Police was withdrawn in stages, but they continued to man the outposts on the Naga Hills border.

The strength of police force in Assam at the time of independence was around 8,000. From 3,352 officers and men in 1874 when Assam was separated from Bengal and placed under the administration of a Chief Commissioner to the strength of 8,000 at the time of independence is not a spectacular development. But the British left behind a disciplined force with a set of rules and regulations which provided the foundation of the present police administration in the state. After independence, the police administration in Assam has grown from strength to strength. In 1980 it had a force of 40,290 and at the end of the 20th century its numerical strength was 61,263. There have been significant changes in the police administration at both the horizontal and vertical levels. Several new branches have been created in the post-independence era to cater to the needs of the state. Some of these newly created branches are:

Bureau of Investigation (Economic Offences)

Special Branch

Criminal Investigation Deptt.

- Assam Police Border Organisation
- Assam Police Radio Organisation
- Assam River Police Organisation
- State Fire Service Organisation
- All Women Police Station
- Establishment of Forensic Science Laboratory

Assam Police is adjusting itself to the changing circumstances and is working towards the ideal of a Police Force of a Welfare State whose efforts and service will be to serve the interest of the people and unlike the past, is no longer an oppressive arm of an alien administration. During the past decades, the Assam Police has developed proud and healthy traditions of service and conduct and though it had its failure and shortcomings, it has been able to play its part with credit and distinction and its record and performance have been as good and as worthy as that of any other police force in India.

BRANCHES OF ASSAM POLICE

- Assam Police Radio Organisation (APRO)
- The Bureau of Investigation (EO)
- Battalions
- Border
- Police Commissionerate
- Special Task Force
- Criminal Investigation Department
- Railway Police
- Village Defence Organization
- Special Branch
- Assam Police Housing Corporation Ltd.
- CM's Special Vigilance Cell
- River Police
- Commando
- Training Institutes
- Mounted Police

BATTALIONS

- Assam Police Battalion (APB)
- Assam Police Task Force
- IRBN
- Commando

Scope of Work for the Consultants

OBJECTIVE OF THE PROJECT:

The objective of this Assignment is to provide Project management consultancy services through preparation of -

DPR, Master Plan & Architectural Drawings, undertaking Bid Process Management for selection of contractors and vetting of construction drawings for Establishment of New Assam Police Battalions at Pabhoi in Biswanath Chariali, Ambikapur in Sadia, Geleky Kamalabari in Sivasagar, Birsima in Hailakandi & Doldoli in Karbi Anglong District of Assam.

INTRODUCTION

This Request for Proposal (RFP) aims to appoint a reputed firm as a Project Management Consultant (hereinafter referred to as PMC) who will undertake the Design, Development, Bid Process Management and vetting of Construction drawings for Establishment of New Assam Police Battalions at Pabhoi in Biswanath Chariali, Ambikapur in Sadia, Geleky Kamalabari in Sivasagar, Birsima in Hailakandi & Doldoli in Karbi Anglong District of Assam.

THE STRATEGIC MANDATE OF THE PMC IS AS FOLLOWS:

- Conceptualization of the project and preparation of Detailed Project Report.
- Preparation of the Master Plan, architectural drawings and implementation model of the project.
- Estimating the detailed cost of the project.
- Assisting APHC in the procurement of suitable contract or sin line with CVC guidelines.
- Issued for the purpose.
- Vetting of Construction Drawings.

DISTRICT PROFILE, HAILAKANDI

Hailakandi district in the southmost part of Assam. It is located between longitude 92°25' to 92°46' East and latitude 24°08' to 24°53' North. It has an average elevation of 21 meters (68 feet). The total Geographical area of the district is 1327 sq.km of which rural area is 13167.47 sq km and Urban area 10.53 sq.km. The district is situated in the middle of Barak Valley and bounded by Cachar district in the north and east, Mizoram state in the south and Karimganj district in the west. The district consists of both plain and hilly areas. It was a civil subdivision on 1st June 1869. Subsequently, it was upgraded to district in 1989. Hailakandi comprises of three notified towns viz. Hailakandi (district headquarters), Lala and Algapur and one industrial township viz. Panchgram. A Municipal Board governs Hailakandi town & a town Committee governs Lala. It has five development blocks viz. Algapur, Hailakandi, Lala, Katlichetra & South Hailakandi block. The district is having 62 Gaon Panchayats, 351 revenue villages, one municipality board and two town committees. There is also a small township at 'Hindustan Paper Mill' area at Panchgram in 'Algapur block' area.

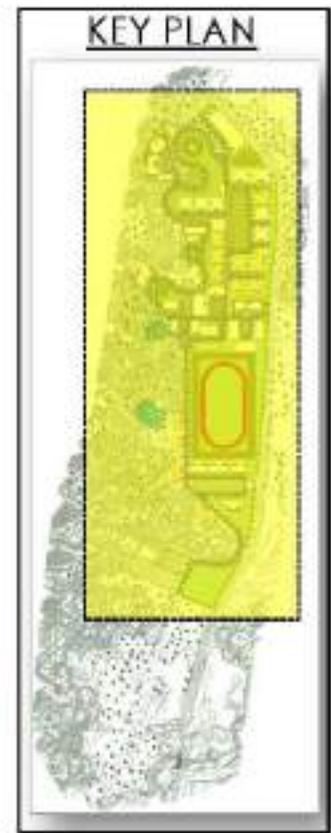
The connectivity of the district is comprised of road NH-53 and NH-154 and railway (Meter Gauge). Only 22 % of the PWD roads are surfaced, having 78% of un-surfaced roads in the district which indicate that access and availability of good road connectivity in the district is exceptionally low. Nearest airport is Kumbhigram airport which is located 83 Km from the district headquarter.

Climate

The climate of the district is characterized by hot and humid. The summer starts from March and continue till October. Winter generally starts at the end of November and continues up to February.

Rainfall

The average annual rainfall of the district is 2441.94 mm with 123 average rainy days on the basis of last ten years record (1999-2008). High rainfall generally concentrates during the month of May to September though floods were also experienced during March to April due to the occurrence of heavy rainfall in Mizoram draining in Dhaleshwari river which flows through the middle of the district resulting floods in the Hailakandi district. Winter months December to January remains generally dry without or with scanty rainfall.



LEGENDS

- PHASE 1
- PHASE 2



SITE PLAN

HAILAKANDI

APPROACH AND PLANNING

The design development for the assam police battalion, Hailakandi is divided into several zones as public functions, semi- public and private zones.



The design concept also incorporates the hierarchy of the police battalion.



LAYOUT AND PLANNING

The design development for the assam police battalion, Hailakandi is divided into several zones as public functions, semi- public and private zones. The design concept also incorporates the hierarchy of the police battalion as per there functions and requirements.

The first public zone incorporates administrative block for the CO's office alongside with the magazine/Kote building with explosive depot, Ration and clothing store and control room.

MT garage and fire station are situated at the entrance of the site for easy access.

The second private zone starts with Family line of housing and residences followed by their hierarchy

1. Co's Residence
2. Deputy commandant Residence
3. Assistant Deputy Commandant Residence
4. Inspector & sub-inspector Quarter
5. Havildar & Constables Quarter
6. Follower's Quarter
7. Other facilities like close to the residences are Go's Mess, Naamghar etc.

The semi-private zone contains common facilities of the site like Primary school, Hospital, Classrooms, Canteen, Indoor sports complex, accommodation for So's and So's mess etc which are placed at the central location and can be approached by Housing/ residences as well as barracks.

A separate road leads to the Parade ground, obstacle park and shooting range etc. in order to segregated and in nearby proximity from the barracks.

Scope of Work**Project Scope:**

The complete master plan design for 800 battalion strength which includes Non-Residential, Residential & common facilities as listed given below-

Out of the above In **Phase-I** 50% of the capacity is considered for Residentials Havaldar/ASI/Constable, Inspector/Sub-Inspector, Accommodation for SO'S & Barrack. Common infrastructure structure facilities in Phase-I also includes the following-

- 02 Nos Parade Ground (200x115m & 90x100m approx.)
- Short (25 m) & Long (100 m) Shooting Range
- Children's Park & Playground Field as per master plan

EPC Contractor Scope-EPC Contractor has to visit the site & analyse the above phase-1 scope as per site conditions & execute the work on Lumpsum price on EPC mode. EPC contractor has to carried out detail design engineering for the MEP & other allied infrastructures facilities and construct & commissioned the same along with the buildings. For Detail project requirements & design parameters etc, please refer DBR enclosed as Annexure.

ESTABLISHMENT OF NEW ASSAM POLICE BATTALION AT HAILAKANDI (ASSAM)																											
Sr No	Activity Description	Time	Duration of Activity (Months)																								
			M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	M13	M14	M15	M16	M17	M18	M19	M20	M21	M22	M23	M24	
1	Mobilization	3	■	■	■																						
2	Design Engineering Works	2	■	■																							
3	Building Sub Str. Const. Works	6			■	■	■	■	■	■																	
4	Super Str. Const. Works	12					■	■	■	■	■	■	■	■	■	■	■	■	■								
5	Masonry Works	12							■	■	■	■	■	■	■	■	■	■	■	■	■						
6	Pastering Works	10										■	■	■	■	■	■	■	■	■	■	■					
7	Door Window Joinery Works	12											■	■	■	■	■	■	■	■	■	■	■	■	■	■	
8	Roofing & Dado	9												■	■	■	■	■	■	■	■	■	■	■	■	■	
9	PHE Works	9													■	■	■	■	■	■	■	■	■	■	■	■	
10	Finishing Works	6																		■	■	■	■	■	■	■	
11	Electro Mechanical Works	12																									
12	Boundary Wall	12		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
13	Road & Site Development	15																									
14	other infrastructure works	9																									
15	Commissioning & Handing Over																										

386

AREA STATEMENT										
TOTAL PLOT AREA		115123.27	SQM							
S.NO	NAME OF BUILDINGS	FLOOR	GROUND FLOOR	FIRST FLOOR	SECOND FLOOR	THIRD FLOOR	FOURTH FLOOR	BUILT UP AREA PER FLOOR	G.TOTAL BUILT UP AREA	TOTAL GROUND COVERAGE
(A) ADMINISTRATIVE BUILDING & OTHERS										
	C.O.'S OFFICE PREMISES	1	545.44	545.44				1,090.88	1,090.88	545.44
	VEL. GARAGE WITH OFFICE	1	074.49					074.49	074.49	074.49
	WATCH STORE & CLOTHING STORE	1	300.00					300.00	300.00	300.00
	PR. MAGAZINE/NOTE BUILDING WITH SECURITY POST & ROUND OFF WALL	1	158.44					158.44	158.44	158.44
	GD'S MESS	1	325.00	325.00				650.00	650.00	325.00
	SIS MESS	1	425.00	425.00				850.00	850.00	425.00
	COMMUNITY CENTRE WITH CANTEN, SMOOK & LAUNDRY BLOCK	1	600.00					600.00	600.00	600.00
	HOSPITAL (10 BED)	1	330.00					330.00	330.00	330.00
	DRILL SHED WITH STAGE	1	400.00					400.00	400.00	400.00
	GATE COMPLEX WITH 10 MM BARRACK	1	175.00					175.00	175.00	175.00
	WATCH TOWERS	30	5.00					5.00	50.00	50.00
	TRIC STATION WITH ENRACE	1	175.00	175.00				350.00	350.00	175.00
	ATM	1	15.00					15.00	15.00	15.00
	CONTROL ROOM	1	50.00					50.00	50.00	50.00
	CLASS ROOM BLOCK with COMPUTER LAB	1	350.00	350.00				700.00	700.00	350.00
	INDOOR SPORTS COMPLEX with GYM	1	400.00	400.00				800.00	800.00	400.00
	PRIMARY SCHOOL	1	560.00	560.00				560.00	560.00	560.00
	FAMILY WELFARE CENTER	1	300.00	300.00				300.00	300.00	300.00
	HAANIGAR	1	100.00	100.00				100.00	100.00	100.00
	DRY TRAINING HALL	1	400.00	400.00				400.00	400.00	400.00
(A) RESIDENTIAL/QUARTERS										
	C.O.'S RESIDENTIAL BUILDING WITH ASSAM	1	125.00	125.00				250.00	250.00	125.00
	DEPUTY COMMANDANT'S RESIDENTIAL BUILDING - 4 UNITS - 1 BLOCK	1	360.00	360.00				720.00	720.00	360.00
	ASST. COMMANDANT'S RESIDENTIAL BUILDING - 8 UNITS - 2 BLOCKS	2	300.00	300.00				600.00	1,200.00	600.00
	INSPECTOR'S RESIDENCE - 40 UNITS	5 BLOCK-G+1 (40 UNITS) & 1 BLOCK-G+1 (1 UNITS)	3,120.00	2,790.00				5,910.00	5,910.00	3,120.00
	MAJOR D.A.R. CONSTABLE RESIDENCE 150 UNITS	22 BLOCK-G+1 (150 UNITS) & 1 BLOCK-G+1 (15 UNITS)	8,920.00	8,780.00				17,700.00	17,700.00	8,920.00
	FOLLOWERS QTR. - 80 UNITS	1	320.00	320.00				640.00	640.00	320.00
	ACCOMMODATION FOR SGTs - 80 UNITS	2	300.00	300.00				600.00	1,200.00	600.00
	BARRACK ACCOMMODATION - 204 NOS.	0	204.00	204.00				408.00	408.00	4,302.00
	GARAGE	2	40.00					80.00	80.00	80.00
	SECURITY POST	2	0.00					0.00	0.00	0.00
	SECURITY POST	1	10.00					10.00	10.00	10.00
	GUARD SHED	1	74.00					74.00	74.00	74.00
	KILL HOUSE	1	200.00					200.00	200.00	200.00
	TOTAL							45,405.00	45,405.00	25,460.00

PROPOSED CONSTRUCTION OF POLICE COMMANDO BATTALION AT HAILAKANDI, ASSAM				
PROJECT GRAND SUMMARY				
S. No.	DESCRIPTION	FLOORS	PHASE-I DEVELOPMENT	
			Area (In Sqm)	Proposed Cost (In Rs.)
A	BUILDING WORK			
	ADMINISTRATIVE BUILDING & OTHERS			
1	C.O.'S OFFICE BUILDING	G+1	1,093.00	513.31,764.56
2	MT GARAGE & OFFICE	G	070.00	246.49,473.40
3	RATION STORE & CLOTHING STORE	G+1	300.00	84,87,141.25
4	MAGAZINE/NOTE BUILDING with EXPLOSIVE DEPOT	G	150.00	103,03,990.33
5	GD'S MESS	G+1	650.00	182,66,835.80
6	SIS MESS	G+1	850.00	250,07,197.80
7	COMMUNITY CENTER WITH CANTEN, SMOOK & LAUNDRY BLOCK	G	600.00	172.41,30,000.00
8	HOSPITAL (10 BED)	G	330.00	103,37,280.53
9	DRILL SHED	G	400.00	42,23,280.00
10	GATE COMPLEX WITH 10 MM BARRACK	G	175.00	36,61,553.33
11	WATCH TOWER-10 Nos.	G	50.00	5,63,050.00
12	FIRE STATION WITH BARRACK	G+1	350.00	104,64,097.53
13	ATM	G	15.00	3,63,005.00
14	CONTROL ROOM	G	50.00	13,54,086.98
15	CLASS ROOM BLOCK WITH COMPUTER LAB	G+1	700.00	204,20,195.00
16	INDOOR SPORTS COMPLEX WITH GYM	G+1	800.00	232,75,080.00
17	PRIMARY SCHOOL	G	560.00	150,58,556.00
18	FAMILY WELFARE CENTER	G	300.00	143,04,425.00
19	HAANIGAR	G	100.00	83,10,055.00
20	RECREATION HALL	G	400.00	115,27,540.00
	RESIDENTIAL BUILDING/QUARTERS			
21	C.O.'S RESIDENCE-1 BLOCKS	G+1	250.00	73,23,275.00
22	DEPUTY COMMANDANT'S RESIDENCE-1 BLOCKS	G+1	720.00	202,95,802.00
23	ASSISTANT COMMANDANT'S RESIDENCE - 8 UNITS (2 BLOCKS)	G+1	1,200.00	343,59,720.00
24	INSPECTOR'S RESIDENCE- 32 UNITS (4 BLOCK-G+1)	G+1	4,100.00	1173,53,096.00
25	MAJOR D.A.R. CONSTABLE RESIDENCE - 150 UNITS (12 BLOCK-G+1)	G+1	8,920.00	2521,32,306.00
26	FOLLOWERS RESIDENCE - 8 UNITS (1 BLOCKS)	G+1	640.00	186,45,184.00
27	ACCOMMODATION FOR SGTs (INSPECTOR'S QTR.) - 20 UNITS (1 BLOCKS)	G+1	600.00	173,89,060.00
28	BARRACK - 204 NOS. ACCOMMODATION (4 BLOCKS-G+1)	G+1	3,500.00	1086,79,184.00
29	GARAGE - 2 NOS.	G	80.00	20,23,050.00
30	SECURITY POST - 2 NOS.	G	0.00	50,160.00
31	SECURITY POST - 1 NOS.	G	10.00	1,00,300.00
32	GUARD SHED - 01 NOS.	G	74.00	7,15,054.00
33	KILL HOUSE	G	200.00	43,50,059.30
TOTAL-A	(BUILDING WORKS)		20,149.00	6420,10,089.00
B	MEP HIGH SIDE/DEVELOPMENT WORKS			
27	EXTERNAL SITE DEVELOPMENT (CML)			27,49,77,342.35
27	PUBLIC HEALTH & FIRE FIGHTING			237,64,666.00
28	EXTERNAL ELECTRICAL WORKS			2,58,07,429.00
TOTAL-B	(MEP HIGH SIDE/DEVELOPMENT WORKS)			3245,49,437.35
TOTAL-C	TOTAL COST AS PER CPWD PLINTH AREA RATE (A+B)			1,666,67,847.15
	ADD FOR CONTINGENCY CHARGES @ 1%			1,66,66,784.47
	ADD FOR DEPARTMENTAL CHARGES @ 5%			83,33,392.36
	ADD FOR GST ON DEPARTMENTAL CHARGES @ 10%			104,20,187.02
	ADD FOR PMC CHARGES (INCLUDING GST)			2,90,00,000.00
	ADD FOR EPF/ESI @ 1.5% ON CUMULATIVE COST			66,79,403.36
TOTAL-D	TOTAL COST AS PER CPWD RATES WITH CONTINGENCY, ARCHITECTURAL CONSULTANCY AND PMC CHARGES			13171,40,015.16
TOTAL-E	COST OF PRE CONSTRUCTION ACTIVITIES AND ENABLING WORKS / STATUTORY CHARGES (Local body approvals including tree cutting etc, Electrical External Service Connection, Civil External Service Connections & Survey)			141,05,943.71
TOTAL-F	SUB-SOIL INVESTIGATION ADD FOR SSI 50 NOS. BORES @ 30000 Per Bore (Calculation Sheet Attached for reference)			15,00,000.00
	GRAND TOTAL PROJECT COST (D+E+F)			13528,25,978.87
	SAY	135.28		Crore

PROPOSED CONSTRUCTION OF POLICE COMMANDO BATTALION AT HAILAKANDI, ASSAM

PROJECT GR 387 SUMMARY

S. No.	DESCRIPTION	TOTAL DEVELOPMENT			PHASE-I DEVELOPMENT			PHASE-II DEVELOPMENT		
		FLOORS	Area (In Sqm)	Proposed Cost (In Rs.)	FLOOR S	Area (In Sqm)	Proposed Cost (In Rs.)	FLOORS	Area (In Sqm)	Proposed Cost (In Rs.)
A	BUILDING WORK									
	ADMINISTRATIVE BUILDING & OTHERS									
1	CO'S OFFICE BUILDING	G+1	1,083.00	313,31,764.56	G+1	1,083.00	313,31,764.56	-	-	-
2	MT GARRAGE & OFFICE	G	870.00	246,49,471.63	G	870.00	246,49,471.63	-	-	-
3	RATION STORE & CLOTHING STORE	G+1	300.00	84,87,141.25	G+1	300.00	84,87,141.25	-	-	-
4	MAGAZINE/KOTR BUILDING with EXPLOSIVE DEPOT	G	350.00	101,03,998.13	G	350.00	101,03,998.13	-	-	-
5	GO'S MESS	G+1	650.00	182,56,515.01	G+1	650.00	182,56,515.01	-	-	-
6	SO'S MESS	G+1	870.00	250,97,797.01	G+1	870.00	250,97,797.01	-	-	-
7	COMMUNITY CENTER WITH CANTREN, SALOON & LAUNDRY BLOCK	G	600.00	172,41,310.00	G	600.00	172,41,310.00	-	-	-
8	HOSPITAL (10 BED)	G	330.00	101,37,283.51	G	330.00	101,37,283.51	-	-	-
9	DRILL SHED	G	400.00	42,33,200.00	G	400.00	42,33,200.00	-	-	-
10	GATE COMPLEX WITH 10 MEN BARRACK	G	175.00	36,61,553.13	G	175.00	36,61,553.13	-	-	-
11	WATCH TOWER-10 Nos.	G	50.00	5,63,550.00	G	50.00	5,63,550.00	-	-	-
12	FIRE STATION WITH BARRACK	G+1	350.00	104,64,097.51	G+1	350.00	104,64,097.51	-	-	-
13	ATM	G	15.00	3,63,935.07	G	15.00	3,63,935.07	-	-	-
14	CONTROL ROOM	G	50.00	12,54,406.88	G	50.00	12,54,406.88	-	-	-
15	CLASS ROOM BLOCK WITH COMPUTER LAB	G+1	700.00	204,28,195.00	G+1	700.00	204,28,195.00	-	-	-
16	INDOOR SPORTS COMPLEX WITH GYM	G+1	800.00	232,75,080.00	G+1	800.00	232,75,080.00	-	-	-
17	PRIMARY SCHOOL	G	560.00	160,98,556.00	G	560.00	160,98,556.00	-	-	-
18	FAMILY WELFARE CENTER	G	500.00	143,84,425.00	G	500.00	143,84,425.00	-	-	-
19	NAAMGHAR	G	300.00	83,10,655.00	G	300.00	83,10,655.00	-	-	-
20	RECREATION HALL	G	400.00	113,27,540.00	G	400.00	113,27,540.00	-	-	-
	RESIDENTIAL BUILDING/QUARTERS									
21	CO'S RESIDENCE-1 BLOCKS	G+1	250.00	71,23,275.01	G+1	250.00	71,23,275.01	-	-	-
22	DEPUTY COMMANDANT'S RESIDENCE-1 BLOCKS	G+1	720.00	202,95,832.00	G+1	720.00	202,95,832.00	-	-	-
23	ASSISTANT COMMANDANT'S RESIDENCE - 8 UNITS (2 BLOCKS)	G+1	1,200.00	341,59,720.00	G+1	1,200.00	341,59,720.00	-	-	-
24	INSPECTOR'S RESIDENCE- 45 UNITS (5 BLOCK- G+1 (40 UNITS) & 1 BLOCK -G+1 (5 UNITS))	G+1	5,850.00	1657,57,635.01	G+1	4,160.00	1173,53,696.00	G+1	1,690.00	484,03,939.01
25	HAVILDAR'S, ASI, CONSTABLE RESIDENCE - 190 UNITS (28 BLOCK- G+1 (184 UNITS) & 1 BLOCK -G+1 (6 UNITS))	G+1	17,670.00	4995,16,477.01	G+1	8,928.00	2521,32,316.88	G+1	8,742.00	2473,84,160.21
26	FOLLOWERS RESIDENCE - 8 UNITS (1 BLOCKS)	G+1	640.00	180,45,184.00	G+1	640.00	180,45,184.00	-	-	-
27	ACCOMMODATION FOR SO'S (INSPECTOR'S.S.I) -40 UNITS (2 BLOCKS)	G+1	1,200.00	343,79,720.00	G+1	600.00	171,89,860.00	G+1	600.00	171,89,860.00
28	BARRACK - 8 BLOCKS (504 NOS. ACCOMODATION)	G+1	8,064.00	2285,26,118.40	G+1	3,840.00	1086,79,104.00	G+1	4,224.00	1198,47,014.40
29	GARRAGE - 2 NOS.	G	80.00	20,25,650.00	G	80.00	20,25,650.00	-	-	-
30	SENTARY POST - 2 NOS.	G	8.00	90,168.00	G	8.00	90,168.00	-	-	-
31	SENTARY POST - 1 NOS.	G	16.00	1,80,336.00	G	16.00	1,80,336.00	-	-	-
32	GUARD SHED - 01 NOS.	G	74.00	7,15,654.00	G	74.00	7,15,654.00	-	-	-
33	KILL HOUSE	G		41,56,659.30			41,56,659.30	-	-	-
TOTAL-A	(BUILDING WORKS)		45,125.00	12748,42,983.42		29,869.00	8420,18,099.08	15,256.00	4328,24,973.62	
B	MEP HIGH SIDE/DEVELOPMENT WORKS									
27	EXTERNAL SITE DEVELOPMENT (CIVIL)			3613,27,215.89			2749,77,342.35			863,49,873.54
27	PUBLIC HEALTH & FIRE FIGHTING			328,48,220.00			237,64,666.00			90,83,554.00
28	EXTERNAL ELECTRICAL WORKS			486,28,854.50			258,07,429.00			228,21,425.50
TOTAL-B	(MEP HIGH SIDE/DEVELOPMENT WORKS)			4428,04,290.39			3245,49,437.35			1182,54,853.04
TOTAL-C	TOTAL COST AS PER CPWD PLINTH AREA RATE (A+B)			17176,47,273.81			11665,67,447.15			5510,79,826.66
	ADD FOR CONTINGENCY CHARGES @ 1%			171,76,472.74			116,65,674.47			55,10,798.27
	ADD FOR DEPARTMENTAL CHARGES @5%			858,82,363.69			583,28,372.36			275,53,991.33
	ADD FOR GST ON DEPARTMENTAL CHARGES @10%			154,58,825.46			104,99,107.02			49,59,710.44
	ADD FOR PMC CHARGES INCLUDING GST			240,00,000.00			240,00,000.00			-
	ADD FOR EPF/ESI @3.95% ON CUMULATIVE COST			678,47,067.32			460,79,414.36			217,67,653.16
TOTAL-D	TOTAL COST AS PER CPWD RATES WITH CONTINGENCY , ARCHITECTURAL CONSULTANCY AND PMC CHARGES			19280,12,003.02			13171,40,015.36			18108,71,987.86

PROPOSED CONSTRUCTION OF POLICE COMMANDO BATTALION AT HAILAKANDI, ASSAM

PROJECT GR 388 SUMMARY

S. No.	DESCRIPTION	TOTAL DEVELOPMENT			PHASE-I DEVELOPMENT			PHASE-II DEVELOPMENT		
		FLOORS	Area (In Sqm)	Proposed Cost (In Rs.)	FLOOR S	Area (In Sqm)	Proposed Cost (In Rs.)	FLOORS	Area (In Sqm)	Proposed Cost (In Rs.)
E	COST OF PRE CONSTRUCTION ACTIVITIES AND ENABLING WORKS / STATUTORY CHARGES (Local body approvals including tree cutting etc, Electrical External Service Connection, Civil External Service Connections & Survey)									
	ADMINISTRATIVE BUILDING & OTHERS									
1	CO'S OFFICE BUILDING			11,20,092.75			11,20,092.75			-
2	MT GARRAGE & OFFICE			8,99,797.51			8,99,797.51			-
3	RATION STORE & CLOTHING STORE			3,10,275.00			3,10,275.00			-
4	MAGAZINE/KOTR BUILDING with EXPLOSIVE DEPOT			3,61,987.51			3,61,987.51			-
5	GO'S MESS			6,72,262.51			6,72,262.51			-
6	SO'S MESS			8,99,797.51			8,99,797.51			-
7	COMMUNITY CENTER WITH CANTEN, SALOON & LAUNDRY BLOCK			6,20,550.00			6,20,550.00			-
8	HOSPITAL (10 BED)			1,68,000.00			1,68,000.00			-
9	DRILL SHED			3,41,302.51			3,41,302.51			-
10	GATH COMPLEX WITH 10 MEN BARRACK			36,61,553.13			36,61,553.13			-
11	WATCH TOWER-10 Nos.			21,000.00			21,000.00			-
12	FIRE STATION WITH BARRACK			3,61,987.51			3,61,987.51			-
13	ATM			15,513.75			15,513.75			-
14	CONTROL ROOM			51,712.51			51,712.51			-
15	CLASS ROOM BLOCK WITH COMPUTER LAB			7,23,975.00			7,23,975.00			-
16	INDOOR SPORTS COMPLEX WITH GYM			8,27,400.00			8,27,400.00			-
17	PRIMARY SCHOOL			5,79,180.00			5,79,180.00			-
18	FAMILY WELFARE CENTER			5,17,125.00			5,17,125.00			-
19	NAANGHAR			3,10,275.00			3,10,275.00			-
20	RECREATION HALL			4,13,700.00			4,13,700.00			-
	RESIDENTIAL BUILDING/QUARTERS									
21	CO'S RESIDENCE-1 BLOCKS			2,58,562.51			2,58,562.51			-
22	DEPUTY COMMANDANT'S RESIDENCE-1 BLOCKS			7,44,660.00			7,44,660.00			-
23	ASSISTANT COMMANDANT'S RESIDENCE - B UNITS (2 BLOCKS)			12,41,100.00			12,41,100.00			-
24	INSPECTOR'S RESIDENCE- 45 UNITS (5 BLOCK-G+1 (40 UNITS) & 1 BLOCK-G+1 (5 UNITS))			60,90,362.51			43,02,400.00			17,47,002.51
25	HAVILDAR'S, ASI, CONSTABLE RESIDENCE- 190 UNITS (23 BLOCK-G+1 (184 UNITS) & 1 BLOCK-G+1 (6 UNITS))			382,75,197.51			92,33,784.00			96,41,413.51
26	FOLLOWERS RESIDENCE - 8 UNITS (1 BLOCKS)			6,61,920.00			6,61,920.00			-
27	ACCOMMODATION FOR SO'S (INSPECTOR'S,S.I) -40 UNITS (2 BLOCKS)			12,41,100.00			6,20,550.00			6,20,550.00
28	BARRACK - B BLOCKS (504 NOS. ACCOMMODATION)			83,40,192.00			39,71,520.00			43,68,672.00
29	GARRAGE - 2 NOS.			82,740.00			82,740.00			-
30	SENTARY POST - 2 NOS.			3,360.00			3,360.00			-
31	SENTARY POST - 1 NOS.			6,720.00			6,720.00			-
32	GUARD SHED - 01 NOS.			31,000.00			31,000.00			-
33	Cost of Survey (LS)			1,50,000.00			1,50,000.00			-
TOTAL-E	TOTAL COST (PRE CONSTRUCTION ACTIVITIES AND ENABLING WORKS / STATUTORY CHARGES)			499,64,481.73			341,85,963.71			157,78,518.02
TOTAL-F	SUB-SOIL INVESTIGATION (ADD FOR SSI 50 NOS. BORES @ 30000 Per Bore (Calculation Sheet Enclosed for reference))			15,00,000.00			15,00,000.00			-
	GRAND TOTAL PROJECT COST (D+E+F)			19794,76,485.00			13528,25,979.00			6266,50,506.00
		SAY	197.95	Crore	SAY	135.28	Crore	SAY	62.67	Crore

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PROPOSED CONSTRUCTION OF POLICE COMMANDO BATTALION AT HAILAKANDI, ASSAM									
C.O.'S OFFICE BUILDING									
		No. of Storeys	-	Gr 1					
		Total Covered Area	-	1083.00	Sq.m				
		Grossed Covered Area	-	541.50	Sq.m				
		Floor Height Typical	-	4.20	Mtr				
		Plinth Height	-	0.60	Mtr				
S.No.	Ref PAR 2023 Item	Description	Area	Unit	Rate	Amount [In Rs.]			
						Civil	Plumbing	Electrical	
1	1.0	BUILDING COST (Specifications as per Annexure - II)							
1	084 as per schedule from MPWD dated 03.03.2023	RC FRAMED STRUCTURE (Type Three Storeys)							
		Floor ht. 3.60 m	1083.00	Sq.m	2003.00	21701655.00			
Total Building Cost						21701655.00	0.00	0.00	
1.1		EXTRAS FOR							
2	1.52	Every 0.30m additional height of normal floor higher of 3.60m Over extra floor (1.5 x 3.6) @ 20000	1083.00	Sq.m	740.00	801433.00			
3	1.54	Every 0.30m depth of foundation over normal depth of 1.50 mtr (on ground floor area only) @ 1.50 m depth @ 1.5 x 3.6 @ 2000	541.50	Sq.m	200.00	1,08,300.00			
4	1.55	Making stronger foundation to take load of extra additional floor at a later date (on ground floor area only)	541.50	Sq.m	300.00	1,62,450.00			
TOTAL A (EXTRA WORK)						1,70,743.00	0.00	0.00	
1.3		FIRE FIGHTING							
5	1.53	Work over floor and ground by contract	1083.00	Sq.m	3200.00	3471600.00			
TOTAL B (FIRE FIGHTING)						3471600.00	0.00	0.00	
1.4		FIRE ALARM SYSTEM							
6	1.64	Outdoor Fire Alarm System	1083.00	Sq.m	600.00	649800.00			
TOTAL C (FIRE ALARM SYSTEM)						649800.00	0.00	0.00	
2.0		SERVICES							
7	2.1	Internal Water Supply & Sanitary Installation	22101.055.00	%	4%	884042.00			
8	2.2	Internal electric installation	22101.055.00	%	12.5%	2762627.50			
9	2.4	EXTRA FOR							
9	2.4.1	Power supply and plug	22101.055.00	%	0.9%	198969.95			
10	2.4.2	Lighting connections	22101.055.00	%	0.25%	55252.64			
11	2.4.3	Telephone connection	22101.055.00	%	0.25%	55252.64			
TOTAL D (SERVICES)						1,193,817.13	0.00	0.00	
3.0		WATER TANK (R.C.C. ONE'S)							
12	3.1	Overhead tank without independent supply	20.00	Sq.m	20	400.00			
TOTAL E (WATER TANK)						400.00	0.00	0.00	
TOTAL COST AS PER MPWD PLINTH AREA RATE (A+B+C+D+E)						245,77,075.00	26,93,674.00	44,56,115.00	
TOTAL COST OF BUILDING						252,73,050.00	27,00,000.00	44,56,115.00	
Say Rs.						2.52	27.00	44.56	
13		LIST OF PRE CONSTRUCTION ACTIVITIES AND ENABLING ITEMS / STATUTORY CHARGES							
13	2.23	External External Service Connections	22101.055.00	%	3.75%	911288.38			
14	2.23	Local body approvals including tree cutting etc.	22101.055.00	%	1.25%	280,071.25			
TOTAL F						1,191,366.63	0.00	0.00	
Say Rs.						1.19	0.00	0.00	
TOTAL III						264,64,416.63	27,00,000.00	44,56,115.00	
Say Rs.						2.64	27.00	44.56	

PROPOSED CONSTRUCTION OF POLICE COMMANDO BATTALION AT HAILAKANDI, ASSAM									
MT GARRAGE & OFFICE									
		No. of Storeys	-	Gr					
		Total Covered Area	-	979.00	Sq.m				
		Grossed Covered Area	-	479.00	Sq.m				
		Floor Height Typical	-	4.80	Mtr				
		Plinth Height	-	0.60	Mtr				
S.No.	Ref PAR 2023 Item	Description	Area	Unit	Rate	Amount [In Rs.]			
						Civil	Plumbing	Electrical	
1	1.0	BUILDING COST (Specifications as per Annexure - II)							
1	084 as per schedule from MPWD dated 03.03.2023	RC FRAMED STRUCTURE (Type Three Storeys)							
		Floor ht. 3.90 m	979.00	Sq.m	20685.00	20250515.00			
Total Building Cost						20250515.00	0.00	0.00	
1.1		EXTRAS FOR							
2	1.52	Every 0.30m additional height of normal floor higher of 3.60m Over extra floor (1.5 x 3.6) @ 20000	979.00	Sq.m	740.00	724820.00			
3	1.54	Every 0.30m depth of foundation over normal depth of 1.50 mtr (on ground floor area only) @ 1.50 m depth @ 1.5 x 3.6 @ 2000	479.00	Sq.m	200.00	95800.00			
TOTAL A (EXTRA WORK)						820620.00	0.00	0.00	
1.2		BILL BOARDING							
4	1.1.1	Door cover System	979.00	Sq.m	800.00	783200.00			
TOTAL B (BILL BOARDING)						783200.00	0.00	0.00	
1.3		FIRE ALARM SYSTEM							
5	1.6.2	Automatic Fire Alarm System	979.00	Sq.m	600.00	587400.00			
TOTAL C (FIRE ALARM SYSTEM)						587400.00	0.00	0.00	
2.0		SERVICES							
6	2.1	Internal Water Supply & Sanitary Installation	17025.000.00	%	4%	680900.00			
7	2.2	Internal electric installation	17025.000.00	%	12.5%	2128125.00			
8	2.4.2	Lighting connections	17025.000.00	%	0.25%	425625.00			
TOTAL D (SERVICES)						3,234,650.00	0.00	0.00	
3.0		WATER TANK (R.C.C. ONE'S)							
9	3.1	Overhead tank without independent supply	18.00	Sq.m	20	360.00			
TOTAL E (WATER TANK)						360.00	0.00	0.00	
TOTAL COST AS PER MPWD PLINTH AREA RATE (A+B+C+D+E)						24,874,075.00	26,93,674.00	44,56,115.00	
TOTAL COST OF BUILDING						25,362,750.00	27,00,000.00	44,56,115.00	
Say Rs.						2.53	27.00	44.56	
10		COST OF PRE CONSTRUCTION ACTIVITIES AND ENABLING ITEMS / STATUTORY CHARGES							
10	2.2.1	External External Service Connections	17025.000.00	%	3.75%	638437.50			
11	2.2.3	Local body approvals including tree cutting etc.	17025.000.00	%	1.25%	212812.50			
TOTAL F						857,250.00	0.00	0.00	
Say Rs.						0.85	0.00	0.00	
TOTAL IV						26,220,000.00	27,00,000.00	44,56,115.00	
Say Rs.						2.62	27.00	44.56	

PROPOSED CONSTRUCTION OF POLICE CAMMANDO BATTALION AT HAILAKANDI, ASSAM										
RATION STORE & CLOTHING STORE										
		No. of Storeys	=	0:1						
		Total Covered Area	=	300.00	Sq.m					
		Ground Covered Area	=	150.00	Sq.m					
		Floor Height Typical	=	4.20	Mtr					
		Floor Height	=	0.60	Mtr					
S.No.	Ref PAR 2021 Item	Description	Area	Unit	Rate	Amount (In Rs.)				
						Civil	Pl & PF	Electrical		
1	1.0	BUILDING COST (Specifications as per Annexure-1)								
1	1.0	RC FRAMED STRUCTURE (Up to Three Storeys)								
		Floor ht. 3.00 m	300.00	Sq.m	20685.00	6205,500.00	0.00	0.00		
		Total Building Cost				6205,500.00	0.00	0.00		
	1.1	EXTRA FHR								
2	1.3.2	Every 0.3m additional height of normal floor higher of 1.00m (Exceed 4.2m - 4.5-0.3170 sqm)	300.00	Sq.m	1400.00	4,20,000.00				
3	1.3.4	Every 0.3mtr deeper foundation over normal depth of 1.50 mtr (on ground floor area only) (For 1.50 m depth - (1.5-1.2)/0.3=1.00)	150.00	Sq.m	200.00	30,000.00				
		TOTAL-A (CIVIL WORKS)				4,71,000.00	0.00	0.00		
						66,75,500.00	0.00	0.00		
1	1.5.2	Fire fighting system	300.00	Sq.m	180.00	2,43,000.00				
		TOTAL-B (FIRE FIGHTING)				0.00	2,43,000.00	0.00		
1	1.6.2	Automatic Fire Alarm system	300.00	Sq.m	600.00	1,80,000.00				
		TOTAL-C (FIRE ALARM SYSTEM)				0.00	0.00	1,80,000.00		
		TOTAL-D (SERVICES)				0.00	0.00	1,80,000.00		
6	2.1	Internal Water Supply & Sanitary Installation	6205,500.00	%	4%	2,48,220.00				
7	2.4	External electric installation	6205,500.00	%	1.25%	77,568.75				
8	2.4.2	Lighting connection	6205,500.00	%	0.25%	1,551.375				
		TOTAL-D (SERVICES)				0.00	4,96,488.88	2,91,201.25		
9	3.1	WATER TANKING (R.C.C)	3000	Sq.m	30	90,000.00				
		TOTAL-E (WATER TANK)				0.00	90,000.00	0.00		
		TOTAL COST AS PER CPWD PUNJI AREA RATE (A+B+C+D+E)				66,75,500.00	8,26,488.88	6,71,201.25		
		TOTAL COST OF BUILDING				Sq. Rs.	0.00	Green		
II COST OF PRE CONSTRUCTION ACTIVITIES AND ENABLING WORKS / STATUTORY CHARGES										
10	2.2.1	Miscellaneous External service connections	6205,500.00	%	3.75%	2,32,706.25				
11	2.2.2	Local body approvals including tree cutting etc.	6205,500.00	%	1.25%	77,568.75				
		TOTAL-II				3,10,275.00				
		Sq. Rs.				0.00		Green		

PROPOSED CONSTRUCTION OF POLICE CAMMANDO BATTALION AT HAILAKANDI, ASSAM										
MAGAZINE /KOTE BUILDING with EXPLOSIVE DEPOT										
		No. of Storeys	=	0						
		Total Covered Area	=	300.00	Sq.m					
		Ground Covered Area	=	300.00	Sq.m					
		Floor Height Typical	=	4.20	Mtr					
		Floor Height	=	0.60	Mtr					
S.No.	Ref PAR 2021 Item	Description	Area	Unit	Rate	Amount (In Rs.)				
						Civil	Pl & PF	Electrical		
1	1.0	BUILDING COST (Specifications as per Annexure-1)								
1	1.0	RC FRAMED STRUCTURE (Up to Three Storeys)								
		Room 7x 3.25 m	50.00	Sq.m	7068.00	353,400.00				
		Room 18 x 3.00 m	380.00	Sq.m	20685.00	7,860,300.00				
		Total Building Cost				8,213,700.00	0.00	0.00		
	1.1	EXTRAS FHR								
2	1.3.2	Every 0.3m additional height of normal floor higher of 1.00m (For extra 4.2m - (4.5-0.3170 sqm)	380.00	Sq.m	740.00	2,81,200.00				
3	1.3.4	Every 0.3mtr deeper foundation over normal depth of 1.50 mtr (on ground floor area only) (For 1.50 m depth of (1.5-1.2)/0.3=1.00)	30.00	Sq.m	200.00	6,000.00				
4	1.3.5	Making stronger foundation to take load of one additional floor at a later date (on ground floor area only)	85.00	Sq.m	1600.00	1,36,000.00				
		TOTAL-A (CIVIL WORKS)				8,57,600.00	0.00	0.00		
						93,91,700.00	0.00	0.00		
5	1.5.2	Fire fighting system	350.00	Sq.m	300.00	1,05,000.00				
		TOTAL-B (FIRE FIGHTING)				0.00	2,88,000.00	0.00		
		TOTAL-C (FIRE ALARM SYSTEM)				0.00	0.00	2,88,000.00		
		TOTAL-D (SERVICES)				0.00	0.00	2,88,000.00		
6	1.6.2	Automatic Fire Alarm system	350.00	Sq.m	600.00	2,10,000.00				
		TOTAL-E (WATER TANK)				0.00	2,10,000.00	0.00		
		TOTAL COST AS PER CPWD PUNJI AREA RATE (A+B+C+D+E)				93,91,700.00	5,08,000.00	5,76,800.00		
		TOTAL COST OF BUILDING				Sq. Rs.	0.00	Green		
II COST OF PRE CONSTRUCTION ACTIVITIES AND ENABLING WORKS / STATUTORY CHARGES										
11	2.2.1	Miscellaneous External Service Connections	93,91,700.00	%	3.75%	3,51,288.75				
12	2.2.2	Local body approvals including tree cutting etc.	93,91,700.00	%	1.25%	1,17,396.25				
		TOTAL-II				4,68,685.00				
		Sq. Rs.				0.00		Green		

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PROPOSED CONSTRUCTION OF POLICE COMMANDO BATTALION AT HAILAKANDI, ASSAM										
GO'S MESS										
		No. of Storeys	-	Gr1						
		Total Covered Area	-	520.00	Sqms					
		Ground Covered Area	-	475.00	Sqms					
		Floor Height Typical	-	3.30	Mtr					
		Plinth Height	-	0.60	Mtr					
S.No.	Ref PAR 2021 Item	Description	Area	Unit	Rate	Amount (In Rs.)				
						Cell	Plinth	Electrical		
1	1.0	BUILDING COST (Specifications as per Annexure - I)								
1	0800 <i>(as per item from APWD dated 03.03.2012)</i>	RC FRAMED STRUCTURE (Eight Three Storeys)								
		Floor ht. 3.00 m.	650.00	Sqms	20685.00	134,45,250.00				
Total Building Cost										
						134,45,250.00	0.00	0.00		
1.3	1.3	EXTRAS FOR								
2	1.3.1	Every 0.30m additional height of normal floor higher of 3.00m <i>(for extra 0.30 m. 225/305/360/420)</i>	650.00	Sqms	570.00	3,70,500.00				
3	1.3.1	Every 0.2mtr deeper foundation over normal depth of 1.10 mtr. (as ground floor area only) <i>(for 1.10 m depth - 11.3/11.0/11.0/11.0)</i>	335.00	Sqms	300.00	67,500.00				
4	1.3.1	Making stronger foundations to take load of one additional floor at plinth level (as normal floor area only)	325.00	Sqms	1600.00	5,20,000.00				
TOTAL EXTRA WORKS						6,28,000.00	0.00	0.00		
TOTAL COST						142,70,750.00	0.00	0.00		
1.6	1.6	FIRE ALARM SYSTEM								
5	1.6.2	Automatic Fire Alarm System	610.00	Sqms	480.00	2,90,880.00				
TOTAL (FIRE ALARM SYSTEM)						0.00	0.00	2,90,880.00		
2.0	2.0	SERVICES								
6	2.1	Internal Water Supply & Sanitary Installation	1,34,45,250.00	%	2%	13,44,525.00				
7	2.2	Internal electric installation	1,34,45,250.00	%	12.5%	16,806,562.50				
2.4	2.4	EXTRA FOR								
8	2.4.1	Internal water supply & sanitary installation	1,34,45,250.00	%	4.8%	6,45,372.00				
9	2.4.2	Internal electric installation	1,34,45,250.00	%	0.25%	33,613.13				
10	2.4.3	Telephone conductors	1,34,45,250.00	%	0.25%	33,613.13				
TOTAL (SERVICES)						0.00	13,88,510.23	30,85,405.63		
3.0	3.0	WATER TANK (RC ONLY)								
11	3.1	Overhead tank without independent staging	5000	Litre	20	1,00,000.00				
TOTAL (WATER TANK)						0.00	1,00,000.00	0.00		
TOTAL COST AS PER CPWD PLINTH AREA RATE (as per CPWD)						142,70,750.00	53,88,510.23	30,85,405.63		
TOTAL COST OF BUILDING								186,59,665.86		
Say Rs.							1.83	Crors		
COST OF PRE CONSTRUCTION ACTIVITIES AND ESTABLISHMENT / STATUTORY CHARGES										
12	2.2.1	Electrical External Service Connections	1,34,45,250.00	%	1.75%	2,35,291.88				
13	2.2.2	Local body approvals including tree cutting etc.	1,34,45,250.00	%	1.25%	1,68,065.63				
TOTAL (II)								4,03,357.51		
Say Rs.							4.03	Crors		

PROPOSED CONSTRUCTION OF POLICE COMMANDO BATTALION AT HAILAKANDI, ASSAM										
SO'S MESS										
		No. of Storeys	-	Gr1						
		Total Covered Area	-	870.00	Sqms					
		Ground Covered Area	-	625.00	Sqms					
		Floor Height Typical	-	3.30	Mtr					
		Plinth Height	-	0.60	Mtr					
S.No.	Ref PAR 2021 Item	Description	Area	Unit	Rate	Amount (In Rs.)				
						Cell	Plinth	Electrical		
1	1.0	BUILDING COST (Specifications as per Annexure - I)								
1	0800 <i>(as per item from APWD dated 03.03.2012)</i>	RC FRAMED STRUCTURE (Eight Three Storeys)								
		Floor ht. 3.00 m.	870.00	Sqms	20685.00	179,95,950.00				
Total Building Cost										
						179,95,950.00	0.00	0.00		
1.3	1.3	EXTRAS FOR								
2	1.3.1	Every 0.30m additional height of normal floor higher of 3.00m <i>(for extra 0.30 m. 225/305/360/420)</i>	870.00	Sqms	570.00	4,95,900.00				
3	1.3.1	Every 0.2mtr deeper foundation over normal depth of 1.10 mtr. (as ground floor area only) <i>(for 1.10 m depth - 11.3/11.0/11.0/11.0)</i>	435.00	Sqms	300.00	87,000.00				
4	1.3.1	Making stronger foundations to take load of one additional floor at plinth level (as normal floor area only)	435.00	Sqms	1600.00	5,96,000.00				
TOTAL EXTRA WORKS						6,81,900.00	0.00	0.00		
TOTAL COST						186,77,850.00	0.00	0.00		
1.5	1.5	IRE SYSTEM								
5	1.5.1	Internal Fire Alarm System	870.00	Sqms	900.00	7,83,000.00				
TOTAL (FIRE ALARM)						0.00	0.00	7,83,000.00		
1.6	1.6	FIRE ALARM SYSTEM								
6	1.6.1	Automatic Fire Alarm System	870.00	Sqms	600.00	5,22,000.00				
TOTAL (FIRE ALARM SYSTEM)						0.00	0.00	5,22,000.00		
2.0	2.0	SERVICES								
7	2.1	Internal Water Supply & Sanitary Installation	1,79,95,950.00	%	2%	3,59,919.00				
8	2.2	Internal electric installation	1,79,95,950.00	%	12.5%	22,494,937.50				
2.4	2.4	EXTRA FOR								
9	2.4.1	Internal water supply & sanitary installation	1,79,95,950.00	%	4.8%	8,64,785.40				
10	2.4.2	Internal electric installation	1,79,95,950.00	%	0.25%	44,989.88				
11	2.4.3	Telephone conductors	1,79,95,950.00	%	0.25%	44,989.88				
TOTAL (SERVICES)						0.00	16,194,655.56	30,58,384.51		
3.0	3.0	WATER TANK (RC ONLY)								
12	3.1	Overhead tank without independent staging	5000	Litre	20	1,00,000.00				
TOTAL (WATER TANK)						0.00	1,00,000.00	0.00		
TOTAL COST AS PER CPWD PLINTH AREA RATE (as per CPWD)						186,77,850.00	17,194,655.56	31,15,769.51		
TOTAL COST OF BUILDING								186,77,850.00		
Say Rs.							25.1	Crors		
COST OF PRE CONSTRUCTION ACTIVITIES AND ESTABLISHMENT / STATUTORY CHARGES										
13	2.2.1	Electrical External Service Connections	1,79,95,950.00	%	1.75%	3,14,929.13				
14	2.2.2	Local body approvals including tree cutting etc.	1,79,95,950.00	%	1.25%	2,24,949.38				
TOTAL (II)								5,39,878.51		
Say Rs.							0.07	Crors		

PROPOSED CONSTRUCTION OF POLICE CAMMANDO BATTALION AT HAILAKANDI, ASSAM								
COMMUNITY CENTER WITH CANTEEN, SALOON & LAUNDRY BLOCK								
		No. of Storeys	-	U				
		Total Covered Area	-	681.02	Sqm			
		Ground Covered Area	-	681.02	Sqm			
		Floor Height Typical	-	4.20	Mtr			
		Floor Height	-	3.50	Mtr			
S.No.	Ref PAR 2021 Item	Description	Area	Unit	Rate	Amount (In Rs.)		
						Civil	Pl & E	Electrical
1	1.0	BUILDING COST (Specifications as per Annexure - I)						
1	1.0.1	RCC FRAMED STRUCTURE (Rise Three Storeys)						
		Floor H. 3.60 m.	681.00	Sqm	120,000.00	81,720,000.00		
Total Building Cost						120,000.00	81,720,000.00	
4.3		EXTRA FLOOR						
2	1.2.1	Storey 2.2 at additional height of ground floor higher of 3.50m (for extra 4.2m. (162-3-6)/(0.3x270))	681.00	Sqm	7,800.00	5,305,800.00		
3	1.3.1	Storey 3.2 at additional height of ground floor higher of 3.50m (for extra 4.2m. (162-3-6)/(0.3x270))	681.00	Sqm	200.00	1,26,000.00		
4	1.3.2	Storey 3.2 at additional height of ground floor higher of 3.50m (for extra 4.2m. (162-3-6)/(0.3x270))	681.00	Sqm	1,683.00	9,68,800.00		
TOTAL-1 (CIVIL WORKS)						1,26,000.00	8,60,800.00	8,60,800.00
5	1.5	FIRE FIGHTING						
5	1.5.1	Domestic System	681.00	Sqm	40.00	2,72,400.00		
TOTAL-2 (FIRE FIGHTING)						681.00	2,72,400.00	2,72,400.00
6	1.6	FIRE ALARM SYSTEM						
6	1.6.1	Automatic Fire Alarm System	681.00	Sqm	50.00	3,40,500.00		
TOTAL-3 (FIRE ALARM SYSTEM)						681.00	3,40,500.00	3,40,500.00
7	2.0	SERVICES						
7	2.1	Internal Water Supply & Sanitary Installation	12411.800.00	%	4%	4,96,472.00		
8	2.2	Internal electric installation	12411.800.00	%	12.5%	1,55,147.50		
9	2.4	EXTRA FLOOR						
9	2.4.1	Water supply and pipe	12411.800.00	%	1.0%	1,24,118.00		
10	2.4.2	Sanitary installation	12411.800.00	%	0.25%	31,029.50		
11	2.4.3	Telephone conductors	12411.800.00	%	0.25%	31,029.50		
TOTAL-4 (SERVICES)						6,000.00	5,58,640.00	5,58,640.00
12	3.0	WATER TANK (R.C.C. ONE)						
12	3.1	Overhead tank without independent structure	600	Liter	20	1,20,000.00		
TOTAL-5 (WATER TANK)						600	1,20,000.00	1,20,000.00
TOTAL COST AS PER CPWD FLOOR AREA RATE (A+B+C+D+E)						1,29,70,000.00	9,35,440.00	9,35,440.00
TOTAL COST OF BUILDING								1,75,41,300.00
						Rs Rs	1.72	Cross
COST OF THE CONSTRUCTION ACTIVITIES AND ENABLING WORKS / STABILIZATION CHARGES								
13	2.2.1	Electrical External Service Connections	12411.800.00	%	3.75%	4,65,442.50		
14	2.2.3	Local body approvals including tree cutting etc.	12411.800.00	%	1.25%	1,55,147.50		
TOTAL-6								6,20,590.00
						Rs Rs	6.05	Cross

PROPOSED CONSTRUCTION OF POLICE CAMMANDO BATTALION AT HAILAKANDI, ASSAM								
HOSPITAL (10 BED)								
		No. of Storeys	-	U				
		Total Covered Area	-	210.00	Sqm			
		Ground Covered Area	-	210.00	Sqm			
		Floor Height Typical	-	4.20	Mtr			
		Floor Height	-	3.60	Mtr			
S.No.	Ref PAR 2021 Item	Description	Area	Unit	Rate	Amount (In Rs.)		
						Civil	Pl & E	Electrical
1	1.0	BUILDING COST (Specifications as per Annexure - I)						
1	1.0.1	RCC FRAMED STRUCTURE (Rise Three Storeys)						
		Floor Ht 3.60 m.	210.00	Sqm	30,000.00	6,30,000.00		
Total Building Cost						210.00	6,30,000.00	6,30,000.00
1.3		EXTRA FLOOR						
2	1.3.1	Storey 2.2 at additional height of ground floor higher of 3.50m (for extra 4.2m. (162-3-6)/(0.3x270))	210.00	Sqm	7,800.00	1,638,000.00		
3	1.3.2	Storey 3.2 at additional height of ground floor higher of 3.50m (for extra 4.2m. (162-3-6)/(0.3x270))	210.00	Sqm	100.00	6,60,000.00		
4	1.3.3	Storey 3.2 at additional height of ground floor higher of 3.50m (for extra 4.2m. (162-3-6)/(0.3x270))	210.00	Sqm	1,000.00	2,20,000.00		
TOTAL-1 (CIVIL WORKS)						630.00	10,738,000.00	10,738,000.00
5	1.5	FIRE FIGHTING						
5	1.5.1	Domestic System	210.00	Sqm	100.00	21,000.00		
TOTAL-2 (FIRE FIGHTING)						210.00	21,000.00	21,000.00
6	1.6	FIRE ALARM SYSTEM						
6	1.6.1	Automatic Fire Alarm System	210.00	Sqm	60.00	1,26,000.00		
TOTAL-3 (FIRE ALARM SYSTEM)						210.00	1,26,000.00	1,26,000.00
7	2.0	SERVICES						
7	2.1	Internal Water Supply & Sanitary Installation	681,000.00	%	10%	68,100.00		
8	2.2	Internal electric installation	681,000.00	%	12.5%	85,125.00		
9	2.4	EXTRA FLOOR						
9	2.4.1	Water supply and pipe	681,000.00	%	1.0%	68,100.00		
10	2.4.2	Sanitary installation	681,000.00	%	0.25%	17,025.00		
11	2.4.3	Telephone conductors	681,000.00	%	0.25%	17,025.00		
TOTAL-4 (SERVICES)						681.00	6,81,450.00	6,81,450.00
12	3.0	WATER TANK (R.C.C. ONE)						
12	3.1	Overhead tank without independent structure	1000	Liter	20	20,000.00		
TOTAL-5 (WATER TANK)						1000	20,000.00	20,000.00
TOTAL COST AS PER CPWD FLOOR AREA RATE (A+B+C+D+E)						1,111,250.00	11,11,250.00	11,11,250.00
TOTAL COST OF BUILDING								13,24,750.00
						Rs Rs	1.03	Cross
COST OF THE CONSTRUCTION ACTIVITIES AND ENABLING WORKS / STABILIZATION CHARGES								
13	2.2.1	Electrical External Service Connections	681,000.00	%	3.75%	2,55,375.00		
14	2.2.3	Local body approvals including tree cutting etc.	681,000.00	%	1.25%	85,325.00		
TOTAL-6								3,40,700.00
						Rs Rs	0.03	Cross

PROPOSED CONSTRUCTION OF POLICE COMMANDO BATTALION AT HAILAKANDI, ASSAM						
DRILL SHED						
		No. of Stories	Area	Unit	Rate	Amount (In Rs.)
		Total Covered Area	=	400.00	Sqm	
		Ground Covered Area	=	400.00	Sqm	
		Floor Height Typical	=	5.84	Mtr	
		Plinth Height	=	0.91	Mtr	
S.No.	Ref PAR 2021 Item	Description	Area	Unit	Rate	Amount (In Rs.)
						Civil P&E Electrical
I	1.0	BUILDING COST (Specifications as per Annexure - I)				
1	1.0	STILL PORTION				
	1.01	Floor ht. 3.60m	400.00	Sqm	8400.00	3360000.00
		Total Building Cost				33,60,000.00
	1.3	EXTRAS FOR				
2	1.01	Every 0.3m additional height of normal floor higher of 3.60m (See extra 5.8 m, (5.6+3.6) (0.2x3.70))	400.00	Sqm	933.00	3,73,200.00
3	1.3.4	Every 0.3m deeper foundation over normal depth of 1.50 mtr (See ground floor area only) (See 1.01 in depth - (1.5+2.1)(0.2x3.70))	400.00	Sqm	200.00	80,000.00
		TOTAL-A (CIVIL WORK)				4,53,200.00
						38,13,200.00
4	2.0	MEASURES				
	2.1	Internal electric installation	33,60,000.00	%	1.25%	42,000.00
		TOTAL-B (SERVICES)				4,20,000.00
		TOTAL COST AS PER CPWD BIRTH AREA RATE (A+B)				38,13,200.00
		TOTAL COST OF BUILDING				42,33,200.00
						Sur Rs. 0.12
						Cross
II		COST OF PRE CONSTRUCTION ACTIVITIES AND ENABLING WORKS / STATUTORY CHARGES				
	2.2.1	Electrical External Service Connections	33,60,000.00	%	3.75%	1,26,000.00
	2.2.2	Local body approvals including tree cutting etc.	33,60,000.00	%	1.25%	42,000.00
		TOTAL-C				1,68,000.00
						Sur Rs. 0.02
						Cross

PROPOSED CONSTRUCTION OF POLICE COMMANDO BATTALION AT HAILAKANDI, ASSAM						
GATE COMPLEX WITH 10 MEN BARRACK						
		No. of Stories	Area	Unit	Rate	Amount (In Rs.)
		Total Covered Area	=	175.00	Sqm	
		Ground Covered Area	=	175.00	Sqm	
		Floor Height Typical	=	3.60	Mtr	
		Plinth Height	=	2.60	Mtr	
S.No.	Ref PAR 2021 Item	Description	Area	Unit	Rate	Amount (In Rs.)
						Civil P&E Electrical
I	1.0	BUILDING COST (Specifications as per Annexure - I)				
1	1.0	ALL FRAMED STRUCTURE (Single Storey Slabless)				
	1.01	floor ht. 3.60m	125.00	Sqm	24000.00	3000000.00
		Total Building Cost				30,00,000.00
	1.3	EXTRAS FOR				
2	1.01	Every 0.3m deeper foundation over normal depth of 1.50 mtr (See ground floor area only) (See 1.01 in depth - (1.5+2.1)(0.2x3.70))	175.00	Sqm	200.00	35,000.00
		TOTAL-A (CIVIL WORK)				30,35,000.00
						30,35,000.00
4	1.5	FIRE FIGHTING				
	1.5.1	Fire Alarm System	1,25.00	Sqm	80.00	10,000.00
		TOTAL B FIRE FIGHTING				10,000.00
5	1.6	FIRE ALARM SYSTEM				
	1.6.1	Station with Fire Alarm System	1,25.00	Sqm	600.00	75,000.00
		TOTAL C (FIRE ALARM SYSTEM)				85,000.00
						75,000.00
6	2.0	MEASURES				
	2.1	Internal Water Supply & Sanitary Installation	30,00,000.00	%	4%	1,20,000.00
	2.2	Internal electric installation	30,00,000.00	%	1.25%	37,500.00
		TOTAL-B (SERVICES)				1,57,500.00
		TOTAL COST AS PER CPWD BIRTH AREA RATE (A+B)				30,45,250.00
		TOTAL COST OF BUILDING				32,02,750.00
						Sur Rs. 0.17
						Cross
II		COST OF PRE CONSTRUCTION ACTIVITIES AND ENABLING WORKS / STATUTORY CHARGES				
	2.2.1	Electrical External Service Connections	30,00,000.00	%	3.75%	1,12,500.00
	2.2.2	Local body approvals including tree cutting etc.	30,00,000.00	%	1.25%	37,500.00
		TOTAL-C				1,50,000.00
		TOTAL COST OF BUILDING				33,52,750.00
						Sur Rs. 0.02
						Cross

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PROPOSED CONSTRUCTION OF POLICE CAMMANDO BATTALION AT HAILAKANDI, ASSAM								
WATCH TOWER-10 Nos.								
		No. of Storages	-	C				
		Total Covered Area	-	50.00	Sqm			
		Ground Covered Area	-	50.00	Sqm			
		Floor Height Typical	-	6.00	Mtr			
		Plinth Height	-	0.60	Mtr			
S.No.	Ref PAR 2021 Item	Description	Area	Unit	Rate	Amount (In Rs.)		
						Civil	Pl & FF	Electrical
						Cr-I	Pl & FF	Electrical
1	1.0	BUILDING COST (Specifications as per Annexure- I)						
1	1.1	CIVIL WORKS						
	1.1.1	Flooring 1.60 m	50.00	Sqm	8400.00	4,20,000.00		
		Total Building Cost			[a]	4,20,000.00	0.00	0.00
2	1.8.2	Every 0.3m additional height of normal floor higher of 3.00m (for extra 6.0 m, 16.0-3.6) @ 12000	50.00	Sqm	1800.00	90,000.00		
2	1.3.4	Every 0.3m deeper foundation over normal depth of 1.50 mtr (on ground floor area only) (for 1.50 m depth -1.5-1.2)/1330000	20.00	Sqm	500.00	10,000.00		
						90,000.00	0.00	0.00
		TOTAL-A (CIVIL WORKS)				5,10,000.00	0.00	0.00
	2.0	SERVICES						
4	2.1	Internal electric installations	4,30,000.00	%	17.5%			75,200.00
5	2.4.1	Lighting & cabling	4,30,000.00	%	3.25%			1,050.00
		TOTAL-B (SERVICES)				0.00	0.00	53,550.00
		TOTAL COST AS PER CPWD PLINTH AREA RATE (A+B)				5,10,000.00	0.00	53,550.00
		TOTAL COST OF BUILDING				5,63,550.00		
					Sqr Rs.	0.00	Crane	
II		COST OF PRE-CONSTRUCTION ACTIVITIES AND ENABLING WORKS / STATUTORY CHARGES						
6	2.2.1	Electrical External Service Connections	4,30,000.00	%	3.75%			16,125.00
7	2.2.3	Local body approvals including tree cutting etc.	4,30,000.00	%	1.25%			5,375.00
		TOTAL-C						21,500.00
					Sqr Rs.	0.00	Crane	

PROPOSED CONSTRUCTION OF POLICE CAMMANDO BATTALION AT HAILAKANDI, ASSAM								
FIRE STATION WITH BARRACK								
		No. of Storages	-	1-1				
		Total Covered Area	-	350.00	Sqm			
		Ground Covered Area	-	175.00	Sqm			
		Floor Height Typical	-	4.20	Mtr			
		Plinth Height	-	0.60	Mtr			
S.No.	Ref PAR 2021 Item	Description	Area	Unit	Rate	Amount (In Rs.)		
						Civil	Pl & FF	Electrical
						Cr-I	Pl & FF	Electrical
1	1.0	BUILDING COST (Specifications as per Annexure- I)						
2	1.1	RCC SHARED STRUCTURE (Up to Three Storages)						
		Roof ht. 3.00 m	350.00	Sqm	20895.00	7,312,750.00		
		Total Building Cost			[a]	72,36,750.00	0.00	0.00
	1.3	EXTRAS FOR						
2	1.3.2	Every 0.3m additional height of normal floor higher of 3.00m (for extra 6.0 m, 16-2-3.6)/12000	350.00	Sqm	7400.00	2,59,000.00		
3	1.3.4	Every 0.3m deeper foundation over normal depth of 1.50 mtr (on ground floor area only) (for 1.50 m depth -1.5-1.2)/1330000	175.00	Sqm	2400.00	420,000.00		
4	1.3.5	Building storage & installation to take load of one additional floor at a later date (on ground floor area only)	175.00	Sqm	1600.00	2,80,000.00		
						5,74,000.00	0.00	0.00
		TOTAL-A (CIVIL WORKS)				78,10,750.00	0.00	0.00
	1.5	FIRE FIGHTING						
5	1.5.1	With wet riser and control for storage	350.00	Sqm	1200.00	4,20,000.00		
		TOTAL-B (FIRE FIGHTING)				0.00	0.00	4,20,000.00
	1.6	FIRE ALARM SYSTEM						
6	1.6.1	Automatic Fire Alarm system	350.00	Sqm	600.00	2,10,000.00		2,10,000.00
		TOTAL-C (FIRE ALARM SYSTEM)				0.00	0.00	2,10,000.00
	2.0	SERVICES						
7	2.1	Internal Water Supply & Sanitary installations	72,36,750.00	%	4%			2,89,500.00
8	2.3	Internal electric installations	72,36,750.00	%	17.5%			90,000.00
	2.4	EXTRA FOR						
9	2.4.1	Power wiring and plate	72,36,750.00	%	4.0%			2,89,500.00
10	2.4.2	Lighting connections	72,36,750.00	%	0.125%			18,090.00
11	2.4.3	Telex and telephony	72,36,750.00	%	0.125%			18,090.00
		TOTAL-D (SERVICES)				0.00	0.00	3,05,580.00
	3.0	WATER TANK (RCC ONLY)						
12	3.1	Overhead tank without independent storage	25000	Liter	20	5,00,000.00		0.00
		TOTAL-E (WATER TANK)				0.00	0.00	5,00,000.00
		TOTAL COST AS PER CPWD PLINTH AREA RATE (A+B+C+D+E)				78,10,750.00	12,05,580.00	14,40,757.50
		TOTAL COST OF BUILDING				78,10,750.00	12,05,580.00	14,40,757.50
					Sqr Rs.	1.05	Crane	
II		COST OF PRE-CONSTRUCTION ACTIVITIES AND ENABLING WORKS / STATUTORY CHARGES						
13	2.2.1	Electrical External Service Connections	72,36,750.00	%	3.75%			2,71,400.00
14	2.2.3	Local body approvals including tree cutting etc.	72,36,750.00	%	1.25%			90,450.00
		TOTAL-F						3,61,850.00
					Sqr Rs.	0.04	Crane	

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PROPOSED CONSTRUCTION OF POLICE CAMMANDO BATTALION AT HAILAKANDI, ASSAM						
ATM						
	No. of Storeys	-	0			
	Total Covered Area	-	15.00	Sq.m		
	Ground Covered Area	-	15.00	Sq.m		
	Floor Height Typical	-	3.60	Mtr.		
	Plinth Height	-	0.60	Mtr.		
S.No.	Ref PAR 2021 Item	Description	Area	Unit	Rate	Amount (In Rs.)
						CI-II PH&FF Electrical
I	1.0	BUILDING COST (Specifications as per Annexure- I)				
1	Office construction for CPWD dated 05.01.2012	RCC FRAMED STRUCTURE (Up to Three Storeys)				
		Floor ht. 3.00 m.	15.00	Sq.m	20665.00	310,275.00
		Total Building Cost				3,10,275.00 0.00 0.00
	1.3	EXTRAS FOR				
2	1.3.2	Every 0.30m additional height of normal floor higher of 3.00m (for extra 2.6 m. (3.6-3.0)/0.30x70)	15.00	Sq.m	740.00	11,100.00
3	1.3.4	Every 0.30m deeper foundation over normal depth of 1.50 mtr (on ground floor area only) (for 1.50 m depth (1.5-1.2)/0.30x200)	15.00	Sq.m	200.00	3,000.00
		TOTAL A (CIVIL WORK)				14,100.00 0.00 0.00
						3,24,375.00 0.00 0.00
	2.0	SERVICES				
4	2.3	Internal electric installations	310,275.00	%	12.5%	38,784.38
5	2.4	EXTRA FOR				
5	2.4.2	Lighting connections	310,275.00	%	0.25%	775.69
		TOTAL B (SERVICES)				0.00 0.00 39,560.07
		TOTAL COST AS PER CPWD PLINTH AREA RATE (A+B)				3,24,375.00 0.00 39,560.07
		TOTAL COST OF BUILDING				3,63,935.07
					Say Rs.	0.01
						0.00
II		COST OF PRE CONSTRUCTION ACTIVITIES AND ENABLING WORKS / STATUTORY CHARGES				
6	2.2.1	Electrical External service connections	310,275.00	%	3.75%	11,645.31
7	2.2.2	Local body approvals including tree cutting etc.	310,275.00	%	0.25%	7,756.88
		TOTAL-II				19,402.19
					Say Rs.	0.01
						0.00

PROPOSED CONSTRUCTION OF POLICE CAMMANDO BATTALION AT HAILAKANDI, ASSAM						
CONTROL ROOM						
	No. of Storeys	-	0			
	Total Covered Area	-	50.00	Sq.m		
	Ground Covered Area	-	50.00	Sq.m		
	Floor Height Typical	-	3.60	Mtr.		
	Plinth Height	-	0.60	Mtr.		
S.No.	Ref PAR 2021 Item	Description	Area	Unit	Rate	Amount (In Rs.)
						CI-II PH&FF Electrical
I	1.0	BUILDING COST (Specifications as per Annexure- I)				
1	Office construction for CPWD dated 03.03.2012	RCC FRAMED STRUCTURE (Up to Three Storeys)				
		Floor ht. 3.00 m.	50.00	Sq.m	10685.00	534,250.00
		Total Building Cost				534,250.00 0.00 0.00
	1.3	EXTRAS FOR				
2	1.3.2	Every 0.30m additional height of normal floor higher of 3.00m (for extra 3.6 m. (3.6-3.0)/0.30x70)	50.00	Sq.m	740.00	37,000.00
3	1.3.4	Every 0.30m deeper foundation over normal depth of 1.50 mtr (on ground floor area only) (for 1.50 m depth (1.5-1.2)/0.30x200)	50.00	Sq.m	200.00	10,000.00
		TOTAL A (CIVIL WORK)				47,000.00 0.00 0.00
						581,250.00 0.00 0.00
	2.0	SERVICES				
4	2.1	Internal Water Supply & Sanitary installations	581,250.00	%	0%	41,375.00
5	2.3	Internal electric installations	581,250.00	%	12.5%	72,656.25
6	2.4	EXTRA FOR				
6	2.4.2	Lighting connections	581,250.00	%	0.25%	1,453.13
		TOTAL B (SERVICES)				0.00 44,170.00 1,11,865.00
		TOTAL COST AS PER CPWD PLINTH AREA RATE (A+B)				10,81,250.00 44,170.00 1,11,865.00
		TOTAL COST OF BUILDING				12,54,185.00
					Say Rs.	0.11
						0.00
II		COST OF PRE CONSTRUCTION ACTIVITIES AND ENABLING WORKS / STATUTORY CHARGES				
7	2.2.1	Electrical External Service Connections	10,81,250.00	%	3.75%	40,546.88
8	2.2.2	Local body approvals including tree cutting etc.	10,81,250.00	%	0.25%	2,703.13
		TOTAL-III				43,250.01
					Say Rs.	0.01
						0.00

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PROPOSED CONSTRUCTION OF POLICE CAMMANDO BATTALION AT HAILAKANDI, ASSAM						
CLASS ROOM BLOCK WITH COMPUTER LAB						
		No. of Storeys		±1		
		Total Covered Area		700.00	Sqm	
		Ground Covered Area		300.00	Sqm	
		Floor Height Typical		4.20	Mtr	
		Plinth Height		0.60	Mtr	
S.No.	Ref PAR 2021 Item	Description	Area	Unit	Rate	Amount (In Rs.)
						Civil
						Pl & FT
						Electrical
1	1.0	BUILDING COST (Specifications as per Annexure- I)				
1	1.0	RC-FRAMED STRUCTURE (Type Three Storage)				
		Size 14.75x6 m.	700.00	Sqm	2065.00	1,447,750.00
		Total Building Cost				1,447,750.00
						0.00
						0.00
2	1.3.2	EXTRA FLOOR Every 0.3m additional height of normal floor higher of 1.60m (See para 1.3.2, 1.3.3 & 1.3.4)	700.00	Sqm	740.00	5,18,000.00
3	1.3.4	Every 0.3m deeper foundation over normal depth of 1.50 mtr (on ground floor area only) (See 1.3.4 in depth -11.5.1.21021b200)	250.00	Sqm	280.00	70,000.00
4	1.3.5	Making stronger foundations to take load of one additional floor at a later date (on ground floor area only)	250.00	Sqm	1600.00	5,60,000.00
		TOTAL-A (CIVIL WORK)				11,45,000.00
						0.00
						0.00
5	1.5.3	FIRE FIGHTING With wet riser and portable system	700.00	Item	1200.00	8,40,000.00
		TOTAL-B (FIRE FIGHTING)				0.00
						8,40,000.00
						0.00
6	1.6.2	FIRE ALARM SYSTEM Automatic Fire Alarm System	700.00	Sqm	600.00	4,20,000.00
		TOTAL-C (FIRE ALARM SYSTEM)				0.00
						4,20,000.00
						0.00
7	2.1	INTERNAL WATER SUPPLY & SANITARY INSTALLATIONS	1447750.00	%	4%	57,910.00
8	2.2	INTERNAL ELECTRIC INSTALLATIONS	1447750.00	%	1.25%	18,097.50
9	2.4.1	EXTRA FLOOR Power wiring and pipe	1447750.00	%	4.5%	65,148.75
10	2.4.2	Lighting conductors	1447750.00	%	0.25%	36,193.75
11	2.4.3	Telephone conductors	1447750.00	%	0.25%	36,193.75
		TOTAL-D (SERVICES)				0.00
						5,79,898.00
12	3.1	WATER TANK (RC ONLY) Normal tank without independent storage	2000	Liter	20	40,000.00
		TOTAL-E (WATER TANK)				0.00
						40,000.00
		TOTAL COST AS PER CPWD PLINTH AREA RATE (A+B+C+D+E)				15,67,500.00
		TOTAL COST OF BUILDING				20,01,515.00
						Sq Rs. 2.04
						Over
13	2.2.1	COST OF PRE CONSTRUCTION ACTIVITIES AND DEMOLITION WORKS / CLAUSTRATE MARGINS Electrical External Service Connections	1447750.00	%	3.75%	5,42,062.50
14	2.2.3	Local body approvals including tree cutting etc.	1447750.00	%	1.25%	1,80,993.75
		TOTAL-F				7,23,056.25
						Sq Rs. 0.07
						Over

PROPOSED CONSTRUCTION OF POLICE CAMMANDO BATTALION AT HAILAKANDI, ASSAM						
INDOOR SPORTS COMPLEX WITH GYM						
		No. of Storeys		±1		
		Total Covered Area		800.00	Sqm	
		Ground Covered Area		400.00	Sqm	
		Floor Height Typical		4.20	Mtr	
		Plinth Height		0.60	Mtr	
S.No.	Ref PAR 2021 Item	Description	Area	Unit	Rate	Amount (In Rs.)
						Civil
						Pl & FT
						Electrical
1	1.0	BUILDING COST (Specifications as per Annexure- I)				
1	1.0	RC-FRAMED STRUCTURE (Type Three Storage)				
		Size 14.75x6 m.	800.00	Sqm	2065.00	1,65,200.00
		Total Building Cost				1,65,200.00
						0.00
						0.00
2	1.3.2	EXTRA FLOOR Every 0.3m additional height of normal floor higher of 1.60m (See para 1.3.2, 1.3.3 & 1.3.4)	800.00	Sqm	740.00	5,92,000.00
3	1.3.4	Every 0.3m deeper foundation over normal depth of 1.50 mtr (on ground floor area only) (See 1.3.4 in depth -11.5.1.21021b200)	400.00	Sqm	280.00	1,12,000.00
4	1.3.5	Making stronger foundations to take load of one additional floor at a later date (on ground floor area only)	400.00	Sqm	1600.00	6,40,000.00
		TOTAL-A (CIVIL WORK)				13,17,000.00
						0.00
						0.00
5	1.5.3	FIRE FIGHTING With wet riser and portable system	800.00	Sqm	1200.00	9,60,000.00
		TOTAL-B (FIRE FIGHTING)				0.00
						9,60,000.00
						0.00
6	1.6.2	FIRE ALARM SYSTEM Automatic Fire Alarm System	800.00	Sqm	600.00	4,80,000.00
		TOTAL-C (FIRE ALARM SYSTEM)				0.00
						4,80,000.00
						0.00
7	2.1	INTERNAL WATER SUPPLY & SANITARY INSTALLATIONS	165200.00	%	4%	6,608.00
8	2.2	INTERNAL ELECTRIC INSTALLATIONS	165200.00	%	1.25%	20,650.00
9	2.4.1	EXTRA FLOOR Power wiring and pipe	165200.00	%	4.5%	7,434.00
10	2.4.2	Lighting conductors	165200.00	%	0.25%	41,300.00
11	2.4.3	Telephone conductors	165200.00	%	0.25%	41,300.00
		TOTAL-D (SERVICES)				0.00
						6,61,992.00
12	3.1	WATER TANK (RC ONLY) Normal tank without independent storage	2000	Liter	20	40,000.00
		TOTAL-E (WATER TANK)				0.00
						40,000.00
		TOTAL COST AS PER CPWD PLINTH AREA RATE (A+B+C+D+E)				17,63,000.00
		TOTAL COST OF BUILDING				21,21,992.00
						Sq Rs. 2.73
						Over
13	2.2.1	COST OF PRE CONSTRUCTION ACTIVITIES AND DEMOLITION WORKS / CLAUSTRATE MARGINS Electrical External Service Connections	165200.00	%	3.75%	6,20,500.00
14	2.2.3	Local body approvals including tree cutting etc.	165200.00	%	1.25%	2,06,500.00
		TOTAL-F				8,27,000.00
						Sq Rs. 0.09
						Over

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PROPOSED CONSTRUCTION OF POLICE CAMMANDO BATTALION AT HAILAKANDI, ASSAM									
PRIMARY SCHOOL									
		No. of Storeys	-	4					
		Total Covered Area	=	560.00	Sqrs				
		Ground Covered Area	=	560.00	Sqrs				
		Floor Height Typical	=	4.50	Mtr				
		Plinth Height	=	0.60	Mtr				
S.No	Ref PAR 2021 Item	Description	Area	Unit	Rate	Amount (Rs Rs.)			
						(Cell)	PH & FT	Electrical	
1	1.0	BUILDING COST (Specifications as per Annexure - II)							
1	1.0.1	RCF FRAMED STRUCTURE (Up to Three Storeys)							
		Floor Ht. 3.60 m.	560.00	Sqrs	19625.00	115,70,600.00			
		Total Building Cost			19625.00	115,70,600.00	0.00	0.00	
1.1	1.1.1	EXTRAS FOR every 0.30m additional height of normal floor higher of 300mm (for extra 4.20m - 14.20-3.60-0.30)	160.00	Sqrs	740.00	4,64,000.00			
1.1	1.1.2	Every 3 floor deeper foundation over normal depth of 1.50 mtr (on ground floor area only) (for 1.50 m depth - 1.50-1.50-0.30)	560.00	Sqrs	200.00	1,12,000.00			
1.1	1.1.3	Putting stronger foundation to take load of one additional floor at a later date (on ground floor area only)	560.00	Sqrs	1600.00	8,96,000.00			
		TOTAL-1 (CIVIL WORKS)				14,72,000.00	0.00	0.00	
		TOTAL-1 (CIVIL WORKS)				1,30,86,600.00	0.00	0.00	
1.2	1.2.1	FIRE FIGHTING Downcomer System	560.00	Sqrs	400.00	2,24,000.00			
		TOTAL-2 (FIRE FIGHTING)			400.00	2,24,000.00	0.00	0.00	
1.3	1.3.1	FIRE ALARM SYSTEM Automatic Fire Alarm System	560.00	Sqrs	400.00	2,00,000.00			
		TOTAL-3 (FIRE ALARM SYSTEM)			400.00	2,00,000.00	0.00	0.00	
1.4	1.4.1	WATER SUPPLY Internal Water Supply & Sanitary Installation	115,45,600.00	%	4%	4,61,824.00			
1.4	1.4.2	Internal electric installation	115,45,600.00	%	1.25%	14,43,200.00			
1.4	1.4.3	EXTRA FOR Power wiring and plate	115,45,600.00	%	4.0%	46,17,840.00			
1.4	1.4.4	Lighting conductors	115,45,600.00	%	0.25%	28,864.00			
1.4	1.4.5	Telephone conductors	115,45,600.00	%	0.25%	28,864.00			
		TOTAL-4 (FITTINGS)			0.00	4,61,824.00	17,69,224.00		
1.5	1.5.1	WATER TANK (R.C.C. ONLY) Overhead tank without self weight of storage	0.00	Litre	70	1,00,000.00			
		TOTAL-5 (WATER TANK)			0.00	1,00,000.00	0.00		
		TOTAL COST AS PER CPWD PLINTH AREA RATE (4+PH+FT+E)				1,38,86,600.00	7,87,344.00	23,85,224.00	
		TOTAL COST OF BUILDING				1,38,86,600.00	7,87,344.00	23,85,224.00	
					See Para	1.14	Crude		
11		COST OF THE CONSTRUCTION ACTIVITIES AND ENABLING WORKS / STATUTORY CHARGES							
11	11.1	Electrical Internal Service Connections	115,45,600.00	%	1.75%	2,020,980.00			
11	11.2	Local body approvals including tree cutting etc.	11,54,560.00	%	1.25%	1,44,295.00			
		TOTAL-11						5,79,100.00	
					See Para	0.00	Crude		

PROPOSED CONSTRUCTION OF POLICE CAMMANDO BATTALION AT HAILAKANDI, ASSAM									
FAMILY WELFARE CENTER									
		No. of Storeys	-	4					
		Total Covered Area	=	560.00	Sqrs				
		Ground Covered Area	=	560.00	Sqrs				
		Floor Height Typical	=	4.50	Mtr				
		Plinth Height	=	0.60	Mtr				
S.No	Ref PAR 2021 Item	Description	Area	Unit	Rate	Amount (Rs Rs.)			
						(Cell)	PH & FT	Electrical	
1	1.0	BUILDING COST (Specifications as per Annexure - II)							
1	1.0.1	RCF FRAMED STRUCTURE (Up to Three Storeys)							
		Floor Ht. 3.60 m.	560.00	Sqrs	20625.00	1,14,90,500.00			
		Total Building Cost			20625.00	1,14,90,500.00	0.00	0.00	
1.1	1.1.1	EXTRAS FOR every 0.30m additional height of normal floor higher of 300mm (for extra 4.20m - 14.20-3.60-0.30)	160.00	Sqrs	740.00	1,20,000.00			
1.1	1.1.2	Every 3 floor deeper foundation over normal depth of 1.50 mtr (on ground floor area only) (for 1.50 m depth - 1.50-1.50-0.30)	560.00	Sqrs	200.00	1,00,000.00			
1.1	1.1.3	Putting stronger foundation to take load of one additional floor at a later date (on ground floor area only)	560.00	Sqrs	1600.00	8,96,000.00			
		TOTAL-1 (CIVIL WORKS)				12,76,000.00	0.00	0.00	
		TOTAL-1 (CIVIL WORKS)				1,16,72,500.00	0.00	0.00	
1.2	1.2.1	FIRE FIGHTING Downcomer System	560.00	Sqrs	400.00	2,24,000.00			
		TOTAL-2 (FIRE FIGHTING)			400.00	2,24,000.00	0.00	0.00	
1.3	1.3.1	FIRE ALARM SYSTEM Automatic Fire Alarm System	560.00	Sqrs	400.00	2,00,000.00			
		TOTAL-3 (FIRE ALARM SYSTEM)			400.00	2,00,000.00	0.00	0.00	
1.4	1.4.1	WATER SUPPLY Internal Water Supply & Sanitary Installation	115,45,600.00	%	4%	4,61,824.00			
1.4	1.4.2	Internal electric installation	115,45,600.00	%	1.25%	14,43,200.00			
1.4	1.4.3	EXTRA FOR Power wiring and plate	115,45,600.00	%	4.0%	46,17,840.00			
1.4	1.4.4	Lighting conductors	115,45,600.00	%	0.25%	28,864.00			
1.4	1.4.5	Telephone conductors	115,45,600.00	%	0.25%	28,864.00			
		TOTAL-4 (FITTINGS)			0.00	4,61,824.00	17,69,224.00		
1.5	1.5.1	WATER TANK (R.C.C. ONLY) Overhead tank without self weight of storage	0.00	Litre	70	1,00,000.00			
		TOTAL-5 (WATER TANK)			0.00	1,00,000.00	0.00		
		TOTAL COST AS PER CPWD PLINTH AREA RATE (4+PH+FT+E)				1,16,72,500.00	5,13,528.00	23,85,224.00	
		TOTAL COST OF BUILDING				1,16,72,500.00	5,13,528.00	23,85,224.00	
					See Para	1.14	Crude		
11		COST OF THE CONSTRUCTION ACTIVITIES AND ENABLING WORKS / STATUTORY CHARGES							
11	11.1	Electrical Internal Service Connections	115,45,600.00	%	1.75%	2,020,980.00			
11	11.2	Local body approvals including tree cutting etc.	11,54,560.00	%	1.25%	1,44,295.00			
		TOTAL-11						5,17,125.00	
					See Para	0.00	Crude		

PROPOSED CONSTRUCTION OF POLICE CAMMANDO BATTALION AT HAILAKANDI, ASSAM									
NAAMGHAR									
		No. of Storeys	-	-	-	-	-	-	-
		Total Covered Area	-	300.00	Sq.m				
		Gross Covered Area	-	100.00	Sq.m				
		Floor Height Typical	-	4.20	Mtr				
		Plinth Height	-	0.60	Mtr				
S.No.	Ref PAR 2021 Item	Description	Area	Unit	Rate	Amount (In Rs.)			
						Civil	PH&E	Electrical	
1	1.0	BUILDING COST (Specifications as per Annexure- I)							
1	1.0	BCC FRAMED STRUCTURE (Up to Three Storeys)							
		Floor Ht. 3.60 m.	300.00	Sq.m	29685.00	8,905,500.00			
Total Building Cost						8,905,500.00	0.00	0.00	
2	1.3.1	EXTRA FOR							
		Over 0.3m additional height of normal floor higher of 3.60m (Over area 1.2 m. (4.2-3.6)/(0.3*70))	300.00	Sq.m	740.00	2,22,000.00			
		Over 0.3m deeper foundation over normal depth of 1.50 m (See ground floor area only) (See 1.50 m depth (1.5-1.2)/(0.3*200))	100.00	Sq.m	200.00	20,000.00			
		Making stronger foundations to take load of one additional floor at higher date (See ground floor area only)	100.00	Sq.m	1000.00	1,00,000.00			
TOTAL A (CIVIL WORKS)						9,32,500.00	0.00	0.00	
						86,07,242.00	0.00	0.00	
3	1.5.1	FIRE FIGHTING							
		Downcomer system	300.00	Sq.m	400.00	1,20,000.00			
TOTAL B (FIRE FIGHTING)						0.00	1,20,000.00	0.00	
4	1.6	FIRE ALARM SYSTEM							
		Automatic Fire Alarm System	300.00	Sq.m	600.00			1,80,000.00	
TOTAL C (FIRE ALARM SYSTEM)						0.00	0.00	1,80,000.00	
5	2.0	SERVICES							
		Internal Water Supply & Sanitary Installations	62.05,500.00	%	4%	2,48,220.00			
		Internal electric installations	62.05,500.00	%	1.25%	7,75,687.50			
		EXTRA FOR							
		Power wiring and plug	62.05,500.00	%	4.0%	2,48,220.00			
		Lighting conductors	62.05,500.00	%	0.25%	15,513.75			
		Telephone conductors	62.05,500.00	%	0.25%	15,513.75			
TOTAL D (SERVICES)						0.00	2,48,220.00	38,54,575.00	
6	3.0	WATER TANK (NOT ONLY)							
		Overhead tank with automatic fill device	00.00	Litre	20	1,00,000.00		0.00	
TOTAL E (WATER TANK)						0.00	1,00,000.00	0.00	
TOTAL COST AS PER CPWD PUNTS AND A RATE (A+B+C+D+E)						86,07,242.00	1,40,220.00	12,34,575.00	
TOTAL COST OF BUILDING								87,81,037.00	
						See Rs.	0.00	0.00	
7	1.1	COST OF THE CONSTRUCTION ACTIVITIES AND CHARGES WORKS / STATUTORY CHARGES							
		Electrical External service connections	62.05,500.00	%	3.75%	2,32,706.25			
		Local body approvals including tree cutting etc.	62.05,500.00	%	1.25%	77,568.75			
TOTAL F								3,10,275.00	
						See Rs.	0.00	0.00	

PROPOSED CONSTRUCTION OF POLICE CAMMANDO BATTALION AT HAILAKANDI, ASSAM									
RECREATION HALL									
		No. of Storeys	-	-	-	-	-	-	-
		Total Covered Area	-	400.00	Sq.m				
		Gross Covered Area	-	400.00	Sq.m				
		Floor Height Typical	-	4.20	Mtr				
		Plinth Height	-	0.60	Mtr				
S.No.	Ref PAR 2021 Item	Description	Area	Unit	Rate	Amount (In Rs.)			
						Civil	PH&E	Electrical	
1	1.0	BUILDING COST (Specifications as per Annexure- I)							
1	1.0	BCC FRAMED STRUCTURE (Up to Three Storeys)							
		Floor Ht. 3.60 m.	400.00	Sq.m	29685.00	11,874,000.00			
Total Building Cost						11,874,000.00	0.00	0.00	
2	1.3.1	EXTRA FOR							
		Over 0.3m additional height of normal floor higher of 3.60m (Over area 1.2 m. (4.2-3.6)/(0.3*70))	400.00	Sq.m	740.00	2,96,400.00			
		Over 0.3m deeper foundation over normal depth of 1.50 m (See ground floor area only) (See 1.50 m depth (1.5-1.2)/(0.3*200))	400.00	Sq.m	200.00	80,000.00			
		Making stronger foundations to take load of one additional floor at higher date (See ground floor area only)	400.00	Sq.m	1600.00	6,40,000.00			
TOTAL A (CIVIL WORKS)						12,810,400.00	0.00	0.00	
						92,90,000.00	0.00	0.00	
3	1.5.1	FIRE FIGHTING							
		Downcomer system	400.00	Sq.m	400.00	1,60,000.00			
TOTAL B (FIRE FIGHTING)						0.00	1,60,000.00	0.00	
4	1.6.1	FIRE ALARM SYSTEM							
		Automatic Fire Alarm System	400.00	Sq.m	600.00			2,40,000.00	
TOTAL C (FIRE ALARM SYSTEM)						0.00	0.00	2,40,000.00	
5	2.0	SERVICES							
		Internal Water Supply & Sanitary Installations	102.75,000.00	%	5%	5,137,500.00			
		Internal electric installations	102.75,000.00	%	1.25%	12,843,750.00			
		EXTRA FOR							
		Power wiring and plug	102.75,000.00	%	4.0%	4,110,000.00			
		Lighting conductors	102.75,000.00	%	0.25%	25,687.50			
		Telephone conductors	102.75,000.00	%	0.25%	25,687.50			
TOTAL D (SERVICES)						0.00	1,31,000.00	14,06,562.50	
6	3.0	WATER TANK (NOT ONLY)							
		Overhead tank with automatic fill device	00.00	Litre	20	1,00,000.00		0.00	
TOTAL E (WATER TANK)						0.00	1,00,000.00	0.00	
TOTAL COST AS PER CPWD PUNTS AND A RATE (A+B+C+D+E)						92,90,000.00	1,40,220.00	16,56,562.50	
TOTAL COST OF BUILDING								18,23,125.00	
						See Rs.	1.15	0.00	
7	1.1	COST OF THE CONSTRUCTION ACTIVITIES AND CHARGES WORKS / STATUTORY CHARGES							
		Electrical External service connections	102.75,000.00	%	3.75%	3,853,125.00			
		Local body approvals including tree cutting etc.	102.75,000.00	%	1.25%	1,284,375.00			
TOTAL F								5,137,500.00	
						See Rs.	0.00	0.00	

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PROPOSED CONSTRUCTION OF POLICE COMMANDO BATTALION AT HAILAKANDI, ASSAM							
INSPECTOR'S RESIDENCE- 32 UNITS (4 BLOCK- G+1)							
PHASE-1							
		No. of Items		G+1			
		Total Covered Area	-	4000.00	Sqm		
		Ground Covered Area	-	2000.00	Sqm		
		Floor height Typical	-	2.30	Mtr		
		Plinth height	-	0.60	Mtr		
S.No.	SI/PAR 2023 Item	Description	Area	Unit	Rate	Amount (In Rs.)	
					Civil	Pl & FF	Electrical
1	1.0	BUILDING COST Detailed as per Annexure - B					
1	1.01	RCF FRAMED STRUCTURE (Along Three Sides)					
		Floor 14.300 m	4000.00	Sqm	2660.00	10640000.00	
		Total Building Cost			2660	10640000.00	0.00
1.3	1.3.1	EXTRA DEPTH Every 15cm additional height of normal floor higher or 200mm for extra depth (14.30-14.30+0.200m) Every 0.1mtr deeper foundation cover normal depth of 1.50 mtr (on ground floor area only) For 1.50m depth (14.30-14.30+0.200m)	4000.00	Sqm	170.00	680000.00	
3	1.3.4	Every 0.1mtr deeper foundation cover normal depth of 1.50 mtr (on ground floor area only) For 1.50m depth (14.30-14.30+0.200m)	2000.00	Sqm	200.00	400000.00	
4	1.3.5	Adding deeper foundation to take load of one additional floor at a later date (on ground floor area only)	2000.00	Sqm	1000.00	2000000.00	
		TOTAL A (EXTRA DEPTH)				1360000.00	0.00
1.5	1.5.1	PILE FOUNDATION Diameter 400mm	2000.00	Sqm	400.00	800000.00	0.00
1.6	1.6.1	PILE ALARM SYSTEM Automatic Fire Alarm System	4000.00	Sqm	400.00	1600000.00	2400000.00
		TOTAL C (PILE ALARM SYSTEM)			800	800000.00	2400000.00
2.0	2.0	SERVICES					
7	2.1	Internal water supply & sanitary installations	100,00,000.00	%	7%	77,00,000.00	
8	2.2	Internal electric installations	100,00,000.00	%	12.5%	125,00,000.00	
9	2.3	WATER TANK					
9	2.3.1	Overhead tank with independent storage	10000	Litre	20	200000.00	
10	2.3.2	Lighting conductors	100,00,000.00	%	0.25%	25,00,000.00	
11	2.3.3	Telephone conductors	100,00,000.00	%	0.25%	25,00,000.00	
		TOTAL D (SERVICES)			800	17,00,000.00	14,00,000.00
12	2.4	WATER TANK (RC ONLY)					
		Overhead tank with independent storage	10000	Litre	20	200000.00	
		TOTAL E (WATER TANK)			200	400000.00	0.00
		TOTAL COST AS PER CPWD PLINTH AREA RATE (A+B+C+D+E)			913.72,000.00	10,96,00,000.00	17,00,000.00
		TOTAL COST OF THIS DWG.			913.72,000.00	10,96,00,000.00	17,00,000.00
					11.74	Costs	
		Cost of PRELIMINARY ACTIVITIES AND ENABLING WORKS / STATUERE CHARGES					
13	2.2.1	Declinal External Service Connections	100,00,000.00	%	3.75%	37,50,000.00	
14	2.2.2	Local body approvals including tree cutting etc.	100,00,000.00	%	1.25%	12,50,000.00	
		TOTAL-F				43,00,000.00	
					43	Costs	

PROPOSED CONSTRUCTION OF POLICE COMMANDO BATTALION AT HAILAKANDI, ASSAM							
HAVILDAR'S, ASI, CONSTABLE RESIDENCE - 190 UNITS (23 BLOCK- G+1 (184 UNITS)& 1 BLOCK-G+1 (6 UNITS))							
		No. of Items		G+1			
		Total Covered Area	-	17570.00	Sqm		
		Ground Covered Area	-	8000.00	Sqm		
		Floor height Typical	-	3.34	Mtr		
		Plinth height	-	0.60	Mtr		
S.No.	SI/PAR 2023 Item	Description	Area	Unit	Rate	Amount (In Rs.)	
					Civil	Pl & FF	Electrical
1	1.0	BUILDING COST (Specifications as per Annexure - D)					
1	1.01	RCF FRAMED STRUCTURE (Along Three Sides)					
		Floor 14.300 m	17070.00	Sqm	2660.00	45306000.00	
		Total Building Cost			2660	45306000.00	0.00
1.3	1.3.1	EXTRA DEPTH Every 15cm additional height of normal floor higher or 200mm for extra depth (14.30-14.30+0.200m) Every 0.1mtr deeper foundation cover normal depth of 1.50 mtr (on ground floor area only) For 1.50m depth (14.30-14.30+0.200m)	17070.00	Sqm	170.00	2901900.00	
2	1.3.4	Every 0.1mtr deeper foundation cover normal depth of 1.50 mtr (on ground floor area only) For 1.50m depth (14.30-14.30+0.200m)	8535.00	Sqm	200.00	1707000.00	
4	1.3.5	Adding deeper foundation to take load of one additional floor at a later date (on ground floor area only)	8535.00	Sqm	1000.00	8535000.00	
		TOTAL A (EXTRA DEPTH)				12253500.00	0.00
1.5	1.5.1	PILE FOUNDATION Diameter 400mm	8535.00	Sqm	400.00	3414000.00	0.00
1.6	1.6.1	PILE ALARM SYSTEM Automatic Fire Alarm System	17070.00	Sqm	400.00	6828000.00	10,00,000.00
		TOTAL C (PILE ALARM SYSTEM)			6800	6800000.00	10,00,000.00
2.0	2.0	SERVICES					
7	2.1	Internal water supply & sanitary installations	300,00,000.00	%	7%	210,00,000.00	
8	2.2	Internal electric installations	300,00,000.00	%	12.5%	375,00,000.00	
9	2.3	WATER TANK					
9	2.3.1	Overhead tank with independent storage	30000	Litre	20	600000.00	
10	2.3.2	Lighting conductors	300,00,000.00	%	0.25%	75,00,000.00	
11	2.3.3	Telephone conductors	300,00,000.00	%	0.25%	75,00,000.00	
		TOTAL D (SERVICES)			6800	1,00,00,000.00	10,00,000.00
12	2.4	WATER TANK (RC ONLY)					
		Overhead tank with independent storage	10000	Litre	20	200000.00	
		TOTAL E (WATER TANK)			200	400000.00	0.00
		TOTAL COST AS PER CPWD PLINTH AREA RATE (A+B+C+D+E)			300,00,000.00	3,00,00,000.00	10,00,000.00
		TOTAL COST OF BUILDING			300,00,000.00	3,00,00,000.00	10,00,000.00
					300	Costs	
		Cost of PRELIMINARY ACTIVITIES AND ENABLING WORKS / STATUERE CHARGES					
13	2.2.1	Declinal External Service Connections	300,00,000.00	%	3.75%	112,50,000.00	
14	2.2.2	Local body approvals including tree cutting etc.	300,00,000.00	%	1.25%	37,50,000.00	
		TOTAL-F				150,00,000.00	
					150	Costs	

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PROPOSED CONSTRUCTION OF POLICE CAMMANDO BATTALION AT HAILAKANDI, ASSAM								
BARRACK - 4 BLOCKS (240 NOS. ACCOMODATION)								
	No. of Storages	-	G-1					
	Total Covered Area	-	2040.00	Sq.m				
	Ground Covered Area	-	1020.00	Sq.m				
	Floor Height Typical	-	3.50	Mtr				
	Plinth Height	-	0.60	Mtr				
S.No.	Ref PAK 2021 Item	Description	Area	Unit	Rate	Amount (In Rs.)		
						Civil	PH & PF	Electrical
1	1.0	BUILDING COST (Specifications as per Annexure-I)						
1	1.01	RCF FRAMED STRUCTURE (Upto Three Storages)						
		Floor Ht. 3.00 m.	2040.00	Sq.m	3045.00	704,18,000.00	0.00	0.00
		Total Building Cost			[a]	704,18,000.00	0.00	0.00
1.1		EXTRAS FOR						
2	1.3.2	Every 0.1mtr additional height of normal floor higher of 300m (Structure 3.0 m. (1.5-3.0) (2021))	2040.00	Sq.m	27000	54,20,000.00		
3	1.3.4	Every 0.3mtr deeper foundation over normal depth of 1.50 mtr (on ground floor area only) (Over 1.50 m depth -1.5-1.21 (2021))	1920.00	Sq.m	20000	38,40,000.00		
4	1.3.5	Founding deeper foundation for extra level of one additional floor at a later date (on normal floor area only)	1920.00	Sq.m	1600.00	3,07,200.00		
		TOTAL A (CIVIL WORK)				1,07,76,400.00	0.00	0.00
						943,27,200.00	0.00	0.00
1.5		PIPE INSTALLATION						
5	1.5.1	Drainage System	1020.00	Sq.m	400.00	7,00,000.00		
		TOTAL B (PIPE INSTALLATION)				0.00	7,00,000.00	0.00
1.6		PIPE ALARM SYSTEM						
6	1.6.2	Automatic Fire Alarm System	2040.00	Sq.m	650.00			23,04,000.00
		TOTAL C (PIPE ALARM SYSTEM)				0.00	0.00	23,04,000.00
2.0		ROOFING						
7	2.1	Internal Water Supply & Sanitary Installation	704,38,400.00	%	0%	7,14,67,36.00		
8	2.2	Internal electric installations	704,38,400.00	%	12.5%	99,20,000.00		
9	2.3	WATER TANK	704,38,400.00	%	4.0%	31,77,296.00		
10	2.4.2	Power wiring and plugs	704,38,400.00	%	0.25%	1,96,576.00		
11	2.4.3	Telephone conduits	704,38,400.00	%	0.25%	1,96,576.00		
		TOTAL D (ROOFING)				0.00	73,46,756.00	13,07,136.00
1.6		WATER TANK (STC ONLY)						
12	3.1	Overhead tank with independent stand	21400	Ltr	23	6,40,200.00		0.00
		TOTAL E (WATER TANK)				0.00	6,40,200.00	0.00
		TOTAL COST AS PER CPWD PLINTH AREA RATE (A+E)				943,27,200.00	85,47,96.00	13,07,136.00
		TOTAL COST OF BUILDING				Say Rs.	10,07	Crores
II		COST OF PRE CONSTRUCTION ACTIVITIES AND ENABLING WORKS / STATUTORY CHARGES						
13	2.2.1	Electrical External Service Connections	704,38,400.00	%	3.75%			26,58,940.00
14	2.2.3	Local body approvals including tree cutting etc.	704,38,400.00	%	1.25%			9,92,000.00
		TOTAL F						36,50,940.00
		Say Rs.				0.4		Crores

PROPOSED CONSTRUCTION OF POLICE CAMMANDO BATTALION AT HAILAKANDI, ASSAM								
GARRAGE - 2 NOS.								
	No. of Storages	-	G					
	Total Covered Area	-	80.00	Sq.m				
	Ground Covered Area	-	80.00	Sq.m				
	Floor Height Typical	-	4.50	Mtr				
	Plinth Height	-	0.60	Mtr				
S.No.	Ref PAK 2021 Item	Description	Area	Unit	Rate	Amount (In Rs.)		
						Civil	PH & PF	Electrical
1	1.0	BUILDING COST (Specifications as per Annexure- I)						
1	1.01	RCF FRAMED STRUCTURE (Upto Three Storages)						
		Floor Ht. 3.00 m.	80.00	Sq.m	20005.00	16,54,000.00		
		Total Building Cost			[a]	16,54,000.00	0.00	0.00
1.1		EXTRAS FOR						
2	1.3.2	Every 0.1mtr additional height of normal floor higher of 300m (for extra 4.50 m. (4.50-3.0) (2021))	80.00	Sq.m	1050.00	1,00,000.00		
3	1.3.4	Every 0.3mtr deeper foundation over normal depth of 1.50 mtr (on ground floor area only) (Over 1.50 m depth -1.5-1.21 (2021))	80.00	Sq.m	200.00	16,000.00		
		TOTAL A (CIVIL WORK)				1,04,000.00	0.00	0.00
						18,18,000.00	0.00	0.00
2.0		SERVICES						
4	2.3	Internal electric installations	16,54,000.00	%	12.5%			1,06,850.00
		TOTAL B (SERVICES)				0.00	0.00	1,06,850.00
		TOTAL COST AS PER CPWD PLINTH AREA RATE (A+B)				18,18,000.00	0.00	1,06,850.00
		TOTAL COST OF BUILDING				Say Rs.	0.20	Crores
II		COST OF PRE CONSTRUCTION ACTIVITIES AND ENABLING WORKS / STATUTORY CHARGES						
5	2.2.1	Electrical External Service Connections	16,54,000.00	%	3.75%			62,055.00
6	2.2.3	Local body approvals including tree cutting etc.	16,54,000.00	%	1.25%			20,687.00
		TOTAL C						82,742.00
		Say Rs.				0.01		Crores

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PROPOSED CONSTRUCTION OF POLICE CAMMANDO BATTALION AT HAILAKANDI, ASSAM									
SENTARY POST - 2 NOS.									
		No. of Storeys	-	G					
		Total Covered Area	=	8.00	Sqm				
		Ground Covered Area	=	8.00	Sqm				
		Floor Height Typical	=	6.00	Mtr				
		Plinth Height	=	0.60	Mtr				
S.No.	Ref PAR 2021 Item	Description	Area	Unit	Rate	Amount (In Rs.)			
						Civil	PH & FF	Electrical	
I	1.0	BUILDING COST (Specifications as per Annexure-I)							
1	1.0	STILL PORTION							
	1.0.1	Floor ht. 3.60 m.	8.00	Sqm	8400.00	67,200.00			
Total Building Cost									
					[a]	67,200.00	0.00	0.00	
	1.3	EXTRAS FOR							
2	1.0.2	Every 0.30m additional height of normal floor higher of 3.60m (for extra 6.0 m. = (6.0-3.6)/0.3x2700)	8.00	Sqm	1600.00	12,800.00			
3	1.3.4	Every 0.30m deeper foundation over normal depth of 1.50 mtr (on ground floor area only) (for 1.50 m depth = (1.5-1.2)/0.3x200)	8.00	Sqm	200.00	1,600.00			
TOTAL-A (CIVIL WORK)						81,600.00	0.00	0.00	
	1.0	SERVICES							
4	2.3	Internal electric installations	67,200.00	%	12.5%			8,400.00	
	2.4	EXTRA FOR							
5	2.4.2	Lighting conductors	67,200.00	%	0.25%			1,680.00	
TOTAL-B (SERVICES)						0.00	0.00	8,568.00	
TOTAL COST AS PER CPWD PLINTH AREA RATE (A+B)						81,600.00	0.00	8,568.00	
TOTAL COST OF BUILDING								90,168.00	
Say Rs.						0.01		Cruse	
II	COST OF PRE CONSTRUCTION ACTIVITIES AND ENABLING WORKS / STATUTORY CHARGES								
6	2.2.1	Electrical External Service Connections	67,200.00	%	3.75%			2,520.00	
7	2.2.3	Local body approvals including tree cutting etc.	67,200.00	%	1.25%			840.00	
TOTAL-C								3,360.00	
Say Rs.						0.00		Cruse	

PROPOSED CONSTRUCTION OF POLICE CAMMANDO BATTALION AT HAILAKANDI, SENTARY POST - 1 NOS.									
		No. of Storeys	-	G					
		Total Covered Area	=	16.00	Sqm				
		Ground Covered Area	=	16.00	Sqm				
		Floor Height Typical	=	6.00	Mtr				
		Plinth Height	=	0.60	Mtr				
S.No.	Ref PAR 2021 Item	Description	Area	Unit	Rate	Amount (In Rs.)			
						Civil	PH & FF	Electrical	
I	1.0	BUILDING COST (Specifications as per Annexure-I)							
1	1.0	STILL PORTION							
	1.0.1	Floor ht. 3.60 m.	16.00	Sqm	8400.00	1,34,400.00			
Total Building Cost									
					[a]	1,34,400.00	0.00	0.00	
	1.3	EXTRAS FOR							
2	1.0.2	Every 0.30m additional height of normal floor higher of 3.60m (for extra 6.0 m. = (6.0-3.6)/0.3x5700)	16.00	Sqm	1600.00	25,600.00			
3	1.3.4	Every 0.30m deeper foundation over normal depth of 1.50 mtr (on ground floor area only) (for 1.50 m depth = (1.5-1.2)/0.3x200)	16.00	Sqm	200.00	3,200.00			
TOTAL-A (CIVIL WORK)						143,200.00	0.00	0.00	
	1.0	SERVICES							
4	2.3	Internal electric installations	1,34,400.00	%	12.5%			16,800.00	
	2.4	EXTRA FOR							
5	2.4.2	Lighting conductors	1,34,400.00	%	0.25%			336.00	
TOTAL-B (SERVICES)						0.00	0.00	17,136.00	
TOTAL COST AS PER CPWD PLINTH AREA RATE (A+B)						1,43,200.00	0.00	17,136.00	
TOTAL COST OF BUILDING								1,60,336.00	
Say Rs.						0.02		Cruse	
II	COST OF PRE CONSTRUCTION ACTIVITIES AND ENABLING WORKS / STATUTORY CHARGES								
6	2.2.1	Electrical External Service Connections	1,34,400.00	%	3.75%			5,040.00	
7	2.2.3	Local body approvals including tree cutting etc.	1,34,400.00	%	1.25%			1,680.00	
TOTAL-C								6,720.00	
Say Rs.						0.00		Cruse	

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PROPOSED CONSTRUCTION OF POLICE CAMMANDO BATTALION AT HAILAKANDI, ASSAM						
GUARD SHED - 01 NOS.						
		No. of Storeys	=	0		
		Total Covered Area	=	74.00	Sqm	
		Ground Covered Area	=	74.00	Sqm	
		Floor Height Typical	=	3.60	Mtr	
		Plinth Height	=	0.60	Mtr	
S.No.	Ref PAR 2023 Item	Description	Area	Unit	Rate	Amount (In Rs.)
						Civil Pl & FF Electrical
I	1.0	BUILDING COST (Specifications as per Annexure- B)				
	1.0	STILL PORTION				
	1.0.1	Floor Sl. 300 mm	74.00	Sqm	8900.00	6,21,600.00
		Total Building Cost			[a]	6,21,600.00
	1.3	EXTRAS FOR				
	1.0.2	Every 0.30m additional height of normal floor slabs of 300mm (for extra 3.6 m. (3.6-3.0) (0.6x270)	74.00	Sqm	0.00	0.00
	1.0.3	Every 0.30m deeper foundation over normal depth of 1.50 mtr (as ground floor area only) (for 1.50 m depth (1.5-1.2) (0.3x200)	74.00	Sqm	180.00	13,320.00
		TOTAL-A (CIVIL WORK)				6,36,480.00
	1.0	SERVICES				
	2.1	Internal electric installations	6,21,600.00	%	1.25%	7,770.00
	2.2	EXTRA FOR				
	2.1.1	lighting conductors	6,21,600.00	%	0.25%	1,554.00
		TOTAL-B (SERVICES)				9,324.00
		TOTAL COST AS PER CPWD PLINTH AREA RATE (A+B)				6,45,804.00
		TOTAL COST OF BUILDING				7,15,654.00
					Say Rs.	0.07
						Grave
II		COST OF PRE CONSTRUCTION ACTIVITIES AND ENABLING WORKS / STATUTORY CHARGES				
	2.1	Electrical External Service Connections	6,21,600.00	%	3.75%	23,310.00
	2.2	Local body approvals including tree cutting etc.	6,21,600.00	%	1.25%	7,770.00
		TOTAL-II				31,080.00
					Say Rs.	0.00
						Grave

PROPOSED CONSTRUCTION OF POLICE CAMMANDO BATTALION AT ASSAM										
KILL HOUSE										
S.No.	REF	Item No.	Description	MOJ	Qs	Unit	Rate (In Rs.)	Amount As Per 2023 (In Rs.)	Amount As Per 2024 (In Rs.)	
1	508		Providing and fixing PPR ERG complete in all respect including T&P and as per direction of Engineer in Charge	258	30	NO.3	4217.14		2730500.00	
2	ISR -021	1.01	Providing and laying in position ready mixed or site batched design mix concrete for reinforced masonry concrete work, using coarse aggregate and fine aggregate derived from natural sources, Portland Pozzolana / Ordinary Portland / Portland Slag cement, admixtures in recommended proportions as per IS: 9103 to accelerate / retard setting of concrete, to improve durability and workability without impacting strength including pumping of concrete to site of laying, curing, carriage for all loads but excluding the cost of watering, dusting, blanking and reinforcement as per direction of the engineer-in-charge, for the following grades of concrete. Note: Items contained up to 10% of the minimum specified cement content as design mix shall be payable separately. In case the cement content in design mix is more than 110% of the specified minimum cement content, the contractor shall have provision to either re-design the mix or bear the cost of extra cement.							
		1.0.2	all works above and below and floor level							
		1.0.1.1	Concrete of M25 grade with minimum 10% cement content of 300 kg /cum	258	6312	CUM	10080.15	64121.00		
3	ISR -021	1025.1	Providing and fixing load rail of approved size by welding etc. to steel ladder railing, balcony railing, staircase railing and similar works, including applying painting coat of approved steel primer. H.S. tube	258	225	KG	187.15	80098.75		
			TOTAL COST OF BIDDING					141999.75	2730500.00	

PROPOSED CONSTRUCTION OF POLICE CAMMANDO BATTALION AT HAILAKANDI, ASSAM
EXTERNAL SITE DEVELOPMENT (CIVIL)

S.No.	PAR 2021 Item	Description	Qty	Unit	Rate	Amount (In Rs.)	Qty	Unit	Rate	Amount (In Rs.)	Qty	Unit	Rate	Amount (In Rs.)
		Plot Area	-		115123.37	Sqm.								
		Ground Floor Area	-		25469.00	Sqm.								
		External Area	-		89653.87	Sqm.								
		Total Built-Up Area	-		45125.00	Sqm.								
		Built-Up Area For Phase-I	-		29869.00	Sqm.								
		Built-Up Area For Phase-II	-		15256.00	Sqm.								
		TOTAL DEVELOPMENT												
		PHASE-I DEVELOPMENT												
		PHASE-II DEVELOPMENT												
1	Note 2.3 Page No. 4	DEVELOPMENT OF SITE LARGE SITE COMPRISING OF VARIOUS SCATTERED LOW RISE (UPTO 4 STORY) BUILDINGS WITH EXCEPTION OF A BLOCK OR TWO UPTO 6 STORY	9230.58	%	7.50%	692,29,392.75	6074.08	%	7.50%	455,61,615.75	3155.70	%	7.50%	236,67,777.00
2	4.5	UNDER GROUND SUNP (AS PER NBC-2016 TABLE 7)	6,00,000.00	litre	20	136,00,000.00	4,50,000.00	litre	20.00	90,00,000.00	2,30,000.00	litre	20.00	46,00,000.00
3	5.9.1	Horticulture operations i/c 30 cm earth filling, grassing, tree plantation/shrubs and potted plants etc.	89,653.87	Sqm	275	246,54,814.25	44,826.94	Sqm	275.00	123,27,408.50	44,826.93	Sqm	275.00	123,27,405.75
		TOTAL COST AS PER CPWD PLINTH AREA RATE (INCLUDING GST)				1074,84,207.00				668,89,024.25				405,95,182.75
4	AS PER ANALYSIS	BOUNDARY WALL Boundary Wall with 2400 mm high wall and 600 mm high concrete/corrugated iron sheeting. With brick/stone structure and RCC hand at ground level and coping.	1,894.00	Meter	24836.00	470,39,384.00	1,894.00	Meter	24836.00	470,39,384.00	-	Meter	24836.00	-
5	2.25(a)	CONTOUR SITE (SOIL CUTTING/FILLING) Excavating, supplying and filling of local earth (including royalty) by mechanical transport upto a lead of 5km also including ramming and watering of the earth in layers not exceeding 20 cm in trenches, plinth, sides of foundation etc. complete.	1,12,067.34	Cum	368.65	413,13,624.89	56,034.00	Cum	368.65	206,56,934.10	56,033.34	Cum	368.65	206,56,690.79
5	AS PER ANALYSIS	RETAINING WALL (RANDOM RUBBLE MASONRY)	1,000.00	Meter	37750.00	377,50,000.00	800.00	Meter	37750.00	302,00,000.00	200.00	Meter	37750.00	75,50,000.00
6	AS PER ANALYSIS	ROCK RETAINING WALL	1,000.00	Meter	87740.00	877,40,000.00	800.00	Meter	87740.00	701,92,000.00	200.00	Meter	87740.00	175,48,000.00
7	MR	LONG & SHORT SHOOTING RANGE	1.00	JOB	4000000.00	400,00,000.00	1.00	JOB	4000000.00	400,00,000.00	-	JOB	4000000.00	-
		TOTAL DEVELOPMENT OF SITE				3613,27,215.89				2749,77,342.35				863,49,873.54

BILL OF QUANTITY (RCC RETAINING WALL)

Sl.No	DSR 2021	Description	Qty	Unit	Rate (Ru Rs.)	Amount (Ru Rs.)
SUB HEAD-I - EARTH WORK						
1	2.7	Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth load upto 50 m and lift upto 1.5 m, as directed by Engineer-in-charge.				
	2.7.1	Ordinary rock	55440	Cum	412.95	229939.48
2	2.25	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, compacting each deposited layer by ramming and watering, load up to 30 m and lift upto 1.5 m.	43440	Cum	153.95	130315.88
SUB HEAD-II - CONCRETE WORKS						
3	4.20	Providing and laying in position ready mixed or site batched design mix concrete for plain cement concrete work using coarse aggregate and fine aggregate derived from natural sources, Portland Pozzolana / Ordinary Portland / Portland slag cement, admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, to improve durability and workability without impairing strength, including pumping of concrete to site of laying, curing, carriage for all leads, but excluding the cost of centering, shuttering and finishing as per direction of the engineer-in-charge for the following grade of concrete. Note : Extra cement up to 10% of the minimum specified cement content in design mix shall be payable separately. In case the cement content in design mix is more than 110% of the specified minimum cement content, the contractor shall have discretion to either re-design the mix or bear the cost of extra cement.				
		Note : (1) Extra/less cement used than specified in this item is payable/recoverable separately. (2) Fly ash conforming to grade 1 of IS 3812 (Part-1) only be used as part replacement of OPC as per IS : 455, Uniform blending with cement it to be ensured in accordance with clauses 5.2 and 5.2.1 of IS- 456-2000 in the form of RMC and SMC.				
	4.20.1	AD works upto plinth level				
	4.20.1.1	Concrete of M10 grade with minimum cement content of 220 kg/cum	5.90	Cum	8033.20	3129.48
SUB HEAD-III - REINFORCED CEMENT CONCRETE WORK						
FORM WORK						
4	5.9	Centering and shuttering including strutting, propping etc. and removal of form for all heights				
a)	5.9.1	Foundations, footings, bases of columns, etc. for mass concrete	36.00	Sqm	307.95	11086.20
b)	5.9.2	Walls (any thickness) including attached pilasters, buttresses, plinth and string courses etc.	420.00	Sqm	669.55	281211.00
STEEL REINFORCEMENT						
5	5.22	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and lacing all complete upto plinth level				
	5.22.6	Thermo-Mechanically Treated bars of grade Fe-500D or more.	11610.00	Kg	89.65	1040836.50

BILL OF QUANTITY (RCC RETAINING WALL)

Sl.No	DSR 2021	Description	Qty	Unit	Rate (Ru Rs.)	Amount (Ru Rs.)
6	5.33	Providing and laying in position ready mixed or site batched design mix concrete for reinforced cement concrete work using coarse aggregate and fine aggregate derived from natural sources, Portland Pozzolana / Ordinary Portland / Portland slag cement, admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, to improve durability and workability without impairing strength, including pumping of concrete to site of laying, curing, carriage for all leads, but excluding the cost of centering, shuttering, finishing and reinforcement as per direction of the engineer-in-charge for the following grade of concrete. Note : Extra cement up to 10% of the minimum specified cement content in design mix shall be payable separately. In case the cement content in design mix is more than 110% of the specified minimum cement content, the contractor shall have discretion to either re-design the mix or bear the cost of extra cement.				
a)	5.33.1	AD works upto plinth level				
	5.33.1.1	Concrete of M25 grade with minimum cement content of 330 kg/cum	116.10	Cum	7997.30	928486.53
		Cost For 30 Rmt. Retaining Wall				26,82,205.97
		Cost For Per Rmt. RCC Retaining Wall			Say Rs	87746.00

DETAIL MEASUREMENT OF RCC RETAINING WALL

S.NO.	DESCRIPTION	NOS	L	B	H	Area	Unit
SUB HEAD-I :- EARTH WORK							
10	Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer-in-charge						
	All kinds of soil						
FOUNDATION							
	RCC RETAINING WALL	1	30.00	2.40	1.700	554.40	
						Total	554.40 Cum
2	Filling available excavated earth in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering including lead up to 50 m and lift upto 1.5 m					554.40	
	Total Extra Excavation					554.40	
	Ram-						
	PCC in foundation					-3.90	
	RCC in Foundation					-116.10	
						Total	434.40 Cum
3	Providing and laying in position ready mixed plain cement concrete, using fly ash and cement content as per approved design mix and manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for plain cement concrete work, including pumping of B.M.C. from transit mixer to site of laying and curing, including the cost of centering, shuttering and finishing, including cost of curing, admixtures in recommended proportions as per IS : 9103 to accelerate/ retard setting of concrete, to improve workability without impairing strength and durability as per direction of the Engineer-in-charge, sand and aggregate derived from natural sources.						
	M-10 grade plain cement concrete (cement content considered @ 220 kg/cum)						
FOUNDATION							
	RCC RETAINING WALL	1	30.00	1.30	0.100	3.90	
						Total	3.90 Cum
FORM WORK							
4	Centering and shuttering including strutting, propping etc. and removal of form for:-						
a)	Foundations, footings, bases of columns, etc. for mass concrete						
FOUNDATION							
	RCC RETAINING WALL	2	30.00	0.600		36.00	
						Total	36.00 Sqm
b)	Walls (any thickness) including attached pilasters, buttresses, plinth and string courses etc.						
	RCC RETAINING WALL	2	30.000	1.60		4.20.00	
						Total	42.00.00 Sqm
5	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level						
a	Thermo-Mechanically Treated bars of grade Fe-500D or more.	1	116.10	100		11610.00	
						Total	11610.00 Kg
6	Providing and laying in position ready mixed or site batched design mix concrete for reinforced cement concrete work, using coarse aggregate and fine aggregate derived from natural sources, Portland Pozzolana / Ordinary Portland / Portland slag cement / admixtures in recommended proportions as per IS : 9103 to accelerate/ retard setting of concrete, to improve durability and workability without impairing strength; including pumping of concrete to site of laying, curing, carriage for all leads, but excluding the cost of centering, shuttering, finishing and reinforcement as per direction of the engineer-in-charge for the following grade of concrete. Note : Extra cement up to 10% of the minimum specified cement content in design mix shall be payable separately. In case the cement content in design mix is more than 110% of the specified minimum cement content, the contractor shall have discretion to either re-design the mix or bear the cost of extra cement.						
a)	Concrete of M25 grade with minimum cement content of 330 kg/cum						
All works upto plinth level							
Foundations							
	RCC RETAINING WALL, FIXING	1	30.00	1.20	0.040	21.60	
	RCC RETAINING WALL	1	30.00	0.45	1.000	94.50	
						Total	116.10 Cum

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BILL OF QUANTITY (RANDOM RUBBLE MASONRY RETAINING WALL)

Sl.No	DSR 2021	Description	Qty	Unit	Rate (in Rs.)	Amount (in Rs.)
SUB HEAD-I :- EARTH WORK						
1	2.7	Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer-in-charge.				
	2.7.1	Ordinary rock	266.40	Cum	412.95	110909.88
2	2.25	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	240.90	Cum	151.95	61176.55
SUB HEAD-II :- CONCRETE WORKS						
3	4.20	Providing and laying in position ready mixed or site batched design mix concrete for plain cement concrete work using coarse aggregate and fine aggregate derived from natural sources, Portland Pozzolana / Ordinary Portland / Portland slag cement, admixtures in recommended proportions as per IS : 9103 to accelerate/ retard setting of concrete, to improve durability and workability without impairing strength; including pumping of concrete to site of laying, curing, carriage for all leads, but excluding the cost of centering, shuttering and finishing as per direction of the engineer-in-charge for the following grade of concrete. Note : Extra cement up to 10% of the minimum specified cement content in design mix shall be payable separately. In case the cement content in design mix is more than 110% of the specified minimum cement content, the contractor shall have discretion to either re-design the mix or bear the cost of extra cement.				
2.2.1	4.20.1	All works upto plinth level				
	4.20.1.1	Concrete of M10 grade with minimum cement content of 220 kg/cum	3.90	Cum	8033.20	31329.48
SUB HEAD-III :- REINFORCED CEMENT CONCRETE WORK						
FORM WORK						
4	5.9	Centering and shuttering including strutting, propping etc. and removal of form for all heights				
a)	5.9.1	Foundations, footings, bases of columns, etc. for mass concrete	36.00	Sqm	307.95	11086.20
b)	5.9.2	Walls (any thickness) including attached pilasters, buttresses, plinth and string courses etc.	100.00	Sqm	669.15	120519.00
STEEL REINFORCEMENT						
5	5.12	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level				
	5.2.2.6	Thermo-Mechanically Treated bars of grade Fe-500D or more.	3240.00	Kg	89.65	290466.00

BILL OF QUANTITY (RANDOM RUBBLE MASONRY RETAINING WALL)

Sl.No	DSR 2021	Description	Qty	Unit	Rate (in Rs.)	Amount (in Rs.)
6	5.33	Providing and laying in position ready mixed or site batched design mix concrete for reinforced cement concrete work, using coarse aggregate and fine aggregate derived from natural sources, Portland Pozzolana / Ordinary Portland / Portland slag cement, admixtures as recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, to improve durability and workability without impairing strength, including pumping of concrete to site of laying, curing, carriage for all leads, but excluding the cost of centering, shuttering, finishing and reinforcement as per direction of the engineer-in-charge for the following grade of concrete. Note : Extra cement up to 10% of the minimum specified cement content in design mix shall be payable separately. In case the cement content in design mix is more than 110% of the specified minimum cement content, the contractor shall have discretion to either re-design the mix or bear the cost of extra cement.				
a)	5.33.1	All works upto plinth level				
	5.33.1.1	Concrete of M25 grade with minimum cement content of 320 kg/cum	21.60	Cum	7997.30	172743.68
7	7.2	Random rubble masonry with hard stone in superstructure above plinth level and upto floor level, including leveling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 mm nominal size) at window sills, ceiling level and the like.				
	7.2.1	Cement mortar 1:3:1 (cement : 6 coarse sand)	40.50	Cum	8475.70	343365.85
		Cost For 30 Rmt. Retaining Wall				1152404.65
		Cost For Per Rmt. RCC Retaining Wall			Say Rs	37750.00

DETAIL MEASUREMENT OF (RANDOM RUBBLE MASONRY RETAINING WALL)

S.NO.	DESCRIPTION	NO.	L	B	H	Area	Unit
SUB HEAD-1- EARTH WORK							
10	Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (covering 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth load upto 50 m and lift upto 1.5 m, as directed by Engineer-in-charge						
	All kinds of soil						
FOUNDATION							
	RETAINING WALL	1	30.00	2.40	3.700	266.40	
						Total	266.40 Cum
2	Filling available excavated earth in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering including lead upto 50 m and lift upto 1.5 m						
	Total Extra Excavation					266.40	
	Center						
	PCC in foundation						-3.00
	RCC in Foundation						-21.60
						Total	240.00 Cum
CONCRETE WORK							
8	Providing and laying in position ready mixed plain cement concrete, using fly ash and cement mortar as per approved design mix and manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per rate design of specified grade for plain cement concrete work, including pumping of R.M.C. from transit mixer to site of laying and curing, excluding the cost of centering, shuttering and finishing, including cost of curing, admixtures as recommended proportions as per IS : 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer-in-charge sand and aggregate derived from natural sources.						
	M-15 grade plain cement concrete (cement content considered @ 220 kg/cum)						
FOUNDATION							
	RETAINING WALL	1	30.00	1.20	0.100	3.90	
						Total	3.90 Cum
FORM WORK							
1	Centering and shuttering including strutting, propping etc. and removal of form for:						
a)	Foundations, beams, bases of columns, etc. for mass concrete						
FOUNDATION							
	RETAINING WALL	2	30.00		0.600	36.00	
						Total	36.00 Sqm
1c)	Walls (any thickness) including attached pilasters, buttresses, plinth and string courses etc.						
	PCC RETAINING WALL	2	30.000		3.00	180.00	
						Total	180.00 Sqm
5	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level						
a	Thermo-Mechanically treated bars of grade Fe-5000 or more	1	21.00	150		3240.00	
						Total	3240.00 Kg
CONCRETE WORK							
6	Providing and laying in position ready mixed or site batched design mix concrete for reinforced cement concrete work, using coarse aggregate and fine aggregate derived from natural sources, Portland Pozzolana / Ordinary Portland / Portland slag cement, admixtures as recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, to improve durability and workability without impairing strength, including pumping of concrete to site of laying, curing, carriage for all leads, but excluding the cost of centering, shuttering, finishing and reinforcement as per direction of the engineer-in-charge for the following grade of concrete. Note : Extra cement up to 10% of the minimum specified cement content in design mix shall be payable separately. In case the cement content in design mix is more than 110% of the specified minimum cement content, the contractor shall have discretion to either re-design the mix or bear the cost of extra cement.						
a)	Concrete of M25 grade with minimum cement content of 320 kg/cum						
All works upto plinth level							
FOUNDATION							
	RETAINING WALL FOOTING	1	30.00	1.20	0.600	21.60	
						Total	21.60 Cum

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DETAIL MEASUREMENT OF (RANDOM RUBBLE MASONRY RETAINING WALL)						
S.NO.	DESCRIPTION	MQS	L	B	H	Unit
7	Random rubble masonry with hard stone in superstructure above plinth level and upto floor level, including leveling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 mm nominal size) at window sills, ceiling level and the like.					
	Cement mortar 1:6 (1 cement : 6 coarse sand)	1	30.00	0.45	3.000	40.50
	RANDOM RUBBLE MASONRY RETAINING WALL				Total	40.50 Cum

BILL OF QUANTITY (BOUNDARY WALL)					
Sl. No.	Ref. Code DSR 2021	Description	Qty	Unit	Amount
1.0		SUB HEAD-I :- EARTH WORKS			
1.1	2.6	Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer-in-charge.			
1.1.1	2.6.1	All kinds of soil	3.18	cum	205.45
1.2	2.7	Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer-in-charge.			
1.2.1	2.7.1	Ordinary rock	9.53	cum	412.95
1.2.2	2.7.3	Hard rock (blasting prohibited)	19.05	cum	1184.30
1.3	2.25	Filling available excavated earth (excluding rock) in trenches, plinth sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.			
			31.73	cum	253.95
2.0		SUB HEAD-II :- CONCRETE WORKS			
2.1	4.1	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level.			
2.1.1	4.1.8	1:4:8 (1 Cement : 4 coarse sand (zone-II) : 8 graded stone aggregate 40 mm nominal size)	1.35	cum	6326.05
3.0		SUB HEAD-III :- RCC WORK			
3.1	5.33	Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge.			
		(Note :- Cement content considered in this item is @ 330 kg/cum. Excess/less cement used as per design mix is payable/recoverable separately).			
3.1.1	5.33.1.1	All works upto plinth level	7.27	cum	2907.30
3.1.2	5.33.1.2	All works above plinth level upto floor-V level	1.56	cum	10080.15
3.4	5.22	STEEL REINFORCEMENT			
3.4.1	5.22.6	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level.			
		Thermo-Mechanically Treated bars of grade Fe-500D or more	929.34	Kg	8965
					83,315.52

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Sl. No.	Ref. Code DSR 2021	Description	Qty	Unit	Rate	Amount
3.5	5.22A	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above plinth level.				
3.5.1	5.22A.6	Thermo-Mechanically Treated bars of grade Fe-500D or more.	155.53	Kg	89.65	13,942.91
		FORM WORK				
3.6	5.9	Centering and shuttering including strutting, propping etc. and removal of form for:				
a)	5.9.1	Foundations, footings, bases of columns, etc. for mass concrete	5.40	sqm	307.95	1,662.93
b)	5.9.3	Lintels, beams, plinth beams, girders, breasters and cantilevers	20.40	sqm	608.35	12,410.34
c)	5.9.6	Columns, Pillars, Piers, Abutments, Posts and Struts	14.02	sqm	804.25	11,919.95
4.0		SUB HEAD - IV - STEEL WORK				
4.1	10.25	Steel work welded in built up sections/ framed work including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required.				
4.1.1	10.25.2	In grillings, frames, guard box, ladder, railings, brackets, gates and similar works	36.72	kg	142.30	5,225.26
4.2	16.53	Providing and fixing concertina coil fencing with punched tape concertina coil 600 mm dia 10 metre openable length (total length 90 m), having 50 nos rounds per 6 metre length, upto 3 m height of wall with existing angle iron 'Y' shaped placed 2.4m or 3.0m apart and with 9 horizontal R.B.T. reinforced barbed wire, steel tied with G.I. staples and G.I. clips to retain horizontal, including necessary bolts or G.I. barbed wire tied to angle iron, all complete in per direction of Engineer-in-charge, with reinforced barbed tape (R.B.T.) / Spring rope (2.5mm thick) wire of high tensile strength of 165 kg/ square with tape (0.52 mm thick) and weight 43.478 gm/ metre (rest of MS, angle, C.C. blocks shall be paid separately)	15.00	metre	303.65	4,554.75
5.0		SUB HEAD - V - BRICK WORK				
5.1	6.1	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundation and plinth in:				
5.1.1	6.1.2	Cement mortar 1:6 (1 cement : 6 coarse sand)	2.23	cum	6658.25	14,816.27
5.2	6.4	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level in all shapes and sizes in:				
5.2.1	6.4.1	Cement mortar 1:4 (1 cement : 4 coarse sand)	7.61	cum	8512.30	64,806.53
6.0		SUB HEAD - VI - FINISHING WORKS				
6.1	13.1	12mm cement plaster of mix:				
6.1.1	13.1.2	1:6 (1 cement : 6 fine sand)	37.73	sqm	282.00	10,638.45
6.1.A	13.1	15 mm cement plaster on the rough side of single or half brick wall of mix:				
6.1.1.A	13.1.2	1:6 (1 cement : 6 fine sand)	37.73	sqm	324.00	12,222.90

Sl. No.	Ref. Code DSR 2021	Description	Qty	Unit	Rate	Amount
6.2	13.52	Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete.				
6.2.1	13.52.1	On steel work	4.85	sqm	201.70	977.65
6.3	13.45	Finishing walls with textured exterior paint of required shade				
6.3.1	13.45.1	New work (Two or more coats applied @ 3.28 lit/10 sqm) over and including priming coat of exterior primer applied @ 2.20lit/10 sqm	75.45	sqm	245.00	18,485.25
		TOTAL COST FOR 15.0 M BOUNDARY WALL				3,72,535.55
		COST PER RMT				24,836.00

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ANALYSIS BOUNDARY WALL COST FOR 15 MTRS.							
Sl. No.	Description	Details	Wool Length	Width	Height	Qty	Unit
1.0 SUB HEAD-I :- EARTH WORKS							
1.1	Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (excavating 30 cm in depth, 1.5 m in width or well as 18 sqm on plan) including getting out and disposal of excavated earth load upto 50 m and lift upto 1.5 m, as directed by Engineer-in-charge.						
	All work of soil	Taking 20% extra from rate book for working space.	6	2.10	2.10	1.200	31.75
						Total	31.75
						Use 10%	3.18
							can
1.2	Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (excavating 30 cm in depth, 1.5 m in width or well as 18 sqm on plan) including getting out and disposal of excavated earth load upto 50 m and lift upto 1.5 m, as directed by Engineer-in-charge.						
1.2.1	Soft soil/rock					20% from above	9.22
1.2.2	Hard rock (Black granite)					20% from above	19.05
						Total	31.75
							can
2.0 SUB HEAD-II :- CONCRETE WORKS							
2.1	Providing and laying in position cement concrete as specified grade excluding the cost of centering and shuttering. - All work upto plinth level.						
2.1.1	1:3:10 (1 Cement : 3 coarse sand (zone-II) : 10 graded stone aggregate, 40 mm nominal size)						
	For column foundation	M06.15:0:1	6	1.50	1.50	0.100	1.375
						Total	1.35
							can
3.0 SUB HEAD-III :- RCC WORK							
3.1	Providing and laying in position machine barbed and machine ribbed design mix M-25 grade cement concrete for reinforced cement concrete work, using coarsest cement as per approved design rate, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, formwork and reinforcement, including admixtures in recommended proportions as per IS: 9102 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge.						
3.1.1	All work upto plinth level						
	Column footing		6	1.50	1.50	0.28	492
	Column below plinth	H=1.2:0.16:0.30:0.73	6	0.23	0.23	0.87	0.39
	Plinth beam		1	15.00	0.45	0.45	3.95
						Total	7.27
							can
3.2	All work above plinth level upto floor level						
	For Column		6	0.250	0.250	2.48	0.76
	Beams		1	15.00	0.250	0.23	0.79
						Total	1.55
							can
STEEL REINFORCEMENT							
3.4	Steel reinforcement for RCC work including straightening, cutting, bending, placing in position and binding all concrete upto plinth level.						
3.4.1	Thermo-Mechanically Treated bars of grade Fe-500D or more					Total 802	49 Kg/cum
	Total RCC from above					7.27	100
							727
							Total
							727
							Kg
3.5	Steel reinforcement for RCC work including straightening, cutting, bending, placing in position and binding all concrete above plinth level.						
3.5.1	Thermo-Mechanically Treated bars of grade Fe-500D or more					Total 812	49 Kg/cum
	Total RCC from above					1.56	100
							156
							Total
							156
							Kg

ANALYSIS BOUNDARY WALL COST FOR 15 MTRS.							
4.0 SUB HEAD - IV - STEEL WORK							
4.1	Steel work welded in built up sections/ framed work, including cutting, bending, fixing in position and applying a priming coat of approved steel primer using structural steel as required.						
	in gratings, frames, steel bar, ladder, railings, brackets, gates and similar works.						49 Kg/cum
	IN 2.0 FLAT 500 2000 3000	M06-ROBBER(10)/2.4.10	6	1.80		5.48	37
						Total	37
							Kg
4.2	Providing and fixing concrete coil fencing with punched tape concrete coil 600 mm dia 18 mm in openable length (total length 90 m), having 50 mm rounds per 6 metre length upto 1 m height of wall with cutting angle iron 3" shaped plated 2.4 m or 500 m apart and with 9 horizontal R.R.T. reinforced barbed wire, small steel with G2 staples and G1 clips to retain horizontal, including necessary bolts or G2 barbed wire tied to angle iron, all complete as per direction of Engineer-in-charge, with reinforced barbed tape(R.R.T.) / Spring rate (2.5mm thick) wire of high tensile strength of 160 kg/ square with tape (0.52 mm thick) and weight 43.470 gm/ metre (cut at 95 degree, C.C. blocks shall be paid separately)						
	New and old boundary wall length						Total
							15.00
							can
5 SUB HEAD-V :- BRICK WORK							
5.1	Brick work with F7.5 bricks of class designation 75 in foundation and plinth						
	Cement mortar 1:4:1 cement : 6 coarse sand						
	Foundation					1	15.00
						1	15.00
							0.258
							0.150
							0.12
							1.45
							Total
							7.21
							can
5.2	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in super structure above plinth level up to floor level in all shapes and sizes in :						
	Boundary wall length	L=15	1	15.00	0.258	1.400	0.26
	For columns	H=	6	0.23	0.258	2.100	-0.67
						Total	7.85
							can
6.0 SUB HEAD - VI - FINISHING WORK							
6.1	15 mm cement plaster on the rough side of angle or half brick wall etc.						
	1:4:1 cement : 6 coarse sand						
	Boundary wall length	L=15	2	15.00		2.400	71.68
	Boundary wall TOP	L=15	1	15.00		0.250	3.45
						Total	73.42
							can
6.2	Synthetic enamel paint						
	Chamfer work						
	For Y angle sections					1	39.72
							0.11
							Total
							4.85
							can
6.3	Finishing work with textured exterior paint of required shade.						
	New work (Two or more coats applied @ 2.20 lts/10 sqm) over and including priming coat of exterior primer applied @ 2.20lts/10sqm						
	Boundary wall length	L=15	2	15.00		2.400	71.09
	Boundary wall TOP	L=15	1	15.00		0.250	3.45
						Total	75.42
							can

PROPOSED CONSTRUCTION OF POLICE CAMP AND BATTALION AT BAILAKANDE, ASSAM
SPECIALISED E&M WORKS

		Plot Area	115123.77	Sq.m.													
		Ground Floor Area	-21469.52	Sq.m.													
		External Area	89653.87	Sq.m.													
		Total Built-Up Area	45125.80	Sq.m.													
		Built-Up Area For Phase-I	29009.00	Sq.m.													
		Built-Up Area For Phase-II	11256.80	Sq.m.													
			TOTAL DEVELOPMENT					PHASE-I DEVELOPMENT					PHASE-II DEVELOPMENT				
S.No.	PAR 1024 2006	Description of Item	Qty	Unit	Rate	Amount in Rs.		Qty	Unit	Rate	Amount in Rs.		Qty	Unit	Rate	Amount in Rs.	
						Electrical	PH&IT				Electrical	PH&IT				Electrical	PH&IT
1	6.2.1	SUB-STATION EQUIPMENTS Supplying, installation, testing and commissioning of 11KV/0.4KV or 11KV/0.4KV substation equipments comprising HT Panel, dry type transformer, HT cable, bus bar, fusing from transformer to LT Panel, LT Panel, Automatic Power factor correction panel, Active Harmonic Filter, TVSS (Transient Voltage suppression system), SPD (surge protection system), Recessed panel, Earthing, required inter-connection from substation cable equipments including LT cabling from sub station to the building and to the sub station.	1000.00	per KVA	9000.00	90,00,000.00		662.00	per KVA	9000.00	5958,000.00		336.00	per KVA	9000.00	30,24,000.00	
2	6.3.1	DIESEL GENERATING SETS Supplying installation testing and commissioning of 50kw type D/G set, AHF Panel, bus bar, fusing, cable from DG Set to essential panel, control cable, Earthing of DG Set and AHF Panel, DG set on knee piping as per CCR norms and minor allied works.	350.00	per KVA	30,000.00	10,50,000.00		206.00	per KVA	30,000.00	6180,000.00		140.00	per KVA	30,000.00	42,00,000.00	
3	6.4.1	UNINTERRUPTIBLE POWER SUPPLY Supplying, installation, testing and commissioning of online 3 phase UPS system with 30 minutes back up including batteries, interconnecting cables, battery racks etc.	50.00	per KVA	20,000.00	10,00,000.00		33.00	per KVA	20,000.00	660,000.00		17.00	per KVA	20,000.00	3,40,000.00	
4	6.8.1	SEAR WHITE VOLTAGE POWER GENERATION SYSTEM Supplying, installation, testing and commissioning of GRH inverter and tap solar photo voltaic power generation system including solar frame.	50.00	per KWp	55,000.00	27,50,000.00		-	per KWp	55,000.00	-		50.00	per KWp	55,000.00	27,50,000.00	
5	6.9.1	SOLAR WATER HEATING SYSTEM Supplying, installation, testing and commissioning of solar water heating system with heat exchanger type including electrical heater backup , make up water tank but without storage.	250.00	100 liter per day	22,500.00	56,25,000.00		-	100 liter per day	22,500.00	-		250.00	100 liter per day	22,500.00	56,25,000.00	
6	6.11.6 10.2	CCTV SYSTEM Supplying, installation, testing and commissioning of IP Based CCTV system for building security comprising of PTZ, Fixed camera, cabling, recording, display system and hard ware software support. (Rate applicable as stated below)	09,663.87	per sqm.	700.00	6,76,66,911.60		44,026.94	per sq. m.	700.00	30,818,380.00		44,026.94	per sq.m.	700.00	30,818,380.00	
7	6.15.3	HYDRO-PNEUMATIC WATER SUPPLY SYSTEM Supplying, installation, testing and commissioning of Hydro-pneumatic water supply system consisting of storage pressure tank, Microprocessor based control panel, PID, inter connecting pipes, valves, cabling, switch gear etc. as specified.	1500.00	per LPH	1,500.00	22,50,000.00		758.00	per LPH	1,500.00	11,36,500.00		758.00	per LPH	1,500.00	11,36,500.00	
8	4.19.3	STREET LIGHTING WITH LED Supplying, installation, testing and commissioning of LED Street/ Compound/ High mast/ Pathway/ Landscape Lighting for the entire Campus. (Rate applicable as stated below)	09,663.87	per sqm. (Plot Area)	150.00	144,48,000.50		44,026.94	per sqm. (Plot Area)	150.00	67,24,041.00		44,026.94	per sqm. (Plot Area)	150.00	67,24,041.50	
9	a	STP/ETP PLANT Supplying, installation, testing and commissioning of STP/ETP of appropriate technology including DVE Works (except plant room), Tertiary Treatment etc. for the building/campus.															
a	4.20.1	Plant rate UP TO 50 ELD	50.00	per thousand Ltr.	75,000.00	37,50,000.00		58.00	per thousand Ltr.	75,000.00	43,80,000.00		-	per thousand Ltr.	75,000.00	-	
b	4.20.2	ADD EXTRA FOR EVERY ELD OF Plant rate 50 ELD TO 100 ELD	50.00	per thousand Ltr.	60,000.00	30,00,000.00		58.00	per thousand Ltr.	60,000.00	30,00,000.00		-	per thousand Ltr.	60,000.00	-	
c	4.20.3	ADD EXTRA FOR EVERY ELD OF Plant rate above 100 ELD AND ABOVE	150.00	per thousand Ltr.	30,000.00	45,00,000.00		158.00	per thousand Ltr.	30,000.00	45,00,000.00		-	per thousand Ltr.	30,000.00	-	
10	6.29	MOTORIZED STEEL GATES	2.00	per gate	3,00,000.00	6,00,000.00		2.00	per gate	3,00,000.00	6,00,000.00		-	per gate	3,00,000.00	-	
11	MH	Water Treatment Works	1.00	job	44,51,055.00	44,51,055.00		1.00	job	44,51,055.00	44,51,055.00		-	job	44,51,055.00	-	
12	MH	Tubewell	3.00	Each	9,04,777.00	27,143,311.00		3.00	Each	9,04,777.00	27,143,311.00		2.00	Each	9,04,777.00	18,09,554.00	
13	MH	Storage & Drainage Pumps	10.00	Set	1,75,000.00	17,50,000.00		7.00	Set	1,75,000.00	12,25,000.00		3.00	Set	1,75,000.00	5,25,000.00	
TOTAL B&M COST AS PER CPWD PLINTH AREA RATE						486,28,856.56	22,64,23,000.00			258,97,429.88	2,77,64,686.88			238,21,425.00	96,03,004.00		

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Subsoil Investigation Work						
S.No.	Code	Description of Item	Qty	Unit	Rate (In Rs.)	Amount (In Rs.)
1	2B1	Collection from the field and testing in the laboratory of undisturbed soil sample for subsoil investigation (as per relevant IS code) by open drive sampler (100 mm dia. Boring through clayey soil layer/sandy soil layer/sandy clay/sandy silt layer/lamy silt layer, conduction standard penetration test(SPT) and collection of SPT sampler, observation of ground water table, spot level survey to the bore location and carrying out R.L. from nearest BM, laboratory test (particle size analysis, hydrometer test, liquid limit determination, plastic limit determination, specific gravity determination, triaxial test, direct shear test, unconfined compression test, consolidation test) including preparation of subsoil investigation report complete with necessary printing and binding (minimum 5 copies)				
		A. Boring				
		(i) Construction of 100mm bore well boring through all types of soils, sandy clay/silty sand/silty clay soil including transportation charges.	15.00	Sqm	675.00	10125.00
		B. Standard Penetration test (S.P.T.)				
		(i) Conduction of SPT at equal interval of 1.5 m or change of strata whichever is earlier and collection of disturbed soil sample from SPT sampler including proper marking and labelling.	10.00	Sqm	90.00	900.00
		C. Laboratory test				
		(i) Particle size analysis (wet sieving)	10.00	Per Test	150.00	1,500.00
		(ii) Determination of Liquid Limit test, (U. 2 points)	10.00	Per Test	350.00	3,500.00
		(iii) Determination of Plastic Limit test	10.00	Per Test	140.00	1,400.00
		(iv) Determination of Moisture Content test	10.00	Per Test	90.00	900.00
		(vii) Determination of bulk density test	10.00	Per Test	70.00	700.00
		(viii) Determination of Specific Gravity test of fine grained soil.	10.00	Per Test	325.00	3,250.00
		(ix) Determination of Direct shear strength				
		(i) 2 points	5.00	Per Test	320.00	1,600.00
		(ii) Determination of consolidated drain test determination of the shear strength parameters of a specimen tested in consolidated drain triaxial compression test without measuring pore water pressure, by triaxial test, shear strength parameters of a specimen tested in unconsolidated undrained triaxial compression test without measuring pore water pressure by triaxial test. (4. 2 points)	5.00	Per Test	800.00	4,000.00
		(iii) Determination of unconfined compressive strength (U. 2 points)	5.00	Per Test	250.00	1,250.00
		(iv) Determination of consolidation properties of soil (U. 2 points)	3.00	Per Test	690.00	2,070.00
		TOTAL COST OF ONE BORE				34,335.00
		TOTAL COST FOR 20 BORE BORE	20.00	sq	30,000.00	11,03,335.00
		G. TOTAL				1,09,890.00



सत्यमेव जयते

भारत सरकार
Government of India



केन्द्रीय लोक निर्माण विभाग
CENTRAL PUBLIC WORKS DEPARTMENT

कुर्सी क्षेत्र दरें PLINTH AREA RATES 2021

DIRECTOR GENERAL, CPWD, NIRMAN BHAWAN, NEW DELHI



सत्यमेव जयते

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कुर्सी क्षेत्र दरें
PLINTH AREA RATES
2021

July 2021

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भारत सरकार
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FOREWORD

Plinth Area Rates published by CPWD is a useful technical document for preparation of preliminary cost estimate of projects and development works by engineers in construction industry. This publication is not only being used by CPWD but also by other organizations, PSUs, builders, architects and valuation experts.

Plinth Area Rates was last published in 2020. It has become necessary to revise it to align the GPRA specifications with the latest housing up-gradation norms of MoHUA, to synchronize plinth area calculation method with provisions of IS 3861:2002 and also to incorporate useful suggestions by field units and other stakeholders. Hence, this updated version of Plinth Area Rates is published as Plinth Area Rates 2021.

I wish to place on record the commendable work done by Shri Dharmesh Chandra Goel, Addl. Director General (Technical), Shri Vinayak Rai, Chief Engineer (CSQ), Shri Divakar Agrawal, Superintending Engineer (TAS), Shri S N Jaiswal, Executive Engineer (CSQ), Shri Mukesh Varma, Chief Estimator (CSQ) and CSQ team in bringing out the Plinth Area Rates 2021 in short time.


01.07.2021
(Vinit Kumar Jayaswal)



Dharmesh Chandra Goel
Additional Director General (Technical)



PREFACE

1. Plinth Area Rates published by Central Public Works Department is one of the most comprehensive and useful technical document used by CPWD, PWDs, Other Govt. Departments, PSUs, Builders, Engineers and Valuation officers for preparation of Preliminary Estimates and Rough Cost Estimates for Offices / Colleges / Schools / Hostels / Hospitals and Residential Buildings. This latest updated version of Plinth Area Rates 2021 is 10th edition since 1955.
2. CPWD field units and others in the construction sector have accustomed themselves with the changed format of PAR 2020. This edition is updated as per plinth area norms approved by MoIUA in August 2013 synchronized with up-gradation norms approved by MoIUA in March 2018. Plinth Area calculation guidelines have been synchronized with IS:3861-2002 for uniformity and clarity.
3. The per unit area rates for all categories of building have been revised as per prevailing cost index of 105 as on 01.04.2021 over PAR 2020 with base 100 as on 01.04.2020. The rates of various extras and development charges have been revised as per Delhi Schedule of Rates 2021.
4. Plinth Area Rates 2021 mandates that concerned Architectural unit shall work out the floor wise plinth area and compile the same to obtain building wise abstract of plinth area. The guidelines are explained in Annexure-II and proforma are provided in Annexure-III(a), III(b), III(c) which are self-explanatory so as to minimize discrepancies.
5. The Plinth Area Rates-2021 (with base 01.04.2021 as 100) comprises of following Annexure:
 - Annexure-I: Specifications for Residential Buildings, Scale of Amenities, Scale of Sanitary & Water Supply fittings and Electrical installations in GPRAs and Specifications for Non-Residential Buildings.
 - Annexure-II: Guidelines for calculating Plinth Area.
 - Annexure-III: Proforma for Plinth Area calculation by Architectural unit
 - Annexure-IV: Proforma for calculating cost index for future Cost indices with base 100 as on 01.04.2021.
6. All efforts have been made to update Plinth Area Rates-2021 to make it user friendly by incorporating the views and feedback from various stakeholders and the field units and making necessary simplifications.
7. I would like to acknowledge the lead taken by Sh. Vinayak Rai, Chief Engineer, CSQ(Civil), Sh. MV Chalapanthi Rao, Chief Engineer CSQ (Elect.) and dedicated efforts of Sh. Divakar Agrawal, SE(TAS), Sh. S.N. Jaiswal, EE(TAS), Sh. D.S. Adhikari, AE(TAS), Sh. Patra Madhu kumar, AE(TAS), Sh. Mukesh Varma, Chief Estimator (Civil), Ms. Anshu Shukla AE (TAS), Sh. Akhileshwar Sah, Chief Estimator, Sh. Naveenkumar P. JE (Civil) and Sh. Chalagoka Ramaraju, JE(Civil) of CSQ who have provided valuable inputs/data in finalization of Plinth Area Rates-2021.

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PLINTH AREA RATES
as on 01.04.2021

S. No.	Description	Non-Residential Buildings			Residential Buildings
		Offices/ Colleges	Hospitals	Schools	Hostels/Quarters
1.0	BUILDING COST (Specifications as per Annexure-I)				
1.1	RCC FRAMED STRUCTURE (Upto six storeys)				
1.1.1	Floor height 3.60 meter	27,090	28,455	21,735	-
1.1.2	Floor height 3.00 meter	-	-	-	20,685
1.2	COMPOSITE (PARTIALLY LOAD BEARING AND PARTIALLY RCC FRAMED) STRUCTURE (Upto six storeys)				
1.2.1	Floor height 3.60 meter	22,995	24,150	18,690	-
1.2.2	Floor height 3.00 meter	-	-	-	17,640
1.3	EXTRA FOR				
1.3.1	Set of six additional storeys (i.e. from 7 th to 12 th storey)	105			
	Similarly, extra for next set of six storeys may be increased by Rs. 105/- per sqm (viz Rs. 210/- per sqm for 13 th to 18 th storey, Rs. 315/- per sqm for 19 th to 24 th storey, Rs. 420/- per sqm for 25 th to 30 th storey and so on). The applicable plinth area shall be the sum of plinth area of all the storeys within the set of six storeys. If the next set of storeys is having fewer than six storeys, the same procedure shall be followed. For example, if building is having 15 storeys, the additional rate applicable shall be (i) Rs. 105/- per sqm for sum of plinth area between 7 th to 12 th storey and (ii) Rs. 210/- per sqm for sum of plinth area of 13 th to 15 th floor.				
1.3.2	Every 0.3 meter or part thereof, additional / less height of floor above normal floor height of 3.60 meter / 3.00 meter (on areas having additional / less height).	370			
1.3.3	Every 0.3 meter or part thereof, higher plinth height over normal plinth height of 0.60 meter (on ground floor area only).	370			
1.3.4	Every 0.30 meter or part thereof, deeper foundations over normal depth of 1.20 meter (on ground floor area only).	200			
1.3.5	Making stronger foundations to take load of one additional floor at a later date (on ground floor area only).	For RCC framed structures		Composite structure	
		1,660		620	
1.3.6	RCC raft foundation (on ground floor area only).	10,700			
1.3.7	Pile foundation (on ground floor area only).	17,100			
1.3.8	Stronger structural members to take heavy load above 500 kg per sqm upto 1000 kg per sqm.	1,800			
1.4	BASEMENT FLOOR				
1.4.1	Floor height upto 3.35 meter including water proofing (excluding raft base).	20,750			
1.4.2	Add or deduct for every 0.30 meter, or part thereof, height against normal height of 3.35 meter.	1,000			
1.5	FIRE FIGHTING				
1.5.1	Downcomer System.	400			
1.5.2	With wet riser system.	800			
1.5.3	With wet riser and sprinkler system.	1,200			
1.6	FIRE ALARM SYSTEM				
1.6.1	Manual fire alarm system.	250			
1.6.2	Automatic fire alarm system.	600			

S.No.	Description	Non-Residential Buildings			Residential Buildings	
		Officers & Colleges	Hospitals	Schools	Hostels	Quarters
1.7	Pressurized mechanical ventilation system in the basements with supply duct of exhaust blowers (on areas where mechanical ventilation is required).				1,050	
1.8	STILT PORTION					
1.8.1	Stilt portion of multi-storey buildings upto floor height of 3.60 meter (on stilt area only)				8,400	
1.8.2	Every 0.30 meter additional height above 3.60 meter.				200	

2.0 SERVICES (Percentage below refers to the percentage of building cost as per 1.0 above)						
2.1	Internal water supply & sanitary installations.	4%	10%	5%	12% with attached toilets, 8% with common toilets.	9%
2.2	External service connections and local body approval charges shall be as hereunder or as per estimates given by the local body whichever is higher.					
2.2.1	Electrical external service connections.	3.75%	3.75%	3.75%	3.75%	3.75%
2.2.2	Civil external service connections.	1.25%	1.25%	1.25%	1.25%	1.25%
2.2.3	Local body approvals including tree cutting etc.	1.25%	1.25%	1.25%	1.25%	1.25%
2.3	Internal electric installations.	12.5%	12.5%	12.5%	12.5%	12.5%
2.4	EXTRA FOR					
2.4.1	Power wiring and plugs.	4%	4%	4%	4%	4%
2.4.2	Lightning conductors.	0.25%	0.25%	0.25%	0.25%	-
2.4.3	Telephone conduits.	0.25%	0.25%	0.25%	0.25%	-
2.4.4	Third Party Quality Assurance.	1%	1%	1%	1%	1%

S.No.	Capacity/ Persons	Speed in m/sec	Travel height	Price (₹ in lacs)	Extra for each additional floor (in ₹)
3.0	LIFTS with power operated centre opening doors and AC variable voltage & variable frequency controls				
3.1	Passenger lifts				
3.1.1	8	1.0	G+4	16	90,000
3.1.2	8	1.5	G+5	18	90,000
3.1.3	13	1.0	G+4	18	90,000
3.1.4	13	1.5	G+5	20	90,000
3.1.5	16	1.0	G+4	24	1,10,000
3.1.6	16	1.5	G+5	26	1,10,000
3.1.7	16	2.5	G+12	70	1,10,000
3.2	Bed Lifts				
3.2.1	20	0.75	G+4	24	1,10,000
3.2.2	20	1.5	G+5	27	1,10,000

S.No.	Capacity/ Persons	Speed in m/sec	Travel height	Price (₹in lacs)	Extra for each additional floor (in ₹)
3.2.3	20	2.5	G+12	75	1,10,000
3.3	Goods lifts				
3.2.1	1 Ton	0.5	G+4	26	85,000
3.2.2	2 Ton	0.5	G+4	33	85,000
3.2.3	3 Ton	0.25	G+4	41	1,00,000
S.No.	Description				Rates in ₹
4.0	RCC WATER TANK				
4.1	Overhead tank without independent staging				20 per litre
4.2	Overhead tank with staging height upto 20 metres				30 per litre
4.3	Overhead tank with staging height above 20 metres upto 30 metres				35 per litre
4.4	Overhead tank with staging height above 30 metres upto 40 metres				40 per litre
4.5	Underground sump				20 per litre
5.0	DEVELOPMENT OF SITE				
5.1	Levelling				300 per sqm
5.2	Internal roads & paths				
5.2.1	Internal road with WBM and bituminous top				1,700 per sqm
5.2.2	Internal road with WMM and bituminous top				1,850 per sqm
5.2.3	Cement concrete pavement with vacuum dewatered concrete				2,040 per sqm
5.2.4	Footpath with PCC base, 60 mm thick paver blocks and kerb stone edging				2,600 per sqm
5.3	External sewerage				3,350 per metre
5.4	Filtered water supply				
5.4.1	Distribution lines upto 100 mm dia				1,700 per metre
5.4.2	Peripheral grid 150 mm to 300 mm dia pipes				3,600 per metre
5.4.3	Unfiltered water supply distribution lines				1,330 per metre
5.5	Storm water drains				8,920 per metre
5.6	Rain water harvesting (RWH)				3,350 per metre
5.7	Trenches for services				6,400 per metre
5.8	Boundary wall with 1500 mm high wall and 600 mm high MS grill including 2100 mm high steel gates at every 100 metres				
5.8.1	With brickwork structure and RCC band at ground level and coping				9,550 per metre
5.8.2	Precast RCC wall in M40 grade concrete comprising of U shaped 250 x 230 mm RCC posts fixed in ground and 70 mm thick RCC wall panel inserts				8,050 per metre
5.9	Horticulture Works				
5.9.1	Horticulture operations including 300mm earth filling, grassing, tree plantations/shrubs and potted plants etc.				275 per sqm
5.9.2	Vertical plantations				45 per sqm
6.0	SPECIALISED E&M WORKS				
6.1	33 kV RECEIVING SUBSTATION AND 33 kV/11 kV HT CABLEING				
6.1.1	Supplying, installation, testing and commissioning of 33 kV substation comprising 33 kV HT panel, transformers 33kV/11 kV, 11 kV HT panel, inter connections, 11 kV HT underground cabling to the distribution substations on ring main system, substation earthing, substation safety equipment.				3,500 per kVA

S.No.	Description	Rates in ₹
6.2	SUB-STATION EQUIPMENT	
6.2.1	Supplying, installation, testing and commissioning of 33 kV/0.433 kV or 11 kV/0.433 kV substation equipment comprising HT panel, dry type/Oil type transformers, HT cable, bus trunking from transformer to LT panel, LT panels, automatic power factor correction panel, active harmonic filters, TVSS (transient voltage suppression system), SPD (surge protection system), essential panel, earthing, required inter-connections, substation safety equipments including LT cabling from substation to the buildings fed by the substation.	9,000 per kVA
	Note: For assessment of kVA estimation of a building, para 4.4, 13 and other relevant paras of "Guidelines for Substation & Power Distribution Systems of Buildings-2019" which is available on CPWD website may be referred to.	
6.3	GENERATING SETS	
6.3.1	Supplying, installation, testing and commissioning of DG sets, AMF panel, bus ducting/ cables from DG sets to essential panel, DG set enclosure room sound insulation/ventilation/smoke exhaust as required, earthing of DG set system, control cabling, fuel tank/piping, DG set exhaust piping/ exhaust chimney as per CPCB norms, civil works connected with DG sets including foundation as required.	10,000 per kVA
6.3.2	Extra for synchronizing panels wherever required	1,000 per kVA
6.4	UNINTERRUPTED POWER SUPPLY	
6.4.1	Supplying, installation, testing and commissioning of online 3 phase UPS system with 30 minutes back up including batteries, interconnecting cables, battery racks etc.	20,000 per kVA
6.4.2	Add for every additional 30 minutes backup	9,000 per kVA
6.5	CENTRAL AC PLANT	
6.5.1	Supplying, installation, testing and commissioning of energy efficient central AC plant including low side works	85,000 per TR
6.5.2	Extra for stand-by chilling units high side	38,000 per TR
6.6	VRV/ VRF AC System	
6.6.1	Supplying, installation, testing and commissioning of VRV/VRF system including indoor /outdoor units, piping, electrical power distribution/wiring, electrical panel, treated fresh air system etc.	55,000 per HP
6.7	PRECISION AIRCONDITIONING SYSTEM	
6.7.1	Supplying, installation, testing and commissioning of precision air conditioning system including piping, electrical cabling, controller etc. required for the system	1,10,000 per TR
6.8	SOLAR PHOTO VOLTAIC POWER GENERATION SYSTEM	
6.8.1	Supplying, installation, testing and commissioning of grid interactive roof top solar photo voltaic power generation system including space frame	55,000 per kWp
6.9	SOLAR WATER HEATING SYSTEM	
6.9.1	Supplying, installation, testing and commissioning of solar water heating system with heat exchanger type including electrical heater backup, make up water tank but without piping – 100 litres capacity	22,500 per 100 litre
6.9.2	For higher capacity in multiples of 100 litres.	22,500 per 100 litre
6.10	CCTV SYSTEM	
6.10.1	Supplying, installation, testing and commissioning of IP based CCTV system for building security comprising of PTZ / fixed camera, cabling, digital recording , HD display system with minimum display of 5" x 8" per camera and hard ware software support – for indoors only (Rate applicable on total plinth area but CCTV coverage shall be limited to 15% of the total plinth area as per requirement)	200 per sqm
6.10.2	For external surveillance (Rate applicable on total plot area minus plinth area at ground floor)	200 per sqm

S.No.	Description	Rates in ₹
6.11.1	ACCESS CONTROL SYSTEM Supplying, installation, testing and commissioning of access control system for building security comprising of controller, E&M locks, reader, smart cards, cabling, recording, display system, hardware and software support as required (Rate applicable only on plinth area of high security area in the building)	200 per sqm
6.12	IBMS: INTEGRATED BUILDING MANAGEMENT SYSTEM	
6.12.1	Supplying, installation, testing and commissioning of integrated building management system for digital/electronic display and monitoring of all E&M systems like substation, DG sets, UPS, solar power, lifts, AC plants, ventilation systems, fire protection systems, pumps etc. to include cabling, monitors, recording, display system, hardware, software support (upto 10,000 sqm) (Rate applicable on total plinth area)	400 per sqm
6.12.2	Add extra for built up area above 10,000 sqm (Rate applicable on total plinth area)	125 per sqm
6.13	HYDROPNEUMATIC WATER SUPPLY SYSTEM	
6.13.1	Supplying, installation, testing and commissioning of hydro pneumatic water supply system consisting of pumps, pneumatic tank, microprocessor based control panel, VFD, inter connecting pipes, valves, cabling, switchgear etc. as required	1,500 per LPM
6.14	LIGHTING AUTOMATION INCLUDING OCCUPANCY SENSORS	
6.14.1	Supplying, installation, testing and commissioning of lighting automation including occupancy sensors (Rate applicable on area to be specified by client)	200 per sqm
6.15	BASIC HOME SECURITY FOR RESIDENTIAL COLONY	
6.15	Supplying, installation, testing and commissioning of basic security system in the residential colony to include control room at the gate and intercom connection to each dwelling unit, and basic IP based CCTV system to be installed at the entry and exit points, parking areas, entry point of each dwelling unit and other common areas as required including CCTV control room, required under ground cabling, digital recording system and monitor/ monitors with minimum display of 5" x 8" per camera in the control room:	
6.15.1	Intercom system (Rate applicable on plinth area excluding service/common areas).	300 per sqm
6.15.2	CCTV system (Rate applicable on plinth area excluding service/common areas).	300 per sqm
6.16	LAN SYSTEM	
6.16.1	Supplying, installation, testing and commissioning of LAN system comprising of core switches & L2 switches with 10 G, 10 Giga SFP modules, WIFI access points, WIFI controller, network management software, racks, CAT 6A cable, patch panels, OFC etc. (Rate applicable on plinth area excluding service/common areas).	500 per sqm
6.17	IP BASED EPABX SYSTEM	
6.17.1	Supplying, installation, testing and commissioning of IP based EPABX system comprising of core switches & L2 switches with 10 G, 10 Giga SFP modules, industry standard appliance server, cloud-based, enterprise-grade UC solution, MID/ENTRY level IP/SIP phone with, dual 1 gig ports, racks, CAT 6A cable, patch panels, OFC etc. (Rate applicable on plinth area excluding service/common areas).	500 per sqm
	NOTE: It will be economical to use common infrastructure of switches, OFC, CAT 6A cable for both voice and networking.	
6.18	Conference hall: supplying, installation, testing and commissioning of audio visual/conference system (Rate applicable on carpet area of Hall only)	10,000 per sqm
6.19	STREET LIGHTING WITH LED	
6.19.1	Supplying, installation, testing and commissioning of LED street/ compound/ high mast/ pathway/ landscape lighting for the entire campus (Rate applicable on total plot area).	150 per sqm
	Note: This is applicable for plot sizes more than 1 acre. For smaller plot sizes actual requirements may be worked out	

S.No.	Description	Rates in ₹
	Note:- Cost for general façade lighting, if required, with IP 66/67 LED fixtures (RGB/Tunable/Mono) along with controls (hardware and software) and cabling may be assessed on case to case basis.	
6.20	STP/EIP PLANT	
	Supplying, installation, testing and commissioning of STP/EIP of appropriate technology including civil works (except plant room), tertiary treatment etc. for the building/ campus	
6.20.1	Plant size upto 50KLD	75,000 per KLD
6.20.2	Add extra for every KLD for plant size above 50 KLD and upto 100 KLD	60,000 per KLD
6.20.3	Add extra for every KLD for plant size above 100 KLD	50,000 per KLD
6.21	DRIVER FACE AND AUTOMATIC NUMBER PLATE RECORDING SYSTEM/RECOGNITION SYSTEM	
6.21.1	Supplying, installation, testing and commissioning of driver face and automatic number plate recording system / recognition system including high resolution camera and software set for the driver face capture and automatic number plate recording	7,25,000 per set
6.22	BAGGAGE SCANNERS	
6.22.1	Baggage scanner small: computer based multi energy X-Ray baggage inspection system mounted on castor wheels capable of passing through bags of dimensions 340 mm (W) x 350 mm (H), belt height 750 mm to 850 mm, 22"/24" LCD Monitor, Input / Output rollers with frames etc. as required.	21,25,000 per unit
6.22.2	Baggage scanner big: computer based multi energy X-Ray baggage inspection system capable of passing through bags/parcels of dimension 940mm (W) x 640mm (H) with Belt Height- 750mm-850mm with 22"/24" LCD Monitor, Input/ Output rollers with frames etc. as required.	35,00,000 per unit
6.23	DOOR FRAME METAL DETECTOR	
6.23.1	20 zone or above door frame metal detector nominal size: 760 mm (W) x 2050 mm (H) x 700 mm (D) loaded with necessary software	3,50,000 per set
6.24	MEDICAL GAS PIPELINE SYSTEM	
6.24.1	Medical gas pipeline system (as per international standards) comprising of oxygen, carbon dioxide, nitrous oxide, AGSS, Air-4, Air-7, vacuum outlets, manifolds, pressure alarms, fully automatic gas control system, bed head panels, copper piping, cylinder banks, plant equipment such as compressors, vacuum pumps etc.	60,000 per bed
6.25	MODULAR OPERATION THEATER	
6.25	MOT comprising of walls & ceiling system for operating area, steel framework, static dissipative flooring, laminar flow, double dome OT light, touch screen surgeon's control panel, scrub station, X-Ray viewing screen, hatch box, automatic sliding doors, anesthesia pendent, surgeon pendent etc.	
6.25.1	With stainless steel technology	85,00,000 per OT
6.25.2	With SMS technology	1,25,00,000 per OT
	Note: The above rates are based on minimum OT size of 50 sqm	
6.26	BOOM BARRIER	
6.26.1	Electromechanical boom barrier with all accessories upto 6 meter length.	1,25,000 each
6.27	CAR PARKING SYSTEM	
6.27.1	Sensor based car parking system with controller, display etc. as required. (cost based on minimum car capacity of 250)	10,000 per car
6.28	EMERGENCY LIGHT & ILLUMINATED SIGNAGES	
6.28.1	Illuminated signages (Rate applicable on total plinth area)	20 per sqm

S.No.	Description	Rates in ₹
6.29	Motorized steel gates upto 6.00 metre width	5,00,000 per gate

Notes:

- 1) The rates are inclusive of CP & OH, GST and Labour Welfare Cess (any other cess / levy imposed by local Government shall be added separately).
- 2) If it is not feasible to compute the area or length of development components from item no. 5.1 to 5.7, the cost of these components may be worked out as below on the basis of percentage of building cost as per serial number 1.0.

2.1	Compact site, comprising of a single huge area building with a few ancillary buildings around or few blocks of high rise (higher than 12 storeys) building blocks in close cluster.	= 4.5% of building cost
2.2	Semi compact/semi scattered site comprising of few blocks of mid rise (between 6 to 12 storeys) buildings in a gated compound.	= 6.0% of building cost
2.3	Large site comprising of various scattered low rise (upto 4 storey) buildings with exception of a block or two upto 6 storeys.	= 7.5% of building cost

- 3) Cost of the following development works are not included in these rates.
 - a) Tube wells, pumps, open wells, treatment plant, extension of lines from source of local bodies, head works at water source etc.
 - b) Sewage pumps, sewage treatment plants, septic tanks, extension of outfall sewer upto point of disposal etc.
- 4) Provision for Specialized ERM services if required may be made as per 6.0 above.
- 5) Concealed wiring shall be used in all electrical works
- 6) The rates for the following green measures are already included for civil & electrical works -
 - a) Over deck insulation and application of high SRI reflective paint on thereof.
 - b) Masonry work in super structure with autoclave aerated concrete (AAC) blocks/ fly ash bricks.
 - c) Window with reflective glass coating / high performance coatings / double glazed unit.
 - d) Paints with low VOC options.
 - e) Provision of pillar cock having infrared sensor and foam flow technology along with provisions of online water filter for sediment free water from terrace tank outlet or the distribution line .
 - f) Dual plumbing system.
 - g) LED light fixtures.
 - h) BEE certified 5 star rated fixtures.

GENERAL SPECIFICATIONS FOR RESIDENTIAL BUILDINGS

S.No	Description	Latest Applicable Specifications				Remarks
		Type-II & III	Type-IV, IV (Special)	Type-V & VI	Type-VII & VIII /Bungalows	
1	FOUNDATION					
	Foundation & structure	As per structural requirements	Same as Type II & III	Same as Type-II & III	Same as Type-II & III	The design shall vary as per soil conditions
2	SUPERSTRUCTURE					
	For multi-storey RCC framed structure	RCC frame & filler walls of autoclaved aerated cement concrete (ACC) blocks / burnt clay FPS / fly ash bricks.	Same as Type-II & III	Same as Type-II & III	Same as Type-II & III	Any other energy efficient suitable locally available material in consultation with architect and structural engineer.
	For composite structure (partially load bearing & partially RCC framed structure)	Autoclaved aerated cement concrete (ACC) blocks / burnt clay FPS / fly ash bricks	Same as Type-II & III	Same as Type-II & III	Same as Type-II & III	Any other energy efficient suitable locally available material in consultation with architect and structural engineer.
	Internal Partition	Half brick thick masonry in autoclaved aerated cement concrete (ACC) blocks / burnt clay FPS / fly ash bricks.	Same as Type-II & III	Same as Type-II & III	Same as Type-II & III	Any other energy efficient suitable local material in consultation with architect and structural engineer.
	Sankon floor for toilets with four course water proofing treatment	Sankon floor is RCC floor of required size and depth for floor trap and W.C. traps	Same as Type-II & III	Same as Type-II & III	Same as Type-II & III	
3	DOORS AND WINDOWS					
	a) Frames(except of toilet/bath & WC)					
	i) Door	Chemically Treated Hard wood / seamless mild steel tubular frame(with Hot Dip GI Coating) with minimum wall thickness of 1.0 mm. The external entrance door frame will have double rebate or sub frame for double doors i.e. main door and safety grill door with SS 304 wire(Powder Coated) mesh. For internal doors single rebate frame.	Same as type-II & III	Same as type-II & III	2 nd class teak wood frame work for external entrance having double rebats for double doors i.e. main door and safety grill stainless steel door with stainless steel wire mesh. For internal doors 2 nd class teak wood / uPVC extruded frame sections with minimum wall thickness of 2 mm in single rebate.	
	ii) Window	Chemically Treated Hard wood / uPVC extruded frame sections with minimum wall	Same as type-II & III	Same as type-II & III	2 nd class teak wood / uPVC extruded frame sections of minimum wall	

S.No	Description	Latest Applicable Specifications				Remarks
		Type-II & III	Type-IV, IV (Special)	Type-V & VI	Type-VII & VIII /Bungalows	
		thickness of 2.0 mm / powder coated or colour anodized aluminum extruded tubular sections/ engineered wood sections along with the provision of sub frame of suitable material.			thickness of 2 mm / powder coated or colour anodized aluminum extruded tubular section having double rebate / three tracks sliding system for glazed shutters and wire mesh shutters	
	ii) Doors & windows of toilet/bath / WC	Chemically Treated Hard wood / uPVC extruded frame sections with wall thickness minimum 2.0 mm / FRP / PVC, compatible to doors shutters	Same as Type-II & III	Same as Type-II & III	2 nd class teak wood/uPVC / extruded frame sections with wall thickness minimum 2.0 mm / WPC of density 750 to 1000 kg per cum, compatible to doors shutters	
	iv) Door /window frames in domestic help's area	Not admissible to Type-II, II and III	For domestic help's quarters same as Type-II to III	For domestic help's quarters same as Type-II to III	For domestic help's quarters same as Type-II to III	
	b) Shutters					
	i) Main door/ external door shutters	Double shutters, one mild steel (Hot Dip Galvanized) grill door with mosquito proof stainless steel wire mesh of SS-304 grade (Powder Coated), painted and other 35 mm thick factory made flush door shutter both side commercial veneered and painted. (including necessary lipping)	Same as Type-II to III except the flush door having decorative veneering on both side with melamine polish.	Double shutters one safety grill single / double leaf door in SS-304 L grade frame with mosquito proof stainless steel wire-mesh of stainless steel -304 grade (Powder Coated) and stainless steel fittings and other with 35mm thick factory made exterior grade both side decorative veneered type flush door shutter with melamine polish. (including necessary lipping)	Same as Type-V & VI	
	ii) Domestic help's area	Not admissible to Type-II and III	For domestic help's quarters same as Type-II to III.	For domestic help's quarters same as Type-II to III.	For domestic help's quarters same as Type-II to III.	
	Bath, WC & toilet door	25 to 30 mm thick, FRP / PVC paneled doors	Same as Type-II & III	25 to 30 mm thick WPC of density 650 kg per cum paneled / 30 to 35 mm thick flush doors.	Same as Type-V & VI	
	Other doors	35 mm thick, Chemically Treated Hard wood styles and rails with 12 mm thick commercial ply/ wood	Same as Type II & III	35 mm thick, Chemically Treated Hard wood styles & rails with paneling of 12 mm thick teak ply / teak wood / 5 mm thick	Same as Type-V & VI	

S.No	Description	Latest Applicable Specifications				Remarks
		Type-II & III	Type-IV, IV (Special)	Type-V & VI	Type-VII & VIII /Bungalows	
		paneling or factory made flush door shutters both side commercial ply veneering and finished with wooden Putty and painted.		toughened glass glazing or 35 mm thick factory made exterior grade both side decorative veneered type flush door shutter with machine polish.		
c) Window shutters All windows shutters	Double shutter one glazed shutters with frames of / powder coated or colour anodized aluminum extruded tubular sections/ uPVC extruded profiles of minimum wall thickness of 2 mm/ 30 mm thick Chemically Treated Hard wood with glazing of float / toughened glass and with / without reflective coating / High performance coatings or double glazed unit as per design & requirement and other shutter with stainless steel SS-304 grade wire-mesh in place of glazing.	Same as Type II & III	Double shutter one glazed shutters with frames of / powder coated or colour anodized aluminum extruded tubular sections/ uPVC extruded profiles of minimum wall thickness of 2 mm/ 30 mm thick 2 nd class teak wood with glazing of float / toughened glass and with / without reflective coating / high performance coatings or double glazed unit as per design & requirement and other with stainless steel SS-304 grade wire-mesh in place of glazing.	Same as Type-V & VI		
Domestic help's area (doors & windows)	Not admissible to Type-II and III	For domestic help's quarters same as Type II to III	For domestic help's quarters same as Type II to III	For domestic help's quarters same as Type II to III	Shutters in all respective rooms shall be as per the finishes of Type-I to III in those rooms	
Door hardware & fittings Main units	Powder coated or colour anodized aluminum stainless steel fittings SS-304 grade.	Same as Type II & III	Same as Type-II & III	Stainless steel fittings SS-304 grade or chromium /nickel/ chromium & nickel plated brass fittings.	Rubberized door flashing at the bottom rails of all external doors shall be provided for protection from insects and rainwater etc.	
FLOORING, SKIRTING & DADO						
a)Flooring Living/drawing room, dining & family lounge	Vitrified / ceramic tile flooring of size not less than 400 x 400 mm	Vitrified tile flooring of size not less than 600 x 600 mm	18 mm thick polished granite stone of approved shade/ vitrified tile (in all designs and shades) flooring of size not less than 600 x 600 mm; living / drawing room can also have scratch resistant engineered wood or laminated wooden flooring.	Same as Type V & VI		

S.No	Description	Latest Applicable Specifications				Remarks
		Type-II & III	Type-IV, IV (Special)	Type-V & VI	Type-VII & VIII /Bungalows	
	Office area	Not admissible	Not admissible	Not admissible	Scratch resistant engineered wood or laminated wooden flooring	
	Bedrooms	Scratch resistant ceramic tiles / vitrified tiles of size not less than 400 x 400 mm with joints finished with matching grout.	Scratch resistant ceramic / vitrified tiles of size not less than 600 x 600 mm with joints finished with matching grout.	Vitrified tiles in all designs and shades (with water absorption less than 0.08%) of size not less than 600 x 600 mm/ scratch resistant ceramic tiles with joints finished with matching grout, engineered wood or laminated wooden flooring in one bedroom.	Same as Type-V & VI	
	Kitchen	Anti-skid vitrified tiles of size not less than 300 x 300 mm with water absorption less than 0.08% laid with joints finished with matching grout	Same as Type-II & III	Anti-skid vitrified tiles of size not less than 400 x 400 mm with water absorption less than 0.08% with joints finished with matching grout.	Anti-skid vitrified tiles of size not less than 400 x 400 mm with water absorption less than 0.08% with joints finished with matching grout.	
	Kitchen counter	18mm thick pre-polished granite with nosing as per design				
	Common circulation area	18 mm thick pre-polished granite / vitrified tiles in all designs and shades (with water absorption less than 0.08%) of size not less than 600 x 400 mm.				
	Domestic help's area (flooring)	Not admissible in Type-II and III	For domestic help's quarters flooring shall be as per flooring of Type II & III		Pirichas in all rooms shall be as per the finishes of Type-I to III in respective rooms	
	Common circulation area in domestic help's quarters	Not admissible in Type-II and III	18 mm thick granite stone / locally available stone		Use of locally available stone shall be as per approval of higher of Senior Architect / Chief Architect provided in the Region.	
	Main Staircase Fire escape staircase	18 mm thick honed / flamed finish granite in single length of treads & risers				Nosing design in treads shall be as per architectural design
	Toilets / bathrooms / WC	Glazed ceramic anti-skid of size not less than 300 x 300 mm, including grooving the joints.	Same as Type-II & III	Rectified ceramic anti-skid tiles of size not less than 300 x 300 mm	Anti-skid vitrified/ ceramic tiles (with water absorption less than 0.08% not less than 300 x 300 mm or 18 mm thick gang-saw cut pre-polished granite stone.	
	Skirting in rooms and other areas	100 to 150 mm high skirting matching the floor material.				

S.No	Description	Latest Applicable Specifications				Remarks
		Type-II & III	Type-IV, IV (Special)	Type-V & VI	Type-VII & VIII /Bungalows	
	Kitchen slabs	Ceramic glazed / vitrified tiles of size not less than 200 x 300 mm as per design from floor upto full height.	Same as Type-II & III	Ceramic glazed / vitrified tiles of size not less than 300 x 450 mm as per design from floor to full height.	Ceramic glazed / vitrified tiles of size not less than 300 x 450 mm as per design from floor to full ht.	Must be read with scale of amenities in the respective categories
	Toilets/ bathrooms / WC dado	Ceramic glazed / vitrified tiles of size not less than 200 x 300 mm upto full height with decorative bands at certain intervals.	Same as Type-II & III	Ceramic glazed / vitrified tiles of size not less than 300 x 450 mm upto full height with decorative bands at certain intervals	Ceramic glazed / vitrified tiles of size not less than 300 x 450 mm upto full height with decorative bands at certain intervals.	
5.	RAILINGS / PARAPETS IN BALCONIES / TERRACE					
	(a) Railings in balconies	Clear 1.00 m high MS railing made out of MS flats and square bars with 40 mm dia MS pipe hand rail on top (as per approved design).	Clear 1.00 m high stainless steel railing made out of tubular balustrades with horizontal tubular SS tubes as rails and hand rail on top (as per approved design); all stainless steel tubular members to be on SS-316 L grade.			
	Note: Hand rail of the balcony railings in multi storey flats may be so designed that clothes drying lines in sufficient numbers are provided along with					
	(b) Parapet on terrace	200 / 230 mm thick masonry is autoclaved aerated cement concrete (ACC) blocks / RCC / burnt clay FPS bricks duly plastered on both sides and top upto 1.0 meter clear height				
6.	FINISHES					
	(a) Internal finishes	All walls & ceiling to be treated with 2 mm thick POP (one time only) and painted with low VOC acrylic washable distemper. Synthetic enamel paint on all wood works and steel works	All walls & ceiling to be treated with 2 mm thick POP (one time only) & painted with low VOC acrylic washable distemper. Synthetic enamel paint on all wood works & steel works	All walls & ceiling to be treated with 6 mm thick POP putting (one time only) and painted with low VOC plastic emulsion paint. Synthetic enamel paint on all wood works and steel works	Premium acrylic emulsion paint with low VOC of approved shade in roller finish over 6 mm thick POP wall putting. Synthetic enamel paint on all wood works and steel works	
	(b) External finishes	Quartz reinforced texture acrylic paint finish/Premium acrylic smooth water proof exterior finish over cement-based putty / washed mosaic plaster in premium cement. Synthetic enamel paint on all wood work & steel work.	Same as Type-II & III.	Quartz reinforced texture acrylic paint finish of approved shade /premium acrylic smooth water proof exterior finish / washed mosaic plaster in premium cement-based putty /exposed brick / stone work/GRC / designer cement concrete tile cladding/ACP cladding in combination with structural glazing	Same as Type-V & VI	In case of large campus etc., the external finishes of the residences shall match the overall colour & texture finishes within the campus

Note: For hotels, some specifications as for Type-IV & Type-IV (Special) quarters shall be followed.

SCALE OF AMENITIES (CIVIL) FOR GENERAL POOL RESIDENTIAL ACCOMODATION (GPRA)

Item No.	Item	Type-II & III	Type-IV & IV (Special)	Type-V & VI	Type-VII& VIII	Domestic help's Qns.
1	Kitchen cabinets					
i)	Cooking platform	Yes	Yes			Yes
ii)	Stainless steel AISI 304(18/8) kitchen sink as per IS 11983 with drain board	Yes	Yes			Yes
iii)	Built in cupboard made up of box and shelves with both side balancing laminated and shutter with one side decorative and other side balancing laminated 18 mm thick high moisture resistant HDF board or Same shelves with box and shutter of 18 mm thick EPC boards, with stainless steel hardware, as per architectural design and specifications.	Yes, (with shelves)	Yes, (drawers with telescopic channels)			
iv)	25 mm thick and not more than 400 mm wide both side balancing laminated high moisture resistant HDF board shelves, in tiers upto 2100 mm height in sides and covered with 18 mm thick one side decorative and other side balancing laminated high density high moisture resistant HDF board, with stainless steel hardware as per architectural design and specifications.	Yes	Yes			Yes
v)	Factory made modular kitchen having sink with double bowl & double drain-board, cooking platform and electric chimney of reputed company.			Yes	Yes	
2	Wardrobes					
	Built in cupboard of minimum depth 650 mm made up of 18 mm thick one side decorative and other side balancing laminated high moisture resistant HDF board in box, sides, top and bottom and 18 mm thick both side balancing laminated high moisture resistant HDF board in shelves, with stainless steel hardware as per architectural design and specifications.	One in each bed room upto ceiling height	One in each bed room upto ceiling height (steel shutters with frame not to be used)			One upto ceiling height
	Factory made wardrobe carcass, shelves, drawers etc. manufactured in 19 mm thick block board / ply wood painted with synthetic enamel paint or primer on all the inner surfaces, and sides top and shutter face finished with post formed lamination / natural veneer with melamine polish and using stainless steel hardware as per the approved sample.			One in each bed room upto ceiling height	One in each bed room upto ceiling height	
3	Magic eye in front entry door.	One	One	One	One	One
4	Curtain rod with required accessories.	On all windows and doors in all rooms except kitchen, toilets/baths/WC's	Drapery rods on all windows and doors in all rooms except kitchen, toilets/baths/WC's	Same as Type IV & IV (Special)	Same as Type IV & IV (Special)	Same as Type-II & III
5	Set of pegs.	In all toilets / baths /WC's	In all toilets/baths/WC's and wardrobes	In all toilets/ baths/ WC's and wardrobes	In all toilets/ baths/WC's & wardrobes	
6	18 mm thick projected window sill lining, window jamb.	Granite stone	Granite stone	Granite stone	Granite stone	Granite stone

SCALE OF AMENITIES FOR SANITARY AND WATER SUPPLY FITTING FOR GENERAL POOL RESIDENTIAL ACCOMMODATION (GPRA)

S.No.	Item	Type-II&III	Type-IV& IV (Special)	Type-V &VI	Type-VII & VIII	Domestic help's Qtrs.	
1	EWC / IWC with trap (EWC with seat rim and cover) and low level dual flushing cistern.	One in each toilet					
2	Water jet and / or health faucet with WC.	Water jet and Health faucet with each EWC					Not applicable
3	Wash basin with CP brass basin/mixture for hot & cold water, single lever quarter turn type with ceramic cartridges.	One in each toilet & one in dining area as per design.					One in each toilet
4	Tap (In kitchen, toilet, bath & WC) CP brass bib cock provided quarter turn type with ceramic cartridges.	Three in kitchen, one in each toilet for WC.					
5	Shower with CP brass diverter /mixture single lever type for hot & cold water with ceramic cartridges	One in each toilet/bath					
6	CP brass towel rail and towel ring	One towel ring with each wash basin and towel rail in each bath					
7	Mirror with frame and glass shelf having stainless steel frame/guard bar/brackets.	600 x 450 mm with each wash basin	As per design with each wash basin			600 x 450 mm with each wash basin	
8	CP brass/ceramic toilet paper holder.	With each EWC					
9	Soap rack / niche as per architectural design and specification.	One with each wash basin and in each bath					
10	Plumbing for water purifier and geyser.	Yes for both in kitchen and for geyser in each bath.					
11	Storage tank of capacity as per NBC 2016 provision of separate tank for WC & drinking water.	Separate tanks for kitchen and toilets for dual flushing system as per requirements with provision of online filter.					
13	Water meter of appropriate bore size, as per approval of the local municipal body.	Yes, inside the flat at direct supply point to dwelling unit or at first inlet point if supply is through bulk storage at contract, separately for each piping system.					

SCALE OF AMENITIES FOR ELECTRICAL INSTALLATION IN GENERAL POOL RESIDENTIAL
 ACCOMMODATION

S.No.	Description	Type-II	Type-III	Type-IV & IV (Special)	Type-V	Type-VI	Type-VII& VIII	Domestic help's Qm.
1	Power plug points (16 A 6 pin)	2 in each room 1 in kitchen 1 in utility area	2 in each room 1 in kitchen 1 in utility area	2 in each room 1 in kitchen 1 in utility area	3 in drawing room 3 in Dining Room 2 in each Bedroom 2 in Kitchen 1 in Utility Area	3 in drawing room 3 in Dining room 2 in each bedroom 2 in kitchen 1 in utility area	2 in office 4 in drawing room 3 in dining room 2 in family lounge 2 in each bedroom 2 in kitchen 1 in utility area	Total 2
		Total 8	Total 8	Total 12	Total 15	Total 17	Total 22	
2	Light plug points (8 A)	2 in each room 1 in kitchen 1 in balcony area	2 in each room 1 in kitchen 1 in balcony area	2 in each room 1 in kitchen 1 in balcony area	2 in each room 1 in kitchen 1 in store 1 in main balcony	2 in each room 1 in kitchen 1 in store 1 in each balcony	1 in office 2 in each room 1 in kitchen 1 in store 1 in each balcony	Total 2
		Total 8	Total 8	Total 12	Total 15	Total 15	Total 20	
3	Bracket lights (with normal fittings excluding lamp bulbs)	1 in each room 1 in kitchen 1 in each toilet 1 in utility	1 in each room 1 in kitchen 1 in each toilet 1 in utility	1 in each room 1 in kitchen 1 in each toilet 1 in utility	1 in store 1 in each toilet 1 in utility	1 in store 1 in each toilet 1 in utility	1 in store 1 in each toilet 1 in utility	Total 5
		Total 4	Total 4	Total 11	Total 10	Total 12	Total 12	
4	Ceiling fans	1 in living room 1 in each bedroom	2 in living room 1 in each bedroom	2 in living room 1 in dining room 1 in each bedroom	2 in drawing room 1 in dining room 1 in each bedroom 1 in each balcony	2 in drawing room 1 in dining room 1 in family lounge 1 in each bedroom 1 in each balcony	2 in drawing room 1 in dining room 1 in family lounge 1 in each bedroom 1 in each balcony	Total 1
		Total 3	Total 4	Total 6	Total 6	Total 12	Total 14	
5	Call bell points	1	1	2	3	3 (One with image display system)	4 (One with image display system)	
6	Exhaust fans	1 each in kitchen, bath & WC	1 each in kitchen, bath & WC	1 each in kitchen, bath & WC	1 each in kitchen & toilets	1 each in kitchen & toilets	1 each in kitchen & toilets	Total 2
7	AC points (with MCB connected socket outlet with wiring)	1 in each room except kitchen & toilet	1 in each room except kitchen & toilets	1 in each room except kitchen & toilets	1 in each room except kitchen & toilets	1 in each room except kitchen & toilets	1 in each room except kitchen & toilets	
8	Cover point (with MCB connected socket outlet with wiring)	1 in bedroom	1 in bedroom / toilet	1 in kitchen 1 in each toilet	1 in kitchen 1 in each toilet	1 in kitchen 1 in each toilet	1 in kitchen 1 in each toilet	1 in toilet
9	EDB/MCB point (single phase)	1	1					1
10	EDB/MCB (3 phase)			1	1	1	1	
11	Cable TV point	1 in living room 1 in each bedroom	1 in living room 1 in each bedroom	1 in drawing room 1 in each bedroom	1 in drawing room 1 in each bedroom	1 in drawing room 1 in dining room 1 in each bedroom	1 in office 1 in drawing room 1 in dining room 1 in family lounge 1 in each bedroom	1

S.No.	Description	Type-II	Type-III	Type-IV & IV (Special)	Type-V	Type-VI	Type-VII& VIII	Domestic help's Qtrs.
12	Telephone point As per the approval of competent authority	1 in living room 1 in each bedroom	1 in living room 1 in each bedroom	1 in drawing room 1 in each bedroom	1 in drawing room 1 in each bedroom	1 in drawing room 1 in dining room 1 in each bedroom	1 in office 1 in drawing room 1 in dining room 1 in family lounge 1 in each bedroom	1
13	Decorative light fittings				3 in drawing room 3 in dining room	3 in drawing room 3 in dining room 2 in each bedroom	3 in office 3 in drawing room 3 in dining room	
	for LED bulbs (without bulbs)				2 in each bedroom 1 in kitchen	2 in kitchen	3 in family lounge 2 in each bedroom 2 in kitchen	
					Total 13	Total 16	Total 22	
14	LED tube light fittings (excluding tubes)	1 in each room 1 in kitchen	1 in each room 1 in kitchen	1 in each room 1 in kitchen	1 in drawing room 1 in dining room 1 in each bedroom 1 in kitchen	1 in drawing room 1 in dining room 1 in each bedroom 1 in kitchen	1 in office 1 in drawing room 1 in dining room 1 in family lounge 1 in each bedroom	
		Total 4	Total 4	Total 6	Total 6	Total 7	Total 9	
15	Modular switches	—	—	—	Yes	Yes	Yes	—

Note: All the common areas e.g. lifts & staircases, lobbies, connecting corridors etc. shall have lighting arrangement along with LED light fixtures as per actual design.

GENERAL SPECIFICATIONS FOR NON – RESIDENTIAL BUILDINGS

Item No.	Description	Specifications
1.0	FOUNDATION	
1.1	For RCC framed structure	As per structural design based on soil investigation. (Primarily with RCC footings, columns, raft etc.).
1.2	For composite (partially load bearing and partially RCC framed structure)	As per structural design based on soil investigation. (brick/block work spread footings on cement concrete base upto 1500 mm depth below ground level with or without RCC isolated reinforced footings with plinth beams/bands).
2.0	SUPER STRUCTURE	
2.1	For RCC framed structure	R.C.C. framed construction having filler walls with fly ash bricks / burnt clay FPS bricks / aerated cement concrete (ACC) blocks / autoclaved aerated cement (AAC) blocks.
2.2	For composite (partially load bearing and partially RCC framed structure)	Load bearing construction in burnt clay FPS bricks masonry / stone masonry / aerated cement concrete (ACC) blocks / fly ash bricks / autoclaved aerated cement (AAC) blocks with intermediate columns and RCC bands at lintel/soiling level as per design.
2.3	Internal partitions:- Office /college/hospital Schools	Aerated cement concrete (ACC) blocks/ Light weight autoclaved aerated concrete (AAC) blocks/ Gypsum blocks/ Non asbestos double skin cement boards/ Fly ash bricks/ Light weight autoclaved aerated concrete (AAC) blocks / burnt clay FPS brick masonry work / aerated cement concrete (ACC) blocks / fly ash bricks.
2.4	Sunken Floor in Lavatory Blocks for Floor Traps / W.C. with four course waterproofing treatment	Sunk recess in RCC floor of required size and depth may be provided for floor traps, W.C. traps.
3.0	DOORS & WINDOWS	
3.1	Frames	
3.1.1	Door frame:- Office/college/hospital Schools	Door frames of 2 nd class Indian teakwood or equivalent in office's room, anodized / powder coated/ polyester powder coated aluminum extruded tubular sections/extruded hollow mild steel pipes (minimum 2 mm thickness)/uPVC extruded frame sections / WPC of density between 750 to 1000 kg per cum. Locally available chemically treated hard wood/ seamless mild steel tubular frame (with Hot Dip GI coating) of minimum 2 mm thickness.
3.1.2	Window frame:- Office/college/hospital Schools	uPVC extruded sections of window frame / Aluminum extruded tubular sections / WPC of density between 750 to 1000 kg per cum. uPVC extruded sections of window frame / standard mild steel Z-section steel frame members.
3.2	Door & window shutters	
3.2.1	Door Shutter:- Office/college/hospital Schools	Pasoleo type in 2 nd class Teak wood or flush door with teak veneered ply/ commercial ply or anodized/powder coated/ polyester powder coated aluminum shutters with toughened glass glazing/paneling wherever required as per CPWD specifications/as per design & drawing. Flush door shutters with Teak ply veneering/commercial ply veneering (including necessary lipping).
3.2.2	Frame and shutters in wet area	PVC/FRP/WPC door frames & shutters in wet areas.
3.3	Window shutters:- Office/college/hospital Schools	Factory made colour anodized/powder coated/ polyester powder coated Z-section aluminum shutters/ standard uPVC/WPC section for windows glazed with glazing of float / toughened glass and with / without reflective coating / high performance coatings or double glazed unit as per design & requirement. Standard powder coated aluminum tubular profiles windows / mild steel Z-section steel window with glazing of float / toughened glass and with / without reflective coating / high performance coatings or double glazed unit as per design & requirement.
3.4	Fittings	Anodized aluminum / stainless steel, SS-304 grade.
3.5	Fire check door	As per fire safety specifications.
4.0	FLOORING	
4.1	Main entrance hall:- Office/college/hospital Schools	18mm thick Pre polished granite flooring. 18mm thick Pre polished granite flooring in entrance lobby.
4.2	Corridors:- Office/college/hospital Schools	Matt finished vitrified tiles/granite flooring Kata stone flooring and corresponding skirting.

Item No.	Description	Specifications
4.3	Rooms:- Office/college/hospital Schools	Granite tiles/vitrified tiles/engineered wood flooring (in offices chambers) Kota stone flooring and corresponding skirting. In principal room and office area vitrified tiles of size 600 x 600 mm and matching skirting/dado. 18 mm thick Granite flooring.
4.4	Lavatory Blocks:- Office/college/hospital Schools	Rectified antiacid tiles (of size not less than 400 x 400 mm).
4.5	Laboratories in schools	Rectified antiacid tiles (of size not less than 400 x 400 mm) and chemical resistance tiles in floor/counters/shelves of chemistry labs.
4.6	Flooring in basement	Vacuum dewatered concrete.
4.7	Rest of the area	Vitrified ceramic floor tiles
5.0	STAIRCASE	
5.1	Internal staircases:- Office/college/hospital Schools	18 mm thick single piece granite stone in flooring in treads & risers with dado of matching permanent finish specifications. 20 mm thick single piece kota stone flooring in treads & risers with 120 mm high dado of ceramic glazed tiles of size 300 x 450 mm.
5.2	Fire escape staircase	18 mm thick flamed granite in single piece in treads & risers with dado of matching permanent finish specifications.
6.0	RAILING:- Office/college/hospital Schools	Staircase steel balustrades with 12mm thick toughened glass railing or stainless steel tubular horizontal guard rails /hand rails in SS-304 grade. 1200 mm high parapets minimum 100 mm thick or mild steel railing with GI pipe hand rail.
7.0	TOILETS:- Office/college/hospital Schools	Granite flooring / glazed tiles of size not less than 300 x 450 mm / 400 x 600 mm in dado upto ceiling height, granite counters, stainless counter sunk basins/stainless steel sinks, mirrors with moulded PVC frame, FRP/PVC doors with frames. Rectified anti acid tiles of size not less than 400 x 400 mm and dado upto door height with ceramic glazed wall tiles of size not less than 300 x 450 mm.
8.0	ROOFING	
8.1	Roof treatment	Coys treatment/over deck insulation with puff slab.
8.2	False ceiling:- Office/college/hospital Schools	False ceiling in office area & toilets to cover the services as per design requirements. False ceiling in office area, principal room and in toilets (if needed to hide sanitary pipes)
9.	FINISHING	
9.1	External:- Office/college/hospital Schools	Dry stone cladding/washed stone grit plaster/water proof weather coat paints/ structural glazing/ ACP cladding conforming to Energy Conservation Building Code. Dry stone cladding/washed stone grit plaster upto certain specified heights rest cement plastered surface with white cement based putty and acrylic smooth exterior paints.
9.2	Internal:- Office / college / hospital Schools	Cement plaster in wet areas / Dry acrylic paint / distemper in service area & basement / Acrylic emulsion paint/textured paint (low V.O.C) over POP / Wall paneling as per approved architectural design upto sill level / 1200 mm height or ceiling height Cement plastered wall surfaces with POP (one time) and acrylic smooth interior paints in classrooms, corridors and labs etc. In principal room and office texture paint over POP surface.
9.3	Painting:- Office/College/hospital Schools	Doors & windows – painting/polishing on wood work as per design requirement. Doors and windows to be painted with synthetic enamel paint and in corridors upto 1500 mm height on the exterior of classroom walls and upto parapet height on the other side to be painted with synthetic enamel paint.
10.0	Provision for barrier free building	Ramps, toilets for physically challenged, chequered tiles, use of Braille signage & lifts etc. GRC (glass reinforced concrete) tiles in ramp area.

GUIDELINES FOR WORKING OUT PLINTH AREA

(As per IS:3861-2002 with upto date amendments as may be issued from time to time)

In order to ensure the adoption of a uniform method of working out Plinth Area from plans, the following guidelines are laid down. These guidelines are general in nature. These are based on the fundamental principle that the plinth area of a building should present a true picture of the covered floor area provided in the plans.

1. Terminology

1.1 Plinth Area :

The plinth area shall mean the built-up covered measured at the floor level of basement or of any storey.

1.2 Balcony :

A horizontal projection with a hand-rail, balustrade or a parapet.

1.3 Mezzanine Floor:

An intermediate floor in between two main floor having minimum height of 2.2 m from the floor and having a proper and permanent access to it.

Note: Where rules of the local bodies permit intermediate floor of minimum 1.8 m clear height, may also be considered as mezzanine floor for the purpose of measurement.

1.4 Mummy (Stair Cover) :

It is a structure with a roof over a staircase and its landing, built to enclose only the stairs for the purpose of providing protection from weather and not used of human habitation.

1.5 Loft

A structure providing, intermediate storage space in between two main floors without having a permanent access and at a height not less than 2.0 m from the floor below.

1.6 Porch

It is a covered structure supported on pillars or otherwise for the purpose of pedestrian or vehicular approach to a building.

2. General

2.1 Linear measurement shall be measured to nearest 0.01 m, and area shall be worked out to the nearest 0.01 m²

2.2 The areas of each of the following categories shall be measured separately and shall not be clubbed together so as to enable the cost computation at different rates per unit area as worked out for varied heights or categories.

- a) Basement
- b) Floor without cladding (stilted floor)
- c) Floors including top floor which may be partly covered;
- d) Mezzanine floor including additional floor for seating in assembly building/theatre, auditorium etc
- e) Garage
- f) Accommodation for service staff
- g) Mummy (Stair cover)
- h) Machine room
- i) Porch
- j) Towers, turrets, domes projecting above the terrace level at terrace.

3. Method of measurement of Plinth Area

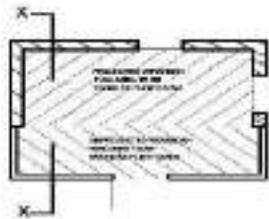
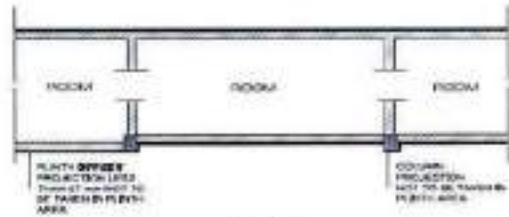
The total Plinth area shall be the sum total of built up covered areas measured at each floor level of the buildings for the categories mentioned under 3.1 below and exclude the areas given in 3.2

3.1 For the purpose of plinth area, following shall be included:

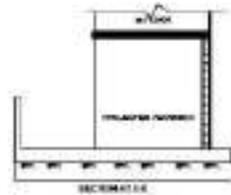
- a) Area of the wall at the floor level excluding plinth offsets, if any; when the building consists of columns projecting beyond cladding, the plinth area shall be taken upto the external face of cladding (in case of corrugated sheet cladding outer edge of corrugation shall be considered) (Refer sketch-1)
 Note: In case, a common wall is owned jointly by two owners, only half the area of such walls shall be included in the plinth area of one owner.
- b) Shafts for sanitary, water supply installations, garbage chute, telecommunication, electrical, fire fighting, air-conditioning and lifts.
- c) Stair case: Main stair case, open spiral/service stair case/fire escape stair case etc.
 - (i) 100 percent of the plan area of main / service / fire escape stair (enclosed in defined stair hall and mummy at top)
 - (ii) 50 percent of the plan areas of service /fire escape/ openstairs (without any enclosure around and mummy at top).
 Note:- Any type of steps, ladder/cat-ladder, spiral/flat, with or without side guard rails created for the purpose of approaching inaccessible terrace or from terrace to top of bulk water storage tanks or otherwise for maintenance purposes shall not account for plinth area.
- d) In case of open verandah with parapets (Refer sketch-2):
 - (i) 100 percent areas for the portion protected by the projections above, and
 - (ii) 50 percent area for the portion unprotected from above.
- e) In case of balcony projections with railing / parapets (Refer sketch-3):
 - (i) 100 percent area of the balcony covered by projection above
 - (ii) 50 percent area of the uncovered balcony
- f) In case of alcove made by cantilevering a slab beyond external wall:
 - (i) 25 percent of the area for the alcove of height upto 1 m.
 - (ii) 50 percent of the area for the alcove of height more than 1 m and upto 2 m, and
 - (iii) 100 percent of the area for the alcove of height more than 2 m.
- g) Area of mummy and machine rooms (Refer sketch-4)
- h) Mezzanine floors shall be measured as different floor levels with deduction for lesser floor heights than the standard heights

3.2 The following shall not be included in the plinth area

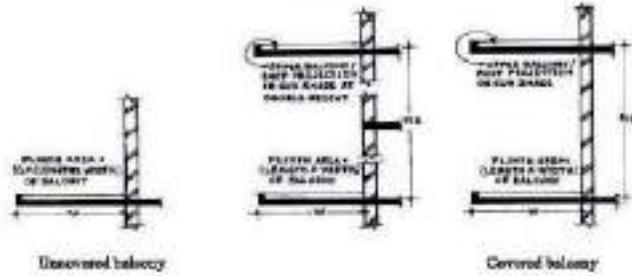
- a) Area of loft
- b) Area of architectural band, cornice, etc.
- c) Area of vertical sun breaker or box louvre projecting out and other architectural features, for example slab projection for flower pot, etc. (Refer sketch-5)
- d) Terrace
- e) Open platform on ground
- f) Towers, turrets, domes projecting above terrace level.



Sketch -1

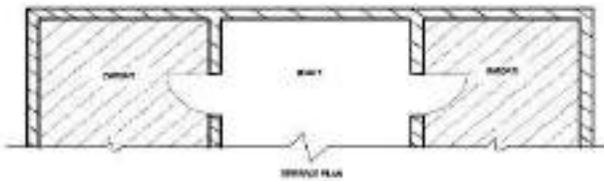


Sketch -2

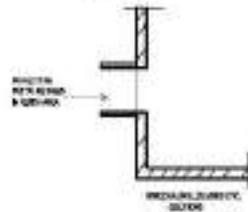


H-1 refers to floor height & H-2 refers to double the floor height in case of staggered balconies.

Sketch -3



Sketch -4



Sketch -5

Proforma for Plinth Area calculation (Floor wise) by Architectural unit

Name of Project:

Reference to building/location:

Floor :

S.No.	Room Designation	Area of Room			Area deductions			Net Area (in sqm) $A - A_1$
		Length, L (in meter)	Breadth, B (in meter)	Area, $A = L \times B$ (in sqm)	Length, L ₁ (in meter)	Breadth, B ₁ (in meter)	Area, $A_1 = L_1 \times B_1$ (in sqm)	
1	Area of the wall at the floor level excluding plinth effects							
(i)	Basement							
(ii)	Stilted floor							
(iii)	Intrance foyer / Lobby							
(iv)	Room-1/Hall-1							
(v)	Room-2/Hall-2							
(vi)	Room-3							
(vii)								
(ix)	Domestic help's room							
(x)	Corridors							
(xi)	Kitchen							
(xii)	Toilet							
(xiii)	Stores							
2	Shafts							
(i)	Sanitary and water supply							
(ii)	Garbage chute							
(iii)	Telecommunication							
(iv)	Electrical							
(v)	Fire Fighting							
3	Stairs							
(i)	Main/Service stairs (enclosed)							
(ii)	Service/fire escape / Open							
4	Verandha							
(i)	Protected verandha							
(ii)	Un protected verandha							
5	Balconies							
(i)	Covered balcony							
(ii)	Uncovered balconies							
6	Alcove (Cup-boards / Box storage)							
(i)	Up to 1.00 m							
(ii)	1.00 m to 2.00 m							
(iii)	Above 2.00 m							
7	Covered area at Terrace							
(i)	Machine Room							
(ii)	Munty							
8	Munozing floor							
9	Porch							

Note:- In above statement more no. of rooms/designated spaces may be added in serial and more than one toilets, balconies, corridors and other ancillary spaces may be incorporated accordingly. All care should be taken that no space on any floor is left out for calculation of plinth area. The proforma is for cuboidal plans only, architectural unit may modify it for other shapes in such a manner that calculation of plinth area is comprehensible.

Architect

Sr. Architect / Chief Architect

Abstract of Plinth Area building wise

Name of Project:

Reference to building/location:

S. No.	Floor Designation	Floor No.	Plinth Area with;					
			Standard floor height		More than standard floor height		Less than standard floor height	
			Height (in m)	Area (in sqm)	Height (in m)	Area (in sqm)	Height (in m)	Area (in sqm)
1	Basement	(-x)						
2	(i) Ground Floor	0						
	(ii) Stilted floor	0						
	(iii) Porch (at ground floor)							
3	First floor	1						
4	Second floor	2						
5	Typical floor	3						
6								
7								
8								
9	Terrace floor							
	(i) Mummy							
	(ii) Machine rooms							
10	Mezzanine floor (at any floor)							
11	Domestic help's / service staff accommodation (at any floor)							
	Total Plinth Area (in building)							

Architect

Sr. Architect / Chief Architect

Abstract of Plinth Area of the project

Name of Project:

Reference to building/location:

S.No.	Building Designation (Name/block of building)	No. of blocks	Plinth Area (each block)	Total plinth area in sqm (as per building area details)	Reference to building abstract sheet
1	Residential				
	(i) Type- II				
	(ii) Type- III				
	(iii) Type- IV				
	(iv) Type- V				
	(v) Type- VI				
	(vi) Hostel- 1				
(vii) Hostel- 2					
2	Office/Admn. Blocks				
	(i) Block- 1				
	(ii) Block- 2				
3	Class room/ Lecture hall Blocks				
	(i) Halls				
4	Auditorium/ assembly hall/ workshops				

Architect

Sr. Architect / Chief Architect

S. No. 3.1(a to h) refers to areas to be included for plinth area, 3.2 (a to f) refers to areas not to be included and 2.2 (a to j) refers to areas to be calculated separately on Annexure-I. Plinth area calculation sheets as per proforma (Annexure-III (a), (b) & (c)) above, shall be provided by the Architectural unit.

The concerned Architectural unit would provide building wise Plinth area calculation abstract and a consolidated plinth area abstract for the entire campus based on the parameters explained in Annexure-II, duly approved and signed by stated Architects with the conceptual drawings so as to enable the Project Managers work out Preliminary Estimate based on these Plinth Area Rates.

PROFORMA FOR CALCULATION OF BUILDING COST INDEX

S.No	Description	Unit	%age	Rates as on 01.04.2021 (in ₹)	Proportionate value (in ₹)	Weightage rates (in ₹)	Weightage of Component	Rates at the time of revision of Cost Index	Cost Index
1	Bricks (Fly Ash)	1000 nos.	100%	4500.00	4500	4500.00	8.00	-	-
2	Cement (OPC)	qtl.	100%	500.00	500.00	500.00	14.50	-	-
3	TMT Steel Reinforcement bar								
a.	8 & 10 mm dia	qtl.	50%	4900.00	2450.00	4900.00	19.50	-	-
b.	12 & 16 mm dia		50%	4900.00	2450.00			-	-
4	Aggregates 20 mm								
a)	Natural sources	cum	75%	1400.00	1050.00	1289.25	6.50	-	-
b)	Aggregates 20 mm (BCA)		25%	957.00	239.25			-	-
5	Sand (coarse sand)								
(a)	Natural sources	cum	75%	1500.00	1125.00	1310.25	3.00	-	-
(b)	Sand (coarse sand) RA		25%	741.00	185.25			-	-
6	Flooring Items								
a.	Varified tiles	sqm	50%	560.00	280.00	732.00	5.00	-	-
b.	Ceramic tiles		20%	300.00	60.00			-	-
c.	Kota stone		10%	320.00	32.00			-	-
d.	Granite stone		20%	1800.00	360.00			-	-
7	Paints								
a.	Synthetic enamel paint	litre	33.33%	175.00	58.33	138.32	3.00	-	-
b.	Acrylic washable distemper		33.33%	40.00	13.33			-	-
c.	Premium acrylic paint		33.33%	200.00	66.66			-	-
8	Door / windows-wooden / uPVC / aluminum / steel								
a.	35 mm thick flush door shutters both side commercial veneering	sqm	30.00%	1000.00	300.00	2085.00	7.00	-	-
b.	Factory made, standard Z-section steel windows		15.00%	1750.00	262.50			-	-
c.	uPVC windows		20.00%	3500.00	700			-	-
d.	Aluminum window		35.00%	2350.00	822.50			-	-
9	Pipes								
a.	15 mm GI pipes	metre	10.00%	95.00	9.50	307.50	2.50	-	-
b.	100 mm GI pipes		40.00%	650.00	260.00			-	-
c.	20 mm black conduits		20.00%	70.00	14.00			-	-
d.	20 mm CPVC pipes		30.00%	80.00	24.00			-	-

S.No	Description	Unit	%age	Rates as on 01.04.2021 (in ₹)	Proportionate value (in ₹)	Weightage rates (in ₹)	Weightage of Component	Rates at the time of revision of Cost Index	Cost Index
10	Lamps & Fans								
a.	Ceiling fans 1200 mm(Five Star)	each	50%	1590.00	795.00	1060.00	4.50		
b.	1200 mm LED tube lights with fittings		40%	640.00	256.00				
c.	LED bulbs9/11 W		10%	90.00	9.00				
11	Electrical machinery, Motor 7.5 HP (pump set) 1500 RPM	each	100%	23010.00	23010.00	23010.00	2.50		
12	Wires & cables								
a.	Copper wire 1.5 sqmm	100 metre	70%	1335.00	934.50	1888.50	4.00		
b.	Copper wire 4.0 sqmm		30%	3180.00	954.00				
13	Labour								
a.	Skilled	each	50%	784.00	392.00	714.50	20.00		
b.	Unskilled		50%	645.00	322.50				
Total							100.00		

Note:-

- In the above proforma at S. No. 4 & S. No. 5, Aggregates – 20 mm and Sand (coarse sand) are considered in two parts (a) & (b) respectively where (a) represents 75% from natural source and (b) represents 25% RCA/RA. In areas where components of RCA/RA are not available (because of non setting up of C&D waste conversion units), the components of aggregate 20 mm at 25% RCA and coarse sand at 25% RA can be avoided and 100% of these materials from natural sources only be considered.
- In the above proforma the rates for building materials adopted in column 5 and corresponding computed rates in column 6 & column 7 are bare rates excluding GST or any other levy. Therefore, for working out local cost index prevailing bare rates only at the respective station shall be considered.

STATEMENT OF COST INDICES OF DELHI/NCR SINCE 1955

Year	Effective Date	Cost Index	Base 100 of PAR	Year	Effective Date	Cost Index	Base 100 of PAR
1962	18.09.1962	131	1955	2006	01.04.2006	236	1992
1966	19.07.1966	148	1955	2007	01.04.2007	254	1992
1969	15.01.1969	157	1955	2007	01.10.2007	260	1992
1969	17.06.1969	168	1955	2007	01.10.2007	100	2007
1969	15.10.1969	181	1955	2008	01.04.2008	114	2007
1970	01.01.1970	100	1970	2008	01.10.2008	119	2007
1971	05.04.1971	120	1970	2009	01.04.2009	113	2007
1972	03.05.1972	134	1970	2009	01.10.2009	126	2007
1973	24.12.1973	166	1970	2010	01.04.2010	136	2007
1975	26.06.1975	180	1970	2010	01.10.2010	139	2007
1976	01.10.1976	180	1970	2011	01.04.2011	149	2007
1976	01.10.1976	100	1976	2011	01.10.2011	151	2007
1977	30.12.1977	113	1976	2012	01.04.2012	161	2007
1978	31.03.1978	116	1976	2012	01.10.2012	170	2007
1979	31.03.1979	130	1976	2012	01.10.2012	100	2012
1980	10.04.1980	176	1976	2013	01.04.2013	100	2012
1981	23.04.1981	200	1976	2014	01.04.2014	105	2012
1982	29.01.1982	217	1976	2014	01.10.2014	107	2012
1982	30.03.1982	221	1976	2015	01.04.2015	104	2012
1983	16.03.1983	243	1976	2015	01.10.2015	103	2012
1984	13.03.1984	274	1976	2016	01.04.2016	102	2012
1985	27.06.1985	312	1976	2016	01.10.2016	101	2012
1986	09.07.1986	340	1976	2017	01.04.2017	111	2012
1987	16.06.1987	370	1976	2017	01.10.2017	115	2012
1988	31.03.1988	397	1976	2018	01.04.2018	116	2012
1988	01.11.1988	421	1976	2018	01.10.2018	118	2012
1989	31.10.1989	494	1976	2019	01.04.2019	118	2012
1990	31.03.1990	521	1976	2019	01.04.2019	100	2019
1991	11.02.1991	564	1976	2019	01.10.2019	98	2019
1991	31.03.1991	595	1976	2020	01.04.2020	101	2019
1992	31.12.1991	664	1976	2020	01.04.2020	100	2020
1992	01.01.1992	100	1992	2020	01.10.2020	97	2020
1994	01.01.1994	117	1992	2021	01.04.2021	105	2020
1995	01.06.1995	132	1992	2021	01.04.2021	100	2021
1997	01.06.1997	145	1992	1. PAR 1955 base 100 is effective from 17.05.1955 2. PAR 1970 base 100 is effective from 01.01.1970. 3. PAR 1976 base 100 is effective from 01.10.1976. 4. PAR 1992 base 100 is effective from 01.01.1992. 5. PAR 2007 base 100 is effective from 01.10.2007. 6. PAR 2012 base 100 is effective from 01.10.2012. 7. PAR 2019 base 100 is effective from 01.04.2019. 8. PAR 2020 base 100 is effective from 01.04.2020. 9. PAR 2021 base 100 is effective from 01.04.2021			
1998	01.06.1998	148	1992				
1999	01.09.1999	158	1992				
2000	01.07.2000	162	1992				
2001	01.04.2001	166	1992				
2002	01.04.2002	176	1992				
2003	01.04.2003	197	1992				
2004	01.04.2004	209	1992				
2005	01.04.2005	223	1992				

CPWD TEAM

1. Sh. Dharmesh Chandra Goel, ADG (Technical)
2. Sh. Vinayak Rai, Chief Engineer, CSQ (Civil)
3. Sh. MV Chalapathi Rao, Chief Engineer, CSQ (Elect.)
4. Sh. Divakar Agrawal, SE (TAS)
5. Sh. S.N. Jaiswal, EE (TAS)
6. Sh. Biswarup Biswas, EE (Elect.)
7. Sh. D.S. Adhikari, AE (TAS)
8. Sh. Patta Madhu Kumar, AE (TAS)
9. Ms. Anshu Shukla, AE (TAS)
10. Sh. Mukesh Varma, Chief Estimator
11. Sh. Akhileshwar Sah, Chief Estimator
12. Sh. Naveenkumar P, JE
13. Sh. Chalapaka Ramaraju, JE



सत्यमेव जयते

Government of India
Ministry of Housing and Urban Affairs
CENTRAL PUBLIC WORKS DEPARTMENT

ANNEXURE - V

Overview of the framework

Large investments, public as well as the private, will be needed in various infrastructure sectors to meet the growing needs of the Indian economy. The public sector would continue to play an important role in building infrastructure and would need to ensure efficient and timely construction of projects within the agreed costs. Towards this end, it would be necessary to adopt a modern contractual framework in the form of a standardised Engineering, Procurement and Construction (EPC) contract based on international best practices.

A modern EPC framework is a pre-requisite for efficient delivery

Need for EPC contracts

The various departments and undertakings of the Central Government as well as the State Governments have hitherto been undertaking construction projects through the conventional item rate contracts where the Government provides the detailed design as well as the estimates of quantities for different items of work (Bill of Materials). Payments to the Contractor are made on the basis of measurements of the work done in respect of each item. Experience shows that item rate contracts are prone to excessive time and cost overruns, besides recurrent disputes involving large claims. The reasons for their poor performance include inadequate project preparation and estimation coupled with allocation of several construction risks to the Government. For these reasons, the item rate mode of contracting has long been discarded in the developed countries as well by the private sector in India. The structure currently in vogue is in the nature of turnkey contracts where the responsibility for design, procurement and construction is assigned to the Contractor. Such contracts are typically known as EPC contracts.

Item rate contracts are outdated

Model EPC Agreement

The identified drawbacks of item rate contracting are addressed by the EPC approach that relies on assigning the responsibility

No. N-14070/14/2016-PPPAU
Government of India
National Institution for Transforming India (NITI Aayog)

NITI Bhawan, New Delhi
September 05, 2016

Office Memorandum

Subject: Initiatives on the measures for revival of the Construction Sector – regarding.

The construction sector has been facing a number of problems, mainly arising from the liquidity constraints caused on account of their payments not being released by the Government Departments/ Public Sector Undertakings (PSUs) pursuant to the arbitral awards. To discuss the problems of the construction sector, detailed deliberations/ consultations were held with the representatives of the construction industry, banks, major government PSUs and concerned Ministries/ Departments. Based on the above deliberations/ consultations, the NITI Aayog placed a proposal before the Cabinet Committee on Economic Affairs (CCEA) for its consideration suggesting various immediate and long-term measures required for addressing the issues ailing the construction sector. The CCEA, chaired by the Hon'ble Prime Minister, has considered the proposals of NITI Aayog in its meeting held on 31st August 2016 and approved the same for the revival of construction sector.

2. The NITI Aayog has separately issued instructions on the subject with regard to the immediate measures to be taken by all concerned. In addition to the said instructions, the CCEA has also directed that the following measures may be expeditiously examined by all the concerned Departments/ Ministries /PSUs:

- 2.1 Item-rate contracts may be substituted by EPC (turnkey) contracts, wherever appropriate. Such contracts have been in vogue for over two decades in the developed world and Fédération Internationale Des Ingénieurs-Conseils (FIDIC – an International Federation of Consulting Engineers, known by its French acronym) has also published such contractual frameworks.
- 2.2 Model bidding documents and Model EPC contracts, suitably revisited or modified wherever required to suit the requirements of particular sectors, may be adopted by PSUs/ Government Departments for construction works;
- 2.3 Ministry of Finance has issued model bidding documents for BFO, RFP etc. which may be adopted (with appropriate changes wherever required) in all sectors. Model EPC contracts have been developed for Highways and Railways and published by the erstwhile Planning Commission also. NHAI has already adopted this document and all construction contracts are currently being structured on this model. NITI Aayog shall assist the concerned departments, wherever required, in this regard.

2.4. The method of conciliation has proved more effective in settling disputes as per experience of some of the PSUs. All PSUs/ Departments issuing public contracts may consider setting up Conciliation Committees/ Councils comprising of independent subject experts in order to ensure speedy disposal of pending or new cases. Recourse to such conciliation may be open before, during or after the Arbitration proceedings. A provision to this effect would also need to be made in the Contract Agreements in future as a mechanism for resolution of disputes.

3. All the concerned Ministries/ Departments shall also communicate the above to their respective PSUs for taking necessary action on the aforesaid measures.

A. Muthavezhappan
(A. Muthavezhappan)
Director (PPPAU)

To

1. Secretaries of all the Ministries/Departments of Government of India.
2. Chairpersons/ CMDs/ MDs of all the Central Government PSUs
3. Chairpersons/ CMDs/ MDs/ CEOs of all the Scheduled Commercial Banks.
4. Chief Executive, Indian Banks Association, Mumbai.
5. Shri Alok Yadon, Additional Secretary, Cabinet Secretariat, Rashtrapati Bhavan, New Delhi - 110001.
6. Dr. T. V. Somanathan, Joint Secretary, PMO, South Block, New Delhi - 110001.

Copy for information to:

1. PS to Vice Chairman/ PS to MoS/ PS to all Members
2. Sr. PPS to CEO/ PPS to Special Secretary

No.28012/11/2016-W.3
Government of India
Ministry of Urban Development
(Works Division)

महानिदेशक, के.ए.ओ.वि. वि.
मिनिस्टर, नई दिल्ली-11
FTS No. 633
Date 01/12/16

Nirman Bhavan, New Delhi.
Dated : November 29, 2016

Office Memorandum

Subject : Instruction of NITI Aayog relating to revive the Construction Sector - reg

Reference is invited to National Institution for Transforming India (NITI Aayog's) two Office Memoranda Nos. N1-14070/14/2016-PPPAU both dated 5.09.2016 (copies enclosed) on the above mentioned subject containing instructions as approved by the Cabinet Committee on Economic Affairs (CCEA).

2. In this regard, reference is also invited to the meeting held in this Ministry on 10.11.2016 under the chairmanship of Joint Secretary(W&H) in respect of the directions of NITI Aayog regarding substitution of the existing item rate contract by EPC(Turnkey) contract wherein it was inter alia decided that the cut off value of projects, above which, all contracts will be taken up under EPC(Turnkey) methodology, will be Rs.100 crore. Accordingly, all client organisations may be advised to adhere to the instructions contained in the NITI Aayog's Memoranda dated 05.09.2016 and they need not engage outside design/structural consultants, as it would be part of the EPC tender.

3. Strict compliance of the above directions may be ensured.

Roy Chowdhary
(Roy Chowdhary)
Deputy Secretary (Works)
Tel. 23062425

Encl. : As Above

To

- i) DG, CPWD
- ii) CMD, NBCC
- iii) Vice Chairman, DDA



CENTRAL PUBLIC WORKS DEPARTMENT

OFFICE MEMORANDUM
No. DG/MAN/Misc./09

ISSUED BY AUTHORITY OF DIRECTOR GENERAL, CPWD

NIRMAN BHAVAN, NEW DELHI DATED: 09.05.2017

Sub:- Guidelines for - EPC(Turnkey) Contracts.

In pursuance of NITI Aayog OM Nos. NI-34070/14/2016-PPPAU dt. 05.09.2016 instructions have been issued by MoUD vide OM No. dt. 29.11.2016 to the effect that all contracts of value more than Rs. 100 crores will be taken up under EPC (Turnkey) Contracts instead of item rates (i.e. item-measured) contracts.

NITI Aayog vide its OM dt. 05.09.2016 cited above has advised that Model EPC Bidding Document published by the erstwhile Planning Commission, suitably re-visited or modified wherever required to suit the requirements of particular sectors may be adopted.

The matter has been discussed in the Technical Committee meeting held on 03.02.2017 and it is decided to permit ADGs to formulate policy for their regions as per specific requirements of the project as per the guidelines issued on the subject by NITI Aayog.

[Signature]
9/5/17
Superintending Engineer (C&M)

Issued from file No. CSQ/CM/16(1)/2017

- 1. All Spl. DGs, ADGs, CPWD, E-in-C, PWD, Delhi Govt. They are requested to endorse a copy of this O. M. to all CEs, SEs & EEs.

[Signature]
Executive Engineer (M)



CENTRAL PUBLIC WORKS DEPARTMENT

OFFICE MEMORANDUM
NO. DG/MAN/Misc./26

ISSUED BY AUTHORITY OF DIRECTOR GENERAL, CPWD

NIRMAN BHAVAN NEW DELHI DATED: 24.05.2019

Subject:- Mode of Execution of EPC Contracts.

As per provision contained in para 4.8 of CPWD Works Manual 2019 it is made mandatory that tenders for works costing more than Rs. 100 Crores shall be called in EPC mode. There are instances wherein clients wish to adopt EPC contract document where drawings are already finalized. Therefore, to resolve the difficulties of adoption of EPC, the following guidelines are issued in respect of execution of works on EPC mode:-

Mode I: In this case, the Engineering, Procurement and Construction would be fully contracted. However, the conceptual drawings shall be prepared by the CPWD Architects.

Mode II: In this case, the architectural planning would be done by the CPWD Architects/Architects appointed by Clients. The EPC Contractor will carry out Engineering, Procurement and Construction based on the architectural planning by the department.

Mode III: In this case, the architectural designs, drawings and engineering will be done in house by CPWD or the Consultant appointed by Client/CPWD, the work would be executed by EPC Contractor.

As per requirement of the Client, the works on EPC mode in any of the above modes can be taken up for the works costing more than Rs. 100 Crores. However, in case Client wants to adopt EPC mode for the works costing less than Rs. 100 Crores, the NIT approving authorities are authorized to adopt the same out of any of the modes mentioned above.

However it is clarified that Mode I mentioned above will remain the preferred way of execution of works through EPC Contracts.

[Signature]
24/05/2019
Chief Engineer (CSQ)(Civil)

Issued from file No. CSQS/CM/16(1)/2019

- 1. All Spl. DGs, ADGs, CPWD, E-in-C, PWD, Delhi Govt. They are requested to endorse a copy of this O. M. to all CEs, SEs & EEs.
- 2. File No. CSQS/CM/18(2)/EPC/2019

[Signature]
24/05/2019
Chief Engineer (CSQ)(Civil)

Nirman Bhawan, New Delhi
Dated: 20.03.2018

OFFICE MEMORANDUM

Sub- Adoption of New & Emerging Technologies in construction works undertaken by CPWD, DDA and NBCC – regarding

In continuation of this Ministry's O.M. JS/Works/OM/2018 dated 30.05.2016 and O.M No 28012/7/2016-W-3 dated 28.12.2016 it has been decided that CPWD, DDA & NBCC may adopt the following technologies, which have been validated by Building Materials and Technology Promotion Council (BMTPC) under the Ministry of Housing and Urban Affairs, in all their projects irrespective of location and project cost.

- a. Monolithic concrete construction system using Aluminium Formwork
- b. Monolithic concrete construction system using Plastic - Aluminium Formwork
- c. Expanded Polystyrene Core Panel System
- d. Light Gauge Sheet Framed Structures (LGSF)
- e. Industrialized 3-S System using RCC precast with or without shear walls, columns, beams, Cellular Light Weight Concrete Slabs/Sem-Precast Solid Slab
- f. Speed Floor System
- g. Glass Fibre Reinforced Gypsum (GFRG) Panel Building System
- h. Factory Made Fast Track Modular Building System.

2. As decided earlier, in case, it is not found feasible to implement these provisions in particular project, specific permission should be accorded by DG, CPWD/OMD, NBCC/Vice Chairman, DDA respectively on case to case basis, with detailed justification.

3. The aforesaid modern technologies may be incorporated as per the Schedule of Rates (SoR) issued by CPWD. Further, in future, new emerging technologies, as validated by BMTPC and for which DG, CPWD has issued the SoR will also be included in the list. For this purpose, DG, CPWD is authorized to issue directions in continuation of this Office Memorandum.

4. This has the approval of Hon'ble HUAAM


J. Rby Chowdhury
Deputy Secretary (Works)
Tel no: 23062425

To:

- 1. Director General, CPWD, Nirman Bhawan, New Delhi.
- 2. Vice Chairman, DDA, Vikas Sadan, INA, New Delhi-110023
- 3. Chairman-cum-Managing Director, NBCC Limited, NBCC Bhawan, Lodhi Road, New Delhi-110003

Copy to:

- 1. PS to HUAAM
- 2. Sr PPS to Secretary (HUA)
- 3. PS to all ASs/Js in MoHUA

ANNEXURE-VI

CPWD WORKS MANUAL 2018

CHAPTER 3: GENERAL PROVISIONS

- (2) The T/S Authority after obtaining approval from client shall have full powers, upto their tender acceptance limits, to execute smaller works likely to crop up during the execution of work (project for which no provision exists in the sanctioned estimates, subject to availability of funds under sub head "Contingencies" in the sanctioned project estimate.
- (3) The contingencies can be utilized for construction of site office, engagement of watch & ward staff, job works like surveying, material testing, estimating, structural designing, architectural drawings, models, maintenance and hiring of inspection vehicle and any other field requirements directly related to work. Further guidelines on contingencies & its utilization are given in SOP 3.4.

3.1.1.4 Provision for Departmental Charges (DC)

- (1) No departmental charges are to be levied for Government Works. For the works of Private Organizations, Local bodies and PSUs, departmental charges are to be levied as per the rates given in Annexure -5 of SOP document. CPWD Officers have powers of reducing of DC upto a certain percentage given in 'Compendium of Financial Powers Delegated to CPWD Officers'. They can decide final rates within their competence for which no formal request will be required from the client.
- (2) In case of the GOI organizations who entrust their works regularly to the CPWD, no DC shall be charged if the project has not taken off even after preparation of plans and estimates.

3.1.1.5 Accord of Administrative Approval and Expenditure Sanction (A/A & E/S)

The competent authority of the Administrative Ministry/Department/Client shall accord A/A & E/S on the basis of Preliminary estimate/DPR as the case may be.

(Note: For works undertaken under MoHUA budgetary head, A/A & E/S shall be accorded by the competent authority as per powers given in 'Compendium of Financial Powers Delegated to CPWD Officers'.)

3.1.1.6 Accord of Technical Sanction

- (1) The technical sanction for the works in which percentage rate tenders or item rate tenders are invited shall be issued before inviting tenders and shall consist of the following:
 - (i) Technical Sanction Memo
 - (ii) A/A & E/S Memo/Order
 - (iii) Detailed Estimate, Detailed Architectural drawings and specifications
 - (iv) Geotechnical Investigation Report
 - (v) Structural drawings for the foundation and preliminary structural drawings of the Superstructure to calculate quantities of the items
 - (vi) Preliminary Drawings for Internal and External services
- (2) In case of work for which tenders are to be invited on "Design and Construct"/EPC contract basis, provision of Technical Sanction required as per CPW Departmental Code is not applicable as the contractor takes full responsibility for design and execution. The scope, description of work, specifications, approved conceptual drawings for engineering and architectural planning, and schedule of quantities (if available) and as provided in the contract document, is to be kept on record.

4.6 Pre-bid conference

Before submission of tenders, there shall be a pre-bid conference to clarify the doubts of the contractors, besides discussions on any additional suggestion proposed by the contractors. If found necessary, a compendium to the tender documents would be issued and would be put up on e-tendering portal for information of all contractors and thereafter no further query/condition shall be entertained. There would be no bar to hold the pre-bid conference more than once, especially in complex types of works. The NIT approving authority shall decide the time gap between pre-bid conference and last date of submission of technical bid based on the importance and complexity of work to avoid extension in the last date of submission of tender.

4.7 Manual Tendering

In exceptional cases with recorded reasons when manual tendering is resorted to due to work requirement instead of e-tendering platform, then in such cases, the general procedure of receipt, opening, dealing with corrections, omissions etc and acceptance of manual tenders is given in SOP4/5.

4.8 EPC (Engineering, Procurement and Construction) Contracts

The NITI AAYOG vide OM No. N-14070/14/2016-PPAU dated 5th September, 2016 have communicated the decision taken by Cabinet Committee on Economic Affairs (CCEA) regarding substituting of item rate contracts by EPC (Turnkey) contracts, wherever appropriate. In pursuance to above, erstwhile MoUD (Works Division) vide its OM No 28012/11/2016 W-3 Dated 29th November 2016 have issued directions which inter-alia include that cutoff value of projects, above which all contracts will be taken up under EPC methodology, will be Rs 100 Cr. This figure will be as decided and notified by the MoHUA/CPWD from time to time.

For executing contract on EPC methodology, the following important provisions are to be considered while framing estimate, preparing NIT etc:

- (1) Enabling estimate can be submitted as per client requirement for carrying out pre-construction activities wherever required for conceptual planning purpose to assess the precise requirement of the scope of work.
- (2) The concerned CA/SA unit or the consultant appointed by the NIT approving authority shall prepare the concept design, preliminary drawings and specifications based on detailed requirements of the work, in consultation with the client before preparation of Preliminary Estimate.
- (3) The tenders based on EPC mode cannot be the model based on item rates and quantities hence the estimated cost for such tenders may be worked out on the basis of CPWD plinth area rates as per norms and the cost suitably modified considering applicable cost index or by adopting any other appropriate method as decided by NIT approving authority. Preliminary drawings and specifications approved by the client shall form part of the NIT.
- (4) Soil investigation report shall be appended in the NIT for indicative purpose only.
- (5) The responsibility of investigations, designing, planning, procurement, construction, safety, quality, and risk of engineering lies with the contractor and the same will be incorporated in the NIT.
- (6) Mode of measurements for payment purpose will be decided by the NIT approving authority.

- (7) The award of work shall be decided based on competitive call of tenders. The Chief Engineer ascertains the reasonability of prices using analytical methods such as tendered amount for similar works whose tenders were accepted in the recent past, PAR rates duly enhanced by the current cost index and any other method approved by the Chief Engineer for ascertaining the reasonability of the tendered amount of the L1 bidder.
- (8) In case the tender received is more than A/A & E/S, revised A/A & E/S or in principle approval from the competent authority shall be necessary.

General guidelines for EPC contracts with a sample item along with scope of work to be adopted for EPC contracts are given in SOP 4/6. As per the OM of NITI Aayog dated 5 September 2016, the model EPC bidding document published by the erstwhile Planning Commission can be modified wherever required, to suit the requirements of the work. NIT approving authority may incorporate special and particular conditions as per specific requirements of the project. Till such time the standard form is released, the contract form as decided by the NIT approving authority may be used.

4.9 Special Purpose Vehicle

On the requirements of MoHUA or any other Ministry/Government department, DG, CPWD may take up the works on "Alternate Mode" of funding. For this purpose, a "Special purpose vehicle" (SPV) under Company Act shall be created after obtaining due approval from MoHUA. The SPV shall have the officers and staff from CPWD. The SPV will be governed by CVC and CAG rules and guidelines.

4.10 Preparation of NIT

- (1) All tenders should be invited on behalf of the President of India. It is therefore necessary that the words "For & on behalf of the President of India" should be incorporated in all NIT's.
- (2) The estimated cost put to tender in the NIT shall be worked out based on the rates considered in the Technical Sanction.
- (3) Before approval of NIT, the following are required :
 - (i) A/A & E/S except in Emergent Works
 - (ii) Availability of site in full or part
 - (iii) Approval of plans from local bodies, wherever required.
 - (iv) Other approvals required before commencement of work in case the same are not part of the NIT.
 - (v) Technical Sanction except in case of 'Design and Build/EPC Contracts & Emergent Works
 - (vi) Funds availability
 - (vii) For original specialized E & M works including lifts, HVAC, DG sets, Fire alarm system, Fire fighting, Wet Riser and Sprinkler system works, the relevant guidelines as given in SOP 4/7 shall be followed.
 - (viii) Guidelines on preparation of NIT for tenders to be invited on Single Bid System and on Two/Three Bid System are given in SOP 4/8 and SOP 4/9 which can be referred.

PART - II
SOPs RELATED TO CONSTRUCTION WORKS

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SOP No 3/1 : Client Requisition, Team Formation, Framing Enabling Estimate and Rough Cost Estimate (Refer Para 3.1.1.1 (3))

1. Client sends the requisition either manually or online.
2. The officer receiving the requisition makes a rough estimation of cost, helps the client department fill up the basic requisition proforma/ details of the proposed work as per Annexure -12 and forwards the requisition to the competent official, under whose T/S powers the expected cost of the requisitioned work falls, as per the rough estimation of cost. In the case of composite works, the competent T/S Authority of the project is the official competent to accord technical sanction to the major component of the work, provided the expected cost of the composite work falls within his/ her T/S powers.
3. In case of deposit work, a letter as per Annexure -13 alongwith draft MOU (as per the standard template given in Annexure 4) is issued to the client for conveying acceptance to take up the work by the competent official (i.e the authority under whose T/S powers the amount of the A/A & E/S is expected to fall).
4. The competent T/S Authority (as per para 2 above) refers the matter to the SDG/ ADG or any other officer designated by the CPWD Directorate from time to time, to constitute/ designate a Project / Work Execution Team.
5. The competent T/S Authority interacts with the Client for finalization and signing of MOU.
6. The competent T/S Authority prepares/ gets prepared enabling estimate (if required) and sends to the client department for A/A & E/S. If required by the client, a rough cost estimate is also sent.
7. All co-ordination work up to the stage of preparation of detailed architectural drawings and specifications including local body approvals, structural drawings and E&M services drawings for execution of a project/work is done by the official competent to accord T/S as per para 2 above.
8. All field, architectural and planning units are accountable for providing necessary support to the competent T/S Authority.

SOP No 3/2 : Preliminary Estimate/ Preliminary Project Report (Refer Para 3.1.1.1(4))

1. The Officer under whose T/S competence the total amount of the PE falls (as per para 2 of SOP 3/1) is also the nodal officer for forwarding the estimate in case of estimates with components from other disciplines. He/ She is also the T/S Authority of the project, and decides on the requirement of the following:
 - (i) Survey of site
 - (ii) Soil investigation
 - (iii) Preparation of preliminary drawings
2. The T/S Authority of the project decides whether to get any of the tasks done in-house or from outsourced agencies with recorded reasons.
3. The T/S Authority of the project coordinates all activities required for preparation of the Preliminary Drawings and Preliminary Estimate.

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4. Concerned Architectural Wing/Outsourced Consultant interacts with Client for detailing of inputs for preparation of Preliminary Drawings (PDs) and obtains the relevant detailed requirements as given in Annexure -12, from the client.
5. Concerned Architectural Wing/Outsourced Consultant interacts with the representatives of all the concerned disciplines as decided by the T/S authority of the project for incorporating their requirements in the preliminary drawings.
6. Preliminary Drawings (PDs) and Specifications are prepared by concerned Architectural Wing/ Outsourced Consultant and submitted to T/S Authority of the project for review. The T/S Authority after review, approves the same and sends it to the client for further approval.
7. Client department reviews the PDs and specifications and provides feedback, if any changes are required. Changes proposed by client are incorporated by the concerned Architectural Wing/ Outsourced Consultant and submitted again for approval of the client.
8. PE is prepared by the T/S Authority of the project on the basis of the preliminary drawings and specifications approved by the client. He/She sends the approved plans and brief specifications to the concerned officers of the minor components relating to Civil/ Electrical/ Horticulture disciplines, for preparation of the preliminary estimates of the concerned discipline.
9. T/S Authority of the project prepares & compiles all the other reports/details required by Client as per requisition for inclusion in the preliminary estimate.
10. Preliminary estimate (PE) is to be prepared on the basis of Plinth Area Rates or length of road etc. worked out on the rate per unit area/length/number, or such other method adopted for ready and rough calculation, so as to give an idea of the approximate cost involved in the proposal.
11. Prevailing Cost Index over the plinth area rates, effect of ESI & EPF leviable (rates as given in Annexure -14 , Contingencies and Departmental Charges (if applicable) are to be added in the PE.
12. The Plinth Area Scales as notified by MCHUA is followed for all construction works in the General Pool houses as well as houses for other Ministries/Departments where such norms are applicable. Details of Plinth Areas Scales are available on CPWD web site. No deviation from the prescribed scales is normally made, unless specifically desired by the client department. In such circumstances, specific reference to the said deviation is made in the history sheet of the estimate.
13. Provisions as required by the Architectural Unit for architectural planning jobs is made in the preliminary estimate/enabling estimate as the case may be, especially for outsourcing the preparation of architectural drawings, to be submitted to the competent authority for accord of A/A & E/S. The provisions so made is placed at the disposal of the concerned Architectural Unit.
14. Whenever any preliminary survey, site/soil investigation, preparation of project reports including appointment of consultant and/or other essential preliminary steps connected with the schemes, is needed to be done before the preliminary estimate for the requisitioned work can be finalized, a separate estimate for such purpose(s) (called the enabling estimate) is prepared and sent to client department for accord/sanction.
15. For works which are predominantly of E&M nature, the PE would be prepared and sent by the T/S authority of the concerned discipline within his/her powers to accord T/S.

16. In case of proposals under the administrative control of the MoI-IJA, while forwarding the preliminary estimate, it should specifically be mentioned whether the expenditure involved can be met:
 - (i) From within the sanctioned grant.
 - (ii) From the specific budget allotment during the current financial year.
 - (iii) By re-appropriation of funds and if so, source of re-appropriation is indicated.
17. While forwarding the PE to the client department for accord of A/A & E/S, an indication is given in the history sheet that the cost and time of the project is liable to revision due to probable escalation in cost of construction apart from reasons such as change in scope, area, design and specifications etc. if so desired by the client at a later date.
18. While sending the estimates it is made clear to the client department that execution of the work will depend upon the receipt of the funds through authorization or through regular allocation well in time during the financial year.
19. The PE includes the provision "In the event of delay in taking over completed Project or completed components of the Project independently as per phasing mutually agreed with client without awaiting the completion of the entire project, charges on security, re-finishing and re-commissioning, conservancy charges etc is borne by the client".

SOP No 3/3 : Preparation of Detailed Project Report/ Detailed Estimate (Refer Para 3.1.1.2)

1. The T/S authority decides on the packages for the purpose of accord of technical sanction. While deciding such packaging, the requirements of the clientsite conditions/nature of work is taken into consideration.
2. The T/S Authority decides whether to get the tasks related to preparation of detailed estimate done in-house or from outsourced agencies with recorded reasons. Subsequently he /she initiates process of hiring external agency through tendering process as per requirement of work.
3. The T/S Authority coordinates all activities required for preparation of the DE/DPR. If the preparation of DE/DPR is done in-house, the T/S authority forwards to the Architectural Unit all relevant structural and service data relevant to the approved preliminary plans, for preparation of detailed working drawings and architectural specifications for the work.
4. On receipt of the detailed working drawings and architectural specifications, the T/S authority takes up the preparation of the detailed estimate and accords technical sanction.
5. The detailed estimate is complete and comprehensive and is supported by detailed architectural drawings, preliminary structural plans, preliminary lay-out drawings of the various services, detailed drawings and/or specifications for the various components of work involved, details in support of the lump-sum provisions made in the estimate if any, a brief note on the special construction difficulties likely to be encountered during construction stage etc.
6. The detailed estimate gives broad details for each item of the work involved. Other details are covered by the accompanying detailed drawings and specifications. The detailed estimate is based on the rates given in the prevailing schedule of rates for those items of work covered by it, and by analyzed market rates for non schedule items.
7. The detailed estimate contains a report in the Form CPWD-1, plans, specifications and a detailed statement of measurements as in Form CPWD-2, quantities and rates as in Form CPWD-3 with an abstract showing the total estimated cost of each item or work in case of a project consisting of several works.

SOP No 3/5 : Accord of Technical Sanction (Refer Para 3.1.1.6 (3))

The T/S authority accords Technical Sanction before a work is taken in hand (except in case of Emergent works and works on "Design and Construct" / EPC mode).

1. The T/S authority ensures that the design and specification etc. adopted in the detailed estimate are adequate enough for the building to last till its desired life. Under the "Design and Scope" of the estimate, it is specifically mentioned that, "under normal use and maintenance, the building is expected to have an economic life of..... years."
2. For various types of buildings, the economic life is taken as below:

(i) Monumental structures	100 years
(ii) RCC framed structures	75 years
(iii) Load bearing structures	65 years
(iv) Semi-permanent structures	30 years

However, Economic life depends upon the geographical location, type of the services and its uses.

3. No estimate is generally technically sanctioned unless relevant information required for T/S as per proforma at Annexure -16 is prepared, so as to enable the sanctioning authority to see that the detailed estimate prepared takes into account all aspects of planning and that no point has escaped notice.
4. For technical sanction, detailed estimate is prepared based on applicable schedule of rates. Market rates are followed for the items not covered under schedule of rates. Effect of prevailing cost index over the reference cost Index of schedule of rate is taken on the amount of detailed estimate for items for which rates are based on Schedule of rate. Estimate is technically sanctioned for the total amount inclusive of effect of Cost Index.
5. In case of work for which tenders are called on "Design and construct" / EPC basis, the Contractor takes the full responsibility for the design and execution. Therefore, provisions of Para 64 (Technical Sanction) etc. of the CPWD Departmental Code are not applicable. Only the scope, description of work, specifications, approved conceptual drawings for engineering and architectural planning, and schedule of quantities (if available) and as provided in the contract document, is kept on record and a No Objection Certificate is recorded by the CE/CA/SA/SE/EE or any authority designated by the Directorate, for the drawings prepared and submitted by the contractor after proof check, before the same is released for execution.
6. It would be necessary that all the architectural and structural data/parameters, details of functional requirement and complete specifications including preliminary drawings are finalized before the call of tenders on "Design and construct" / EPC basis.

SOP No 3/6: Deposit Works (Refer Para 3.1.2.1 (9) and Para 10.3)

1. **Realization of Deposits**
 - (i) Whenever a deposit work is to be under taken, the deposit is realized before any liability is incurred on the work.
 - (ii) In the case of deposit works of autonomous bodies which are financed entirely from Government grants, and from whom receipt of deposits is assured, 33-1/3% of the estimated cost of the work or 10% of the estimated cost of the work, is got deposited in

entered in the Schedule. In such cases, in the event of arithmetical error committed in working out the amount by the contractor, the tendered percentage and not the amount is taken into account. All corrections in the comparative statement is carried out neatly and clearly, and initialed by the person making the corrections. The corrections are attested by the authority concerned i.e. Engineer in Charge/Assistant Engineer/ Divisional Accountant.

SOP No 4/5 : Execution of Works on EPC Contract Basis (Refer Para 4.8 (9))

1. As per OM No28012/11/2016 – W.3 dated 29th November 2016, of MoHUA's Works division and DG, CPWD's OM No DGAMAN/Misc./09 dated 9th May 2017, works of value more than Rs 100 crores or as notified from time to time are taken up under EPC (turnkey) mode.
2. As per the OM of NITI Aayog dated 5th September 2016, the model EPC bidding document published by the erstwhile Planning Commission suitably revised or modified wherever required, to suit the requirements of the work, is adopted by the NIT Approving Authority.
3. After the receipt of requisition for the work, the client organizations are advised that they need not engage Design/Structural Consultants as the same would be part of the EPC tender. The detailed planning is the responsibility of the contractor but the monitoring is done by the Engineer in Charge. For works undertaken in the EPC mode, sanction is obtained on the basis of Detailed or Preliminary Project Report as per feasibility and requirement and submitted as per understanding with the client.
4. The concept design, preliminary drawings and specifications based on detailed requirements of the work, in consultation with the client, is prepared before framing of the PE. The NIT approving authority decides whether to get these tasks done in-house or from outsourced agencies with recorded reasons. If done in-house, the concerned Architectural unit prepares the concept design, preliminary drawings and specifications based on detailed requirements of the work, in consultation with the client.
5. The Preliminary Estimate (PE) or Preliminary Project Report (PPR) or Detailed Project Report (DPR) or any other document submitted for obtaining Administrative Approval and Expenditure Sanction defines accurately the scope of the work in terms of outcomes and performance parameters.
6. The following details are obtained to enable Preliminary Project Planning (PPP) (both Engineering and Architecture) for preparation of the PE or PPR or DPR :
 - (i) Document showing ownership of land duly certified by the client that the same would be in a position to be handed over to the contractor upon award of work free from all encumbrances and encroachments.
 - (ii) Boundary of the plot(s) either constructed or demarcated and free from dispute.
 - (iii) Topographical Map of the site.
 - (iv) Geotechnical Data (which includes a study of foundation system of structures including private structures - in the vicinity and is as per codal provisions for the proposed structures).
 - (v) Sources of the Bulk Services required as well as approved waste dumps for waste disposal.
 - (vi) Mandatory (e.g. fire, lift, EI, WS and SI etc.) as well as optional (HVAC, STP, HO, UPS, DG, SPV, Solar water heating etc.) services for each building/structure required by the client and found feasible.
 - (vii) Statutory Approvals required.

7. The Preliminary Project Planning (PPP) is developed on the basis of above details and is submitted to the client prior to the submission of the Preliminary or Detailed Project Report and includes the following in respect of the buildings:
 - (i) Scope of work
 - (ii) Floor plans for building etc. and geometry for other works etc.
 - (iii) Elevations/Sections/Perspectives
 - (iv) Layout plan(s)
 - (v) 3-D Block view (s)
 - (vi) Area and/or Length statements as applicable
 - (vii) Specifications in detail for each structure/building and its services to be included in the DPR.
8. Soil investigation report is appended in the NIT for indicative purpose only.
9. The responsibility of investigations, designing, planning, procurement, construction, safety, quality, and risk of engineering lies with the contractor and the same is incorporated in the NIT.
10. If required, an enabling sanction to cover the cost of activities under para 6 and 7 above is obtained by submitting an Enabling Estimate.
11. The DPR (in respect of works in which detailed engineering including architectural design is done before sanction) or PPR (Where only conceptual engineering and architectural planning is done before sanction) based on the PPP submitted to the client includes, in addition to the PPP, the following-
 - (i) Brief description of the Procurement Method (which also mentions the name of work).
 - (ii) The obligations on the part of the client department, CPWD, and the contractor with specified time limits for smooth execution of work.
 - (iii) Architectural, Structural and MEP services specifications along with special conditions for execution of these jobs.
 - (iv) In addition to the structures and their mandatory services (e.g. Internal Electrification, Fire Services, Lifts, Water Supply, Sewerage etc where applicable) the list of optional services desired by the client.
 - (v) Cost Estimate on simple Plinth Area or length basis where possible and detailed basis for others etc. is duly enhanced by applicable cost index or by adopting any other appropriate method as decided by NIT approving authority in case cost index is not applicable including provision for cost of design development by contractor and risk devolving on the contractor.
 - (vi) Provision is made separately for post completion operational cost (for 5 years or higher as agreed with client) and maintenance cost (beyond free maintenance period and upto 5 years or higher as agreed with client).
 - (vii) List of approved makes and models for components.
 - (viii) Tentative time frame for completion, post completion operation and maintenance.
 - (ix) List of three or more suitable agencies (proof check agencies) or parameters for the selection of the proof check agencies, tasked with checking and approving the design submitted by the contractor from engineering and architectural aspects.
 - (x) Procedure and time frame for approval of implications of changes in scope of work requisitioned by the client as compared to that indicated in the sanctioned PPR/DPR.

12. For works undertaken by CPWD in the EPC mode, the Contractor takes the full responsibility for the design and execution and provisions of Para 64 (Technical Sanction) etc. of the CPW Departmental Code are not applicable. Only the scope, description of work, specifications, approved conceptual drawings for engineering and architectural planning, and schedule of quantities (if available) and as provided in the contract document, is kept on record and a No Objection Certificate is recorded by the Engineer in Charge for the drawings prepared and submitted by the contractor after proof check, before the same is released for execution.
13. The contractor gets NOC for the design from NIT approving authority for functional aspects and aesthetics and from the approved proof check agency for engineering and architectural considerations. The officers of the CPWD are responsible for broad oversight of these aspects without being expected to examine the design.
14. The tender document is approved by the authority competent to accord technical sanction for the work of similar value in the non-EPC mode (i.e. traditional item-measurement basis) by officer of Chief Engineer and above rank. NIT approving authority may incorporate special and particular conditions in the contract document as per specific requirements of the project.
15. For EPC contracts, the NIT approving authority ascertains the reasonableness of prices using analytical methods such as tendered amount for similar works whose tenders were accepted in the recent past, PAR rates duly enhanced by the current cost index and any other method approved by the NIT approving authority for ascertaining the reasonability of the tendered amount of the L1 bidder. The acceptance of financial bid is approved by the authority competent to approve the financial bids for the work of similar value in the non-EPC (traditional item-measurement basis) contracts.
16. Submission of measurements, in case of EPC contracts, is only for record purpose. Payment of bills of the contractor is made on basis of stage-wise completion of work as per terms of the contract.

SOP No. 4/7 : NIT FOR WORKS INVOLVING SPECIALIZED E & M SERVICES (Refer Para 4.10 (3) vii)

1. **Tender for Original building works:**
 - (i) Tender for original building works are invited from approved and eligible CPWD Composite category contractors.
 - (ii) The Composite category contractor associates other agency(s) for execution of each of the specialized E&M work(s) notified under **List II A and List II B of Annexure -6** as detailed in para. 5 of this SOP.
2. **Tender for Original works comprising of specialized E&M works from List II A and List II B of Annexure 6.**
 - (i) Tender for original works comprising of at least one of the specialized E&M works from **List II A & List II B of Annexure 6** are invited from approved and eligible CPWD Composite category contractors.
 - (ii) The Composite category contractor associates other agency(s) for execution of each of the specialized E&M work(s) notified under **List II A & List II B of Annexure 6** as detailed in para 5 of this SOP.

- (7) The award of work shall be decided based on competitive call of tenders. The Chief Engineer ascertains the reasonability of prices using analytical methods such as tendered amount for similar works whose tenders were accepted in the recent past, PAR rates duly enhanced by the current cost index and any other method approved by the Chief Engineer for ascertaining the reasonability of the tendered amount of the L1 bidder.
- (8) In case the tender received is more than A/A & E/S, revised A/A & E/S or in principle approval from the competent authority shall be necessary.

General guidelines for EPC contracts with a sample item along with scope of work to be adopted for EPC contracts are given in **SOP 4/6**. As per the OM of NITI Aayog dated 5 September 2016, the model EPC bidding document published by the erstwhile Planning Commission can be modified wherever required, to suit the requirements of the work. NIT approving authority may incorporate special and particular conditions as per specific requirements of the project. Till such time the standard form is released, the contract form as decided by the NIT approving authority may be used.

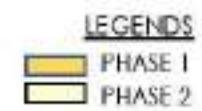
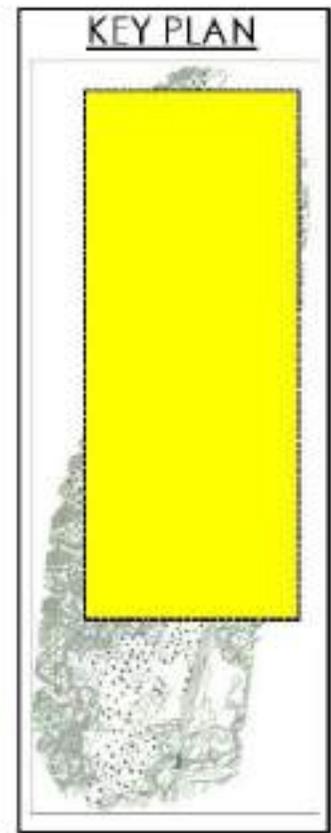
4.9 Special Purpose Vehicle

On the requirements of MoHUA or any other Ministry/Government department, DG, CPWD may take up the works on "Alternate Mode" of funding. For this purpose, a "Special purpose vehicle" (SPV) under Company Act shall be created after obtaining due approval from MoHUA. The SPV shall have the officers and staff from CPWD. The SPV will be governed by CVC and CAG rules and guidelines.

4.10 Preparation of NIT

- (1) All tenders should be invited on behalf of the President of India. It is therefore necessary that the words "For & on behalf of the President of India" should be incorporated in all NIT's.
- (2) The estimated cost put to tender in the NIT shall be worked out based on the rates considered in the Technical Sanction.
- (3) Before approval of NIT, the following are required :
 - (i) A/A & E/S except in Emergent Works
 - (ii) Availability of site in full or part
 - (iii) Approval of plans from local bodies, wherever required.
 - (iv) Other approvals required before commencement of work in case the same are not part of the NIT.
 - (v) Technical Sanction except in case of 'Design and Build'EPC Contracts & Emergent Works
 - (vi) Funds availability
 - (vii) For original specialized E & M works including lifts, HVAC, DG sets, Fire alarm system, Fire fighting, Wet Riser and Sprinkler system works, the relevant guidelines as given in **SOP 4/7** shall be followed.
 - (viii) Guidelines on preparation of NIT for tenders to be invited on Single Bid System and on Two/Three Bid System are given in **SOP 4/8** and **SOP 4/9** which can be referred.

DRAWINGS



SITE PLAN



- | | | |
|---------------------------|----------------------|-------------------------------------|
| 1. BRANKING SITE | 17. CLASH ROOM | 20. BENEFITING HOUSE |
| 2. OFFICE | 18. RECEPTION HALL | 21. PARADE GROUND |
| 3. MAIN GATE | 19. HOCKEY FIELD | 22. FOOTBALL FIELD |
| 4. OFFICE | 20. GYM & SPA | 23. HOODLUM CORRYBIA RESIDENCE |
| 5. SECURITY CONTROL ROOM | 21. COMMUNITY CENTER | 24. HOODLUM LUX APARTMENT RESIDENCE |
| 6. VISIT COMMUNITY CENTER | 22. GYM | 25. WF HOUSE |
| 7. VISIT | 23. SPA | 26. PRE STATION |
| 8. VISIT | 24. RECEPTION ROOM | |
| 9. VISIT | 25. CLUBHOUSE | |

NON-RESIDENTIAL BUILDINGS

1. C.O.'S OFFICE BUILDING

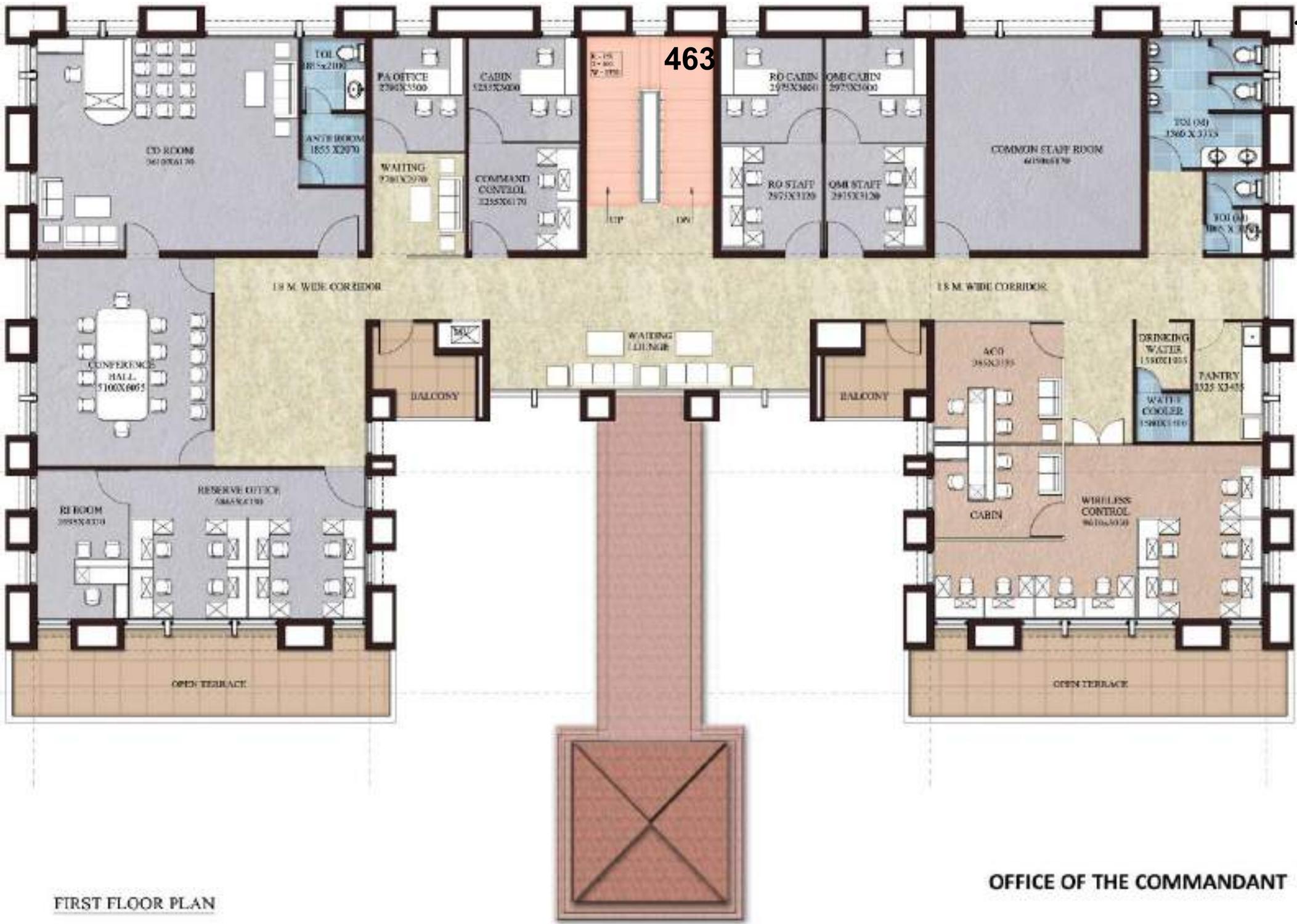
462



GROUND FLOOR PLAN
G+1

C.O.'S OFFICE BUILDING	G+1	1,083.00	1	1,083.00	11,657.41
GARAGE	G	40.00	1	40.00	127 430.56
SENTRY POST	G	4.00	2	8.00	86.11

463



FIRST FLOOR PLAN

OFFICE OF THE COMMANDANT



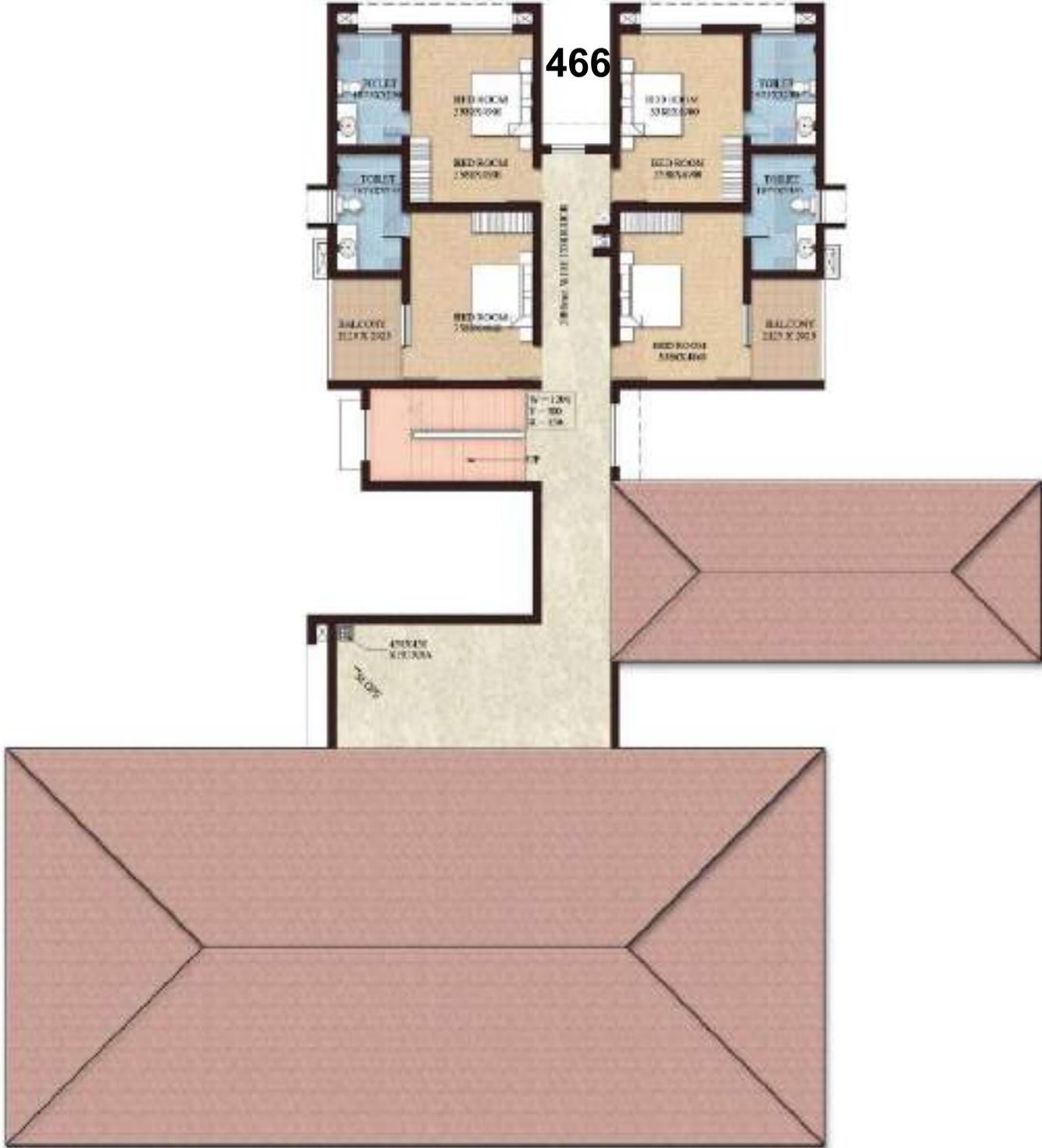
OFFICE OF THE COMMANDANT



GROUND FLOOR PLAN

GO'S MESS / GUEST HOUSE		G+1	650.00	1	650.00	6,996.60
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466



FIRST FLOOR PLAN

GO'S MESS / GUEST HOUSE	G+1	650.00	1	650.00	6,996.60
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GO'S MESS / GUEST HOUSE

468



GROUND FLOOR PLAN

103					
SO'S MESS	G+1	870.00	1	870.00	9,364.68

469



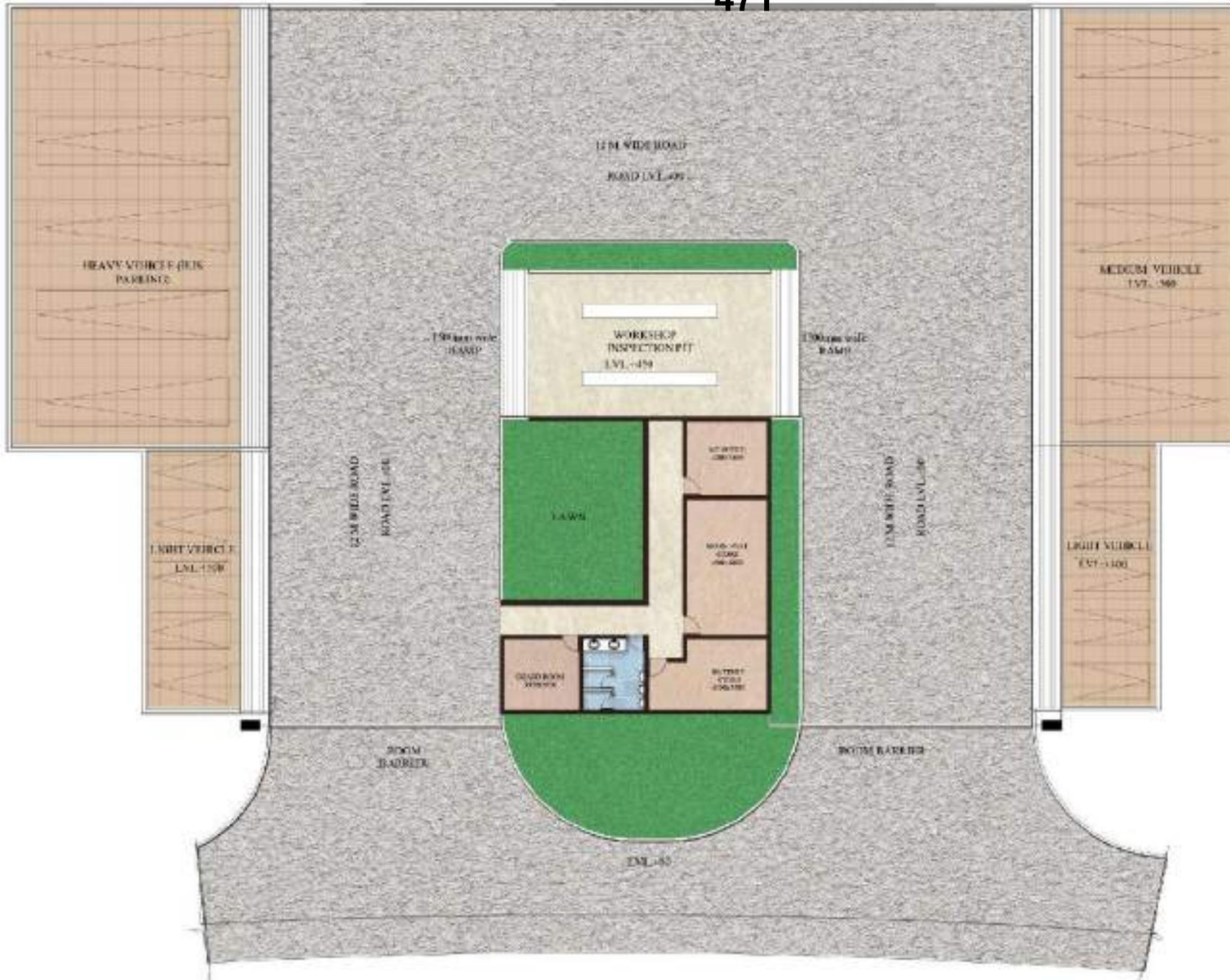
FIRST FLOOR PLAN

SO'S MESS		G+1	870.00	1	870.00	9,364.68
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SO'S MESS

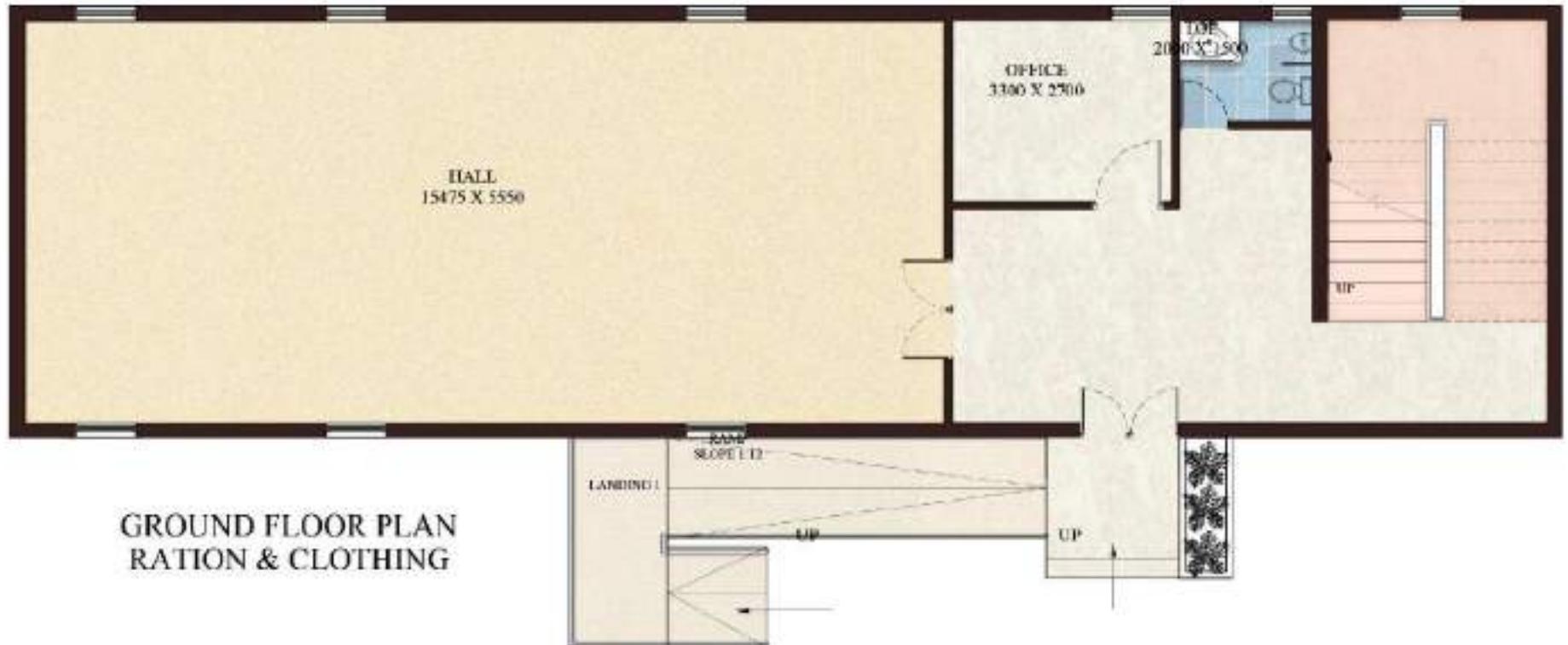
471



M.T. GARRAGE WITH OFFICE (20 VEHICLE)	G	870.00	1	870.00	9,364.68
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FIRST FLOOR PLAN
RATION & CLOTHING



GROUND FLOOR PLAN
RATION & CLOTHING

RATION STORE & CLOTHING STORE	G	300.00	1	300.00	3,229.20
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473



RATION STORE & CLOTHING STORE	G	300.00	1	300.00	3,229.20
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GROUND FLOOR PLAN FOR MAGAZINE/KOTE BUILDING

MAGAZINE/KOTE BUILDING with EXPLOSIVE DEPOT	B+G	350.00	1	350.00	3,767.40
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475



MAGAZINE/KOTE BUILDING with EXPLOSIVE DEPOT		B+G	350.00	1	350.00	3,767.40
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7 COMMUNITY CENTER WITH CANTEEN, SALOON & LAUNDRY BLOCK



GROUND FLOOR PLAN
COMMUNITY CENTRE WITH
CANTEEN, SALOON, LAUNDRY

COMMUNITY CENTRE with CANTEEN, SALOON, LAUNDRY BLOCK		G	600.00	1	600.00	6,458.40
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GROUND FLOOR PLAN HOSPITAL

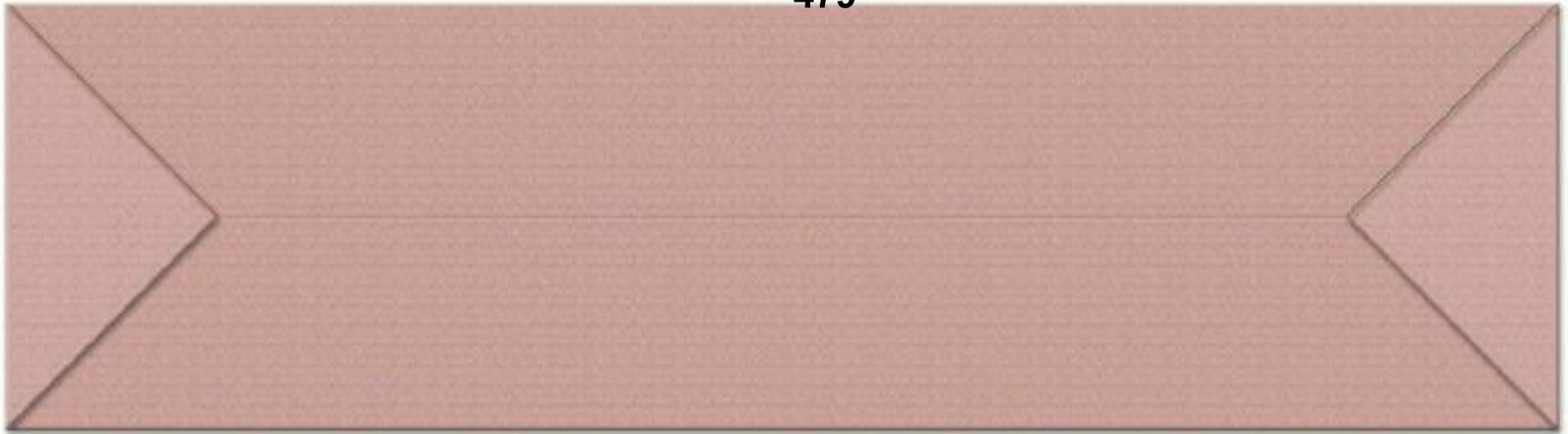
HOSPITAL (10 BED)		G	330.00	1	330.00	3,552.12
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HOSPITAL (10 BED)

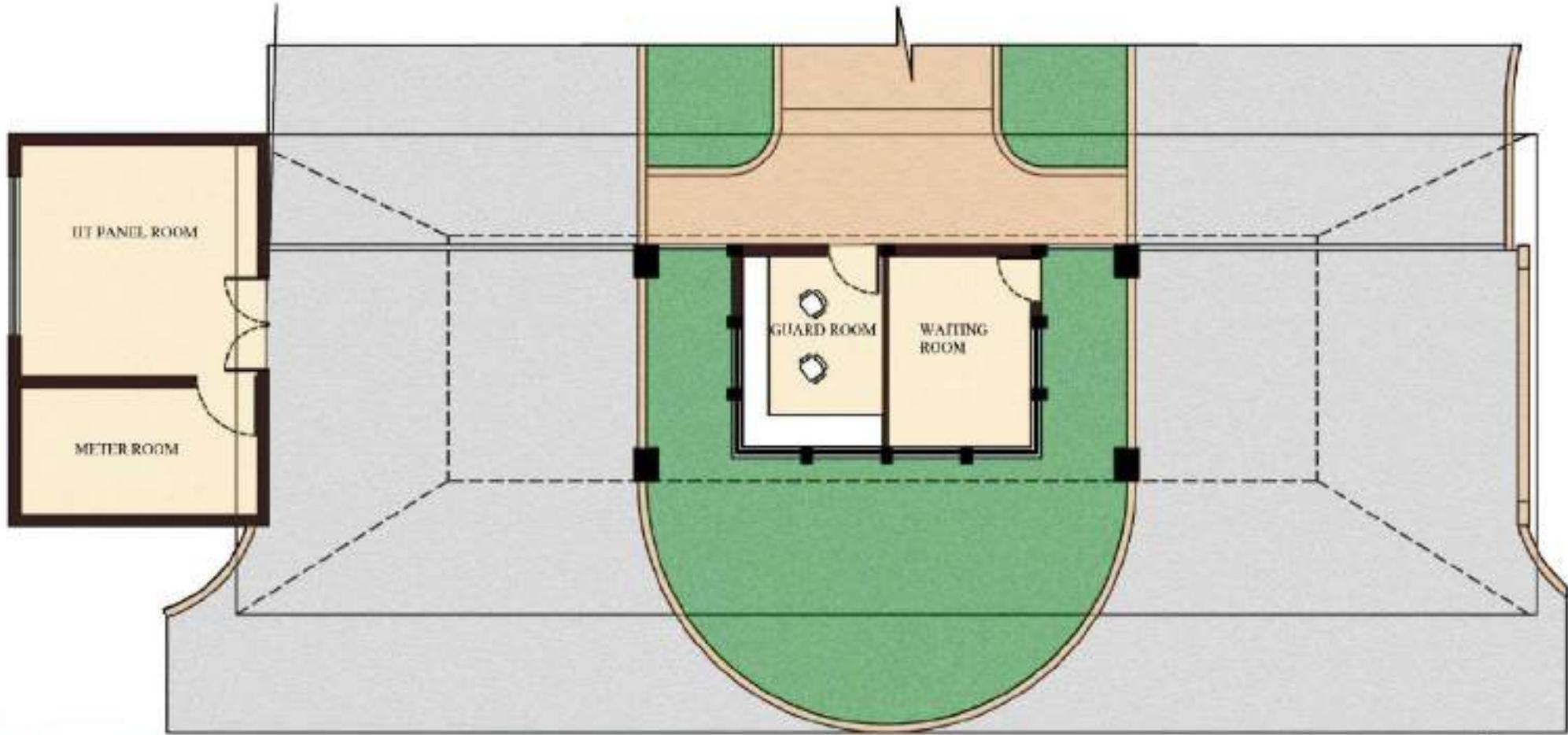
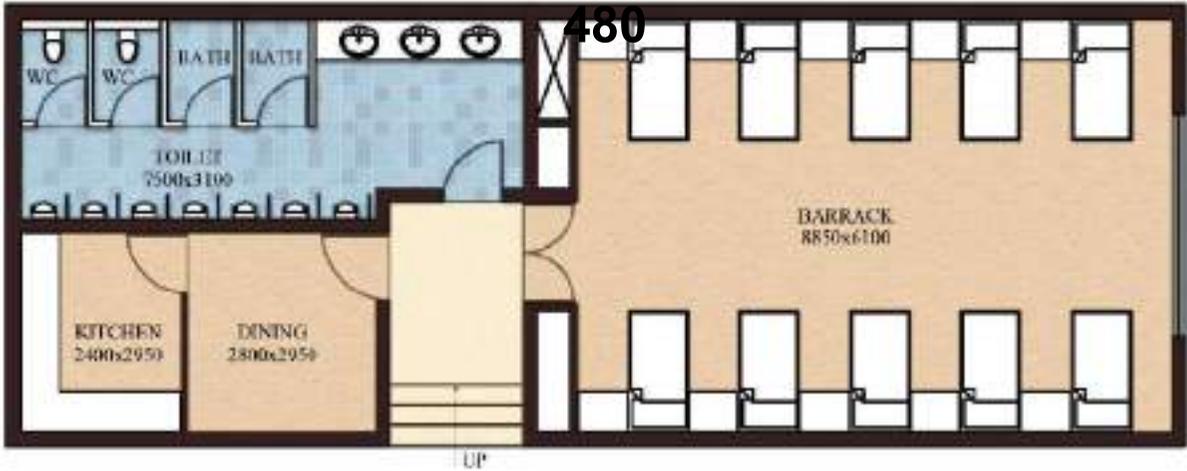
143						
HOSPITAL (10 BED)		G	330.00	1	330.00	3,552.12

479



DRILL SHADE
GROUND FLOOR

DRILL SHED with Stage	G	400.00	1	400.00	4,305.60
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GATE COMPLEX WITH 10 MEN BARRACK	G	175.00	1	175.00	1,883.70
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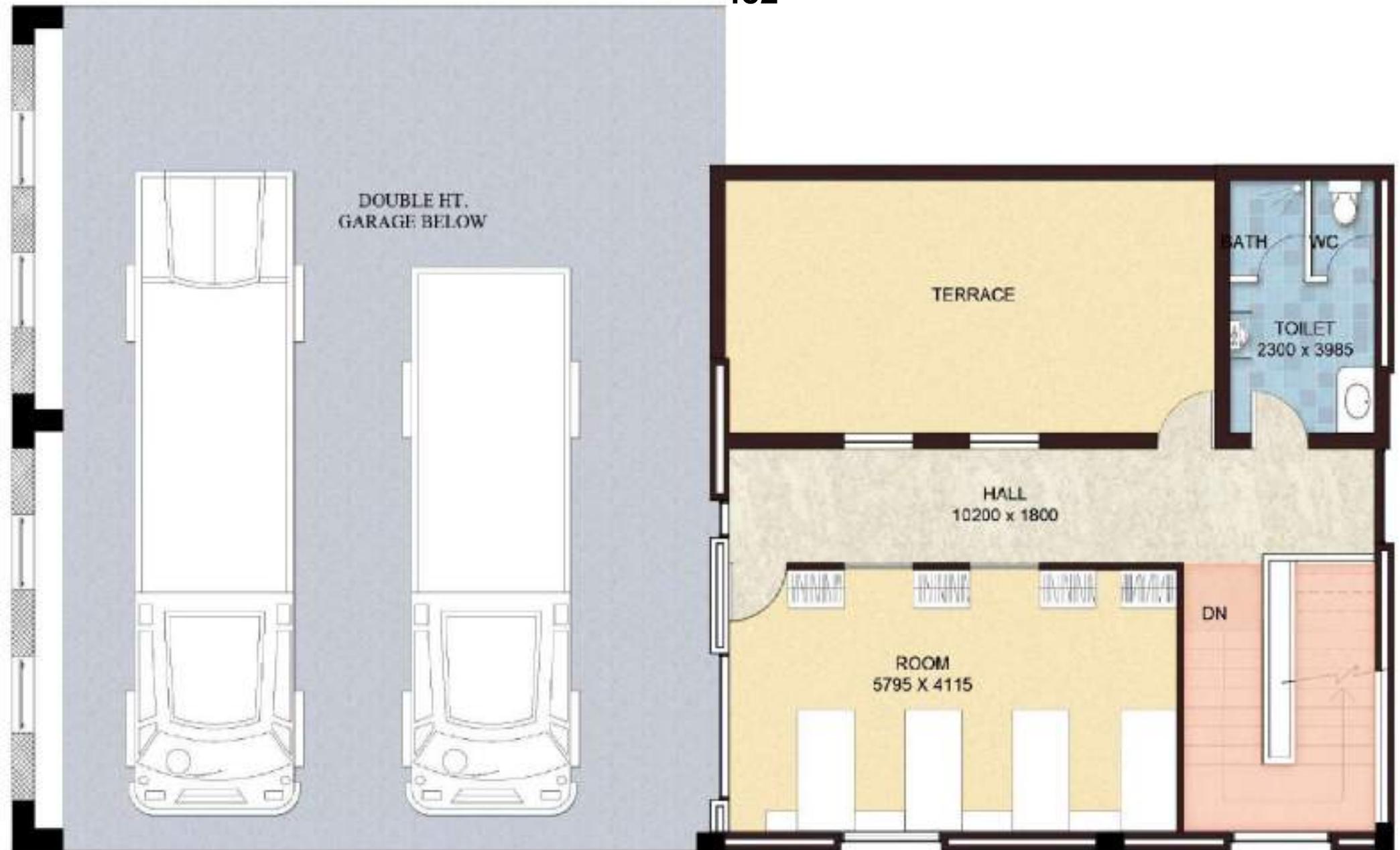
481



GROUND FLOOR PLAN

FIRE STATION WITH BARRACK	G+1	350.00	1	350.00	3,767.40
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482



FIRST FLOOR PLAN

FIRE STATION WITH BARRACK	G+1	350.00	1	350.00	3,767.40
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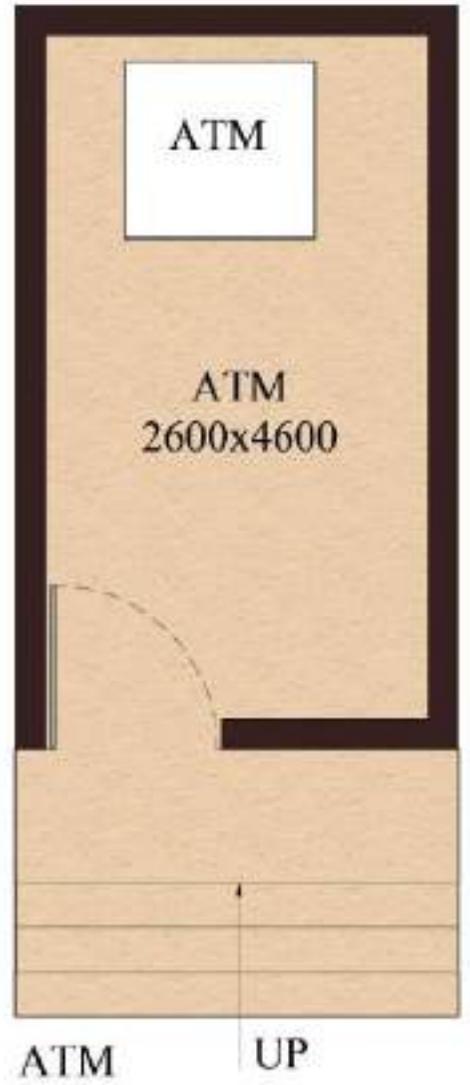
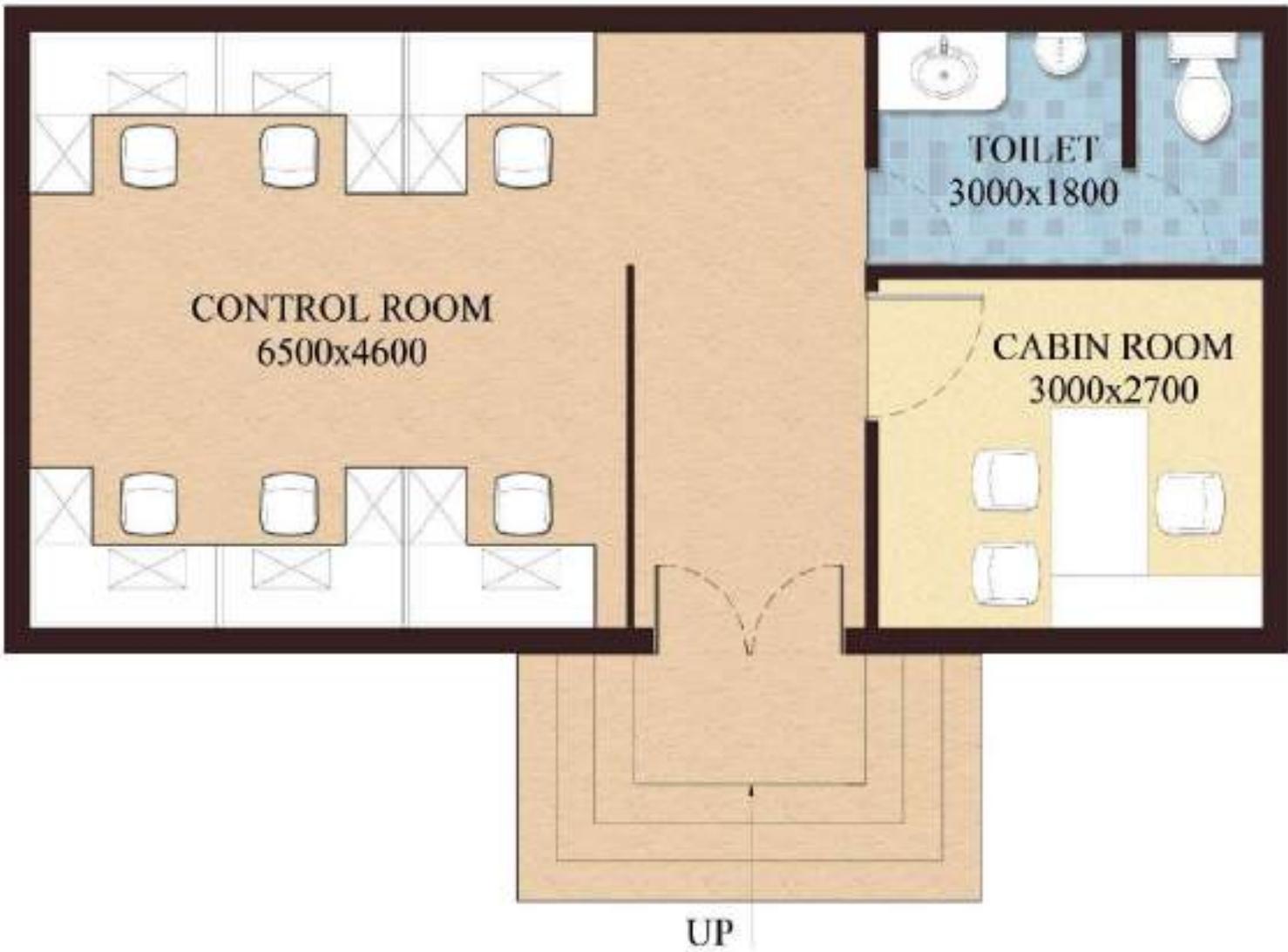
483



FIRE STATION WITH BARRACK

FIRE STATION WITH BARRACK	G+1	350.00	1	350.00	3,767.40
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484



CONTROL ROOM

ATM	G	15.00	1	15.00	161.46
CONTROL ROOM	G	50.00	1	50.00	538.20

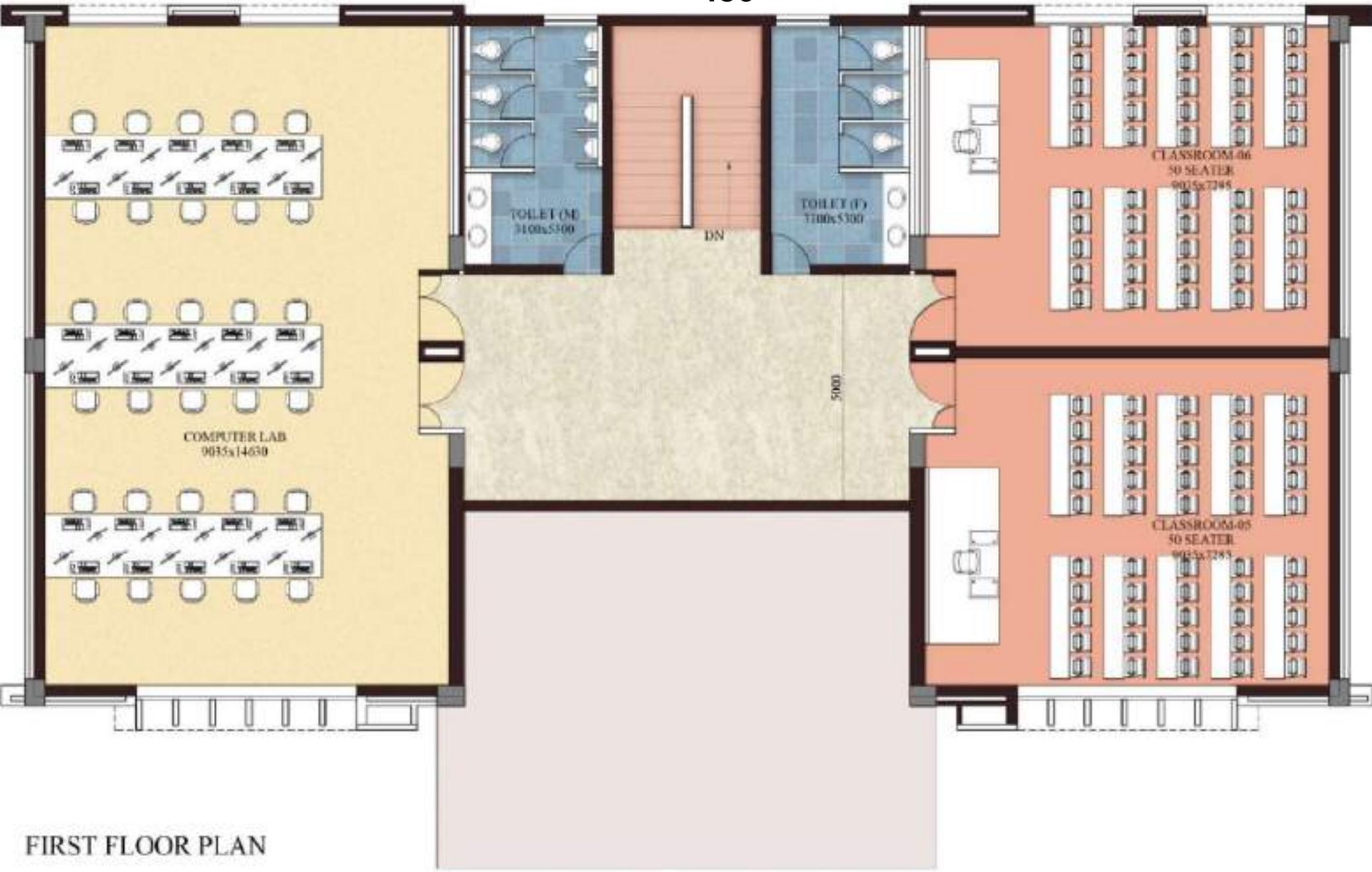
485



GROUND FLOOR PLAN

160					
CLASSROOM BLOCK with COMPUTER LAB	G+1	700.00	1	700.00	7,534.80

486



FIRST FLOOR PLAN

CLASSROOM BLOCK with COMPUTER LAB	G+1	700.00	1	700.00	7,534.80
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487



CLASSROOM BLOCK with COMPUTER LAB

CLASSROOM BLOCK with COMPUTER LAB	G+1	700.00	1	700.00	7,534.80
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488



GROUND FLOOR PLAN

INDOOR SPORTS COMPLEX with GYM	G+1	800.00	1	800.00	8,511.20
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489



FIRST FLOOR PLAN

INDOOR SPORTS COMPLEX with GYM	G+1	800.00	1	800.00	8,511.20
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490



INDOOR SPORTS COMPLEX with GYM

INDOOR SPORTS COMPLEX with GYM	G+1	800.00	1	800.00	8,511.20
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491



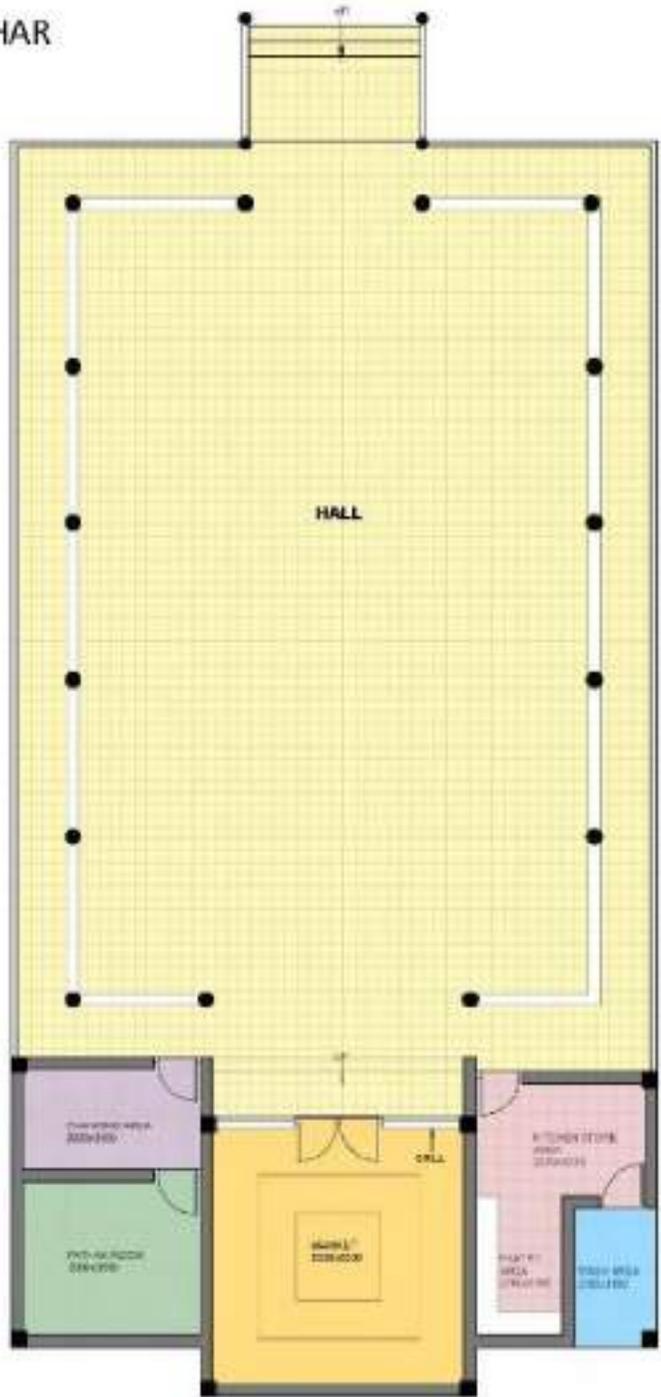
PRIMARY SCHOOL		G	560.00	I	560.00	6,027.84
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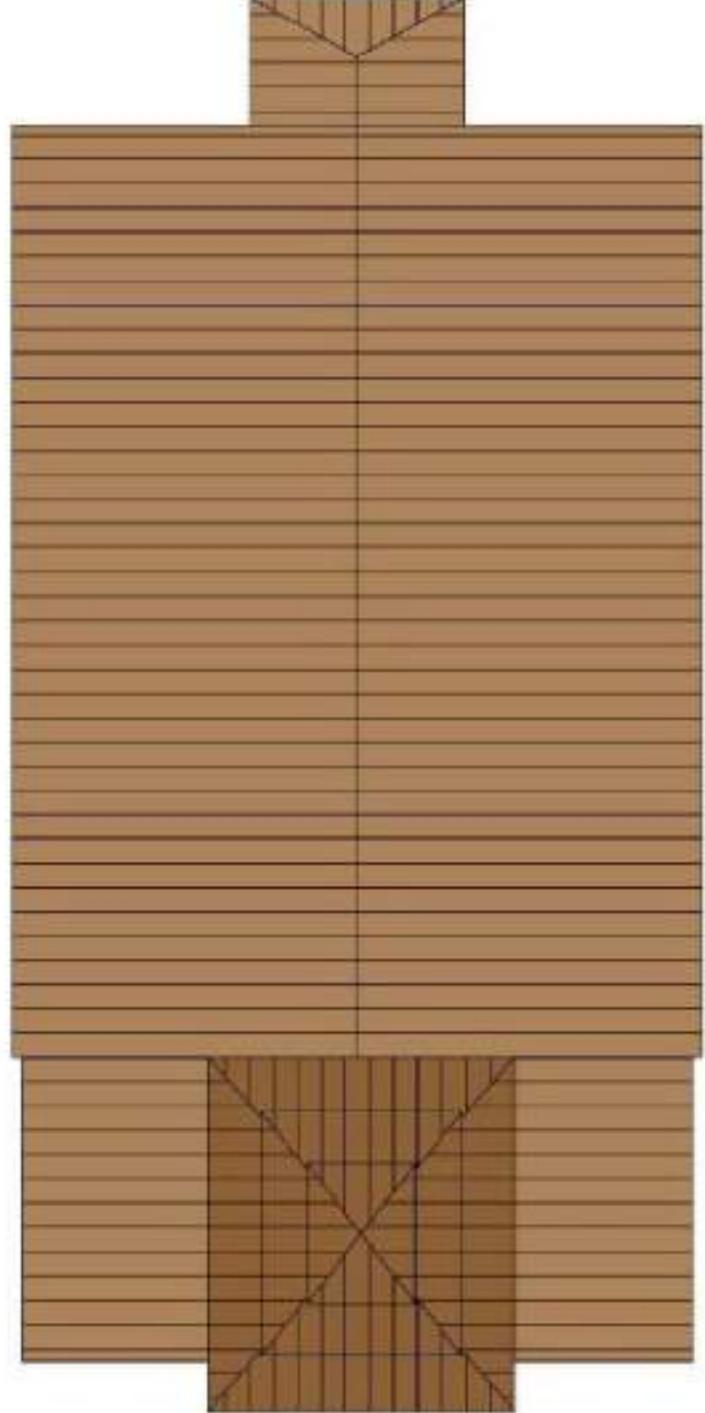
GROUND FLOOR PLAN

FAMILY WELFARE CENTRE		G	500.00	1	500.00	5,382.00
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493



GROUND FLOOR PLAN



ROOF PLAN

155					
NAAMGHAR	G	300	1	300.00	3,229.20

494



NAAMGHAR	6	300	1	300.00	3,229.20
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GROUND FLOOR PLAN

160					
RECREATION HALL	G	400	I	400.00	4,305.60

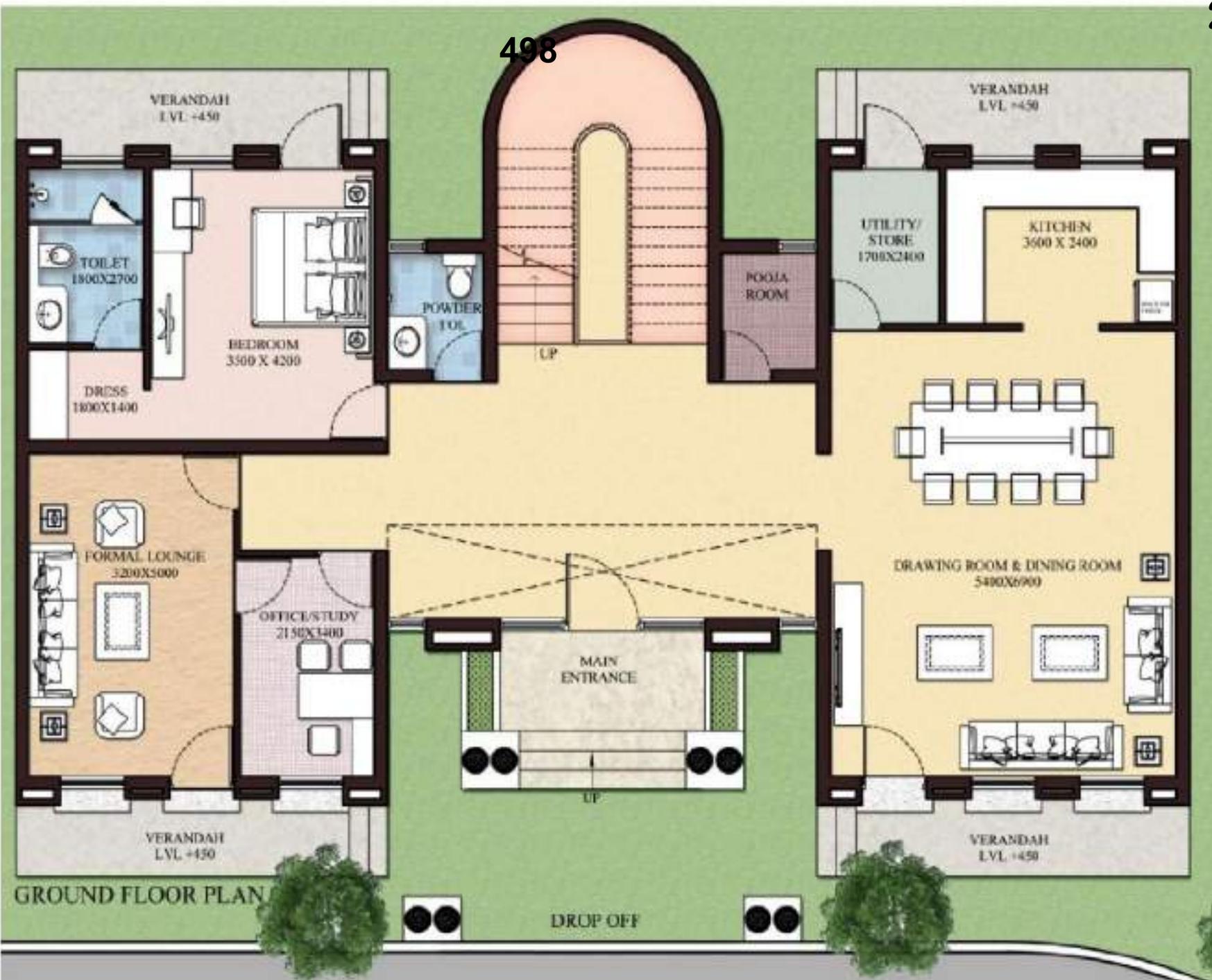
RESIDENTIAL BUILDINGS

497



RESIDENCE OF COMMANDANT	1	G+1	250.00	1	250.00	2,691.00
GARAGE		G	40.00	1	40.00	430.56
SENTRY POST		G	16.00	1	16.00	172.22
GUARD SHED		G	74.00	1	74.00	796.54

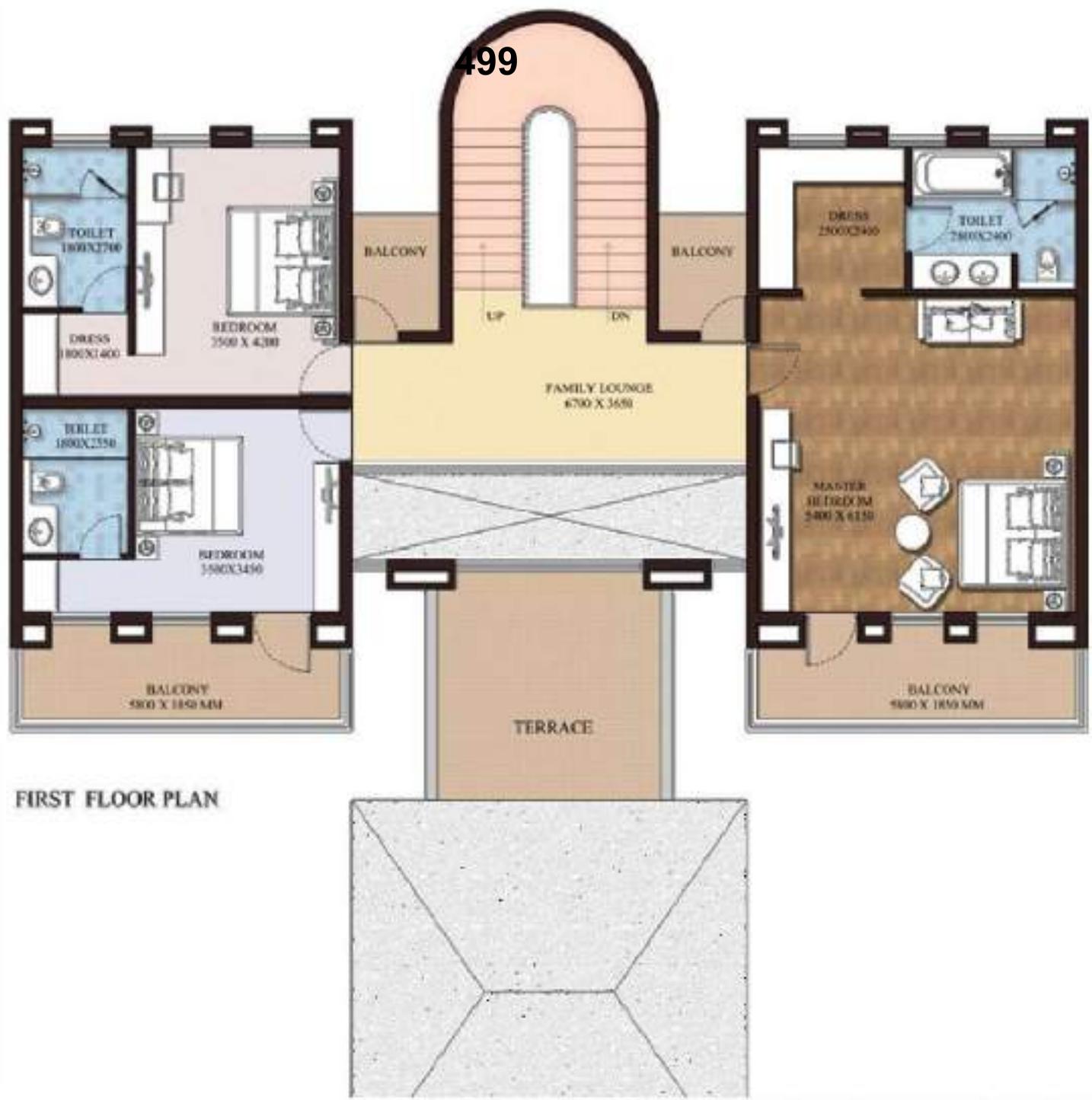
498



GROUND FLOOR PLAN

RESIDENCE OF COMMANDANT	1	G+1	250.00	1	250.00	2,691.00
GARAGE		G	40.00	1	40.00	430.56
SENTRY POST		G	16.00	1	16.00	172.22
GUARD SHED		G	74.00	1	74.00	796.54

499



FIRST FLOOR PLAN

RESIDENCE OF COMMANDANT						
	1	G+1	250.00	1	250.00	2,691.00
GARAGE		G	40.00	1	40.00	430.56
SENTRY POST		G	16.00	1	16.00	172.22
GUARD SHED		G	74.00	1	74.00	796.54



RESIDENCE OF COMMANDANT

RESIDENCE OF COMMANDANT	1	G+1	250.00	1	250.00	2,691.00
GARAGE		G	40.00	1	40.00	430.56
SENTRY POST		G	16.00	1	16.00	172.22
GUARD SHED		G	74.00	1	74.00	796.54

501



AREA PER UNIT (in sqm.)	AREA PER UNIT (in sqft.)
180	1,937.52

Deputy Commandant		4	G+1	720.00	1	720.00	7,750.08
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502



AREA PER UNIT (in sqm.)	AREA PER UNIT (in sqft.)
180	1,937.52

Deputy Commandant	4	G+1	720.00	1	720.00	7,750.08
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503



ASSISTANT COMMANDANT RESIDENCE
GROUND FLOOR

AREA PER UNIT (in sqm.)	AREA PER UNIT (in sqft.)
150	1,614.60

Assistant Commandant	8	G+1	600.00	2	1,200.00
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504



AREA PER UNIT (in sqm.)	AREA PER UNIT (in sqft.)
150	1,614.60

Assistant Commandant	8	G+1	600.00	2	1,200.00
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GROUND FLOOR PLAN
(G+1 FLOORS)
(INSPECTOR &
SUB INSPECTOR'S QUARTER)

AREA PER UNIT (in sqm.)	AREA PER UNIT (in sqft.)
130	1,399.32

Inspector, SI	45	G+1	1,040.00	5	5,200.00	32	4	4,160.00
			650.00	1	650.00			



AREA PER UNIT (in sqm.)	AREA PER UNIT (in sqft.)
130	1,399.32

Inspector, SI	45	G+1	130		32	4	4,160.00
			1,040.00	5,200.00			
			650.00	1,650.00			

507



AREA PER UNIT (in sqm.)	AREA PER UNIT (in sqft.)
93	1,001.05

GROUND FLOOR PLAN
 (G+1 FLOORS)
 (HAVALDAR, CONSTABLE
 QUARTER)

Havalдар, ASI, Constable	190	G+1	744.00	23	17,112.00		96	12 th	8,928.00
			558.00	1	558.00				

508



AREA PER UNIT (in sqm.)	AREA PER UNIT (in sqft.)
80	851.12

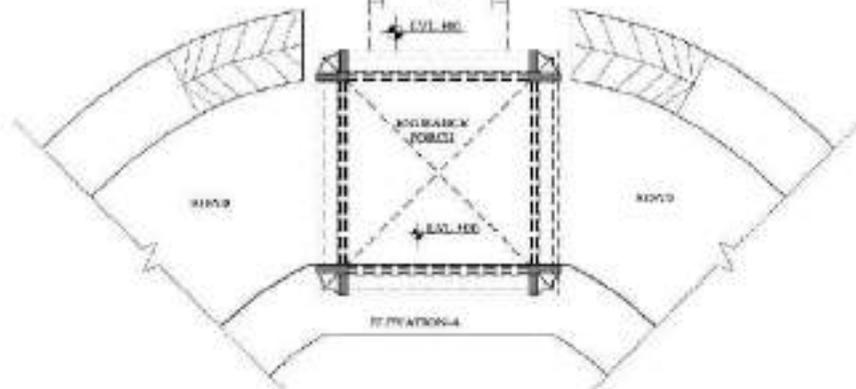
GROUND FLOOR PLAN
(G+1 FLOORS)
(FOLLOWER'S QUARTER)

Followers	8	G+1	640.00	1	640.00	8	1	640.00
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509



GROUND FLOOR PLAN

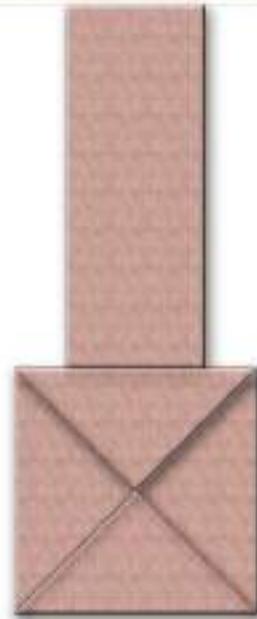
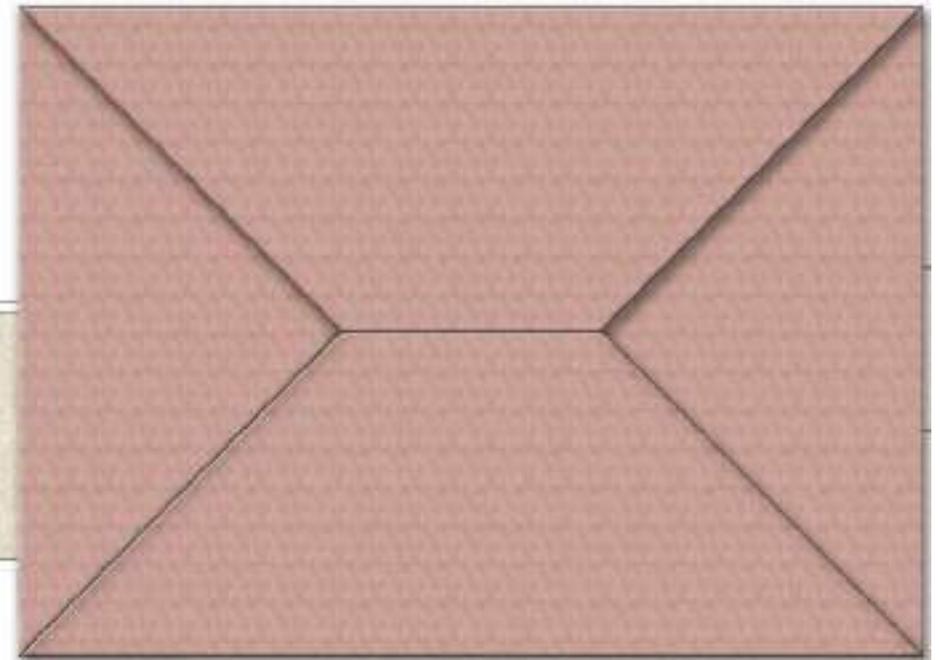


Accommodation for SO'S (Insp., SI)	40	G+1	600.00	2	1,200.00	20	1	600.00
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510



FIRST FLOOR PLAN



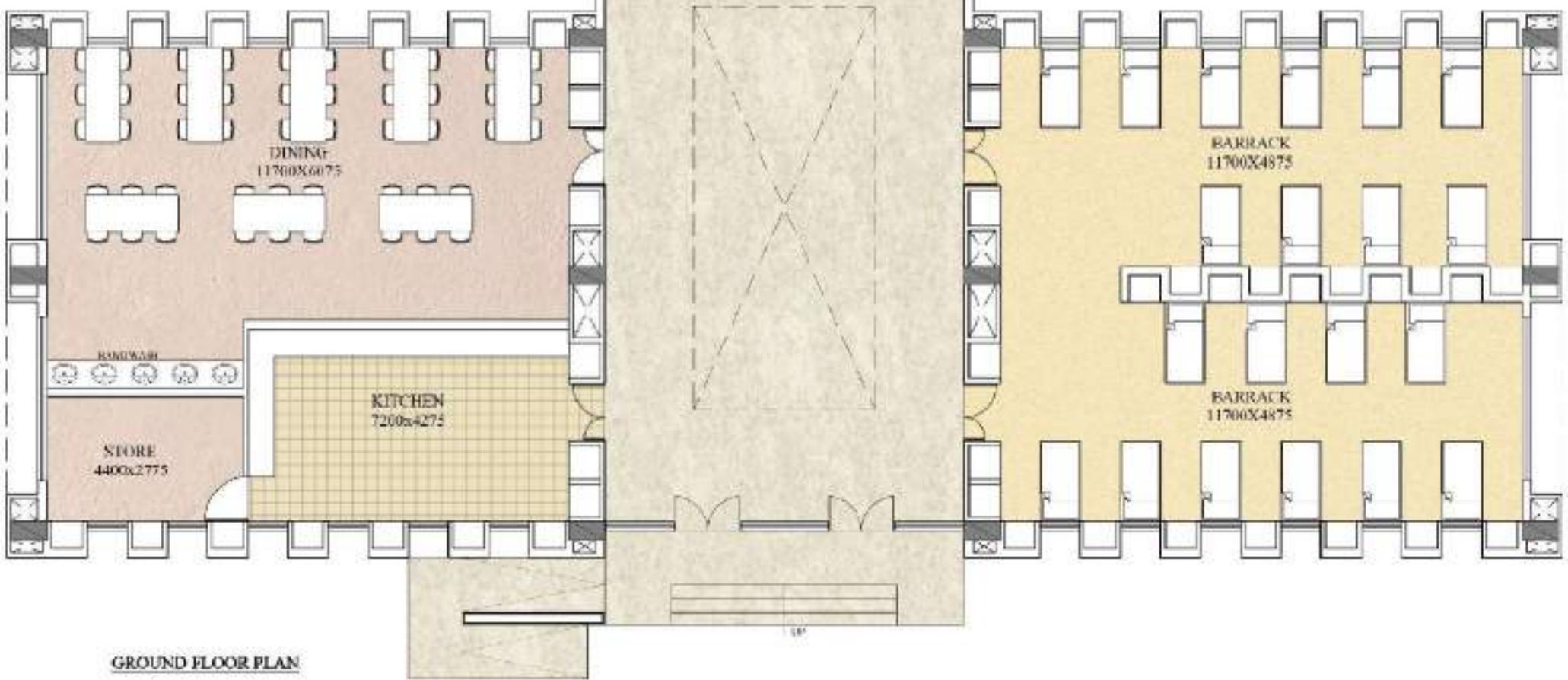
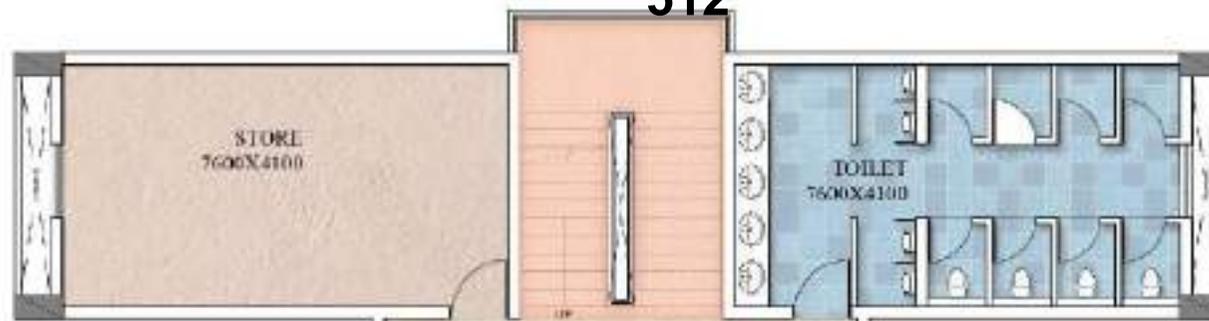
Accommodation for SO'S (Insp., SI)	40	G+1	600.00	2	1,200.00		20	1	600.00
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511



Accommodation for SO'S(Insp., SI)	40	G+1	600.00	2	1,200.00		20	1	600.00
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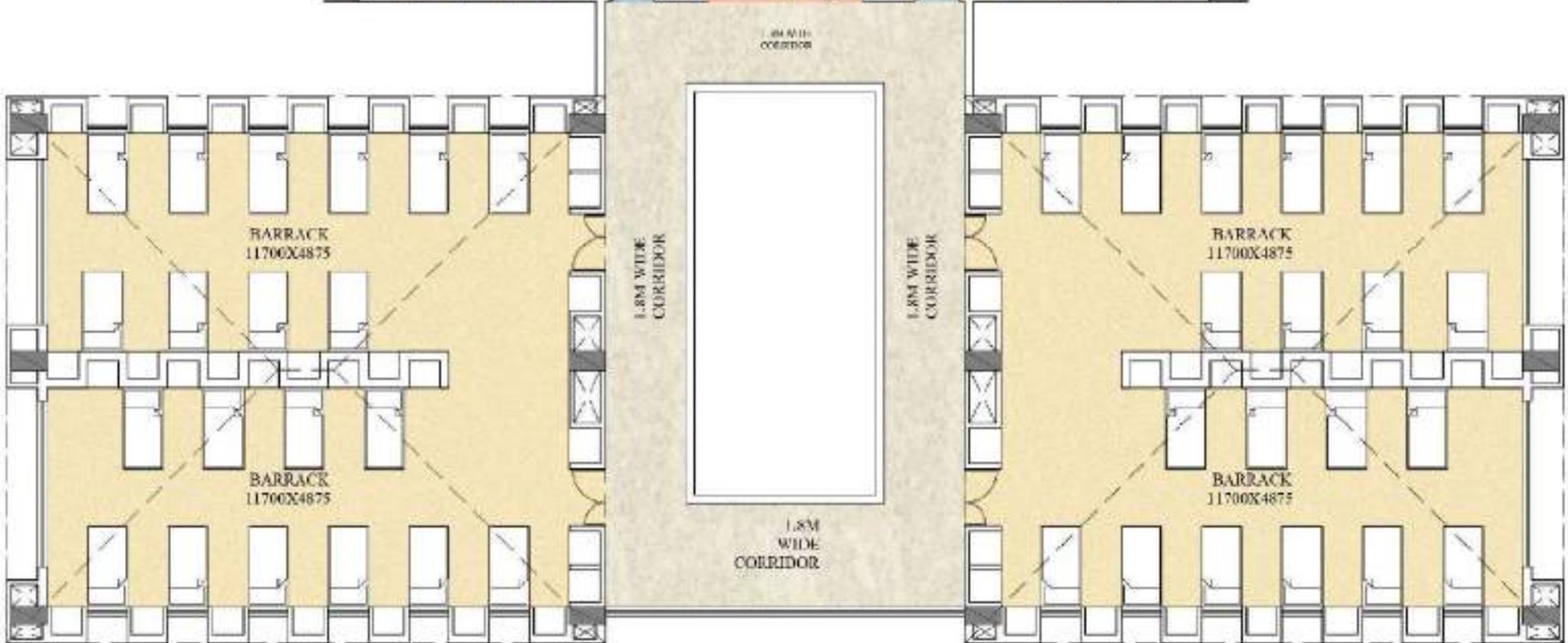
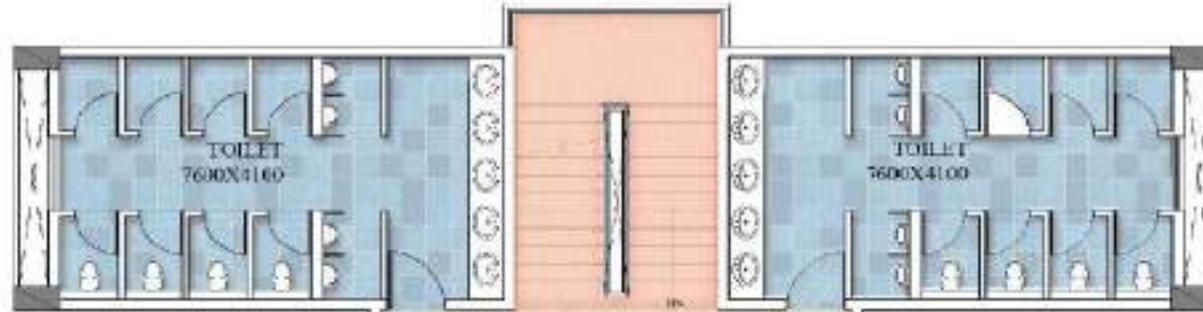
512



GROUND FLOOR PLAN

BARRACK (Havaladar, Const., Followers)	504	G+1	8	8,064.00	240	4	3,840.00
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513



FIRST FLOOR PLAN

BARRACK (Havaladar, Const., Followers)	504	G+1	8	8,064.00	240	4	3,840.00
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BARRACK (Havaladar, Const., Followers)

BARRACK (Havaladar, Const., Followers)	504	G+1	8	8,064.00	240	4	3,840.00
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515



STRUCTURAL DESIGN CRITERIA

POLICE BATTALION INHAILAKANDI, ASSAM

OF
POLICE BATTALION
IN
HAILAKANDI, ASSAM

INDEX

S.NO	DESCRIPTION
01.	SCOPE
02.	CODES AND STANDARDS
03.	LOADS AND FORCE
04.	COMBINATION OF LOADS
05.	CONCRETE AND FOUNDATIONS
06.	DESIGN PARAMETERS
07.	BUILDING MOVEMENT
08.	HORIZONTAL DEFLECTION
09.	SOFTWARE USED
10.	SOIL PARAMETERS

Architect
Design Associates INC,
A163, Sector 136,
Noida - Greater Noida Express Way
Noida, Uttar Pradesh 201301

POLICE BATTALION INHAILAKANDI, ASSAM

1. SCOPE

This criterion covers the structural design basis for Proposed "POLICE BATTALION IN HAILAKANDI, ASSAM".

The buildings will be made with RCC framed structure with cast-in-situ columns, beams and slabs to suit the approved/ finalised architectural drawings. The buildings are multi-storey buildings with floors at different levels, as per various architectural drawings.

The buildings shall be as per the Architectural requirement for civil and structural works, standard specifications, relevant I.S codes and local regulations.

2. CODES AND STANDARDS

All the design shall be based on Indian standard & codes as specified here.

List of commonly used Codes and Standards:

- IS 875 (Part 1,2,4, & 5)-1987 - Code of Practice for Design Loads (Other Than Earthquake) For Buildings and Structures
- IS 875 (Part 3)-2015 - Code of Practice for Design Loads (Other Than Earthquake) For Buildings and Structures
- IS 1893-2016 - Criteria for Earthquake Resistant Design of Structures
- IS 456-2000 - Plain and Reinforced Concrete - Code of Practice
- IS 13920-2015 - Ductile Detailing of Reinforced Concrete Structures Subjected to Seismic Forces - Code of Practice
- IS 800-2007 - Code of Practice for General Construction, In Steel
- Code IS 1786 -2008 - Specification for high strength deformed steel bars and wires for concrete reinforcement
- SP-34 – Handbook on Concrete reinforcement and Detailing
- SP-16 – Design aids for IS-456
- IS 1904 - Indian Standard Code of Practice for Design and Construction of Foundation in Soils: General requirements.
- IS 11384-Code of practice for composite construction in structural steel and concrete.
- National Building Code of India, NBC-2016

- In addition to above any additional code wherever applicable to be followed, in absence of Indian codes, international codes to be followed. In case of revisions in code, latest codes to be followed.

3. LOADS AND FORCES

Loads and forces used for design shall be as defined in IS875, and is specified below.

The following type of loads and forces shall be considered.

- Dead load (DL)
- Live load (LL)
- Wind load (WL)
- Earthquake load (EQ)

3.1 Dead Load (DL)

Dead load is the load of the structure itself

Following are the unit weight of major construction materials

- Reinforced Cement Concrete 25.0 kN/ m³
- Plain Cement Concrete 24.0 kN/ m³
- Floor Finish density 24.0 kN/ m²
- Structural Steel 78.5 kN/ m³
- Saturated soil density 19.5 kN/ m³
- Masonry wall including plaster 20.0 kN/ m³
- AAC Wall 8 kN/m³
- Floor finish margin of 50mm will be considered for design.

Sunk load shall be taken considering the density of filling above 150mm as 8kN/ m³ and filling below 150mm as 20 kN/ m³, wherever required.

3.2 Live Load (LL)

Live load for building and structure shall be in accordance with IS875 part 2 unless otherwise specified or required by the user or equipment requirement for areas not covered underneath.

Live Load

a) Living rooms, bed rooms and dormitories	2 kN/m ²	
Kitchen, laundries, public lounge, laboratories	3 kN/m ²	
c) Staff room, office room	3 kN/m ²	
d) Passage, Balcony, Stairs	4 kN/m ²	
e) Toilet	2 kN/m ²	
f) Store rooms	5 kN/m ²	
h) Lift M/C Room (Impact Loading)	10 kN/m ²	
l) Terrace	1.5 kN/m ²	(Accessible Roof)

3.3 Wind Load (WL)

Wind load to be applied for structures shall be in accordance with IS875 part 3, and noted below.

- Basic wind speed, V_b , shall be 55m/sec
- Risk coefficient ' K_1 ' shall be equal to 1.0. (Design Life considered is 50 years)
- Terrain-Height & Structure Height factor ' K_2 ' shall be obtained from Table 2 IS875 part 3. Terrain Category – 3 (Considering scattered buildings around the project structure).
- Topographic factor $K_3 = 1.0$
- Importance factor for the cyclonic region, $K_4 = 1.0$

Design wind speed V_d at any height z in m/sec

$$V_d = V_b \times K_1 \times K_2 \times K_3 \times K_4$$

Wind pressure p_z at any height z in N/m^2

$$p_z = 0.6 V_d^2$$

- Wind Directionality Factor, $K_d = 0.9$ (for buildings, solid signs, open signs, lattice frameworks, and trussed towers (triangular, square, rectangular))
- Wind Directionality Factor, $K_d = 1.0$ (for circular or near-circular forms)
- Area averaging Factor K_a , (as per Cl. 7.2.2, IS 875 Part 3:2016)
- Combination Factor K_c (as per Cl. 7.3.3.13, IS 875 Part 3:2016)

Design wind pressure p_d at any height z in N/m^2

$$p_d = K_d \times K_a \times K_c p_z$$

The value of p_d shall not be taken as less than 0.70 p_z .

Force coefficient as per Fig. 4 of IS-875 Part-3 shall be used to calculate wind force.

3.4 Seismic Load (EQ)

Seismic loads to be applied for structures shall be in accordance with the applicable

Provision of the IS 1893, 2016 and noted below.

- Seismic Zone Factor, Z , shall be 0.36.
- Importance factor I , shall be 2 (for buildings with occupancy greater than 200 persons), 1.5 (for important buildings like hospital building) and 1 (for other buildings) depending on the usage of building as per table 6 IS1893: 2016.
- Response reduction factor shall be 5.0 for RC building with SMRF, ductile RC structural walls with SMRF (dual system) or 4 for ductile RC wall building.
- Average response acceleration factor

$$A_s = Z/2 \times I/R \times S_d/g$$

$$E = A_s \times W$$

Where 'W' is seismic weight of structure with appropriate live load.

The approximate fundamental natural period of vibration (T_n) in seconds, of buildings, shall be estimated by the empirical expression.

$$T = 0.075 \times h^{0.75} \text{ (For moment-resisting frame buildings without any masonry infill)}$$

$$T = 0.09 \times h / (d)^{0.5} \text{ (For moment-resisting frame buildings with brick infill panels)}$$

Where

d = length of the building the considered direction of earthquake

h = height of the building

4. COMBINATION OF LOADS

Concrete structural members shall be designed to have, at all sections, a calculated strength necessary to carry the following factored loads and forces as per table 1B of IS456

Load Combination	Limit State of Collapse			Limit States of Serviceability		
	DL	IL	WL	DL	IL	WL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
DL + IL	1.5		1.0	1.0	1.0	-
DL + WL	1.5 or 1.2*	-	1.5	1.0	-	1.0
DL + IL + WL	1.2		-	1.0	0.8	0.8

Wind load & earthquake load will not act in tandem & each one to be checked with provisions of combinations as per design/loading codes. In the above combinations, wind to be substituted for earthquake & checked in additional combinations.

5. CONCRETE AND FOUNDATIONS

All concrete design shall conform to IS456-2000, unless noted otherwise. The detailing of concrete reinforcement shall be in accordance with the requirements given in IS13920.

RC retaining walls will be provided in accordance with Architectural drawings in the basement periphery considering cracked section. Water proofing lining/layer for wall area under water and active earth pressure along with 1 T/m² surcharge loading will be considered.

6. DESIGN PARAMETERS

RC structures shall be designed based on limit state method of design as given in IS 456-2000 & ductility provision in detailing of RCC structures shall be considered judiciously based on IS:13920-2016 for lateral force resisting elements of the structure. The following parameters shall be used:

RCC grade shall be as per drawings in accordance with clause 6.0 (Table 5) of IS 456-2000 for all. Minimum grade shall be M25 for all structural elements.

Reinforcement steel grade 500 N/mm^2 : High yield strength deformed bars conforming to IS 1786 with minimum elongation of 14.5%.

Environmental Exposure condition for all structure shall be considered as Moderate as per Clause 8.2.2.1 of IS456:2000 except mild for plastered surfaces.

**PROPOSED CONSTRUCTION OF POLICE
CAMMANDO BATTALION AT HAILAKANDI,
ASSAM**

**DESIGN BASIS REPORT
FOR MEP SERVICES**

7. BUILDING MOVEMENT**Vertical Deflection**

The deflection shall generally be limited to the following:

- a) The final deflection due to all loads including the effects of temperature, creep and shrinkage and measured from the as-cast level of the supports of floors, roofs and all other horizontal members, should not normally exceed span/250.
- b) The deflection including the effects of temperature, creep and shrinkage occurring after erection of partitions and the application of finishes should not normally exceed span/350 or 20 mm, whichever is less.

8. HORIZONTAL DEFLECTION

Horizontal movement will occur due to creep shrinkage, temperature effect and Drift due to Earthquake & Lateral Sway due to wind are also considered.

These movements will occur throughout construction and during the life of the building.

Drift:

The storey drifts in any storey due to the minimum specified design lateral force, with partial load factor of 1.0 shall not exceed 0.004 times the storey height.

Lateral sway:

Under transient wind load the lateral sway at the top should not exceed H/500, where H is the total height of the building.

9. SOFTWARE USED

ETABS & SAFE a Product of Computers and Structures Inc. & STAAD Pro a product of Bentley Engineers, along with MS Excel shall be used for the analysis & design of the structure.

10. SOIL PARAMETERS

Allowable bearing pressures and pile capacities shall be in accordance with soil report.

DESIGN BASIS REPORT PLUMBING WORKS

1. INTRODUCTION

- 1.1 Water supply and wastewater disposal constitute a very important part of the services in a building. Maintenance of hygiene and cleanliness are indispensable to the well-being of the occupants as a whole.
- 1.2 It is proposed to design the services, storage capacities and piping network.
- 1.3 It is proposed to locate all the pumps and equipment's in the underground pump room which shall accommodate all major pumps and equipment's and electrical panels etc.
- 1.4 This report intends to highlight the details of the following proposed services, which are to be provided from the point view of Sanitary Engineering, Fire Fighting and other allied services.

- Water Supply System
 - Wastewater Disposal System
 - Sewerage system up to STP and drainage system up to recharge pit (fulfilling the IGBC norms, GRIHA, Environmental clearance)
 - Sewage Treatment Plant and Recycling of Waste Water
 - Firefighting system
- To reduce water consumption, All Plumbing Fixtures shall be of low flow fixtures as per GRIHA to achieve the desired and better Ratings.**

2 WATER SUPPLY SYSTEM

2.1 Total Water Requirement

The total water requirement is proposed to be catered by underground water tanks. The water requirement shall be calculated as per MoEF & CC Guidance Manual for Building Construction. The tentative water requirement for the respective buildings are listed below:

Design Basis Report (DBR)

WATER REQUIREMENT								
S.No.	Description	Floors	Area (Sqm)	Total Occupancy	Water Requirement per capita per day (LPCD)	Total Requirement (LPD)	Total Domestic Water Requirement (LPD)	Total Flushing Water Requirement (LPD)
A	NON- RESIDENTIAL BUILDINGS							
1	C.O'S Office Building-1 no.	G+1	1083	108	45	4874	2708	2166
2	Sentry Post-2 Nos.	G	16	8	45	360	200	160
3	Garrage-1 No. (LS)	G	40			1000	500	500
4	MT Garrage & Office-1 no.	G	870	87	45	3915	2175	1740
5	Ration Store & Clothing Store-1 no.	G	300	100				
6	Visitors @ 90% of total population			90	15	1350	450	900
7	Staff @10% of total population			10	45	450	250	200
8	Magazine/Kote Building With Sentyary Post	B+G	350	35	45	1575	875	700
9	GO'S Mess / Guest House-1 no.	G+1	650	361	70	25278	19861	5417
10	SO'S Mess -1 no.	G+1	870	483	70	33833	26583	7250
11	Community Centre	G	600	333	45	15000	8333	6667
12	Hospital (10 BEDS)	G	330	10	340	3400	2300	1100
13	Drill Shed (LS)	G	400			2000	1500	500
14	Gate Complex With 10 Men Barrack-1no.	G	175	10	45	450	250	200
15	Fire Station With Barrack-1no.	G+1	350	35	45	1575	875	700
16	Control Room-1no.	G	50	5	45	225	125	100
17	Classroom With Computer Lab-1no.	G+1	700	175	45	7875	4375	3500

Design Basis Report (DBR)

WATER REQUIREMENT								
S.No.	Description	Floors	Area (Sqm)	Total Occupancy	Water Requirement per capita per day (LPCD)	Total Requirement (LPD)	Total Domestic Water Requirement (LPD)	Total Flushing Water Requirement (LPD)
18	Indoor Sports Complex With GYM-1no.	G+1	800	571	15	8571	2857	5714
19	Primary School-1no.	G	560	140	45	6300	3500	2800
20	Family Welfare Centre	G	500	50	45	2250	1250	1000
21	Naamghar	G	100	10	135	1350	900	450
22	Recreation Hall	G	400	286	15	4286	1429	2857
A	RESIDENTIAL BUILDINGS							
1	C.O'S Residence-1 no.	G+1	250	1	135	135	90	45
2	Garrage-1 No. (LS)	G	40			1000	500	500
3	Sentry Post-1 No.	G	16	1	45	45	25	20
4	Guard Shed	G	74	1	45	45	25	20
5	Deputy Commandant -1no. (4 units)	G+1	720	4	135	540	360	180
6	Assistant Commandant- 2no. (8 units)	G+1	1200	8	135	1080	720	360
7	Inspector, SI - 6 nos.	G+1	5850	45	135	6075	4050	2025
8	Havaldar,ASI, Costable -23 nos.	G+1	17670	190	135	25650	17100	8550
9	Followers-1no.	G+1	640	8	135	1080	720	360
10	Accommodation for SO'S (Insp., SI)- 2 nos.	G+1	1200	40	135	5400	3600	1800
11	Barrack (Havaldar, Const., Followers)	G+1	8064	504	135	68040	45360	22680

Design Basis Report (DBR)

<u>WATER REQUIREMENT</u>								
S.No.	Description	Floors	Area (Sqm)	Total Occupancy	Water Requirement per capita per day (LPCD)	Total Requirement (LPD)	Total Domestic Water Requirement (LPD)	Total Flushing Water Requirement (LPD)
C	Total					235007	153846	81161
D	Capacity of Sewage Treatment Plant:							
1	80% of total				=	188005	LPD	
1.1	or Say				=	200	KLD	

The above water requirement is bare minimum, however EPC Contractor has to provide detailed calculation.

Design Basis Report (DBR)

2.2 Source of Water

- Municipal water.
- Sewage treatment plants shall be provided to treat the sewerage and effluent received from various buildings which shall be used for flushing and horticulture purpose.

2.3 Storage

2.3.1 Storage of water in Underground shall be of one day capacity and separate dedicated half day storage (treated water) is provided for buildings zones wise from there overhead tank of capacity half day is filled. Fire tanks both underground and overhead shall be provided as per NBC-2016 and Latest Fire norms.

2.3.2 Considering minimum requirement of storage for one day in the underground tanks (excluding for horticulture purpose), the capacity of underground tanks shall be as follows:

Under Ground Tanks - Housing Side		
(a)	Static fire tank to always remain full	50 KL
(b)	Static fire tank to always remain full	50 KL
(c)	Raw Water tank	85 KL
(d)	Treated Water Tank	85 KL

S No.	Description	Treated water tank (KL)	Flushing water tank (KL)
1	Common UGT-2	15 KL	10 KL
1.1	Havaldar, ASI, Constable		
1.2	Followers		
1.3	Inspector, SI		
2	Common UGT-3	20 KL	10 KL
2.1	GO'S Mess / Guest House		
2.2	Assistant Commandant		
2.3	Classroom with Computer Lab		
2.4	Primary School		
2.5	Hospital		
2.6	C.O'S Residence		
2.7	Deputy Commandant		
3	Common UGT-4	45 KL	25 KL
3.1	SO'S Mess		
3.2	Community Centre		

Design Basis Report (DBR)

S No.	Description	Treated water tank (KL)	Flushing water tank (KL)
3.3	Indoor Sports Complex with GYM		
3.4	Family Welfare Centre		
3.5	Recreation Hall		
3.6	Accommodation for SO'S (Insp., SI)		
3.7	Barrack (Havaldar, Const., Followers)		

4 Quality of Water Supply

Since, the water will be required for different purposes i.e. for drinking, cooking, in the toilets, kitchen area etc., it has to be of a required standard quality. The exact treatment of water will be suggested after getting the municipal water tested for portability as per IS:10500.

However, since the water quality is expected to be poor, as a standard, the water shall be passed through a Activated carbon filter, multi grade filter, softener and ozonator prior to the supply to the building.

It is also advisable to maintain a strict monitoring system on the quality of the water during the operation of the system.

2.5 Water Supply System

2.5.1 The water from the potable water supply line will be brought into compartment No. 1 and 2, of Static Fire Tank which will serve exclusively as a static water storage tanks for firefighting purposes and shall be of a combined capacity of 2 x 50 KL. The water from here shall overflow into the raw water tank.

Water from Raw water tank will pass through Treatment system then stored in treated water tank.

2.5.2 Water from the treated water tank will be pumped to Zone wise treated underground water tank as mentioned above. Water from zone wise treated water tank will fill overhead water tank via submersible pumps. Water from OHT will supply water through gravity system to all floors. Separate ring main will be provided from the STP for providing flushing supply. Same scheme has been followed as Treated water supply.

2.5.3 An underground ring main shall be provided along the roads which will be connected directly to the garden hydrant pumps from the flushing water tank at STP. Garden hydrants will be provided on the ring main.

2.5.4 Where bathing facility & kitchen/dining/mess is provided hot water is fed from solar (with electric backup).

3. **Waste water disposal system**-All soil & waste is collected and feed in to manholes outside the basement. It is going to STP (MBR Technology) from manholes via gravity system where it is being treated. The treated water is used for irrigation & flushing water purpose.

Design Basis Report (DBR)

Design Basis Report (DBR)

4.Sewerage & Drainage system

4.1 **Sewerage System-**The external sewerage system shall be running along the roads. The main sewer line will carry the whole sewage by gravity up to the **STP (MBR TECHNOLOGY)**.

STP should be design in 2 parts (150+50 KL)

All kitchen waste will be first pass through the convention **Grease trap** and then feed to STP.

4.2 **Drainage System-** Drainage system shall be designed on the parameters setup by the metrology department and various statutory codes. Surface drainage consisting of underground storm water disposal pipes will be provided so that there is no accumulation of rain water. In addition to this Rain Water Harvesting and Ground Water Recharge structures will also be provided to make optimal use of the rain water so collected (rainwater system shall be meets GRIHA, IGBC, Environmental, local authority. Material used for recharge pit structure shall be recycled polypropylene co-polymer based cross way/polygrain. Size available are 494 x 494 x 220mm and along with spacer 988 x 240 x 25mm/polygrain rainwater harvesting. Module size 684x408x430 void ratio up to 96.5%. This is monolithic and interlock structure, load bearing structure more than 40 ton/sqm. Voids ratio shall be more than 95%. Its life should be minimum 50 years. Indicative items shall be referred to for rain water harvesting system.

5. **Fire Fighting System-**The firefighting will be designed as per the recommendations of the **National Building Code of India-Part IV, 2016**.

The contractor shall make final calculation as per prevailing local bye –laws and NBC whichever is more stringent and get them approved from the client. The capacities indicated in DBR are minimum capacities and any rating/capacities required over and above the indicated capacity shall be provided by the contractor at his own expense.

6. Pipe Material-

Water Supply Line	
External pipeline & Tank filling	G.I Pipes Heavy Class
Internal piping-exposed on wall	CPVC (Chlorinate of polyvinyle chloride) SCH - 40 pipe and fitting such as tees, elbows, reducers, Male/female connector, clamps etc. Jointing with CPVC solvent cement as per manufacture recommendation conforming to ASTM-F493
Internal Piping – concealed work	CPVC (Chlorinated Polyvinyle Chloride) pipe as per CTS SDR-11 & fittings such as tees, elbows, reducers, male/female connector, clamps etc. as per ASTM-D-2848, jointing with CPVC solvent cement as per manufacturer recommendations conforming to ASTM-F493
Soil & Waste Pipes and Rain water Pipes	
Soil & Waste Pipes waste connection	GI medium class up to 50 mm dia
Soil & Waste Pipes & Fittings	Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside.
Rain water pipes & Fittings	Unplasticised - PVC moulded fittings / accessories for unplasticised Rigid PVC (SWR) rain water pipes conforming to IS : 13592 Type A including jointing with seal ring conforming to IS : 5362
External Sewerage	Stone Ware Pipe as per IS:651
External Drainage	RCC NP-2
Road crossing	RCC NP-3

Design Basis Report (DBR)

IMPORTANT INDIAN STANDARDS PLUMBING & SANITARY WORK	
	TITLE
IS 651-1965	Specification for salt Glazed stoneware pipes and fittings (First revision).
IS 782-1976	Specification for caulking lead.
IS 1172-1971	Code of basic requirements for water supply, drainage and sanitation (revised).
IS 1239-1968 (Part-I)	Specifications for mild steel tube, tubular and other steel pipe fittings.
IS 1239-1968 (Part-II)	Specifications for mild steel tube, tubular and other steel pipe fittings.
IS 1537-1976	Specification for vertically cast iron pressure pipes for water, gas and sewage.
IS 1536-1976	Specification for centrifugally Cast (Spun) Iron pressure pipes for water, gas and sewage.
IS 1538 (Part 1 to 23)	Specification for Cast iron fittings for pressure pipes for water, gas and sewage.
IS 1626-1960	AC building pipes, gutters and fittings (Spigot and socket type)
IS 1726-1960	Code for cast iron manhole frame and cover.
IS 1729-1979	Specification for Sand cast iron Spigot and Ventilating pipes, fittings and accessories.
IS 1742-1960	Code of practice for building drainage.
IS 2064-1962	Code of practice for selection, installation and maintenance of sanitary appliances.
IS 2065-1963	Code of practice for water supply to buildings.
IS 3114-1965	Code of practice for laying of C.I. Pipes.
IS 3589-1961	Specification for electrically welded steel pipes for water, gas and sewage.
IS 3989-1970	Centrifugally cast spun iron and socket soil and ventilating pipe, fittings and accessories.
IS 4111-1967	Code of practice for Ancillary structure in sewerage system.
IS 4127-1967	Code of Practice for laying glazed stone ware pipe.
IS 4515	Specification for un-plasticized PVC pipe fittings.
IS 4985-1961	Specification for un-plasticized PVC pipes for portable water supplies.

Design Basis Report (DBR)

IS 1703-1964	Ball Valves
IS 2548-1970	Toilet Seat Cover
IS 4736-1966	Galvanizing G.I. Pipes
IS 780-1984	Cast iron sluice valves
IS 776-1984	Full way valves
IS 2692-1978	Brass ferrule
IS 458-1971	R.C.C. pipes
National building code for water supply, drainage and sanitation.	
The installation shall also be in conformity with the bye-laws and requirements of the local authority are so far as these become applicable to the installation. Where-ever this specification calls for a higher standard of materials and/or workmanship than those required by any of the above regulations and standards, then this specification shall take precedence over the said regulations and standards. Wherever drawings and specifications require something that may violate the regulations, the regulation shall govern.	

DESIGN BASIS REPORT ELECTRICAL WORKS

1.0 GENERAL

Electricity – Most important Utility in any development. Nothing works without it. Be it the lighting, Lifts, Air- Conditioning, kitchen etc.

Design Requirements -

- i) Sufficient lighting in the Common Areas like Lobbies, passages, wash rooms, stair cases, lift lobbies, entertainment areas etc.
- ii) Attractive Façade Lighting.
- iii) Power supply to various consumers and services.

1.1 Design Philosophy

Power distribution system to be designed keeping in view the following:

- i) Continuity and reliability of power supply.
- ii) Flexibility of operation.
- iii) Concentration/distribution of loads.
- iv) Safety of personnel and equipment.
- v) Investment and operational costs.
- vi) Compliance with various statutory provisions such as Indian Electricity Act and Rules, National Electrical Code and the relevant B.I.S. Specifications and State Electricity Authority' norms.
- vii) Easy future extensions/modifications.
- viii) Ease of maintenance.
- ix) Maximum interchangeability of equipment resulting in minimum inventories and spare parts.
- x) Minimum fire risk.
- xi) Simplicity of operation.

2.0 ENERGY CONSERVATION

To economize on the use of energy, following main systems are proposed to be adopted

- i) Adequate design to limit the losses in transmission and distribution system.
- ii) Use of energy efficient devices like light sources such as LED lamps.
- iii) Use of insulation on roof top to reduce air-conditioning load.
- iv) Use of capacitors at load centers to improve voltage and power factor to reduce distributional losses and also to avoid penalty by state electricity authority.
- v) All high efficiency motors will be used in the building.

Design Basis Report (DBR)

- vi) Variable Frequency Drives are proposed to be installed for hydro-pneumatic system for water supply and necessary chilled water system.
- vii) Part Solar External Lighting will be used. Total 20% solar lighting pole out of total 100% street light shall be solar back up with LED lamp fixtures having battery back-up with solar panel.

3.0 11KV SUBSTATION EQUIPMENT I/C TRANSFORMER & HT PANEL

Based on the preliminary electrical load calculation, maximum electrical power demand for the Complex estimated load 1030 KW. The building wise load calculation is detailed below:-

Based on the prevailing Electricity rules, the power supply to meet this requirement, from the local electric supply board shall be made available at 11 KV. To transform this supply to the useable voltage, step-down system is recommended, inside the building in the basement for which space has been allocated.

4.0 TOTAL ELECTRICAL LOAD

Total electrical load on the basis of general norms works out to be as under:

Design Basis Report (DBR)

ELECTRICAL LOADS FOR PROPOSED CONSTRUCTION OF POLICE CAMMANDO BATTALION AT HAILAKANDI, ASSAM								
S. No.	Details/Description	Floors	Area in Sq. Mtr.	Watt/sq.mtr	Connected Load in KW	Individual Diversity Factor (IDF)	Max Demand Load in KW	DG set Load in kW
	ZONE-1							
1	C.O.'S OFFICE BUILDING	G+1	1083.00					
a	Light Load @ 7.5 W/sq.mtr.		1083.00	7.50	8	1.0	8	8
b	Power Load @ 22.5W/sq.mtr.		1083.00	22.50	24	1.0	24	12
c	ELV/ Server Load				5	1.0	5	5
d	terrace fir pump in case of fire				5.5	0.0	0	0
	Total Load in KW						37	25
2	RATION STORE & CLOTHING STORE	G	300.00					
a	Light Load @ 7.5 W/sq.mtr.		300.00	7.50	2	1.0	2	1.1
b	Power Load @ 17.5W/sq.mtr.		300.00	17.50	5	1.0	5	
c	ELV/ Server Load				1	1.0	1	1
d	terrace fir pump in case of fire				5.5	0.0	0	0
	Total Load in KW						9	2
3	MAGAZINE/KOTE BUILDING with EXPLOSIVE DEPOT	B+G	350.00					
a	Light Load @ 7.5 W/sq.mtr.		350.00	7.50	3	1.0	3	1.3
b	Power Load @ 22.5W/sq.mtr.		350.00	22.50	8	1.0	8	
c	ELV/ Server Load				2	1.0	2	2
	Total Load in KW						13	3
4	CONTROL ROOM	G	50.00					
a	Light Load @ 7.5 W/sq.mtr.		50.00	7.50	0.4	1.0	0.4	0.4
b	Power Load @ 17.5W/sq.mtr.		50.00	17.50	1	1.0	1	1
c	ELV/ Server Load				2	1.0	2	2

Design Basis Report (DBR)

ELECTRICAL LOADS FOR PROPOSED CONSTRUCTION OF POLICE CAMMANDO BATTALION AT HAILAKANDI, ASSAM								
S. No.	Details/Description	Floors	Area in Sq. Mtr.	Watt/sq.mtr	Connected Load in KW	Individual Diversity Factor (IDF)	Max Demand Load in KW	DG set Load in kW
	Total Load in KW						3	3
5	GUARD SHED	G	74.00					
a	Light Load @ 7.5 W/sq.mtr.		74.00	7.50	1	1.0	0.6	0.6
b	Power Load @ 17.5W/sq.mtr.		74.00	17.50	1	1.0	1	
	Total Load in KW						2	1
6	GARRAGE	G	40.00					
a	Light Load @ 7.5 W/sq.mtr.		40.00	7.50	0.3	1.0	0.3	0.3
b	Power Load @ 17.5W/sq.mtr.		40.00	17.50	1	1.0	1	
	Total Load in KW						1	0
7	C.O'S RESIDENTIAL BUILDING	G+1	250.00					
a	Light Load @ 7.5 W/sq.mtr.		250.00	7.50	2	1.0	2	0.2
b	Power Load @ 22.5W/sq.mtr.		250.00	22.50	6	1.0	6	
c	ELV/ Server Load				2	1.0	2	2
	Total Load in KW						10	2
8	Deputy Commandant	G+1	720.00					
a	Light Load @ 7.5 W/sq.mtr.		720.00	7.50	5	1.0	5	0.5
b	Power Load @ 22.5W/sq.mtr.		720.00	22.50	16	1.0	16	
c	ELV/ Server Load				2	1.0	2	2
	Total Load in KW						24	3
9	Assistant Commandant	G+1	1200.00					
a	Light Load @ 7.5 W/sq.mtr.		1200.00	7.50	9	1.0	9	0.9
b	Power Load @ 22.5W/sq.mtr.		1200.00	22.50	27	1.0	27	

Proposed Construction of Police Cammando Battalion at Hailakandi, Assam Design, Engineering, Procurement & Construction (EPC)

Design Basis Report (DBR)

ELECTRICAL LOADS FOR PROPOSED CONSTRUCTION OF POLICE CAMMANDO BATTALION AT HAILAKANDI, ASSAM								
S. No.	Details/Description	Floors	Area in Sq. Mtr.	Watt/sq.mtr	Connected Load in KW	Individual Diversity Factor (IDF)	Max Demand Load in KW	DG set Load in kW
c	ELV/ Server Load				2	1.0	2	2
	Total Load in KW						38	3
10	GO'S MESS / GUEST HOUSE	G+1	650.00					
a	Light Load @ 7.5 W/sqmtr.		650.00	7.50	5	1.0	5	0.5
b	Power Load @ 17.5W/sqmtr.		650.00	17.50	11	1.0	11	
c	Equipment Load-LS						5	5
d	ELV/ Server Load				2	1.0	2	2
e	terrace fir pump in case of fire				5.5	0.0	0	0
	Total Load in KW						23	7
11	SENTRY POST	G	4.00					
a	Light Load @ 7.5 W/sqmtr.		4.00	7.50	0.03	1.0	0.03	0.03
b	Power Load @ 17.5W/sqmtr.		4.00	17.50	0.07	1.0	0.07	
	Total Load in KW						0.1	0.03
12	Miscellaneous Load							
a	Plumbing Load				20	0.60	12	12
b	Fire Fighting Load				90	Only jockey	10.0	10.0
c	External Lighting				10	0.50	5	5
	Total Load in KW						27	27
	Grand Total Load in KW						186KW	77KW
	Max. Demand Load in KW @ adopting overall 70% Diversity						130KW	54KW
	Transformer Selected @ p.f. 0.95 & loading 80%						171KVA	
	T/R selection						1x200 KVA	
	DG Selected @ p.f. 0.8 & loading 80%							84KVA
	DG selection							1x100KVA

Design Basis Report (DBR)

ELECTRICAL LOADS FOR PROPOSED CONSTRUCTION OF POLICE CAMMANDO BATTALION AT HAILAKANDI, ASSAM								
S. No.	Details/Description	Floors	Area in Sq. Mtr.	Watt/sq.mtr	Connected Load in KW	Individual Diversity Factor (IDF)	Max Demand Load in KW	DG set Load in kW
	ZONE-2							
1	M.T. GARRAGE WITH OFFICE (20 VEHICLE)	G	870.00					
a	Light Load @ 7.5 W/sq.mtr.		870.00	7.50	7	1.0	7	7
b	Power Load @ 17.5W/sq.mtr.		870.00	17.50	15	1.0	15	
c	ELV/ Server Load				2	1.0	2	2
d	terrace fir pump in case of fire				5.5	0.0	0	0
	Total Load in KW						24	9
2	FIRE STATION WITH BARRACK	G+1	350.00					
a	Light Load @ 7.5 W/sq.mtr.		350.00	7.50	2.6	1.0	2.6	2.6
b	Power Load @ 17.5W/sq.mtr.		350.00	17.50	6	1.0	6	3
c	ELV/ Server Load				2	1.0	2	2
d	terrace fir pump in case of fire				5.5	0.0	0	0
	Total Load in KW						11	8
3	INSPECTOR'S, SUB-INSPECTOR'S RESIDENCE-6 BLOCKS	G+1	5850.00					
a	Light Load @ 7.5 W/sq.mtr.		5850.00	7.50	44	1.0	44	4.39
b	Power Load @ 22.5W/sq.mtr.		5850.00	22.50	132	1.0	132	
c	ELV/ Server Load				2	1.0	2	2
	Total Load in KW						178	6
4	HAVALDAR /CONSTABLE RESIDENCE-11 BLOCKS	G+1	8184.00					

Design Basis Report (DBR)

ELECTRICAL LOADS FOR PROPOSED CONSTRUCTION OF POLICE CAMMANDO BATTALION AT HAILAKANDI, ASSAM								
S. No.	Details/Description	Floors	Area in Sq. Mtr.	Watt/sq.mtr	Connected Load in KW	Individual Diversity Factor (IDF)	Max Demand Load in KW	DG set Load in kW
a	Light Load @ 7.5 W/sq.mtr.		8184.00	7.50	61	1.0	61	6.14
b	Power Load @ 22.5W/sq.mtr.		8184.00	22.50	184	1.0	184	
c	ELV/ Server Load				5	1.0	5	5
	Total Load in KW						251	11
5	Miscellaneous Load							
a	Plumbing Load				10	0.60	6	6
c	External Lighting				15	0.50	8	8
	Total Load in KW						14	14
	Grand Total Load in KW						476KW	47KW
	Max. Demand Load in KW @ adopting overall 70% Diversity						333KW	33KW
	Transformer Selected @ p.f. 0.95 & loading 80%						438KVA	
	T/R selection						1x200KVA FOR PHASE-1 + 1X250KVA PHASE-2	
	DG Selected @ p.f. 0.8 & loading 80%							52KVA
	DG selection						1x20KVA FOR PHASE-1 + 1X35KVA PHASE-2	

Design Basis Report (DBR)

ELECTRICAL LOADS FOR PROPOSED CONSTRUCTION OF POLICE CAMMANDO BATTALION AT HAILAKANDI, ASSAM								
S. No.	Details/Description	Floors	Area in Sq. Mtr.	Watt/sq.mtr	Connected Load in KW	Individual Diversity Factor (IDF)	Max Demand Load in KW	DG set Load in kW
	ZONE-3							
1	HOSPITAL (10 BED)	G	330.00					
a	Light Load @ 7.5 W/sq.mtr.		330.00	7.50	2	1.00	2	2
b	Power Load @ 40W/sq.mtr.		330.00	30.00	10	1.00	10	10
c	HVAC Load				15	1.00	15	8
d	Medical Equipment Load-LS						50	50
e	ELV/ server Load				5	1.00	5	5
	Total Load in KW						82	75
2	HAVALDAR /CONSTABLE RESIDENCE-5 BLOCKS	G+1	3534.00					
a	Light Load @ 7.5 W/sq.mtr.		3534.00	7.50	27	1.00	27	2.65
b	Power Load @ 22.5W/sq.mtr.		3534.00	22.50	80	1.00	80	
c	ELV/ Server Load				5	1.00	5	5
	Total Load in KW						111	8
3	FOLLOWERS RESIDENCE	G+1	640.00					
a	Light Load @ 7.5 W/sq.mtr.		640.00	7.50	5	1.00	5	0.48
b	Power Load @ 22.5W/sq.mtr.		640.00	22.50	14	1.00	14	
C	ELV/ Server Load				2	1.00	2	2
	Total Load in KW						21	2
4	PRIMARY SCHOOL	G	560.00					
a	Light Load @ 7.5 W/sq.mtr.		560.00	7.50	4	1.00	4	4
b	Power Load @ 17.5W/sq.mtr.		560.00	17.50	10	1.00	10	

Design Basis Report (DBR)

ELECTRICAL LOADS FOR PROPOSED CONSTRUCTION OF POLICE CAMMANDO BATTALION AT HAILAKANDI, ASSAM								
S. No.	Details/Description	Floors	Area in Sq. Mtr.	Watt/sq.mtr	Connected Load in KW	Individual Diversity Factor (IDF)	Max Demand Load in KW	DG set Load in kW
c	ELV/ Server Load				2	1.00	2	2
d	terrace fir pump in case of fire				5.5	0.00	0	0
	Total Load in KW						16	6
5	CLASSROOM BLOCK with COMPUTER LAB	G+1	700.00					
a	Light Load @ 7.5 W/sq.mtr.		700.00	7.50	5	1.00	5	5
b	Power Load @ 17.5W/sq.mtr.		700.00	17.50	12	1.00	12	
c	ELV/ Server Load				2	1.00	2	2
d	terrace fir pump in case of fire				5.5	0.00	0	0
	Total Load in KW						20	7
6	Miscellaneous Load							
a	Plumbing Load				10	0.60	6	6
c	External Lighting				15	0.50	8	8
	Total Load in KW						14	14
	Grand Total Load in KW						264KW	112KW
	Max. Demand Load in KW @ adopting overall 70% Diversity						185KW	78KW
	Transformer Selected @ p.f. 0.95 & loading 80%						243KVA	
	T/R selection						1x250 KVA	
	DG Selected @ p.f. 0.8 & loading 80%							122KVA
	DG selection							1x125 KVA

Design Basis Report (DBR)

ELECTRICAL LOADS FOR PROPOSED CONSTRUCTION OF POLICE CAMMANDO BATTALION AT HAILAKANDI, ASSAM								
S. No.	Details/Description	Floors	Area in Sq. Mtr.	Watt/sq.mtr	Connected Load in KW	Individual Diversity Factor (IDF)	Max Demand Load in KW	DG set Load in kW
ZONE-4								
1	HVALDAR /CONSTABLE RESIDENCE-8 BLOCKS	G+1	5952.00					
a	Light Load @ 7.5 W/sq.mtr.		5952.00	7.50	45	1.00	45	4.46
b	Power Load @ 17.5W/sq.mtr.		5952.00	17.50	104	1.00	104	
c	ELV/ Server Load				2	1.00	2	2
	Total Load in KW						151	6
2	GATE COMPLEX WITH 10 MEN BARRACK	G	175.00					
a	Light Load @ 7.5 W/sq.mtr.		175.00	7.50	1	1.00	1	0.13
b	Power Load @ 17.5W/sq.mtr.		175.00	17.50	3	1.00	3	
c	ELV/ Server Load				1	1.00	1	1
d	terrace fir pump in case of fire				5.5	0.00	0	0
	Total Load in KW						5	1
3	Miscellaneous Load							
a	Plumbing Load				10	0.60	6	6
c	External Lighting				10	0.50	5	5
	Total Load in KW						11	11
	Grand Total Load in KW 3						167KW	19KW

Proposed Construction of Police Cammando Battalion at Hailakandi, Assam Design, Engineering, Procurement & Construction (EPC)

Design Basis Report (DBR)

ELECTRICAL LOADS FOR PROPOSED CONSTRUCTION OF POLICE CAMMANDO BATTALION AT HAILAKANDI, ASSAM								
S. No.	Details/Description	Floors	Area in Sq. Mtr.	Watt/sq.mtr	Connected Load in KW	Individual Diversity Factor (IDF)	Max Demand Load in KW	DG set Load in kW
	Max. Demand Load in KW @ adopting overall 70% Diversity						117KW	13KW
	Transformer Selected @ p.f. 0.95 & loading 80%						154KVA	
	T/R selection						1x160 KVA	
	DG Selected @ p.f. 0.8 & loading 80%							20KVA
	DG selection							1x20 KVA

Design Basis Report (DBR)

ELECTRICAL LOADS FOR PROPOSED CONSTRUCTION OF POLICE CAMMANDO BATTALION AT HAILAKANDI, ASSAM								
S. No.	Details/Description	Floors	Area in Sq. Mtr.	Watt/sq.mtr	Connected Load in KW	Individual Diversity Factor (IDF)	Max Demand Load in KW	DG set Load in kW
	ZONE-5							
1	BARRACK (Havaladar, Const., Followers)	G+1	8064.00					
a	Light Load @ 7.5 W/sqmtr.		8064.00	7.50	60	1.00	60	6.05
b	Power Load @ 17.5W/sqmtr.		8064.00	17.50	141	1.00	141	
c	ELV/ Server Load				2	1.00	2	2
d	terrace fir pump in case of fire				44.0	0.00	0	0
	Total Load in KW						204	8
2	Accommodation for SO'S(Insp., SI) 2 BLOCKS	G+1	1200.00					
a	Light Load @ 7.5 W/sqmtr.		1200.00	7.50	9	1.00	9	0.90
b	Power Load @ 17.5W/sqmtr.		1200.00	17.50	21	1.00	21	
c	ELV/ Server Load				2	1.00	2	2
	Total Load in KW						32	3
3	SO'S MESS	G+1	870.00					
a	Light Load @ 7.5 W/sqmtr.		870.00	7.50	7	1.00	7	0.7
b	Power Load @ 17.5W/sqmtr.		121.50	17.50	2	1.00	2	
c	Equipment Load-LS						5	5
d	ELV/ Server Load				2	1.00	2	2
e	terrace fir pump in case of fire				9.3	0.00	0	0
	Total Load in KW						16	8
4	DRILL SHED with Stage	G	400.00					
a	Light Load @ 7.5 W/sqmtr.		400.00	7.50	3	1.00	3	0.3

Proposed Construction of Police Cammando Battalion at Hailakandi, Assam Design, Engineering, Procurement & Construction (EPC)

Design Basis Report (DBR)

ELECTRICAL LOADS FOR PROPOSED CONSTRUCTION OF POLICE CAMMANDO BATTALION AT HAILAKANDI, ASSAM								
S. No.	Details/Description	Floors	Area in Sq. Mtr.	Watt/sq.mtr	Connected Load in KW	Individual Diversity Factor (IDF)	Max Demand Load in KW	DG set Load in kW
b	Power Load @ 17.5W/sqmtr.		400.00	17.50	7	1.00	7	
	Total Load in KW						0	0
5	COMMUNITY CENTRE with CANTEEN, SALOON, LAUNDARY BLOCK	G	600.00					
a	Light Load @ 7.5 W/sqmtr.		600.00	7.50	5	1.00	5	5
b	Power Load @ 22.5W/sqmtr.		600.00	22.50	14	1.00	14	
c	ELV/ Server Load				1	1.00	1	1
d	terrace fir pump in case of fire				9.3	0.00	0	0
	Total Load in KW						19	6
6	FAMILY WELFARE CENTRE	G	500.00					
a	Light Load @ 7.5 W/sqmtr.		500.00	7.50	4	1.00	4	0.38
b	Power Load @ 17.5W/sqmtr.		500.00	17.50	9	1.00	9	
c	ELV/ Server Load				1	1.00	1	1
d	terrace fir pump in case of fire				9.3	0.00	0	0
	Total Load in KW						14	1
7	RECREATION HALL	G	400.00					
a	Light Load @ 7.5 W/sqmtr.		400.00	7.50	3	1.00	3	0.30
b	Power Load @ 22.5W/sqmtr.		400.00	22.50	9	1.00	9	
c	ELV/ Server Load				1	1.00	1	1
d	terrace fir pump in case of fire				5.5	0.00	0	0
	Total Load in KW						13	1

Design Basis Report (DBR)

ELECTRICAL LOADS FOR PROPOSED CONSTRUCTION OF POLICE CAMMANDO BATTALION AT HAILAKANDI, ASSAM								
S. No.	Details/Description	Floors	Area in Sq. Mtr.	Watt/sq.mtr	Connected Load in KW	Individual Diversity Factor (IDF)	Max Demand Load in KW	DG set Load in kW
8	NAAMGHAR	G	100.00					
a	Light Load @ 7.5 W/sqmtr.		100.00	7.50	1	1.00	1	0.08
b	Power Load @ 17.5W/sqmtr.		100.00	17.50	2	1.00	2	
c	ELV/ Server Load				1	1.00	1	1
	Total Load in KW						4	1
9	ATM	G	15.00					
a	Light Load @ 7.5 W/sqmtr.		15.00	7.50	0.1	1.0	0.1	0.1
b	Power Load @ 17.5W/sqmtr.		15.00	17.50	0.3	1.0	0.3	0.3
c	Equipment-LS				2	1.00	2	2
	Total Load in KW						2	2
10	INDOOR SPORTS COMPLEX with GYM	G+1	800.00					
a	Light Load @ 7.5 W/sqmtr.		800.00	7.50	6	1.00	6	0.60
b	Power Load @ 17.5W/sqmtr.		800.00	17.50	14	1.00	14	
c	Equipment-LS				5	0.50	3	3
d	ELV/ Server Load				1	1.00	1	1
e	terrace fir pump in case of fire				9.3	0.00	0	0
	Total Load in KW						24	4
11	GARRAGE	G	40.00					
a	Light Load @ 7.5 W/sqmtr.		40.00	7.50	0.3	1.00	0.3	0.3
b	Power Load @ 17.5W/sqmtr.		40.00	17.50	1	1.00	1	
	Total Load in KW						1	0

Design Basis Report (DBR)

ELECTRICAL LOADS FOR PROPOSED CONSTRUCTION OF POLICE CAMMANDO BATTALION AT HAILAKANDI, ASSAM								
S. No.	Details/Description	Floors	Area in Sq. Mtr.	Watt/sq.mtr	Connected Load in KW	Individual Diversity Factor (IDF)	Max Demand Load in KW	DG set Load in kW
12	SENTRY POST	G	16.00					
a	Light Load @ 7.5 W/sqmtr.		16.00	7.50	0.12	1.00	0.12	0.12
b	Power Load @ 17.5W/sqmtr.		16.00	17.50	0.28	1.00	0.28	
d	ELV/ Server Load				2	1.00	2	2
	Total Load in KW						2	2
13	Miscellaneous Load							
a	Plumbing Load				10	0.60	6	6
c	External Lighting				15	0.50	8	8
d	STP Load				60	0.60	36	36
	Total Load in KW						50	50
	Grand Total Load in KW						379KW	86KW
	Max. Demand Load in KW @ adopting overall 70% Diversity						265KW	60KW
	Transformer Selected @ p.f. 0.95 & loading 80%						349KVA	
	T/R selection						1x250KVA FOR PHASE-1 + 1X100KVA PHASE-2	
	DG Selected @ p.f. 0.8 & loading 80%							94KVA
	DG selection						1x20KVA FOR PHASE-1 + 1X82.5KVA PHASE-2	

The contractor shall make final calculation as per prevailing local bye –laws and NBC whichever is more stringent and get them approved from the client. The capacities indicated in DBR are minimum capacities and any rating/capacities required over and above the indicated capacity shall be provided by the contractor at his own expense.

Design Basis Report (DBR)

5.0 DISTRIBUTION SCHEME

Based on the preliminary electrical load calculation, maximum electrical power demand for is estimated load 1030 KW,

As per the state electricity regulations, 11 kV city power supply is provided through ESS of Electricity board.

5 Nos. Pole Mounted Substation shall be installed as per load sheet. Pole Mounted Substation shall be consisting of 1 No. 200KVA, 1x200KVA for phase-1 + 1X250KVA for phase-2, 1 No. 250KVA, 1 No. 160KVA & 1x250KVA for phase-1 + 1X100KVA for phase-2, 11/0.433KV oil type pole mounted distribution transformer with ON load tap changer as per load sheet. Emergency backup shall be provided with DG set to cater the power back up for essential services.

11 KV 3Cx240 sq.mm XLPE cables shall be laid in Hume pipe and buried in ground below at least 1050 MM deep from ESS of Electricity board.

It is recommended to provide 11KV pole mounted transformer and outdoor type 11.kV HT tariff meter near Entry of the complex. Space allocation for pole mounted transformer & outdoor type HT metering cubicle is allocated.

6.0 SELECTION OF EQUIPMENT**6.1 H.T. Panel**

H.T. Panel shall be consist of HT VCB located at near HT meter, panel shall be indoor type floor mounted metal clad, 11KV VCB panel, horizontal draw out, horizontal / vertical isolation type breaker 350 MVA Internal Arc Classified up to 18.37kA/1-sec, complete as per IEC 62271-200.

HT Supply shall be tapped from the Existing/new proposed HT Line of 11KV to Two Pole Structurewith GO/DO switch terminated at HT Metering cubical.

6.2 Transformers

It recommended to installed following 11/0.433 KV, oil type pole mounted distribution transformer as per load sheet (1 No. 200KVA, 1x200KVA for phase-1 + 1X250KVA for phase-2, 1 No. 250KVA, 1 No. 160KVA & 1x250KVA for phase-1 + 1X100KVA for phase-2).

Transformer shall be provided with ON Load circuit taps in the range of + 5% to -15%. There will be ON load tap changer on the H.T. winding controlled by automatic voltage regulator to maintain constant voltage in specified range of variation and shall have losses as per ECBC compliant as per IS amended upto date. The transformers will be provided with all the necessary protection and earth.

7.0 UPS FOR EMERGENCY LIGHTING WITH 30 MINUTES BACKUP

UPS Backup will be provided for LV Equipment and 10 % lighting of basement, common area at each floor for avoiding a total blackout situation as emergency lighting, since the DG Sets generally take about 15-30 seconds to start delivering power. These UPS will

Design Basis Report (DBR)

work in redundancy modes. UPS shall be provided with minimum 30 minutes backup.

The UPS shall have electrical and mechanical characteristics and requirements for a continuous duty, highly reliable, solid state type true on -line fully microprocessor controlled double conversion PWM IGBT based Uninterruptible Power Supply Systems. The UPS shall provide high quality AC power for sensitive electronic equipment loads. It shall also supply clean power automatically without any break in the supply in the absence of raw power. Under no conditions will be protected system get direct supply from the raw mains unless there is fault in the protected system.

8.0 DG SETS - PROVISION OF ESSENTIAL SUPPLY/ STAND-BY POWER

A provision will be made for back up supply for common area lighting and all essential services including Hts, pumping station, STP etc. A stand-by power plant, which can be quickly/automatically started in case of power failure is an essential requirement for important installations like this, where power failure over an extended period can result in huge losses and set-back to the services.

It is proposed that 100% DG power backup for common area services only shall be provided. Some critical loads such as emergency lighting, headed equipment of ELV systems, etc. shall be additionally backed up using UPS system. To meet the requirement the DG sets of 1 No. 100 KVA + 1 No. 20 KVA for phase-1 + 1 No. 35KVA for phase-2, 1 No. 125 KVA, 1 No. 20 KVA, 1 No. 20 KVA for phase-1 + 1 No. 82.5KVA for phase-2 capacities have been proposed as per load sheet.

Below 1010 KVA DG sets. The Diesel Engine shall be of multi cylinder, 4 stroke, water cooled with Engine driven or electric motor driven Radiator, Turbo charged - after/inter cooled with charged air cooling, vacuum indicator, Lube oil system, Electronic governor, electric start of suitable BHP at 1500 RPM for above output of alternator at 50 degree C and conforming to BS 5514, BS 649, IS 10000 with Sound Attenuated Acoustic and weather proof Enclosure.

Residential silencer with LRV rock wool insulation having 100 kg per m3 density insulation shall be provided for each DG set. Independent exhaust pipes from each DG set shall be taken through a dedicated pipe in shaft to the terrace level near the adjacent tower. The quality of effluent gas will be ensured as per Pollution Control Board norms. Treated effluent shall be discharged above the highest terrace level as per the CPCB norms. The DG Sets will be provided with sound attenuated canopy as per CPCB norms.

9.0 INTERNAL ELECTRICAL WORK

All control and lighting circuit cables shall be of single core copper conductor, with minimum conductor size of 1.5 mm² Or as per NBC-2016/CPWD.

All wires shall be FRLS PVC insulated with copper conductor. Heavy Duty PVC conduit will be used for wiring/ extra low voltage wiring e.g. Telephone cable, data cable, and security co-axial cable, etc. wherever concealed in concrete. In all other areas, MS conduit will be used in case of surface conduit like risers, plant rooms, car park and above false ceiling.

Design Basis Report (DBR)

9.1 PROVISION OF SOCKET OUTLETS

Provision for 16A sockets outlets shall be provided for car charging points in covered parking area. In other areas provision of socket outlets shall be made as per space requirements. All 16 amp. Sockets shall be 5pin 6/16 amp. Type. All sockets shall be shuttered type. Sockets are proposed to be provided in the Common areas for cleaning and in the utility room like sub-stations, pump room etc.

Outdoor electrical supply will also be provided for various programs and events.

9.3 PROVISION IN INDIVIDUAL APARTMENTS (MULTIPOINT METERING)

Wiring will be done in the individual apartments as per drawings. Light plug point shall be provided for RO in kitchen. Electrical point shall not be provided for Geyser in kitchen. All apartments shall be provided with three phase power supply through electronic meters. Metering of power for each of shall be done through an electronic meter installed in the individual meter panel board located in shaft on the respective floor. Separate meter shall be provided for flat & Convenience shopping with three/single phase power supply through electronic meters. Metering of power for each of shall be done through an electronic meter

Outdoor panel for external lighting electrical supply shall also be provided

9.4 CONVENTIONAL LIGHTNING PROTECTION

Lightening Protection will be provided with Conventional lightning protection system in accordance with international codes for the protection of Buildings and Allied Structures against Lightening as per latest IEC standard and 'Latest NBC' (as per up to date amendment).

10.0 INTERNAL LIGHTING

All the lift lobbies, staircases, Toilets, Entrance lobby including basement shall be provided and finished with lighting fixtures. While Tenants/offices area shall not be provided with lighting fixtures, as it will be taken care by the individual occupants as per their requirement/ design

The provision of luminaries in various areas of the complex to be designed to achieve the illumination levels as per relevant standards or NBC-2016. The luminaries will be selected keeping in mind Aesthetics, location requirement, and ease of maintenance and energy conservation.

S. No.	Description of Space	Type of Lighting	Illumination (Lux Level)
i)	Corridors and circulation spaces	LED lights	150-200
ii)	Staircases	LED lights	100
iii)	Service Areas	LED lights	150-200
iv)	Office/Shops Areas	LED	300-500 (As per interior of tenant)

Design Basis Report (DBR)

11.0 FIRE ALARM AND DETECTION SYSTEM

The fire alarm and detection system will be designed as per the recommendations of the National Building Code of India-Part IV, 2016.

Considering that the purpose of the building, as well as the height of the structure, it will be necessary to provide a manually operated or addressable type electric fire alarm system based on the requirements of the National Building Code 2016.

The main emphasis of fire detection system shall be on having the timely warning in case of any fire. Response Indicators, Manual call stations, Local Panels and Main Fire Control panel shall be provided at appropriate places.

The fire detection system shall include the following:-

- Multi/Smoke Detectors – Photo electrical type detectors with heat - rate of rise cum fixed temperature type will be installed where it is required as per NBC-2016.
- Response Indicators – Response indicators will be used outside all service rooms of basements with full height partitions and for the detectors in the false ceiling, if any.
- Manual call boxes of break glass type are proposed to be installed near all staircases and also in the electrical and mechanical services areas.
- Main Control Panels –Fire alarm control panel is proposed to be installed in the fire control room. Repeater panels will be provided in the security office and security post outside the building. With this type of a panel it will be possible to pin point the exact location of fire. The panel will also be able to dial out to predetermined telephone numbers in case of any alarm.
- Public Address and talk back system – An integral public address and talk back facility will be provided with the fire alarm system. The loudspeakers of the public address system will be located in common areas, and on each floor in such a way that any message announced cover the loudspeakers is clearly audible in all parts of the building. Also in case of fire, the firefighting personnel will be able to send back messages by plugging their fireman's telephone handsets over the fireman's telephone jacks which will be provided in this system. The microphones, amplifiers and control switches for the public address system will be installed in the fire control room for the building.

12.0 CLOSED CIRCUIT TELEVISION SYSTEM

The Closed Circuit Television System is intended for comprehensive round the clock surveillance of the common area, parking area and service area of the Complex from security control room. The following category of areas shall be monitored by the system in the priority as given below:

- Service areas like pump room, STP room, ESS room with fixed colored normal cameras.
- Outdoor type fixed colored Cameras will be provided of the perimeter for External Surveillance (For Campus).

Design Basis Report (DBR)

13.0 L.T. PANEL AND POWER DISTRIBUTION PANELS

The panel shall be completely modular and compartmentalized with Form 4B Separation as per IEC 61439. The panel shall be free standing floor mounted type. The panel shall be manufactured as per IEC 61439.

Automatic Power Factor Correction Panel will also be installed here. The L.T. Panel will have air circuit breakers for controlling the feeders of more than 630 Amp rating whereas feeders of 630 Amp and below will have MCCBs to control them. LT panel shall supply power to sub distribution boards (SDBs) and floor distribution boards (FDBs) located on the area basis.

Automatic Power factor equipment (Capacitor Panel) shall be installed to enhance the power factor to the value of 0.95 in addition detuned filter shall be integrated with capacitor panel in order to suppress the harmonics.

Main Distribution Board shall be indoor type of metal clad construction, partly draw out type having self-aligning type auxiliary contacts for circuit breakers and draw out modules.

4 pole Bus bars and air circuit breakers shall have short circuit withstand capacity of 50 KA for 1 second duration.

Air circuit breakers of incoming transformer, DG and bus coupler shall be of electrically operated type with the necessary protections.

For all incomers and the main outgoing feeders like AC Equipment, light, power, water supply and treatment etc., a data logger having digital display, scanning facility of Electrical parameters, data storing with battery backup and data retrievable by PC shall be provided.

The main distribution board shall have double source of power supply, one from transformer and other from D.G.

DOL starters will be provided for motors rated up to 7.5 KW and Star Delta starters for all motors rated above 7.5 KW will be provided.

14.0 DISTRIBUTION SYSTEM

LT Power from Transformer shall be brought to Main LT panel with XLPE/ PVC insulated Aluminium cables/bus ducts. Similarly, LT Power from DG Set located at ground floor shall feed power to the Main LT Panel. Both panels shall be fed by aluminium cables/ bus ducts of appropriate size.

14.1 CABLES, CABLE TRAYS AND CONDUITS

1.1KV grade multicore aluminium conductor XLPE insulated and PVC sheathed armoured cable as per IS: 7096:1986 with upto date amendments shall be used.

11 KV cables shall be AL conductor, suitable for earthed system Alum. (E), Armoured XLPE HT power cable as per IS7098 (part-2)-1985 amended upto date.

All control cables shall be of copper conductor and all power cables shall be of copper conductor upto 16 mm² and Aluminum conductor above 25 mm².

Design Basis Report (DBR)

All control and lighting circuit cables shall be of single core copper conductor, with minimum conductor size of 1.5 mm².

All cables proposed shall be of copper/aluminum conductor, FRLS, XLPE type.

The Cables shall be selected in such a way the System voltage drop shall not be more than 3% from the output of the transformer to the final distribution board.

All wires shall be PVC insulated FRLS with copper conductor. All conduits for light/power will be Heavy Duty PVC. All conduits for Fire alarm/detection and all conduits for light/power will be Mild Steel wherever they are susceptible to mechanical damage (basements etc.).

Heavy Duty PVC conduit will be used for wiring/ extra low voltage wiring e.g. Telephone cable, data cable, and security co-axial cable, etc. wherever concealed in concrete. In all other areas, MS conduit will be used in case of surface conduit like false ceiling etc..

Cable Trays shall be of G.I. ladder type construction for power cables and G.I. perforated type for control and instrumentation cables (if these cables are flexible). Widths shall be as required. Thickness of material shall be 2.0 mm. Cable glands shall be made of Nickel plated brass and shall be double compression type, complete with double seal cone grip arrangement, check nut, PVC hood etc. Washers shall be minimum 1.5 mm thick. However, for indoor termination, single compression type glands shall be used.

Short circuits withstand capacities of various cables shall be as under:

	Description	S/C Current Value & Its duration
i)	11 KV incoming cables	18.37 KA for 1 second
	11 KV outgoing cables to auxiliary transformers	18.37 KA for 1 second
ii)	415 V cable between PCC outgoing VCB/ACB and incomer to MCC / Power Distribution Boards	50 KA for 1 second
iii)	415 V cable between MCC and motors	Let through energy of power fuse protecting motors.

Following voltage drop restrictions shall be applied on the cable design:

i)	Between 11 KV switchgear & transformers	1.5% of 11 KV
ii)	Between 415 V switchgear terminals (PCC to PDB, MCC)	2% of rated voltage
iii)	Between 415 V switchgear and Motor Terminals	
a)	Under full load running	3% of rated voltage
b)	Under starting	15% of rated voltage
iv)	Lighting main circuits (upto SLDB)	2% of rated voltage
v)	Lighting sub circuits	2% of rated voltage

14.2 EARTHING SYSTEMS

Earthing system including earthing strips/cables and earth pits will be provided.

Design Basis Report (DBR)

It is proposed to provide electrolytic, chemical earthing system. This type of earthing system has:

1. Low electrical resistance to earth.
2. Good Corrosion resistance.
3. Ability to carry high currents repeatedly.
4. Reliable long life system.
5. Low Maintenance.

Proper Grounding will be provided for

- Normal AC supply
- All apparatus and metal pieces
- Steel Structures
- Mechanical plant and pipe work
- Gas and water pipe work

Separate systems of earthing shall be provided in the building for:

- UPS
- Lifts
- Telephone
- Servers and computer equipment

Main earth electrode will be suitable to achieve a maximum resistance to earth of 1 Ohm.

Design Basis Report (DBR)**LIST OF APPLICABLE INDIAN STANDARDS FOR ELECTRIFICATION WORK**

S. No	STANDARDS	TITLE
1)	IS-732 – 1999	Code of practice for electrical wiring installations.
2)	IS-4648 - 1968	Guide for electrical layout in residential Buildings
3)	IS.8061 - 1976	Code of practice for design, installation and Maintenance of service lines upto and including 650V
4)	IS.8884 - 1978	Code of practice for installation of electric bells and call system.
5)	IS.5578 - 1985	Guide for marking of insulated conductor.
6)	IS:11353- 1985	Guide for uniform system of marking and identification of conductors and apparatus terminals.
7)	IS:5728 - 1970	Guide for short-circuit calculations.
8)	IS:7752 (Part-1) - 1975	Guide for improvement of power factor in consumer installation: Low and medium supply voltages.
9)	IS:3646 (Part-1) - 1966	Code of practice for interior illumination: Principles for good lighting and aspects of design.
10)	IS:3646 (Part-2) - 1966	Code of practice for interior illumination: Schedule of illumination and glare index.
11)	IS:2672 - 1966	Code of practice for library lighting.
12)	IS:10118 (Part-1) -1982	Code of practice for selection, installation and maintenance of switchgear and control gear: General.
13)	IS:10118 (Part-2) -1982	Code of practice for selection, installation and maintenance of switchgear and control gear.
14)	IS:10118 (Part-3) -1982	Code of practice for selection, installation and maintenance of switchgear and control gear: Installation.
15)	IS:10118 (Part-4) -1982	Code of practice for selection, installation and maintenance of switchgear and control gear: Maintenance.
16)	IS:2309 – 1989	Code of practice for the protection and allied structures against lightning.
17)	IS:3043 – 1987	Code of practice for earthing.
18)	IS:5216 (Part-1) - 1982	Guide for safety procedures and practices in electrical work: General.
19)	IS:4237 – 1983	General requirements for switchgear and control gear for voltages not exceeding 1000 V AC or 1200 V DC.
20)	IS:6875 (Part-1) - 1973	Control switches (switching devices for control and auxiliary circuits including contractor relays) for voltages upto and including 1000 V AC and 1200 DC: General requirements and tests.
21)	IS:4084 (Part-1) - 1978	Air break switches, air break dis-connectors, air-break switch dis-connectors and fuse-combination units for voltages not exceeding 1000 V AC or 1200 DC: General requirements.
22)	IS:8828 – 1978	Miniature air break circuit breakers for voltages not exceeding 1000 volt.

Design Basis Report (DBR)

S. No.	STANDARDS	TITLE
23)	IS:13032 – 1991	Miniature circuit breaker boards for voltages upto and including 1000 volts AC.
24)	IS:12640 – 1988	Residual current operated circuit breakers.
25)	IS:2959 – 1985	Contactors for voltages not exceeding 1000V AC or 1200 V DC.
26)	IS: 8623 (Part-1) - 1977	Factory built assemblies of switchgear and control gear for voltages upto and including 1000 V AC and 1200 V DC: General requirements.
27)	IS: 8623 (Part-2) - 1990	Factory assemblies of switchgear and control gear for voltages upto and including 1000 V AC and 1200 V DC: Particular requirements for bus bar trunking system (busways).
28)	IS:694 – 1990	PVC Insulated cables for working voltages up to and including 1100 V.
29)	IS:1554 (Part-1) - 1988	PVC insulated (heavy duty) electric cables :For working voltages upto and including 1100 V.
30)	IS:3961 (Part-5) - 1968	Recommended current ratings for cables: PVC insulated light duty cables.
31)	IS:9537 (Part-1) - 1990	Conduits for electrical installations: General requirements.
32)	IS:9537 (Part-2) - 1991	Conduits for electrical installations Rigid steel Conduits.
33)	IS:3480 – 1966	Flexible steel conduits for electrical wiring.
34)	IS:2667 – 1988	Fittings for rigid steel conduits for electrical wiring.
35)	IS:3837 – 1976	Accessories for rigid steel conduits for electrical wiring.
36)	IS:5133 (Part-1) - 1969	Boxes for enclosure of electrical accessories Steel and cast iron boxes.
37)	IS:371 - 1979	Ceiling roses.
38)	IS:3854 - 1988	Switches for domestic and similar purposes.
39)	IS:4615 - 1968	Switch socket outlets (non-interlocking type).
40)	IS:4160 - 1967	Interlocking switch socket outlet.
41)	IS:1293 – 1988	Plugs and socket outlets of rated voltage upto and including 250 volts and rated current upto and including 16 amperes.
42)	GRHA Manual, ECBC Guidelines and BEE guidelines.	

Design Basis Report (DBR)

LIST OF APPLICABLE STANDARDS FOR FIRE ALARM SYSTEM		
1)	IS:2189 – 1962	Code of Practice for Automatic Fire Alarm System.
2)	IS:2185 – 1962	Specifications for Heat sensitive Fire Detectors.
3)	IS:732 - 1973	Code of practice for Electrical Wiring installation
4)	UL 168	Under writers laboratory specifications for smoke detectors.

DESIGN BASIS REPORT MECHANICAL VENTILATION SYSTEM

1.0 INTRODUCTION:-

The section outlines Mechanical ventilation system design parameters, system selections and extent of provisions for the project,

Ventilation of Services rooms, toilets, kitchen, pantry etc. shall be designed as per relevant standard National Building Code (NBC-2016).

All Ventilations systems shall be in conformity with the NBC-2016, CPWD-2017 & ECBC-2017.

The HVAC design shall also fulfill the requirements and recommendations of ASHRAE/ISHRAE/ NBC & ECBC standards

2.0 APPLICABLE CODES AND GUIDES:

- American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE) Standards.
- Indian Society of Heating, Refrigeration and Air Conditioning Engineers, Inc. (ISHRAE).
- National Building Code of India 2016.
- ECBC – 2017 – Energy conservation building code.
- ARI – Air-conditioning and Refrigerant institute.
- IS – Relevant IS Codes.
- Associated Air Balancing Bureau (NEBB) Standards.
- National Fire Protection Association (NFPA)
- Underwriters Laboratories, Inc. (UL)
- SMACNA -Fire and Smoke Damper Installation Guide
- Relevant Bureau of Indian Standards (BIS) Codes
- AMCA-Air Movement and Control Association International, Inc.

MECHANICAL VENTILATION & PRESSURIZATION SYSTEM

1. INTRODUCTION

The Ventilation, smoke exhaust & pressurization system to be provided as per NBC-2016 and as required by the Fire authority.

2. VENTILATION RATES

Mechanical ventilation, smoke exhaust and pressurization system has to be provided for building as per NBC 2016 and as required by the Fire Authority.

Design Basis Report (DBR)

The complete design will be as per NBC-2016.

S. No.	Area / Space	Air Changes Per Hour
1	Pump Room (UGT/WTP)	20APCH
2	STP & Garbage Room	30APCH
3	ESS Room (LT,HT Panel & Transformer Rooms)	20APCH
4	DG Room	CFM based on DG capacity & manufacturer recommendation
5	Garages	8ACPH
6	Toilets	12 ACPH/50 CFM each WC or urinal (whichever is higher will be considered)

3. SYSTEM DESCRIPTION

3.1 SERVICES ROOM VENTILATION

Sub stations, DG Sets room, LT panel room, STP room & pump room(UGT/WTP), Garages shall be provided with mechanical ventilation system.

The system shall consist of axial fans/ propeller fan (based on requirement), ductwork with air terminal (required in case of axial fans).

The axial flow exhaust fans shall have motors with Class H insulation and the fan motor should be rated for 250°C for 2 hours & should be in compliance with the 'BSEN12101-3:2015'. All fans shall be AMCA certified.

3.2 UPPER FLOOR VENTILATION

Smoke exhaust system as per NBC-2016, Part-4, clause-4.

4. PRESSURIZATION

Pressurization is a method adopted for protecting the exits from ingress of smoke. Air shall be injected into staircases, lobbies, corridors to raise their pressure slightly above the pressure in adjoining parts of the building, because of which ingress of smoke into escape routes will be prevented. It shall be as per NBC 2016 (as given in Table-6) and local by laws.

Design Basis Report (DBR)

5. TOILET VENTILATION

All toilets shall be provided with mechanical ventilation system. The system shall consist of Propeller fans (Wall mounted) / in-line fans at each level with ducting & grilles. Exhaust air shall be discharged through a cowl. Bird-screen shall be provided on the discharge annular ring of cowl to prevent birds nesting in idling period.

6. KITCHEN/ PANTRY/ DINING :-

All cooking area/ pantry/ dining area shall be provided with suitable exhaust with Propeller fans (Wall mounted)/inline fan or F required Dry scrubber and air washer complete with ductwork.

**DESIGN BASIS REPORT
SOLAR PANELS**

1.0 SOLAR STREET LIGHT POLE WITH BATTERY BACKUP & PROVISION OF ELECTRICAL WORK FOR SOLAR PHOTOVOLTAIC PANELS

Total 20% solar lighting pole out of total 100% street light shall be solar back up street light pole with LED lamp fixtures with battery back-up with solar panel .

The scope shall include detailed designing, Supplying, and fabrication/execution of electrical wiring provision work for Area lighting from solar panel at terrace for 20kw solar photo-voltaic solar panels capacity at terrace and shall be integrating the same with existing Electrical distribution system.

**DESIGN BASIS REPORT
MISCELLANEOUS WORKS**

1.0 MISCELLANEOUS OTHER SERVICES

1.1 PA SYSTEM APPLICABLE TO FIRE FIGHTING:

Public Address and talk back system – An integral public address and talk back facility will be provided with the fire alarm system. The loudspeakers of the public address system will be located in common areas, and on each floor in such a way that any message announced cover the loudspeakers is clearly audible in all parts of the building. Also in case of fire, the firefighting personnel will be able to send back messages by plugging their fireman’s telephone handsets over the fireman’s telephone jacks which will be provided in this system. The microphone, amplifiers and control switches for the public address system will be installed in the fire control room for the building.

1.2 G.I. CABLE TRAYS

GI Perforated/Ladder type cable trays joined with connectors including horizontal and vertical bends, reducers, tees, cross members, clamps, connection pieces and other accessories as required, duly suspended from the ceiling with G.I suspenders including G.I bolts & G.I nuts, shall be used.

1.3 TELEPHONE SYSTEM, CABLE TV NET WORK AND DATA CABLING

Telephone, data and Cable TV wiring connections are proposed. All the voice points will be connected through telephone cable from the MDF. All the floor tag blocks in turn shall be connected to the main tag block.

MS Conduit and terminal boxes with covers and RJ-45 outlets shall be provided. The entire network shall originate from a central server room. Hub switches shall be provided on all floors. Data points will be provided for all Computer Terminals, equipment’s, etc.

All external LV work shall be done by service provided agencies.

Design Basis Report (DBR)

Design Basis Report (DBR)

DESIGN BASIS REPORT SEWAGE TREATMENT PLANT

1.0 SEWAGE TREATMENT PLANT-MBR TECHNOLOGY

1.1 Capacity :-

1.2 Housing Side-200KLD (150+50KLD). The capacity mentioned above are minimum capacity and for reference only. Final capacity shall be calculated by EPC Contractor and it should meet GRIHA, Environmental requirement.

- i. Domestic sewage effluent from the units will flow through Bar Screen, Oil Skimmer and collected in equalization tank.
- ii. The homogenized and mixed wastewater in the equalization tank shall be pumped through fine screening before entering the MBR.
- iii. An internally-fed screen with punched-hole openings less than or equal to 2-3 mm in diameter with no possibility of bypass or carryover is absolutely required to maintain both membrane warranty, and optimal MBR operation.
- iv. Provision of Anoxic Tank shall be kept for de-nitrification in the system
- v. Effluent from the Equalization tank and Return Activated Sludge (RAS) being pumped from the membrane tank must be mixed and led into the bioreactor tank.
- vi. Biological trains shall be equally divided into single/multiple trains on hydraulic loading and shall be operated in parallel. Each train shall comprise of an aerobic tank. For Nitrogen removal, bioreactor shall additionally consist of Anoxic zone of suitable size
- vii. Influent wastewater and re-circulated sludge shall be divided between all the biological trains as it enters each aerobic tank.
- viii. Biological process blowers and fine bubble diffusers in the aerobic tanks shall provide the oxygen required for the biological process as well as the mixing energy required to keep the mixed liquor in suspension. Dissolved oxygen shall be monitored in each aerobic tank to achieve a desired set point of 2 mg/L.
- ix. The mixed liquor shall overflow by gravity from the biological tanks to the membrane tanks where the solid/liquid separation takes place by means of the vacuum created by the process pumps. The permeate shall be stored in the permeate storage tank.
- x. The mixed liquor from the end of the bioreactor aerobic zone shall proceed by gravity to the membrane filtration basins. At the outlet of each aerobic tank and inlet of each filtration basin there shall be an isolation valve. Flow shall proceed by gravity through the valve. The sluice gate valve/isolation valve can be used to either isolate of the membrane tank (i.e. during cleans). Plant demand shall be controlled by the feed flow into the system and can be trimmed by the level in the bioreactor/membrane tank.
- xi. One permeate pump per membrane train shall be employed to draw water through the membranes. Treated water shall flow from the permeate pump to the final disposal point.

Design Basis Report (DBR)

- xii. Under normal operation and average day flow conditions, permeation is stopped for a specific period of time at regular intervals. This membrane relaxation period, combined with air scouring, effectively removes solids that have accumulated on the membrane surface or within the fibers and reduces electrical costs.
- xiii. Same permeate pump with valving arrangement shall be provided for back-pulsing the membranes.
- xiv. From membrane tanks, Permeate pump shall draw treated effluent through the pores of the membrane fibers and into the back-pulse tank. Once full, the treated effluent is automatically diverted away from the back-pulse tank to a final disposal point. Clean water (permeate) is suctioned through hollow fiber membranes by centrifugal permeate pumps.
- xv. The membranes shall be air scoured with required capacity of membrane aeration blowers fitted with Mechanical Variable speed drive or with pulley arrangement.
- xvi. Waste activated sludge (WAS), shall be removed to the sludge handling facilities via a side stream on the discharge from the membrane tank by pumping in a controlled manner.

STP plants shall be provided with deodorization system with ozone technology to achieve near complete elimination of odors from exhaust stream. Deodorization system shall be working on plant room air as feed gas to produce ozone. All machines and interconnected works shall be in stainless steel. Ozone producing machine shall be UL listed

**DESIGN BASIS REPORT
WATER SUPPLY PUMPS**

Design Basis Report (DBR)

Design Basis Report (DBR)

1.0 WATER SUPPLY PUMP

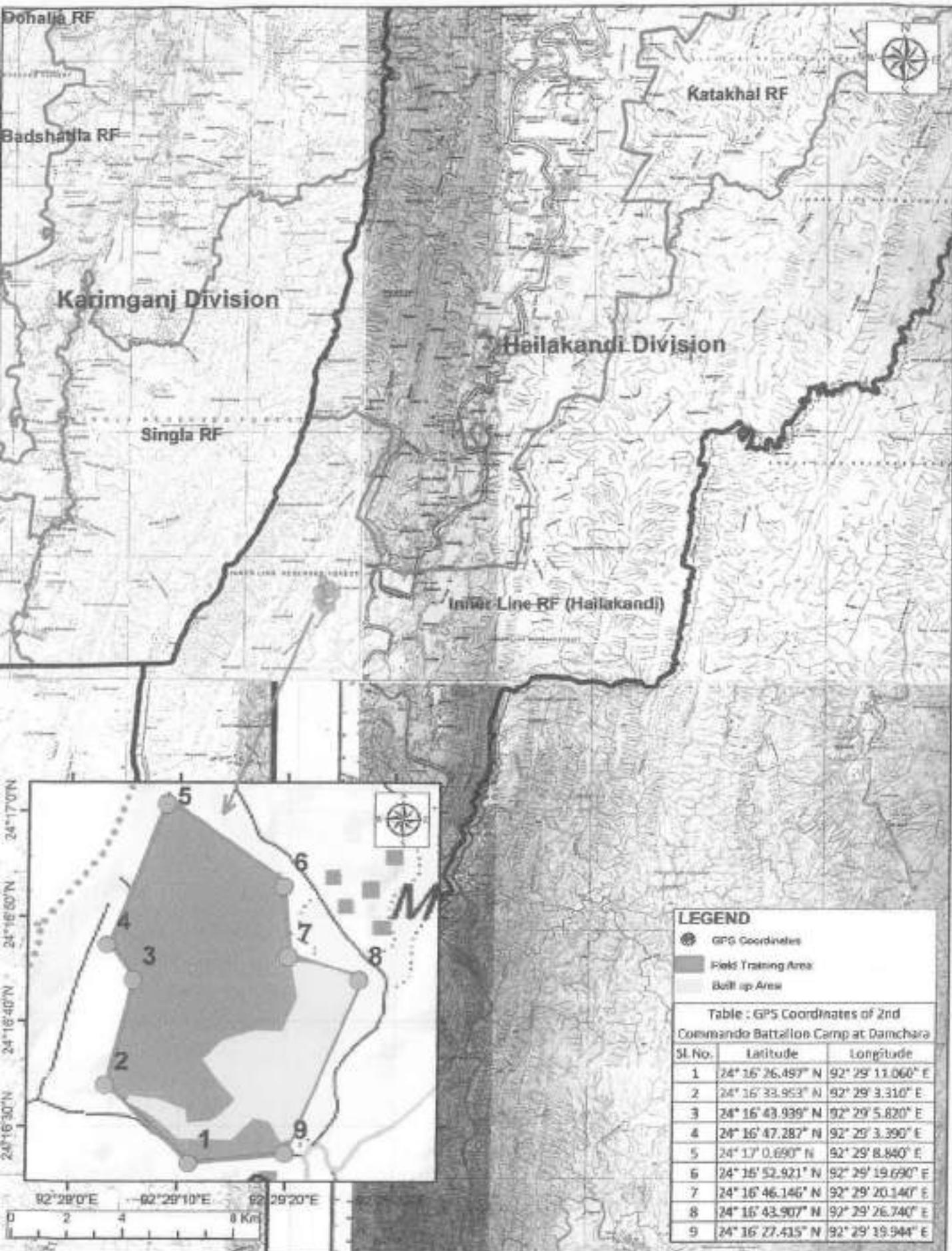
1.1 a) Hydro pneumatic systems (With Variable Frequency Drive)

- a.1) Compact packaged type skid mounted, self-contained variable frequency drive hydro pneumatic system. The skid mounted, factory assembled hydro-pneumatic system shall be provided with pressure transmitters, frequency converter for noiseless operation of the pump at varying duty point. The converter shall be provided with short circuit safety, earthing, over current, under voltage protection. The pump shall be complete with suction and delivery pipe. The system shall comprise of multiple pumps working and one stand-by to meet the system discharge requirements. All pumps shall be factory fabricated. The pumps motor shall be having IE-3/IE-5 to meet the GRIHA requirement.

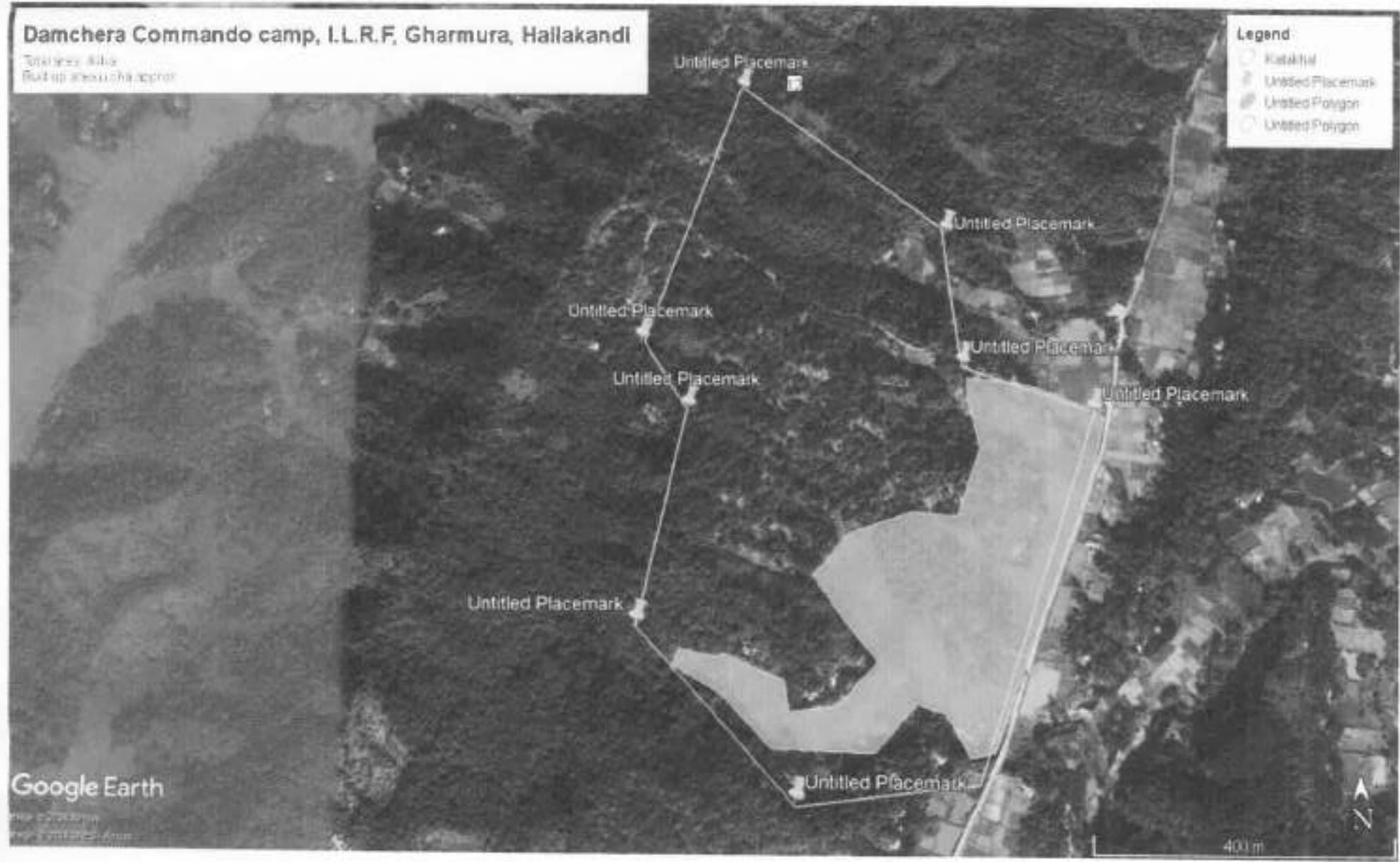
1.2 PLANT ROOM DRAINAGE SUMP PUMPS

Sump pump set shall be compact, mono-block, submersible type with class 'F' insulation of suitable capacity & RPM operating on 415 volt \pm 10%, 3 phase, 50Hz AC supply, with non-dog free flow open CI impellers, CI casing (Pump & Motor) and having solid handling capacity of required size for lifting domestic sewage or muddy water/drainage as specified in Indicative ITEMS. The pumps motor shall be having IE-3/IE-5 to meet the GRIHA requirement.

**SoI MAP (TOPOSHEET NO. 83D7) ALONGWITH
GPS COORDINATES OF 2ND COMMANDO BATTALION CAMP AT
DAMCHERA IN INNERLINE RESERVE FOREST UNDER HAILAKANDI FOREST DIVISION**



Amnelpur - 04



04

Donnerue - 5

Exhibit-4

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Extract from - THE ASSAM GAZETTE - PART-II .
Dated 13th March, 1933.

Orders by the Governor in Council.
The 9th March, 1933.

Para-325.

No. 2105A. In supersession of Government Notification No. 9103A.P., dated the 28th August, 1930, and in exercise of the powers conferred by section 2 of the Bengal Eastern Frontier Regulation, 1873 (V of 1873), as extended to the Lushai Hills District, the Governor in Council with the previous sanction of the Governor General in Council, is pleased to prescribe the line described below as the "Inner Line" of the Lushai Hills District :-

From the junction of the Bounding with the Lushai river, the Inner Line shall run up the midstream of the former to where it receives the Lungleih Lui; thence up the midstream of that stream to its source, and crossing the range in a westerly direction down the right bank of small feeder flowing into the Taisangok stream; thence down the midstream of the latter to its junction with the Sondi river. From this point the Inner Line shall run south-westwards up the midstream of the Sondi river as far as its junction with the Saengleuh Lui; thence up the midstream of this midstream of the Saengleuh Lui to its junction with the Bakh Thal; thence up to its junction with a large feeder that takes its rise near the deserted village of Nipom; thence up the midstream of this feeder to the summit of Songking range, and crossing that range down the midstream of the Tuib Lui to its junction with Sondi river. Then a straight line running in a north-westerly direction from this junction to the Dhalaibridge one furlong north of the 20th mile stone on the Mijai-Overland road, this point is also the trijunction of the Enflokong Subdivision (District Cachar) with the Lushai Hills District; thence up the midstream of the Dhalaib river to its source, where it crosses the watershed it strikes the headwaters of the Chhialung Lui and down the midstream of this Lui to its junction with the Barun Chah; thence down the midstream of the Barun Chah to its junction with the Vairiang Lui Co; thence up the midstream of this Lui to its source in the Shaitibi range; thence crossing the Shaitibi range westwards to the source of the Shaitibi stream; thence down the midstream of the Shaitibi stream to its junction with the Dhaleswari or Tlang river; thence up the midstream of the Dhaleswari river

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-2-

to its junction with the Bkwa river; thence up the midstream of the Bkwa river to the second large tributary met with on its left bank; thence up the midstream of this tributary to its source; thence in a northerly direction along a range to Chotarchurra Peak (2071); thence due west in a straight line to the trijunction point of districts Sylhet, Lushai Hills (Assam) and Tripura state (Bengal) situated on the Langai river about $\frac{3}{4}$ th of a mile south-west of the confluence of the Medli Cherra with that river (vide Notification No. 33132 dated the 4th October, 1928); thence in a southerly direction up the midstream of the Langai river to its confluence with a small nameless tributary going west about $2\frac{1}{2}$ miles north-east of Batling Sib Peak height 3,083. thence in a south-westerly direction to Batling Sib Peak; thence in a southerly direction to Batling Peak height 2,234 which is the trijunction of district Lushai Hills (Assam), Tripura State and Chittagong Hill Tracts district (Bengal); thence in a south-easterly direction for about a mile to a tributary of the Tuilianpai river, thence down the midstream of this tributary to its confluence with the Tuilianpai river thence down the midstream of Tuilianpai river to a point about $2\frac{1}{2}$ miles south-east of its confluence with the Mar river, which is the junction of the Aijel subdivision boundary; Lungleh thence westwards in a straight line to the source of the Marina river; thence down midstream of the Marina river to its confluence with the Karnaphuli river; thence up the midstream of the Karnaphuli river to its confluence with the Tgogs Khel; thence up the midstream of the Tgogs Khel to its junction with two other tributaries about $6\frac{1}{2}$ miles south-east of height 2,096 and $5\frac{1}{2}$ miles north-west of Waibung Taung, height 3,063; thence in a south-easterly direction up the slope for about 2 miles to the Waibung Taung range; thence in a westerly, southerly and easterly direction respectively along the range to Waibung Taung Peak height 3,063; thence in a southerly direction to Keokredong, which is the trijunction of Chittagong Hill Tract (Bengal), Lushai Hills (Assam) and Northern Arakan district (Burma); thence eastwards to Mephrotong or Bengtiang; thence to source of a small stream called the Veranglui or Kraikchaung whose source lies due east of the Peak, South: down the midstream of the Veranglui or Kraikchaung to its junction with the Sakul (Kola) or Kalat stream (where a boundary stone has been placed); thence up the midstream of the Sakul (Kola) or Kalat stream to the mouth of the Khawlong or Zyocho stream (where a boundary stone has been placed); thence up the midstream of the Khawlong or Zyocho to its source on the Samang or Kwitun rang; thence south wards along the Samang or Kwitun range;

Contd.....3/4

to the source of the Samak or Kulean stream (where a boundary stone has been placed); thence down the midstream of the Samak or Kulean stream to its junction with the Koladyne (Kaladan) river; thence straight across the Kaladyne (Kaladan) river to the mouth of the Khongun or Kwiman stream (where a boundary stone has been placed), (the mouths of these two streams are opposite one another); thence up the midstream of the Khongun or Kwiman stream to its source in the Kasi Tiang (where a boundary stone has been placed); thence southwards to the source of the Rale or Shwelaik stream; thence down the midstream of the Rale or Shwelaik stream to its junction with the Sulla river; thence up the midstream of the Sulla river to its junction with the Kalkheu or Klinkon stream (where a boundary stone has been placed); thence up the midstream of the Kalkheu or Klinkon stream to its source on the Pathan or Pathay Kiang; thence northwards along the Pathan or Pathay Kiang to the source of the Fara stream; thence down the midstream of the Fara stream to its junction with the Mi (Tishi, Tuisi, or Wyling) river; thence up the midstream of this river to its junction with the Kheiu stream; thence up the midstream of the Kheiu stream to its source on the Kahrin or Kahrin (Khasin) Kiang; thence south along the west of the Kahrin or (Kahrin) Kiang to the source of the Rahu Vat; thence down the midstream of the Rahu Vat to its junction with the Boiau (Kaladan) river; thence down the midstream of the Boiau (Kaladan) river to the junction with Tyao; thence up the midstream of the Tyao to its source on the Viko Tiang; thence eastwards to the source of tributary of the Tuimang river; thence down the midstream of the Tuimang to its junction with the Tuiso; thence down the midstream of the Tuiso to its junction with the Tuivai river; thence down the midstream of the Tuivai river to its junction with the Vangvun Lai; thence up the midstream of the Vangvun Lai to its source at saddle known as Bongkot where no boundary pillar marked ML(1) has been erected; thence crossing to the west side of this saddle to the source of the Tutoi stream; thence down the midstream of the Tutoi stream to its junction with the Tuivai river; thence down the midstream of the Tuivai river to its junction with the Berek river; thence down the midstream of the Berek river to its junction with the Kuanding Lai, which is the trijunction of the Lushai Hills and Cachar Districts and Manipal State.

NOTE:-(1) The Inner Line falls in the following survey of India 1"=4 miles and 1" = 1 miles publications :-
 North :- 83E, 83D, 83D/15, D/14, D/11 and D/7,
 West :- 83-D/7, 83-D, 84-A, 84-B and 84-C,
 South & East :- 84-B, 84-C, 84-E, 84-F, 83-D and 83-H.

(2) The northern western southern and eastern boundaries of the Lushai Hills district are co-incident with the Inner Line of the Lushai Hills District

Sd/- W.A. COSGRAVE,
 Chief Secretary to the Govt. of Assam.

ANNEXURE VI

— 59 —

SECRET

EXTRACT OF THE MINUTES OF THE CABINET MEETING HELD
ON 28-07-2021 AT 2-00 PM IN THE CABINET ROOM OF CHIEF MINISTER'S
OFFICE AT JANATA BHAWAN, DISPUR, GUWAHATI

Informal Item No.4
Home & Political Department

No. file

As part of the State Government's decision to appoint one lakh youths in Government jobs, the Cabinet decided to start the process to fill up vacant posts in Assam Police and the process will start from 1st September, 2021. The Cabinet also decided to create five new Commando battalions of Assam Police which will open up recruitment prospects for 6270 youths.



 ১০ অক্টোবর ২০২১

GOVERNMENT OF ASSAM
HOME (A) DEPARTMENT
 3rd Floor, CM's Block, Janata Bhawan, Dispur, Guwahati-6
 E-mail : assam.home@assam.gov.in

No. HMA.113/2021/Pt./29

Dated Dispur, the 22nd October, 2021

From : Shri Diganta Barah, IPS
 Secretary to the Govt. of Assam,
 Home & Political Department, Dispur

To : The Principal Accountant General, Assam, Maidamgaon,
 Beltola, Guwahati-29.

Sub : Sanction for raising of 1 (one) new Assam Commando Battalion i.e. 2nd Assam Commando Battalion (Operation), Birsima, Hailakandi alongwith creation of posts.

Sir,

I am directed convey the sanction of the Governor of Assam to the raising of (one) new Assam Commando Battalion i.e. 2nd Assam Commando Battalion (Operation), Birsima, Hailakandi alongwith creation of 800 (eight hundred) nos. of post for this newly created Assam Commando Battalion (Operation) w.e.f. the date of sanction as per the following staffing pattern:

Sl. No.	Rank	Gazetted / Non-gazetted posts	No. of Posts for each Battalion	Scale of Pay
Force Personnel				
1.	Commandant (SP rank)	Gazetted post	1	As per RoP 2016
2.	Deputy Commandant (Addl. SP rank)	Gazetted post	3	
3.	Asst. Commandant (Dy. SP rank)	Gazetted post	7	
4.	Inspector	Non-gazetted post	16	
5.	Sub-Inspector	Non-gazetted post	64	
6.	Havildar	Non-gazetted post	112	
7.	Constable	Non-gazetted post	480	
8.	<u>Followers</u> Cook = 20 Multitasking and Maintenance Staff = 18 Water carrier = 18 Dhobi = 8 Barber = 8	Non-gazetted post	72	As per RoP 2016

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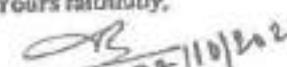
Medical Staff				
9.	Sr. Medical & Health Officer	Gazetted post	1	As per RoP 2016
10.	Medical & Health Officer	Gazetted post	1	
11.	Physio Therapist	Non-gazetted post	1	
12.	ASI (Pharmacist)	Non-gazetted post	1	
13.	Hav (X-ray Asst)	Non-gazetted post	1	
14.	Laboratory Technician	Non-gazetted post	1	
15.	Staff Nurse	Non-gazetted post	2	
16.	Hav Nursing	Non-gazetted post	2	
17.	Const. Nursing	Non-gazetted post	10	
18.	Dhai	Non-gazetted post	1	
AFRO Staff				
19.	Inspector	Non-gazetted post	1	As per RoP 2016
20.	S.I. (Radio Operator)	Non-gazetted post	3	
21.	S.I. (Technician)	Non-gazetted post	1	
22.	A.S.I. (Radio Operator)	Non-gazetted post	4	
23.	A.S.I. (Cypher)	Non-gazetted post	1	
24.	HC (WO/WT/Cy)/ Cn (WO/WT/Cy)	Non-gazetted post	14	
Grand Total:			800	

Govt. has no objection to the filling up of the newly created 800 posts during the current financial year as per approval conveyed by Finance (SIU) Department vide their U/O No.FSI No.467/2021 dated 21/10/2021.

Head of account will be communicated after creation of particular head against the organization by Finance Department.

This is issued with the concurrence of Finance (EC-II) Department vide their U/O. No.733/2021 dated 21/10/2021.

Yours faithfully,

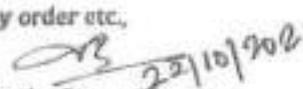

Secretary to the Govt. of Assam,
Home & Political Department
Dated Dispur, the 22nd October, 2021

Memo No.HMA.113/2021/Pt/29-A

Copy to:-

1. The Director General of Police, Assam, Ulubari, Guwahati-7 for information and necessary action.
2. The Finance (EC-II)/ (Budget) Department, Dispur, Guwahati-6.

By order etc.,


Secretary to the Govt. of Assam,
Home & Political Department
Dated Dispur, the 22nd October, 2021

Memo No.HMA.113/2021/Pt/29-B

562

Annexure - 17

By e-mail

GOVERNMENT OF ASSAM
OFFICE OF THE PRINCIPAL CHIEF CONSERVATOR OF FORESTS AND
HEAD OF FOREST FORCE, ASSAM
ARANYA BHAWAN, PANJABARI, GUWAHATI-37

E-mail: hoff-assam@gov.in

Date: 28.09.2023

FG. 40/14 Mizoram Border/Pt-II

To:

The Additional Principal Chief Conservator of Forests (T)
Lower Assam Zone, Basistha, Guwahati-29

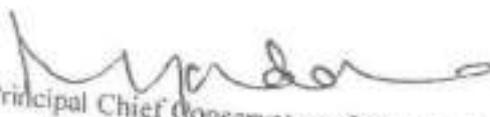
Sub: Assam-Mizoram Inter State Border -proposal for establishment of 2nd Commando Battalion Unit inside Inner Line Reserve Forest at Damcherra area under Gharmurah Range, Hailakandi Division-Reg.

Ref: Your office letter No. FGT.26/Border/Assam-Mizoram/PLII dated 07.08.2023.

With reference to the above, I am to inform you that As per Section 2 (b) of FC Act, 1980 the non-forest purpose means the following:

"any purpose other than re-forestation; but does not include any work relating or ancillary to conservation, development and management of forests and wildlife, namely, the establishment of check-posts, fire lines, wireless communications and construction of fencing, bridges and culverts, dams, waterholes, trench marks, boundary marks, pipelines or other like purposes".

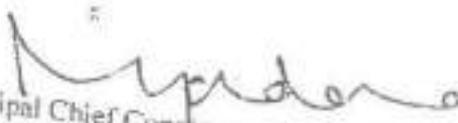
Since the purpose of proposal for 43.99 Ha. Forest land for establishment of 2nd Commando Battalion Unit in the Assam-Mizoram interstate border area of Inner Line Reserve Forest is for protection and conservation of Reserved Forest land, it qualifies as an activity relating to conservation of forests mentioned under Section 2 (b) of Forest Conservation Act, 1980. Therefore you are allowed to go ahead with the establishment of the proposed 2nd Commando Battalion Unit in the interest of conservation and protection of forest land.


Principal Chief Conservator of Forests &
Head of Forest Force, Assam

Copy for information and necessary action to:

1. The Chief Conservator of Forests, Southern Assam Circle, Silchar.
2. The Divisional Forest Officer, Hailakandi Division, Hailakandi.

28/9/2023
ISSUED ON


Principal Chief Conservator of Forests &
Head of Forest Force, Assam

Amme...-8

1/430383/2024



**ASSAM POLICE HEADQUARTERS
GUWAHATI, ASSAM**

Memo No. eC.325832/Deployment of CDO/ 271 Dated Guwahati the 3rd February, 2024.

To,
The Superintendents of Police Halakandi, Golaghat, Nagaon, Sivasagar,
..... Jorhat, Biswanath, Kokrajhar, Barpeta, Darrang,
Sonitpur, Lakhimpur and Dibrugarh .

Sub: Deployment of Action Group.
Sir,

With reference to the above, kindly find enclosed herewith a copy of Principal Chief Conservator Forest & Head of Forest Force letter No. FE.22/Commando/AFFP/A dated. 01-02-2024 alongwith its enclosures.

In this connection, I am to state that the following Action Groups of different CDO Bns. are being deployed with Forest Department under Operational Command of SsP concerned.

- 1. 1 (one) Group. of 2nd CDO Bn in Halakandi
- 2. 2 (two) Groups of 3rd CDO Bn in Golaghat & Nagaon
- 3. 2 (two) Groups of 4th CDO Bn in Sivasagar & Jorhat
- 4. 4 (four) Groups of 5th CDO Bn in Biswanath, Kokrajhar, Barpeta, Darrang, Sonitpur and Lakhimpur
- 5. 1 (one) Group of 6th CDO Bn in Digboi, Dibrugarh.

i) You are requested to check at the locations earmarked by the Forest Department for deployment of Commandos whether the accommodation and other essential logistics are ready or not and revert back to this Hqrs.

Please note that Operational Command of Commando Groups will be with you and therefore optimize and effective utilization of Commandos should be ensured by you.

Yours faithfully,
E-Sign
Asstt. Inspector General of Police, (L&O)
Assam :: Guwahati

Memo No. eC.325832/Deployment of CDO/ 271-A Dated Guwahati the 3rd February, 2024.

- As directed copy forwarded to :-
- 1) The Principal Chief Conservator of Forests & Head of Forest Force for favour of kind information and necessary action.
 - 2) The Inspector General of Police(T&AP), Assam for kind information.

Signed by
Longnit Terang
Asstt. Inspector General of Police, (L&O)
Date: 03-02-2024 17:14:02

GOVERNMENT OF ASSAM
OFFICE OF THE PRINCIPAL CHIEF CONSERVATOR OF FORESTS AND
HEAD OF FOREST FORCE : : ASSAM
PANJABARI : : GUWAHATI - 781 037.

Phone No. (Off): 0361-2333252

Fax No. 0361-2337386
 E-mail: hoff-assam@gov.in.

No. FE.22/ Commando/AFPP/A

Dated Guwahati, the 1st February/2024

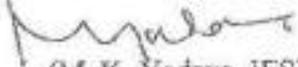
To

1. The Director, Kaziranaga National Park & Tiger Reserve, Bokakhat
2. The Field Director, Manas Tiger Reserve, Barpeta Road
3. All Divisional Forest Officers (Territorial), Assam.
4. All Divisional Forest Officers (Wildlife), Assam.

Sub:- Deployment Plan for Assam Forest Protection Force & Assam Commando Battalion Personnel in Assam Forest Department-reg.

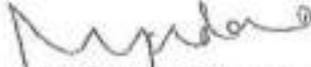
With reference to the subject mentioned above, find enclosed the deployment plan of personnel of AFPP Battalion and Assam Commando Battalions in various division of Assam Forest Department. All concerned officers are directed to ensure that necessary logistics arrangements are made available for the smooth deployment of the forces as per the outlined plan. The Assam Commando Battalion personnel shall be deployed in a single blocks of Action Groups consisting of 38 (thirty eight) Commandos. All deployment are subject to availability of forces. While the Assam Police Commando Force are likely to join towards the end of first week of February'2024, the AFPP personnel may join in the 3rd / 4th Week of February'2024.

Encls:- As stated above.


 (M.K. Yadava, IFS)
 PCCF & HoFF, Assam

Copy to :-

1. The Director General of Police, Assam Police Headquarters, Ulubari, Guwahati
2. The Special Chief Secretary to the Govt. of Assam, Environment & Forest Department, Dispur, Guwahati-06.
3. The Special Director General of Police (H.Q), Assam Police, Ulubari, Guwahati.
4. The Principal Chief Conservator of Forests (Wildlife) & CWLW, Assam, Panjabari, Guwahati-37.
5. The Addl. Principal Chief Conservator of Forests (T), Lower Assam Zone, Guwahati-29.
6. The Addl. Principal Chief Conservator of Forests, Karbi Anglong Autonomous Council, Diphu.
7. The Addl. Principal Chief Conservator of Forests (T), Upper Assam Zone, Jorhat.
8. The Addl. Principal Chief Conservator of Forests & CHD, Bodoland Territorial Council, Kokrajhar.
9. The Chief Conservator of Forests, Northern Assam Circle, Tezpur.
10. The Chief Conservator of Forests, Eastern Assam Circle, Jorhat.
11. The Chief Conservator of Forests, Southern Assam Circle, Silchar
12. The Chief Conservator of Forests, Central Assam Circle, Guwahati
13. The Chief Conservator of Forests, Lower Assam Social Forestry Circle, Bogaigaon
14. The Commandant, 1st AFPP, Battalion, Basistha, Guwahati-29.
15. The Commandant, 2nd AFPP, Battalion, Seconee, Nagaon.
16. The Commandant, 3rd AFPP, Battalion, Lakhimpur.


 PCCF & HoFF, Assam

DEPLOYMENT PLAN FOR AFPF & ACB PERSONNEL IN ASSAM FOREST							
S No	Division	New AFPF to be Deployed	Existing AFPF Strength (1st & 2nd AFPF combined)	Total AFPF Strength	New Commando Battalion to be Deployed	Deployment Plan for AFPF & ACB	Remarks
2nd AFPF ZONES (HQ at Seconee)							
1	Eastern Assam WL	130	159	289	76	AFPF 1. Agratoli - 1 Platoon 2. Kohori - 1 Platoon 3. Bagori - 4 Sections 4. Borphapahar - 2 sections 5. Bokakhat - 1 Platoon ACB 1 AG - Borphapahar 1 AG - Bokakhat	1. AFPF shall be used as Quick Response Teams. 2. AGs are to be deployed at the probable entry and exit points as a part of the operational strategy
2	Nagaon WL Division		22	22	38	1 AG - Burhachapori WLS	AG 1. For protection of Evicted areas 2. The same group may also be utilised for area domination in Second addition to Orang NP under Mangaldai WL Division.
3	Nagaon (T) Division		38	38			
4	Nagaon South (T) Division		32	32			
5	Sibsagar (T) Division	30	29	59	38	AFPF 1 Section - Halruwa Beat 1 Section - Sonari Range, Kherbari 1 Section - Geleki ACB 1 AG - Geleki	1. For protection of RF bordering Assam-Nagaland. 2. The same AG may also be utilised for area domination in Tiru Hills RF under Jorhat Division.
6	Jorhat (T) Division	20	13	33		AFPF 1 Section - Tiru Hills RF 1 Sections - Hollongpur WLS	AG deployed in Sibhsagar to be used in Tiru Hills RF along Assam-Nagaland Border
7	Majuli (T) Division			0			
8	Golaghat (T) Division		7	7			
9	Hamren Division	10	8	18		AFPF 1/2 Section - Khandali 1/2 Section - Kheroni	
10	KA West (T)	10	4	14		AFPF 1/2 Section - Borisandphar 1/2 Section - Bokolia Range	

DEPLOYMENT PLAN FOR AFPF & ACB's PERSONNEL IN ASSAM FOREST							
S No	Division	New AFPF to be Deployed	Existing AFPF Strength (1st & 2nd AFPF combined)	Total AFPF Strength	New Commando Battalion to be Deployed	Deployment Plan for AFPF & ACB	Remarks
11	KA East (T)	20	0	20		AFPF 1 Section - Dolcinora Range 1 Section - Parko Pahar Range	
12	Dima Hasao East (T)	10	0	10			
13	Dima Hasao West (T)	10	0	10			
14	CCF, DHAC, Haflong		11	11			
	Total	240	323	563			
1st AFPF ZONE (HQ at Basistha)							
15	Assam State Zoo		18	18			
16	Guwahati WL Division	25	40	65		AFPF 1 section - Pabitora 1 section - Amchang 1/2 Section - Deepor Beel	
17	Margaldoi WL Division	30	28	58			AG deployed at Barhechapori WLS may be utilised for area domination in Second addition areas
18	Manas NP/TR		49	49	76	ACB 1 AG - Kahitama 1 AG - Amtola	1. The current AFPF personnel posted in Soltpur East, Jorhat, Sibsegar, Karbi Anglong will be deputed at Manas NP. 2. AG deployed may also be utilised for periodic area domination in Raimona NP as required
19	Raimona NP		8	8			
20	Kachugaon Division	20	7	27		AFPF 1 Section - Central Range HQ 1/2 Section - Eastern Range HQ 1/2 Section - Kolabari Beat	
21	Haltugaon (T) Division		8	8			
22	Chirang Division	20	7	27		AFPF 2 Sections - Shantipur Beat	
23	Parbatjhora (T) Division			0			

DEPLOYMENT PLAN FOR AFPP & ACBs PERSONNEL IN ASSAM FOREST							
SNo	Division	New AFPP to be Deployed	Existing AFPP Strength (1st & 2nd AFPP combined)	Total AFPP Strength	New Commando Battalion to be Deployed	Deployment Plan for AFPP & ACB	Remarks
24	Baska (T) Division			0			
25	Aje Valley (T) Division		13	13			
26	Kamrup West (T) Division	30	41	71		AFPP 1 Section - Haaim 1 Section - Muduki 1 Section - Ukiam	
27	Kamrup East (T) Division	20	46	66		AFPP 1 Section - Rani 1 Section - Garbhanga	
28	Kamrup North (T) Division		15	15			
29	Goalpara (T) Division		18	18			
30	Dhubri (T) Division		13	13			
31	Cachar (T) Division		77	77			
32	Hallakandi (T) Division	10	8	18	38	10 AFPP - Punchgram range 1 AG of ACB - ILKV	AG For protection of RF bordering Assam-Mizoram
33	Karimganj (T) Division	20	16	36		AFPP 1 Section - Baligipla Beat 1 Section - Duhalia Range HQ	
34	Aranya Bhowan		38	38			
35	APCCE, UAZ		1	1			
36	APCCF, LAZ		4	4			
37	Forest School, Jalukbari		1	1			
38	Relhebari Residence Complex		6	6			
	Total	175	462	637			
	3rd AFPP ZONE (Temporary HQ at Lama Camp)						
39	Western Assam WL Division	40	17	57		AFPP 3 sections - Nameri national Park 1 Sections - Sonal Rupai WLS	

DEPLOYMENT PLAN FOR AFPF & ACBs PERSONNEL IN ASSAM FOREST							
S No	Division	New AFPF to be Deployed	Existing AFPF Strength (1st & 2nd AFPF combined)	Total AFPF Strength	New Commando Battalion to be Deployed	Deployment Plan for AFPF & ACB	Remarks
40	Biswanath WL Division	30	56	86	38	ACB 1 AG - Crime Investigation Range	AG 1. For protection of Kaziranga NP 2. The same group may also be utilised for area domination in Behali WLS under Sonitpur East Division.
41	Tinsukia WL Division		33	33			APPF Battalion deployed at Makum may also be utilised for periodic area domination in Dibru-Saikhowa NP as required
42	Dhansiri (T) Division		2	2			
43	Sonitpur West (T) Division	10	7	17		1 Section of AFPF - Halpara RF	
44	Sonitpur East (T) Division	40	20	60		APPF 1 Section - Bedeti Beat 1 Section - Hali Depot 1 Section - Singhjan Beat 1 Section - Borgaon Range HQ	
45	Lakhimpur (T) Division	20	18	38	38	APPF 1 Section - Joyhing Beat, Kakaki 1 Section - Kachajuli ACB 1 AG - Bagoli BOP	For protection of RF bordering Assam-Arunachal Pradesh
46	Dhemaji (T) Division	20	16	36		APPF 1 Section - Jonal 1 Section - Division HQ	
47	Deoridooma (T) Division		17	17			
48	Digboi (T) Division	30	53	83	38	APPF 2 Sections - Margreta 1 Section - Likhajan Beat ACB 1 AG - Airwat camp	For protection of NP & RF bordering Assam-Arunachal Pradesh
49	Dibrugarh (T) Division	50	17	67		APPF 2 Sections - Dihing Patkal along interstate boundary 2 Sections - Dihing Patkal along Western Boundary 1 Section - Jeypore Range HQ*	

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DEPLOYMENT PLAN FOR AFFF & ACBs PERSONNEL IN ASSAM FOREST							
S No	Division	New AFFF to be Deployed	Existing AFFF Strength (1st & 2nd AFFF combined)	Total AFFF Strength	New Commando Battalion to be Deployed	Deployment Plan for AFFF & ACB	Remarks
50	LAMA CAMP	225		225			Lama Camp will serve as temporary HQ for 3rd Battalion
51	Forest School, Makum	70		70			To be accommodated in 2nd AP Battalion, Makum
	Total	535	256	791	380		
	Grand Total	950	1041	1991	380		

* AFFF battalion deployment mandates a minimum of half a section (5 personnel) inside the Forest Area.

* AG - Action Group. Each Action Group comprises 38 ACB personnel and deployment plan must not split the group.

(M.K. Yadava, IFS)
PCCF & HoFF, Assam
Aranya Bhawan, Panjabari-37

Annexure - 9

ACTION GROUP NO. 2ND (OPS)

Sl. No	RANK	NAME	Mobile NO	REMARKS
1	A/W	MAKJUL HUSSAIN	9401609110	
2	COOK	SOE T MAN THOUA	8638501868	
A-TEAM				
1	ABSI	HIRAJ KARNI	7086196814	
2	HAV	SUDHIR BUNGIANG	9854148736	
3	C/N-123	SURAJ CHELRY	9101515114	
4	C/N-449	JITUL ONTA GOKOL	7086978947	
5	C/N-145	AKASH PEGU	6002648284	
6	C/N-404	ANKUR HAZARIKA	9365223579	
7	C/N-141	BIJABESH CHARO	8638187548	
8	C/N-89	BJOY BORUAH	7896419952	
9	C/N-173	BIKRAM SINGHA	7999034247	
10	C/N-175	BIMAN MECH	7005542614	
11	C/N-423	DEEPAK KUMAR SAHU	7896965464	
12	C/N-238	GAUTOM HANSE	9101627632	
B-TEAM				
1	ABSI	HIRAK JYOTI DEKA	8099035365	
2	HAV	APURBA KUMAR	6001233564	
3	C/N-88	GWHWM NARZARY	6008784525	
4	C/N-208	HEMANTA KALITA	7099827339	
5	C/N-299	JOYPRAKASH MIJ	9678351882	
6	C/N-292	JITUL HAZARIKA	600853061	
7	C/N-456	FIROJ CHUNKANG	7086415160	
8	C/N-297	KOMALA PEGU	6901048179	
9	C/N-100	PULAKESH ROY	9057483982	
10	C/N-386	MANAB BAISHYA	9101710979	
11	C/N-203	NITU DUTTA	8099853295	
12	C/N-196	PARTHA PROTIM DAS	6001916664	
C-TEAM				
1	ABSI	PREMSON SANGIMA	6901463843	
2	HAV	TANKESWAR NATI	7896886024	
3	C/N-339	RAKHIL ISLAM	9101025050	
4	C/N-419	RITUPARNA NEOG	8399866977	
5	C/N-458	SAMRAJ JATAPIHARA	8404030859	
6	C/N-144	SANTU KAMAN	9101646326	
7	C/N-31	SHAJAHAN ALI	8131944850	
8	C/N-311	SOMESWAR PATOR	9365689461	
9	C/N-257	ANSULA DAIMARY	9954820777	
10	C/N-351	ALOK NAYAK	8811918969	
11	C/N-407	AMARJYOTI TAID	8822892982	
12	C/N-189	ANANTA CHUTIA	9395271695	

SUMMARY

ABSI	1
AVSI	3
HAV	3
C/N	30
COOK	1
TOTAL	38


 Commandant,
 2nd Assan CDO Ramolan,
 Danchera, Hailakandi,
 Camp at 21st AP (IR) Bn. Ktn.

ANNEXURE - XIX



AREA DETAIL -
 SITE AREA - 41.61 ACRE
 = 123.08 BIGHA
 COMPOUND BOUNDARY WALL - 2493.942 RUNNING METER
 CARRIAGE WAY AREA - 13498.29 SQM

Sl. No.	Description	Area (sq. m)	Area (sq. ft)	Area (sq. yd)	Area (sq. ft)	Area (sq. yd)	Area (sq. ft)	Area (sq. yd)
1	Compound Boundary Wall	2493.942	27000	2900	27000	2900	27000	2900
2	Carriage Way Area	13498.29	146000	15800	146000	15800	146000	15800
3	Main Hall	1000	10800	11600	1000	10800	11600	11600
4	Mess Hall	500	5400	5800	500	5400	5800	5800
5	Canteen	300	3240	3480	300	3240	3480	3480
6	Hospital	200	2160	2320	200	2160	2320	2320
7	Gym	150	1620	1740	150	1620	1740	1740
8	Library	100	1080	1160	100	1080	1160	1160
9	Recreation Ground	500	5400	5800	500	5400	5800	5800
10	Sports Field	1000	10800	11600	1000	10800	11600	11600
11	Other Buildings	1000	10800	11600	1000	10800	11600	11600
12	Open Area	1000	10800	11600	1000	10800	11600	11600
13	Water Body	500	5400	5800	500	5400	5800	5800
14	Drainage System	100	1080	1160	100	1080	1160	1160
15	Landscaping	100	1080	1160	100	1080	1160	1160
16	Other	100	1080	1160	100	1080	1160	1160
17	Total	24939.42	270000	29000	270000	29000	270000	29000

DESIGN ASSOCIATES INC.
 A - 203, Sector - 130,
 Noida - Greater Noida Expressway,
 Noida - 201301
 Ph. No. 0120-242600/70
 e-mail: gurnee.dangi@designassociates.in

CLIENT
 ASSAM POLICE TRAINING CORPORATION LTD.
 GUWAHATI, ASSAM - 781002

PROJECT
 Raising of New Assam Police Commando Battalion in Haisikandi District of Assam

DRAWING TITLE
 MASTER PLAN

DRAWING NUMBER
 SUBMISSION DRAWING

JOB NO.	DWG REF. NO.	DATE

SCALE	EXCISION	DATE OF SHEET
NTS	R0	21.07.2023

DWG NO.

SHEET SL. NO.	SHEET NO.
A1	01

DRAWN BY	CHECKED BY
JORDAN	PNPCT

ANNEXURE-R 4

Government of India
Ministry of Environment, Forest and Climate Change
(Forest Conservation Division)

Indira Parayavaran Bhawan
Jor Bagh Road, Aliganj,
New Delhi-11003
Dated: March, 2024

To

The Additional Chief Secretary (Forests),
Government of Assam,
Guwahati

Sub: In Suo motu matter in re: News item appearing in The Northeast Now dated 25.12.2023 entitled "Assam: PCCF MK Yadava accused of illegally clearing protected forest for Commando Battalion" pending before Hon'ble NGT (PB)-Reg.

Madam/Sir,

This is the above stated matter wherein the Hon'ble Tribunal based on the media report titled Assam: *PCCF MK Yadava accused of illegally clearing protected forest for Commando Battalion* took suo motu cognizance of the matter. In this regard the reply of the State Government has been received vide letter dated 11.03.2024.

The Ministry also asked its Regional Office, Shillong to examine the matter and submit a detailed factual report in the above captioned matter. The Regional Office vide its letter no. F.NO.-RONE/E/O.A.No. 61/24/PB/S/4081 dated 12.03.024 furnished a Site Inspection Report and *inter alia* submitted the following with respect to the forest area in question:

i) The construction is large-scale and of permanent concrete structures, considering the area of build-up area is 11.5 ha and the plinth area being close to 30,000 sq. metre. The area of 11.5 ha does not appear to have much semblance to any of the activities mentioned in the explanation (b) of Section 2 of the Forest (C) Act, 1980 about ancillary activity for conservation, development and management of forest and wildlife, namely, establishment of and Checkpost, firelines, wireless communications and construction of fencing, bridges and culverts, dams, waterholes, trench marks, boundary marks, pipelines or other like purposes.

Further, it has also been mentioned that *the word 'and other like purposes' appear to allude to such purposes similar to the ones aforementioned namely,*

Checkpost, firelines, wireless communications and construction of fencing, bridges and culverts, dams, waterholes, trench marks, boundary marks, pipelines but it is observed that the extent (of 30,000 sq mt of build-up over 11.5 ha of area) and type of structures being permanent concrete does not have much similarity to those.

The report of the Regional Office has been examined in the Ministry and *prima facie* it has been observed that the use of forest land for non forestry activities has been allowed without prior approval of the Central Government which is in contravention of the statutory provisions and rules under Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980.

Taking into account the aforesaid, the State Government is urged to stop all construction activities in the aforementioned area/ land in question, with immediate effect, till further orders or decision in the matter.

It is pertinent to mention here that continuation of construction activities as above will amount to violation of Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980 and attract penal provisions.

Yours sincerely,

Signed by
Suneet Bhardwaj
Date: 18-03-2024 18:25:53

Sd/-
(Suneet Bhardwaj)
Assistant Inspector General of Forests

Government of India
Ministry of Environment, Forest and Climate Change
(Forest Conservation Division)

Indira Parayavaran Bhawan
Jor Bagh Road, Aliganj,
New Delhi-11003
Dated: March, 2024

To,

Deputy Director General of Forests,
MoEFCC, Regional Office,
Law-U-Sib, Lumbatngen, Near MTC Workshop,
Shillong

Sub: In Suo motu matter in re: News item appearing in The Northeast Now dated 25.12.2023 entitled "Assam: PCCF MK Yadava accused of illegally clearing protected forest for Commando Battalion" pending before Hon'ble NGT (PB)-Reg.

Ref: Letter No. F.NO.-RONE/E/O.A.No. 61/24/PB/S/4081 dated 12.03.2024

Madam/Sir,

This is apropos the above stated matter wherein the Hon'ble Tribunal based on the media report titled *Assam: PCCF MK Yadava accused of illegally clearing protected forest for Commando Battalion* took suo motu cognizance of the matter. The reply of the Regional Office along with the SIR has been received in the Ministry on 12.03.2024.

The said factual report and SIR has been examined in the Ministry and *prima facie* it has been observed that the use of forest land for non forestry activities has been allowed without prior approval of the Central Government on the forest land in question which is in contravention of the statutory provisions and rules of *Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980*.

Taking into account the aforesaid, it is requested to initiate action in the instant matter as prescribed under section 3A and 3B of the *Van (Sanrakshan Evam Samvardhan) Adhiniyam*.

Yours sincerely,

Signed by
Suneet Bhardwaj
Date: 18-03-2024 18:27:23

Sd/-
(Suneet Bhardwaj)
Asst. Inspector General of Forests

Copy to: Sub-office Guwahati of Regional Office, Shillong of MoEF&CC .

575

294

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RO Shillong <ro.nez.shil@gmail.com>

Service of Counter Affidavit by Respondent No. 1 In Suo motu matter in re: News item appearing in The Northeast Now dated 25.12.2023 entitled "Assam: PCCF MK Yadava accused of illegally clearing protected forest for Commando Battalion" pending before Hon'ble NGT (PB)-Reg.

RO Shillong <ro.nez.shil@gmail.com>

Wed, Apr 10, 2024 at 3:31 PM

To: hoff-assam@gov.in, environmentforestassam@gmail.com, pccf.assam@gmail.com, "CWLW (Assam)"

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Sir/Madam,

With reference to the subject cited above, may kindly find herewith the google drive link containing the scan copy of Counter Affidavit on behalf of Respondent No. 1 (Ministry of Environment, Forest & Climate Change) which will be filed in the Hon'ble National Green Tribunal, Principal Bench, New Delhi.

Kindly acknowledge the receipt of this mail which will be treated as proof of service.

<https://drive.google.com/file/d/1XfkF6qV0K3WSIPE3qjNRZT8sY5tT-BJh/view?usp=sharing>

***With Regards,
Ms. Ana. A. Sangma,
Project Assistant,
MoEF & CC,
RO, Shillong.***