



CHHATTISGARH HOUSING AND INFRASTRUCTURE DEVELOPMENT BOARD

Request for Proposal

for

**Selection of Developer for “Redevelopment of land
parcel(s) of total area 6.49 acres at Katghora, Korba
on license basis”.**

RFP Document - Volume 3

**(Project Information Memorandum cum Detailed Project Report of
Government Facilities for redevelopment of land parcel of total area 6.49
acres at Katghora, Korba)**

CHHATTISGARH HOUSING AND INFRASTRUCTURE DEVELOPMENT BOARD

Chhattisgarh Housing Board Colony, Rampur,
District, Korba, Chhattisgarh

Email id: eecghbdivkorba@gmail.com

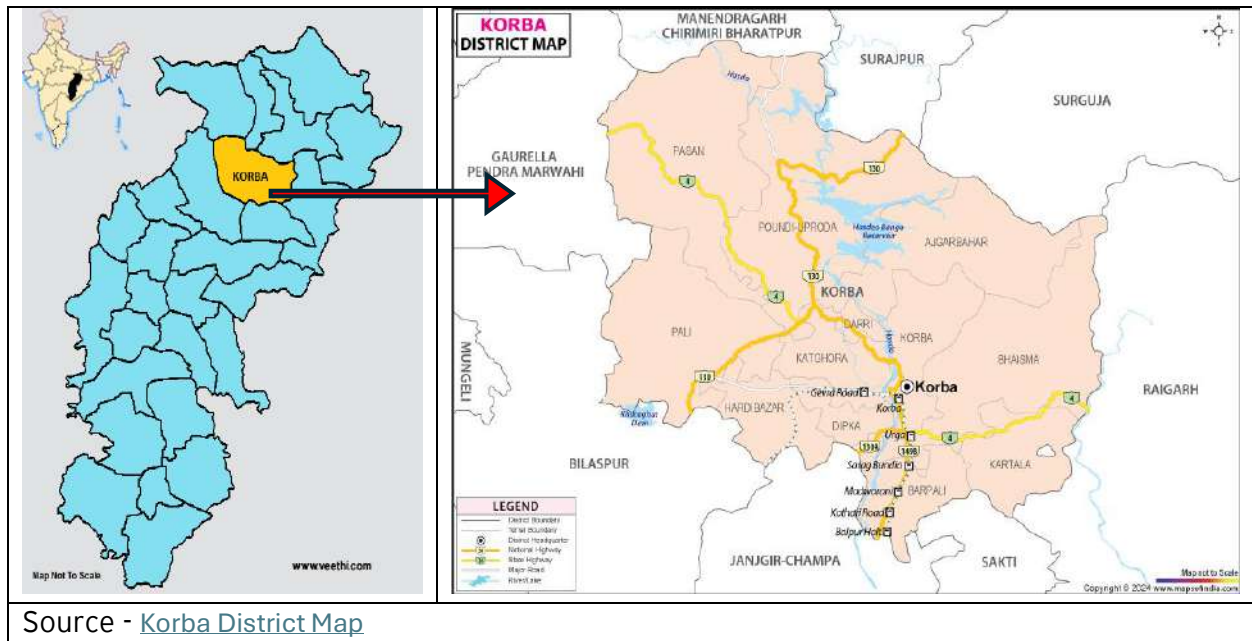
WEBSITE: www.cghb.gov.in, PHONE NO. +91 9907285405

Chhattisgarh eProcurement Website: <https://eproc.cgstate.gov.in>

1. INTRODUCTION

Introduction & Location - Katghora, Korba (C.G)

Katghora is a town and a Nagar palika in Korba district in the Indian state of Chhattisgarh connecting various states in India through road connectivity. Katghora became a Nagar Palika on 15 August 2014. In 1864 it was formed as British disciplinary unit under Richard Taper. Katghora Taluk was formed in 1912, becoming the centre of administrative activities. After independence it was taken as one of the five subdivisions of Bilaspur. At that time Korba was formed as sub-tehsil, and thereafter in 1980 Korba separated from Katghora to form a separate tehsil. In 1982, when Katghora was part of Madhya Pradesh, it was given status of Nagar Palika.



Demographics & Population Growth

Katghora tehsil, part of Korba district, had a population of approximately 304,058 in 2011, with expected growth to around 366,400 by 2025, representing a roughly 20.5% increase over the decade. Korba district overall recorded a population growth of 19.25% between 2001 and 2011, with a 2011 district population of 1.206 million and a density of 183 people/km².

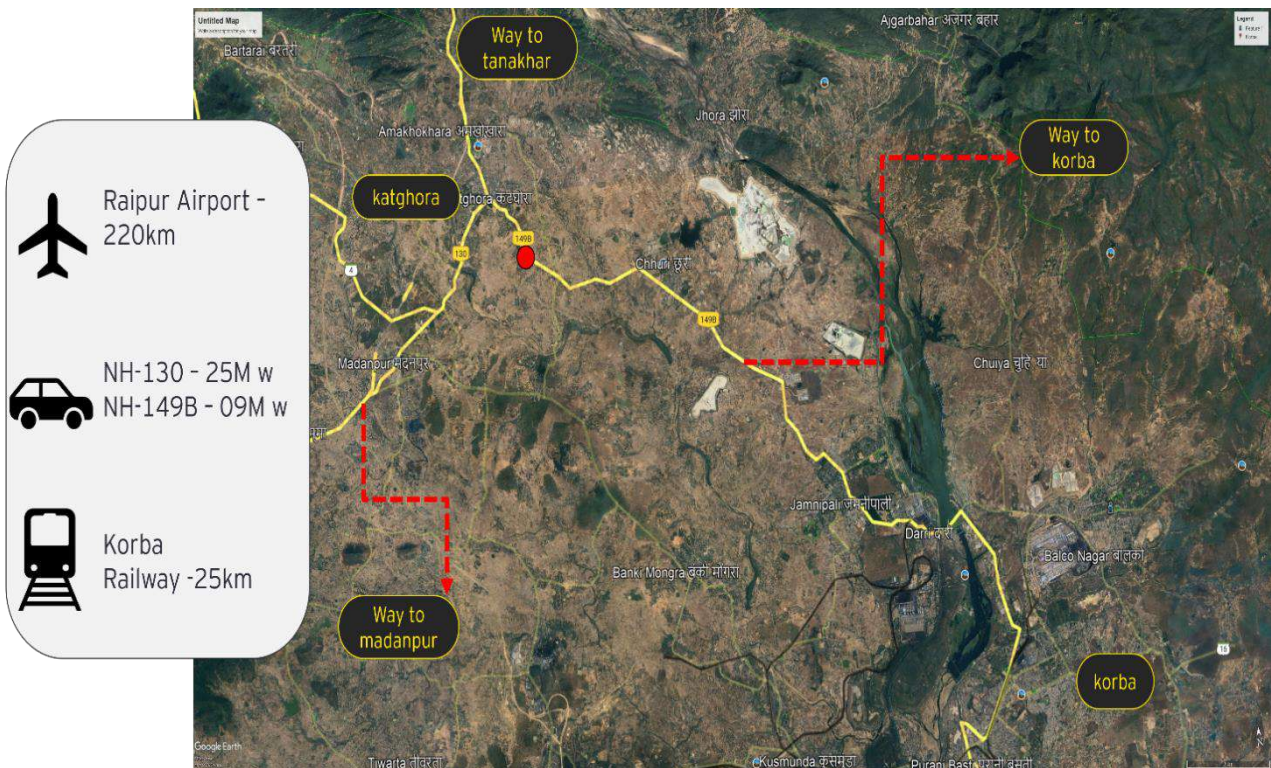
Economy & Industries

Katghora's economy is a mix of agriculture and industry. While many rural residents depend on paddy farming, the town benefits from its location within the Korba coalfield, one of India's largest, supporting coal mining and thermal power plants. Key industries include NTPC, BALCO, and state-run power stations. Recently, lithium deposits have been discovered, offering future industrial potential. The economy is steadily shifting from agriculture to mining, power, and emerging mineral-based sectors.

Source - [District Administration Korba](#) | [Power hub of Chhattisgarh](#) | [India](#)

2. FEATURES OF THE STUDY AREA

2.1 City Connectivity and Linkages-



Road Connectivity: Katghora is well connected by road via National Highways NH-130 and NH-149B, linking it to Korba (25 km), Bilaspur (~75 km), Raipur (~200 km).

Rail Connectivity: While Katghora does not have a railway station currently, nearby Korba Railway Station (~25 km) and Champa Junction (~60 km) connect the region to major cities like Raipur, Bilaspur, and Delhi. A new rail corridor is under development to improve freight and passenger movement, especially supporting the mining sector.

Air Connectivity: The nearest airport is Swami Vivekananda Airport in Raipur, about 220 km away, offering domestic flights to major Indian cities. A regional airport in Bilaspur (75 km) also operates limited commercial flights and is gradually expanding.

2.2 Redevelopment Site Location-

The proposed redevelopment site (both) is located nearby NH-149B. One site is clearly adjacent to main road and for other a perpendicular road going through.

- Road connectivity: NH-130 25m wide & NH-149B 9m wide
- Rail connectivity: 31 kms away Korba railway station
- Air connectivity: 98 kms away (Bilaspur airport) & 214km away (Raipur airport)



2.3 Site appreciation

2.3.1. Physical Condition

Site physical conditions	
Site location and area	
Site location	<p>Katghora, Korba</p> <p>Site 1 Infront of Tehsil Nyayalaya</p> <p>Site 2 Beside Janpath Panchayat Katghora</p>
Longitude & Latitude	<p>Site-1 - 22°30'08.2"N 82°33'29.1"E</p> <p>Site-2 - 22°29'55.9"N 82°33'23.5"E</p>
Total site area	6.49 Acre (4.33 & 2.16 (including 12.20-meter road widening area.
Land use pattern	Residential - Public/Semi Public
Existing structures	GADs of WRD Chhattisgarh
Site morphology	
Type of land	Plain Terrain
Soil nature	Clayey Sand (11.8Tonne/Sq. m)
Water	Nigam Water Supply (Overhead)
Power availability	Yes, from CSPDCL 11KV
Site neighbourhood	
Immediate vicinity	WRD E&M Division Office, Katghora, Korba
Approach road	NH 149 B is well connected to site area, also site is surrounded by approach roads. (refer attached images for overview)

Primary Catchment- Radius: 5-10 km	<ul style="list-style-type: none"> Katghora town and surrounding villages (ex:- Madanpur, Dhewadih, Jalthari) Purpose: Daily needs like local markets, schools, clinics, banking etc. Travel time: 15-20 minutes by road.
Secondary Catchment- Radius: 25-30 km	<ul style="list-style-type: none"> Korba city, Kusmunda , Pali, parts of Kartala and Darri areas. Purpose: Higher education, Specialized healthcare, industrial employment, government services. Travel time: 45-60 minutes by vehicle.

2.3.2. Approach Road-

	
Site Approach Road , Rear Side	Site Approach Road , East Side
	
NH139 B	NH139 B

2.3.3. Site Surrounding images-



G-Type



F-Type



I-Type



H-Type

3. GOVERNMENT FACILITIES

3.1 Existing Government Facilities

F Type -2 quarters, G-Type -4 quarters, H Type-9 quarters, I Type 4 quarters, 2 Irrigation (WRD) Subdivision (GF) Offices, 1 Storeroom and 1 existing temple. These structures are very old and in a severely deteriorated condition, making them highly suitable for redevelopment under current government schemes. Despite the poor state of the buildings, residents continue to occupy the quarters, and the office are still operational from the premises.

3.2 Proposed Government Facilities

Construction OF 01 Block F Type 4 Nos Quarter (G+1), 01 Block G Type 04 Nos Quarter (G+1), 01 Block H Type 06 Nos Quarter (G+1), 01 Block H1 Type 08 Nos Quarter (G+1), 01 Nos (G+2) EE Office, AE Office, Store, Meeting etc. and External Development Work.

3.3 Area Statement (Project Structures)

S.no	Spaces	Area in acres
01	Total Land Area	7.44 Acre (Site-I + Site-II), i/c Road Widening Area 12.20 m Wide
02	GAD Quarter Area	0.95 Acre (i/c Road Widening Applicable as per T&C and PWD)
03	Redevelopment Area	6.49 Acre (i/c Road Widening Applicable as per T&C and PWD)

S.no	Govt. Facilities	Buildup area (Sq.m)	Total floor	Total area Sq.m	Total B.U Area (including staircase)
01	WRD Office (G+2)	GF-229.81 FF-203.38 SF-168.66 Mumty-25.80	3	-	627.65
S.no	Govt. Facilities	Total Builtup Area Per Unit	Total units	Total area Sq.m	Total B.U Area (including staircase)
02	F-Type Quarter (G+1)	112.77	4	451.08	470.80
03	G-Type Quarter (G+1)	83.72	4	334.88	351.41
04	H-Type Quarter (G+1)	GF-53.08 FF-59.78	4 2	331.88	350.93
05	H1-Type Quarter (G+1)	49.57	8	396.56	412.16

4. Additional Land Details-

- **Land Use status:** Residential (Change of land use not required) Permissible
- **Permissible FAR:** As per TNCP guidelines FAR is 1.25
- **Khasra No. & Map:** 1825/1/क/1 (Site-1) & 926/1/क (Site-2)
- **Nazari Naksha:** Yes,
- **NOC:** Yes,

S.NO	Departments/Bodies	Status	Dated
1	CG WRD	Yes	30-Jan- 23
2	T&CP	Yes	16-Jan- 23
3	Nagar Palika Parishad	Yes	21-Feb- 23
4	CSEB	Yes	31-Jul-25
5	CG PWD	Yes	09-Mar- 23

- **Applicable master plan:** Master Plan not available.

NOTE- All floor plans including master plan and GAD quarter floor plans with detailed estimate and NOC letters are attached in annexure part.

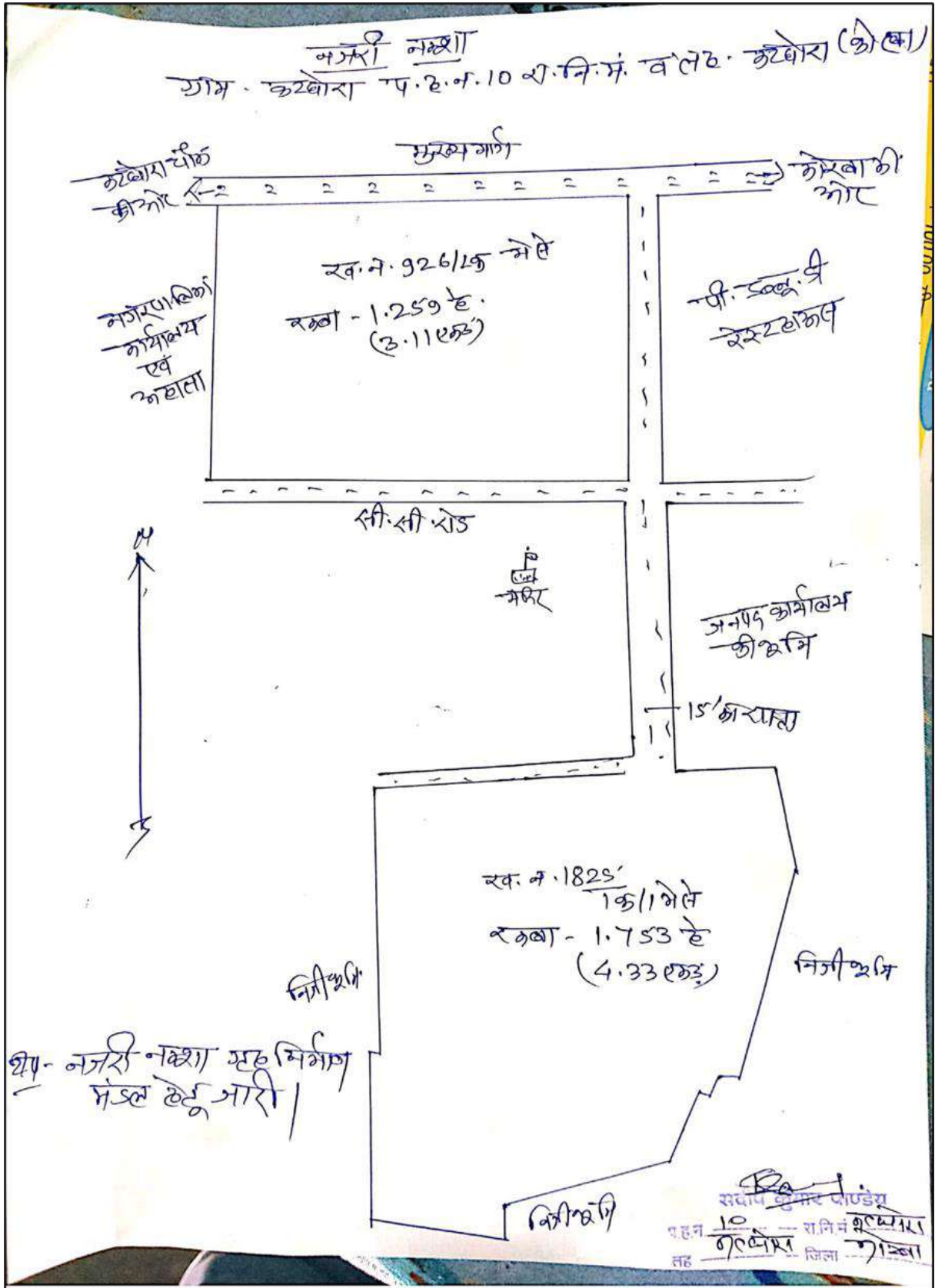
5. ABOUT REDEVELOPMENT & CONCLUSION

The remaining 5.50 acres of prime land presents a valuable opportunity for high-impact, revenue-generating development that also serves public needs. The key expectations from its redevelopment include:

1. **Optimal Land Utilization** - The project should maximize the site's potential through efficient planning, ensuring that built-up spaces, open areas, parking, and green zones are well-balanced.
2. **Revenue Generation** - Development should focus on facilities that have strong market demand and can yield sustained income, such as commercial complexes, mid-rise office buildings, premium retail spaces, or well-planned residential units.
3. **Public-Oriented Amenities** - The design should incorporate elements that attract public footfall and benefit the community, such as shopping arcades, food courts, co-working hubs, or recreational areas.
4. **Architectural Quality** - The development should be modern, aesthetically appealing, and aligned with urban design guidelines, enhancing the overall image of the locality.
5. **Sustainability and Efficiency** - Incorporate energy-efficient systems, rainwater harvesting, and landscaped open spaces to promote environmental responsibility.
6. **Flexible Usage Options** - The site could be designed for mixed-use development—for example, combining commercial spaces on lower floors with residential units or serviced apartments above.
7. **Market-Driven Design** - The developer should carry out detailed surveys and feasibility studies to determine the most profitable and suitable use, considering the proximity of the proposed GAD quarters and the site's connectivity.



ANNEXURE - 01

• Nazari Naksha





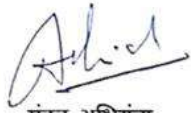

ANNEXURE - 02

- NOC letters & approvals - Chhattisgarh State Power Distribution Company limited (C.S.P.D.C.L)

	छत्तीसगढ़ राज्य विद्युत वितरण कंपनी मर्यादित (छत्तीसगढ़ शासन का एक उपक्रम)(छायाविधि की उत्तरदायी कंपनी) सी०आर०एन० : U40108CT2003SGC015822 कार्यालय : कार्यपालन अभियंता (संचा/संधा) संभाग, कटघोरा
क्रमांक: /337600/2025-26/कार्य/1482	कटघोरा, दिनांक:- 31/07/25
प्रति,	✓ कार्यपालन अभियंता छत्तीसगढ़ गृह निर्माण मण्डल संभाग- कोरबा
विषय:-	छत्तीसगढ़ गृह निर्माण मण्डल संभाग-कोरबा अंतर्गत कटघोरा में रि-डवलपमेंट योजना हेतु खसरा नं. 1825/1/क रकबा 4.33 एकड़ भूमि एवं खसरा नं. 926/1/क रकबा 3.11 एकड़ भूमि पर योजना क्रियान्वयन हेतु अनापत्ति प्रमाण पत्र के संबंध में।
संदर्भ:-	1. आपका पत्र क्र. /439/कार्य.अभि./संभाग/25 कोरबा दि. 25.07.2025 2. सहायक यंत्री उपसंभाग कटघोरा का पत्र क्र. 834 दिनांक 30.07.2025
<p>संदर्भित पत्र क्र 2 के माध्यम से सहायक अभियंता (उपसंभाग) कटघोरा द्वारा छत्तीसगढ़ गृह निर्माण मण्डल संभाग-कोरबा अंतर्गत कटघोरा में रि-डवलपमेंट योजना हेतु खसरा नं. 1825/1/क रकबा 4.33 एकड़ भूमि एवं खसरा नं. 926/1/क रकबा 3.11 एकड़ भूमि का निरीक्षण कराया गया एवं निरीक्षण में उक्त भूमि के ऊपर से 11 केवी लाईन एवं निम्नदाब विद्युत तार गुजरी हुई है। उक्त भूमि के रि-डवलपमेंट योजना हेतु आनापत्ति प्रमाण-पत्र निम्नलिखित शर्तों पर जारी किया जाता है:-</p> <ol style="list-style-type: none">1. उक्त भू-भाग पर रि-डवलपमेंट (भवन निर्माण कार्य) किये जाने के समय विद्युत लाईन हटाने/डिस्मेंटल किये जाने का पूरा व्यय आवेदक द्वारा वहन किया जावेगा।2. आवेदक द्वारा विद्युत आपूर्ति करने संबंधी आवेदन प्राप्त होने एवं सप्लाय कोड की कंडिका-4 के प्रावधानों के अनुसार औपचारिकताएं पूर्ण करने पर विद्युत आपूर्ति उपलब्ध कराया जा सकता है।3. यदि भूमि भवन संबंध में कोई विवाद हो तो यह अनापत्ति प्रमाण पत्र स्वयमेव निरस्त मानी जावे।4. परिसर में निर्माण कार्य विद्युत लाईनों से निर्धारित दूरी बनाकर किया जावे।	
<p style="text-align: right;"> (ए. के. ठाकुर) कार्यपालन अभियंता (सं./सं.) संभाग छ.स्टे.पा.डि.कं.लिमि. कटघोरा</p>	

ANNEXURE - 03

- NOC letters & approvals - Bharat Sanchar Nigam Limited (B.S.N.L)

<p>O/o Divisional Engineer (CM-CFA) Telephone Exchange Building, Behind Niharika Talkies, MP Nagar Korba (CG). 495677Ph No. 07759-221100</p>	 <p>भारत संचार निगम लिमिटेड (भारत सरकार का उपक्रम) BHARAT SANCHAR NIGAM LIMITED (A Govt. of India Enterprise)</p>
<p>क्र. उमंअ(बा)/सामान्य/2025-26/15</p>	<p>दिनांक 04.08.2025</p>
<p>प्रति, कार्यपालन अभियंता छत्तीसगढ़ गृह निर्माण मंडल संभाग : कोरबा (छत्तीसगढ़)</p>	
<p>विषय- छत्तीसगढ़ गृह निर्माण मंडल संभाग-कोरबा अंतर्गत कटघोरा में रि-डेवलपमेंट योजना हेतु खसरा नं. 1825/1/क रकबा 4.33 एकड़ भूमि एवं खसरा नं. 926/1/क रकबा 3.11 एकड़ भूमि पर योजना क्रियान्वयन हेतु अनापति पत्र</p>	
<p>सन्दर्भ: आपका पत्र क्र./1741/कार्य.अभि./संभाग/25 दिनांक: 25.07.2025 कोरबा</p>	
<p>उपरोक्त विषयांतर्गत लेख है कि संदर्भित पत्र में आपके द्वारा उल्लेखित भूमि पर रि-डेवलपमेंट योजना के कार्यान्वयन हेतु अनापति पत्र की मांग की गयी है। उक्त स्थलों पर बी.एस.एन.एल की किसी भी प्रकार की केबल नहीं बिछाई गयी है। अतः उक्त स्थलों में आपके द्वारा किसी भी कार्य के संपादन में बी एस एन एल को कोई आपत्ति नहीं है।</p>	
<p></p>	<p> मंडल अभियंता भारत संचार निगम लिमिटेड कोरबा मंडल अभियंता (सी.एफ.ए./सी.एम.) Divisional Engineer (CFA/CM) बी.एस.एन.एल., कोरबा (छ. ग.) BSNL, KORBA (C. G.)</p>
<p></p>	

ANNEXURE - 04

- NOC letters & approvals - Nagar Palika Nigam

कार्यालय नगर पालिका परिषद कटघोरा, जिला-कोरबा (छ0ग0)

क्रमांक/ २०५ /राजस्व/न0पा0प0/2023

कटघोरा, दिनांक २१.०२.२०२३

लक्ष्मी

तहसीलदार

कटघोरा, जिला-कोरबा (छ0ग0)

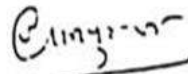
विषय:- अनापत्ति प्रमाण-पत्र वाचत।

संदर्भ :- आपका पत्र क्रमांक/855/तह./वाचक-1/2022 कटघोरा, दिनांक 29.12.2022

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उपरोक्त विषय में लेख है कि कार्यपालन अभियंता, छ.ग. गृह निर्माण मण्डल संनाग कोरबा जिला-कोरबा (छ.ग.) द्वारा ग्राम कटघोरा प.ह.नं. 10 स्थित नूनि का खसरा नंबर 926/1/क नं से रकबा 3.11 ए. जिसमें से सिंचाई विभाग का जर्जर आवासीय परिसर एवं खसरा नं. 1525/1/क/1 में से रकबा 4.33 ए. कुल रकबा 7.44 ए. भूमि को रिडक्लपमेंट योजना के लिए आवंटन किये जाने हेतु अनापत्ति प्रमाण पत्र चाही गयी है। नगर पालिका कटघोरा द्वारा निम्नांकित बातों के अध्यायीन अनापत्ति प्रमाण पत्र दिया जाता है :-

1. अन्य संबंधित विभागों से अनुमति आवश्यक है।
2. नूनि संबंधी विवाद की स्थिति में सहमति पत्र स्वमेव निरस्त मानी जायेगी।
3. आवेदित भूमि तक पहुंच मार्ग होना आवश्यक है।



मुख्य नगर पालिका अधिकारी
नगर पालिका परिषद कटघोरा

ANNEXURE - 05

- NOC letters & approvals - Water Resource Department (W.R.D)

कार्यालय कार्यपालन अभियंता

जल संसाधन संभाग, कोरवा

जिला-कोरवा, (छ.ग.)

आप. क्रं. 340/त.शा./अना./2022-23

कोरवा, दिनांक 30/01/2023

प्रति,

तहसीलदार,
कटघोरा,
जिला-कोरवा, (छ.ग.)

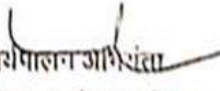
विषय:- अनापत्ति प्रमाण पत्र भिजवाने बाबत।

संदर्भ:- आपका पत्र क्रं. 855/तह./वा.-1/2022 कटघोरा, दि. 29.12.2022

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उपरोक्त विषयान्तर्गत लेख है कि, आवेदक कार्यपालन अभियंता, छ.ग. निर्माण मण्डल संभाग, कोरवा, जिला कोरवा, (छ.ग.) द्वारा ग्राम-कटघोरा, प.ह.नं. 10, रा.नि.मं. कटघोरा, तहसील कटघोरा, जिला कोरवा, (छ.ग.) स्थित भूमि खसरा नं. 926/1/क में से रकवा 3.11 एकड़ जिसमें सिंचाई विभाग का जर्जर आवासीय परिसर एवं खसरा नं. 1825/1/क/1 में से रकवा 4.33 एकड़ कुल रकवा 7.44 एकड़ भूमि को रिडेवलपमेन्ट योजना के लिए आवंटन किये जाने हेतु इस विभाग से अनापत्ति प्रमाण पत्र वाहा गया है। उक्त संबंध में लेख है कि, खसरा नं. 926/1/क रकवा 3.11 एकड़ में से रकवा 0.95 एकड़ को जल संसाधन विभाग के नाम पर ही रखकर शेष भूमि रकवा 6.49 एकड़ को छत्तीसगढ़ गृह निर्माण मण्डल संभाग, कोरवा को रिडेवलपमेन्ट योजना के क्रियान्वयन हेतु आवंटित किया जाता है, तो इस विभाग को कोई आपत्ति नहीं है।

तहपत्र:- शून्य।


कार्यपालन अभियंता
जल संसाधन संभाग, कोरवा
जिला-कोरवा, (छ.ग.)

ANNEXURE 1
(Detailed Cost Estimate)

CHHATTISGARH HOUSING & INFRASTRUCTURE DEVELOPMENT BOARD DIVISION - KORBA				
MASTER SHEET				
REDEVELOPMENT SCHEME AT KATGHORA ,DIST-KORBA				
SITE-II (WRE/IRR. Colony)				
Construction OF 01 Block F Type Quarter (04 Unit), 01 Block G Type Quarter (04 Unit), 01 Block H Type Quarter (06 Unit), 01 Block H1 Type Quarter (08 Unit) Total 22 Quarters, 01 Nos Office Building and External Development Work				
	BUILDING WORK			
Sr.	Particular	Total Block	Amount For 1 Block	Total Amount
1	F - Type (Block - 1Nos, Unit -4 Quarter) - G+1	1	7964587.00	7964587.00
2	G - Type (Block - 1Nos, Unit -4 Quarter) - G+1	1	6137116.00	6137116.00
3	H - Type (Block - 1Nos, Unit -6 Quarter) - G+1	1	6246920.00	6246920.00
4	H1 - Type (Block - 1Nos, Unit -8 Quarter) - G+1	1	8879074.00	8879074.00
5	EE Office, AE Office, Store, Meeting etc - G+2	1	10517652.00	10517652.00
		Total (X)		39745349.00
	DEVELOPEMENT WORK			
1	Rcc Road			457296.00
2	Rcc Drain			495023.00
3	Rcc Culvert			116314.00
4	Water Supply Work			400630.00
5	Sewer Line			416309.00
6	Tube Well (2 Nos.)			196522.00
7	Septic Tank			212881.00
8	Recharge Well			457082.00
9	Sumpwell			141403.00
10	Pump Room (1 Nos.)			144955.00
11	Pump,Bore Pipe Etc			234716.00
12	Partiton Boundry Wall (Length 160 Mtr)			849505.00
13	Paver work (Approach Road & Road Widening Area)			597795.00
14	Gantry Gate (Cantilever Type) Size 4.88x1.83m			419409.00
15	Bio digstor (Sheet Enclosed as per MP PWD SOR 30.7.7)			335000.00
		Total	Rs	5474840.00
16	External Electrification work			3692042.00
		Total (Y)		9166882.00
	Amount For WRE Quarter,Office etc & External Development Work At Site - II	(3).	Total (X+Y)	48912231.00

	Say Rs in Lacs			489.12
	Other Expenses			
1	Lease rent for 20 years (Rs 277561.00 x 20 year) as per collector land allotment		Rs. In Lacs	55.52
2	Land Survey Surveyor charges		Rs. In Lacs	0.48
3	Soil SBC Testing charges		Rs. In Lacs	0.32
4	Tree cutting Expenditure of WRE/Irrigation site payable to Forest	(Lump- Sum)	Rs. In Lacs	5.00
5	Electric HT/LT Line Shifting Charges for WRE/Irr. Site payable to CSPDCL	(Lump- Sum)	Rs. In Lacs	1.50
6	Provision for Structural Design of WRE/Irr. Qtr & Office,etc	(Lump- Sum)	Rs. In Lacs	8.00
7	Provison for Dismantling of Existing old WRE/Irr. Qtr & Office,etc	(Lump- Sum)	Rs. In Lacs	1.00
8	Provison for Contingency/Unforeseen Expenditure	(Lump- Sum)	Rs. In Lacs	10.00
	Grand Total		Rs in Lacs	570.94

Sub Engineer
Chhattisgarh Housing &
Infrastructure Development Board
Division-Korba (C.G.)

Assistant Engineer
Chhattisgarh Housing &
Infrastructure Development Board
Division-Korba (C.G.)

Executive Engineer
Chhattisgarh Housing &
Infrastructure
Development Board
Division-Korba (C.G.)

GENERAL ABSTRACT

DETAIL ESTIMATE FOR CIVIL CONSTRUCTION OF PROPOSED "EE, AE OFFICE, STORE , MEETING ETC (G+2)" FOR IRRIGATION UNDER REDEVELOPEMENT WORK AT KATGHORA (KORBA) C.G., (SITE II)

For 1 Office

A	Construction cost		For 01 office	Total office to be constructed	Total Cost for 1 Unit
i)	Civil Work	Rs.	8969147.00	1	8969147.00
ii)	Cost of water supply and sanitary works	Rs.	228277.00	1	228277.00
iii)	Cost of internal electrification work i/c fixtures	Rs.	1320228.00	1	1320228.00
	Total A :-	Rs.			10517652.00

**Based on Chhattisgarh P.W.D. Building SOR w.e.f. 01-01-2015
& Road SOR w.e.f. 01-01-2015**

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**DETAIL ESTIMATE FOR CIVIL CONSTRUCTION OF
PROPOSED "EE, AE OFFICE, STORE , MEETING ETC" FOR IRRIGATION UNDER REDEVELOPEMENT
WORK AT KATGHORA (KORBA) C.G., (SITE II)**

S. No.	I. No.	PARTICULAR	Measurement				QTY	UNIT	RATE	AMOUNT
			NO	L	B	D/H				
1	1.2	Surface dressing of the ground including removing vegetation and making up undulations and in-equalities not exceeding 15 cms in depth/ height including disposal of rubbish upto 1.5 m lift and lead upto 50m (at least 5m away from the dressed area).	1	29.60	25.00		740.00	sqm	7.20	5328.00
2	1.1	Excavation for all types and sizes of foundations, trenches and drains or for any other purpose including disposal of excavated stuff upto 1.5 m lift and lead upto 50m (at least 5m away from the excavated area), including dressing and leveling of pits.								
	1.1.1	In all types of soils.								
		Footing								
		F1	6	4.05	3.70	2.00	179.82			
		F2	10	2.70	3.00	2.00	162.00			
		F3	2	2.10	2.10	2.00	17.64			
		F4	2	2.10	2.10	2.00	17.64			
		F5	1	3.70	3.30	2.00	24.42			
		CF1	2	4.50	3.20	2.00	57.60			
		CF2	1	6.20	4.00	2.00	49.60			
		For Beam								
		Horizontel	4	19.00	0.30	0.20	4.56			
			1	4.00	0.30	0.20	0.24			
			1	4.40	0.30	0.20	0.26			
			1	5.60	0.30	0.20	0.34			
			2	4.40	0.30	0.20	0.53			
			3	4.60	0.30	0.20	0.83			
			1	4.40	0.30	0.20	0.26			
		Vertical	4	9.10	0.30	0.20	2.18			
			1	19.00	0.30	0.20	1.14			
			1	10.10	0.30	0.20	0.61			
			1	4.60	0.30	0.20	0.28			
			1	2.20	0.30	0.20	0.13			
			2	1.70	0.30	0.20	0.20			
			1	1.30	0.30	0.20	0.08			
			2	4.40	0.30	0.20	0.53			
			2	5.20	0.30	0.20	0.62			
		For front step	1	4.40	1.10	0.20	0.97			
							522.48	cum	185.00	96658.80
3	1.6	Extra for every additional lift of 1.5 m or part thereof.								
	1.6.1	All types of soils								
		F1	6	4.05	3.70	0.50	44.96			
		F2	10	2.70	3.00	0.50	40.50			
		F3	2	2.10	2.10	0.50	4.41			
		F4	2	2.10	2.10	0.50	4.41			
		F5	1	3.70	3.30	0.50	6.11			
		CF1	2	4.50	3.20	0.50	14.40			
		CF2	1	6.20	4.00	0.50	12.40			
							127.18	cum	26.50	3370.27
4	3.1	Providing and laying nominal mix plain cement concrete with crushed stone aggregate using concrete mixer in all works upto plinth level excluding cost of form work.								
	3.1.2	1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size).								
		Below PL								
		F1	6	4.05	3.70	0.15	13.49			
		F2	10	2.70	3.00	0.15	12.15			
		F3	2	2.10	2.10	0.15	1.32			
		F4	2	2.10	2.10	0.15	1.32			
		F5	1	3.70	3.30	0.15	1.83			
		CF1	2	4.50	3.20	0.15	4.32			

		CF2	1	6.20	4.00	0.15	3.72			
		For front step	1	4.40	1.10	0.15	0.73			
		Below Floor								
		Store	1	4.60	7.00	0.10	3.22			
		A E Chamber	1	4.00	3.00	0.10	1.20			
		Tech sec.	1	4.00	3.90	0.10	1.56			
		EE Chamber	1	4.40	5.70	0.10	2.51			
		Toilet	1	2.10	1.20	0.10	0.25			
		Front of toilet	1	2.20	1.30	0.10	0.29			
		1.80 m corridoor	1	14.60	1.80	0.10	2.63			
		porch	1	4.00	4.00	0.10	1.60			
		Below front step	1	4.00	1.20	0.10	0.48			
		2.00 m corridoor	1	5.40	2.00	0.10	1.08			
		M. toilet	1	5.20	2.20	0.10	1.14			
		F. toilet	1	3.00	1.70	0.10	0.51			
		Below Stair	1	4.50	5.70	0.10	2.57			
		Tech Sec	1	4.20	9.70	0.10	4.07			
		Store	1	4.00	4.20	0.10	1.68			
		Porch step	1	4.40	1.20	0.10	0.53			
		paver area	1	14.40	9.90	0.10	14.26			
							78.45	cum		
		FF								
		M. toilet	1	5.20	2.20	0.10	1.14			
		F. toilet	1	3.00	1.70	0.10	0.51			
							1.65	cum		
		SF								
		M. toilet	1	5.20	2.20	0.10	1.14			
		F. toilet	1	3.00	1.70	0.10	0.51			
							1.65	cum		
							81.76	cum	2659.00	217397.18
5	3.3	Providing and laying design mix reinforced cement concrete with crushed graded stone aggregate 20mm nominal size using batching plant, transit mixer and concrete pump, in all works upto plinth level excluding cost of form work.								
	3.3.2	M-25 Grade								
		Below plinth								
		F1	6	3.75	3.30	0.60	44.55			
		F2	10	2.40	2.70	0.45	29.16			
		F3	2	1.80	1.80	0.40	2.59			
		F4	2	1.80	1.80	0.40	2.59			
		F5	1	3.30	3.00	0.60	5.94			
		CF1	2	4.30	3.00	0.45	11.61			
		CF2	1	5.95	3.75	0.60	13.39			
		Column upto Plinth								
		C1	7	0.30	0.60	1.90	2.39			
		C2	14	0.30	0.45	2.05	3.87			
		C3	2	0.20	0.45	2.10	0.38			
		C4	2	0.30	0.45	2.10	0.57			
		C5	2	0.30	0.60	1.90	0.68			
		Ground Beam								
		Horizontel	4	19.00	0.20	0.40	6.08			
			1	4.00	0.20	0.40	0.32			
			1	4.40	0.20	0.40	0.35			
			1	5.60	0.20	0.40	0.45			
			2	4.40	0.20	0.40	0.70			
			3	4.60	0.20	0.40	1.10			
			1	4.40	0.20	0.40	0.35			
		Vertical	4	9.10	0.20	0.40	2.91			
			1	19.00	0.20	0.40	1.52			
			1	10.10	0.20	0.40	0.81			
			1	4.60	0.20	0.40	0.37			
			1	2.20	0.20	0.40	0.18			
			2	1.70	0.20	0.40	0.27			
			1	1.30	0.20	0.40	0.10			
			2	4.40	0.20	0.40	0.70			
			2	5.20	0.20	0.40	0.83			
		For front step	1	4.40	0.90	0.40	1.58			
						(A)	136.37	Cum		
		Above Plinth-GF								
		Column upto Slab								
		C1	7	0.30	0.60	3.150	3.97			
		C2	14	0.30	0.45	3.150	5.95			
		C3	2	0.20	0.45	3.150	0.57			

		C4	2	0.30	0.45	3.150	0.85			
		C5	2	0.30	0.60	3.150	1.13			
		Lintle Beam								
		Horizontal	4	19.00	0.20	0.20	3.04			
			1	4.00	0.20	0.20	0.16			
			1	4.40	0.20	0.20	0.18			
			1	5.60	0.20	0.20	0.22			
			2	4.40	0.20	0.20	0.35			
			3	4.60	0.20	0.20	0.55			
			1	4.40	0.20	0.20	0.18			
		Vertical	4	9.10	0.20	0.20	1.46			
			1	19.00	0.20	0.20	0.76			
			1	10.10	0.20	0.20	0.40			
			1	4.60	0.20	0.20	0.18			
			1	2.20	0.20	0.20	0.09			
			2	1.70	0.20	0.20	0.14			
			1	1.30	0.20	0.20	0.05			
			2	4.40	0.20	0.20	0.35			
			2	5.20	0.20	0.20	0.42			
		For front step	1	4.40	0.20	0.20	0.18			
		Slab Beam								
		Horizontal	4	19.00	0.20	0.45	6.84			
			1	4.00	0.20	0.45	0.36			
			1	4.40	0.20	0.45	0.40			
			1	5.60	0.20	0.45	0.50			
			2	4.40	0.20	0.45	0.79			
			3	4.60	0.20	0.45	1.24			
			1	4.40	0.20	0.45	0.40			
		Vertical	4	9.10	0.20	0.45	3.28			
			1	19.00	0.20	0.45	1.71			
			1	10.10	0.20	0.45	0.91			
			1	4.60	0.20	0.45	0.41			
			1	2.20	0.20	0.45	0.20			
			2	1.70	0.20	0.45	0.31			
			1	1.30	0.20	0.45	0.12			
			2	4.40	0.20	0.45	0.79			
			2	5.20	0.20	0.45	0.94			
		For front step	1	4.40	0.20	0.45	0.40			
		Slab								
		Store	1	4.60	7.00	0.125	4.03			
		A E Chamber	1	4.00	3.00	0.125	1.50			
		Tech sec.	1	4.00	3.90	0.125	1.95			
		EE Chamber	1	4.40	5.70	0.125	3.14			
		Toilet	1	2.10	1.20	0.125	0.32			
		Front of toilet	1	2.20	1.30	0.125	0.36			
		1.80 m corridoor	1	14.60	1.80	0.125	3.29			
		porch	1	4.00	4.00	0.125	2.00			
		Below front step	1	4.00	1.20	0.125	0.60			
		2.00 m corridoor	1	5.40	2.00	0.125	1.35			
		M. toilet	1	5.20	2.20	0.125	1.43			
		F. toilet	1	3.00	1.70	0.125	0.64			
		Below Stair	1	4.50	5.70	0.125	3.21			
		Tech Sec	1	4.20	9.70	0.125	5.09			
		Store	1	4.00	4.20	0.125	2.10			
		Porch step	1	4.40	1.20	0.125	0.66			
		Staircase								
		Staircase W/slab	2	3.90	1.50	0.150	1.76			
			1	2.00	1.50	0.150	0.45			
		Midlanding	2	1.50	1.50	0.150	0.68			
		Steps	15	1.50	0.15	0.15	0.51			
		Chhajja								
		1.80 m corridoor	1	4.80	0.60	0.08	0.23			
			2	5.80	0.60	0.08	0.56			
		w	8	1.80	0.60	0.08	0.69			
		w1	2	1.50	0.60	0.08	0.14			
		w2	2	1.30	0.60	0.08	0.12			
		V	2	0.90	0.60	0.08	0.09			
		V1	3	0.75	0.60	0.08	0.11			
		Window Sill								
		Side of porch	1	4.60	0.20	0.05	0.05			
			1	5.40	0.20	0.05	0.05			
		w	8	1.80	0.20	0.05	0.14			
		w1	2	1.50	0.20	0.05	0.03			
		w2	2	1.30	0.20	0.05	0.03			
		V	2	0.90	0.20	0.05	0.02			
		V1	3	0.75	0.20	0.05	0.02			
		Store room laft	3	3.90	0.60	0.10	0.70			

			6	3.90	0.60	0.10	1.40			
			3	5.00	0.60	0.10	0.90			
		Store room laft	3	3.00	0.60	0.10	0.54			
			3	3.00	0.60	0.10	0.54			
			3	1.20	0.60	0.10	0.22			
			1	3.20	0.60	0.10	0.19			
						(B)	82.57	Cum		
		Above Plinth-FF								
		Column upto Slab								
		C1	7	0.30	0.60	3.150	3.97			
		C2	14	0.30	0.45	3.150	5.95			
		C3	2	0.20	0.45	0.90	0.16			
		C4	2	0.30	0.45	0.90	0.24			
		C5	2	0.30	0.60	3.150	1.13			
		Lintle Beam								
		Horizontel	4	19.00	0.20	0.20	3.04			
			1	4.00	0.20	0.20	0.16			
			1	4.40	0.20	0.20	0.18			
			1	4.60	0.20	0.20	0.18			
			1	5.60	0.20	0.20	0.22			
			2	4.40	0.20	0.20	0.35			
			3	4.60	0.20	0.20	0.55			
			1	4.40	0.20	0.20	0.18			
		Vertical	4	9.10	0.20	0.20	1.46			
			1	19.00	0.20	0.20	0.76			
			1	10.10	0.20	0.20	0.40			
			1	4.60	0.20	0.20	0.18			
			0	2.20	0.20	0.20	0.00			
			2	1.70	0.20	0.20	0.14			
			1	1.30	0.20	0.20	0.05			
			2	4.40	0.20	0.20	0.35			
			2	5.20	0.20	0.20	0.42			
		Slab Beam								
		Horizontel	4	19.00	0.20	0.45	6.84			
			1	4.00	0.20	0.45	0.36			
			1	4.40	0.20	0.45	0.40			
			1	4.60	0.20	0.45	0.41			
			1	5.60	0.20	0.45	0.50			
			2	4.40	0.20	0.45	0.79			
			3	4.60	0.20	0.45	1.24			
			1	4.40	0.20	0.45	0.40			
		Vertical	4	9.10	0.20	0.45	3.28			
			1	19.00	0.20	0.45	1.71			
			1	10.10	0.20	0.45	0.91			
			1	4.60	0.20	0.45	0.41			
			0	2.20	0.20	0.45	0.00			
			2	1.70	0.20	0.45	0.31			
			1	1.30	0.20	0.45	0.12			
			2	4.40	0.20	0.45	0.79			
			2	5.20	0.20	0.45	0.94			
		Slab								
		Store	1	4.60	7.00	0.125	4.03			
		A E Chamber	1	4.00	3.00	0.125	1.50			
		Tech sec.	1	4.00	3.90	0.125	1.95			
		AE Chamber	1	4.00	3.00	0.125	1.50			
		Sec.	1	4.40	3.90	0.125	2.15			
		1.80 m corridoor	1	14.60	1.80	0.125	3.29			
		Below front step	1	4.00	1.20	0.125	0.60			
		2.00 m corridoor	1	5.40	2.00	0.125	1.35			
		M. toilet	1	5.20	2.20	0.125	1.43			
		F. toilet	1	3.00	1.70	0.125	0.64			
		Below Stair	1	4.50	5.70	0.125	3.21			
		Tech Sec	1	4.20	9.70	0.125	5.09			
		Staircase								
		Staircase W/slab	2	3.90	1.50	0.150	1.76			
			1	2.00	1.50	0.150	0.45			
		Midlanding	2	1.50	1.50	0.150	0.68			
		Steps	15	1.50	0.15	0.150	0.51			
		Chhajja								
		1.80 m corridoor	1	4.80	0.60	0.08	0.23			
			2	5.80	0.60	0.08	0.56			
		w	8	1.80	0.60	0.08	0.69			
		w1	1	1.50	0.60	0.08	0.07			
		w2	2	1.30	0.60	0.08	0.12			
		V	2	0.90	0.60	0.08	0.09			
		V1	2	0.75	0.60	0.08	0.07			

		Window Sill								
		Side of porch	1	4.60	0.20	0.05	0.05			
		Side of porch	1	5.40	0.20	0.05	0.05			
		w	8	1.80	0.20	0.05	0.14			
		w1	1	1.50	0.20	0.05	0.02			
		w2	2	1.30	0.20	0.05	0.03			
		V	2	0.90	0.20	0.05	0.02			
		V1	2	0.75	0.60	0.08	0.07			
		Store room laft	3	3.90	0.60	0.10	0.70			
			6	3.90	0.60	0.10	1.40			
			3	5.00	0.60	0.10	0.90			
						(C)	74.81	Cum		
		Above Plinth-SF								
		Column upto Slab								
		C1	7	0.30	0.60	3.150	3.97			
		C2	8	0.30	0.45	3.150	3.40			
		C2	6	0.20	0.45	0.900	0.49			
		C5	2	0.30	0.60	3.150	1.13			
		Lintle Beam								
		Horizontel	2	19.00	0.20	0.20	1.52			
			2	5.60	0.20	0.20	0.45			
		Vertical	3	8.9	0.20	0.20	1.07			
			2	1.9	0.20	0.20	0.15			
			1	1.30	0.20	0.20	0.05			
		Slab Beam								
		Horizontel	4	19.00	0.20	0.45	6.84			
			1	5.60	0.20	0.45	0.50			
		Vertical	5	8.9	0.20	0.45	4.01			
			2	1.70	0.20	0.45	0.31			
			1	1.30	0.20	0.45	0.12			
		Slab								
		Meeting hall	1	13.20	8.75	0.125	14.44			
		2.00 m corridoor	1	6.20	2.00	0.125	1.55			
		M. toilet	1	5.20	2.20	0.125	1.43			
		F. toilet	1	3.00	1.70	0.125	0.64			
		Stair	1	0.90	5.70	0.125	0.64			
		Staircase								
		Staircase W/slab	2	3.90	1.50	0.150	1.76			
			1	2.00	1.50	0.150	0.45			
		Midlanding	2	1.50	1.50	0.150	0.68			
		Steps	15	1.50	0.15	0.2	0.51			
		Chhajja								
		w	8	1.80	0.60	0.08	0.69			
		w2	2	1.30	0.60	0.08	0.12			
		V	2	0.90	0.60	0.08	0.09			
		V1	2	0.75	0.60	0.08	0.07			
		Window Sill								
		w	8	1.80	0.20	0.05	0.14			
		w2	2	1.30	0.20	0.05	0.03			
		V	2	0.90	0.20	0.05	0.02			
		V1	2	0.75	0.20	0.05	0.02			
						(D)	47.26	Cum		
		Terrace Floor								
		For Tower col								
		C1	3	0.30	0.60	2.250	1.22			
		C5	2	0.30	0.60	2.250	0.81			
		For Tower paraphet								
		C1	3	0.30	0.60	0.30	0.16			
		C5	2	0.30	0.60	0.30	0.11			
		Column upto Parapet Wall								
		C1	4	0.30	0.60	0.90	0.65			
		C2	8	0.30	0.45	0.90	0.97			
		Tower Beam	2	5.60	0.20	0.45	1.01			
			2	4.70	0.20	0.45	0.85			
		Tower Slab	1	5.60	4.70	0.125	3.29			
		Chhajja	2	1.30	0.60	0.080	0.12			
		Staircase W/slab	2	3.90	1.50	0.150	1.76			
			1	2.00	1.50	0.150	0.45			
		Midlanding	2	1.50	1.50	0.150	0.68			
		Steps	15	1.50	0.15	0.15	0.51			
						(E)	12.57	Cum		
				(A+B+C+D+E)			353.58	Cum	4298.00	1519693.93

6	3.4	Extra for laying PCC/RCC of any grade in superstructure above plinth level for every floor or part thereof in addition to rate for foundation and plinth:								
		Ground Floor					82.57	cum	97.50	8050.39
		First Floor					74.81	cum	195.00	14588.26
		Second Floor					47.26	cum	292.50	13824.40
		Terrace Floor					12.57	cum	390.00	4902.32
7	2.1	Providing and fixing form work including centring, shuttering, strutting, staging, propping bracing etc. complete and including its removal at all levels, for:								
A	2.1.1	Foundations, footings, bases of columns plinth beam, curtain wall in any shape and size and all type of wall below plinth level.								
		F1	6	14.10		0.60	50.76			
		F2	10	10.20		0.45	45.90			
		F3	2	7.20		0.40	5.76			
		F4	2	7.20		0.40	5.76			
		F5	1	12.60		0.60	7.56			
		CF1	2	14.60		0.45	13.14			
		CF2	1	19.40		0.60	11.64			
		C1	7	1.80		1.90	23.94			
		C2	14	1.50		2.05	43.05			
		C3	2	1.30		2.10	5.46			
		C4	2	1.50		2.10	6.30			
		C5	2	1.80		1.90	6.84			
		Ground Beam								
		Horizontel	4	19.00		0.80	60.80			
			1	4.00		0.80	3.20			
			1	4.40		0.80	3.52			
			1	5.60		0.80	4.48			
			2	4.40		0.80	7.04			
			3	4.60		0.80	11.04			
			1	4.40		0.80	3.52			
		Vertical	4	9.10		0.80	29.12			
			1	19.00		0.80	15.20			
			1	10.10		0.80	8.08			
			1	4.60		0.80	3.68			
			1	2.20		0.80	1.76			
			2	1.70		0.80	2.72			
			1	1.30		0.80	1.04			
			2	4.40		0.80	7.04			
			2	5.20		0.80	8.32			
		For front step	1	4.40		0.80	3.52			
							400.19	sqm	139.00	55626.41
B	2.1.5	Columns, Pillars, Piers and likes-rectangular or square in shape								
		Above Plinth-GF								
		Column upto Slab								
		C1	7	1.80		3.15	39.69			
		C2	14	1.50		3.15	66.15			
		C3	2	1.30		3.15	8.19			
		C4	2	1.50		3.15	9.45			
		C5	2	1.80		3.15	11.34			
							134.82	sqm		
		Above Plinth-FF								
		Column up to Slab								
		C1	7	1.80		3.15	39.69			
		C2	14	1.50		3.15	66.15			
		C3	2	1.30		0.90	2.34			
		C4	2	1.50		0.90	2.70			
		C5	2	1.80		3.15	11.34			
							122.22	sqm		
		Above Plinth-SF								
		Column up to Slab								
		C1	7	1.80		3.15	39.69			
		C2	8	1.50		3.15	37.80			
		C2	6	1.30		0.90	7.02			
		C5	2	1.80		3.15	11.34			
							95.85	sqm		

		Terrace Floor								
		For Tower col								
		C1	3	1.80		2.25	12.15			
		C5	2	1.80		2.25	8.10			
		For Tower paraphet								
		C1	3	1.80		0.30	1.62			
		C5	2	1.80		0.30	1.08			
		Column upto Parapet Wall								
		C1	4	1.80		0.90	6.48			
		C2	8	1.50		0.90	10.80			
							40.23	Cum		
							393.12	sqm	297.00	116756.64
C	2.1.8	Beams, lintels, cantilevers & walls								
		GF								
		Lintle Beam								
		Horizontal	4	19.00		0.60	45.60			
			1	4.00		0.60	2.40			
			1	4.40		0.60	2.64			
			1	5.60		0.60	3.36			
			2	4.40		0.60	5.28			
			3	4.60		0.60	8.28			
			1	4.40		0.60	2.64			
		Vertical	4	9.10		0.60	21.84			
			1	19.00		0.60	11.40			
			1	10.10		0.60	6.06			
			1	4.60		0.60	2.76			
			1	2.20		0.60	1.32			
			2	1.70		0.60	2.04			
			1	1.30		0.60	0.78			
			2	4.40		0.60	5.28			
			2	5.20		0.60	6.24			
		For front step	1	4.40		0.60	2.64			
		Slab Beam								
		Horizontal	4	19.00		1.10	83.60			
			1	4.00		1.10	4.40			
			1	4.40		1.10	4.84			
			1	5.60		1.10	6.16			
			2	4.40		1.10	9.68			
			3	4.60		1.10	15.18			
			1	4.40		1.10	4.84			
		Vertical	4	9.10		1.10	40.04			
			1	19.00		1.10	20.90			
			1	10.10		1.10	11.11			
			1	4.60		1.10	5.06			
			1	2.20		1.10	2.42			
			2	1.70		1.10	3.74			
			1	1.30		1.10	1.43			
			2	4.40		1.10	9.68			
			2	5.20		1.10	11.44			
		For front step	1	4.40		1.10	4.84			
		Window Sill								
		Side of porch	1	4.60		0.10	0.46			
		Side of porch	1	5.40		0.10	0.54			
		w	8	1.80		0.10	1.44			
		w1	2	1.50		0.10	0.30			
		w2	2	1.30		0.10	0.26			
		V	2	0.90		0.10	0.18			
		V1	3	0.75		0.10	0.23			
							373.33	sqm		
		FF								
		Lintle Beam								
		Horizontal	4	19.00		0.60	45.60			
			1	4.00		0.60	2.40			
			1	4.40		0.60	2.64			
			1	4.60		0.60	2.76			
			1	5.60		0.60	3.36			
			2	4.40		0.60	5.28			
			3	4.60		0.60	8.28			
			1	4.40		0.60	2.64			
		Vertical	4	9.10		0.60	21.84			
			1	19.00		0.60	11.40			
			1	10.10		0.60	6.06			
			1	4.60		0.60	2.76			
			1	2.20		0.60	1.32			
			2	1.70		0.60	2.04			
			1	1.30		0.60	0.78			

			2	4.40		0.60	5.28			
			2	5.20		0.60	6.24			
		Slab Beam								
		Horizontal	4	19.00		1.10	83.60			
			1	4.00		1.10	4.40			
			1	4.40		1.10	4.84			
			1	4.60		1.10	5.06			
			1	5.60		1.10	6.16			
			2	4.40		1.10	9.68			
			3	4.60		1.10	15.18			
			1	4.40		1.10	4.84			
		Vertical	4	9.10		1.10	40.04			
			1	19.00		1.10	20.90			
			1	10.10		1.10	11.11			
			1	4.60		1.10	5.06			
			1	2.20		1.10	2.42			
			2	1.70		1.10	3.74			
			1	1.30		1.10	1.43			
			2	4.40		1.10	9.68			
			2	5.20		1.10	11.44			
		Window sill								
		Side of open terrace	1	4.40		0.00	0.00			
		Side of open terrace	1	5.60		0.10	0.56			
		w	8	1.80		0.10	1.44			
		w1	1	1.50		0.10	0.15			
		w2	2	1.30		0.10	0.26			
		V	2	0.90		0.10	0.18			
		V1	2	5.20		0.10	1.04			
							373.89	sqm		
		SF								
		Lintle Beam								
		Horizontal	2	19.00		0.60	22.80			
			2	5.60		0.60	6.72			
		Vertical	3	8.9		0.60	16.02			
			2	1.9		0.60	2.28			
			1	1.30		0.60	0.78			
		Slab Beam				0.60	0.00			
		Horizontal	4	19.00		1.10	83.60			
			1	5.60		1.10	6.16			
		Vertical	5	8.9		1.10	48.95			
			2	1.70		1.10	3.74			
			1	1.30		1.10	1.43			
		Window sill								
		w	1	5.60		0.10	0.56			
		w2	5	8.90		0.10	4.45			
		V	2	1.70		0.10	0.34			
		V1	1	1.30		0.10	0.13			
							197.96	sqm		
		Terrace Floor								
		Tower Beam	2	5.60		1.10	12.32			
			2	4.70		1.10	10.34			
							22.66	sqm		
							967.84	sqm	202.00	195502.67
D	2.1.7	Suspended floors, roofs, access Kitchen Platform, balconies (plain surfaces) and shelves (cast in situ)								
		Above Plinth-GF								
		Slab								
		Store	1	4.60	7.00		32.20			
		A E Chamber	1	4.00	3.00		12.00			
		Tech sec.	1	4.00	3.90		15.60			
		EE Chamber	1	4.40	5.70		25.08			
		Toilet	1	2.10	1.20		2.52			
		Front of toilet	1	2.20	1.30		2.86			
		1.80 m corridoor	1	14.60	1.80		26.28			
		porch	1	4.00	4.00		16.00			
		Below front step	1	4.00	1.20		4.80			
		2 m corridoor	1	5.40	2.00		10.80			
		M. toilet	1	5.20	2.20		11.44			
		F. toilet	1	3.00	1.70		5.10			
		Below Stair	1	4.50	5.70		25.65			
		Tech Sec	1	4.20	9.70		40.74			
		Store	1	4.00	4.20		16.80			
		Porch step	1	4.40	1.20		5.28			
							253.15	sqm		
		Above Plinth-FF								

		Slab								
		Store	1	4.60	7.00		32.20			
		A E Chamber	1	4.00	3.00		12.00			
		Tech sec.	1	4.00	3.90		15.60			
		AE Chamber	1	4.00	3.00		12.00			
		Sec.	1	4.40	3.90		17.16			
		1.80 m corridoor	1	14.60	1.80		26.28			
		Below front step	1	4.00	1.20		4.80			
		2 m corridoor	1	5.40	2.00		10.80			
		M. toilet	1	5.20	2.20		11.44			
		F. toilet	1	3.00	1.70		5.10			
		Below Stair	1	4.50	5.70		25.65			
		Tech Sec	1	4.20	9.70		40.74			
							213.77	sqm		
		Above Plinth-SF								
		Slab								
		Meeting hall	1	13.20	8.75		115.50			
		2 m corridoor	1	6.20	2.00		12.40			
		M. toilet	1	5.20	2.20		11.44			
		F. toilet	1	3.00	1.70		5.10			
		Stair	1	0.90	5.70		5.13			
							149.57	sqm		
		Terrace Floor								
		1	1	5.60	4.70		26.32			
							26.32	sqm		
							642.81	sqm	235.00	151060.35
E	2.1.13	Weather shade, chhajja, Cornices and mouldings								
		GF								
		Side of porch	2	4.80	0.60		5.76			
		w	8	1.80	0.60		8.64			
		w1	2	1.50	0.60		1.80			
		w2	2	1.30	0.60		1.56			

		V	2	0.90	0.60		1.08			
		V1	3	0.75	0.60		1.35			
		FF								
		Side of open terrace	2	4.80	0.60		5.76			
		w	8	1.80	0.60		8.64			
		w1	1	1.50	0.60		0.90			
		w2	2	1.30	0.60		1.56			
		V	2	0.90	0.60		1.08			
		V1	2	0.75	0.60		0.90			
		SF								
		w	8	1.80	0.60		8.64			
		w2	2	1.30	0.60		1.56			
		V	2	0.90	0.60		1.08			
		V1	2	0.75	0.60		0.90			
		TF								
		Chhajja	2	1.30	0.60		1.56	sqm		
							52.77	sqm	294.00	15514.38
F	2.1.15	Stair cases of all types excluding spiral and folded plate type, including risers and landings								
		GF								
		Staircase W/slab	2	3.90	1.50		11.70			
			1	2.00	1.50		3.00			
		Midlanding	2	1.50	1.50		4.50			
		Steps	15	1.50	0.30		6.75			
		Sides	2	3.90	0.30		2.34			
			1	2.00	0.30		0.60			
							28.89	sqm		
		FF								
		Staircase W/slab	2	3.90	1.50		11.70			
			1	2.00	1.50		3.00			
		Midlanding	2	1.50	1.50		4.50			
		Steps	15	1.50	0.30		6.75			
		Sides	2	3.90	0.30		2.34			
			1	2.00	0.30		0.60			
							28.89	sqm		
		SF								
		Staircase W/slab	2	3.90	1.50		11.70			
			1	2.00	1.50		3.00			
		Midlanding	2	1.50	1.50		4.50			
		Steps	15	1.50	0.30		6.75			
		Sides	2	3.90	0.30		2.34			
			1	2.00	0.30		0.60			
							28.89	sqm		
							86.67	sqm	230.00	19934.10
8	2.3	Extra for providing fixing and removing of propping from lower floor upwards for the concreting. Propping should be provided two floors below. The props of lower floor must be 50% of the props of the floor above including wedging etc. complete. In case propping is done in one floor below, only half the rate shall be paid.								
		As per Slab Area	2	642.81		0.50	642.81	sqm	17.00	10927.77
9	3.12	Providing and placing in position reinforcement for R.C.C. work including straightening, cutting, bending, binding etc. complete as per drawings including cost of binding wire in foundation and plinth all complete:								
	3.12.2	Thermo-Mechanically treated bars FE 500 D								
		Taking Steel@ 115 Kg/Cum of M25 Grade RCC	353.58	X	115.00		40661.89	Kg	54.50	2216072.99
10	1.17	Filling from available excavated stuff (Excluding rock) in trenches, plinth, sides of foundation etc. in layers not exceeding 20cm in depth consolidating each deposited layer by ramming and watering with a lead upto 50 M. and lift upto 1.5 M.								
		For Footing (Total Excavated Earth)					522.48			

							522.48	Cum	65.00	33961.20
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11	1.18	Providing and filling in plinth with sand/ Crusher dust and hard moorum under floor in layers not exceeding 20cm in depth consolidating each deposited layer by ramming and watering, including dressing etc. complete.								
		Below Floor								
		Store	1	4.60	7.00	0.65	20.93			
		A E Chamber	1	4.00	3.00	0.65	7.80			
		Tech sec.	1	4.00	3.90	0.65	10.14			
		EE Chamber	1	4.40	5.70	0.65	16.30			
		Toilet	1	2.10	1.20	0.65	1.64			
		Front of toilet	1	2.20	1.30	0.65	1.86			
		1.8 m corridoor	1	14.60	1.80	0.65	17.08			
		porch	1	4.00	4.00	0.65	10.40			
		Below front step	1	4.00	1.20	0.65	3.12			
		2 m corridoor	1	5.40	2.00	0.65	7.02			
		M. toilet	1	5.20	2.20	0.65	7.44			
		F. toilet	1	3.00	1.70	0.65	3.32			
		Below Stair	1	4.50	5.70	0.65	16.67			
		Tech Sec	1	4.20	9.70	0.65	26.48			
		Store	1	4.00	4.20	0.65	10.92			
		Porch step	1	4.40	1.20	0.65	3.43			
		FF								
		M. toilet	1	5.20	2.20	0.65	7.44			
		F. toilet	1	3.00	1.70	0.65	3.32			
		SF								
		M. toilet	1	5.20	2.20	0.65	7.44			
		F. toilet	1	3.00	1.70	0.65	3.32			
							186.05	Cum	371.00	69024.36
12	3.13	Providing and laying damp proof course (upto 50mm thick) with plain cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded crushed stone aggregate 20mm nominal size) including form work.								
		At PL	1	118.00	0.20	0.05	1.18			
		above paraphet	1	54.80	0.20	0.05	0.55			
		tower paraphet	1	20.60	0.20	0.05	0.21			
		SF terrace	1	27.40	0.20	0.05	0.27			
		FF terrace	1	25.40	0.20	0.05	0.25			
							2.46	cum	4237.00	10431.49
13	1.25	Diluting chemical emulsion (chlorpyrifos/ lindane) in water as per manufacturers recommendation and injecting for pre-constructional curative cum preventive anti-termite treatment:(Five year service guarantee bond to be signed by contractor) Surface treatment by spreading emulsion under floor, over the plinth area								
	1.25.1	before laying base concrete @ 5 litres / sqm								
		Plinth Area								
		Below Floor								
		Store	1	4.60	7.00		32.20			
		A E Chamber	1	4.00	3.00		12.00			
		Tech sec.	1	4.00	3.90		15.60			
		EE Chamber	1	4.40	5.70		25.08			
		Toilet	1	2.10	1.20		2.52			
		Front of toilet	1	2.20	1.30		2.86			
		1.8 m corridoor	1	14.60	1.80		26.28			
		porch	1	4.00	4.00		16.00			
		Below front step	1	4.00	1.20		4.80			
		2 m corridoor	1	5.40	2.00		10.80			
		M. toilet	1	5.20	2.20		11.44			
		F. toilet	1	3.00	1.70		5.10			
		Below Stair	1	4.50	5.70		25.65			
		Tech Sec	1	4.20	9.70		40.74			
		Store	1	4.00	4.20		16.80			
		Porch step	1	4.40	1.20		5.28			
							253.15	Sqm	27.50	6961.63

14	1.22	Supplying chlorpyrifos/ Lindane emulsifiable concentrate of 20% in sealed containers including delivery as specified.	253				253.15	Ltr	208.00	52655.20
15	3.16	Making 50mm thick plinth protection of plain cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded crushed stone aggregate 20mm nominal size) over 75mm bed of dry brick ballast 40mm nominal size well rammed and consolidated and grouted with sand including finishing the top smooth.	1	102.00	1.20		122.40	sqm	273.00	33415.20
16	1.25.2	Treatment of inside of plinth masonry wall on using diluted chemical emulsion @ 1.5 litre per hole, including drilling 12 mm diameter holes in plinth wall below plinth protection at the interval of 300 mm and plugging with cement mortar 1 :2 (1 cement : 2 Coarse sand).					102.00	metre	19.00	1938.00
17	1.25.3	Treatment of outer side of plinth masonry wall using diluted chemical emulsion @ 1.5 litre per hole, including drilling 12 mm diameter holes in plinth wall at the junction of floor at the interval of 300 mm and plugging with cement mortar 1 :2 (1 cement : 2 Coarse sand).					102.00	metre	13.50	1377.00
18	7.5	Brick work with modular fly-ash lime bricks (FaLG Bricks) confirming to IS:12894-2002 of class designation 4.0 in foundation and plinth in:								
	7.5.3	Cement Mortar 1:5 (1 cement : 5 coarse sand)								
		Below PL								
		Horizontal	4	19.00	0.20	0.35	5.32			
			1	4.00	0.20	0.35	0.28			
			1	4.40	0.20	0.35	0.31			
			1	5.60	0.20	0.35	0.39			
			2	4.40	0.20	0.35	0.62			
			3	4.60	0.20	0.35	0.97			
			1	4.40	0.20	0.35	0.31			
		Vertical	4	9.10	0.20	0.35	2.55			
			1	19.00	0.20	0.35	1.33			
			1	10.10	0.20	0.35	0.71			
			1	4.60	0.20	0.35	0.32			
			1	2.20	0.20	0.35	0.15			
			2	1.70	0.20	0.35	0.24			
			1	1.30	0.20	0.35	0.09			
			2	4.40	0.20	0.35	0.62			
			2	5.20	0.20	0.35	0.73			
		For front step	1	4.40	0.20	0.35	0.31			
							15.23	cum	3,350.00	51027.20
19	7.5	Brick work with modular fly-ash lime bricks (FaLG Bricks) confirming to IS:12894-2002 of class designation 4.0 in foundation and plinth in:								
	7.5.4	Cement Mortar 1:6 (1 cement : 6 coarse sand)								
		Ground Floor								
		Porch	2	4.40	0.20	0.80	1.41			
			1	4.40	0.20	0.80	0.70			
			1	4.40	0.20	0.80	0.70			
		1.8 m corrodooor	1	4.60	0.20	2.95	2.71			
			1	4.00	0.20	2.95	2.36			
			1	1.50	0.20	2.95	0.89			
			1	5.60	0.20	2.95	3.30			
		Store	1	7.00	0.20	2.95	4.13			
			2	4.60	0.20	2.95	5.43			
		AE Chamber	1	4.00	0.20	2.95	2.36			
		Tech. sec	1	4.00	0.20	2.95	2.36			
		EE Chamber	2	4.40	0.20	2.95	5.19			
			1	7.00	0.20	2.95	4.13			
		M./F. toilet	2	4.00	0.20	2.95	4.72			

			1	5.20	0.20	2.95	3.07			
			1	1.70	0.20	2.95	1.00			
		stair por	1	4.70	0.20	2.95	2.77			
			1	3.20	0.20	2.95	1.89			
		Tech Section	2	9.70	0.20	2.95	11.45			
			2	4.20	0.20	2.95	4.96			
		Store	2	4.00	0.20	2.95	4.72			
			1	4.20	0.20	2.95	2.48			
						(A)	72.73	cum		
		Deduct : Opening								
		Door - CG	1	4.00	0.20	2.10	1.68			
		D	4	1.00	0.20	2.10	1.68			
		D1	4	0.90	0.20	2.10	1.51			
		Window-1.8 m corridor-grill	1	4.60	0.20	1.50	1.38			
			1	5.60	0.20	1.50	1.68			
		Window- W0	10	1.80	0.20	1.50	5.40			
		W	2	1.50	0.20	1.50	0.90			
		W1	2	1.20	0.20	1.50	0.72			
		V	5	0.60	0.20	0.60	0.36			
						(B)	15.31	cum		
		GF				(A-B)	57.42	cum		
		First Floor								
		Open Terrace	2	4.40	0.20	0.90	1.58			
			1	4.40	0.20	0.90	0.79			
		Open Terrace	2	4.00	0.20	0.90	1.44			
			1	4.20	0.20	0.90	0.76			
		1.8 m corrodoor	1	4.60	0.20	2.95	2.71			
			1	4.00	0.20	2.95	2.36			
			1	1.50	0.20	2.95	0.89			
			1	5.60	0.20	2.95	3.30			
		Store	2	4.60	0.20	2.95	5.43			
			2	7.00	0.20	2.95	8.26			
		AE Chamber	1	4.00	0.20	2.95	2.36			
		Section	1	4.00	0.20	2.95	2.36			
		Section	1	4.40	0.20	2.95	2.60			
			1	3.00	0.20	2.95	1.77			
		AE Chamber	1	4.40	0.20	2.95	2.60			
			1	3.90	0.20	2.95	2.30			
		M./F. toilet	2	4.00	0.20	2.95	4.72			
			1	5.20	0.20	2.95	3.07			
			1	1.70	0.20	2.95	1.00			
		stair por	1	4.70	0.20	2.95	2.77			
			1	3.20	0.20	2.95	1.89			
		Tech Section	2	9.70	0.20	2.95	11.45			
			2	4.20	0.20	2.95	4.96			
						(A)	71.36	cum		
		Deduct : Opening								
		Door - CG	1	4.00	0.20	2.10	1.68			
		D	4	1.00	0.20	2.10	1.68			
		D1	5	0.90	0.20	2.10	1.89			
		Window-1.8 m corridor-grill	1	4.60	0.20	1.50	1.38			
			1	5.60	0.20	1.50	1.68			
		Window- W0	10	1.80	0.20	1.50	5.40			
		W	1	1.50	0.20	1.50	0.45			
		W1	3	1.20	0.20	1.50	1.08			
		V	4	0.60	0.20	0.60	0.29			
						(B)	15.53	cum		
		FF				(A-B)	55.83	cum		
		Second Floor								
		Meeting Hall	2	13.20	0.20	2.95	15.58			
			2	8.50	0.20	2.95	10.03			
		M./F. toilet	2	4.00	0.20	2.95	4.72			
			1	5.20	0.20	2.95	3.07			
			1	1.70	0.20	2.95	1.00			
		stair por	1	4.70	0.20	2.95	2.77			
			1	3.20	0.20	2.95	1.89			
			1	4.20	0.20	2.95	2.48			
		Terrace	1	9.70	0.20	0.90	1.75			
			1	5.50	0.20	0.90	0.99			
			2	4.00	0.20	0.90	1.44			
			1	4.20	0.20	0.90	0.76			
						(A)	46.47	cum		
		Deduct : Opening								
		D	2	1.00	0.20	2.10	0.84			

		D1	2	0.90	0.20	2.10	0.76			
		Window- W0	8	1.80	0.20	1.50	4.32			
		W1	2	1.20	0.20	1.50	0.72			
		V	4	0.60	0.20	0.60	0.29			
						(B)	6.92	cum		
		SF				(A-B)	39.54	cum		
		Terrace Floor								
		Mumty Wall	2	5.60	0.20	2.05	4.59			
			2	4.70	0.20	2.05	3.85			
		Parapet Wall	1	54.80	0.20	0.90	9.86			
		Tower Parapet	1	20.60	0.20	0.30	1.24			
						(A)	19.55			
		Deduct : Opening D	1	1.00	0.20	2.10	0.42			
		W0	1	1.80	0.20	1.50	0.54			
		W1	2	1.20	0.20	1.50	0.72			
						(B)	1.68	cum		
		Terrace				(A-B)	17.87	cum		
							170.66	cum	3263.00	556866.84
20	7.6	Extra for brick work in superstructure above plinth level for every floor or part thereof in addition to rate for foundation and plinth:								
		Ground Floor					57.42	cum	121.00	6947.70
		Terrace Floor					55.83	cum	242.00	13511.34
		Terrace Floor					39.54	cum	363.00	14354.47
		Terrace Floor					17.87	cum	484.00	8647.14
21	7.11	Half brick thick brick masonry with fly-ash lime bricks (FaLG Bricks) confirming to IS:12894-2002 of class designation 4.0 in superstructure above plinth level upto plinth level:								
	7.11.4	Cement Mortar 1:4 (1 cement : 4 coarse sand)								
		GF								
		A/E Chamber	1	3.10		2.95	9.15			
			1	4.00		2.95	11.80			
		Tech sec	1	3.90		2.95	11.51			
		EE Chamber	1	7.00		2.95	20.65			
		Toilet	1	2.20		2.95	6.49			
			1	1.20		2.95	3.54			
		M. Toilet	1	5.20		2.95	15.34			
			1	1.1		2.95	3.25			
		F. Toilet	1	1.7		2.95	5.02			
		store room laft	4	0.6		2.10	5.04			
			6	0.6		2.10	7.56			
			5	0.6		2.10	6.30			
		store room laft	3	0.6		2.10	3.78			
			4	0.6		2.10	5.04			
			1	0.6		2.10	1.26			
			3	0.6		2.10	3.78			
						(A)	119.49	sqm		
		Deduct : Opening- D2	3	0.75		2.10	4.73			
						(B)	4.73	sqm		
						(A-B)	114.77	sqm		
		FF								
		A/E Chamber	2	3.10		2.95	18.29			
			1	4.00		2.95	11.80			
		Sec	1	3.90		2.95	11.51			
		A/E Chamber	1	4.40		2.95	12.98			
		Sec	1	3.90		2.95	11.51			
		M. Toilet	1	5.20		2.95	15.34			
			1	1.1		2.95	3.25			
		F. Toilet	1	1.7		2.95	5.02			
		store room laft	4	0.6		2.10	5.04			
			6	0.6		2.10	7.56			

			5	0.6		2.10	6.30			
						(A)	108.58	sqm		
		Deduct : Opening- D2	2	0.75		2.10	3.15			
						(B)	3.15	sqm		
						(A-B)	105.43	sqm		
		SF								
		M. Toilet	1	5.20		2.95	15.34			
			1	1.1		2.95	3.25			
		F. Toilet	1	1.7		2.95	5.02			
						(A)	23.60	sqm		
		Deduct : Opening- D2	2	0.75		2.10	3.15			
						(B)	3.15	sqm		
						(A-B)	20.45	sqm		
							240.65	sqm	382.00	91926.39
22	7.12	Extra for half brick work in superstructure above plinth level for every story or part thereof in addition to rate for upto plinth level:								
		Ground Floor					114.77	sqm	11.00	1262.42
		First Floor					105.43	sqm	22.00	2319.46
		Second Floor					20.45	sqm	33.00	674.85
23	7.20	Extra for providing and placing in position hopping 25x1.60 mm or 2 Nos 6mm dia MS bars reinforcement at every third course of half brick masonry.					240.65	sqm	62.50	15040.31
24	8.1	Providing wood work in frames of doors, windows, clerestory windows and other frames wrought framed and fixed in position.								
	8.1.2	Sal, bijasal, benteak, khair, haldu								
		GF D	4	5.30	0.125	0.075	0.20			
		D1	4	5.20	0.100	0.060	0.12			
		FF D	4	5.30	0.125	0.075	0.20			
		D1	5	5.20	0.100	0.060	0.16			
		SF D	2	5.30	0.125	0.075	0.10			
		D1	2	5.20	0.100	0.060	0.06			
							0.84	cum	61051.00	51287.42
25	8.12	Providing and fixing flush door shutters, conforming to IS : 2202 (Part-I), decorative type core of block board construction with frame of first class hard wood and well matched teak ply veneering with vertical grains or cross bands and face veneers on both faces of shutters excluding hinges.								
	8.12.2	35 mm. thick (single leaf)								
		GF D	4	1.00		2.10	8.40			
		D1	4	0.90		2.10	7.56			
		FF D	4	1.00		2.10	8.40			
		D1	5	0.90		2.10	9.45			
		SF D	2	1.00		2.10	4.20			
		D1	2	0.90		2.10	3.78			
							41.79	sqm	2005.00	83788.95
26	8.15	Extra for double leaf shutter instead of single leaf.								
		GF-D	4	1.00		2.10	8.40			
		FF-D	4	1.00		2.10	8.40			
		SF-D	2	1.00		2.10	4.20			
							21.00	sqm	52.20	1096.20

27	14.27	Providing and laying Melamine polish on new wood work (two or more coats) with spray machine after preparing surface by rubbing down smooth with sand papers, preparation of surface, applying 5 to 10 coats of French sprit polish, applying two coats of Melamine sealer and finally applying two coats of Melamine clear as per manufacturers specifications complete:			Fac.					
		GF D	8	1.00	1.20	2.10	20.16			
		D1	8	0.90	1.20	2.10	18.14			
		FF D	8	1.00	1.20	2.10	20.16			
		D1	10	0.90	1.20	2.10	22.68			
		SF D	4	1.00	1.20	2.10	10.08			
		D1	4	0.90	1.20	2.10	9.07			
							100.30	sqm	469.00	47038.82
28	8.148	Providing and fixing factory made UPVC door frame made of UPVC profile section having an overall dimension as below (tolerance ± 1 mm) with wall thickness 2.0mm ± 0.2 mm, corners of the door frame to be jointed with galvanized brackets and stainless steel screws, joints mitred and plastic welded. The hinge side vertical of the frames reinforced by galvanized M.S. tube of size 19 X 19mm and 1mm ± 0.1 mm wall thickness and 3 nos. stainless steel hinges fixed to the frame complete as per manufacturers specification and direction of Engineer-in-charge								
	8.148.2	Extruded section Profile size 42x50 mm.								
		Toilet-GF	3	5.05			15.15			
		FF	2	5.05			10.10			
		SF	2	5.05			10.10			
							35.35	Rmt	196.00	6928.60
29	8.149	Providing and fixing factory made PVC door shutters of specified thickness made of styles and rails of a UPVC hollow section of specified size 59x24 mm and wall thickness 2 mm ± 0.2 mm with inbuilt edging on both sides. The styles and rails mitred and joined at the corners by means of M.S. galvanised/ plastic brackets of size 75x220 mm having wall thickness 1.0 mm and stainless steel screws.								
	8.149.2	30 mm thick door shutters with styles and rails of size 60x30 mm								
		Toilet Door-GF	3	0.75		2.10	4.73			
		FF	2	0.75		2.10	3.15			
		SF	2	0.75		2.10	3.15			
							11.03	sqm	2488.00	27430.20
30	9.14	Providing and fixing steel door made of angle iron of suitable sizes with M.S. grill of approved pattern made of M.S. flats or square or round bars coat of red oxide zinc chromate primer.			kg/sqm					
		Front gate	1	2.50	20.00	2.10	105.00	kg	79.50	8347.50
31	9.15	Providing and fixing M.S. grill of approved pattern made of M.S. flats or square or round bars welded to steel frame of windows etc. including applying a priming coat welded to frame with all necessary fitting complete including applying a priming of red oxide zinc chromate primer.								
		GF			Kg/sqmt					
		Window-1.8 m corridor-grill	1	4.60	18.00	1.50	124.20			
			1	5.60	18.00	1.50	151.20			

		Window- W0	10	1.80	18.00	1.50	486.00			
		W	2	1.50	18.00	1.50	81.00			
		W1	2	1.20	18.00	1.50	64.80			
		V	5	0.60	18.00	0.60	32.40			
		FF								
		Window-1.8 m corridor-grill	1	4.60	18.00	1.50	124.20			
			1	5.60	18.00	1.50	151.20			
		Window- W0	10	1.80	18.00	1.50	486.00			
		W	1	1.50	18.00	1.50	40.50			
		W1	3	1.20	18.00	1.50	97.20			
		V	4	0.60	18.00	0.60	25.92			
		SF								
		Window- W0	8	1.80	18.00	1.50	388.80			
		W1	2	1.20	18.00	1.50	64.80			
		V	4	0.60	18.00	0.60	25.92			
		Terrace Floor								
		W0	1	1.80	18.00	1.50	48.60			
		W1	2	1.20	45.00	1.50	162.00			
							2554.74	Kg	67.50	172444.95

		Ground Floor								
		Chhajja								
		Side of porch	2	4.80	0.60		5.76			
			1	6.10	0.10		0.61			
			2	5.60	0.60		6.72			
			1	6.80	0.10		0.68			
		W0	20	2.10	0.60		25.20			
			10	3.30	0.10		3.30			
		W	4	1.80	0.60		4.32			
			2	3.00	0.10		0.60			
		W1	4	1.50	0.60		3.60			
			2	2.70	0.10		0.54			
		V	10	0.90	0.60		5.40			
			5	2.10	0.10		1.05			
		Ground Floor				Total	57.78	sqm		
		First Floor								
		Chhajja								
		Side of open terrace	2	4.80	0.60		5.76			
			1	6.10	0.10		0.61			
			2	5.60	0.60		6.72			
			1	6.80	0.10		0.68			
		Window- W0	16	2.10	0.60		20.16			
			8	3.00	0.10		2.40			
		W	2	1.80	0.60		2.16			
			1	3.00	0.10		0.30			
		W1	6	1.50	0.60		5.40			
			3	2.70	0.10		0.81			
		V	8	0.90	0.60		4.32			
			4	2.10	0.10		0.84			
		First Floor				Total	50.16	sqm		
		Second Floor								
		Chhajja								
		W0	16	2.10	0.60		20.16			
			8	3.00	0.10		2.40			
		W1	4	1.50	0.60		3.60			
			2	2.70	0.10		0.54			
		V	8	0.90	0.60		4.32			
			4	2.10	0.10		0.84			
		Second Floor				Total	31.86	sqm		
		Terrace Floor								
		window Chajja	4	1.50	0.60		3.60			
			2	2.50	0.10		0.50			
		window Chajja	2	2.10	0.60		2.52			
			1	3.30	0.10		0.33			
		Door Chajja	2	1.00	0.60		1.20			
			1	2.20	0.10		0.22			
		Terrace Floor				Total	8.37	sqm		
		Total Outer Plaster				(B)	148.17			
		Total 6 mm Plaster				(A+B)	1008.41	sqm	87.00	87731.67
32	11.2	Providing and making 12mm thick cement plaster of mix:								
	11.2.2	In Cement Mortar 1:4 (1 cement : 4 fine sand)								
		Inner Plaster								
		Ground Floor								
		Inner plaster								
		Outer periphery Wall	1	84.00		3.375	283.50			
		Deduct 50% opening								
		CG	1	4.00	0.50	2.10	-4.20			
		porch side grill	1	4.60	0.50	2.10	-4.83			
		Window-1.8 m corridor-grill	1	4.60	0.50	1.50	-3.45			
		0	1	5.60	0.50	1.50	-4.20			
		Window- W0	10	1.80	0.50	1.50	-13.50			
		W	2	1.50	0.50	1.50	-2.25			
		W1	2	1.20	0.50	1.50	-1.80			
		V	5	0.60	0.50	0.60	-0.90			
						(A)	248.37	sqm		
		Inner plaster-Inner/partition wall								
		store room	1	4.60		3.375	15.53			
			1	7.00		3.375	23.63			
		AE chamber	2	3.00		3.375	20.25			
			2	4.00		3.375	27.00			
		Tech sec	2	4.00		3.375	27.00			
			2	3.90		3.375	26.33			
		EE chamber	2	7.00		3.375	47.25			

			1	4.40		3.375	14.85			
		toilet	2	2.20		3.375	14.85			
			2	1.20		3.375	8.10			
		m. toilet	2	5.20		3.375	35.10			
			2	1.10		3.375	7.43			
			2	1.70		3.375	11.48			
			1	3.00		3.375	10.13			
		staircase por	1	4.20		3.375	14.18			
		section	1	4.40		3.375	14.85			
		store room laft	8	0.6		0.80	3.84			
			12	0.6		0.80	5.76			
			10	0.6		0.80	4.80			
		store room laft	6	0.6		0.80	2.88			
			8	0.6		0.80	3.84			
			2	0.6		0.80	0.96			
			6	0.6		0.80	2.88			
		Deduct 50% opening								
		D	4	1.00	0.50	2.10	-4.20			
		D1	4	0.90	0.50	2.10	-3.78			
		D2	3	0.75	0.50	2.10	-2.36			
						(B)	332.54	sqm		
		Ground Floor				(A+B)	580.91	sqm		
		First Floor								
		Inner plaster								
		Outer periphery Wall	1	75.40		3.375	254.48			
		Deduct 50% opening								
		CG	1	4.00	0.50	2.10	-4.20			
		Window-1.8 m corridor-grill	1	4.60	0.50	1.50	-3.45			
			1	5.60	0.50	1.50	-4.20			
		Window- W0	10	1.80	0.50	1.50	-13.50			
		W	1	1.50	0.50	1.50	-1.13			
		W1	3	1.20	0.50	1.50	-2.70			
		V	4	0.60	0.50	0.60	-0.72			
						(A)	224.58	sqm		
		Inner plaster-Inner/partition wall								
		store room	1	4.60		3.375	15.53			
			1	7.00		3.375	23.63			
		AE chamber	2	3.00		3.375	20.25			
			2	4.00		3.375	27.00			
		Tech sec	2	4.00		3.375	27.00			
			2	3.90		3.375	26.33			
		AE chamber	1	4.40		3.375	14.85			
		Section	1	4.40		3.375	14.85			
		m. toilet	2	5.20		3.375	35.10			
			2	1.10		3.375	7.43			
			2	1.70		3.375	11.48			
			1	3.00		3.375	10.13			
		staircase por	1	4.20		3.375	14.18			
		section	1	4.40		3.375	14.85			
		store room laft	8	0.6		0.80	3.84			
			12	0.6		0.80	5.76			
			10	0.6		0.80	4.80			
		Deduct 50% opening								
		D	4	1.00	0.50	2.10	-4.20			
		D1	5	0.90	0.50	2.10	-4.73			
		D2	2	0.75	0.50	2.10	-1.58			
						(B)	266.48	sqm		
		First Floor				(A+B)	491.06	sqm		
		Second Floor								
		Inner plaster-Outer periphery Wall	1	55.80		3.375	188.33			
		Deduct 50% opening								
		D	1	1.00	0.50	2.10	-1.05			
		Window- W0	8	1.80	0.50	1.50	-10.80			
		W1	2	1.20	0.50	1.50	-1.80			
		V	4	0.60	0.50	0.60	-0.72			
						(A)	173.96	sqm		
		Inner plaster-Inner/partition wall								
		meeting hall	2	13.20		3.375	89.10			
			2	8.50		3.375	57.38			
		m. toilet	2	5.20		3.375	35.10			
			2	1.10		3.375	7.43			
			2	1.70		3.375	11.48			
			1	3.00		3.375	10.13			
		staircase por	1	4.20		3.375	14.18			
		Deduct 50% opening								
		D	2	1.00	0.50	2.10	-2.10			

		D1	2	0.90	0.50	2.10	-1.89			
		D2	2	0.75	0.50	2.10	-1.58			
						(B)	219.21	sqm		
		Second Floor				(A+B)	393.17	sqm		
		Terrace Floor								
		Tower	2	5.60		2.475	27.72			
			2	4.70		2.475	23.27			
		Deduct 50% opening								
		Door	1	1.00	0.50	2.10	-1.05			
		opening	1	1.80	0.50	1.50	-1.35			
		W1	2	1.20	0.50	1.50	-1.80			
						(B)	46.79	sqm		
		Terrace Floor					46.79	sqm		
		Total 12mm Plaster					1511.92	Sqm	103.00	155727.50
33	11.3	Providing and making 15mm thick cement plaster on the rough side of single or half brick wall of mix:								
	11.3.2	In Cement Mortar 1:4 (1 cement : 4 fine sand)								
		OUTER PLASTER								
		Ground Floor								
		Outer Wall	1	84.80		4.35	368.88			
		Porch	4	4.40		1.50	26.40			
			2	4.40		1.50	13.20			
		Porch col	2	1.20		4.35	10.44			
		Porch brick up to pl	2	4.40		0.90	7.92			
			1	4.40		0.90	3.96			
						(A)	430.80	sqm		
		Deduct 50% opening								
		Door - CG	1	4.00	0.50	2.10	4.20			
		Window-1.8 m corridor-grill	1	4.60	0.50	1.50	3.45			
			1	5.60	0.50	1.50	4.20			
		Window- W0	10	1.80	0.50	1.50	13.50			
		W	2	1.50	0.50	1.50	2.25			
		W1	2	1.20	0.50	1.50	1.80			
		V	5	0.60	0.50	0.60	0.90			
						(B)	30.30	cum		
		Ground Floor				(A-B)	400.50	sqm		
		First Floor								
		Outer Wall	1	75.40		3.60	271.44			
		Porch col	2	1.50		3.60	10.80			
		Porch paraphet	4	4.40		1.00	17.60			
			2	4.40		1.00	8.80			
		open terrace paraphet	4	4.00		1.00	16.00			
			2	4.20		1.00	8.40			
						(A)	333.04	sqm		
		Deduct 50% opening								
		D	1	1.00	0.50	2.10	1.05			
		CG	1	4.00	0.50	2.10	4.20			
		Window-1.8 m corridor-grill	1	4.60	0.50	1.50	3.45			
			1	5.60	0.50	1.50	4.20			
		Window- W0	10	1.80	0.50	1.50	13.50			
		W	1	1.50	0.50	1.50	1.13			
		W1	3	1.20	0.50	1.50	2.70			
		V	4	0.60	0.50	0.60	0.72			
						(B)	30.95	sqm		
		First Floor				(A-B)	302.10	sqm		
		Second Floor								
		Outer Wall	1	55.80		3.60	200.88			
		open terrace paraphet	2	9.90		1.00	19.80			
			2	4.60		1.00	9.20			
			2	5.50		1.00	11.00			
			4	4.20		1.00	16.80			
			2	4.60		1.00	9.20			
						(A)	266.88	sqm		
		Deduct 50% opening								
		D	1	1.00	0.50	2.10	1.05			

		Window- W0	8	1.80	0.50	1.50	10.80			
		W1	2	1.20	0.50	1.50	1.80			
		V	4	0.60	0.50	0.60	0.72			
						(B)	14.37	sqm		
		Second Floor				(A-B)	252.51	sqm		
		Terrace Floor								
		Tower	2	5.60		2.70	30.24			
			2	4.70		2.70	25.38			
		Parapet wall	2	54.80		1.00	109.60			
		Tower Parapet wall	2	20.60		0.40	16.48			
						(A)	181.70	sqm		
		Deduct 50% opening								
		Door	1	1.00	0.50	2.10	1.05			
		opening	1	1.80	0.50	1.50	1.35			
			2	1.20	0.50	1.50	1.80			
						(B)	4.20	sqm		
		Terrace Floor				(A-B)	177.50	sqm		
		Total 15mm Outer Plaster				(X)	1132.61			
		INNER PLASTER								
		Inner plaster-Inner/partition wall								
		1.8 m wide corridoor	1	13.60		3.375	45.90			
		2 m wide corridoor	1	7.20		3.375	24.30			
		a.o. chamber	1	4.00		3.375	13.50			
		f toilet	2	1.70		3.375	11.48			
		staircase por	1	4.20		3.375	14.18			
		section	1	4.40		3.375	14.85			
		Deduct 50% opening								
		D	1	1.00	0.50	2.10	-1.05			
		D1	4	0.90	0.50	2.10	-3.78			
		Ground Floor				Total	119.37	sqm		
		First Floor								
		Inner plaster-Inner/partition wall								
		1.8 m wide corridoor	1	13.60		3.375	45.90			
		2 m wide corridoor	1	7.20		3.375	24.30			
		a.o. chamber	1	4.00		3.375	13.50			
		f toilet	2	1.70		3.375	11.48			
		staircase por	1	4.20		3.375	14.18			
		section	1	4.40		3.375	14.85			
		Deduct 50% opening								
		D	1	1.00	0.50	2.10	-1.05			
		D1	4	0.90	0.50	2.10	-3.78			
		First Floor				Total	119.37	sqm		
		Second floor								
		Inner plaster-Inner/partition wall								
		2 m wide corridoor	1	7.20		3.375	24.30			
		a.o. chamber	1	4.00		3.375	13.50			
		f toilet	2	1.70		3.375	11.48			
		staircase por	1	4.20		3.375	14.18			
		section	1	4.40		3.375	14.85			
		Deduct 50% opening								
		D	2	1.00	0.50	2.10	-2.10			
		D1	2	0.90	0.50	2.10	-1.89			
		Second Floor				Total	74.31	sqm		
		Total 15mm Inner Plaster				(Y)	313.05			
		Total 15mm Outer+Inner plaster				X+Y	1445.66	sqm	120.00	173478.60
34	14.12	Applying one coat of cement primer on wall surface (applied @ 0.80 litres/10 sqm) complete.								
		6 mm inner inner plaster					860.24			
		12 mm inner plaster					1511.92			
		15 mm inner plaster					313.05			
							2685.21	sqm	23.00	61759.77
35	14.13	Providing and applying 2mm thick ready mix exterior grade approved make putty (like Birla wall care, Alltek Superfine W/R of (NCL), Asian, ICI, Nerolac, J.K. wall putty) on walls to make the surface smooth and even.								
		As per 6mm Plaster					860.24			
		As per 12mm Plaster					1511.92			
		As per 15mm Plaster					313.05			
							2685.21	sqm	94.50	253752.11

36	14.11	Wall painting with acrylic luxury emulsion (plastic) paint of required shade to give an even shade.								
	14.11.1	On new work (two or more coats)								
		As per 6mm innerPlaster					860.24			
		As per 12mm innerPlaster					1511.92			
		As per 15 mm innerPlaster					313.05			
		Total					2685.21	sqm	52.50	140973.39
37	14.15	Painting exterior surface with ACRYLIC SMOOTH exterior paint of required shade as per manufacturer's specifications to give protective and decorative finish including cleaning washing of surface etc. complete with:								
	14.15.1	On new work (Two or more coats applied @ 1.43 ltr/ 10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/ 10 sqm)								
		As per 15mm outer Plaster					1132.61			
		As per 6mm outer Plaster					148.17			
							1280.78	sqm	56.00	71723.40
38	9.57	Providing stainless steel railing/ grill made of S.S. flats, hollow S.S. pipe or square/ rectangular sections of approved design fixing in stair case, balcony or other places with metal fasteners and stainless steel bolts etc complete.								
	9.57.1	SS Grade 204	1	20.40			20.40			
			20.40	at	9.00	Kg/R.m	183.60	kg	467.00	85741.20
39	14.22	Painting on new work (two or more coats) to give an even shade with:								
	14.22.2	Premium synthetic enamel paint								
		GF								
		Window-1.8 m corridor-grill	1	4.60	1.35	1.50	9.32			
			1	5.60	1.35	1.50	11.34			
		Window- W0	10	1.80	1.35	1.50	36.45			
		W	2	1.50	1.35	1.50	6.08			
		W1	2	1.20	1.35	1.50	4.86			
		V	5	0.60	1.35	0.60	2.43			
		FF								
		Window-1.8 m corridor-grill	1	4.60	1.35	1.50	9.32			
			1	5.60	1.35	1.50	11.34			
		Window- W0	10	1.80	1.35	1.50	36.45			
		W	1	1.50	1.35	1.50	3.04			
		W1	3	1.20	1.35	1.50	7.29			
		V	4	0.60	1.35	0.60	1.94			
		SF								
		Window- W0	8	1.80	1.35	1.50	29.16			
		W1	2	1.20	1.35	1.50	4.86			
		V	4	0.60	1.35	0.60	1.94			
		Terrace Floor								
		W0	1	1.80	1.35	1.50	3.65			
		W1	2	1.20	1.35	1.50	4.86			
		Door	1	1.00	1.35	2.10	2.84			
							187.15	sqm	47.00	8796.07
40	10.41	Providing gola 75x75 mm in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 stone aggregate 10mm and down grade) including finishing with cement mortar 1:3 (1 cement : 3 fine sand) as per standard design :								
		Ground Floor								
		Chhajja								
		1.8 m corridoor	1	4.80			4.80			
			2	5.80			11.60			
		W0	10	2.10			21.00			
		W	2	1.80			3.60			
		W1	2	1.50			3.00			
		V	5	0.90			4.50			
		First Floor								
		Chhajja								

		1.8 m corridoor	1	4.80			4.80			
			2	5.80			11.60			
		W0	10	2.10			21.00			
		W	1	1.80			1.80			
		W1	3	1.50			4.50			
		V	4	0.90			3.60			
		Second Floor								
		Chhajja								
		W0	8	2.10			16.80			
		W1	2	1.50			3.00			
		V	4	0.90			3.60			
		Terrace								
		W0	1	2.10			2.10			
		W1	2	1.50			3.00			
		D	1	1.30			1.30			
		Parapet wall	1	54.80			54.80			
		tower Parapet	1	20.60			20.60			
							201.00	metre	68.00	13668.00
41	11.5	Neat Cement punning.								
		Ground Floor								
		Chhajja								
		1.80 m corridoor	1	4.80	0.60		2.88			
			2	5.80	0.60		6.96			
		W0	10	2.10	0.60		12.60			
		W	2	1.80	0.60		2.16			
		W1	2	1.50	0.60		1.80			
		V	5	0.90	0.60		2.70			
		First Floor								
		Chhajja								
		1.80 m corridoor	1	4.80	0.60		2.88			
			2	5.80	0.60		6.96			
		W0	10	2.10	0.60		12.60			
		W	1	1.80	0.60		1.08			
		W1	3	1.50	0.60		2.70			
		V	4	0.90	0.60		2.16			
		Second Floor								
		Chhajja								
		W0	8	2.10	0.60		10.08			
		W1	2	1.50	0.60		1.80			
		V	4	0.90	0.60		2.16			
		Terrace								
		W0	1	2.10	0.60		1.26			
		W1	2	1.50	0.60		1.80			
		D	1	1.30	0.60		0.78			
		Parapet wall	1	1.10	0.60		0.66			
		tower Parapet	1	1.70	0.60		1.02			
							77.04	sqm	33.00	2542.32
42	4.13	Grading roof for water proofing treatment with:								
	4.13.1	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)								
		Terrace	1	18.60	8.50	0.050	7.91			
		hauler	1	54.20	0.15	0.050	0.41			
		SF openTerrace	1	9.70	4.20	0.050	2.04			
		hauler	1	27.80	0.15	0.050	0.21			
			1	4.20	4.20	0.050	0.88			
		hauler	1	16.80	0.15	0.050	0.13			
		FF open Terrace	1	4.40	4.40	0.050	0.97			
		hauler	1	17.60	0.15	0.050	0.13			
		FF open Terrace	1	4.00	4.20	0.050	0.84			
		hauler	1	16.40	0.15	0.050	0.12			
							13.63	cum	3817.00	52018.08
43	4.5	Providing and laying water proofing treatment in sunken portion of WCs, bathroom, kitchen etc., by applying cement slurry mixed with water proofing cement compound consisting of following applications including surface preparation:								
		i) First layer of slurry of cement @ 0.488 kg/sqm mixed with water proofing cement compound @ 0.253 kg/sqm. This layer will be allowed to air cure for 4 hours.								

		ii) Second layer of slurry of cement @ 0.242 kg/sqm mixed with water proofing cement compound@ 0.126 kg/sqm. This layer will be allowed to air cure for 4 hours followed with water curing for 48 hours. The rate includes treatment and sealing of all joints, corners, junctions of pipes and masonry with polymer mixed slurry.								
		GF toilet	1	2.10	1.20		2.52			
			1	6.60		0.30	1.98			
			1	4.00	2.20		8.80			
			1	12.40		0.30	3.72			
			1	2.20	1.10		2.42			
			1	6.60		0.30	1.98			
			1	1.80	1.70		3.06			
			1	7.00		0.30	2.10			
			1	1.70	1.10		1.87			
			1	5.60		0.30	1.68			
		FF toilet	1	2.10	1.20		2.52			
			1	6.60		0.30	1.98			
			1	4.00	2.20		8.80			
			1	12.40		0.30	3.72			
			1	2.20	1.10		2.42			
			1	6.60		0.30	1.98			
			1	1.80	1.70		3.06			
			1	7.00		0.30	2.10			
			1	1.70	1.10		1.87			
			1	5.60		0.30	1.68			
		SF toilet	1	4.00	2.20		8.80			
			1	12.40		0.30	3.72			
			1	2.20	1.10		2.42			
			1	6.60		0.30	1.98			
			1	1.80	1.70		3.06			
			1	7.00		0.30	2.10			
			1	1.70	1.10		1.87			
			1	5.60		0.30	1.68			
							85.89	sqm	182.00	15631.98
44	11.32	Providing and making 18 mm thick plain cement mortar band in cement mortar 1:4 (1 cement : 4 fine sand) per cm width:								
	11.32.4	Drip course								
		Ground Floor								
		Chhajja								
		1.80 m corridoor	1	6.00			6.00			
			2	7.00			14.00			
		W0	10	3.30			33.00			
		W	2	3.00			6.00			
		W1	2	2.70			5.40			
		V	5	2.10			10.50			
		First Floor								
		Chhajja								
		1.80 m corridoor	1	6.00			6.00			
			2	7.00			14.00			
		W0	10	3.30			33.00			
		W	1	3.00			3.00			
		W1	3	2.70			8.10			
		V	4	2.10			8.40			
		Second Floor								
		Chhajja								
		W0	8	3.30			26.40			
		W1	2	2.70			5.40			
		V	4	2.10			8.40			
		Terrace								
		W0	1	3.30			3.30			
		W1	2	2.70			5.40			
		D	1	2.50			2.50			
							198.80	metre	3.60	715.68
45	11.4	Making grove in cement plaster while plastering upto10 mm deep and 10 mm wide.								
			1	1500.00			1500.00			
							1500.00	metre	1.30	1950.00

46	12.65	Providing & laying 60mm thick precast interlocking concrete blocks of approved size (approx 305 sqcm) and shape/ pattern, over 40 mm thick average complete coarse sand bed with joints of 3mm thick filled by fine sand including leveling with surface vibrator, temping and sweeping etc. complete of minimum compressive strength of 250 kg/sq.cm								
	12.65.2	Pigment Coloured (rubber mould) precast interlock concrete blocks								
		Around porch	1	14.40	9.90		142.56			
		deduct	1	4.00	4.00		-16.00			
							126.56	sqm	632	79985.92
47	12.36	Providing & laying 60mm thick precast interlocking concrete blocks of approved size (approx 305 sqcm) and shape/ pattern, over 40 mm thick average complete coarse sand bed with joints of 3mm thick filled by fine sand including leveling with surface vibrator, temping and sweeping etc. complete of minimum compressive strength of 250 kg/sq.cm								
	12.36.1	Light shade using white cement								
		porch	1	4.00	4.00		16.00			
							16.00	sqm	799	12784.00
48	3.16	Making 50mm thick plinth protection of plain cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded crushed stone aggregate 20mm nominal size) over 75mm bed of dry brick ballast 40mm nominal size well rammed and consolidated and grouted with sand including finishing the top smooth.								
			1	90.00	1.20		108.00			
							108.00	SQM	273.00	29484.00
49	11.9	Extra for providing and mixing water proofing materials in cement plaster work in proportion as recommended by manufacturer.								
		external plaster qty,1kg for 4 sqm	1	1280.78	0.25		320.19			
							320.19	kg	43.50	13928.43
50	8.60	Providing and fixing bright finished brass sliding door bolt with nuts and brass polished MS screws complete:								
	8.60.1	300x16mm	42				42.00	each	475.00	19950.00
51	8.120	Providing and fixing alluminium sliding door bolt with 16 mm rod, necessary nickle plate iron nuts bolts and screw etc complete								
	8.120.2	250x16mm	7				7.00	each	141.00	987.00
52	8.121	Providing and fixing alluminium door Latch with 12 mm rod, necessary nickle plate iron nuts bolts and screw etc complete door bolt with nuts and brass polished MS screws complete:								
	8.121.2	250x12mm	7				7.00	each	51.50	360.50
53	8.61	Providing and fixing brass door latch with brass polished MS screws complete:								
	8.61.1	300x16x5 mm	42				42.00	each	398.00	16716.00
54	8.62	Providing and fixing bright finished brass tower bolts (barrel type) with brass polished MS screws complete:								
	8.62.1	250x10mm	42				42.00	each	276.00	11592.00
	8.62.3	150x10mm	7				7.00	each	176.00	1232.00
		(Toilet door)								

55	8.65	Providing and fixing bright finished brass door handles with brass polished MS screws complete:								
	8.65.1	125 mm	42				42.00	each	55.50	2331.00
56	8.123	Providing and fixing alluminium door handles 2.5 mm thick with necessary nickel plates iron screw etc complete								
	8.123.1	150 mm	7				7.00	each	30.50	213.50
57	8.58	Providing and fixing bright finished brass butt hinges with brass polished MS screws complete:								
	8.58.1	125x85x5.50 mm (Heavy Type)	147				147.00	each	245.00	36015.00
								Total		8969147.00
<div><div><div>Sub Engineer Chhattisgarh Housing & Infrastructure Development Board Division -Korba</div><div>Assistant Engineer Chhattisgarh Housing & Infrastructure Development Board Division -Korba</div><div>Executive Engineer Chhattisgarh Housing & Infrastructure Development Board Division -Korba</div></div></div>										

**DETAIL ESTIMATE FOR CIVIL CONSTRUCTION OF
PROPOSED "EE, AE OFFICE, STORE , MEETING ETC" FOR IRRIGATION UNDER
REDEVELOPEMENT WORK AT KATGHORA (KORBA) C.G., (SITE II)**

Item No.	Nomenclature(Particulars)	Unit	S.O.R. Rate	Qty	Amount
1	2	3	4	5	6
1					
19.5	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge. CONCEALED WORK including cutting chases and making good the walls etc.,	r/m	133.00	100.00	13300.00
19.5.1	15 mm nominal outer dia .Pipes.				
2					
19.5	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge. CONCEALED WORK including cutting chases and making good the walls etc.,	r/m	167.00	56.00	9352.00
19.5.2	20 mm nominal outer dia .Pipes.				
3					
19.5	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge. CONCEALED WORK including cutting chases and making good the walls etc.,	r/m	284.00	50.00	14200.00
19.5.4	32 mm nominal outer dia .Pipes.				
4	Item No. 18.76.1				
	Providing and fixing on wall face or under floor UV stabilized Unplasticised Rigid PVC pipes (single socketed) having 3.2mm wall thickness conforming to IS : 13592 (4kg/sqcm) including required couplers, jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansion etc complete. a. 75mm dia	r/m	182.00	40.00	7280.00
5	Item No. 18.76.2				
	Providing and fixing on wall face or under floor UV stabilized Unplasticised Rigid PVC pipes (single socketed) having 3.2mm wall thickness conforming to IS : 13592 (4kg/sqcm) including required couplers, jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansion etc complete. s b. 110mm dia Make: (Supreme/Finolex)	r/m	267.00	40.00	10680.00

Item No.	Nomenclature(Particulars)	Unit	S.O.R. Rate	Qty	Amount
1	2	3	4	5	6
6	Item No. 18.77.1.1				
	Providing and fixing PVC fitting for pipes for soil waste / rain water drainage disposal of superior Indian Make Finolex / Supreme including jointing with rubber ring adhesive lubricant, solvent cement etc. complete. G- Tee with Door (a) 75mm dia	no	113.00	13.00	1469.00
7	Item No. 18.77.1.2				
	Providing and fixing PVC fitting for pipes for soil waste / rain water drainage disposal of superior Indian Make Finolex including jointing with rubber ring adhesive lubricant, solvent cement etc. complete. G- Tee with Door (b) 110mm dia	no	154.00	13.00	2002.00
8	Item No. 18.77.1.1				
	Providing and fixing PVC fitting for pipes for soil waste / rain water drainage disposal of superior Indian Make Finolex including jointing with rubber ring adhesive lubricant, solvent cement etc. complete. E- Plain Bend of 87.5 degree (a) 75mm dia	no	113.00	13.00	1469.00
9	Item No. 18.77.1.2				
	Providing and fixing PVC fitting for pipes for soil waste / rain water drainage disposal of superior Indian Make Finolex including jointing with rubber ring adhesive lubricant, solvent cement etc. complete. E- Plain Bend of 87.5 degree (b) 110mm dia	no	154.00	13.00	2002.00
10	Item No. 18.77.6				
	Providing and fixing PVC fitting for pipes for soil waste / rain water drainage disposal of superior Indian Make Finolex / Supreme including jointing with rubber ring adhesive lubricant, solvent cement etc. complete. O- Nahani Trap (b) 63mm dia	no	90.50	20.00	1810.00
11	Item No. 19.15				
	Providing and fixing stainless steel Nahani trap jali of approved make/quality.	no	51.00	20.00	1020.00
12	Item No. 18.77.1.1				
	Providing and fixing PVC fitting for pipes for soil waste / rain water drainage disposal of superior Indian Make Finolex including jointing with rubber ring adhesive lubricant, solvent cement etc. complete. C- Bend with door of 87.5 degree a. 75mm dia	no	113.00	13.00	1469.00
13	Item No. 18.77.1.2				
	Providing and fixing PVC fitting for pipes for soil waste / rain water drainage disposal of superior Indian Make Finolex including jointing with rubber ring adhesive lubricant, solvent cement etc. complete. C- Bend with door of 87.5 degree b. 110mm dia	no	154.00	13.00	2002.00
14	Item No.18.77.3.2				

Item No.	Nomenclature(Particulars)	Unit	S.O.R. Rate	Qty	Amount
1	2	3	4	5	6
	Providing and fixing PVC fitting for pipes for soil waste / rain water drainage disposal of superior Indian Make Finolex / Supreme including jointing with rubber ring adhesive lubricant, solvent cement etc. complete. N- Vent Cowel (b) 110mm dia	no	44.00	6.00	264.00
15	Item No. 19.16.1				
	Providing and fixing in position best Indian make gun metal high pressure full way or Gate valve (peets Pattren) with iron wheel head complete. (c) 25 mm dia	no	436.00	8.00	3488.00
16	Item No. 19.16.4				
	Providing and fixing in position best Indian make gun metal high pressure full way or Gate valve (peets Pattren) with iron wheel head complete. (e) 50 mm dia	no	762.00	1.00	762.00
17	Item No. 18.1.3				
	Providing and fixing water closet squatting pan (Indian type W.C. pan), 100mm sand cast Iron P or S trap, 10 litre low level P.V.C. flushing cistern (same colour) conforming to IS : 7231, with flush bend and other fittings and fixtures complete including cutting and making good the walls and floors wherever required : White Orissa pattern W.C. pan of size 580x440 mm.	no	2899.00	1.00	2899.00
18	Item No. 18.4.1				
	Providing and fixing vitreous china water closet (European type W.C. pan) with white ISI marked plastic seat and lid, 10 litre low level white P.V.C. flushing cistern (same colour), conforming to IS : 7231, with all fittings and fixtures complete including cutting and making good the walls and floors wherever required : White pedestal type	no	2882.00	6.00	17292.00
19	Item No. 18.17.2				
	Providing and fixing vitreous china wash basin with C.I. brackets, 32 mm C.P. brass waste of standard pattern, including painting of brackets, cutting and making good the walls wherever required : i) Flat Back (White) - 550X400 mm	no	1408.00	10.00	14080.00
20	18.22.2				

Item No.	Nomenclature(Particulars)	Unit	S.O.R. Rate	Qty	Amount
1	2	3	4	5	6
	Providing and fixing Stainless Steel A ISI 304 (18/8) kitchen sink without drain board as per IS 13983 with C.I. brackets and stainless steel plug 40 mm including painting of fittings and brackets, cutting and making good the walls wherever required :- A waste pipe upto nahni trap.560x410 mm bowl depth 215 mm.	no	6210.00	2.00	12420.00
21	Item No. 19.14.1				
	Providing and fixing 15 mm nominal bore C.P. brass fittings of approved make and conforming to IS:8931 including C.P. brass extension if required:Short nose Bib cock (400 grams)	no	382.00	7.00	2674.00
22	Item No. 19.14.2				
	Providing and fixing 15 mm nominal bore C.P. brass fittings of approved make and conforming to IS:8931 including C.P. brass extension if required:Long Nose Bib cock (500 grams)	no	455.00	7.00	3185.00
23	Item No. 19.14.4				
	Providing and fixing 15 mm nominal bore C.P. brass fittings of approved make and conforming to IS:8931 including C.P. brass extension if required:Piller Cock (400 grams)	no	398.00	7.00	2786.00
24	Item No. 19.14.10				
	Providing and fixing 15 mm nominal bore C.P. brass fittings of approved make and conforming to IS:8931 including C.P. brass extension if requiredWall mixer with elegant knob (1400 grams)	no	1787.00	7.00	12509.00
25	19.14.10				
	Providing and fixing 15 mm nominal bore C.P. brass fittings of approved make and conforming to IS:8931 including C.P. brass extension if requiredHand shower set with arm	no	754.00	6.00	4524.00
26	Item No. 19.14.19				
	Providing and fixing 15 mm nominal bore C.P. brass fittings of approved make and conforming to IS:8931 including C.P. brass extension if required Health foscet (hand jet) with flexible connection pipe (for WC)	no	774.00	6.00	4644.00
27	Item No. 19.14.7				

Item No.	Nomenclature(Particulars)	Unit	S.O.R. Rate	Qty	Amount
1	2	3	4	5	6
	Providing and fixing 15 mm nominal bore C.P. brass fittings of approved make and conforming to IS:8931 including C.P. brass extension if required Angle valve for basin mixer and geyser points (450 grams)	no	382.00	10.00	3820.00
28	Item No. 19.14.14				
	Providing and fixing 15 mm nominal bore C.P. brass fittings of approved make and conforming to IS:8931 including C.P. brass extension if required Soap dish plate	no	163.00	10.00	1630.00
29	Item No. 19.14.16				
	Providing and fixing 15 mm nominal bore C.P. brass fittings of approved make and conforming to IS:8931 including C.P. brass extension if required Towel rail (600mm long x 20mm dia)	no	338.00	7.00	2366.00
30	Item No. 20.3.2				
	Providing and fixing square-mouth S.W. gully trap grade 'A' complete with C.I. grating brick masonry chamber with well burnt modular clay bricks crushing strength not less than 35kg/cm ² , water tight C.I. cover with frame of 300 x300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design : 150 x 100 mm size P type.	no	1397.00	7.00	9779.00
31	Item No. 19.6.9				
	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings. This included jointing of pipes & fittings with one step CPVC solvent cement, trenching, refilling & testing of joints complete including excavation of trench up to 1.5 Mtr. Depth Laying 15 cm thick and 40 cm wide CC 1:5:8 with all jointing material coupler etc including testing refilling of soil etc. complete. (Make - Finolex / Astral) a) 100 mm dia (c.c. base 30cm wide)	RMT	2325.00	20.00	46500.00
32	Item No. 19.42				
	Providing and placing on terrace (at all floor levels) polyethylene water storage tank ISI : 12701 marked with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank				
		Litre	7.30	2000.00	14600.00
	TOTAL AMOUNT OF WATER SUPPLY			Total Rs.	228277.00
				Say Rs.	2.28

Item No.	Nomenclature(Particulars)	Unit	S.O.R. Rate	Qty	Amount
1	2	3	4	5	6

Sub Engineer

Chhattisgarh Housing &
Infrastructure Development Board
Division -Korba

Assistant Engineer

Chhattisgarh Housing &
Infrastructure Development Board
Division -Korba

Executive Engineer

Chhattisgarh Housing &
Infrastructure Development Board
Division -Korba

**ESTIMATE OF INTERNAL ELECTRIFICATION WORK FOR PROPOSED EE & AE OFFICE BUILDING
UNDER REDEVELOPMENT SCHEME AT KATGHORA (SITE-2), DISTT-KORBA (C.G.)**

S.No.	SOR Item no.	PARTICULARS	UNIT	RATE	QTY	AMOUNT
01	1.7	Wiring for light/fan/exhaust fan/call bell point with 3x1.5 sqmm FRLS PVC insulated stranded copper conductor single core wire for phase, neutral and earth in concealed FRLS PVC conduit, with 5/6 amp modular switch, modular base and cover plate, suitable size G.I. box as per specification.				
	1.7.1	Short Point	Point	266.00	50	13300.00
	1.7.2	Medium Point	Point	424.00	70	29680.00
	1.7.3	Long Point	Point	588.00	95	55860.00
02	1.8	Wiring for twin control light point with 3x1.5 sqmm FRLS PVC insulated stranded copper conductor wire for phase, neutral and earth in concealed FRLS PVC conduit (heavy duty, thickness of pipe should be 2 mm) with 5/6 amp modular switch, modular base and cover plate, suitable size G.I. box as per specification and IS: 694 (2010), IS: 9537 (2000 Part 5)	Point	420.00	06	2520.00
03	1.9	Extra for providing and fixing light plug point on board in concealed FRLS PVC conduit point wiring with modular type 3 pin 5/6 amp socket outlet and 5/6 amp switch including cost of base and cover plate and G.I. box etc. as per specification.	Point	216.00	37	7992.00
04	1.10	Wiring for light plug point with 3x2.5 sqmm FRLS PVC insulated stranded copper conductor wire for phase, neutral and earth in concealed FRLS PVC conduit along with modular type 6 Amp switch and 3 pin 6 amps socket outlet with modular base and cover plate, suitable size G.I. box, earthing the switch box and socket outlet with same size wire etc. as per specification.				
	1.10.1	Short Point	Point	442.00	10	4420.00
	1.10.2	Medium Point	Point	659.00	20	13180.00
	1.10.3	Long Point	Point	922.00	18	16596.00
	1.10.4	Extra Long Point I	Point	1302.00	10	13020.00
	1.10.5	Extra Long Point II	Point	1657.00	10	16570.00
05	1.11	Wiring for power plug point with 3x4 sq mm FRLS PVC insulated stranded copper conductor wire for phase, neutral and earth in concealed FRLS PVC conduit (heavy duty, thickness of pipe should be 2 mm) along with modular type 16 Amp switch and 6 pin 16 amps socket outlet with modular base and cover plate, suitable size G.I. box, earthing the switch box and socket outlet with same size wire etc. as per specification and IS: 694 (2010), IS: 9537 (2000 Part 5)				
	1.11.3	Long Point	Point	1350.00	05	6750.00
	1.11.4	Extra Long Point I	Point	1807.00	08	14456.00
	1.11.5	Extra Long Point II	Point	2315.00	09	20835.00
	1.11.6	Extra Long Point III	Point	2825.00	03	8475.00
06	1.13	Wiring for circuit/ sub main wiring along with earth wire with the following sizes of FRLS PVC insulated copper conductor, wire in concealed FRLS PVC conduit (heavy duty, thickness of pipe should be 2 mm) as per specification and IS: 694 (2010), IS: 9537 (2000 Part 5)				
	1.13.2	3 X 2.5 sq. mm in 20 mm conduit	Mtr	111.00	430.00	47730.00
	1.13.3	6 X 2.5 sq. mm in 25 mm conduit	Mtr	172.00	190.00	32680.00
	1.13.4	9 X 2.5 sq. mm in 32mm conduit	Mtr	238.00	110.00	26180.00
	1.13.14	6 X 10 sq. mm in 40mm conduit	Mtr	515.00	120.00	61800.00
07	1.15	Supplying and fixing of following sizes FRLS PVC conduit (heavy duty, thickness of pipe should be 2 mm) along with accessories in concealed complete as per specification and IS: 9537 (2000 Part 5)				
	1.15.2	25 mm	Mtr	53.00	250.00	13250.00

S.No.	SOR Item no.	PARTICULARS	UNIT	RATE	QTY	AMOUNT
08	3.11	Supplying and drawing following sizes of FRLS PVC insulated copper conductor, multi strand wire in the existing surface/ concealed, FRLS PVC conduit / PVC casing capping as per specification and IS: 694 (2010)				
	3.11.11	1 x 2.5 sq. mm	Mtr	22.00	200.00	4400.00
	3.11.34	4 x 10 sq. mm	Mtr	287.00	80.00	22960.00
09	3.12	Supplying and drawing following pair 0.5 mm FRLS PVC insulated copper conductor, unarmored telephone wire in the existing surface/ concealed Steel/FRLS PVC conduit as per specification and IS: 694 (2010)				
	3.12.2	2 Pair	Mtr	11.00	50.00	550.00
10	3.13	Supplying and drawing following grade co-axial TV wire FRLS PVC insulated, shielded with fine tinned copper braid and protected with PVC sheath in the existing surface/ concealed Steel/PVC conduit as per specification and IS: 694 (2010)				
	3.13.1	RG-6 grade	Mtr	14.00	30.00	420.00
11	3.14	Supplying and drawing UTP 4 pair Cat 6 LAN wire in existing surface/ concealed Steel/FRLS PVC conduit as per specification and IS: 694 (2010)	Mtr	19.00	300.00	5700.00
12	4.4	Supplying and fixing following size/ modules, GI box along with modular base & cover plate for modular switches in recess etc as per specification.				
	4.4.1	75mmX75mm (1/2 Module)	Each	99.00	20	1980.00
13	5.4	Supplying and fixing following modular switch, socket, other accessories on the existing modular plate & switch box including connections but excluding modular plate etc. as per specification.				
	5.4.4	15/16 amp switch	Each	89.00	03	267.00
	5.4.6	6 pin 15/16 amp socket outlet	Each	120.00	03	360.00
	5.4.9	Fan regulator (Two module size) electronic stepped type moving all rounds	Each	223.00	42	9366.00
	5.4.11	Plug Top (Deluxe type) 3 pin 16 Amps (For power plug).	Each	85.00	12	1020.00
	5.4.15	Telephone socket outlet	Each	70.00	02	140.00
	5.4.16	T.V. antenna socket outlet	Each	74.00	01	74.00
	5.4.17	Computer Outlet Jack	Each	242.00	17	4114.00
	5.4.18	25/32 amp A.C. Starter switch	Each	246.00	20	4920.00
	5.4.22	Batten/ angle holder	Each	41.00	23	943.00
	5.4.23	Blanking plate	Each	28.00	20	560.00
14	5.9	Providing and fixing round/ hexagonal fan box (125mm dia) depth 75mm (max.) with 12mm dia steel bar hook, 1.6mm thick MS sheet cover, in RCC slab etc. as per specification.	Each	42.00	42	1764.00
15	6.4	Supply, Installation, Testing and Commissioning of 1200 mm sweep, BEE 5 star rated, ceiling fan with Brush Less Direct Current (BLDC) Motor, class of insulation: B, 3 nos. blades, 30 cm long down rod, 2 nos. canopies, shackle kit, safety rope, copper winding, Power Factor not less than 0.9, Service Value (CMM/W) minimum 6.85, Air delivery minimum 215 CMM, 350 RPM (tolerance as per IS : 374-2019), THD less than 10%, remote or electronic regulator unit for speed control and all remaining accessories including safety pin, nut bolts, washers, temperature rise=75 degree C (max.), insulation resistance more than 2 mega ohm, suitable for 230 V, 50 Hz, single phase AC Supply, including connection, earthing etc. complete as per specification.	Each	2662.00	42	111804.00
16	6.6	Supplying, installation, testing and commissioning of following sizes heavy duty (continuous running) 1400 rpm exhaust fan in existing opening in wall including earthing etc. complete as per specification. P.F. should be greater than 0.9				
	6.6.1	300 mm sweep	Each	2446.00	13	31798.00

S.No.	SOR Item no.	PARTICULARS	UNIT	RATE	QTY	AMOUNT
17	6.12	Providing and fixing phenolic laminated sheet cover of 180 mm dia 3 mm thick on the fan box etc. as per specification. (If provided at the time of installation of ceiling fan)	Each	56.00	42	2352.00
18	6.15	Supplying, installation, testing and commissioning of following LED fitting (luminaries) down lighters in round/ square shape complete with electronic driver heat sink capacitor and all other accessories on surface/ in false ceiling etc. as per specification and P.F. should be greater than 0.9. LED chip efficacy ratio ≥ 100 lumens /watt.				
	6.15.5	15/16 Watt	Each	679.00	24	16296.00
19	6.19	Supplying, installation, testing and commissioning of following LED tube light fitting including batten with Electronic Driver Heat sink Capacitor complete with all other accessories on surface/in false ceiling, including connection, earthing etc complete as per specification and furnishing 5 Yrs Warranty certificate from manufacturer. IP20 P.F. should be greater than 0.9. LED chip efficacy ratio ≥ 100 lumens/watt.				
	6.19.3	18/20 watt{4 feet}	Each	443.00	92	40756.00
20	6.27	Supplying, installation, testing and commissioning of following LED Bulk Head fitting complete with Electronic Driver Heat sink Capacitor and all other accessories, including connection, earthing etc complete as per specification and P.F. should be greater than 0.9. LED chip efficacy ratio ≥ 100 lumens /watt.				
	6.27.1	10 watt	Each	1140.00	06	6840.00
21	6.28	Supplying, installation, testing and commissioning of following 230/250 volts LED street light fitting with all accessories like driver, heat sink made of die cast aluminium with IP 66 protection and 10 KV surge protection on pole bracket, including connection, earthing etc complete as per specification and furnishing 5 Yrs Warranty certificate from manufacturer. P.F. should be greater than 0.9. LED chip efficacy ratio ≥ 120 lumens /watt.				
	6.28.6	45 watt	Each	2729.00	10	27290.00
22	7.17	Providing and making interconnection in cubical panel between BBC and switchgears with following size FRLS PVC insulated copper conductor wire lead of length upto 50cm including providing copper thimbles on both ends as per specification (To be measured separately for each phase/ neutral).				
	7.17.2	16 sqmm (63 amp)	Each	104.00	20	2080.00
	7.17.3	35 sqmm (125 amps)	Each	181.00	04	724.00
23	7.19	Fabrication, supply, installation, testing and commissioning of cubicle type compartmentalized wall/ floor mounted power cum control panel board of specified size and following depth made out of not less than 2 mm thick CRCA MS sheet with suitable size compartments for bus bars, switchgears and necessary cutouts for voltmeters, ammeters etc as per specifications including powder coating painting but without busbars, switchgears and other accessories etc complete as per specification. (Only face area is to be measured)				
	7.19.1	Upto 300 mm deep	Sqm	6818.00	1.20	8181.60
24	7.20	Supply, installation, testing and commissioning of 4 pole (3 phase+neutral) aluminium bus bars in existing cubicle type compartmentalized wall/ floor mounted panel board along with suitable size and shape insulators, necessary bolts and nuts etc complete as per specification.				
	7.20.2	200 amp (30x5mm)	Mtr	907.00	0.80	725.60
25	9.1	Providing and fixing following rating and breaking capacity MCCB in existing cubicle panel board including drilling holes in cubicle panel, making connections, etc.as per specification, IS/IEC:60947-2 and Ics = 100% Icu				
	9.1.25	4 pole MCCB, 125A, Adjustable Thermal - Magnetic Release, 35KA	Each	7428.00	01	7428.00

S.No.	SOR Item no.	PARTICULARS	UNIT	RATE	QTY	AMOUNT
26	9.4	Supplying and fixing on surface/ recess horizontal type following way, 415 volts, TPN MCB distribution board of sheet steel phosphatized and powder painted, complete with tinned copper busbar, neutral busbar, earth bar, din bar, detachable gland plate, including interconnections, earthing etc. as per specification. (But without MCB/RCCB/Isolator)				
	9.4.4	4 way Double door	Each	1716.00	01	1716.00
	9.4.5	6 way Double door	Each	2038.00	03	6114.00
27	9.11	Supplying and fixing SP MCB, 240 volts, 'C' curve, suitable for inductive load in the existing MCB DB complete with connections, testing and commissioning etc. as per specification.				
	9.11.2	6 amps to 32 amps	Each	148.00	64	9472.00
28	9.16	Supplying and fixing TP&N MCB, 440 volts, 'C' curve, suitable for lighting and other loads in the existing MCB DB complete with connections, testing and commissioning etc. as per specification.				
	9.16.5	63 amps	Each	1316.00	09	11844.00
29	10.15	Providing and fixing following rating current transformer in existing cubical panel including, connections, testing and commissioning etc. as per specification.				
	10.15.3	200/5 amps	Each	347.00	04	1388.00
30	10.17	Providing and fixing panel mounting 230 volt LED type indicating lamp in existing cubical panel including, connections, testing and commissioning etc. as per specification.	Each	94.00	03	282.00
31	10.23	Providing and fixing panel mounting digital type VAF (Volt-amp-frequency combined) meter of size 100x100 (NS) in existing cubical panel including connection, testing and commissioning etc. as per specification.	Each	1201.00	01	1201.00
32	12.16	Providing and fixing 25 mm X 5 mm G.I. strip on surface or in recess for connections etc. as per specification.	Mtr	115.00	30.00	3450.00
33	12.19	Providing maintenance free earthing with following size GI pipe including making bore pit of minimum 150mm dia, providing and laying approved make Earthing Electrode of Pipe-in-Pipe technology as per IS 3043(R 2016) -1987 made of corrosion free G.I. Pipes having outer pipe of 80mm dia and inner pipe of 50mm dia and filling with specified qty highly conductive compound around pipe and above that with soft soil in bore pit complete and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. as per specification.				
	12.19.2	With 2 metre long GI Pipes and 25 kg back filling compound.	Each	8222.00	02	16444.00
34	15.3	Supplying and laying following sizes one number FRLS PVC insulated, PVC sheathed, steel armoured, aluminium conductor power cable of 1.1 KV grade in existing RCC/ HUME/ STONEWARE/ METAL/ HDPE pipe as perspecification, IS:9537 (2000, Part5)				
	15.3.13	3.5 x 50 sq. mm.	Mtr	173.00	120.00	20760.00
35	15.23	Supplying and making end termination with brass compression gland and aluminum lugs for following size armoured aluminum conductor power cable of 1.1 KV grade as per specification.				
	15.23.14	3½ X 50 sq. mm (32 mm)	Each	168.00	2.00	336.00
36	20.6	Supplying and erection of angle/channel iron cross arms/ bracket/ other fitting of approved size and shape including drilling of holes for insulator pins, bolts and nuts etc as per specification.	Kg	77.00	10.00	770.00

S.No.	SOR Item no.	PARTICULARS	UNIT	RATE	QTY	AMOUNT
37	24.3	Supplying of approved make split type Air Conditioner unit with cooling unit (copper coil) and condensing unit (copper coil) including 5 years compressor warranty and standard length of upto 3 metre of copper piping with insulation, etc complete as per specification.				
	24.3.1	1.0 ton split type capacity 3000 kcal / hr (3 star).	Each	28337.00	03	85011.00
	24.3.2	1.5 ton split type capacity 4500 kcal / hr (3 star).	Each	33375.00	08	267000.00
	24.3.3	2.0 ton split type capacity 6000 kcal / hr (3 star).	Each	48012.00	01	48012.00
38	24.4	Installation of split type Inverter/Non Inverter Air Conditioner unit, cooling unit on wall inside and condensing unit on out side wall/ ceiling/ floor at desired locations with existing standard length of copper piping with insulation and power cable including providing and fixing necessary good quality powder coated MS frame etc complete as per specification. (Extra length of copper piping and power cable shall be paid extra on linear basis)	Each	2110.00	12	25320.00
39	24.7	Supply and fixing of approved make wall mounting type voltage stabilizer with input volts 160-250, output volts 200-240 volts and double step relay on desired location with necessary fixing material including connection etc complete as per specification.				
	24.7.1	4 KVA	Each	3832.00	11	42152.00
	24.7.2	5 KVA	Each	4367.00	01	4367.00
40	24.23	Supplying, installation, testing and commissioning of following size drinking water cooler storage type ISI marked, eco friendly non CFC refrigerant, water tank and cooler cabinet sheet material- stainless steel {grade AISI 304} with thickness >= 0.8 mm, with PUF insulation including all accessories connection etc complete as per specification.				
	24.23.1	40/80 Ltrs/hr	Each	29974.00	01	29974.00
41	24.24	Supplying, installation, testing and commissioning of following capacity of RO purification system with UF/UV/TDS controller and UV lamp {IS 14724 Ultra violet disinfection} and minimum three stage purification, automatic on/off, output water conforming standard IS 10500 with inbuilt storage tank including all accessories connection etc complete as per specification.				
	24.24.1	25 Ltrs/hr output capacity	Each	23508.00	01	23508.00
		TOTAL			Rs.	1320228.20
		Say			Rs.	1320228.00

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Elect. Sub Divi - Bilaspur

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Executive Engineer (Elect)
Chhattisgarh Housing &
Infrastructure Development Board
Electrical Division - Bilaspur

GENERAL ABSTRACT

ESTIMATE FOR THE CONSTRUCTION OF PROPOSED "F" TYPE QUARTERS FOR IRRIGATION UNDER REDEVELOPEMENT WORK AT KATGHORA (KORBA) C.G.(SITE II)					
For 4 Units (G+1)					
A	Construction cost		For 01 Block (02 Unit)	Total Block to be constructed	Total Cost for 02 Unit
i)	Civil Work	Rs.	6957190.00	1	6957190.00
ii)	Cost of water supply and sanitary works	Rs.	386757.00	1	386757.00
iii)	Cost of internal electrification work i/c fixtures	Rs.	620640.00	1	620640.00
	Total A :-	Rs.			7964587.00
	Cost of for 4 units of 1 Block	Rs.			79.65
Based on Chhattisgarh P.W.D. Building SOR w.e.f. 01-01-2015 & Road SOR w.e.f. 01-01-2015					

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Infrastructure Development Board
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**DETAIL ESTIMATE FOR CIVIL CONSTRUCTION OF
PROPOSED "F" TYPE QUARTERS FOR IRRIGATION UNDER REDEVELOPEMENT WORK AT
KATGHORA (KORBA) C.G.(SITE II)**

S. No.	I. No.	PARTICULAR	Measurement				QTY	UNIT	RATE	AMOUNT
			NO	L	B	D/H				
1	1.2	Surface dressing of the ground including removing vegetation and making up undulations and in-equalities not exceeding 15 cms in depth/ height including disposal of rubbish upto 1.5 m lift and lead upto 50m (at least 5m away from the dressed area).	1	25.00	15.00		375.00	sqm	7.20	2700.00
2	1.1	Excavation for all types and sizes of foundations, trenches and drains or for any other purpose including disposal of excavated stuff upto 1.5 m lift and lead upto 50m (at least 5m away from the excavated area), including dressing and leveling of pits.								
	1.1.1	In all types of soils.								
		Footing-C1	10	3.00	2.70	2.00	162.00			
		Footing-C2	14	2.70	2.55	2.00	192.78			
		Footing-C3	4	2.10	2.10	2.00	35.28			
		Footing-C4	2	1.65	1.65	2.00	10.89			
		Footing-C4A	2	2.10	2.10	2.00	17.64			
		For Beam								
		Horizontal	2	3.50	0.30	0.20	0.42			
			2	3.00	0.30	0.20	0.36			
			4	10.00	0.30	0.20	2.40			
			2	3.60	0.30	0.20	0.43			
			2	6.60	0.30	0.20	0.79			
			2	2.70	0.30	0.20	0.32			
			2	6.30	0.30	0.20	0.76			
			4	1.60	0.30	0.20	0.38			
		pro	4	0.65	0.30	0.20	0.16			
			2	0.80	0.30	0.20	0.10			
			4	0.90	0.30	0.20	0.22			
			2	0.60	0.30	0.20	0.07			
		toilet	2	4.20	0.30	0.20	0.50			
		common	1	8.70	0.30	0.20	0.52			
			2	2.90	0.30	0.20	0.35			
		Vertical	2	4.10	0.30	0.20	0.49			
			2	7.10	0.30	0.20	0.85			
			2	2.80	0.30	0.20	0.34			
			2	11.20	0.30	0.20	1.34			
			2	2.40	0.30	0.20	0.29			
			2	3.80	0.30	0.20	0.46			
			2	3.50	0.30	0.20	0.42			
			4	8.00	0.30	0.20	1.92			
			4	1.10	0.30	0.20	0.26			
		For front step	1	2.90	0.30	0.20	0.17			
			2	1.50	0.30	0.20	0.18			
							433.10	cum	185.00	80123.13
3	1.6	Extra for every additional lift of 1.5 m or part thereof.								
	1.6.1	All types of soils								
		Footing-C1	10	3.00	2.70	0.50	40.50			
		Footing-C2	14	2.70	2.55	0.50	48.20			
		Footing-C3	4	2.10	2.10	0.50	8.82			
		Footing-C4	2	1.65	1.65	0.50	2.72			
		Footing-C4A	2	2.10	2.10	0.50	4.41			
							104.65	cum	26.50	2773.16

4	3.1	Providing and laying nominal mix plain cement concrete with crushed stone aggregate using concrete mixer in all works upto plinth level excluding cost of form work.								
	3.1.2	1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size).								
		Below PL								
		Footing-C1	10	3.00	2.70	0.10	8.10			
		Footing-C2	14	2.70	2.55	0.10	9.64			
		Footing-C3	4	2.10	2.10	0.10	1.76			
		Footing-C4	2	1.65	1.65	0.10	0.54			
		Footing-C4A	2	2.10	2.10	0.10	0.88			
		For Beam								
		Horizontal	2	3.50	0.30	0.10	0.21			
			2	3.00	0.30	0.10	0.18			
			4	10.00	0.30	0.10	1.20			
			2	3.60	0.30	0.10	0.22			
			2	6.60	0.30	0.10	0.40			
			2	2.70	0.30	0.10	0.16			
			2	6.30	0.30	0.10	0.38			
			4	1.60	0.30	0.10	0.19			
		pro	4	0.65	0.30	0.10	0.08			
			2	0.80	0.30	0.10	0.05			
			4	0.90	0.30	0.10	0.11			
			2	0.60	0.30	0.10	0.04			
		toilet	2	4.20						
		common	1	8.70	0.30	0.10	0.26			
			2	2.90	0.30	0.10	0.17			
		Vertical	2	4.10	0.30	0.10	0.25			
			2	7.10	0.30	0.10	0.43			
			2	2.80	0.30	0.10	0.17			
			2	11.20	0.30	0.10	0.67			
			2	2.40	0.30	0.10	0.14			
			2	3.80	0.30	0.10	0.23			
			2	3.50	0.30	0.10	0.21			
			4	8.00	0.00	0.10	0.00			
			4	1.10	0.00	0.10	0.00			
		For front step	1	2.90	0.30	0.20	0.17			
			2	1.50	0.30	0.20	0.18			
		Below Floor								
		Bed Room	2	3.30	3.40	0.10	2.24			
		Almirah	2	1.50	0.60	0.10	0.18			
		Bed Room	2	3.40	3.10	0.10	2.11			
		Bed Room	2	3.20	3.40	0.10	2.18			
		Almirah	2	2.00	0.60	0.10	0.24			
		Kitchen	2	3.30	2.60	0.10	1.72			
		Living & Dining	2	6.20	3.60	0.10	4.46			
		Almirah	2	2.00	0.60	0.10	0.24			
		Toilet	4	1.40	2.40	0.10	1.34			
		Front Toilet	2	2.90	0.90	0.10	0.52			
		Toilet	2	1.40	2.40	0.10	0.67			
		Utility	2	2.90	1.30	0.10	0.75			
		Balcony	2	3.20	1.00	0.10	0.64			
		Balcony	2	2.70	1.00	0.10	0.54			
		2.10M Corridor	1	8.10	2.10	0.10	1.70			
		Below Staircase	1	3.00	4.50	0.10	1.35			
		For Front entrance	1	3.40	1.00	0.10	0.34			
		For Front Step	1	3.40	1.00	0.10	0.34			
		For Front Ramp	1	2.10	1.20	0.10	0.25			
							48.84	cum		
							48.84	cum	2659.00	129864.23

5	3.3	Providing and laying design mix reinforced cement concrete with crushed graded stone aggregate 20mm nominal size using batching plant, transit mixer and concrete pump, in all works upto plinth level excluding cost of form work.								
	3.3.2	M-25 Grade								
		Below plinth								
		Footing-C1	10	2.70	2.40	0.40	25.92			
		Footing-C2	14	2.40	2.25	0.40	30.24			
		Footing-C3	4	1.80	1.80	0.40	5.18			
		Footing-C4	2	1.35	1.35	0.40	1.46			
		Footing-C4A	2	1.80	1.80	0.40	2.59			
		Column upto Plinth								
		Footing-C1	10	0.20	0.45	2.30	2.07			
		Footing-C2	14	0.20	0.40	2.30	2.58			
		Footing-C3	4	0.20	0.40	2.30	0.74			
		Footing-C4	2	0.20	0.30	2.30	0.28			
		Footing-C4A	2	0.20	0.30	2.30	0.28			
		For Beam								
		Horizontal	2	3.50	0.20	0.35	0.49			
			2	3.00	0.20	0.35	0.42			
			4	10.00	0.20	0.35	2.80			
			2	3.60	0.20	0.35	0.50			
			2	6.60	0.20	0.35	0.92			
			2	2.70	0.20	0.35	0.38			
			2	6.30	0.20	0.35	0.88			
			4	1.60	0.20	0.35	0.45			
		pro	4	0.65	0.20	0.35	0.18			
			2	0.80	0.20	0.35	0.11			
			4	0.90	0.20	0.35	0.25			
			2	0.60	0.20	0.35	0.08			
		toilet	2	4.20						
		common	1	8.70	0.20	0.35	0.61			
			2	2.90	0.20	0.35	0.41			
		Vertical	2	4.10	0.20	0.35	0.57			
			2	7.10	0.20	0.35	0.99			
			2	2.80	0.20	0.35	0.39			
			2	11.20	0.20	0.35	1.57			
			2	2.40	0.20	0.35	0.34			
			2	3.80	0.20	0.35	0.53			
			2	3.50	0.20	0.35	0.49			
			4	8.00	0.20	0.35	2.24			
			4	1.10	0.20	0.35	0.31			
		For front step	1	2.90	0.20	0.35	0.20			
			2	1.50	0.20	0.35	0.21			
						(A)	87.67	Cum		
		Above Plinth-GF								
		Column upto Slab Top								
		Footing-C1	10	0.20	0.45	3.13	2.81			
		Footing-C2	14	0.20	0.40	3.13	3.50			
		Footing-C3	4	0.20	0.40	3.13	1.00			
		Footing-C4	2	0.20	0.30	3.13	0.38			
		Footing-C4A	2	0.20	0.30	3.13	0.38			
		Lintle Beam								
		Horizontal	2	3.50	0.20	0.20	0.28			
			2	3.00	0.20	0.20	0.24			
			4	10.00	0.20	0.20	1.60			
			2	3.60	0.20	0.20	0.29			
			2	6.60	0.20	0.20	0.53			
			2	2.70	0.20	0.20	0.22			
			2	6.30	0.20	0.20	0.50			
			4	1.60	0.20	0.20	0.26			
		pro	4	0.65	0.20	0.20	0.10			
			2	0.80	0.20	0.20	0.06			
			4	0.90	0.20	0.20	0.14			

			2	0.60	0.20	0.20	0.05			
		toilet	2	4.20	0.20	0.20	0.34			
		common	1	8.70	0.20	0.20	0.35			
			2	2.90	0.20	0.20	0.23			
		Vertical	2	4.10	0.20	0.20	0.33			
			2	7.10	0.20	0.20	0.57			
			2	2.80	0.20	0.20	0.22			
			2	11.20	0.20	0.20	0.90			
			2	2.40	0.20	0.20	0.19			
			2	3.80	0.20	0.20	0.30			
			2	3.50	0.20	0.20	0.28			
			4	8.00	0.20	0.20	1.28			
			4	1.10	0.20	0.20	0.18			
		Slab Beam								
		Horizontel	2	3.50	0.20	0.35	0.49			
			2	3.00	0.20	0.35	0.42			
			4	10.00	0.20	0.35	2.80			
			2	3.60	0.20	0.35	0.50			
			2	6.60	0.20	0.35	0.92			
			2	2.70	0.20	0.35	0.38			
			2	6.30	0.20	0.35	0.88			
			4	1.60	0.20	0.35	0.45			
		pro	4	0.65	0.20	0.35	0.18			
			2	0.80	0.20	0.35	0.11			
			4	0.90	0.20	0.35	0.25			
			2	0.60	0.20	0.35	0.08			
		toilet	2	4.20						
		common	1	8.70	0.20	0.35	0.61			
			2	2.90	0.20	0.35	0.41			
		Vertical	2	4.10	0.20	0.35	0.57			
			2	7.10	0.20	0.35	0.99			
			2	2.80	0.20	0.35	0.39			
			2	11.20	0.20	0.35	1.57			
			2	2.40	0.20	0.35	0.34			
			2	3.80	0.20	0.35	0.53			
			2	3.50	0.20	0.35	0.49			
			4	8.00	0.20	0.35	2.24			
			4	1.10	0.20	0.35	0.31			
		Staircase W/slab	2	3.00	1.20	0.150	1.08			
		Midlanding	1	3.00	1.20	0.150	0.54			
		Steps	20	1.20	0.15	0.15	0.54			
		Slab								
		Bed Room	2	3.30	3.40	0.125	2.81			
		Almirah	2	1.50	0.60	0.125	0.23			
		Bed Room	2	3.40	3.10	0.125	2.64			
		Bed Room	2	3.20	3.40	0.125	2.72			
		Almirah	2	2.36	0.60	0.125	0.35			
			2	3.73	0.60	0.125	0.56			
		Kitchen	2	3.30	2.60	0.125	2.15			
		Living & Dining	2	6.20	3.60	0.125	5.58			
		Almirah	2	1.80	0.60	0.125	0.27			
		Toilet	4	1.40	2.40	0.125	1.68			
		Front Toilet	2	2.90	0.90	0.125	0.65			
		Toilet	2	1.40	2.40	0.125	0.84			
		Utility	2	2.90	1.30	0.125	0.94			
		Balcony	2	3.20	1.00	0.125	0.80			
		Balcony	2	2.70	1.00	0.125	0.68			
		2.10M Corridor	1	8.10	2.10	0.125	2.13			
		For Front Step	1	3.10	1.70	0.125	0.66			
		Chhajja								
		Front gate	1	8.10	0.60	0.08	0.39			
		w	4	1.80	1.50	0.08	0.86			
		W1	3	1.50	1.50	0.08	0.54			
		V	6	0.90	0.60	0.08	0.26			
		Kitchen Platform	2	3.90	0.60	0.075	0.35			
		Kitchen Platform	2	3.30	0.60	0.075	0.30			

		Almirah shalves	12	1.50	0.60	0.075	0.81			
			4	2.00	0.60	0.075	0.36			
		Window Sill								
		ms Grill	2	2.35	0.20	0.05	0.05			
		w	6	1.80	1.50	0.05	0.81			
		W1	3	1.50	1.50	0.05	0.34			
		Wk	2	1.30	1.00	0.05	0.13			
		V	6	0.90	0.60	0.05	0.16			
			Ground Floor			(B)	66.61	Cum		
		Above Plinth-FF								
		Column upto Slab Top								
		Footing-C1	10	0.20	0.45	3.13	2.81			
		Footing-C2	14	0.20	0.40	3.13	3.50			
		Footing-C3	4	0.20	0.40	3.13	1.00			
		Footing-C4	2	0.20	0.30	3.13	0.38			
		Footing-C4A	2	0.20	0.30	3.13	0.38			
		Lintle Beam								
		Horizontel	2	3.50	0.20	0.20	0.28			
			2	3.00	0.20	0.20	0.24			
			4	10.00	0.20	0.20	1.60			
			2	3.60	0.20	0.20	0.29			
			2	6.60	0.20	0.20	0.53			
			2	2.70	0.20	0.20	0.22			
			2	6.30	0.20	0.20	0.50			
			4	1.60	0.20	0.20	0.26			
		pro	4	0.65	0.20	0.20	0.10			
			2	0.80	0.20	0.20	0.06			
			4	0.90	0.20	0.20	0.14			
			2	0.60	0.20	0.20	0.05			
		toilet	2	4.20	0.20	0.20	0.34			
		common	1	8.70	0.20	0.20	0.35			
			2	2.90	0.20	0.20	0.23			
		Vertical	2	4.10	0.20	0.20	0.33			
			2	7.10	0.20	0.20	0.57			
			2	2.80	0.20	0.20	0.22			
			2	11.20	0.20	0.20	0.90			
			2	2.40	0.20	0.20	0.19			
			2	3.80	0.20	0.20	0.30			
			2	3.50	0.20	0.20	0.28			
			4	8.00	0.20	0.20	1.28			
			4	1.10	0.20	0.20	0.18			
		Slab Beam								
		Horizontel	2	3.50	0.20	0.35	0.49			
			2	3.00	0.20	0.35	0.42			
			4	10.00	0.20	0.35	2.80			
			2	3.60	0.20	0.35	0.50			
			2	6.60	0.20	0.35	0.92			
			2	2.70	0.20	0.35	0.38			
			2	6.30	0.20	0.35	0.88			
			4	1.60	0.20	0.35	0.45			
		pro	4	0.65	0.20	0.35	0.18			
			2	0.80	0.20	0.35	0.11			
			4	0.90	0.20	0.35	0.25			
			2	0.60	0.20	0.35	0.08			
		toilet	2	4.20						
		common	1	8.70	0.20	0.35	0.61			
			2	2.90	0.20	0.35	0.41			
		Vertical	2	4.10	0.20	0.35	0.57			
			2	7.10	0.20	0.35	0.99			
			2	2.80	0.20	0.35	0.39			
			2	11.20	0.20	0.35	1.57			
			2	2.40	0.20	0.35	0.34			
			2	3.80	0.20	0.35	0.53			
			2	3.50	0.20	0.35	0.49			
			4	8.00	0.20	0.35	2.24			

			4	1.10	0.20	0.35	0.31			
		Staircase W/slab	2	3.00	1.20	0.150	1.08			
		Midlanding	1	3.00	1.20	0.150	0.54			
		Steps	20	1.20	0.15	0.15	0.54			
		Slab								
		Bed Room	2	3.30	3.40	0.125	2.81			
		Almirah	2	1.50	0.60	0.125	0.23			
		Bed Room	2	3.40	3.10	0.125	2.64			
		Bed Room	2	3.20	3.40	0.125	2.72			
		Almirah	2	2.36	0.60	0.125	0.35			
			2	3.73	0.60	0.125	0.56			
		Kitchen	2	3.30	2.60	0.125	2.15			
		Living & Dining	2	6.20	3.60	0.125	5.58			
		Toilet	4	1.40	2.40	0.125	1.68			
		Front Toilet	2	2.90	0.90	0.125	0.65			
		Toilet	2	1.40	2.40	0.125	0.84			
		Utility	2	2.90	1.30	0.125	0.94			
		Balcony	2	3.20	1.00	0.125	0.80			
		Balcony	2	2.70	1.00	0.125	0.68			
		2.10M Corridor	1	8.10	2.10	0.125	2.13			
		For Front Step	1	3.10	1.70	0.125	0.66			
		Chhajja								
		Front gate	1	8.10	0.60	0.08	0.39			
		w	4	1.80	1.50	0.08	0.86			
		W1	3	1.50	1.50	0.08	0.54			
		V	6	0.90	0.60	0.08	0.26			
		Kitchen Platform	2	3.90	0.60	0.075	0.35			
		Kitchen Platform	2	3.30	0.60	0.075	0.30			
		Almirah shalves	8	1.50	0.60	0.075	0.54			
			8	1.75	0.60	0.075	0.63			
		Window Sill								
		ms Grill	2	2.35	0.20	0.05	0.05			
		w	6	1.80	1.50	0.05	0.81			
		W1	3	1.50	1.50	0.05	0.34			
		Wk	2	1.30	1.00	0.05	0.13			
		V	6	0.90	0.60	0.05				
			First Floor			(C)	66.18	Cum		
		Terrace Floor								
		For Tower col	4	0.20	0.45	2.53	0.91			
		For Tower paraphet								
		C1	4	0.20	0.45	0.90	0.32			
		C2	8	0.20	0.40	0.90	0.58			
		C3	4	0.20	0.40	0.90	0.29			
		C4	4	0.20	0.30	0.90	0.22			
		C5	2	0.20	0.30	0.90	0.11			
		Tower Beam	2	4.40	0.20	0.30	0.53			
			2	2.90	0.20	0.30	0.35			
		Tower Slab	1	2.50	4.20	0.125	1.31			
		Chhajja	1	3.40	0.60	0.080	0.16			
						(D)	4.77	Cum		
			(A+B+C+D)				225.22	Cum	4298.00	968011.46
6	3.4	Extra for laying PCC/RCC of any grade in superstructure above plinth level for every floor or part thereof in addition to rate for foundation and plinth:								
		Ground Floor					66.61	cum	97.50	6494.33
		First Floor					66.18	cum	195.00	12904.42
		Second Floor					4.77	cum	292.50	1396.01

7	2.1	Providing and fixing form work including centring, shuttering, strutting, staging, propping bracing etc. complete and including its removal at all levels, for:								
A	2.1.1	Foundations, footings, bases of columns plinth beam, curtain wall in any shape and size and all type of wall below plinth level.								
		Footing-C1	10	10.20		0.40	40.80			
		Footing-C2	14	9.30		0.40	52.08			
		Footing-C3	4	7.20		0.40	11.52			
		Footing-C4	2	5.40		0.40	4.32			
		Footing-C4A	2	7.20		0.40	5.76			
		Column upto Plinth								
		Footing-C1	10	1.30		2.30	29.90			
		Footing-C2	14	1.20		2.30	38.64			
		Footing-C3	4	1.20		2.30	11.04			
		Footing-C4	2	1.00		2.30	4.60			
		Footing-C4A	2	1.00		2.30	4.60			
		For Beam								
		Horizontel	2	3.50		0.35	2.45			
			2	3.00		0.35	2.10			
			4	10.00		0.35	14.00			
			2	3.60		0.35	2.52			
			2	6.60		0.35	4.62			
			2	2.70		0.35	1.89			
			2	6.30		0.35	4.41			
			4	1.60		0.35	2.24			
		pro	4	0.65		0.35	0.91			
			2	0.80		0.35	0.56			
			4	0.90		0.35	1.26			
			2	0.60		0.35	0.42			
		toilet	2	4.20		0.35	2.94			
		common	1	8.70		0.35	3.05			
			2	2.90		0.35	2.03			
		Vertical	2	4.10		0.35	2.87			
			2	7.10		0.35	4.97			
			2	2.80		0.35	1.96			
			2	11.20		0.35	7.84			
			2	2.40		0.35	1.68			
			2	3.80		0.35	2.66			
			2	3.50		0.35	2.45			
			4	8.00		0.35	11.20			
			4	1.10		0.35	1.54			
		For front step	1	2.90		0.35	1.02			
			2	1.50		0.35	1.05			
							287.89	sqm	139.00	40016.71
B	2.1.5	Columns, Pillars, Piers and likes-rectangular or square in shape								
		FF Column upto Slab								
		Column upto Plinth								
		Footing-C1	10	1.30		2.78	36.08			
		Footing-C2	14	1.20		2.78	46.62			
		Footing-C3	4	1.20		2.78	13.32			
		Footing-C4	2	1.00		2.78	5.55			
		Footing-C4A	2	1.00		2.78	5.55			
							107.12	sqm		
		FF Column upto Slab								
		Footing-C1	10	1.30		2.78	36.08			
		Footing-C2	14	1.20		2.78	46.62			
		Footing-C3	4	1.20		2.78	13.32			
		Footing-C4	2	1.00		2.78	5.55			
		Footing-C4A	2	1.00		2.78	5.55			
							107.12	sqm		

		Terrace Floor								
		For Tower col	4	1.30		2.53	13.13			
		C1	4	1.30		0.90	4.68			
		C2	8	1.20		0.90	8.64			
		C3	4	1.20		0.90	4.32			
		C4	4	1.00		0.90	3.60			
		C5	2	1.00		0.90	1.80			
							36.17	sqm		
							250.40	sqm	297.00	74368.80
C	2.1.8	Beams, lintels, cantilevers & walls								
		GF								
		Lintle Beam								
		Horizontel	2	3.50		0.60	4.20			
			2	3.00		0.60	3.60			
			4	10.00		0.60	24.00			
			2	3.60		0.60	4.32			
			2	6.60		0.60	7.92			
			2	2.70		0.60	3.24			
			2	6.30		0.60	7.56			
			4	1.60		0.60	3.84			
		pro	4	0.65		0.60	1.56			
			2	0.80		0.60	0.96			
			4	0.90		0.60	2.16			
			2	0.60		0.60	0.72			
		toilet	2	4.20		0.60	5.04			
		common	1	8.70		0.60	5.22			
			2	2.90		0.60	3.48			
		Vertical	2	4.10		0.60	4.92			
			2	7.10		0.60	8.52			
			2	2.80		0.60	3.36			
			2	11.20		0.60	13.44			
			2	2.40		0.60	2.88			
			2	3.80		0.60	4.56			
			2	3.50		0.60	4.20			
			4	8.00		0.60	19.20			
			4	1.10		0.60	2.64			
		Slab Beam								
		Horizontel	2	3.50		0.90	6.30			
			2	3.00		0.90	5.40			
			4	10.00		0.90	36.00			
			2	3.60		0.90	6.48			
			2	6.60		0.90	11.88			
			2	2.70		0.90	4.86			
			2	6.30		0.90	11.34			
			4	1.60		0.90	5.76			
		pro	4	0.65		0.90	2.34			
			2	0.80		0.90	1.44			
			4	0.90		0.90	3.24			
			2	0.60		0.90	1.08			
		toilet	2	4.20		0.90	7.56			
		common	1	8.70		0.90	7.83			
			2	2.90		0.90	5.22			
		Vertical	2	4.10		0.90	7.38			
			2	7.10		0.90	12.78			
			2	2.80		0.90	5.04			
			2	11.20		0.90	20.16			
			2	2.40		0.90	4.32			
			2	3.80		0.90	6.84			
			2	3.50		0.90	6.30			
			4	8.00		0.90	28.80			
			4	1.10		0.90	3.96			
		Window Sill								
		ms Grill	2	2.35	2	0.05	0.47			
		w	6	1.80	2	0.05	1.08			
		W1	3	1.50	2	0.05	0.45			

		Wk	2	1.30	2	0.05	0.26			
		V	6	0.90	2	0.05	0.54			
							356.65	sqm		
		FF								
		Lintle Beam								
		Horizontal	2	3.50		0.60	4.20			
			2	3.00		0.60	3.60			
			4	10.00		0.60	24.00			
			2	3.60		0.60	4.32			
			2	6.60		0.60	7.92			
			2	2.70		0.60	3.24			
			2	6.30		0.60	7.56			
			4	1.60		0.60	3.84			
		pro	4	0.65		0.60	1.56			
			2	0.80		0.60	0.96			
			4	0.90		0.60	2.16			
			2	0.60		0.60	0.72			
		toilet	2	4.20		0.60	5.04			
		common	1	8.70		0.60	5.22			
			2	2.90		0.60	3.48			
		Vertical	2	4.10		0.60	4.92			
			2	7.10		0.60	8.52			
			2	2.80		0.60	3.36			
			2	11.20		0.60	13.44			
			2	2.40		0.60	2.88			
			2	3.80		0.60	4.56			
			2	3.50		0.60	4.20			
			4	8.00		0.60	19.20			
			4	1.10		0.60	2.64			
		Slab Beam								
		Horizontal	2	3.50		0.90	6.30			
			2	3.00		0.90	5.40			
			4	10.00		0.90	36.00			
			2	3.60		0.90	6.48			
			2	6.60		0.90	11.88			
			2	2.70		0.90	4.86			
			2	6.30		0.90	11.34			
			4	1.60		0.90	5.76			
		pro	4	0.65		0.90	2.34			
			2	0.80		0.90	1.44			
			4	0.90		0.90	3.24			
			2	0.60		0.90	1.08			
		toilet	2	4.20		0.90	7.56			
		common	1	8.70		0.90	7.83			
			2	2.90		0.90	5.22			
		Vertical	2	4.10		0.90	7.38			
			2	7.10		0.90	12.78			
			2	2.80		0.90	5.04			
			2	11.20		0.90	20.16			
			2	2.40		0.90	4.32			
			2	3.80		0.90	6.84			
			2	3.50		0.90	6.30			
			4	8.00		0.90	28.80			
			4	1.10		0.90	3.96			
		Window Sill								
		ms Grill	2	2.35	2	0.05	0.47			
		w	6	1.80	2	0.05	1.08			
		W1	3	1.50	2	0.05	0.45			
		Wk	2	1.30	2	0.05	0.26			
		V	6	0.90	2	0.05				
							356.11	sqm		
		Terrace Floor								
		Tower Beam	2	4.40		0.80	7.04			
			2	2.90		0.80	4.64			
							11.68	sqm		

							724.44	sqm	202.00	146336.88
D	2.1.7	Suspended floors, roofs, access Kitchen Platform, balconies (plain surfaces) and shelves (cast in situ)								
		GROUND FLOOR								
		Bed Room	2	3.30	3.40		22.44			
		Almirah	2	1.50	0.60		1.80			
		Bed Room	2	3.40	3.10		21.08			
		Bed Room	2	3.20	3.40		21.76			
		Almirah	2	2.36	0.60		2.83			
			2	3.73	0.60		4.48			
		Kitchen	2	3.30	2.60		17.16			
		Living & Dining	2	6.20	3.60		44.64			
		Almirah	2	1.50	0.60		1.80			
		Toilet	4	1.40	2.40		13.44			
		Front Toilet	2	2.90	0.90		5.22			
		Toilet	2	1.40	2.40		6.72			
		Utility	2	2.90	1.30		7.54			
		Balcony	2	3.20	1.00		6.40			
		Balcony	2	2.70	1.00		5.40			
		2.10M Corridor	1	8.10	2.10		17.01			
		For Front Step	1	3.10	1.70		5.27			
		Kitchen Platform	2	3.90	0.60		4.68			
		Kitchen Platform	2	3.30	0.60		3.96			
		Almirah shalves	12	1.50	0.60		10.80			
			4	2.00	0.60		4.80			
							229.23	sqm		
		FIRST FLOOR								
		Bed Room	2	3.30	3.40		22.44			
		Almirah	2	1.50	0.60		1.80			
		Bed Room	2	3.40	3.10		21.08			
		Bed Room	2	3.20	3.40		21.76			
		Almirah	2	2.36	0.60		2.83			
			2	3.73	0.60		4.48			
		Kitchen	2	3.30	2.60		17.16			
		Living & Dining	2	6.20	3.60		44.64			
		Almirah	2	1.50	0.60		1.80			
		Toilet	4	1.40	2.40		13.44			
		Front Toilet	2	2.90	0.90		5.22			
		Toilet	2	1.40	2.40		6.72			
		Utility	2	2.90	1.30		7.54			
		Balcony	2	3.20	1.00		6.40			
		Balcony	2	2.70	1.00		5.40			
		2.10M Corridor	1	8.10	2.10		17.01			
		For Front Step	1	3.10	1.70		5.27			
		Kitchen Platform	2	3.90	0.60		4.68			
		Kitchen Platform	2	3.30	0.60		3.96			
		Almirah shalves	12	1.50	0.60		10.80			
			4	2.00	0.60		4.80			
							229.23	sqm		
		Terrace Floor								
		Tower Slab	1	3.00	4.20		12.60			
			1	3.40	0.60		2.04			
							14.64	sqm		
							473.10	sqm	235.00	111177.56
E	2.1.13	Weather shade, chhajja, Cornices and mouldings								
		GROUND FLOOR								
		Front gate	1	8.10	0.60		4.86			
		w	4	1.80	0.60		4.32			
		W1	3	1.50	0.60		2.70			
		V	6	0.90	0.60		3.24			
		FIRST FLOOR								

		Front gate	1	8.10	0.60		4.86			
		w	4	1.80	0.60		4.32			
		W1	3	1.50	0.60		2.70			
		V	6	0.90	0.60		3.24			
		Terrace Floor								
		Chhajja	1	3.40	0.60		2.04			
							32.28	sqm	294.00	9490.32
F	2.1.15	Stair cases of all types excluding spiral and folded plate type, including risers and landings								
		GROUND FLOOR								
		Staircase W/slab	2	3.00	1.20		7.20			
		Midlanding	1	3.00	1.20		3.60			
		Steps	20	1.20	0.15		3.60			
			2	3.00	0.30		1.80			
						GROUND FLOOR	16.20	sqm		
						FISRT FLOOR	16.20	sqm		
							32.40	sqm	230.00	7452.00
8	2.3	Extra for providing fixing and removing of propping from lower floor upwards for the concreting. Propping should be provided two floors below. The props of lower floor must be 50% of the props of the floor above including wedging etc. complete. In case propping is done in one floor below, only half the rate shall be paid.								
		As per Slab Area	2	225.54		0.50	225.54	sqm	17.00	3834.18
9	3.12	Providing and placing in position reinforcement for R.C.C. work including straightening, cutting, bending, binding etc. complete as per drawings including cost of binding wire in foundation and plinth all complete:								
	3.12.2	Thermo-Mechanically treated bars FE 500 D								
		Qty. of R.C.C. M 20	225.22		115.00		25900.73	Kg	54.50	1411589.54
10	1.17	Filling from available excavated stuff (Excluding rock) in trenches, plinth, sides of foundation etc. in layers not exceeding 20cm in depth consolidating each deposited layer by ramming and watering with a lead upto 50 M. and lift upto 1.5 M.								
		For Footing (Total Excavated Earth)					433.10			
							433.10	Cum	65.00	28151.37
11	1.18	Providing and filling in plinth with sand/ Crusher dust and hard moorum under floor in layers not exceeding 20cm in depth consolidating each deposited layer by ramming and watering, including dressing etc. complete.								
		Below Floor								
		Bed Room	2	3.30	3.40	0.65	14.59			
		Almirah	2	1.50	0.60	0.65	1.17			
		Bed Room	2	3.40	3.10	0.65	13.70			
		Bed Room	2	3.20	3.40	0.65	14.14			
		Almirah	2	2.00	0.60	0.65	1.56			
		Kitchen	2	3.30	2.60	0.65	11.15			
		Living & Dining	2	6.20	3.60	0.65	29.02			
		Almirah	2	2.00	0.60	0.65	1.56			

		Toilet	4	1.40	2.40	0.65	8.74			
		Front Toilet	2	2.90	0.90	0.65	3.39			
		Toilet	2	1.40	2.40	0.65	4.37			
		Utility	2	2.90	1.30	0.65	4.90			
		Balcony	2	3.20	1.00	0.65	4.16			
		Balcony	2	2.70	1.00	0.65	3.51			
		2.10M Corridor	1	8.10	2.10	0.65	11.06			
		Below Staircase	1	3.00	4.50	0.65	8.78			
		For Front entrance	1	3.40	1.00	0.65	2.21			
		For Front Step	1	3.40	1.00	0.65	2.21			
		For Front Ramp	1	2.10	1.20	0.65	1.64			
							141.85	Cum	371.00	52626.16
12	3.13	Providing and laying damp proof course (upto 50mm thick) with plain cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded crushed stone aggregate 20mm nominal size) including form work.								
		At PL	1	204.30	0.20	0.05	2.04			
		above paraphet	1	102.60	0.20	0.05	1.03			
		tower paraphet	1	13.40	0.20	0.05	0.13			
		balcony and utility	1	35.20	0.20	0.05	0.35			
							3.56	cum	4237.00	15062.54
13	1.25	Diluting chemical emulsion (chlorpyrifos/ lindane) in water as per manufacturers recommendation and injecting for pre-constructional curative cum preventive anti-termite treatment:(Five year service guarantee bond to be signed by contractor) Surface treatment by spreading emulsion under floor, over the plinth area								
	1.25.1	before laying base concrete @ 5 litres / sqm								
		Plinth Area								
		Below Floor								
		Bed Room	2	3.30	3.40		22.44			
		Almirah	2	1.50	0.60		1.80			
		Bed Room	2	3.40	3.10		21.08			
		Bed Room	2	3.20	3.40		21.76			
		Almirah	2	2.00	0.60		2.40			
		Kitchen	2	3.30	2.60		17.16			
		Living & Dining	2	6.20	3.60		44.64			
		Almirah	2	2.00	0.60		2.40			
		Toilet	4	1.40	2.40		13.44			
		Front Toilet	2	2.90	0.90		5.22			
		Toilet	2	1.40	2.40		6.72			
		Utility	2	2.90	1.30		7.54			
		Balcony	2	3.20	1.00		6.40			
		Balcony	2	2.70	1.00		5.40			
		2.10M Corridor	1	8.10	2.10		17.01			
		Below Staircase	1	3.00	4.50		13.50			
		For Front entrance	1	3.40	1.00		3.40			
		For Front Step	1	3.40	1.00		3.40			
		For Front Ramp	1	2.10	1.20		2.52			
							218.23	Sqm	27.50	6001.33
14	1.22	Supplying chlorpyrifos/ Lindane emulsifiable concentrate of 20% in sealed containers including delivery as specified.	218				218.23	Ltr	208.00	45391.84

15	3.16	Making 50mm thick plinth protection of plain cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded crushed stone aggregate 20mm nominal size) over 75mm bed of dry brick ballast 40mm nominal size well rammed and consolidated and grouted with sand including finishing the top smooth.	1	98.50	1.20		118.20	sqm	273.00	32268.60
16	1.25.2	Treatment of inside of plinth masonry wall on using diluted chemical emulsion @ 1.5 litre per hole, including drilling 12 mm diameter holes in plinth wall below plinth protection at the interval of 300 mm and plugging with cement mortar 1 :2 (1 cement : 2 Coarse sand).					98.50	metre	19.00	1871.50
17	1.25.3	Treatment of outer side of plinth masonry wall using diluted chemical emulsion @ 1.5 litre per hole, including drilling 12 mm diameter holes in plinth wall at the junction of floor at the interval of 300 mm and plugging with cement mortar 1 :2 (1 cement : 2 Coarse sand).					98.50	metre	13.50	1329.75
18	7.5	Brick work with modular fly-ash lime bricks (FaLG Bricks) confirming to IS:12894-2002 of class designation 4.0 in foundation and plinth in:								
	7.5.3	Cement Mortar 1:5 (1 cement : 5 coarse sand)								
		Below PL								
		Horizontal	2	3.50	0.20	0.45	0.63			
			2	3.00	0.20	0.45	0.54			
			4	10.00	0.20	0.45	3.60			
			2	3.60	0.20	0.45	0.65			
			2	6.60	0.20	0.45	1.19			
			2	2.70	0.20	0.45	0.49			
			2	6.30	0.20	0.45	1.13			
			4	1.60	0.20	0.45	0.58			
		pro	4	0.65	0.20	0.45	0.23			
			2	0.80	0.20	0.45	0.14			
			4	0.90	0.20	0.45	0.32			
			2	0.60	0.20	0.45	0.11			
		toilet	2	4.20	0.20	0.45				
		common	1	8.70	0.20	0.45	0.78			
			2	2.90	0.20	0.45	0.52			
		Vertical	2	4.10	0.20	0.45	0.74			
			2	7.10	0.20	0.45	1.28			
			2	2.80	0.20	0.45	0.50			
			2	11.20	0.20	0.45	2.02			
			2	2.40	0.20	0.45	0.43			
			2	3.80	0.20	0.45	0.68			
			2	3.50	0.20	0.45	0.63			
			4	8.00	0.15	0.45	2.16			
			4	1.10	0.15	0.45	0.30			
		For front step beam	1	2.90	0.20	0.30	0.17			
			2	1.50	0.20	0.30	0.18			
		Above beam	1	2.90	0.20	0.75	0.44			
		front step	1	2.90	0.90	0.15	0.39			
			1	2.90	0.60	0.15	0.26			
			1	2.90	0.30	0.15	0.13			
							21.23	cum	3,350.00	71113.80

19	7.5	Brick work with modular fly-ash lime bricks (FaLG Bricks) confirming to IS:12894-2002 of class designation 4.0 in foundation and plinth in:								
	7.5.4	Cement Mortar 1:6 (1 cement : 6 coarse sand)								
		Balcony	2	1.30	0.20	2.58	1.34			
		Balcony	2	1.10	0.20	0.90	0.40			
		Utility	4	1.40	0.20	0.90	1.01			
			4	0.60	0.20	0.90	0.43			
		Pro	2	0.40	0.20	2.58	0.41			
		Bed	2	3.30	0.20	2.58	3.40			
			2	3.00	0.20	2.58	3.09			
			4	1.00	0.20	2.58	2.06			
			2	0.40	0.20	2.58	0.41			
		Toilet	2	2.90	0.20	2.58	2.99			
		Bed	2	3.20	0.20	2.58	3.30			
			2	3.50	0.20	2.58	3.61			
		Kitchen	2	3.10	0.20	2.58	3.19			
			2	2.50	0.20	2.58	2.58			
		Living	2	3.80	0.20	2.58	3.91			
			2	5.80	0.20	2.58	5.97			
			2	1.50	0.20	2.58	1.55			
		Bed	2	3.20	0.20	2.58	3.30			
			2	3.40	0.20	2.58	3.50			
			2	3.10	0.20	2.58	3.19			
			2	2.90	0.20	2.58	2.99			
		Toilet	2	2.20	0.20	2.58	2.27			
			2	1.40	0.20	2.58	1.44			
			2	1.20	0.20	2.58	1.24			
		Lobby	1	7.70	0.20	2.58	3.97			
		stair	1	2.50	0.20	2.58	1.29			
						(A)	62.81	cum		
		Deduct : Opening								
		Door - CG	1	2.50	0.20	2.10	1.05			
		D	2	1.00	0.20	2.10	0.84			
		D1	12	0.90	0.20	2.10	4.54			
		ms Grill	2	2.60	0.20	0.05	0.05			
		w	6	1.50	0.20	1.50	2.70			
		W1	3	1.20	0.20	1.50	1.08			
		Wk	2	1.00	0.20	1.00	0.40			
		V	6	0.90	0.20	0.60	0.65			
						(B)	11.31	cum		
		Ground Floor			X	(A-B)	51.51	cum		
		First Floor			y		51.51	cum		
		Terrace Floor								
		Mumty Wall	2	3.80	0.20	2.18	3.31			
			2	2.50	0.20	2.18	2.18			
		Parapet Wall	1	102.60	0.20	0.90	18.47			
		Tower Parapet	1	13.40	0.20	0.30	0.80			
						(A)	24.75			
		Deduct : Opening	1	0.90	0.20	2.10	0.38			
		w	1	1.20	0.20	1.20	0.29			
						(B)	0.67	cum		
						z	24.09	cum		
					Total	x+y+z	127.10	cum	3263.00	414724.04
20	7.6	Extra for brick work in superstructure above plinth level for every floor or part thereof in addition to rate for foundation and plinth:								
		Ground Floor					51.51	cum	121.00	6232.23

		First Floor					51.51	cum	242.00	12464.45
		Terrace Floor					24.09	cum	363.00	8743.58
21	7.11	Half brick thick brick masonry with fly-ash lime bricks (FaLG Bricks) confirming to IS:12894-2002 of class designation 4.0 in superstructure above plinth level upto plinth level:								
	7.11.4	Cement Mortar 1:4 (1 cement : 4 coarse sand)								
		Ground Floor								
		Balcony	2	1.00		2.58	5.15			
			2	3.00		2.58	15.45			
		Balcony	2	3.50		2.58	18.03			
			2	1.00		2.58	5.15			
		utility	2	3.10		2.58	15.97			
			2	1.30		2.58	6.70			
		kitchen	2	3.00		2.58	15.45			
			2	2.50		2.58	12.88			
		toilet	4	2.40		2.58	24.72			
			2	1.8		2.58	9.27			
			2	3.25		2.58	16.74			
		toilet front	2	3.8		2.58	19.57			
		bed self	2	2.80		2.58	14.42			
		living self	2	0.60		2.58	3.09			
		kitchen pf	8	0.60		0.85	4.08			
						(A)	186.65	sqm		
		Deduct : Opening- D1	2	0.90		2.10	3.78			
		Deduct : Opening- D2	4	0.90		2.10	7.56			
		balcony	2	2.10		2.10	8.82			
		balcony	2	1.60		2.10	6.72			
		Utility	2	1.70		2.10	7.14			
						(B)	34.02	sqm		
		Ground Floor			X	(A-B)	152.63	sqm		
		First Floor			y		152.63	sqm		
					x+y		305.26	sqm	382.00	116607.41
22	7.12	Extra for half brick work in superstructure above plinth level for every story or part thereof in addition to rate for upto plinth level:								
		Ground Floor					152.63	sqm	11.00	1678.90
		first Floor					152.63	sqm	22.00	3357.81
23	7.20	Extra for providing and placing in position hopping 25x1.60 mm or 2 Nos 6mm dia MS bars reinforcement at every third course of half brick masonry.					305.26	sqm	62.50	19078.44
24	8.1	Providing wood work in frames of doors, windows, clerestory windows and other frames wrought framed and fixed in position.								
	8.1.2	Sal, bijasal, benteak, khair, haldu								
		GF								
		D	2	5.20	0.125	0.075	0.10			
		D1	6	5.20	0.125	0.075	0.29			
		D1	8	5.10	0.100	0.060	0.24			
							0.63	cum		
		FF					0.63			
							1.27	cum	61051.00	77510.35

25	8.12	Providing and fixing flush door shutters, conforming to IS : 2202 (Part-I), decorative type core of block board construction with frame of first class hard wood and well matched teak ply veneering with vertical grains or cross bands and face veneers on both faces of shutters excluding hinges.								
	8.12.2	35 mm. thick (single leaf)								
		GF								
		D	2	1.00		2.10	4.20			
		D1	6	0.90		2.10	11.34			
		D1	8	0.90		2.10	15.12			
							30.66			
		FF					30.66			
							61.32	sqm	2005.00	122946.60
26	14.27	Providing and laying Melamine polish on new wood work (two or more coats) with spray machine after preparing surface by rubbing down smooth with sand papers, preparation of surface, applying 5 to 10 coats of French sprit polish, applying two coats of Melamine sealer and finally applying two coats of Melamine clear as per manufacturers specifications complete:				Fac.				
		GF								
		D	4	1.00	1.20	2.10	10.08			
		D1	12	0.90	1.20	2.10	27.22			
		D1	16	0.90	1.20	2.10	36.29			
							73.58			
		FF					73.58			
							147.17	sqm	469.00	69021.79
27	8.148	Providing and fixing factory made UPVC door frame made of UPVC profile section having an overall dimension as below (tolerance ± 1 mm) with wall thickness 2.0mm ± 0.2 mm, corners of the door frame to be jointed with galvanized brackets and stainless steel screws, joints mitred and plastic welded. The hinge side vertical of the frames reinforced by galvanized M.S. tube of size 19 X 19mm and 1mm ± 0.1 mm wall thickness and 3 nos. stainless steel hinges fixed to the frame complete as per manufacturers specification and direction of Engineer-in-charge								
	8.148.2	Extruded section Profile size 42x50 mm.								
		Toilet-GF	6	4.95			29.70			
		Toilet-FF	6	4.95			29.70			
							59.40	Rmt	196.00	11642.40
28	8.149	Providing and fixing factory made PVC door shutters of specified thickness made of styles and rails of a UPVC hollow section of specified size 59x24 mm and wall thickness 2 mm ± 0.2 mm with inbuilt edging on both sides. The styles and rails mitred and joined at the corners by means of M.S. galvanised/ plastic brackets of size 75x220 mm having wall thickness 1.0 mm and stainless steel screws.								

	8.149.2	30 mm thick door shutters with styles and rails of size 60x30 mm								
		Toilet Door-GF	3	0.75		2.10	4.73			
		Toilet Door-FF	3	0.75		2.10	4.73			
							9.45	sqm	2488.00	23511.60
29	9.14	Providing and fixing steel door made of angle iron of suitable sizes with M.S. grill of approved pattern made of M.S. flats or square or round bars coat of red oxide zinc chromate primer.			kg/sqm					
		Tower	1	0.90	50.00	2.10	94.50	kg	79.50	7512.75
30	9.15	Providing and fixing M.S. grill of approved pattern made of M.S. flats or square or round bars welded to steel frame of windows etc. including applying a priming coat welded to frame with all necessary fitting complete including applying a priming of red oxide zinc chromate primer.								
		Ground to second floor			Kg/sqmt					
		GF								
		ms grill	2	2.60	18.00	1.50	140.40			
		w	6	1.50	18.00	1.50	243.00			
		wl	5	1.20	18.00	1.50	162.00			
		wk	2	1.00	18.00	1.00	36.00			
		V	6	0.60	18.00	0.60	38.88			
							620.28			
		FF								
		ms grill	3	2.60	18.00	1.50	210.60			
		w	6	1.50	18.00	1.50	243.00			
		wl	5	1.20	18.00	1.50	162.00			
		wk	2	1.00	18.00	1.00	36.00			
		V	6	0.60	18.00	0.60	38.88			
		Tower	1	0.90	18.00	1.20	19.44			
							709.92			
							1330.20	Kg	67.50	89788.50
31	9.47	Providing and fixing aluminium work for doors, windows, ventilators and partitions made out of extruded aluminium standard sections (main section with minimum 1.5mm thickness) conforming to IS: 733, IS: 1285 mitred and jointed mechanically including aluminium cleats, neoprene weather stripping gasket beveled edge beading, screws duly fixed in wall/floor with fixing clips or hold fasteners or bolts and nuts as required aluminium sections shall be anodized transparent or dyed to approved shade according to IS: 1868, minimum anodic coating shall be of grade AC-15. (Glazing to be paid for separately:)								
	9.47.1	For fixed portion								
		Ground to second floor			kg/sqm					
		GF								
		ms grill	2	2.60	4.00	1.50	31.20			
		w	12	1.50	4.00	1.50	108.00			
		wl	10	1.20	4.00	1.50	72.00			
		wk	4	1.00	4.00	1.00	16.00			
		V	12	0.60	4.00	0.60	17.28			
		FF					244.48			
		GF								

		ms grill	3	2.60	4.00	1.50	46.80			
		w	12	1.50	4.00	1.50	108.00			
		wl	10	1.20	4.00	1.50	72.00			
		wk	4	1.00	4.00	1.00	16.00			
		V	12	0.60	4.00	0.60	17.28			
		Tower	1	0.90	4.00	1.20	4.32			
							264.40			
							508.88	Kg	331.00	168439.28
32	9.47.2	For shutter of doors, windows & ventilators including providing and making provision for fixing of fitting wherever required including the cost of PVC/ neoprene gasket required (Fittings shall be paid for separately).					508.88	kg	338.00	172001.44
33	9.48	Extra for powder coated (minimum 50 micron) aluminium sections instead of anodized.					1017.76	kg	27.00	27479.52
34	9.51	Providing and fixing grazing in aluminium door, window, ventilator shutters and partitions etc. with PVC/ neoprene gasket etc. complete. (Cost of aluminium snap beading shall be paid in basic item).								
	9.51.1	With float glass panes of 4 mm thickness								
		Ground to second floor								
		w	12	1.00		1.50	18.00			
		wl	10	0.80		1.50	12.00			
		wk	4	0.67		1.00	2.67			
		V	12	0.60		0.60	4.32			
		Tower	1	0.60		1.20	0.72			
							37.71	sqm	611.00	23038.77
35	9.34	Providing and fixing stainless wire gauge of average width of aperture 1.56mm with wire of 0.35mm to existing steel door, window shutter frames with necessary M.S. strip beading etc. complete.								
		Ground to second floor								
		w	12	0.50		1.50	9.00			
		wl	10	0.40		1.50	6.00			
		wk	4	0.33		1.00	1.33			
		Tower	1	0.30		0.60	0.18			
						1.20	16.51	sqm	791.00	13062.05
36	8.3	Providing 40x5mm iron hold fast 40cm long including fixing to frame with 10mm bolts nuts and wooden plug and embedding in Cement Concrete 1:2:4 in blocks of size 30x10x15cm.								
		Door	276				276.00			
		Grill	104				104.00			
							380.00	each	72.50	27550.00
37	8.60	Providing and fixing bright finished brass sliding door bolt with nuts and brass polished MS screws complete:								
	8.60.1	300x16mm	64				64.00	each	475.00	30400.00
38	8.120	Providing and fixing alluminium sliding door bolt with 16 mm rod, necessary nickle plate iron nuts bolts and screw etc complete								
	8.120.2	250x16mm	12				12.00	each	141.00	1692.00

39	8.121	Providing and fixing alluminium door Latch with 12 mm rod, necessary nickle plate iron nuts bolts and screw etc complete door bolt with nuts and brass polished MS screws complete:								
	8.121.2	250x12mm	12				12.00	each	51.50	618.00
40	8.61	Providing and fixing brass door latch with brass polished MS screws complete:								
	8.61.1	300x16x5 mm	64				64.00	each	398.00	25472.00
41	8.62	Providing and fixing bright finished brass tower bolts (barrel type) with brass polished MS screws complete:								
	8.62.1	250x10mm	64				64.00	each	276.00	17664.00
	8.62.3	150x10mm (Toilet door)	12				12.00	each	176.00	2112.00
42	8.65	Providing and fixing bright finished brass door handles with brass polished MS screws complete:								
	8.65.1	125 mm	64				64.00	each	55.50	3552.00
43	8.123	Providing and fixing alluminium door handles 2.5 mm thick with necessary nickel plates iron screw etc complete								
	8.123.1	150 mm	12				12.00	each	30.50	366.00
44	8.58	Providing and fixing bright finished brass butt hinges with brass polished MS screws complete:								
	8.58.1	125x85x5.50 mm (Heavy Type)	304				304.00	each	245.00	74480.00
45	11.41	Providing and fixing chicken mesh weighting not less than 250 gms/sqm as per IS : specification in the required width with 40mm long steel nails on vertical and horizontal surface near R.C.C. and brick walls junctions including scaffolding and all lead and lifts etc. complete before plastering upto 10mts in height.								
		Ground to second floor								
		Beam	2	2.00	204.30	0.30	245.16			
		Column	68	4.00	3.00	0.30	244.80			
							489.96	sqm	86.00	42136.56
46	12.74-AME	Providing and fixing rectified glazed ceramic floor tiles of 1st quality conforming to IS : 15622-2017 of approved make in all colours, shades over 20 mm thick bed of Cement Mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @3.3 kg per sqm including poing in white cement mixed with matching pigment complete.								
	12.74.1	Size 300x300 mm thickness 7 to 8 mm								
		Ground floor								
		Toilet	6	1.40	2.40		20.16			
		Utility	2	2.90	1.30		7.54			
		balcony	2	2.80	1.00		5.60			
			2	3.30	1.00		6.60			
		Skirting Utility	2	8.40	0.10		1.68			
		balcony	2	7.60	0.10		1.52			
			2	8.60	0.10		1.72			

		ground floor	ground floor				44.82			
			first floor same as ground floor				44.82			
							89.64	sqm	779.00	69829.56
47	12.75-AME	Providing and fixing rectified glazed ceramic wall / dado tiles of 1ST quality conforming to IS : 15622 of approved make,in all colours, shades on wall and dados over 12 mm thick bed of cement Mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm including pointing in white cement mixed with matching pigment complete.								
	12.75.1	Size 300x450 mm thickness 7 to 8 mm								
		Ground floor								
		Toilet	12	1.40		2.10	35.28			
			12	2.40		2.10	60.48			
		Above Kitchen Platform	2	4.50		0.75	6.75			
		Deduction	-6	0.75		2.10	-9.45			
			ground floor				93.06			
			first floor same as ground floor				93.06			
							186.12	sqm	710.00	132145.20
48	Amenment 12.79	Providing and laying DOUBLE/MULTI CHARGE (minimum 2.0 mm thick layer) vitrified floor tiles with water absorption less than 0.5% and conforming to IS : 15622 of approved make in all colours and shades and size mentioned below (+/-10mm), laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand) including grouting the joints with white cement and matching pigments etc. complete.								
	12.79.1	Size 600x600mm thickness 9 to 10mm								
		Ground floor								
		Bed Room	2	3.30	3.40		22.44			
		Almirah	2	1.50	0.60		1.80			
		Bed Room	2	3.40	3.10		21.08			
		Bed Room	2	3.20	3.40		21.76			
		Almirah	1	2.40	0.60		1.44			
		Almirah	1	1.80	0.60		1.08			
		Kitchen	2	3.30	2.60		17.16			
		Front Toilet	2	2.90	0.90		5.22			
		Living & Dining	2	6.20	3.60		44.64			
		2.10M Corridor	2	8.10	2.10		34.02			
		Below Staircase	2	2.50	4.30		21.50			
		at front step	1	2.90	0.75		2.18			
		Door sill-CG	1	2.50		0.2	0.50			
		D	2	1.00		0.2	0.40			
		D1	14	0.90		0.2	2.52			
		D2	6	0.75		0.2	0.90			
		TD	1	0.90		0.2	0.18			
		Skirting								
		Bed Room	2	13.40		0.10	2.68			
		Almirah	2	4.20		0.10	0.84			
		Bed Room	2	13.00		0.10	2.60			
		Bed Room	2	13.20		0.10	2.64			
		Almirah	1	6.00		0.10	0.60			
		Almirah	1	4.20	0.60		2.52			
		Kitchen	2	11.80		0.10	2.36			
		Front Toilet	2	7.60		0.10	1.52			
		#REF!	2	6.90		0.10	1.38			
		Living & Dining	2	19.60		0.10	3.92			
		2.10M Corridor	2	20.40		0.10	4.08			
		Below Staircase	2	13.60		0.10	2.72			

			ground floor				226.68			
			first floor same as ground floor				226.68			
							453.35	sqm	1082.00	490524.70
49	12.46	15 mm thick Table rubbed polished Granite stone slab in risers and treads of steps skirting dado and pillars laid on 12mm (average) thick base of cement mortar 1:3 (1 cement : 3 coarse sand) and jointed with grey cement slurry including rubbing and polishing etc. complete (single stone is to be used for risers and treads of steps and width of stone for skirting and dado shall be equal to the height of skirting & dado and length of 1.0 m).								
	12.46.1	Granite stone grey/pink								
		Ground floor								
		Steps Riser	40	1.20		0.15	7.20			
		Midlanding	3	2.50	1.20		9.00			
		Steps treads	40	1.20	0.30		14.40			
		Skirting								
		Steps & Landing	40	0.60		0.10	2.40			
			3	4.90		0.10	1.47			
		front step	4	3.00	0.30		3.60			
			5	3.00	0.15		2.25			
			4	3.00		0.15	1.80			
			ground floor				42.12			
			first floor same as ground floor				42.12			
							84.24	sqm	1869.00	157444.56
50	12.44	Extra for nosing in Granite stone for treads.								
			40	1.20			48.00			
			3	2.50			7.50			
			ground floor				55.50			
			first floor same as ground floor				55.50			
							111.00	rmt	126.00	13986.00

51	13.6	15mm thick Granite work (machine cut, table rubbed & mirror polished) for kitchen Kitchen Platform, vanity counters, window sills and similar locations of required size laid over 20mm thick base cement mortar 1:4 (1 cement : 4 coarse sand) including joints treated with white cement mixed with matching pigment including rubbing and polishing to edge moulding to give high gloss finish.								
	13.6.1	Granite stone black								
		Ground floor								
		Above Kitchen Platform	4	3.30	0.60		7.92			
			4	3.30	0.12		1.58			
			4	0.60	0.60		1.44			
			4	0.60	0.12		0.29			
			4	3.30	0.60		7.92			
			4	3.30	0.12		1.58			
			ground floor				20.74			
			first floor same as ground floor				20.74			
							41.47	sqm	2466.00	102269.95
52	11.1	Providing and making 6mm thick cement plaster of mix:								
	11.1.2	In Cement mortar 1:4 (1 cement : 4 fine sand)								
		Ground Floor								
		Bed Room	2	3.30	3.40		22.44			
		Almirah	2	1.50	0.60		1.80			
		Bed Room	2	3.40	3.10		21.08			
		Bed Room	2	3.20	3.40		21.76			
		Almirah	2	2.36	0.60		2.83			
			2	3.73	0.60		4.48			
		Kitchen	2	3.30	2.60		17.16			
		Living & Dining	2	6.20	3.60		44.64			
		Toilet	4	1.40	2.40		13.44			
		Front Toilet	2	2.90	0.90		5.22			
		Toilet	2	1.40	2.40		6.72			
		Utility	2	2.90	11.30		65.54			
		2.10M Corridor	1	8.10	2.10		17.01			
		balcony	2	2.80	1.10		6.16			
			2	3.30	1.10		7.26			
		Staircase W/slab	4	3.00	1.20		14.40			
		Midlanding	2	2.50	1.20		6.00			
		Steps	40	1.20	0.15		7.20			
		Front gate	2	8.10	0.60		9.72			
		w	12	1.50	0.60		10.80			
		w1	10	1.20	0.60		7.20			
		wk	4	1.00	0.60		2.40			
		V	12	0.60	0.60		4.32			
		Kitchen Platform	2	3.90	0.60		4.68			
			2	3.30	0.60		3.96			
		almirah	4	2.70	0.60		6.48			
			4	1.50	0.60		3.60			
			4	1.50	0.60		3.60			
							341.90	sqm		
			ground floor				341.90	x		
			first floor same as ground floor				341.90	y		
		Terrace floor								
		Tower Slab	1	2.50	6.80		17.00			
		chajja	2	2.50	0.60		3.00			
						z	20.00	sqm		
						x+y+z	703.80	sqm	87.00	61230.25

53	11.2	Providing and making 12mm thick cement plaster of mix:								
	11.2.2	In Cement Mortar 1:4 (1 cement : 4 fine sand)								
		Ground Floor								
		Bed Room	4	3.30		3.00	39.60			
			4	3.40		3.00	40.80			
		Almirah	4	0.60		3.00	7.20			
		Bed Room	4	3.40		3.00	40.80			
			4	3.10		3.00	37.20			
		Almirah	4	0.60		3.00	7.20			
		Bed Room	4	3.20		3.00	38.40			
			4	3.40		3.00	40.80			
		Almirah	4	0.60		3.00	7.20			
		Kitchen	4	3.30		3.00	39.60			
			4	2.60		3.00	31.20			
		Living & Dining	4	6.20		3.00	74.40			
			4	3.60		3.00	43.20			
			4	0.60		3.00	7.20			
		Toilet	8	1.40		3.00	33.60			
			8	2.40		3.00	57.60			
		Front of Toilet	4	2.90		3.00	34.80			
			4	0.90		3.00	10.80			
		Toilet	4	1.40		3.00	16.80			
			4	2.50		3.00	30.00			
		2.10M Corridor	2	8.60		3.00	51.60			
			2	2.10		3.00	12.60			
			4	0.60		3.00	7.20			
		Staircase Wall	1	2.50		3.00	7.50			
		kitchen pf	32	0.60		0.80	15.36			
		balcony	8	1.00		1.10	8.80			
			2	2.70		1.10	5.94			
			2	3.20		1.10	7.04			
		utility	2	3.70		1.10	8.14			
			4	1.20		1.10	5.28			
		kp	16	0.60		0.85	8.16			
						(A)	776.02	sqm		
		Deduct 50% opening								
		CG	1	2.50	0.50	2.10	2.63			
		D	2	1.00	0.50	2.10	2.10			
		D1	14	0.90	0.50	2.10	13.23			
		D2	6	0.90	0.50	2.10	5.67			
		TD	1	0.90	0.50	2.10	0.95			
		Without Door	4	0.80	0.50	2.10	3.36			
		ms grill	2	2.60	0.50	1.50	3.90			
		Window- w	6	1.50	0.50	1.50	6.75			
		w1	5	0.90	0.50	1.50	3.38			
		wk	2	1.00	0.50	1.00	1.00			
		V	6	0.60	0.50	0.60	1.08			
						(B)	44.04	sqm		
		Ground Floor				(A-B)	731.99	sqm		
			ground floor				731.99	x		
			first floor same as ground floor				731.99	y		
		Terrace Floor								
		Tower	2	3.80		2.40	18.24			
			1	2.50		2.40	6.00			
		Parapet wall	1	102.60		1.10	112.86			
			1	13.40		0.50	6.70			
						(A)	143.80	sqm		
		Deduct 50% opening	1	0.90	0.50	2.10	0.95			
						(B)	0.95	sqm		

						(A-B)	142.86	sqm	z	
		Total 12mm Plaster				x+y+z	1606.83	Sqm	103.00	165502.98
54	11.3	Providing and making 15mm thick cement plaster on the rough side of single or half brick wall of mix:								
	11.3.2	In Cement Mortar 1:4 (1 cement : 4 fine sand)								
		Ground Floor								
		Outer Wall	1	102.60		4.50	461.70			
		towre wall	1	13.40		2.70	36.18			
		balcony	8	1.10		0.90	7.92			
			2	3.00		0.90	5.40			
			2	3.90		0.90	7.02			
		utility	2	4.10		0.90	7.38			
			4	1.40		0.90	5.04			
		toilet pro	8	0.60		4.50	21.60			
						(A)	552.24	sqm		
		Deduct 50% opening								
		ms grill	2	2.60	0.50	1.50	3.90			
		Window- w	6	1.50	0.50	1.50	6.75			
		w1	5	0.90	0.50	1.50	3.38			
		wk	2	1.00	0.50	1.00	1.00			
		V	6	0.60	0.50	0.60	1.08			
						(B)	16.11	sqm		
		Ground Floor				(A-B)	536.14	sqm		
			ground floor				536.14	x		
			first floor same as ground floor				536.14	y		
		Terrace Floor								
		Tower	2	4.80		2.40	23.04			
			2	2.90		2.40	13.92			
		Parapet wall	1	102.60		0.90	92.34			
			1	13.40		0.50	6.70			
						(A)	136.00	sqm		
		Deduct 50% opening	1	0.90	0.50	2.10	0.95			
						(B)	0.95	sqm		
		Terrace Floor				(A-B)	135.06	sqm	z	
		Total 15mm Plaster				x+y+z	1207.33	sqm	120.00	144879.00
	14.12	Applying one coat of cement primer on wall surface (applied @ 0.80 liters/10 sqm) complete.								
		As per 6mm Plaster					703.80			
		As per 12mm Plaster					1606.83			
							2310.62	sqm	23.00	53144.28
55	14.13	Providing and applying 2mm thick ready mix exterior grade approved make putty (like Birla wall care, Alltek Superfine W/R of (NCL), Asian, ICI, Nerolac, J.K. wall putty) on walls to make the surface smooth and even.								
		As per 6mm Plaster					703.80			
		As per 12mm Plaster					1606.83			
							2310.62	sqm	94.50	218353.68

56	14.11	Wall painting with acrylic luxury emulsion (plastic) paint of required shade to give an even shade.								
	14.11.1	On new work (two or more coats)								
		As per 6mm Plaster					703.80			
		As per 12mm Plaster					1606.83			
		Total					2310.62	sqm	52.50	121307.60
57	14.15	Painting exterior surface with ACRYLIC SMOOTH exterior paint of required shade as per manufacturer's specifications to give protective and decorative finish including cleaning washing of surface etc. complete with:								
	14.15.1	On new work (Two or more coats applied @ 1.43 ltr/ 10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/ 10 sqm)								
		As per 15mm Plaster					1207.33	sqm	56.00	67610.20
58	9.57	Providing stainless steel railing/ grill made of S.S. flats, hollow S.S. pipe or square/ rectangular sections of approved design fixing in stair case, balcony or other places with metal fasteners and stainless steel bolts etc complete.			kg/sqm					
	9.57.1	SS Grade 204	1	20.00	10.00	1.00	200.00	kg	467.00	93400.00
59	14.22	Painting on new work (two or more coats) to give an even shade with:								
	14.22.2	Premium synthetic enamel paint								
		Ground to Terrace Floor								
		Window Grill								
		ms Grill	2	2.60	2.70	1.50	21.06			
			0.5	2.60	2.70	1.50	5.27			
		w	6	1.50	2.70	1.50	36.45			
		w1	5	1.20	2.70	1.50	24.30			
		wk	2	1.00	2.70	1.00	5.40			
		V	6	0.60	2.70	0.60	5.83			
		tower	0.5	1.20	2.70	1.20	1.94			
		Door cg	0.5	2.50	2.70	2.10	7.09			
		Tower	0.5	0.90	2.70	2.10	2.55			
			ground floor				109.89	x		
			first floor same as ground floor				109.89	y		
							219.78	sqm	47.00	10329.66
60	10.41	Providing gola 75x75 mm in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 stone aggregate 10mm and down grade) including finishing with cement mortar 1:3 (1 cement : 3 fine sand) as per standard design :								
		Ground Floor								
		chajja Front gate	1	8.10			8.10			
		w	6	1.80			10.80			
		w1	5	1.50			7.50			
		wk	2	1.30			2.60			
		V	6	0.90			5.40			
			ground floor				34.40	x		
			first floor same as ground floor				34.40	y		
		Terrace								
		Chhajja	1	1.20			1.20			
			1	1.50			1.50			
		Parapet wall	1	102.60			102.60			
		tower Parapet	1	13.40			13.40			
							118.70	metre		

							187.50	metre	68.00	12750.00
61	11.5	Neat Cement punning.								
		Ground Floor								
		chajja Front gate	1	8.10	0.60		4.86			
		w	6	1.80	0.60		6.48			
		w1	5	1.50	0.60		4.50			
		wk	2	1.30	0.60		1.56			
		V	6	0.90	0.60		3.24			
			ground floor				20.64	x		
			first floor same as ground floor				20.64	y		
		Terrace								
		Chhajja	1	1.20	0.60		0.72			
			1	1.50	0.60		0.90			
		Parapet wall	1	102.60	0.30		30.78			
		tower Parapet	1	13.40	0.30		4.02			
							32.40			
							73.68	sqm	33.00	2431.44
62	4.13	Grading roof for water proofing treatment with:								
	4.13.1	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)								
		Terrace	1	225.54	sqm	0.050	11.28	cum	3817.00	43044.31
63	11.32	Providing and making 18 mm thick plain cement mortar band in cement mortar 1:4 (1 cement : 4 fine sand) per cm width:								
	11.32.4	Drip course								
		chajja Front gate	1	9.30			9.30			
		w	6	3.00			18.00			
		w1	5	2.40			12.00			
		wk	2	2.20			4.40			
		V	6	2.10			12.60			
			ground floor				56.30	x		
			first floor same as ground floor				56.30	y		
		Terrace								
		Chhajja	1	4.10			4.10			
							116.70	metre	3.60	420.12
64	11.4	Making grove in cement plaster while plastering upto 10 mm deep and 10 mm wide.								
			1	150.00			150.00			
							150.00	metre	1.30	195.00
65	3.16	Making 50mm thick plinth protection of plain cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded crushed stone aggregate 20mm nominal size) over 75mm bed of dry brick ballast 40mm nominal size well rammed and consolidated and grouted with sand including finishing the top smooth.								
			1	102.00	1.20		122.40			
							122.40	SQM	273.00	33415.20
66	11.9	Extra for providing and mixing water proofing materials in cement plaster work in proportion as recommended by manufacturer.								
		external plaster qty, 1kg for 4 sqm	1	1207.33	0.25		301.83			
							301.83	kg	43.50	13129.66

ESTIMATE FOR WATER SUPPLY AND SANITARY WORK OF F-TYPE FOR IRRIGATION UNDER REDEVELOPEMENT WORK AT KATGHORA (KORBA) C.G.(SITE II)

Item No.	Nomenclature(Particulars)	Unit	S.O.R. Rate	Qty	Amount
1	2	3	4	5	6
1					
19.5	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge. CONCEALED WORK including cutting chases and making good the walls etc.,	r/m	133.00	110.00	14630.00
19.5.1	15 mm nominal outer dia .Pipes.				
2					
19.5	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge. CONCEALED WORK including cutting chases and making good the walls etc.,	r/m	167.00	100.00	16700.00
19.5.2	20 mm nominal outer dia .Pipes.				
3					
19.5	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge. CONCEALED WORK including cutting chases and making good the walls etc.,	r/m	284.00	50.00	14200.00
19.5.4	32 mm nominal outer dia .Pipes.				
4	Item No. 18.76.1				
	Providing and fixing on wall face or under floor UV stabilized Unplasticised Rigid PVC pipes (single socketed) having 3.2mm wall thickness conforming to IS : 13592 (4kg/sqcm) including required couplers, jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansion etc complete. a. 75mm dia Make:	r/m	182.00	53.33	9706.67
5	Item No. 18.76.2				
	Providing and fixing on wall face or under floor UV stabilized Unplasticised Rigid PVC pipes (single socketed) having 3.2mm wall thickness conforming to IS : 13592 (4kg/sqcm) including required couplers, jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansion etc complete. s b. 110mm dia Make:	r/m	267.00	53.33	14240.00
					86

Item No.	Nomenclature(Particulars)	Unit	S.O.R. Rate	Qty	Amount
1	2	3	4	5	6
6	Item No. 18.77.1.1				
	Providing and fixing PVC fitting for pipes for soil waste / rain water drainage disposal of superior Indian Make Finolex / Supreme including jointing with rubber ring adhesive lubricant, solvent cement etc. complete. G- Tee with Door (a) 75mm dia Make:	no	113.00	20.00	2260.00
7	Item No. 18.77.1.2				
	Providing and fixing PVC fitting for pipes for soil waste / rain water drainage disposal of superior Indian Make Finolex including jointing with rubber ring adhesive lubricant, solvent cement etc. complete. G- Tee with Door (b) 110mm dia	no	154.00	20.00	3080.00
8	Item No. 18.77.1.1				
	Providing and fixing PVC fitting for pipes for soil waste / rain water drainage disposal of superior Indian Make Finolex including jointing with rubber ring adhesive lubricant, solvent cement etc. complete. E- Plain Bend of 87.5 degree (a) 75mm dia Make:	no	113.00	20.00	2260.00
9	Item No. 18.77.1.2				
	Providing and fixing PVC fitting for pipes for soil waste / rain water drainage disposal of superior Indian Make Finolex including jointing with rubber ring adhesive lubricant, solvent cement etc. complete. E- Plain Bend of 87.5 degree (b) 110mm dia Make:	no	154.00	20.00	3080.00
10	Item No. 18.77.6				
	Providing and fixing PVC fitting for pipes for soil waste / rain water drainage disposal of superior Indian Make Finolex / Supreme including jointing with rubber ring adhesive lubricant, solvent cement etc. complete. O- Nahani Trap (b) 63mm dia Make:	no	90.50	32.00	2896.00
11	Item No. 19.15				
	Providing and fixing stainless steel Nahani trap jali of approved make/quality.	no	51.00	32.00	1632.00
12	Item No. 18.77.1.1				
	Providing and fixing PVC fitting for pipes for soil waste / rain water drainage disposal of superior Indian Make Finolex including jointing with rubber ring adhesive lubricant, solvent cement etc. complete. C- Bend with door of 87.5 degree a. 75mm dia	no	113.00	20.00	2260.00
13	Item No. 18.77.1.2				
	Providing and fixing PVC fitting for pipes for soil waste / rain water drainage disposal of superior Indian Make Finolex including jointing with rubber ring adhesive lubricant, solvent cement etc. complete. C- Bend with door of 87.5 degree b. 110mm dia	no	154.00	20.00	3080.00
14	Item No.18.77.3.2				

Item No.	Nomenclature(Particulars)	Unit	S.O.R. Rate	Qty	Amount
1	2	3	4	5	6
	Providing and fixing PVC fitting for pipes for soil waste / rain water drainage disposal of superior Indian Make Finolex / Supreme including jointing with rubber ring adhesive lubricant, solvent cement etc. complete. N- Vent Cowel (b) 110mm dia	no	44.00	12.00	528.00
15	Item No. 19.16.1				
	Providing and fixing in position best Indian make gun metal high pressure full way or Gate valve (peets Pattren) with iron wheel head complete. (c) 25 mm dia	no	436.00	16.00	6976.00
16	Item No. 19.16.2				
	Providing and fixing in position best Indian make gun metal high pressure full way or Gate valve (peets Pattren) with iron wheel head complete. (e) 32 mm dia	no	510.00	8.00	4080.00
17	Item No. 18.1.3				
	Providing and fixing water closet squatting pan (Indian type W.C. pan), 100mm sand cast Iron P or S trap, 10 litre low level P.V.C. flushing cistern (same colour) conforming to IS : 7231, with flush bend and other fittings and fixtures complete including cutting and making good the walls and floors wherever required : White Orissa pattern W.C. pan of size 580x440 mm.	no	2899.00	4.00	11596.00
18	Item No. 18.4.3				
	Providing and fixing vitreous china water closet (European type W.C. pan) with white ISI marked plastic seat and lid, 10 litre low level white P.V.C. flushing cistern (same colour), conforming to IS : 7231, with all fittings and fixtures complete including cutting and making good the walls and floors wherever required : White wall hung type (Hindware / Parryware)	no	4415.00	8.00	35320.00
19	Item No. 18.17.2				
	Providing and fixing vitreous china wash basin with C.I. brackets, 32 mm C.P. brass waste of standard pattern, including painting of brackets, cutting and making good the walls wherever required : i) Flat Back (White) - 550X400 mm	no	1408.00	16.00	22528.00
20	18.22.2				

Item No.	Nomenclature(Particulars)	Unit	S.O.R. Rate	Qty	Amount
1	2	3	4	5	6
	Providing and fixing Stainless Steel A ISI 304 (18/8) kitchen sink without drain board as per IS 13983 with C.I. brackets and stainless steel plug 40 mm including painting of fittings and brackets, cutting and making good the walls wherever required :- A waste pipe upto nahni trap.560x410 mm bowl depth 215 mm.	no	6210.00	4.00	24840.00
21	Item No. 19.14.1				
	Providing and fixing 15 mm nominal bore C.P. brass fittings of approved make and conforming to IS:8931 including C.P. brass extension if required:Short nose Bib cock (400 grams)	no	382.00	8.00	3056.00
22	Item No. 19.14.2				
	Providing and fixing 15 mm nominal bore C.P. brass fittings of approved make and conforming to IS:8931 including C.P. brass extension if required:Long Nose Bib cock (500 grams)	no	455.00	16.00	7280.00
23	Item No. 19.14.4				
	Providing and fixing 15 mm nominal bore C.P. brass fittings of approved make and conforming to IS:8931 including C.P. brass extension if required:Piller Cock (400 grams)	no	398.00	16.00	6368.00
24	Item No. 19.14.10				
	Providing and fixing 15 mm nominal bore C.P. brass fittings of approved make and conforming to IS:8931 including C.P. brass extension if requiredWall mixer with elegant knob (1400 grams)	no	1787.00	8.00	14296.00
25	19.14.10				
	Providing and fixing 15 mm nominal bore C.P. brass fittings of approved make and conforming to IS:8931 including C.P. brass extension if requiredHand shower set with arm	no	754.00	12.00	9048.00
26	Item No. 19.14.19				
	Providing and fixing 15 mm nominal bore C.P. brass fittings of approved make and conforming to IS:8931 including C.P. brass extension if required Health foscet (hand jet) with flexible connection pipe (for WC)	no	774.00	8.00	6192.00
27	Item No. 19.14.7				

Item No.	Nomenclature(Particulars)	Unit	S.O.R. Rate	Qty	Amount
1	2	3	4	5	6
	Providing and fixing 15 mm nominal bore C.P. brass fittings of approved make and conforming to IS:8931 including C.P. brass extension if required Angle valve for basin mixer and geyser points (450 grams)	no	382.00	12.00	4584.00
28	Item No. 19.14.14				
	Providing and fixing 15 mm nominal bore C.P. brass fittings of approved make and conforming to IS:8931 including C.P. brass extension if required Soap dish plate	no	163.00	16.00	2608.00
29	Item No. 19.14.16				
	Providing and fixing 15 mm nominal bore C.P. brass fittings of approved make and conforming to IS:8931 including C.P. brass extension if required Towel rail (600mm long x 20mm dia)	no	338.00	12.00	4056.00
30	Item No. 20.3.2				
	Providing and fixing square-mouth S.W. gully trap grade 'A' complete with C.I. grating brick masonry chamber with well burnt modular clay bricks crushing strength not less than 35kg/cm ² , water tight C.I. cover with frame of 300 x300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design : 150 x 100 mm size P type.	no	1397.00	8.00	11176.00
31	Item No. 19.6.9				
	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings. This included jointing of pipes & fittings with one step CPVC solvent cement, trenching, refilling & testing of joints complete including excavation of trench up to 1.5 Mtr. Depth Laying 15 cm thick and 40 cm wide CC 1:5:8 with all jointing material coupler etc including testing refilling of soil etc. complete. 100 mm dia (c.c. base 30cm wide)	RMT	2325.00	40.00	93000.00
32	Item No. 19.42				
	Providing and placing on terrace (at all floor levels) polyethylene water storage tank ISI : 12701 marked with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank				
		Litre	7.30	4000.00	29200.00
	TOTAL AMOUNT OF WATER SUPPLY			Total Rs.	386757.00

Item No.	Nomenclature(Particulars)	Unit	S.O.R. Rate	Qty	Amount
1	2	3	4	5	6

Sub Engineer

Chhattisgarh Housing &
Infrastructure Development Board
Division -Korba

Assistant Engineer

Chhattisgarh Housing & Infrastructure
Development Board
Division -Korba

Executive Engineer

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Infrastructure Development Board
Division -Korba

**ESTIMATE OF INTERNAL ELECTRIFICATION WORK FOR PROPOSED 01 BLOCK (04 UNITS)
F-TYPE HOUSES FOR GAD QUARTERS UNDER REDEVELOPMENT SCHEME AT KATGHORA
(SITE-2), DISTT-KORBA (C.G.)**

S.No.	SOR Item no.	PARTICULARS	UNIT	RATE	QTY.			TOTAL QTY.	AMOUNT
					For Each Flat	For 04 Nos. Flat	For Common Area		
01	1.7	Wiring for light/fan/exhaust fan/call bell point with 3x1.5 sqmm FRLS PVC insulated stranded copper conductor single core wire for phase, neutral and earth in concealed FRLS PVC conduit, with 5/6 amp modular switch, modular base and cover plate, suitable size G.I. box as per specification.							
	1.7.1	Short Point	Point	266.00	07	28	01	29	7714.00
	1.7.2	Medium Point	Point	424.00	11	44	03	47	19928.00
	1.7.3	Long Point	Point	588.00	13	52	08	60	35280.00
02	1.8	Wiring for twin control light point with 3x1.5 sqmm FRLS PVC insulated stranded copper conductor wire for phase, neutral and earth in concealed FRLS PVC conduit (heavy duty, thickness of pipe should be 2 mm) with 5/6 amp modular switch, modular base and cover plate, suitable size G.I. box as per specification and IS: 694 (2010), IS: 9537 (2000 Part 5)	Point	420.00	08	32	04	36	15120.00
03	1.9	Extra for providing and fixing light plug point on board in concealed FRLS PVC conduit point wiring with modular type 3 pin 5/6 amp socket outlet and 5/6 amp switch including cost of base and cover plate and G.I. box etc. as per specification.	Point	216.00	11	44	00	44	9504.00
04	1.10	Wiring for light plug point with 3x2.5 sqmm FRLS PVC insulated stranded copper conductor wire for phase, neutral and earth in concealed FRLS PVC conduit along with modular type 6 Amp switch and 3 pin 6 amps socket outlet with modular base and cover plate, suitable size G.I. box, earthing the switch box and socket outlet with same size wire etc. as per specification.							
	1.10.1	Short Point	Point	442.00	02	08	00	08	3536.00
	1.10.2	Medium Point	Point	659.00	07	28	00	28	18452.00
	1.10.3	Long Point	Point	922.00	02	08	00	08	7376.00
	1.10.4	Extra Long Point I	Point	1302.00	01	04	00	04	5208.00
05	1.11	Wiring for power plug point with 3x4 sq mm FRLS PVC insulated stranded copper conductor wire for phase, neutral and earth in concealed FRLS PVC conduit (heavy duty, thickness of pipe should be 2 mm) along with modular type 16 Amp switch and 6 pin 16 amps socket outlet with modular base and cover plate, suitable size G.I. box, earthing the switch box and socket outlet with same size wire etc. as per specification and IS: 694 (2010), IS: 9537 (2000 Part 5)							
	1.11.3	Long Point	Point	1350.00	04	16	00	16	21600.00
	1.11.4	Extra Long Point I	Point	1807.00	03	12	00	12	21684.00

S.No.	SOR Item no.	PARTICULARS	UNIT	RATE	QTY.			TOTAL QTY.	AMOUNT
					For Each Flat	For 04 Nos. Flat	For Common Area		
	1.11.5	Extra Long Point II	Point	2315.00	02	08	00	08	18520.00
06	1.13	Wiring for circuit/ sub main wiring along with earth wire with the following sizes of FRLS PVC insulated copper conductor, wire in concealed FRLS PVC conduit (heavy duty, thickness of pipe should be 2 mm) as per specification and IS: 694 (2010), IS: 9537 (2000 Part 5)							
	1.13.2	3 X 2.5 sq. mm in 20 mm conduit	Mtr	111.00	60.00	240.00	40.00	280.00	31080.00
	1.13.3	6 X 2.5 sq. mm in 25 mm conduit	Mtr	172.00	30.00	120.00	10.00	130.00	22360.00
	1.13.4	9 X 2.5 sq. mm in 32mm conduit	Mtr	238.00	20.00	80.00	0.00	80.00	19040.00
	1.13.14	6 X 10 sq. mm in 40mm conduit	Mtr	515.00	30.00	120.00	0.00	120.00	61800.00
07	1.15	Supplying and fixing of following sizes FRLS PVC conduit (heavy duty, thickness of pipe should be 2 mm) along with accessories in concealed complete as per specification and IS: 9537 (2000 Part 5)							
	1.15.2	25 mm	Mtr	53.00	50.00	200.00	0.00	200.00	10600.00
08	3.11	Supplying and drawing following sizes of FRLS PVC insulated copper conductor, multi strand wire in the existing surface/ concealed, FRLS PVC conduit / PVC casing capping as per specification and IS: 694 (2010)							
	3.11.3	3 x 1.5 sq. mm	Mtr.	37.00	0.00	0.00	180.00	180.00	6660.00
	3.11.11	1 x 2.5 sq. mm	Mtr	22.00	80.00	320.00	0.00	320.00	7040.00
	3.11.21	1 x 4 sq. mm	Mtr	30.00	25.00	100.00	0.00	100.00	3000.00
09	3.13	Supplying and drawing following grade co-axial TV wire FRLS PVC insulated, shielded with fine tinned copper braid and protected with PVC sheath in the existing surface/ concealed Steel/PVC conduit as per specification and IS: 694 (2010)							
	3.13.1	RG-6 grade	Mtr	14.00	50.00	200.00	0.00	200.00	2800.00
10	4.4	Supplying and fixing following size/ modules, GI box along with modular base & cover plate for modular switches in recess etc as per specification.							
	4.4.1	75mmX75mm (1/2 Module)	Each	99.00	04	16	00	16	1584.00
11	5.4	Supplying and fixing following modular switch, socket, other accessories on the existing modular plate & switch box including connections but excluding modular plate etc. as per specification.							
	5.4.4	15/16 amp switch	Each	89.00	01	04	00	04	356.00
	5.4.6	6 pin 15/16 amp socket outlet	Each	120.00	01	04	00	04	480.00
	5.4.9	Fan regulator (Two module size) electronic stepped type moving all rounds	Each	223.00	05	20	00	20	4460.00
	5.4.11	Plug Top (Deluxe type) 3 pin 16 Amps (For power plug).	Each	85.00	01	04	00	04	340.00

S.No.	SOR Item no.	PARTICULARS	UNIT	RATE	QTY.			TOTAL QTY.	AMOUNT
					For Each Flat	For 04 Nos. Flat	For Common Area		
	5.4.16	T.V. antenna socket outlet	Each	74.00	03	12	00	12	888.00
	5.4.17	Computer Outlet Jack	Each	242.00	01	04	00	04	968.00
	5.4.22	Batten/ angle holder	Each	41.00	07	28	00	28	1148.00
	5.4.23	Blanking plate	Each	28.00	10	40	05	45	1260.00
12	5.9	Providing and fixing round/ hexagonal fan box (125mm dia) depth 75mm (max.) with 12mm dia steel bar hook, 1.6mm thick MS sheet cover, in RCC slab etc. as per specification.	Each	42.00	05	20	00	20	840.00
13	6.4	Supply, Installation, Testing and Commissioning of 1200 mm sweep, BEE 5 star rated, ceiling fan with Brush Less Direct Current (BLDC) Motor, class of insulation: B, 3 nos. blades, 30 cm long down rod, 2 nos. canopies, shackle kit, safety rope, copper winding, Power Factor not less than 0.9, Service Value (CMM/W) minimum 6.85, Air delivery minimum 215 CMM, 350 RPM (tolerance as per IS : 374-2019), THD less than 10%, remote or electronic regulator unit for speed control and all remaining accessories including safety pin, nut bolts, washers, temperature rise=75 degree C (max.), insulation resistance more than 2 mega ohm, suitable for 230 V, 50 Hz, single phase AC Supply, including connection, earthing etc. complete as per	Each	2662.00	05	20	00	20	53240.00
14	6.6	Supplying, installation, testing and commissioning of following sizes heavy duty (continuous running) 1400 rpm exhaust fan in existing opening in wall including earthing etc. complete as per specification. P.F. should be							
	6.6.1	300 mm sweep	Each	2446.00	04	16	00	16	39136.00
15	6.12	Providing and fixing phenolic laminated sheet cover of 180 mm dia 3 mm thick on the fan box etc. as per specification. (If provided at the time of installation of ceiling fan)	Each	56.00	05	20	00	20	1120.00
16	6.19	Supplying, installation, testing and commissioning of following LED tube light fitting including batten with Electronic Driver Heat sink Capacitor complete with all other accessories on surface/in false ceiling, including connection, earthing etc complete as per specification and furnishing 5 Yrs Warranty certificate from manufacturer. IP20 P.F. should be greater than 0.9. LED chip efficacy ratio ≥ 100 lumens/watt.							
	6.19.3	18/20 watt{4 feet}	Each	443.00	07	28	02	30	13290.00

S.No.	SOR Item no.	PARTICULARS	UNIT	RATE	QTY.			TOTAL QTY.	AMOUNT
					For Each Flat	For 04 Nos. Flat	For Common Area		
17	6.27	Supplying, installation, testing and commissioning of following LED Bulk Head fitting complete with Electronic Driver Heat sink Capacitor and all other accessories, including connection, earthing etc complete as per specification and P.F. should be greater than 0.9. LED chip efficacy ratio \geq 100 lumens /watt. IP65							
	6.27.1	10 watt	Each	1140.00	06	24	05	29	33060.00
18	6.28	Supplying, installation, testing and commissioning of following 230/250 volts LED street light fitting with all accessories like driver, heat sink made of die cast aluminium with IP 66 protection and 10 KV surge protection on pole bracket, including connection, earthing etc complete as per specification and furnishing 5 Yrs Warranty certificate from manufacturer. P.F. should be greater than 0.9. LED chip efficacy ratio \geq 120 lumens /watt.							
	6.28.6	45 watt	Each	2729.00	00	00	08	08	21832.00
19	7.17	Providing and making interconnection in cubical panel between BBC and switchgears with following size FRLS PVC insulated copper conductor wire lead of length upto 50cm including providing copper thimbles on both ends as per specification (To be measured separately for each phase/ neutral).							
	7.17.2	16 sqmm (63 amp)	Each	104.00	00	00	16	16	1664.00
	7.17.3	35 sqmm (125 amps)	Each	181.00	00	00	04	04	724.00
20	7.19	Fabrication, supply, installation, testing and commissioning of cubicle type compartmentalized wall/ floor mounted power cum control panel board of specified size and following depth made out of not less than 2 mm thick CRCA MS sheet with suitable size compartments for bus bars, switchgears and necessary cutouts for voltmeters, ammeters etc as per specifications including powder coating painting but without busbars, switchgears and other accessories etc complete as per specification. (Only face area is to be measured)							
	7.19.1	Upto 300 mm deep	Sqm	6818.00	0.00	0.00	1.44	1.44	9817.92
21	7.20	Supply, installation, testing and commissioning of 4 pole (3 phase+neutral) aluminium bus bars in existing cubicle type compartmentalized wall/ floor mounted panel board along with suitable size and shape insulators, necessary bolts and nuts etc complete as per specification.							
	7.20.2	200 amp (30x5mm)	Mtr	907.00	0.00	0.00	0.80	0.80	725.60
22	9.1	Providing and fixing following rating and breaking capacity MCCB in existing cubicle panel board including drilling holes in cubicle panel, making connections, etc.as per specification, IS/IEC:60947-2 and Ics = 100% Icu							

S.No.	SOR Item no.	PARTICULARS	UNIT	RATE	QTY.			TOTAL QTY.	AMOUNT
					For Each Flat	For 04 Nos. Flat	For Common Area		
	9.1.25	4 pole MCCB, 125A, Adjustable Thermal - Magnetic Release, 35KA	Each	7428.00	00	00	01	01	7428.00
23	9.2	Supplying and fixing on surface/ recess following way, 240 volts SP&N MCB distribution board of sheet steel phosphatized and powder painted complete with tinned copper busbar, neutral busbar, earth bar, din bar, detachable gland plate, including interconnections, earthing etc. as per specification. (But without							
	9.2.5	4 way, Double door	Each	784.00	00	00	01	01	784.00
24	9.4	Supplying and fixing on surface/ recess horizontal type following way, 415 volts, TPN MCB distribution board of sheet steel phosphatized and powder painted, complete with tinned copper busbar, neutral busbar, earth bar, din bar, detachable gland plate, including interconnections, earthing etc. as per specification. (But without MCB/RCCB/Isolator)							
	9.4.4	4 way Double door	Each	1716.00	01	04	00	04	6864.00
25	9.11	Supplying and fixing SP MCB, 240 volts, 'C' curve, suitable for inductive load in the existing MCB DB complete with connections, testing and commissioning etc. as per specification.							
	9.11.2	6 amps to 32 amps	Each	148.00	12	48	02	50	7400.00
26	9.12	Supplying and fixing DP MCB, 240 volts, 'C' curve, suitable for lighting and other loads in the existing MCB DB complete with connections, testing and commissioning etc. as per specification.							
	9.12.2	6 amps to 32 amps	Each	411.00	00	00	01	01	411.00
27	9.16	Supplying and fixing TP&N MCB, 440 volts, 'C' curve, suitable for lighting and other loads in the existing MCB DB complete with connections, testing and commissioning etc. as per specification.							
	9.16.5	63 amps	Each	1316.00	01	04	04	08	10528.00
28	10.15	Providing and fixing following rating current transformer in existing cubical panel including, connections, testing and commissioning etc. as per specification.							
	10.15.3	200/5 amps	Each	347.00	00	00	04	04	1388.00
29	10.17	Providing and fixing penal mounting 230 volt LED type indicating lamp in existing cubical panel including, connections, testing and commissioning etc. as per specification.	Each	94.00	00	00	03	03	282.00

S.No.	SOR Item no.	PARTICULARS	UNIT	RATE	QTY.			TOTAL QTY.	AMOUNT
					For Each Flat	For 04 Nos. Flat	For Common Area		
30	10.23	Providing and fixing panel mounting digital type VAF (Volt-amp-frequency combined) meter of size 100x100 (NS) in existing cubical panel including connection, testing and commissioning etc. as per specification.	Each	1201.00	00	00	01	01	1201.00
31	12.16	Providing and fixing 25 mm X 5 mm G.I. strip on surface or in recess for connections etc. as per specification.	Mtr	115.00	0.00	0.00	20.00	20.00	2300.00
32	12.19	Providing maintenance free earthing with following size GI pipe including making bore pit of minimum 150mm dia, providing and laying approved make Earthing Electrode of Pipe-in-Pipe technology as per IS 3043(R 2016) -1987 made of corrosion free G.I. Pipes having outer pipe of 80mm dia and inner pipe of 50mm dia and filling with specified qty highly conductive compound around pipe and above that with soft soil in bore pit complete and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. as per specification.							
	12.19.2	With 2 metre long GI Pipes and 25 kg back filling compound.	Each	8222.00	00	00	01	01	8222.00
33	14.2	Supplying and laying HDPE pipe of 4kg/cum in ground below road, path etc at a depth not less than 40 cm and upto 90 cm including excavation, dismantling of road if required and refilling the trench with excavated material, ramming and making the surface good etc. as per							
	14.2.1	63 mm outer dia	Mtr	124.00	0.00	0.00	70.00	70.00	8680.00
34	15.3	Supplying and laying following sizes one number FRLS PVC insulated, PVC sheathed, steel armoured, aluminium conductor power cable of 1.1 KV grade in existing RCC/ HUME/ STONEWARE/ METAL/ HDPE pipe as perspecification, IS:9537 (2000, Part5)							
	15.3.2	2 x 6 sq. mm	Mtr	74.00	0.00	0.00	100.00	100.00	7400.00
	15.3.12	3.5 x 35 sq. mm.	Mtr	134.00	0.00	0.00	160.00	160.00	21440.00
35	15.23	Supplying and making end termination with brass compression gland and aluminum lugs for following size armoured aluminum conductor power cable of 1.1 KV grade as per specification.							
	15.23.13	3½ X 35 sq. mm (28 mm)	Each	153.00	00	00	02	02	306.00
36	20.6	Supplying and erection of angle/channel iron cross arms/ bracket/ other fitting of approved size and shape including drilling of holes for insulator pins, bolts and nuts etc as per specification.	kg	77.00	0.00	0.00	10.00	10.00	770.00
		TOTAL						Rs.	620639.52
		Say						Rs.	620640.00

S.No.	SOR Item no.	PARTICULARS	UNIT	RATE	QTY.			TOTAL QTY.	AMOUNT
					For Each Flat	For 04 Nos. Flat	For Common Area		

Sub Engineer (Elect)
Chhattisgarh Housing &
Infrastructure Development Board
Elect. Sub Divi - Bilaspur

Assistant Engineer (Elect)
Chhattisgarh Housing &
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Executive Engineer (Elect)
Chhattisgarh Housing &
Infrastructure Development Board
Elect. Div - Bilaspur

GENERAL ABSTRACT

ESTIMATE FOR THE CONSTRUCTION OF PROPOSED "G" TYPE QUARTERS FOR IRRIGATION UNDER REDEVELOPEMENT WORK AT KATGHORA (KORBA) C.G. (SITE II)

For 4 Units (G+1)

A	Construction cost		For 01 Block (02 Unit)	Total Block to be constructed	Total Cost for 2 Unit
i)	Civil Work	Rs.	5351171.00	1	5351171.00
ii)	Cost of water supply and sanitary works	Rs.	260575.00	1	260575.00
iii)	Cost of internal electrification work i/c fixtures	Rs.	525370.00	1	525370.00
	Total A :-	Rs.			6137116.00
	Cost of for 4 units of 1 Block	Rs.			61.37

**Based on Chhattisgarh P.W.D. Building SOR w.e.f. 01-01-2015
& Road SOR w.e.f. 01-01-2015**

Sub Engineer
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Infrastructure Development Board
Division -Korba

Assistant Engineer
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Division -Korba

Executive Engineer
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Infrastructure Development Board
Division -Korba

**DETAIL ESTIMATE FOR CIVIL CONSTRUCTION OF
PROPOSED "G" TYPE QUARTERS FOR IRRIGATION UNDER REDEVELOPEMENT WORK AT KATGHORA
(KORBA) C.G.(SITE II)**

S. No.	I. No.	PARTICULAR	Measurement				QTY	UNIT	RATE	AMOUNT
			NO	L	B	D/H				
1	1.2	Surface dressing of the ground including removing vegetation and making up undulations and in-equalities not exceeding 15 cms in depth/ height including disposal of rubbish upto 1.5 m lift and lead upto 50m (at least 5m away from the dressed area).	1	20.00	15.00		300.00	sqm	7.20	2160.00
2	1.1	Excavation for all types and sizes of foundations, trenches and drains or for any other purpose including disposal of excavated stuff upto 1.5 m lift and lead upto 50m (at least 5m away from the excavated area), including dressing and leveling of pits.								
	1.1.1	In all types of soils.								
		C1/F1	6	3.00	2.70	2.00	97.20			
		C2/F2	10	2.40	2.70	2.00	129.60			
		C3/F3	8	2.10	2.40	2.00	80.64			
		C4/F4	4	1.65	1.65	2.00	21.78			
		For Beam								
		PB horrizontal	2	4.50	0.30	0.20	0.54			
			2	6.90	0.30	0.20	0.83			
			6	7.30	0.30	0.20	2.63			
			8	1.40	0.30	0.20	0.67			
			2	2.70	0.30	0.20	0.32			
		vertical	4	1.60	0.30	0.20	0.38			
			2	3.70	0.30	0.20	0.44			
			2	7.10	0.30	0.20	0.85			
			4	10.00	0.30	0.20	2.40			
			2	1.50	0.30	0.20	0.18			
			2	2.75	0.30	0.20	0.33			
			2	2.40	0.30	0.20	0.29			
		common area -stair	3	2.90	0.30	0.20	0.52			
		c-lobby	1	5.50	0.30	0.20	0.33			
			2	1.60	0.30	0.20	0.19			
		front stair	2	1.60	0.30	0.20	0.19			
			1	1.80	0.30	0.20	0.11			
		stair pro	2	0.60	0.30	0.20	0.07			
							340.51	cum	185.00	62993.61
3	1.6	Extra for every additional lift of 1.5 m or part thereof.								
	1.6.1	All types of soils								
		C1/F1	6	3.00	2.70	0.50	24.30			
		C2/F2	10	2.40	2.70	0.50	32.40			
		C3/F3	8	2.10	2.40	0.50	20.16			
		C4/F4	4	1.65	1.65	0.50	5.45			
							82.31	cum	26.50	2181.08
4	3.1	Providing and laying nominal mix plain cement concrete with crushed stone aggregate using concrete mixer in all works upto plinth level excluding cost of form work.								
	3.1.2	1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size).								
		C1/F1	6	3.00	2.70	0.10	4.86			
		C2/F2	10	2.40	2.70	0.10	6.48			
		C3/F3	8	2.10	2.40	0.10	4.03			
		C4/F4	4	1.65	1.65	0.10	1.09			
		For Beam								
		PB horrizontal	2	4.50	0.30	0.10	0.27			
			2	6.90	0.30	0.10	0.41			
			6	7.30	0.30	0.10	1.31			
			8	1.40	0.30	0.10	0.34			

DETAIL ESTIMATE FOR CIVIL CONSTRUCTION OF PROPOSED "G" TYPE QUARTERS FOR IRRIGATION UNDER REDEVELOPEMENT WORK AT KATGHORA (KORBA) C.G.(SITE II)										
S. No.	I. No.	PARTICULAR	Measurement				QTY	UNIT	RATE	AMOUNT
			NO	L	B	D/H				
			2	2.70	0.30	0.10	0.16			
		vertical	4	1.60	0.30	0.10	0.19			
			2	3.70	0.30	0.10	0.22			
			2	7.10	0.30	0.10	0.43			
			4	10.00	0.30	0.10	1.20			
			2	1.50	0.30	0.10	0.09			
			2	2.75	0.30	0.10	0.17			
			2	2.40	0.30	0.10	0.14			
		common area -stair	3	2.90	0.30	0.10	0.26			
		c-lobby	1	5.50	0.30	0.10	0.17			
			2	1.60	0.30	0.10	0.10			
		front stair	2	1.60	0.30	0.10	0.10			
			1	1.80	0.30	0.10	0.05			
		stair pro	2	0.60	0.30	0.10	0.04			
		Below Floor								
		Living & dining	2	3.30	5.90	0.10	3.89			
			2	2.70	0.60	0.10	0.32			
		Bed room	2	3.40	3.30	0.10	2.24			
		Kitchen	2	2.30	3.30	0.10	1.52			
		Bed room	2	3.40	3.20	0.10	2.18			
		Almirah	2	1.60	0.60	0.10	0.19			
		Toilet & Passage	2	3.40	2.70	0.10	1.84			
		Staircase	1	2.50	5.40	0.10	1.35			
		Lobby	1	5.10	1.20	0.10	0.61			
		front stair	1	2.00	1.80	0.10	0.36			
			1	1.60	1.00	0.10	0.16			
							36.77			
							36.77	cum	2659.00	97771.43
5	3.3	Providing and laying design mix reinforced cement concrete with crushed graded stone aggregate 20mm nominal size using batching plant, transit mixer and concrete pump, in all works upto plinth level excluding cost of form work.								
	3.3.2	M-25 Grade								
		C1/F1	6	2.70	2.40	0.45	17.50			
		C2/F2	10	2.10	2.40	0.40	20.16			
		C3/F3	8	1.80	2.10	0.35	10.58			
		C4/F4	4	1.35	1.35	0.30	2.19			
		Column upto Plinth								
		C1	6	0.20	0.40	2.25	1.08			
		C2	10	0.20	0.40	2.25	1.80			
		C3	8	0.20	0.30	2.25	1.08			
		C4	4	0.20	0.20	2.25	0.36			
		Ground Beam								
		horrizontal	2	4.50	0.20	0.35	0.63			
			2	6.90	0.20	0.35	0.97			
			6	7.30	0.20	0.35	3.07			
			8	1.40	0.20	0.35	0.78			
			2	2.70	0.20	0.35	0.38			
		vertical	4	1.60	0.20	0.35	0.45			
			2	3.70	0.20	0.35	0.52			
			2	7.10	0.20	0.35	0.99			
			4	10.00	0.20	0.35	2.80			
			2	1.50	0.20	0.35	0.21			
			2	2.75	0.20	0.35	0.39			
			2	2.40	0.20	0.35	0.34			
		common area -stair	3	2.90	0.20	0.35	0.61			
		c-lobby	1	5.50	0.20	0.35	0.39			
			2	1.60	0.20	0.35	0.22			
		front stair	2	1.60	0.30	0.35	0.34			
			1	1.80	0.30	0.35	0.19			
		stair pro	2	0.60	0.20	0.35	0.08			

<p align="center">DETAIL ESTIMATE FOR CIVIL CONSTRUCTION OF PROPOSED "G" TYPE QUARTERS FOR IRRIGATION UNDER REDEVELOPEMENT WORK AT KATGHORA (KORBA) C.G.(SITE II)</p>										
S. No.	I. No.	PARTICULAR	Measurement				QTY	UNIT	RATE	AMOUNT
			NO	L	B	D/H				
		Above plinth-GF				(A)	68.09			
		Column upto Ground Slab								
		C1	6	0.20	0.40	3.12	1.50			
		C2	10	0.20	0.40	3.12	2.50			
		C3	8	0.20	0.30	3.12	1.50			
		C4	4	0.20	0.20	3.12	0.50			
		Partial lintel beam								
		horrizontal	2	4.50	0.20	0.20	0.36			
			2	6.90	0.20	0.20	0.55			
			6	7.30	0.20	0.20	1.75			
			8	1.40	0.20	0.20	0.45			
			2	2.70	0.20	0.20	0.22			
		vertical	4	1.60	0.20	0.20	0.26			
			2	3.70	0.20	0.20	0.30			
			2	7.10	0.20	0.20	0.57			
			4	10.00	0.20	0.20	1.60			
			2	1.50	0.20	0.20	0.12			
			2	2.75	0.20	0.20	0.22			
			2	2.40	0.20	0.20	0.19			
		common area -stair	3	2.90	0.20	0.20	0.35			
		c-lobby	1	5.50	0.20	0.20	0.22			
			2	1.60	0.20	0.20	0.13			
		front stair	2	1.60	0.20	0.20	0.13			
			1	1.80	0.20	0.20	0.07			
		stair pro	2	0.60	0.20	0.20	0.05			
		Slab Beam								
		horrizontal	2	4.50	0.20	0.35	0.63			
			2	6.90	0.20	0.35	0.97			
			6	7.30	0.20	0.35	3.07			
			8	1.40	0.20	0.35	0.78			
			2	2.70	0.20	0.35	0.38			
		vertical	4	1.60	0.20	0.35	0.45			
			2	3.70	0.20	0.35	0.52			
			2	7.10	0.20	0.35	0.99			
			4	10.00	0.20	0.35	2.80			
			2	1.50	0.20	0.35	0.21			
			2	2.75	0.20	0.35	0.39			
			2	2.40	0.20	0.35	0.34			
		common area -stair	3	2.90	0.20	0.35	0.61			
		c-lobby	1	5.50	0.20	0.35	0.39			
			2	1.60	0.20	0.35	0.22			
		front stair	2	1.60	0.20	0.35	0.22			
			1	1.80	0.20	0.35	0.13			
		Slab								
		Living & dining	2	3.30	5.90	0.125	4.87			
		Bed room	2	3.40	3.20	0.125	2.72			
		Kitchen	2	2.30	3.00	0.125	1.73			
		Bed room	2	3.40	3.30	0.125	2.81			
		Almirah	6	1.60	0.60	0.125	0.72			
		Toilet & Passage	2	3.90	2.70	0.125	2.63			
		Lobby	1	5.10	1.20	0.125	0.77			
		utility	2	4.10	1.20	0.125	9.84			
		balcony	2	2.35	1.00	0.125	4.70			
		balcony	2	2.00	1.00	0.125	4.00			
		front stair por	1	5.70	2.50	0.125	1.78			
		staircase								
		Staircase W/slab	2	2.85	1.20	0.150	1.03			
		Midlanding	2	2.50	1.30	0.150	0.98			
		Steps	20	1.20	0.15	0.150	0.54			
		Chhajja								
		front gate	1	2.00	0.60	0.080	0.10			
		w	10	1.70	0.60	0.080	0.82			
		w stair	2	1.70	0.60	0.080	0.16			
		w1	2	1.30	0.60	0.080	0.12			
		w2	2	1.50	0.60	0.080	0.14			

DETAIL ESTIMATE FOR CIVIL CONSTRUCTION OF PROPOSED "G" TYPE QUARTERS FOR IRRIGATION UNDER REDEVELOPEMENT WORK AT KATGHORA (KORBA) C.G.(SITE II)										
S. No.	I. No.	PARTICULAR	Measurement				QTY	UNIT	RATE	AMOUNT
			NO	L	B	D/H				
		v	4	1.00	0.60	0.080	0.19			
		Kitchen platform	2	3.90	0.60	0.075	0.35			
			2	3.00	0.60	0.075	0.27			
		Window sill								
		w	10	1.70	0.20	0.050	0.17			
		w stair	2	1.70	0.20	0.050	0.03			
		w1	2	1.30	0.20	0.050	0.03			
		w2	2	1.50	0.20	0.050	0.03			
		v	4	1.00	0.20	0.050	0.04			
			GROUND FLOOR			(B)	68.15			
			RST FLOOR SAME AS			(C)	68.15			
		Terrace Floor								
		For Tower - col	6	0.20	0.40	2.40	1.15			
		For Tower paraphet	6	0.20	0.40	0.30	0.14			
		Parapet	22	0.20	0.40	0.90	1.58			
		Tower Beam	3	2.90	0.20	0.30	0.52			
			2	6.20	0.20	0.30	0.74			
		stair pro	2	0.60	0.20	0.40	0.10			
		Tower Slab	1	2.50	5.50	0.150	2.06			
		Chhajja	1	2.90	0.60	0.075	0.13			
		staircase								
		Staircase W/slab	2	2.85	1.20	0.150	1.03			
		Midlanding	2	2.50	1.30	0.150	0.98			
		Steps	20	1.20	0.15	0.150	0.54			
		top	1	2.50	2.50	0.125	0.78			
						(D)	9.76			
					(A to D)		214.15	cum	4298.00	920414.77
6	3.4	Extra for laying PCC/RCC of any grade in superstructure above plinth level for every floor or part thereof in addition to rate for foundation and plinth:								
		Ground Floor								
		Rcc work above plinth					68.15	cum	97.50	6644.79
		First Floor								
		Rcc work above plinth					68.15	cum	195.00	13289.57
		Terrace Floor								
		RCC					9.76	cum	292.50	2854.00
7	2.1	Providing and fixing form work including centring, shuttering, strutting, staging, propping bracing etc. complete and including its removal at all levels, for:								
a)	2.1.1	Foundations, footings, bases of columns plinth beam, curtain wall in any shape and size and all type of wall below plinth level.								
		Footing								
		C1/F1	6	10.20		0.45	27.54			
		C2/F2	10	9.00		0.40	36.00			
		C3/F3	8	7.80		0.35	21.84			
		C4/F4	4	5.40		0.30	6.48			
		Column upto Plinth								
		C1	6	1.20		2.25	16.20			
		C2	10	1.20		2.25	27.00			
		C3	8	1.00		2.25	18.00			
		C4	4	0.80		2.25	7.20			
		Ground Beam								
		horrizontal	2	4.50		0.70	6.30			
			2	6.90		0.70	9.66			
			6	7.30		0.70	30.66			
			8	1.40		0.70	7.84			

DETAIL ESTIMATE FOR CIVIL CONSTRUCTION OF PROPOSED "G" TYPE QUARTERS FOR IRRIGATION UNDER REDEVELOPEMENT WORK AT KATGHORA (KORBA) C.G.(SITE II)										
S. No.	I. No.	PARTICULAR	Measurement				QTY	UNIT	RATE	AMOUNT
			NO	L	B	D/H				
			2	2.70		0.70	3.78			
		vertical	4	1.60		0.70	4.48			
			2	3.70		0.70	5.18			
			2	7.10		0.70	9.94			
			4	10.00		0.70	28.00			
			2	1.50		0.70	2.10			
			2	2.75		0.70	3.85			
			2	2.40		0.70	3.36			
		common area -stair	3	2.90		0.70	6.09			
		c-lobby	1	5.50		0.70	3.85			
			2	1.60		0.70	2.24			
		front stair	2	1.60		0.70	2.24			
			1	1.80		0.70	1.26			
		stair pro	2	0.60		0.70	0.84			
							291.93	sqm	139.00	40578.27
b)	2.1.5	Columns, Pillars, Piers and likes-rectangular or square in shape								
		Column upto Ground Slab								
		C1	6	1.20		3.12	22.46			
		C2	10	1.20		3.12	37.44			
		C3	8	1.00		3.12	24.96			
		C4	4	0.80		3.12	9.98			
		first floor								
		C1	6	1.20		3.12	22.46			
		C2	10	1.20		3.12	37.44			
		C3	8	1.00		3.12	24.96			
		C4	4	0.80		3.12	9.98			
		Terrace Floor								
		For Tower - col	6	1.20		2.40	17.28			
		For Paraphet	22	1.20		0.90	23.76			
							230.72	sqm	297.00	68523.84
c)	2.1.8	Beams, lintels, cantilevers & walls								
		Ground Floor								
		Partial lintel beam								
		horizontal	2	4.50		0.40	3.60			
			2	6.90		0.40	5.52			
			6	7.30		0.40	17.52			
			8	1.40		0.40	4.48			
			2	2.70		0.40	2.16			
		vertical	4	1.60		0.40	2.56			
			2	3.70		0.40	2.96			
			2	7.10		0.40	5.68			
			4	10.00		0.40	16.00			
			2	1.50		0.40	1.20			
			2	2.75		0.40	2.20			
			2	2.40		0.40	1.92			
		common area -stair	3	2.90		0.40	3.48			
		c-lobby	1	5.50		0.40	2.20			
			2	1.60		0.40	1.28			
		front stair	2	1.60		0.40	1.28			
			1	1.80		0.40	0.72			
		stair pro	2	0.60		0.40	0.48			
		Slab Beam								
		horizontal	2	4.50		0.70	0.00			
			2	6.90		0.70	9.66			
			6	7.30		0.70	30.66			
			8	1.40		0.70	7.84			
			2	2.70		0.70	3.78			
		vertical	4	1.60		0.70	4.48			
			2	3.70		0.70	5.18			
			2	7.10		0.70	9.94			
			4	10.00		0.70	28.00			
			2	1.50		0.70	2.10			
			2	2.75		0.70	3.85			

DETAIL ESTIMATE FOR CIVIL CONSTRUCTION OF PROPOSED "G" TYPE QUARTERS FOR IRRIGATION UNDER REDEVELOPEMENT WORK AT KATGHORA (KORBA) C.G.(SITE II)										
S. No.	I. No.	PARTICULAR	Measurement				QTY	UNIT	RATE	AMOUNT
			NO	L	B	D/H				
			2	2.40		0.70	3.36			
		common area -stair	3	2.90		0.70	6.09			
		c-lobby	1	5.50		0.70	3.85			
			2	1.60		0.70	2.24			
		front stair	2	1.60		0.70	2.24			
			1	1.80		0.70	1.26			
		stair pro	2	0.60		0.70	0.84			
		Window sill								
		w	10	1.70		0.10	1.70			
		w stair	2	1.70		0.10	0.34			
		w1	2	1.30		0.10	0.26			
		w2	2	1.50		0.10	0.30			
		v	4	1.00		0.10	0.40			
		ground floor					203.61	x		
		first floor same as ground floor					203.61	y		
		Terrrace Floor								
		Tower Beam	3	2.90		0.80	6.96			
			2	6.20		0.80	9.92			
		stair pro	2	0.60		0.80	0.96			
							425.06	sqm	202.00	85862.12
d)	2.1.7	Suspended floors, roofs, access platform, balconies (plain surfaces) and shelves (cast in situ)								
		Slab								
		Living & dining	2	3.30	5.90		38.94			
		Bed room	2	3.40	3.20		21.76			
		Almirah	6	1.60	0.60		5.76			
		Kitchen	2	2.30	3.00		13.80			
		Bed room	2	3.40	3.30		22.44			
		Almirah	2	1.60	0.60		1.92			
		Toilet & Passage	2	3.90	2.70		21.06			
		Lobby	1	5.10	1.20		6.12			
		utility	2	4.10	1.20		9.84			
		balcony	2	2.35	1.00		4.70			
		balcony	2	2.00	1.00		4.00			
		front stair por	2	5.70	2.50		28.50			
		ground floor					178.84	x		
		first floor same as ground floor					178.84	y		
		Terrrace Floor								
		Tower Slab	1	2.50	5.50		13.75			
		kitchen pf	2	3.00	0.60		3.60			
							375.03	sqm	235.00	88132.05
e)	2.1.13	Weather shade, chhajja, Cornices and mouldings								
		Ground Floor								
		front gate	1	2.00	0.60		1.20			
			10	1.70	0.60		10.20			
			2	1.70	0.60		2.04			
			2	1.30	0.60		1.56			
			2	1.50	0.60		1.80			
			4	1.00	0.60		2.40			
		Chhajja	1	2.90	0.60		1.74			
		ground floor					20.94	x		
		first floor same as ground floor					20.94	y		
							41.88	sqm	294.00	12312.72
f)	2.1.15	Stair cases of all types excluding spiral and folded plate type, including risers and landings								
		Ground Floor								
		Staircase W/slab	2	2.85	1.20		6.84			
		Midlanding	2	2.50	1.30		6.50			
		Sides	2	2.85	0.30		1.71			
							15.05			

DETAIL ESTIMATE FOR CIVIL CONSTRUCTION OF PROPOSED "G" TYPE QUARTERS FOR IRRIGATION UNDER REDEVELOPEMENT WORK AT KATGHORA (KORBA) C.G.(SITE II)										
S. No.	I. No.	PARTICULAR	Measurement				QTY	UNIT	RATE	AMOUNT
			NO	L	B	D/H				
		First Floor								
		Staircase W/slab	2	2.85	1.20		6.84			
		Midlanding	2	2.50	1.30		6.50			
		Sides	2	2.85	0.30		1.71			
							15.05			
							30.10	sqm	230.00	6923.00
8	2.3	Extra for providing fixing and removing of propping from lower floor upwards for the concreting. Propping should be provided two floors below. The props of lower floor must be 50% of the props of the floor above including wedging etc. complete. In case propping is done in one floor below, only half the rate shall be paid.								
		As per Slab Area	2	167.44		0.50	167.44	sqm	17.00	2846.48
9	3.12	Providing and placing in position reinforcement for R.C.C. work including straightening, cutting, bending, binding etc. complete as per drawings including cost of binding wire in foundation and plinth all complete:								
	3.12.2	Thermo-Mechanically treated bars FE 500 D								
		Qty. of R.C.C. M 20	214.15		115.00		24627.20	Kg	54.50	1342182.30
10	1.17	Filling from available excavated stuff (Excluding rock) in trenches, plinth, sides of foundation etc. in layers not exceeding 20cm in depth consolidating each deposited layer by ramming and watering with a lead upto 50 M. and lift upto 1.5 M.								
		For Footing (Total Excavated Earth)					340.51			
							340.51	Cum	65.00	22132.89
11	1.18	Providing and filling in plinth with sand/ Crusher dust and hard moorum under floor in layers not exceeding 20cm in depth consolidating each deposited layer by ramming and watering, including dressing etc. complete.								
		Below Floor								
		Living & dining	2	3.30	5.90	0.65	25.31			
			2	2.70	0.60	0.65	2.11			
		Bed room	2	3.40	3.30	0.65	14.59			
		Kitchen	2	2.30	3.30	0.65	9.87			
		Bed room	2	3.40	3.20	0.65	14.14			
		Almirah	2	1.60	0.60	0.65	1.25			
		Toilet & Passage	2	3.40	2.70	0.65	11.93			
		Staircase	1	2.50	5.40	0.65	8.78			
		Lobby	1	5.10	1.20	0.65	3.98			
		front stair	1	2.00	1.80	0.65	2.34			
							94.29	Cum	371.00	34981.22
12	3.13	Providing and laying damp proof course (upto 50mm thick) with plain cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded crushed stone aggregate 20mm nominal size) including form work.								
		At PL	1	86.30	0.20	0.05	0.86			
		above paraphet	1	76.90	0.20	0.05	0.77			
		tower paraphet	1	17.40	0.20	0.05	0.17			
		balcony and utility	1	31.70	0.20	0.05	0.32			
							2.12	cum	4237.00	8995.15

DETAIL ESTIMATE FOR CIVIL CONSTRUCTION OF PROPOSED "G" TYPE QUARTERS FOR IRRIGATION UNDER REDEVELOPEMENT WORK AT KATGHORA (KORBA) C.G.(SITE II)										
S. No.	I. No.	PARTICULAR	Measurement				QTY	UNIT	RATE	AMOUNT
			NO	L	B	D/H				
13	1.25	Diluting chemical emulsion (chlorpyrifos/lindane) in water as per manufacturers recommendation and injecting for pre-constructional curative cum preventive anti-termite treatment:(Five year service guarantee bond to be signed by contractor) Surface treatment by spreading emulsion under floor, over the plinth area								
	1.25.1	before laying base concrete @ 5 litres / sqm								
		Plinth Area	1	200.00	1.00		200.00	Sqm	27.50	5500.00
14	1.22	Supplying chlorpyrifos/ Lindane emulsifiable concentrate of 20% in sealed containers including delivery as specified.	200				200.00	Ltr	208.00	41600.00
15	3.16	Making 50mm thick plinth protection of plain cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded crushed stone aggregate 20mm nominal size) over 75mm bed of dry brick ballast 40mm nominal size well rammed and consolidated and grouted with sand including finishing the top smooth.	1	80.00	1.20		96.00	sqm	273.00	26208.00
16	1.25.2	Treatment of inside of plinth masonry wall on using diluted chemical emulsion @ 1.5 litre per hole, including drilling 12 mm diameter holes in plinth wall below plinth protection at the interval of 300 mm and plugging with cement mortar 1 :2 (1 cement : 2 Coarse sand).					80.00	metre	19.00	1520.00
17	1.25.3	Treatment of outer side of plinth masonry wall using diluted chemical emulsion @ 1.5 litre per hole, including drilling 12 mm diameter holes in plinth wall at the junction of floor at the interval of 300 mm and plugging with cement mortar 1 :2 (1 cement : 2 Coarse sand).					80.00	metre	13.50	1080.00
17	7.5	Brick work with modular fly-ash lime bricks (FaLG Bricks) confirming to IS:12894-2002 of class designation 4.0 in foundation and plinth in:								
	7.5.3	Cement Mortar 1:5 (1 cement : 5 coarse sand)								
		PB horizontal	2	4.50	0.20	0.45	0.81			
			2	6.90	0.20	0.45	1.24			
			6	7.30	0.20	0.45	3.94			
			8	1.40	0.20	0.45	1.01			
			2	2.70	0.20	0.45	0.49			
		vertical	4	1.60	0.20	0.45	0.58			
			2	3.70	0.20	0.45	0.67			
			2	7.10	0.20	0.45	1.28			
			4	10.00	0.20	0.45	3.60			
			2	1.50	0.20	0.45	0.27			
			2	2.75	0.20	0.45	0.50			
			2	2.40	0.20	0.45	0.43			
		common area -stair	3	2.90	0.20	0.45	0.78			
		c-lobby	1	5.50	0.20	0.45	0.50			
			2	1.60	0.20	0.45	0.29			
		front stair for beam	2	1.60	0.20	0.45	0.29			
			1	1.80	0.20	0.45	0.16			
		Above beam	1	1.60	0.20	0.45	0.14			

DETAIL ESTIMATE FOR CIVIL CONSTRUCTION OF PROPOSED "G" TYPE QUARTERS FOR IRRIGATION UNDER REDEVELOPEMENT WORK AT KATGHORA (KORBA) C.G.(SITE II)										
S. No.	I. No.	PARTICULAR	Measurement				QTY	UNIT	RATE	AMOUNT
			NO	L	B	D/H				
		front step	1	1.60	0.90	0.15	0.22			
			1	1.60	0.60	0.15	0.14			
			1	1.60	0.30	0.15	0.07			
							17.40	cum	3,350.00	58279.95
18	7.5	Brick work with modular fly-ash lime bricks (FaLG Bricks) confirming to IS:12894-2002 of class designation 4.0 in foundation and plinth in:								
	7.5.4	Cement Mortar 1:6 (1 cement : 6 coarse sand)								
		Ground Floor								
		balcony	2	1.4	0.20	2.60	1.46			
			2	1.4	0.20	0.90	0.50			
		utility	2	2.2	0.20	0.90	0.79			
		bed	2	3.4	0.20	0.90	1.22			
			2	3.3	0.20	2.60	3.43			
		almirah	4	0.6	0.20	2.60	1.25			
		kitchen	4	2.3	0.20	2.60	4.78			
			2	3.3	0.20	2.60	3.43			
		toilet	2	2.7	0.20	2.60	2.81			
		hall	2	5.9	0.20	2.60	6.14			
			2	3.3	0.20	2.60	3.43			
			2	0.8	0.20	2.60	0.83			
		bed	2	3.4	0.20	2.60	3.54			
			2	3.2	0.20	2.60	3.33			
		lobby	2	1.2	0.20	0.90	0.43			
		stair	2	2.5	0.20	2.60	2.60			

DETAIL ESTIMATE FOR CIVIL CONSTRUCTION OF PROPOSED "G" TYPE QUARTERS FOR IRRIGATION UNDER REDEVELOPEMENT WORK AT KATGHORA (KORBA) C.G.(SITE II)										
S. No.	I. No.	PARTICULAR	Measurement				QTY	UNIT	RATE	AMOUNT
			NO	L	B	D/H				
		pro	2	0.6	0.20	2.60	0.62			
						(A)	40.60	cum		
		Deduct								
		cg	1	1.6	0.2	2.1	0.67			
		D	2	1	0.2	2.1	0.84			
		D1	6	0.9	0.2	2.1	2.27			
		W	10	1.2	0.2	1.2	2.88			
		W stair	1	1.2	0.2	1.2	0.29			
		W1	2	0.8	0.2	1.2	0.38			
		W2	2	1	0.2	1.2	0.48			
		V	4	0.6	0.2	0.6	0.29			
						(B)	8.10	cum		
		Ground Floor			28.79	(A-B)	32.50	x		
		First Floor			28.79	(A-B)	32.50	y		
		Terrace Floor								
		Tower wall	2	6.20	0.20	2.10	5.21			
			2	2.50	0.20	2.10	2.10			
		Parapet wall	1	76.90	0.20	0.90	13.84			
			1	17.40	0.20	0.30	1.04			
						(A)	22.19	cum		
		Deduct : Opening	1	0.90	0.20	2.10	0.38			
		Staircase	1	1.50	0.20	1.20	0.36			
						(B)	0.74	cum		
						(A-B)	21.46	z		
						x+y+z	86.46	cum	3263.00	282105.93
19	7.6	Extra for brick work in superstructure above plinth level for every floor or part thereof in addition to rate for foundation and plinth:								
		Ground floor					32.50	cum	121.00	3932.50
		First floor					32.50	cum	242.00	7865.00
		Terrace Floor					21.46	cum	363.00	7788.53
20	7.11	Half brick thick brick masonry with fly-ash lime bricks (FaLG Bricks) confirming to IS:12894-2002 of class designation 4.0 in superstructure above plinth level upto plinth level:								
	7.11.4	Cement Mortar 1:4 (1 cement : 4 coarse sand)								
		bed	2	0.90		2.60	4.68			
		bed	2	0.90		2.60	4.68			
		hall	2	3.40		2.60	17.68			
			2	1.50		2.60	7.80			
		kitchen	2	3.10		2.60	16.12			
			2	0.60		2.60				
		toilet	6	2.50		2.60	39.00			
			2	3.70		2.60	19.24			
		balcony	4	1.10		2.60	11.44			
			2	2.55		2.60	13.26			
			2	2.20		2.60	11.44			
		utility	2	4.10		2.60	21.32			
		kf	16	0.60		0.80	7.68			
		Deduct : Opening-D2	-4	0.75		2.10	-6.30			
		D1	-4	0.90		2.10	-7.56			
		Ground Floor					160.48			
		First Floor					160.48			
							320.96	sqm	382.00	122606.72

**DETAIL ESTIMATE FOR CIVIL CONSTRUCTION OF
PROPOSED "G" TYPE QUARTERS FOR IRRIGATION UNDER REDEVELOPEMENT WORK AT KATGHORA
(KORBA) C.G.(SITE II)**

S. No.	I. No.	PARTICULAR	Measurement				QTY	UNIT	RATE	AMOUNT
			NO	L	B	D/H				
21	7.12	Extra for half brick work in superstructure above plinth level for every story or part thereof in addition to rate for upto plinth level:								
		Ground Floor					160.48	sqm	11.00	1765.28
		First Floor					160.48	sqm	22.00	3530.56
22	7.20	Extra for providing and placing in position hopping 25x1.60 mm or 2 Nos 6mm dia MS bars reinforcement at every third course of half brick masonry.					320.96	sqm	62.50	20060.00
23	8.1	Providing wood work in frames of doors, windows, clerestory windows and other frames wrought framed and fixed in position.								
	8.1.2	Sal, bijasal, benteak, khair, haldu								
		Ground to Terrace								
		D	4	5.30	0.125	0.075	0.20			
		D1	20	5.10	0.100	0.060	0.61			
							0.81	cum	61051.00	49497.10
24	8.12	Providing and fixing flush door shutters, conforming to IS : 2202 (Part-I), decorative type core of block board construction with frame of first class hard wood and well matched teak ply veneering with vertical grains or cross bands and face veneers on both faces of shutters excluding hinges.								
	8.12.2	35 mm. thick (single leaf)								
			20	0.90		2.10	37.80			
							37.80	sqm	2005.00	75789.00
25	14.27	Providing and laying Melamine polish on new wood work (two or more coats) with spray machine after preparing surface by rubbing down smooth with sand papers, preparation of surface, applying 5 to 10 coats of French sprit polish, applying two coats of Melamine sealer and finally applying two coats of Melamine clear as per manufacturers specifications complete:			Fac.					
			8	1.10	1.20	2.10	22.18			
			40	0.90	1.20	2.10	90.72			
							112.90	sqm	469.00	52948.22
26	8.148	Providing and fixing factory made UPVC door frame made of UPVC profile section having an overall dimension as below (tolerance ± 1 mm) with wall thickness 2.0mm ± 0.2 mm, corners of the door frame to be jointed with galvanized brackets and stainless steel screws, joints mitred and plastic welded. The hinge side vertical of the frames reinforced by galvanized M.S. tube of size 19 X 19mm and 1mm ± 0.1 mm wall thickness and 3 nos. stainless steel hinges fixed to the frame complete as per manufacturers specification and direction of Engineer-in-charge								
	8.148.2	Extruded section Profile size 42x50 mm.								
		Toilet	8	4.95			39.60			
							39.60	Rmt	196.00	7761.60

DETAIL ESTIMATE FOR CIVIL CONSTRUCTION OF PROPOSED "G" TYPE QUARTERS FOR IRRIGATION UNDER REDEVELOPEMENT WORK AT KATGHORA (KORBA) C.G.(SITE II)										
S. No.	I. No.	PARTICULAR	Measurement				QTY	UNIT	RATE	AMOUNT
			NO	L	B	D/H				
27	8.149	Providing and fixing factory made PVC door shutters of specified thickness made of styles and rails of a UPVC hollow section of specified size 59x24 mm and wall thickness 2 mm ± 0.2 mm with inbuilt edging on both sides. The styles and rails mitred and joined at the corners by means of M.S. galvanised/ plastic brackets of size 75x220 mm having wall thickness 1.0 mm and stainless steel screws.								
	8.149.2	30 mm thick door shutters with styles and rails of size 60x30 mm								
		Toilet Door	8	0.75		2.10	12.60	sqm	2488.00	31348.80
28	9.14	Providing and fixing steel door made of angle iron of suitable sizes with M.S. grill of approved pattern made of M.S. flats or square or round bars coat of red oxide zinc chromate primer.			kg/sqm					
		Front gate	1	2.50	20.00	2.10	105.00	kg	79.50	8347.50
29	9.15	Providing and fixing M.S. grill of approved pattern made of M.S. flats or square or round bars welded to steel frame of windows etc. including applying a priming coat welded to frame with all necessary fitting complete including applying a priming of red oxide zinc chromate primer.								
		Ground to second floor			Kg/m					
		W	20	1.20	18.00	1.20	518.40			
		W stair	4	1.20	18.00	1.20	103.68			
		W1	4	0.80	18.00	1.20	69.12			
		W2	4	1.00	18.00	1.20	86.40			
		V	8	0.60	18.00	0.60	51.84			
		Tower door	1	0.90	50.00	2.10	94.50			
							923.94	Kg	67.50	62365.95
30	9.47	Providing and fixing aluminium work for doors, windows, ventilators and partitions made out of extruded aluminium standard sections (main section with minimum 1.5mm thickness) conforming to IS: 733, IS: 1285 mitred and jointed mechanically including aluminium cleats, neoprene weather stripping gasket beveled edge beading, screws duly fixed in wall/floor with fixing clips or hold fasteners or bolts and nuts as required aluminium sections shall be anodized transparent or dyed to approved shade according to IS: 1868, minimum anodic coating shall be of grade AC-15. (Glazing to be paid for separately:)								
	9.47.1	For fixed portion								
		Ground floor								
		W	20	1.20	4.00	1.20	115.20			
		W stair	4	1.20	4.00	1.20	23.04			
		W1	4	0.80	4.00	1.20	15.36			
		W2	4	1.00	4.00	1.20	19.20			
		V	8	0.60	4.00	0.60	11.52			
		5kg/sqm					184.32	Kg	331.00	61009.92

DETAIL ESTIMATE FOR CIVIL CONSTRUCTION OF PROPOSED "G" TYPE QUARTERS FOR IRRIGATION UNDER REDEVELOPEMENT WORK AT KATGHORA (KORBA) C.G.(SITE II)										
S. No.	I. No.	PARTICULAR	Measurement				QTY	UNIT	RATE	AMOUNT
			NO	L	B	D/H				
31	9.47.2	For shutter of doors, windows & ventilators including providing and making provision for fixing of fitting wherever required including the cost of PVC/ neoprene gasket required (Fittings shall be paid for separately).					184.32	kg	338.00	62300.16
32	9.48	Extra for powder coated (minimum 50 micron) aluminium sections instead of anodized.					368.64	kg	27.00	9953.28
33	9.51	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with PVC/ neoprene gasket etc. complete. (Cost of aluminium snap beading shall be paid in basic item):								
	9.51.1	With float glass panes of 4 mm thickness								
		Ground floor								
		W	20	1.20		1.20	28.80			
		W stair	4	1.20		1.20	5.76			
		W1	4	0.80		1.20	3.84			
		W2	4	1.00		1.20	4.80			
		V	8	0.60		0.60	2.88			
							46.08	sqm	611.00	28154.88
34	9.34	Providing and fixing stainless wire gauge of average width of aperture 1.56mm with wire of 0.35mm to existing steel door, window shutter frames with necessary M.S. strip beading etc. complete.								
		Ground to second floor								
		W	20	1.20	0.50	1.20	14.40			
		W stair	4	1.20	0.50	1.20	2.88			

**DETAIL ESTIMATE FOR CIVIL CONSTRUCTION OF
PROPOSED "G" TYPE QUARTERS FOR IRRIGATION UNDER REDEVELOPEMENT WORK AT KATGHORA
(KORBA) C.G.(SITE II)**

S. No.	I. No.	PARTICULAR	Measurement				QTY	UNIT	RATE	AMOUNT
			NO	L	B	D/H				
		W1	4	0.80	0.50	1.20	1.92			
		W2	4	1.00	0.50	1.20	2.40			
		V	8	0.60	0.50	0.60	1.44			
		50% Opening					23.04	sqm	791.00	18224.64
35	8.3	Providing 40x5mm iron hold fast 40cm long including fixing to frame with 10mm bolts nuts and wooden plug and embedding in Cement Concrete 1:2:4 in blocks of size 30x10x15cm.	4121	at	1.00		4121.00	each	72.50	298772.50
32	8.60	Providing and fixing bright finished brass sliding door bolt with nuts and brass polished MS screws complete:								
	8.60.1	300x16mm	42				42.00	each	475.00	19950.00
36	8.120	Providing and fixing alluminium sliding door bolt with 16 mm rod, necessary nickle plate iron nuts bolts and screw etc complete								
	8.120.2	250x16mm	12				12.00	each	141.00	1692.00
37	8.121	Providing and fixing alluminium door Latch with 12 mm rod, necessary nickle plate iron nuts bolts and screw etc complete door bolt with nuts and brass polished MS screws complete:								
	8.121.2	250x12mm	12				12.00	each	51.50	618.00
38	8.61	Providing and fixing brass door latch with brass polished MS screws complete:								
	8.61.1	300x16x5 mm	42				42.00	each	398.00	16716.00
39	8.62	Providing and fixing bright finished brass tower bolts (barrel type) with brass polished MS screws complete:								
	8.62.1	250x10mm	34				34.00	each	276.00	9384.00
	8.62.3	150x10mm	8				8.00	each	176.00	1408.00
		(Toilet door)								
40	8.65	Providing and fixing bright finished brass door handles with brass polished MS screws complete:								
	8.65.1	125 mm	84				84.00	each	55.50	4662.00
41	8.123	Providing and fixing alluminium door handles 2.5 mm thick with necessary nickel plates iron screw etc complete								
	8.123.1	150 mm	12				12.00	each	30.50	366.00
42	8.58	Providing and fixing bright finished brass butt hinges with brass polished MS screws complete:								
	8.58.1	125x85x5.50 mm (Heavy Type)	102				102.00	each	245.00	24990.00
43		Providing and fixing chicken mesh weighting not less than 250 gms/sqm as per IS : specification in the required width with 40mm long steel nails on vertical and horizontal surface near R.C.C. and brick walls junctions including scaffolding and all lead and lifts etc. complete before plastering upto 10mts in height.								

**DETAIL ESTIMATE FOR CIVIL CONSTRUCTION OF
PROPOSED "G" TYPE QUARTERS FOR IRRIGATION UNDER REDEVELOPEMENT WORK AT KATGHORA
(KORBA) C.G.(SITE II)**

S. No.	I. No.	PARTICULAR	Measurement				QTY	UNIT	RATE	AMOUNT
			NO	L	B	D/H				
	11.41									
		Ground to second floor								
		Beam	2	2.00	180.00	0.30	216.00			
		Column	68	4.00	3.00	0.30	244.80			
							460.80	sqm	86.00	39628.80
44	12.74-AME	Providing and fixing rectified glazed ceramic floor tiles of 1st quality conforming to IS : 15622-2017 of approved make in all colours, shades over 20 mm thick bed of Cement Mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @3.3 kg per sqm including poing in white cement mixed with matching pigment complete.								
	12.74.1	Size 300x300 mm thickness 7 to 8 mm								
		Ground floor								
		Toilet	4	2.40	1.30		12.48			
		utility	2	4.10	1.20		9.84			
		balcony	2	2.00	1.00		4.00			
		balcony	2	2.35	1.00		4.70			
		skirting-utility	2	10.60	0.10		2.12			
		balcony	2	6.00	0.10		1.20			
		balcony	2	6.70	0.10		1.34			
			ground floor				23.20	x		
			first floor same as ground floor				23.20	y		
							46.40	sqm	779.00	36145.60
45	12.75-AME	Providing and fixing rectified glazed ceramic wall / dado tiles of 1ST quality conforming to IS : 15622 of approved make,in all colours, shades on wall and dados over 12 mm thick bed of cement Mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm including pointing in white cement mixed with matching pigment complete.								
	12.75.1	Size 300x450 mm thickness 7 to 8 mm								
		Ground floor								
		Toilet	8	2.40		2.10	40.32			
			8	1.30		2.10	21.84			
		Above Platform	2	4.50		0.75	6.75			
		Deduction	-4	0.75		2.10	-6.30			
			ground floor				62.61	x		
			first floor same as ground floor				62.61	y		
							125.22	sqm	710.00	88906.20
46	Amenment 12.79	Providing and laying DOUBLE/MULTI CHARGE (minimum 2.0 mm thick layer) vitrified floor tiles with water absorption less than 0.5% and conforming to IS : 15622 of approved make in all colours and shades and size mentioned below (+/- 10mm), laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand) including grouting the joints with white cement and matching pigments etc. complete.								
	12.79.1	Size 600x600mm thickness 9 to 10mm								
		Ground floor								
		Living	2	3.30	5.90		38.94			
		Bed room	2	3.40	3.30		22.44			
		Almirah	2	1.60	0.60		1.92			
		Bed room	2	3.40	3.20		21.76			
		Front of Toilet	2	2.70	1.90		10.26			
		kitchen	2	2.30	3.30		15.18			
		Skirting								

DETAIL ESTIMATE FOR CIVIL CONSTRUCTION OF PROPOSED "G" TYPE QUARTERS FOR IRRIGATION UNDER REDEVELOPEMENT WORK AT KATGHORA (KORBA) C.G.(SITE II)										
S. No.	I. No.	PARTICULAR	Measurement				QTY	UNIT	RATE	AMOUNT
			NO	L	B	D/H				
		Living	2	18.40		0.10	3.68			
		Bed room	2	13.40		0.10	2.68			
		Almirah	2	4.40		0.10	0.88			
		Bed room	2	13.20		0.10	2.64			
		Front of Toilet	2	9.20		0.10	1.84			
		kitchen	2	11.20		0.10	2.24			
		Common Lobby	1	5.10	1.20		6.12			
		below stair	1	5.50	2.50		13.75			
		front	1	1.60	1.00		1.60			
		Skirting	1	12.60		0.1	1.26			
		Skirting	4	16.00		0.1	6.40			
		front	1	5.20		0.1	0.52			
		Door sill-CG	1	1.60		0.2	0.32			
		D	2	1.00		0.2	0.40			
		D1	10	0.90		0.2	1.80			
		D2	4	0.75		0.2	0.60			
		TD	1	0.90		0.2	0.18			
			ground floor				3.82	x		
			first floor same as ground floor				3.82	y		
							7.64	sqm	1082.00	8266.48
47	12.46	15 mm thick Table rubbed polished Granite stone slab in risers and treads of steps skirting dado and pillars laid on 12mm (average) thick base of cement mortar 1:3 (1 cement : 3 coarse sand) and jointed with grey cement slurry including rubbing and polishing etc. complete (single stone is to be used for risers and treads of steps and width of stone for skirting and dado shall be equal to the height of skirting & dado and length of 1.0 m).								
	12.46.1	Granite stone grey/pink								
		Ground to Terrace								
		Steps Riser	40	1.40		0.15	8.40			
		Midlanding	3	2.80	1.30		10.92			
		Steps treads	40	1.40	0.30		16.80			
		Landing	1	2.80	1.40		3.92			
		Skirting								
		Steps & Landing	40	0.60		0.10	2.40			
			1	5.40		0.10	0.54			
			1	2.80		0.10	0.28			
		Front step	3	1.60	0.30		1.44			
			4	1.60		0.15	0.96			
			ground floor				5.62	x		
			first floor same as ground floor				5.62	y		
							11.24	sqm	1869.00	21007.56
48	12.44	Extra for nosing in Granite stone for treads.								
			40	1.40			56.00			
			3	1.60			4.80			
			ground floor				77.66	x		
			first floor same as ground floor				77.66	y		
							155.32	sqm	126.00	19570.32

**DETAIL ESTIMATE FOR CIVIL CONSTRUCTION OF
PROPOSED "G" TYPE QUARTERS FOR IRRIGATION UNDER REDEVELOPEMENT WORK AT KATGHORA
(KORBA) C.G.(SITE II)**

S. No.	I. No.	PARTICULAR	Measurement				QTY	UNIT	RATE	AMOUNT
			NO	L	B	D/H				
49	13.6	15mm thick Granite work (machine cut, table rubbed & mirror polished) for kitchen platform, vanity counters, window sills and similar locations of required size laid over 20mm thick base cement mortar 1:4 (1 cement : 4 coarse sand) including joints treated with white cement mixed with matching pigment including rubbing and polishing to edge moulding to give high gloss finish.								
	13.6.1	Granite stone grey/pink								
		Ground floor								
		Above Platform	2	3.90	0.60		4.68			
			2	3.90	0.12		0.94			
			ground floor				5.62	x		
			first floor same as ground floor				5.62	y		
							11.23	sqm	2466.00	27698.11
50	11.1	Providing and making 6mm thick cement plaster of mix:								
	11.1.2	In Cement mortar 1:4 (1 cement : 4 fine sand)								
		Ground Floor								
		Living & dining	2	3.30	5.90		38.94			
		Bed room	2	3.40	3.20		21.76			
		Kitchen	2	2.30	3.30		15.18			
		Bed room	2	3.40	3.30		22.44			
		Almirah	2	1.60	0.60		1.92			
		Toilet & Passage	2	4.40	2.70		23.76			
		Lobby	1	6.20	1.20		7.44			
		Staircase W/slab	2	2.85	1.20		6.84			
		Midlanding	1	2.80	1.30		3.64			
		Landing	1	2.80	1.40		3.92			
		Chhajja								
		front gate	2	2.00	0.60		2.40			
		w	20	1.70	0.60		20.40			
		w stair	4	1.70	0.60		4.08			
		w1	4	1.30	0.60		3.12			
		w2	4	1.50	0.60		3.60			
		v	8	1.00	0.60		4.80			
		Kitchen platform	2	3.90	0.60		4.68			
			2	3.30	0.60		3.96			
			ground floor				192.88	x		
			first floor same as ground floor				192.88	y		
		Terrace floor								
		Tower Slab	1	2.50	5.40		13.50			
			1	6.20	1.20		7.44			
		Chhajja	2	2.50	0.75		3.75			
							410.45	sqm	87.00	35709.15
51	11.2	Providing and making 12mm thick cement plaster of mix:								
	11.2.2	In Cement Mortar 1:4 (1 cement : 4 fine sand)								
		Ground Floor								
		Living & Dining	4	3.30		3.00	39.60			
			4	5.90		3.00	70.80			
		Bed room	4	3.40		3.00	40.80			
			4	3.20		3.00	38.40			
		Toilet	8	1.30		3.00	31.20			
			8	2.40		3.00	57.60			
		Front wall of toilet	2	2.70		3.00	16.20			
			4	0.90		3.00	10.80			
		Bed room	4	3.40		3.00	40.80			

<p align="center">DETAIL ESTIMATE FOR CIVIL CONSTRUCTION OF PROPOSED "G" TYPE QUARTERS FOR IRRIGATION UNDER REDEVELOPEMENT WORK AT KATGHORA (KORBA) C.G.(SITE II)</p>										
S. No.	I. No.	PARTICULAR	Measurement				QTY	UNIT	RATE	AMOUNT
			NO	L	B	D/H				
			4	3.30		3.00	39.60			
			4	0.60		3.00	7.20			
		Kitchen	4	2.20		3.00	26.40			
			4	3.30		3.00	39.60			
		kitchen pf	32	0.60		0.80	15.36			
		Utility	4	1.20		3.00	14.40			
			2	4.10		0.90	7.38			
		balcony	4	1.00		0.90	3.60			
			2	2.35		0.90	4.23			
		balcony	4	1.00		0.90	3.60			
			2	2.00		0.90	3.60			
		Staircase	1	2.50		3.00	7.50			
			2	5.40		3.00	32.40			
		Looby	2	1.20		3.00	7.20			
			1	5.10		3.00	15.30			
						(A)	573.57			
		Deduct 50% opening								
		CG	1	2.50	0.50	2.10	2.63			
		D	4	1.00	0.50	2.10	4.20			
		D1	16	0.90	0.50	2.10	15.12			
		D1	6	0.90	0.50	2.10	5.67			
		D2	6	0.70	0.50	2.10	4.41			
		Window- w	10	1.20	0.50	1.20	7.20			
		w stair	1	1.20	0.50	1.20	0.72			
		w1	2	0.80	0.50	1.20	0.96			
		w2	4	1.00	0.50	1.20	2.40			
		V	6	0.60	0.50	0.60	1.08			
						(B)	44.39			
		Ground Floor				(A-B)	529.19	sqm		
			ground floor				529.19	x		
			first floor same as ground floor				529.19	y		
		Terrace Floor								
		Tower	1	2.80		2.40	6.72			
			2	5.40		2.40	25.92			
			2	1.70		2.40	8.16			
			2	1.20		2.40	5.76			
			1	6.20		2.40	14.88			
		Parapet wall	1	76.90		1.10	84.59			
		Parapet wall	1	17.40		0.50	8.70			
		top	1	94.30		0.20	18.86			
						(A)	173.59			
		Deduct 50% opening	1	0.90	0.50	2.10	0.95			
						(B)	0.95			
						(A-B)	172.65	z		
		Total 12mm Plaster			x+y+z		1231.02	Sqm	103.00	126794.55
52	11.3	Providing and making 15mm thick cement plaster on the rough side of single or half brick wall of mix:								
	11.3.2	In Cement Mortar 1:4 (1 cement : 4 fine sand)								
		Outer wall	1	76.90		4.50	346.05			
		Tower wall	1	17.40		2.70	46.98			
		Utility	4	1.40		0.90	5.04			
			2	4.50		0.90	8.10			
		balcony	4	1.20		0.90	4.32			
			2	2.75		0.90	4.95			
		balcony	4	1.20		0.90	4.32			
			2	2.40		0.90	4.32			

**DETAIL ESTIMATE FOR CIVIL CONSTRUCTION OF
PROPOSED "G" TYPE QUARTERS FOR IRRIGATION UNDER REDEVELOPEMENT WORK AT KATGHORA
(KORBA) C.G.(SITE II)**

S. No.	I. No.	PARTICULAR	Measurement				QTY	UNIT	RATE	AMOUNT
			NO	L	B	D/H				
						(A)	424.08			
		Deduct 50% opening								
		Window- w	10	1.20	0.50	1.20	7.20			
		w stair	1	1.20	0.50	1.20	0.72			
		w1	2	0.80	0.50	1.20	0.96			
		w2	4	1.00	0.50	1.20	2.40			
		V	6	0.60	0.50	0.60	1.08			
						(B)	12.36			
		Ground Floor				(A-B)	411.72	sqm		
			ground floor				411.72	x		
			first floor same as ground floor				411.72	y		
		Terrace Floor								
		Tower wall	2	2.90		2.40	13.92			
			2	5.40		2.40	25.92			
		Parapet wall	1	76.90		0.90	69.21			
			1	17.40		0.50	8.70			
						(A)	117.75			
		Deduct 50% opening	1	0.90	0.50	2.10	0.95			
						(B)	0.95			
		Terrace Floor				(A-B)	116.81	z		
		Total 15mm Plaster				x+y+z	940.25	sqm	120.00	112829.40
	14.12	Applying one coat of cement primer on wall surface (applied @ 0.80 litres/10 sqm) complete.								
		As per 6mm Plaster					410.45			
		As per 12mm Plaster					1231.02			
							1641.47	sqm	23.00	37753.70
53	14.13	Providing and applying 2mm thick ready mix exterior grade approved make putty (like Birla wall care, Alltek Superfine W/R of (NCL), Asian, ICI, Nerolac, J.K. wall putty) on walls to make the surface smooth and even.								
		As per 6mm Plaster					410.45			
		As per 12mm Plaster					1231.02			
							1641.47	sqm	94.50	155118.44
54	14.11	Wall painting with acrylic luxury emulsion (plastic) paint of required shade to give an even shade.								
	14.11.1	On new work (two or more coats)								
		As per 6mm Plaster					410.45			
		As per 12mm Plaster					1231.02			
		Total					1641.47	sqm	52.50	86176.91
55	14.15	Painting exterior surface with ACRYLIC SMOOTH exterior paint of required shade as per manufacturer's specifications to give protective and decorative finish including cleaning washing of surface etc. complete with:								
	14.15.1	On new work (Two or more coats applied @ 1.43 ltr/ 10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/ 10 sqm)								
		As per 15mm Plaster					940.25	sqm	56.00	52653.72

DETAIL ESTIMATE FOR CIVIL CONSTRUCTION OF PROPOSED "G" TYPE QUARTERS FOR IRRIGATION UNDER REDEVELOPEMENT WORK AT KATGHORA (KORBA) C.G.(SITE II)										
S. No.	I. No.	PARTICULAR	Measurement				QTY	UNIT	RATE	AMOUNT
			NO	L	B	D/H				
56	9.57	Providing stainless steel railing/ grill made of S.S. flats, hollow S.S. pipe or square/ rectangular sections of approved design fixing in stair case, balcony or other places with metal fasteners and stainless steel bolts etc complete.								
	9.57.1	SS Grade 204	1	20.00	10.00	1.00	200.00	kg	467.00	93400.00
57	14.22	Painting on new work (two or more coats) to give an even shade with:								
	14.22.2	Premium synthetic enamel paint								
		Window Grill			Fac.					
		W	20	1.20	1.35	1.20	38.88			
		W	4	1.20	1.35	1.20	7.78			
		W1	4	0.80	1.35	1.20	5.18			
		W2	4	1.00	1.35	1.20	6.48			
		V	8	0.60	1.35	1.20	7.78			
		main gate	2	1.60	1.35	2.10	9.07			
		Tower door	2	0.90	1.35	2.10	5.10			
			ground floor				80.27	x		
			first floor same as ground floor				80.27	y		
							160.54	sqm	47.00	7545.47
58	10.41	Providing gola 75x75 mm in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 stone aggregate 10mm and down grade) including finishing with cement mortar 1:3 (1 cement : 3 fine sand) as per standard design :								
		Ground Floor								
		Chhajja								
		front gate	1	2.00			2.00			
		w	10	1.70			17.00			
		w stair	2	1.70			3.40			
		w1	2	1.30			2.60			
		w2	2	1.50			3.00			
		v	4	1.00			4.00			
			ground floor				32.00	x		
			first floor same as ground floor				32.00	y		
		Terrace								
		Chhajja	1	2.50			2.50			
		Parapet wall	1	76.90			76.90			
		Parapet wall	1	17.40			17.40			
							160.80	metre	68.00	10934.40
59	11.5	Neat Cement punning.								
		Ground Floor								
		front gate	1	2.00	0.60		1.20			
		w	10	1.70	0.60		10.20			
		w stair	2	1.70	0.60		2.04			
		w1	2	1.30	0.60		1.56			
		w2	2	1.50	0.60		1.80			
		v	4	1.00	0.60		2.40			
			ground floor				19.20	x		
			first floor same as ground floor				19.20	y		
		Terrace Floor								
		Chhajja								
		Parapet wall	1	76.90	0.30		23.07			
		Parapet wall	1	17.40	0.30		5.22			
							66.69	sqm	33.00	2200.77
60	4.13	Grading roof for water proofing treatment with:								

DETAIL ESTIMATE FOR CIVIL CONSTRUCTION OF PROPOSED "G" TYPE QUARTERS FOR IRRIGATION UNDER REDEVELOPEMENT WORK AT KATGHORA (KORBA) C.G.(SITE II)										
S. No.	I. No.	PARTICULAR	Measurement				QTY	UNIT	RATE	AMOUNT
			NO	L	B	D/H				
	4.13.1	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)								
		Terrace	1	167.44	sqm	0.050	8.37	cum	3817.00	31955.92
61	11.32	Providing and making 18 mm thick plain cement mortar band in cement mortar 1:4 (1 cement : 4 fine sand) per cm width:								
	11.32.4	Drip course								
		front gate	1	3.20			3.20			
		w	10	2.90			29.00			
		w stair	2	2.90			5.80			
		w1	2	2.50			5.00			
		w2	2	2.70			5.40			
		v	4	2.20			8.80			
		ground floor					57.20	x		
		first floor same as ground floor					57.20	y		
		Terrace								
		Chhajja	1	4.10			4.10			
							118.50	metre	3.60	426.60
62	11.4	Making grove in cement plaster while plastering upto10 mm deep and 10 mm wide.								
			1	150.00			150.00			
							150.00	metre	1.30	195.00
63	3.16	Making 50mm thick plinth protection of plain cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded crushed stone aggregate 20mm nominal size) over 75mm bed of dry brick ballast 40mm nominal size well rammed and consolidated and grouted with sand including finishing the top smooth.								
			1	90.00	1.20		108.00			
							108.00	SQM	273.00	29484.00
64	11.9	Extra for providing and mixing water proofing materials in cement plaster work in proportion as recommended by manufacturer.								
		external plaster qty,1kg for 4 sqm	1	940.25	0.25		235.06			
							235.06	kg	43.50	10225.16
65	8.9	Providing and fixing 35mm thick glazed shutter frames for windows, clerestory windows, ventilators etc. using glass panes including M.S. butt hinges with necessary screws but excluding glass panes. (Area of shutter to be measured without deducting paneling area).								
	8.9.1	Teak wood								
		Door	4	1.20		2.100	10.08	sqm	3017.00	30411.36
66	8.22	Providing and fixing paneling in paneled or paneled and glazed shutters for doors etc. (only area of paneling to be measured). Paneling for or paneled and glazed shutters 25 mm to 40 mm thick:								
	8.22.1	Teak wood (16mm thick panel)								
		Door	4	1.20	0.500	2.100	5.04	sqm	1842.00	9283.68

**DETAIL ESTIMATE FOR CIVIL CONSTRUCTION OF
PROPOSED "G" TYPE QUARTERS FOR IRRIGATION UNDER REDEVELOPEMENT WORK AT KATGHORA
(KORBA) C.G.(SITE II)**

S. No.	I. No.	PARTICULAR	Measurement				QTY	UNIT	RATE	AMOUNT
			NO	L	B	D/H				
67	8.24	Providing and fixing 30mm thick wire gauge shutter having top and style rail 95mm width, bottom and lock rail 197mm width, using galvanized M.S. wire dia of 0.45mm for doors, windows, clerestory windows excluding hinges.								
	8.24.1	Teak Wood								
		Door	4	1.20		2.100	10.08	sqm	2477.00	24968.16
								Total		5351171.00

Sub Engineer
Chhattisgarh Housing & Infrastructure
Development Board
Division -Korba

Assistant Engineer
Chhattisgarh Housing & Infrastructure
Development Board
Division -Korba

Executive Engineer
Chhattisgarh Housing & Infrastructure
Development Board
Division -Korba

ESTIMATE FOR WATER SUPPLY AND SANITARY WORK OF G-TYPE FOR IRRIGATION UNDER REDEVELOPEMENT WORK AT KATGHORA (KORBA) C.G.(SITE II)

Item No.	Nomenclature(Particulars)	Unit	S.O.R. Rate	Qty	Amount
1	2	3	4	5	6
1					
19.5	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge. CONCEALED WORK including cutting chases and making good the walls	r/m	133.00	80.00	10640.00
19.5.1	15 mm nominal outer dia .Pipes.				
2					
19.5	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge. CONCEALED WORK including cutting chases and making good the walls	r/m	167.00	80.00	13360.00
19.5.2	20 mm nominal outer dia .Pipes.				
3					
19.5	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge. CONCEALED WORK including cutting chases and making good the walls	r/m	284.00	50.00	14200.00
19.5.4	32 mm nominal outer dia .Pipes.				
4	Item No. 18.76.1				
	Providing and fixing on wall face or under floor UV stabilized Unplasticised Rigid PVC pipes (single socketed) having 3.2mm wall thickness conforming to IS : 13592 (4kg/sqcm) including required couplers, jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansion etc complete. a. 75mm dia	r/m	182.00	50.00	9100.00
5	Item No. 18.76.2				
	Providing and fixing on wall face or under floor UV stabilized Unplasticised Rigid PVC pipes (single socketed) having 3.2mm wall thickness conforming to IS : 13592 (4kg/sqcm) including required couplers, jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansion etc complete. s b. 110mm dia	r/m	267.00	40.00	10680.00
6	Item No. 18.77.1.1				

Item No.	Nomenclature(Particulars)	Unit	S.O.R. Rate	Qty	Amount
1	2	3	4	5	6
	Providing and fixing PVC fitting for pipes for soil waste / rain water drainage disposal of superior Indian Make Finolex / Supreme including jointing with rubber ring adhesive lubricant, solvent cement etc. complete. G- Tee with Door (a) 75mm dia	no	113.00	14.00	1582.00
7	Item No. 18.77.1.2				
	Providing and fixing PVC fitting for pipes for soil waste / rain water drainage disposal of superior Indian Make Finolex including jointing with rubber ring adhesive lubricant, solvent cement etc. complete. G- Tee with Door (b) 110mm dia	no	154.00	14.00	2156.00
8	Item No. 18.77.1.1				
	Providing and fixing PVC fitting for pipes for soil waste / rain water drainage disposal of superior Indian Make Finolex including jointing with rubber ring adhesive lubricant, solvent cement etc. complete. E- Plain Bend of 87.5 degree (a) 75mm dia Make:	no	113.00	8.00	904.00
9	Item No. 18.77.1.2				
	Providing and fixing PVC fitting for pipes for soil waste / rain water drainage disposal of superior Indian Make Finolex including jointing with rubber ring adhesive lubricant, solvent cement etc. complete. E- Plain Bend of 87.5 degree (b) 110mm dia Make:	no	154.00	8.00	1232.00
10	Item No. 18.77.6				
	Providing and fixing PVC fitting for pipes for soil waste / rain water drainage disposal of superior Indian Make Finolex / Supreme including jointing with rubber ring adhesive lubricant, solvent cement etc. complete. O- Nahani Trap (b) 63mm dia	no	90.50	22.00	1991.00
11	Item No. 19.15				
	Providing and fixing stainless steel Nahani trap jali of approved make/quality.	no	51.00	22.00	1122.00
12	Item No. 18.77.1.1				
	Providing and fixing PVC fitting for pipes for soil waste / rain water drainage disposal of superior Indian Make Finolex including jointing with rubber ring adhesive lubricant, solvent cement etc. complete. C- Bend with door of 87.5 degree a. 75mm dia	no	113.00	8.00	904.00
13	Item No. 18.77.1.2				
	Providing and fixing PVC fitting for pipes for soil waste / rain water drainage disposal of superior Indian Make Finolex including jointing with rubber ring adhesive lubricant, solvent cement etc. complete. C- Bend with door of 87.5 degree b. 110mm dia	no	154.00	8.00	1232.00
14	Item No.18.77.3.2				
	Providing and fixing PVC fitting for pipes for soil waste / rain water drainage disposal of superior Indian Make Finolex / Supreme including jointing with rubber ring adhesive lubricant, solvent cement etc. complete. N- Vent Cowel (b) 110mm dia	no	44.00	4.00	176.00

Item No.	Nomenclature(Particulars)	Unit	S.O.R. Rate	Qty	Amount
1	2	3	4	5	6
15	Item No. 19.16.1				
	Providing and fixing in position best Indian make gun metal high pressure full way or Gate valve (peets Pattren) with iron wheel head complete.	no	436.00	14.00	6104.00
16	Item No. 19.16.4				
	Providing and fixing in position best Indian make gun metal high pressure full way or Gate valve (peets Pattren) with iron wheel head complete.	no	762.00	8.00	6096.00
17	Item No. 18.1.3				
	Providing and fixing water closet squatting pan (Indian type W.C. pan), 100mm sand cast Iron P or S trap, 10 litre low level P.V.C. flushing cistern (same colour) conforming to IS : 7231, with flush bend and other fittings and fixtures complete including cutting and making good the walls and floors wherever required : White Orissa pattern W.C. pan of size 580x440 mm.	no	2899.00	4.00	11596.00
18	Item No. 18.4.3				
	Providing and fixing vitreous china water closet (European type W.C. pan) with white ISI marked plastic seat and lid, 10 litre low level white P.V.C. flushing cistern (same colour), conforming to IS : 7231, with all fittings and fixtures complete including cutting and making good the walls and floors wherever required : White pedestal type (Hindware / Parryware)	no	4415.00	4.00	17660.00
19	Item No. 18.17.2				
	Providing and fixing vitreous china wash basin with C.I. brackets, 32 mm C.P. brass waste of standard pattern, including painting of brackets, cutting and making good the walls wherever required : i) Flat Back (White) - 550X400 mm	no	1408.00	12.00	16896.00
20	18.22.2				
	Providing and fixing Stainless Steel A ISI 304 (18/8) kitchen sink without drain board as per IS 13983 with C.I. brackets and stainless steel plug 40 mm including painting of fittings and brackets, cutting and making good the walls wherever required :- A waste pipe upto nahni trap.560x410 mm bowl depth 215 mm.	no	6210.00	4.00	24840.00
21	Item No. 19.14.1				

Item No.	Nomenclature(Particulars)	Unit	S.O.R. Rate	Qty	Amount
1	2	3	4	5	6
	Providing and fixing 15 mm nominal bore C.P. brass fittings of approved make and conforming to IS:8931 including C.P. brass extension if required:Short nose Bib cock (400 grams)	no	382.00	8.00	3056.00
22	Item No. 19.14.2				
	Providing and fixing 15 mm nominal bore C.P. brass fittings of approved make and conforming to IS:8931 including C.P. brass extension if required:Long Nose Bib cock (500 grams)	no	455.00	8.00	3640.00
23	Item No. 19.14.4				
	Providing and fixing 15 mm nominal bore C.P. brass fittings of approved make and conforming to IS:8931 including C.P. brass extension if required:Filler Cock (400 grams)	no	398.00	12.00	4776.00
24	Item No. 19.14.10				
	Providing and fixing 15 mm nominal bore C.P. brass fittings of approved make and conforming to IS:8931 including C.P. brass extension if requiredWall mixer with elegant knob (1400 grams)	no	1787.00	4.00	7148.00
25	Item No. 19.14.10				
	Providing and fixing 15 mm nominal bore C.P. brass fittings of approved make and conforming to IS:8931 including C.P. brass extension if requiredHand shower set with arm	no	754.00	8.00	6032.00
26	Item No. 19.14.19				
	Providing and fixing 15 mm nominal bore C.P. brass fittings of approved make and conforming to IS:8931 including C.P. brass extension if required Health foscet (hand jet) with flexible connection pipe (for WC)	no	774.00	4.00	3096.00
27	Item No. 19.14.7				
	Providing and fixing 15 mm nominal bore C.P. brass fittings of approved make and conforming to IS:8931 including C.P. brass extension if required Angle valve for basin mixer and geyser points (450 grams)	no	382.00	8.00	3056.00
28	Item No. 19.14.14				

Item No.	Nomenclature(Particulars)	Unit	S.O.R. Rate	Qty	Amount
1	2	3	4	5	6
	Providing and fixing 15 mm nominal bore C.P. brass fittings of approved make and conforming to IS:8931 including C.P. brass extension if required Soap dish plate	no	163.00	16.00	2608.00
29	Item No. 19.14.16				
	Providing and fixing 15 mm nominal bore C.P. brass fittings of approved make and conforming to IS:8931 including C.P. brass extension if required Towel rail (600mm long x 20mm dia)	no	338.00	8.00	2704.00
30	Item No. 20.3.2				
	Providing and fixing square-mouth S.W. gully trap grade 'A' complete with C.I. grating brick masonry chamber with well burnt modular clay bricks crushing strength not less than 35kg/cm ² , water tight C.I. cover with frame of 300 x300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design : 150 x 100 mm size P type.	no	1397.00	4.00	5588.00
31	Item No. 19.6.9				
	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings. This included jointing of pipes & fittings with one step CPVC solvent cement, trenching, refilling & testing of joints complete including excavation of trench up to 1.5 Mtr. Depth Laying 15 cm thick and 40 cm wide CC 1:5:8 with all jointing material coupler etc including testing refilling of soil etc. complete. (Make - Finolex / Astral) a) 100 mm dia (c.c. base 30cm wide)	RMT	2325.00	16.00	37200.00
32	Item No. 19.42				
	Providing and placing on terrace (at all floor levels) polyethylene water storage tank ISI : 12701 marked with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank				
		Litre	7.30	4000.00	29200.00
	TOTAL AMOUNT OF WATER SUPPLY			Total Rs.	260575.00

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Item No.	Nomenclature(Particulars)	Unit	S.O.R. Rate	Qty	Amount
1	2	3	4	5	6

**ESTIMATE OF INTERNAL ELECTRIFICATION WORK FOR PROPOSED 01 BLOCK (04 UNITS)
G-TYPE HOUSES FOR GAD QUARTERS UNDER REDEVELOPMENT SCHEME AT KATGHORA
(SITE-2), DISTT-KORBA (C.G.)**

S.No.	SOR Item no.	PARTICULARS	UNIT	RATE	QTY.			TOTAL QTY.	AMOUNT
					For Each Flat	For 04 Nos. Flat	For Common Area		
01	1.7	Wiring for light/fan/exhaust fan/call bell point with 3x1.5 sqmm FRLS PVC insulated stranded copper conductor single core wire for phase, neutral and earth in concealed FRLS PVC conduit, with 5/6 amp modular switch, modular base and cover plate, suitable size G.I. box as per specification.							
	1.7.1	Short Point	Point	266.00	06	24	01	25	6650.00
	1.7.2	Medium Point	Point	424.00	09	36	04	40	16960.00
	1.7.3	Long Point	Point	588.00	11	44	08	52	30576.00
02	1.8	Wiring for twin control light point with 3x1.5 sqmm FRLS PVC insulated stranded copper conductor wire for phase, neutral and earth in concealed FRLS PVC conduit (heavy duty, thickness of pipe should be 2 mm) with 5/6 amp modular switch, modular base and cover plate, suitable size G.I. box as per specification and IS: 694 (2010), IS: 9537 (2000 Part 5)	Point	420.00	04	16	04	20	8400.00
03	1.9	Extra for providing and fixing light plug point on board in concealed FRLS PVC conduit point wiring with modular type 3 pin 5/6 amp socket outlet and 5/6 amp switch including cost of base and cover plate and G.I. box etc. as per specification.	Point	216.00	08	32	00	32	6912.00
04	1.10	Wiring for light plug point with 3x2.5 sqmm FRLS PVC insulated stranded copper conductor wire for phase, neutral and earth in concealed FRLS PVC conduit along with modular type 6 Amp switch and 3 pin 6 amps socket outlet with modular base and cover plate, suitable size G.I. box, earthing the switch box and socket outlet with same size wire etc.							
	1.10.1	Short Point	Point	442.00	02	08	00	08	3536.00
	1.10.2	Medium Point	Point	659.00	03	12	00	12	7908.00
	1.10.3	Long Point	Point	922.00	05	20	00	20	18440.00
05	1.11	Wiring for power plug point with 3x4 sq mm FRLS PVC insulated stranded copper conductor wire for phase, neutral and earth in concealed FRLS PVC conduit (heavy duty, thickness of pipe should be 2 mm) along with modular type 16 Amp switch and 6 pin 16 amps socket outlet with modular base and cover plate, suitable size G.I. box, earthing the switch box and socket outlet with same size wire etc. as per specification and IS: 694 (2010), IS: 9537 (2000 Part 5)							
	1.11.3	Long Point	Point	1350.00	02	08	00	08	10800.00

S.No.	SOR Item no.	PARTICULARS	UNIT	RATE	QTY.			TOTAL QTY.	AMOUNT
					For Each Flat	For 04 Nos. Flat	For Common Area		
	1.11.4	Extra Long Point I	Point	1807.00	02	08	00	08	14456.00
	1.11.5	Extra Long Point II	Point	2315.00	02	08	00	08	18520.00
06	1.13	Wiring for circuit/ sub main wiring along with earth wire with the following sizes of FRLS PVC insulated copper conductor, wire in concealed FRLS PVC conduit (heavy duty, thickness of pipe should be 2 mm) as per specification and IS: 694 (2010), IS: 9537 (2000 Part 5)							
	1.13.2	3 X 2.5 sq. mm in 20 mm conduit	Mtr	111.00	55.00	220.00	40.00	260.00	28860.00
	1.13.3	6 X 2.5 sq. mm in 25 mm conduit	Mtr	172.00	23.00	92.00	10.00	102.00	17544.00
	1.13.4	9 X 2.5 sq. mm in 32mm conduit	Mtr	238.00	18.00	72.00	0.00	72.00	17136.00
	1.13.14	6 X 10 sq. mm in 40mm conduit	Mtr	515.00	25.00	100.00	0.00	100.00	51500.00
07	1.15	Supplying and fixing of following sizes FRLS PVC conduit (heavy duty, thickness of pipe should be 2 mm) along with accessories in concealed complete as per specification and IS: 9537 (2000 Part 5)							
	1.15.2	25 mm	Mtr	53.00	40.00	160.00	0.00	160.00	8480.00
08	3.11	Supplying and drawing following sizes of FRLS PVC insulated copper conductor, multi strand wire in the existing surface/ concealed, FRLS PVC conduit / PVC casing capping as per specification and IS: 694 (2010)							
	3.11.3	3 x 1.5 sq. mm	Mtr.	37.00	0.00	0.00	180.00	180.00	6660.00
	3.11.11	1 x 2.5 sq. mm	Mtr	22.00	70.00	280.00	0.00	280.00	6160.00
	3.11.21	1 x 4 sq. mm	Mtr	30.00	20.00	80.00	0.00	80.00	2400.00
09	3.13	Supplying and drawing following grade co-axial TV wire FRLS PVC insulated, shielded with fine tinned copper braid and protected with PVC sheath in the existing surface/ concealed Steel/PVC conduit as per specification and IS: 694 (2010)							
	3.13.1	RG-6 grade	Mtr	14.00	30.00	120.00	0.00	120.00	1680.00
10	4.4	Supplying and fixing following size/ modules, GI box along with modular base & cover plate for modular switches in recess etc as per specification.							
	4.4.1	75mmX75mm (1/2 Module)	Each	99.00	03	12	00	12	1188.00
11	5.4	Supplying and fixing following modular switch, socket, other accessories on the existing modular plate & switch box including connections but excluding modular plate etc. as per specification.							
	5.4.4	15/16 amp switch	Each	89.00	01	04	00	04	356.00
	5.4.6	6 pin 15/16 amp socket outlet	Each	120.00	01	04	00	04	480.00

S.No.	SOR Item no.	PARTICULARS	UNIT	RATE	QTY.			TOTAL QTY.	AMOUNT
					For Each Flat	For 04 Nos. Flat	For Common Area		
	5.4.9	Fan regulator (Two module size) electronic stepped type moving all rounds	Each	223.00	04	16	00	16	3568.00
	5.4.11	Plug Top (Deluxe type) 3 pin 16 Amps (For power plug).	Each	85.00	01	04	00	04	340.00
	5.4.16	T.V. antenna socket outlet	Each	74.00	02	08	00	08	592.00
	5.4.17	Computer Outlet Jack	Each	242.00	01	04	00	04	968.00
	5.4.22	Batten/ angle holder	Each	41.00	06	24	00	24	984.00
	5.4.23	Blanking plate	Each	28.00	08	32	05	37	1036.00
12	5.9	Providing and fixing round/ hexagonal fan box (125mm dia) depth 75mm (max.) with 12mm dia steel bar hook, 1.6mm thick MS sheet cover, in RCC slab etc. as per specification.	Each	42.00	04	16	00	16	672.00
13	6.4	Supply, Installation, Testing and Commissioning of 1200 mm sweep, BEE 5 star rated, ceiling fan with Brush Less Direct Current (BLDC) Motor, class of insulation: B, 3 nos. blades, 30 cm long down rod, 2 nos. canopies, shackle kit, safety rope, copper winding, Power Factor not less than 0.9, Service Value (CMM/W) minimum 6.85, Air delivery minimum 215 CMM, 350 RPM (tolerance as per IS : 374-2019), THD less than 10%, remote or electronic regulator unit for speed control and all remaining accessories including safety pin, nut bolts, washers, temperature rise=75 degree C (max.), insulation resistance more than 2 mega ohm, suitable for 230 V, 50 Hz, single phase AC Supply, including connection, earthing etc. complete as per specification.	Each	2662.00	04	16	00	16	42592.00
14	6.6	Supplying, installation, testing and commissioning of following sizes heavy duty (continuous running) 1400 rpm exhaust fan in existing opening in wall including earthing etc. complete as per specification. P.F. should be greater than 0.9							
	6.6.1	300 mm sweep	Each	2446.00	03	12	00	12	29352.00
15	6.12	Providing and fixing phenolic laminated sheet cover of 180 mm dia 3 mm thick on the fan box etc. as per specification. (If provided at the time of installation of ceiling fan)	Each	56.00	04	16	00	16	896.00
16	6.19	Supplying, installation, testing and commissioning of following LED tube light fitting including batten with Electronic Driver Heat sink Capacitor complete with all other accessories on surface/in false ceiling, including connection, earthing etc complete as per specification and furnishing 5 Yrs Warranty certificate from manufacturer. IP20 P.F. should be greater than 0.9. LED chip efficacy ratio \geq 100 lumens/watt.							
	6.19.3	18/20 watt{4 feet}	Each	443.00	05	20	00	20	8860.00

S.No.	SOR Item no.	PARTICULARS	UNIT	RATE	QTY.			TOTAL QTY.	AMOUNT
					For Each Flat	For 04 Nos. Flat	For Common Area		
17	6.27	Supplying, installation, testing and commissioning of following LED Bulk Head fitting complete with Electronic Driver Heat sink Capacitor and all other accessories, including connection, earthing etc complete as per specification and P.F. should be greater than 0.9. LED chip efficacy ratio \geq 100 lumens /watt. IP65							
	6.27.1	10 watt	Each	1140.00	05	20	05	25	28500.00
18	6.28	Supplying, installation, testing and commissioning of following 230/250 volts LED street light fitting with all accessories like driver, heat sink made of die cast aluminium with IP 66 protection and 10 KV surge protection on pole bracket, including connection, earthing etc complete as per specification and furnishing 5 Yrs Warranty certificate from manufacturer. P.F. should be greater than 0.9. LED chip efficacy ratio \geq 120 lumens /watt.							
	6.28.6	45 watt	Each	2729.00	00	00	08	08	21832.00
19	7.17	Providing and making interconnection in cubical panel between BBC and switchgears with following size FRLS PVC insulated copper conductor wire lead of length upto 50cm including providing copper thimbles on both ends as per specification (To be measured separately for each phase/ neutral).							
	7.17.2	16 sqmm (63 amp)	Each	104.00	00	00	16	16	1664.00
	7.17.3	35 sqmm (125 amps)	Each	181.00	00	00	04	04	724.00
20	7.19	Fabrication, supply, installation, testing and commissioning of cubicle type compartmentalized wall/ floor mounted power cum control panel board of specified size and following depth made out of not less than 2 mm thick CRCA MS sheet with suitable size compartments for bus bars, switchgears and necessary cutouts for voltmeters, ammeters etc as per specifications including powder coating painting but without busbars, switchgears and other accessories etc complete as per specification. (Only face area is to be measured)							
	7.19.1	Upto 300 mm deep	Sqm	6818.00	0.00	0.00	1.44	1.44	9817.92
21	7.20	Supply, installation, testing and commissioning of 4 pole (3 phase+neutral) aluminium bus bars in existing cubicle type compartmentalized wall/ floor mounted panel board along with suitable size and shape insulators, necessary bolts and nuts etc complete as per specification.							
	7.20.2	200 amp (30x5mm)	Mtr	907.00	0.00	0.00	0.80	0.80	725.60

S.No.	SOR Item no.	PARTICULARS	UNIT	RATE	QTY.			TOTAL QTY.	AMOUNT
					For Each Flat	For 04 Nos. Flat	For Common Area		
22	9.1	Providing and fixing following rating and breaking capacity MCCB in existing cubicle panel board including drilling holes in cubicle panel, making connections, etc.as per specification, IS/IEC:60947-2 and Ics = 100% Icu							
	9.1.25	4 pole MCCB, 125A, Adjustable Thermal - Magnetic Release, 35KA	Each	7428.00	0.00	0.00	1.00	1.00	7428.00
23	9.2	Supplying and fixing on surface/ recess following way, 240 volts SP&N MCB distribution board of sheet steel phosphatized and powder painted complete with tinned copper busbar, neutral busbar, earth bar, din bar, detachable gland plate, including interconnections, earthing etc. as per specification. (But without MCB/RCCB/Isolator)							
	9.2.5	4 way, Double door	Each	784.00	00	00	01	01	784.00
24	9.4	Supplying and fixing on surface/ recess horizontal type following way, 415 volts, TPN MCB distribution board of sheet steel phosphatized and powder painted, complete with tinned copper busbar, neutral busbar, earth bar, din bar, detachable gland plate, including interconnections, earthing etc. as per specification. (But without MCB/RCCB/Isolator)							
	9.4.4	4 way Double door	Each	1716.00	01	04	00	04	6864.00
25	9.11	Supplying and fixing SP MCB, 240 volts, 'C' curve, suitable for inductive load in the existing MCB DB complete with connections, testing and commissioning etc. as per specification.							
	9.11.2	6 amps to 32 amps	Each	148.00	12	48	02	50	7400.00
26	9.12	Supplying and fixing DP MCB, 240 volts, 'C' curve, suitable for lighting and other loads in the existing MCB DB complete with connections, testing and commissioning etc. as per specification.							
	9.12.2	6 amps to 32 amps	Each	411.00	00	00	01	01	411.00
27	9.16	Supplying and fixing TP&N MCB, 440 volts, 'C' curve, suitable for lighting and other loads in the existing MCB DB complete with connections, testing and commissioning etc. as per specification.							
	9.16.5	63 amps	Each	1316.00	01	04	04	08	10528.00
28	10.15	Providing and fixing following rating current transformer in existing cubical panel including, connections, testing and commissioning etc. as per specification.							
	10.15.3	200/5 amps	Each	347.00	00	00	04	04	1388.00

S.No.	SOR Item no.	PARTICULARS	UNIT	RATE	QTY.			TOTAL QTY.	AMOUNT
					For Each Flat	For 04 Nos. Flat	For Common Area		
29	10.17	Providing and fixing penal mounting 230 volt LED type indicating lamp in existing cubical panel including, connections, testing and commissioning etc. as per specification.	Each	94.00	00	00	03	03	282.00
30	10.23	Providing and fixing panel mounting digital type VAF (Volt-amp-frequency combined) meter of size 100x100 (NS) in existing cubical panel including connection, testing and commissioning etc. as per specification.	Each	1201.00	00	00	01	01	1201.00
31	12.16	Providing and fixing 25 mm X 5 mm G.I. strip on surface or in recess for connections etc. as per specification.	Mtr	115.00	0.00	0.00	20.00	20.00	2300.00
32	12.19	Providing maintenance free earthing with following size GI pipe including making bore pit of minimum 150mm dia, providing and laying approved make Earthing Electrode of Pipe-in-Pipe technology as per IS 3043(R 2016) -1987 made of corrosion free G.I. Pipes having outer pipe of 80mm dia and inner pipe of 50mm dia and filling with specified qty highly conductive compound around pipe and above that with soft soil in bore pit complete and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. as per specification:							
	12.19.2	With 2 metre long GI Pipes and 25 kg back filling compound.	Each	8222.00	00	00	01	01	8222.00
33	14.2	Supplying and laying HDPE pipe of 4kg/cum in ground below road, path etc at a depth not less than 40 cm and upto 90 cm including excavation, dismantling of road if required and refilling the trench with excavated material, ramming and making the surface good etc. as per specification.							
	14.2.1	63 mm outer dia	Mtr	124.00	0.00	0.00	80.00	80.00	9920.00
34	15.3	Supplying and laying following sizes one number FRLS PVC insulated, PVC sheathed, steel armoured, aluminium conductor power cable of 1.1 KV grade in existing RCC/ HUME/ STONEWARE/ METAL/ HDPE pipe as perspecification, IS:9537 (2000, Part5)							
	15.3.2	2 x 6 sq. mm	Mtr	74.00	0.00	0.00	100.00	100.00	7400.00
	15.3.12	3.5 x 35 sq. mm.	Mtr	134.00	0.00	0.00	160.00	160.00	21440.00
35	15.23	Supplying and making end termination with brass compression gland and aluminum lugs for following size armoured aluminum conductor power cable of 1.1 KV grade as per specification.							
	15.23.13	3½ X 35 sq. mm (28 mm)	Each	153.00	00	00	02	02	306.00

S.No.	SOR Item no.	PARTICULARS	UNIT	RATE	QTY.			TOTAL QTY.	AMOUNT
					For Each Flat	For 04 Nos. Flat	For Common Area		
36	20.6	Supplying and erection of angle/channel iron cross arms/ bracket/ other fitting of approved size and shape including drilling of holes for insulator pins, bolts and nuts etc as per specification.	kg	77.00	0.00	0.00	10.00	10.00	770.00
		TOTAL						Rs.	525369.52
		Say						Rs.	525370.00

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GENERAL ABSTRACT

ESTIMATE FOR THE CONSTRUCTION OF PROPOSED "H" TYPE QUARTERS FOR IRRIGATION UNDER REDEVELOPEMENT WORK AT KATGHORA (KORBA) C.G. ,(SITE II)

For 6 Units (G+1)

A	Construction cost		For 01 Block (04 Unit)	Total Block to be constructed	Total Cost for 04 Unit
i)	Civil Work	Rs.	5458038.00	1	5458038.00
ii)	Cost of water supply and sanitary works	Rs.	238444.00	1	238444.00
iii)	Cost of internal electrification work i/c fixtures	Rs.	550438.00	1	550438.00
	Total A :-	Rs.	6246920.00		6246920.00
	Cost of for 6 units of 1 Block	Rs.			6246920.00

**Based on Chhattisgarh P.W.D. Building SOR w.e.f. 01-01-2015
& Road SOR w.e.f. 01-01-2015**

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DETAIL ESTIMATE FOR CIVIL CONSTRUCTION OF PROPOSED "H" TYPE QUARTERS FOR IRRIGATION UNDER REDEVELOPEMENT WORK AT KATGHORA (KORBA) C.G. ,(SITE II)										
S. No.	I. No.	PARTICULAR	Measurement				QTY	UNIT	RATE	AMOUNT
			NO	L	B	D/H				
1	1.2	Surface dressing of the ground including removing vegetation and making up undulations and in-equalities not exceeding 15 cms in depth/ height including disposal of rubbish upto 1.5 m lift and lead upto 50m (at least 5m away from the dressed area).	1	18.00	20.00		360.00	sqm	7.20	2592.00
2	1.1	Excavation for all types and sizes of foundations, trenches and drains or for any other purpose including disposal of excavated stuff upto 1.5 m lift and lead upto 50m (at least 5m away from the excavated area), including dressing and leveling of pits.								
	1.1.1	In all types of soils.								
		F1	14	2.25	2.40	2.00	151.20			
		F2	6	2.70	3.00	2.00	97.20			
		F3	4	2.25	2.40	2.00	43.20			
		F4	4	1.95	2.10	2.00	32.76			
		CF1	2	5.10	3.00	2.00	61.20			
		CF2	2	3.30	3.58	2.00	47.19			
		For Beam								
		PB								
		Horizontal	4	3.7	0.30	0.20	0.89			
			4	6.5	0.30	0.20	1.56			
			4	0.8	0.30	0.20	0.19			
			4	7.7	0.30	0.20	1.85			
			8	2.9	0.30	0.20	1.39			
		common	2	3.7	0.30	0.20	0.44			
		pro	2	0.6	0.30	0.20	0.07			
		lobby	5	2.9	0.30	0.20	0.87			
		Vertical	4	1.6	0.30	0.20	0.38			
			4	3.4	0.30	0.20	0.82			
			4	7.4	0.30	0.20	1.78			
			8	2.65	0.30	0.20	1.27			
			4	2.35	0.30	0.20	0.56			
		lobby	2	11.8	0.30	0.20	1.42			
		pro	2	0.6	0.30	0.20	0.07			
							446.31	cum	185.00	82567.35
3	1.6	Extra for every additional lift of 1.5 m or part thereof.								
	1.6.1	All types of soils								
		F1	14	2.25	2.40	0.50	37.80			
		F2	6	2.70	3.00	0.50	24.30			
		F3	4	2.25	2.40	0.50	10.80			
		F4	4	1.95	2.10	0.50	8.19			
		CF1	2	5.10	3.00	0.50	15.30			
		CF2	2	3.30	3.58	0.50	11.80			
							108.19	cum	26.50	2867.04
4	3.1	Providing and laying nominal mix plain cement concrete with crushed stone aggregate using concrete mixer in all works upto plinth level excluding cost of form work.								
	3.1.2	1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size).								
		F1	14	2.25	2.40	0.10	7.56			
		F2	6	2.70	3.00	0.10	4.86			
		F3	4	2.25	2.40	0.10	2.16			
		F4	4	1.95	2.10	0.10	1.64			
		CF1	2	5.10	3.00	0.10	3.06			
		CF2	2	3.30	3.58	0.10	2.36			
		PB								
		Horizontal	4	3.7	0.30	0.10	0.44			
			4	6.5	0.30	0.10	0.78			
			4	0.8	0.30	0.10	0.10			
			4	7.7	0.30	0.10	0.92			
			8	2.9	0.30	0.10	0.70			

		common	2	3.7	0.30	0.10	0.22			
		pro	2	0.6	0.30	0.10	0.04			
		lobby	5	2.9	0.30	0.10	0.44			
		Vertical	4	1.6	0.30	0.10	0.19			
			4	3.4	0.30	0.10	0.41			
			4	7.4	0.30	0.10	0.89			
			8	2.65	0.30	0.10	0.64			
			4	2.35	0.30	0.20	0.56			
		lobby	2	11.8	0.30	0.10	0.71			
		pro	2	0.6	0.30	0.10	0.04			
		Below Floor								
		Living & dining	4	3.30	4.75	0.10	6.27			
		Bed room	4	3.30	3.00	0.10	3.96			
		Almirah	4	1.60	0.60	0.10	0.38			
		Kitchen	4	2.10	2.25	0.10	1.89			
		WC & Bath	4	1.50	1.25	0.10	0.75			
			4	1.50	1.25	0.10	0.75			
		front of wc/bath	4	2.60	0.90	0.10	0.94			
		balcony	4	3.30	1.20	0.10	1.58			
		Lobby+stair	1	5.80	2.50	0.10	1.45			
		Below staircase	1	4.80	2.50	0.10	1.20			
		Ramp + front step	1	2.50	1.40	0.10	0.35			
							48.24			
							48.24	cum	2659.00	128270.16
5	3.3	Providing and laying design mix reinforced cement concrete with crushed graded stone aggregate 20mm nominal size using batching plant, transit mixer and concrete pump, in all works upto plinth level excluding cost of form work.								
	3.3.2	M-25 Grade								
		F1	14	1.95	2.10	0.40	22.93			
		F2	6	2.40	2.70	0.45	17.50			
		F3	4	1.95	2.10	0.40	6.55			
		F4	4	1.65	1.80	0.35	4.16			
		CF1	2	4.80	2.70	0.50	12.96			
		CF2	2	3.00	3.28	0.45	8.84			
		Column upto Plinth								
		C1	14	0.20	0.40	2.25	2.52			
		C2	10	0.20	0.45	2.25	2.03			
		C3	6	0.20	0.40	2.25	1.08			
		C4	6	0.20	0.35	2.25	0.95			
		PB								
		Horrrizontal	4	3.7	0.20	0.35	1.04			
			4	6.5	0.20	0.35	1.82			
			4	0.8	0.30	0.35	0.34			
			4	7.7	0.20	0.35	2.16			
			8	2.9	0.20	0.35	1.62			
		common	2	3.7	0.20	0.35	0.52			
		pro	2	0.6	0.20	0.35	0.08			
		lobby	5	2.9	0.20	0.35	1.02			
		Vertical	4	1.6	0.20	0.35	0.45			
			4	3.4	0.20	0.35	0.95			
			4	7.4	0.20	0.35	2.07			
			8	2.65	0.20	0.35	1.48			
			4	2.35	0.30	0.35	0.99			
		lobby	2	11.8	0.20	0.35	1.65			
		pro	2	0.6	0.20	0.35	0.08			
						(A)	95.78			
		Column upto Ground Slab								
		C1	14	0.20	0.40	3.12	3.49			
		C2	10	0.20	0.45	3.12	2.81			
		C3	6	0.20	0.40	3.12	1.50			
		C4	6	0.20	0.35	3.12	1.31			
		Partial lintel beam								
		Horrrizontal	4	3.7	0.20	0.20	0.59			
			4	6.5	0.20	0.20	1.04			
			4	7.7	0.20	0.20	1.23			
			8	2.9	0.20	0.20	0.93			
		common	2	3.7	0.20	0.20	0.30			
		pro	2	0.6	0.20	0.20	0.05			
		lobby	5	2.9	0.10	0.20	0.29			

		Vertical	8	1.6	0.20	0.20	0.51			
			4	3.4	0.20	0.20	0.54			
			4	7.4	0.20	0.20	1.18			
			4	2.65	0.20	0.20	0.42			
		lobby	4	6.45	0.20	0.20	1.03			
		pro	2	0.6	0.20	0.20	0.05			
		Slab beam								
		Horizontal	4	3.7	0.20	0.35	1.04			
			4	6.5	0.20	0.35	1.82			
			4	7.7	0.20	0.35	2.16			
			8	2.9	0.20	0.35	1.62			
		common	2	3.7	0.20	0.35	0.52			
		pro	2	0.6	0.20	0.35	0.08			
		lobby	5	2.9	0.10	0.35	0.51			
		Vertical	8	1.6	0.20	0.35	0.90			
			4	3.4	0.20	0.35	0.95			
			4	7.4	0.20	0.35	2.07			
			4	2.65	0.20	0.35	0.74			
		lobby	4	6.45	0.20	0.35	1.81			
		pro	2	0.6	0.20	0.35	0.08			
		Slab								
		Living & dining	4	3.30	4.75	0.125	7.84			
		Kitchen	4	2.10	2.25	0.125	2.36			
		Bed room	4	3.30	3.00	0.125	4.95			
		Almirah	4	1.60	0.60	0.125	0.48			
		WC & bath	4	1.50	1.25	0.125	0.94			
			4	1.50	1.25	0.125	0.94			
		front of wc/bath	4	2.60	0.90	0.125	1.17			
		balcony	4	3.30	1.20	0.125	1.98			
		Common lobby	1	5.80	2.60	0.125	1.89			
		staircase								
		Staircase W/slab	4	2.85	1.20	0.150	2.05			
		Midlanding	2	2.40	1.30	0.150	0.94			
		Steps	40	1.30	0.15	0.150	1.17			
		Landing	1	2.60	0.80	0.150	0.31			
		kf	4	2.65	0.60	0.060	0.38			
			4	2.65	0.60	0.060	0.38			
		front step	1	2.90	1.40	0.100	0.41			
		Chhajja								
		CG	1	2.90	0.60	0.080	0.14			
		w	8	1.70	0.60	0.080	0.65			
		w-stair	2	1.70	0.60	0.080	0.16			
		w1	4	1.50	0.60	0.080	0.29			
		w2	8	1.50	0.60	0.080	0.58			
		v	8	1.10	0.60	0.080	0.42			
		tower door chajja	1	2.90	0.60	0.080	0.14			
		Window sill								
		w	8	1.70	0.20	0.05	0.14			
		w-stair	2	1.70	0.20	0.05	0.03			
		w1	4	1.50	0.20	0.05	0.06			
		w2	8	1.50	0.20	0.05	0.12			
		v	8	1.10	0.20	0.05	0.09			
						(B)	62.58			
		Column upto first Slab								
		C1	14	0.20	0.40	3.12	3.49			
		C2	10	0.20	0.45	3.12	2.81			
		C3	6	0.20	0.40	3.12	1.50			
		C4	6	0.20	0.35	3.12	1.31			
		Partial lintel beam								
		Horizontal	2	3.7	0.20	0.20	0.30			
			2	6.5	0.20	0.20	0.52			
			2	7.7	0.20	0.20	0.62			
			4	2.9	0.20	0.20	0.46			
		common	1	3.7	0.20	0.20	0.15			
		pro	1	0.6	0.20	0.20	0.02			
		lobby	5	2.9	0.10	0.20	0.29			
		Vertical	4	1.6	0.20	0.20	0.26			
			2	3.4	0.20	0.20	0.27			
			2	7.4	0.20	0.20	0.59			
			2	2.65	0.20	0.20	0.21			
		lobby	2	6.45	0.20	0.20	0.52			
		pro	1	0.6	0.20	0.20	0.02			
		Slab beam								
		Horizontal	2	3.7	0.20	0.35	0.52			

			2	6.5	0.20	0.35	0.91			
			2	7.7	0.20	0.35	1.08			
			4	2.9	0.20	0.35	0.81			
		common	1	3.7	0.20	0.35	0.26			
		pro	1	0.6	0.20	0.35	0.04			
		lobby	1	2.9	0.10	0.35	0.10			
		Vertical	4	1.6	0.20	0.35	0.45			
			2	3.4	0.20	0.35	0.48			
			2	7.4	0.20	0.35	1.04			
			2	2.65	0.20	0.35	0.37			
		lobby	2	6.45	0.20	0.35	0.90			
		pro	2	0.6	0.20	0.35	0.08			
		Slab								
		Living & dining	2	3.30	4.75	0.125	3.92			
		Kitchen	2	2.10	2.25	0.125	1.18			
		Bed room	2	3.30	3.00	0.125	2.48			
		Almirah	2	1.60	0.60	0.125	0.24			
		WC & bath	2	1.50	1.25	0.125	0.47			
			2	1.50	1.25	0.125	0.47			
		front of wc/bath	2	2.60	0.90	0.125	0.59			
		balcony	2	3.30	1.20	0.125	0.99			
		Common lobby	1	5.80	2.60	0.125	1.89			
		staircase								
		Staircase W/slab	2	2.85	1.20	0.150	1.03			
		Midlanding	1	2.40	1.30	0.150	0.47			
		Steps	40	1.30	0.15	0.150	1.17			
		Landing	1	2.60	0.80	0.150	0.31			
		kf	4	2.65	0.60	0.060	0.38			
			4	2.65	0.60	0.060	0.38			
		front step	1	2.90	1.40	0.100	0.41			
		Chhajja								
		w	4	1.70	0.60	0.080	0.33			
		w-stair	2	1.70	0.60	0.080	0.16			
		w1	2	1.50	0.60	0.080	0.14			
		w2	4	1.50	0.60	0.080	0.29			
		v	4	1.10	0.60	0.080	0.21			
		tower door chajja	1	2.90	0.60	0.080	0.14			
		Window sill								
		w	4	1.70	0.20	0.05	0.07			
		w-stair	2	1.70	0.20	0.05	0.03			
		w1	2	1.50	0.20	0.05	0.03			
		w2	4	1.50	0.20	0.05	0.06			
		v	4	1.10	0.20	0.05	0.04			
						(c)	38.26			
		Terrace Floor								
		Tower col	4	0.20	0.40	2.40	0.77			
		Tower Beam	2	5.80	0.20	0.30	0.70			
			3	2.90	0.20	0.30	0.52			
		slab	1	5.80	2.90	0.125	2.10			
		paraphet column	32	0.20	0.40	0.90	2.30			
		chajja	1	2.90	0.60	0.080	0.14			
						(d)	6.53			
						(A to d)	203.15	cum	4298.00	873149.45
6	3.4	Extra for laying PCC/RCC of any grade in superstructure above plinth level for every floor or part thereof in addition to rate for foundation and plinth:								
		Ground Floor								
		Rcc work above plinth					62.58	cum	97.50	6101.59
		First Floor								
		Rcc work above plinth					38.26	cum	195.00	7460.78
		Terrace Floor								
		RCC					6.53	cum	292.50	1910.52
7	2.1	Providing and fixing form work including centring, shuttering, strutting, staging, propping bracing etc. complete and including its removal at all levels, for:								
a)	2.1.1	Foundations, footings, bases of columns plinth beam, curtain wall in any shape and size and all type of wall below plinth level.								
		FOOTING								
		F1	14	8.10		0.40	45.36			

		F2	6	10.20		0.45	27.54			
		F3	4	8.10		0.40	12.96			
		F4	4	6.90		0.35	9.66			
		CF1	2	15.00		0.50	15.00			
		CF2	2	12.55		0.45	11.30			
		COLUMN UPLT GL								
		C1	14	1.20		2.25	37.80			
		C2	10	1.30		2.25	29.25			
		C3	6	1.20		2.25	16.20			
		C4	6	1.10		2.25	14.85			
		PB								
			8	3.70		0.35	10.36			
			8	6.50		0.35	18.20			
			8	7.70		0.35	21.56			
			16	2.90		0.35	16.24			
			4	3.70		0.35	5.18			
			4	0.60		0.35	0.84			
			10	2.90		0.35	10.15			
			8	1.60		0.35	4.48			
			8	3.40		0.35	9.52			
			8	7.40		0.35	20.72			
			16	2.65		0.35	14.84			
			4	11.80		0.35	16.52			
			4	0.60		0.35	0.84			
							369.37	sqm	139.00	51342.43
b)	2.1.5	Columns, Pillars, Piers and likes- rectangular or square in shape								
		uptp gf slab								
		C1	14	1.20		3.00	50.40			
		C2	10	1.30		3.00	39.00			
		C3	6	1.20		3.00	21.60			
		C4	6	1.10		3.00	19.80			
		upto ff slab								
		C1	14	1.20		3.00	50.40			
		C2	10	1.30		3.00	39.00			
		C3	6	1.20		3.00	21.60			
		C4	6	1.10		3.00	19.80			
		Terrace Floor								
		Tower col	4	1.20		2.40	11.52			
		paraphet column	32	1.20		0.90	34.56			
							307.68	sqm	297.00	91380.96
c)	2.1.8	Beams, lintels, cantilevers & walls								
		Ground Floor								
		Partial lintel beam								
			4	3.70	2.00	0.20	5.92			
			4	6.50	2.00	0.20	10.40			
			4	7.70	2.00	0.20	12.32			
			4	0.80	2.00	0.20	1.28			
			8	2.90	2.00	0.20	9.28			
			2	3.70	2.00	0.20	2.96			
			2	0.60	2.00	0.20	0.48			
			5	2.90	2.00	0.20	5.80			
			4	1.60	2.00	0.20	2.56			
			4	3.40	2.00	0.20	5.44			
			4	7.40	2.00	0.20	11.84			
			8	2.65	2.00	0.20	8.48			
			2	11.80	2.00	0.20	9.44			
			2	0.60	2.00	0.20	0.48			
		Slab beam								
		Horizontal	4	3.7	2.00	0.35	10.36			
			4	6.5	2.00	0.35	18.20			
			4	7.7	2.00	0.35	21.56			
			8	2.9	2.00	0.35	16.24			
		common	2	3.7	2.00	0.35	5.18			
		pro	2	0.6	2.00	0.35	0.84			
		lobby	5	2.9	2.00	0.35	10.15			
		Vertical	8	1.6	2.00	0.35	8.96			
			4	3.4	2.00	0.35	9.52			
			4	7.4	2.00	0.35	20.72			
			4	2.65	2.00	0.35	7.42			
		lobby	4	6.45	2.00	0.35	18.06			
		pro	2	0.6	2.00	0.35	0.84			

		Window sill								
		w	8	1.70		0.10	1.36			
		w-stair	2	1.70		0.10	0.34			
			4	1.50		0.10	0.60			
		w2	8	1.50		0.10	1.20			
		v	8	1.10		0.10	0.88			
		first Floor								
		Partial lintel beam								
			2	3.70	2.00	0.20	2.96			
			2	6.50	2.00	0.20	5.20			
			2	7.70	2.00	0.20	6.16			
			2	0.80	2.00	0.20	0.64			
			4	2.90	2.00	0.20	4.64			
			1	3.70	2.00	0.20	1.48			
			1	0.60	2.00	0.20	0.24			
			3	2.90	2.00	0.20	3.48			
			2	1.60	2.00	0.20	1.28			
			2	3.40	2.00	0.20	2.72			
			2	7.40	2.00	0.20	5.92			
			4	2.65	2.00	0.20	4.24			
			1	11.80	2.00	0.20	4.72			
			1	0.60	2.00	0.20	0.24			
		Slab beam								
		Horizontal	2	3.7	2.00	0.35	5.18			
			2	6.5	2.00	0.35	9.10			
			2	7.7	2.00	0.35	10.78			
			4	2.9	2.00	0.35	8.12			
		common	1	3.7	2.00	0.35	2.59			
		pro	1	0.6	2.00	0.35	0.42			
		lobby	1	2.9	2.00	0.35	2.03			
		Vertical	4	1.6	2.00	0.35	4.48			
			2	3.4	2.00	0.35	4.76			
			2	7.4	2.00	0.35	10.36			
			2	2.65	2.00	0.35	3.71			
		lobby	2	6.45	2.00	0.35	9.03			
		pro	2	0.6	2.00	0.35	0.84			
		Window sill								
		w	4	1.70		0.10	0.68			
		w-stair	2	1.70		0.10	0.34			
			2	1.50		0.10	0.30			
		w2	4	1.50		0.10	0.60			
		v	4	1.10		0.10	0.44			
		Terrace Floor								
		Tower Beam	4	5.80		0.80	18.56			
			6	2.90		0.80	13.92			
							389.27	sqm	202.00	78632.54
d)	2.1.7	Suspended floors, roofs, access platform, balconies (plain surfaces) and shelves (cast in situ)								
		Ground Floor								
		Living & dining	4	3.30	4.75		62.70			
		Kitchen	4	2.10	2.25		18.90			
		Bed room	4	3.30	3.00		39.60			
		Almirah	4	1.60	0.60		3.84			
		WC & bath	4	1.50	1.25		7.50			
			4	1.50	1.25		7.50			
		front of wc/bath	4	2.60	0.90		9.36			
		balcony	4	3.30	1.20		15.84			
		Common lobby	1	4.80	2.60		12.48			
		kf	8	2.65	0.60		12.72			
		first Floor								
		Living & dining	2	3.30	4.75		31.35			
		Kitchen	2	2.10	2.25		9.45			
		Bed room	2	3.30	3.00		19.80			
		Almirah	2	1.60	0.60		1.92			
		WC & bath	2	1.50	1.25		3.75			
			2	1.50	1.25		3.75			
		front of wc/bath	2	2.60	0.90		4.68			
		balcony	2	3.30	1.20		7.92			
		Common lobby	1	4.80	2.60		12.48			
		kf	4	2.65	0.60		6.36			
		Terrace Floor								
		Tower slab	1	5.80	2.90		16.82			

							308.72	sqm	235.00	72549.20
e)	2.1.13	Weather shade, chhajja, Cornices and mouldings								
		CG	1	2.90	0.60		1.74			
		w	12	1.70	0.60		12.24			
		w stair	4	1.70	0.60		4.08			
		w1	8	1.50	0.60		7.20			
		w2	12	1.50	0.60		10.80			
		v	12	1.10	0.60		7.92			
		tower door	1	2.50	0.60		1.50			
							45.48	sqm	294.00	13371.12
f)	2.1.15	Stair cases of all types excluding spiral and folded plate type, including risers and landings								
		Ground Floor								
		Staircase W/slab	4	2.85	1.20		13.68			
		Midlanding	2	2.40	1.30		6.24			
		Sides	40	2.85	0.30		34.20			
		Landing	1	2.60	0.80		2.08			
		First Floor								
		Staircase W/slab	4	2.85	1.20		13.68			
		Midlanding	2	2.40	1.30		6.24			
		Sides	40	2.85	0.30		34.20			
		Landing	1	2.60	0.80		2.08			
							112.40	sqm	230.00	25852.00
8		Extra for providing fixing and removing of propping from lower floor upwards for the concreting. Propping should be provided two floors below. The props of lower floor must be 50% of the props of the floor above including wedging etc. complete. In case propping is done in one floor below, only half the rate shall be paid.								
		As per Slab Area	2	229.14		0.50	229.14	sqm	17.00	3895.38
9	3.12	Providing and placing in position reinforcement for R.C.C. work including straightening, cutting, bending, binding etc. complete as per drawings including cost of binding wire in foundation and plinth all complete:								
	3.12.2	Thermo-Mechanically treated bars FE 500 D								
		Qty. of R.C.C. M 20	203.15		115.00		23362.54	Kg	54.50	1273258.29
10	1.17	Filling from available excavated stuff (Excluding rock) in trenches, plinth, sides of foundation etc. in layers not exceeding 20cm in depth consolidating each deposited layer by ramming and watering with a lead upto 50 M. and lift upto 1.5 M.								
		For Footing (Total Excavated Earth)					446.31			
							446.31	Cum	65.00	29010.15
11	1.18	Providing and filling in plinth with sand/ Crusher dust and hard moorum under floor in layers not exceeding 20cm in depth consolidating each deposited layer by ramming and watering, including dressing etc. complete.								
		Below Floor								
		Living & dining	4	3.30	4.75	0.65	40.76			
		Bed room	4	3.30	3.00	0.65	25.74			
		Almirah	4	1.60	0.60	0.65	2.50			
		Kitchen	4	2.10	2.25	0.65	12.29			
		WC & Bath	4	1.50	1.25	0.65	4.88			
			4	1.50	1.25	0.65	4.88			
		front of wc/bath	4	2.60	0.90	0.65	6.08			
		balcony	4	3.30	1.20	0.65	10.30			
		Lobby+stair	1	5.80	2.60	0.65	9.80			
		Below staircase	1	4.80	2.40	0.65	7.49			
		Ramp + front step	1	2.50	1.40	0.65	2.28			
							126.97	Cum	371.00	47106.24

12	3.13	Providing and laying damp proof course (upto 50mm thick) with plain cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded crushed stone aggregate 20mm nominal size) including form work.								
		At PL	1	211.50	0.20	0.05	2.12			
		above parapet	1	121.70	0.20	0.05	1.22			
		tower parapet	1	17.90	0.20	0.05	0.18			
		balcony	1	24.40	0.20	0.05	0.24			
							3.76	cum	4237.00	15909.94
13	1.25	Diluting chemical emulsion (chlorpyrifos/ lindane) in water as per manufacturers recommendation and injecting for pre-constructional curative cum preventive anti-termite treatment:(Five year service guarantee bond to be signed by contractor) Surface treatment by spreading emulsion under floor, over the plinth area								
	1.25.1	before laying base concrete @ 5 litres / sqm								
		Plinth Area	1	195.34	1.00		195.34	Sqm	27.50	5371.85
14	1.22	Supplying chlorpyrifos/ Lindane emulsifiable concentrate of 20% in sealed containers including delivery as specified.	195				195.34	Ltr	208.00	40630.72
15	3.16	Making 50mm thick plinth protection of plain cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded crushed stone aggregate 20mm nominal size) over 75mm bed of dry brick ballast 40mm nominal size well rammed and consolidated and grouted with sand including finishing the top smooth.	1	124.00	1.20		148.80	sqm	273.00	40622.40
16	1.25.2	Treatment of inside of plinth masonry wall on using diluted chemical emulsion @ 1.5 litre per hole, including drilling 12 mm diameter holes in plinth wall below plinth protection at the interval of 300 mm and plugging with cement mortar 1 :2 (1 cement : 2 Coarse sand).					124.00	metre	19.00	2356.00
17	1.25.3	Treatment of outer side of plinth masonry wall using diluted chemical emulsion @ 1.5 litre per hole, including drilling 12 mm diameter holes in plinth wall at the junction of floor at the interval of 300 mm and plugging with cement mortar 1 :2 (1 cement : 2 Coarse sand).					124.00	metre	13.50	1674.00
18	7.5	Brick work with modular fly-ash lime bricks (FaLG Bricks) confirming to IS:12894-2002 of class designation 4.0 in foundation and plinth in:								
	7.5.3	Cement Mortar 1:5 (1 cement : 5 coarse sand)								
		Below pl								
		Horizontal	4	3.7	0.20	0.45	1.33			
			4	6.5	0.20	0.45	2.34			
			4	7.7	0.20	0.45	2.77			
			8	2.9	0.20	0.45	2.09			
		common	2	3.7	0.20	0.45	0.67			
		pro	2	0.6	0.20	0.45	0.11			
		lobby	5	2.9	0.20	0.45	1.31			
		Vertical	8	1.6	0.20	0.45	1.15			
			4	3.4	0.20	0.45	1.22			
			4	7.4	0.20	0.45	2.66			
			4	2.65	0.20	0.45	0.95			
		lobby	4	6.45	0.20	0.45	2.32			
		pro	2	0.6	0.20	0.45	0.11			
		front step	3	2.50	1.20	0.15	1.35			
			3	2.50	0.90	0.15	1.01			
			3	2.50	0.60	0.15	0.68			
			3	2.50	0.30	0.15	0.34			
							22.41	cum	3,350.00	75073.50
19	7.5	Brick work with modular fly-ash lime bricks (FaLG Bricks) confirming to IS:12894-2002 of class designation 4.0 in foundation and plinth in:								

	7.5.4	Cement Mortar 1:6 (1 cement : 6 coarse sand)								
		Ground Floor								
		Living & dining	4	4.75	0.20	2.60	9.88			
			4	1.20	0.20	2.60	2.50			
			4	1.00	0.20	2.60	2.08			
			4	0.60	0.20	2.60	1.25			
		WC & Bath	4	2.50	0.20	2.60	5.20			
			4	2.60	0.20	2.60	5.41			
		Bed room	4	3.30	0.20	2.60	6.86			
			4	3.00	0.20	2.60	6.24			
			8	0.80	0.20	2.60	3.33			
			4	0.60	0.20	2.60	1.25			
			4	1.30	0.20	2.60	2.70			
		Kitchen	4	2.10	0.20	2.60	4.37			
			4	2.35	0.20	2.60	4.89			
		Balcony	8	1.40	0.20	2.60	5.82			
			8	1.90	0.20	2.60	7.90			
		common wall	2	3.30	0.20	2.60	3.43			
		stair por.	2	1.50	0.20	2.60	1.56			
			2	2.50	0.20	2.60	2.60			
		front pro.	2	0.60	0.20	2.60	0.62			
						(A)	77.90	cum		
		Deduct : Opening-D	4	1.00	0.20	2.10	1.68			
		D1	8	0.90	0.20	2.10	3.02			
		CG	1	2.50	0.20	2.10	1.05			
		W	8	1.20	0.20	1.50	2.88			
		W1	4	1.00	0.20	1.00	0.80			
		W2	8	1.00	0.20	1.50	2.40			
		V	8	0.60	0.20	0.60	0.58			
						(B)	12.41	cum		
		Ground Floor				(A-B)	65.49	cum		
		First Floor								
		Living & dining	2	4.75	0.20	2.60	4.94			
			2	1.20	0.20	2.60	1.25			
			2	1.00	0.20	2.60	1.04			
			2	0.60	0.20	2.60	0.62			
		WC & Bath	2	2.50	0.20	2.60	2.60			
			2	2.60	0.20	2.60	2.70			
		Bed room	2	3.30	0.20	2.60	3.43			
			2	3.00	0.20	2.60	3.12			
			4	0.80	0.20	2.60	1.66			
			2	0.60	0.20	2.60	0.62			
			2	1.30	0.20	2.60	1.35			
		Kitchen	2	2.10	0.20	2.60	2.18			
			2	2.35	0.20	2.60	2.44			
		Balcony	4	1.40	0.20	2.60	2.91			
			4	1.90	0.20	2.60	3.95			
		common wall	1	3.30	0.20	2.60	1.72			
		stair por.	1	1.50	0.20	2.60	0.78			
			1	2.50	0.20	2.60	1.30			
		front pro.	1	0.60	0.20	2.60	0.31			
						(A)	38.95	cum		
		Deduct : Opening-D	4	1.00	0.20	2.10	1.68			
		D1	4	0.90	0.20	2.10	1.51			
		W	4	1.20	0.20	1.50	1.44			
		W1	2	1.00	0.20	1.00	0.40			
		W2	4	1.00	0.20	1.50	1.20			
		V	4	0.60	0.20	0.60	0.29			
						(B)	6.52	cum		
		First Floor				(A-B)	32.43	cum		
		Terrace Floor								
		Tower wall	2	2.50	0.20	2.10	2.10			
			2	6.45	0.20	2.10	5.42			
		Parapet wall	1	121.70	0.20	0.90	21.91			
		Tower Parapet wall	1	17.90	0.20	0.30	1.07			
		Deduct : Opening	-1	0.90	0.20	2.10	-0.38			
							30.12	cum		
							128.03	cum	3263.00	417774.94

20	7.6	Extra for brick work in superstructure above plinth level for every floor or part thereof in addition to rate for foundation and plinth:								
		Ground floor					65.49	cum	121.00	7923.81
		FirstFloor					32.43	sqm	242.00	7847.58
		Terrace Floor					30.12	cum	363.00	10933.56
21	7.11	Half brick thick brick masonry with fly-ash lime bricks (FaLG Bricks) confirming to IS:12894-2002 of class designation 4.0 in superstructure above plinth level upto plinth level:								
	7.11.4	Cement Mortar 1:4 (1 cement : 4 coarse sand)								
		Ground Floor								
		Living	4	2.80		2.60	29.12			
		bath & WC	4	2.80		2.60	29.12			
			8	1.60		2.60	33.28			
			4	0.90		2.60	9.36			
		bed	4	3.00		2.60	31.20			
		kitchen	4	2.10		2.60	21.84			
		Balcony	4	1.50		0.90	5.40			
		kf	16	0.60		0.90	8.64			
						(A)	167.96			
		Deduct : Opening	8	0.90		2.10	15.12			
		D2	8	0.80		2.10	13.44			
						(B)	28.56			
		Ground Floor				(A-B)	139.40	sqm		
		first Floor								
		Living	2	2.80		2.60	14.56			
		bath & WC	2	2.80		2.60	14.56			
			4	1.60		2.60	16.64			
			2	0.90		2.60	4.68			
		bed	2	3.00		2.60	15.60			
		kitchen	2	2.10		2.60	10.92			
		Balcony	2	1.50		0.90	2.70			
		kf	8	0.60		0.90	4.32			
						(A)	83.98			
		Deduct : Opening	4	0.90		2.10	7.56			
		D2	8	0.40		2.10	6.72			
						(B)	14.28			
		First Floor				(A-B)	69.70	sqm		
						total	209.10	sqm	382.00	79876.20
22	7.12	Extra for half brick work in superstructure above plinth level for every story or part thereof in addition to rate for upto plinth level:								
		Ground Floor					139.40	sqm	11.00	1533.40
		FirstFloor					69.70	sqm	22.00	1533.40
23	7.20	Extra for providing and placing in position hopping 25x1.60 mm or 2 Nos 6mm dia MS bars reinforcement at every third course of half brick masonry.					209.10	sqm	62.50	13068.75
24	9.16	Providing and fixing M.S. frames of doors, windows, ventilators and cupboards joints mitred and welded with 15x3 mm lugs 10cm long embedded in cement concrete blocks 15x10x10cm of grade M-10 or with wooden plugs and screws or with dash fastener or rawl plugs and screws or with fixing clips or with bolts and nuts as required including fixing of necessary butt hinges and screws and applying a priming coat of approved steel primer.								
	9.16.2	Angle-iron frames								
					wt./m					
		35x35x5 Door	12	5.10	2.60		159.12			
							159.12	cum	73.50	11695.32

25	8.13	Providing and fixing flush door shutters, conforming to IS 2202 (Part 1), interior grade, commercial type, core of block board construction with frame of first class hard wood and well matched commercial ply veneering with vertical grains, cross bands and face veneers on both faces of shutters excluding hinges.								
	8.13.2	35 mm. thick (single leaf)								
			12	0.90		2.10	22.68			
							22.68	sqm	1370.00	31071.60
26	8.148	Providing and fixing factory made UPVC door frame made of UPVC profile section having an overall dimension as below (tolerance ± 1 mm) with wall thickness 2.0mm ± 0.2 mm, corners of the door frame to be jointed with galvanized brackets and stainless steel screws, joints mitred and plastic welded. The hinge side vertical of the frames reinforced by galvanized M.S. tube of size 19 X 19mm and 1mm ± 0.1 mm wall thickness and 3 nos. stainless steel hinges fixed to the frame complete as per manufacturers specification and direction of Engineer-in-charge								
	8.148.2	Extruded section Profile size 42x50 mm.								
		Toilet	12	4.95			59.40			
							59.40	Rmt	196.00	11642.40
27	8.149	Providing and fixing factory made PVC door shutters of specified thickness made of styles and rails of a UPVC hollow section of specified size 59x24 mm and wall thickness 2 mm ± 0.2 mm with inbuilt edging on both sides. The styles and rails mitred and joined at the corners by means of M.S. galvanised/ plastic brackets of size 75x220 mm having wall thickness 1.0 mm and stainless steel screws.								
	8.149.2	30 mm thick door shutters with styles and rails of size 60x30 mm								
		Toilet Door	12	0.75		2.10	18.90	sqm	2488.00	47023.20
29	9.14	Providing and fixing steel door made of angle iron of suitable sizes with M.S. grill of approved pattern made of M.S. flats or square or round bars coat of red oxide zinc chromate primer.			kg/sqm					
		Front gate	1	2.50	20.00	2.10	105.00	kg	79.50	8347.50
29	9.15	Providing and fixing M.S. grill of approved pattern made of M.S. flats or square or round bars welded to steel frame of windows etc. including applying a priming coat welded to frame with all necessary fitting complete including applying a priming of red oxide zinc chromate primer.			Kg/Sqmt					
		W	12	1.20	18.00	1.50	388.80			
		W1	6	1.00	18.00	1.00	108.00			
		W2	12	1.00	18.00	1.50	324.00			
		V	12	0.60	18.00	0.60	77.76			
		Tower door	1	0.90	50.00	2.10	94.50			
							993.06	Kg	67.50	67031.55

30	9.47	Providing and fixing aluminium work for doors, windows, ventilators and partitions made out of extruded aluminium standard sections (main section with minimum 1.5mm thickness) conforming to IS: 733, IS: 1285 mitred and jointed mechanically including aluminium cleats, neoprene weather stripping gasket beveled edge beading, screws duly fixed in wall/floor with fixing clips or hold fasteners or bolts and nuts as required aluminium sections shall be anodized transparent or dyed to approved shade according to IS: 1868, minimum anodic coating shall be of grade AC-15. (Glazing to be paid for separately:)								
	9.47.1	For fixed portion								
		W	12	1.20	4.00	1.50	86.40			
		W1	6	1.00	4.00	1.00	24.00			
		W2	12	1.00	4.00	1.50	72.00			
		V	12	0.60	4.00	0.60	17.28			
		5kg/sqm					199.68	Kg	331.00	66094.08
31	9.47.2	For shutter of doors, windows & ventilators including providing and making provision for fixing of fitting wherever required including the cost of PVC/ neoprene gasket required (Fittings shall be paid for separately).					199.68	kg	338.00	67491.84
32	9.48	Extra for powder coated (minimum 50 micron) aluminium sections instead of anodized.					399.36	kg	27.00	10782.72
33	9.51	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with PVC/ neoprene gasket etc. complete. (Cost of aluminium snap beading shall be paid in basic item):								
	9.51.1	With float glass panes of 4 mm thickness								
		W	12	1.20		1.50	21.60			
		W1	6	1.00		1.00	6.00			
		W2	12	1.00		1.50	18.00			
		V	12	0.60		0.60	4.32			
							49.92	sqm	611.00	30501.12
34	9.34	Providing and fixing stainless wire gauge of average width of aperture 1.56mm with wire of 0.35mm to existing steel door, window shutter frames with necessary M.S. strip beading etc. complete.								
		W	12	1.20	0.50	1.50	10.80			
		W1	6	1.00	0.50	1.00	3.00			
		W2	12	1.00	0.50	1.50	9.00			
		V	12	0.60	0.50	0.60	2.16			
		50% Opening					24.96	sqm	791.00	19743.36
35	8.3	Providing 40x5mm iron hold fast 40cm long including fixing to frame with 10mm bolts nuts and wooden plug and embedding in Cement Concrete 1:2:4 in blocks of size 30x10x15cm.	160	at	1.00		160.00	each	72.50	11600.00
36	8.60	Providing and fixing bright finished brass sliding door bolt with nuts and brass polished MS screws complete:								
	8.60.1	300x16mm	20				20.00	each	475.00	9500.00
37	8.120	Providing and fixing alluminium sliding door bolt with 16 mm rod, necessary nickle plate iron nuts bolts and screw etc complete								
	8.120.2	250x16mm	12				12.00	each	141.00	1692.00
38	8.121	Providing and fixing alluminium door Latch with 12 mm rod, necessary nickle plate iron nuts bolts and screw etc complete door bolt with nuts and brass polished MS screws complete:								
	8.121.2	250x12mm	12				12.00	each	51.50	618.00

39	8.61	Providing and fixing brass door latch with brass polished MS screws complete:								
	8.61.1	300x16x5 mm	20				20.00	each	398.00	7960.00
40	8.123	Providing and fixing alluminium door handles 2.5 mm thick with necessary nickel plates iron screw etc complete								
	8.123.1	150 mm	12				12.00	each	30.50	366.00
41	8.62	Providing and fixing bright finished brass tower bolts (barrel type) with brass polished MS screws complete:								
	8.62.1	250x10mm	20				20.00	each	276.00	5520.00
	8.62.3	150x10mm	24				24.00	each	176.00	4224.00
		(Toilet door)								
42	8.65	Providing and fixing bright finished brass door handles with brass polished MS screws complete:								
	8.65.1	125 mm	40				40.00	each	55.50	2220.00
43	8.58	Providing and fixing bright finished brass butt hinges with brass polished MS screws complete:								
	8.58.1	125x85x5.50 mm (Heavy Type)	60				60.00	each	245.00	14700.00
44	11.41	Providing and fixing chicken mesh weighting not less than 250 gms/sqm as per IS : specification in the required width with 40mm long steel nails on vertical and horizontal surface near R.C.C. and brick walls junctions including scaffolding and all lead and lifts etc. complete before plastering upto 10mts in height.								
		Ground floor								
		Beam	4	2.00	225.00	0.30	540.00			
		Column	8	110.00	0.30	3.00	792.00			
							1332.00	sqm	86.00	114552.00
45	12.74-AME	Providing and fixing rectified glazed ceramic floor tiles of 1st quality conforming to IS : 15622-2017 of approved make in all colours, shades over 20 mm thick bed of Cement Mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @3.3 kg per sqm including poing in white cement mixed with matching pigment complete.								
	12.74.1	Size 300x300 mm thickness 7 to 8 mm								
		Ground terrace								
		Living	6	3.30	4.75		94.05			
		Bed room	6	3.30	3.00		59.40			
		Almirah	6	1.60	0.60		5.76			
		Kitchen	6	2.10	2.25		28.35			
		balcony	6	3.30	1.20		23.76			
		Front of Toilet	6	2.60	0.90		14.04			
		lobby+stair	2	5.80	2.50		29.00			
		below stair	2	4.80	2.50		24.00			
		Bath	6	1.50	1.25		11.25			
		WC	6	1.50	1.25		11.25			
		Below door sill-CG	1	1.60	0.20		0.32			
		TD	1	0.90	0.20		0.18			
		D	6	1.00	0.20		1.20			
		D1	12	0.90	0.20		2.16			
		D2	12	0.75	0.20		1.80			
		Skirting								
		Living	6	16.10		0.10	9.66			
		Bed room	6	12.60		0.10	7.56			
		Almirah	6	4.40		0.10	2.64			
		Kitchen	6	8.70		0.10	5.22			
		balcony	4	9.00		0.10	3.60			
		Front of Toilet	6	7.00		0.10	4.20			
		lobby+stair	2	16.60		0.10	3.32			
		below stair	2	14.60		0.10	2.92			
							345.64	sqm	779.00	269253.56

46	12.75- AME	Providing and fixing rectified glazed ceramic wall / dado tiles of 1ST quality conforming to IS : 15622 of approved make,in all colours, shades on wall and dados over 12 mm thick bed of cement Mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm including pointing in white cement mixed with matching pigment complete.								
	12.75.1	Size 300x450 mm thickness 7 to 8 mm								
		Ground								
		Bath	12	1.50		2.10	37.80			
			12	1.25		2.10	31.50			
		WC	12	1.50		2.10	37.80			
			12	1.25		2.10	31.50			
		Deduction	-12	0.75		2.10	-18.90			
							119.70	sqm	710.00	84987.00
47	12.49	25 mm thick KOTA stone slab flooring over 20mm (Average) thick base of cement mortar 1:4 laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab including grinding rubbing and polishing etc. complete (Area of slab to be over 0.20 sqm and upto 0.50 sqm)								
		Ground								
		kitchen pf	6	2.25	0.60		8.10			
			6	2.25	0.125		1.69			
		kitchen pf	6	2.25	0.60		8.10			
			6	2.25	0.125		1.69			
							19.58	sqm	897.00	17558.78
48	12.50	KOTA stone slab 25mm thick in risers and treads of steps, skirting dado and pillar laid in 12mm (Average) thick cement mortar 1:3 (1 cement : 3 coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of the slab including rubbing and polishing complete. (single stone is to be used for riser and treads of steps and the width of stone for skirting and dado shall be equal to the height of skirting/ dado up to length of 1.0 M.)								
		Ground to second floor								
		Midlanding	3	2.50	1.30		9.75			
		Steps	40	1.30		0.45	23.40			
		terrace	1	2.50	2.00		5.00			
		skirting	1	1.30	2.00		2.60			
		Steps & Landing	40	0.60		0.10	2.40			
			1	5.10		0.10	0.51			
			1	2.50		0.10	0.25			
		Front step	4	2.50	0.30		3.00			
			5	2.50		0.15	1.88			
							48.79	sqm	990.00	48297.15
49	12.51	Extra for nosing in steps and treads of Kota stone slab.								
		stair	40	1.20			48.00			
		Front step	4	2.50			10.00			
		pf	4	2.25			9.00			
		Front step	4	1.95			7.80			
							74.80	meter	69.50	5198.60
50	11.1	Providing and making 6mm thick cement plaster of mix:								
	11.1.2	In Cement mortar 1:4 (1 cement : 4 fine sand)								
		Ground Floor								
		Living & dining	6	3.30	4.75		94.05			
		Kitchen	6	2.10	2.25		28.35			
		Bed room	6	3.30	3.00		59.40			
		Almirah	6	1.60	0.60		5.76			
		WC & bath	6	1.50	1.25		11.25			
			6	1.50	1.25		11.25			
		Front of Toilet	6	2.60	0.90		14.04			
		balcony	6	3.30	1.20		23.76			
		Common lobby	2	5.80	2.50		29.00			
		kitchen pf	6	2.25	0.60		8.10			

			6	2.25	0.60		8.10			
		Staircase W/slab	4	2.8	1.20		13.44			
		Midlanding	3	2.50	1.30		9.75			
		Steps	40	1.30	0.15		7.80			
		Landing	1	2.60	0.80		2.08			
		chajja								
		CG	2	2.90	0.70		4.06			
		w	24	1.60	0.60		23.04			
		w1	12	1.40	0.60		10.08			
		w2	24	1.40	0.60		20.16			
		v	24	1.00	0.60		14.40			
		Terrace Floor								
		tower slab	1	5.80	2.90		16.82			
		tower door chajja	2	2.50	0.70		3.50			
							418.19	sqm	87.00	36382.53
51	11.2	Providing and making 12mm thick cement plaster of mix:								
	11.2.2	In Cement Mortar 1:4 (1 cement : 4 fine sand)								
		Living & Dining	12	3.30		3.00	118.80			
			12	4.75		3.00	171.00			
		Kitchen	12	2.10		3.00	75.60			
			12	2.25		3.00	81.00			
		Bed room	12	3.30		3.00	118.80			
			12	3.00		3.00	108.00			
		Almirah	12	0.60		3.00	21.60			
			12	1.60		3.00	57.60			
		Bath	12	1.25		3.00	45.00			
			12	1.50		3.00	54.00			
		Wc	12	1.50		3.00	54.00			
			12	1.25		3.00	45.00			
		Front of Toilet	12	2.60		3.00	93.60			
			12	0.90		3.00	32.40			
		Balcony wall	12	3.30		3.00	118.80			
			12	1.30		3.00	46.80			
			12	1.20		3.00	43.20			
			6	2.10		0.90	11.34			
		Staircase wall+lobby	4	2.50		3.00	30.00			
			4	5.80		3.00	69.60			
			4	4.80		3.00	57.60			
			8	1.70		3.00	40.80			
		kitchen pf	32	0.60		0.80	15.36			
						(A)	1509.90			
		Deduct 50% opening								
		without door	12	0.90	0.50	2.10	11.34			
			12	0.90	0.50	2.10	11.34			
		CD	1	2.50	0.50	2.10	2.63			
		D	8	1.00	1.00	2.10	16.80			
		D1	12	0.90	1.00	2.10	22.68			
		D2	12	0.75	1.00	2.10	18.90			
		W	12	1.20	1.00	1.50	21.60			
		W stair	6	1.00	1.00	1.00	6.00			
		W1	12	1.00	1.00	1.50	18.00			
		W2	12	0.60	1.00	0.60	4.32			
						(B)	133.61			
						(A-B)	1376.30	sqm		
		Terrace Floor								
		Tower wall	2	2.50		2.40	12.00			
			2	6.45		2.40	30.96			
		Parapet wall	1	121.70		1.10	133.87			
		Tower Parapet wall	1	17.90		0.50	8.95			
		Deduct 50% opening	-1	1.20	0.50	1.20	-0.72			
		Deduct 50% opening	-1	0.90	0.50	1.20	-0.54			
							184.52	sqm		
		Total 12mm Plaster					1560.82	Sqm	103.00	160763.95
52	11.3	Providing and making 15mm thick cement plaster on the rough side of single or half brick wall of mix:								
	11.3.2	In Cement Mortar 1:4 (1 cement : 4 fine sand)								
		Outer wall	1	121.70		9.00	1095.30			
		Tower wall	1	17.90		2.70	48.33			

		pro front	4	0.60		9.00	21.60			
						(A)	1165.23			
		Deduct 50% opening								
		W	12	1.20	1.00	1.50	21.60			
		W1	6	1.00	1.00	1.00	6.00			
		W2	12	1.00	1.00	1.50	18.00			
		V	12	0.60	1.00	0.60	4.32			
		Balcony	6	2.10	0.50	2.10	13.23			
						(B)	63.15			
						(A-B)	1102.08	sqm		
		Terrace Floor								
		Tower wall	1	17.90		2.70	48.33			
		Deduct 50% opening	-1	1.20	0.50	1.20	-0.72			
			-1	0.90	0.50	2.10	-0.95			
							46.67			
		Total 15mm Plaster					1148.75	sqm	120.00	137849.40
	14.12	Applying one coat of cement primer on wall surface (applied @ 0.80 litres/10 sqm) complete.								
		As per 6mm Plaster					418.19			
		As per 12mm Plaster					1560.82			
							1979.01	sqm	23.00	45517.12
53	14.13	Providing and applying 2mm thick ready mix exterior grade approved make putty (like Birla wall care, Alltek Superfine W/R of (NCL), Asian, ICI, Nerolac, J.K. wall putty) on walls to make the surface smooth and even.								
		As per 6mm Plaster					418.19			
		As per 12mm Plaster					1560.82			
							1979.01	sqm	94.50	187015.97
54	14.11	Wall painting with acrylic luxury emulsion (plastic) paint of required shade to give an even shade.								
	14.11.1	On new work (two or more coats)								
		As per 6mm Plaster					418.19			
		As per 12mm Plaster					1560.82			
		Total					1979.01	sqm	52.50	103897.76
55	14.15	Painting exterior surface with ACRYLIC SMOOTH exterior paint of required shade as per manufacturer's specifications to give protective and decorative finish including cleaning washing of surface etc. complete with:								
	14.15.1	On new work (Two or more coats applied @ 1.43 ltr/ 10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/ 10 sqm)								
		As per 15mm Plaster					1148.75	sqm	56.00	64329.72
56	9.35	Providing and fixing approved pipe hand rail by welding to iron railing including applying a priming coat of red oxide zinc chromate primer.								
	9.35.1	M.S Pipe	1	14.00		1.00	14.00	R.M.		
			14.00	at	23.35	Kg/R.m	326.90	kg	80.50	26315.45
57	14.22	Painting on new work (two or more coats) to give an even shade with:								
	14.22.2	Premium synthetic enamel paint								
		Door								
		CG	1	2.50	2.00	2.10	10.50			
		D	8	1.00	2.00	2.10	33.60			
		D1	12	0.90	2.00	2.10	45.36			
		Window								
		W	12	1.20	1.00	1.50	21.60			
		W1	6	1.00	1.00	1.00	6.00			
		W2	12	1.00	1.00	1.50	18.00			
		V	12	0.60	1.00	0.60	4.32			
		TD	1	1.20	2.00	1.20	2.88			

							142.26	sqm	47.00	6686.22
58	10.41	Providing gola 75x75 mm in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 stone aggregate 10mm and down grade) including finishing with cement mortar 1:3 (1 cement : 3 fine sand) as per standard design :								
		Chajja								
		CG	1	2.90			2.90			
		W	12	1.40			16.80			
		W1	6	1.40			8.40			
		W2	12	1.40			16.80			
		V	12	1.00			12.00			
		paraphet wall	1	121.70			121.70			
		tower paraphet wall	1	17.90			17.90			
							196.50	metre	68.00	13362.00
59	11.5	Neat Cement punning.								
		Ground Floor								
		Chajja								
		CG	1	2.90	0.60		1.74			
		W	12	1.40	0.60		10.08			
		W1	6	1.40	0.60		5.04			
		W2	12	1.40	0.60		10.08			
		V	12	1.00	0.60		7.20			
							34.14	sqm	33.00	1126.62
60	4.13	Grading roof for water proofing treatment with:								
	4.13.1	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)								
		Terrace	1	212.32	sqm	0.05	10.62			
		tower	1	16.82	sqm	0.05	0.84			
							11.46	cum	3817.00	43731.37
61	3.16	Making 50mm thick plinth protection of plain cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded crushed stone aggregate 20mm nominal size) over 75mm bed of dry brick ballast 40mm nominal size well rammed and consolidated and grouted with sand including finishing the top smooth.								
			1	122.00	1.20		146.40			
							146.40	SQM	273.00	39967.20
62	11.9	Extra for providing and mixing water proofing materials in cement plaster work in proportion as recommended by manufacturer.								
		external plaster qty,1kg for 4 sqm	1	1148.75	0.25		287.19			
							287.19	kg	43.50	12492.60
63	8.1	Providing wood work in frames of doors, windows, clerestory windows and other frames wrought framed and fixed in position.								
	8.1.2	Sal, bijasal, benteak, khair, haldu								
		Door	5	5.20	0.125	0.075	0.24	cum	61051.00	14652.24
64	8.9	Providing and fixing 35mm thick glazed shutter frames for windows, clerestory windows, ventilators etc. using glass panes including M.S. butt hinges with necessary screws but excluding glass panes. (Area of shutter to be measured without deducting paneling area).								
	8.9.1	Teak wood								
		Door	6	1.00		2.100	12.60	sqm	3017.00	38014.20
65	8.22	Providing and fixing paneling in paneled or paneled and glazed shutters for doors etc. (only area of paneling to be measured). Paneling for or paneled and glazed shutters 25 mm to 40 mm thick:								
	8.22.1	Teak wood (16mm thick panel)								
		Door	6	1.00	0.500	2.100	6.30	sqm	1842.00	11604.60

66	8.24	Providing and fixing 30mm thick wire gauge shutter having top and style rail 95mm width, bottom and lock rail 197mm width, using galvanized M.S. wire dia of 0.45mm for doors, windows, clerestory windows excluding hinges.								
	8.24.1	Teak Wood								
		Door	6	1.00		2.100	12.60	sqm	2477.00	31210.20
								Total		5458038.00
<div> <div> Sub Engineer Chhattisgarh Housing & Infrastructure Development Board Division -Korba </div> <div> Assistant Engineer Chhattisgarh Housing & Infrastructure Development Board Division -Korba </div> <div> ExecutiveEngineer Chhattisgarh Housing & Infrastructure Development Board Division -Korba </div> </div>										

ESTIMATE FOR WATER SUPPLY AND SANITARY WORK OF H-TYPE FOR IRRIGATION					
Item No.	Nomenclature(Particulars)	Unit	S.O.R. Rate	Qty	Amount
1	2	3	4	5	6
1					
19.5	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge. CONCEALED WORK including cutting chases and making good the walls etc.,	r/m	133.00	48.00	6384.00
19.5.1	15 mm nominal outer dia .Pipes.				
2					
19.5	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge. CONCEALED WORK including cutting chases and making good the walls etc.,	r/m	167.00	72.00	12024.00
19.5.2	20 mm nominal outer dia .Pipes.				
3					
19.5	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge. CONCEALED WORK including cutting chases and making good the walls etc.,	r/m	284.00	42.00	11928.00
19.5.4	32 mm nominal outer dia .Pipes.				
4	Item No. 18.76.1				
	Providing and fixing on wall face or under floor UV stabilized Unplasticised Rigid PVC pipes (single socketed) having 3.2mm wall thickness conforming to IS : 13592 (4kg/sqcm) including required couplers, jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansion etc complete. a. 75mm dia	r/m	182.00	48.00	8736.00
5	Item No. 18.76.2				
	Providing and fixing on wall face or under floor UV stabilized Unplasticised Rigid PVC pipes (single socketed) having 3.2mm wall thickness conforming to IS : 13592 (4kg/sqcm) including required couplers, jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansion etc complete. s b. 110mm dia	r/m	267.00	36.00	9612.00
6	Item No. 18.77.1.1				

Item No.	Nomenclature(Particulars)	Unit	S.O.R. Rate	Qty	Amount
1	2	3	4	5	6
	Providing and fixing PVC fitting for pipes for soil waste / rain water drainage disposal of superior Indian Make Finolex / Supreme including jointing with rubber ring adhesive lubricant, solvent cement etc. complete. G- Tee with Door (a) 75mm dia	no	113.00	12.00	1356.00
7	Item No. 18.77.1.2				
	Providing and fixing PVC fitting for pipes for soil waste / rain water drainage disposal of superior Indian Make Finolex including jointing with rubber ring adhesive lubricant, solvent cement etc. complete. G- Tee with Door (b) 110mm dia	no	154.00	12.00	1848.00
8	Item No. 18.77.1.1				
	Providing and fixing PVC fitting for pipes for soil waste / rain water drainage disposal of superior Indian Make Finolex including jointing with rubber ring adhesive lubricant, solvent cement etc. complete. E- Plain Bend of 87.5 degree (a) 75mm dia	no	113.00	8.00	904.00
9	Item No. 18.77.1.2				
	Providing and fixing PVC fitting for pipes for soil waste / rain water drainage disposal of superior Indian Make Finolex including jointing with rubber ring adhesive lubricant, solvent cement etc. complete. E- Plain Bend of 87.5 degree (b) 110mm dia	no	154.00	8.00	1232.00
10	Item No. 18.77.6				
	Providing and fixing PVC fitting for pipes for soil waste / rain water drainage disposal of superior Indian Make Finolex / Supreme including jointing with rubber ring adhesive lubricant, solvent cement etc. complete. O- Nahani Trap (b) 63mm dia	no	90.50	21.00	1900.50
11	Item No. 19.15				
	Providing and fixing stainless steel Nahani trap jali of approved make/quality.	no	51.00	21.00	1071.00
12	Item No. 18.77.1.1				
	Providing and fixing PVC fitting for pipes for soil waste / rain water drainage disposal of superior Indian Make Finolex including jointing with rubber ring adhesive lubricant, solvent cement etc. complete. C- Bend with door of 87.5 degree a. 75mm dia	no	113.00	6.00	678.00
13	Item No. 18.77.1.2				
	Providing and fixing PVC fitting for pipes for soil waste / rain water drainage disposal of superior Indian Make Finolex including jointing with rubber ring adhesive lubricant, solvent cement etc. complete. C- Bend with door of 87.5 degree b. 110mm dia	no	154.00	6.00	924.00
14	Item No.18.77.3.2				
	Providing and fixing PVC fitting for pipes for soil waste / rain water drainage disposal of superior Indian Make Finolex / Supreme including jointing with rubber ring adhesive lubricant, solvent cement etc. complete. N- Vent Cowel (b) 110mm dia	no	44.00	6.00	264.00
					155

Item No.	Nomenclature(Particulars)	Unit	S.O.R. Rate	Qty	Amount
1	2	3	4	5	6
15	Item No. 19.16.1				
	Providing and fixing in position best Indian make gun metal high pressure full way or Gate valve (peets Pattren) with iron wheel head complete. (c) 25 mm dia	no	436.00	12.00	5232.00
16	Item No. 19.16.4				
	Providing and fixing in position best Indian make gun metal high pressure full way or Gate valve (peets Pattren) with iron wheel head complete. (e) 50 mm dia	no	762.00	6.00	4572.00
17	Item No. 18.1.3				
	Providing and fixing water closet squatting pan (Indian type W.C. pan), 100mm sand cast Iron P or S trap, 10 litre low level P.V.C. flushing cistern (same colour) conforming to IS : 7231, with flush bend and other fittings and fixtures complete including cutting and making good the walls and floors wherever required : White Orissa pattern W.C. pan of size 580x440 mm.	no	2899.00	6.00	17394.00
18	Item No. 18.17.2				
	Providing and fixing vitreous china wash basin with C.I. brackets, 32 mm C.P. brass waste of standard pattern, including painting of brackets, cutting and making good the walls wherever required : i) Flat Back (White) - 550X400 mm	no	1408.00	12.00	16896.00
19	18.22.2				
	Providing and fixing Stainless Steel A ISI 304 (18/8) kitchen sink without drain board as per IS 13983 with C.I. brackets and stainless steel plug 40 mm including painting of fittings and brackets, cutting and making good the walls wherever required :- A waste pipe upto nahni trap.560x410 mm bowl depth 215 mm.	no	6210.00	6.00	37260.00
20	Item No. 19.14.1				
	Providing and fixing 15 mm nominal bore C.P. brass fittings of approved make and conforming to IS:8931 including C.P. brass extension if required:Short nose Bib cock (400 grams)	no	382.00	15.00	5730.00
21	Item No. 19.14.2				
	Providing and fixing 15 mm nominal bore C.P. brass fittings of approved make and conforming to IS:8931 including C.P. brass extension if required:Long Nose Bib cock (500 grams)	no	455.00	12.00	5460.00
22	Item No. 19.14.4				

Item No.	Nomenclature(Particulars)	Unit	S.O.R. Rate	Qty	Amount
1	2	3	4	5	6
	Providing and fixing 15 mm nominal bore C.P. brass fittings of approved make and conforming to IS:8931 including C.P. brass extension if required:Piller Cock (400 grams)	no	398.00	12.00	4776.00
23	Item No. 19.14.10				
	Providing and fixing 15 mm nominal bore C.P. brass fittings of approved make and conforming to IS:8931 including C.P. brass extension if requiredWall mixer with elegant knob (1400 grams)	no	1787.00	12.00	21444.00
24	Item No. 19.14.10				
	Providing and fixing 15 mm nominal bore C.P. brass fittings of approved make and conforming to IS:8931 including C.P. brass extension if requiredHand shower set with arm	no	754.00	6.00	4524.00
25	Item No. 19.14.7				
	Providing and fixing 15 mm nominal bore C.P. brass fittings of approved make and conforming to IS:8931 including C.P. brass extension if required Angle valve for basin mixer and geyser points (450 grams)	no	382.00	8.00	3056.00
26	Item No. 19.14.14				
	Providing and fixing 15 mm nominal bore C.P. brass fittings of approved make and conforming to IS:8931 including C.P. brass extension if required Soap dish plate	no	163.00	6.00	978.00
27	Item No. 19.14.16				
	Providing and fixing 15 mm nominal bore C.P. brass fittings of approved make and conforming to IS:8931 including C.P. brass extension if required Towel rail (600mm long x 20mm dia)	no	338.00	6.00	2028.00
28	Item No. 20.3.2				
	Providing and fixing square-mouth S.W. gully trap grade 'A' complete with C.I. grating brick masonry chamber with well burnt modular clay bricks crushing strength not less than 35kg/cm ² , water tight C.I. cover with frame of 300 x300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design : 150 x 100 mm size P type.	no	1397.00	6.00	8382.00
29	Item No. 19.6.9				157

Item No.	Nomenclature(Particulars)	Unit	S.O.R. Rate	Qty	Amount
1	2	3	4	5	6
	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings. This included jointing of pipes & fittings with one step CPVC solvent cement, trenching, refilling & testing of joints complete including excavation of trench up to 1.5 Mtr. Depth Laying 15 cm thick and 40 cm wide CC 1:5:8 with all jointing material coupler etc including testing refilling of soil etc. complete. a) 100 mm dia (c.c. base 30cm wide)	RMT	2325.00	18.00	41850.00
	TOTAL AMOUNT OF WATER SUPPLY			Total Rs.	238444.00

Sub Engineer

Chhattisgarh Housing &
Infrastructure Development Board
Division -Korba

Assistant Engineer

Chhattisgarh Housing & Infrastructu
Development Board
Division -Korba

ExecutiveEngineer

Chhattisgarh Housing &
Infrastructure Development Board
Division -Korba

**ESTIMATE OF INTERNAL ELECTRIFICATION WORK FOR PROPOSED 01 BLOCK (06 UNITS) H-TYPE
HOUSES FOR GAD QUARTERS UNDER REDEVELOPMENT SCHEME AT KATGHORA (SITE-2),
DISTT-KORBA (C.G.)**

S.No.	SOR Item no.	PARTICULARS	UNIT	RATE	QTY.			TOTAL QTY.	AMOUNT
					For Each Flat	For 06 Nos. Flat	For Common Area		
01	1.7	Wiring for light/fan/exhaust fan/call bell point with 3x1.5 sqmm FRLS PVC insulated stranded copper conductor single core wire for phase, neutral and earth in concealed FRLS PVC conduit, with 5/6 amp modular switch, modular base and cover plate, suitable size G.I. box as per specification.							
	1.7.1	Short Point	Point	266.00	04	24	02	26	6916.00
	1.7.2	Medium Point	Point	424.00	07	42	06	48	20352.00
	1.7.3	Long Point	Point	588.00	09	54	09	63	37044.00
02	1.8	Wiring for twin control light point with 3x1.5 sqmm FRLS PVC insulated stranded copper conductor wire for phase, neutral and earth in concealed FRLS PVC conduit (heavy duty, thickness of pipe should be 2 mm) with 5/6 amp modular switch, modular base and cover plate, suitable size G.I. box as per specification and IS: 694 (2010), IS: 9537 (2000 Part 5)	Point	420.00	00	00	04	04	1680.00
03	1.9	Extra for providing and fixing light plug point on board in concealed FRLS PVC conduit point wiring with modular type 3 pin 5/6 amp socket outlet and 5/6 amp switch including cost of base and cover plate and G.I. box etc. as per specification.	Point	216.00	05	30	00	30	6480.00
04	1.10	Wiring for light plug point with 3x2.5 sqmm FRLS PVC insulated stranded copper conductor wire for phase, neutral and earth in concealed FRLS PVC conduit along with modular type 6 Amp switch and 3 pin 6 amps socket outlet with modular base and cover plate, suitable size G.I. box, earthing the switch box and socket outlet with same size wire etc. as per specification.							
	1.10.1	Short Point	Point	442.00	02	12	00	12	5304.00
	1.10.2	Medium Point	Point	659.00	02	12	00	12	7908.00
	1.10.3	Long Point	Point	922.00	03	18	00	18	16596.00

S.No.	SOR Item no.	PARTICULARS	UNIT	RATE	QTY.			TOTAL QTY.	AMOUNT
					For Each Flat	For 06 Nos. Flat	For Common Area		
05	1.11	Wiring for power plug point with 3x4 sq mm FRLS PVC insulated stranded copper conductor wire for phase, neutral and earth in concealed FRLS PVC conduit (heavy duty, thickness of pipe should be 2 mm) along with modular type 16 Amp switch and 6 pin 16 amps socket outlet with modular base and cover plate, suitable size G.I. box, earthing the switch box and socket outlet with same size wire etc. as per specification and IS: 694 (2010), IS: 9537 (2000 Part 5)							
	1.11.2	Medium Point	Point	942.00	01	06	00	06	5652.00
	1.11.3	Long Point	Point	1350.00	01	06	00	06	8100.00
	1.11.4	Extra Long Point I	Point	1807.00	02	12	00	12	21684.00
06	1.13	Wiring for circuit/ sub main wiring along with earth wire with the following sizes of FRLS PVC insulated copper conductor, wire in concealed FRLS PVC conduit (heavy duty, thickness of pipe should be 2 mm) as per specification and IS: 694 (2010), IS: 9537 (2000 Part 5)							
	1.13.2	3 X 2.5 sq. mm in 20 mm conduit	Mtr	111.00	45.00	270.00	40.00	310.00	34410.00
	1.13.3	6 X 2.5 sq. mm in 25 mm conduit	Mtr	172.00	20.00	120.00	10.00	130.00	22360.00
	1.13.4	9 X 2.5 sq. mm in 32mm conduit	Mtr	238.00	15.00	90.00	0.00	90.00	21420.00
	1.13.13	6 X 6 sq. mm in 32mm conduit	Mtr	312.00	30.00	180.00	0.00	180.00	56160.00
07	1.15	Supplying and fixing of following sizes FRLS PVC conduit (heavy duty, thickness of pipe should be 2 mm) along with accessories in concealed complete as per specification and IS: 9537 (2000 Part 5)							
	1.15.2	25 mm	Mtr	53.00	30.00	180.00	0.00	180.00	9540.00
08	3.11	Supplying and drawing following sizes of FRLS PVC insulated copper conductor, multi strand wire in the existing surface/ concealed, FRLS PVC conduit / PVC casing capping as per specification and IS: 694 (2010)							
	3.11.3	3 x 1.5 sq. mm	Mtr.	37.00	0.00	0.00	200.00	200.00	7400.00
09	3.13	Supplying and drawing following grade co-axial TV wire FRLS PVC insulated, shielded with fine tinned copper braid and protected with PVC sheath in the existing surface/ concealed Steel/PVC conduit as per specification and IS: 694 (2010)							
	3.13.1	RG-6 grade	Mtr	14.00	20.00	120.00	0.00	120.00	1680.00

S.No.	SOR Item no.	PARTICULARS	UNIT	RATE	QTY.			TOTAL QTY.	AMOUNT
					For Each Flat	For 06 Nos. Flat	For Common Area		
10	4.4	Supplying and fixing following size/ modules, GI box along with modular base & cover plate for modular switches in recess etc as per specification.							
	4.4.1	75mmX75mm (1/2 Module)	Each	99.00	02	12	00	12	1188.00
11	5.4	Supplying and fixing following modular switch, socket, other accessories on the existing modular plate & switch box including connections but excluding modular plate etc. as per specification.							
	5.4.9	Fan regulator (Two module size) electronic stepped type moving all rounds	Each	223.00	02	12	00	12	2676.00
	5.4.16	T.V. antenna socket outlet	Each	74.00	01	06	00	06	444.00
	5.4.17	Computer Outlet Jack	Each	242.00	01	06	00	06	1452.00
	5.4.22	Batten/ angle holder	Each	41.00	07	42	00	42	1722.00
	5.4.23	Blanking plate	Each	28.00	05	30	05	35	980.00
12	5.9	Providing and fixing round/ hexagonal fan box (125mm dia) depth 75mm (max.) with 12mm dia steel bar hook, 1.6mm thick MS sheet cover, in RCC slab etc. as per specification.	Each	42.00	02	12	00	12	504.00
13	6.4	Supply, Installation, Testing and Commissioning of 1200 mm sweep, BEE 5 star rated, ceiling fan with Brush Less Direct Current (BLDC) Motor, class of insulation: B, 3 nos. blades, 30 cm long down rod, 2 nos. canopies, shackle kit, safety rope, copper winding, Power Factor not less than 0.9, Service Value (CMM/W) minimum 6.85, Air delivery minimum 215 CMM, 350 RPM (tolerance as per IS : 374-2019), THD less than 10%, remote or electronic regulator unit for speed control and all remaining accessories including safety pin, nut bolts, washers, temperature rise=75 degree C (max.), insulation resistance more than 2 mega ohm, suitable for 230 V, 50 Hz, single phase AC Supply, including connection, earthing etc. complete as per specification.	Each	2662.00	02	12	00	12	31944.00
14	6.6	Supplying, installation, testing and commissioning of following sizes heavy duty (continuous running) 1400 rpm exhaust fan in existing opening in wall including earthing etc. complete as per specification. P.F. should be greater than 0.9							
	6.6.1	300 mm sweep	Each	2446.00	02	12	00	12	29352.00
15	6.12	Providing and fixing phenolic laminated sheet cover of 180 mm dia 3 mm thick on the fan box etc. as per specification. (If provided at the time of installation of celing fan)	Each	56.00	02	12	00	12	672.00

S.No.	SOR Item no.	PARTICULARS	UNIT	RATE	QTY.			TOTAL QTY.	AMOUNT
					For Each Flat	For 06 Nos. Flat	For Common Area		
16	6.19	Supplying, installation, testing and commissioning of following LED tube light fitting including batten with Electronic Driver Heat sink Capacitor complete with all other accessories on surface/in false ceiling, including connection, earthing etc complete as per specification and furnishing 5 Yrs Warranty certificate from manufacturer. IP20 P.F. should be greater than 0.9. LED chip efficacy ratio \geq 100 lumens/watt.							
	6.19.3	18/20 watt{4 feet}	Each	443.00	05	30	02	32	14176.00
17	6.27	Supplying, installation, testing and commissioning of following LED Bulk Head fitting complete with Electronic Driver Heat sink Capacitor and all other accessories, including connection, earthing etc complete as per specification and P.F. should be greater than 0.9. LED chip efficacy ratio \geq 100 lumens /watt. IP65							
	6.27.1	10 watt	Each	1140.00	02	12	08	20	22800.00
18	6.28	Supplying, installation, testing and commissioning of following 230/250 volts LED street light fitting with all accessories like driver, heat sink made of die cast aluminium with IP 66 protection and 10 KV surge protection on pole bracket, including connection, earthing etc complete as per specification and furnishing 5 Yrs Warranty certificate from manufacturer. P.F. should be greater than 0.9. LED chip efficacy ratio \geq 120 lumens /watt.							
	6.28.6	45 watt	Each	2729.00	00	00	09	09	24561.00
19	7.17	Providing and making interconnection in cubical panel between BBC and switchgears with following size FRLS PVC insulated copper conductor wire lead of length upto 50cm including providing copper thimbles on both ends as per specification (To be measured separately for each phase/ neutral).							
	7.17.2	16 sqmm (63 amp)	Each	104.00	00	00	24	24	2496.00
	7.17.3	35 sqmm (125 amps)	Each	181.00	00	00	04	04	724.00

S.No.	SOR Item no.	PARTICULARS	UNIT	RATE	QTY.			TOTAL QTY.	AMOUNT
					For Each Flat	For 06 Nos. Flat	For Common Area		
20	7.19	Fabrication, supply, installation, testing and commissioning of cubicle type compartmentalized wall/ floor mounted power cum control panel board of specified size and following depth made out of not less than 2 mm thick CRCA MS sheet with suitable size compartments for bus bars, switchgears and necessary cutouts for voltmeters, ammeters etc as per specifications including powder coating painting but without busbars, switchgears and other accessories etc complete as per specification. (Only face area is to be measured)							
	7.19.1	Upto 300 mm deep	Sqm	6818.00	0.00	0.00	2.21	2.21	15067.78
21	7.20	Supply, installation, testing and commissioning of 4 pole (3 phase+neutral) aluminium bus bars in existing cubicle type compartmentalized wall/ floor mounted panel board along with suitable size and shape insulators, necessary bolts and nuts etc complete as per specification.							
	7.20.2	200 amp (30x5mm)	Mtr	907.00	0.00	0.00	1.00	1.00	907.00
22	9.1	Providing and fixing following rating and breaking capacity MCCB in existing cubicle panel board including drilling holes in cubicle panel, making connections, etc.as per specification, IS/IEC:60947-2 and Ics = 100% Icu							
	9.1.25	4 pole MCCB, 125A, Adjustable Thermal - Magnetic Release, 35KA	Each	7428.00	0.00	0.00	1.00	1.00	7428.00
23	9.2	Supplying and fixing on surface/ recess following way, 240 volts SP&N MCB distribution board of sheet steel phosphatized and powder painted complete with tinned copper busbar, neutral busbar, earth bar, din bar, detachable gland plate, including interconnections, earthing etc. as per specification. (But without MCB/RCCB/Isolator)							
	9.2.5	4 way, Double door	Each	784.00	00	00	01	01	784.00
24	9.4	Supplying and fixing on surface/ recess horizontal type following way, 415 volts, TPN MCB distribution board of sheet steel phosphatized and powder painted, complete with tinned copper busbar, neutral busbar, earth bar, din bar, detachable gland plate, including interconnections, earthing etc. as per specification. (But without MCB/RCCB/Isolator)							
	9.4.4	4 way Double door	Each	1716.00	01	06	00	06	10296.00
25	9.11	Supplying and fixing SP MCB, 240 volts, 'C' curve, suitable for inductive load in the existing MCB DB complete with connections, testing and commissioning etc. as per specification.							
	9.11.2	6 amps to 32 amps	Each	148.00	10	60	02	62	9176.00

S.No.	SOR Item no.	PARTICULARS	UNIT	RATE	QTY.			TOTAL QTY.	AMOUNT
					For Each Flat	For 06 Nos. Flat	For Common Area		
26	9.12	Supplying and fixing DP MCB, 240 volts, 'C' curve, suitable for lighting and other loads in the existing MCB DB complete with connections, testing and commissioning etc. as per specification.							
	9.12.2	6 amps to 32 amps	Each	411.00	00	00	01	01	411.00
27	9.16	Supplying and fixing TP&N MCB, 440 volts, 'C' curve, suitable for lighting and other loads in the existing MCB DB complete with connections, testing and commissioning etc. as per specification.							
	9.16.5	63 amps	Each	1316.00	01	06	06	12	15792.00
28	10.15	Providing and fixing following rating current transformer in existing cubical panel including, connections, testing and commissioning etc. as per specification.							
	10.15.3	200/5 amps	Each	347.00	00	00	04	04	1388.00
29	10.17	Providing and fixing panel mounting 230 volt LED type indicating lamp in existing cubical panel including, connections, testing and commissioning etc. as per specification.	Each	94.00	0.00	0.00	3.00	3.00	282.00
30	10.23	Providing and fixing panel mounting digital type VAF (Volt-amp-frequency combined) meter of size 100x100 (NS) in existing cubical panel including connection, testing and commissioning etc. as per specification.	Each	1201.00	00	00	01	01	1201.00
31	12.16	Providing and fixing 25 mm X 5 mm G.I. strip on surface or in recess for connections etc. as per specification.	Mtr	115.00	0.00	0.00	20.00	20.00	2300.00
32	12.19	Providing maintenance free earthing with following size GI pipe including making bore pit of minimum 150mm dia, providing and laying approved make Earthing Electrode of Pipe-in-Pipe technology as per IS 3043(R 2016) -1987 made of corrosion free G.I. Pipes having outer pipe of 80mm dia and inner pipe of 50mm dia and filling with specified qty highly conductive compound around pipe and above that with soft soil in bore pit complete and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. as per specification.							
	12.19.2	With 2 metre long GI Pipes and 25 kg back filling compound.	Each	8222.00	00	00	01	01	8222.00

S.No.	SOR Item no.	PARTICULARS	UNIT	RATE	QTY.			TOTAL QTY.	AMOUNT
					For Each Flat	For 06 Nos. Flat	For Common Area		
33	14.2	Supplying and laying HDPE pipe of 4kg/cum in ground below road, path etc at a depth not less than 40 cm and upto 90 cm including excavation, dismantling of road if required and refilling the trench with excavated material, ramming and making the surface good etc. as per specification.							
	14.2.1	63 mm outer dia	Mtr	124.00	0.00	0.00	90.00	90.00	11160.00
34	15.3	Supplying and laying following sizes one number FRLS PVC insulated, PVC sheathed, steel armoured, aluminium conductor power cable of 1.1 KV grade in existing RCC/ HUME/ STONEWARE/ METAL/ HDPE pipe as perspecification, IS:9537 (2000, Part5)							
	15.3.2	2 x 6 sq. mm	Mtr	74.00	0.00	0.00	100.00	100.00	7400.00
	15.3.13	3.5 x 50 sq. mm.	Mtr	173.00	0.00	0.00	180.00	180.00	31140.00
35	15.23	Supplying and making end termination with brass compression gland and aluminum lugs for following size armoured aluminum conductor power cable of 1.1 KV grade as per specification.							
	15.23.14	3½ X 50 sq. mm (32 mm)	Each	168.00	00	00	02	02	336.00
36	20.6	Supplying and erection of angle/channel iron cross arms/ bracket/ other fitting of approved size and shape including drilling of holes for insulator pins, bolts and nuts etc as per specification.	kg	77.00	0.00	0.00	10.00	10.00	770.00
		TOTAL						Rs.	550437.78
		Say						Rs.	550438.00

Sub Engineer (Elect)
Chhattisgarh Housing &
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Elect. Sub Divi - Bilaspur

Assistant Engineer (Elect)
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Executive Engineer (Elect)
Chhattisgarh Housing &
Infrastructure Development Board
Elect. Div - Bilaspur

GENERAL ABSTRACT

ESTIMATE FOR THE CONSTRUCTION OF PROPOSED "H1" TYPE QUARTERS FOR IRRIGATION UNDER REDEVELOPEMENT WORK AT KATGHORA (KORBA) C.G. ,(SITE II)

For 8 Units (G+1)

A	Construction cost		For 01 Block (04 Unit)	Total Block to be constructed	Total Cost for 04 Unit
i)	Civil Work	Rs.	7847208.00	1	7847208.00
ii)	Cost of water supply and sanitary works	Rs.	317492.00	1	317492.00
iii)	Cost of internal electrification work i/c fixtures	Rs.	714374.00	1	714374.00
	Total A :-	Rs.			8879074.00
	Cost of for 8 units of 1 Block	Rs.			8879074.00

**Based on Chhattisgarh P.W.D. Building SOR w.e.f. 01-01-2015
& Road SOR w.e.f. 01-01-2015**

Sub Engineer
Chhattisgarh Housing &
Infrastructure Development Board
Division -Korba

Assistant Engineer
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Division -Korba

Executive Engineer
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Infrastructure Development Board
Division -Korba

DETAIL ESTIMATE FOR CIVIL CONSTRUCTION OF PROPOSED "H1" TYPE QUARTERS FOR IRRIGATION UNDER REDEVELOPEMENT WORK AT KATGHORA (KORBA) C.G. (SITE II)										
S. No.	I. No.	PARTICULAR	Measurement				QTY	UNIT	RATE	AMOUNT
			NO	L	B	D/H				
1	1.2	Surface dressing of the ground including removing vegetation and making up undulations and in-equalities not exceeding 15 cms in depth/ height including disposal of rubbish upto 1.5 m lift and lead upto 50m (at least 5m away from the dressed area).	1	18.00	20.00		360.00	sqm	7.20	2592.00
2	1.1	Excavation for all types and sizes of foundations, trenches and drains or for any other purpose including disposal of excavated stuff upto 1.5 m lift and lead upto 50m (at least 5m away from the excavated area), including dressing and leveling of pits.								
	1.1.1	In all types of soils.								
		F1	12	2.25	2.40	2.00	129.60			
		F2	8	2.70	3.00	2.00	129.60			
		F3	6	2.25	2.40	2.00	64.80			
		F4	6	1.95	2.10	2.00	49.14			
		For Beam								
		PB								
		Horizontal	4	2.5	0.30	0.20	0.60			
			4	4.2	0.30	0.20	1.01			
			4	0.8	0.30	0.20	0.19			
			4	2.3	0.30	0.20	0.55			
			4	7.7	0.30	0.20	1.85			
			8	2.7	0.30	0.20	1.30			
		common	2	3.7	0.30	0.20	0.44			
		pro	2	0.6	0.30	0.20	0.07			
		lobby	4	2.9	0.30	0.20	0.70			
		Vertical	8	0.7	0.30	0.20	0.34			
			8	3.4	0.30	0.20	1.63			
			4	7.4	0.30	0.20	1.78			
			8	2.65	0.30	0.20	1.27			
		lobby	2	10.1	0.30	0.20	1.21			
		pro	2	1.5	0.30	0.20	0.18			
							386.26	cum	185.00	71457.36
3	1.6	Extra for every additional lift of 1.5 m or part thereof.								
	1.6.1	All types of soils								
		F1	12	2.25	2.40	0.50	32.40			
		F2	8	2.70	3.00	0.50	32.40			
		F3	6	2.25	2.40	0.50	16.20			
		F4	6	1.95	2.10	0.50	12.29			
							93.29	cum	26.50	2472.19
4	3.1	Providing and laying nominal mix plain cement concrete with crushed stone aggregate using concrete mixer in all works upto plinth level excluding cost of form work.								
	3.1.2	1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size).								
		F1	12	2.25	2.40	0.10	6.48			
		F2	8	2.70	3.00	0.10	6.48			
		F3	6	2.25	2.40	0.10	3.24			
		F4	6	1.95	2.10	0.10	2.46			
		PB								
		Horizontal	4	2.5	0.30	0.10	0.30			
			4	4.2	0.30	0.10	0.50			
			4	0.8	0.30	0.10	0.10			
			4	2.3	0.30	0.10	0.28			
			4	7.7	0.30	0.10	0.92			
			8	2.7	0.30	0.10	0.65			
		common	2	3.7	0.30	0.10	0.22			
		pro	2	0.6	0.30	0.10	0.04			
		lobby	4	2.9	0.30	0.10	0.35			
		Vertical	8	0.7	0.30	0.10	0.17			

			8	3.4	0.30	0.10	0.82			
			4	7.4	0.30	0.10	0.89			
			8	2.65	0.30	0.10	0.64			
		lobby	2	10.1	0.30	0.10	0.61			
		pro	2	0.6	0.30	0.10	0.04			
		Below Floor								
		Living & dining	4	3.30	3.90	0.10	5.15			
		Bed room	4	3.30	3.00	0.10	3.96			
		Almirah	4	1.60	0.60	0.10	0.38			
		Kitchen	4	2.10	2.40	0.10	2.02			
		WC & Bath	4	1.50	1.25	0.10	0.75			
			4	1.50	1.25	0.10	0.75			
		front of wc/bath	4	2.60	0.90	0.10	0.94			
		balcony	4	2.10	1.10	0.10	0.92			
		Lobby+stair	1	5.80	2.50	0.10	1.45			
		Below staircase	1	4.80	2.50	0.10	1.20			
		Ramp + front step	1	2.50	1.40	0.10	0.35			
							43.03			
							43.03	cum	2659.00	114422.09
5	3.3	Providing and laying design mix reinforced cement concrete with crushed graded stone aggregate 20mm nominal size using batching plant, transit mixer and concrete pump, in all works upto plinth level excluding cost of form work.								
	3.3.2	M-25 Grade								
		F1	12	1.95	2.10	0.40	19.66			
		F2	8	2.40	2.70	0.45	23.33			
		F3	6	1.95	2.10	0.40	9.83			
		F4	6	1.65	1.80	0.35	6.24			
		Column upto Plinth								
		C1	12	0.20	0.40	2.25	2.16			
		C2	8	0.20	0.45	2.25	1.62			
		C3	6	0.20	0.40	2.25	1.08			
		C4	6	0.20	0.35	2.25	0.95			
		PB								
		Horizontal	4	2.5	0.20	0.35	0.70			
			4	4.2	0.20	0.35	1.18			
			4	0.8	0.20	0.35	0.22			
			4	2.3	0.20	0.35	0.64			
			4	7.7	0.20	0.35	2.16			
			8	2.7	0.20	0.35	1.51			
		common	2	3.7	0.20	0.35	0.52			
		pro	2	0.6	0.20	0.35	0.08			
		lobby	4	2.9	0.20	0.35	0.81			
		Vertical	8	0.7	0.20	0.35	0.39			
			8	3.4	0.20	0.35	1.90			
			4	7.4	0.20	0.35	2.07			
			8	2.65	0.20	0.35	1.48			
		lobby	2	10.1	0.20	0.35	1.41			
		pro	2	0.6	0.20	0.35	0.08			
						(A)	80.04			
		Column upto Ground Slab								
		C1	12	0.20	0.40	3.12	3.00			
		C2	8	0.20	0.45	3.12	2.25			
		C3	6	0.20	0.40	3.12	1.50			
		C4	6	0.20	0.35	3.12	1.31			
		Partial lintel beam								
		Horizontal	4	2.5	0.20	0.20	0.40			
			4	4.2	0.20	0.20	0.67			
			4	0.8	0.20	0.20	0.13			
			4	2.3	0.20	0.20	0.37			
			4	7.7	0.20	0.20	1.23			
			8	2.7	0.20	0.20	0.86			
		common	2	3.7	0.10	0.20	0.15			
		pro	2	0.6	0.20	0.20	0.05			
		lobby	4	2.9	0.20	0.20	0.46			
		Vertical	8	0.7	0.20	0.20	0.22			
			8	3.4	0.20	0.20	1.09			
			4	7.4	0.20	0.20	1.18			
			8	2.65	0.20	0.20	0.85			
		lobby	2	10.1	0.20	0.20	0.81			
		pro	2	0.6	0.20	0.20	0.05			

		Slab beam								
		Horizontal	4	2.5	0.20	0.35	0.70			
			4	4.2	0.20	0.35	1.18			
			4	0.8	0.20	0.35	0.22			
			4	2.3	0.20	0.35	0.64			
			4	7.7	0.20	0.35	2.16			
			8	2.7	0.20	0.35	1.51			
		common	2	3.7	0.10	0.35	0.26			
		pro	2	0.6	0.20	0.35	0.08			
		lobby	4	2.9	0.20	0.35	0.81			
		Vertical	8	0.7	0.20	0.35	0.39			
			8	3.4	0.20	0.35	1.90			
			4	7.4	0.20	0.35	2.07			
			8	2.65	0.20	0.35	1.48			
		lobby	2	10.1	0.20	0.35	1.41			
		pro	2	0.6	0.20	0.35	0.08			
		Slab								
		Living & dining	4	3.30	3.90	0.125	6.44			
		Kitchen	4	2.10	2.40	0.125	2.52			
		Bed room	4	3.30	3.00	0.125	4.95			
		Almirah	4	1.60	0.60	0.125	0.48			
		WC & bath	4	1.50	1.25	0.125	0.94			
			4	1.50	1.25	0.125	0.94			
		front of wc/bath	4	2.60	0.90	0.125	1.17			
		balcony	4	2.10	1.10	0.125	1.16			
		Common lobby	1	5.80	2.60	0.125	1.89			
		staircase								
		Staircase W/slab	4	2.85	1.20	0.150	2.05			
		Midlanding	2	2.40	1.30	0.150	0.94			
		Steps	40	1.30	0.15	0.15	1.17			
		Landing	1	2.60	0.80	0.150	0.31			
		kf	4	2.80	0.60	0.060	0.40			
			4	2.80	0.60	0.100	0.67			
		front step	1	2.90	1.40	0.100	0.41			
		Chhajja								
		CG	1	2.90	0.60	0.080	0.14			
		w	8	1.70	0.60	0.080	0.65			
		w-stair	2	1.70	0.60	0.080	0.16			
		wk	4	1.00	0.60	0.080	0.19			
		w2	8	1.50	0.60	0.080	0.58			
		v	8	1.10	0.60	0.080	0.42			
		tower door chajja	1	2.90	0.60	0.080	0.14			
		Window sill								
		w	8	1.70	0.20	0.05	0.14			
		w-stair	2	1.70	0.20	0.05	0.03			
		wk	4	1.30	0.20	0.05	0.05			
		w2	8	1.50	0.20	0.05	0.12			
		v	8	1.10	0.20	0.05	0.09			
			GROUND FLOOR			(B)	148.83			
			FIRST FLOOR SAME AS G			(C)	148.83			
		Terrace Floor								
		Tower Beam	2	5.80	0.20	0.30	0.70			
			3	2.90	0.20	0.30	0.52			
		slab	1	5.80	2.90	0.125	2.10			
		paraphet column	26	0.20	0.40	0.90	1.87			
			6	0.20	0.40	0.30	0.14			
		chajja	1	2.90	0.60	0.10	0.17			
						(d)	5.51			
					(A to D)		383.21	cum	4298.00	1647039.59
6	3.4	Extra for laying PCC/RCC of any grade in superstructure above plinth level for every floor or part thereof in addition to rate for foundation and plinth:								
		Ground Floor								
		Rcc work above plinth					148.83	cum	97.50	14510.89
		First Floor								
		Rcc work above plinth					148.83	cum	195.00	29021.77
		Terrace Floor								
		RCC					5.51	cum	292.50	1611.82

7	2.1	Providing and fixing form work including centring, shuttering, strutting, staging, propping bracing etc. complete and including its removal at all levels, for:								
a)	2.1.1	Foundations, footings, bases of columns plinth beam, curtain wall in any shape and size and all type of wall below plinth level.								
		PCC work								
		F1	12	8.10		0.40	38.88			
		F2	8	10.20		0.45	36.72			
		F3	6	8.10		0.40	19.44			
		F4	6	6.90		0.35	14.49			
		COLUMN UPLT GL								
		C1	12	1.20		2.25	32.40			
		C2	8	1.30		2.25	23.40			
		C3	6	1.20		2.25	16.20			
		C4	6	1.10		2.25	14.85			
		PB								
		Horizontal	8	2.5		0.35	7.00			
			8	4.2		0.35	11.76			
			8	0.8		0.35	2.24			
			8	2.3		0.35	6.44			
			8	7.7		0.35	21.56			
			16	2.7		0.35	15.12			
		common	4	3.7		0.35	5.18			
		pro	4	0.6		0.35	0.84			
		lobby	8	2.9		0.35	8.12			
		Vertical	16	0.7		0.35	3.92			
			16	3.4		0.35	19.04			
			8	7.4		0.35	20.72			
			16	2.65		0.35	14.84			
		lobby	4	10.1		0.35	14.14			
		pro	4	0.6		0.35	0.84			
							348.14	sqm	139.00	48391.46
b)	2.1.5	Columns, Pillars, Piers and likes- rectangular or square in shape								
		GF COLUMN								
		C1	12	1.20		3.00	43.20			
		C2	8	1.30		3.00	31.20			
		C3	6	1.20		3.00	21.60			
		C4	6	1.10		3.00	19.80			
		FF COLUMN								
		C1	12	1.20		3.00	43.20			
		C2	8	1.30		3.00	31.20			
		C3	6	1.20		3.00	21.60			
		C4	6	1.10		3.00	19.80			
		Terrace Floor								
		Tower col	6	1.20		2.40	14.40			
		paraphet column	26	1.20		0.90	23.40			
			6	1.20		0.30	1.80			
							271.20	sqm	297.00	80546.40
c)	2.1.8	Beams, lintels, cantilevers & walls								
		Ground Floor								
		Partial lintel beam								
		Horizontal	4	2.5		0.40	4.00			
			4	4.2		0.40	6.72			
			4	0.8		0.40	1.28			
			4	2.3		0.40	3.68			
			4	7.7		0.40	12.32			
			8	2.7		0.40	8.64			
		common	2	3.7		0.40	2.96			
		pro	2	0.6		0.40	0.48			
		lobby	4	2.9		0.40	4.64			
		Vertical	8	0.7		0.40	2.24			
			8	3.4		0.40	10.88			
			4	7.4		0.40	11.84			
			8	2.65		0.40	8.48			
		lobby	2	10.1		0.40	8.08			
		pro	2	0.6		0.40	0.48			
		Slab beam								
		Horizontal	4	2.5		0.70	7.00			
			4	4.2		0.70	11.76			

			4	0.8		0.70	2.24			
			4	2.3		0.70	6.44			
			4	7.7		0.70	21.56			
			8	2.7		0.70	15.12			
		common	2	3.7		0.70	5.18			
		pro	2	0.6		0.70	0.84			
		lobby	4	2.9		0.70	8.12			
		Vertical	8	0.7		0.70	3.92			
			8	3.4		0.70	19.04			
			4	7.4		0.70	20.72			
			8	2.65		0.70	14.84			
		lobby	2	10.1		0.70	14.14			
		pro	2	0.6		0.70	0.84			
		Window sill								
		w	8	1.70		0.10	1.36			
		w-stair	2	1.70		0.10	0.34			
			4	1.30		0.10	0.52			
		w2	8	1.50		0.10	1.20			
		v	8	1.10		0.10	0.88			
			ground floor				242.78	x		
			first floor same as ground floor				242.78	y		
		Terrace Floor								
		Tower Beam	4	5.80		0.80	18.56			
			6	2.90		0.80	13.92			
							518.04	sqm	202.00	104644.08
d)	2.1.7	Suspended floors, roofs, access platform, balconies (plain surfaces) and shelves (cast in situ)								
		Ground Floor								
		Living & dining	4	3.30	3.90		51.48			
		Kitchen	4	2.10	2.40		20.16			
		Bed room	4	3.30	3.00		39.60			
		Almirah	4	1.60	0.60		3.84			
		WC & bath	4	1.50	1.25		7.50			
			4	1.50	1.25		7.50			
		front of wc/bath	4	2.60	0.90		9.36			
		balcony	4	2.10	1.10		9.24			
		Common lobby	1	4.80	2.60		12.48			
		kf	8	2.80	0.60		13.44			
			ground floor				174.60	x		
			first floor same as ground floor				174.60	y		
		Terrace Floor								
		Tower slab	1	5.80	2.90		16.82			
							366.02	sqm	235.00	86014.70
e)	2.1.13	Weather shade, chhajja, Cornices and mouldings								
		Ground Floor								
		CG	1	2.90	0.60		1.74			
		w	8	1.70	0.60		8.16			
		w stair	2	1.70	0.60		2.04			
		wk	4	1.00	0.60		2.40			
		w2	8	1.50	0.60		7.20			
		v	8	1.10	0.60		5.28			
		tower door	1	2.50	0.60		1.50			
			ground floor				28.32	x		
			first floor same as ground floor				28.32	y		
							56.64	sqm	294.00	16652.16
f)	2.1.15	Stair cases of all types excluding spiral and folded plate type, including risers and landings								
		Ground Floor								
		Staircase W/slab	4	2.85	1.20		13.68			
		Midlanding	2	2.40	1.30		6.24			
		Sides	40	2.85	0.30		34.20			
		Landing	1	2.60	0.80		2.08			
			ground floor				56.20	x		
			first floor same as ground floor				56.20	y		
							112.40	sqm	230.00	25852.00

8		Extra for providing fixing and removing of propping from lower floor upwards for the concreting. Propping should be provided two floors below. The props of lower floor must be 50% of the props of the floor above including wedging etc. complete. In case propping is done in one floor below, only half the rate shall be paid.								
		As per Slab Area	2	215.10		0.50	215.10	sqm	17.00	3656.70
9	3.12	Providing and placing in position reinforcement for R.C.C. work including straightening, cutting, bending, binding etc. complete as per drawings including cost of binding wire in foundation and plinth all complete:								
	3.12.2	Thermo-Mechanically treated bars FE 500 D								
		Qty. of R.C.C. M 20	383.21		115.00		44069.23	Kg	54.50	2401773.06
10	1.17	Filling from available excavated stuff (Excluding rock) in trenches, plinth, sides of foundation etc. in layers not exceeding 20cm in depth consolidating each deposited layer by ramming and watering with a lead upto 50 M. and lift upto 1.5 M.								
		For Footing (Total Excavated Earth)					386.26			
							386.26	Cum	65.00	25106.64
11	1.18	Providing and filling in plinth with sand/ Crusher dust and hard moorum under floor in layers not exceeding 20cm in depth consolidating each deposited layer by ramming and watering, including dressing etc. complete.								
		Below Floor								
		Living & dining	4	3.30	3.90	0.65	33.46			
		Bed room	4	3.30	3.00	0.65	25.74			
		Almirah	4	1.60	0.60	0.65	2.50			
		Kitchen	4	2.10	2.40	0.65	13.10			
		WC & Bath	4	1.50	1.25	0.65	4.88			
			4	1.50	1.25	0.65	4.88			
		front of wc/bath	4	2.60	0.90	0.65	6.08			
		balcony	4	3.30	1.20	0.65	10.30			
		Lobby+stair	1	5.80	2.60	0.65	9.80			
		Below staircase	1	4.80	2.40	0.65	7.49			
		Ramp + front step	1	2.50	1.40	0.65	2.28			
							120.50	Cum	371.00	44704.39
12	3.13	Providing and laying damp proof course (upto 50mm thick) with plain cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded crushed stone aggregate 20mm nominal size) including form work.								
		At PL	1	216.80	0.20	0.05	2.17			
		above parapet	1	81.74	0.20	0.05	0.82			
		tower parapet	1	16.20	0.20	0.05	0.16			
		balcony	1	14.80	0.20	0.05	0.15			
							3.30	cum	4237.00	13962.61
13	1.25	Diluting chemical emulsion (chlorpyrifos/ lindane) in water as per manufacturers recommendation and injecting for pre-constructional curative cum preventive anti-termite treatment:(Five year service guarantee bond to be signed by contractor) Surface treatment by spreading emulsion under floor, over the plinth area								
	1.25.1	before laying base concrete @ 5 litres / sqm								
		Plinth Area	1	185.38	1.00		185.38	Sqm	27.50	5097.95
14	1.22	Supplying chlorpyrifos/ Lindane emulsifiable concentrate of 20% in sealed containers including delivery as specified.	185				185.38	Ltr	208.00	38559.04

15	3.16	Making 50mm thick plinth protection of plain cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded crushed stone aggregate 20mm nominal size) over 75mm bed of dry brick ballast 40mm nominal size well rammed and consolidated and grouted with sand including finishing the top smooth.	1	124.00	1.20		148.80	sqm	273.00	40622.40
16	1.25.2	Treatment of inside of plinth masonry wall on using diluted chemical emulsion @ 1.5 litre per hole, including drilling 12 mm diameter holes in plinth wall below plinth protection at the interval of 300 mm and plugging with cement mortar 1 :2 (1 cement : 2 Coarse sand).					124.00	metre	19.00	2356.00
17	1.25.3	Treatment of outer side of plinth masonry wall using diluted chemical emulsion @ 1.5 litre per hole, including drilling 12 mm diameter holes in plinth wall at the junction of floor at the interval of 300 mm and plugging with cement mortar 1 :2 (1 cement : 2 Coarse sand).					124.00	metre	13.50	1674.00
18	7.5	Brick work with modular fly-ash lime bricks (FaLG Bricks) confirming to IS:12894-2002 of class designation 4.0 in foundation and plinth in:								
	7.5.3	Cement Mortar 1:5 (1 cement : 5 coarse sand)								
		Below pl								
		Horizontal	4	2.5	0.20	0.45	0.90			
			4	4.2	0.20	0.45	1.51			
			4	0.8	0.20	0.45	0.29			
			4	2.3	0.20	0.45	0.83			
			4	7.7	0.20	0.45	2.77			
			8	2.7	0.20	0.45	1.94			
		common	2	3.7	0.20	0.45	0.67			
		pro	2	0.6	0.20	0.45	0.11			
		lobby	4	2.9	0.20	0.45	1.04			
		Vertical	8	0.7	0.20	0.45	0.50			
			8	3.4	0.20	0.45	2.45			
			4	7.4	0.20	0.45	2.66			
			8	2.65	0.20	0.45	1.91			
		lobby	2	10.1	0.20	0.45	1.82			
		pro	2	0.6	0.20	0.45	0.11			
		front step	3	2.50	1.20	0.15	1.35			
			3	2.50	0.90	0.15	1.01			
			3	2.50	0.60	0.15	0.68			
			3	2.50	0.30	0.15	0.34			
							22.89	cum	3,350.00	76671.45
19	7.5	Brick work with modular fly-ash lime bricks (FaLG Bricks) confirming to IS:12894-2002 of class designation 4.0 in foundation and plinth in:								
	7.5.4	Cement Mortar 1:6 (1 cement : 6 coarse sand)								
		Ground Floor								
		Living & dining	4	3.90	0.20	2.60	8.11			
			4	1.20	0.20	2.60	2.50			
			4	1.00	0.20	2.60	2.08			
			4	0.60	0.20	2.60	1.25			
		WC & Bath	4	2.50	0.20	2.60	5.20			
			4	2.60	0.20	2.60	5.41			
		Bed room	4	3.30	0.20	2.60	6.86			
			4	3.00	0.20	2.60	6.24			
			8	0.80	0.20	2.60	3.33			
			4	0.60	0.20	2.60	1.25			
			4	1.30	0.20	2.60	2.70			
		Kitchen	4	2.10	0.20	2.60	4.37			
			4	2.50	0.20	2.60	5.20			
		Balcony	8	1.30	0.20	2.60	5.41			
		common wall	2	3.30	0.20	2.60	3.43			
		stair por.	2	1.50	0.20	2.60	1.56			
			2	2.50	0.20	2.60	2.60			
		front pro.	2	0.60	0.20	2.60	0.62			
						(A)	68.12	cum		
		Deduct : Opening-D	4	1.00	0.20	2.10	1.68			
		D1	4	0.90	0.20	2.10	1.51			

		CG	1	2.50	0.20	2.10	1.05			
		W	8	1.20	0.20	1.20	2.30			
		W-stair	1	1.20	0.20	1.20	0.29			
		wk	4	0.80	0.20	1.20	0.77			
		W2	8	1.00	0.20	1.20	1.92			
		V	8	0.60	0.20	0.60	0.58			
						(B)	10.10	cum		
		Ground Floor				(A-B)	58.02	cum		
		Ground Floor			28.79	(A-B)	58.02	x		
		First Floor			28.79	(A-B)	58.02	y		
		Terrace Floor								
		Tower wall	2	2.50	0.20	2.10	2.10			
			2	5.60	0.20	2.10	4.70			
		Parapet wall	1	81.74	0.20	0.90	14.71			
		Tower Parapet wall	1	16.20	0.20	0.30	0.97			
		Deduct : Opening	-1	0.90	0.20	2.10	-0.38			
							22.11	cum	z	
						x+y+z	138.16	cum	3263.00	450800.42
20	7.6	Extra for brick work in superstructure above plinth level for every floor or part thereof in addition to rate for foundation and plinth:								
		Ground floor					58.02	cum	121.00	3844.90
		First floor					58.02	cum	242.00	7689.79
		Terrace Floor					22.11	cum	363.00	7788.53
21	7.11	Half brick thick brick masonry with fly-ash lime bricks (FaLG Bricks) confirming to IS:12894-2002 of class designation 4.0 in superstructure above plinth level upto plinth level:								
	7.11.4	Cement Mortar 1:4 (1 cement : 4 coarse sand)								
		Ground Floor								
		Living	4	2.80		2.60	29.12			
		bath & WC	4	2.80		2.60	29.12			
			8	1.60		2.60	33.28			
			4	0.90		2.60	9.36			
		bed	4	3.00		2.60	31.20			
		kitchen	4	2.10		2.60	21.84			
		Balcony	4	2.10		0.90	7.56			
		kf	16	0.60		0.90	8.64			
						(A)	170.12			
		Deduct : Opening	8	0.90		2.10	15.12			
		D1	4	0.90		2.10	7.56			
		D2	8	0.75		2.10	12.60			
						(B)	35.28			
		Ground Floor				(A-B)	134.84	sqm		
		Ground Floor					134.84			
		First Floor					134.84			
							269.68	sqm	382.00	103017.76
22	7.12	Extra for half brick work in superstructure above plinth level for every story or part thereof in addition to rate for upto plinth level:								
		Ground Floor					134.84	sqm	11.00	1483.24
		First Floor					134.84	sqm	22.00	2966.48
23	7.20	Extra for providing and placing in position hopping 25x1.60 mm or 2 Nos 6mm dia MS bars reinforcement at every third course of half brick masonry.					269.68	sqm	62.50	16855.00

24	9.16	Providing and fixing M.S. frames of doors, windows, ventilators and cupboards joints mitred and welded with 15x3 mm lugs 10cm long embedded in cement concrete blocks 15x10x10cm of grade M-10 or with wooden plugs and screws or with dash fastener or rawl plugs and screws or with fixing clips or with bolts and nuts as required including fixing of necessary butt hinges and screws and applying a priming coat of approved steel primer.								
	9.16.2	Angle-iron frames								
					wt./m					
		35x35x5 Door	16	5.10	2.60		212.16			
							212.16	cum	73.50	15593.76
25	8.13	Providing and fixing flush door shutters, conforming to IS 2202 (Part 1), interior grade, commercial type, core of block board construction with frame of first class hard wood and well matched commercial ply veneering with vertical grains, cross bands and face veneers on both faces of shutters excluding hinges.								
	8.13.2	35 mm. thick (single leaf)								
			16	0.90		2.10	30.24			
							30.24	sqm	1370.00	41428.80
26	8.148	Providing and fixing factory made UPVC door frame made of UPVC profile section having an overall dimension as below (tolerance ± 1 mm) with wall thickness 2.0mm ± 0.2 mm, corners of the door frame to be jointed with galvanized brackets and stainless steel screws, joints mitred and plastic welded. The hinge side vertical of the frames reinforced by galvanized M.S. tube of size 19 X 19mm and 1mm ± 0.1 mm wall thickness and 3 nos. stainless steel hinges fixed to the frame complete as per manufacturers specification and direction of Engineer-in-charge								
	8.148.2	Extruded section Profile size 42x50 mm.								
		Toilet	16	4.95			79.20			
							79.20	Rmt	196.00	15523.20
27	8.149	Providing and fixing factory made PVC door shutters of specified thickness made of styles and rails of a UPVC hollow section of specified size 59x24 mm and wall thickness 2 mm ± 0.2 mm with inbuilt edging on both sides. The styles and rails mitred and joined at the corners by means of M.S. galvanised/ plastic brackets of size 75x220 mm having wall thickness 1.0 mm and stainless steel screws.								
	8.149.2	30 mm thick door shutters with styles and rails of size 60x30 mm								
		Toilet Door	16	0.75		2.10	25.20	sqm	2488.00	62697.60
28	9.14	Providing and fixing steel door made of angle iron of suitable sizes with M.S. grill of approved pattern made of M.S. flats or square or round bars coat of red oxide zinc chromate primer.			kg/sqm					
		Front gate	1	2.50	20.00	2.10	105.00	kg	79.50	8347.50
29	9.15	Providing and fixing M.S. grill of approved pattern made of M.S. flats or square or round bars welded to steel frame of windows etc. including applying a priming coat welded to frame with all necessary fitting complete including applying a priming of red oxide zinc chromate primer.								
					Kg/Sqmt					
		W	16	1.20	18.00	1.50	518.40			
		W-stair	4	1.20	18.00	1.20	103.68			

		wk	8	0.80	18.00	1.20	138.24			
		W2	16	1.00	18.00	1.50	432.00			
		V	16	0.60	18.00	0.60	103.68			
		Tower door	1	0.90	50.00	2.10	94.50			
							1390.50	Kg	67.50	93858.75
30	9.47	Providing and fixing aluminium work for doors, windows, ventilators and partitions made out of extruded aluminium standard sections (main section with minimum 1.5mm thickness) conforming to IS: 733, IS: 1285 mitred and jointed mechanically including aluminium cleats, neoprene weather stripping gasket beveled edge beading, screws duly fixed in wall/floor with fixing clips or hold fasteners or bolts and nuts as required aluminium sections shall be anodized transparent or dyed to approved shade according to IS: 1868, minimum anodic coating shall be of grade AC-15. (Glazing to be paid for separately:)								
	9.47.1	For fixed portion								
		W	16	1.20	4.00	1.50	115.20			
		W-stair	4	1.20	4.00	1.20	23.04			
		wk	8	0.80	4.00	1.20	30.72			
		W2	16	1.00	4.00	1.50	96.00			
		V	16	0.60	4.00	0.60	23.04			
		5kg/sqm					288.00	Kg	331.00	95328.00
31	9.47.2	For shutter of doors, windows & ventilators including providing and making provision for fixing of fitting wherever required including the cost of PVC/ neoprene gasket required (Fittings shall be paid for separately).					288.00	kg	338.00	97344.00
32	9.48	Extra for powder coated (minimum 50 micron) aluminium sections instead of anodized.					576.00	kg	27.00	15552.00
33	9.51	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with PVC/ neoprene gasket etc. complete. (Cost of aluminium snap beading shall be paid in basic item):								
	9.51.1	With float glass panes of 4 mm thickness								
		W	16	1.20		1.50	28.80			
		W-stair	4	1.20		1.20	5.76			
		wk	8	0.80		1.20	7.68			
		W2	16	1.00		1.50	24.00			
		V	16	0.60		0.60	5.76			
							72.00	sqm	611.00	43992.00
34	9.34	Providing and fixing stainless wire gauge of average width of aperture 1.56mm with wire of 0.35mm to existing steel door, window shutter frames with necessary M.S. strip beading etc. complete.								
		W	16	1.20	0.50	1.50	14.40			
		W-stair	4	1.20	0.50	1.20	2.88			
		wk	8	0.80	0.50	1.20	3.84			
		W2	16	1.00	0.50	1.50	12.00			
		V	16	0.60	0.50	0.60	2.88			
		50% Opening					36.00	sqm	791.00	28476.00
35	8.3	Providing 40x5mm iron hold fast 40cm long including fixing to frame with 10mm bolts nuts and wooden plug and embedding in Cement Concrete 1:2:4 in blocks of size 30x10x15cm.	504	at	1.00		504.00	each	72.50	36540.00
36	8.60	Providing and fixing bright finished brass sliding door bolt with nuts and brass polished MS screws complete:								
	8.60.1	300x16mm	48				48.00	each	475.00	22800.00
37	8.120	Providing and fixing alluminium sliding door bolt with 16 mm rod, necessary nickle plate iron nuts bolts and screw etc complete								

	8.120.2	250x16mm	12					12.00	each	141.00	1692.00
38	8.121	Providing and fixing alluminium door Latch with 12 mm rod, necessary nickle plate iron nuts bolts and screw etc complete door bolt with nuts and brass polished MS screws complete:									
	8.121.2	250x12mm	12					12.00	each	51.50	618.00
39	8.61	Providing and fixing brass door latch with brass polished MS screws complete:									
	8.61.1	300x16x5 mm	32					32.00	each	398.00	12736.00
40	8.62	Providing and fixing bright finished brass tower bolts (barrel type) with brass polished MS screws complete:									
	8.62.1	250x10mm	48					48.00	each	276.00	13248.00
	8.62.3	150x10mm	32					32.00	each	176.00	5632.00
		(Toilet door)									
41	8.65	Providing and fixing bright finished brass door handles with brass polished MS screws complete:									
	8.65.1	125 mm	80					80.00	each	55.50	4440.00
42	8.123	Providing and fixing alluminium door handles 2.5 mm thick with necessary nickel plates iron screw etc complete									
	8.123.1	150 mm	12					12.00	each	30.50	366.00
43	8.58	Providing and fixing bright finished brass butt hinges with brass polished MS screws complete:									
	8.58.1	125x85x5.50 mm (Heavy Type)	480					480.00	each	245.00	117600.00
44	11.41	Providing and fixing chicken mesh weighting not less than 250 gms/sqm as per IS : specification in the required width with 40mm long steel nails on vertical and horizontal surface near R.C.C. and brick walls junctions including scaffolding and all lead and lifts etc. complete before plastering upto 10mts in height.									
		Ground floor									
		Beam	4	2.00	225.00	0.30	540.00				
		Column	8	110.00	0.30	3.00	792.00				
							1332.00	sqm	86.00	114552.00	
46	12.74-AME	Providing and fixing rectified glazed ceramic floor tiles of 1st quality conforming to IS : 15622-2017 of approved make in all colours, shades over 20 mm thick bed of Cement Mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @3.3 kg per sqm including poing in white cement mixed with matching pigment complete.									
	12.74.1	Size 300x300 mm thickness 7 to 8 mm									
		Ground terrace									
		Living	4	3.30	3.90		51.48				
		Bed room	4	3.30	3.00		39.60				
		Almirah	4	1.60	0.60		3.84				
		Kitchen	4	2.10	2.40		20.16				
		balcony	4	2.10	1.10		9.24				
		Front of Toilet	4	2.60	0.90		9.36				
		lobby+stair	1	5.80	2.50		14.50				
		below stair	1	4.80	2.50		12.00				
		Bath	4	1.50	1.25		7.50				
		WC	4	1.50	1.25		7.50				
		Below door sill-CG	1	1.60	0.20		0.32				
		TD	1	0.90	0.20		0.18				
		D	4	1.00	0.20		0.80				
		D1	8	0.90	0.20		1.44				
		D2	8	0.75	0.20		1.20				
		Skirting									
		Living	4	14.40		0.10	5.76				
		Bed room	4	12.60		0.10	5.04				
		Almirah	4	4.40		0.10	1.76				

		Kitchen	4	9.00		0.10	3.60			
		balcony	4	6.40		0.10	2.56			
		Front of Toilet	4	7.00		0.10	2.80			
		lobby+stair	1	16.60		0.10	1.66			
		below stair	1	14.60		0.10	1.46			
			ground floor				203.76	x		
			first floor same as ground floor				203.76	y		
							407.52	sqm	779.00	317458.08
47	12.75-AME	Providing and fixing rectified glazed ceramic wall / dado tiles of 1ST quality conforming to IS : 15622 of approved make,in all colours, shades on wall and dados over 12 mm thick bed of cement Mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm including pointing in white cement mixed with matching pigment complete.								
	12.75.1	Size 300x450 mm thickness 7 to 8 mm								
		Ground								
		Bath	8	1.50		2.10	25.20			
			8	1.25		2.10	21.00			
		WC	8	1.50		2.10	25.20			
			8	1.25		2.10	21.00			
		Deduction	-4	0.75		2.10	-6.30			
			ground floor				86.10			
			first floor same as ground floor				86.10			
							172.20	sqm	710.00	122262.00
48	12.49	25 mm thick KOTA stone slab flooring over 20mm (Average) thick base of cement mortar 1:4 laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab including grinding rubbing and polishing etc. complete (Area of slab to be over 0.20 sqm and upto 0.50 sqm)								
		Ground								
		kitchen pf	4	2.25	0.60		5.40			
			4	2.25	0.125		1.13			
		kitchen pf	4	2.25	0.60		5.40			
			4	2.25	0.125		1.13			
			ground floor				13.05			
			first floor same as ground floor				13.05			
							26.10	sqm	897.00	23411.70
49	12.50	KOTA stone slab 25mm thick in risers and treads of steps, skirting dado and pillar laid in 12mm (Average) thick cement mortar 1:3 (1 cement : 3 coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of the slab including rubbing and polishing complete. (single stone is to be used for riser and treads of steps and the width of stone for skirting and dado shall be equal to the height of skirting/ dado up to length of 1.0 M.)								
		Ground to second floor								
		Midlanding	3	2.50	1.30		9.75			
		Steps	40	1.30		0.45	23.40			
		terrace	1	2.50	2.00		5.00			
		skirting	1	1.30	2.00		2.60			
		Steps & Landing	40	0.60		0.10	2.40			
			1	5.10		0.10	0.51			
			1	2.50		0.10	0.25			
		Front step	4	2.50	0.30		3.00			
			5	2.50		0.15	1.88			
			ground floor				48.79			
			first floor same as ground floor				48.79			
							48.79	sqm	990.00	48297.15
50	12.51	Extra for nosing in steps and treads of Kota stone slab.								
		stair	40	1.20			48.00			
		Front step	4	2.50			10.00			
		pf	4	2.25			9.00			
		Front step	4	1.95			7.80			
			ground floor				74.80			

			first floor same as ground floor				74.80			
							149.60	meter	69.50	10397.20
51	11.1	Providing and making 6mm thick cement plaster of mix:								
	11.1.2	In Cement mortar 1:4 (1 cement : 4 fine sand)								
		Ground Floor								
		Living & dining	4	3.30	3.90		51.48			
		Kitchen	4	2.10	2.40		20.16			
		Bed room	4	3.30	3.00		39.60			
		Almirah	4	1.60	0.60		3.84			
		WC & bath	4	1.50	1.25		7.50			
			4	1.50	1.25		7.50			
		Front of Toilet	4	2.60	0.90		9.36			
		balcony	4	2.10	1.10		9.24			
		Common lobby	1	5.80	2.50		14.50			
		kitchen pf	4	2.40	0.60		5.76			
			4	2.40	0.60		5.76			
		Staircase W/slab	4	2.8	1.20		13.44			
		Midlanding	3	2.50	1.30		9.75			
		Steps	40	1.30	0.15		7.80			
		Landing	1	2.60	0.80		2.08			
		chajja								
		CG	2	2.90	0.70		4.06			
		w	16	1.70	0.70		19.04			
		w-stair	4	1.70	0.60		4.08			
		wk	8	1.30	0.60		6.24			
		w2	16	1.50	0.60		14.40			
		v	16	1.10	0.60		10.56			
			ground floor				266.15	x		
			first floor same as ground floor				266.15	y		
		Terrace Floor								
		tower slab	1	5.80	2.90		16.82			
		tower door chajja	2	2.90	0.70		4.06			
						x+y+z	553.18	sqm	87.00	48126.66
52	11.2	Providing and making 12mm thick cement plaster of mix:								
	11.2.2	In Cement Mortar 1:4 (1 cement : 4 fine sand)								
		Ground Floor								
		Living & Dining	8	3.30		3.00	79.20			
			8	3.90		3.00	93.60			
		Kitchen	8	2.10		3.00	50.40			
			8	2.40		3.00	57.60			
		Bed room	8	3.30		3.00	79.20			
			8	3.00		3.00	72.00			
		Almirah	8	0.60		3.00	14.40			
			4	1.60		3.00	19.20			
		Bath	8	1.25		3.00	30.00			
			8	1.50		3.00	36.00			
		Wc	8	1.50		3.00	36.00			
			8	1.25		3.00	30.00			
		Front of Toilet	8	2.60		3.00	62.40			
			8	0.90		3.00	21.60			
		Balcony wall	4	2.10		3.00	25.20			
			8	1.10		3.00	26.40			
			8	1.20		3.00	28.80			
		Staircase wall+lobby	2	2.50		3.00	15.00			
			2	5.80		3.00	34.80			
			2	4.80		3.00	28.80			
			4	2.10		0.90	7.56			
		kitchen pf	32	0.60		0.80	15.36			
						(A)	863.52			
		Deduct 50% opening								
		without door	8	0.90	0.50	2.10	7.56			
			8	0.90	0.50	2.10	7.56			
		CD	1	2.50	0.50	2.10	2.63			
		D	8	1.00	0.50	2.10	8.40			
		D1	16	0.90	0.50	2.10	15.12			
		D2	16	0.75	0.50	2.10	12.60			
		W	8	1.20	0.50	1.20	5.76			
		W stair	1	1.20	0.50	1.20	0.72			
		wk	4	0.80	0.50	1.20	1.92			

		W2	8	1.00	0.50	1.20	4.80			
		V	8	0.60	0.50	0.60	1.44			
							68.51			
		Ground Floor				(A-B)	795.02	sqm		
			ground floor				795.02	x		
			first floor same as ground floor				795.02	y		
		Terrace Floor								
		Tower wall	2	2.50		2.40	12.00			
			2	5.60		2.40	26.88			
		Parapet wall	1	81.74		1.10	89.91			
		Tower Parapet wall	1	16.20		0.50	8.10			
		Deduct 50% opening	-1	1.20	0.50	1.20	-0.72			
		Deduct 50% opening	-1	0.90	0.50	1.20	-0.54			
							135.63	sqm		
		Total 12mm Plaster				x+y+z	1725.66	Sqm	103.00	177743.39
53	11.3	Providing and making 15mm thick cement plaster on the rough side of single or half brick wall of mix:								
	11.3.2	In Cement Mortar 1:4 (1 cement : 4 fine sand)								
		Outer wall	1	81.74		4.50	367.83			
		Tower wall	1	16.20		2.70	43.74			
		pro front	4	0.60		4.50	10.80			
						(A)	422.37			
		Deduct 50% opening								
		W	8	1.20	0.50	1.20	5.76			
		W1	4	1.00	0.50	1.20	2.40			
		W2	8	1.00	0.50	1.20	4.80			
		V	8	0.60	0.50	1.20	2.88			
						(B)	15.84			
		Ground Floor				(A-B)	406.53	sqm		
			ground floor				406.53	x		
			first floor same as ground floor				406.53	y		
		Terrace Floor								
		Tower wall	1	16.20		2.70	43.74			
		Deduct 50% opening	-1	1.20	0.50	1.20	-0.72			
			-1	0.90	0.50	2.10	-0.95			
							42.08			
		Total 15mm Plaster					448.61	sqm	120.00	53832.60
	14.12	Applying one coat of cement primer on wall surface (applied @ 0.80 litrs/10 sqm) complete.								
		As per 6mm Plaster					553.18			
		As per 12mm Plaster					1725.66			
							2278.84	sqm	23.00	52413.41
54	14.13	Providing and applying 2mm thick ready mix exterior grade approved make putty (like Birla wall care, Alltek Superfine W/R of (NCL), Asian, ICI, Nerolac, J.K. wall putty) on walls to make the surface smooth and even.								
		As per 6mm Plaster					553.18			
		As per 12mm Plaster					1725.66			
							2278.84	sqm	94.50	215350.76
55	14.11	Wall painting with acrylic luxury emulsion (plastic) paint of required shade to give an even shade.								
	14.11.1	On new work (two or more coats)								
		As per 6mm Plaster					553.18			
		As per 12mm Plaster					1725.66			
		Total					2278.84	sqm	52.50	119639.31
56	14.15	Painting exterior surface with ACRYLIC SMOOTH exterior paint of required shade as per manufacturer's specifications to give protective and decorative finish including cleaning washing of surface etc. complete with:								

	14.15.1	On new work (Two or more coats applied @ 1.43 ltr/ 10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/ 10 sqm)								
		As per 15mm Plaster					448.61	sqm	56.00	25121.88
57	9.35	Providing and fixing approved pipe hand rail by welding to iron railing including applying a priming coat of red oxide zinc chromate primer.								
	9.35.1	M.S Pipe	2	14.00		1.00	28.00	R.M.		
			28.00	at	23.35	Kg/R.m	653.80	kg	80.50	52630.90
58	14.22	Painting on new work (two or more coats) to give an even shade with:								
	14.22.2	Premium synthetic enamel paint								
		Door								
		CG	2	2.50	1.35	2.10	14.18			
		TD	2	0.90	1.35	2.10	5.10			
		D	8	1.00	1.35	2.10	22.68			
		D1	16	0.90	1.35	2.10	40.82			
		Window								
		w	8	1.20	1.35	1.50	19.44			
		w-stair	2	1.20	1.35	1.50	4.86			
		wk	4	0.80	1.35	1.00	4.32			
		w2	8	1.00	1.35	1.50	16.20			
		v	8	0.60	1.35	0.60	3.89			
		TD	1	1.20	1.35	1.20	1.94			
			ground floor				133.43	x		
			first floor same as ground floor				133.43	y		
							266.87	sqm	47.00	12542.80
59	10.41	Providing gola 75x75 mm in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 stone aggregate 10mm and down grade) including finishing with cement mortar 1:3 (1 cement : 3 fine sand) as per standard design :								
		Chajja								
		CG	1	2.90			2.90			
		w	8	1.70			13.60			
		w-stair	2	1.70			3.40			
		wk	4	1.30			5.20			
		w2	8	1.50			12.00			
		v	8	1.10			8.80			
		paraphet wall	1	81.74			81.74			
		tower paraphet wall	1	16.20			16.20			
			ground floor				143.84	x		
			first floor same as ground floor				143.84	y		
							287.68	metre	68.00	19562.24
60	11.5	Neat Cement punning.								
		Ground Floor								
		Chajja								
		CG	1	2.90	0.60		1.74			
		w	8	1.70	0.60		8.16			
		w-stair	2	1.70	0.60		2.04			
		wk	4	1.30	0.60		3.12			
		w2	8	1.50	0.60		7.20			
		v	8	1.10	0.60		5.28			
			ground floor				27.54	x		
			first floor same as ground floor				27.54	y		
							55.08	sqm	33.00	1817.64
61	4.13	Grading roof for water proofing treatment with:								
	4.13.1	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)								
		Terrace	1	198.28	sqm	0.05	9.91			
		tower	1	16.82	sqm	0.05	0.84			
							10.76	cum	3817.00	41051.84

62	3.16	Making 50mm thick plinth protection of plain cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded crushed stone aggregate 20mm nominal size) over 75mm bed of dry brick ballast 40mm nominal size well rammed and consolidated and grouted with sand including finishing the top smooth.								
			1	82.00	1.20		98.40			
							98.40	SQM	273.00	26863.20
63	11.9	Extra for providing and mixing water proofing materials in cement plaster work in proportion as recommended by manufacturer.								
		external plaster qty, 1kg for 4 sqm	1	448.61	0.25		112.15			
							112.15	kg	43.50	4878.58
64	8.1	Providing wood work in frames of doors, windows, clerestory windows and other frames wrought framed and fixed in position.								
	8.1.2	Sal, bijasal, benteak, khair, haldu								
		Door	8	5.20	0.125	0.075	0.39	cum	61051.00	23809.89
65	8.9	Providing and fixing 35mm thick glazed shutter frames for windows, clerestory windows, ventilators etc. using glass panes including M.S. butt hinges with necessary screws but excluding glass panes. (Area of shutter to be measured without deducting paneling area).								
	8.9.1	Teak wood								
		Door	8	1.00		2.100	16.80	sqm	3017.00	50685.60
66	8.22	Providing and fixing paneling in paneled or paneled and glazed shutters for doors etc. (only area of paneling to be measured). Paneling for or paneled and glazed shutters 25 mm to 40 mm thick:								
	8.22.1	Teak wood (16mm thick panel)								
		Door	8	1.00	0.500	2.100	8.40	sqm	1842.00	15472.80
67	8.24	Providing and fixing 30mm thick wire gauge shutter having top and style rail 95mm width, bottom and lock rail 197mm width, using galvanized M.S. wire dia of 0.45mm for doors, windows, clerestory windows excluding hinges.								
	8.24.1	Teak Wood								
		Door	8	1.00		2.100	16.80	sqm	2477.00	41613.60
								Total		7847208.00
<div> <div> Sub Engineer Chhattisgarh Housing & Infrastructure Development Board Division -Korba </div> <div> Assistant Engineer Chhattisgarh Housing & Infrastructure Development Board Division -Korba </div> <div> Executive Engineer Chhattisgarh Housing & Infrastructure Development Board Division -Korba </div> </div>										

**ESTIMATE FOR WATER SUPPLY AND SANITARY WORK OF H1-TYPE FOR IRRIGATION
UNDER REDEVELOPEMENT WORK AT KATGHORA (KORBA) C.G., (SITE II)**

Item No.	Nomenclature(Particulars)	Unit	S.O.R. Rate	Qty	Amount
1	2	3	4	5	6
1					
19.5	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge. <u>CONCEALED WORK including cutting chases and</u>	r/m	133.00	64.00	8512.00
19.5.1	15 mm nominal outer dia .Pipes.				
2					
19.5	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge. <u>CONCEALED WORK including cutting chases and</u>	r/m	167.00	96.00	16032.00
19.5.2	20 mm nominal outer dia .Pipes.				
3					
19.5	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge. <u>CONCEALED WORK including cutting chases and</u>	r/m	284.00	56.00	15904.00
19.5.4	32 mm nominal outer dia .Pipes.				
4	Item No. 18.76.1				
	Providing and fixing on wall face or under floor UV stabilized Unplasticised Rigid PVC pipes (single socketed) having 3.2mm wall thickness conforming to IS : 13592 (4kg/sqcm) including required couplers, jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansion etc complete. a. 75mm dia Make: (Supreme/Finolex)	r/m	182.00	64.00	11648.00
5	Item No. 18.76.2				
	Providing and fixing on wall face or under floor UV stabilized Unplasticised Rigid PVC pipes (single socketed) having 3.2mm wall thickness conforming to IS : 13592 (4kg/sqcm) including required couplers, jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansion etc complete. s b. 110mm dia Make: (Supreme/Finolex)	r/m	267.00	48.00	12816.00
6	Item No. 18.77.1.1				

Item No.	Nomenclature(Particulars)	Unit	S.O.R. Rate	Qty	Amount
1	2	3	4	5	6
	Providing and fixing PVC fitting for pipes for soil waste / rain water drainage disposal of superior Indian Make Finolex / Supreme including jointing with rubber ring adhesive lubricant, solvent cement etc. complete. G- Tee with Door (a) 75mm dia	no	113.00	16.00	1808.00
7	Item No. 18.77.1.2				
	Providing and fixing PVC fitting for pipes for soil waste / rain water drainage disposal of superior Indian Make Finolex including jointing with rubber ring adhesive lubricant, solvent cement etc. complete. G- Tee with Door (b) 110mm dia	no	154.00	16.00	2464.00
8	Item No. 18.77.1.1				
	Providing and fixing PVC fitting for pipes for soil waste / rain water drainage disposal of superior Indian Make Finolex including jointing with rubber ring adhesive lubricant, solvent cement etc. complete. E- Plain Bend of 87.5 degree (a) 75mm dia	no	113.00	10.00	1130.00
9	Item No. 18.77.1.2				
	Providing and fixing PVC fitting for pipes for soil waste / rain water drainage disposal of superior Indian Make Finolex including jointing with rubber ring adhesive lubricant, solvent cement etc. complete. E- Plain Bend of 87.5 degree (b) 110mm dia	no	154.00	10.00	1540.00
10	Item No. 18.77.6				
	Providing and fixing PVC fitting for pipes for soil waste / rain water drainage disposal of superior Indian Make Finolex / Supreme including jointing with rubber ring adhesive lubricant, solvent cement etc. complete. O- Nahani Trap (b) 63mm dia	no	90.50	28.00	2534.00
11	Item No. 19.15				
	Providing and fixing stainless steel Nahani trap jali of approved make/quality.	no	51.00	28.00	1428.00
12	Item No. 18.77.1.1				
	Providing and fixing PVC fitting for pipes for soil waste / rain water drainage disposal of superior Indian Make Finolex including jointing with rubber ring adhesive lubricant, solvent cement etc. complete. C- Bend with door of 87.5 degree a. 75mm dia	no	113.00	8.00	904.00
13	Item No. 18.77.1.2				
	Providing and fixing PVC fitting for pipes for soil waste / rain water drainage disposal of superior Indian Make Finolex including jointing with rubber ring adhesive lubricant, solvent cement etc. complete. C- Bend with door of 87.5 degree b. 110mm dia	no	154.00	8.00	1232.00
14	Item No.18.77.3.2				
	Providing and fixing PVC fitting for pipes for soil waste / rain water drainage disposal of superior Indian Make Finolex / Supreme including jointing with rubber ring adhesive lubricant, solvent cement etc. complete. N- Vent Cowel (b) 110mm dia	no	44.00	8.00	352.00
					184

Item No.	Nomenclature(Particulars)	Unit	S.O.R. Rate	Qty	Amount
1	2	3	4	5	6
15	Item No. 19.16.1				
	Providing and fixing in position best Indian make gun metal high pressure full way or Gate valve (peets Pattren) with iron wheel head complete. (c) 25 mm dia	no	436.00	16.00	6976.00
16	Item No. 19.16.4				
	Providing and fixing in position best Indian make gun metal high pressure full way or Gate valve (peets Pattren) with iron wheel head complete. (e) 50 mm dia	no	762.00	8.00	6096.00
17	Item No. 18.1.3				
	Providing and fixing water closet squatting pan (Indian type W.C. pan), 100mm sand cast Iron P or S trap, 10 litre low level P.V.C. flushing cistern (same colour) conforming to IS : 7231, with flush bend and other fittings and fixtures complete including cutting and making good the walls and floors wherever required : White Orissa pattern W.C. pan of size 580x440 mm.	no	2899.00	8.00	23192.00
18	Item No. 18.17.2				
	Providing and fixing vitreous china wash basin with C.I. brackets, 32 mm C.P. brass waste of standard pattern, including painting of brackets, cutting and making good the walls wherever required : i) Flat Back (White) - 550X400 mm (Make- Hindware / Parryware)	no	1408.00	16.00	22528.00
19	18.22.2				
	Providing and fixing Stainless Steel A ISI 304 (18/8) kitchen sink without drain board as per IS 13983 with C.I. brackets and stainless steel plug 40 mm including painting of fittings and brackets, cutting and making good the walls wherever required :- A waste pipe upto nahni trap.560x410 mm bowl depth 215 mm.	no	6210.00	8.00	49680.00
20	Item No. 19.14.1				
	Providing and fixing 15 mm nominal bore C.P. brass fittings of approved make and conforming to IS:8931 including C.P. brass extension if required:Short nose Bib cock (400 grams)	no	382.00	20.00	7640.00
21	Item No. 19.14.2				

Item No.	Nomenclature(Particulars)	Unit	S.O.R. Rate	Qty	Amount
1	2	3	4	5	6
	Providing and fixing 15 mm nominal bore C.P. brass fittings of approved make and conforming to IS:8931 including C.P. brass extension if required:Long Nose Bib cock (500 grams)	no	455.00	16.00	7280.00
22	Item No. 19.14.4				
	Providing and fixing 15 mm nominal bore C.P. brass fittings of approved make and conforming to IS:8931 including C.P. brass extension if required:Piller Cock (400 grams)	no	398.00	16.00	6368.00
23	Item No. 19.14.10				
	Providing and fixing 15 mm nominal bore C.P. brass fittings of approved make and conforming to IS:8931 including C.P. brass extension if requiredWall mixer with elegant knob (1400 grams)	no	1787.00	16.00	28592.00
24	Item No. 19.14.10				
	Providing and fixing 15 mm nominal bore C.P. brass fittings of approved make and conforming to IS:8931 including C.P. brass extension if requiredHand shower set with arm	no	754.00	8.00	6032.00
25	Item No. 19.14.7				
	Providing and fixing 15 mm nominal bore C.P. brass fittings of approved make and conforming to IS:8931 including C.P. brass extension if required Angle valve for basin mixer and geyser points (450 grams)	no	382.00	10.00	3820.00
26	Item No. 19.14.14				
	Providing and fixing 15 mm nominal bore C.P. brass fittings of approved make and conforming to IS:8931 including C.P. brass extension if required Soap dish plate	no	163.00	8.00	1304.00
27	Item No. 19.14.16				
	Providing and fixing 15 mm nominal bore C.P. brass fittings of approved make and conforming to IS:8931 including C.P. brass extension if required Towel rail (600mm long x 20mm dia)	no	338.00	8.00	2704.00
28	Item No. 20.3.2				

Item No.	Nomenclature(Particulars)	Unit	S.O.R. Rate	Qty	Amount
1	2	3	4	5	6
	Providing and fixing square-mouth S.W. gully trap grade 'A" complete with C.I. grating brick masonry chamber with well burnt modular clay bricks crushing strength not less than 35kg/cm ² , water tight C.I. cover with frame of 300 x300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design : 150 x 100 mm size P type.	no	1397.00	8.00	11176.00
29	Item No. 19.6.9				
	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings. This included jointing of pipes & fittings with one step CPVC solvent cement, trenching, refilling & testing of joints complete including excavation of trench up to 1.5 Mtr. Depth Laying 15 cm thick and 40 cm wide CC 1:5:8 with all jointing material coupler etc including testing refilling of soil etc. complete. a) 100 mm dia (c.c. base 30cm wide)	RMT	2325.00	24.00	55800.00
	TOTAL AMOUNT OF WATER SUPPLY			Total Rs.	317492.00

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**ESTIMATE OF INTERNAL ELECTRIFICATION WORK FOR PROPOSED 01 BLOCK (08 UNITS) H1-TYPE
HOUSES FOR GAD QUARTERS UNDER REDEVELOPMENT SCHEME AT KATGHORA (SITE-2),
DISTT-KORBA (C.G.)**

S.No.	SOR Item no.	PARTICULARS	UNIT	RATE	QTY.			TOTAL QTY.	AMOUNT
					For Each Flat	For 08 Nos. Flat	For Common Area		
01	1.7	Wiring for light/fan/exhaust fan/call bell point with 3x1.5 sqmm FRLS PVC insulated stranded copper conductor single core wire for phase, neutral and earth in concealed FRLS PVC conduit, with 5/6 amp modular switch, modular base and cover plate, suitable size G.I. box as per specification.							
	1.7.1	Short Point	Point	266.00	04	32	02	34	9044.00
	1.7.2	Medium Point	Point	424.00	07	56	03	59	25016.00
	1.7.3	Long Point	Point	588.00	09	72	09	81	47628.00
02	1.8	Wiring for twin control light point with 3x1.5 sqmm FRLS PVC insulated stranded copper conductor wire for phase, neutral and earth in concealed FRLS PVC conduit (heavy duty, thickness of pipe should be 2 mm) with 5/6 amp modular switch, modular base and cover plate, suitable size G.I. box as per specification and IS: 694 (2010), IS: 9537 (2000 Part 5)	Point	420.00	00	00	04	04	1680.00
03	1.9	Extra for providing and fixing light plug point on board in concealed FRLS PVC conduit point wiring with modular type 3 pin 5/6 amp socket outlet and 5/6 amp switch including cost of base and cover plate and G.I. box etc. as per specification.	Point	216.00	05	40	00	40	8640.00
04	1.10	Wiring for light plug point with 3x2.5 sqmm FRLS PVC insulated stranded copper conductor wire for phase, neutral and earth in concealed FRLS PVC conduit along with modular type 6 Amp switch and 3 pin 6 amps socket outlet with modular base and cover plate, suitable size G.I. box, earthing the switch box and socket outlet with same size wire etc. as per specification.							
	1.10.1	Short Point	Point	442.00	02	16	00	16	7072.00
	1.10.2	Medium Point	Point	659.00	02	16	00	16	10544.00
	1.10.3	Long Point	Point	922.00	03	24	00	24	22128.00
05	1.11	Wiring for power plug point with 3x4 sq mm FRLS PVC insulated stranded copper conductor wire for phase, neutral and earth in concealed FRLS PVC conduit (heavy duty, thickness of pipe should be 2 mm) along with modular type 16 Amp switch and 6 pin 16 amps socket outlet with modular base and cover plate, suitable size G.I. box, earthing the switch box and socket outlet with same size wire etc. as per specification and IS: 694 (2010), IS: 9537 (2000 Part 5)							
	1.11.2	Medium Point	Point	942.00	01	08	00	08	7536.00

S.No.	SOR Item no.	PARTICULARS	UNIT	RATE	QTY.			TOTAL QTY.	AMOUNT
					For Each Flat	For 08 Nos. Flat	For Common Area		
	1.11.3	Long Point	Point	1350.00	01	08	00	08	10800.00
	1.11.4	Extra Long Point I	Point	1807.00	02	16	00	16	28912.00
06	1.13	Wiring for circuit/ sub main wiring along with earth wire with the following sizes of FRLS PVC insulated copper conductor, wire in concealed FRLS PVC conduit (heavy duty, thickness of pipe should be 2 mm) as per specification and IS: 694 (2010), IS: 9537 (2000 Part 5)							
	1.13.2	3 X 2.5 sq. mm in 20 mm conduit	Mtr	111.00	42.00	336.00	40.00	376.00	41736.00
	1.13.3	6 X 2.5 sq. mm in 25 mm conduit	Mtr	172.00	18.00	144.00	10.00	154.00	26488.00
	1.13.4	9 X 2.5 sq. mm in 32mm conduit	Mtr	238.00	13.00	104.00	0.00	104.00	24752.00
	1.13.13	6 X 6 sq. mm in 32mm conduit	Mtr	312.00	30.00	240.00	0.00	240.00	74880.00
07	1.15	Supplying and fixing of following sizes FRLS PVC conduit (heavy duty, thickness of pipe should be 2 mm) along with accessories in concealed complete as per specification and IS: 9537 (2000 Part 5)							
	1.15.2	25 mm	Mtr	53.00	30.00	240.00	0.00	240.00	12720.00
08	3.11	Supplying and drawing following sizes of FRLS PVC insulated copper conductor, multi strand wire in the existing surface/ concealed, FRLS PVC conduit / PVC casing capping as per specification and IS: 694 (2010)							
	3.11.3	3 x 1.5 sq. mm	Mtr.	37.00	0.00	0.00	200.00	200.00	7400.00
09	3.13	Supplying and drawing following grade co-axial TV wire FRLS PVC insulated, shielded with fine tinned copper braid and protected with PVC sheath in the existing surface/ concealed Steel/PVC conduit as per specification and IS: 694 (2010)							
	3.13.1	RG-6 grade	Mtr	14.00	20.00	160.00	0.00	160.00	2240.00
10	4.4	Supplying and fixing following size/ modules, GI box along with modular base & cover plate for modular switches in recess etc as per specification.							
	4.4.1	75mmX75mm (1/2 Module)	Each	99.00	02	16	00	16	1584.00
11	5.4	Supplying and fixing following modular switch, socket, other accessories on the existing modular plate & switch box including connections but excluding modular plate etc. as per specification.							
	5.4.9	Fan regulator (Two module size) electronic stepped type moving all rounds	Each	223.00	02	16	00	16	3568.00
	5.4.16	T.V. antenna socket outlet	Each	74.00	01	08	00	08	592.00
	5.4.17	Computer Outlet Jack	Each	242.00	01	08	00	08	1936.00
	5.4.22	Batten/ angle holder	Each	41.00	07	56	00	56	2296.00

S.No.	SOR Item no.	PARTICULARS	UNIT	RATE	QTY.			TOTAL QTY.	AMOUNT
					For Each Flat	For 08 Nos. Flat	For Common Area		
	5.4.23	Blanking plate	Each	28.00	05	40	05	45	1260.00
12	5.9	Providing and fixing round/ hexagonal fan box (125mm dia) depth 75mm (max.) with 12mm dia steel bar hook, 1.6mm thick MS sheet cover, in RCC slab etc. as per specification.	Each	42.00	02	16	00	16	672.00
13	6.4	Supply, Installation, Testing and Commissioning of 1200 mm sweep, BEE 5 star rated, ceiling fan with Brush Less Direct Current (BLDC) Motor, class of insulation: B, 3 nos. blades, 30 cm long down rod, 2 nos. canopies, shackle kit, safety rope, copper winding, Power Factor not less than 0.9, Service Value (CMM/W) minimum 6.85, Air delivery minimum 215 CMM, 350 RPM (tolerance as per IS : 374-2019). THD less than 10%, remote or	Each	2662.00	02	16	00	16	42592.00
14	6.6	Supplying, installation, testing and commissioning of following sizes heavy duty (continuous running) 1400 rpm exhaust fan in existing opening in wall including earthing etc. complete as per specification. P.F. should be greater than 0.9							
	6.6.1	300 mm sweep	Each	2446.00	02	16	00	16	39136.00
15	6.12	Providing and fixing phenolic laminated sheet cover of 180 mm dia 3 mm thick on the fan box etc. as per specification. (If provided at the time of installation of celing fan)	Each	56.00	02	16	00	16	896.00
16	6.19	Supplying, installation, testing and commissioning of following LED tube light fitting including batten with Electronic Driver Heat sink Capacitor complete with all other accessories on surface/in false ceiling, including connection, earthing etc complete as per specification and furnishing 5 Yrs Warranty certificate from manufacturer. IP20 P.F. should be greater than 0.9. LED chip efficacy ratio ≥ 100 lumens/watt.							
	6.19.3	18/20 watt{4 feet}	Each	443.00	05	40	02	42	18606.00
17	6.27	Supplying, installation, testing and commissioning of following LED Bulk Head fitting complete with Electronic Driver Heat sink Capacitor and all other accessories, including connection, earthing etc complete as per specification and P.F. should be greater than 0.9. LED chip efficacy ratio ≥ 100 lumens /watt. IP65							
	6.27.1	10 watt	Each	1140.00	02	16	05	21	23940.00

S.No.	SOR Item no.	PARTICULARS	UNIT	RATE	QTY.			TOTAL QTY.	AMOUNT
					For Each Flat	For 08 Nos. Flat	For Common Area		
18	6.28	Supplying, installation, testing and commissioning of following 230/250 volts LED street light fitting with all accessories like driver, heat sink made of die cast aluminium with IP 66 protection and 10 KV surge protection on pole bracket, including connection, earthing etc complete as per specification and furnishing 5 Yrs Warranty certificate from manufacturer. P.F. should be greater than 0.9. LED chip efficacy ratio \geq 120 lumens /watt.							
	6.28.6	45 watt	Each	2729.00	00	00	09	09	24561.00
19	7.17	Providing and making interconnection in cubical panel between BBC and switchgears with following size FRLS PVC insulated copper conductor wire lead of length upto 50cm including providing copper thimbles on both ends as per specification (To be measured separately for each phase/ neutral).							
	7.17.2	16 sqmm (63 amp)	Each	104.00	00	00	32	32	3328.00
	7.17.3	35 sqmm (125 amps)	Each	181.00	00	00	08	08	1448.00
20	7.19	Fabrication, supply, installation, testing and commissioning of cubicle type compartmentalized wall/ floor mounted power cum control panel board of specified size and following depth made out of not less than 2 mm thick CRCA MS sheet with suitable size compartments for bus bars, switchgears and necessary cutouts for voltmeters, ammeters etc as per specifications including powder coating painting but without busbars, switchgears and other accessories etc complete as per specification. (Only face area is to be measured)							
	7.19.1	Upto 300 mm deep	Sqm	6818.00	0.00	0.00	2.88	2.88	19635.84
21	7.20	Supply, installation, testing and commissioning of 4 pole (3 phase+neutral) aluminium bus bars in existing cubicle type compartmentalized wall/ floor mounted panel board along with suitable size and shape insulators, necessary bolts and nuts etc complete as per specification.							
	7.20.2	200 amp (30x5mm)	Mtr	907.00	0.00	0.00	1.60	1.60	1451.20
22	9.1	Providing and fixing following rating and breaking capacity MCCB in existing cubicle panel board including drilling holes in cubicle panel, making connections, etc.as per specification, IS/IEC:60947-2 and Ics = 100% Icu							
	9.1.25	4 pole MCCB, 125A, Adjustable Thermal - Magnetic Release, 35KA	Each	7428.00	0.00	0.00	2.00	2.00	14856.00

S.No.	SOR Item no.	PARTICULARS	UNIT	RATE	QTY.			TOTAL QTY.	AMOUNT
					For Each Flat	For 08 Nos. Flat	For Common Area		
23	9.2	Supplying and fixing on surface/ recess following way, 240 volts SP&N MCB distribution board of sheet steel phosphatized and powder painted complete with tinned copper busbar, neutral busbar, earth bar, din bar, detachable gland plate, including interconnections, earthing etc. as per specification. (But without MCB/RCCB/Isolator)							
	9.2.5	4 way, Double door	Each	784.00	00	00	01	01	784.00
24	9.4	Supplying and fixing on surface/ recess horizontal type following way, 415 volts, TPN MCB distribution board of sheet steel phosphatized and powder painted, complete with tinned copper busbar, neutral busbar, earth bar, din bar, detachable gland plate, including interconnections, earthing etc. as per specification. (But without MCB/RCCB/Isolator)							
	9.4.4	4 way Double door	Each	1716.00	01	08	00	08	13728.00
25	9.11	Supplying and fixing SP MCB, 240 volts, 'C' curve, suitable for inductive load in the existing MCB DB complete with connections, testing and commissioning etc. as per specification.							
	9.11.2	6 amps to 32 amps	Each	148.00	10	80	02	82	12136.00
26	9.12	Supplying and fixing DP MCB, 240 volts, 'C' curve, suitable for lighting and other loads in the existing MCB DB complete with connections, testing and commissioning etc. as per specification.							
	9.12.2	6 amps to 32 amps	Each	411.00	00	00	01	01	411.00
27	9.16	Supplying and fixing TP&N MCB, 440 volts, 'C' curve, suitable for lighting and other loads in the existing MCB DB complete with connections, testing and commissioning etc. as per specification.							
	9.16.5	63 amps	Each	1316.00	01	08	08	16	21056.00
28	10.15	Providing and fixing following rating current transformer in existing cubical panel including, connections, testing and commissioning etc. as per specification.							
	10.15.3	200/5 amps	Each	347.00	00	00	08	08	2776.00
29	10.17	Providing and fixing penal mounting 230 volt LED type indicating lamp in existing cubical panel including, connections, testing and commissioning etc. as per specification.	Each	94.00	00	00	06	06	564.00

S.No.	SOR Item no.	PARTICULARS	UNIT	RATE	QTY.			TOTAL QTY.	AMOUNT
					For Each Flat	For 08 Nos. Flat	For Common Area		
30	10.23	Providing and fixing panel mounting digital type VAF (Volt-amp-frequency combined) meter of size 100x100 (NS) in existing cubical panel including connection, testing and commissioning etc. as per specification.	Each	1201.00	00	00	02	02	2402.00
31	12.16	Providing and fixing 25 mm X 5 mm G.I. strip on surface or in recess for connections etc. as per specification.	Mtr	115.00	0.00	0.00	40.00	40.00	4600.00
32	12.19	Providing maintenance free earthing with following size GI pipe including making bore pit of minimum 150mm dia, providing and laying approved make Earthing Electrode of Pipe-in-Pipe technology as per IS 3043(R 2016) -1987 made of corrosion free G.I. Pipes having outer pipe of 80mm dia and inner pipe of 50mm dia and filling with specified qty highly conductive compound around pipe and above that with soft soil in bore pit complete and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. as per specification:							
	12.19.2	With 2 metre long GI Pipes and 25 kg back filling compound.	Each	8222.00	00	00	02	02	16444.00
33	14.2	Supplying and laying HDPE pipe of 4kg/cum in ground below road, path etc at a depth not less than 40 cm and upto 90 cm including excavation, dismantling of road if required and refilling the trench with excavated material, ramming and making the surface good etc. as per specification.							
	14.2.1	63 mm outer dia	Mtr	124.00	0.00	0.00	180.00	180.00	22320.00
34	15.3	Supplying and laying following sizes one number FRLS PVC insulated, PVC sheathed, steel armoured, aluminium conductor power cable of 1.1 KV grade in existing RCC/ HUME/ STONEWARE/ METAL/ HDPE pipe as perspecification, IS:9537 (2000, Part5)							
	15.3.2	2 x 6 sq. mm	Mtr	74.00	0.00	0.00	100.00	100.00	7400.00
	15.3.12	3.5 x 35 sq. mm.	Mtr	134.00	0.00	0.00	270.00	270.00	36180.00
35	15.23	Supplying and making end termination with brass compression gland and aluminum lugs for following size armoured aluminum conductor power cable of 1.1 KV grade as per specification.							
	15.23.13	3½ X 35 sq. mm (28 mm)	Each	153.00	00	00	03	03	459.00

S.No.	SOR Item no.	PARTICULARS	UNIT	RATE	QTY.			TOTAL QTY.	AMOUNT
					For Each Flat	For 08 Nos. Flat	For Common Area		
36	20.6	Supplying and erection of angle/channel iron cross arms/ bracket/ other fitting of approved size and shape including drilling of holes for insulator pins, bolts and nuts etc as per specification.	kg	77.00	0.00	0.00	20.00	20.00	1540.00
		TOTAL						Rs.	714374.04
		Say						Rs.	714374.00

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**ABSTRACT OF R.C.C. ROAD UNDER REDEVELOPMENT WORK AT- KATGHORA DIST-
KORBA(C.G.)**

AS PER PWD SOR 2015

S.No.	SOR No.	PARTICULAR	UNIT	RATE	Qty.	AMOUNT
1	2	3	4	5	6	7
1	1.2	Surface dressing of the ground including removing vegetation and making up undulations and inequalities not exceeding 15 cms in depth/ height including disposal of rubbish upto 1.5 m lift and lead upto 50m (at least 5m away from the dressed area).	Sqm.	7.20	495.00	3564.00
2	3.2	Excavation in Soil (by Mechanical Means.) Excavation for roadway in soil using mechanical means including loading in tipper for carrying of cut earth to embankment site and unloading with all lifts and lead upto 1000 meters as per relevant clauses of section 300	Cum	95.00	42.15	4004.00
3	3.12	Providing and placing in position reinforcement for R.C.C. Work including straightening, cutting, bending, binding etc. complete as per drawings including cost of binding wire all complete: Thermo-Mechanically treated bars.				
	3.12.2	Thermo-Mechanically treated bars FE 500D	Kg.	54.50	725.46	39538.00
4	3.21	Providing & Fixing in position impregnated Fiber Board Confirming to IS Code 1838 in expansion Joints, I/c Cost of primer, sealing compound all complete.				
	3.21.2	25mm thick.	Sq.m.	768.00	128.25	98496.00
5	4.1	Granular Sub-base as per Table:- 400-1 Construction of granular sub-base by providing close graded Material, , carriage of mixed Material to work site, spreading in uniform layers with motor grader on prepared surface watering, rolling and compacting with vibratory power roller at OMC to achieve the desired density, complete as per clause 401. By Mix in place method. Disintegrated rock i.e moorum having CBR value not less than 20 and P.I. and L.L. not more than 6 and 20 respectively.				
	(B)	By Mix in place method. Disintegrated rock i.e moorum having CBR value not less than 20 and P.I. and L.L. not more than 6 and 20 respectively.	Cum	460.00	42.15	19388.00

S.No.	SOR No.	PARTICULAR	UNIT	RATE	Qty.	AMOUNT
1	2	3	4	5	6	7
6	4.10	Wet Mix Macadam (Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver in sub-base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density as per clause 406.)	Cum	1424.00	40.19	57229.00
7	4.13	Construction of Shoulders (Construction of shoulders as per clause 408 with selected soil from borrow pits / borrow areas having CBR not less than 12 and shall have L.L. and P.I. not more than 25% and 6% respectively, inclusive of all leads and lifts, including clearing and scrapping of existing surface, providing required cross fall, compacting, watering rolling and royalty charges etc. complete.				
	B	With smooth wheeled roller	Cum.	277.00	41.18	11405.00
8	3.1	Providing and laying nominal mix cement concrete with crushed stone aggregate using concrete mixer in foundation, plinth and at ground level excluding cost of form work.				
	3.1.2	1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size).	Cum.	2659.00	25.49	67771.00
9	3.3	Providing and laying design mix reinforced cement concrete with crushed graded stone aggregate 20mm nominal size using batching plant, transit mixer and concrete pump, in all works upto plinth level excluding cost of form work.				
	3.3.2	M-25 Grade	Cum.	4298.00	36.27	155901.00
			Total			457296.00
			Say Rs.			4.57 Lacs

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Chhattisgarh Housing &
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Board Division - Korba

DETAILED ESTIMATE OF R.C.C. ROAD UNDER REDEVELOPMENT WORK AT- KATGHORA DIST- KORBA(C.G.)								
AS PER PWD SOR 2015								
S.No.	SOR No.	PARTICULAR	No	L	B	D	Qty	UNIT
1	2	3	4	5	6	7	8	9
1	1.2	Surface dressing of the ground including removing vegetation and making up undulations and in-equalities not exceeding 15 cms in depth/ height including disposal of rubbish upto 1.5 m lift and lead upto 50m (at least 5m away from the dressed area).						
		9.00 m wide Road	1	25.00	9.00		225.00	
		7.50 m wide Road	1	36.00	7.50		270.00	
						Total	495.00	Sqm.
2	3.2	Excavation in Soil (by Mechanical Means.) Excavation for roadway in soil using mechanical means including loading in tipper for carrying of cut earth to embankment site and unloading with all lifts and lead upto 1000 meters as per relevant clauses of section 300.						
		9.00 m wide Road	1	25.00	4.60	0.15	17.25	
		7.50 m wide Road	1	36.00	4.10	0.15	22.14	
						Total	39.39	Cum.
		For Curve 5%					2.76	
						Total	42.15	Cum.
3	3.12	Providing and placing in position reinforcement for R.C.C. Work including straightening, cutting, bending, binding etc. complete as per drawings including cost of binding wire all complete: Thermo-Mechanically treated bars						
	3.12.2	Thermo-Mechanically treated bars FE 500D	36.27	@	20.00	Kg/Cum.	725.46	Kg.
4	3.21	Providing & Fixing in position impregnated Fiber Board Confirming to IS Code 1838 in expansion Joints, I/c Cost of primer, sealing compound all complete.						
	3.21.2	25 mm thk.						
		9.00 m wide Road	105	6.00		0.15	94.50	
		7.50 m wide Road	50	4.50		0.15	33.75	
						Total	128.25	Sq.m.
5	4.1	Granular Sub-base as per Table:- 400-1 Construction of granular sub-base by providing close graded Material, , carriage of mixed Material to work site, spreading in uniform layers with motor grader on prepared surface watering, rolling and compacting with vibratory power roller at OMC to achieve the desired density, complete as per clause 401.						
	(B)	By Mix in place method. Disintegrated rock i.e moorum having CBR value not less than 20 and P.I. and L.L. not more than 6 and 20 respectively.						

S.No.	SOR No.	PARTICULAR	No	L	B	D	Qty	UNIT
1	2	3	4	5	6	7	8	9
		9.00 m wide Road	1	25.00	4.60	0.15	17.25	
		7.50 m wide Road	1	36.00	4.10	0.15	22.14	
						Total	39.39	Cum.
		For Curve 5%					2.76	
						Total	42.15	Cum.
6	4.10	Wet Mix Macadam (Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver in sub- base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density as per clause 406.)						
		9.00 m wide Road	1	25.00	4.40	0.15	16.50	
		7.50 m wide Road	1	36.00	3.90	0.15	21.06	
						Total	37.56	Cum.
		For Curve 5%					2.63	
						Total	40.19	Cum.
7	4.13	Construction of Shoulders (Construction of shoulders as per clause 408 with selected soil from borrow pits / borrow areas having CBR not less than 12 and shall have L.L. and P.I. not more than 25% and 6% respectively, inclusive of all leads and lifts, including clearing and scrapping of existing surface, providing required cross fall, compacting. watering rolling and royalty charges etc. complete.						
	B	With smooth wheeled roller						
		9.00 m wide Road	2	25.00	0.75	0.45	16.88	
		7.50 m wide Road	2	36.00	0.75	0.45	24.30	
						Total	41.18	Cum.
8	3.1	Providing and laying nominal mix cement concrete with crushed stone aggregate using concrete mixer in foundation, plinth and at ground level excluding cost of form work.						
	3.1.2	1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size).						
		9.00 m wide Road	1	25.00	4.20	0.10	10.50	
		7.50 m wide Road	1	36.00	3.70	0.10	13.32	
						Total	23.82	Cum.
		For Curve 5%					1.67	
						Total	25.49	Cum.

S.No.	SOR No.	PARTICULAR	No	L	B	D	Qty	UNIT
1	2	3	4	5	6	7	8	9
9	3.3	Providing and laying design mix reinforced cement concrete with crushed graded stone aggregate 20mm nominal size using batching plant, transit mixer and concrete pump, in all works upto plinth level excluding cost of form work.						
	3.3.2	M-25 Grade						
		9.00 m wide Road	1	25.00	4.00	0.15	15.00	
		7.50 m wide Road	1	36.00	3.50	0.15	18.90	
						Total	33.90	Cum.
		For Curve 6%					2.37	
						Total	36.27	Cum.

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ABSTRACT OF R.C.C. DRAIN UNDER REDEVELOPMENT WORK AT- KATGHORA DIST- KORBA(C.G.)						
AS PER PWD SOR 2015						
S. No.	SOR No.	PARTICULAR	UNIT	RATE	Qty.	AMOUNT
1	2	3	4	5	6	7
1	1.1	Excavation for all types and sizes of foundations, trenches and drains or for any other purpose including disposal of excavated stuff upto 1.5 m lift and lead upto 50m (at least 5m away from the excavated area), including dressing and leveling of pits.				
	1.1.1	In all types of soils.	Cum.	185.00	130.70	24180.00
2	1.17	Filling from available excavated stuff (Excluding rock) in trenches, plinth, sides of foundation etc. in layers not exceeding 20cm in depth consolidating each deposited layer by ramming and watering with a lead upto 50 M. and lift upto 1.5 M.	Cum.	65.00	130.70	8496.00
3	2.1	Providing and fixing form work including centring, shuttering, strutting, staging, propping bracing etc. complete and including its removal at all levels, for:				
	2.1.1	Foundations, footings, bases of columns plinth beam, curtain wall in any shape and size and all type of wall below plinth level.	Sqm.	139.00	524.00	72836.00
4	3.1	Providing and laying nominal mix cement concrete with crushed stone aggregate using concrete mixer in foundation, plinth and at ground level excluding cost of form work.				
	3.1.2	1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size).	Cum.	2659.00	19.40	51585.00
5	3.3	Providing and laying design mix reinforced cement concrete with crushed graded stone aggregate 20mm nominal size using batching plant, transit mixer and concrete pump, in all works upto plinth level excluding cost of form work.				
	3.3.2	M-25 Grade	Cum.	4298.00	43.10	185244.00
6	3.12	Providing and placing in position reinforcement for R.C.C. work including straightening, cutting, bending, binding etc. complete as per drawings including cost of binding wire in foundation and plinth all complete:				
	3.12.2	Thermo-Mechanically treated bars FE 500 D	Kg.	54.50	2801.50	152682.00
					Total Rs.	495023.00

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DETAILED ESTIMATE OF R.C.C. DRAIN UNDER REDEVELOPMENT WORK AT- KATGHORA DIST-KORBA(C.G.)								
AS PER PWD SOR 2015								
S. No.	SOR No.	PARTICULAR	No.	L	B	D	Qty.	UNIT
1	2	3	4	5	6	7	8	9
1	1.1	Excavation for all types and sizes of foundations, trenches and drains or for any other purpose including disposal of excavated stuff upto 1.5 m lift and lead upto 50m (at least 5m away from the excavated area), including dressing and leveling of pits.						
	1.1.1	In all types of soils.						
		40 cm wide	1	120.00	0.90	0.50	54.00	
		50 cm wide	1	20.00	1.00	0.70	14.00	
		60 cm wide	1	60.00	1.10	0.95	62.70	
						Total	130.70	Cum.
2	1.17	Filling from available excavated stuff (Excluding rock) in trenches, plinth, sides of foundation etc. in layers not exceeding 20cm in depth consolidating each deposited layer by ramming and watering with a lead upto 50 M. and lift upto 1.5 M.						
		Exavated Qty					130.70	
		Net Quantity				Total	130.70	Cum.
3	2.1	Providing and fixing form work including centring, shuttering, strutting, staging, propping bracing etc. complete and including its removal at all levels, for:						
	2.1.1	Foundations, footings, bases of columns plinth beam, curtain wall in any shape and size and all type of wall below plinth level.				Avg.		
		40 cm wide	2	120.00	-	0.10	24.00	
			2	120.00	-	0.40	96.00	
			2	120.00	-	0.50	120.00	
		50 cm wide	2	20.00	-	0.10	4.00	
			2	20.00	-	0.60	24.00	
			2	20.00	-	0.70	28.00	
		60 cm wide	2	60.00	-	0.15	18.00	
			2	60.00	-	0.80	96.00	
			2	60.00	-	0.95	114.00	
						Total	524.00	Sqm.
4	3.1	Providing and laying nominal mix cement concrete with crushed stone aggregate using concrete mixer in foundation, plinth and at ground level excluding cost of form work.						
	3.1.2	1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size).						
		40 cm wide	1	120.00	0.90	0.10	10.80	
		50 cm wide	1	20.00	1.00	0.10	2.00	
		60 cm wide	1	60.00	1.10	0.10	6.60	
						Total	19.40	Cum.

S. No.	SOR No.	PARTICULAR	No.	L	B	D	Qty.	UNIT
1	2	3	4	5	6	7	8	9
5	3.3	Providing and laying design mix reinforced cement concrete with crushed graded stone aggregate 20mm nominal size using batching plant, transit mixer and concrete pump, in all works upto plinth level excluding cost of form work.						
	3.3.2	M-25 Grade						
		40 cm wide	1	120.00	0.60	0.10	7.20	
			2	120.00	0.10	0.40	9.60	
		50 cm wide	1	20.00	0.70	0.10	1.40	
			2	20.00	0.1	0.60	2.40	
		60 cm wide	1	60.00	0.90	0.15	8.10	
			2	60.00	0.15	0.80	14.40	
						Total	43.10	Cum.
6	3.12	Providing and placing in position reinforcement for R.C.C. work including straightening, cutting, bending, binding etc. complete as per drawings including cost of binding wire in foundation and plinth all complete:						
	3.12.2	Thermo-Mechanically treated bars FE 500D						
			1	43.10	65.00	kg/cum	2801.50	Kg.

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**ABSTRACT OF R.C.C. CULVERT UNDER REDEVELOPMENT WORK AT- KATGHORA DIST-
KORBA(C.G.)**

AS PER PWD SOR 2015

S.No.	SOR No.	PARTICULAR	UNIT	RATE	Qty	AMOUNT
1	2	3	5	6	4	7
1	1.1	Excavation for all types and sizes of foundations, trenches and drains or for any other purpose including disposal of excavated stuff upto 1.5 m lift and lead upto 50m (at least 5m away from the excavated area), including dressing and leveling of pits.				
	1.1.1	In all types of soils.	Cum	185.00	27.00	4995.00
2	1.17	Filling from available excavated stuff (Excluding rock) in trenches, plinth, sides of foundation etc. in layers not exceeding 20cm in depth consolidating each deposited layer by ramming and watering with a lead upto 50 M. and lift upto 1.5 M.	Cum	65.00	27.00	1755.00
3	1.18	Providing and filling in plinth with sand/ Crusher dust and hard moorum under floor in layers not exceeding 20cm in depth consolidating each deposited layer by ramming and watering, including dressing etc. complete.	Cum	371.00	1.80	667.80
4	3.1	Providing and laying nominal mix plain cement concrete with crushed stone aggregate using concrete mixer in all works upto plinth level excluding cost of form work.				
	3.1.2	1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size).	Cum	2659.00	2.70	7179.30
5	2.1	Providing and fixing form work including centring, shuttering, strutting, staging, propping bracing etc. complete and including its removal at all levels, for:				
	2.1.1	Foundations, footings, bases of columns plinth beam, curtain wall in any shape and size and all type of wall below plinth level.	Sqm	139.00	51.28	7127.92
6	2.17	Suspended floors, roofs, access platform, balconies (plain surfaces) and shelves (cast in situ)	Sqm	235.00	9.00	2115.00
7	3.2	Providing and laying nominal mix reinforced cement concrete with crushed stone aggregate using concrete mixer in all works upto plinth level excluding cost of form work.				
	3.2.1	1:1½:3 (1 cement : 1½ coarse sand : 3 graded stone aggregate 20mm nominal size).	Cum	4163.00	8.64	35968.32

S.No.	SOR No.	PARTICULAR	UNIT	RATE	Qty	AMOUNT
1	2	3	5	6	4	7
8	3.12	Providing and placing in position reinforcement for R.C.C. work including straightening, cutting, bending, binding etc. complete as per drawings including cost of binding wire in foundation and plinth all complete:				
	3.12.2	Thermo-Mechanically treated bars FE 500D	Kg	54.50	1036.80	56505.60
					Total Rs.	116314.00
		For 1 No Of Culvert			Say Rs.	1.16 Lacs

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ABSTRACT OF R.C.C. CULVERT UNDER REDEVELOPMENT WORK AT- KATGHORA DIST- KORBA(C.G.)								
AS PER PWD SOR 2015								
S.No.	SOR No.	PARTICULAR	No.	L	B	H/D	Qty	UNIT
1	2	3	4	5	6	7	8	9
1	1.1	Excavation for all types and sizes of foundations, trenches and drains or for any other purpose including disposal of excavated stuff upto 1.5 m lift and lead upto 50m (at least 5m away from the excavated area), including dressing and leveling of pits.						
	1.1.1	In all types of soils.						
		RCC Culvert 9.0 Mtr. Wide	1	10.00	1.80	1.50	27.00	
						Total	27.00	Cum.
2	1.17	Filling from available excavated stuff (Excluding rock) in trenches, plinth, sides of foundation etc. in layers not exceeding 20cm in depth consolidating each deposited layer by ramming and watering with a lead upto 50 M. and lift upto 1.5 M.						
		Total Excavation Qty	-	-	-	-	27.00	
						Total	27.00	Cum.
3	1.18	Providing and filling in plinth with sand/ Crusher dust and hard moorum under floor in layers not exceeding 20cm in depth consolidating each deposited layer by ramming and watering, including dressing etc. complete.						
		RCC Culvert 9.0 Mtr. Wide	1	10.00	1.80	0.10	1.80	
						Total	1.80	Cum.
4	3.1	Providing and laying nominal mix plain cement concrete with crushed stone aggregate using concrete mixer in all works upto plinth level excluding cost of form work.						
	3.1.2	1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size).						
		RCC Culvert 9.0 Mtr. Wide	1	10.00	1.80	0.15	2.70	
						Total	2.70	Cum.
5	2.1	Providing and fixing form work including centring, shuttering, strutting, staging, propping bracing etc. complete and including its removal at all levels, for:						
	2.1.1	Foundations, footings, bases of columns plinth beam, curtain wall in any shape and size and all type of wall below plinth level.						
		RCC Culvert 9.0 Mtr. Wide						
		For RCC Raft	2	9.00	-	0.20	3.60	
			2	1.20	-	0.20	0.48	
		For Wall	4	9.00	-	1.20	43.20	
		For Slab Sides	2	9.00	-	0.20	3.60	
			2	-	1.00	0.20	0.40	

S.No.	SOR No.	PARTICULAR	No.	L	B	H/D	Qty	UNIT
1	2	3	4	5	6	7	8	9
						Total	51.28	Sqm.
6	2.17	Suspended floors, roofs, access platform, balconies (plain surfaces) and shelves (cast in situ)						
		RCC Culvert 9.0 Mtr. Wide	1	9.00	1.00	-	9.00	
						Total	9.00	Sqm.
7	3.2	Providing and laying nominal mix reinforced cement concrete with crushed stone aggregate using concrete mixer in all works upto plinth level excluding cost of form work.						
	3.2.1	1:1½:3 (1 cement : 1½ coarse sand : 3 graded stone aggregate 20mm nominal size).						
		RCC Culvert 9.0 Mtr. Wide						
		For Raft	1	9.00	1.20	0.20	2.16	
		For Wall	2	9.00	0.20	1.20	4.32	
		for Slab	1	9.00	1.20	0.20	2.16	
						Total	8.64	Cum.
8	3.12	Providing and placing in position reinforcement for R.C.C. work including straightening, cutting, bending, binding etc. complete as per drawings including cost of binding wire in foundation and plinth all complete:						
	3.12.2	Thermo-Mechanically treated bars FE 500D	8.64	Cum @	120.00	Kg/Cum	1036.80	Kg.

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ABSTRACT OF EXTERNAL WATER SUPPLY UNDER REDEVELOPMENT WORK AT- KATGHORA DIST-KORBA(C.G.)						
AS PER PWD SOR 2015						
S.No.	SOR No.	PARTICULAR	UNIT	RATE	Qty.	AMOUNT
1	2	3	4	6	5	7
1	19.6	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings. This included jointing of pipes & fittings with one step CPVC solvent cement, trenching, refilling & testing of joints complete				
		EXTERNAL WORK				
	19.6.9	100mm nominal inner dia pipes	Metre	2,325.00	20.00	46500.00
2	19.6	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings. This included jointing of pipes & fittings with one step CPVC solvent cement, trenching, refilling & testing of joints complete				
		EXTERNAL WORK				
	19.6.8	75 mm nominal inner dia pipes	Metre	1,682.00	190.00	319580.00
3	19.18	Providing and fixing gun metal non-return valve (horizontal type) of approved quality (screwed end).				
	19.18.9	80 mm dia nominal bore	Each	2513.00	1.00	2513.00
4	19.18	Providing and fixing gun metal non-return valve (horizontal type) of approved quality (screwed end).				
	19.18.6	500 mm dia nominal bore	Each	993.00	1.00	993.00
5	19.16	Providing and fixing brass/ gun metal gate valve with C.I. wheel of approved quality (screwed end):				
	19.16.6	80 mm nominal bore	Each	1935.00	4.00	7740.00
	19.16.4	50 mm nominal bore	Each	762.00	1.00	762.00
6	19.16	Providing and fixing gun metal non-return valve (horizontal type) of approved quality (screwed end).				
	19.16.4	50 mm nominal bore	Each	762.00	1.00	762.00
7	19.51	Constructing masonry Chamber 60x60x75 cm, inside with modular well burnt clay bricks of 35 kg/ cm ² in cement mortar 1:4 (1 cement : 4 coarse sand) for fire hydrants, with C.I. surface box 350x350 mm top and 165 mm deep (inside) with chained lid and RCC top slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) necessary excavation foundation concrete 1:5:10 (1 cement : 5 fine sand:10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick finished with a	Each	4356.00	5	21780.00
					Total	400630.00
					Say Rs.	4.01 Lacs

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DETAILED ESTIMATE OF EXTERNAL WATER SUPPLY UNDER REDEVELOPMENT WORK AT- KATGHORA DIST-KORBA(C.G.)								
AS PER PWD SOR 2015								
S.No.	SOR No.	PARTICULAR	No.	L.	W.	D.	Qty.	UNIT
1	2	3	4	5	6	7	8	9
1	19.9	Providing and laying in trenches G.I. pipes medium class complete with G.I. fittings including excavation of trenches, refilling the same and testing of joints complete:						
	19.9.8	80mm nominal inner dia pipes						
			1	20.00			20.00	
						Total	20.00	Mtr.
2	19.9	Providing and laying in trenches G.I. pipes medium class complete with G.I. fittings including excavation of trenches, refilling the same and testing of joints complete:						
	19.9.6	50mm nominal inner dia pipes						
			1	190.00			190.00	
						Total	190.00	Mtr.
3	19.18	Providing and fixing gun metal non-return valve (horizontal type) of approved quality (screwed end).						
	19.18.6	80 mm dia nominal bore	1				1	Each
4	19.18	Providing and fixing gun metal non-return valve (horizontal type) of approved quality (screwed end).						
	19.18.4	50 mm dia nominal bore	1				1	Each
5	19.16	Providing and fixing brass/ gun metal gate valve with C.I. wheel of approved quality (screwed end):						
	19.16.6	80 mm nominal bore	4				4	Each
	19.16.4	50 mm nominal bore	1				1	Each
6	19.16	Providing and fixing gun metal non-return valve (horizontal type) of approved quality (screwed end).						
	19.16.4	50 mm nominal bore	1				1	Each

S.No.	SOR No.	PARTICULAR	No.	L.	W.	D.	Qty.	UNIT
1	2	3	4	5	6	7	8	9
7	19.51	Constructing masonry Chamber 60x60x75 cm, inside with modular well burnt clay bricks of 35 kg/ cm ² in cement mortar 1:4 (1 cement : 4 coarse sand) for fire hydrants, with C.I. surface box 350x350 mm top and 165 mm deep (inside) with chained lid and RCC top slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) necessary excavation foundation concrete 1:5:10 (1 cement : 5 fine sand:10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick finished with a floating coat of neat cement complete as per standard design :	5				5	Each

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**ABSTRACT OF EXTERNAL SEWER LINE UNDER REDEVELOPMENT WORK AT-
KATGHORA DIST-KORBA(C.G.)**

AS PER PWD SOR 2015

S.No.	SOR No	PARTICULAR	UNIT	RATE	QTY	AMOUNT
1	2	3	4	6	5	7
1	1.1	Excavation for all types and sizes of foundations, trenches and drains or for any other purpose including disposal of excavated stuff upto 1.5 m lift and lead upto 50m (at least 5m away from the excavated area), including dressing and leveling of pits.				
	1.1.1	In all types of soil	Cum	185.00	208.20	38517.00
2	1.17	Filling from available excavated stuff (Excluding rock) in trenches, plinth, sides of foundation etc. in layers not exceeding 20cm in depth consolidating each deposited layer by ramming and watering with a lead upto 50 M. and lift upto 1.5 M.				
		Excavation	Cum	65.00	208.20	13533.00
3	3.1	Providing and laying nominal mix plain cement concrete with crushed stone aggregate using concrete mixer in all works upto plinth level excluding cost of form work.				
	3.1.2	1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size).	Cum	2659.00	10.40	27653.60
4	Ele 16.4	Supplying and laying following size RCC Hume pipe class NP-2 (in standard length of 2 metre) with collar in ground below road, path etc at a depth not less than 50 cm and upto 90 cm including excavation, dismantling of road if required and refilling the trench with excavated material, ramming and making the surface good etc. as required.				
	16.4.2	150 mm dia	Mtr.	318.00	305.00	96990.00
	16.4.3	200 mm dia	Mtr.	503.00	20.00	10060.00
	16.4.5	300 mm dia	Mtr.	735.00	10.00	7350.00
5	20.29	Providing and constructing brick masonry chamber for underground pipe and bends with well burnt modular clay bricks crushing strength not less than 35kg/cm ² in cement mortar 1:4 (1 cement : 4 coarse sand) RCC cover of suitable size and 75mm thick with 1:1.5:3 mix (1 cement :1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size) including reinforcement 8mm dia bars at 150mm both ways and MS hooks for lifting, including foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 20 mm nominal size)				
	20.29.3	Inside dimensions 600x 850 mm and 45 cm deep for pipe line with three or more inlets	Each	2619.00	60.00	157140.00

S.No.	SOR No	PARTICULAR	UNIT	RATE	QTY	AMOUNT
1	2	3	4	6	5	7
6	20.7	Constructing brick masonry manhole with well burnt modular clay bricks crushing strength not less than 35 kg/ cm ² in cement mortar 1:4 (1 cement : 4 coarse sand) R.C.C. top slab wit 1:2:4 mix (1 cement : 2 coarse sand: 4 graded stone aggregate 20 mm nominal size) foundation in cement concrete 1:4:8 mix (1 cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size) inside plastering 12mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand: 4 graded stone aggregate 20mm nominal size) finished with a floating of neat cement complete as per standard design.				
	20.7.4	Inside size 90x80 cm and 45 cm deep including RCC cover with frame 450x600 mm internal dimensions.	Each	5595	2	11190.00
	20.7.2	Inside size 120x90 cm and 90 cm deep including C.I. cover with frame (medium duty) 500 mm internal diameter, total weight of cover and frame to be not less than 116 kg (weight of cover 58 kg and weight of frame 58 kg) :	Each	14448	1	14448.00
7	20.8	Extra for depth for manholes				
	20.8.1	Size 90x80 cm	Mtr	3755	10.50	39427.50
					Total	416309.00
					Say Rs.	4.16 Lacs

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**DETAILED ESTIMATE OF EXTERNAL SEWER LINE UNDER REDEVELOPMENT WORK AT-
KATGHORA DIST-KORBA(C.G.)**

AS PER PWD SOR 2015

S.No.	SOR No.	PARTICULAR	No.	L	B	D	Qty.	UNIT
1	2	3	4	5	6	7	8	9
1	1.1	Excavation for all types and sizes of foundations, trenches and drains or for any other purpose including disposal of excavated stuff upto 1.5 m lift and lead upto 50m (at least 5m away from the excavated area), including dressing and leveling of pits.						
	1.1.1	In all types of soil						
		For 150 mm Dia	1	305.00	0.50	1.20	183.00	
		For 225 mm Dia	1	20.00	0.65	1.20	15.60	
		For 300 mm Dia	1	10.00	0.80	1.20	9.60	
						Total	208.20	Cum.
2	1.17	Filling from available excavated stuff (Excluding rock) in trenches, plinth, sides of foundation etc. in layers not exceeding 20cm in depth consolidating each deposited layer by ramming and watering with a lead upto 50 M. and lift upto 1.5 M.						
		Same as Excavation Qty					208.20	
						Total	208.20	Cum.
3	3.1	Providing and laying nominal mix plain cement concrete with crushed stone aggregate using concrete mixer in all works upto plinth level excluding cost of form work.						
	3.1.2	1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size).						
		For 150 mm Dia	1	305.00	0.30	0.10	9.15	
		For 225 mm Dia	1	20.00	0.40	0.10	0.80	
		For 300 mm Dia	1	10.00	0.45	0.10	0.45	
						Total	10.40	Cum.
4	Ele. 16.4	Providing and laying non-pressure NP2 class (light duty) R.C.C. pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc complete.						
	16.4.2	150 mm dia	1	305.00			305.00	
						Total	305.00	Mtr.
	16.4.3	200 mm dia	1	20.00			20.00	
						Total	20.00	Mtr.
	16.4.5	300 mm dia	1	10.00			10.00	
						Total	10.00	Mtr.

S.No.	SOR No.	PARTICULAR	No.	L	B	D	Qty.	UNIT
1	2	3	4	5	6	7	8	9
5	20.29	Providing and constructing brick masonry chamber for underground pipe and bends with well burnt modular clay bricks crushing strength not less than 35kg/cm ² in cement mortar 1:4 (1 cement : 4 coarse sand) RCC cover of suitable size and 75mm thick with 1:1.5:3 mix (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size) including reinforcement 8mm dia bars at 150mm both ways and MS hooks for lifting, including foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished smooth with a floating coat of neat cement on walls and bed concrete etc. complete as per standard design :						
	20.29.3	Inside dimensions 600x 850 mm and 45 cm deep for pipe line with three or more inlets	60				60.00	Each
6	20.7	Constructing brick masonry manhole with well burnt modular clay bricks crushing strength not less than 35 kg/ cm ² in cement mortar 1:4 (1 cement : 4 coarse sand) R.C.C. top slab with 1:2:4 mix (1 cement : 2 coarse sand: 4 graded stone aggregate 20 mm nominal size) foundation in cement concrete 1:4:8 mix (1 cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size) inside plastering 12mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand: 4 graded stone aggregate 20mm nominal size) finished with a floating of neat cement complete as per standard design.						
	20.7.4	Inside size 90x80 cm and 45 cm deep including RCC cover with frame 450x600 mm internal dimensions.	2				2	Each
	20.7.2	Inside size 120x90 cm and 90 cm deep including C.I. cover with frame (medium duty) 500 mm internal diameter, total weight of cover and frame to be not less than 116 kg (weight of cover 58 kg and weight of frame 58 kg) :	1				1	Each
7	20.8	Extra for depth for manholes						
	20.8.1	Size 90x80 cm	7	1			7.00	
			7	0.5			3.50	
						Total	10.50	Mtr.

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Board Division - Korba

ABSTRACT OF TUBE WELL UNDER REDEVELOPMENT WORK AT- KATGHORA KORBA(C.G.)						DIST-
AS PER PWD SOR 2015						
S.No.	SOR No.	PARTICULAR	UNIT	RATE	QTY.	AMOUNT
1	2	3	5	6	4	7
1	21.1	Boring/drilling bore well perfectly vertical for the specified depth suitable to receive required dia for casing/ strainer pipe, by suitable method prescribed in IS: 2800 (part I), including collecting samples from different strata, preparing and submitting strata chart/bore log, including hire & running charges of all equipments, tools, plants & machineries required for the job, all complete as per direction of Engineer-in-charge upto 90 metre depth below ground level.				
	21.1.1	All types of soil				
	21.1.1.3	150 mm dia.	Mtr	339	50	16950.00
	21.1.2	Rocky strata including Boulders.				
	21.1.2.3	150 mm dia.	Mtr	396	100	39600.00
2	21.2	Boring/drilling bore well perfectly vertical for the specified depth suitable to receive required dia for casing/ strainer pipe, by suitable method prescribed in IS: 2800 (part I), including collecting samples from different strata, preparing and submitting strata chart/bore log, including hire & running charges of all equipments, tools, plants & machineries required for the job, all complete as per direction of Engineer-in-charge beyond 90 metre & upto 150 metre depth below ground level.				
	21.2.1	All Types of soil				
	21.2.1.3	150 mm dia.	Mtr	371.00	10.00	3710.00
	21.2.2	Rocky Starta Including Boulder				
	21.2.2.3	150 mm dia.	Mtr	424.00	30.00	12720.00
3	21.3	Supplying, assembling, lowering and fixing in vertical position in bore well, unplasticized PVC medium well casing (CM) pipe of required dia, conforming to IS: 12818, including required hire and labour charges, fittings & accessories etc. all complete, for all depths, as per direction of Engineer –in-charge.				
	21.3.3	150 mm nominal dia	Mtr	540.00	40.00	21600.00
4	21.11.3	Providing and fixing suitable size threaded mild steel cap or spot welded plate to the top of bore well housing/ casing pipe, removable as per requirement, all complete for bore well of:				
		150 mm dia	Each	217.00	1.00	217.00
4	21.10	Development of tube well in accordance with IS : 2800 (part I) and IS: 11189, to establish maximum rate of usable water yield without sand content (beyond permissible limit), with required capacity air compressor, running the compressor for required time till well is fully developed, measuring yield of well by "V" notch method or any other approved method, measuring static level & draw down etc. by step draw down method, collecting water samples & getting tested in approved laboratory, i/c disinfection of tube well, all complete, including hire & labour charges of air compressor, tools & accessories etc., all as per requirement and direction of Engineer-in-charge.				
			Hour	654.00	3.00	1962.00

S.No.	SOR No.	PARTICULAR	UNIT	RATE	QTY.	AMOUNT
1	2	3	5	6	4	7
5	21.17	Carrying out the resistivity survey by VES method using Schlumberger configuration for locating the proper spot for drilling of tube well within the selected habitation, including photography, interpretation of resistivity data and submission of report in the desired format along with resistivity readings, necessary graph and photographs. (only successful point is payable)				
			point	1502.00	1.00	1502.00
		for 1 No. Tube well				98261.00
		for 2 Nos Tube well				196522.00

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Division - Korba

ESTIMATE OF TUBE WELL UNDER REDEVELOPMENT WORK AT- KATGHORA								DIST-
KORBA(C.G.)								
AS PER PWD SOR 2015								
S.No.	SOR No.	PARTICULAR	Nos	L	B	D	Qty	Unit
1	2	3	4	5	6	7		
1	21.1	Boring/drilling bore well perfectly vertical for the specified depth suitable to receive required dia for casing/ strainer pipe, by suitable method prescribed in IS: 2800 (part I), including collecting samples from different strata, preparing and submitting strata chart/bore log, including hire & running charges of all equipments, tools, plants & machineries required for the job, all complete as per direction of Engineer-in-charge upto 90 metre depth below ground level.						
	21.1.1	All types of soil						
	21.1.1.3	150 mm dia.	1	50			50	
						Total	50	Mtr
	21.1.2	Rocky strata including Boulders.						
	21.1.2.3	150 mm dia.	1	100			100	
						Total	100	Mtr
2	21.2	Boring/drilling bore well perfectly vertical for the specified depth suitable to receive required dia for casing/ strainer pipe, by suitable method prescribed in IS: 2800 (part I), including collecting samples from different strata, preparing and submitting strata chart/bore log, including hire & running charges of all equipments, tools, plants & machineries required for the job, all complete as per direction of Engineer-in-charge beyond 90 metre & upto 150 metre depth below ground level.						
	21.2.1	All Types of soil						
	21.2.1.3	150 mm dia.	1	10			10	
						Total	10	Mtr
	21.2.2	Rocky Starta Including Boulder						
	21.2.2.3	150 mm dia.	1	30			30	
						Total	30	Mtr
3	21.3	Supplying, assembling, lowering and fixing in vertical position in bore well, unplasticized PVC medium well casing (CM) pipe of required dia, conforming to IS: 12818, including required hire and labour charges, fittings & accessories etc. all complete, for all depths, as per direction of Engineer –in-charge.						
	21.3.3	150 mm nominal dia	1	40			40	
						Total	40	Mtr
4	21.11.3	Providing and fixing suitable size threaded mild steel cap or spot welded plate to the top of bore well housing/ casing pipe, removable as per requirement, all complete for bore well of:						
		150 mm dia	1				1.00	
						Total	1.00	Each

S.No.	SOR No.	PARTICULAR	Nos	L	B	D	Qty	Unit
1	2	3	4	5	6	7		
4	21.10	Development of tube well in accordance with IS : 2800 (part I) and IS: 11189, to establish maximum rate of usable water yield without sand content (beyond permissible limit), with required capacity air compressor, running the compressor for required time till well is fully developed, measuring yield of well by "V" notch method or any other approved method, measuring static level & draw down etc. by step draw down method, collecting water samples & getting tested in approved laboratory, i/c disinfection of tube well, all complete, including hire & labour charges of air compressor, tools & accessories etc., all as per requirement and direction of Engineer-in-charge.						
			3				3.00	
						Total	3.00	Hour
5	21.17	Carrying out the resistivity survey by VES method using Schlumberger configuration for locating the proper spot for drilling of tube well within the selected habitation, including photography, interpretation of resistivity data and submission of report in the desired format along with resistivity readings, necessary graph and photographs. (only successful point is payable)						
			1				1.00	
						Total	1.00	point

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ABSTRACT OF SEPTIK TANK UNDER REDEVELOPMENT WORK AT- KATGHORA DIST-KORBA(C.G.)

Septic Tank (100 Users) & Sewer Line						
S. No.	I. No.	PARTICULAR	UNIT	RATE	QTY	AMOUNT
1	1.1	Excavation for all types and sizes of foundations, trenches and drains or for any other purpose including disposal of excavated stuff upto 1.5 m lift and lead upto 50m (at least 5m away from the excavated area), including dressing and leveling of pits.				
	1.1.1	In all types of soils.	cum	185.00	55.69	10302.19
2	3.1	Providing and laying nominal mix plain cement concrete with crushed stone aggregate using concrete mixer in all works upto plinth level excluding cost of form work.				
	3.1.2	1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size).	cum	2659.00	3.03	8067.41
3	3.3	Providing and laying design mix reinforced cement concrete with crushed graded stone aggregate 20mm nominal size using batching plant, transit mixer and concrete pump, in all works upto plinth level excluding cost of form work.				
	3.3.2	M-25 Grade				
			cum	4298.00	15.37	66077.24
4	2.1	Providing and fixing formwork including centering, shuttering, strutting, staging, propping bracing etc. complete and including its removal at all levels, for:				
A	2.1.1	Foundations, footings, bases of columns plinth beam, curtain wall in any shape and size and all type of wall below plinth level.				
			sqm	139.00	5.09	706.82
B	2.1.7	Suspended floors, roofs, access platform, balconies (plain surfaces) and shelves (cast in situ)				
			sqm	235.00	20.15	4734.31
B	2.1.2	Wall of any thickness including attached pilasters, buttresses etc. in superstructure.				

			sqm	228.00	86.00	19608.00
5	3.12	Providing and placing in position reinforcement for R.C.C. work including straightening, cutting, bending, binding etc. complete as per drawings including cost of binding wire in foundation and plinth all complete:				
	3.12.2	Thermo-Mechanically treated bars FE 500D	kg	54.50	1537.40	83788.03
6	1.17	Filling from available excavated stuff (Excluding rock) in trenches, plinth, sides of foundation etc. in layers not exceeding 20cm in depth consolidating each deposited layer by ramming and watering with a lead upto 50 M. and lift upto 1.5 M.				
			cum	65.00	55.69	3619.69
7	11.1	Providing and making 6mm thick cement plaster of mix:				
	11.1.2	In Cement mortar 1:4 (1 cement : 4 fine sand)				
			sqm	87.00	79.20	6890.40
8	11.5	Neat Cement punning.	sqm	33.00	79.20	2613.60
9	12.3	Cement concrete flooring with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm) finished with a floating coat of neat cement.				
	12.3.1	40 mm thick	sqm	222.00	21.46	4764.12
10	20.31	Providing and constructing soak pit 1.20x1.20x1.20m filled with brickbats including S.W. drain pipe 100 mm diameter and 1.20 m long complete as per standard design.	each	1709.00	1.00	1709.00
						212881.00
Sub Engineer Chhattisgarh Housing & Infrastructure Development Board Division - Korba			Assistant Engineer Chhattisgarh Housing & Infrastructure Development Board Division - Korba			Executive Engineer Chhattisgarh Housing & Infrastructure Development Board Division - Korba

ESTIMATE OF SEPTIK TANK UNDER REDEVELOPMENT WORK AT- KATGHORA DIST-KORBA(C.G.)

Septic Tank (100 Users) & Sewer Line (ST Inner size 7.00x2.50x2.00)

S. No.	I. No.	PARTICULAR	Nos	L	B	D/H	QTY	UNIT
1	1.1	Excavation for all types and sizes of foundations, trenches and drains or for any other purpose including disposal of excavated stuff upto 1.5 m lift and lead upto 50m (at least 5m away from the excavated area), including dressing and leveling of pits.						
	1.1.1	In all types of soils.	1	8.25	3.75	1.80	55.69	cum
2	3.1	Providing and laying nominal mix plain cement concrete with crushed stone aggregate using concrete mixer in all works upto plinth level excluding cost of form work.						
	3.1.2	1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size).	1	8.20	3.70	0.10	3.03	cum
3	3.3	Providing and laying design mix reinforced cement concrete with crushed graded stone aggregate 20mm nominal size using batching plant, transit mixer and concrete pump, in all works upto plinth level excluding cost of form work.						
	3.3.2	M-25 Grade						
		Base	1	8.25	3.70	0.15	4.58	
		Wall	2	2.50	0.20	2.00	2.00	
		Wall	2	7.40	0.20	2.00	5.92	
		Beam	2	2.50	0.20	0.30	0.30	
		Slab	1	7.40	2.90	0.120	2.58	
							15.37	cum
4	2.1	Providing and fixing formwork including centering, shuttering, strutting, staging, propping bracing etc. complete and including its removal at all levels, for:						
A	2.1.1	Foundations, footings, bases of columns plinth beam, curtain wall in any shape and size and all type of wall below plinth level.						
		Base	2	8.25		0.15	2.48	
			2	3.70		0.15	1.11	
		Beam	2	2.50		0.30	1.50	
							5.09	sqm

B	2.1.7	Suspended floors, roofs, access platform, balconies (plain surfaces) and shelves (cast in situ)						
			1	7.00	2.50		17.50	
			2	7.40	0.120		1.78	
			2	2.90	0.150		0.87	
							20.15	sqm
B	2.1.2	Wall of any thickness including attached pilasters, buttresses etc. in superstructure.						
			4	2.50		2.00	20.00	
			4	8.25		2.00	66.00	
							86.00	sqm
5	3.12	Providing and placing in position reinforcement for R.C.C. work including straightening, cutting, bending, binding etc. complete as per drawings including cost of binding wire in foundation and plinth all complete:						
	3.12.2	Thermo-Mechanically treated bars FE 500D						
		Rcc 16.75cum@100kg/cum	15.37	at	100.00	kg/cum	1537.40	kg
6	1.17	Filling from available excavated stuff (Excluding rock) in trenches, plinth, sides of foundation etc. in layers not exceeding 20cm in depth consolidating each deposited layer by ramming and watering with a lead upto 50 M. and lift upto 1.5 M.						
		Same qty as Excavated soil					55.69	cum
7	11.1	Providing and making 6mm thick cement plaster of mix:						
	11.1.2	In Cement mortar 1:4 (1 cement : 4 fine sand)	4	2.50		2.00	20.00	
		For RCC Wall	4	7.40		2.00	59.20	
							79.20	sqm
8	11.5	Neat Cement punning.					79.20	sqm
9	12.3	Cement concrete flooring with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm) finished with a floating coat of neat cement.						
	12.3.1	40 mm thick	1	7.40	2.90		21.46	sqm

ABSTRACT OF RECHARGE WELL UNDER REDEVELOPMENT WORK AT- KATGHORA DIST-KORBA(C.G.)

	Rain Water Harvesting Through Recharge Well					
S. No.	I. No.	PARTICULAR	UNIT	RATE	QTY	AMOUNT
1	1.1	Excavation for all types and sizes of foundations, trenches and drains or for any other purpose including disposal of excavated stuff upto 1.5 m lift and lead upto 50m (at least 5m away from the excavated area), including dressing and leveling of pits.				
	1.1.2	In ordinary rocks.				
			cum	267.00	32.44	8660.67
	1.1.2	In ordinary rocks.				
			cum	267.00	50.80	13563.94
2	1.6	Extra for every additional lift of 1.5 m or part thereof.				
	1.6.2	Ordinary or hard rocks				
			cum	47.50	21.77	1034.17
			cum	95.00	21.77	2068.34
3	3.1	Providing and laying nominal mix plain cement concrete with crushed stone aggregate using concrete mixer in all works upto plinth level excluding cost of form work.				
	3.1.2	1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size).				
			cum	2659.00	1.56	4135.60
4	3.3	Providing and laying design mix reinforced cement concrete with crushed graded stone aggregate 20mm nominal size using batching plant, transit mixer and concrete pump, in all works upto plinth level excluding cost of form work.				
	3.3.1	M-20 Grade				
			cum	4,231.00	4.36	18464.43

5	3.12	Providing and placing in position reinforcement for R.C.C. work including straightening, cutting, bending, binding etc. complete as per drawings including cost of binding wire in foundation and plinth all complete:				
	3.12.2	Thermo-Mechanically treated bars FE 500D				
			Kg	54.50	436.41	23784.25
6	2.1	Providing and fixing form work including centring, shuttering, strutting, staging, propping bracing etc. complete and including its removal at all levels, for:				
i)	2.1.1	Foundations, footings, bases of columns plinth beam, curtain wall in any shape and size and all type of wall below plinth level.				
			sqm	139.00	26.99	3751.22
ii)	2.1.7	Suspended floors, roofs, access platform, balconies (plain surfaces) and shelves (cast in situ)				
			sqm	235.00	12.17	2859.95
7	1.17	Providing and filling in plinth with sand/ Crusher dust and hard moorum under floor in layers not exceeding 20cm in depth consolidating each deposited layer by ramming and watering, including dressing etc. complete.				
			cum	65.00	75.60	4914.01
8	7.5	Brick work with modular fly-ash lime bricks (FaLG Bricks) confirming to IS:12894-2002 of class designation 4.0 in foundation and plinth in:				
	7.5.3	Cement Mortar 1:5 (1 cement : 5 coarse sand)				
			cum	3350.00	13.19	44179.80
9	11.1	Providing and making 6mm thick cement plaster of mix:				
	11.1.2	In Cement mortar 1:4 (1 cement : 4 fine sand)				
			sqm	87.00	12.17	1058.79
10	11.2	Providing and making 12mm thick cement plaster of mix:				

	11.2.4	In Cement Mortar 1:5 (1 cement : 5 fine sand)				
			sqm	96.50	54.39	5248.64
11	18.76	Providing and fixing on wall face or under floor UV stabilized Unplasticised Rigid PVC pipes (single socketed) having 3.2mm wall couplers, jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansion etc complete.				
	18.76.2	110 mm dia pipe.	Meter	267.00	451.00	120417.00
12	18.77	Providing and fixing on wall face UV stabilized Unplasticised - PVC moulded fittings/ accessories having 3.2mm wall thickness for Rigid PVC pipes conforming to IS : 13592 (heavy) jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansion.				
	18.77.1	Tee/ Tee with door/ Bend 45°/ Bend 90°				
	18.77.1.2	110mm	each	154.00	250.00	38500.00
13	19.43	Cutting holes more than 20x20 cm and upto 30x30 cm in walls including making good the same :	each	125	4.00	500.00
14	20.11	Providing M.S. foot rests including fixing in manholes with 20x20x10 cm cement concrete blocks 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) as per standard design:				
	20.11.1	With 20x20 mm square bar	each	168.00	10.00	1680.00
15	20.16	Providing and fixing in position precast R.C.C. manhole cover and frame M D-10 of required shape and approved quality				
	20.16.1	Square shape 450mm internal dimension	each	967.00	2.00	1934.00

16	20.9	masonry circular arch type manhole upto 1.67m depth, 0.91m internal dia at bottom and 0.56m dia at top having brick masonry wall 190mm thick with well burnt modular clay bricks crushing strength not less than 35kg/cm ² in cement mortar 1:4 (1 cement : 4 coarse sand), in side cement plaster 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement, foundation concrete 1:3:6 mix (1 cement : 3 coarse sand : 6 graded stone aggregate 40mm nominal size), and making necessary channel in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) finished with a floating coat of neat cement, providing and fixing S.F.R.C. cover and frame (heavy duty, HD- 20 grade designation) 560mm internal diameter conforming to I.S. 12592, total weight of cover and frame to be not less than 182kg, in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) all complete as per standard design (excavation and foot rests shall be paid				
	20.9.1	Manhole of depth 0.91m.	each	5,970.00	1.00	5970.00
17	21.14	Supplying, filling, spreading & leveling stone boulders/ Gravels/ Coarse sand, in recharge pit, in the required layers and thickness, for all leads & lifts, all complete as per direction of Engineer-in-charge. (excavation of pit will be paid separately).				
	21.14.1	Stone boulders of size range 5 cm to 20 cm, in recharge pit	cum	863.00	3.53	3048.55
	21.14.2	Gravels of size range 5 mm to 10 mm, over the existing layer of boulders	cum	806.00	3.53	2847.20
	21.14.3	Coarse sand of size range 1.5 mm to 2 mm over existing layer of gravel	cum	471.00	1.80	847.80

20	19.47	Constructing masonry Chamber 30x30x50 cm, inside with modular well burnt clay bricks of 35 kg/ cm ² in cement mortar 1:4 (1 cement : 4 coarse sand) for stop cock, with C. I. surface box 100x100 x75 mm (inside) with hinged cover fixed in cement concrete slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) necessary excavation foundation concrete 1:5:10 (1 cement : 5 fine sand:10 graded stone aggregate 40mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12mm thick finished with a floating coat of neat cement complete as per standard design :				
			each	754.00	11.00	8294.00
20	19.48	Constructing masonry Chamber 60x60x75 cm, inside with modular well burnt clay bricks of 35 kg/ cm ² in cement mortar 1:4 (1 cement : 4 coarse sand) for sluice valve, with C.I. surface box 100mm. top diameter, 160 mm bottom diameter and 180 mm deep (inside) with chained lid and RCC top slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) necessary excavation foundation concrete 1:5:10(1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick finished with a floating coat of neat cement complete as per standard design :				
			each	4644	30.00	139320.00
						457082.00
		1 Nos. (Recharge Well)				457082.00
					Say	4.57 Lacs

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ESTIMATE OF RECHARGE WELL UNDER REDEVELOPMENT WORK AT- KATGHORA DIST-KORBA(C.G.)

Rain Water Harvesting Through Recharge Well

S. No.	I. No.	PARTICULAR	Measurement				QTY	UNIT
			NO	L	B	D/H		
1	1.1	Excavation for all types and sizes of foundations, trenches and drains or for any other purpose including disposal of excavated stuff upto 1.5 m lift and lead upto 50m (at least 5m away from the excavated area), including dressing and leveling of pits.						
	1.1.2	In ordinary rocks.						
		Pipe Line	1	10.00	0.30	0.30	0.90	
		Separator chamber	1	2.10	3.10	1.50	9.77	
		Recharge well	1	3.14	4.62	1.50	21.77	
		(Dia- 4.3M)					32.44	cum
	1.1.2	In ordinary rocks.						
		Recharge well	1	3.14	4.62	3.50	50.80	
		(Dia- 4.3M)					50.80	cum
2	1.6	Extra for every additional lift of 1.5 m or part thereof.						
	1.6.2	Ordinary or hard rocks						
		upto 1.5M to 3.0M	1	3.14	4.62	1.50	21.77	cum
		upto 3.0M to 4.5M	1	3.14	4.62	1.50	21.77	cum
3	3.1	Providing and laying nominal mix plain cement concrete with crushed stone aggregate using concrete mixer in all works upto plinth level excluding cost of form work.						
	3.1.2	1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size).						
		For chamber	1	2.10	3.10	0.10	0.65	
		For well wall (2 x3.14x1.6)	1	10.05	0.60	0.15	0.90	
							1.56	cum
4	3.3	Providing and laying design mix reinforced cement concrete with crushed graded stone aggregate 20mm nominal size using batching plant, transit mixer and concrete pump, in all works upto plinth level excluding cost of form work.						
	3.3.1	M-20 Grade						
		For well slab beam	1	10.05	0.20	0.45	0.90	
			2	3.00	0.20	0.45	0.54	

		For well Slab (3.14x1.7x1.7)	1	9.07		0.13	1.13	
		For chamber beam	2	1.50	0.20	0.20	0.12	
			2	2.90	0.20	0.20	1.16	
		For chamber cover	1	1.90	2.90	0.10	0.55	
		cut in slab	-1	0.45	0.45	0.13	-0.03	
			-1	0.45	0.45	0.10	-0.02	
							4.36	cum
5	3.12	Providing and placing in position reinforcement for R.C.C. work including straightening, cutting, bending, binding etc. complete as per drawings including cost of binding wire in foundation and plinth all complete:						
	3.12.2	Thermo-Mechanically treated bars FE 500D						
		Qty. of R.C.C. M 20	4.36		100.00		436.41	Kg
6	2.1	Providing and fixing form work including centring, shuttering, strutting, staging, propping bracing etc. complete and including its removal at all levels, for:						
i)	2.1.1	Foundations, footings, bases of columns plinth beam, curtain wall in any shape and size and all type of wall below plinth level.						
		For chamber	1	10.40		0.10	1.04	
		For well wall (2 x3.14x1.6)	2	10.05		0.15	3.01	
		For well slab beam	1	10.05		1.10	11.05	
			2	3.00		1.10	6.60	
		For chamber beam	2	1.50		0.60	1.80	
			2	2.90		0.60	3.48	
							26.99	sqm
ii)	2.1.7	Suspended floors, roofs, access platform, balconies (plain surfaces) and shelves (cast in situ)						
		For well Slab (3.14x1.5x1.5)	1	7.07			7.07	
		For chamber cover	1	1.90	2.90		5.51	
		cut in slab	-1	0.45	0.45		-0.20	
			-1	0.45	0.45		-0.20	
							12.17	sqm
7	1.17	Providing and filling in plinth with sand/ Crusher dust and hard moorum under floor in layers not exceeding 20cm in depth consolidating each deposited layer by ramming and watering, including dressing etc. complete.						

		Total Excavated earth					126.78	
		Outer dia mter of well	-1	12.56		0.50	-6.28	
		Outer dia mter of well	-1	11.93		1.00	-11.93	
		Outer dia mter of well	-1	11.30		1.50	-16.96	
		Outer dia mter of well	-1	10.68		1.50	-16.01	
							75.60	cum
8	7.5	Brick work with modular fly-ash lime bricks (FaLG Bricks) confirming to IS:12894-2002 of class designation 4.0 in foundation and plinth in:						
	7.5.3	Cement Mortar 1:5 (1 cement : 5 coarse sand)						
		well wall 0.5 ht.	1	9.42	0.50	0.50	2.36	
		well wall 1.0 ht.	1	9.42	0.40	1.00	3.77	
		well wall 1.5 ht.	1	9.42	0.30	1.50	4.24	
		well wall 1.5 ht.	1	9.42	0.20	1.50	2.83	
							13.19	cum
9	11.1	Providing and making 6mm thick cement plaster of mix:						
	11.1.2	In Cement mortar 1:4 (1 cement : 4 fine sand)						
		well slab	1	7.07			7.07	
		well slab	1	1.90	2.90		5.51	
			-1	0.45	0.45		-0.20	
			-1	0.45	0.45		-0.20	
							12.17	sqm
10	11.2	Providing and making 12mm thick cement plaster of mix:						
	11.2.4	In Cement Mortar 1:5 (1 cement : 5 fine sand)						
		well inside wall	1	9.42		4.50	42.39	
		chamber wall	2	1.50		1.50	4.50	
			2	2.50		1.50	7.50	
							54.39	sqm
11	18.76	Providing and fixing on wall face or under floor UV stabilized Unplasticised Rigid PVC pipes (single socketed) having 3.2mm wall couplers, jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansion etc complete.						
	18.76.2	110 mm dia pipe.	1.00	10.00			10.00	
		for vent pipe	1.00	6.00			6.00	
		Collecting Pipe From Building	1.00	435.00			435.00	
							451.00	Meter

12	18.77	Providing and fixing on wall face UV stabilized Unplasticised - PVC moulded fittings/ accessories having 3.2mm wall thickness for Rigid PVC pipes conforming to IS : 13592 (heavy) jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansion.						
	18.77.1	Tee/ Tee with door/ Bend 45°/ Bend 90°						
	18.77.1.2	110mm	250.00				250.00	each
13	19.43	Cutting holes more than 20x20 cm and upto 30x30 cm in walls including making good the same :	4				4.00	each
14	20.11	Providing M.S. foot rests including fixing in manholes with 20x20x10 cm cement concrete blocks 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) as per standard design:						
	20.11.1	With 20x20 mm square bar	10				10.00	each
15	20.16	Providing and fixing in position precast R.C.C. manhole cover and frame M D-10 of required shape and approved quality						
	20.16.1	Square shape 450mm internal dimension	2				2.00	each

16	20.9	masonry circular arch type manhole upto 1.67m depth, 0.91m internal dia at bottom and 0.56m dia at top having brick masonry wall 190mm thick with well burnt modular clay bricks crushing strength not less than 35kg/cm ² in cement mortar 1:4 (1 cement : 4 coarse sand), in side cement plaster 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement, foundation concrete 1:3:6 mix (1 cement : 3 coarse sand : 6 graded stone aggregate 40mm nominal size), and making necessary channel in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) finished with a floating coat of neat cement, providing and fixing S.F.R.C. cover and frame (heavy duty, HD- 20 grade designation) 560mm internal diameter conforming to I.S. 12592, total weight of cover and frame to be not less than 182kg, in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) all complete as per standard design						
	20.9.1	Manhole of depth 0.91m.	1.00				1.00	each
17	21.14	Supplying, filling, spreading & leveling stone boulders/ Gravels/ Coarse sand, in recharge pit, in the required layers and thickness, for all leads & lifts, all complete as per direction of Engineer-in-charge. (excavation of pit will be paid separately).						
	21.14.1	Stone boulders of size range 5 cm to 20 cm, in recharge pit	1	7.07		0.50	3.53	cum
	21.14.2	Gravels of size range 5 mm to 10 mm, over the existing layer of boulders	1	7.07		0.50	3.53	cum
	21.14.3	Coarse sand of size range 1.5 mm to 2 mm over existing layer of gravel	1	7.07		0.50	1.80	cum

20	19.47	Constructing masonry Chamber 30x30x50 cm, inside with modular well burnt clay bricks of 35 kg/ cm ² in cement mortar 1:4 (1 cement : 4 coarse sand) for stop cock, with C. I. surface box 100x100 x75 mm (inside) with hinged cover fixed in cement concrete slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) necessary excavation foundation concrete 1:5:10 (1 cement : 5 fine sand:10 graded stone aggregate 40mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12mm thick finished with a floating coat of neat cement complete as per standard design :	11					11.00	each
21	19.48	Constructing masonry Chamber 60x60x75 cm, inside with modular well burnt clay bricks of 35 kg/ cm ² in cement mortar 1:4 (1 cement : 4 coarse sand) for sluice valve, with C.I. surface box 100mm. top diameter, 160 mm bottom diameter and 180 mm deep (inside) with chained lid and RCC top slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) necessary excavation foundation concrete 1:5:10(1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick finished with a floating coat of neat cement complete as per standard design :	30					30.00	each

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**ABSTRACT OF SUMP WELL UNDER REDEVELOPMENT WORK AT-
KATGHORA DIST-KORBA(C.G.)**

Sump Well						
S. No.	Sr. No.	PARTICULAR	UNIT	RATE	QTY	AMOUNT
1	1.1	Excavation for all types and sizes of foundations, trenches and drains or for any other purpose including disposal of excavated stuff upto 1.5 m lift and lead upto 50m (at least 5m away from the excavated area), including dressing and leveling of pits.				
	1.1.1	In all types of soils.	cum	185.00	41.49	7676.02
2	1.6	Extra for every additional lift of 1.5 m or part thereof.				
	1.6.1	In all types of soils.	cum	26.50	5.66	149.94
3	3.1	Providing and laying nominal mix plain cement concrete with crushed stone aggregate using concrete mixer in all works upto plinth level excluding cost of form work.				
	3.1.2	1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size).	cum	2659.00	2.83	7522.31
4	3.3	Providing and laying design mix reinforced cement concrete with crushed graded stone aggregate 20mm nominal size using batching plant, transit mixer and concrete pump, in all works upto plinth level excluding cost of form work.				
	3.3.2	M-25 Grade	cum	4298.00	9.23	39681.29
5	2.1	Providing and fixing form work including centring, shuttering, strutting, staging, propping bracing etc. complete and including its removal at all levels, for:				

A	2.1.1	Foundations, footings, bases of columns plinth beam, curtain wall in any shape and size and all type of wall below plinth level.	sqm	139.00	2.25	312.75
B	2.1.2	Wall of any thickness including attached pilasters, buttresses etc. in super structure.	sqm	228.00	59.00	13452.00
C	2.1.7	Suspended floors, roofs, access platform, balconies (plain surfaces) and shelves (cast in situ)	sqm	235.00	7.50	1762.50
6	3.12	Providing and placing in position reinforcement for R.C.C. work including straightening, cutting, bending, binding etc. complete as per drawings including cost of binding wire in foundation and plinth all complete:				
	3.12.2	Thermo-Mechanically treated bars FE 500D	Kg	54.50	923.25	50317.13
7	1.17	Filling from available excavated stuff (Excluding rock) in trenches, plinth, sides of foundation etc. in layers not exceeding 20cm in depth consolidating each deposited layer by ramming and watering with a lead upto 50 M. and lift upto 1.5 M.	cum	65.00	41.49	2696.98
8	4.10	Providing and laying three course damp proofing treatment in water reservoir, sump, tank etc., with bitumen felt and blown type petroleum bitumen at the rate of 1.6 Kg/sqm 1st, 3rd course and 2nd course with tar felt including applying priming coat at the rate of 0.25 litre per sqm and fillets and rounding corners, wherever required, complete.				
	4.10.1	Bitumen felt of type 2 grade 2 (Fibre base)	sqm	321.00	27.50	8827.50
9	11.5	Neat Cement punning.	sqm	33.00	27.50	907.50

10	12.3	Cement concrete flooring with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm) finished with a floating coat of neat cement.				
	12.3.2	50 mm thick	sqm	254.00	23.76	6035.04
11	20.15	Providing and fixing in position precast R.C.C. manhole cover and frame L D- 2.5 of required shape and approved quality				
	20.15.1	Rectangular shape 600x450mm internal dimensions	each	1031.00	2.00	2062.00
						141403.00
					Say	1.41 Lacs
Sub Engineer Chhattisgarh Housing & Infrastructure Development Board Division - Korba			Assistant Engineer Chhattisgarh Housing & Infrastructure Development Board Division - Korba		Executive Engineer Chhattisgarh Housing & Infrastructure Development Board Division - Korba	

ESTIMATE OF SUMP WELL UNDER REDEVELOPMENT WORK AT- KATGHORA DIST-KORBA(C.G.)

Sump Well (8.00X5.00x2.30)

S. No.	I. No.	PARTICULAR	Measurement				QTY	UNIT
			NO	L	B	D/H		
1	1.1	Excavation for all types and sizes of foundations, trenches and drains or for any other purpose including disposal of excavated stuff upto 1.5 m lift and lead upto 50m (at least 5m away from the excavated area), including dressing and leveling of pits.						
	1.1.1	In all types of soils.						
			1	4.60	4.10	2.20	41.49	cum
2	1.6	Extra for every additional lift of 1.5 m or part thereof.						
	1.6.1	All types of soils						
			1	4.60	4.10	0.30	5.66	cum
3	3.1	Providing and laying nominal mix plain cement concrete with crushed stone aggregate using concrete mixer in all works upto plinth level excluding cost of form work.						
	3.1.2	1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size).						
		For Sump	1	4.60	4.10	0.15	2.83	cum
4	3.3	Providing and laying design mix reinforced cement concrete with crushed graded stone aggregate 20mm nominal size using batching plant, transit mixer and concrete pump, in all works upto plinth level excluding cost of form work.						
	3.3.2	M-25 Grade						
		Base Slab	1	4.00	3.50	0.15	2.10	
		RCC Wall	2	3.40	0.20	2.50	3.40	
			2	2.50	0.20	2.50	2.50	
		Top Slab	1	3.40	2.90	0.125	1.23	
					Total		9.23	cum

5	2.1	Providing and fixing form work including centring, shuttering, strutting, staging, propping bracing etc. complete and including its removal at all levels, for:						
A	2.1.1	Foundations, footings, bases of columns plinth beam, curtain wall in any shape and size and all type of wall below plinth level.						
		For Base Slab	2	4.00		0.15	1.20	
			2	3.50		0.15	1.05	
					Total		2.25	sqm
B	2.1.2	Wall of any thickness including attached pilasters, buttresses etc. in super structure.						
		RCC Wall	4	3.40		2.50	34.00	
			4	2.50		2.50	25.00	
					Total		59.00	sqm
C	2.1.7	Suspended floors, roofs, access platform, balconies (plain surfaces) and shelves (cast in situ)						
		Top Slab	1	3.00	2.50		7.50	
					Total		7.50	sqm
6	3.12	Providing and placing in position reinforcement for R.C.C. work including straightening, cutting, bending, binding etc. complete as per drawings including cost of binding wire in foundation and plinth all complete:						
	3.12.2	Thermo-Mechanically treated bars FE 500D						
		Qty. of R.C.C. M 20	9.23		100.00		923.25	Kg
7	1.17	Filling from available excavated stuff (Excluding rock) in trenches, plinth, sides of foundation etc. in layers not exceeding 20cm in depth consolidating each deposited layer by ramming and watering with a lead upto 50 M. and lift upto 1.5 M.						
		Same As Total Excavated Earth					41.49	
					Total		41.49	cum

8	4.10	Providing and laying three course damp proofing treatment in water reservoir, sump, tank etc., with bitumen felt and blown type petroleum bitumen at the rate of 1.6 Kg/sqm 1st, 3rd course and 2nd course with tar felt including applying priming coat at the rate of 0.25 litre per sqm and fillets and rounding corners, wherever required, complete.						
	4.10.1	Bitumen felt of type 2 grade 2 (Fibre base)						
		Wall Surface	2	3.00		2.50	15.00	
			2	2.50		2.50	12.50	
					Total		27.50	sqm
9	11.5	Neat Cement punning.					27.50	sqm
10	12.3	Cement concrete flooring with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm) finished with a floating coat of neat cement.						
	12.3.2	50 mm thick						
		Above Slab						
		Top Slab	1	5.40	4.40		23.76	
					Total		23.76	sqm
11	20.15	Providing and fixing in position precast R.C.C. manhole cover and frame L D- 2.5 of required shape and approved quality						
	20.15.1	Rectangular shape 600x450mm internal dimensions	2				2.00	each

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**ABSTRACT OF PUMP ROOM UNDER REDEVELOPMENT WORK AT-
KATGHORA DIST-KORBA(C.G.)**

Pump Room						
S. No.	I. No.	PARTICULAR	UNIT	QTY	RATE	AMOUNT
1	1.1	Excavation for all types and sizes of foundations, trenches and drains or for any other purpose including disposal of excavated stuff upto 1.5 m lift and lead upto 50m (at least 5m away from the excavated area), including dressing and leveling of pits.				
	1.1.1	In all types of soils.				
			cum	11.04	185.00	2042.40
2	3.1	Providing and laying nominal mix plain cement concrete with crushed stone aggregate using concrete mixer in all works upto plinth level excluding cost of form work.				
	3.1.2	1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size).				
			cum	1.81	2659.00	4823.43
3	3.3	Providing and laying design mix reinforced cement concrete with crushed graded stone aggregate 20mm nominal size using batching plant, transit mixer and concrete pump, in all works upto plinth level excluding cost of form work.				
	3.3.2	M-25 Grade				
			Cum	6.50	4298.00	27949.89
4	3.4	Extra for laying PCC/RCC of any grade in superstructure above plinth level for every floor or part thereof in addition to rate for foundation and plinth:				
		Above Plinth	cum	3.08	97.50	300.40
5	2.1	Providing and fixing form work including centring, shuttering, strutting, staging, propping bracing etc. complete and including its removal at all levels, for:				

A	2.1.1	Foundations, footings, bases of columns plinth beam, curtain wall in any shape and size and all type of wall below plinth level.				
			sqm	20.08	139.00	2791.12
B	2.1.5	Columns, Pillars, Piers and likes-rectangular or square in shape				
			sqm	12.00	297.00	3564.00
C	2.1.8	Beams, lintels, cantilevers & walls				
			sqm	12.26	202.00	2476.52
D	2.1.7	Suspended floors, roofs, access platform, balconies (plain surfaces) and shelves (cast in situ)				
			sqm	7.84	235.00	1842.40
E	2.1.13	Weather shade, chhajja, Cornices and mouldings				
			sqm	2.73	294.00	802.62
6	3.12	Providing and placing in position reinforcement for R.C.C. work including straightening, cutting, bending, binding etc. complete as per drawings including cost of binding wire in foundation and plinth all complete:				
	3.12.2	Thermo-Mechanically treated bars FE 500D				
			Kg	650.30	54.50	35441.35
7	1.18	Providing and filling in plinth with sand/ Crusher dust and hard moorum under floor in layers not exceeding 20cm in depth consolidating each deposited layer by ramming and watering, including dressing etc. complete.				
			Cum	5.10	371.00	1890.62
8	1.17	Filling from available excavated stuff (Excluding rock) in trenches, plinth, sides of foundation etc. in layers not exceeding 20cm in depth consolidating each deposited layer by ramming and watering with a lead upto 50 M. and lift upto 1.5 M.				
			cum	11.04	65.00	717.60

9	3.13	Providing and laying damp proof course (upto 50mm thick) with plain cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded crushed stone aggregate 20mm nominal size) including form work.	cum	0.34	4237.00	1432.11
10	7.5	Brick work with modular fly-ash lime bricks (FaLG Bricks) confirming to IS:12894-2002 of class designation 4.0 in foundation and plinth in:				
	7.5.3	Cement Mortar 1:5 (1 cement : 5 coarse sand)				
			cum	1.70	3350.00	5698.35
11	7.5	Brick work with modular fly-ash lime bricks (FaLG Bricks) confirming to IS:12894-2002 of class designation 4.0 in foundation and plinth in:				
	7.5.4	Cement Mortar 1:6 (1 cement : 6 coarse sand)				
			cum	4.81	3263.00	15681.98
12	7.6	Extra for brick work in superstructure above plinth level for every floor or part thereof in addition to rate for foundation and plinth:	cum	4.81	121.00	581.53
13	9.16	Providing and fixing M.S. frames of doors, windows, ventilators and cupboards joints mitred and welded with 15x3 mm lugs 10cm long embedded in cement concrete blocks 15x10x10cm of grade M-10 or with wooden plugs and screws or with dash fastener or rawl plugs and screws or with fixing clips or with bolts and nuts as required including fixing of necessary butt hinges and screws and applying a priming coat of approved steel primer.				
	9.16.2	Angle-iron frames				
			Kg	13.26	73.50	974.61

14	9.17	Providing and fixing factory made ISI marks steel doors, windows and ventilators side/ top/ centre hung made up of standard rolled steel section conforming to IS 1038:1968 (viz. F7D, F4B, K11 and K12B etc.), joints mitred and flash butt and sash bars tenoned and riveted/ welded with 10 cm long lugs of size 15x3mm embedded in cement concrete block 15x10x10 cms of 1:3:6 (1 cement :3 Coarse sand: 6 graded stone aggregate 20 mm nominal size) or rawl plugs and screws or with bolts and nuts as required including providing and fixing of hinges, pivots, handles, pegs, stays, rolling devices, locking arrangements, spring catch etc., as required complete including applying a priming coat of red oxide zinc chromate primer.				
			Kg	160.65	88.00	14137.20
15	9.15	Providing and fixing M.S. grill of approved pattern made of M.S. flats or square or round bars welded to steel frame of windows etc. including applying a priming coat welded to frame with all necessary fitting complete including applying a priming of red oxide zinc chromate primer.				
			Kg	38.88	67.50	2624.40
16	8.3	Providing 40x5mm iron hold fast 40cm long including fixing to frame with 10mm bolts nuts and wooden plug and embedding in Cement Concrete 1:2:4 in blocks of size 30x10x15cm.	each	12.00	72.50	870.00
17	11.41	Providing and fixing chicken mesh weighting not less than 250 gms/sqm as per IS : specification in the required width with 40mm long steel nails on vertical and horizontal surface near R.C.C. and brick walls junctions including scaffolding and all lead and lifts etc. complete before plastering upto 10mts in height.				
			sqm	35.76	86.00	3075.36

18	12.3	Cement concrete flooring with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm) finished with a floating coat of neat cement.				
	12.3.2	50 mm thick				
		Room	sqm	7.84	254.00	1991.36
19	11.1	Providing and making 6mm thick cement plaster of mix:				
	11.1.2	In Cement mortar 1:4 (1 cement : 4 fine sand)				
			Sqm	12.52	87.00	1089.24
20	11.2	12mm thick cement plaster of mix:				
	11.2.4	In Cement Mortar 1:5 (1 cement : 5 fine sand)				
			Sqm	30.46	96.50	2938.91
21	11.3	Providing and making 15mm thick cement plaster on the rough side of single or half brick wall of mix:				
	11.3.4	In Cement Mortar 1:5 (1 cement : 5 fine sand)				
			sqm	41.78	113.00	4720.58
22	14.90	Distempering with acrylic washable distemper to give an even shade.				
	14.9.1	On new work (Two or more coats)				
			sqm	42.98	38.00	1633.05
23	14.15	Painting exterior surface with ACRYLIC SMOOTH exterior paint of required shade as per manufacturer's specifications to give protective and decorative finish including cleaning washing of surface etc. complete with:				
	14.15.1	On new work (Two or more coats applied @ 1.43 ltr/ 10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/ 10 sqm)				
			sqm	41.78	56.00	2339.40
24	14.22	Painting on new work (two or more coats) to give an even shade with:				
	14.22.2	Premium synthetic enamel paint				
			sqm	4.43	47.00	208.12

25	10.41	Providing gola 75x75 mm in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 stone aggregate 10mm and down grade) including finishing with cement mortar 1:3 (1 cement : 3 fine sand) as per standard design :					
			metre	3.90	68.00	265.20	
26	11.5	Neat Cement punning.					
			sqm	1.56	33.00	51.48	
			For 1 No		Total :-	144955.00	
			For 1 No			144955.00	
			Say				1.45 Lacs

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ESTIMATE OF PUMP ROOM UNDER REDEVELOPMENT WORK AT- KATGHORA DIST-KORBA(C.G.)								
Pump Room								
S. No.	I. No.	PARTICULAR	Measurement				QTY	UNIT
			NO	L	B	D/H		
1	1.1	Excavation for all types and sizes of foundations, trenches and drains or for any other purpose including disposal of excavated stuff upto 1.5 m lift and lead upto 50m (at least 5m away from the excavated area), including dressing and leveling of pits.						
	1.1.1	In all types of soils.						
		Footing	4	1.50	1.50	1.20	10.80	
		For Beam	4	3.00	0.20	0.10	0.24	
					Total		11.04	cum
2	3.1	Providing and laying nominal mix plain cement concrete with crushed stone aggregate using concrete mixer in all works upto plinth level excluding cost of form work.						
	3.1.2	1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size).						
		Footing	4	1.50	1.50	0.10	0.90	
		For Floor	1	2.80	2.80	0.10	0.78	
		For Step	1	1.30	1.00	0.10	0.13	
					Total		1.81	cum
3	3.3	Providing and laying design mix reinforced cement concrete with crushed graded stone aggregate 20mm nominal size using batching plant, transit mixer and concrete pump, in all works upto plinth level excluding cost of form work.						
	3.3.2	M-25 Grade						
		Footing	4	1.30	1.30	0.35	2.37	
		Column upto Plinth	4	0.20	0.30	1.40	0.34	
		Plinth / Ground Beam	4	3.00	0.20	0.30	0.72	
							3.42	(A)
		Above Plinth						
		Column up to Slab	4	0.20	0.30	3.00	0.72	
		Lintel Beam	4	3.00	0.20	0.20	0.48	
		Slab Beam	4	3.00	0.20	0.30	0.72	
		Slab	1	2.80	2.80	0.10	0.78	
		Chhajja	2	1.30	0.60	0.10	0.16	
			1	1.30	0.60	0.10	0.08	
		Window Sill						
		W	2	1.30	0.20	0.05	0.03	
		Front Step	1	1.30	0.90	0.10	0.12	

							3.08	(B)
				Total		(A+B)	6.50	Cum
4	3.4	Extra for laying PCC/RCC of any grade in superstructure above plinth level for every floor or part thereof in addition to rate for foundation and plinth:						
		Above Plinth	1				3.08	cum
5	2.1	Providing and fixing form work including centring, shuttering, strutting, staging, propping bracing etc. complete and including its removal at all levels, for:						
A	2.1.1	Foundations, footings, bases of columns plinth beam, curtain wall in any shape and size and all type of wall below plinth level.						
		Footing	4	5.20		0.35	7.28	
		Column upto Plinth	4	1.00		1.40	5.60	
		Plinth / Ground Beam	8	3.00		0.30	7.20	
					Total		20.08	sqm
B	2.1.5	Columns, Pillars, Piers and likes-rectangular or square in shape						
		Column up to Slab	4	1.00		3.00	12.00	sqm
C	2.1.8	Beams, lintels, cantilevers & walls						
		Lintel Beam	8	3.00		0.20	4.80	
		Slab Beam	8	3.00		0.30	7.20	
		Window Sill						
		W	4	1.30		0.05	0.26	
					Total		12.26	sqm
D	2.1.7	Suspended floors, roofs, access platform, balconies (plain surfaces) and shelves (cast in situ)						
		Slab	1	2.80	2.80		7.84	sqm
E	2.1.13	Weather shade, chhajja, Cornices and mouldings						
		Chhajja	2	1.30	0.70		1.82	
			1	1.30	0.70		0.91	
					Total		2.73	sqm
6	3.12	Providing and placing in position reinforcement for R.C.C. work including straightening, cutting, bending, binding etc. complete as per drawings including cost of binding wire in foundation and plinth all complete:						
	3.12.2	Thermo-Mechanically treated bars FE 500D						
		Qty. of R.C.C. M 20	6.50		100.00		650.30	Kg

7	1.18	Providing and filling in plinth with sand/ Crusher dust and hard moorum under floor in layers not exceeding 20cm in depth consolidating each deposited layer by ramming and watering, including dressing etc. complete.						
		Below Floor	1	2.80	2.80	0.65	5.10	Cum
8	1.17	Filling from available excavated stuff (Excluding rock) in trenches, plinth, sides of foundation etc. in layers not exceeding 20cm in depth consolidating each deposited layer by ramming and watering with a lead upto 50 M. and lift upto 1.5 M.						
		Same As Total Excavated Earth					11.04	
					Total		11.04	cum
9	3.13	Providing and laying damp proof course (upto 50mm thick) with plain cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded crushed stone aggregate 20mm nominal size) including form work.	1	2.60	2.60	0.05	0.34	cum
10	7.5	Brick work with modular fly-ash lime bricks (FaLG Bricks) confirming to IS:12894-2002 of class designation 4.0 in foundation and plinth in:						
	7.5.3	Cement Mortar 1:5 (1 cement : 5 coarse sand)						
		Below Plinth	4	2.60	0.20	0.45	0.94	
		Step	1	1.30	0.90	0.30	0.35	
			1	1.30	0.60	0.30	0.23	
			1	2.00	0.30	0.30	0.18	
							1.70	cum
11	7.5	Brick work with modular fly-ash lime bricks (FaLG Bricks) confirming to IS:12894-2002 of class designation 4.0 in foundation and plinth in:						
	7.5.4	Cement Mortar 1:6 (1 cement : 6 coarse sand)						
		Room	4	2.60	0.20	2.70	5.62	
		Deduction :- Opening	-1	0.90	0.20	2.10	-0.38	
		Window	-2	0.90	0.20	1.20	-0.43	
					Total		4.81	cum
12	7.6	Extra for brick work in superstructure above plinth level for every floor or part thereof in addition to rate for foundation and plinth:					4.81	cum

13	9.16	Providing and fixing M.S. frames of doors, windows, ventilators and cupboards joints mitred and welded with 15x3 mm lugs 10cm long embedded in cement concrete blocks 15x10x10cm of grade M-10 or with wooden plugs and screws or with dash fastener or rawl plugs and screws or with fixing clips or with bolts and nuts as required including fixing of necessary butt hinges and screws and applying a priming coat of approved steel primer.						
	9.16.2	Angle-iron frames						
					Kg/m			
			1	5.10	2.60		13.26	
							13.26	Kg
14	9.17	Providing and fixing factory made ISI marks steel doors, windows and ventilators side/ top/ centre hung made up of standard rolled steel section conforming to IS 1038:1968 (viz. F7D, F4B, K11 and K12B etc.), joints mitred and flash butt and sash bars tenoned and riveted/ welded with 10 cm long lugs of size 15x3mm embedded in cement concrete block 15x10x10 cms of 1:3:6 (1 cement :3 Coarse sand: 6 graded stone aggregate 20 mm nominal size) or rawl plugs and screws or with bolts and nuts as required including providing and fixing of hinges, pivots, handles, pegs, stays, rolling devices, locking arrangements, spring catch etc., as required complete including applying a priming coat of red oxide zinc chromate primer.						
					Kg/Sqmt			
		Door	1	0.90	45.00	2.10	85.05	
		Window	2	0.90	35.00	1.20	75.60	
							160.65	sqm
15	9.15	Providing and fixing M.S. grill of approved pattern made of M.S. flats or square or round bars welded to steel frame of windows etc. including applying a priming coat welded to frame with all necessary fitting complete including applying a priming of red oxide zinc chromate primer.						
		Window	2	0.90		1.20	2.16	sqm

			2.16	sqm	18.00	Kg/sqm	38.88	Kg
16	8.3	Providing 40x5mm iron hold fast 40cm long including fixing to frame with 10mm bolts nuts and wooden plug and embedding in Cement Concrete 1:2:4 in blocks of size 30x10x15cm.	1	at	12.00		12.00	each
17	11.41	Providing and fixing chicken mesh weighting not less than 250 gms/sqm as per IS : specification in the required width with 40mm long steel nails on vertical and horizontal surface near R.C.C. and brick walls junctions including scaffolding and all lead and lifts etc. complete before plastering upto 10mts in height.						
		Beam	4	2.80	0.30		3.36	
		Column	4	2.70		3.00	32.40	
					Total		35.76	sqm
18	12.3	Cement concrete flooring with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm) finished with a floating coat of neat cement.						
	12.3.2	50 mm thick						
		Room	1	2.80	2.80		7.84	sqm
19	11.1	Providing and making 6mm thick cement plaster of mix:						
	11.1.2	In Cement mortar 1:4 (1 cement : 4 fine sand)						
		Room	1	2.80	2.80		7.84	
		Chhajja	4	1.30	0.60		3.12	
			2	1.30	0.60		1.56	
					Total		12.52	Sqm
20	11.2	12mm thick cement plaster of mix:						
	11.2.4	In Cement Mortar 1:5 (1 cement : 5 fine sand)						
		Room	4	2.80		2.90	32.48	
		Deduct : 50% Opening Area						
		Door	-1	0.90	0.50	2.10	-0.95	
		Window	-2	0.90	0.50	1.20	-1.08	
		Total 12mm Plaster			Total		30.46	Sqm
21	11.3	Providing and making 15mm thick cement plaster on the rough side of single or half brick wall of mix:						
	11.3.4	In Cement Mortar 1:5 (1 cement : 5 fine sand)						
		Outer wall (Including Plinth)						
		Room	4	3.00		3.65	43.80	
		Deduct : 50% Opening Area						

		Door	-1	0.90	0.50	2.10	-0.95	
		Window	-2	0.90	0.50	1.20	-1.08	
		Total 15mm Plaster			Total		41.78	sqm
22	14.90	Distempering with acrylic washable distemper to give an even shade.						
	14.9.1	On new work (Two or more coats)						
		As per 6mm Plaster					12.52	
		As per 12mm Plaster					30.46	
					Total		42.98	sqm
23	14.15	Painting exterior surface with ACRYLIC SMOOTH exterior paint of required shade as per manufacturer's specifications to give protective and decorative finish including cleaning washing of surface etc. complete with:						
	14.15.1	On new work (Two or more coats applied @ 1.43 ltr/ 10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/ 10 sqm)						
		As per 15mm Plaster					41.78	
						Total	41.78	sqm
24	14.22	Painting on new work (two or more coats) to give an even shade with:						
	14.22.2	Premium synthetic enamel paint			Fac.			
		Windows Grill	2	0.90	1.00	1.20	2.16	
		Door	1	0.90	1.20	2.10	2.27	
							4.43	sqm
25	10.41	Providing gola 75x75 mm in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 stone aggregate 10mm and down grade) including finishing with cement mortar 1:3 (1 cement : 3 fine sand) as per standard design :						
		Chhajja	2	1.30			2.60	
			1	1.30			1.30	
					Total		3.90	metre
26	11.5	Neat Cement punning.						
		Chhajja	1	1.30	0.60		0.78	
			1	1.30	0.60		0.78	
							1.56	sqm

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ABSTRACT FOR SUPPLYING AND LOWERING OF SUBMERSIBLE AND MONOBLOCK PUMP, BORE GI PIPE UNDER REDEVELOPMENT WORK AT KATGHORA DIST-KORBA

S. No.	Item No.	Particulars	Unit	Qty.	Rate	Amount
		motor and accessories				
1	26.4	Supplying and fixing of following sizes 'B' class G I pipe with welded steel flange of suitable size at both the end of every pipe length, fixing with submersible pump and lowering with the pump in the bore well including necessary rubber gasket, nuts & bolts etc. as required.				
	26.4.4	50 mm dia.	Metre	340.00	382.00	129880.00
2	26.5	Supplying and fixing of following sizes 'B' class G I pipe with all necessary Tee's, bends, sockets in the suction/ delivery line including cutting and threading etc. as required.				
	26.5.4	50 mm dia.	Metre	20.00	463.00	9260.00
3	26.2	Supplying, installation, testing and commissioning of centrifugal type mono-block electric pump set for water supply system having following capacity three phase, 415 volts AC induction motor and pump including suitable channel iron base frame, suitable C.C. foundation and connection of suction and delivery line etc. as required.				
	26.2.2	5 HP, 750 LPM, 20 m head, suction size 80 mm, delivery size 65 mm	Each	1.00	16398.00	16398.00
	26.2.3	7.5 HP, 650 LPM, 30 m head, suction size 80 mm, delivery size 65 mm	Each	1.00	21375.00	21375.00

4	26.3	Supplying, installation, testing and commissioning of submersible pump set for water supply system with submersible motor directly coupled to multi-stage submersible pump of specified discharge capacity, head, delivery size in existing bore well including 2 sets of suitable size holding clamps made out of 50 mm X 6 mm MS flat, connection with suitable submersible cable of standard length etc. as required.				
	26.3.4	3.0 HP, single phase		2.00	22669.00	45338.00
5	26.14	Supplying, laying and fixing following size submersible cable along with GI/PVC/HDFC pipe line or laid in ground etc as required				
	26.14.2	3x2.5 sqmm	Mtr	170.00	67.50	11475.00
	26.14.3	3x4.0 sqmm	Mtr	10.00	99.00	990.00
					Total	234716.00

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**ESTIMATE FOR SUUPLYING AND LOWRING OF SUBMERSIBLE AND MONOBLOCK PUMP, BORE GI PIPE
UNDER REDEVELOPEMENT WORK AT KATGHORA DIST-KORBA**

S. No.	Item No.	Particulars	Nos	L	B	D	QTY	Unit
		motor and accesseries						
1	26.4	Supplying and fixing of following sizes 'B' class G I pipe with welded steel flange of suitable size at both the end of every pipe length, fixing with submersible pump and lowering with the pump in the bore well including necessary rubber gasket, nuts & bolts etc. as required.						
	26.4.4	50 mm dia.						
		In borewell-H	2	120.00	-	-	240.00	
		From bore to Sump well	2	50.00	-	-	100.00	
							340.00	Metre
2	26.5	Supplying and fixing of following sizes 'B' class G I pipe with all necessary Tee's, bends, sockets in the suction/ delivery line including cutting and threading etc. as required.						
	26.5.4	50 mm dia.						
			1	20.00	-	-	20.00	
							20.00	Metre
3	26.2	Supplying, installation, testing and commissioning of centrifugal type mono-block electric pump set for water supply system having following capacity three phase, 415 volts AC induction motor and pump including suitable channel iron base frame, suitable C.C. foundation and connection of suction and delivery line etc. as required.						
	26.2.2	5 HP, 750 LPM, 20 m head, suction size 80 mm, delivery size 65 mm	1	-	-	-	1.00	Each
	26.2.3	7.5 HP, 650 LPM, 30 m head, suction size 80 mm, delivery size 65 mm	1	-	-	-	1.00	Each

4	26.3	Supplying, installation, testing and commissioning of submersible pump set for water supply system with submersible motor directly coupled to multi-stage submersible pump of specified discharge capacity, head, delivery size in existing bore well including 2 sets of suitable size holding clamps made out of 50 mm X 6 mm MS flat, connection with suitable submersible cable of standard length etc. as required.						
	26.3.3	2.0 HP, single phase	2	-	-	-	2.00	Each
	26.3.4	3.0 HP, single phase	2	-	-	-	2.00	Each
5	26.14	Supplying, laying and fixing following size submersible cable along with GI/PVC/HDFC pipe line or laid in ground etc as required						
	26.14.2	3x2.5 sqmm	170.00	-	-	-	170.00	Mtr
	26.14.3	3x4.0 sqmm	10.00	-	-	-	10.00	Mtr

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DETAIL & ABSTRACT ESTIMATE											
REDEVELOPEMENT WORK AT KATGHORA DIST-KORBA											
PARTITION BOUNDARY WALL											
S. No.	I. No.	PARTICULAR			Measurement			QTY	UNIT	RATE	AMOUNT
					NO	L	B				
1.	1.1	Excavation for all types and sizes of foundations, trenches and drains or for any other purpose including disposal of excavated stuff upto 1.5 m lift and lead upto 50m (at least 5m away from the excavated area), including dressing and leveling of pits.									
	1.1.1	In all types of soil									
		Column	1	x	27	1.20	1.20	1.50	58.32		
		GB	1	x	1	64.00	0.30	0.20	3.84		
								62.16	cum	185.00	11499.60
2.	3.1	Providing and laying nominal mix cement concrete with crushed stone aggregate using concrete mixer in foundation, plinth and at ground level excluding cost of form work.									
	3.1.2	1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size).									
		Column	1	x	27	1.20	1.20	0.10	3.89		
								3.89	cum	2659.00	10338.19
3.	3.3	Providing and laying design mix reinforced cement concrete with crushed graded stone aggregate 20mm nominal size using batching plant, transit mixer and concrete pump, in all works upto plinth level excluding cost of form work.									
	3.3.2	M-25 Grade									
		boundry Footing with gad gate									
			1	x	29	1.00	1.00	0.20	5.80		
		GB	1	x	1	64.00	0.20	0.30	3.84		
		Column upto Plinth	1	x	29	0.20	0.30	1.20	2.09		
			1	x	4	0.20	0.30	1.20	0.29		
								(A)	12.02	Cum.	
		Column upto Compound Wall	1	x	29	0.20	0.30	1.20	2.09		
			1	x	4	0.20	0.30	1.20	0.29		
		Wall Coping	1	x	1	64.00	0.20	0.075	0.96		
								(B)	3.34	Cum.	
								(A+B)	15.35	cum	4298.00
3.	3.4	Extra for laying PCC/RCC of any grade in superstructure above plinth level for every floor or part thereof in addition to rate for foundation and plinth:							3.34	cum	97.50
1											326.00
4	3.12	Providing and placing in position reinforcement for R.C.C. work including straightening, cutting, bending, binding etc. complete as per drawings including cost of binding wire in foundation and plinth all complete:									
	3.12.2	Thermo-Mechanically treated bars FE 500D	1	x	1	15.35	90.00		1381.68	kg	54.50
											75302.00
5	2.1	Providing and fixing form work including centring, shuttering, strutting, staging, propping bracing etc. complete and including its removal at all levels, for:									
a	2.1.1	Foundations, footings, bases of columns plinth beam, curtain wall in any shape and size and all type of wall below plinth level.									
		0	1	x	29	4.00	--	0.20	23.20		
		GB	1	x	1	64.00	--	0.60	38.40		
		Column upto Plinth	1	x	29	1.00	--	1.20	34.80		
			1	x	4	1.00	--	1.20	4.80		
								101.20	sqm	139.00	14066.80

b	2.1.5	Columns, Pillars, Piers and likes- rectangular or square in shape										
		Column upto Compound Wall	1	x	29	1.00		1.20	34.80			
			1	x	4	1.00		1.20	4.80			
		Wall Coping	1	x	2	64.00		0.08	9.60			
									49.20	sqm	297.00	10335.60
c	2.1.3	Window sills, anchor blocks, string course, bends, copings, bed plates and like.										
		Wall Coping	1	x	2	64.00		0.075	9.60	sqm	184.00	1766.40
6.	7.5	Brick work with modular fly-ash lime bricks (FaLG Bricks) confirming to :12894-2002 of class designation 4.0 in foundation and plinth in:										
	7.5.4	Cement Mortar 1:6 (1 Cement : 6 Coarse Sand)										
		Below Beam	1	x	1	64.00	0.20	0.10	1.28			
								(A)	1.28	cum		
		above Plinth	1	x	1	64.00	0.20	1.20	15.36			
								(B)	15.36	cum		
							Total	A+B	16.64	cum	3263.00	54297.00
7.	7.6	Extra for brick work in superstructure above plinth level for every floor or part thereof in addition to rate for foundation and plinth:										
		above Plinth							15.36	cum	121.00	1859.00
8.	1.17	Filling from available excavated stuff (Excluding rock) in trenches, plinth, sides of foundation etc. in layers not exceeding 20cm in depth consolidating each deposited layer by ramming and watering with a lead upto 50 M. and lift upto 1.5 M.										
		Total Excavation							62.16			
									62.16	cum	65.00	4041.00
10.	9.14	Providing and fixing steel door made of angle iron of suitable sizes with M.S. grill of approved pattern made of M.S. flats or square or round bars coat of red oxide zinc chromate primer.										
		Entrance Gate (Gad and office)	1	x	2	3.50	50.00	1.80	630.00	kg	79.50	50085.00
11.	11.2	Providing and making 12mm thick cement plaster of mix:										
	11.2.3	In Cement Mortar 1:5 (1 cement : 5 fine sand)										
		GB	1	x	1	64.00		1.70	108.80			
									108.80	sqm	96.50	10500.00
12.	11.3	15mm thick cement plaster on the rough side of single or half brick wall of mix:										
	11.3.3	In Cement Mortar 1:5 (1 cement : 5 fine sand)										
		wall	1	x	1	64.00		1.70	108.80			
									108.80	Sqm	113.00	12295.00
13.	14.15	Painting exterior surface with ACRYLIC SMOOTH exterior paint of required shade as per manufacturer's specifications to give protective and decorative finish including cleaning washing of surface etc. complete with:										
	14.15.1	On new work (Two or more coats applied @ 1.43 ltr/ 10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/ 10 sqm)										
		12 mm + 15mm Plaster qty							217.60			
									217.60	sqm	56.00	12185.60

14.	14.22	Painting on new work (two or more coats) to give an even shade with:										
	14.22.2	Premium synthetic enamel paint				fac.						
		For Compound Gate	1	x	2	3.50	1.35	1.80	17.01	sqm	289.34	4921.68
										for 64 Mtr	Total	339802.00
										for 160 Mtr		849505.00

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Development Board
Division - Korba

S.No. and Name		PAVER WORK								
CGPWD BUILDING WORKS SOR- January 1, 2015										
S.No.	Item No.	Description Of Item	Unit	Nos	Length L	Breadth B	Depth D	Quantity	Rate	Amount
1	2	3	4	5	6	7	8	9	10	11
SOR ITEMS										
1	3.1	Providing and laying nominal mix plain cement concrete with crushed stone aggregate using concrete mixer in all works upto plinth level excluding cost of form work.								
	3.1.2	1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size)								
		Garden 1								
		in front of F,G,H,H1 & OFFICE-type building to road		5	3.00	4.00	0.10	6.00		
		front road widening area		1	63.00	10.20	0.10	64.26		
						Total		70.26	2659.00	186821.00
2	12.65	Providing & laying 60mm thick precast interlocking concrete blocks of approved size (approx 305 sqcm) and shape/ pattern, over 40 mm thick average complete coarse sand bed with joints of 3mm thick filled by fine sand including leveling with surface vibrator, temping and sweeping etc. complete of minimum compressive strength of 250 kg/sq.cm	Sqm							
	12.65.1	Plain/ normal coloured precast interlock concrete block								
		in front of F,G,H,H1 & OFFICE-type building to road		5	3.00	20.00		300.00		
		front road widening area		1	63.00	10.20		642.60		
			Sqm			Total		942.60	436.00	410974.00
									Total	597795.00

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Development Board
Division - Korba

Detail Abstract for Construction of Gantry Sign Board (Cantilever Type) Size 4.88x1.83m

S.No	SOR No.	Description of Item	Qty	Unit	Rate	Amount
1	9.1 P-59 Road SOR 2025	Excavation for Structures Earth work in excavation of foundation of structures as per drawing and technical specification, including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom and backfilling with approved material as per Clause 304, loading the unserviceable material in tipper and unloading with all leads & lifts as directed by Engineer-in-Charge.				
		Ordinary Soil				
		up to 3 m depth	8.10	Cum	130.00	1,053.00
2	9.8 P-61 Road SOR 2025	Plain cement concrete complete as per drawing and Technical Specifications				
		(i) PCC Grade M-15	0.68	Cum	3,815.00	2,575.00
3	3.12.2 P-24 Building SOR 01.01.15	Providing and placing in position reinforcement for R.C.C. work including straightening, cutting, bending, binding etc. complete as per drawings including cost of binding wire in foundation and plinth all complete : Thermo-Mechanically treated bars FE 500D	121.05	KG	54.50	6,597.00
4	3.3.1 P-23 Building SOR 01.01.15	Providing and laying design mix reinforced cement concrete with crushed graded stone aggregate 20mm nominal size using batching plant, transit mixer and concrete pump, in all works upto plinth level excluding cost of form work. M-20 Grade	2.07	Cum	4,231.00	8,775.00
5	8.13 PWD Road SOR 2025	Overhead Signs as per Clause 8.2. Providing and erecting overhead sign including fixing of retro- reflectorized sheeting digitally printed of Class-C Micro Prismatic Grade Sheeting of Type-XI confirming to ASTM D 4956 including covering with transparent sheeting (lamination sheeting) to protect from fading and damage due to weather effect as per IRC:67-2022 made of retro-reflective type sheeting vide clause 801.3, fixed over Aluminum sheeting of overall thickness 2mm including application of fluorocarbon coating applied on exposed surface of aluminium to ensure corrosion resistance, with appropriately supported by a mild steel back frame of ISA 40 x 40 x 5 mm including all panels supported by diagonal members and painting all exposed components of the signs and supports with primer and 2 coats of epoxy paints or powder coating as per clause 7.2 of IRC:67-2022) and erecting the sign board mounted over back support frame with vertical and lateral clearance as per clause 802.2 and 802.3 and relevant clauses and installed over a designed support system as per clause 802.6 of aluminum alloy or galvanized steel trestles and trusses of sections and type as per structural design requirements and approved plans. (Note: The details of manufacturer, type of sheeting, month and year of installation, project details and other details along with QR code as detailed in clause 13.2 and Annexure-VII of IRC:67-2022 shall be printed on back side of the sign board.				
		A Truss and Vertical galvanised steel	1.22	Tonne	1,09,931.00	1,33,716.00

	B	Add Extra, if circular/polygonal aluminium alloy/ galvanised steel post is used instead of built-up section of angle/channel/flat etc. for the vertical support of the truss and sign board. (only the weight of posts shall be taken for this additional rate).	0.32	Tonne	12,421.00	3,949.00
	C	Class-C Microprismatic Grade sheeting of Type XI, fixed over 2mm thick Aluminium sheet as detailed above, for over head sign	23.81	Sqm.	11,033.00	2,62,744.00

COST FOR 01 GATE

Total Amount=

4,19,409.00

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Division - Korba

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Infrastructure Development
Board Division - Korba

Detail Measurements for Construction of Gantry Sign Board (Cantilever Type) Size 4.88x1.83m

Sl.	SOR No.	Description of Item	No	L	B	D/H					Qty	Unit
1	9.1 P-59 Road SOR 2025	Excavation for Structures Earth work in excavation of foundation of structures as per drawing and technical specification, including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom and backfilling with approved material as per Clause 304, loading the unserviceable material in tipper and unloading with all leads & lifts as directed by Engineer-in-Charge.										
		ordinary soil										
		up to 3 m depth										
		Excavation	2	1.50	1.50	1.80	=	8.10	Cum			
						Total	=	8.10			8.10	Cum
2	9.8 P-61 Road SOR 2025	Plain cement concrete complete as per drawing and Technical Specifications										
		(i) PCC M-15	2	1.50	1.50	0.15	=	0.68			0.68	
						Total	=	0.68			0.68	Cum
3	3.12.2 P-24 Building SOR 01.01.15	Providing and placing in position reinforcement for R.C.C. work including straightening, cutting, bending, binding etc. complete as per drawings including cost of binding wire in foundation and plinth all complete : Thermo-Mechanically treated bars FE 500D										
		10mm dia Long Direction	1	11	1.50		=	16.50	m			
		10mm dia Cross Direction	1	11	1.50		=	16.50	m			
						Total		33.00	m	0.62	20.46	
		16mm dia	1	12	2.80		=	33.60	m			
						Total		33.60	m	1.58	53.09	
		8mm ring (long)	1	14	2.50		=	35.00	m			
		8mm ring (cross)	1	14	2.50		=	35.00	m			
		8mm outer ring	1	14	3.70		=	51.80	m			
						Total		121.80	m	0.39	47.50	
										Total	121.05	KG
4	3.3.1 P-23 Building SOR 01.01.15	Providing and laying design mix reinforced cement concrete with crushed graded stone aggregate 20mm nominal size using batching plant, transit mixer and concrete pump, in all works upto plinth level excluding cost of form work. M-20 Grade										
		M-20	1	1.50	1.50	0.30	=	0.68				

M-20	1	0.95	0.95	1.55	=	1.40				
------	---	------	------	------	---	------	--	--	--	--

								Total			2.07			2.07	Cum
5	8.13 PWD Road SOR 2025	Overhead Signs as per Clause 8.2. Providing and erecting overhead sign including fixing of retro- reflectorized sheeting digitally printed of Class-C Micro Prismatic Grade Sheeting of Type-XI confirming to ASTM D 4956 including covering with transparent sheeting (lamination sheeting) to protect from fading and damage due to wheather effect as per IRC:67-2022 made of retro-reflective type sheeting vide clause 801.3, fixed over Aluminum sheeting of overall thickness 2mm including application of fluorocarbon coating applied on exposed surface of aluminium to ensure corrosion resistance, with appropriately supported by a mild steel back frame of ISA 40 x 40 x 5 mm including all panels supported by diagonal members and painting all exposed components of the signs and supports with primer and 2 coats of epoxy paints or powder coating as per clause 7.2 of IRC:67-2022) and errecting the sign board mounted over back suppoort frame with vertical and lateral clearance as per clause 802.2 and 802.3 and relevant clauses and installed over a designed support system as per clause 802.6 of aluminum alloy or galvanized steel trestles and trusses of sections and typer as per structural design requirements and approved plans. (Note: The details of manufacturer , type of sheeting, month and year of installation , project details and other details along with QR code as detailed in clause 13.2 and Annexure-VII of IRC:67-2022 shall be printed on back side of the sign board.													
	A.	Truss and Vertical galvanised steel													
			No	Nos	L/A			Value	Factor		Wt(kg)				
		For Vertical Leg Structure :													
		Base Plate 0.9 x 0.9m of thickness 14mm on foundation	1	1	0.81		=	0.81	109.90	=	89.02				
		Base Plate 0.9 x 0.9m of thickness 14mm on Legs	1	1	0.81		=	0.81	109.90	=	89.02				
		14mm Triangular Piece at Base of legs 0.30 x 0.10m	1	8	0.015		=	0.12	109.90	=	13.19				
		Round pipe of Dia 355mm & thickness 6mm	1	1	6.00		=	6.00	52.99	=	317.94				
		Top Plate 0.60 x 0.60m of thickness 14mm	1	1	0.36		=	0.36	109.90	=	39.56				
		14mm Triangular Piece 0.20 x 0.10m	1	8	0.01		=	0.08	109.90	=	8.79				
		For Horizontal Top Structure:													
		Angle 50x50x5mm	1	4	4.88		=	19.52	3.80	=	74.18				
		Angle 50x50x5mm	1	16	1.83		=	29.28	3.80	=	111.26				
		Angle 50x50x5mm	1	27	0.60		=	16.20	3.80	=	61.56				
		Angle 40x40x5mm	1	12	1.95		=	23.40	3.00	=	70.20				
		Angle 40x40x5mm	1	20	0.90		=	18.00	3.00	=	54.00				
		MS Flat 65 x 5 mm	1	2	4.88		=	9.76	2.55	=	24.89				
		Base Plate 0.60 x 0.80m of thickness 14mm	1	1	0.48		=	0.48	109.90	=	52.75				
		Cage rods 12 Nos. on foundation									125.00				
		Nuts Bolts & washers									85.00				
											Total	1216.36			
										In Ton	1.22	Ton			
	B	Add Extra, if circular/polygonal aluminium alloy/ galvanised steel post is used instead of built-up section of angle/channel/flat etc. for the vertical support of the truss and sign board. (only the weight of posts shall be taken for this additional rate).													

		Round pipe of Dia 355mm & thickness 6mm	1	1	6.00		=	6.00	52.99	=	317.94	
									In Ton		0.32	Ton
	C	Class-C Microprismatic Grade sheeting of Type XI, fixed over 2mm thick Aluminium sheet as detailed above, for over head sign										
		Retro reflective Boards of Size	2	4.88	1.83		=	17.86	Sqm			
		Retro reflective Boards of Size	2	1.22	2.44		=	5.95	Sqm			
						Total	=	23.81			23.81	Sqm

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Division - Korba

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Development Board
Division - Korba

Executive Engineer
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Development Board
Division - Korba

Name of Project:-			REDEVELOPMENT KATGHORA WRE/IRR. SITE					
S.No.	SOR Item No	SOR sub item No, if any	Item Name	Description	Unit	Qty	Rate	Amount
1	30.7		Bio Digester	Providing and Installing bio digester unit based on DRDO technology made of fiber reinforced plastic having composition and the technical specifications such as:Parentage of fiber glass (glass content in fiber glass should be minimum 30%) :- 33.33%Water absorption (as per ASTM) : - 0.30%Flammability :- as per ASTM Tensile strength :-115 MPA Specific gravity at 25 degree centigrade :-1.45 IZOD impact strength :- 65 KJ/M2 Heat defection/distort temperature :-65 deg C Corrosion resistance (non corrosive) fitted with Inlet pipe size rigid PVC :-100mmOutlet pipe size rigid PVC :-80mmGas outlet rigid PVC with valve :- 20mm Bacteria immobilization PVC matrix(on all partition) and capacity :-				
		30.7.7	Upto 100 Users	UPTO 100 USER SIZE (2.5m X2.0m X 1.0m) Capacity of bio-digester :- 5000 liters Area of top, bottom and side walls:- 19.00 sq.m. Area of partition walls :- 8.00 sq.m Total weight of FRP:- 248.40 kg Bacteria inoculums quantity :- 1400liters Minimum thickness of side walls/topand bottom :- 6mm Number of inside partitions :- 4 Minimum thickness of partition wall:-3mm.	Each	1	334491.00	334491
							Total	334491

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Infrastructure
Development Board
Division - Korba

CHHATTISGARH HOUSING & INFRASTRUCTURE DEVELOPMENT BOARD DIVISION - KORBA				
REDEVELOPMENT SCHEME AT KATGHORA ,DIST-KORBA				
SITE-II FOR WRE DEPARTMENT LAND 0.95 ACRE				
TREE CUTTING & PLANTATION				
Sr.	Particular	Nos	Approx Amount as per Forest Department	Total Amount
A	TREE CUTTING			
1	SITE II	22	1910.00	42020.00
		Total A	Rs	42020.00
B	TREE PLANTATION			
1	SITE II	220	1710.00	376200.00
		Total B	Rs	376200.00
	Total (A + B)		Rs	418220.00
	Say Rs in Lacs (Lump-Sum)			5.00
	Note - Tree plantation to be taken 10 times no of tree cutting at site			

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Board Division-Korba
(C.G.)

Executive Engineer
Chhattisgarh Housing &
Infrastructure
Development Board
Division-Korba (C.G.)

ANNEXURE 2

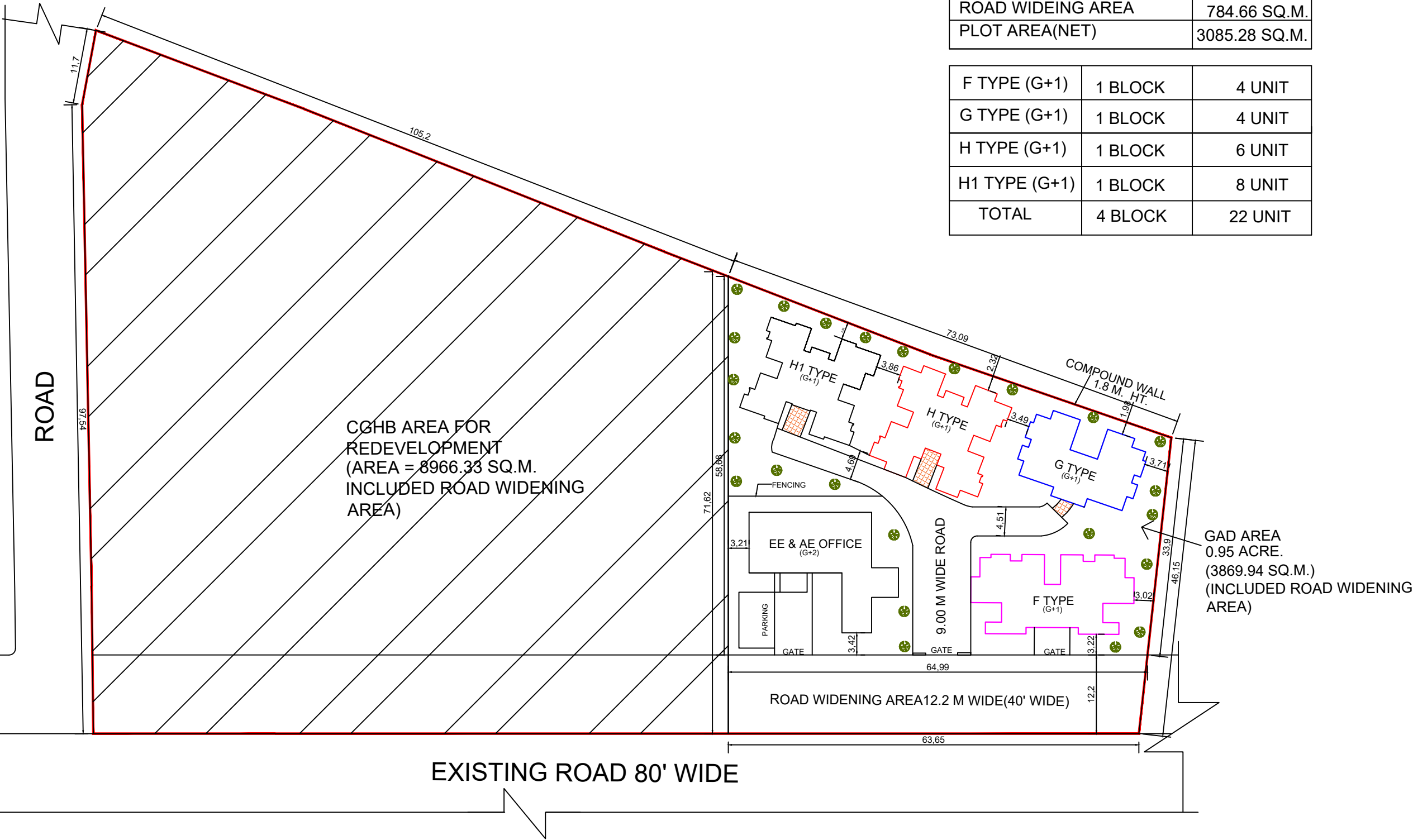
(Drawings)

REDEVELOPMENT SCHEME AT KATGHORA SITE 2

SITE PLAN

TOTAL AREA	3869.94 SQ.M.
ROAD WIDEING AREA	784.66 SQ.M.
PLOT AREA(NET)	3085.28 SQ.M.

F TYPE (G+1)	1 BLOCK	4 UNIT
G TYPE (G+1)	1 BLOCK	4 UNIT
H TYPE (G+1)	1 BLOCK	6 UNIT
H1 TYPE (G+1)	1 BLOCK	8 UNIT
TOTAL	4 BLOCK	22 UNIT



LAYOUT PLAN

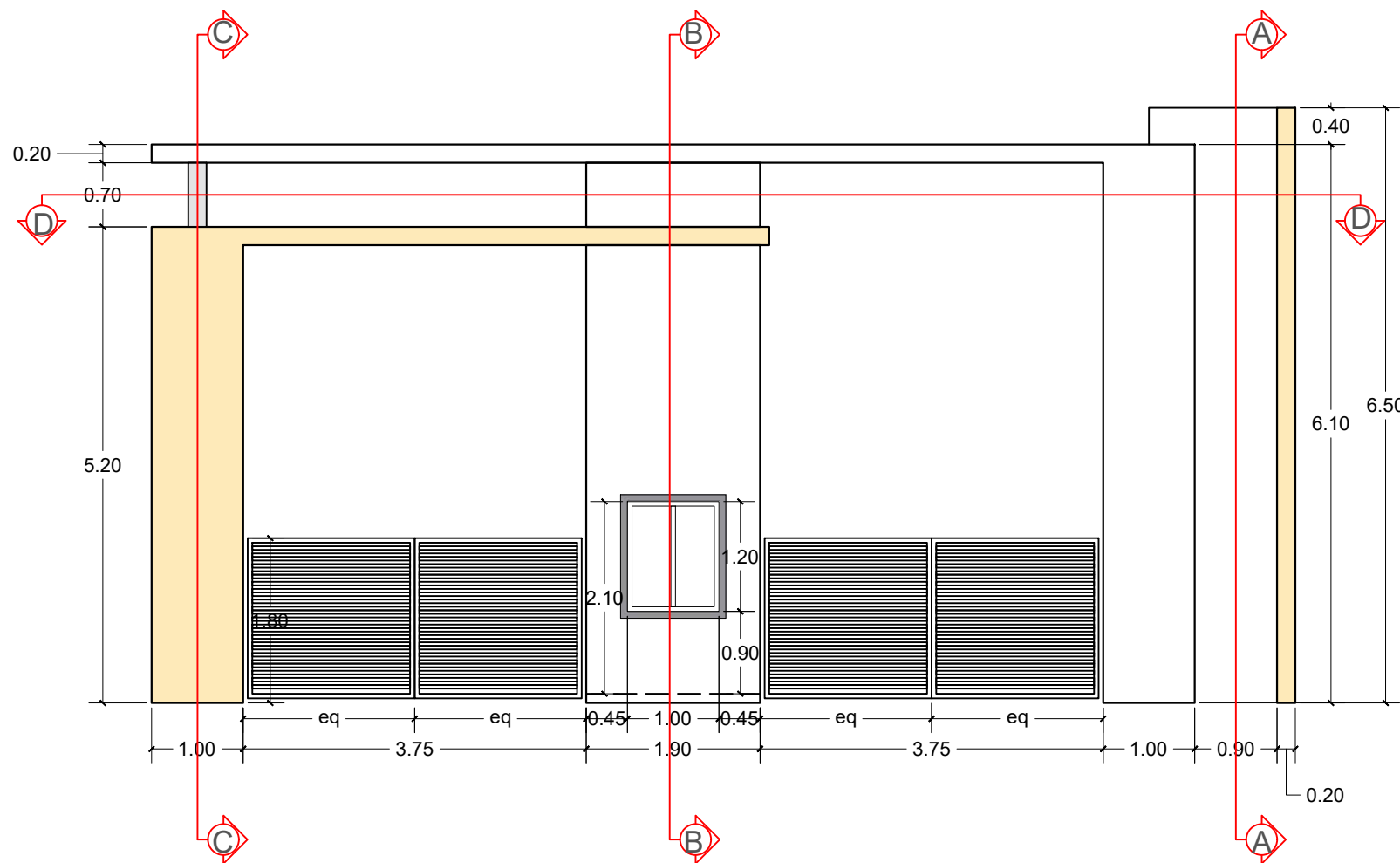
DRG. TITLE	SITE PLAN
DEVELOPERS	
PROJECT	REDEVELOPMENT SCHEME AT KATGHORA SITE 2
KEY PLAN	

- All dimensions are in Meter unless specified otherwise follow written dimensions if any discrepancy in scale Drawing must be read along with the other relevant drawings
- Any modifications shall be brought to the notice of the architect.
- All the dimensions shall be verified on site before execution
- Any concrete casting shall start after the inspection and consent of the consultant regular quality checks shall be done by the on-site engineer and shall be reported weekly
- All the materials must meet the specifications issued by the consultants or must be in compliance with the respective IS code. any variations must be approved by the consultant.

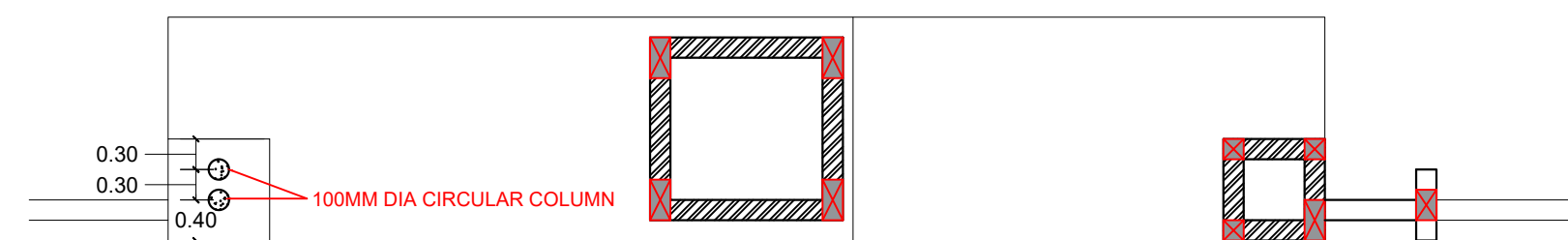
REVISIONS			
NO.	DATE	ISSUED	
PRINTS ISSUED			
S. NO.	REV	DATE	DESCRIPTION
30082028_GAD Katghora			

EXECUTIVE ENGINEER	
ARCHITECTS	Ar. Abhinav Jaiswal Raipur C-10, Rajendra Park, Mahaveer Nagar, Raipur, Chhattisgarh Mob:- +91-8817780410 E-mail: ar.abhinavjaiswal31@gmail.com

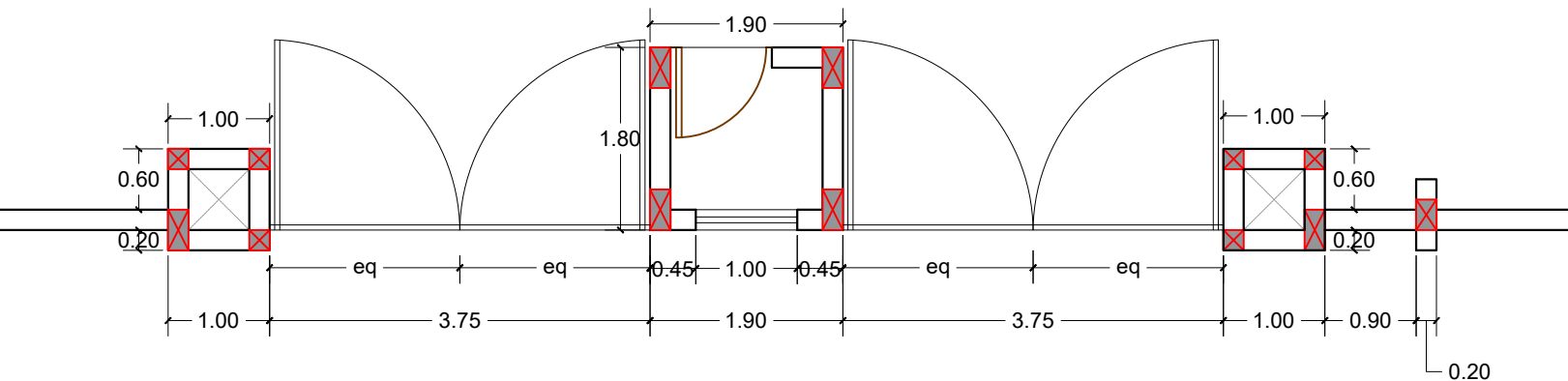
STRUCTURAL ENG.	
MEP. CONSULTANT	



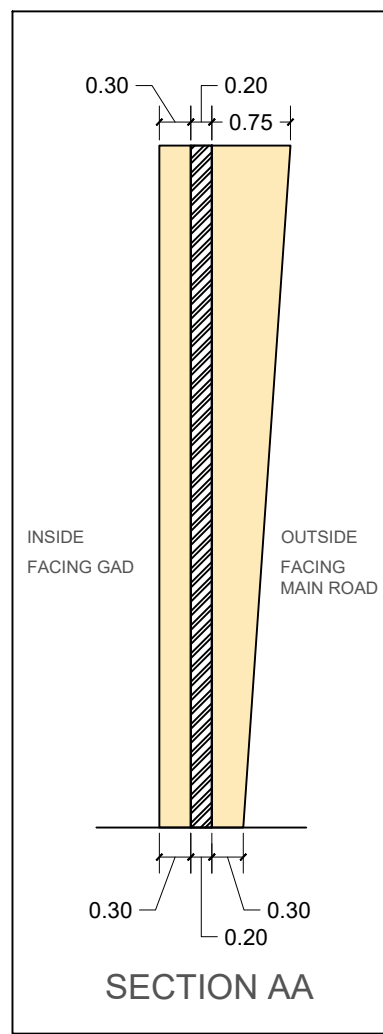
ELEVATION



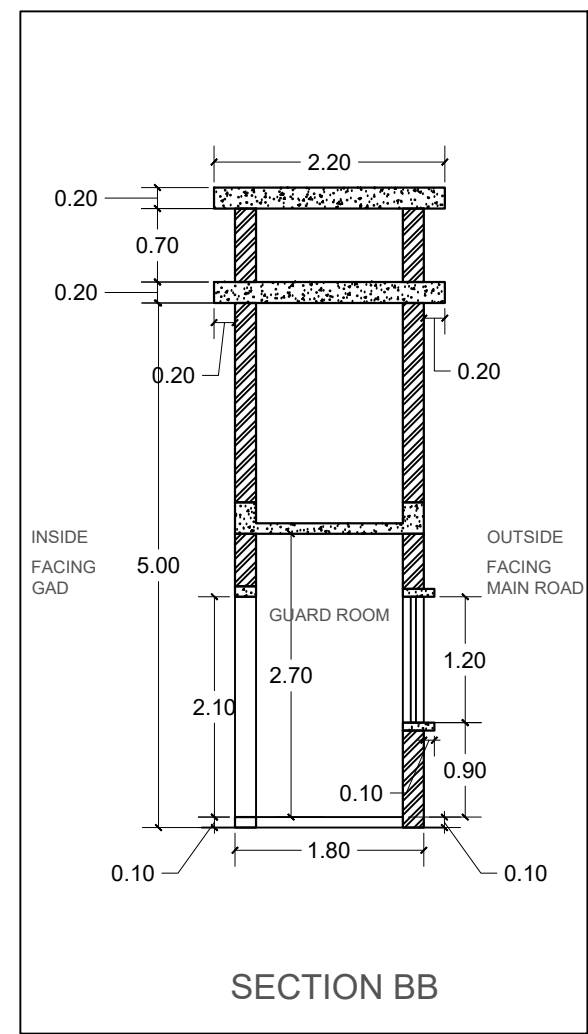
SECTION DD



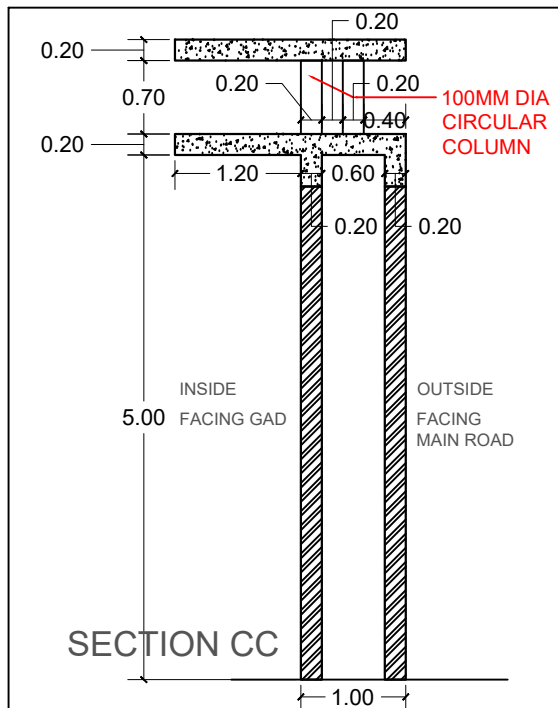
PLAN



SECTION AA



SECTION BB



SECTION CC



MAIN GATE DETAIL

EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

REDEVELOPMENT
SCHEME AT KATGHORA
SITE 2

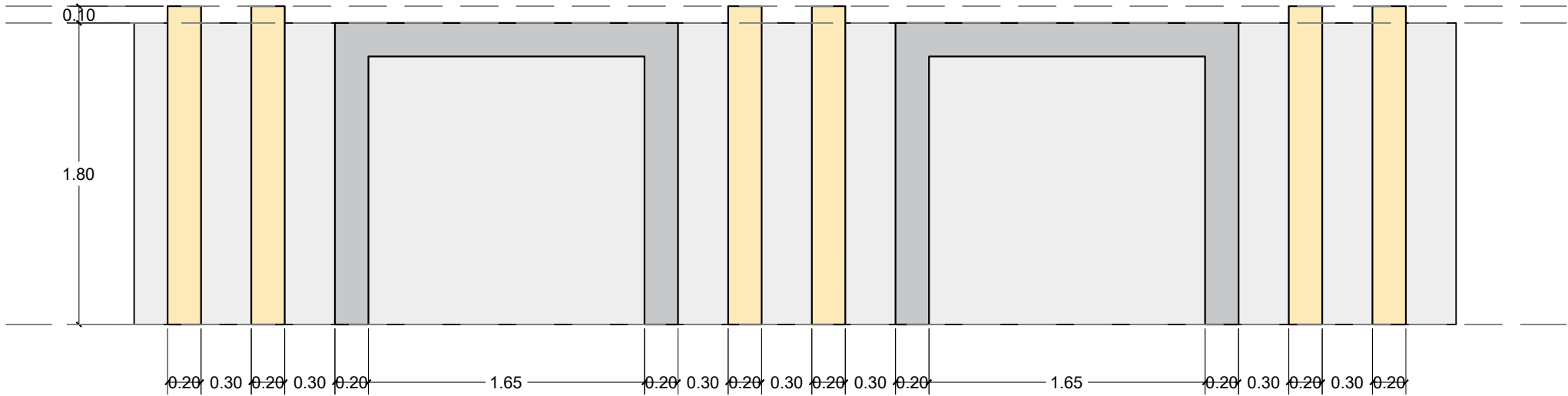
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S. NO.	REV	DATE	DESCRIPTION
30082028_GAD Katghora			

EXECUTIVE ENGINEER

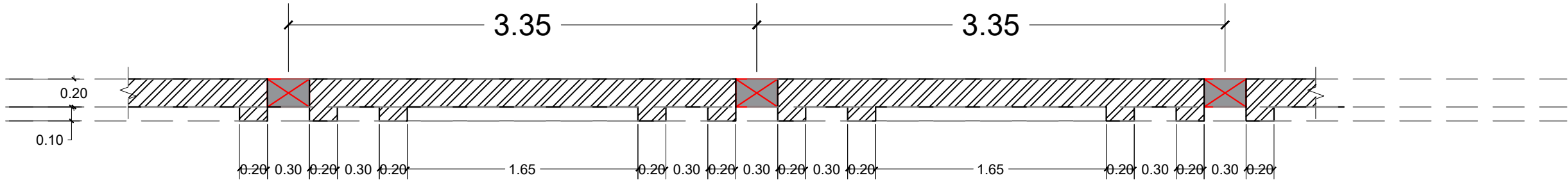
Ar. Abhinav Jaiswal
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Raipur, Chhattisgarh
Mob:- +91-8817780410
E-mail: ar.abhinavjaiswal31@gmail.com

STRUCTURAL ENG.

MEP CONSULTANT



ELEVATION



PLAN



REFERENCE IMAGE

BOUNDARY WALL

EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION - KORBA, DISTRICT - KORBA

REDEVELOPMENT
SCHEME AT KATGHORA
SITE 2

REVISIONS			
NO.	DATE	ISSUED	
PRINTS ISSUED			
S. NO.	REV	DATE	DESCRIPTION
30082028_GAD Katghora			

EXECUTIVE ENGINEER	
ARCHITECTS	Ar. Abhinav Jaiswal Raipur C-10, Rajendra Park, Mahaveer Nagar, Raipur, Chhattisgarh Mob:- +91-8817780410 E-mail: ar.abhinavjaiswal31@gmail.com
STRUCTURAL ENG.	
MEP CONSULTANT	



FRONT VIEW

COMPOUND WALL
VIEW

EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION - KORBA, DISTRICT - KORBA

REDEVELOPMENT
SCHEME AT KATGHORA
SITE 2

NO.	DATE	ISSUED
PRINTS ISSUED		

S. NO.	REV	DATE	DESCRIPTION
30082028_GAD Katghora			

Ar. Abhinav Jaiswal
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Mob:- +91-8817780410
E-mail: ar.abhinavjaiswal31@gmail.com

NORTH	SCALE : 1/100 DIM. IN METRES	DESIGN : VKS CHECKED : AJ. DRAWN : VKS
-------	---------------------------------	--



VIEW

COMPOUND WALL
VIEW

EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION - KORBA, DISTRICT - KORBA

PROJECT

NO. DATE ISSUED

PRINTS ISSUED

S. NO. REV DATE DESCRIPTION

30082028_GAD Katghora

EXECUTIVE ENGINEER

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STRUCTURAL ENG.

MEP CONSULTANT

SCALE : 1/10
DIM. IN METRES
PAGE NO. :
NO. :
DESIGN : VKS
CHECKED : AJ
DRAWN : VKS

DATE : 01/09/2025



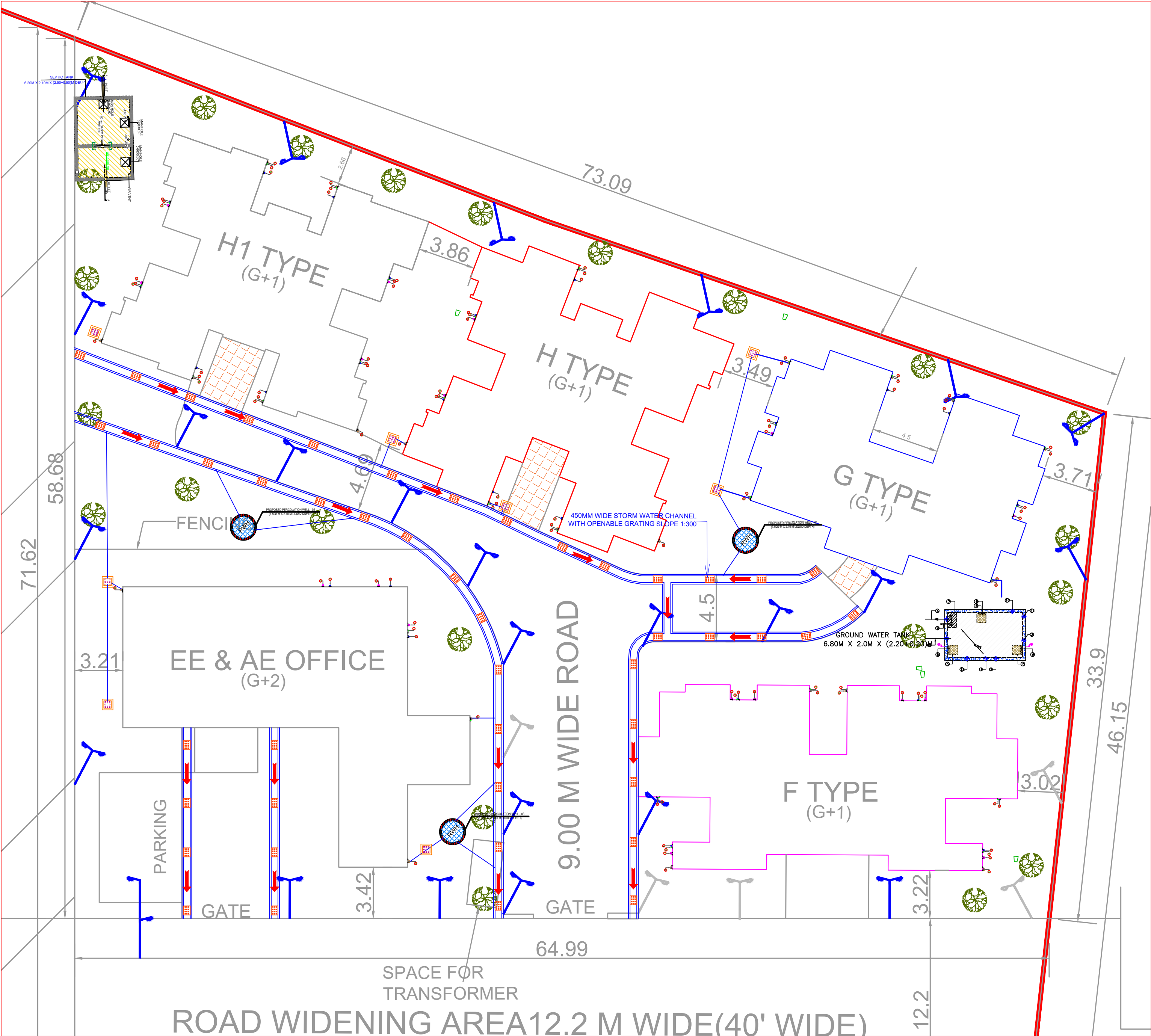


ASUS D:\F DATA\01_ARCHITECT NAVEEN MANA\CGH KATCHORU\01_DRAWING SITE PLUMBING

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DATE : 13/09/2025

PRODUCED BY AN AUTODESK STUDENT VERSION



SITE PLAN - RAIN WATER

LEGEND FOR PLUMBING	
MARK	DESCRIPTION
✕	BALL VALVE / CONTROL VALVE
uPVC SOIL PIPE	1
uPVC WASTE PIPE	2
40 Ø(OD)uPVC WASTE PIPE	3
110Ø(OD) PVC RAIN WATER PIPE	5
M.T	MULTI TRAP
F.T	FLOOR TRAP
G.T	GULLY TRAP 300X300
M.H.S	MANHOLE FOR SEWERAGE 600X600
CB	CATCH BASIN 500X500
DRINKING/COOL WATER SUPPLY PIPE	6
HOT WATER SUPPLY PIPE	7
750(OD) PVC RAIN WATER PIPE	8
PT	P - TRAP
UT	URINAL - TRAP
PT	BOTTLE - TRAP
UT	3" SHOWER DRAIN
LEGEND FOR PLUMBING	
MARK	DESCRIPTION
450mm wide STORM WATER TRENCH	
600mm wide STORM WATER TRENCH	
GRATING CHAMBER FOR DRAIN	
600/450 mm wide ELECTRICAL TRENCH	
600mm x 600mm ELECTRIC CHAMBER	
STREET LIGHT	
MANHOLE FOR SEWERAGE	
SEWERAGE SWR PIPE OF 200dia	
RAIN WATER SWR PIPE OF 200 DIA	
DESILTING CHAMBER OF 1.20M X 1.20M	
PERCOLATION WELL / RWHP PIT	
DIRECTION OF SLOPE	
500 DOMESTIC WATER SUPPLY PIPE	
750 DOMESTIC WATER SUPPLY PIPE	
REDUCER	
SLVICE VALVE RCC CHAMBER 500X500	
450mmX450mm WATER SUPPLY VALVE	

SITE PLAN - Rain water

CHHATTISGARH HOUSING BOARD
HEAD OFFICE, SECTOR-19,PARYAWAS BHAWAN,
ATAL NAGAR NAVA RAIPUR CHHATTISGARH

REDEVELOPMENT
SCHEME AT KATGHORA
SITE 2

AREA STATEMENT			
TOTAL AREA	3869.94 SQ.M		
ROAD WIDENING AREA	784.66 SQ.M		
PLOT AREA(NET)	3085.28 SQ.M		
F TYPE (G+1)	1 BLOCK	4 UNIT	
G TYPE (G+1)	1 BLOCK	4 UNIT	
H TYPE (G+1)	1 BLOCK	6 UNIT	
H1 TYPE (G+1)	1 BLOCK	8 UNIT	
TOTAL	4 BLOCK	22 UNIT	

OPENING SCHEDULE			
S. NO.	TYPE	NAME	SIZE
	D	DOOR	1.00X2.10M.
	D1	DOOR	0.90X2.10M.
	D2	DOOR	0.80X2.10M.
	W	WINDOW	1.50X1.50M.
	W1	WINDOW	1.20X1.00M.
	W2	WINDOW	0.8X1.00M.
	WK	WINDOW	1.00X1.00M.
	V	VENTILATOR	0.60X0.60M.

PRINTS ISSUED			
S. NO.	REV	DATE	DESCRIPTION
			Site Plumbing

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E-mail: ar.abhinavjaiswal31@gmail.com

VARUNA
MEP
CONSULTANT
By SATYA PRAKASH SINGH
SHOP NO. 116, 1st FLOOR, ASH BUSINESS TRIANGLE, RAIPUR
EMAIL: ADMIN@VARUNA.MEPCONSULTANT.COM
WEBSITE: WWW.VARUNA.MEPCONSULTANT.COM

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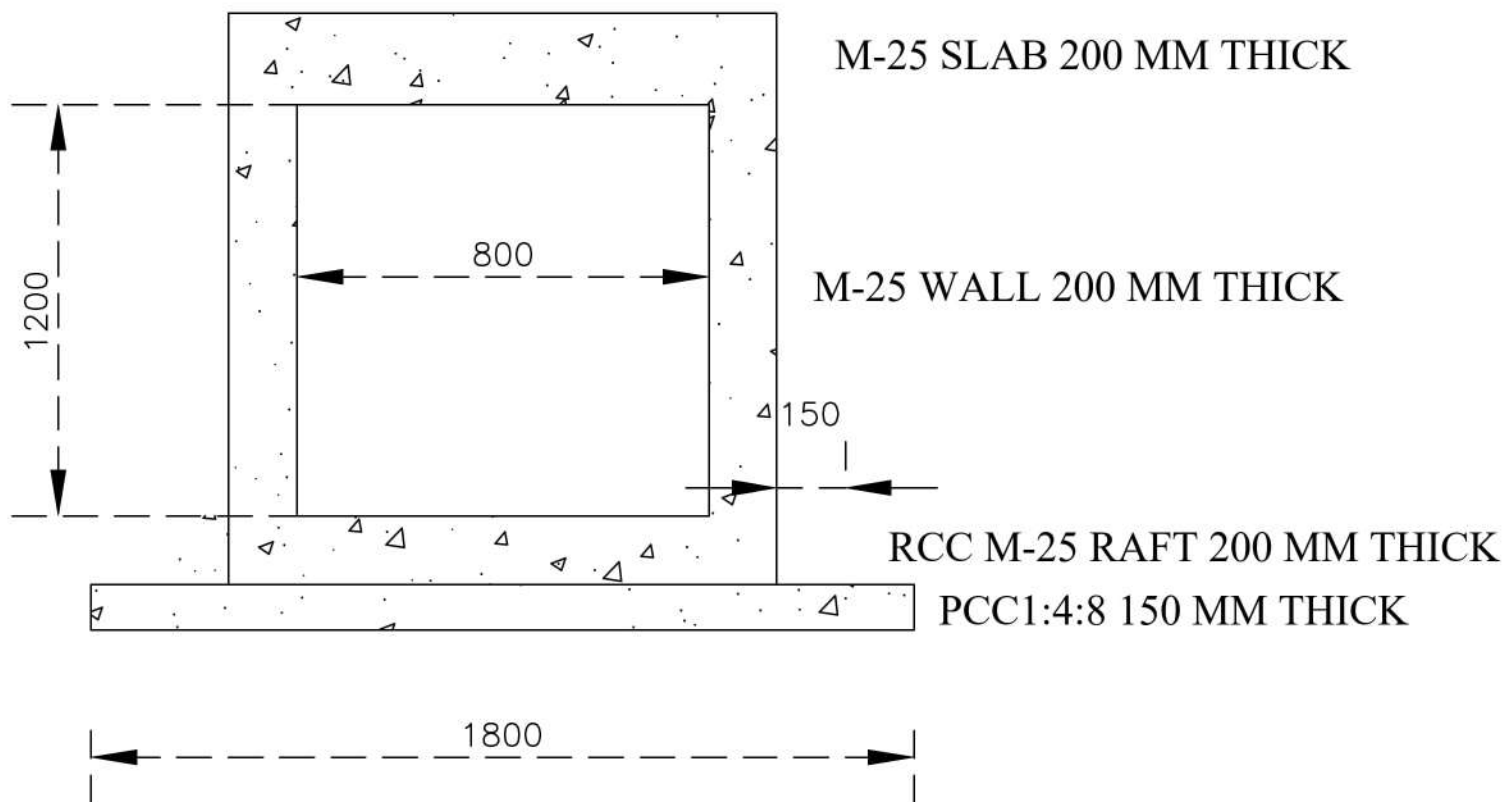
PRODUCED BY AN AUTODESK STUDENT VERSION



~~PRODUCED BY AN AUTODESK STUDENT VERSION~~

PRODUCED BY AN AI TODESK STUDENT VERSION

BOX CULVERT SECTION FOR 9.0 M WIDE ROAD



SUB ENGINEER
C.G.H.I.D.B
DIV-KORBA

ASSISTANT ENGINEER
C.G.H.I.D.B
DIV-KORBA

EXECUTIVE ENGINEER
C.G.H.I.D.B
DIV-KORBA

TRIAL PIT SECTION FOR REDEVELOPMENT KATGHORA SITE -II

ALL DIMENSIONS ARE IN METRE



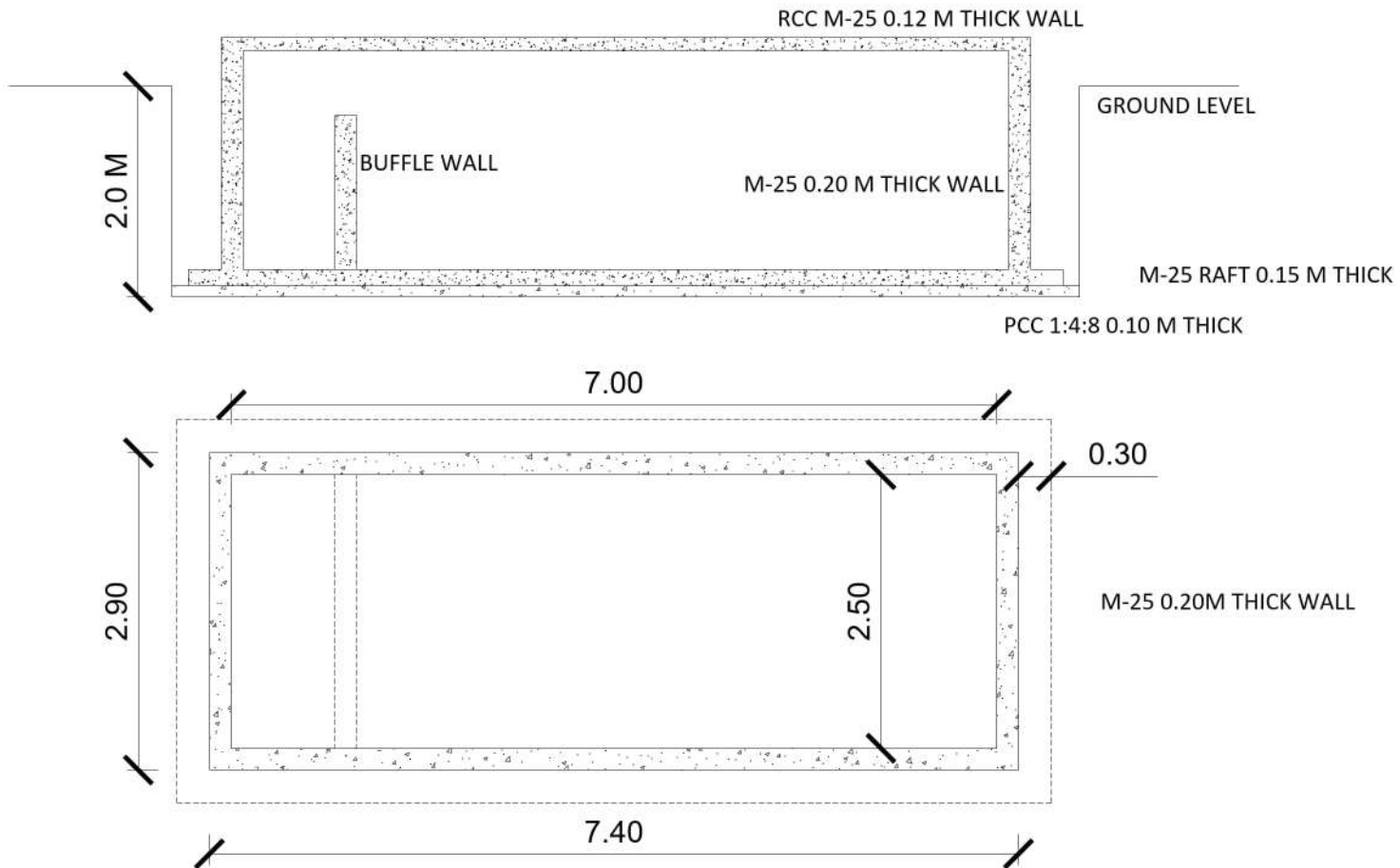
TRIAL PIT SECTION

SUB ENGINEER
C.G.H.B
DIV-KORBA

ASST ENGINEER
C.G.H.B
DIV-KORBA

EXECUTIVE ENGINEER
C.G.H.B
DIV-KORBA

SEPTIC TANK PLAN

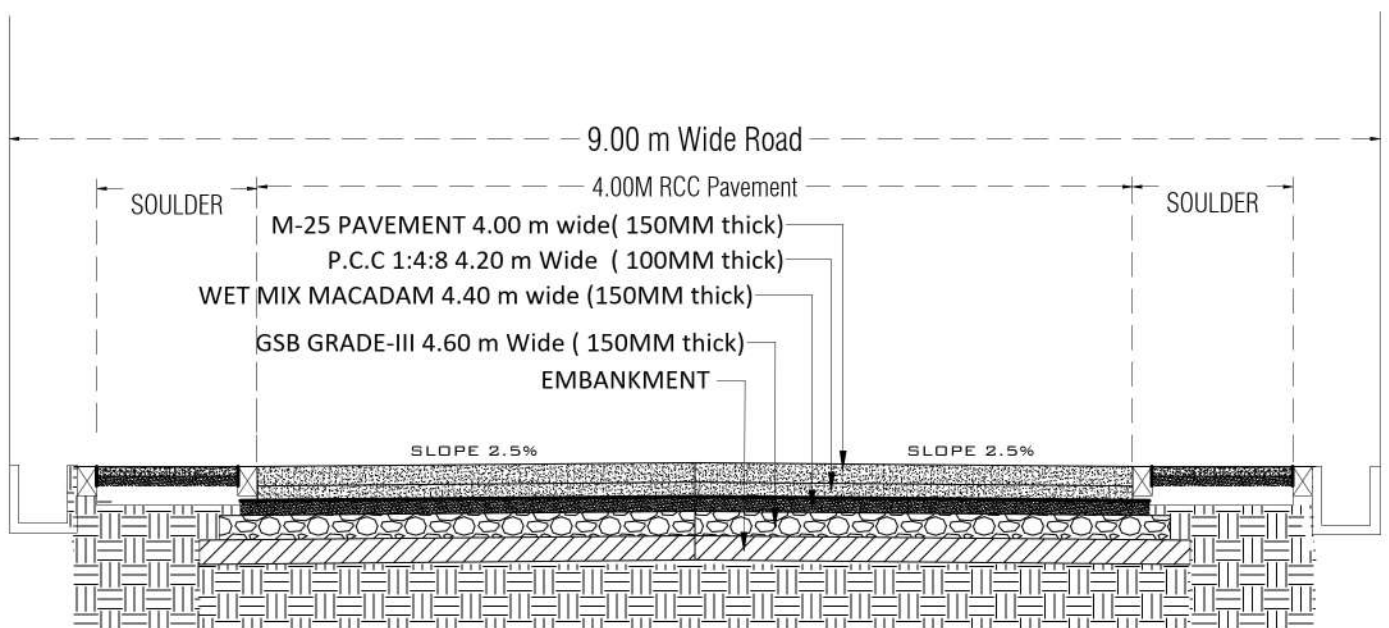


SEPTIC TANK PLAN (INNER SIZE 7.0X2.50X2.00 M)

SUB ENGINEER
C.G.H.I.D.B
DIV-KORBA

ASSISTANT ENGINEER
C.G.H.I.D.B
DIV-KORBA

EXECUTIVE ENGINEER
C.G.H.I.D.B
DIV-KORBA

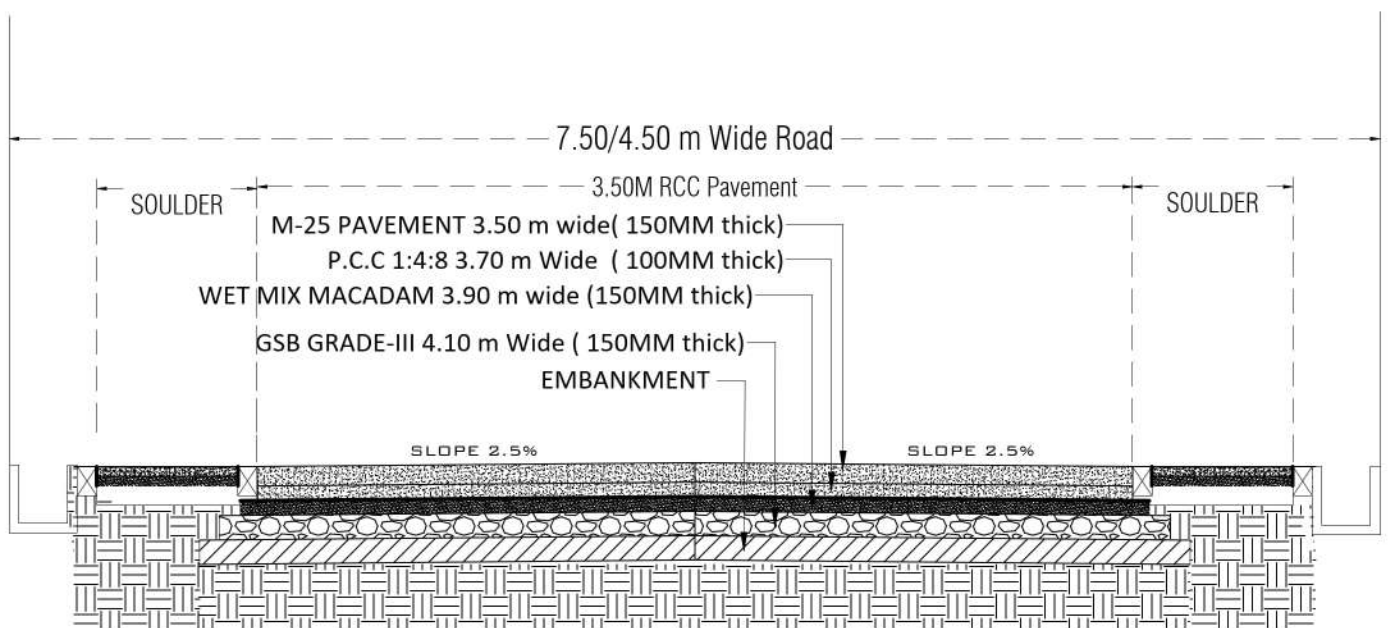


TYPICAL RCC ROAD SECTION FOR 9.00 M WIDE ROAD

SUB ENGINEER
C.G.H.I.D.B
DIV-KORBA

ASSISTANT ENGINEER
C.G.H.I.D.B
DIV-KORBA

EXECUTIVE ENGINEER
C.G.H.I.D.B
DIV-KORBA

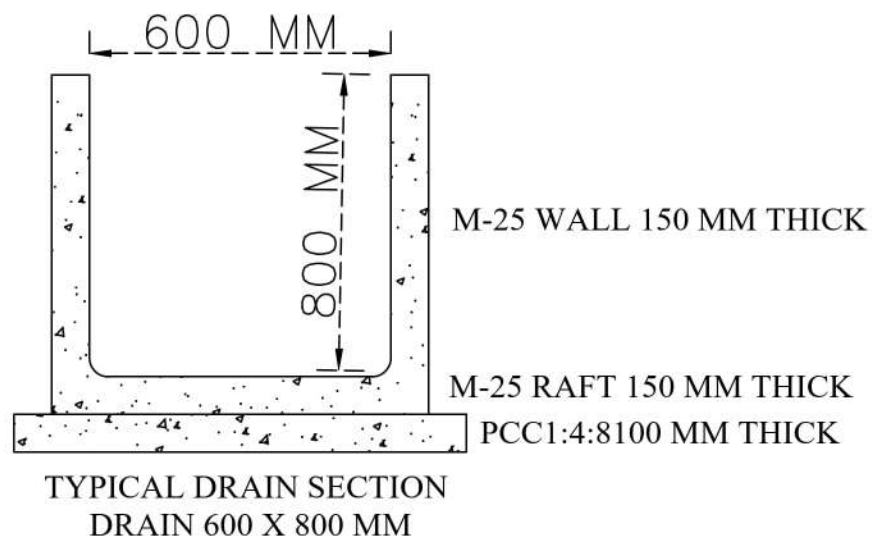
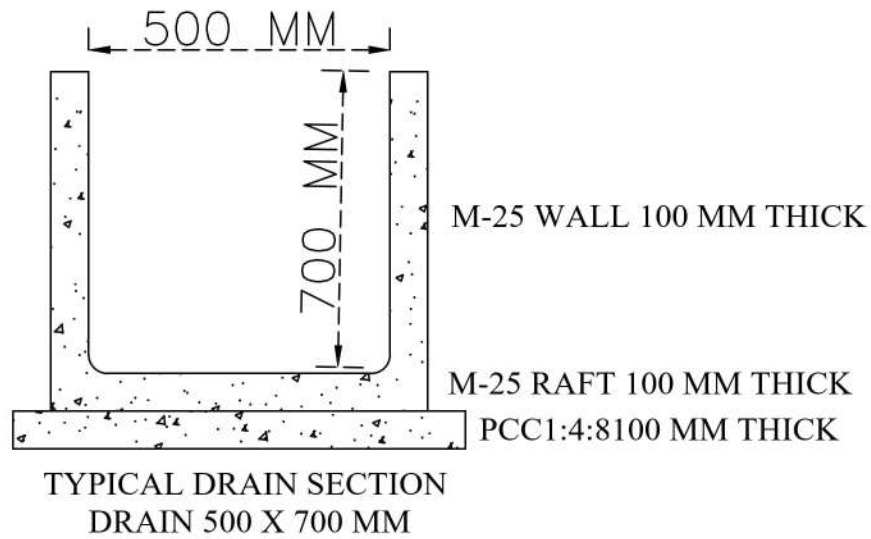
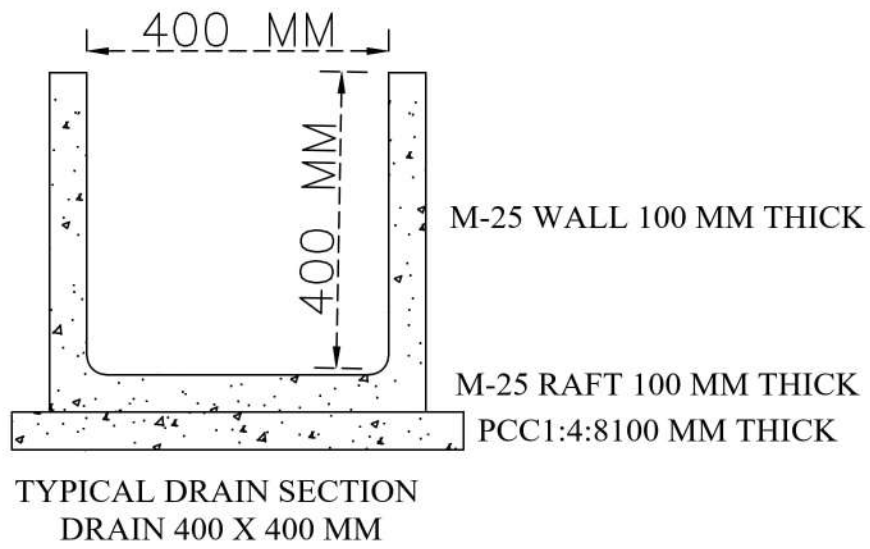


TYPICAL RCC ROAD SECTION FOR 7.50/4.50 M WIDE ROAD

SUB ENGINEER
C.G.H.I.D.B
DIV-KORBA

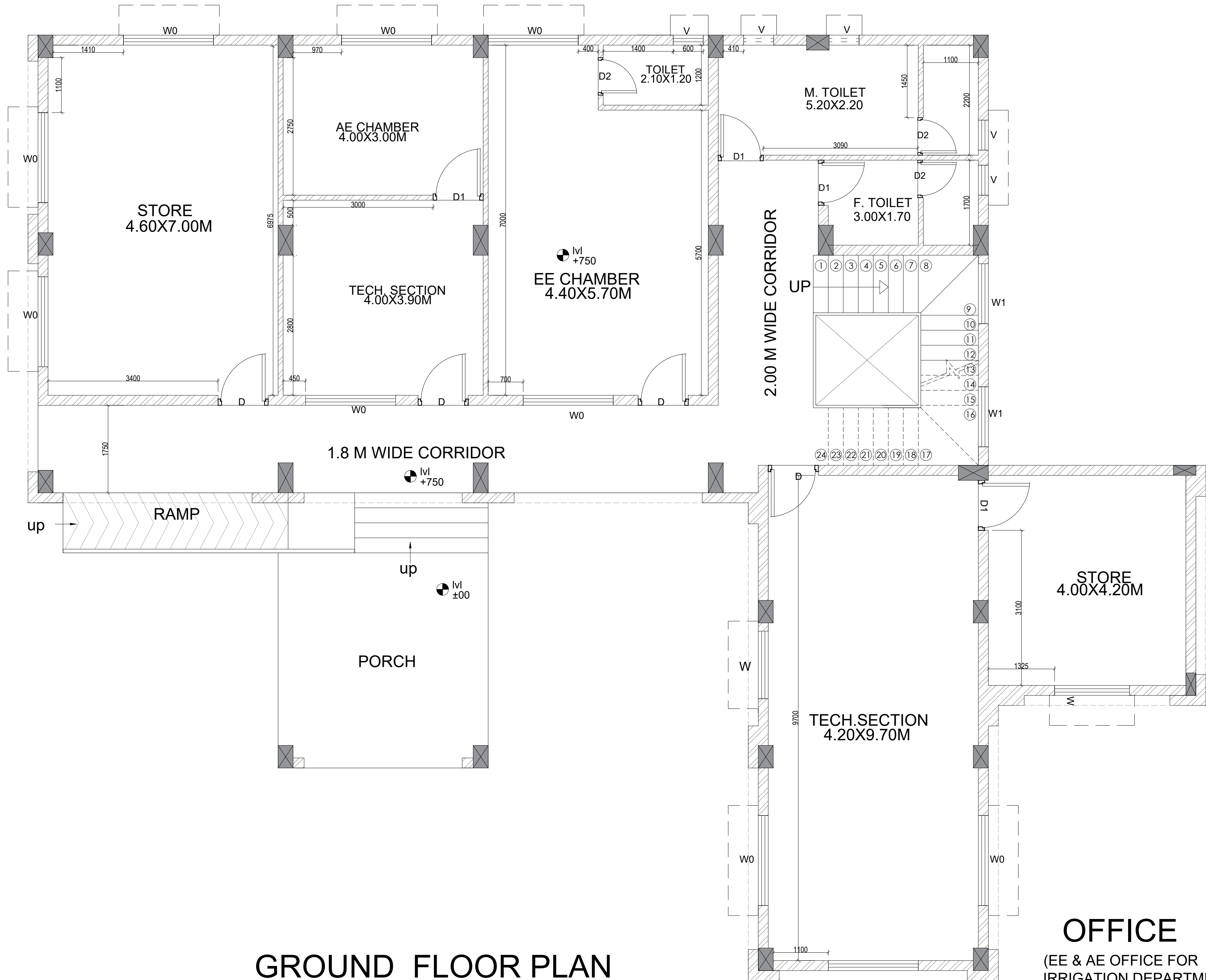
ASSISTANT ENGINEER
C.G.H.I.D.B
DIV-KORBA

EXECUTIVE ENGINEER
C.G.H.I.D.B
DIV-KORBA



OFFICE

1. ARCHITECTURAL DRAWINGS
2. 3D RENDERS
3. STRUCTURAL DRAWINGS
4. PLUMBING
5. ELECTRICAL



GROUND FLOOR PLAN

OFFICE

(EE & AE OFFICE FOR IRRIGATION DEPARTMENT)

DRG. TITLE

CLIENT NAME

CLIENT NAME

AREA STATEMENT

REVIEWS

EXECUTIVE ENGINEER

ARCHITECTS

STRUCTURAL ENG.

MEP. CONSULTANT

DATE

(EE & AE OFFICE FOR IRRIGATION DEPARTMENT)

EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

REDEVELOPMENT SCHEME
AT KATGHORA SITE 2
(GOVT. FACILITY PART)

BUILT UP AREA :

GROUND FLOOR : 229.81 SQM.

FIRST FLOOR : 203.38 SQM.

SECOND FLOOR : 168.66 SQM.

MUMMTY : 25.80 SQM.

TOTAL BUA : 627.65 SQM.

OPENING SCHEDULE

S. NO.	TYPE	NAME	SIZE
1.	D	DOOR	1.00X2.10M.
2.	D1	DOOR	0.90X2.10M.
3.	D2	DOOR	0.75X2.10M.
4.	W0	WINDOW	1.80X1.50M.
5.	W1	WINDOW	1.50X1.50M.
6.	WK	WINDOW	1.00X1.00M.
7.	V	VENTILATOR	0.60X0.60M.

NO.	DATE	ISSUED	
PRINTS ISSUED			
S. NO.	REV	DATE	DESCRIPTION
20250924 KATGHORA GAD			

NOTE: This Drawing is a based on the concept drawing provided by C.G.H.B. Division Korba

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NORTH

SCALE : NTS

DIM. IN METRES

DESIGN : VKS

CHECKED :AJ.

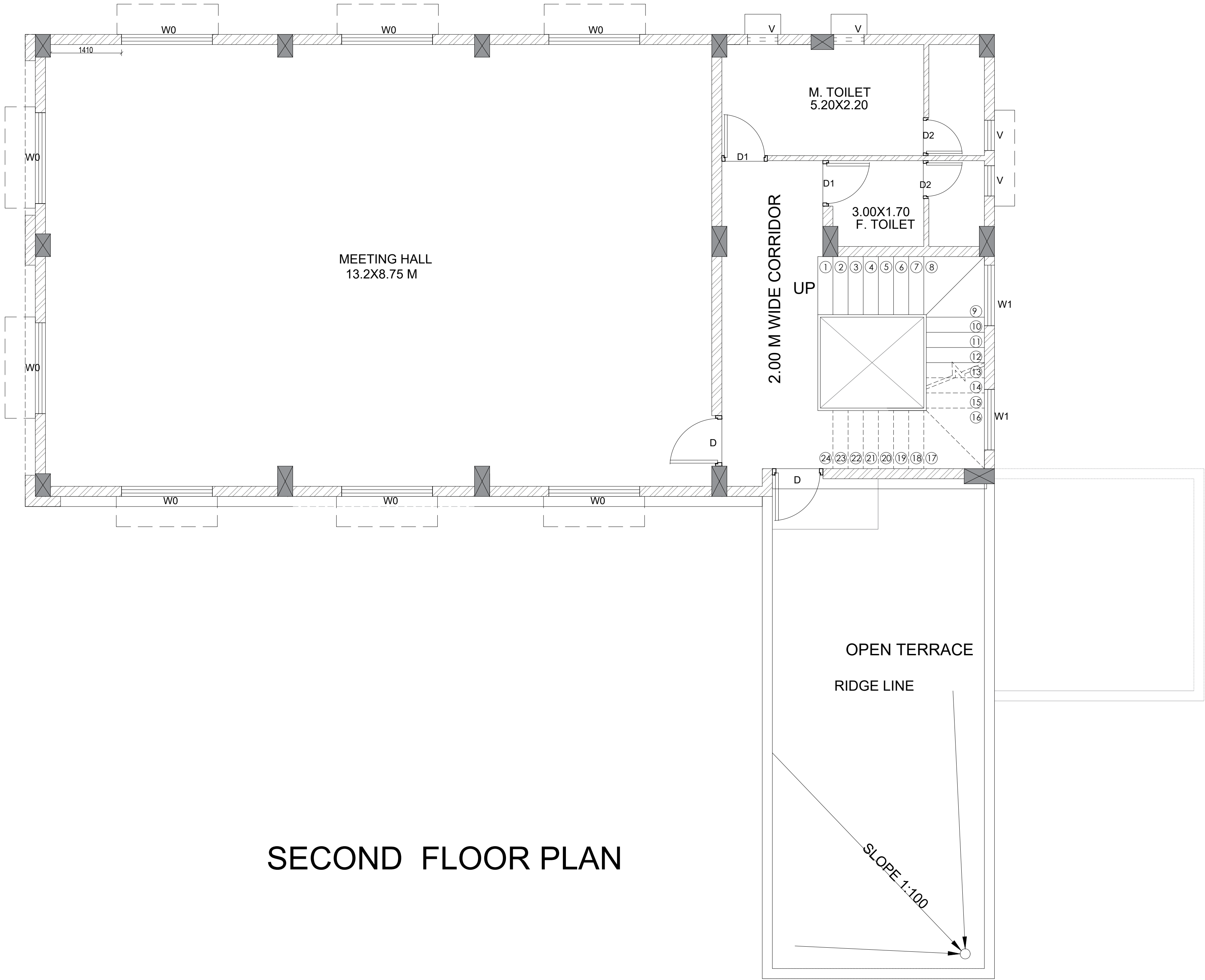
DRAWN : VKS

USER: C:\USERS\USER\DOWNLOADS\20250924 KATGHORA GAD

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DATE : 15/09/2025



(EE & AE OFFICE FOR
IRRIGATION DEPARTMENT)
**SECOND FLOOR
PLAN**



EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

**REDEVELOPMENT SCHEME
AT KATGHORA SITE 2
(GOVT. FACILITY PART)**

AREA STATEMENT

BUILT UP AREA :	
GROUND FLOOR	: 229.81 SQM.
FIRST FLOOR	: 203.38 SQM.
SECOND FLOOR	: 168.66 SQM.
MUMMTY	: 25.80 SQM.

TOTAL BUA	: 627.65 SQM.
-----------	---------------

OPENING SCHEDULE

S. NO.	TYPE	NAME	SIZE
1.	D	DOOR	1.00X2.10M.
2.	D1	DOOR	0.90X2.10M.
3.	D2	DOOR	0.75X2.10M.
4.	W0	WINDOW	1.80X1.50M.
4.	W	WINDOW	1.50X1.50M.
5.	W1	WINDOW	1.20X1.50M.
6.	WK	WINDOW	1.00X1.00M.
7.	V	VENTILATOR	0.60X0.60M.

REVISIONS

NO.	DATE	ISSUED	
PRINTS ISSUED			
S. NO.	REV	DATE	DESCRIPTION

20250924 KATGHORA GAD

NOTE: This Drawing is a based on the concept drawing provided by C.G.H.B. Division Korba

EXECUTIVE ENGINEER

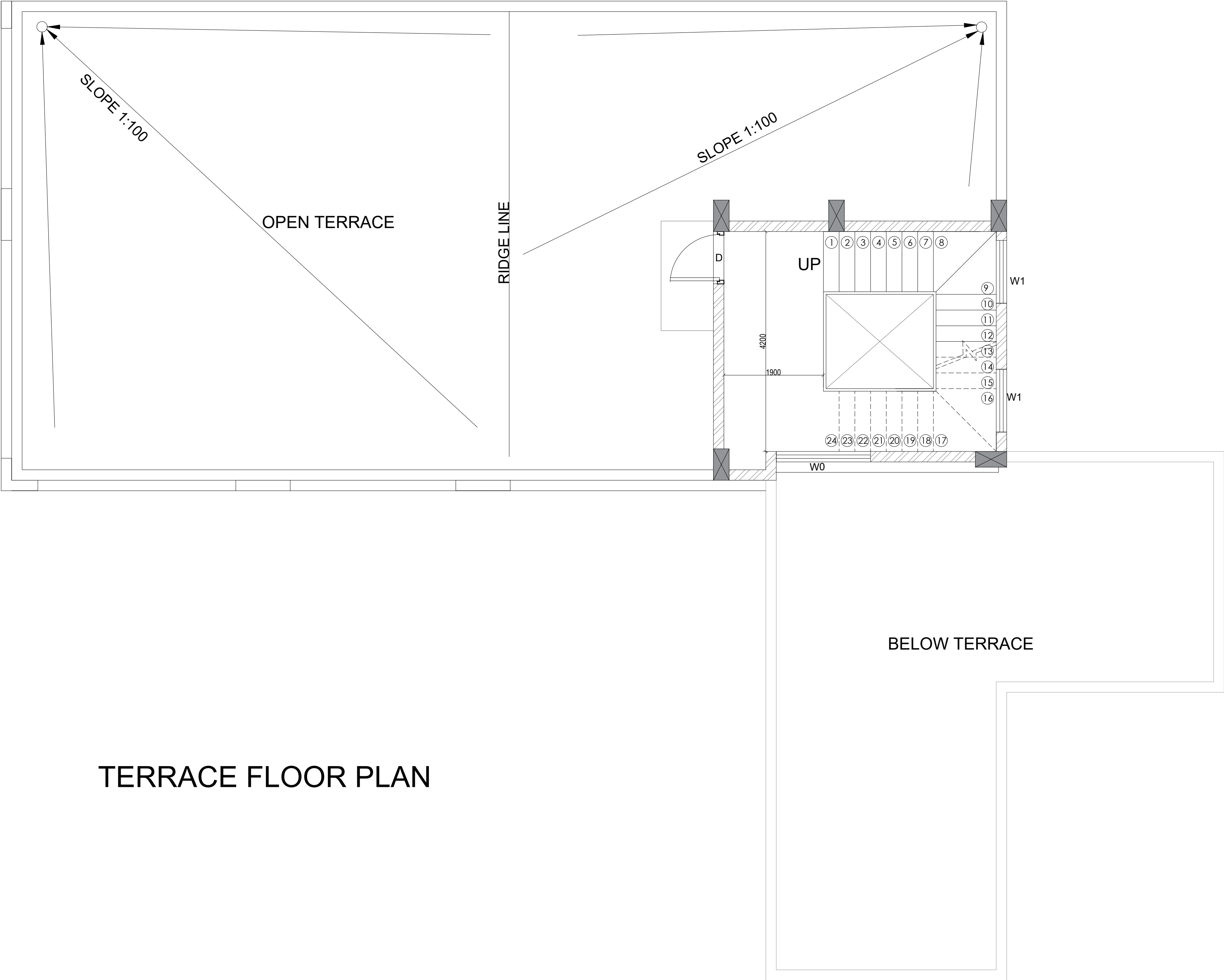
ARCHITECTS
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STRUCTURAL ENG.

MEP- CONSULTANT

SCALE : NTS
DIM. IN METRES
DESIGN : VKS
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DATE : 15/09/2025




TERRACE FLOOR PLAN

DRG. TITLE

(EE & AE OFFICE FOR IRRIGATION DEPARTMENT)
TERRACE FLOOR
PLAN

CLIENT NAME

EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

PROJECT

REDEVELOPMENT SCHEME
AT KATGHORA SITE 2
(GOVT. FACILITY PART)

AREA STATEMENT

BUILT UP AREA :

GROUND FLOOR : 229.81 SQM.

FIRST FLOOR : 203.38 SQM.

SECOND FLOOR : 168.66 SQM.

MUMMTY : 25.80 SQM.

TOTAL BUA : 627.65 SQM.

OPENING SCHEDULE

S. NO.	TYPE	NAME	SIZE
1.	D	DOOR	1.00X2.10M.
2.	D1	DOOR	0.90X2.10M.
3.	D2	DOOR	0.75X2.10M.
4.	W0	WINDOW	1.80X1.50M.
4.	W	WINDOW	1.50X1.50M.
5.	W1	WINDOW	1.20X1.50M.
6.	WK	WINDOW	1.00X1.00M.
7.	V	VENTILATOR	0.60X0.60M.

REVISIONS

NO.	DATE	ISSUED	
PRINTS ISSUED			
S. NO.	REV	DATE	DESCRIPTION

20250924 KATGHORA GAD

EXECUTIVE ENGINEER


ARCHITECTS

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E-mail: ar.abhinavjaiswal31@gmail.com

STRUCTURAL ENG.

MEP- CONSULTANT

NORTH



SCALE : NTS

DIM. IN METRES

DESIGN : VKS

CHECKED :AJ.

NO.

DRAWN : VKS

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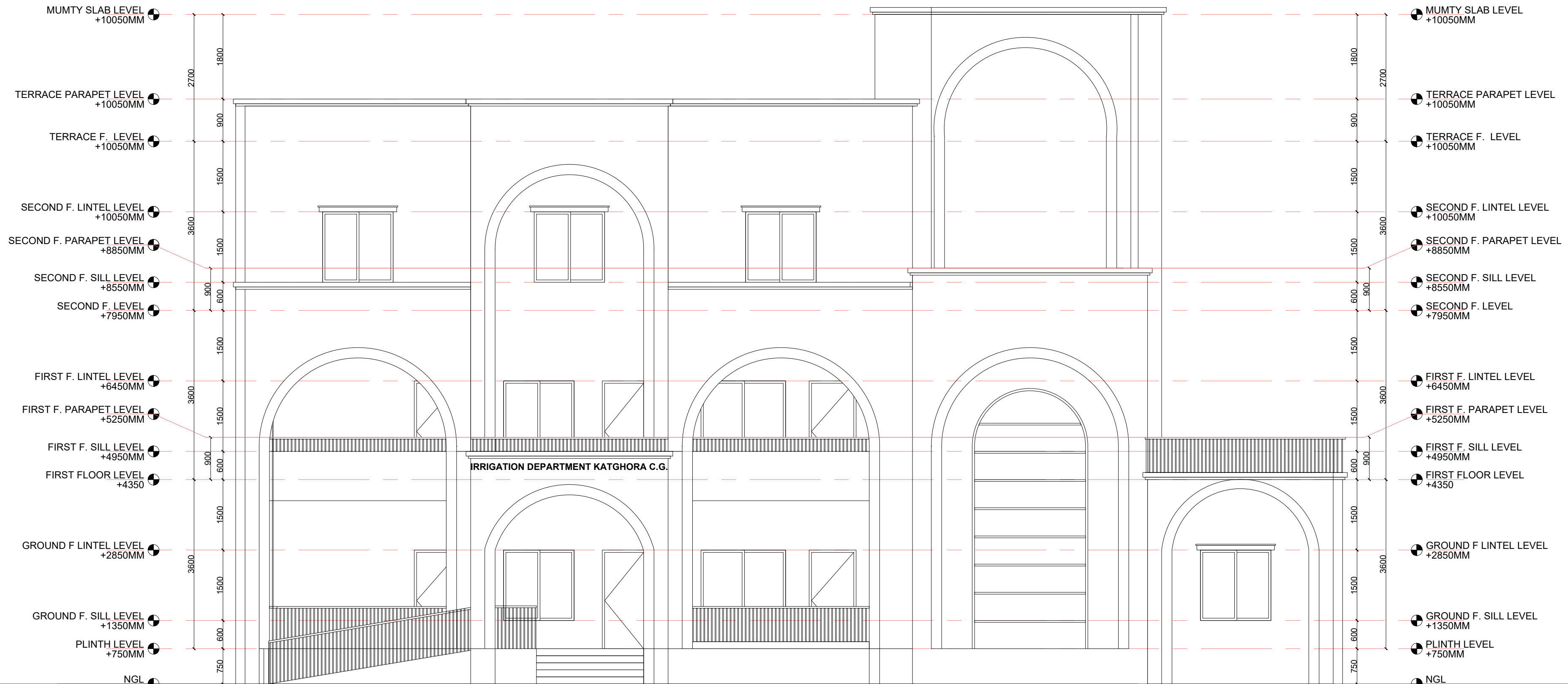
DATE : 01/09/2025

REDEVELOPMENT SCHEME AT KATGHORA SITE 2

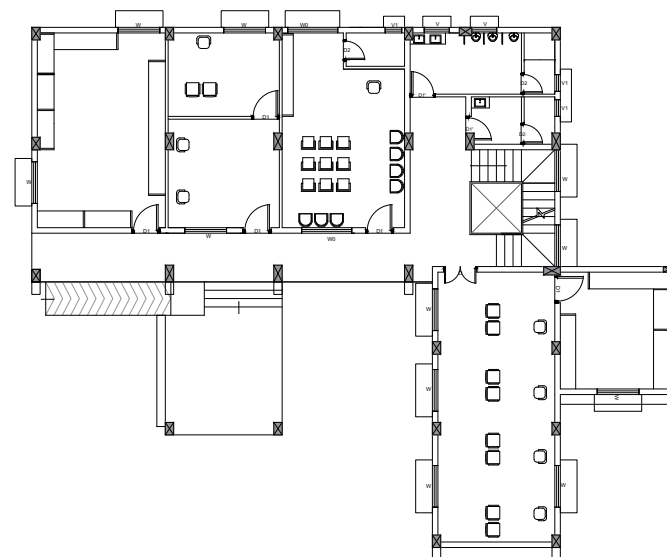
EE & AE OFFICE ELEVATION

CLIENT NAME	 <p>EXECUTIVE ENGINEER, CHHATTISGARH HOUSING BOARD DIVISION -KORBA,DISTRICT-KORBA</p>
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PROJECT	REDEVELOPMENT SCHEME AT KATGHORA SITE 2
---------	---



ELEVATION 'A'



KEY PLAN



CLIENT NAME

1000000

OPENING SCHEDULE

S. NO.	TYPE	NAME	SIZE
	D	DOOR	1.00X2.10M.
	D1	DOOR	0.90X2.10M.
	D2	DOOR	0.80X2.10M.
	W	WINDOW	1.50X1.50M.
	W1	WINDOW	1.20X1.00M.
	W2	WINDOW	0.8X1.00M.
	WK	WINDOW	1.00X1.00M.
	V	VENTILATOR	0.60X0.60M.

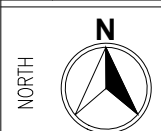
REVISIONS

REVISIONS				
PRINTS ISSUED				
S. NO.	REV	DATE	DESCRIPTION	

EXECUTIVE ENGINEER

STRUCTURAL ENG.

MEP. CONSULTANT



SCALE : NTS	DESIGN : VKS
DIM. IN METRES	
PAGE NO :	CHECKED : A.J.
NO.	DRAWN : VKS

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DATE: 01/09/2025

REDEVELOPMENT SCHEME AT KATGHORA SITE 2

EE & AE
OFFICE
SECTION

CLIENT NAME	 <p>EXECUTIVE ENGINEER, CHHATTISGARH HOUSING BOARD DIVISION -KORBA,DISTRICT-KORBA</p>
-------------	--

PROJECT	REDEVELOPMENT SCHEME AT KATGHORA SITE 2
---------	---

OPENING SCHEDULE

S. NO.	TYPE	NAME	SIZE
	D	DOOR	1.00X2.10M.
	D1	DOOR	0.90X2.10M.
	D2	DOOR	0.80X2.10M.
	W	WINDOW	1.50X1.50M.
	W1	WINDOW	1.20X1.00M.
	W2	WINDOW	0.8X1.00M.
	WK	WINDOW	1.00X1.00M.
	V	VENTILATOR	0.60X0.60M.

[illegible]

S. NO.	REV	DATE	DESCRIPTION
20250917 - MASTER FILE - KATGHORA GAD & EE OFFICE			

EXECUTIVE ENGINEER	
--------------------	--



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Raipur

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Mob:- +91-8817780410
E-mail: ar.abhinavjaiswal31@gmail.com

E-mail: ar.abhinavjaiswal31@gmail.com

STRUCTURAL ENG.

MEP. CONSULTANT

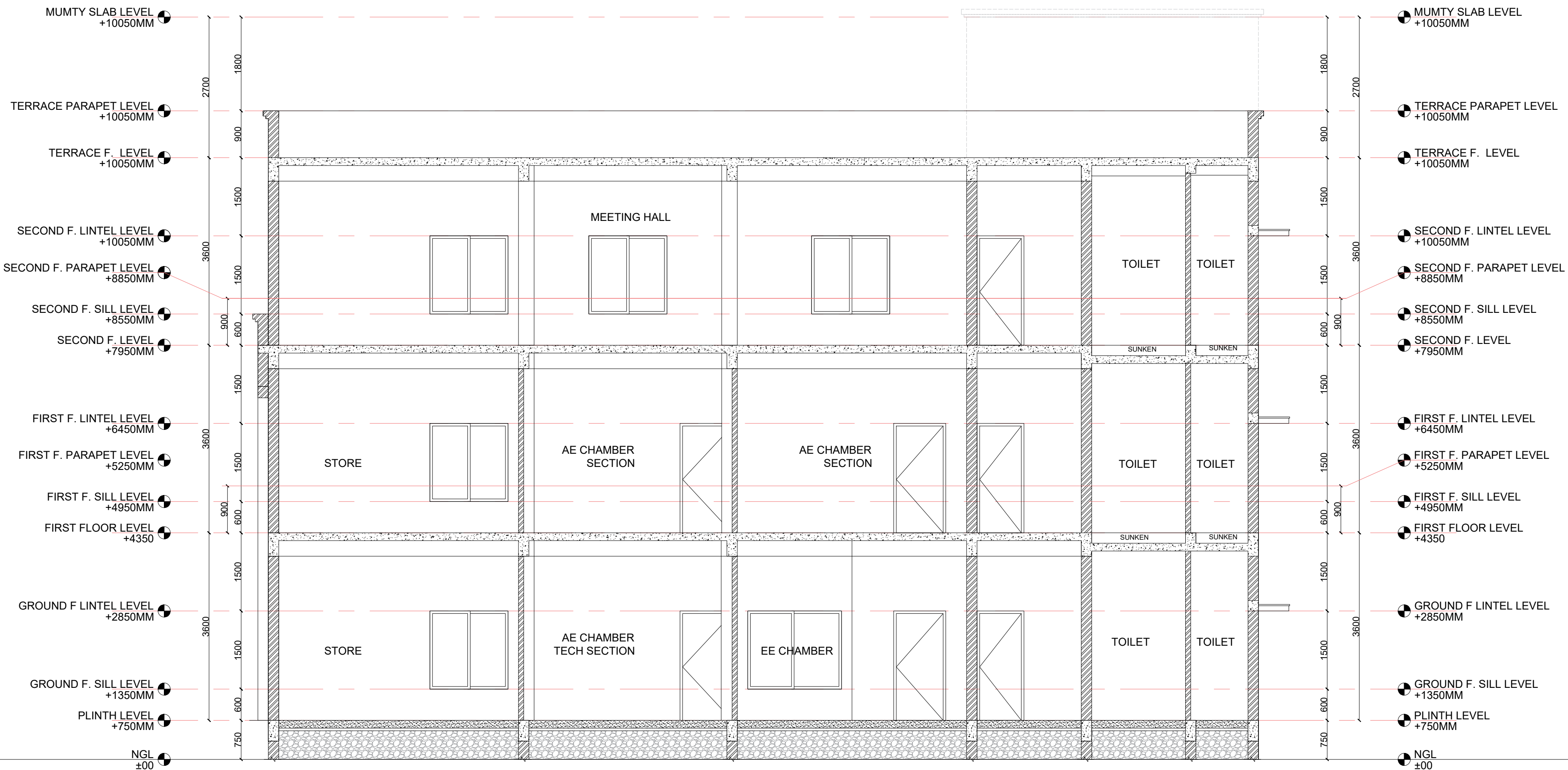
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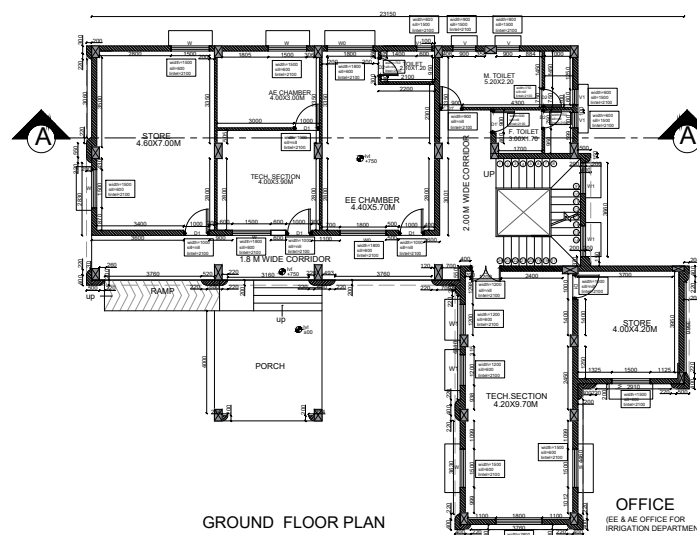
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DATE : 01/09/2025




SECTION 'AA'



KEY PLAN

REDEVELOPMENT SCHEME AT KATGHORA SITE 2

DRG. TITLE	EE & AE OFFICE SECTION
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CLIENT NAME	 <p>EXECUTIVE ENGINEER, CHHATTISGARH HOUSING BOARD DIVISION -KORBA,DISTRICT-KORBA</p>
-------------	--

PROJECT	REDEVELOPMENT SCHEME AT KATGHORA SITE 2
---------	---

OPENING SCHEDULE

S. NO.	TYPE	NAME	SIZE
	D	DOOR	1.00X2.10M.
	D1	DOOR	0.90X2.10M.
	D2	DOOR	0.80X2.10M.
	W	WINDOW	1.50X1.50M.
	W1	WINDOW	1.20X1.00M.
	W2	WINDOW	0.8X1.00M.
	WK	WINDOW	1.00X1.00M.
	V	VENTILATOR	0.60X0.60M.

REVIEWS				
	NO.	DATE	ISSUED	
	PRINTS ISSUED			
S. NO.	REV	DATE	DESCRIPTION	

S. NO.	REV	DATE	DESCRIPTION
20250917 - MASTER FILE - KATGHORA GAD & EE OFFICE			

EXECUTIVE ENGINEER	
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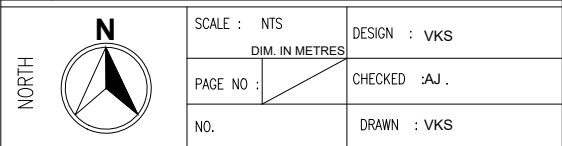
ARCHITECTS	<p>Ar. Abhinav Jaiswal</p> <p>Raipur</p> <p>C-10, Rajendra Park, Mahaveer Nagar, Raipur, Chhattisgarh</p> <p>Mob:- +91-8817780410</p> <p>E-mail: ar.abhinavjaiswal31@gmail.com</p>
------------	--

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E-mail: ar.abhinavjaiswal31@gmail.com

E-mail: ar.abhinavjaiswal31@gmail.com

STRUCTURAL ENG.	
-----------------	--

MEP CONSULTANT	
----------------	--

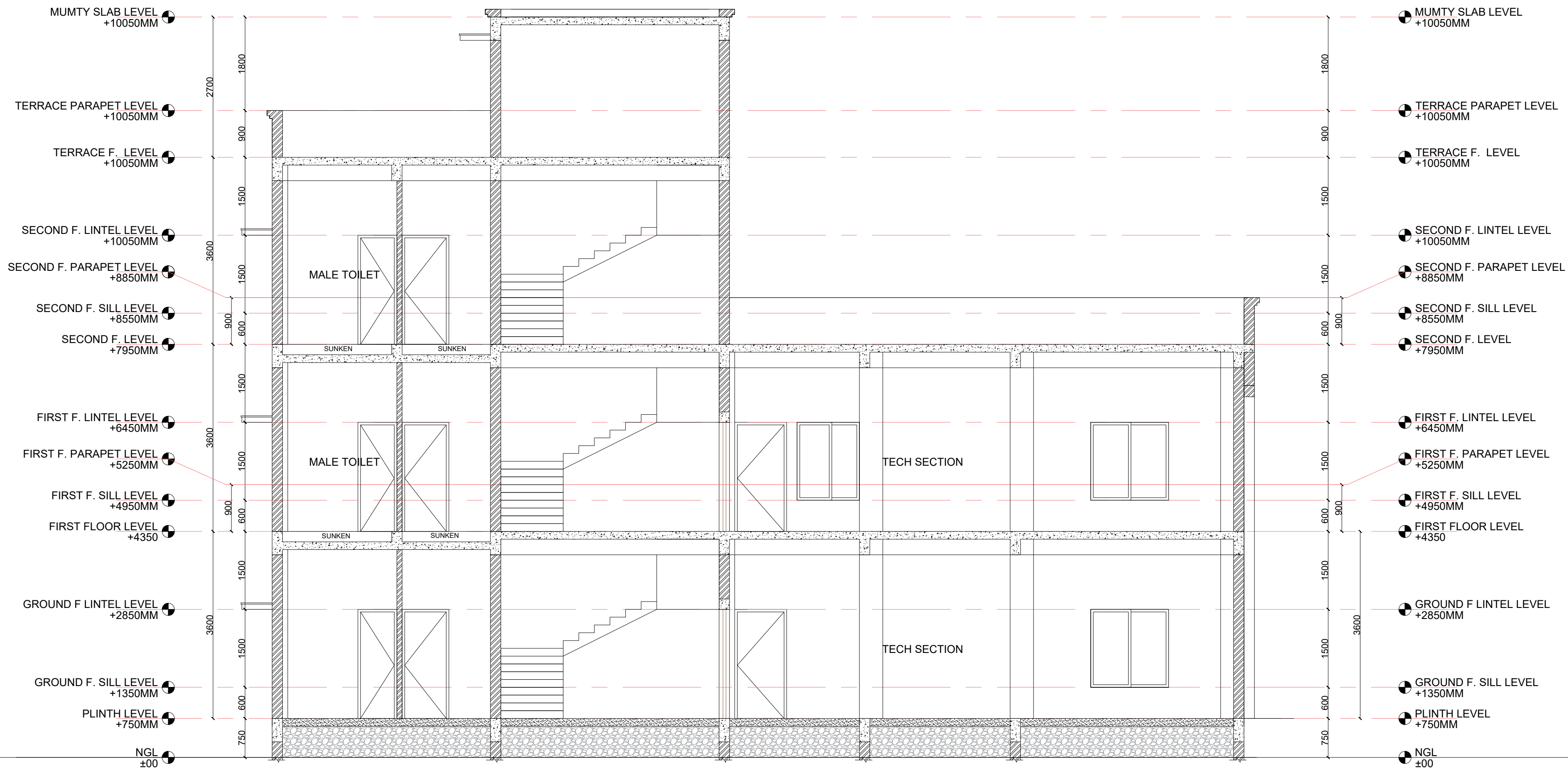


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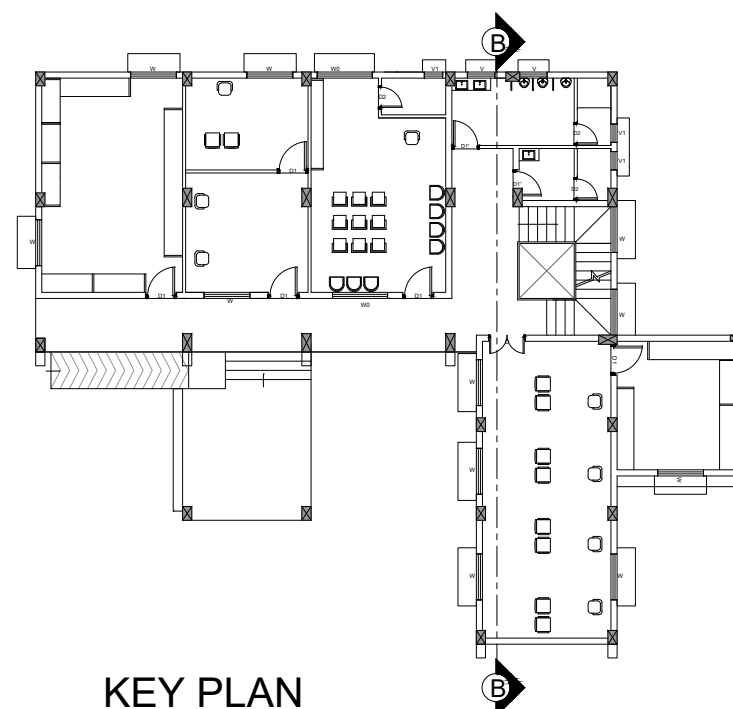
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DATE : 01/09/2025




SECTION 'BB"



KEY PLAN

REDEVELOPMENT SCHEME AT KATGHORA SITE 2

EE & AE
OFFICE
ELEVATION



EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

REDEVELOPMENT
SCHEME AT KATGHORA
SITE 2

OPENING SCHEDULE

S. NO.	TYPE	NAME	SIZE
	D	DOOR	1.00X2.10M.
	D1	DOOR	0.90X2.10M.
	D2	DOOR	0.80X2.10M.
	W	WINDOW	1.50X1.50M.
	W1	WINDOW	1.20X1.00M.
	W2	WINDOW	0.8X1.00M.
	WK	WINDOW	1.00X1.00M.
	V	VENTILATOR	0.60X0.60M.

REVISIONS

NO.	DATE	ISSUED	
PRINTS ISSUED			

S. NO.	REV	DATE	DESCRIPTION
20250917	-	MASTER FILE	- KATGHORA GAO & EE OFFICE

EXECUTIVE ENGINEER


ARCHITECTS

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C-10, Rajendra Park, Mahaveer Nagar,
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Mob:- +91-8817780410
E-mail: ar.abhinavjaiswal31@gmail.com

STRUCTURAL ENG.

MEP CONSULTANT

NORTH



SCALE : NTS
DIM IN METRES

DESIGN : VKS
CHECKED :AJ.
DRAWN : VKS

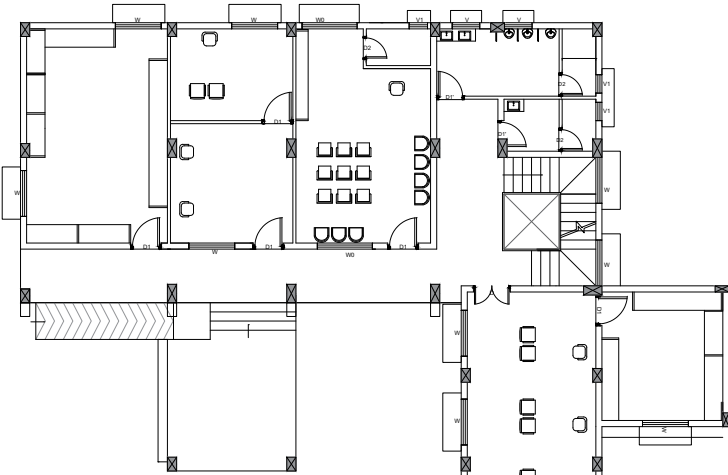
USER C:\USERS\USER\DOWNLOADS\20250917 - MASTER FILE - KATGHORA GAO & EE OFFICE

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DATE : 01/09/2025



ELEVATION 'B'



KEY PLAN





FRONT VIEW

DRG. TITLE	(EE & AE OFFICE FOR IRRIGATION DEPARTMENT			
CLIENT NAME	<div>EXECUTIVE ENGINEER, CHHATTISGARH HOUSING BOARD DIVISION -KORBA,DISTRICT-KORBA</div> <div></div>			
PROJECT	REDEVELOPMENT SCHEME AT KATGHORA SITE 2			
REVISIONS				
	NO.	DATE	ISSUED	
	PRINTS ISSUED			
	S. NO.	REV	DATE	DESCRIPTION
30082028_GAD Katghora				
EXECUTIVE ENGINEER				
ARCHITECTS	<div>Ar. Abhinav Jaiswal Raipur C-10, Rajendra Park, Mahaveer Nagar, Raipur, Chhattisgarh Mob:- +91-8817780410 E-mail: ar.abhinavjaiswal31@gmail.com</div>			
STRUCTURAL ENG.				
MEP. CONSULTANT				
NORTH	<div><div><div></div><div>SCALE : NTS DIM. IN METRES</div><div>PAGE NO : NO.</div></div><div><div>DESIGN : VKS CHECKED :AJ . DRAWN : VKS</div></div></div> <div>COM: D:\WWW\GOVERNMENT\CHHATTISGARH\DWG\30082028_GAD_KATGHORA</div> <div>This Drawing is a property of Ar. Abhinav Jaiswal, and is not to be produced, copied, handed over to a third party or used for any purpose other than which it is loaned for. 296</div> <div>DATE : 01/09/2025</div>			



SIDE VIEW

DRG. TITLE	(EE & AE OFFICE FOR IRRIGATION DEPARTMENT			
CLIENT NAME	<div>EXECUTIVE ENGINEER, CHHATTISGARH HOUSING BOARD DIVISION -KORBA,DISTRICT-KORBA</div>			
PROJECT	REDEVELOPMENT SCHEME AT KATGHORA SITE 2			
REVISIONS				
	NO.	DATE	ISSUED	
	PRINTS ISSUED			
	S. NO.	REV	DATE	DESCRIPTION
30082028_GAD Katghora				
EXECUTIVE ENGINEER				
ARCHITECTS	Ar. Abhinav Jaiswal Raipur C-10, Rajendra Park, Mahaveer Nagar, Raipur, Chhattisgarh Mob:- +91-8817780410 E-mail: ar.abhinavjaiswal31@gmail.com			
STRUCTURAL ENG.				
MEP. CONSULTANT				
NORTH	<div></div>	SCALE : NTS DIM. IN METRES	DESIGN : VKS	
		PAGE NO : <div><div></div></div>	CHECKED : AJ .	
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This Drawing is a property of <i>Ar. Abhinav Jaiswal</i> , and is not to be produced, copied, loaned over to a third party or used for any purpose other than which it is loaned for. 297				
DATE : 01/09/2025				



VIEW

(EE & AE OFFICE
FOR IRRIGATION DEPARTMENT)

EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

REDEVELOPMENT
SCHEME AT KATGHORA
SITE 2

NO.	DATE	ISSUED	
PRINTS ISSUED			
S. NO.	REV	DATE	DESCRIPTION
30082028_GAD Katghora			

EXECUTIVE ENGINEER

Ar. Abhinav Jaiswal
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C-10, Rajendra Park, Mahaveer Nagar,
Raipur, Chhattisgarh
Mob:- +91-8817780410
E-mail: ar.abhinavjaiswal31@gmail.com

STRUCTURAL ENG.

MEP. CONSULTANT

NORTH	SCALE : MTS DIM. IN METRES	DESIGN : VKS
	PAGE NO. : 298	CHECKED : AJ.
	NO.	DRAWN : VKS

CONCRETE MIX : M 25, GRADE OF STEEL : Fe 500

1. SAFE BEARING CAPACITY OF SOIL

S.B.C. OF SOIL FOR DESIGN OF FOUNDATION HAS BEEN TAKEN AS SPECIFIED MINIMUM DEPTH SHALL BE UP TO HARD STRATA. IN CASE OF ANY DOUBT REGARDING S.B.C. DURING EXCAVATION, THE MATTER SHALL BE REPORTED TO THE GEO-TECH. CONSULTANT.

2. REINFORCING STEEL

U.N.O. ALL REINFORCEMENT SHALL BE OF HIGH STRENGTH DEFORMED BARS OF SPECIFIED GRADE CONFORMING TO IS 1786 ALL REINFORCING STEEL TO BE OF TESTED QUALITY.

3. CONCRETE

U.N.O. CONCRETE MIX FOR ALL ELEMENT SHALL BE OF SPECIFIED GRADE CONFORMING IS 456-2000.

4. P.C.C.

PLAN CEMENT CONCRETE M-10

5. COVER

U.N.O. IN THE DWG. CLEAR COVER TO MAIN REINFORCEMENT SHALL BE AS FOLLOWS :-

(1) FOOTING (50 mm) (3) BEAM (25 mm)
(2) COLUMN (40 mm) (4) SLAB (20 mm)
OR DIA. OF BAR WHICHEVER IS GREATER.

GENERAL NOTES

- EXTRA TOP OR BENT-UP BARS SHALL BE EXTENDED UP TO 0.3M IN ADJACENT SPAN OVER A CONTIGUOUS SUPPORT AND ANCHOR DOWN AT END SUPPORT.
- AT BEAM & COLUMN JUNCTION, BEAM BARS IF IN CONFLICT WITH COLUMN BARS SHALL BE GRADUALLY BENT & PLACED CLEAR OF COLUMN BARS UNDER NO CIRCUMSTANCES COLUMN VERTICAL BARS SHALL BE BENT TO ACCOMMODATE BEAM BARS.
- ALL REINFORCING STRIPS IN BEAM COLUMN JUNCTION SHALL BE PROVIDED AT THE SPACING INDICATED. HANGER IF BEAMS ARE CONNECTED ON ALL THE FOUR DIRECTIONS OF COLUMN THE SPACING SHOULD BE DOUBLED.
- REINFORCING STRIPS IN COLUMN IS SAME BELOW AND ABOVE G.L.
- U.N.O. MINIMUM LAP LENGTH SHALL BE 50 TIMES OF BAR DIAMETER OF SMALLER BAR AT ANY SECTION.
- NOT MORE THAN 50% OF BARS SHALL BE LAPPED AT A SECTION. THE LOCATION OF LAPPING SHALL BE AVOIDED AS FOLLOWS :-
 - FOR FLOOR BEAMS SLAB CLOSE TO MID SPAN IN BOTTOM BARS & CLOSE TO SUPPORT IN TOP BARS.
 - FOR FOUNDATION BEAM RAFT LAYS CLOSE TO MID SPAN IN TOP BARS & CLOSE TO SUPPORT IN BOTTOM BARS.
 - FOR BEAMS CLOSE TO COLUMN JUNCTION, BARS SHOULD BE ALLOWED TO CROSS WITHOUT LAPPING.
 - FOR BEAMS CLOSE TO COLUMN JUNCTION, BARS SHOULD BE ALLOWED TO CROSS WITHOUT LAPPING.
 - REMARK - ALL EGGED MEANS AT ALL LOCATIONS U.N.O.
 - USE OF NEEDLE VIBRATOR AND PLASTISIZER RECOMMENDED FOR R.C.C. WORK.
 - STRUTTING FOR CANTILEVER BEAMS TO HAVE HOOK AT BOTTOM.
 - USE OF NEEDLE VIBRATOR AND PLASTISIZER RECOMMENDED FOR R.C.C. WORK.
 - BURNED OIL NOT PERMITTED FOR DE-SHUTTERING.
 - EXPOSED SURFACE OF CONCRETE SHALL BE KEPT CONTINUOUSLY IN WET CONDITION MINIMUM FOR 14 DAYS.
 - CURTOUT OPENING :- ANY TYPE OF OPENINGS FOR PLUMBING, DRAINAGE OR ELECTRICAL NOT PERMITTED IN R.C.C. BEAMS AND COLUMNS DURING OR AFTER CASTING. FOR SLEEVES PROVIDE A.D.T. TWO RINGS SPACED @ 75MM C/C ON EITHER SIDE OF IT.
 - U.N.O. IN THE DWG. CONSTRUCTION JOINT SHOULD BE APPROVED BY ENGINEER AT SITE.
 - CONSTRUCTION JOINT SHOULD BE AT QUARTER SPAN OF BEAM AND SLAB. IN NO CONDITION SHOULD BE AT THE SUPPORT.
 - READ THIS DWG. WITH RELEVANT ARCHITECTURAL & SERVICES DWG. IN ORDER TO AVOID CONFLICTS. IN CASE OF ANY CONFLICT, THE SERVICES DWG. SHALL PREVAIL.
 - ALL DIMENSIONS ARE IN MM. EXCEPT IN VENTILATOR LEVELS ARE IN METERS.
 - IN CASE OF ANY AMBIGUITY, PLEASE BRING IT TO THE NOTICE OF THIS OFFICE BEFORE EXECUTION OF WORK.
 - SHUTTERING & SCAFFOLDING IS AT THE RESPONSIBILITY OF CONTRACTOR.
 - STRIPPING TIME TABLE AS PER IS 456-2000.
 - TOP BARS OF ALL CANTILEVER BEAM / SLAB SHOULD BE EXTENDED ON OPPOSITE SIDE UP TO 1.5 TIMES CANTILEVER PROJECTION U.N.O. UNLESS NOTED OTHERWISE.

COLUMN SECTIONAL TOP VIEW

C1 300x600			<ul style="list-style-type: none">• - 16#
C2 300x450			<ul style="list-style-type: none">• - 16#• - 12#
C3 200x450			<ul style="list-style-type: none">• - 16#• - 12#
C4 300x450			<ul style="list-style-type: none">• - 12#
C5 300x600			<ul style="list-style-type: none">• - 16#• - 12#

COLUMN SCHEDULE

THIRD TO MUMTY	M25 Fe500	SIZE	300 X 600	300 X 450	200 X 450	300 X 450	300 X 600
		STEEL	4-T16 + 6-T12	4-T16 + 4-T12	4-T16 + 4-T12	10-T12	6-T16 + 4-T12
SECOND TO THIRD	M25 Fe500	LINKS	T8@150 C/C	T8@150 C/C	T8@150 C/C	T8@150 C/C	T8@150 C/C
		SIZE	300 X 600	300 X 450	200 X 450	300 X 450	300 X 600
FIRST TO SECOND	M25 Fe500	STEEL	4-T16 + 6-T12	4-T16 + 4-T12	4-T16 + 4-T12	10-T12	6-T16 + 4-T12
		LINKS	T8@150 C/C	T8@150 C/C	T8@150 C/C	T8@150 C/C	T8@150 C/C
PLINTH TO FIRST	M25 Fe500	SIZE	300 X 600	300 X 450	200 X 450	300 X 450	300 X 600
		STEEL	6-T16 + 4-T12	4-T16 + 4-T12	4-T16 + 4-T12	10-T12	6-T16 + 4-T12
BASE TO PLINTH	M25 Fe500	LINKS	T8@150 C/C	T8@150 C/C	T8@150 C/C	T8@150 C/C	T8@150 C/C
		SIZE	300 X 600	300 X 450	200 X 450	300 X 450	300 X 600
COLUMN MARKED	M25 Fe500	STEEL	10-T16	4-T16 + 4-T12	4-T16 + 4-T12	10-T12	6-T16 + 4-T12
		LINKS	T8@150 C/C	T8@150 C/C	T8@150 C/C	T8@150 C/C	T8@150 C/C

- Gross Safe Bearing Capacity - 112.23 kN/m2
As per information from CGHB EE Korba
- Depth of foundation shall be atleast 2m Below NGL or till the required SBC is attained

CENTERLINE PLAN

(EE & AE OFFICE FOR IRRIGATION DEPARTMENT) CENTERLINE

EXECUTIVE ENGINEER, CHATTISGARH HOUSING BOARD DIVISION -KORBA, DISTRICT -KORBA

REDEVELOPMENT SCHEME AT KATGHORA SITE 2 (GOVT FACILITY PART)

AREA STATEMENT

BUILT UP AREA :	: 229.81 SQM.
GROUND FLOOR	: 203.38 SQM.
FIRST FLOOR	: 266.66 SQM.
SECOND FLOOR	: 25.80 SQM.
MUMTITY	: 25.80 SQM.
TOTAL BUA	: 627.65 SQM.

OPENING SCHEDULE

S. NO.	TYPE	NAME	SIZE
1.	D	DOOR	1.00X2.10M.
2.	D1	DOOR	0.90X2.10M.
3.	D2	DOOR	0.80X2.10M.
4.	W0	WINDOW	1.80X1.50M.
5.	W1	WINDOW	1.50X1.50M.
6.	W2	WINDOW	1.20X1.50M.
7.	V	VENTILATOR	1.00X1.00M.
8.	V1	VENTILATOR	0.60X0.60M.

REVISIONS

S. NO.	REV	DATE	DESCRIPTION
1.			
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NOTE: This Drawing is based on the concept drawing provided by CGHB EE Korba

EXECUTIVE ENGINEER
CGHB, KATGHORA, STRUC. PLAN

ARCHITECTS
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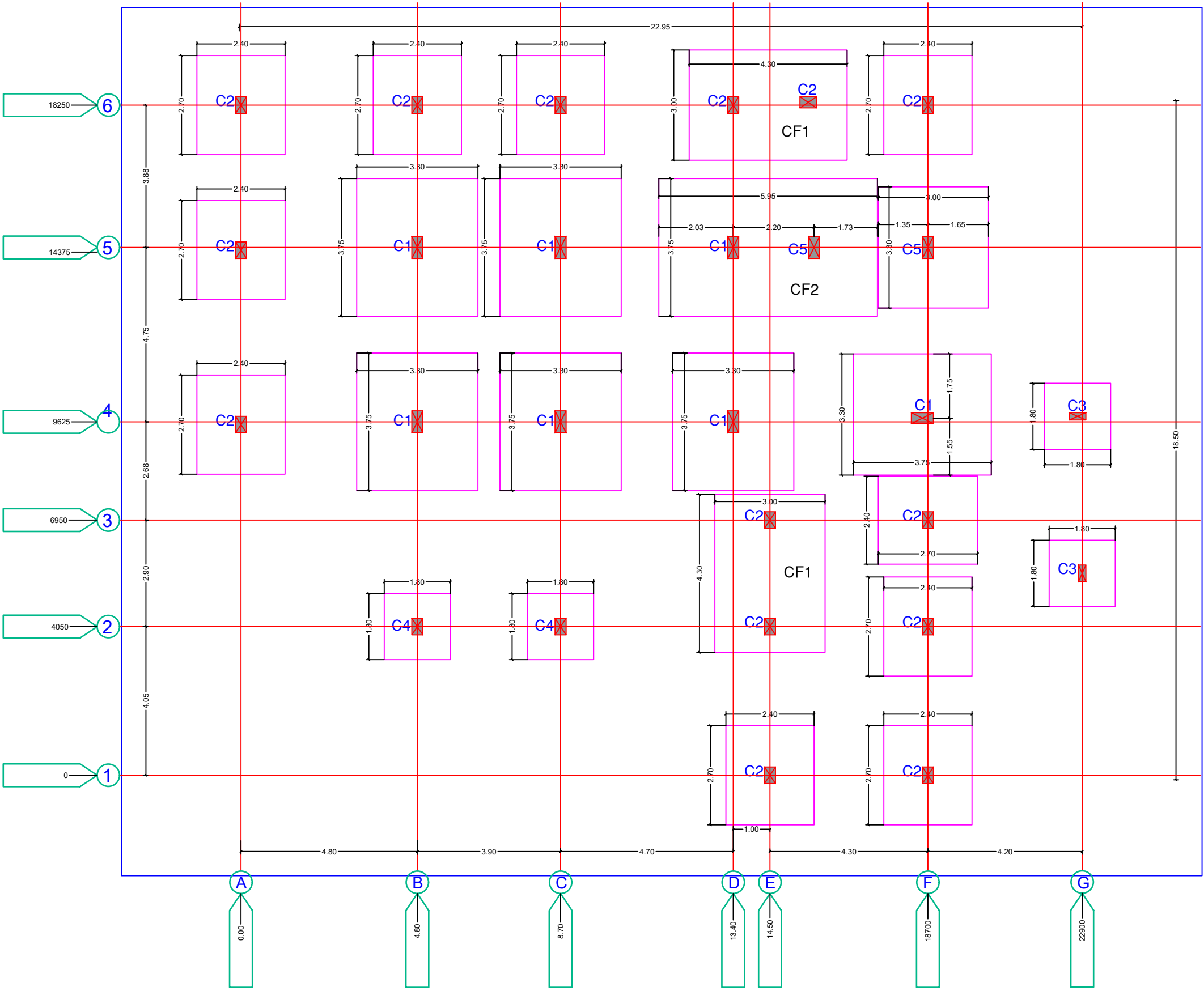
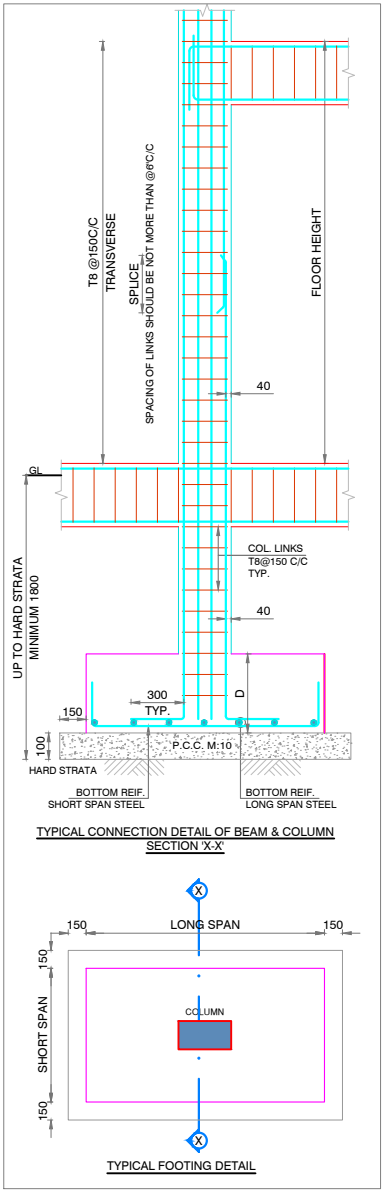
STRUCTURAL ENG.
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SCALE : NTS
DRAWN : VMS
CHECKED : HIMANSHU
DATE : 01/09/2025



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FOOTING SCHEDULE

TOP STEEL	SHORT DIR	T10@125 C/C	---	---	---	T10@125 C/C
	LONG DIR	T10@125 C/C	---	---	---	T10@125 C/C
BOTTOM STEEL	SHORT DIR	T12@125 C/C	T12@150 C/C	T10@125 C/C	T10@150 C/C	T12@125 C/C
	LONG DIR	T12@125 C/C	T12@150 C/C	T10@125 C/C	T10@150 C/C	T12@125 C/C
DETAIL OF FOOTING	D,d	600	450	400	400	600
	SIZE	3750 x 3300	2400 x 2700	1800 x 1800	1800 x 1800	3300 x 3000
P.C.C	150 THK	4050 x 3700	2700 x 3000	2100 x 2100	2100 x 2100	3700 x 3300
COLUMNS MARKED		C1/F1	C2/F2	C3/F3	C4/F4	C5/F5
REMARKED		BOX	BOX	BOX	BOX	BOX

SCHEDULE OF COLUMNS & FOOTINGS

COLUMN NO.	EXCAVATION SIZE	PCC. THK.	FOUNDATION		BOT. REINFORCEMENT		TOP REINFORCEMENT	
			FOOTING SIZE	FOOTING DEPTH	LONG LOWER TIER	SHORT UPPER TIER	LONG LOWER TIER	SHORT UPPER TIER
CF1	---	100	4300 x 3000	450	12 \varnothing @150	12 \varnothing @150	10 \varnothing @150	10 \varnothing @150
CF2	---	100	5950 x 3750	600	12 \varnothing @125	12 \varnothing @125	10 \varnothing @125	10 \varnothing @125

CONCRETE MIX : M 25, GRADE OF STEEL : Fe 500

1. Gross Safe Bearing Capacity - 112.23 kN/m2
As per information from CGHB EE Korba
2. Depth of foundation shall be atleast 2m Below NGL or till the required SBC is attained

FOOTING LAYOUT

1. SAFE BEARING CAPACITY OF SOIL S.B.C. OF SOIL FOR DESIGN OF FOUNDATION HAS BEEN TAKEN AS SPECIFIED MINIMUM DEPTH SHALL BE UP TO HARD STRATA. IN CASE OF ANY DOUBT REGARDING S.B.C. DURING EXCAVATION, THE MATTER SHALL BE REPORTED TO THE GEO-TECH. CONSULTANT.	
2. REINFORCING STEEL	
U.N.O. ALL REINFORCEMENT SHALL BE OF HIGH STRENGTH DEFORMED BARS OF SPECIFIED GRADE. CONFORMING TO IS 1786 ALL REINFORCING STEEL TO BE OF TESTED QUALITY.	
3. CONCRETE	
U.N.O. CONCRETE MIX FOR ALL ELEMENT SHALL BE OF SPECIFIED GRADE. CONFORMING TO IS 456-2000.	
4. P.C.C.	
PLAIN CEMENT CONCRETE M-10	
5. COVER	
U.N.O. IN THE DWG. CLEAR COVER TO MAIN REINFORCEMENT SHALL BE AS FOLLOWS :- (1) FOOTING (50 mm) (3) BEAM (25 mm) (2) COLUMN (40 mm) (4) SLAB (20 mm) OR DIM. OF BAR WHICHEVER IS GREATER.	
GENERAL NOTES	
1. EXTRA TOP OR BENT-UP BARS SHALL BE EXTENDED UP TO 0.3m IN ADJACENT SPAN OVER A CONTINUOUS SUPPORT AND ANCHOR DOWN AT END SUPPORT. 2. AT BEAM & COLUMN JUNCTION, BEAM BARS IF IN CONFLICT WITH COLUMN BARS SHALL BE GRADUALLY BENT & PLACED CLEAR OF COLUMN BARS. UNDER NO CIRCUMSTANCES COLUMN VERTICAL BARS SHALL BE BENT TO ACCOMMODATE BEAM BARS. 3. UNDESIGNATED JOINTS IN BEAM COLUMN JUNCTION SHALL BE PROVIDED AT THE DIRECTIONS OF COLUMN. THE SPACING SHOULD BE DOUBLED. 4. RINGS/STIRRUPS SIZE IN COLUMN IS SAME BELOW AND ABOVE G.L. 5. U.N.O. MINIMUM LAP LENGTH SHALL BE 50 TIMES OF BAR DIAMETER OF SMALLER BAR AT ANY SECTION. 6. NOT MORE THAN 50% OF BARS SHALL BE LAPPED AT A SECTION. 7. THE LOCATION OF LAPPING SHALL BE AVOIDED AS FOLLOWS :- a) FOR FLOOR BEAMS/SLAB CLOSE TO MID SPAN IN BOTTOM BARS & CLOSE TO SUPPORT IN TOP BARS. b) FOR FOUNDATION BEAMS/SLAB CLOSE TO MID SPAN IN TOP BARS & CLOSE TO SUPPORT IN BOTTOM BARS. 8. TOP BARS OF COLUMN SHALL BE BENT 90° AND BENT 45° TO SET FLOORS. 9. STRIPPERS FOR CANTILEVER BEAMS TO HAVE HOOK AT BOTTOM. 10. USE OF HEAVY VIBRATOR AND PLASTERER RECOMMENDED FOR R.C.C. WORK. 11. BURST OIL NOT PERMITTED FOR DE-SHUTTERING. 12. CURING :- EXPOSED SURFACE OF CONCRETE SHALL BE KEPT CONTINUOUSLY IN WET CONDITION MINIMUM FOR 14 DAYS. 13. CUTOFF OPENING :- ANY TYPE OF OPENINGS FOR PLUMBING, DRAINAGE OR ELECTRICAL NOT PERMITTED IN R.C.C. BEAMS AND COLUMNS DURING OR AFTER CASTING. FOR SLEEVES PROVIDE ADLT. TWO RINGS SPACED @ 75MM C/C ON EITHER SIDE OF IT. 14. U.N.O. IN THE DWG. CONSTRUCTION JOINT SHOULD BE APPROVED BY ENGINEER AT SITE. 15. READ THIS DWG. WITH RELEVANT ARCHITECTURAL & SERVICES DWG. TO BE PROVIDED BY ARCHITECT. NO CONSTRUCTION SHALL BE ALLOWED UNLESS ALL DIMENSIONS ARE IN MM. EXCEPT IN A NOTE, LEVELS ARE IN METER. 16. IN CASE OF ANY AMBIGUITY, PLEASE BRING IT TO THE NOTICE OF THIS OFFICE BEFORE EXECUTION OF WORK. 17. SHUTTERING & SCAFFOLDING IS AT THE RESPONSIBILITY OF CONTRACTOR. 18. STRIPPING TIME TABLE AS PER IS 456-2000. 19. TOP BARS OF ALL CANTILEVER BEAM / SLAB SHOULD BE EXTENDED ON OPPOSITE SIDE UP TO 1.5 TIMES CANTILEVER PROJECTION U.N.O. U.N.O. : UNLESS NOTED OTHERWISE	

DRG. TITLE (EE & AE OFFICE FOR IRRIGATION DEPARTMENT) FOOTING LAYOUT		CLIENT NAME EXECUTIVE ENGINEER, CHHATTISGARH HOUSING BOARD DIVISION -KORBA,DISTRICT -KORBA	CLIENT NAME REDEVELOPMENT SCHEME AT KATGHORA SITE 2 (GOVT FACILITY PART)	AREA STATEMENT BUILT UP AREA : GROUND FLOOR : 229.81 SQM, FIRST FLOOR : 203.38 SQM, SECOND FLOOR : 166.66 SQM, MUMMITY : 25.80 SQM, TOTAL BUA : 625.65 SQM.	OPENING SCHEDULE S. NO. TYPE NAME SIZE 1. D DOOR 1.00X2.10M, 2. D1 DOOR 0.90X2.10M, 3. D2 DOOR 1.80X1.50M, 4. W1 WINDOW 1.20X1.50M, 5. W2 WINDOW 1.00X1.50M, 6. W3 WINDOW 1.00X1.50M, 7. V VENTILATOR 0.60X0.60M.	REVIEWS S. NO. REV DATE DESCRIPTION CGHB_KATGHORA_STRUC_JMAN	EXECUTIVE ENGINEER Ar. Abhinav Jaiswal Raipur C-10, Rajendra Park, Motowar Nagar Raipur, Chhattisgarh Mob:- +91-8817280410 E-mail: ar.abhinavjaiswal31@gmail.com	STRUCTURAL ENG. AURA STRUCTURE CONSULTANT RAIPUR Shop No.-205 First Floor, Shivam Square, pandit Rajpur(C.G.) E-mail: aurodesignsraipur@gmail.com Mob:-9907940866	MEP. CONSULTANT SCALE : NTS PAGE NO. : CHECKED : HIMANSHU DESIGN : VMS	DATE : 01/09/2025
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SCHEDULE OF GROUND BEAMS

SCHEDULE OF PLINTH BEAMS

1. Gross Safe Bearing Capacity - 112.23 kN/m²
As per information from CGHB EE Korba

2. Depth of foundation shall be atleast 2m Below NGL or till the required SBC is attained

6. NOT MORE THAN 50% OF BARS SHALL BE LAPWELDED AT A SECTION. THE LOCATION OF LAP JOINTS SHALL BE AVOIDED AS FOLLOWS :-
a) FOR TOP BEAMS: IN LAB CLOSE TO MID SPAN IN BOTTOM BARS
b) FOR COLUMN BEAMS: LAB CLOSE TO MID SPAN IN TOP BARS
c) FOR FOUNDATION BEAM: LAB CLOSE TO MID SPAN IN TOP BARS & CLOSE TO SUPPORT IN BOTTOM BARS

7. IN STRINGS LAPWELDING OF BARS IS NOT PERMITTED BET. 1 BOTTOM BARS & 1 STRINGER FOR CANTILEVER BEAMS TO HAVE HOOK AT BOTTOM

8. STAGGERED LAPWELDING OF BARS SHALL BE AVOIDED

9. TO USE OF REINER VIBRATOR AND PLASTISIZER RECOMMENDED FOR R.C.C. WORK

11. USE OF ENHANCED CONCRETE IN MASONRY FOR SHUTTERING & FORMWORK

12. BURNT OIL NOT PERMITTED FOR DESHUTTERING.

13. CURING:
EXPOSED SURFACE OF CONCRETE SHALL BE KEPT CONTINUOUSLY IN WET CONDITION MINIMUM FOR 14 DAYS.

14. CUTOFF OPENING:
ANY TYPE OF OPENINGS FOR PLUMBING, DRAINAGE OR ELECTRICAL NOT PERMITTED IN R.C.C BEAMS AND COLUMNS DURING OR AFTER CASTING.

15. REINFORCEMENT PROVIDER: ALL TWO RINGS SPACED @ 75MM C/C ON EITHER SIDE OF IT.

16. U.O. IN THE DGC: CONSTRUCTION JONT SHOULD BE APPROVED BY ENGINEER AT SITE.

CONSTRUCTION JONT SHOULD BE AT QUARTER SPAN OF BEAM AND LAB IN NO CONDITION SHOULD BE AT THE SUPPORT.

READ THIS DGC WITH RELEVANT ARCHITECTURAL & SERVICES DMC.

18. DO NOT SCALE THE DGC. UNO, WRETTED UNDO ARE TO BE FOLLOWED

19. ALL DIMENSIONS ARE IN MM. EXCEPT IN LAB/UT LEVELS ARE IN METRE.

20. THIS OFFICE BEFORE EXECUTION OF WORK

21. SHUTTERING & SCOFFOLDING IS AT THE RESPONSIBILITY OF CONTRACTOR

22. STRIPPING TIME TABLE AS PER IS-8660-2000

23. TOP BARS OF ALL CANTILEVER BEAM & LAB SHOULD BE EXTENDED ON OPPOSITE SIDE UP TO 1.5 TIMES CANTILEVER PROTECTION UNO.

UNO - UNLESS NOT OTHERWISE

GENERAL NOTES

U.N.O. IN THE DWG. CLEAR COVER TO MAIN REINFORCEMENT SHALL BE AS FOLLOWS :-

(1) FOOTING (50 mm)	(3) BEAM (25 mm)
(2) COLUMN (40 mm)	(4) SLAB (20 mm)

OR DIA. OF BAR WHICHEVER IS GREATER.

PLAIN CEMENT CONCRETE M-10

U.N.O. CONCRETE MIX FOR ALL ELEMENT SHALL BE OF SPECIFIED GRADE CONFORMING IS: 456-2000.

4.P.C.C.

ALL REINFORCEMENT SHALL BE OF HIGH STRENGTH CONCRETE. ALL REINFORCING STEEL SHALL BE OF HIGH STRENGTH DEFORMED BARS OF SPECIFIED GRADE. CONFORMING TO IS:1786. ALL REINFORCING STEEL TO BE OF TESTED QUALITY.

2. REINFORCING STEEL

1. SAFE BEARING CAPACITY OF SOIL

CONCRETE MIX : M 25, GRADE OF STEEL : Fe 500

CLIENT NAME	DRG. TITLE
 <p>EXECUTIVE ENGINEER, CHHATTISGARH HOUSING BOARD DIVISION -KORBA, DISTRICT -KORBA</p>	<p>(EE & AE OFFICE FOR IRRIGATION DEPARTMENT) PLINTH BEAM LAYOUT</p>

CLIENT NAME
REDEVELOPMENT SCHEME
AT KATGHORA SITE 2
(GOVT FACILITY PART)

BUILT UP AREA :	
GROUND FLOOR	: 229.81 SQM.
FIRST FLOOR	: 203.36 SQM.
SECOND FLOOR	: 168.66 SQM.
MUMMINTY	: 25.80 SQM.

OPENING SCHEDULE

S. NO.	TYPE	NAME	SIZE
1.	D	DOOR	1.00X2.10M.
2.		DOOR	0.90X2.10M.
3.	D1	DOOR	0.80X2.10M.
4.	D2	WINDOW	1.80X1.50M.
5.	W1	WINDOW	1.50X1.50M.
6.	W2	WINDOW	1.20X1.50M.
7.	V	VENTILATOR	1.00X1.50M.
		VENTILATOR	0.60X0.80M.

[illegible]

NOTE: This Drawing is a based on the concept drawing provided by C.G.H.B. Division Kerala

EXECUTIVE ENGINEER

ARCHITECTS


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E-mail: ar.abhinavjaiswal3@gmail.com

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MEP. CONSULTANT

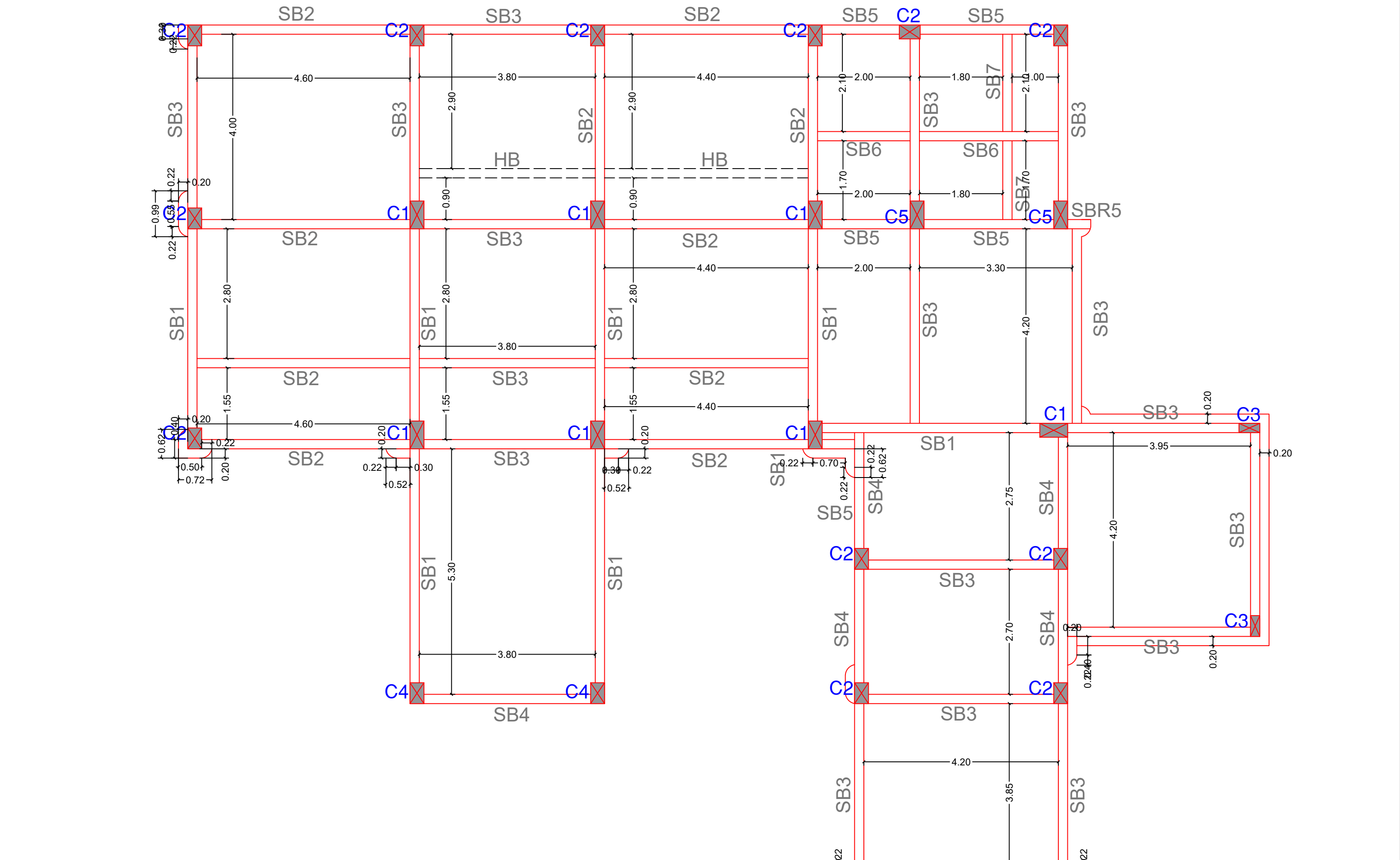
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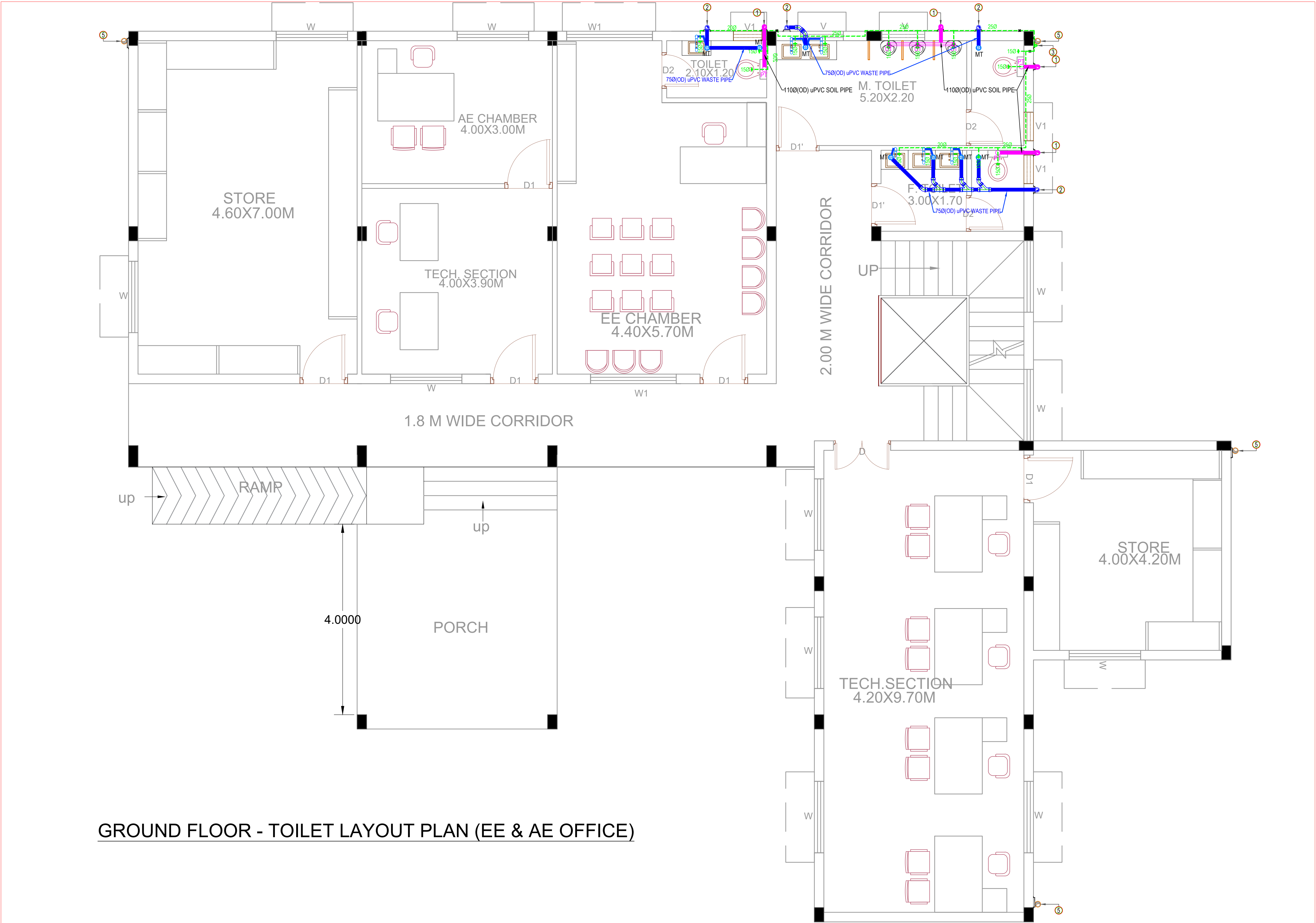
DRG. TITLE		(EE & AE OFFICE FOR IRRIGATION DEPARTMENT) GROUND FLOOR SLAB BEAM PLAN
CLIENT NAME	EXECUTIVE ENGINEER, CHHATTISGARH HOUSING BOARD DIVISION -KORBA,DISTRICT -KORBA	
CLIENT NAME	REDEVELOPMENT SCHEME AT KATGHORA SITE 2 (GOVT FACILITY PART)	
AREA STATEMENT	BUILT UP AREA : GROUND FLOOR : 229.81 SQM, FIRST FLOOR : 203.38 SQM, SECOND FLOOR : 168.66 SQM, MUUMITY : 25.80 SQM, TOTAL BUA : 627.65 SQM.	
OPENING SCHEDULE		
S. NO.	TYPE	NAME SIZE
1.	D	DOOR 1.00X2.10M.
2.	D1	DOOR 0.90X2.10M.
3.	D2	DOOR 1.80X2.10M.
4.	W2	WINDOW 1.50X1.50M.
5.	W1	WINDOW 1.20X1.50M.
6.	W4	WINDOW 1.00X1.00M.
7.	V	VENTILATOR 0.60X0.60M.

1. SAFE BEARING CAPACITY OF SOIL	S.B.C. OF SOIL FOR DESIGN OF FOUNDATION HAS BEEN TAKEN AS SPECIFIED MINIMUM DEPTH SHALL BE UP TO HARD STRATA. IN CASE OF ANY DOUBT REGARDING S.B.C. DURING EXCAVATION, THE MATTER SHALL BE REPORTED TO THE GEO-TECH. CONSULTANT.
2. REINFORCING STEEL	U.N.O. ALL REINFORCEMENT SHALL BE OF HIGH STRENGTH DEFORMED BARS OF SPECIFIED GRADE CONFORMING TO IS 1786 ALL REINFORCING STEEL TO BE OF TESTED QUALITY.
3. CONCRETE	U.N.O. CONCRETE MIX FOR ALL ELEMENT SHALL BE OF SPECIFIED GRADE CONFORMING TO IS 456:2000.
4. P.C.C.	PLAN CEMENT CONCRETE M-10
5. COVER	U.N.O. IN THE DWG. CLEAR COVER TO MAIN REINFORCEMENT SHALL BE AS FOLLOWS : (1) FOOTING (60 mm) (3) BEAM (25 mm) (2) COLUMN (40 mm) (4) SLAB (20 mm) OR DIA. OF BAR WHICHEVER IS GREATER.
GENERAL NOTES	1. EXTRA TOP OR BENT-UP BARS SHALL BE EXTENDED UPTO 0.3M IN ADJACENT SPAN OVER A CONTIGUOUS SUPPORT, AND ANCHOR DOWN AT END SUPPORT. 2. AT BEAM & COLUMN JUNCTION, BEAM BARS IF IN CONFLICT WITH COLUMN BARS SHALL BE GRADUALLY BENT & PLACED CLEAR OF COLUMN BARS. UNDER NO CIRCUMSTANCES COLUMN VERTICAL BARS SHALL BE BENT TO ACCOMMODATE BEAM BARS. 3. REINFORCING STEEL IN BEAM COLUMN JUNCTION SHALL BE PROVIDED AT THE SPANNING LENGTH. HANGER & BEAMS ARE CONNECTED ON ALL THE FOUR DIRECTIONS OF COLUMN. THE SPACING SHOULD BE DOUBLED. 4. RINGS/STIRRUPS SIZE IN COLUMN IS SAME BELOW AND ABOVE G.L. 5. U.N.O. MINIMUM LAP LENGTH SHALL BE 50 TIMES OF BAR DIAMETER OR SMALLER BAR AT ANY SECTION. 6. NOT MORE THAN 50% OF BARS SHALL BE LAPPED AT A SECTION. THE LOCATION OF LAPING SHALL BE AVOIDED AS FOLLOWS : a) FOR FLOOR BEAMS/SLAB CLOSE TO MID SPAN IN BOTTOM BARS & CLOSE TO SUPPORT IN TOP BARS. b) FOR FOUNDATION BEAMS/SLAB CLOSE TO MID SPAN IN TOP BARS & CLOSE TO SUPPORT IN BOTTOM BARS. 7. TOP BARS & BOTTOM BARS IN BEAM SHOULD NOT BE LAPPED AT FLOORS. 8. STRIPPINGS FOR CANTILEVER BEAMS TO HAVE HOOK AT BOTTOM. 9. REMARK : LEGGED MEANS AT ALL LOCATIONS U.N.O. 10. USE OF NEEDLE VIBRATOR AND PLAYSIZER RECOMMENDED FOR R.C.C. WORK. 11. USE DERIVISED COATED PLYWOOD FOR SHUTTERING & FORMWORK. 12. BURST OIL NOT PERMITTED FOR DE-SHUTTERING. 13. CURING : EXPOSED SURFACE OF CONCRETE SHALL BE KEPT CONTINUOUSLY IN WET CONDITION MINIMUM FOR 14 DAYS. 14. CURTAIN OPENING : ANY TYPE OF OPENINGS FOR PLUMBING, DRAINAGE OR ELECTRICAL NOT PERMITTED IN R.C.C. BEAMS AND COLUMNS DURING OR AFTER CASTING. 15. FOR SLEEVES PROVIDE A.D.T. TWO RINGS SPACED @ 75MM O.C. ON EITHER SIDE OF IT. 16. U.N.O. IN THE DWG. CONSTRUCTION JOINT SHOULD BE APPROVED BY ENGINEER AT SITE. CONSTRUCTION JOINT SHOULD BE AT QUARTER SPAN OF BEAM AND SLAB IN NO CONDITION SHOULD BE AT THE SUPPORT. 17. READ THIS DWG. WITH RELEVANT ARCHITECTURAL & SERVICES DWG. 18. ALL DIMENSIONS ARE IN MM. EXCEPT IN VENTILATOR LENGTHS ARE IN METERS. 19. IN CASE OF ANY AMBIGUITY, PLEASE BRING IT TO THE NOTICE OF THIS OFFICE BEFORE EXECUTION OF WORK. 20. SHUTTERING & SCAFFOLDING IS AT THE RESPONSIBILITY OF CONTRACTOR. 21. STRIPPING TIME TABLE AS PER IS 456:2000. 22. TOP BARS OF ALL CANTILEVER BEAM / SLAB SHOULD BE EXTENDED ON OPPOSITE SIDE UP TO 1.5 TIMES CANTILEVER PROJECTION U.N.O. U.N.O. : UNLESS NOTED OTHERWISE

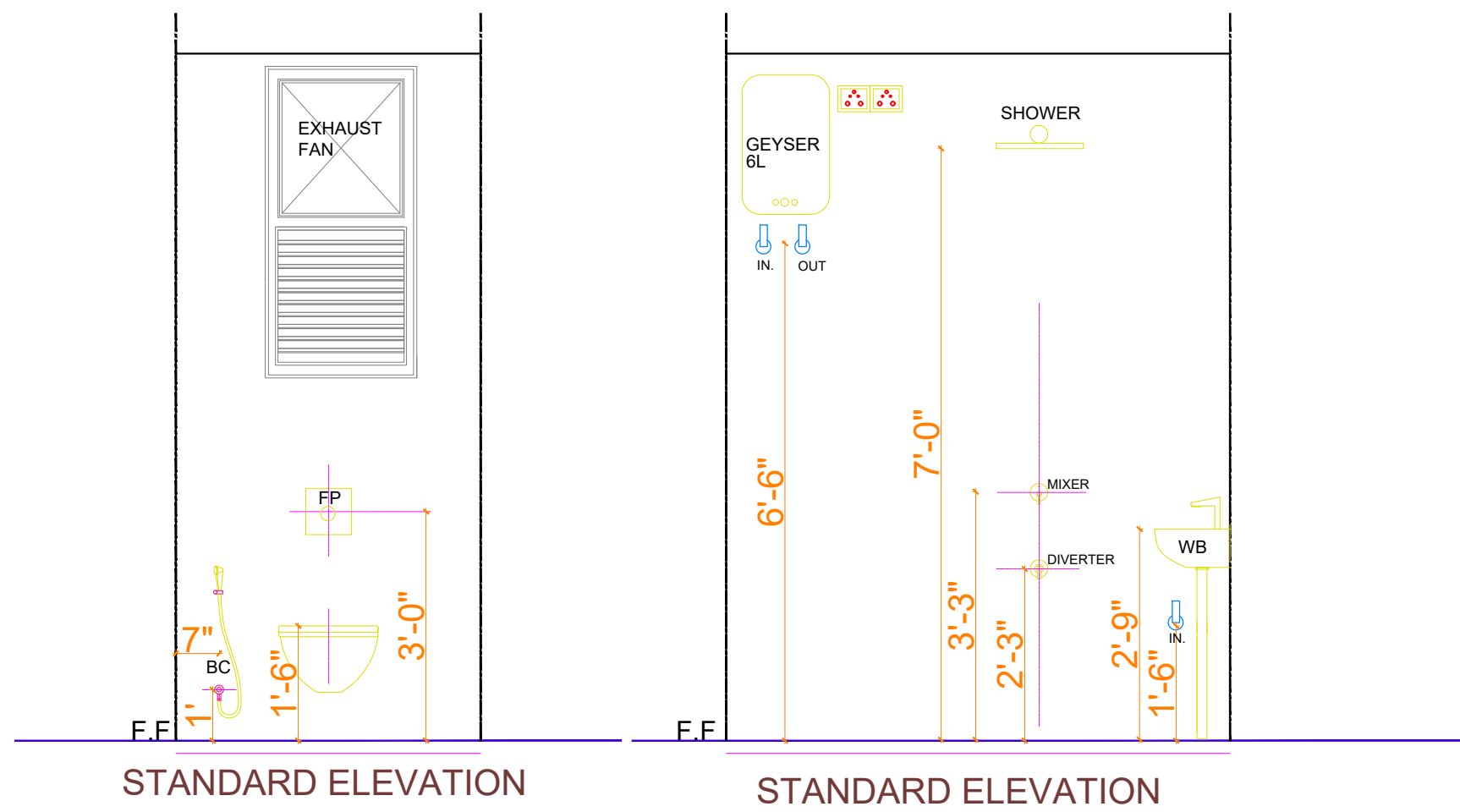
BEAM NO.	SIZE		BOTTOM REINFORCEMENT		TOP REINFORCEMENT		STIRRUPS		REMARK
	B	D	THROUGH OUT	MID SPAN 0.7xL	THROUGH OUT	EXTRA TOP 0.25xL FROM FACE OF COLUMN ON EACH SIDE	UPTO 2D FROM FACE OF COLUMN	AT MID SPAN	
SB1	200	450	2x16	2x16	2x16	2x16	8 @ 150	8 @ 150	---
SB2	200	450	3x12	2X16	3x12	2X16	8 @ 150	8 @ 150	---
SB3	200	450	2x12	2X16	2x12	2X16	8 @ 150	8 @ 150	---
SB4	200	450	2x12	2X12	2x12	2X12	8 @ 150	8 @ 150	---
SB5	200	450	3X12	---	3X12	---	8 @ 150	8 @ 150	---
SBR5	200	450	3X12	---	6X12	---	8 @ 150	8 @ 150	CANTILEVER
SB6	200	350	3x12	---	3x12	---	8 @ 150	8 @ 150	---
SB7	200	300	2x12	---	2x12	---	8 @ 150	8 @ 150	---
HB	300	125	3x12	---	3x12	---	8 @ 150	8 @ 150	---

GROUND FLOOR SLAB BEAM PLAN





GROUND FLOOR - TOILET LAYOUT PLAN (EE & AE OFFICE)

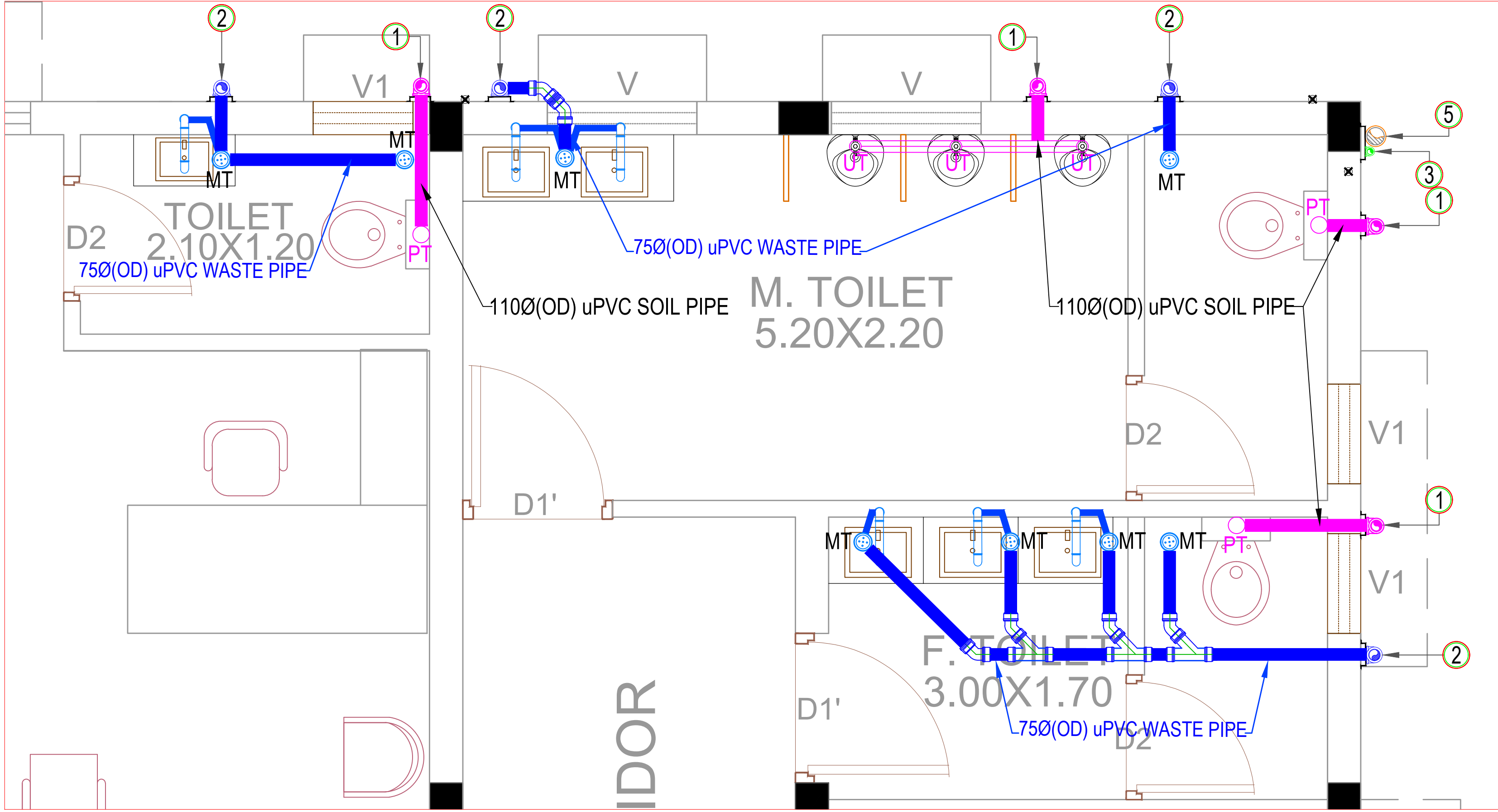


LEGEND FOR PLUMBING	
MARK	DESCRIPTION
✕	BALL VALVE / CONTROL VALVE
1100(OD) uPVC SOIL PIPE	1100(OD) uPVC SOIL PIPE
750(OD) uPVC WASTE PIPE	750(OD) uPVC WASTE PIPE
40 Ø(OD) uPVC WASTE PIPE	40 Ø(OD) uPVC WASTE PIPE
1100(OD) PVC RAIN WATER PIPE	1100(OD) PVC RAIN WATER PIPE
M.T	MULTI TRAP
F.T	FLOOR TRAP
G.T	GULLY TRAP 300X300
M.H.S	MANHOLE FOR SEWERAGE 600X600
CB	CATCH BASIN 450X450
DRINKING/COOL WATER SUPPLY PIPE	DRINKING/COOL WATER SUPPLY PIPE
HOT WATER SUPPLY PIPE	HOT WATER SUPPLY PIPE
750(OD) PVC RAIN WATER PIPE	750(OD) PVC RAIN WATER PIPE
PT	P - TRAP
BOTTLE - TRAP	BOTTLE - TRAP
3" SHOWER DRAIN	3" SHOWER DRAIN
UT	URINAL - TRAP

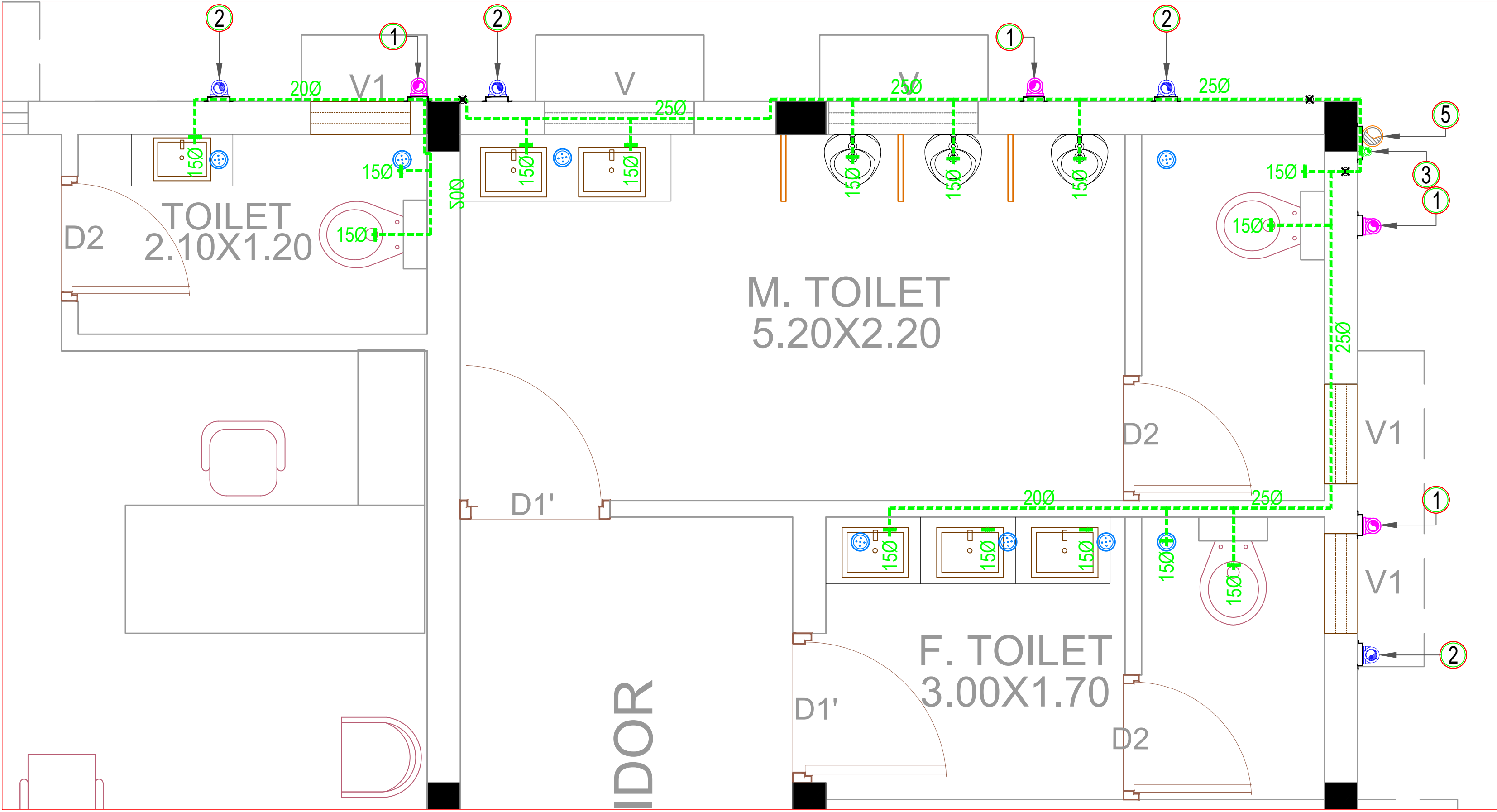
REDEVELOPMENT SCHEME
AT KATGHORA SITE 2
(GOVT FACILITY PART)

NO.	DATE	ISSUED
PRINTS ISSUED		

S. NO.	REV	DATE	DESCRIPTION
05	RO		EE OFFICE - BLOCK PLUMBING DWG - CGHB, KATGHORA



COMMON TOILET - WASTE WATER LINE PLAN



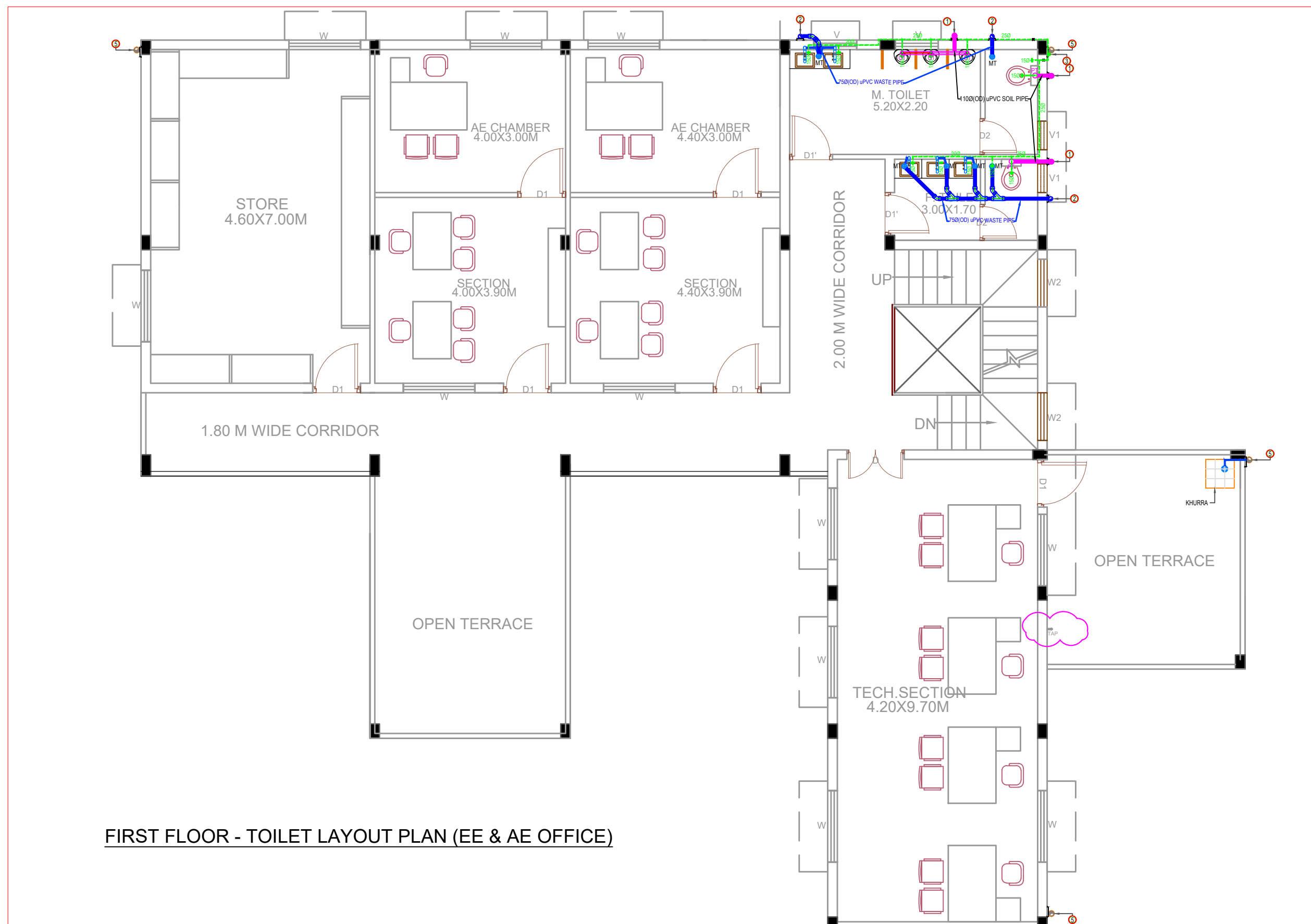
COMMON TOILET - WATER SUPPLY LINE PLAN





















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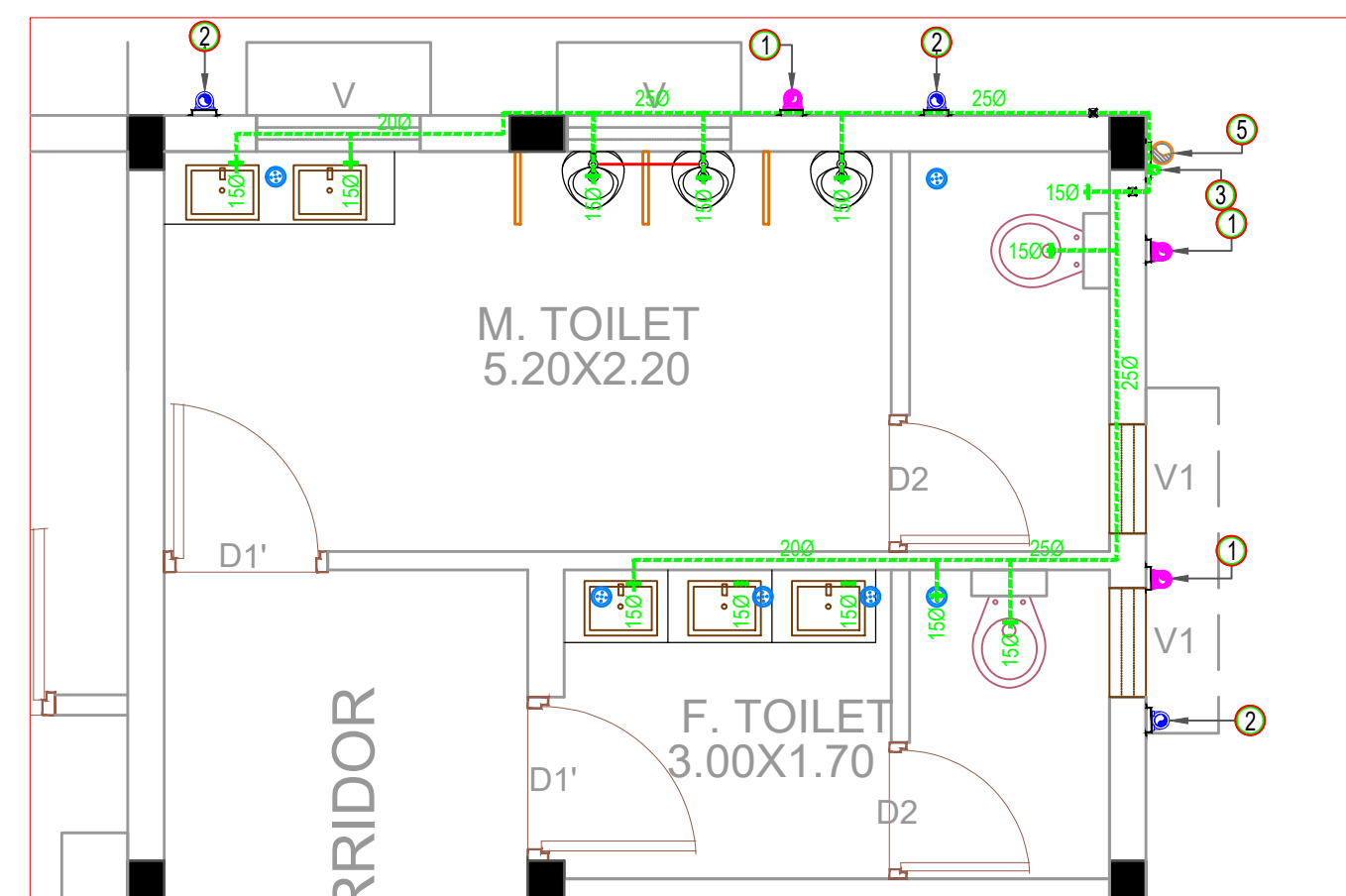
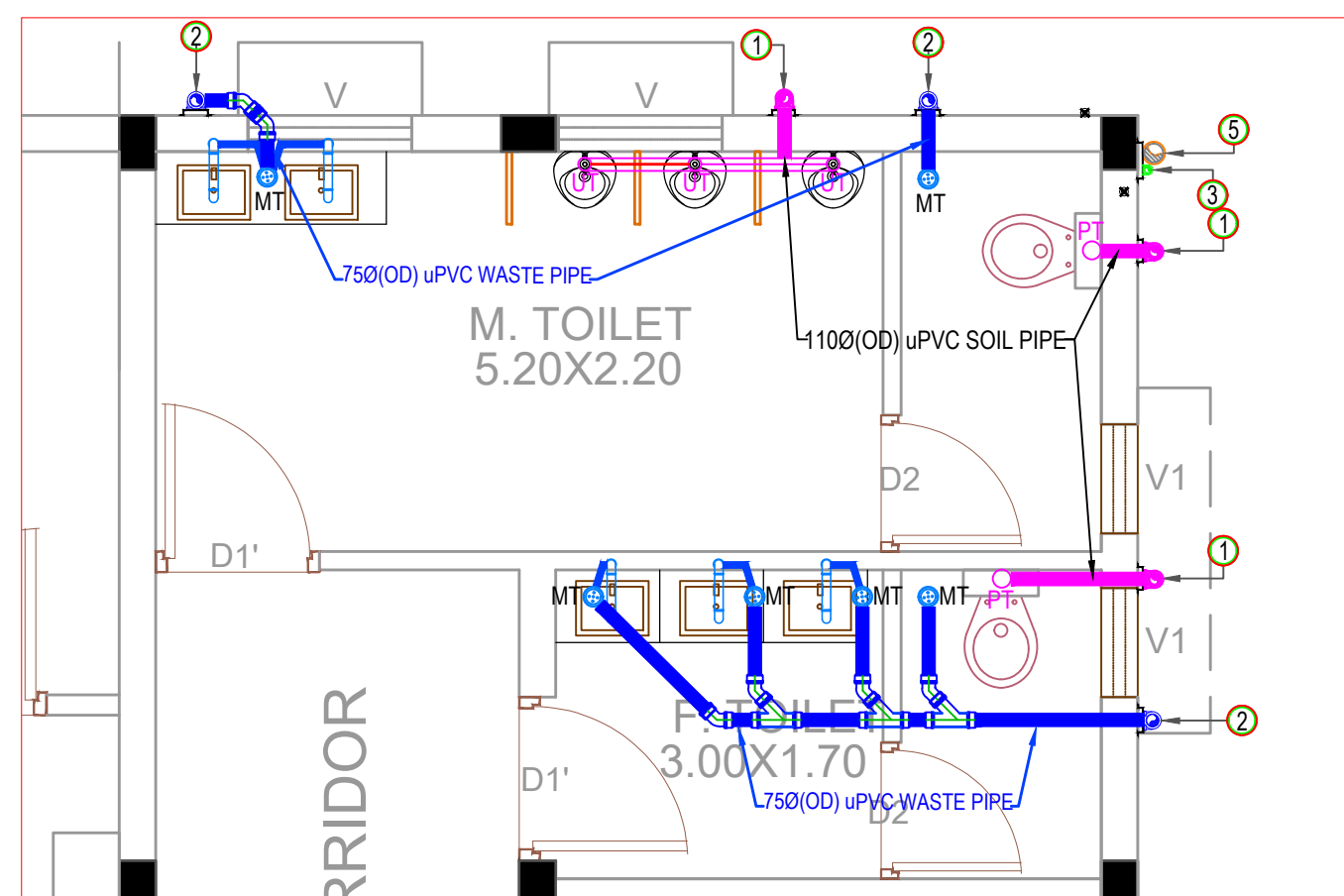


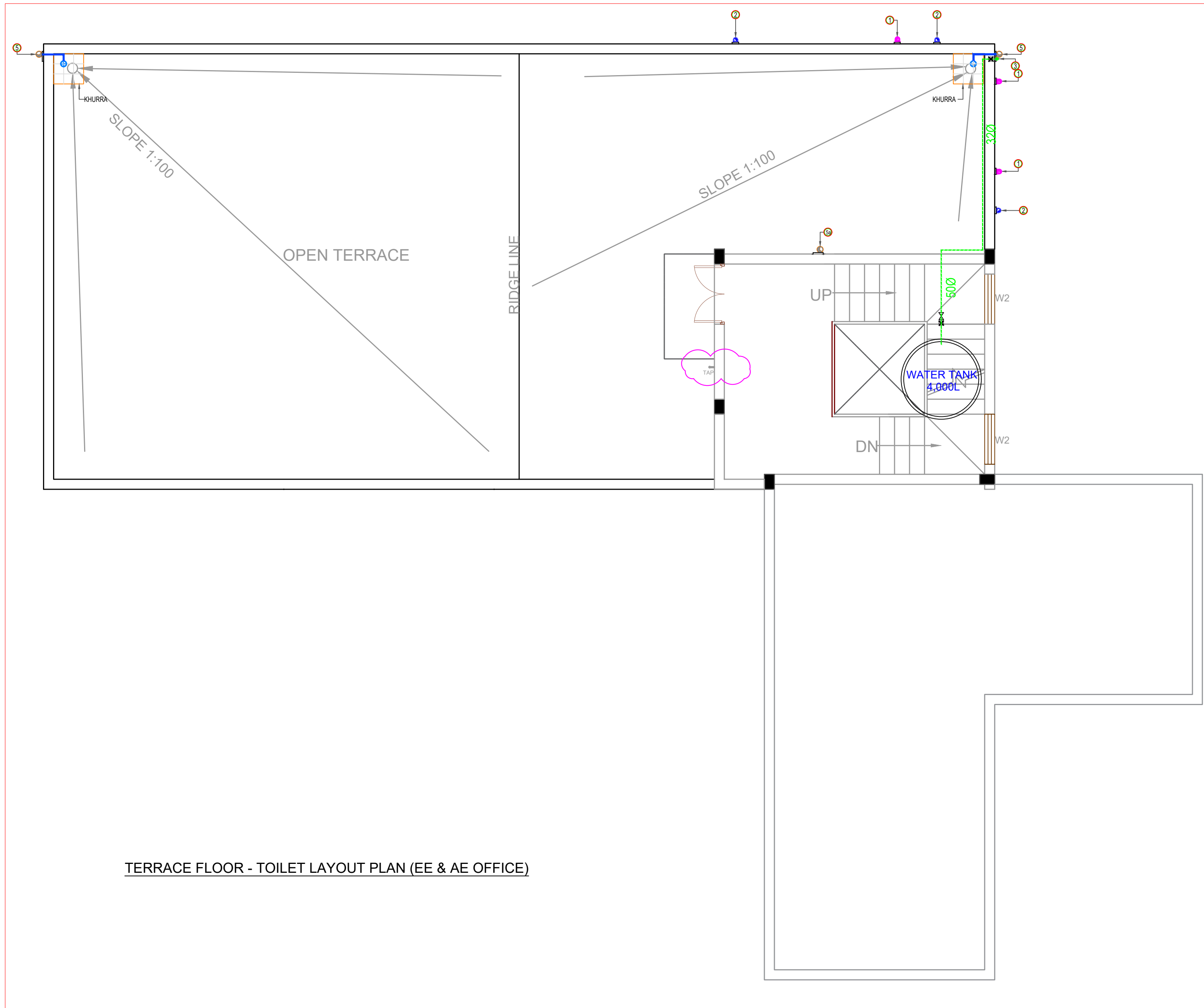
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	NO.	DRAWN :





















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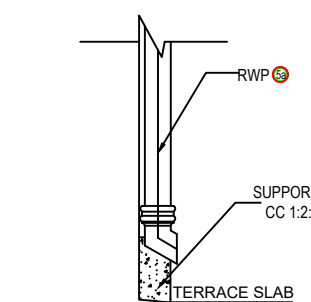
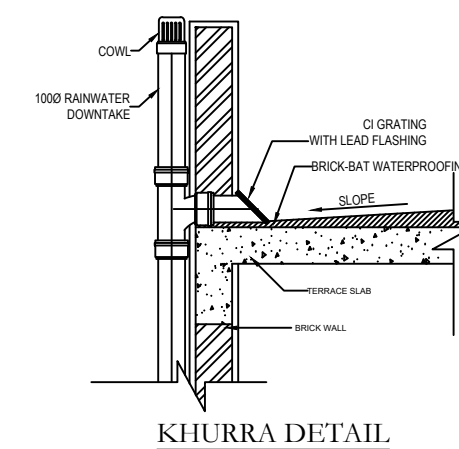






LEGEND FOR PLUMBING			
MARK	DESCRIPTION		
	BALL VALVE / CONTROL VALVE		
	uPVC SOIL PIPE		①
	uPVC WASTE PIPE		②
	40 (OD) uPVC WASTE PIPE		
	110(OD) PVC RAIN WATER PIPE		③
M.T	MULTI TRAP		
F.T	FLOOR TRAP		
G.T	GULLY TRAP 300x300		
M.H.S	MANHOLE FOR SEWERAGE 600x600		
CB	CATCH BASIN 450x450		
	DRINKING/COOL WATER SUPPLY PIPE		④
	HOT WATER SUPPLY PIPE		⑤
	75(OD) PVC RAIN WATER PIPE		⑥
PT	P - TRAP		
	BOTTLE - TRAP		
	3" SHOWER DRAIN		
UT	URINAL - TRAP		
	LIN		





LEGEND FOR PLUMBING			
MARK	DESCRIPTION		
	BALL VALVE / CONTROL VALVE		
	uPVC SOIL PIPE		①
	uPVC WASTE PIPE		②
	40 (OD) uPVC WASTE PIPE		
	1100 (OD) PVC RAIN WATER PIPE		⑤
M.T	MULTI TRAP		
F.T	FLOOR TRAP		
G.T	GULLY TRAP 300X300		
M.H.S	MANHOLE FOR SEWERAGE 600X600		
CB	CATCH BASIN 450X450		
	DRINKING/COOL WATER SUPPLY PIPE		③
	HOT WATER SUPPLY PIPE		④
	750 (OD) PVC RAIN WATER PIPE		
PT	P - TRAP		
	BOTTLE - TRAP		
	3" SHOWER DRAIN		
UT	URINAL - TRAP		



DRG. TITLE		TERRACE FLOOR (EE & AE OFFICE) PLUMBING DRAWING		
CLIENT NAME		<div></div> <div>EXECUTIVE ENGINEER, CHHATTISGARH HOUSING BOARD DIVISION -KORBA,DISTRICT-KORBA</div>		
PROJECT		REDEVELOPMENT SCHEME AT KATGHORA SITE 2 (GOVT FACILITY PART)		
REVISIONS				
NO.		DATE	ISSUED	
PRINTS ISSUED				
S. NO.		REV	DATE	DESCRIPTION
05 - RO - EE OFFICE		-BLOCK PLUMBING DWG - CGHB,		
		KATGHORA		
EXECUTIVE ENGINEER				
ARCHITECTS		Ar. Abhinav Jaiswal Raipur C-10, Rajendra Park, Mahaveer Nagar, Raipur, Chhattisgarh Mob:- +91-8817780410 E-mail: ar.abhinavjaiswal31@gmail.com		
STRUCTURAL ENG.				
MEP. CONSULTANT		<div></div> <div>PLUMBING - FIRE - ELECTRICAL www.varunamepconsultant.com</div>		
NORTH		<div></div>		
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		DRAWN :		
USER: D:\VISHAL KUMAR\RAIPUR-16-08-2018\GOVT TENDER\JAA & VV\PLUMBING\05 - RO - EE OFFICE - BLOCK PLUMBING DWG - CGHB.INDIA This Drawing is a property of Ar. Abhinav Jaiswal , and is not to be produced, copied, handed over to a third party or used for any purpose other than which it is loaned for.				
DATE - 26/09/2025		307		

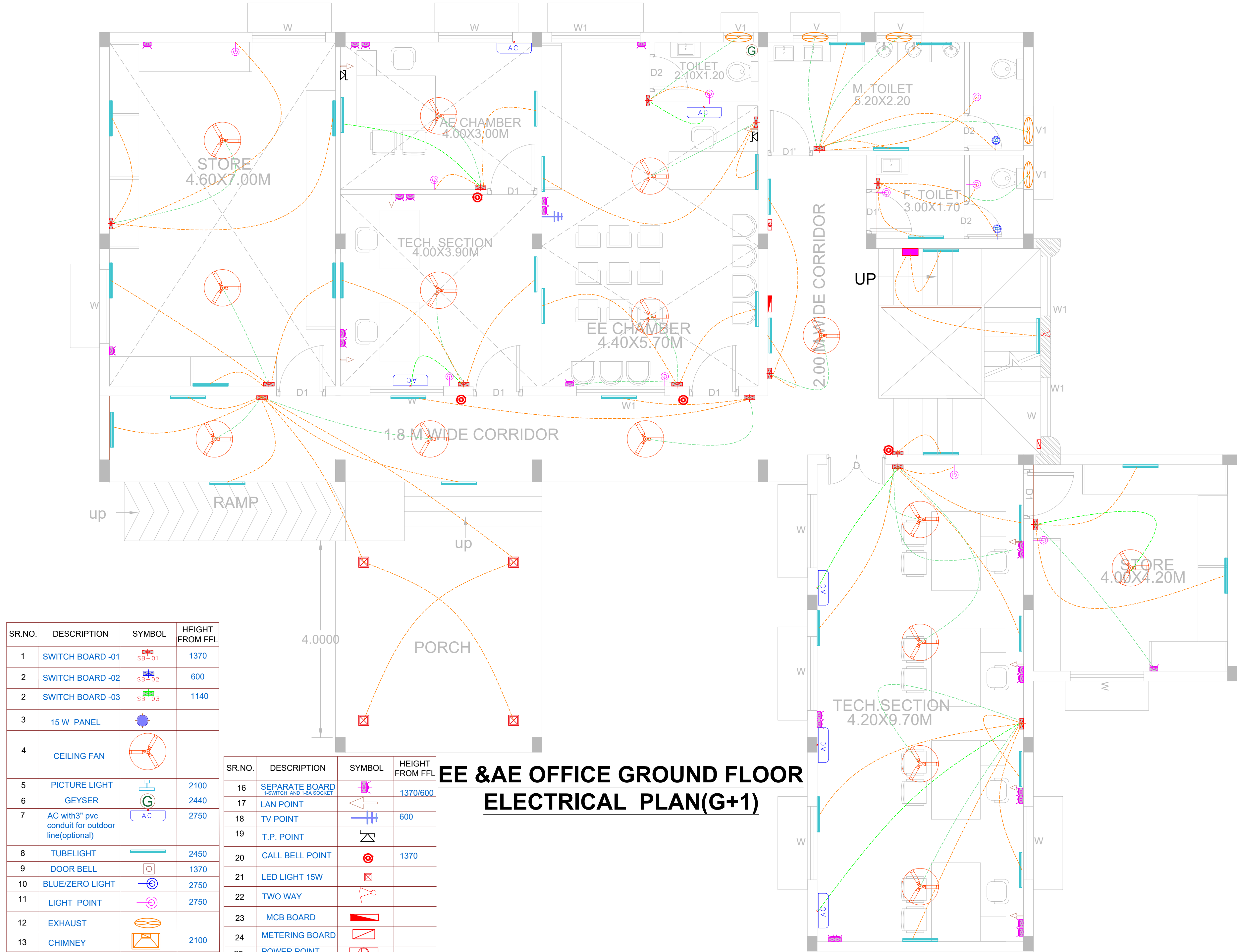
REVISED	NO.	DATE	ISSUED	
	PRINTS ISSUED			
S. NO.	REV	DATE	DESCRIPTION	

EXECUTIVE ENGINEER

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STRUCTURAL ENG.

MEP. CONSULTANT
VARUNA
PLUMBING - FIRE - ELECTRICAL
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SR.NO.	DESCRIPTION	SYMBOL	HEIGHT FROM FFL
1	SWITCH BOARD -01	SB-01	1370
2	SWITCH BOARD -02	SB-02	600
2	SWITCH BOARD -03	SB-03	1140
3	15 W PANEL		
4	CEILING FAN		
5	PICTURE LIGHT		2100
6	GEYSER	G	2440
7	AC with 3" pvc conduit for outdoor line(optional)	AC	2750
8	TUBELIGHT		2450
9	DOOR BELL		1370
10	BLUE/ZERO LIGHT		2750
11	LIGHT POINT		2750
12	EXHAUST		
13	CHIMNEY		2100
14	CEILING AC		
15.	PROFILE LIGHT		

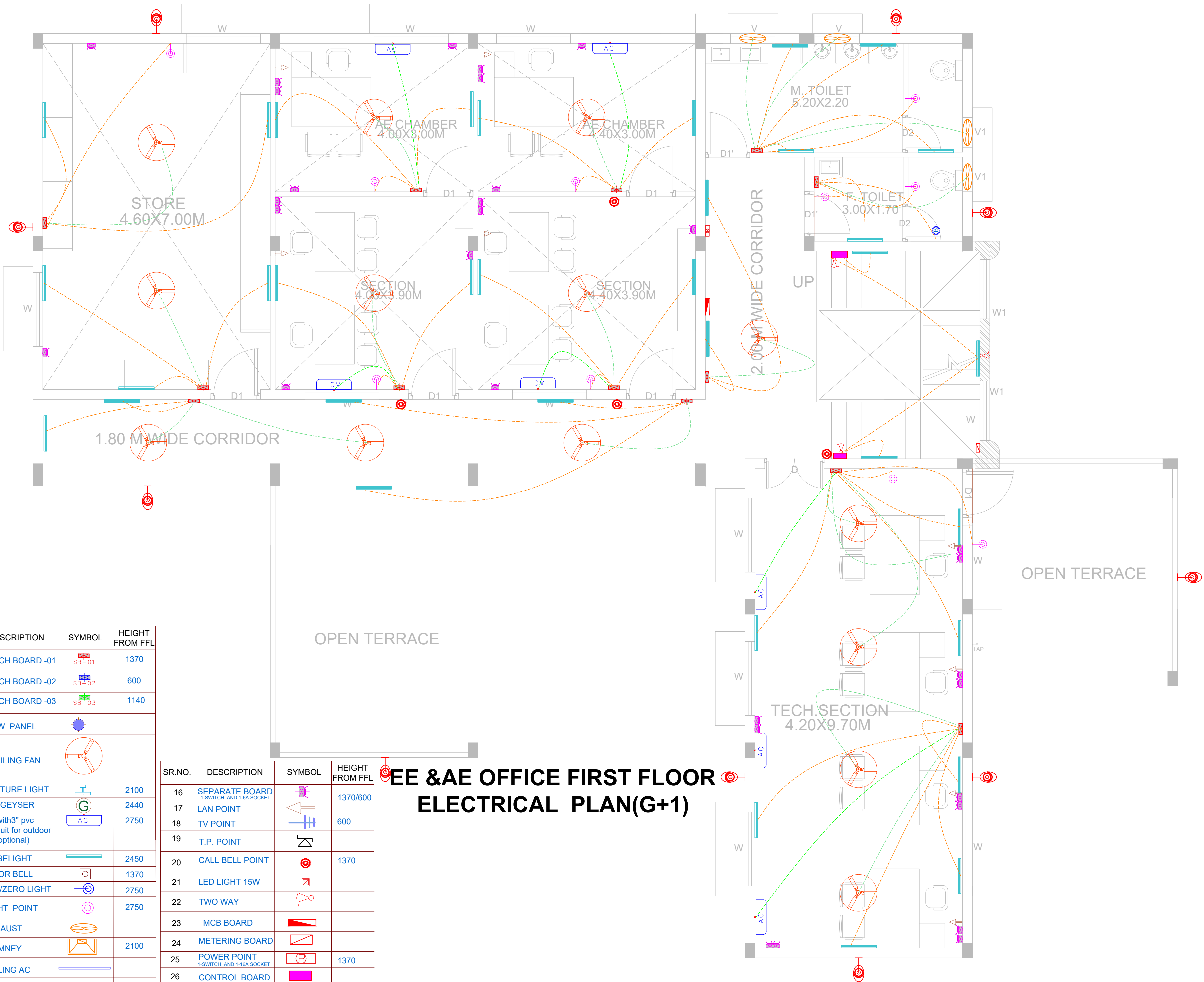
SR.NO.	DESCRIPTION	SYMBOL	HEIGHT FROM FFL
16	SEPARATE BOARD 1-SWITCH AND 1-6A SOCKET		1370/600
17	LAN POINT		
18	TV POINT		600
19	T.P. POINT		
20	CALL BELL POINT		1370
21	LED LIGHT 15W		
22	TWO WAY		
23	MCB BOARD		
24	METERING BOARD		
25	POWER POINT 1-SWITCH AND 1-16A SOCKET		1370
26	CONTROL BOARD		
27	STREET LIGHT		
28	BULK POINT		2750

EE &AE OFFICE GROUND FLOOR ELECTRICAL PLAN(G+1)

SR.NO.	DESCRIPTION	SYMBOL	HEIGHT FROM FFL
1	SWITCH BOARD -01	SB-01	1370
2	SWITCH BOARD -02	SB-02	600
2	SWITCH BOARD -03	SB-03	1140
3	15 W PANEL		
4	CEILING FAN		
5	PICTURE LIGHT		2100
6	GEYSER	G	2440
7	AC with 3" pvc conduit for outdoor line(optional)	AC	2750
8	TUBELIGHT		2450
9	DOOR BELL		1370
10	BLUE/ZERO LIGHT		2750
11	LIGHT POINT		2750
12	EXHAUST		
13	CHIMNEY		2100
14	CEILING AC		
15.	PROFILE LIGHT		

SR.NO.	DESCRIPTION	SYMBOL	HEIGHT FROM FFL
16	SEPARATE BOARD 1-SWITCH AND 1-6A SOCKET		1370/600
17	LAN POINT		
18	TV POINT		600
19	T.P. POINT		
20	CALL BELL POINT		1370
21	LED LIGHT 15W		
22	TWO WAY		
23	MCB BOARD		
24	METERING BOARD		
25	POWER POINT 1-SWITCH AND 1-16A SOCKET		1370
26	CONTROL BOARD		
27	STREET LIGHT		
28	BULK POINT		2750

EE &AE OFFICE FIRST FLOOR
ELECTRICAL PLAN(G+1)



DWG. TITLE

ELECTRICAL DRAWING

CLIENT NAME

EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

PROJECT

REDEVELOPMENT
SCHEME AT KATGHORA
SITE 2

REVISIONS

NO.	DATE	ISSUED	
PRINTS ISSUED			
S. NO.	REV	DATE	DESCRIPTION
Electrical_Drawing_CGHB_GAD_katghora			

EXECUTIVE ENGINEER

ARCHITECTS

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STRUCTURAL ENG.

MEP. CONSULTANT

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NORTH

SCALE : NTS

DIM. IN METRES

PAGE NO :

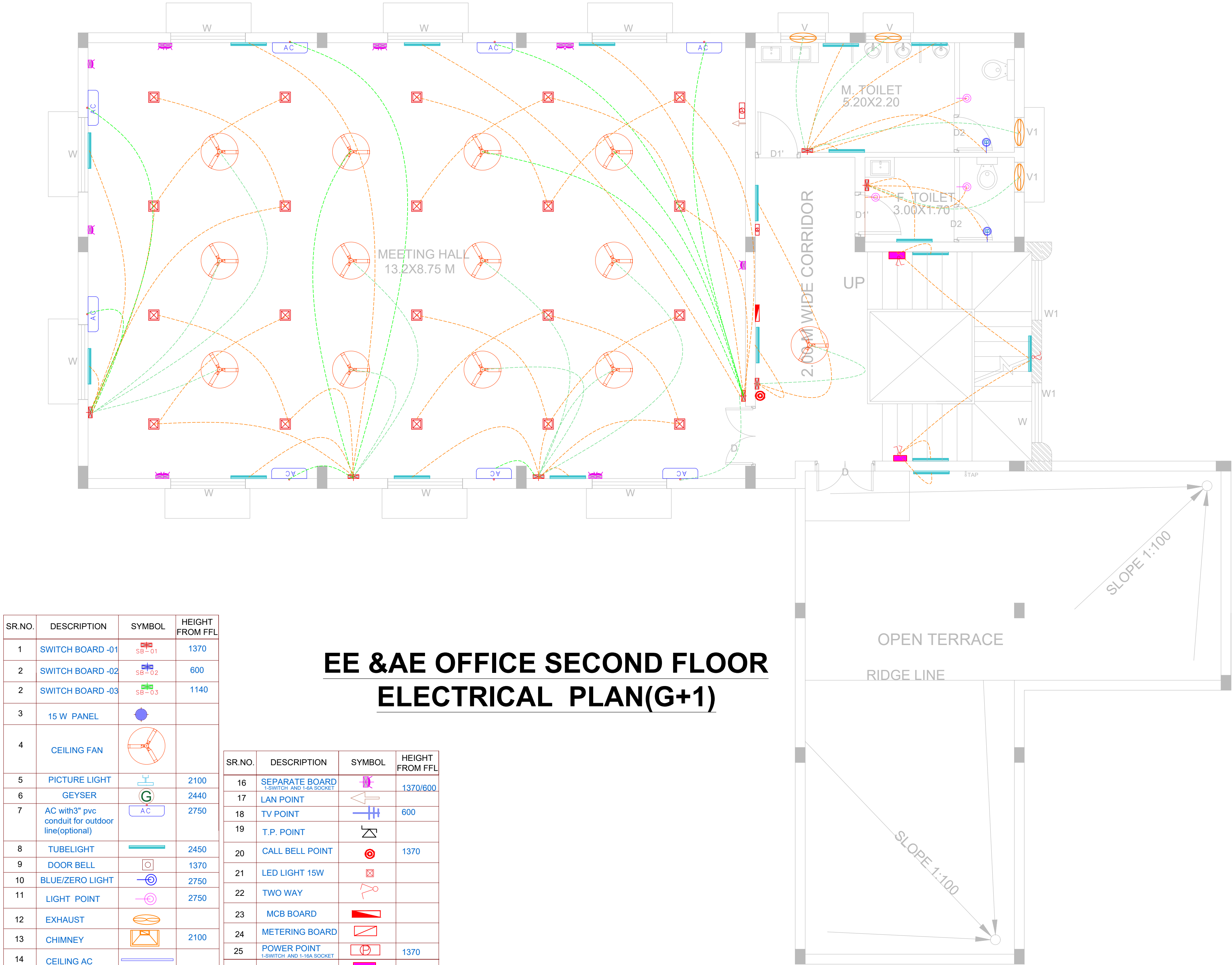
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NO.

DRAWN :

DATE : 01/09/2025

309



SR.NO.	DESCRIPTION	SYMBOL	HEIGHT FROM FFL
1	SWITCH BOARD -01	SB-01	1370
2	SWITCH BOARD -02	SB-02	600
2	SWITCH BOARD -03	SB-03	1140
3	15 W PANEL		
4	CEILING FAN		
5	PICTURE LIGHT		2100
6	GEYSER	G	2440
7	AC with 3" pvc conduit for outdoor line(optional)	AC	2750
8	TUBELIGHT		2450
9	DOOR BELL		1370
10	BLUE/ZERO LIGHT		2750
11	LIGHT POINT		2750
12	EXHAUST		
13	CHIMNEY		2100
14	CEILING AC		
15.	PROFILE LIGHT		

EE &AE OFFICE SECOND FLOOR ELECTRICAL PLAN(G+1)

SR.NO.	DESCRIPTION	SYMBOL	HEIGHT FROM FFL
16	SEPARATE BOARD 1-SWITCH AND 1-6A SOCKET		1370/600
17	LAN POINT		
18	TV POINT		600
19	T.P. POINT		
20	CALL BELL POINT		1370
21	LED LIGHT 15W		
22	TWO WAY		
23	MCB BOARD		
24	METERING BOARD		
25	POWER POINT 1-SWITCH AND 1-16A SOCKET		1370
26	CONTROL BOARD		
27	STREET LIGHT		
28	BULK POINT		2750

DWG. TITLE

ELECTRICAL DRAWING

CLIENT NAME

EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

PROJECT

REDEVELOPMENT
SCHEME AT KATGHORA
SITE 2

REVISIONS

NO.	DATE	ISSUED	
PRINTS ISSUED			
S. NO.	REV	DATE	DESCRIPTION
Electrical_Drawing_CGHB_GAD_katghora			

EXECUTIVE ENGINEER

ARCHITECTS

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STRUCTURAL ENG.

MEP CONSULTANT

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NORTH

SCALE : NTS

DIM IN METRES

DESIGN : Satya

PAGE NO : 310

CHECKED : Satya

NO.

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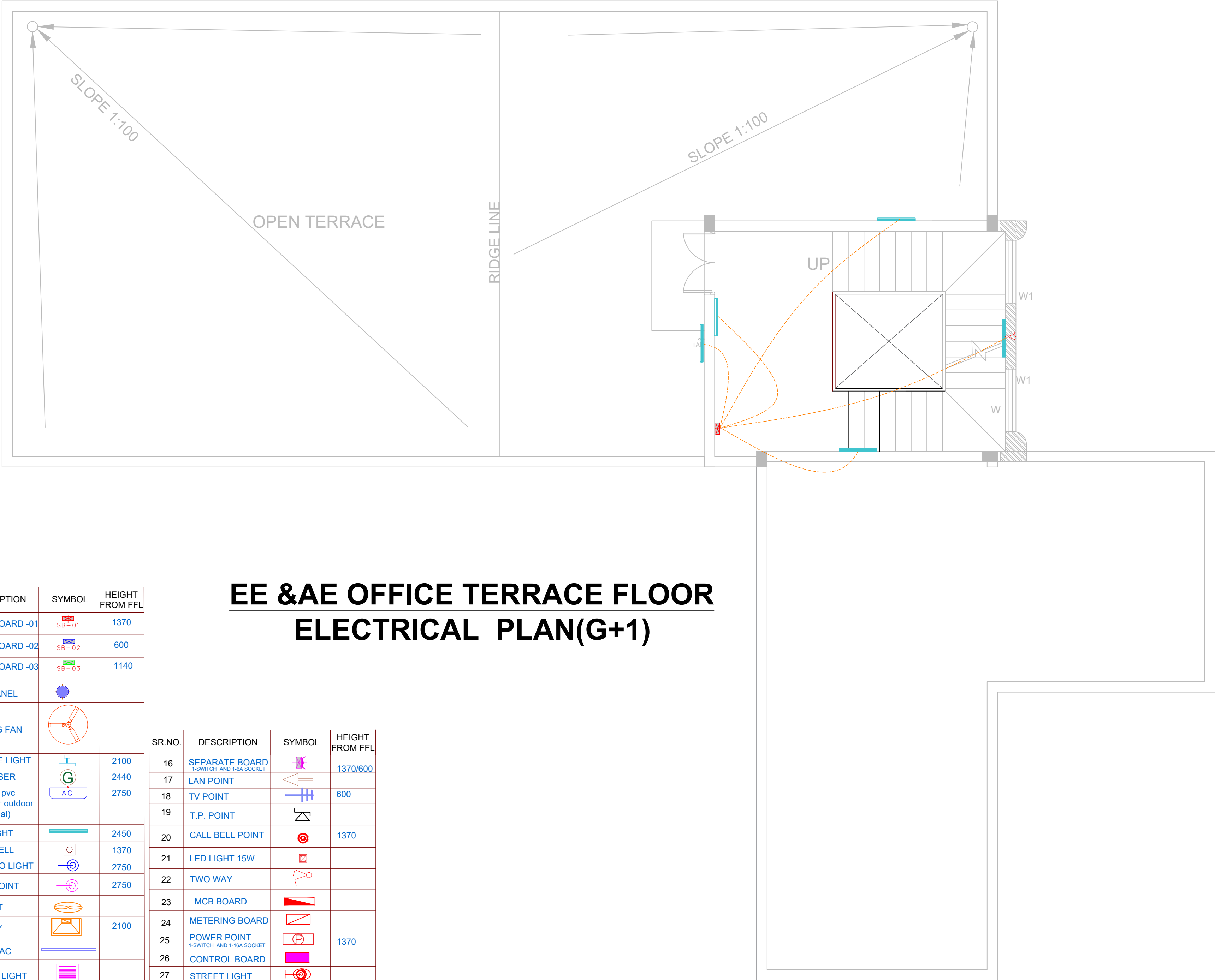
DATE : 01/09/2025

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SR.NO.	DESCRIPTION	SYMBOL	HEIGHT FROM FFL
1	SWITCH BOARD -01		1370
2	SWITCH BOARD -02		600
2	SWITCH BOARD -03		1140
3	15 W PANEL		
4	CEILING FAN		
5	PICTURE LIGHT		2100
6	GEYSER		2440
7	AC with 3" pvc conduit for outdoor line(optional)		2750
8	TUBELIGHT		2450
9	DOOR BELL		1370
10	BLUE/ZERO LIGHT		2750
11	LIGHT POINT		2750
12	EXHAUST		
13	CHIMNEY		2100
14	CEILING AC		
15.	PROFILE LIGHT		

SR.NO.	DESCRIPTION	SYMBOL	HEIGHT FROM FFL
16	SEPARATE BOARD 1-SWITCH AND 1-8A SOCKET		1370/600
17	LAN POINT		
18	TV POINT		600
19	T.P. POINT		
20	CALL BELL POINT		1370
21	LED LIGHT 15W		
22	TWO WAY		
23	MCB BOARD		
24	METERING BOARD		
25	POWER POINT 1-SWITCH AND 1-16A SOCKET		1370
26	CONTROL BOARD		
27	STREET LIGHT		
28	BULK POINT		2750

EE &AE OFFICE TERRACE FLOOR ELECTRICAL PLAN(G+1)



DRG. TITLE
ELECTRICAL DRAWING

CLIENT NAME
EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

PROJECT
REDEVELOPMENT
SCHEME AT KATGHORA
SITE 2

NO.	DATE	ISSUED	
PRINTS ISSUED			
S. NO.	REV	DATE	DESCRIPTION
Electrical Drawing_CGHB_GAD_katghora			

EXECUTIVE ENGINEER

ARCHITECTS
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Raipur, Chhattisgarh
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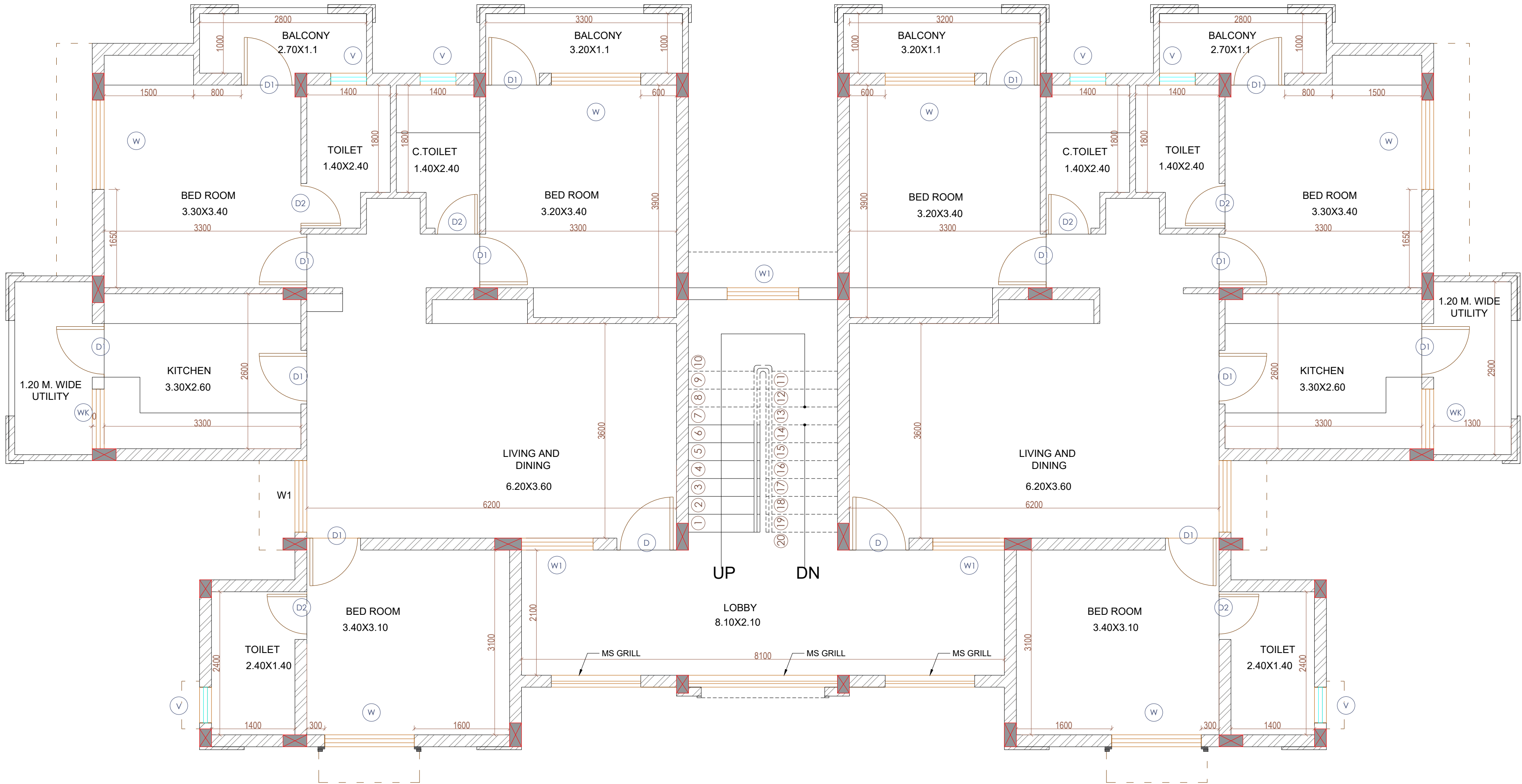
STRUCTURAL ENG.

MEP CONSULTANT

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F TYPE

1. ARCHITECTURAL DRAWINGS
2. 3D RENDERS
3. STRUCTURAL DRAWINGS
4. PLUMBING
5. ELECTRICAL



FIRST FLOOR PLAN(G+1)

F TYPE

DWG. TITLE

F TYPE
(GAD QUARTER)
FIRST FLOOR PLAN

CLIENT NAME

EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

PROJECT

REDEVELOPMENT SCHEME
AT KATGHORA SITE 2
(GOVT. FACILITY PART)

AREA STATEMENT

BUILT UP AREA OF :
1 UNIT

97.84 SQM.

SUPER BUIL TUP AREA OF :
1 UNIT

112.77 SQM.

BUA. GF. :
BUA. FF. :
BUA MUMTY :

225.54 SQM.
225.54 SQM.
19.72 SQM.

TOTAL BUILT UP AREA OF
1 BLOCK

470.80 SQM.

OPENING SCHEDULE

S. NO.	TYPE	NAME	SIZE
1.	D	DOOR	1.00X2.10M.
2.	D1	DOOR	0.90X2.10M.
3.	D2	DOOR	0.80X2.10M.
4.	W	WINDOW	1.50X1.50M.
5.	W1	WINDOW	1.20X1.50M.
6.	WK	WINDOW	1.00X1.00M.
7.	V	VENTILATOR	0.60X0.60M.

REVISIONS

NO.	DATE	ISSUED	
PRINTS ISSUED			
1.20 M. WIDE UTILITY			
S. NO.	REV	DATE	DESCRIPTION
20250924 KATGHORA GAD			

EXECUTIVE ENGINEER

ARCHITECTS

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STRUCTURAL ENG.

MEP. CONSULTANT

NORTH

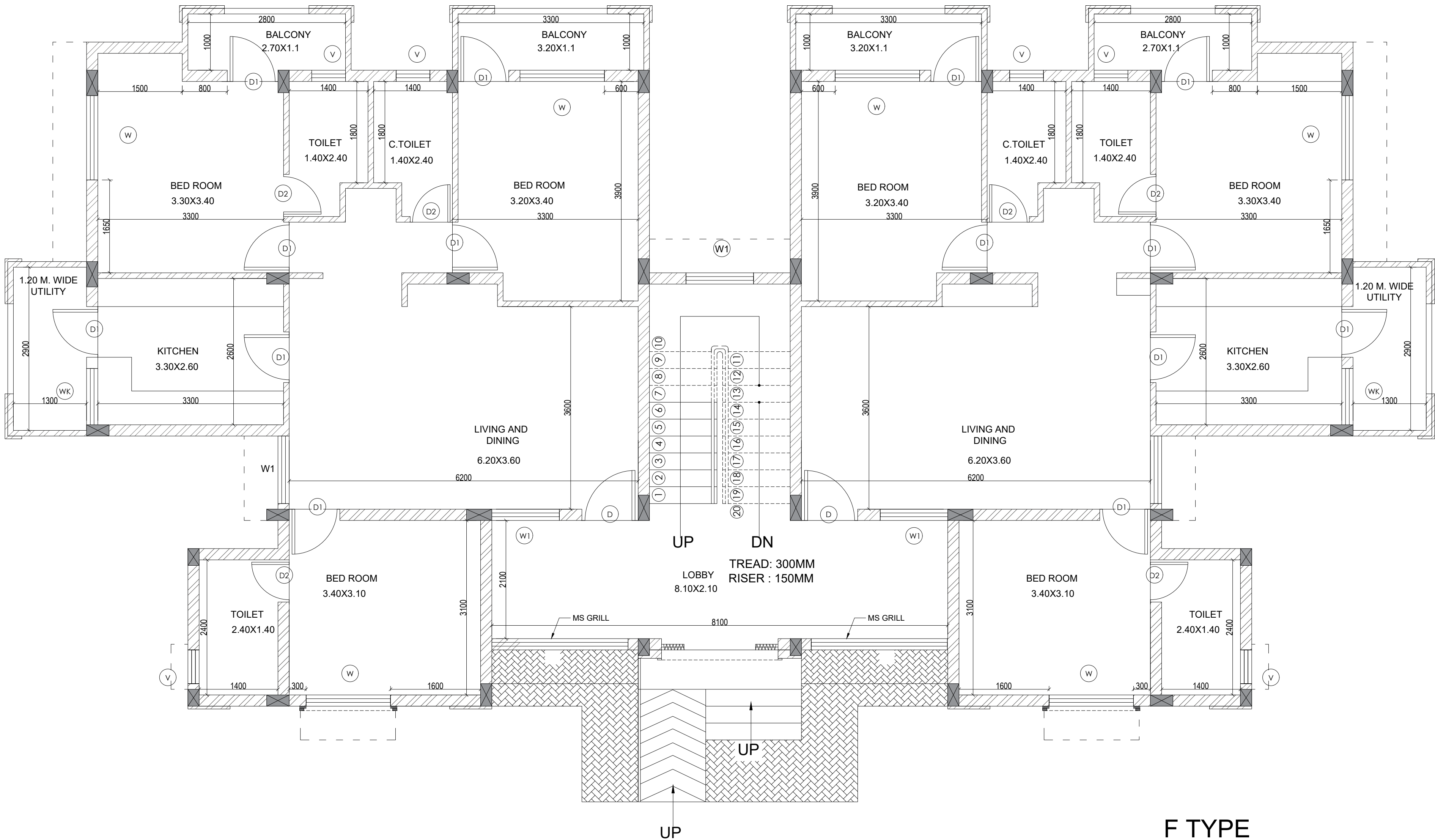
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DIM. IN METRES

DESIGN : VKS
CHECKED :AJ.
DRAWN : VKS

USER : C:\USERS\USER\DOWNLOADS\20250924 KATGHORA GAD

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DATE : 01/09/2025




GROUND FLOOR PLAN(G+1)

F TYPE

DWG. TITLE

F TYPE
(GAD QUARTER)
GROUND FLOOR
PLAN

CLIENT NAME



EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

PROJECT

REDEVELOPMENT SCHEME
AT KATGHORA SITE 2
(GOVT. FACILITY PART)

AREA STATEMENT

BUILT UP AREA OF :
1 UNIT

97.84 SQM.

SUPER BUIL TUP AREA OF :
1 UNIT

112.77 SQM.

BUA. GF. :
BUA. FF. :
BUA MUMTY :

225.54 SQM.
225.54 SQM.
19.72 SQM.

TOTAL BUILT UP AREA OF
1 BLOCK

470.80 SQM.

OPENING SCHEDULE

S. NO.	TYPE	NAME	SIZE
1.	D	DOOR	1.00X2.10M.
2.	D1	DOOR	0.90X2.10M.
3.	D2	DOOR	0.75X2.10M.
4.	W	WINDOW	1.50X1.50M.
5.	W1	WINDOW	1.20X1.50M.
6.	WK	WINDOW	1.00X1.00M.
7.	V	VENTILATOR	0.60X0.60M.

REVISIONS

NO.	DATE	ISSUED	
PRINTS ISSUED			
1.20 M. WIDE UTILITY			
S. NO.	REV	DATE	DESCRIPTION
20250924 KATGHORA GAD			

EXECUTIVE ENGINEER

NOTE: This Drawing is a based on the concept drawing provided by C.G.H.B. Division Korba

ARCHITECTS

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STRUCTURAL ENG.

MEP. CONSULTANT

NORTH



SCALE : NTS

DIM. IN METRES

DESIGN : VKS

CHECKED -AJ.

DRAWN : VKS

USER : C:\USERS\USER\DOWNLOADS\20250924 KATGHORA GAD


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DATE : 01/09/2025

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REDEVELOPMENT SCHEME AT KATGHORA SITE 2

DRG. TITLE	F TYPE(GAD QUARTER) SECTION
------------	-----------------------------------

CLIENT NAME	 <p>EXECUTIVE ENGINEER, CHHATTISGARH HOUSING BOARD DIVISION -KORBA,DISTRICT-KORBA</p>
-------------	--

PROJECT	REDEVELOPMENT SCHEME AT KATGHORA SITE 2
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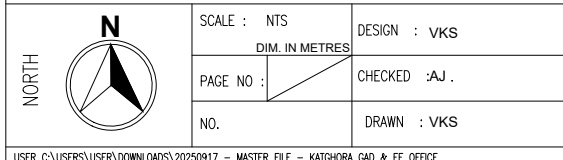
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EXECUTIVE ENGINEER	
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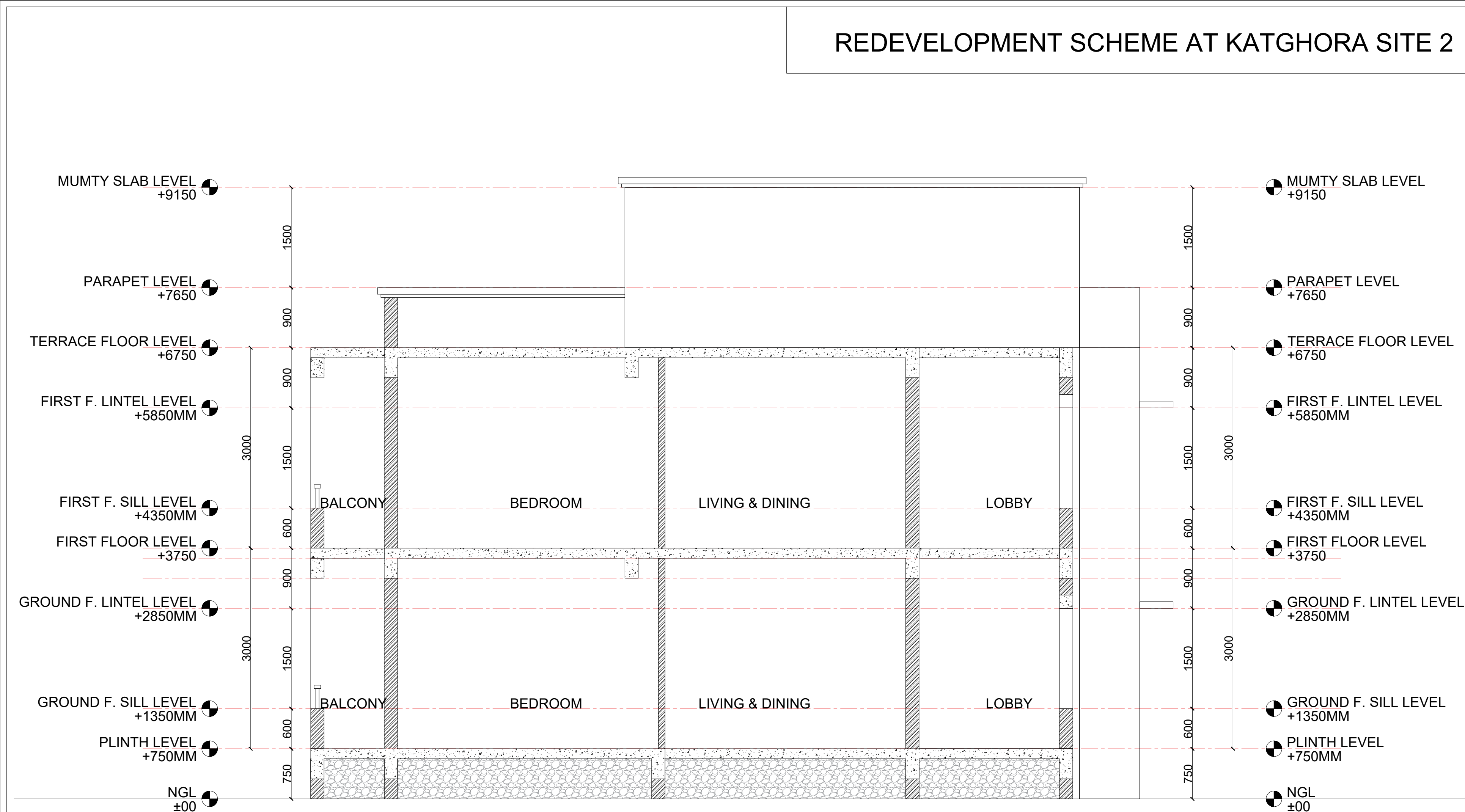
ARCHITECT'S	Ar. Abhinav Jaiswal
	Raipur
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	E-mail: ar.abhinavjaiswal31@gmail.com

STRUCTURAL ENG.	
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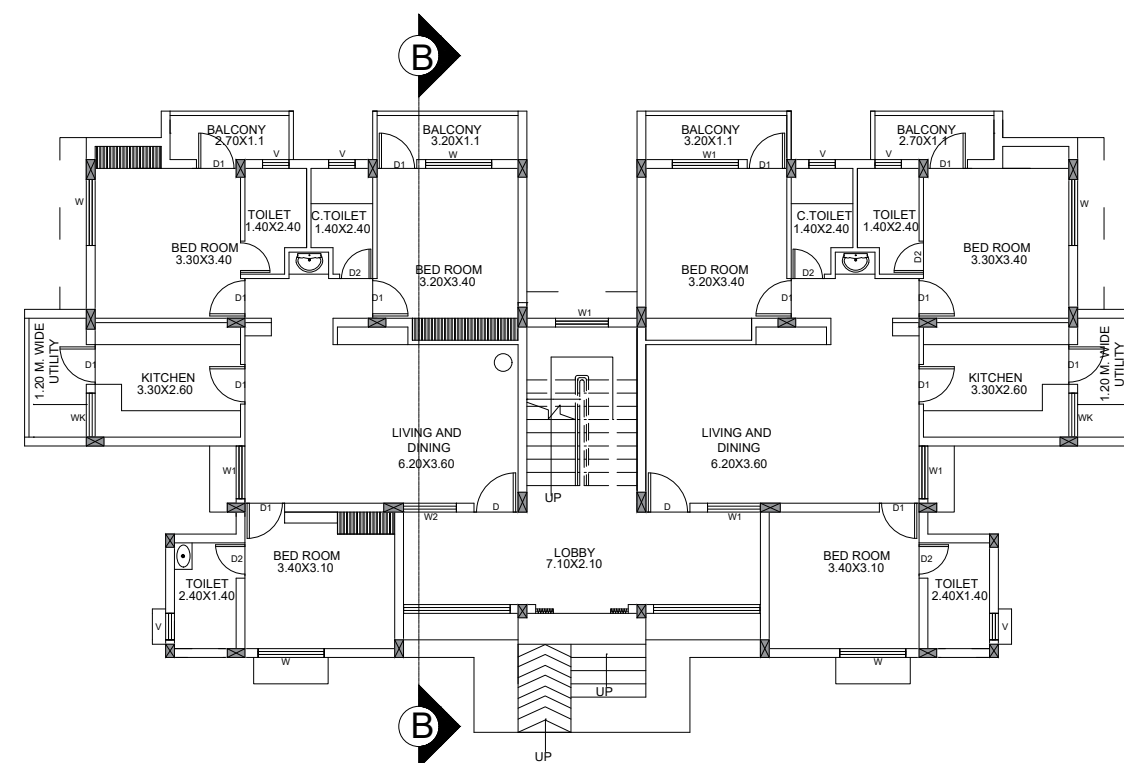
MEP CONSULTANT	
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DATE : 01/09/2025



SECTION 'BB'



KEY PLAN

REDEVELOPMENT SCHEME AT KATGHORA SITE 2

F TYPE(GAD
QUARTER)
ELEVATION

EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

REDEVELOPMENT
SCHEME AT KATGHORA
SITE 2

OPENING SCHEDULE

S. NO.	TYPE	NAME	SIZE
	D	DOOR	1.00X2.10M.
	D1	DOOR	0.90X2.10M.
	D2	DOOR	0.80X2.10M.
	W	WINDOW	1.50X1.50M.
	W1	WINDOW	1.20X1.00M.
	W2	WINDOW	0.8X1.00M.
	WK	WINDOW	1.00X1.00M.
	V	VENTILATOR	0.60X0.60M.

NO.	DATE	ISSUED	
PRINTS ISSUED			
S. NO.	REV	DATE	DESCRIPTION
20250917 - MASTER FILE - KATGHORA GAD & EE OFFICE			

EXECUTIVE ENGINEER

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STRUCTURAL ENG.

MEP CONSULTANT

NORTH

SCALE : NTS

DIM. IN METRES

PAGE NO. :

NO.

DESIGN : VKS

CHECKED -AJ.

DRAWN : VKS

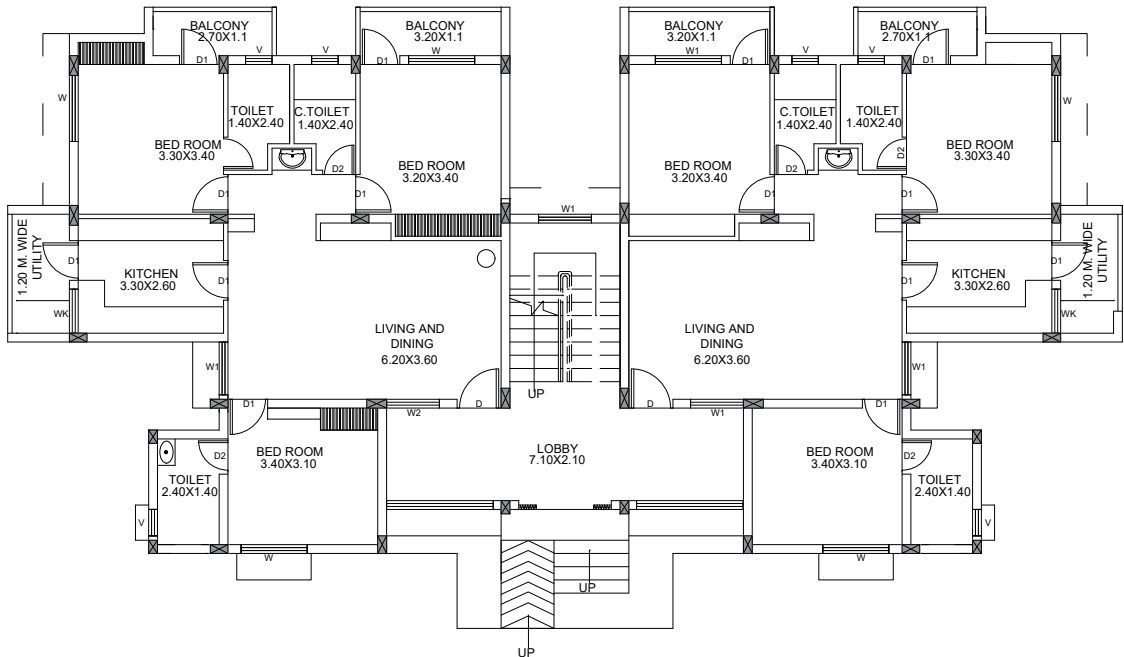
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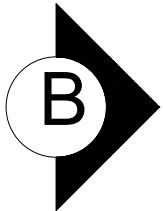
DATE : 01/09/2025

317

ELEVATION 'B'



KEY PLAN



REDEVELOPMENT SCHEME AT KATGHORA SITE 2

F TYPE(GAD
QUARTER)
ELEVATION

EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

REDEVELOPMENT
SCHEME AT KATGHORA
SITE 2

OPENING SCHEDULE

S. NO.	TYPE	NAME	SIZE
	D	DOOR	1.00X2.10M.
	D1	DOOR	0.90X2.10M.
	D2	DOOR	0.80X2.10M.
	W	WINDOW	1.50X1.50M.
	W1	WINDOW	1.20X1.00M.
	W2	WINDOW	0.8X1.00M.
	WK	WINDOW	1.00X1.00M.
	V	VENTILATOR	0.60X0.60M.

NO.	DATE	ISSUED	
PRINTS ISSUED			
S. NO.	REV	DATE	DESCRIPTION

20250917 - MASTER FILE - KATGHORA GAD & EE OFFICE

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STRUCTURAL ENG.

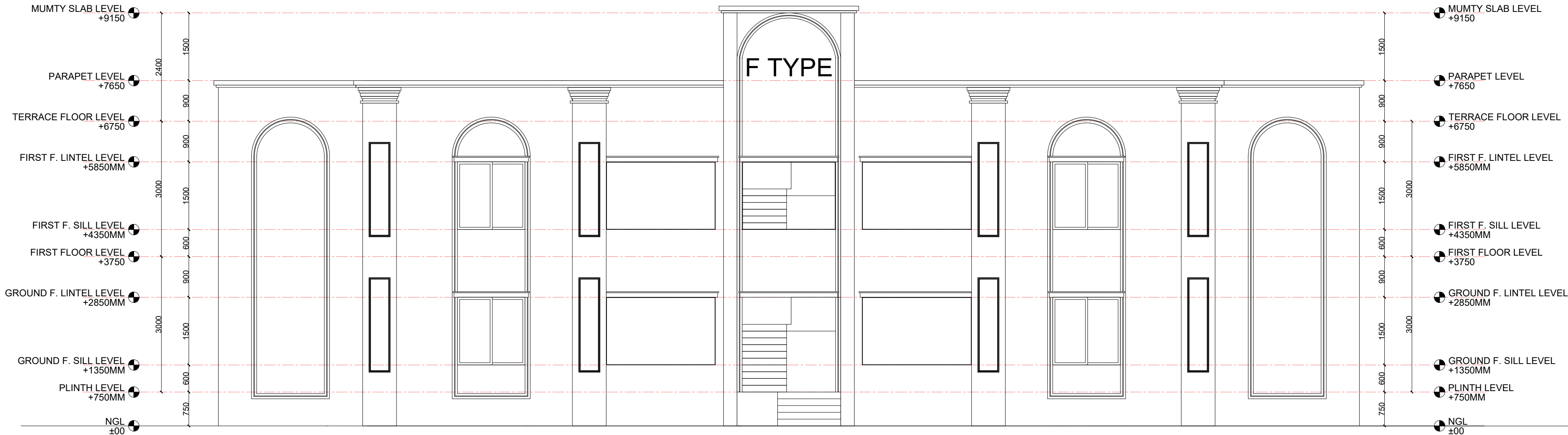
MEP- CONSULTANT

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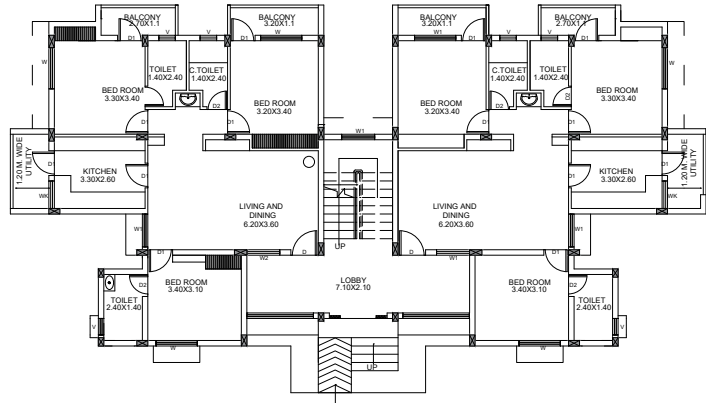
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DATE: 01/09/2025



ELEVATION 'A'



KEY PLAN



REDEVELOPMENT SCHEME AT KATGHORA SITE 2

F TYPE(GAD
QUARTER)
SECTION

EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

REDEVELOPMENT
SCHEME AT KATGHORA
SITE 2

AREA STATEMENT

OPENING SCHEDULE

S. NO.	TYPE	NAME	SIZE
	D	DOOR	1.00X2.10M.
	D1	DOOR	0.90X2.10M.
	D2	DOOR	0.80X2.10M.
	W	WINDOW	1.50X1.50M.
	W1	WINDOW	1.20X1.00M.
	W2	WINDOW	0.8X1.00M.
	WK	WINDOW	1.00X1.00M.
	V	VENTILATOR	0.60X0.60M.

NO.	DATE	ISSUED	
PRINTS ISSUED			
S. NO.	REV	DATE	DESCRIPTION

20250917 - MASTER FILE - KATGHORA GAD & EE OFFICE

NOTE: This Drawing is a based on the concept drawing provided by C.G.H.B. Division Korba

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STRUCTURAL ENG.

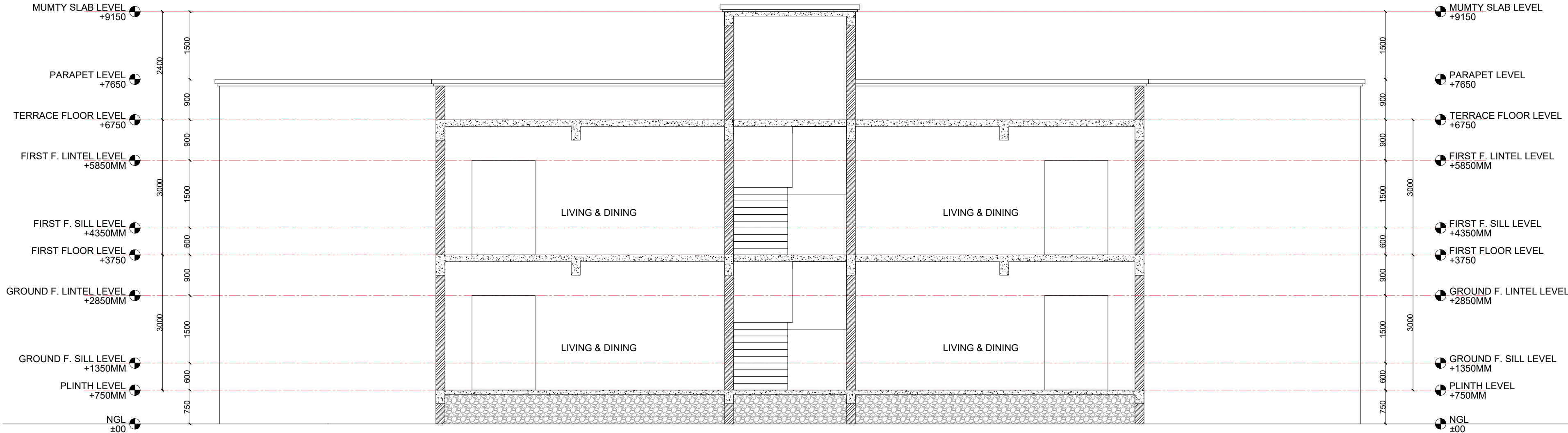
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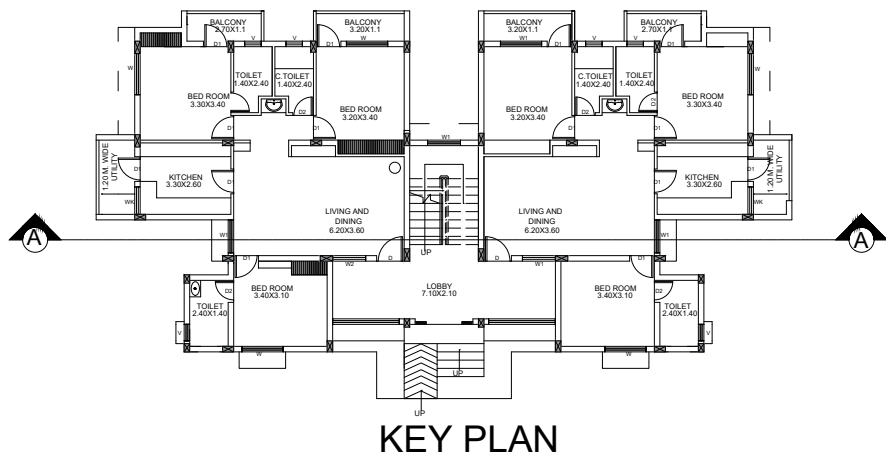
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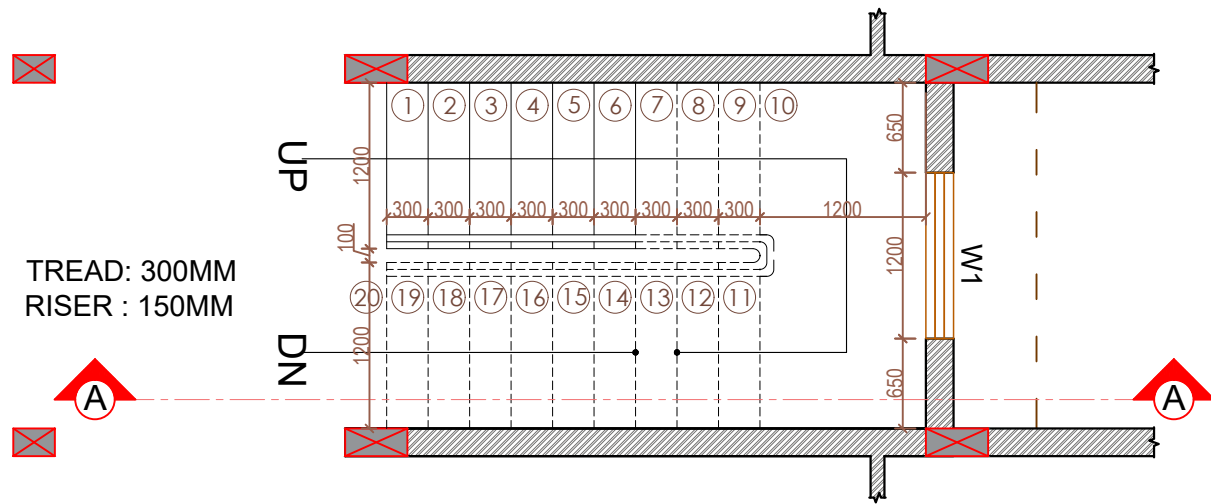


SECTION 'AA'

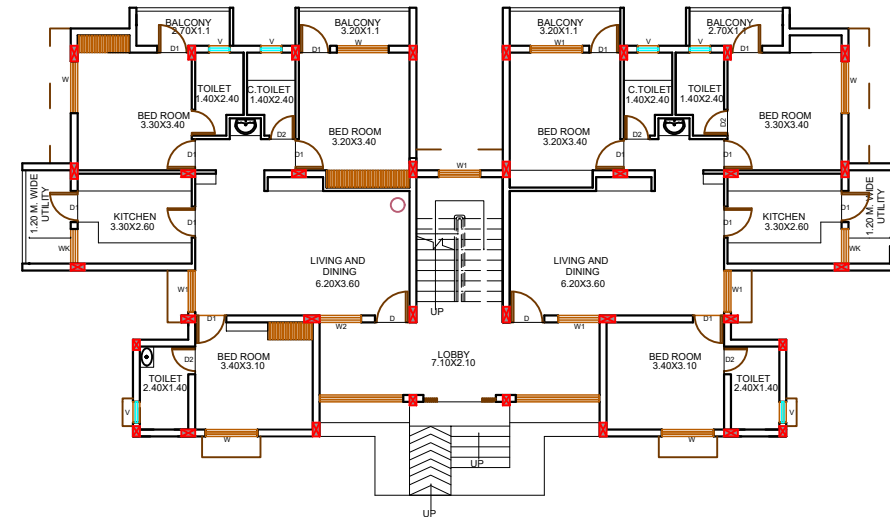


KEY PLAN

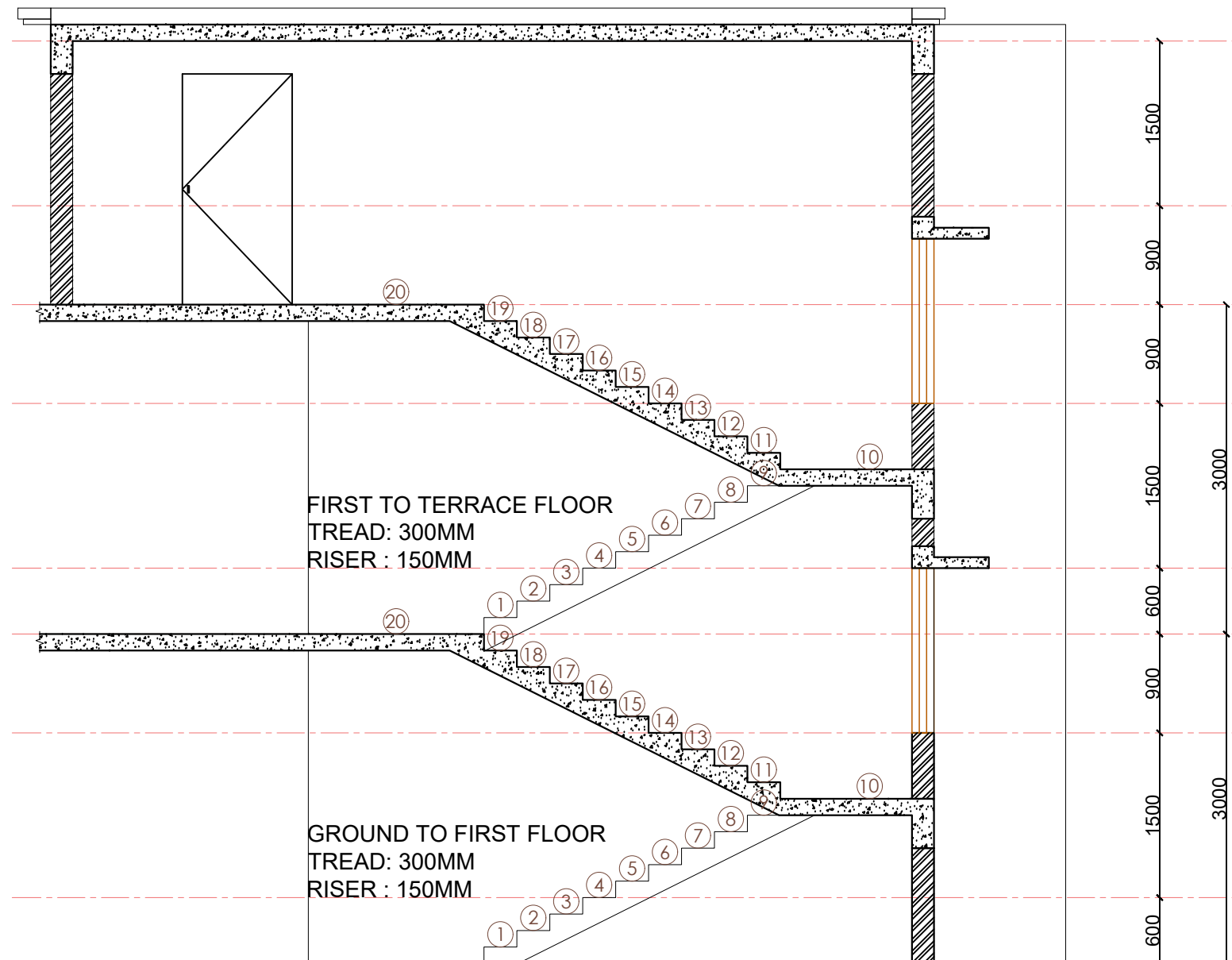
DATE : 01/09/2025



TYPICAL STAIRCASE PLAN



KEY PLAN - F TYPE



STAIRCASE SECTION -AA

- MUMTY SLAB LEVEL
+9150
- PARAPET LEVEL
+7650
- TERRACE FLOOR LEVEL
+6750
- FIRST F. LINTEL LEVEL
+5850MM
- FIRST F. SILL LEVEL
+4350MM
- FIRST FLOOR LEVEL
+3750
- GROUND F. LINTEL LEVEL
+2850MM
- GROUND F. SILL LEVEL
+1350MM
- PLINTH LEVEL
+750MM
- NGL
±00

F TYPE(GAD
QUARTER)
STAIRCASE DETAIL

EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

REDEVELOPMENT
SCHEME AT KATGHORA
SITE 2

OPENING SCHEDULE

S. NO.	TYPE	NAME	SIZE
	D	DOOR	1.00X2.10M.
	D1	DOOR	0.90X2.10M.
	D2	DOOR	0.80X2.10M.
	W	WINDOW	1.50X1.50M.
	W1	WINDOW	1.20X1.00M.
	W2	WINDOW	0.8X1.00M.
	WK	WINDOW	1.00X1.00M.
	V	VENTILATOR	0.60X0.60M.

NO.	DATE	ISSUED
PRINTS ISSUED		

S. NO.	REV	DATE	DESCRIPTION
20250917 - MASTER FILE - KATGHORA GAD & EE. OFFICE			

NOTE: This Drawing is a based on the concept drawing provided by C.G.H.B. Division Korba

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STRUCTURAL ENG.

MEP. CONSULTANT

NORTH	SCALE : NTS DIM. IN METRES	DESIGN : VKS
	PAGE NO. : 321	CHECKED : A.J.
	NO.	DRAWN : VKS

DATE : 01/09/2025

F -TYPE




FRONT VIEW

DRG. TITLE

GAD F-TYPE
FRONT VIEW

CLIENT NAME

 EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

PROJECT

REDEVELOPMENT SCHEME AT
KATGHORA SITE 2
(GOVT. FACILITY PART)

REVISIONS

NO.	DATE	ISSUED
PRINTS ISSUED		

S. NO.	REV	DATE	DESCRIPTION
001	30082028	GAD	Katghora

EXECUTIVE ENGINEER


ARCHITECTS

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STRUCTURAL ENG.

MEP. CONSULTANT

NORTH



SCALE : NTS

DESIGN : VKS

PAGE NO : 1

CHECKED : A.J.

NO.

DRAWN : VKS

DELL E/01, ARCHITECT NAVEEN MUNI/KATGHORA/001 30082028_GAD KATGHORA



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DATE : 01/09/2025





F -TYPE

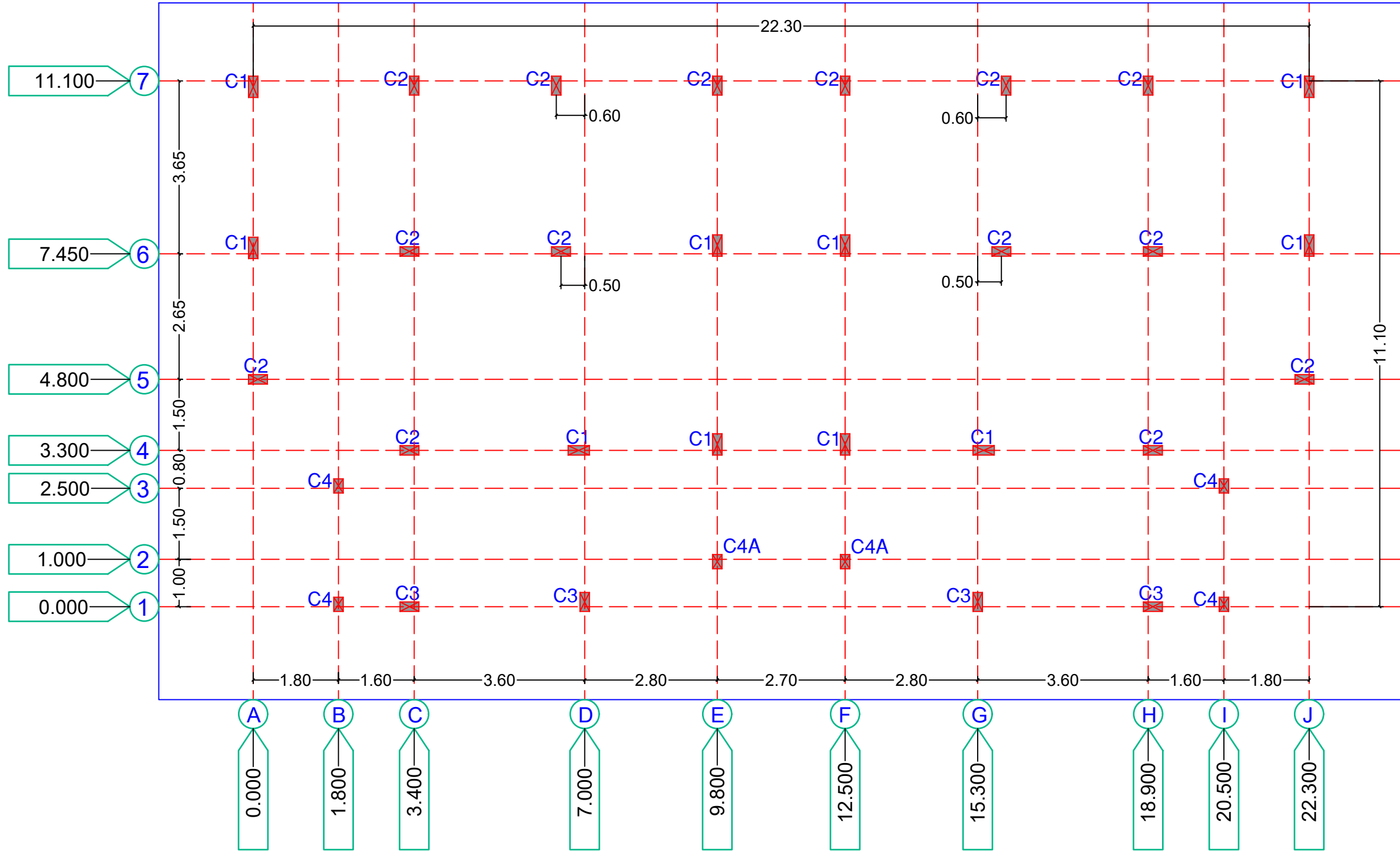
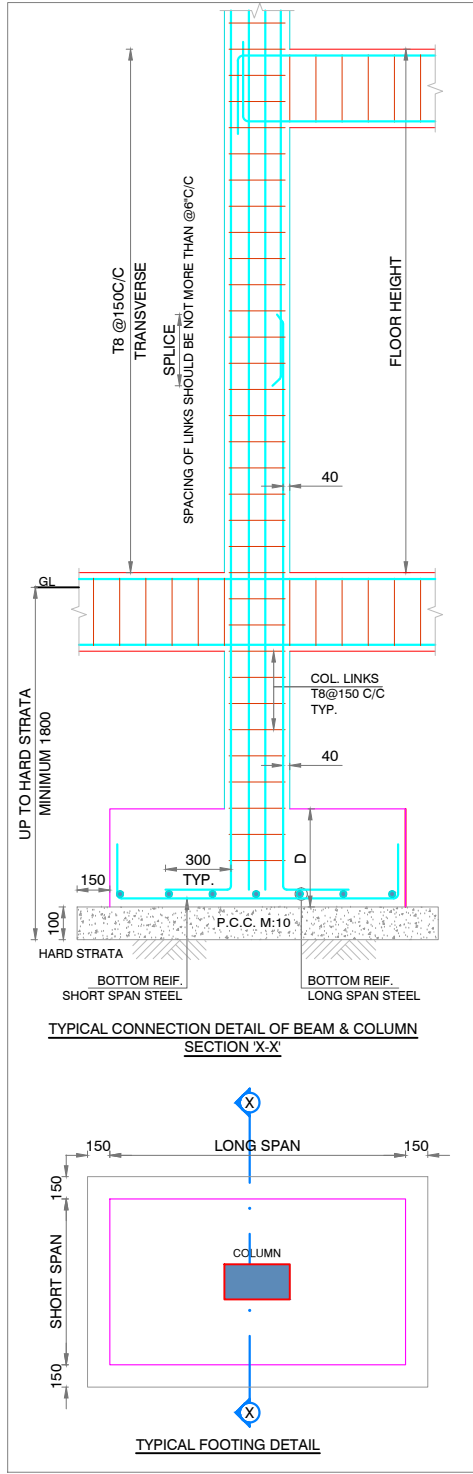


VIEW

DRG. TITLE	GAD F-TYPE CORNER- VIEW																																		
CLIENT NAME	 EXECUTIVE ENGINEER, CHHATTISGARH HOUSING BOARD DIVISION -KORBA,DISTRICT-KORBA																																		
PROJECT	REDEVELOPMENT SCHEME AT KATGHORA SITE 2 (GOVT. FACILITY PART)																																		
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001 30082028_GAD Katghora																																			
EXECUTIVE ENGINEER																																			
ARCHITECTS	Ar. Abhinav Jaiswal Raipur C-10, Rajendra Park, Mahaveer Nagar, Raipur, Chhattisgarh Mob:- +91-8817780410 E-mail: ar.abhinavjaiswal31@gmail.com																																		
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DATE : 01/09/2025																																			

A 3D architectural rendering of a modern, two-story house. The house has a beige facade with white trim and columns. It features a central entrance with a wooden door and a balcony, flanked by large windows. A person is standing in the foreground, looking at the house. The house is set against a blue sky with clouds and green trees.

DRG. TITLE		GAD F-TYPE																																													
CLIENT NAME		 EXECUTIVE ENGINEER, CHHATTISGARH HOUSING BOARD DIVISION -KORBA,DISTRICT-KORBA																																													
PROJECT		REDEVELOPMENT SCHEME AT KATGHORA SITE 2 (GOVT. FACILITY PART)																																													
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S. NO.	REV	DATE	DESCRIPTION																																												
EXECUTIVE ENGINEER																																															
ARCHITECTS		<p>Ar. Abhinav Jaiswal Raipur</p> <p>C-10, Rajendra Park, Mahaveer Nagar, Raipur, Chhattisgarh Mob:- +91-8817780410</p> <p>E-mail: ar.abhinavjaiswal31@gmail.com</p>																																													
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MEP. CONSULTANT																																															
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	NO.	DRAWN : VKS																																													



COLUMN LAYOUT

COLUMN SECTIONAL TOP VIEW

C1 200x450			• - 16#
C2 200x400			• - 16# • - 12#
C3 200x400			• - 16# • - 12#
C4 200x300			• - 12#

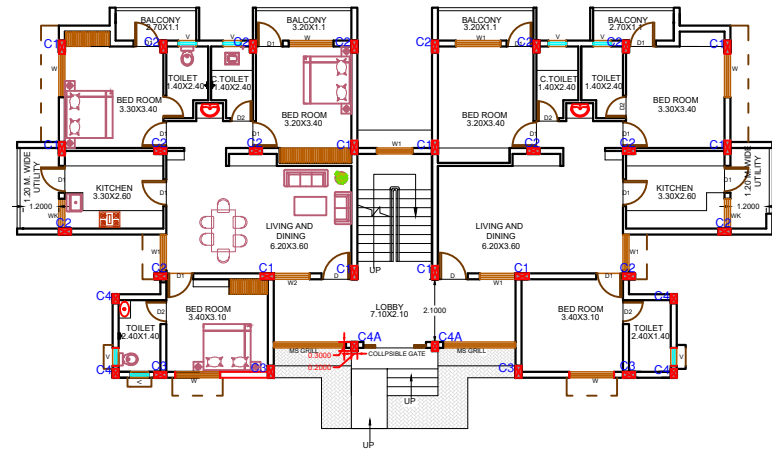
SCHEDULE OF COLUMNS & FOOTINGS

COLUMN NO.	EXCAVATION SIZE	PCC. THK.	FOUNDATION		BOT. REINFORCEMENT		TOP REINFORCEMENT	
			FOOTING SIZE	FOOTING DEPTH	LONG LOWER TIER	SHORT UPPER TIER	LONG LOWER TIER	SHORT UPPER TIER
CF1	---	100	AS PER FOOTING LAYOUT	400	12# @150	12# @150	10# @150	10# @150

CONCRETE MIX : M 25, GRADE OF STEEL : Fe 500

COLUMN SCHEDULE

SECOND TO MUMTY	M25 Fe500	SIZE	200 X 400	200 X 400	200 X 400	200 X 300	200 X 300
		STEEL	4-T16 + 4-T12	8-T12	8-T12	6-T12	6-T12
		LINKS	T8@150 C/C	T8@150 C/C	T8@150 C/C	T8@150 C/C	T8@150 C/C
FIRST TO SECOND	M25 Fe500	SIZE	200 X 400	200 X 400	200 X 400	200 X 300	200 X 300
		STEEL	4-T16 + 4-T12	4-T16 + 6-T12	4-T16 + 4-T12	6-T12	6-T12
		LINKS	T8@150 C/C	T8@150 C/C	T8@150 C/C	T8@150 C/C	T8@150 C/C
PLINTH TO FIRST	M25 Fe500	SIZE	200 X 400	200 X 400	200 X 400	200 X 300	200 X 300
		STEEL	8-T16	4-T16 + 6-T12	4-T16 + 4-T12	6-T12	6-T12
		LINKS	T8@150 C/C	T8@150 C/C	T8@150 C/C	T8@150 C/C	T8@150 C/C
BASE TO PLINTH	M25 Fe500	SIZE	200 X 400	200 X 400	200 X 400	200 X 300	200 X 300
		STEEL	8-T16	4-T16 + 6-T12	4-T16 + 4-T12	6-T12	6-T12
		LINKS	T8@150 C/C	T8@150 C/C	T8@150 C/C	T8@150 C/C	T8@150 C/C
COLUMN MARKED			C1	C2	C3	C4A	C4



KEY PLAN

1. SAFE BEARING CAPACITY OF SOIL

S.B.C. OF SOIL FOR DESIGN OF FOUNDATION HAS BEEN TAKEN AS SPECIFIED. MINIMUM DEPTH SHALL BE UPTO HARD STRATA. IN CASE OF ANY DOUBT REGARDING S.B.C. DURING EXCAVATION, THE MATTER SHALL BE REPORTED TO THE GEO-TECH. CONSULTANT.

2. REINFORCING STEEL

U.N.O. ALL REINFORCEMENT SHALL BE OF HIGH STRENGTH DEFORMED BARS OF SPECIFIED GRADE CONFORMING TO IS:1786 ALL REINFORCING STEEL TO BE OF TESTED QUALITY.

3. CONCRETE

U.N.O. CONCRETE MIX FOR ALL ELEMENT SHALL BE OF SPECIFIED GRADE CONFORMING IS: 456-2000.

4. P.C.C.

PLAIN CEMENT CONCRETE M-10

5. COVER

U.N.O. IN THE DWG. CLEAR COVER TO MAIN REINFORCEMENT SHALL BE AS FOLLOWS :-

- (1) FOOTING (50 mm) (3) BEAM (25 mm)
(2) COLUMN (40 mm) (4) SLAB (20 mm)
OR DIA. OF BAR WHICHEVER IS GREATER.

GENERAL NOTES

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- STIRRUPS FOR CANTILEVER BEAMS TO HAVE HOOK AT BOTTOM.
- REMARK "4 LEGGED" MEANS AT ALL LOCATIONS U.N.O.
- USE OF NEEDLE VIBRATOR AND PLASTISIZER RECOMMENDED FOR R.C.C. WORK.
- USE DENSIFIED COATED PLYWOOD FOR SHUTTERING & FORMWORK.
- BURNT OIL NOT PERMITTED FOR DE-SHUTTERING.

EXPOSED SURFACE OF CONCRETE SHALL BE KEPT CONTINUOUSLY IN WET CONDITION MINIMUM FOR 14 DAYS.

14. CUTOUT/ OPENING :

ANY TYPE OF OPENINGS FOR PLUMBING, DRAINAGE OR ELECTRICAL NOT PERMITTED IN R.C.C BEAMS AND COLUMNS DURING OR AFTER CASTING.

FOR SLEEVES PROVIDE ADD'L TWO RINGS SPACED @ 75MM C/C ON EITHER SIDE OF IT.

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17. READ THIS DWG. WITH RELEVANT ARCHITECTURAL & SERVICES DWG.

18. DO NOT SCALE THE DWG. ONLY WRITTEN DIMENSION ARE TO BE FOLLOWED.

19. ALL DIMENSIONS ARE IN MM, EXCEPT IN LAYOUT. LEVELS ARE IN METER.

20. IN CASE OF ANY AMBIGUITY, PLEASE BRING IT TO THE NOTICE OF THIS OFFICE BEFORE EXECUTION OF WORK.

21. SHUTTERING & SCAFFOLDING IS AT THE RESPONSIBILITY OF CONTRACTOR.

22. STRIPPING TIME TABLE AS PER IS 456-2000.

23. TOP BARS OF ALL CANTILEVER BEAM / SLAB SHOULD BE EXTENDED ON OPPOSITE SIDE UP TO 1.5 TIMES CANTILEVER PROJECTION UNO.

U.N.O. :- UNLESS NOTED OTHERWISE

Gross Safe Bearing Capacity - 112.23 kN/m2

As per information from CGHB EE Korba

F TYPE (GAD QUARTER) COLUMN LAYOUT



EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

REDEVELOPMENT SCHEME AT
KATGHORA SITE 2
(GOVT FACILITY PART)

AREA STATEMENT

BUILT UP AREA OF : 1 UNIT	97.84 SQM.
SUPER BUIL TUP AREA OF : 1 UNIT	112.77 SQM.
BUA. GF.	225.54 SQM.
BUA. FF.	225.54 SQM.
BUA MUMTY	19.72 SQM.

TOTAL BUILT UP AREA OF
1 BLOCK : 470.80 SQM.

OPENING SCHEDULE

S. NO.	TYPE	NAME	SIZE
1.	D	DOOR	1.00X2.10M.
2.	D1	DOOR	0.90X2.10M.
3.	D2	DOOR	0.75X2.10M.
4.	W	WINDOW	1.50X1.50M.
5.	W1	WINDOW	1.20X1.50M.
6.	WK	WINDOW	1.00X1.00M.
7.	V	VENTILATOR	0.60X0.60M.

NO.	DATE	ISSUED	
PRINTS ISSUED			
S. NO.	REV	DATE	DESCRIPTION

CGHB_KATGHORA_STRUC_MAIN

NOTE: This Drawing is based on the concept drawing provided by C.G.H.B. Division Korba

EXECUTIVE ENGINEER

ARCHITECTS
Ar. Abhinav Jaiswal Raipur C-10, Rajendra Park, Mahaveer Nagar, Raipur, Chhattisgarh Mob:- +91-8817780410 E-mail: ar.abhinavjaiswal31@gmail.com

STRUCTURAL ENG.
AURA STRUCTURE CONSULTANT RAIPUR Shop No:-205,First Floor, Shyam Square,pandri,Raipur(C.G.) E-mail:-auradesignsraipur@gmail.com Mob:-9907940866

MEP. CONSULTANT

NORTH	SCALE : NTS DIM. IN METRES	DESIGN : VARDHMAN
	PAGE NO. : 325	CHECKED : HIMANSHU
	NO.	DRAWN : VKS

DATE : 01/09/2025

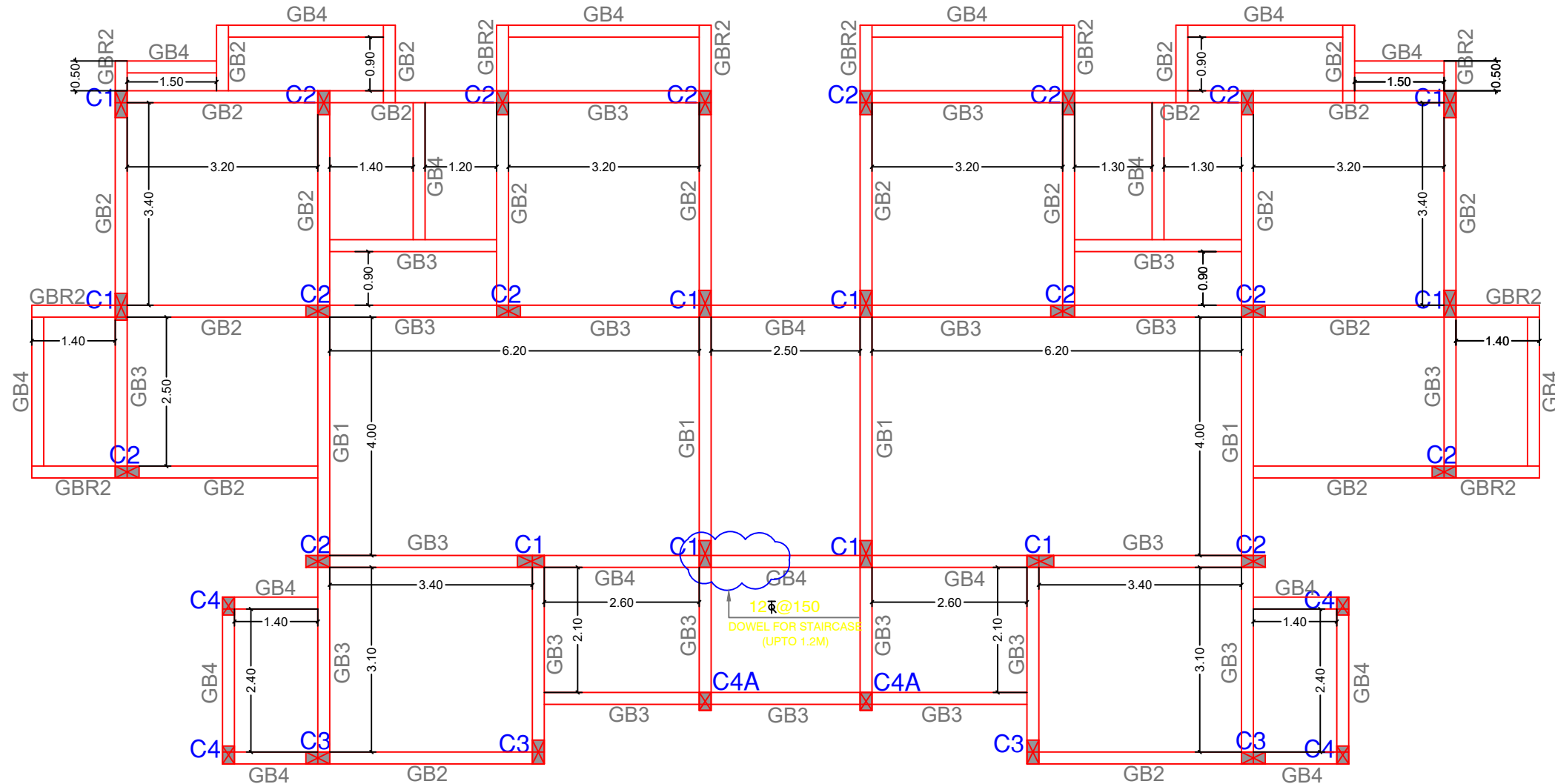


CONCRETE MIX : M 25, GRADE OF STEEL : Fe 500

TOP STEEL	M25-F6500	SHORT DIR	---	---	---	---	---	
		LONG DIR	---	---	---	---	---	
BOTTOM STEEL		SHORT DIR	T12@150 C/C	T12@150 C/C	T10@125 C/C	T10@125 C/C	T10@125 C/C	
		LONG DIR	T12@150 C/C	T12@150 C/C	T10@125 C/C	T10@125 C/C	T10@125 C/C	
DETAIL OF FOOTING		D,d	450	400	400	400	300	
		SIZE	2700 x 2400	2250 x 2400	1800 x 1800	1800 x 1800	1350 x 1350	
P.C.C		M10	150 THK	3000 x 2700	2550 x 2700	2100 x 2100	2100 x 2100	1650 x 1650
COLUMNS MARKED		C1/F1	C2/F2	C3/F3	C4A/F4A	C4/F4		
REMARKED		BOX	BOX	BOX	BOX	BOX		

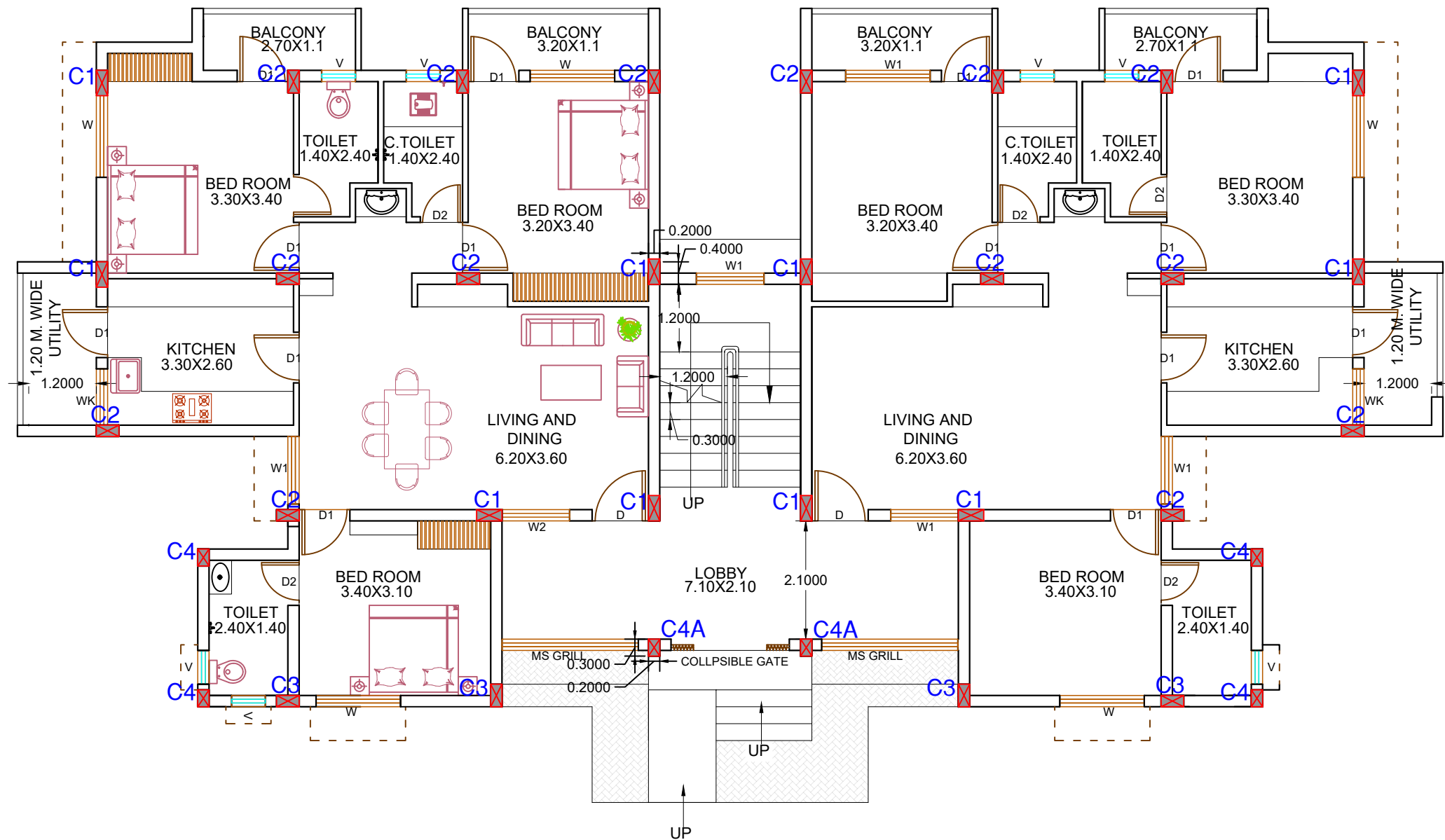
Gross Safe Bearing Capacity - 112.23 kN/m²
As per information from CGHB EE Korba

DATE : 01/09/2025



GROUND FLOOR PLAN(G+1)

F TYPE



SCHEDULE OF GROUND BEAMS

BEAM NO.	SIZE		BOTTOM REINFORCEMENT		TOP REINFORCEMENT		STIRRUPS		REMARK
	B	D	THROUGH OUT	MID SPAN 0.7xL	THROUGH OUT	EXTRA TOP 0.25xL FROM FACE OF COLUMN ON EACH SIDE	UPTO 2D FROM FACE OF COLUMN	AT MID SPAN	
GB1	200	350	2x12 Φ	2x10 Φ	2x12 Φ	2x10 Φ	8 Φ @ 150	8 Φ @ 150	---
GB2	200	350	2x12 Φ	1X12 Φ	2x12 Φ	1X12 Φ	8 Φ @ 150	8 Φ @ 150	---
GBR2	200	350	2x12 Φ	---	3x12 Φ	---	8 Φ @ 150	8 Φ @ 150	---
GB3	200	350	2x12 Φ	1X10 Φ	2x12 Φ	1X10 Φ	8 Φ @ 150	8 Φ @ 150	---
GB4	200	350	2x12 Φ	---	2x12 Φ	---	8 Φ @ 150	8 Φ @ 150	---

1. SAFE BEARING CAPACITY OF SOIL

S.B.C. OF SOIL FOR DESIGN OF FOUNDATION HAS BEEN TAKEN AS SPECIFIED. MINIMUM DEPTH SHALL BE UPTO HARD STRATA. IN CASE OF ANY DOUBT REGARDING S.B.C. DURING EXCAVATION, THE MATTER SHALL BE REPORTED TO THE GEO-TECH. CONSULTANT.

2. REINFORCING STEEL

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3. CONCRETE

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4. P.C.C.

PLAIN CEMENT CONCRETE M-10

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OR DIA. OF BAR WHICHEVER IS GREATER.

GENERAL NOTES

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Gross Safe Bearing Capacity - 112.23 kN/m²

As per information from CGHB EE Korba

F TYPE
(GAD QUARTER)
GROUND BEAM



EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

REDEVELOPMENT SCHEME AT
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TOTAL BUILT UP AREA OF
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3.	D2	DOOR	0.75X2.10M.
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5.	W1	WINDOW	1.20X1.50M.
6.	WK	WINDOW	1.00X1.00M.
7.	V	VENTILATOR	0.60X0.60M.

NO.	DATE	ISSUED	
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CGHB_KATGHORA_STRUC_MAIN

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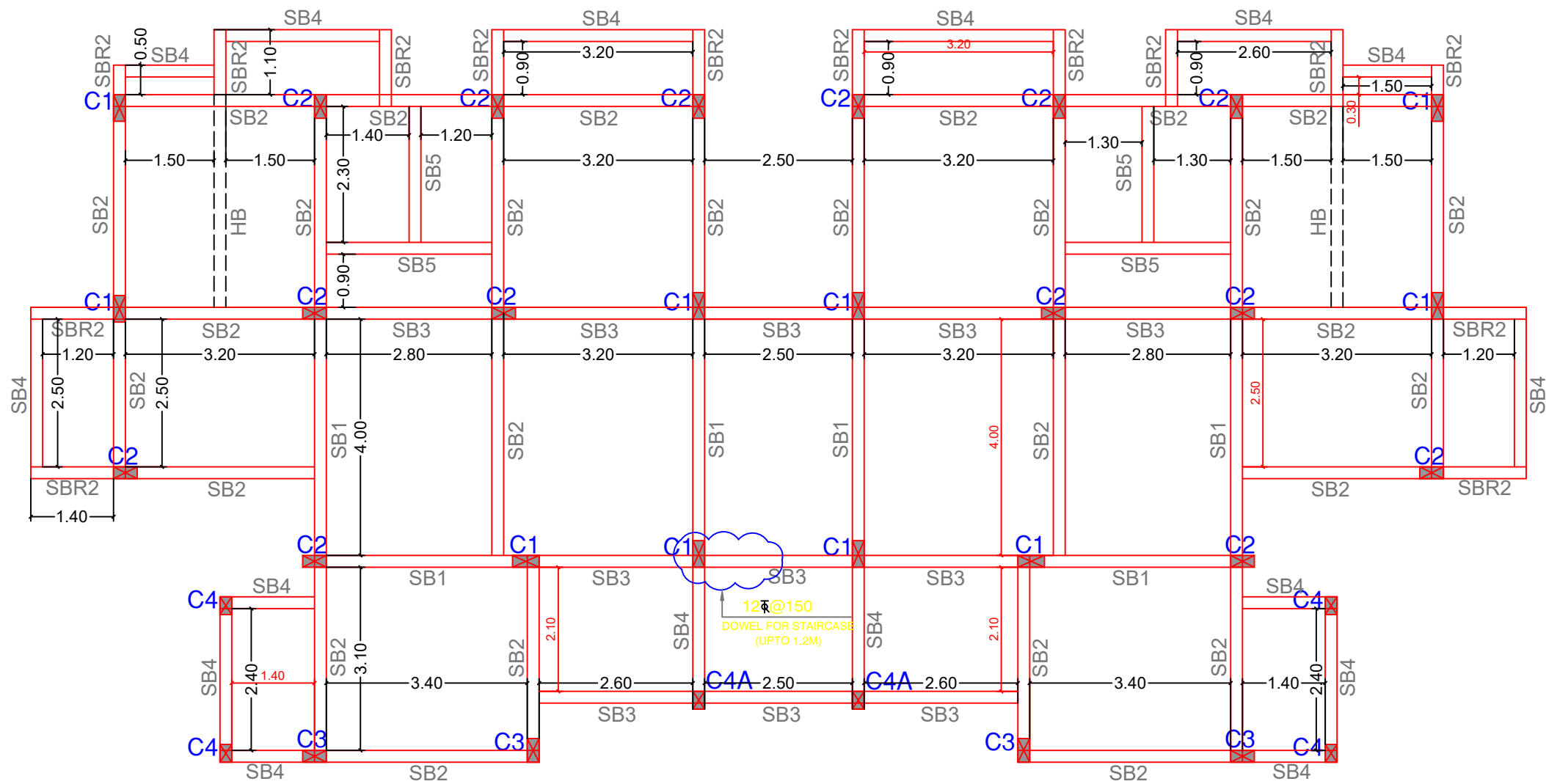
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DIM. IN METRES
PAGE NO. :
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DESIGN : VARDHMAN
CHECKED : HIMANSHU
DRAWN : VKS

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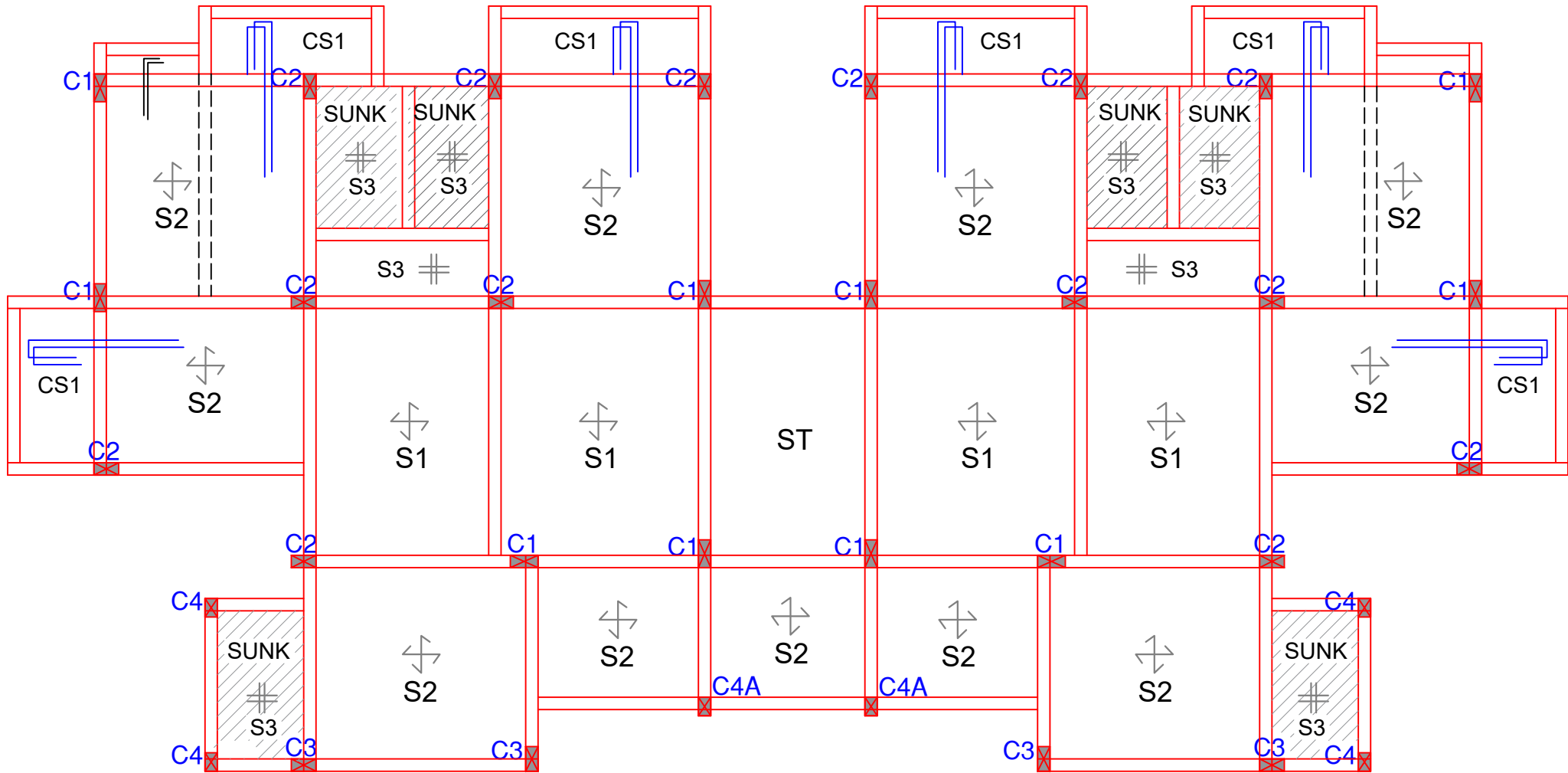
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DATE : 01/09/2025



SCHEDULE OF SLAB BEAMS

BEAM NO.	SIZE		BOTTOM REINFORCEMENT		TOP REINFORCEMENT		STIRRUPS		REMARK
	B	D	THROUGH OUT	MID SPAN 0.7xL	THROUGH OUT	EXTRA TOP 0.25xL FROM FACE OF COLUMN ON EACH SIDE	UPTO 2D FROM FACE OF COLUMN	AT MID SPAN	
SB1	200	350	2x12	2x12	2x12	2x12	8 @ 150	8 @ 150	---
SB2	200	350	2x12	2x10	2x12	2x10	8 @ 150	8 @ 150	---
SBR2	200	350	2x12	---	4x12	---	8 @ 150	8 @ 150	---
SB3	200	350	2x12	1x10	2x12	1x10	8 @ 150	8 @ 150	---
SB4	200	350	2x12	---	2x12	---	8 @ 150	8 @ 150	---
SB5	200	300	2x12	---	2x12	---	8 @ 150	8 @ 150	---
HB	300	125	3x12	---	3x12	---	8 @ 150	8 @ 150	---



SCHEDULE OF SLABS

SLAB MARKED	THICKNESS	TYPE	REINFORCEMENT		REMARK
			SHORT BAR	LONG BAR	
S1	125	TWO WAY	8@125C\C (ALT. BENT UP)	8@150C\C (ALT. BENT UP)	---
S2	125	TWO WAY	8@150C\C (ALT. BENT UP)	8@150C\C (ALT. BENT UP)	---
S3	125	T/B MESH	8@150C\C	8@150C\C	---
CS1	125	ONE WAY	10@150C\C (ALT. BENT UP)	10@150C\C (DIST.)	---

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As per information from CGHB EE Korba

F TYPE
(GAD QUARTER)
BEAM & SLAB BEAM



EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

REDEVELOPMENT SCHEME AT
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1 BLOCK : 470.80 SQM.

OPENING SCHEDULE

S. NO.	TYPE	NAME	SIZE
1.	D	DOOR	1.00X2.10M.
2.	D1	DOOR	0.90X2.10M.
3.	D2	DOOR	0.75X2.10M.
4.	W	WINDOW	1.50X1.50M.
5.	W1	WINDOW	1.20X1.50M.
6.	WK	WINDOW	1.00X1.00M.
7.	V	VENTILATOR	0.60X0.60M.

REVISIONS

NO.	DATE	ISSUED	
PRINTS ISSUED			
S. NO.	REV	DATE	DESCRIPTION

CGHB_KATGHORA_STRUC_MAIN

NOTE: This Drawing is a based on the concept drawing provided by C.G.H.B. Division Korba

EXECUTIVE ENGINEER

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STRUCTURAL ENG.

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MEP- CONSULTANT

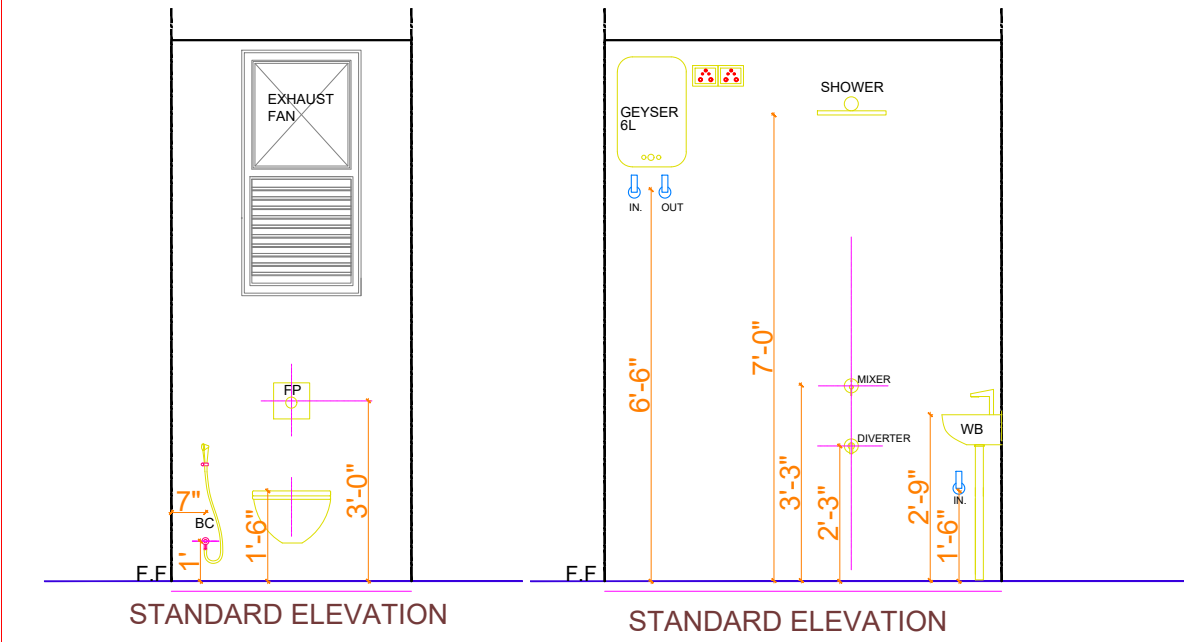
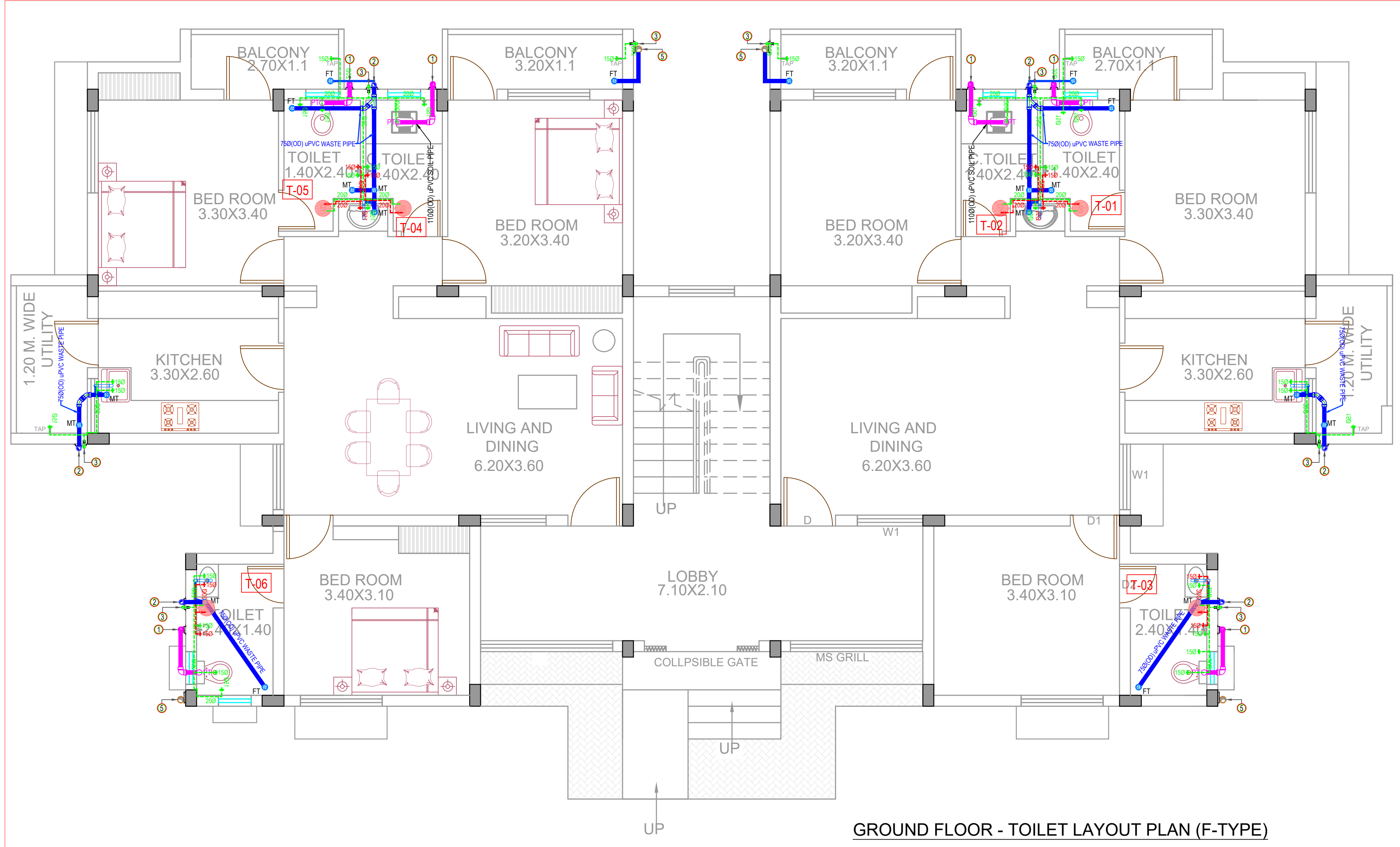
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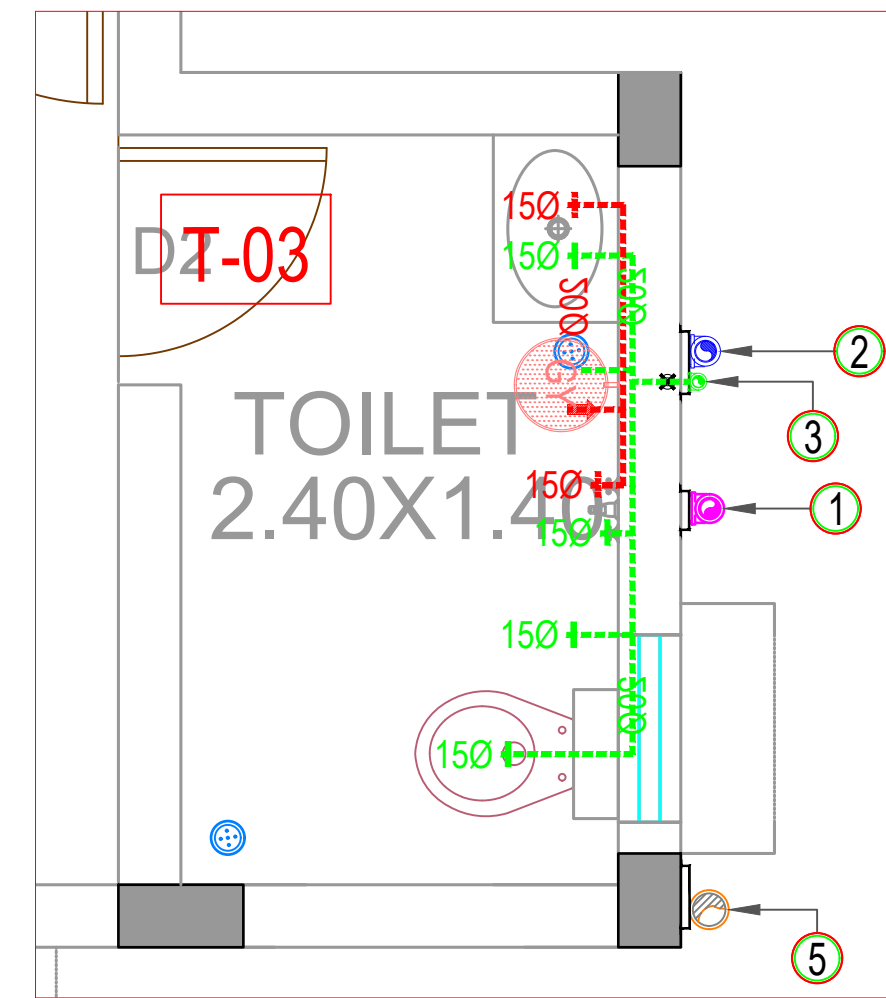
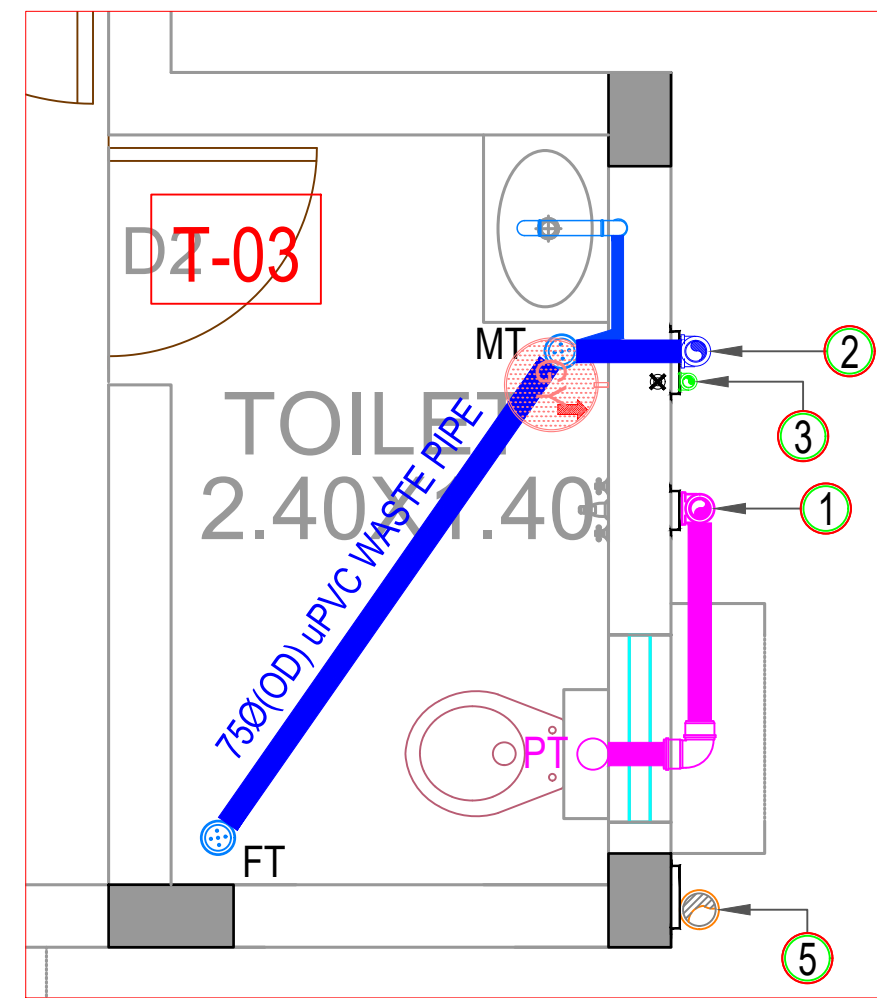
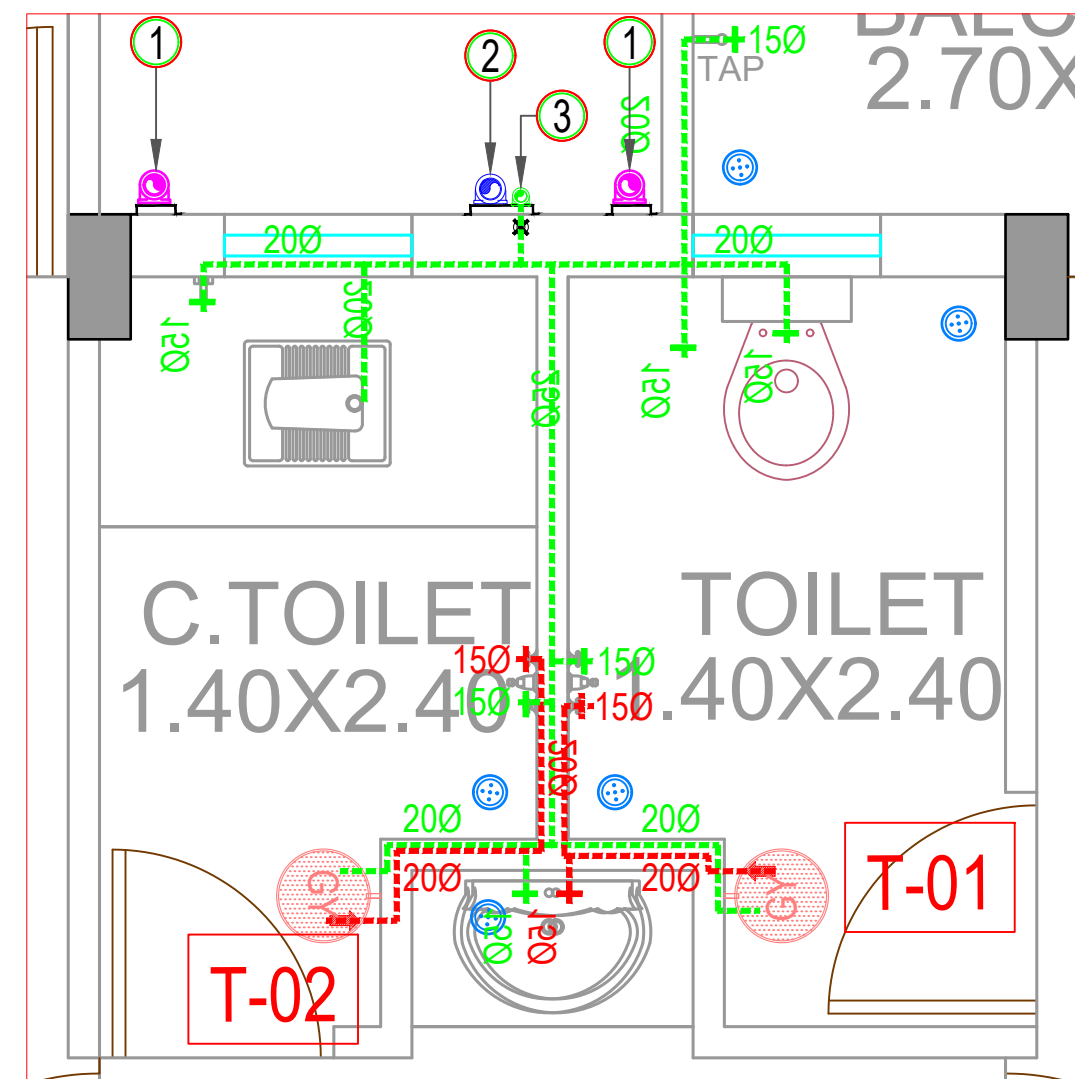
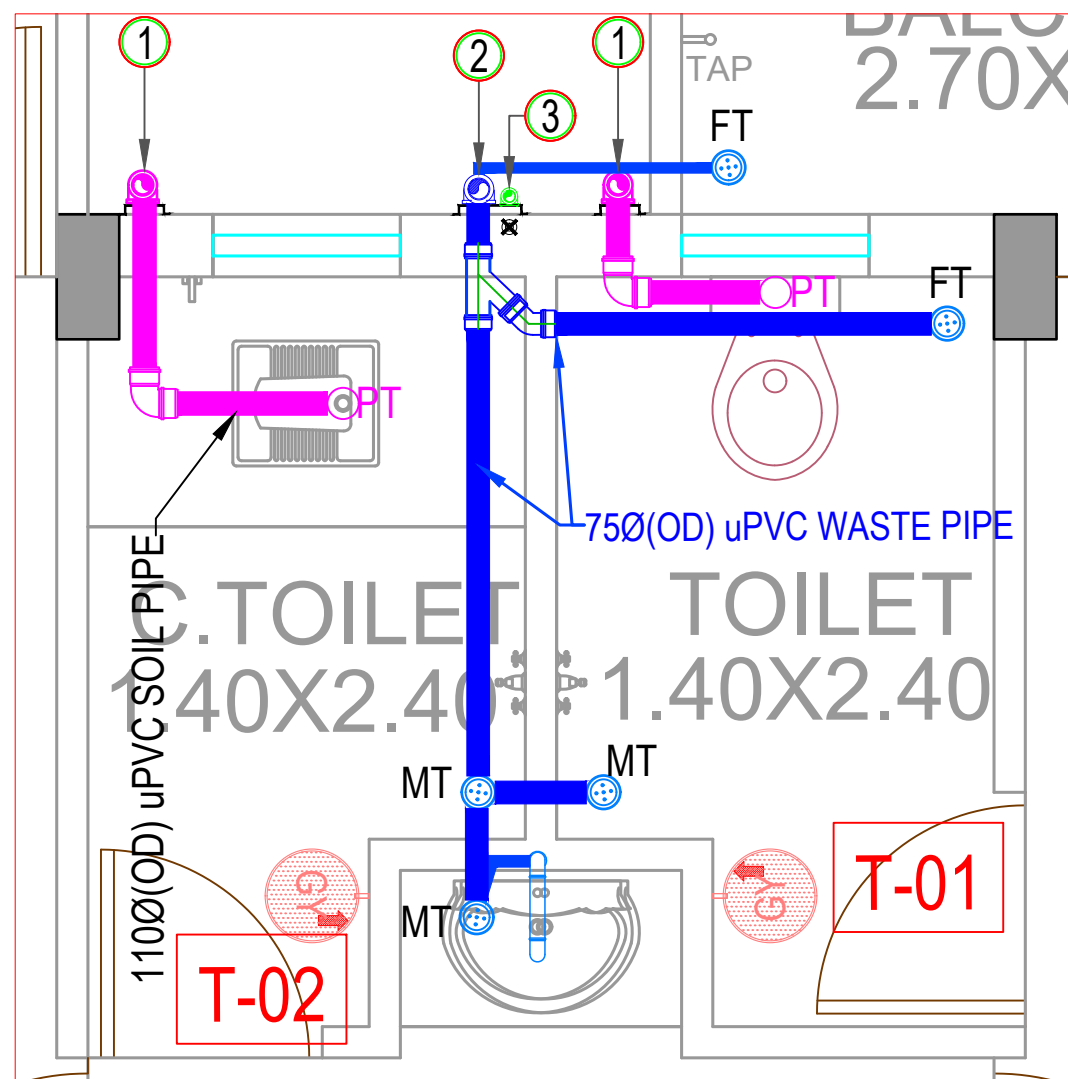
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DRAWN : VKS

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over to a third party or used for any purpose other than which it is loaned for.

DATE : 01/09/2025



LEGEND FOR PLUMBING	
MARK	DESCRIPTION
✕	BALL VALVE / CONTROL VALVE
—	uPVC SOIL PIPE
—	uPVC WASTE PIPE
—	40 Ø(OD)uPVC WASTE PIPE
—	110Ø(OD) PVC RAIN WATER PIPE
M.T	MULTI TRAP
F.T	FLOOR TRAP
G.T	GULLY TRAP 300X300
M.H.S	MANHOLE FOR SEWERAGE 600X600
CB	CATCH BASIN 450X450
—	DRINKING/COOL WATER SUPPLY PIPE
—	HOT WATER SUPPLY PIPE
—	75Ø(OD) PVC RAIN WATER PIPE
PT	P - TRAP
—	BOTTLE - TRAP
—	3" SHOWER DRAIN
UT	URINAL - TRAP



F TYPE GROUND FLOOR PLUMBING DRAWING

EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

REDEVELOPMENT SCHEME
AT KATGHORA SITE 2
(GOVT FACILITY PART)

NO.	DATE	ISSUED
PRINTS ISSUED		
S. NO.	REV	DATE
03 - RO - F-BLOCK PLUMBING DWG - CGHB, KATGHORA		

EXECUTIVE ENGINEER

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E-mail: ar.abhinavjaiswal31@gmail.com

ARCHITECTS

STRUCTURAL ENG.

MEP CONSULTANT

DATE: 01/09/2025

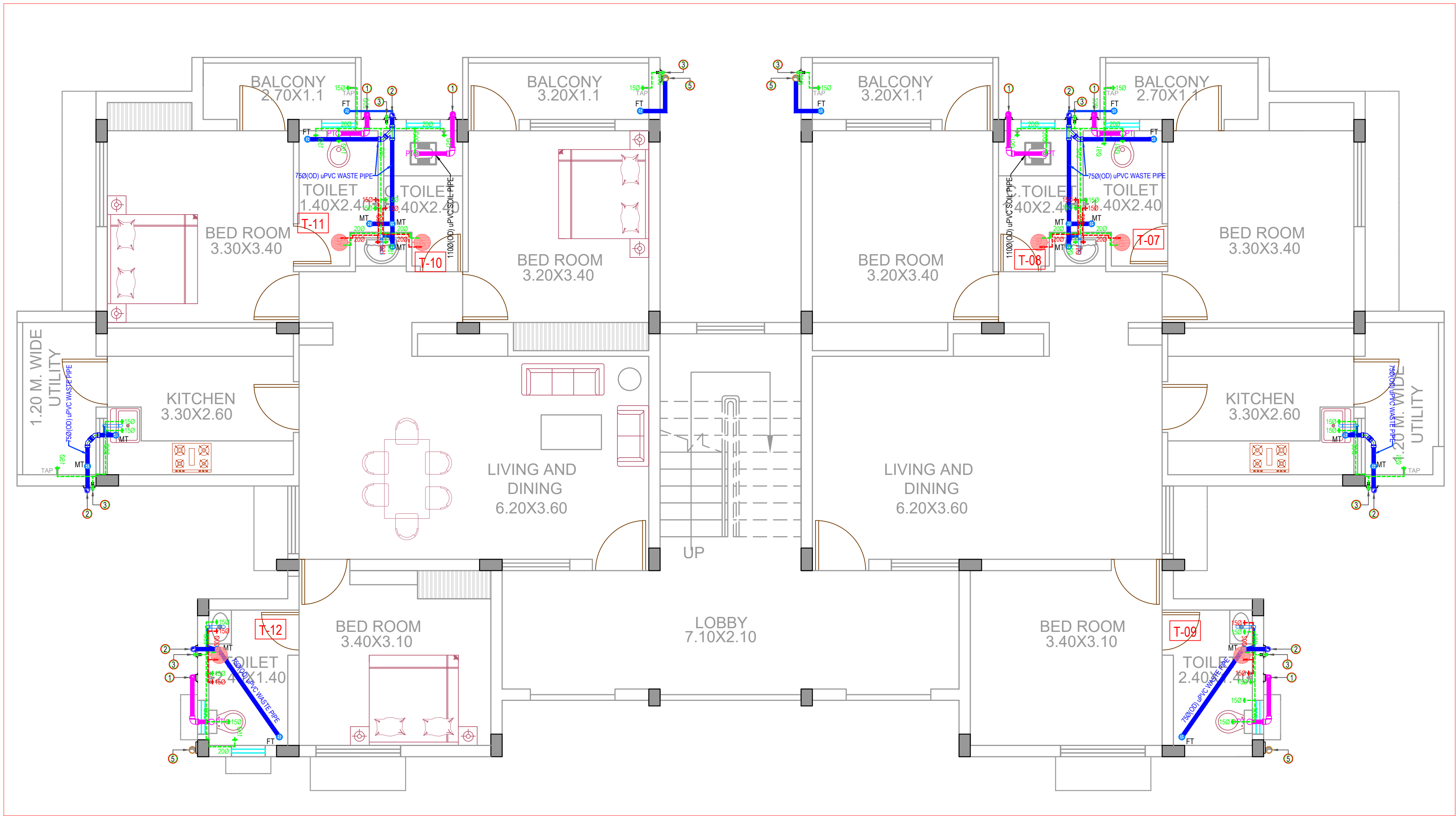


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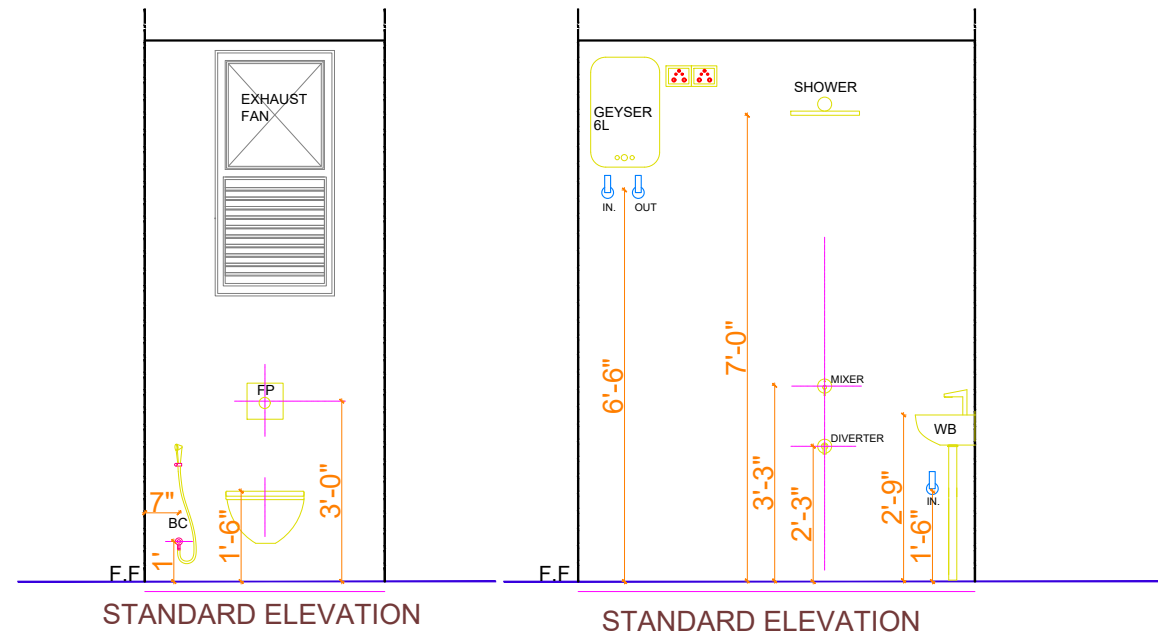
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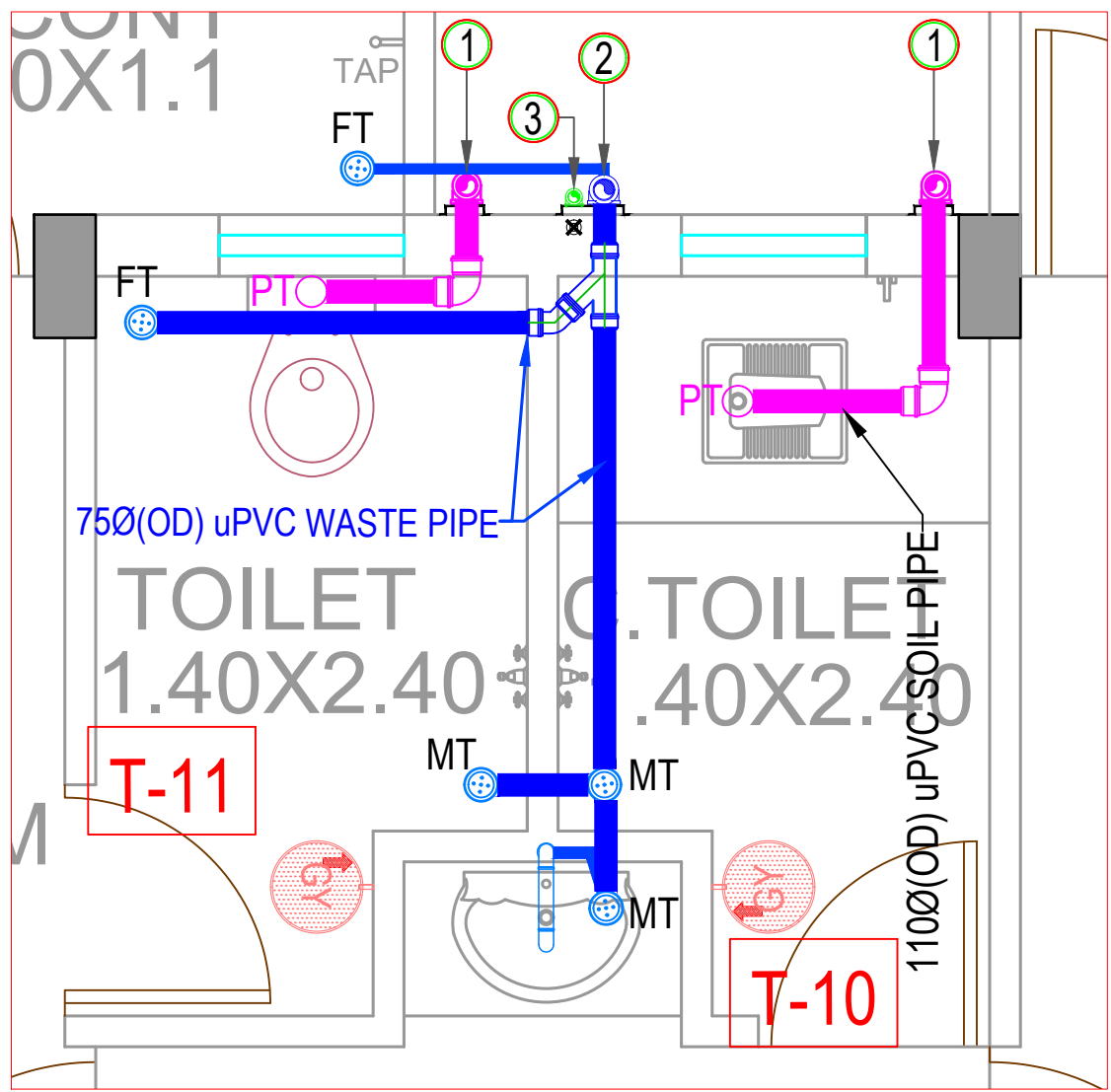
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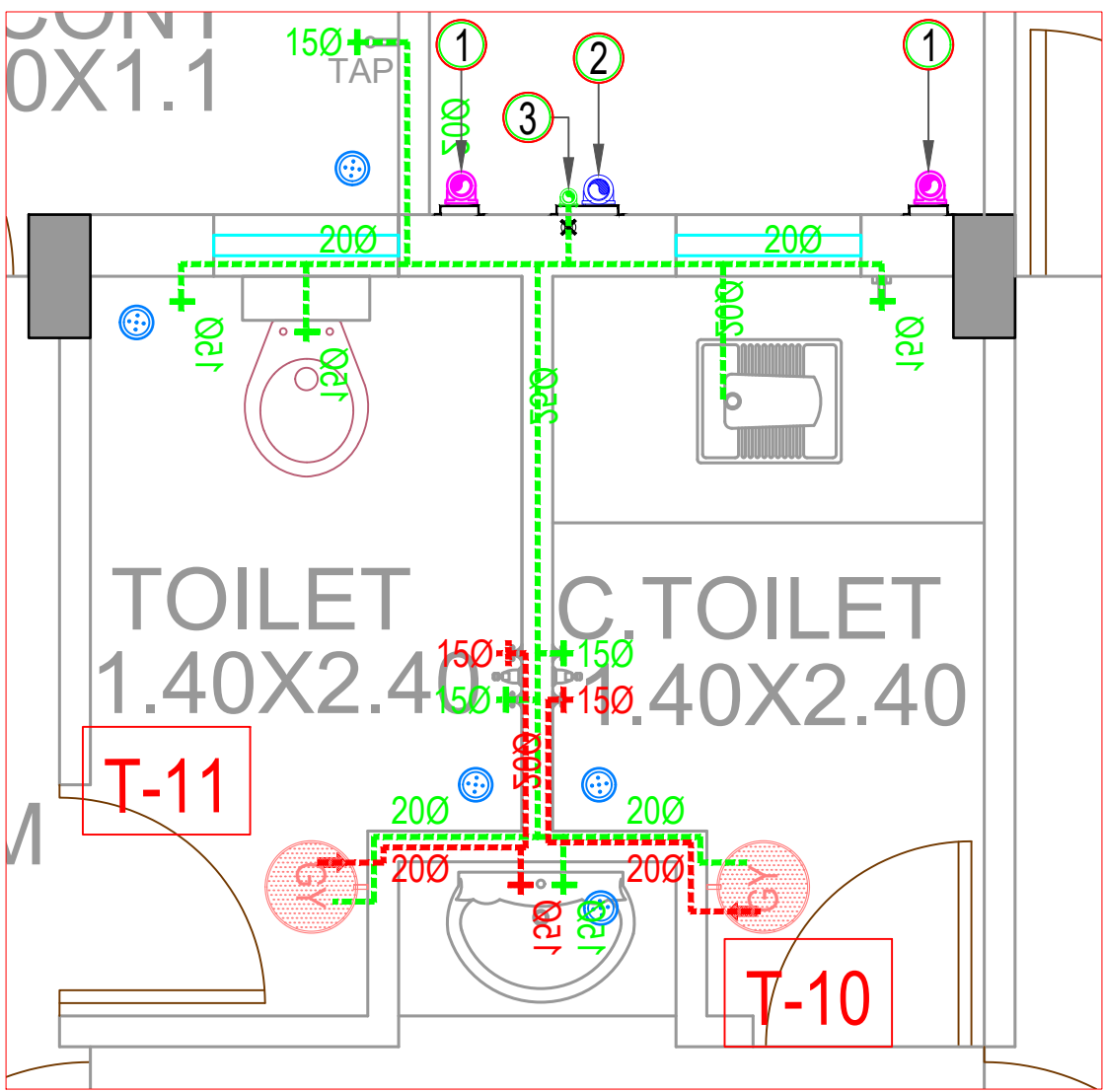
FIRST FLOOR - TOILET LAYOUT PLAN (F-TYPE)



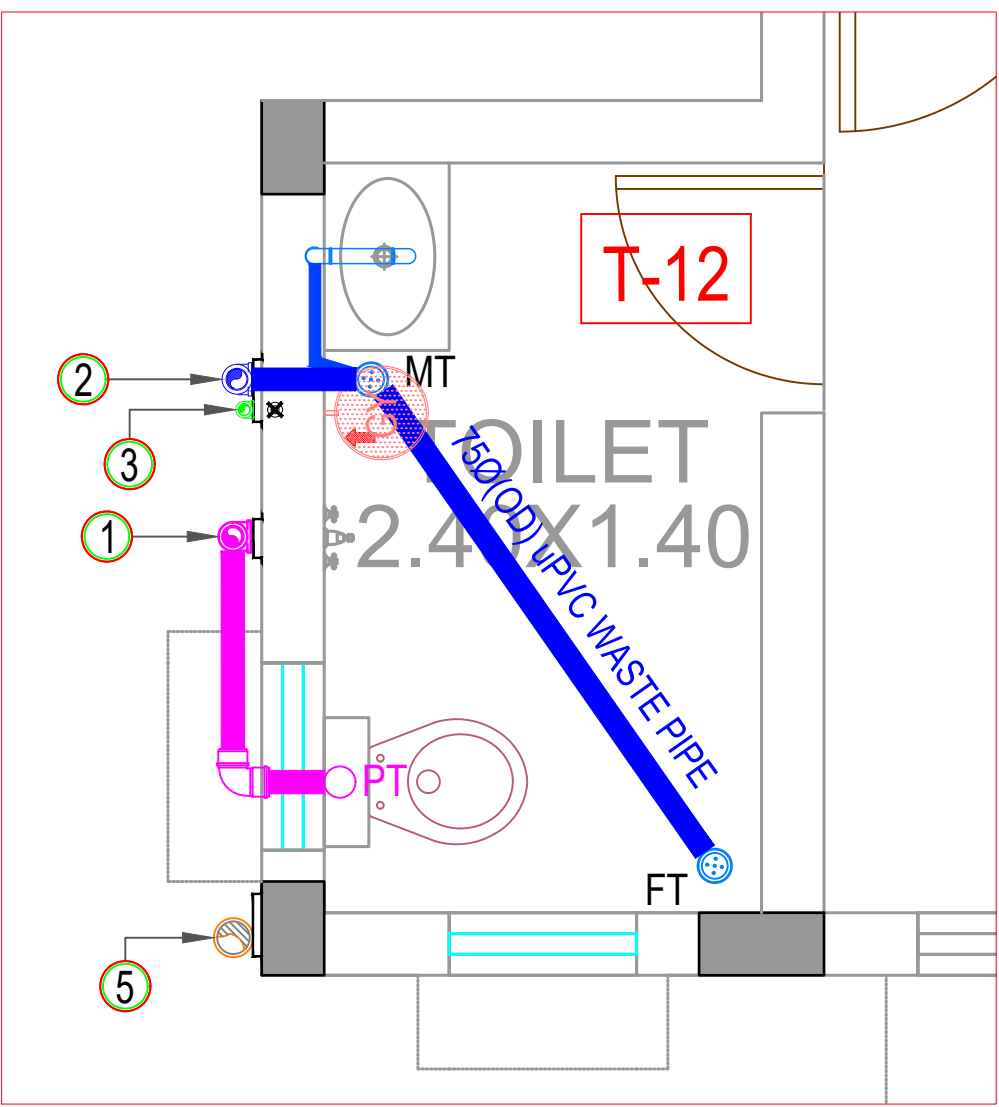
LEGEND FOR PLUMBING	
MARK	DESCRIPTION
✕	BALL VALVE / CONTROL VALVE
—	uPVC SOIL PIPE
—	uPVC WASTE PIPE
—	40 Ø(OD)uPVC WASTE PIPE
—	110Ø(OD) PVC RAIN WATER PIPE
M.T	MULTI TRAP
F.T	FLOOR TRAP
G.T	GULLY TRAP 300X300
M.H.S	MANHOLE FOR SEWERAGE 600X600
CB	CATCH BASIN 450X450
—	DRINKING/COOL WATER SUPPLY PIPE
—	HOT WATER SUPPLY PIPE
—	75Ø(OD) PVC RAIN WATER PIPE
PT	P - TRAP
—	BOTTLE - TRAP
—	3" SHOWER DRAIN
UT	URINAL - TRAP



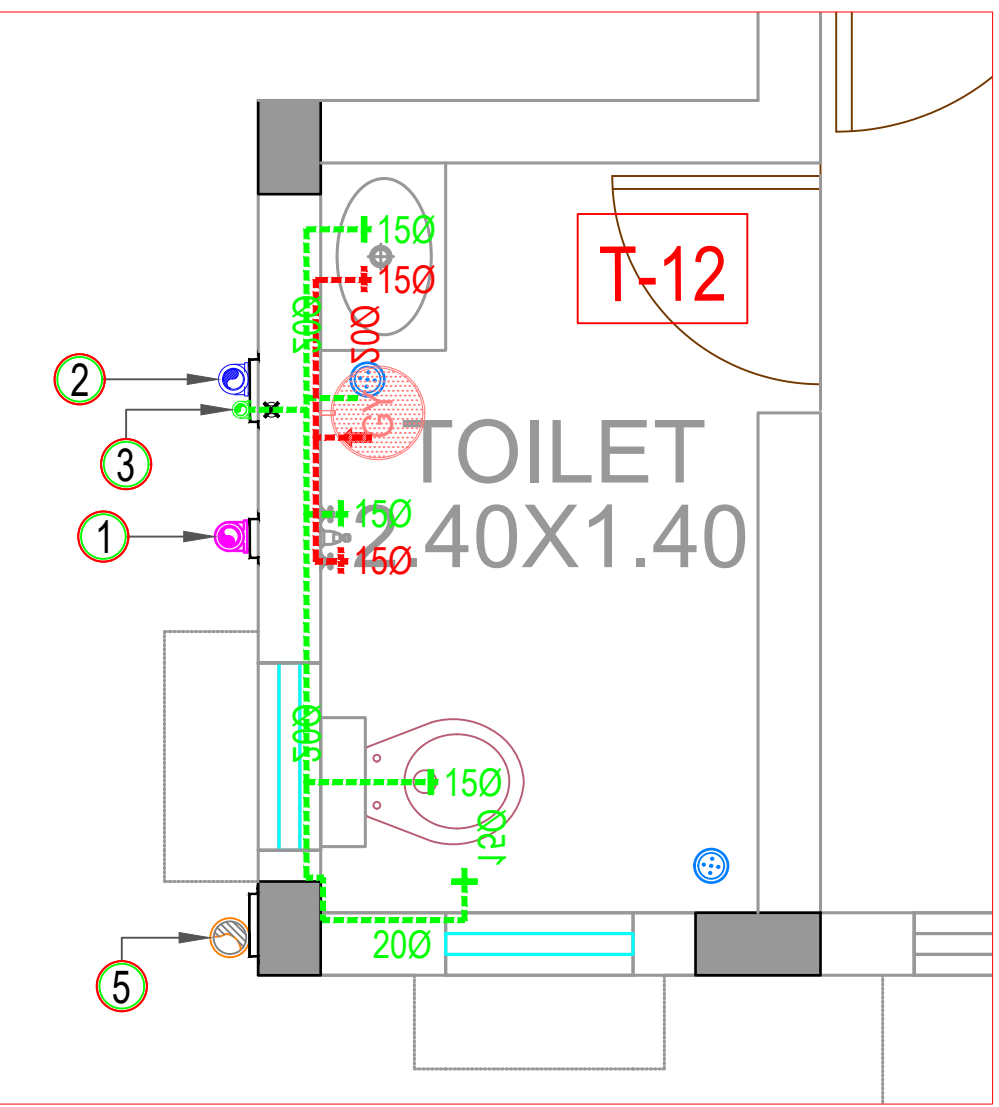
T- 10 & 11 - WASTE WATER LINE PLAN



T- 10 & 11 - WATER SUPPLY LINE PLAN



T- 12 - WASTE WATER LINE PLAN



T- 12 - WATER SUPPLY LINE PLAN

F TYPE
FIRST FLOOR
PLUMBING DRAWING

EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

REDEVELOPMENT SCHEME
AT KATGHORA SITE 2
(GOVT FACILITY PART)

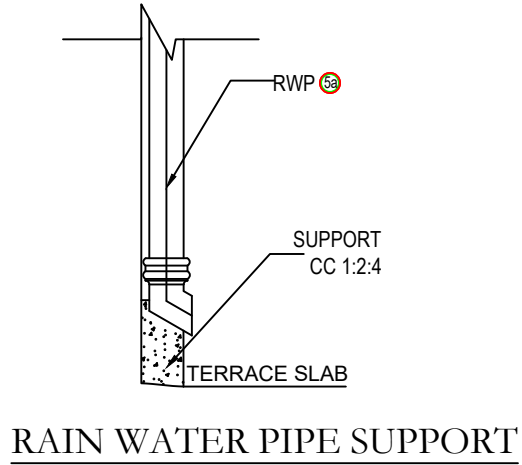
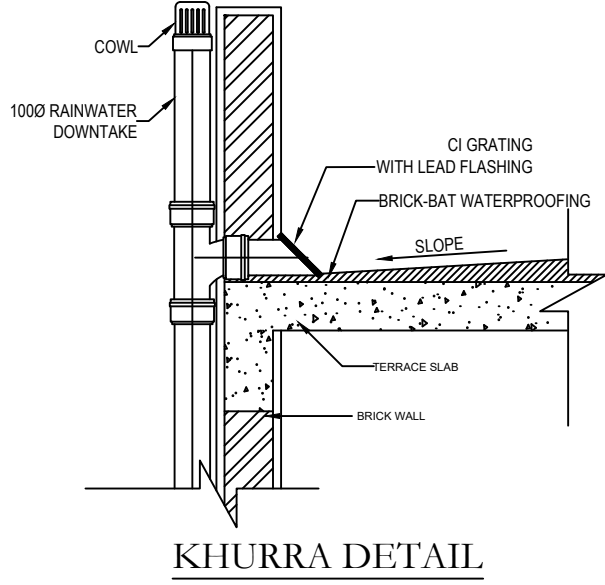
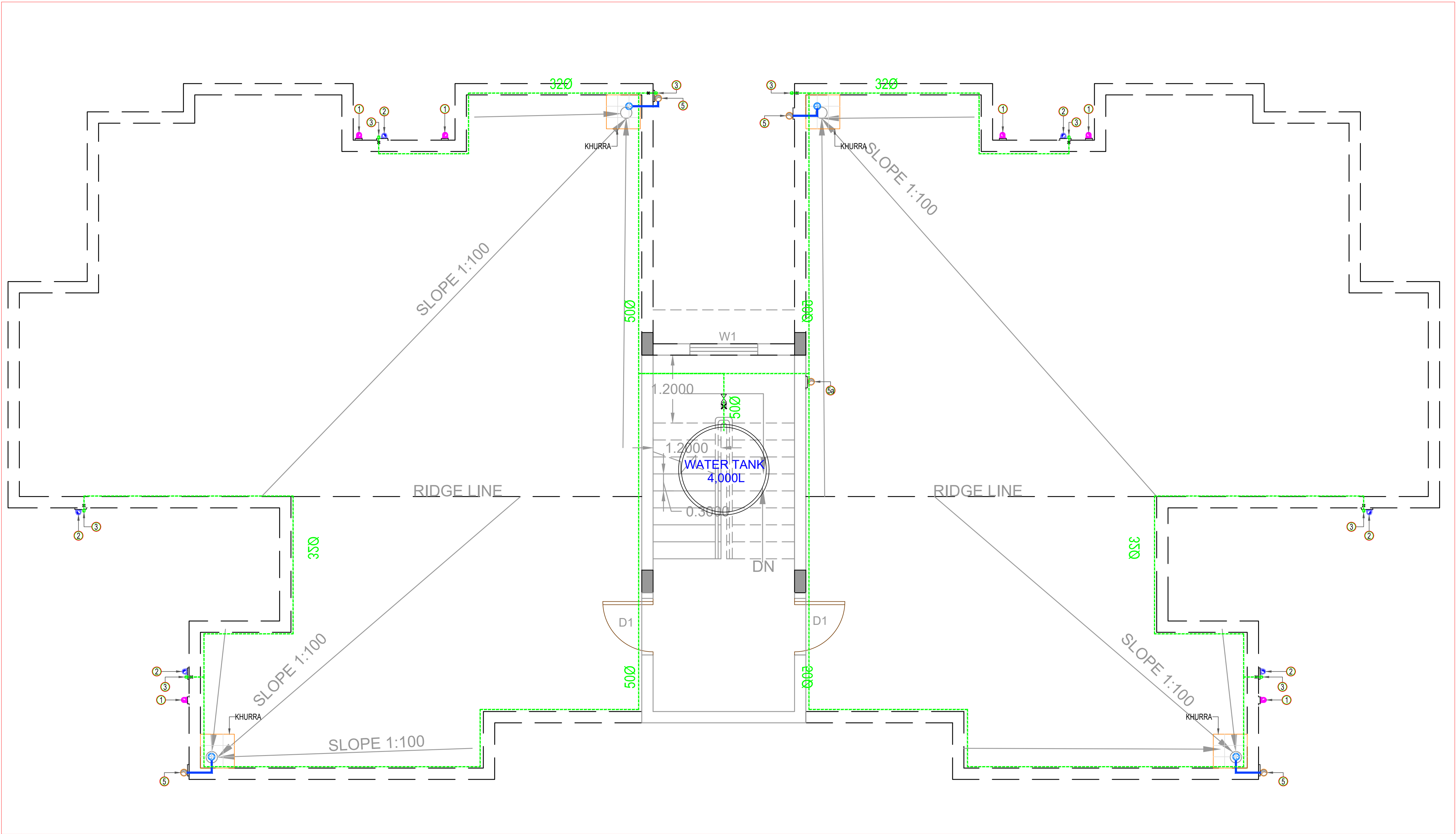
NO.	DATE	ISSUED
PRINTS ISSUED		
S. NO.	REV	DATE
DESCRIPTION		
03 - RO - F-BLOCK PLUMBING DWG - CGHB, KATGHORA		

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DESIGN : Satya
CHECKED : Satya
DRAWN :
DATE : 01/09/2025

SELL EVD: ARCHITECT NAVEEN MANI/KATGHORA/03 - RO - F-BLOCK PLUMBING DWG - CGHB, KATGHORA
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TERRACE FLOOR - PLUMBING DWG (F-TYPE)

DWG. TITLE

F TYPE
TERRACE FLOOR
PLUMBING DRAWING

CLIENT NAME



EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

PROJECT

REDEVELOPMENT SCHEME
AT KATGHORA SITE 2
(GOVT FACILITY PART)

REVISIONS

NO.	DATE	ISSUED
PRINTS ISSUED		

S. NO.	REV	DATE	DESCRIPTION
03	—	RO	— F-BLOCK PLUMBING DWG — CGHB, KATGHORA


EXECUTIVE ENGINEER

ARCHITECTS

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STRUCTURAL ENG.

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PLUMBING + FIRE + ELECTRICAL
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NORTH



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PAGE NO. :

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DESIGN : Satya

CHECKED : Satya

DRAWN :

DATE : 01/09/2025

SELL E/D1- ARCHITECT NAVEEN MANI/KATGHORA/03 - RO - F-BLOCK PLUMBING DWG - CGHB, KATGHORA
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SR.NO.	DESCRIPTION	SYMBOL	HEIGHT FROM FFL
1	SWITCH BOARD -01	SB-01	1370
2	SWITCH BOARD -02	SB-02	600
2	SWITCH BOARD -03	SB-03	1140
3	15 W. PANEL		
4	CEILING FAN		
5	PICTURE LIGHT		2100
6	GEYSER		2440
7	AC with 3" pvc conduit for outdoor line(optional)	AC	2750
8	TUBELIGHT		2450
9	DOOR BELL		1370
10	BLUE/ZERO LIGHT		2750
11	LIGHT POINT		2750
12	EXHAUST		
13	CHIMNEY		2100
14	CEILING AC		
15.	PROFILE LIGHT		

SR.NO.	DESCRIPTION	SYMBOL	HEIGHT FROM FFL
16	SEPARATE BOARD 1-SWITCH AND 1-6A SOCKET		1370/600
17	LAN POINT		
18	TV POINT		600
19	T.P. POINT		
20	CALL BELL POINT		1370
21	LED LIGHT 15W		
22	TWO WAY		
23	MCB BOARD		
24	METERING BOARD		
25	POWER POINT 1-SWITCH AND 1-16A SOCKET		1370
26	CONTROL BOARD		
27	STREET LIGHT		
28	BULK POINT		2750

F - TYPE GROUND FLOOR ELECTRICAL PLAN(G+1)

ELECTRICAL DRAWING

EXECUTIVE ENGINEER, CHHATTISGARH HOUSING BOARD DIVISION -KORBA, DISTRICT-KORBA

REDEVELOPMENT SCHEME AT KATGHORA SITE 2

REVISIONS	NO.	DATE	ISSUED	
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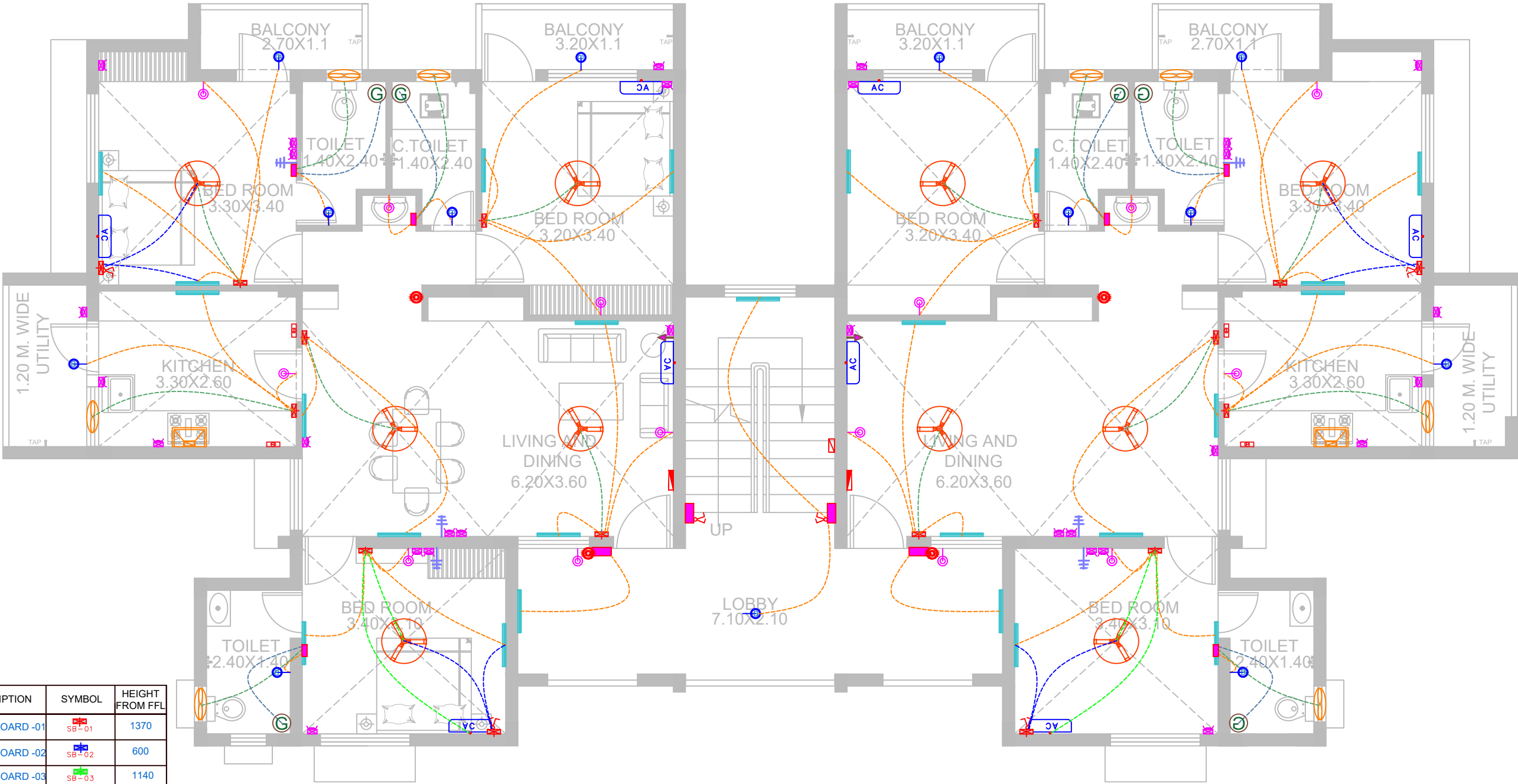
Ar. Abhinav Jaiswal Raipur C-10, Rajendra Park, Mahaveer Nagar, Raipur, Chhattisgarh Mob:- +91-8817780410 E-mail: ar.abhinavjaiswal31@gmail.com



SR.NO.	DESCRIPTION	SYMBOL	HEIGHT FROM FFL
1	SWITCH BOARD -01	SB-01	1370
2	SWITCH BOARD -02	SB-02	600
2	SWITCH BOARD -03	SB-03	1140
3	15 W. PANEL		
4	CEILING FAN		
5	PICTURE LIGHT		2100
6	GEYSER		2440
7	AC with 3" pvc conduit for outdoor line(optional)	AC	2750
8	TUBELIGHT		2450
9	DOOR BELL		1370
10	BLUE/ZERO LIGHT		2750
11	LIGHT POINT		2750
12	EXHAUST		
13	CHIMNEY		2100
14	CEILING AC		
15.	PROFILE LIGHT		

SR.NO.	DESCRIPTION	SYMBOL	HEIGHT FROM FFL
16	SEPARATE BOARD 1-SWITCH AND 1-6A SOCKET		1370/600
17	LAN POINT		
18	TV POINT		600
19	T.P. POINT		
20	CALL BELL POINT		1370
21	LED LIGHT 15W		
22	TWO WAY		
23	MCB BOARD		
24	METERING BOARD		
25	POWER POINT 1-SWITCH AND 1-16A SOCKET		1370
26	CONTROL BOARD		
27	STREET LIGHT		
28	BULK POINT		2750

F - TYPE FIRST FLOOR
ELECTRICAL PLAN(G+1)



DWG. TITLE

ELECTRICAL DRAWING

CLIENT NAME

EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

PROJECT

REDEVELOPMENT
SCHEME AT KATGHORA
SITE 2

REVISIONS

NO.	DATE	ISSUED
PRINTS ISSUED		

S. NO.	REV	DATE	DESCRIPTION
Electrical Drawing_CGHB_GAD_Katghora			

EXECUTIVE ENGINEER

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STRUCTURAL ENG.

MEP. CONSULTANT

PLUMBING - FIRE - ELECTRICAL
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NORTH

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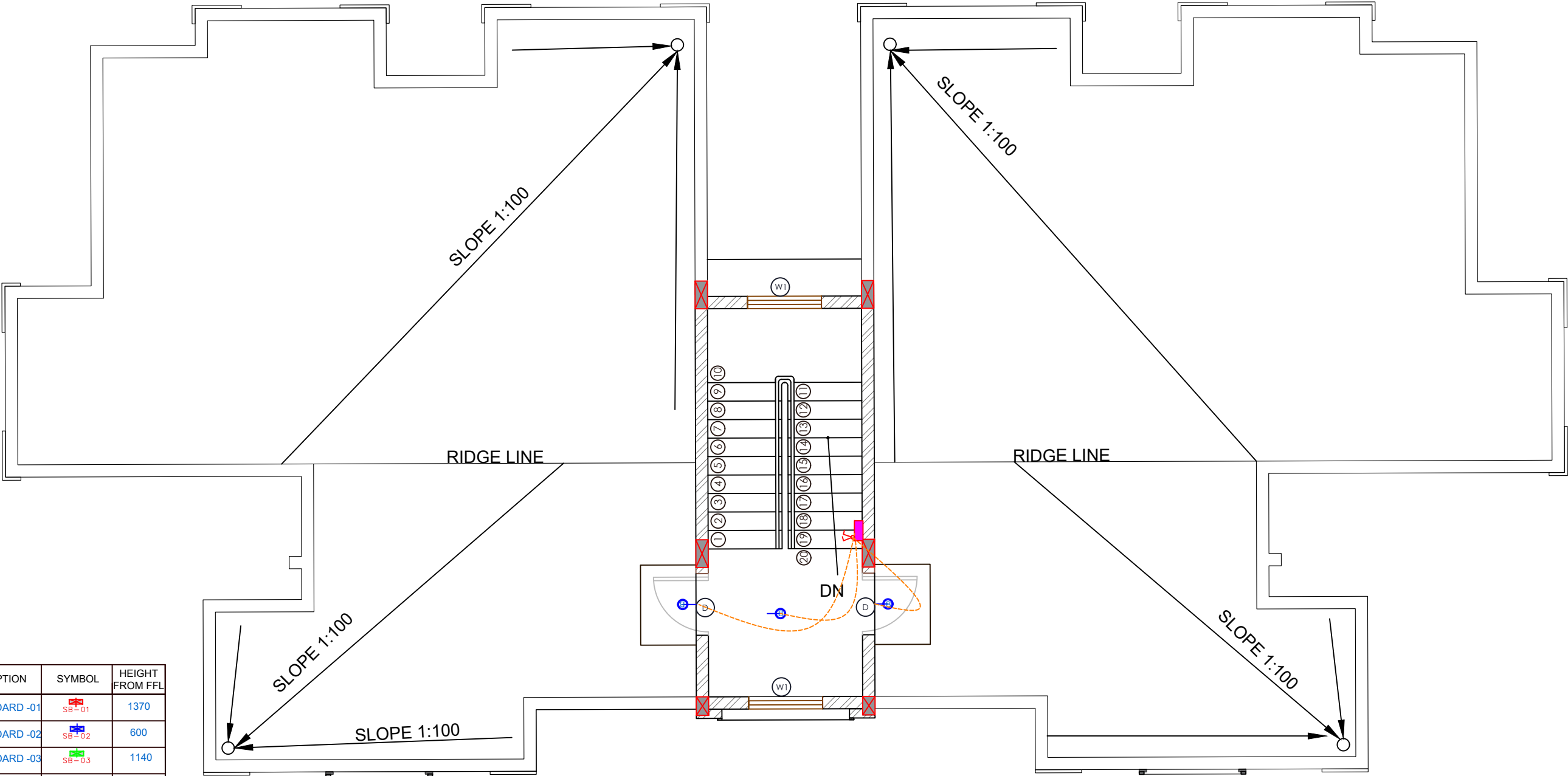
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DATE : 01/09/2025

SR.NO.	DESCRIPTION	SYMBOL	HEIGHT FROM FFL
1	SWITCH BOARD -01	SB-01	1370
2	SWITCH BOARD -02	SB-02	600
2	SWITCH BOARD -03	SB-03	1140
3	15 W. PANEL		
4	CEILING FAN		
5	PICTURE LIGHT		2100
6	GEYSER	G	2440
7	AC with 3" pvc conduit for outdoor line(optional)	AC	2750
8	TUBELIGHT		2450
9	DOOR BELL		1370
10	BLUE/ZERO LIGHT		2750
11	LIGHT POINT		2750
12	EXHAUST		
13	CHIMNEY		2100
14	CEILING AC		
15.	PROFILE LIGHT		

SR.NO.	DESCRIPTION	SYMBOL	HEIGHT FROM FFL
16	SEPARATE BOARD 1-SWITCH AND 1-6A SOCKET		1370/600
17	LAN POINT		
18	TV POINT		600
19	T.P. POINT		
20	CALL BELL POINT		1370
21	LED LIGHT 15W		
22	TWO WAY		
23	MCB BOARD		
24	METERING BOARD		
25	POWER POINT 1-SWITCH AND 1-16A SOCKET		1370
26	CONTROL BOARD		
27	STREET LIGHT		
28	BULK POINT		2750

F - TYPE TERRACE FLOOR
ELECTRICAL PLAN(G+1)



DWG. TITLE

ELECTRICAL DRAWING

CLIENT NAME

EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

PROJECT

REDEVELOPMENT
SCHEME AT KATGHORA
SITE 2

REVISIONS

NO.	DATE	ISSUED
PRINTS ISSUED		

S. NO.	REV	DATE	DESCRIPTION
Electrical Drawing_CGHB_GAD_Katghora			

EXECUTIVE ENGINEER

ARCHITECTS

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STRUCTURAL ENG.

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PLUMBING - FIRE - ELECTRICAL
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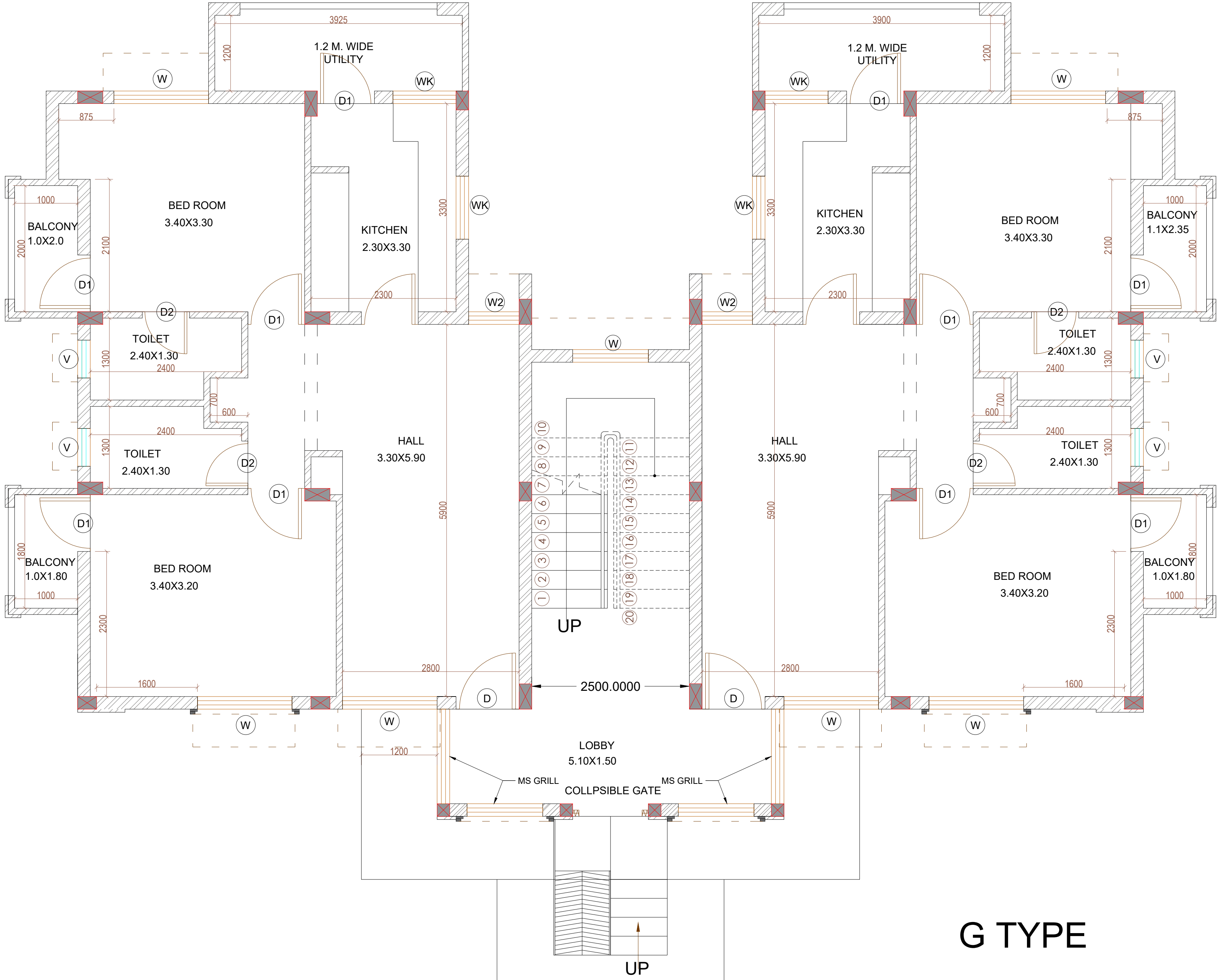
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DATE : 01/09/2025

G TYPE

1. ARCHITECTURAL DRAWINGS
2. 3D RENDERS
3. STRUCTURAL DRAWINGS
4. PLUMBING
5. ELECTRICAL

REDEVELOPMENT SCHEME AT KATGHORA SITE 2



GROUND FLOOR PLAN(G+1)

G TYPE

G TYPE(GAD QUARTER)
GROUND FLOOR
PLAN

EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

REDEVELOPMENT SCHEME
AT KATGHORA SITE 2
(GOVT. FACILITY PART)

AREA STATEMENT

BUILT UP AREA OF : 72.85 SQM.
1 UNIT
SUPER BUIL TUP AREA OF : 83.72 SQM.
1 UNIT
BUA. GF. : 169.54 SQM.
BUA. FF. : 169.54 SQM.
BUA MUMTY : 16.53 SQM.
TOTAL BUILT UP AREA OF : 355.61 SQM.
1 BLOCK

OPENING SCHEDULE

S. NO.	TYPE	NAME	SIZE
	D	DOOR	1.00X2.10M.
	D1	DOOR	0.90X2.10M.
	D2	DOOR	0.75X2.10M.
	W	WINDOW	1.50X1.50M.
	W1	WINDOW	1.20X1.00M.
	W2	WINDOW	0.75X1.00M.
	WK	WINDOW	1.00X1.00M.
	V	VENTILATOR	0.60X0.60M.

REVISIONS

NO.	DATE	ISSUED	
PRINTS ISSUED			
S. NO.	REV	DATE	DESCRIPTION
20250924 KATGHORA GAD			

NOTE: This Drawing is a based on the concept drawing provided by C.G.H.B. Division Korba

EXECUTIVE ENGINEER
SS
Railing

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STRUCTURAL ENG.

MEP- CONSULTANT

NORTH

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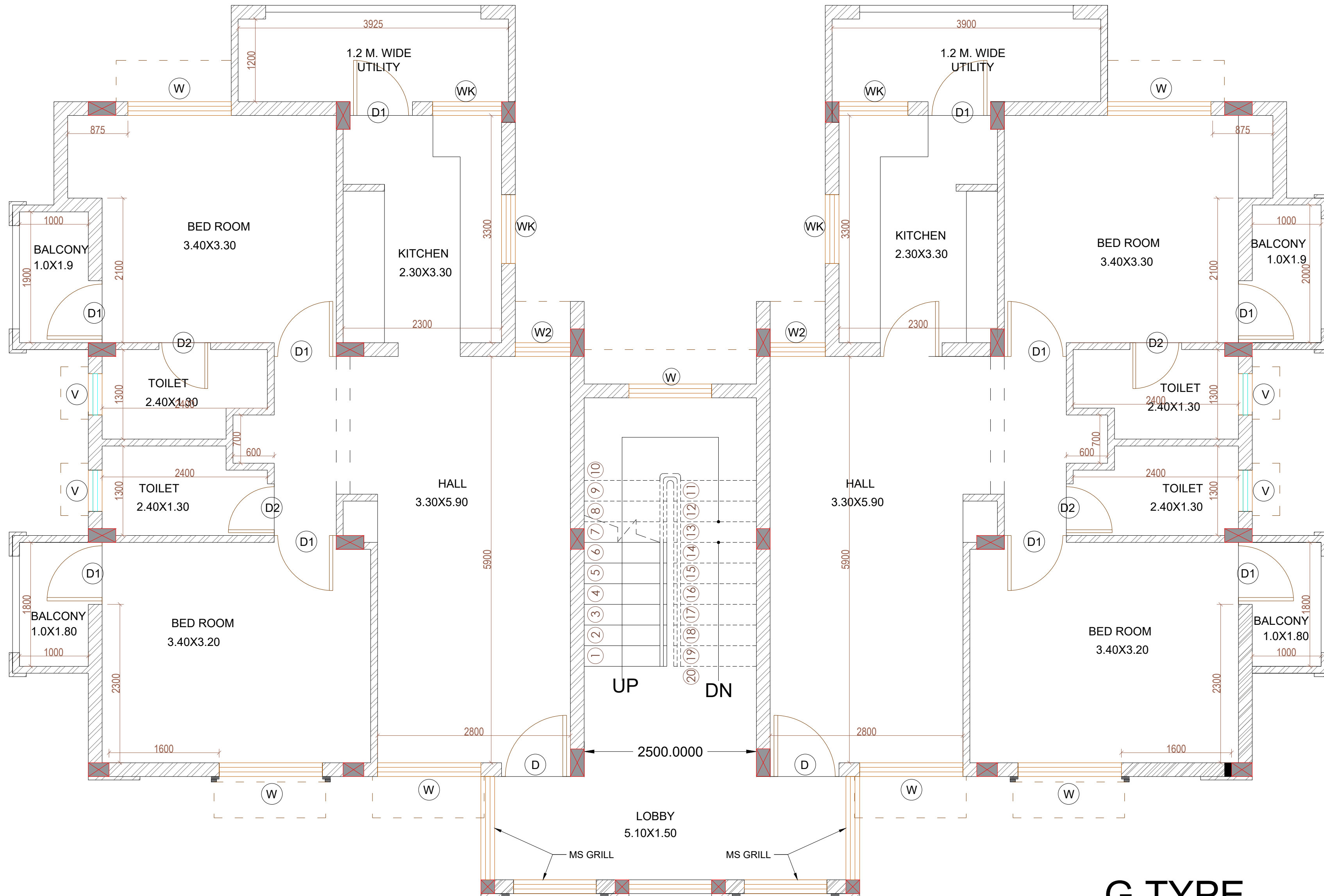
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DATE: 01/09/2025

REDEVELOPMENT SCHEME AT KATGHORA SITE 2




G TYPE

FIRST FLOOR PLAN(G+1)

DRG. TITLE

G TYPE(GAD QUARTER)
FIRST FLOOR PLAN

CLIENT NAME		EXECUTIVE ENGINEER, CHHATTISGARH HOUSING BOARD DIVISION -KORBA,DISTRICT-KORBA

PROJECT	REDEVELOPMENT SCHEME AT KATGHORA SITE 2 (GOVT. FACILITY PART)
---------	---

	AREA STATEMENT
--	-----------------------

BUILT UP AREA OF : 72.85 SQM.
1 UNIT

SUPER BUILT UP AREA OF : 83.72 SQM.
1 UNIT

BUA. GF.	:	169.54 SQM.
BUA. FF.	:	169.54 SQM.
BUA MUMTY	:	16.53 SQM.

TOTAL BUILT UP AREA OF 1 BLOCK	:	355.61 SQM.
-----------------------------------	---	-------------

OPENING SCHEDULE

S. NO.	TYPE	NAME	SIZE
	D	DOOR	1.00X2.10M.
	D1	DOOR	0.90X2.10M.
	D2	DOOR	0.75X2.10M.
	W	WINDOW	1.50X1.50M.
	W1	WINDOW	1.20X1.00M.
	W2	WINDOW	0.8X1.00M.
	WK	WINDOW	1.00X1.00M.
	V	VENTILATOR	0.60X0.60M.

[illegible]

20250924 KATGHORA GAD


NOTE: This Drawing is based on the concept drawing provided by C.G.H.B. Division Korba

EXECUTIVE ENGINEER	SS Railing
--------------------	---------------

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STRUCTURAL ENG.

MEP. CONSULTANT

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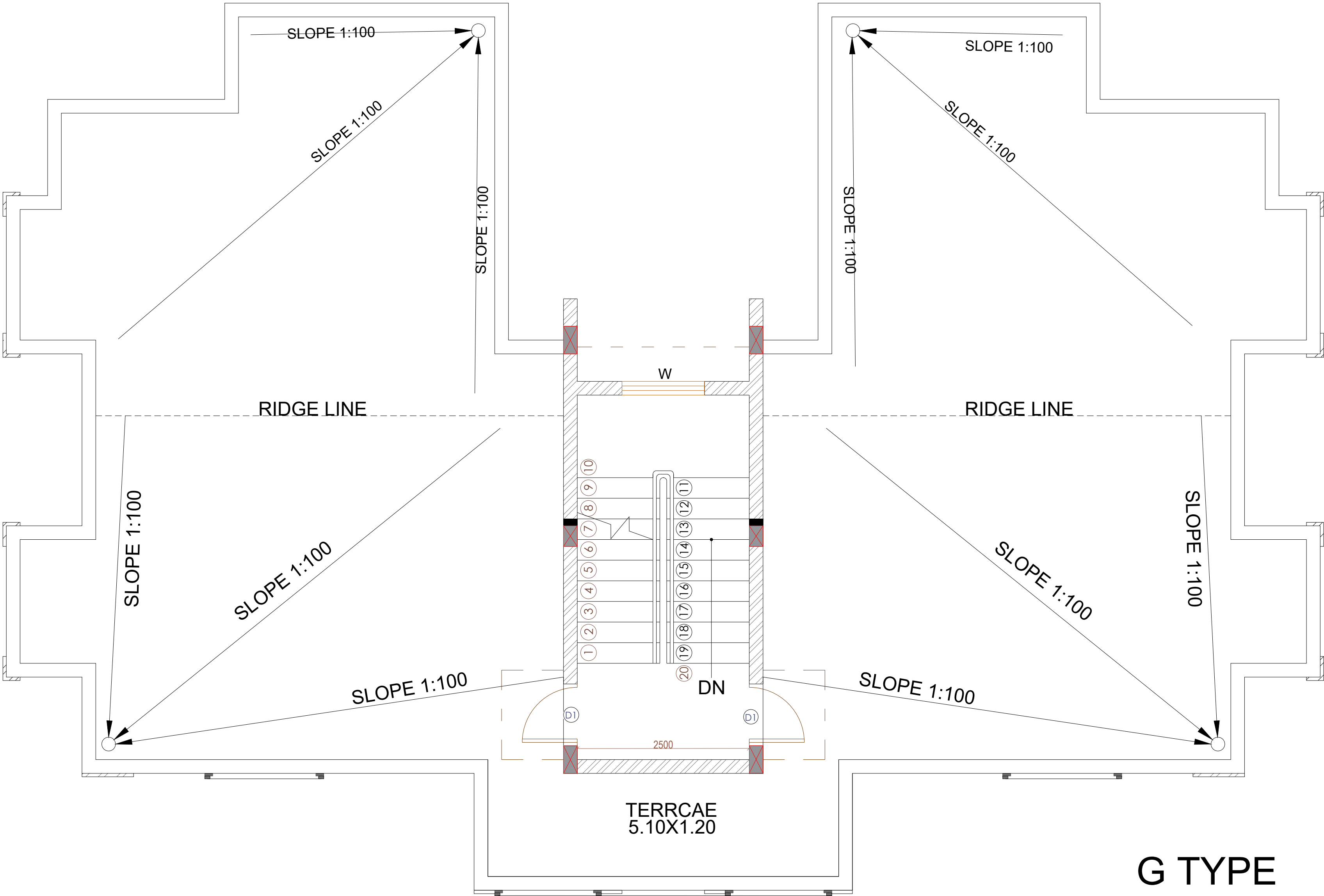
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DATE : 01/09/2025

REDEVELOPMENT SCHEME AT KATGHORA SITE 2



TERRACE FLOOR PLAN

G TYPE

DWG. TITLE
G TYPE(GAD QUARTER)
TERRACE FLOOR PLAN

CLIENT NAME
EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

PROJECT
REDEVELOPMENT SCHEME
AT KATGHORA SITE 2
(GOVT. FACILITY PART)

AREA STATEMENT

BUILT UP AREA OF : 72.85 SQM.
1 UNIT
SUPER BUIL TUP AREA OF : 83.72 SQM.
1 UNIT

BUA. GF. : 169.54 SQM.
BUA. FF. : 169.54 SQM.
BUA MUMTY : 16.53 SQM.

TOTAL BUILT UP AREA OF : 355.61 SQM.
1 BLOCK

OPENING SCHEDULE

S. NO.	TYPE	NAME	SIZE
	D	DOOR	1.00X2.10M.
	D1	DOOR	0.90X2.10M.
	D2	DOOR	0.80X2.10M.
	W	WINDOW	1.50X1.50M.
	W1	WINDOW	1.20X1.00M.
	W2	WINDOW	0.8X1.00M.
	WK	WINDOW	1.00X1.00M.
	V	VENTILATOR	0.60X0.60M.

S. NO.	REV	DATE	DESCRIPTION
20250924	KATGHORA	GAD	



20250924 KATGHORA GAD

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STRUCTURAL ENG.

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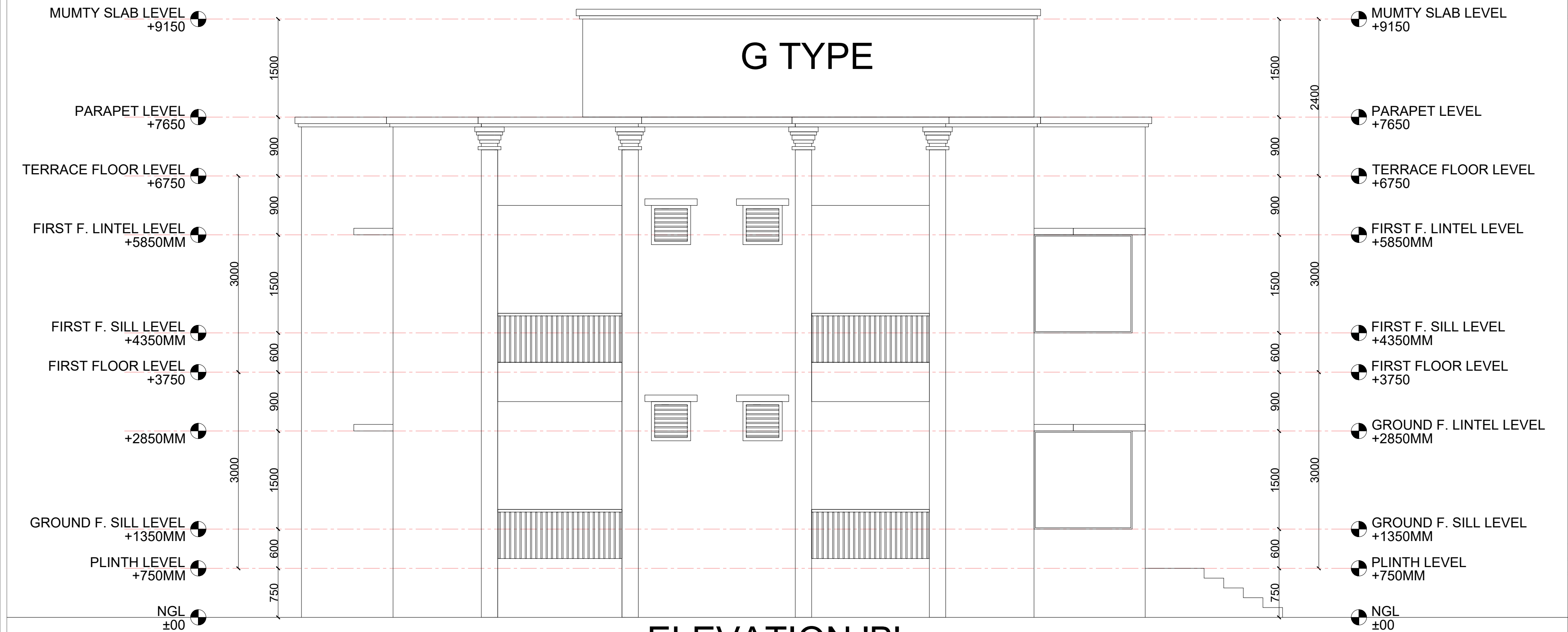
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REDEVELOPMENT SCHEME AT KATGHORA SITE 2

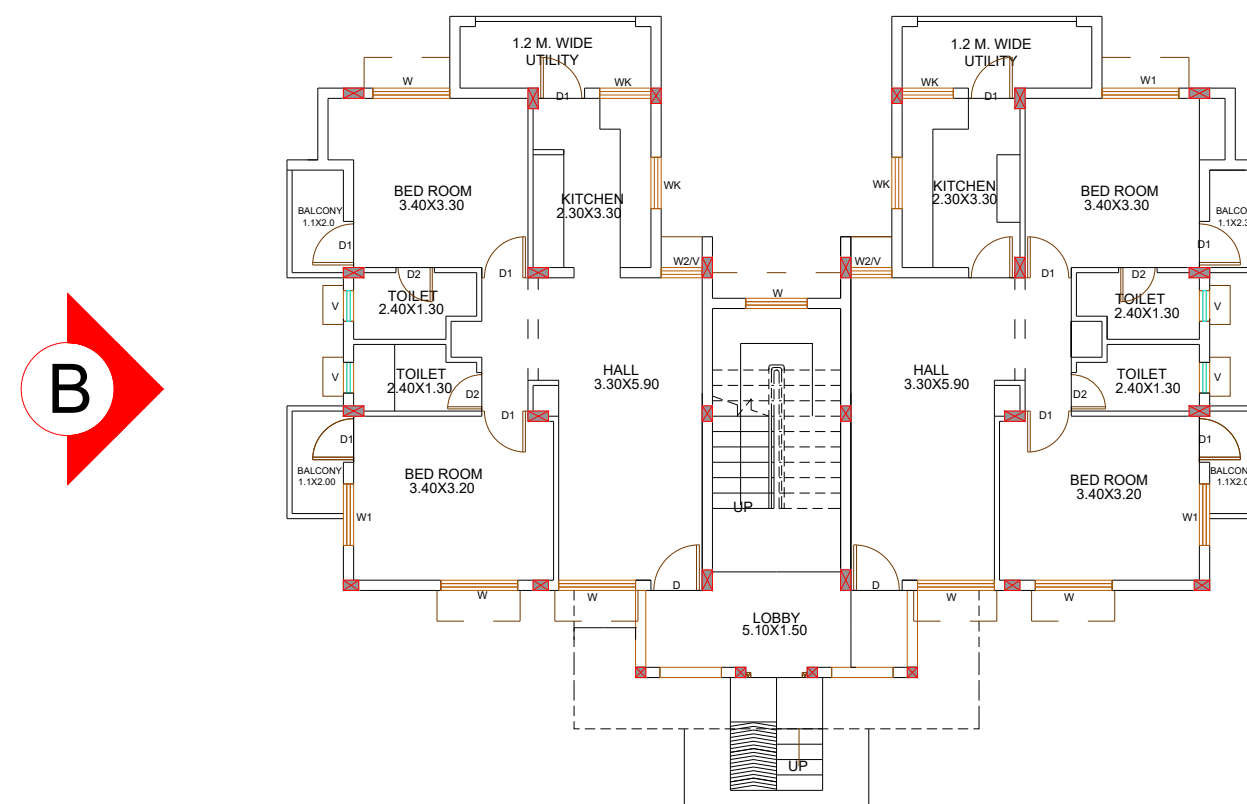
DRG. TITLE	G TYPE(GAD QUARTER) ELEVATION
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CLIENT NAME	 <p>EXECUTIVE ENGINEER, CHHATTISGARH HOUSING BOARD DIVISION -KORBA,DISTRICT-KORBA</p>
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PROJECT	REDEVELOPMENT SCHEME AT KATGHORA SITE 2
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ELEVATION 'B'



KEY PLAN

OPENING SCHEDULE			
S. NO.	TYPE	NAME	SIZE
	D	DOOR	1.00X2.10M.
	D1	DOOR	0.90X2.10M.
	D2	DOOR	0.80X2.10M.
	W	WINDOW	1.50X1.50M.
	W1	WINDOW	1.20X1.00M.
	W2	WINDOW	0.8X1.00M.
	WK	WINDOW	1.00X1.00M.
	V	VENTILATOR	0.60X0.60M.



[illegible]

EXECUTIVE ENGINEER	
--------------------	--

ARCHITECTS	<p>Ar. Abhinav Jaiswal</p> <p>Raipur</p> <p>C-10, Rajendra Park, Mahaveer Nagar, Raipur, Chhattisgarh</p> <p>Mob:- +91-8817780410</p> <p>E-mail: ar.abhinavjaiswal31@gmail.com</p>
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STRUCTURAL ENG.	
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MEP CONSULTANT	
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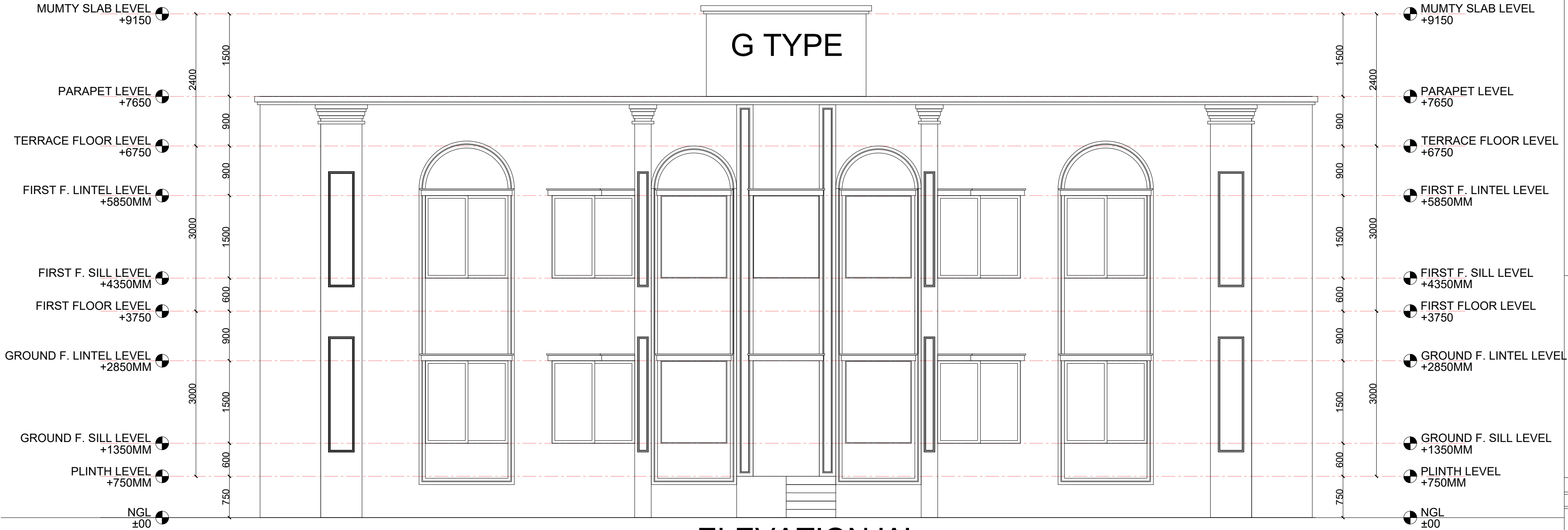
DATE: 01/09/2025

REDEVELOPMENT SCHEME AT KATGHORA SITE 2

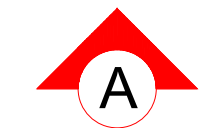
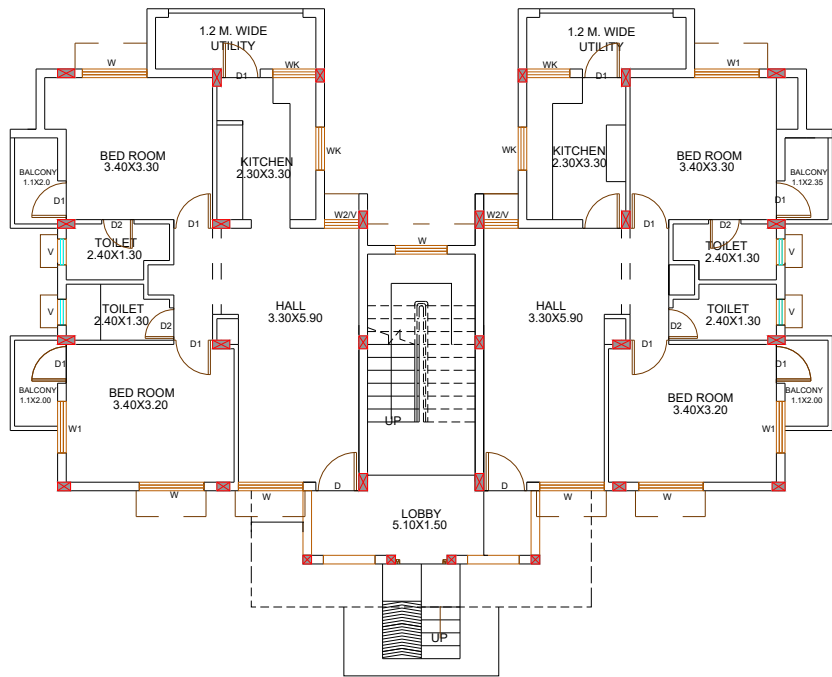
G TYPE(GAD
QUARTER)
ELEVATION

EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

REDEVELOPMENT
SCHEME AT KATGHORA
SITE 2



ELEVATION 'A'



KEY PLAN

OPENING SCHEDULE			
S. NO.	TYPE	NAME	SIZE
	D	DOOR	1.00X2.10M.
	D1	DOOR	0.90X2.10M.
	D2	DOOR	0.80X2.10M.
	W	WINDOW	1.50X1.50M.
	W1	WINDOW	1.20X1.00M.
	W2	WINDOW	0.8X1.00M.
	WK	WINDOW	1.00X1.00M.
	V	VENTILATOR	0.60X0.60M.

REVISIONS			
NO.	DATE	ISSUED	
PRINTS ISSUED			
S. NO.	REV	DATE	DESCRIPTION
20250917 - MASTER FILE - KATGHORA GAD & EE OFFICE			


NOTE: This Drawing is a based on the concept drawing provided by C.G.H.B. Division Korba

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NORTH	SCALE : NTS	DESIGN : VKS
	DIM. IN METRES	CHECKED -AJ.
	PAGE NO : NO.	DRAWN : VKS

REDEVELOPMENT SCHEME AT KATGHORA SITE 2

DRG. TITLE	G TYPE(GAD QUARTER) SECTION
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CLIENT NAME	 <p>EXECUTIVE ENGINEER, CHHATTISGARH HOUSING BOARD DIVISION -KORBA,DISTRICT-KORBA</p>
-------------	--

PROJECT	REDEVELOPMENT SCHEME AT KATGHORA SITE 2
---------	---

OPENING SCHEDULE			
S. NO.	TYPE	NAME	SIZE
	D	DOOR	1.00X2.10M.
	D1	DOOR	0.90X2.10M.
	D2	DOOR	0.80X2.10M.
	W	WINDOW	1.50X1.50M.
	W1	WINDOW	1.20X1.00M.
	W2	WINDOW	0.8X1.00M.
	WK	WINDOW	1.00X1.00M.
	V	VENTILATOR	0.60X0.60M.

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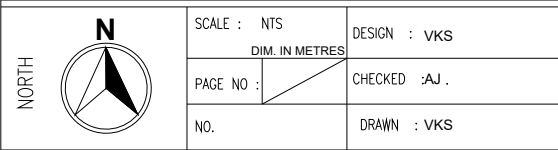
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EXECUTIVE ENGINEER	
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STRUCTURAL ENG.	
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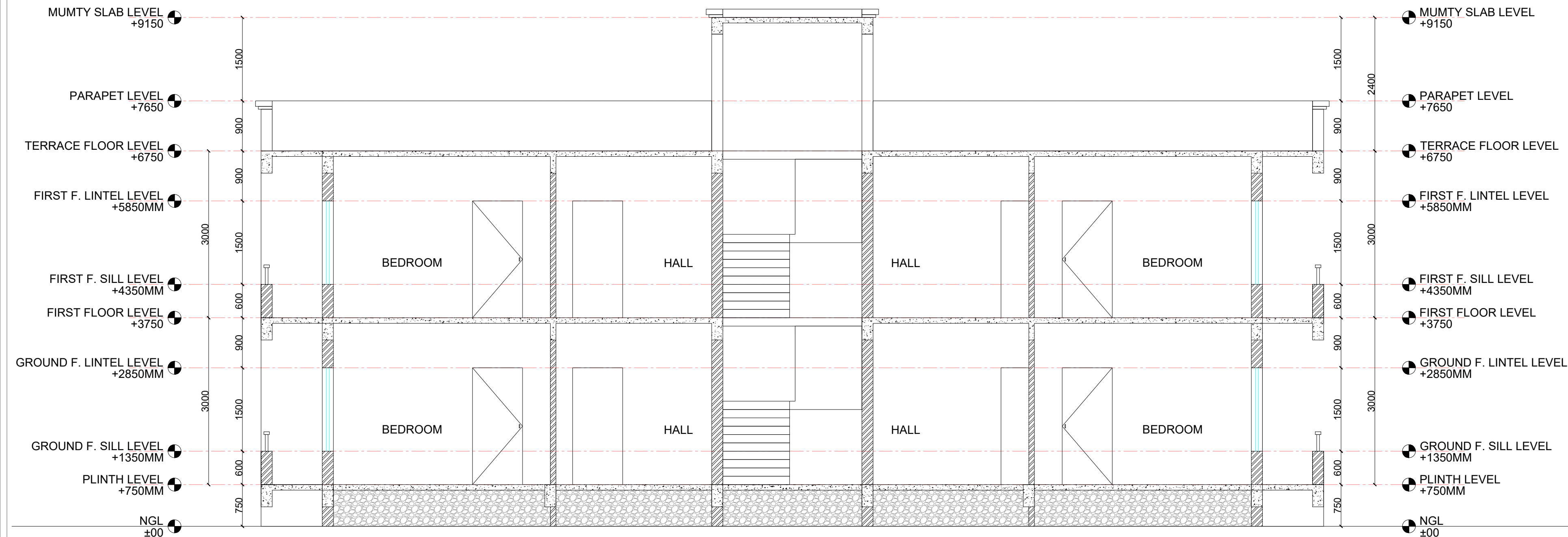
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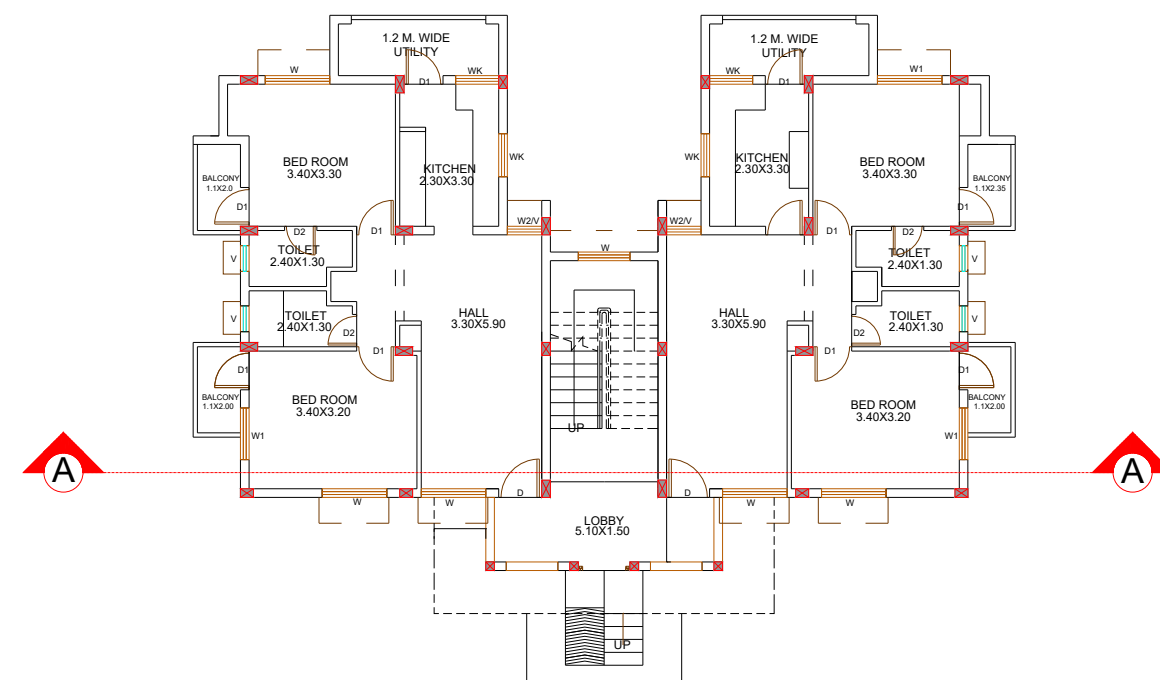
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DATE: 01/09/2025



SECTION 'AA'



KEY PLAN

REDEVELOPMENT SCHEME AT KATGHORA SITE 2

G TYPE(GAD
QUARTER)
SECTION

EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

REDEVELOPMENT
SCHEME AT KATGHORA
SITE 2

OPENING SCHEDULE

S. NO.	TYPE	NAME	SIZE
	D	DOOR	1.00X2.10M.
	D1	DOOR	0.90X2.10M.
	D2	DOOR	0.80X2.10M.
	W	WINDOW	1.50X1.50M.
	W1	WINDOW	1.20X1.00M.
	W2	WINDOW	0.8X1.00M.
	WK	WINDOW	1.00X1.00M.
	V	VENTILATOR	0.60X0.60M.

NO.	DATE	ISSUED	
PRINTS ISSUED			
S. NO.	REV	DATE	DESCRIPTION
20250917 - MASTER FILE - KATGHORA GAD & EE OFFICE			

EXECUTIVE ENGINEER

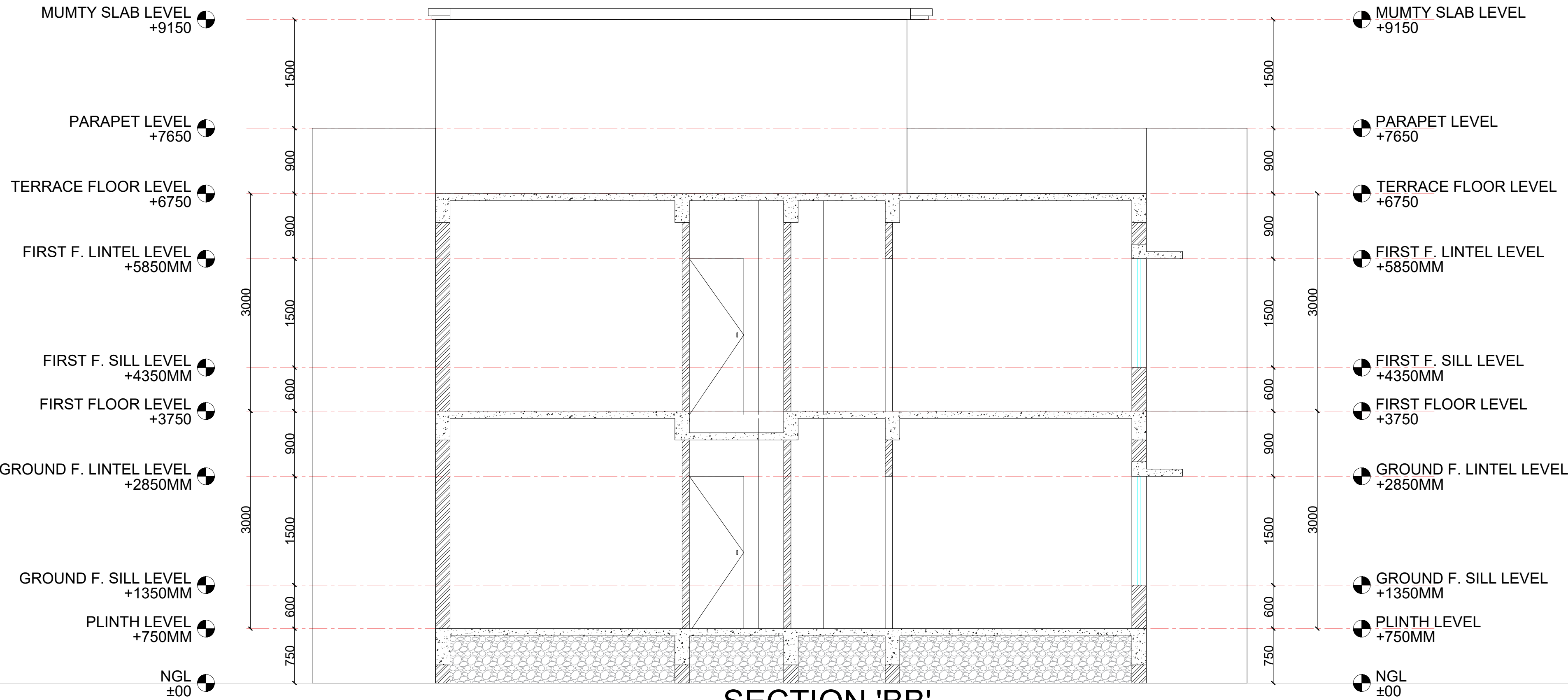
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STRUCTURAL ENG.

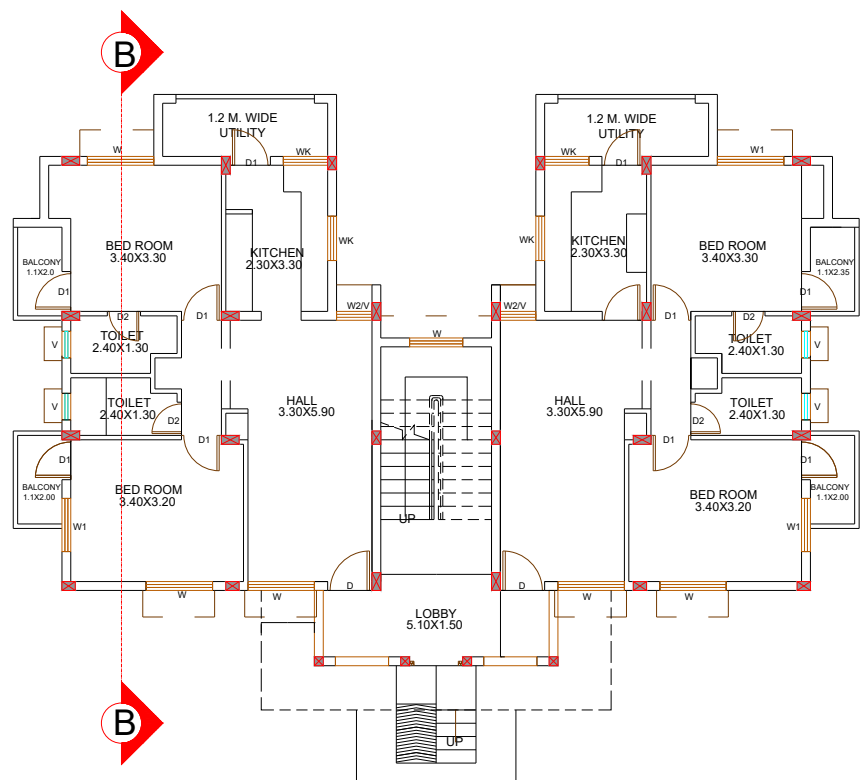
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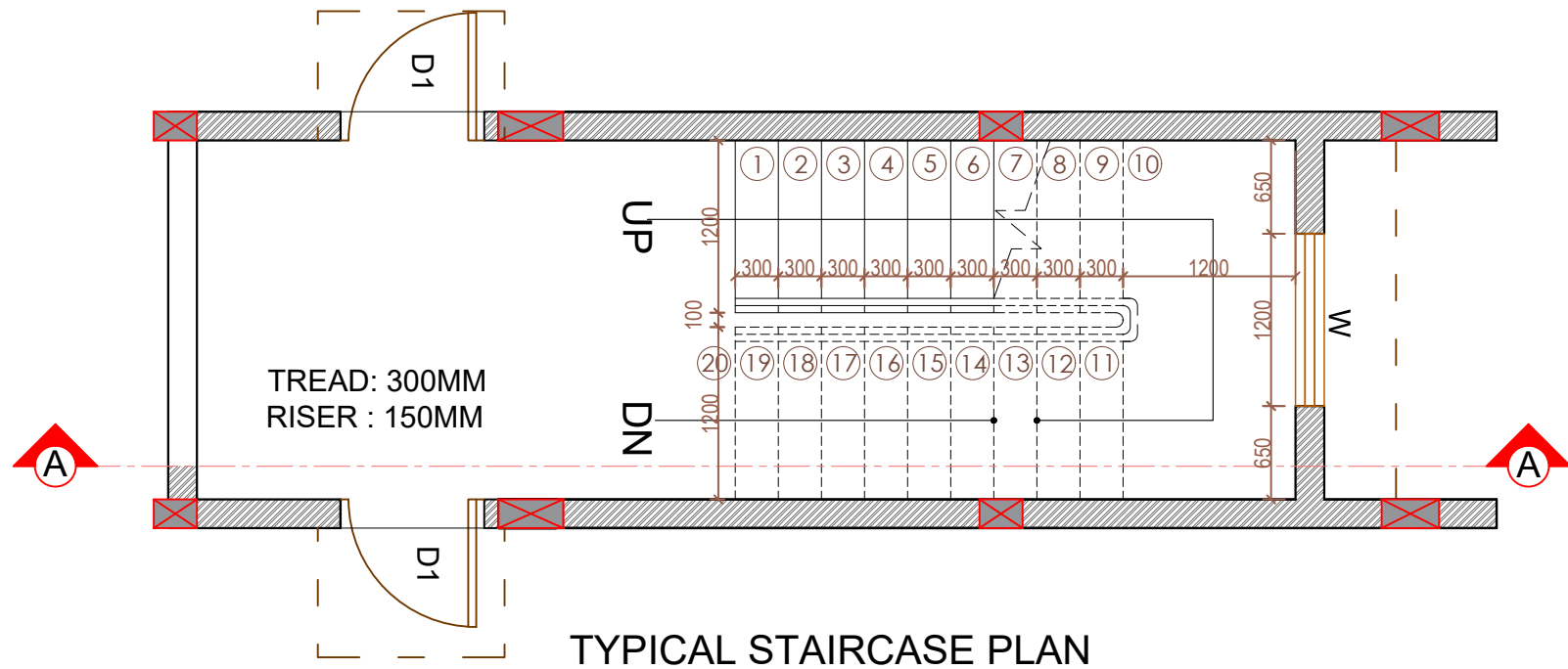
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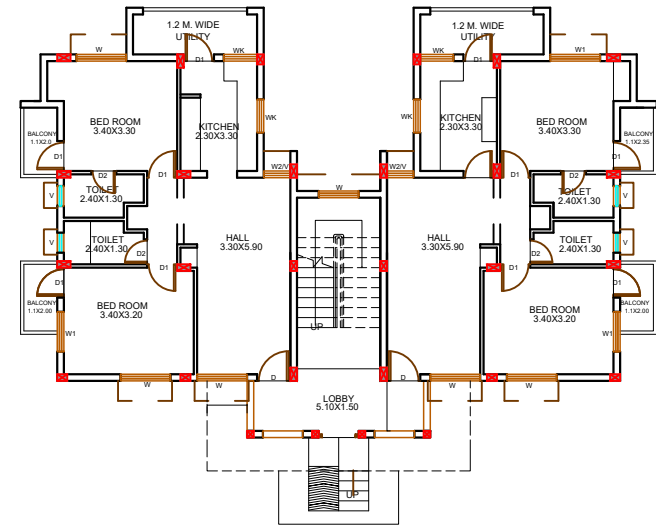
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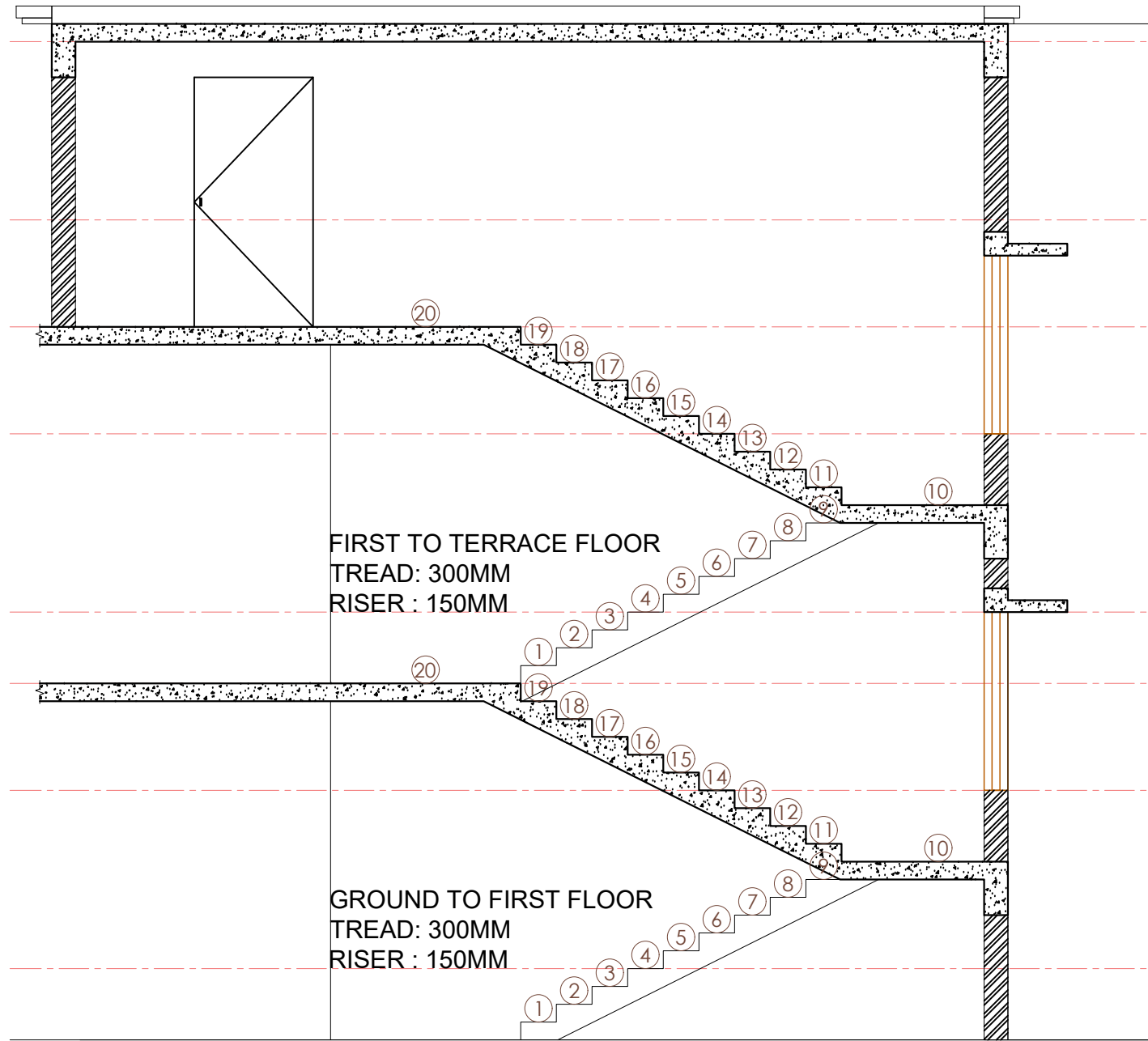
KEY PLAN



TYPICAL STAIRCASE PLAN



KEY PLAN - G TYPE



STAIRCASE SECTION -AA

MUMTY SLAB LEVEL
+9150

PARAPET LEVEL
+7650

TERRACE FLOOR LEVEL
+6750

FIRST F. LINTEL LEVEL
+5850MM

FIRST F. SILL LEVEL
+4350MM

FIRST FLOOR LEVEL
+3750

GROUND F. LINTEL LEVEL
+2850MM

GROUND F. SILL LEVEL
+1350MM

PLINTH LEVEL
+750MM

NGL
±00

G TYPE(GAD
QUARTER)
STAIRCASE DETAIL

EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

REDEVELOPMENT
SCHEME AT KATGHORA
SITE 2

OPENING SCHEDULE

S. NO.	TYPE	NAME	SIZE
	D	DOOR	1.00X2.10M.
	D1	DOOR	0.80X2.10M.
	D2	DOOR	0.80X2.10M.
	W	WINDOW	1.50X1.50M.
	W1	WINDOW	1.20X1.00M.
	W2	WINDOW	0.8X1.00M.
	WK	WINDOW	1.00X1.00M.
	V	VENTILATOR	0.60X0.60M.

NO.	DATE	ISSUED	
PRINTS ISSUED			
S. NO.	REV	DATE	DESCRIPTION

20250917 - MASTER FILE - KATGHORA GAD & EE. OFFICE

NOTE: This Drawing is a based on the concept drawing provided by C.G.H.B. Division Korba

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	NO.	DRAWN : VKS

DATE : 01/09/2025

GAD G-TYPE




FRONT VIEW

DRG. TITLE

GAD G-TYPE
FRONT VIEW

CLIENT NAME

 EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

PROJECT

REDEVELOPMENT SCHEME AT
KATGHORA SITE 2
(GOVT. FACILITY PART)

REVISIONS

NO.	DATE	ISSUED
PRINTS ISSUED		

S. NO.	REV	DATE	DESCRIPTION
001 30082028_GAD Katghora			

EXECUTIVE ENGINEER


ARCHITECTS

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MEP. CONSULTANT

NORTH



SCALE : NTS

DESIGN : VKS

PAGE NO : 1

CHECKED : A.J.

NO.

DRAWN : VKS

DELL E/01. ARCHITECT NAMEEN MINU/KATGHORA/001 30082028_GAD KATGHORA

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GAD G-TYPE




VIEW

DRG. TITLE

GAD G-TYPE
CORNER VIEW

CLIENT NAME

 EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

PROJECT

REDEVELOPMENT SCHEME AT
KATGHORA SITE 2
(GOVT. FACILITY PART)

REVISIONS

NO.	DATE	ISSUED
PRINTS ISSUED		

S. NO.	REV	DATE	DESCRIPTION
001	30082028	GAD	Katghora

EXECUTIVE ENGINEER


ARCHITECTS

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NORTH



SCALE : NTS

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DATE : 01/09/2025

GAD G-TYPE



SIDE VIEW

GAD G-TYPE
SIDE VIEW

EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

REDEVELOPMENT SCHEME AT
KATGHORA SITE 2
(GOVT. FACILITY PART)

REVISIONS			
NO.	DATE	ISSUED	
PRINTS ISSUED			
S. NO.	REV	DATE	DESCRIPTION
001 30082028_GAD Katghora			

EXECUTIVE ENGINEER

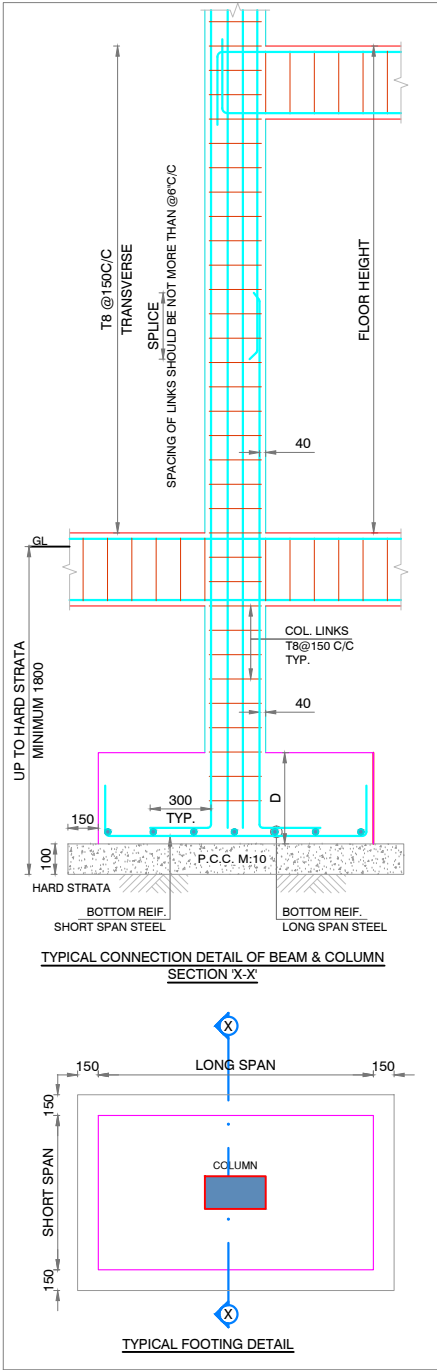
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MEP. CONSULTANT

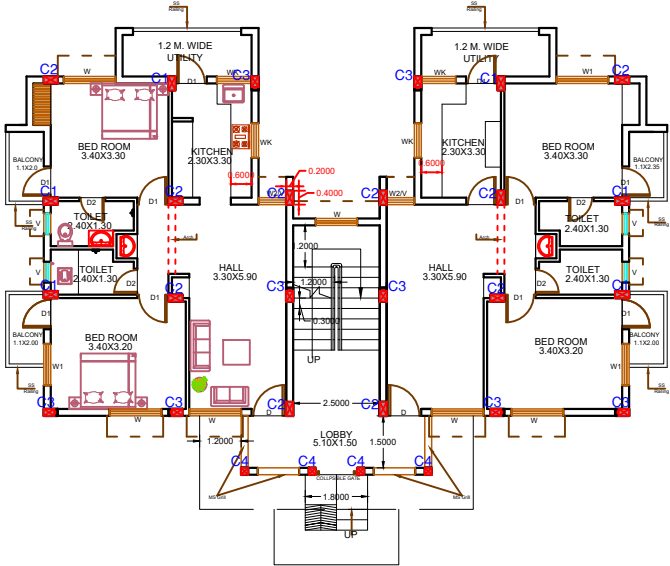
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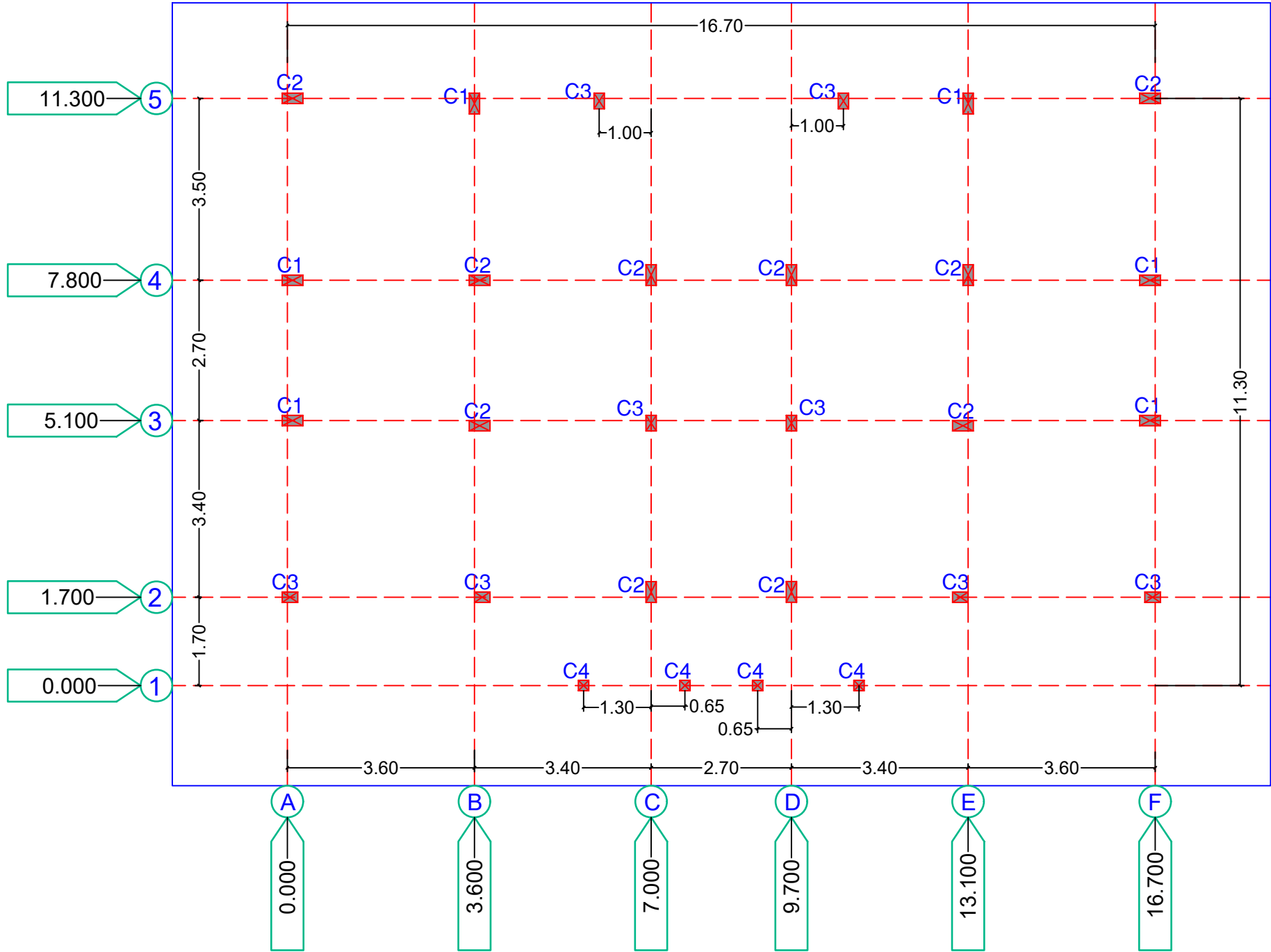


COLUMN SECTIONAL TOP VIEW

C1	200x400	400	4x16 VERT. BARS		• - 100
C2	200x400	400	8x12 VERT. BARS		• - 120
C3	200x300	300	6x12 VERT. BARS		• - 120
C4	200x200	200	4x12 VERT. BARS		• - 120



KEY PLAN



COLUMN LAYOUT

SCHEDULE OF COLUMNS & FOOTINGS CONCRETE MIX : M 25, GRADE OF STEEL : Fe 500

COLUMN NO.	EXCAVATION SIZE	PCC. THK.	FOUNDATION		REINFORCEMENT ALONG		COLUMN AT GROUND FLOOR			REMARKS
			FOOTING SIZE	FOOTING DEPTH	LONG LOWER TIER	SHORT UPPER TIER	SIZE	VERT.BARS	TIES	
C1	---	100	2700 x 2400	450	12 Φ @150	12 Φ @150	200x400	4x20 Φ 4x16 Φ	8 Φ @100-150	
C2	---	100	2100 x 2400	400	12 Φ @150	12 Φ @150	200x400	8x12 Φ	8 Φ @100-150	
C3	---	100	1800 x 2100	350	10 Φ @125	10 Φ @125	200x300	6x12 Φ	8 Φ @100-150	
C4	---	100	1350 x 1350	300	10 Φ @150	10 Φ @150	200x200	4x12 Φ	8 Φ @100-150	

1. SAFE BEARING CAPACITY OF SOIL

S.B.C. OF SOIL FOR DESIGN OF FOUNDATION HAS BEEN TAKEN AS SPECIFIED. MINIMUM DEPTH SHALL BE UPTO HARD STRATA. IN CASE OF ANY DOUBT REGARDING S.B.C. DURING EXCAVATION, THE MATTER SHALL BE REPORTED TO THE GEO-TECH. CONSULTANT.

2. REINFORCING STEEL

U.N.O. ALL REINFORCEMENT SHALL BE OF HIGH STRENGTH DEFORMED BARS OF SPECIFIED GRADE CONFORMING TO IS:1786 ALL REINFORCING STEEL TO BE OF TESTED QUALITY.

3. CONCRETE

U.N.O. CONCRETE MIX FOR ALL ELEMENT SHALL BE OF SPECIFIED GRADE CONFORMING IS: 456-2000.

4. P.C.C.

PLAIN CEMENT CONCRETE M-10

5. COVER

U.N.O. IN THE DWG. CLEAR COVER TO MAIN REINFORCEMENT SHALL BE AS FOLLOWS :-
(1) FOOTING (50 mm) (3) BEAM (25 mm)
(2) COLUMN (40 mm) (4) SLAB (20 mm)
OR DIA. OF BAR WHICHEVER IS GREATER.

GENERAL NOTES

- EXTRA TOP OR BENT-UP BARS SHALL BE EXTENDED UPTO 0.3xL IN ADJACENT SPAN OVER A CONTINUOUS SUPPORT, AND ANCHOR DOWN AT END SUPPORT.
- AT BEAM & COLUMN JUNCTION, BEAM BARS IF IN CONFLICT WITH COLUMN BARS SHALL BE GRADUALLY BENT & PLACED CLEAR OFF COLUMN BARS. UNDER NO CIRCUMSTANCES COLUMN VERTICAL BARS SHALL BE BENT TO ACCOMMODATE
- CONFINING STIRRUPS IN BEAM COLUMN JUNCTION SHALL BE PROVIDED AT THE SPACING INDICATED. HOWEVER IF BEAMS ARE CONNECTED ON ALL THE FOUR DIRECTIONS OF COLUMN THE SPACING SHOULD BE DOUBLED.
- RINGS/STIRRUPS SIZE IN COLUMN IS SAME BELOW AND ABOVE G.L.
- U.N.O. MINIMUM LAP LENGTH SHALL BE 50 TIMES OF BAR DIAMETER OF SMALLER BAR AT ANY SECTION.
- NOT MORE THAN 50% OF BARS SHALL BE LAPPED AT A SECTION. THE LOCATION OF LAPPING SHALL BE AVOIDED AS FOLLOWS :-
(a) FOR FLOOR BEAM/SLAB CLOSE TO MID SPAN IN BOTTOM BARS & CLOSE TO SUPPORT IN TOP BARS.
(b) FOR FOUNDATION BEAM/RAFT LAPS CLOSE TO MID SPAN IN TOP BARS & CLOSE TO SUPPORT IN BOTTOM BARS.
- IN HANGERS LAPPING OF BARS IS NOT PERMITTED BET. FLOORS.
- STIRRUPS FOR CANTILEVER BEAMS TO HAVE HOOK AT BOTTOM.
- REMARK "4 LEGGED" MEANS AT ALL LOCATIONS U.N.O.
- USE OF NEEDLE VIBRATOR AND PLASTISIZER RECOMMENDED FOR R.C.C. WORK.
- USE DENSIFIED COATED PLYWOOD FOR SHUTTERING & FORMWORK.
- BURN'T OIL NOT PERMITTED FOR DE-SHUTTERING .

EXPOSED SURFACE OF CONCRETE SHALL BE KEPT CONTINUOUSLY IN WET CONDITION MINIMUM FOR 14 DAYS.
14. CUTOUT/ OPENING :
ANY TYPE OF OPENINGS FOR PLUMBING, DRAINAGE OR ELECTRICAL NOT PERMITTED IN R.C.C BEAMS AND COLUMNS DURING OR AFTER CASTING.

- FOR SLEEVES PROVIDE ADD'L TWO RINGS SPACED @ 75MM C/C ON EITHER SIDE OF IT.
- U.N.O. IN THE DWG., CONSTRUCTION JOINT SHOULD BE APPROVED BY ENGINEER AT SITE.
 - CONSTRUCTION JOINT SHOULD BE AT QUARTER SPAN OF BEAM AND SLAB. IN NO CONDITION SHOULD BE AT THE SUPPORT.
 - READ THIS DWG. WITH RELEVANT ARCHITECTURAL & SERVICES DWG.
 - DO NOT SCALE THE DWG., ONLY WRITTEN DIMENSION ARE TO BE FOLLOWED.
 - ALL DIMENSIONS ARE IN MM, EXCEPT IN LAYOUT. LEVELS ARE IN METER.
 - IN CASE OF ANY AMBIGUITY, PLEASE BRING IT TO THE NOTICE OF THIS OFFICE BEFORE EXECUTION OF WORK.
 - SHUTTERING & SCAFFOLDING IS AT THE RESPONSIBILITY OF CONTRACTOR.
 - STRIPPING TIME TABLE AS PER IS 456-2000.
 - TOP BARS OF ALL CANTILEVER BEAM / SLAB SHOULD BE EXTENDED ON OPPOSITE SIDE UP TO 1.5 TIMES CANTILEVER PROJECTION UNO.

U.N.O. :- UNLESS NOTED OTHERWISE

Gross Safe Bearing Capacity - 112.23 kN/m2
As per information from CGHB EE Korba

G TYPE (GAD QUARTER) COLUMN LAYOUT



EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

REDEVELOPMENT SCHEME AT
KATGHORA SITE 2
(GOVT FACILITY PART)

AREA STATEMENT

BUILT UP AREA OF : 72.85 SQM.
1 UNIT
SUPER BUILT UP AREA OF : 84.5 SQM.
1 UNIT
BUA. GF. : 169.54 SQM.
BUA. FF. : 169.54 SQM.
BUA MUMTY : 16.53 SQM.

TOTAL BUILT UP AREA OF : 355.61 SQM.
1 BLOCK

OPENING SCHEDULE

S. NO.	TYPE	NAME	SIZE
1.	D	DOOR	1.00X2.10M.
2.	D1	DOOR	0.90X2.10M.
3.	D2	DOOR	0.75X2.10M.
4.	W	WINDOW	1.50X1.50M.
5.	W1	WINDOW	1.20X1.50M.
6.	WK	WINDOW	1.00X1.00M.
7.	V	VENTILATOR	0.60X0.60M.

NO.	DATE	ISSUED	
PRINTS ISSUED			
S. NO.	REV	DATE	DESCRIPTION

CGHB_KATGHORA_STRUC_MAIN

NOTE: This Drawing is a based on the concept drawing provided by C.G.H.B. Division Korba

EXECUTIVE ENGINEER

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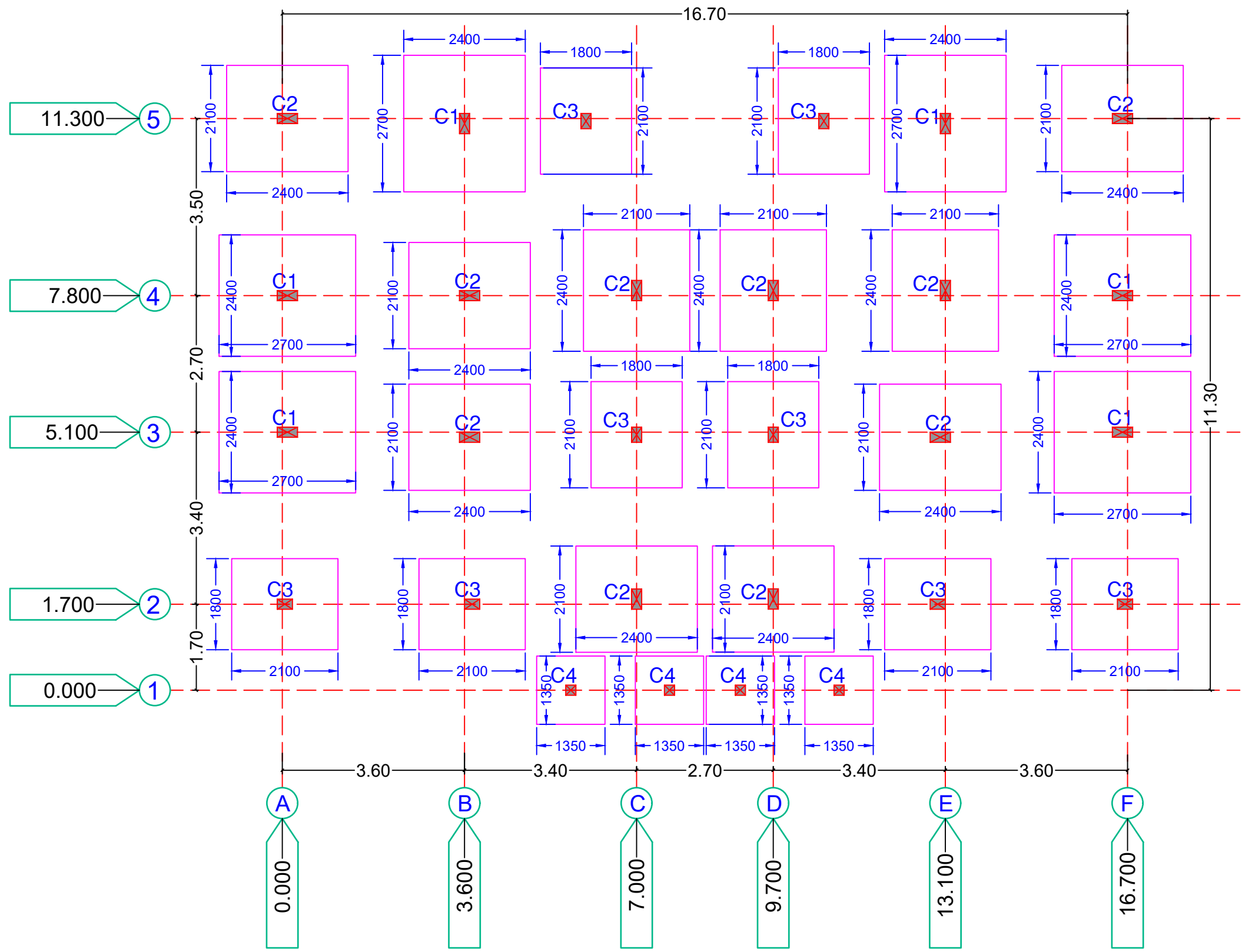
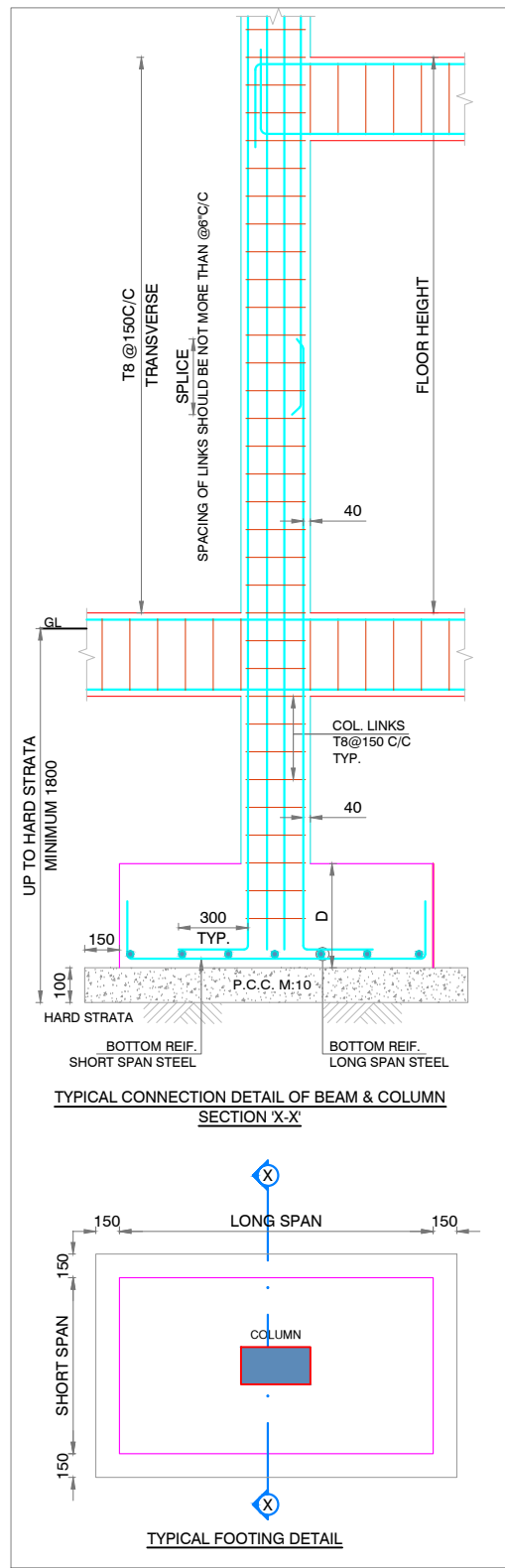
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AURA STRUCTURE CONSULTANT
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Mob:-9907940866

MEP. CONSULTANT

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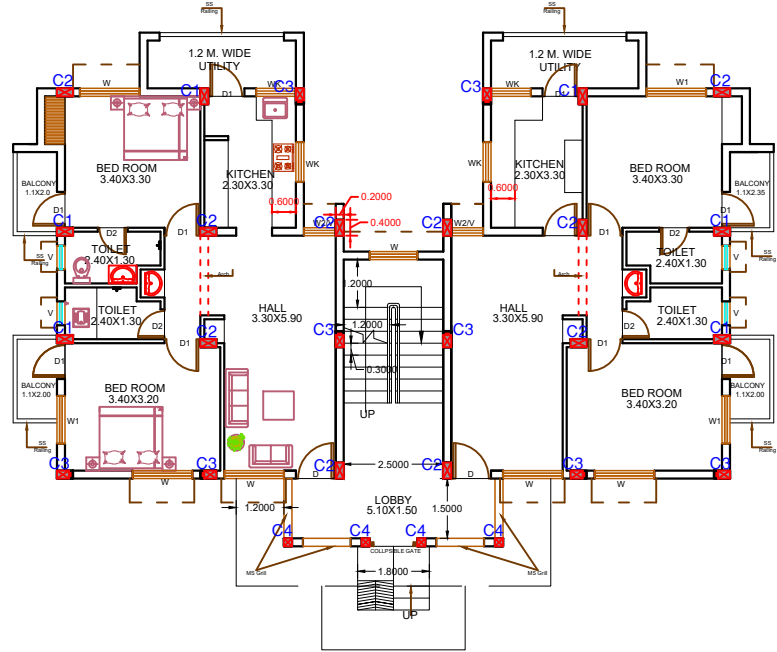
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FOOTING LAYOUT

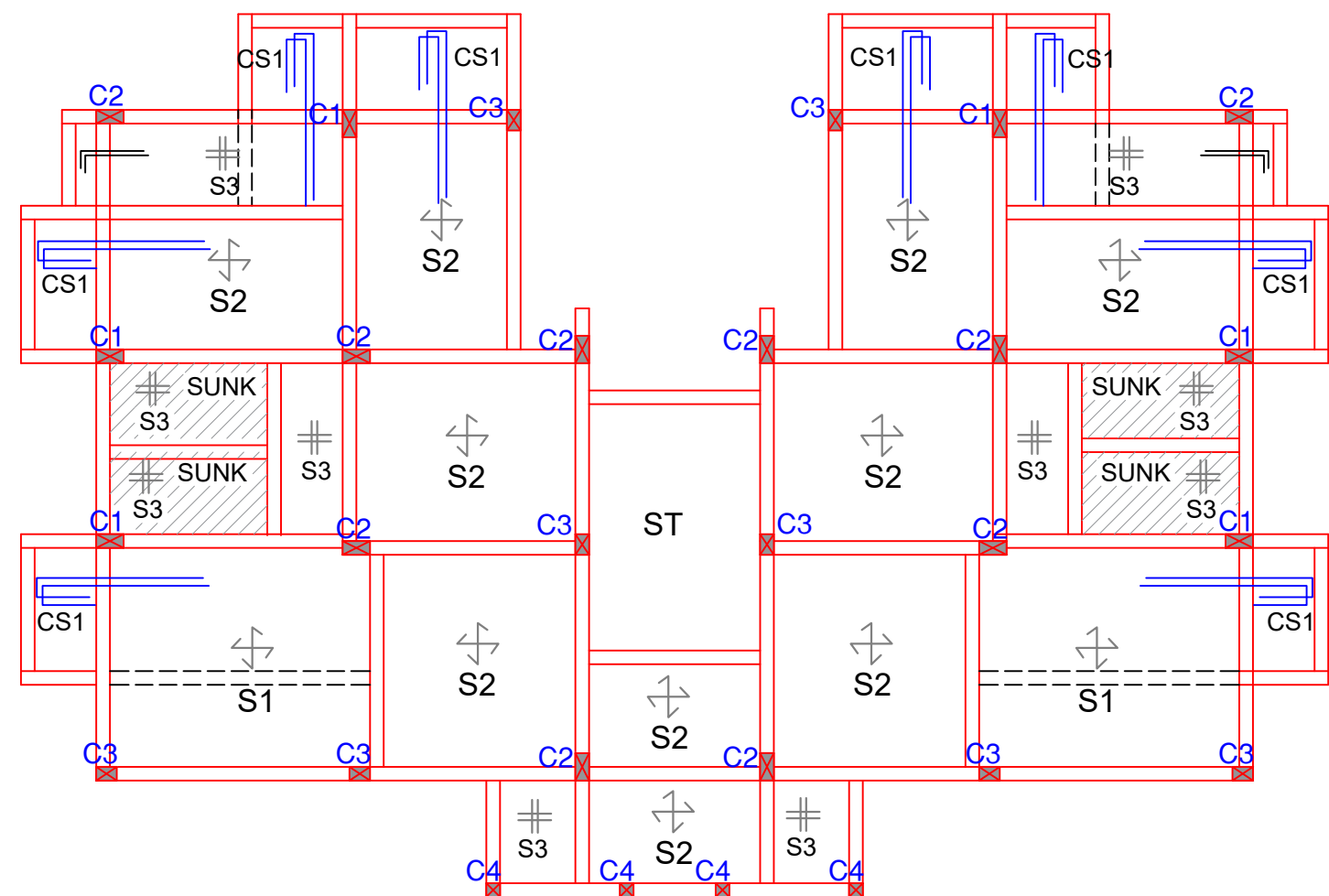
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	S.B.C. OF SOIL FOR DESIGN OF FOUNDATION HAS BEEN TAKEN AS SPECIFIED. MINIMUM DEPTH SHALL BE UPTO HARD STRATA. IN CASE OF ANY DOUBT REGARDING S.B.C. DURING EXCAVATION, THE MATTER SHALL BE REPORTED TO THE GEO-TECH. CONSULTANT.
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	U.N.O. ALL REINFORCEMENT SHALL BE OF HIGH STRENGTH DEFORMED BARS OF SPECIFIED GRADE CONFORMING TO IS:1786 ALL REINFORCING STEEL TO BE OF TESTED QUALITY.
	3. CONCRETE
CLIENT NAME	U.N.O. CONCRETE MIX FOR ALL ELEMENT SHALL BE OF SPECIFIED GRADE CONFORMING IS: 456-2000.
	4. P.C.C.
PROJECT	PLAIN CEMENT CONCRETE M-10
	5. COVER
GENERAL NOTES	U.N.O. IN THE DWG. CLEAR COVER TO MAIN REINFORCEMENT SHALL BE AS FOLLOWS :- (1) FOOTING (50 mm) (3) BEAM (25 mm) (2) COLUMN (40 mm) (4) SLAB (20 mm) OR DIA. OF BAR WHICHEVER IS GREATER.
	1. EXTRA TOP OR BENT-UP BARS SHALL BE EXTENDED UPTO 0.3xL IN ADJACENT SPAN OVER A CONTINEOUS SUPPORT, AND ANCHOR DOWN AT END SUPPORT. 2. AT BEAM & COLUMN JUNCTION, BEAM BARS IF IN CONFLICT WITH COLUMN BARS SHALL BE GRADUALLY BENT & PLACED CLEAR OFF COLUMN BARS. UNDER NO CIRCUMSTANCES COLUMN VERTICAL BARS SHALL BE BENT TO ACCOMODATE 3. CONFINING STIRRUPS IN BEAM COLUMN JUNCTION SHALL BE PROVIDED AT THE SPACING INDICATED. HOWEVER IF BEAMS ARE CONNECTED ON ALL THE FOUR DIRECTIONS OF COLUMN THE SPACING SHOULD BE DOUBLED. 4. RINGS/STIRRUPS SIZE IN COLUMN IS SAME BELOW AND ABOVE G.L. 5. U.N.O. MINIMUM LAP LENGTH SHALL BE 50 TIMES OF BAR DIAMETER OF SMALLER BAR AT ANY SECTION. 6. NOT MORE THAN 50% OF BARS SHALL BE LAPPED AT A SECTION. THE LOCATION OF LAPPING SHALL BE AVOIDED AS FOLLOWS :- (a) FOR FLOOR BEAM/SLAB CLOSE TO MID SPAN IN BOTTOM BARS & CLOSE TO SUPPORT IN TOP BARS. (b) FOR FOUNDATION BEAM/RAFT LAPS CLOSE TO MID SPAN IN TOP BARS & CLOSE TO SUPPORT IN BOTTOM BARS. 7. IN HANGERS LAPPING OF BARS IS NOT PERMITTED BET. FLOORS 8. STIRRUPS FOR CANTILEVER BEAMS TO HAVE HOOK AT BOTTOM. 9. REMARK "4 LEGGED" MEANS AT ALL LOCATIONS U.N.O. 10. USE OF NEEDLE VIBRATOR AND PLASTISIZER RECOMMENDED FOR R.C.C. WORK. 11. USE DENSIFIED COATED PLYWOOD FOR SHUTTERING & FORMWORK. 12. BURNT OIL NOT PERMITTED FOR DE-SHUTTERING . EXPOSED SURFACE OF CONCRETE SHALL BE KEPT CONTINUOUSLY IN WET CONDITION MINIMUM FOR 14 DAYS. 14. CUTOUT/ OPENING : ANY TYPE OF OPENINGS FOR PLUMBING, DRAINAGE OR ELECTRICAL NOT PERMITTED IN R.C.C BEAMS AND COLUMNS DURING OR AFTER CASTING. FOR SLEEVES PROVIDE ADD'L TWO RINGS SPACED @ 75MM C/C ON EITHER SIDE OF IT. 16. U.N.O. IN THE DWG., CONSTRUCTION JOINT SHOULD BE APPROVED BY ENGINEER AT SITE. CONSTRUCTION JOINT SHOULD BE AT QUARTER SPAN OF BEAM AND SLAB. IN NO CONDITION SHOULD BE AT THE SUPPORT. 17. READ THIS DWG. WITH RELEVANT ARCHITECTURAL & SERVICES DWG. 18. DO NOT SCALE THE DWG., ONLY WRITTEN DIMENSION ARE TO BE FOLLOWED. 19. ALL DIMENSIONS ARE IN MM, EXCEPT IN LAYOUT. LEVELS ARE IN METER. 20. IN CASE OF ANY AMBIGUITY, PLEASE BRING IT TO THE NOTICE OF THIS OFFICE BEFORE EXECUTION OF WORK. 21. SHUTTERING & SCAFFOLDING IS AT THE RESPONSIBILITY OF CONTRACTOR. 22. STRIPPING TIME TABLE AS PER IS 456-2000. 23. TOP BARS OF ALL CANTILEVER BEAM / SLAB SHOULD BE EXTENDED ON OPPOSITE SIDE UP TO 1.5 TIMES CANTILEVER PROJECTION UNO. U.N.O. :- UNLESS NOTED OTHERWISE

Gross Safe Bearing Capacity - 112.23 kN/m2
As per information from CGHB EE Korba

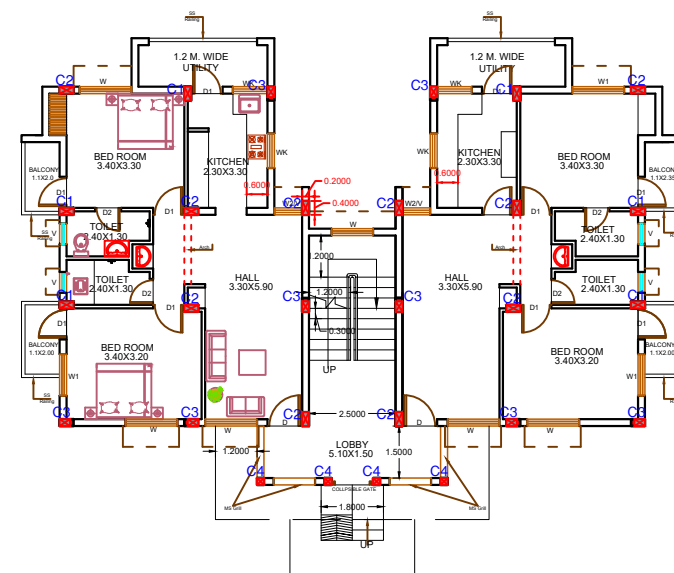


KEY PLAN

DWG. TITLE	G TYPE (GAD QUARTER) FOOTING LAYOUT			
CLIENT NAME	<div></div> <div>EXECUTIVE ENGINEER, CHHATTISGARH HOUSING BOARD DIVISION -KORBA,DISTRICT-KORBA</div>			
PROJECT	REDEVELOPMENT SCHEME AT KATGHORA SITE 2 (GOVT FACILITY PART)			
AREA STATEMENT				
BUILT UP AREA OF : 72.85 SQM. 1 UNIT				
SUPER BUIL TUP AREA OF : 84.5 SQM. 1 UNIT				
BUA. GF. : 169.54 SQM.				
BUA. FF. : 169.54 SQM.				
BUA MUMTY : 16.53 SQM.				
TOTAL BUILT UP AREA OF : 355.61 SQM. 1 BLOCK				
OPENING SCHEDULE				
S. NO.	TYPE	NAME	SIZE	
1.	D	DOOR	1.00X2.10M.	
2.	D1	DOOR	0.90X2.10M.	
3.	D2	DOOR	0.75X2.10M.	
4.	W	WINDOW	1.50X1.50M.	
5.	W1	WINDOW	1.20X1.50M.	
6.	WK	WINDOW	1.00X1.00M.	
7.	V	VENTILATOR	0.60X0.60M.	
REVISIONS				
	NO.	DATE	ISSUED	
	PRINTS ISSUED			
	S. NO.	REV	DATE	DESCRIPTION
CGHB_KATGHORA_STRUC_MAIN				
NOTE: This Drawing is a based on the concept drawing provided by C.G.H.B. Division Korba				
EXECUTIVE ENGINEER				
ARCHITECTS	Ar. Abhinav Jaiswal Raipur C-10, Rajendra Park, Mahaveer Nagar, Raipur, Chhattisgarh Mob:- +91-8817780410 E-mail: ar.abhinavjaiswal31@gmail.com			
STRUCTURAL ENG.	AURA STRUCTURE CONSULTANT Shop No:-205,First Floor, Shyam Square,pandri,Raipur(C.G.) E-mail:-auradesignsraipur@gmail.com Mob:-9907940866			
MEP. CONSULTANT				
NORTH	<div></div> <div>SCALE : NTS DIM. IN METRES DESIGN : VKS PAGE NO : CHECKED :AJ. NO. DRAWN : VKS</div>			
ASIS D:\P\DATA\01_ARCHITECT\NAREN\MIN\CGHB_KATGHORA\01_DWG\CGHB_KATGHORA_STRUC_MAIN This Drawing is a property of <u>Ar.Abhinav Jaiswal</u> , and is not to be produced, copied, loaned over to a third party or used for any purpose other than which it is loaned for. 349 DATE: 01/09/2025				



KEY PLAN



SCHEDULE OF SLABS

SLAB MARKED	THICKNESS	TYPE	REINFORCEMENT		REMARK
			SHORT BAR	LONG BAR	
S1	125	TWO WAY	8@125C\C (ALT. BENT UP)	8@150C\C (ALT. BENT UP)	---
S2	125	TWO WAY	8@150C\C (ALT. BENT UP)	8@150C\C (ALT. BENT UP)	---
S3	125	T/B MESH	8@150C\C	8@150C\C	---
CS1	125	ONE WAY	10@150C\C (ALT. BENT UP)	10@150C\C (DIST.)	---

NOTE. TOP BARS OF ALL CANTILEVER BEAM / SLAB SHOULD BE EXTENDED ON OPPOSITE SIDE UP TO 1.5 TIMES CANTILEVER PROJECTION UNO.

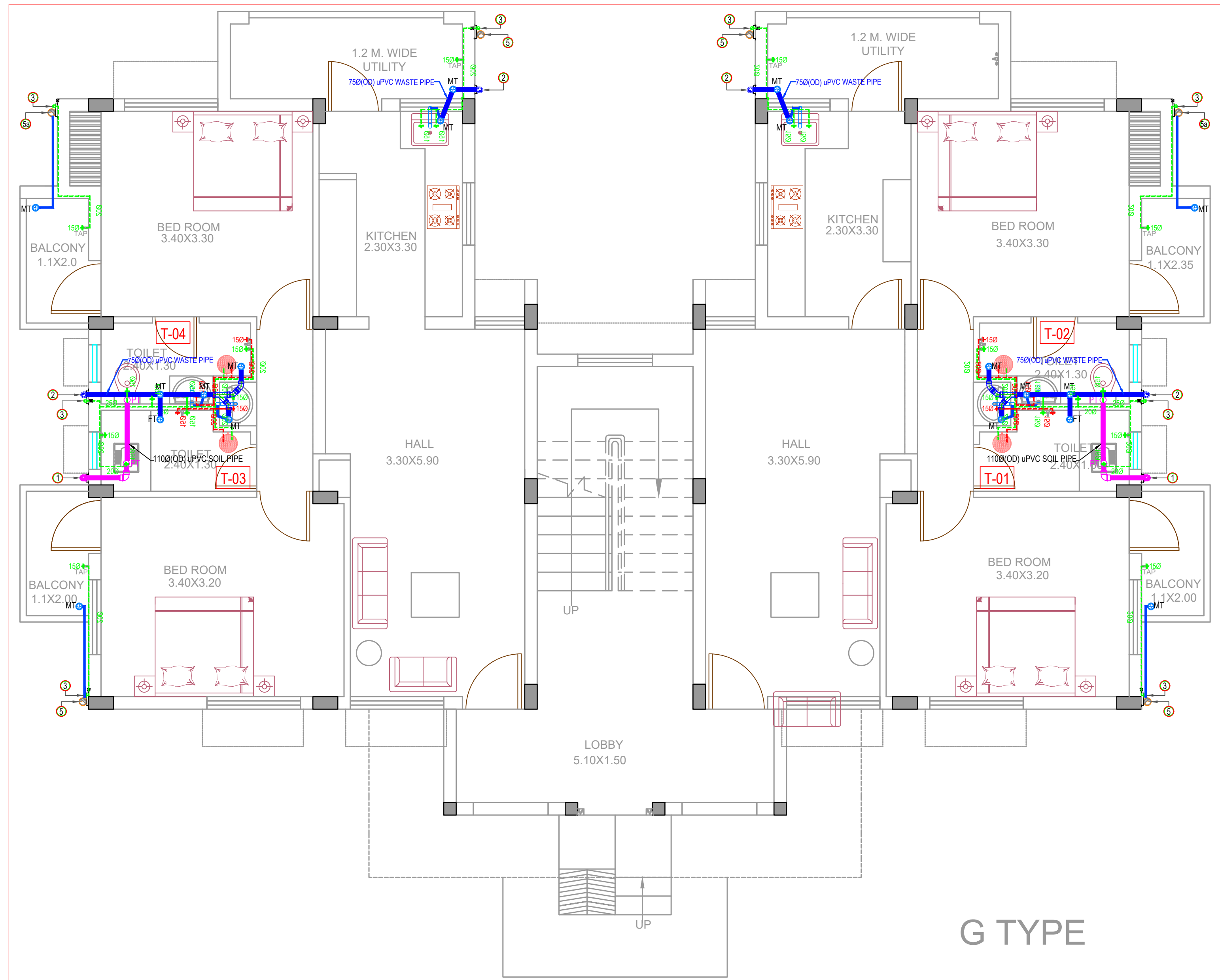
<p><u>1. SAFE BEARING CAPACITY OF SOIL</u></p> <p>S.B.C. OF SOIL FOR DESIGN OF FOUNDATION HAS BEEN TAKEN AS SPECIFIED. MINIMUM DEPTH SHALL BE UPTO HARD STRATA. IN CASE OF ANY DOUBT REGARDING S.B.C. DURING EXCAVATION, THE MATTER SHOULD BE REPORTED TO THE GEO-TECH. CONSULTANT.</p>
<p><u>2. REINFORCING STEEL</u></p> <p>U.N.O. ALL REINFORCEMENT SHALL BE OF HIGH STRENGTH DEFORMED BARS OF SPECIFIED GRADE CONFORMING TO IS:1786 ALL REINFORCING STEEL TO BE OF TESTED QUALITY.</p>
<p><u>3. CONCRETE</u></p> <p>U.N.O. CONCRETE MIX FOR ALL ELEMENT SHALL BE OF SPECIFIED GRADE CONFORMING IS: 456-2000.</p>
<p><u>4. P.C.C.</u></p> <p>PLAIN CEMENT CONCRETE M-10</p>
<p><u>5. COVER</u></p> <p>U.N.O. IN THE DWG. CLEAR COVER TO MAIN REINFORCEMENT SHALL BE AS FOLLOWS :- (1) FOOTING (50 mm) (3) BEAM (25 mm) (2) COLUMN (40 mm) (4) SLAB (20 mm) OR DIA. OF BAR WHICHEVER IS GREATER.</p>
<p><u>GENERAL NOTES</u></p> <ol style="list-style-type: none"> EXTRA TOP OR BENT-UP BARS SHALL BE EXTENDED UPTO 0.3xL IN ADJACENT SPAN OVER A CONTINUOUS SUPPORT, AND ANCHOR DOWN AT END SUPPORT. AT BEAM & COLUMN JUNCTION. BEAM BARS IF IN CONFLICT WITH COLUMN BARS SHALL BE GRADUALLY BENT & PLACED CLEAR OFF COLUMN BARS. UNDER NO CIRCUMSTANCES COLUMN VERTICAL BARS SHALL BE BENT TO ACCOMMODATE CONFINING STIRRUPS IN BEAM COLUMN JUNCTION SHALL BE PROVIDED AT THE SPACING INDICATED. HOWEVER IF BEAMS ARE CONNECTED ON ALL THE FOUR DIRECTIONS OF COLUMN THE SPACING SHOULD BE DOUBLED. RINGS/STIRRUPS SIZE IN COLUMN IS SAME BELOW AND ABOVE G.L. U.N.O. MINIMUM LAP LENGTH SHALL BE 50 TIMES OF BAR DIAMETER OF SMALLER BAR AT ANY SECTION. NOT MORE THAN 50% OF BARS SHALL BE LAPPED AT A SECTION. THE LOCATION OF LAPPING SHALL BE AVOIDED AS FOLLOWS :- (a) FOR FLOOR BEAM/SLAB CLOSE TO MID SPAN IN BOTTOM BARS & CLOSE TO SUPPORT IN TOP BARS. (b) FOR FOUNDATION BEAM/RAFT LAPS CLOSE TO MID SPAN IN TOP BARS & CLOSE TO SUPPORT IN BOTTOM BARS. IN HANGERS LAPPING OF BARS IS NOT PERMITTED BET. FLOORS STIRRUPS FOR CANTILEVER BEAMS TO HAVE HOOK AT BOTTOM. REMARK "4 LEGGED" MEANS AT ALL LOCATIONS U.N.O. USE OF NEEDLE VIBRATOR AND PLASTISIZER RECOMMENDED FOR R.C.C. WORK. USE DENSIFIED COATED PLYWOOD FOR SHUTTERING & FORMWORK. BURNT OIL NOT PERMITTED FOR DE-SHUTTERING . <p>EXPOSED SURFACE OF CONCRETE SHALL BE KEPT CONTINUOUSLY IN WET CONDITION MINIMUM FOR 14 DAYS.</p> <p><u>14. CUTOFF/ OPENING :</u></p> <p>ANY TYPE OF OPENINGS FOR PLUMBING, DRAINAGE OR ELECTRICAL NOT PERMITTED IN R.C.C BEAMS AND COLUMNS DURING OR AFTER CASTING.</p> <p>FOR SLEEVES PROVIDE ADD'L TWO RINGS SPACED @ 75MM C/C ON EITHER SIDE OF IT.</p> <ol style="list-style-type: none"> U.N.O. IN THE DWG. ,CONSTRUCTION JOINT SHOULD BE APPROVED BY ENGINEER AT SITE. CONSTRUCTION JOINT SHOULD BE AT QUARTER SPAN OF BEAM AND SLAB, IN NO CONDITION SHOULD BE AT THE SUPPORT. READ THIS DWG. WITH RELEVANT ARCHITECTURAL & SERVICES DWG. DO NOT SCALE THE DWG., ONLY WRITTEN DIMENSION ARE TO BE FOLLOWED. ALL DIMENSIONS ARE IN MM, EXCEPT IN LAYOUT. LEVELS ARE IN METER. IN CASE OF ANY AMBIGUITY, PLEASE BRING IT TO THE NOTICE OF THIS OFFICE BEFORE EXECUTION OF WORK. SHUTTERING & SCAFFOLDING IS AT THE RESPONSIBILITY OF CONTRACTOR. STRIPPING TIME TABLE AS PER IS 456-2000. TOP BARS OF ALL CANTILEVER BEAM / SLAB SHOULD BE EXTENDED ON OPPOSITE SIDE UP TO 1.5 TIMES CANTILEVER PROJECTION UNO. <p><u>U.N.O. :- UNLESS NOTED OTHERWISE</u></p>

[illegible]

G TYPE (GAD)
PLUMBING DRAWING
GROUND FLOOR

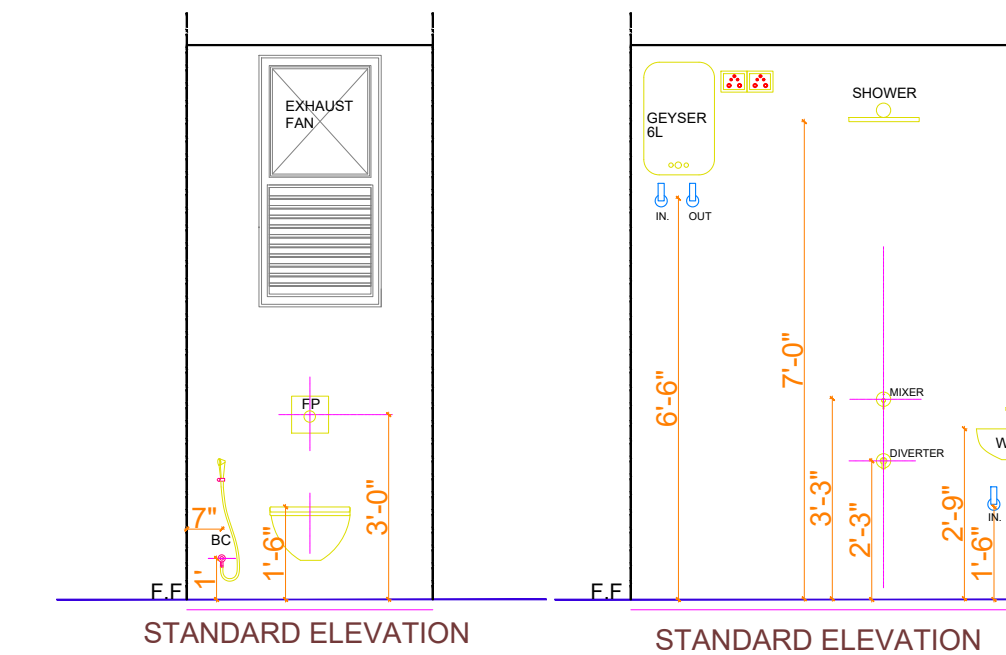
EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

REDEVELOPMENT SCHEME
AT KATGHORA SITE 2
(GOVT FACILITY PART)



G TYPE

GROUND FLOOR - TOILET LAYOUT PLAN (G-TYPE)



LEGEND FOR PLUMBING	
MARK	DESCRIPTION
✕	BALL VALVE / CONTROL VALVE
—	uPVC SOIL PIPE
—	uPVC WASTE PIPE
—	40 Ø(OD)uPVC WASTE PIPE
—	110Ø(OD) PVC RAIN WATER PIPE
M.T	MULTI TRAP
F.T	FLOOR TRAP
G.T	GULLY TRAP 300X300
M.H.S	MANHOLE FOR SEWERAGE 600X600
CB	CATCH BASIN 450X450
—	DRINKING/COOL WATER SUPPLY PIPE
—	HOT WATER SUPPLY PIPE
—	75Ø(OD) PVC RAIN WATER PIPE
PT	P - TRAP
—	BOTTLE - TRAP
—	3" SHOWER DRAIN
UT	URINAL - TRAP

REVISIONS

REVISIONS	NO.	DATE	ISSUED	
	PRINTS ISSUED			
		S. NO.	REV	DATE
	01 - RO - G-BLOCK PLUMBING DWG - CGHB, KATGHORA			

EXECUTIVE ENGINEER

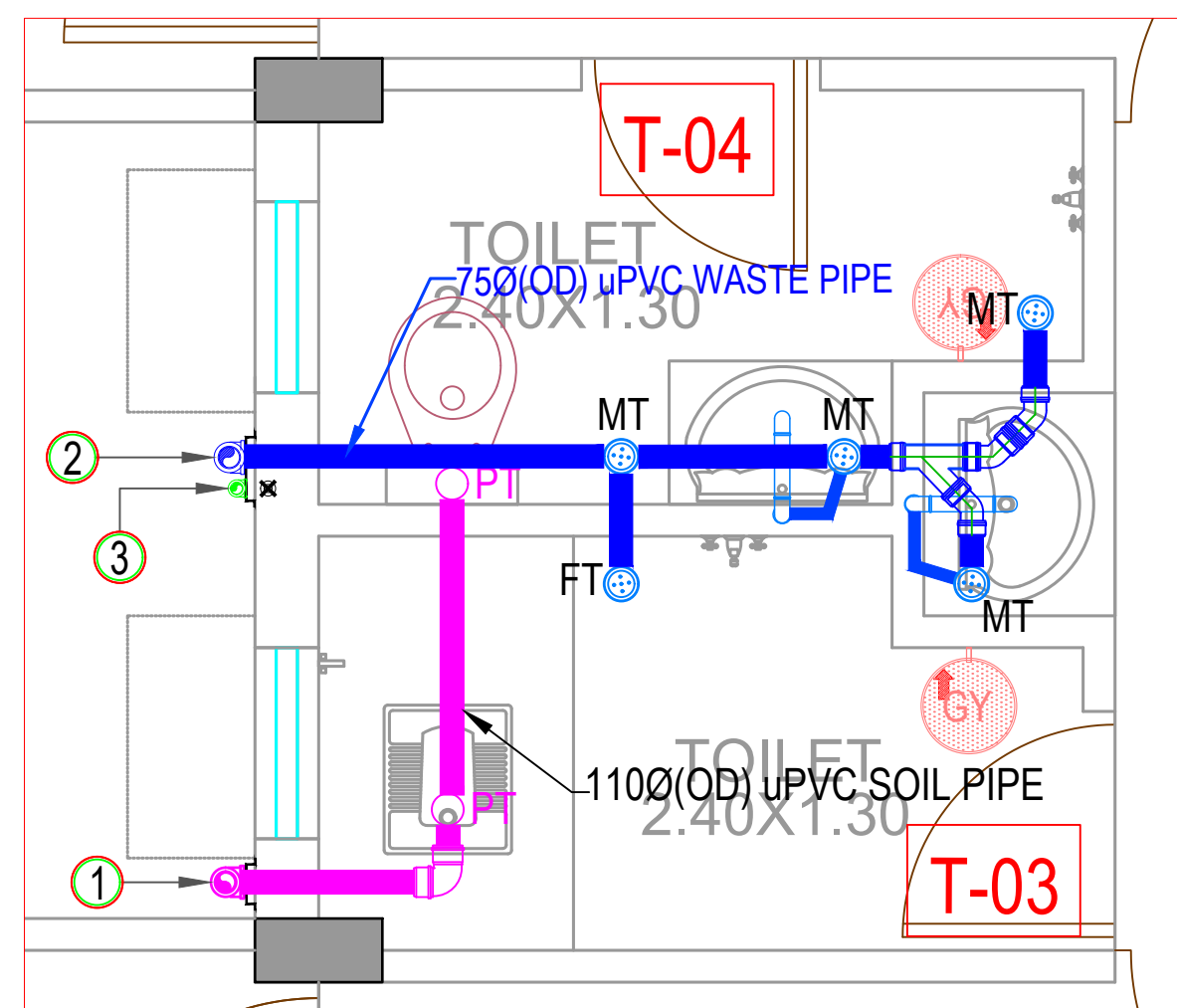
Ar. Abhinav Jaiswal
Raipur
C-10, Rajendra Park, Mahaveer Nagar,
Raipur, Chhattisgarh
Mob:- +91-8817780410
E-mail: ar.abhinavjaiswal31@gmail.com

ARCHITECTS

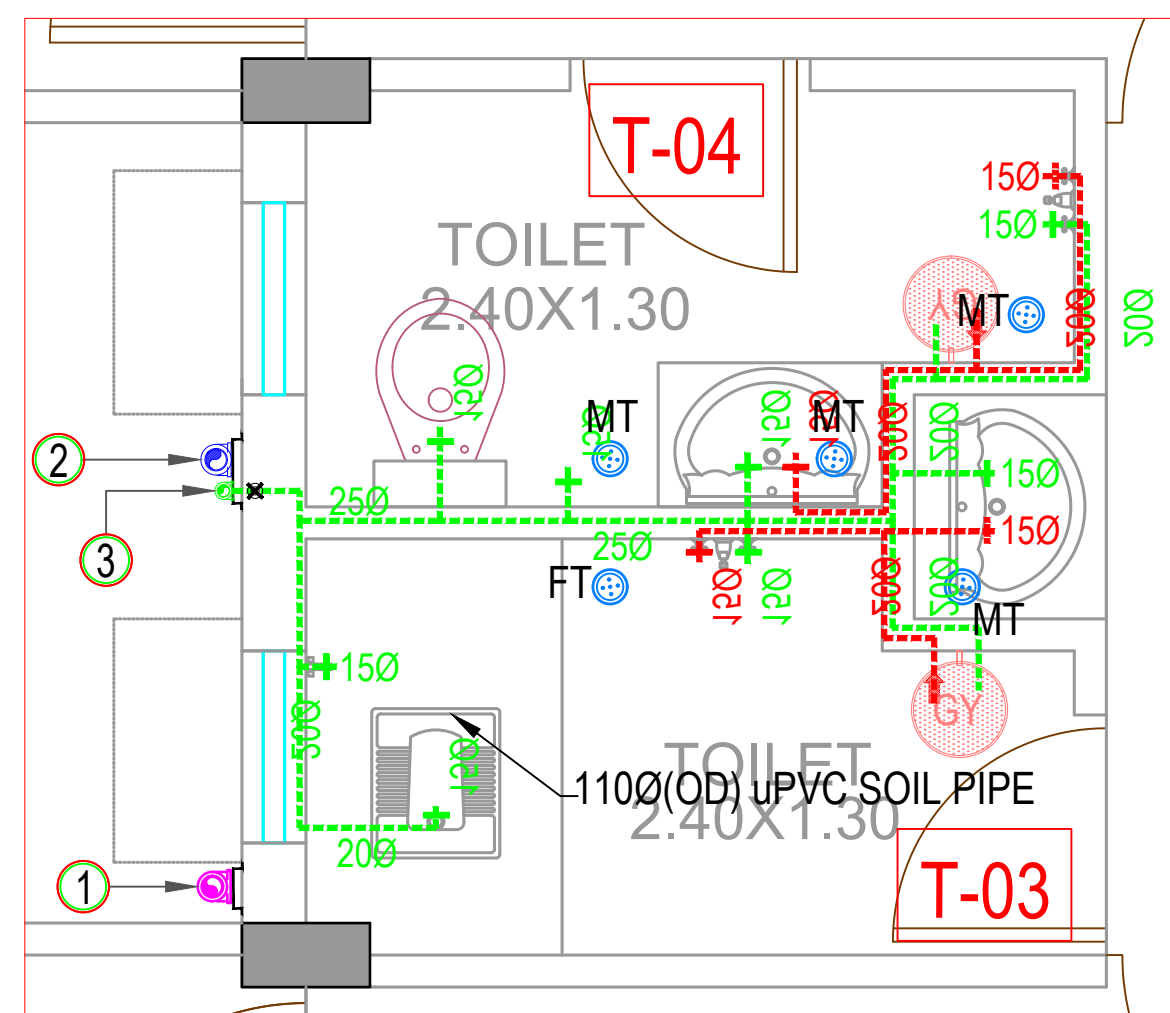
STRUCTURAL ENG.

MEP CONSULTANT

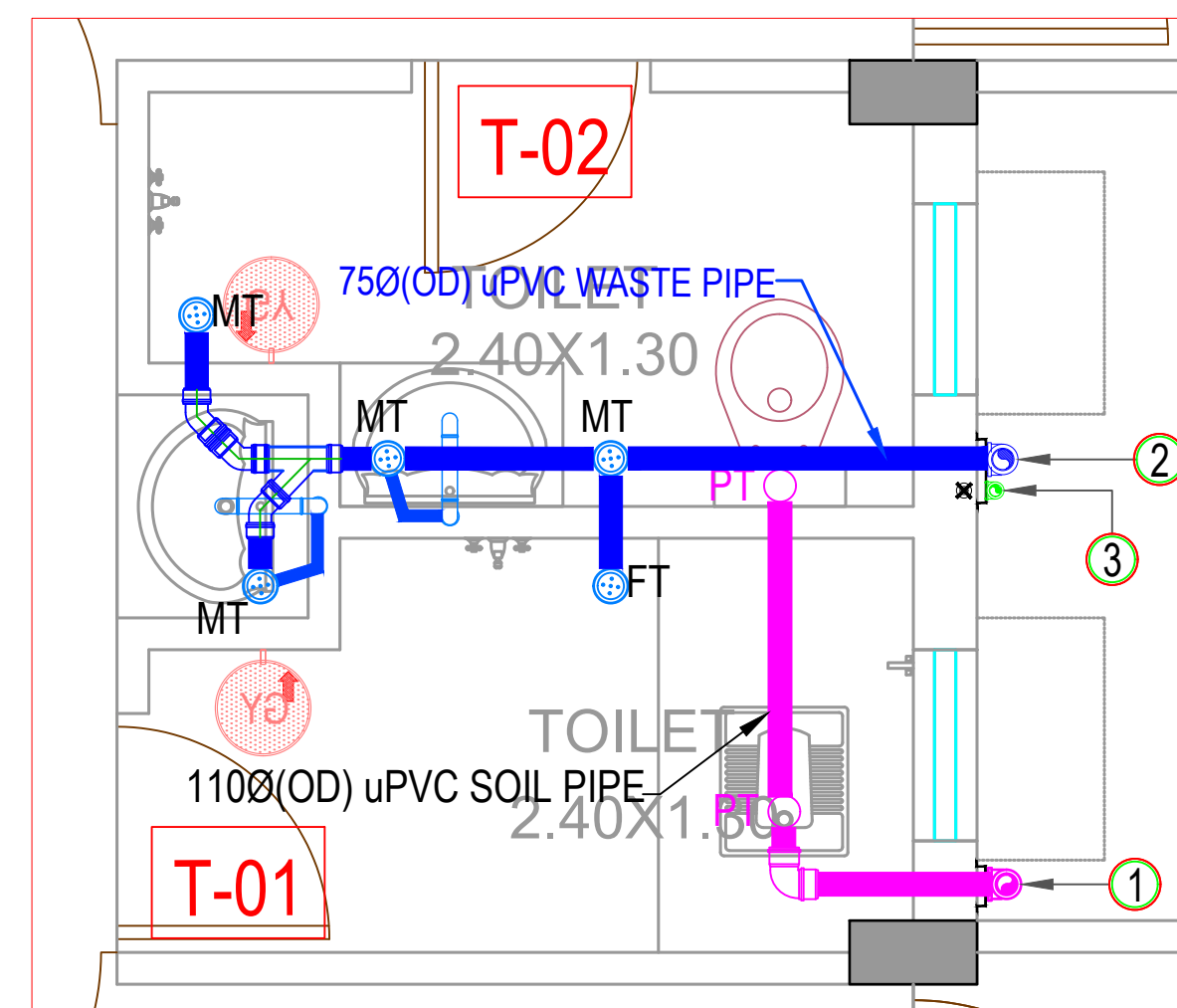
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PAGE NO. :
NO. :
DESIGN : Satya
CHECKED : Satya
DRAWN :
DATE : 01/09/2025



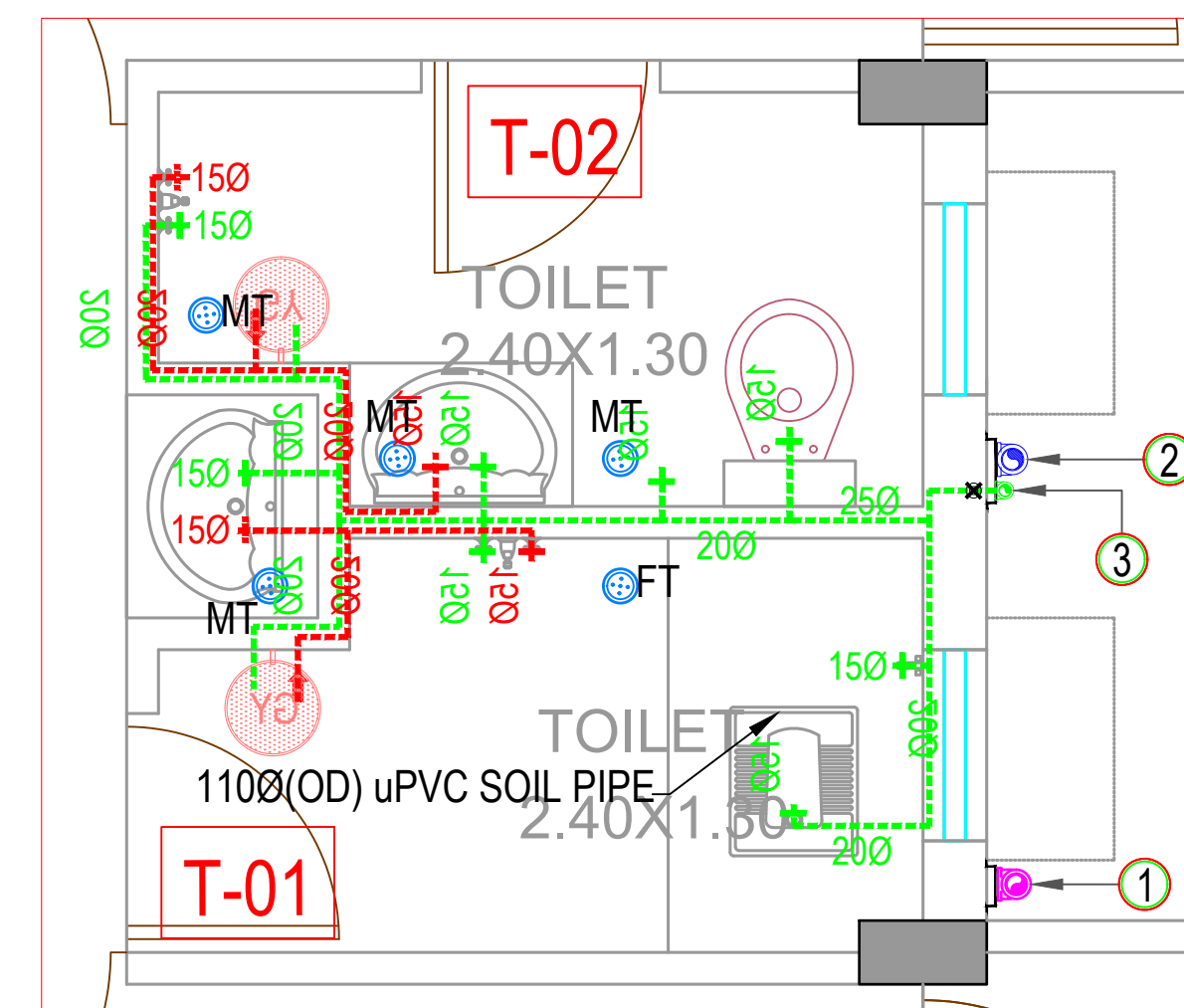
T- 01 & 02 - WASTE WATER LINE PLAN



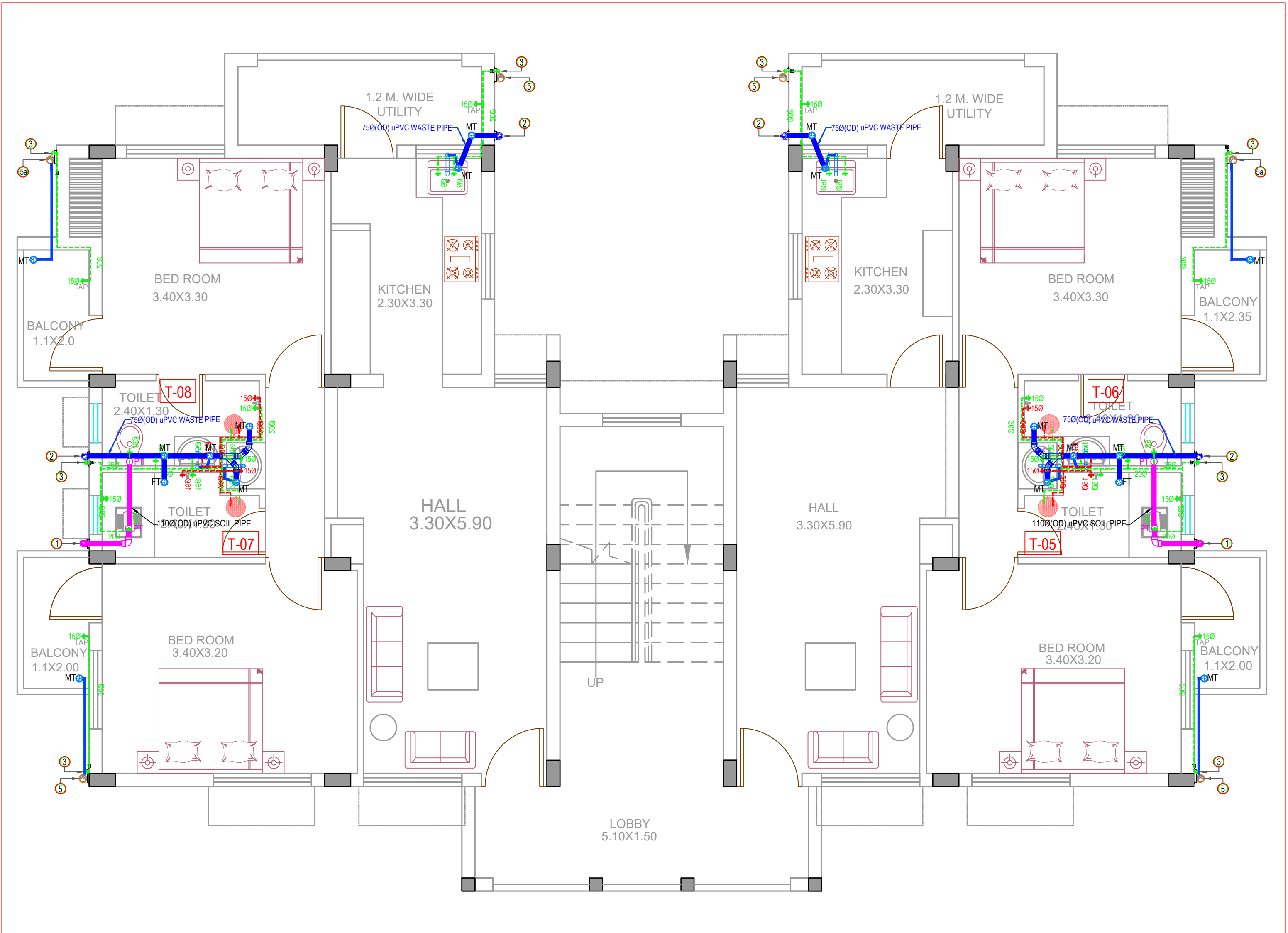
T- 01 & 02 - WATER SUPPLY LINE PLAN



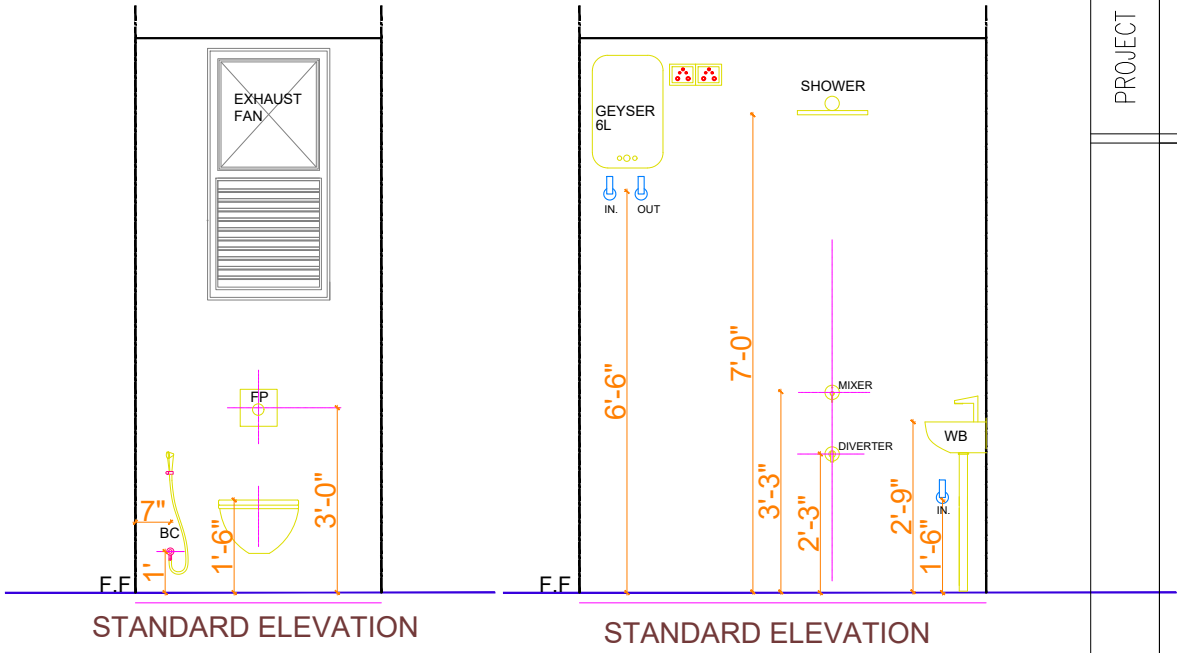
T- 01 & 02 - WASTE WATER LINE PLAN



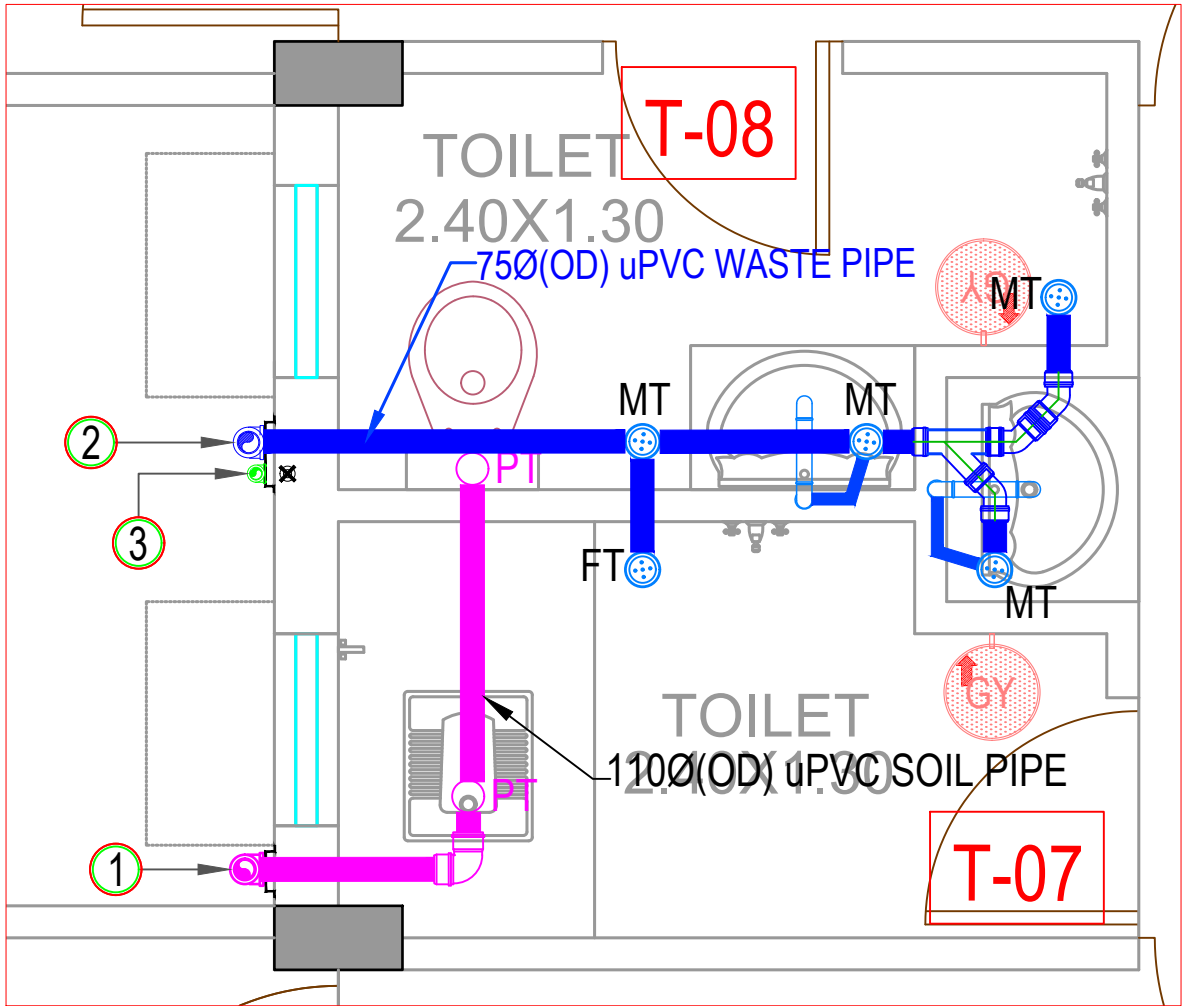
T- 01 & 02 - WATER SUPPLY LINE PLAN



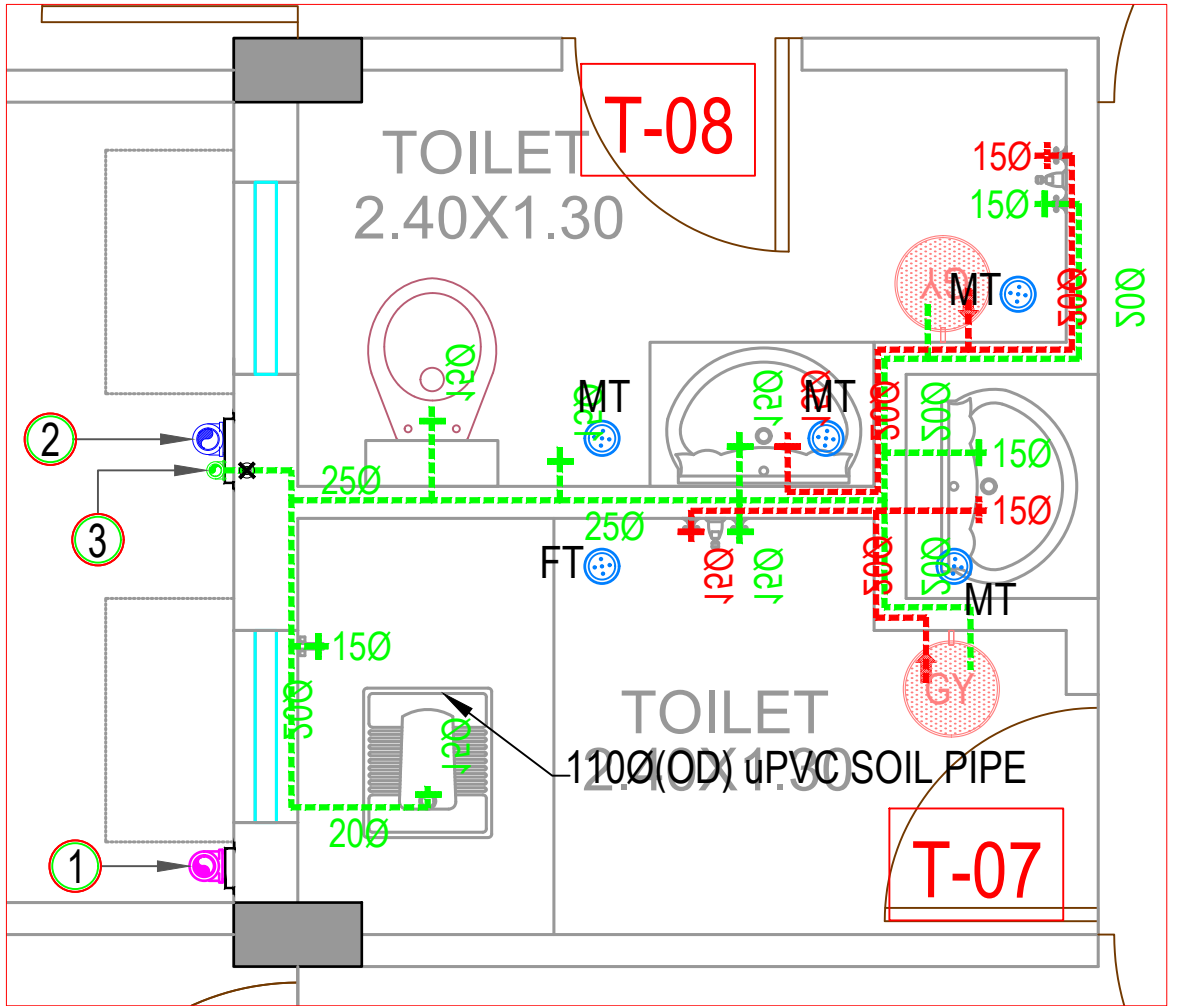
FIRST FLOOR - TOILET LAYOUT PLAN (G-TYPE)



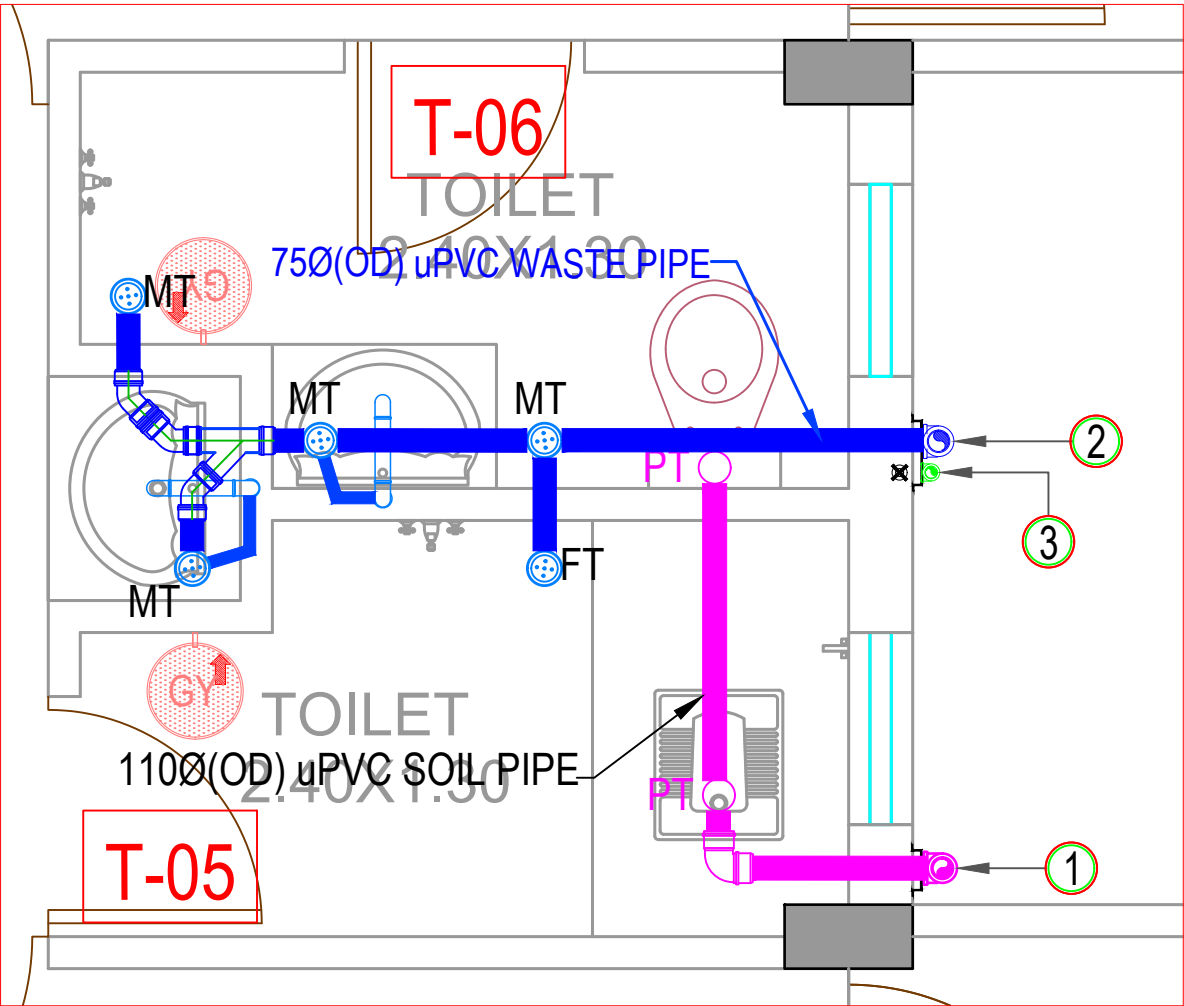
LEGEND FOR PLUMBING	
MARK	DESCRIPTION
✕	BALL VALVE / CONTROL VALVE
—	uPVC SOIL PIPE
—	uPVC WASTE PIPE
—	40 Ø(OD)uPVC WASTE PIPE
—	110Ø(OD) PVC RAIN WATER PIPE
M.T	MULTI TRAP
F.T	FLOOR TRAP
G.T	GULLY TRAP 300X300
M.H.S	MANHOLE FOR SEWERAGE 600X600
CB	CATCH BASIN 450X450
—	DRINKING/COOL WATER SUPPLY PIPE
—	HOT WATER SUPPLY PIPE
—	75Ø(OD) PVC RAIN WATER PIPE
PT	P - TRAP
—	BOTTLE - TRAP
—	3" SHOWER DRAIN
UT	URINAL - TRAP



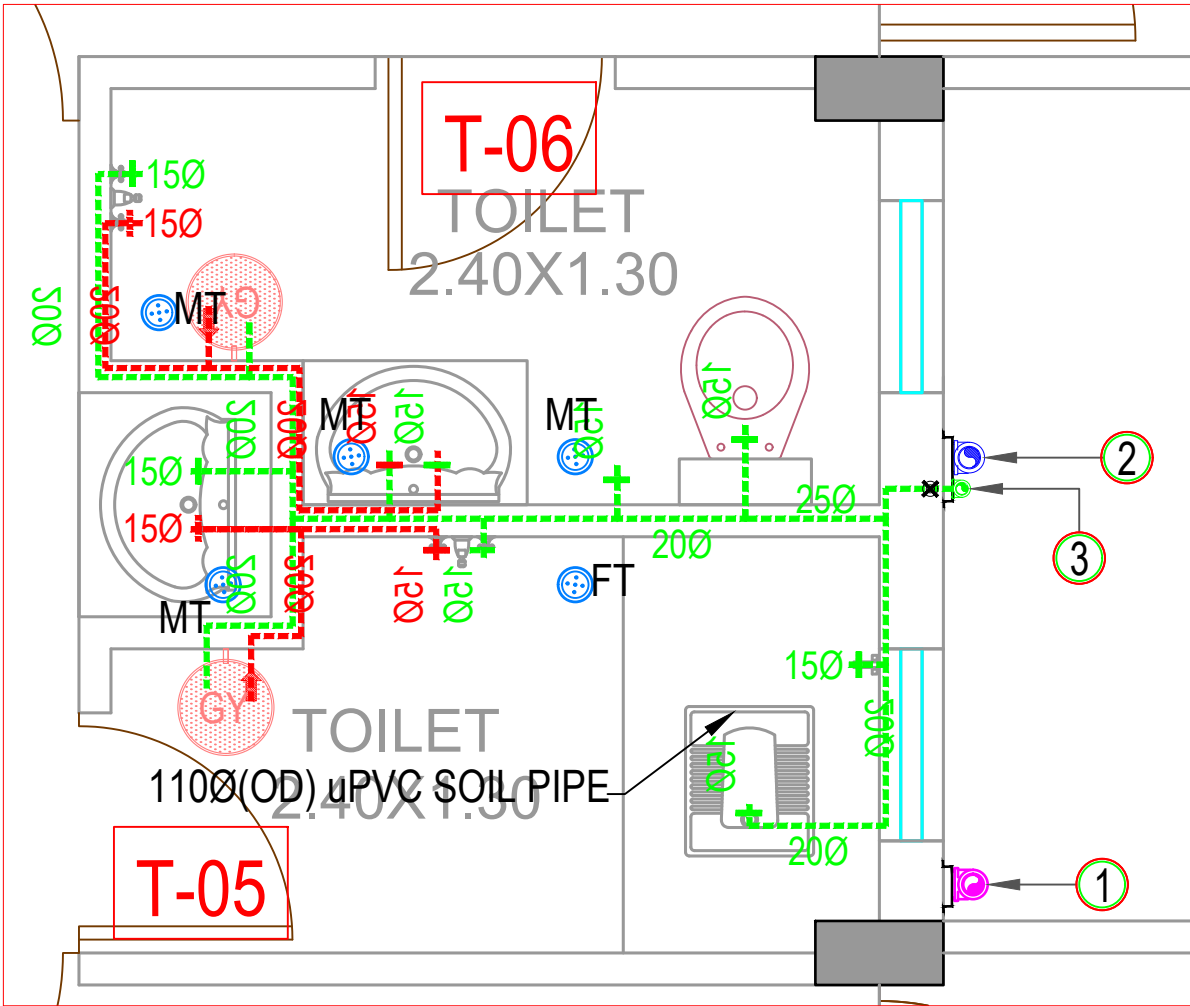
T- 07 & 08 - WASTE WATER LINE PLAN



T- 07 & 08 - WATER SUPPLY LINE PLAN



T- 05 & 06 - WASTE WATER LINE PLAN



T- 05 & 06 - WATER SUPPLY LINE PLAN

G TYPE (GAD)
PLUMBING DRAWING
FIRST FLOOR

EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

REDEVELOPMENT SCHEME
AT KATGHORA SITE 2
(GOVT FACILITY PART)

NO.	DATE	ISSUED
PRINTS ISSUED		
S. NO.	REV	DATE
01 - RO - G-BLOCK PLUMBING DWG - CGHB, KATGHORA		

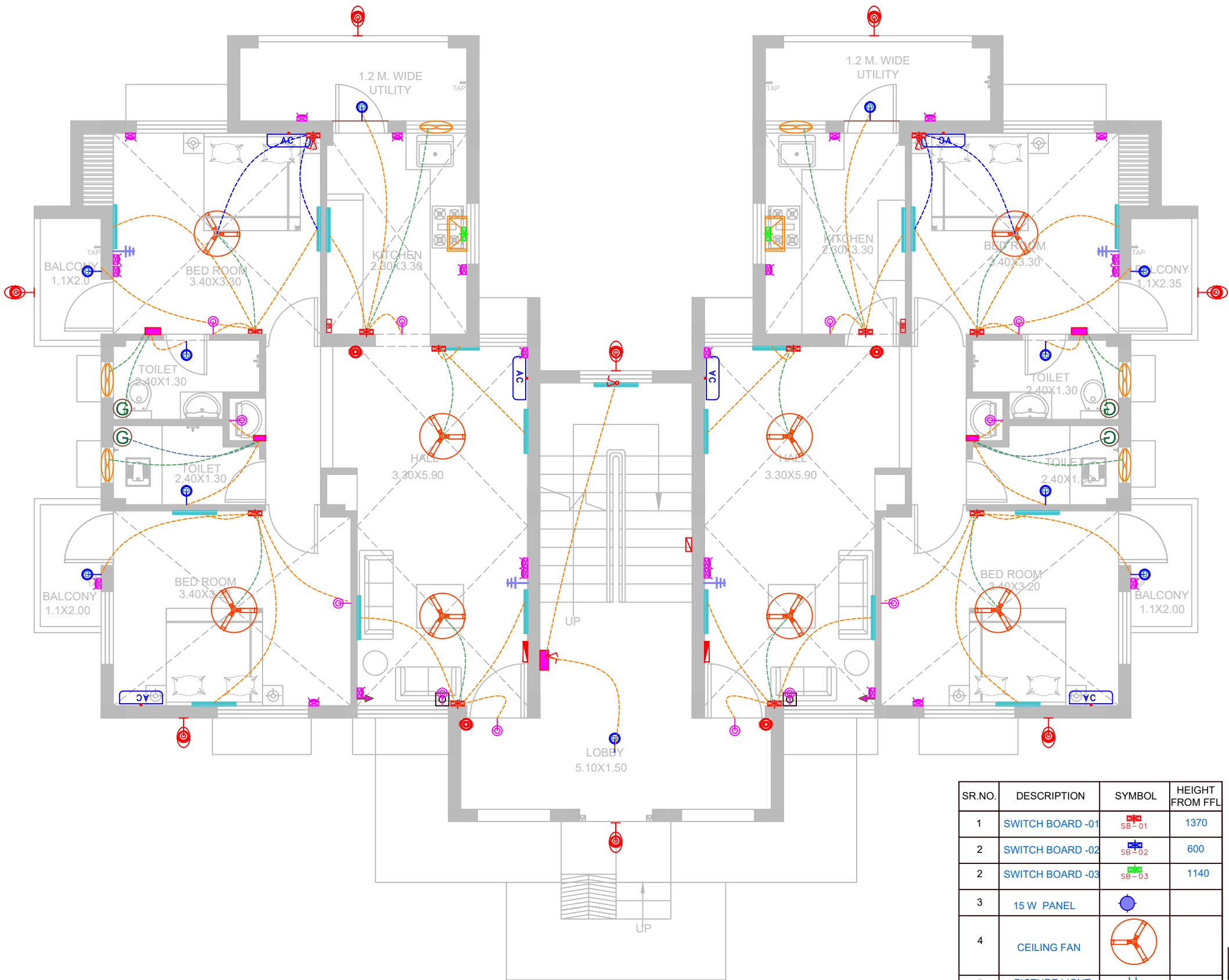
Ar. Abhinav Jaiswal
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Mob:- +91-8817780410
E-mail: ar.abhinavjaiswal31@gmail.com

VARUNA
PLUMBING - FIRE - ELECTRICAL
www.varunaplumbing.com

SCALE : NTS
DIM. IN METRES
PAGE NO :
NO.

DESIGN : Satya
CHECKED : Satya
DRAWN :

DATE : 01/09/2025



G-TYPE - GROUND FLOOR ELECTRICAL PLAN (G+1)

SR.NO.	DESCRIPTION	SYMBOL	HEIGHT FROM FFL
1	SWITCH BOARD -01	SB-01	1370
2	SWITCH BOARD -02	SB-02	600
2	SWITCH BOARD -03	SB-03	1140
3	15 W PANEL		
4	CEILING FAN		
5	PICTURE LIGHT		2100
6	GEYSER		2440
7	AC with 3" pvc conduit for outdoor line(optional)	AC	2750
8	TUBELIGHT		2450
9	DOOR BELL		1370
10	BLUE/ZERO LIGHT		2750
11	LIGHT POINT		2750
12	EXHAUST		
13	CHIMNEY		2100
14	CEILING AC		
15	PROFILE LIGHT		

SR.NO.	DESCRIPTION	SYMBOL	HEIGHT FROM FFL
16	SEPARATE BOARD 1-SWITCH AND 1-6A SOCKET		1370/600
17	LAN POINT		
18	TV POINT		600
19	T.P. POINT		
20	CALL BELL POINT		1370
21	LED LIGHT 15W		
22	TWO WAY		
23	MCB BOARD		
24	METERING BOARD		
25	POWER POINT 1-SWITCH AND 1-16A SOCKET		1370
26	CONTROL BOARD		
27	STREET LIGHT		
28	BULK POINT		2750

DWG. TITLE

ELECTRICAL DRAWING

CLIENT NAME

EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

PROJECT

REDEVELOPMENT
SCHEME AT KATGHORA
SITE 2

REVISIONS

NO.	DATE	ISSUED
PRINTS ISSUED		

S. NO.	REV	DATE	DESCRIPTION
Electrical Drawing_CGHB_GAD_Katghora			

EXECUTIVE ENGINEER

ARCHITECTS

Ar. Abhinav Jaiswal
Raipur
C-10, Rajendra Park, Mahaveer Nagar,
Raipur, Chhattisgarh
Mob:- +91-8817780410
E-mail: ar.abhinavjaiswal31@gmail.com

STRUCTURAL ENG.

MEP CONSULTANT

VARUNA
MEP CONSULTANT
PLUMBING - FIRE - ELECTRICAL
www.varunamepconsultant.com

NORTH

SCALE : MTS

DIM. IN METRE

DESIGN : Salya

CHECKED :

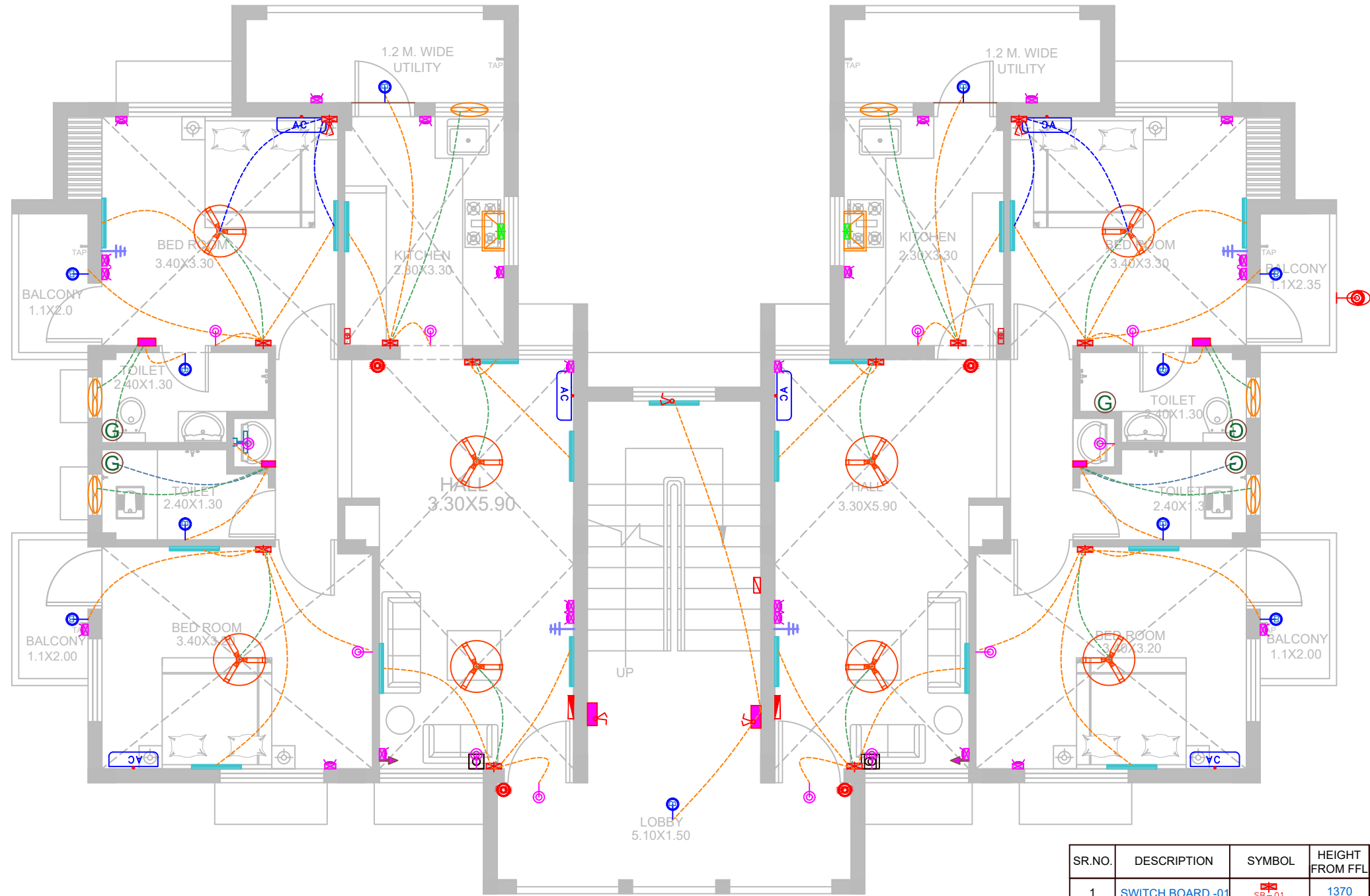
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DRAWN :

355

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DATE : 01/09/2025



G - TYPE - FIRST FLOOR ELECTRICAL PLAN (G+1)

SR.NO.	DESCRIPTION	SYMBOL	HEIGHT FROM FFL
1	SWITCH BOARD -01	SB-01	1370
2	SWITCH BOARD -02	SB-02	600
2	SWITCH BOARD -03	SB-03	1140
3	15 W PANEL		
4	CEILING FAN		
5	PICTURE LIGHT		2100
6	GEYSER	G	2440
7	AC with 3" pvc conduit for outdoor line(optional)	AC	2750
8	TUBELIGHT		2450
9	DOOR BELL		1370
10	BLUE/ZERO LIGHT		2750
11	LIGHT POINT		2750
12	EXHAUST		
13	CHIMNEY		2100
14	CEILING AC		
15.	PROFILE LIGHT		

SR.NO.	DESCRIPTION	SYMBOL	HEIGHT FROM FFL
16	SEPARATE BOARD 1-SWITCH AND 1-BA SOCKET		1370/600
17	LAN POINT		
18	TV POINT		600
19	T.P. POINT		
20	CALL BELL POINT		1370
21	LED LIGHT 15W		
22	TWO WAY		
23	MCB BOARD		
24	METERING BOARD		
25	POWER POINT 1-SWITCH AND 1-16A SOCKET		1370
26	CONTROL BOARD		
27	STREET LIGHT		
28	BULK POINT		2750

DWG. TITLE

ELECTRICAL DRAWING

CLIENT NAME

EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

PROJECT

REDEVELOPMENT
SCHEME AT KATGHORA
SITE 2

AREA STATEMENT

REVISIONS

NO.	DATE	ISSUED	
PRINTS ISSUED			
S. NO.	REV	DATE	DESCRIPTION
Electrical Drawing_CGHB_GAD_Katghora			

EXECUTIVE ENGINEER

ARCHITECTS

Ar. Abhinav Jaiswal
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C-10, Rajendra Park, Mahaveer Nagar,
Raipur, Chhattisgarh
Mob:- +91-8817780410
E-mail: ar.abhinavjaiswal31@gmail.com

STRUCTURAL ENG.

MEP. CONSULTANT

PLUMBING - FIRE - ELECTRICAL
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NORTH

SCALE : MTS
DIM. IN METRE

DESIGN : Salya

PAGE NO :
NO.














CHECKED :
DRAWN :

DATE : 01/09/2025

356

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SR.NO.	DESCRIPTION	SYMBOL	HEIGHT FROM FFL
16	SEPARATE BOARD 1-SWITCH AND 1-6A SOCKET		1370/600
17	LAN POINT		600
18	TV POINT		600
19	T.P. POINT		
20	CALL BELL POINT		1370
21	LED LIGHT 15W		
22	TWO WAY		
23	MCB BOARD		
24	METERING BOARD		
25	POWER POINT 1-SWITCH AND 1-16A SOCKET		1370
26	CONTROL BOARD		
27	STREET LIGHT		
28	BULK POINT		2750

DATE : 01/09/2025

H1 TYPE

1. ARCHITECTURAL DRAWINGS
2. 3D RENDERS
3. STRUCTURAL DRAWINGS
4. PLUMBING
5. ELECTRICAL




GROUND FLOOR PLAN (G+1)

H1 TYPE

DWG. TITLE

H1 TYPE
(GAD QUARTER)
GROUND FLOOR
PLAN

CLIENT NAME



EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

PROJECT

REDEVELOPMENT SCHEME
AT KATGHORA SITE 2
(GOVT. FACILITY PART)

AREA STATEMENT

BUILT UP AREA OF : 1 UNIT	42.91 SQM.
SUPER BUILT UP AREA OF : 1 UNIT	49.57 SQM.
CARPET AREA OF : 1 UNIT	36.55 SQM.
BUA. GF.	198.28SQM.
BUA. FF.	198.28SQM.
BUA MUMTY	15.60 SQM.
TOTAL BUILT UP AREA OF 1 BLOCK	412.16 SQM.

OPENING SCHEDULE

S. NO.	TYPE	NAME	SIZE
1.	D	DOOR	1.00X2.10M.
2.	D1	DOOR	0.90X2.10M.
3.	D2	DOOR	0.75X2.10M.
4.	W	WINDOW	1.20X1.50M.
5.	WK	WINDOW	0.60X1.00M.
6.	W2	WINDOW	1.00X1.50M.
7.	V	VENTILATOR	0.60X0.60M.

REVISIONS

NO.	DATE	ISSUED	
PRINTS ISSUED			
S. NO.	REV	DATE	DESCRIPTION
20250924 KATGHORA GAD			

EXECUTIVE ENGINEER

ARCHITECTS

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STRUCTURAL ENG.

MEP-CONSULTANT

NORTH



SCALE : NTS

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PAGE NO. : 359

NO.

DESIGN : VKS

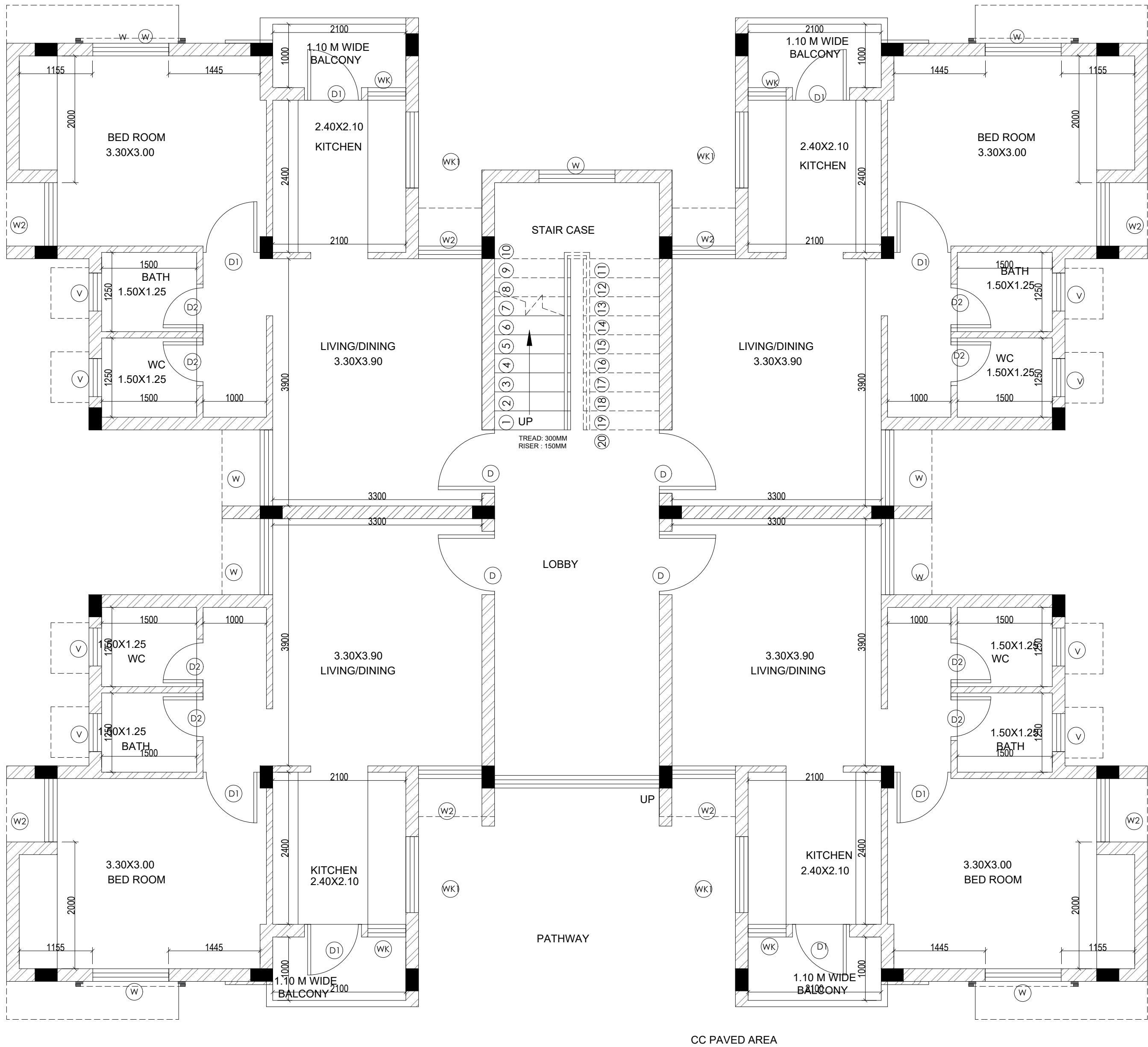
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DATE : 01/09/2025



FIRST FLOOR PLAN

H1 TYPE

H1 TYPE
(GAD QUARTER)
FIRST FLOOR PLAN



EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

REDEVELOPMENT SCHEME
AT KATGHORA SITE 2
(GOVT. FACILITY PART)

AREA STATEMENT

BUILT UP AREA OF : 1 UNIT	42.91 SQM.
SUPER BUILT UP AREA OF : 1 UNIT	49.57 SQM.
CARPET AREA OF : 1 UNIT	36.55 SQM.
BUA. GF.	198.28SQM.
BUA. FF.	198.28SQM.
BUA MUMTY	15.60 SQM.
TOTAL BUILT UP AREA OF 1 BLOCK	412.16 SQM.

OPENING SCHEDULE

S. NO.	TYPE	NAME	SIZE
1.	D	DOOR	1.00X2.10M.
2.	D1	DOOR	0.90X2.10M.
3.	D2	DOOR	0.80X2.10M.
4.	W	WINDOW	1.20X1.50M.
5.	WK	WINDOW	0.60X1.00M.
6.	W2	WINDOW	1.00X1.50M.
7.	V	VENTILATOR	0.60X0.60M.

REVISIONS

NO.	DATE	ISSUED	
PRINTS ISSUED			
S. NO.	REV	DATE	DESCRIPTION

20250924 KATGHORA GAD

NOTE: This Drawing is a based on the concept drawing provided by C.G.H.B. Division Korba

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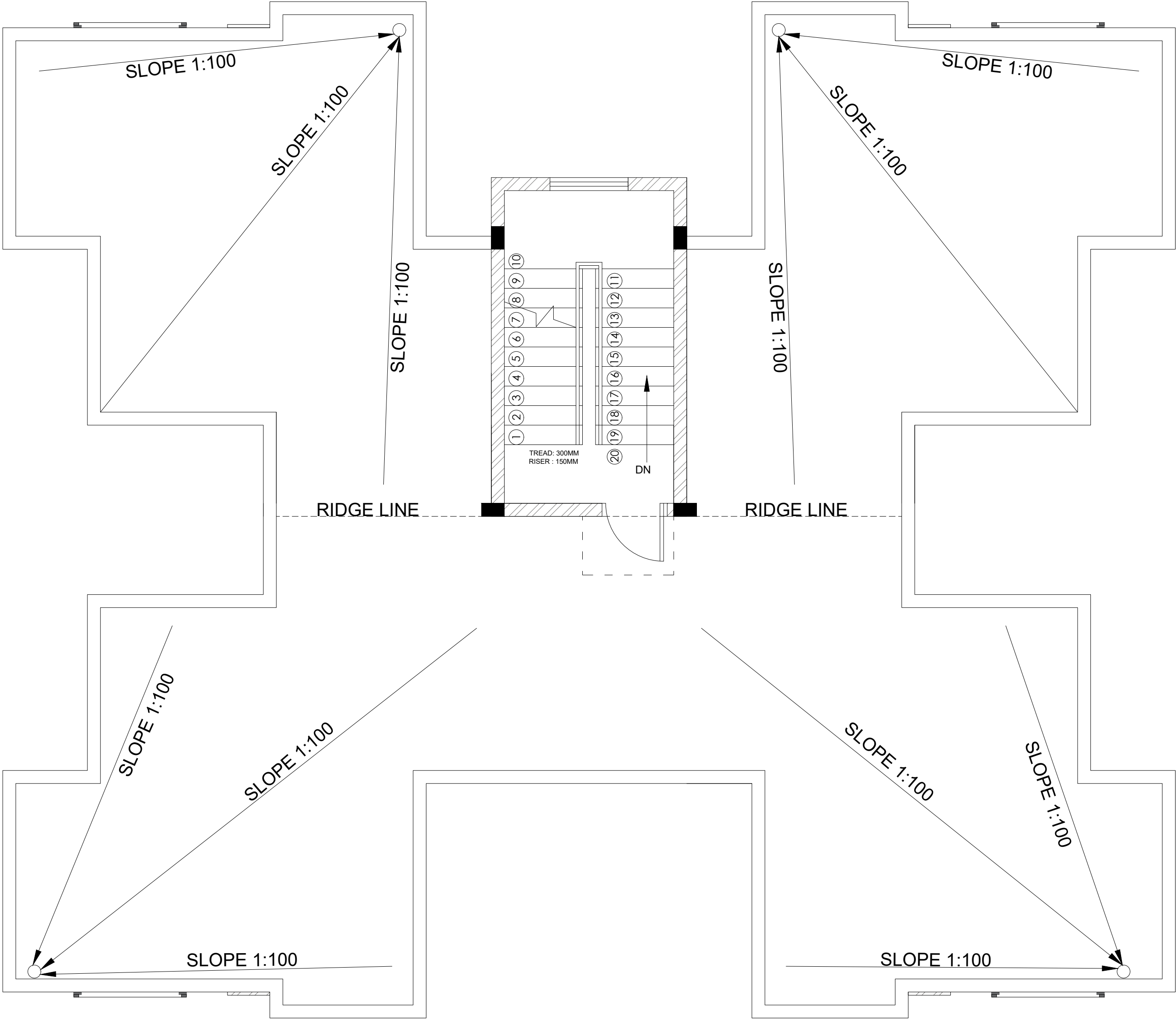
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MEP- CONSULTANT

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	PAGE NO. : 360	CHECKED : AJ.
	NO.	DRAWN : VKS

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DATE : 01/09/2025




TERRACE FLOOR PLAN

DWG. TITLE

H1 TYPE
(GAD QUARTER)
TERRACE FLOOR
PLAN

CLIENT NAME

EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

PROJECT

REDEVELOPMENT SCHEME
AT KATGHORA SITE 2
(GOVT. FACILITY PART)

AREA STATEMENT

BUILT UP AREA OF : 1 UNIT	42.91 SQM.
SUPER BUIL TUP AREA OF : 1 UNIT	49.57 SQM.
CARPET AREA OF : 1 UNIT	36.55 SQM.

BUA. GF.	:	198.28SQM.
BUA. FF.	:	198.28SQM.
BUA MUMTY	:	15.60 SQM.

TOTAL BUILT UP AREA OF 1 BLOCK	:	412.16 SQM.
-----------------------------------	---	-------------

OPENING SCHEDULE

S. NO.	TYPE	NAME	SIZE
1.	D	DOOR	1.00X2.10M.
2.	D1	DOOR	0.90X2.10M.
3.	D2	DOOR	0.80X2.10M.
4.	W	WINDOW	1.20X1.50M.
5.	WK	WINDOW	0.60X1.00M.
6.	W2	WINDOW	1.00X1.50M.
7.	V	VENTILATOR	0.60X0.60M.

REVISIONS

NO.	DATE	ISSUED	
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S. NO.	REV	DATE	DESCRIPTION

20250924 KATGHORA GAD

EXECUTIVE ENGINEER


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STRUCTURAL ENG.

MEP- CONSULTANT

NORTH



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DESIGN : VKS

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REDEVELOPMENT SCHEME AT KATGHORA SITE 2

H1 TYPE(GAD
QUARTER)
ELEVATION



EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

REDEVELOPMENT
SCHEME AT KATGHORA
SITE 2

OPENING SCHEDULE

S. NO.	TYPE	NAME	SIZE
	D	DOOR	1.00X2.10M.
	D1	DOOR	0.90X2.10M.
	D2	DOOR	0.80X2.10M.
	W	WINDOW	1.50X1.50M.
	W1	WINDOW	1.20X1.00M.
	W2	WINDOW	0.8X1.00M.
	WK	WINDOW	1.00X1.00M.
	V	VENTILATOR	0.60X0.60M.

REVISIONS

NO.	DATE	ISSUED	
PRINTS ISSUED			
S. NO.	REV	DATE	DESCRIPTION
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EXECUTIVE ENGINEER

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STRUCTURAL ENG.

MEP- CONSULTANT

NORTH

SCALE : NTS

DIM IN METRES

PAGE NO : /

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DESIGN : VKS

CHECKED -AJ.

DRAWN : VKS

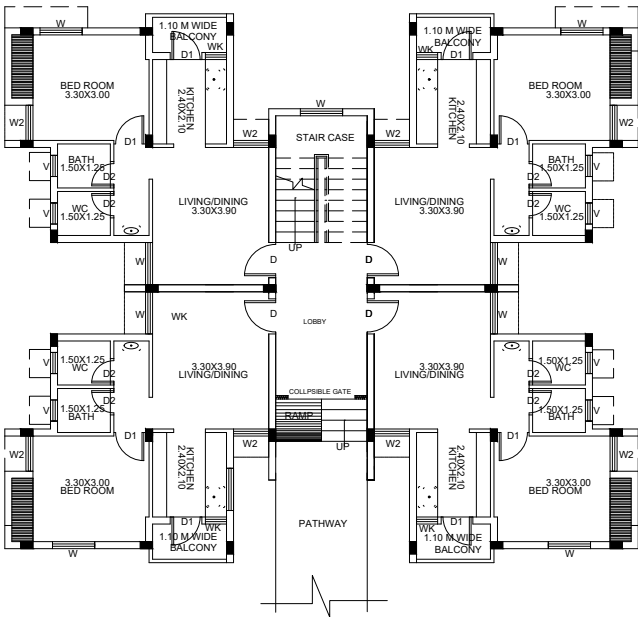
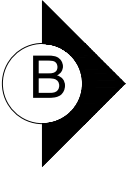
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DATE : 01/09/2025

362

ELEVATION 'B'



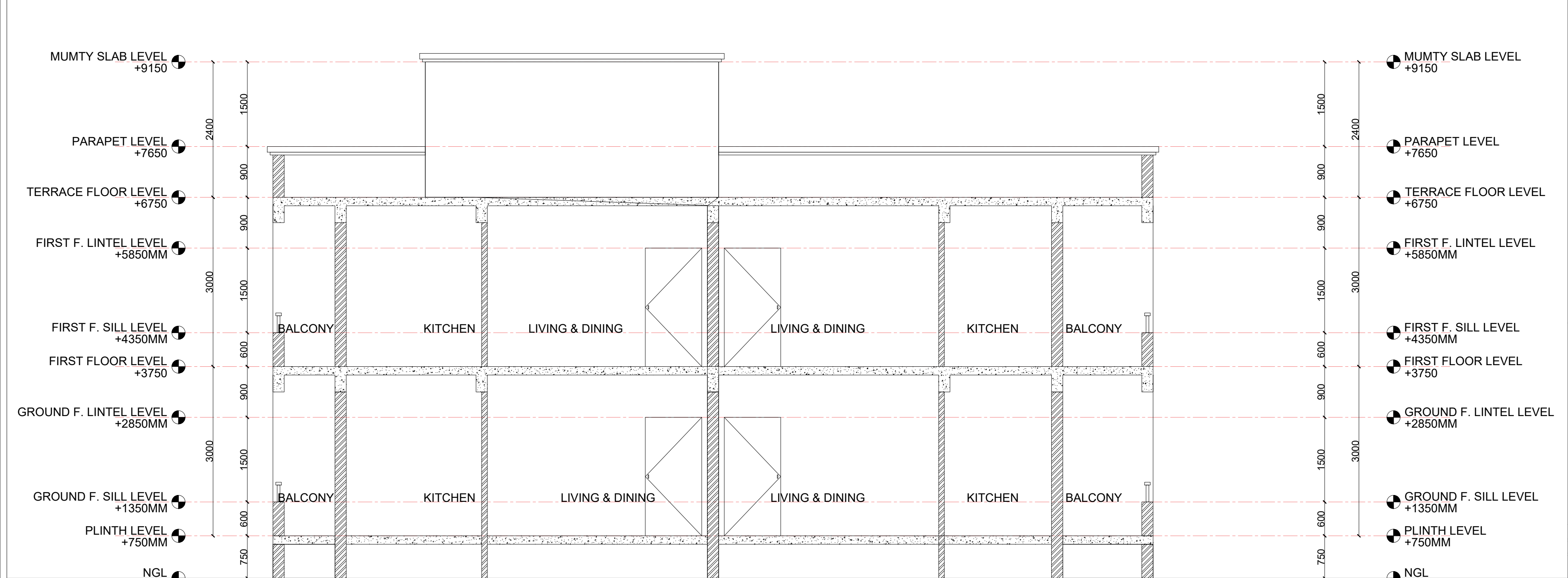
KEY PLAN

REDEVELOPMENT SCHEME AT KATGHORA SITE 2

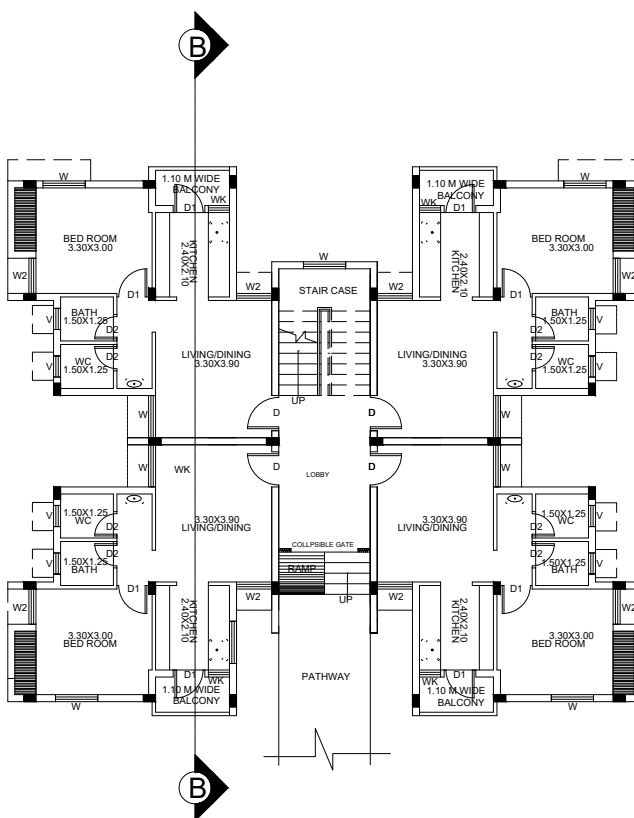
DRG. TITLE	H TYPE(GAD QUARTER) SECTION
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CLIENT NAME	 EXECUTIVE ENGINEER, CHHATTISGARH HOUSING BOARD DIVISION -KORBA,DISTRICT-KORBA
-------------	---

PROJECT	REDEVELOPMENT SCHEME AT KATGHORA SITE 2
---------	---



SECTION 'BB'



KEY PLAN

OPENING SCHEDULE			
S. NO.	TYPE	NAME	SIZE
	D	DOOR	1.00X2.10M.
	D1	DOOR	0.90X2.10M.
	D2	DOOR	0.80X2.10M.
	W	WINDOW	1.50X1.50M.
	W1	WINDOW	1.20X1.00M.
	W2	WINDOW	0.8X1.00M.
	WK	WINDOW	1.00X1.00M.
	V	VENTILATOR	0.60X0.60M.


[illegible]

EXECUTIVE ENGINEER	
--------------------	--

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STRUCTURAL ENG.	
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MEP CONSULTANT	
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NORTH 	SCALE : NTS DIM. IN METRES	DESIGN : VKS
	PAGE NO : 	CHECKED : AJ.
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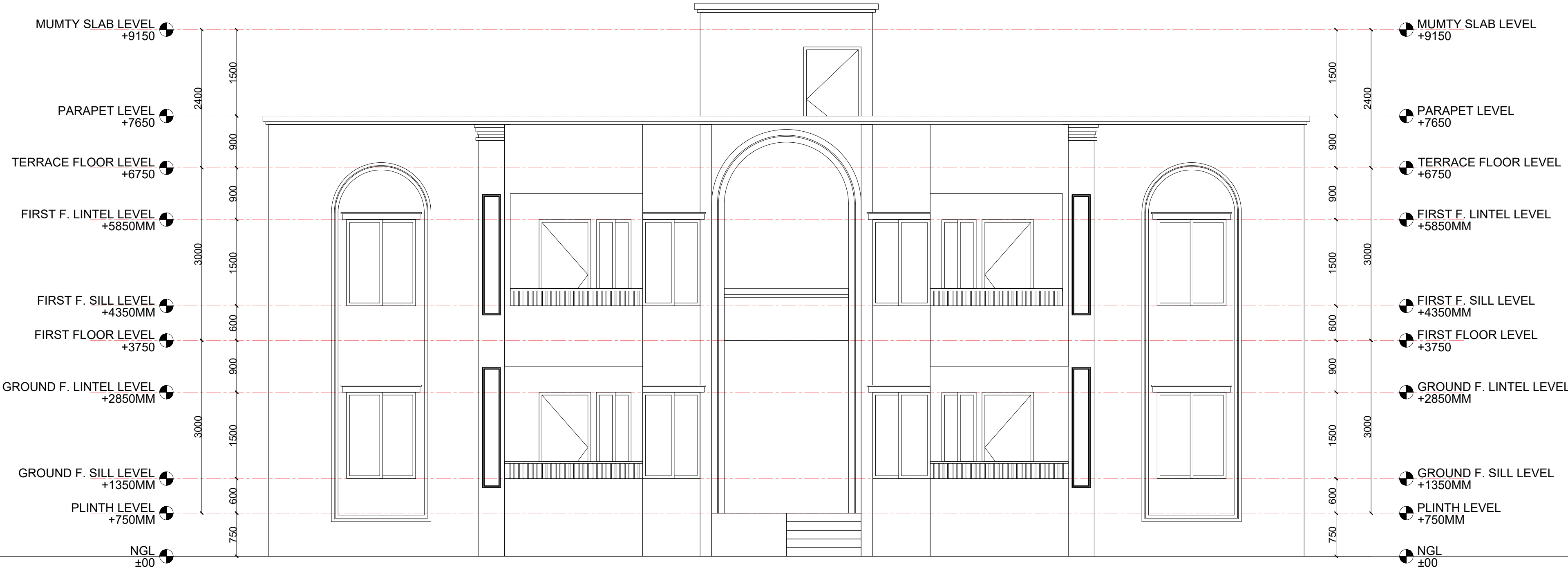
REDEVELOPMENT SCHEME AT KATGHORA SITE 2

H1 TYPE(GAD
QUARTER)
ELEVATION

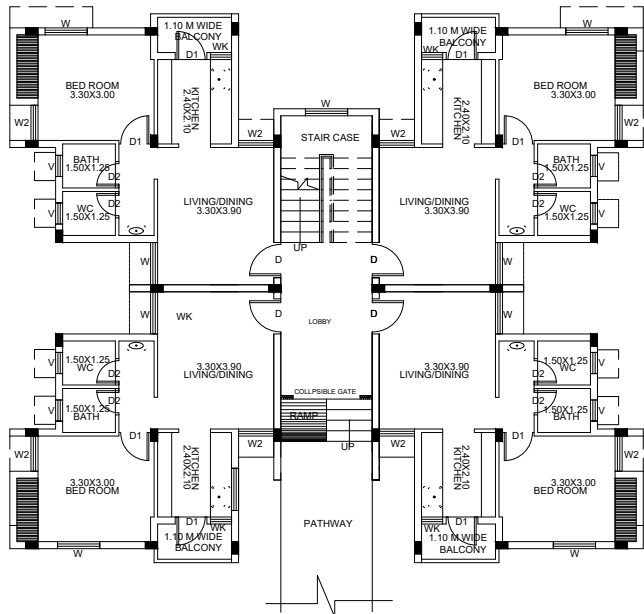


EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

REDEVELOPMENT
SCHEME AT KATGHORA
SITE 2



ELEVATION 'A'



KEY PLAN



OPENING SCHEDULE

S. NO.	TYPE	NAME	SIZE
	D	DOOR	1.00X2.10M.
	D1	DOOR	0.90X2.10M.
	D2	DOOR	0.80X2.10M.
	W	WINDOW	1.50X1.50M.
	W1	WINDOW	1.20X1.00M.
	W2	WINDOW	0.8X1.00M.
	WK	WINDOW	1.00X1.00M.
	V	VENTILATOR	0.60X0.60M.

REVISIONS

NO.	DATE	ISSUED	

EXECUTIVE ENGINEER

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STRUCTURAL ENG.

MEP- CONSULTANT

NORTH

SCALE : NTS

DIM. IN METRES

DESIGN : VKS

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REDEVELOPMENT SCHEME AT KATGHORA SITE 2

H1 TYPE(GAD
QUARTER)
SECTION

EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

REDEVELOPMENT
SCHEME AT KATGHORA
SITE 2

OPENING SCHEDULE

S. NO.	TYPE	NAME	SIZE
	D	DOOR	1.00X2.10M.
	D1	DOOR	0.90X2.10M.
	D2	DOOR	0.80X2.10M.
	W	WINDOW	1.50X1.50M.
	W1	WINDOW	1.20X1.00M.
	W2	WINDOW	0.8X1.00M.
	WK	WINDOW	1.00X1.00M.
	V	VENTILATOR	0.60X0.60M.

NO.	DATE	ISSUED	
PRINTS ISSUED			
S. NO.	REV	DATE	DESCRIPTION
20250917 - MASTER FILE - KATGHORA GAD & EE OFFICE			

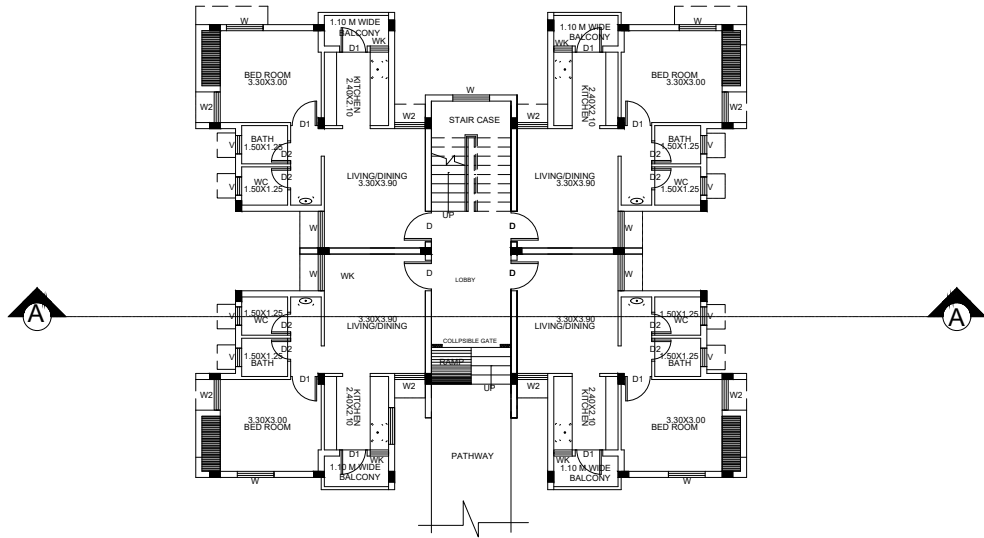
EXECUTIVE ENGINEER

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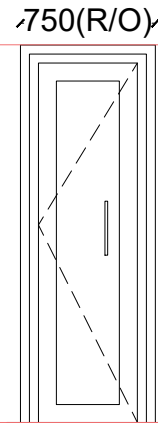
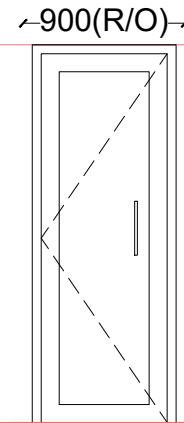
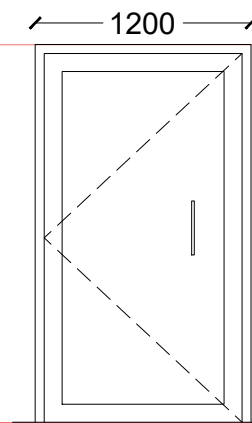
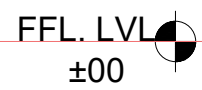
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SECTION 'AA'



KEY PLAN



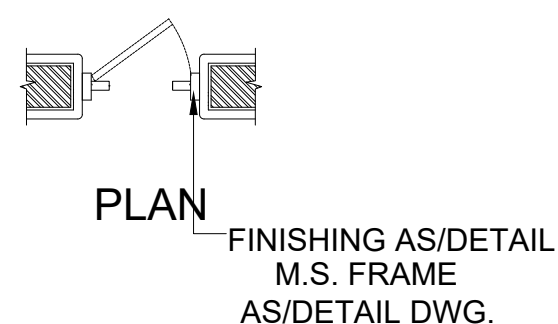
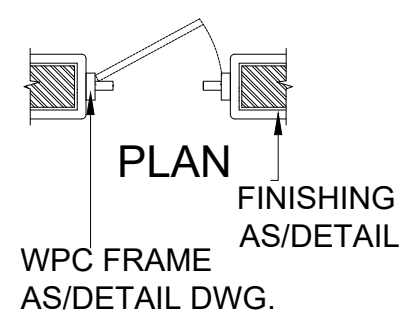
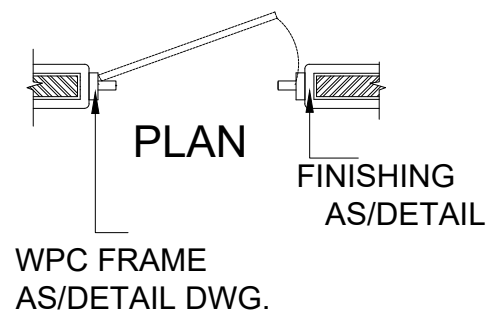
WPC FRAME
1.MD-125 MM x 75 MM
2.OTHER DOOR -100MM x 62.5MM

Flush door shutters, core of block board construction with frame of first class hard wood and well matched first class Indian teak ply veneering on one face and commercial ply veneering on the other face of the shutter with vertical grains, cross bands and face veneering excluding hinges.

MD
MAIN DOOR
(DOUBLE RIVET
-125 MM x 75 MM)
(TEAK WOOD)
ELEVATION

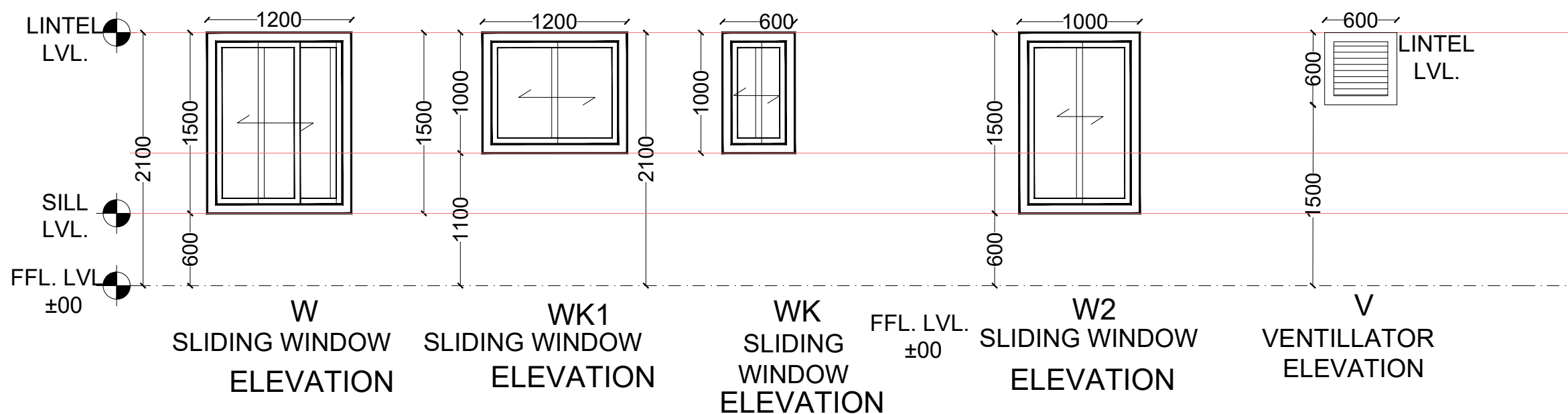
D1
DOOR 1
(SINLE RIVET
-100 MM x 62.5 MM
WPC FRAME)
ELEVATION

D2
DOOR 2
(SINLE RIVET
-100 MM x 62.5 MM
WPC FRAME)
ELEVATION

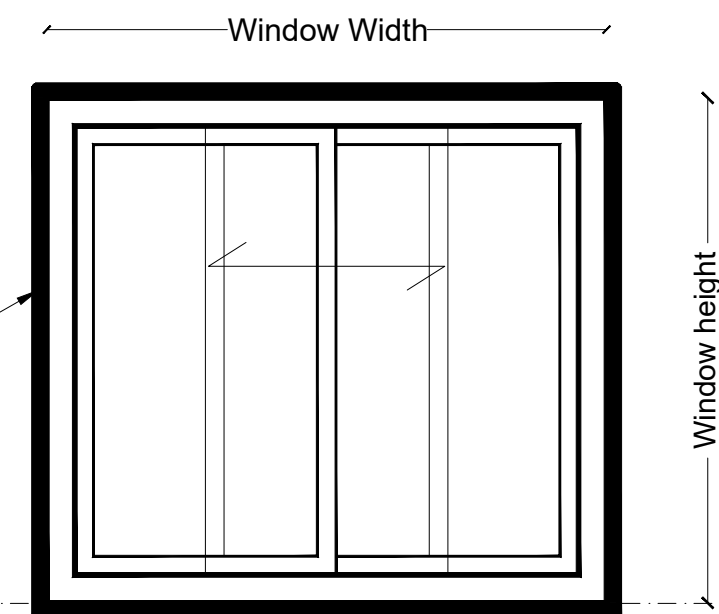


ALL MAIN DOOR ARE
TEAK WOOD

DOOR SCHEDULE
SCALE - N.T.S.

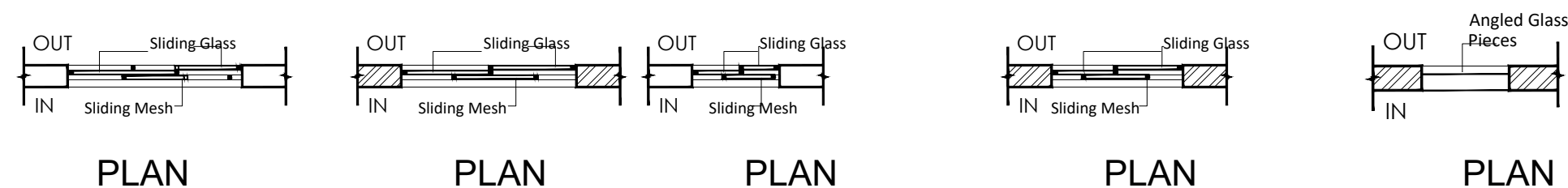


Granite Chokhat
(FASICA)
Half Round Edge



1.5 MM POWDER COATED ALUMINUM DOOR & WINDOW

1. SLIDING DOOR -3 TRACK TWO GLASS & ONE MOSQUITO TRACK.
2. SLIDING WINDOW -3 TRACK TWO GLASS & ONE MOSQUITO TRACK.



WINDOW SCHEDULE (1.5 MM POWDER
COATED ALUMINUM WINDOW)

SCALE - N.T.S.

WINDOW FRAME
SCALE - N.T.S.

DRG. TITLE

H1 TYPE(GAD)
DOOR & WINDOW
SCHEDULE

CLIENT NAME

EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

REDEVELOPMENT SCHEME AT KATGHORA SITE 2

OPENING SCHEDULE

S. NO.	TYPE	NAME	SIZE
	D	DOOR	1.00X2.10M.
	D1	DOOR	0.90X2.10M.
	D2	DOOR	0.75X2.10M.
	W	WINDOW	1.20X1.50M.
	W1	WINDOW	1.20X1.00M.
	W2	WINDOW	1.0X1.00M.
	WK	WINDOW	0.6X1.00M.
	WK1	WINDOW	1.20X1.00M.
	V	VENTILATOR	0.60X0.60M.

[illegible]

20250917 - MASTER FILE - KATGHORA GAD & EE OFFICE

NOTE: This Drawing is a based on the concept drawing provided by C.G.H.B. Division Korba


ER	
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STRUCTURAL ENG.

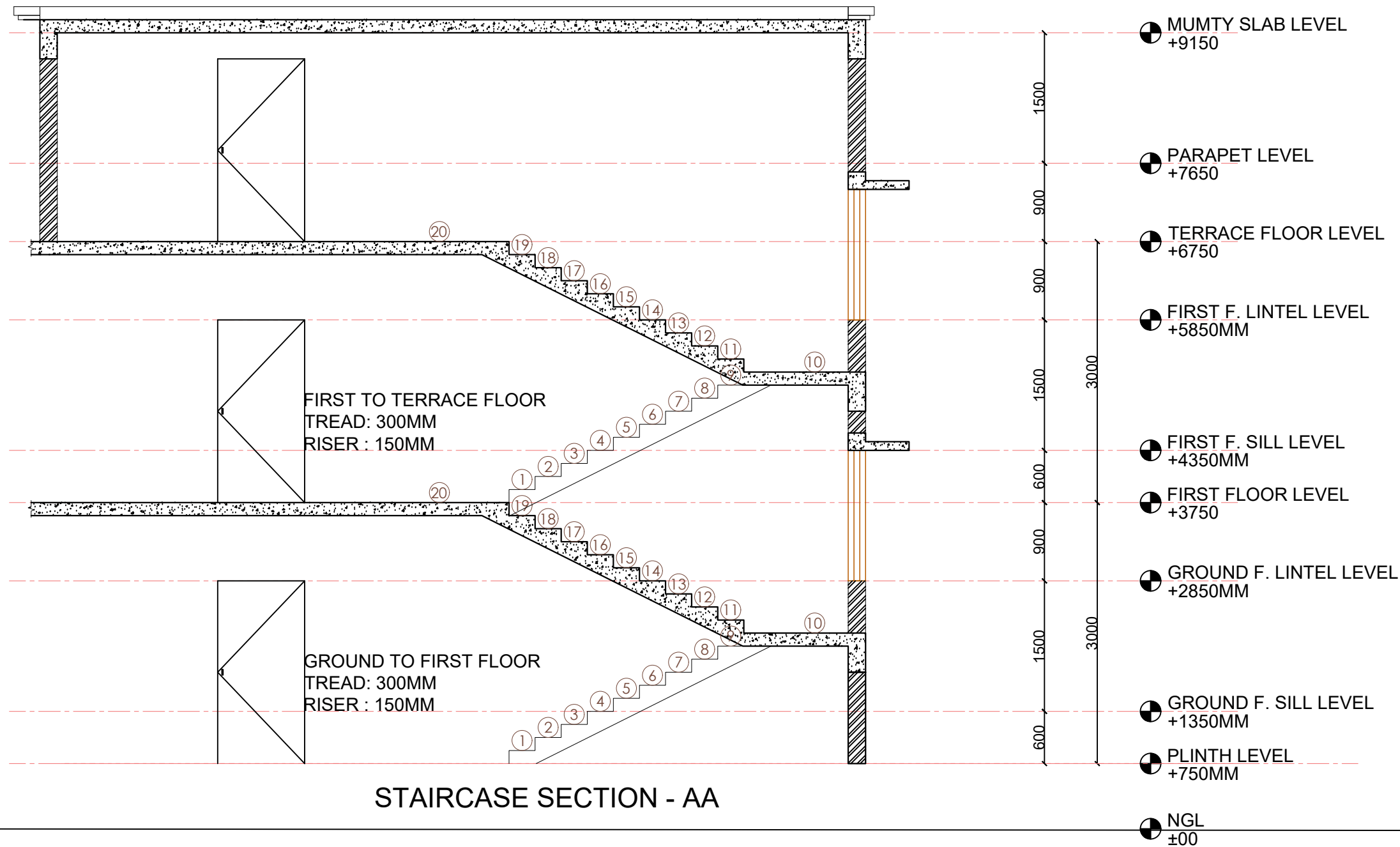
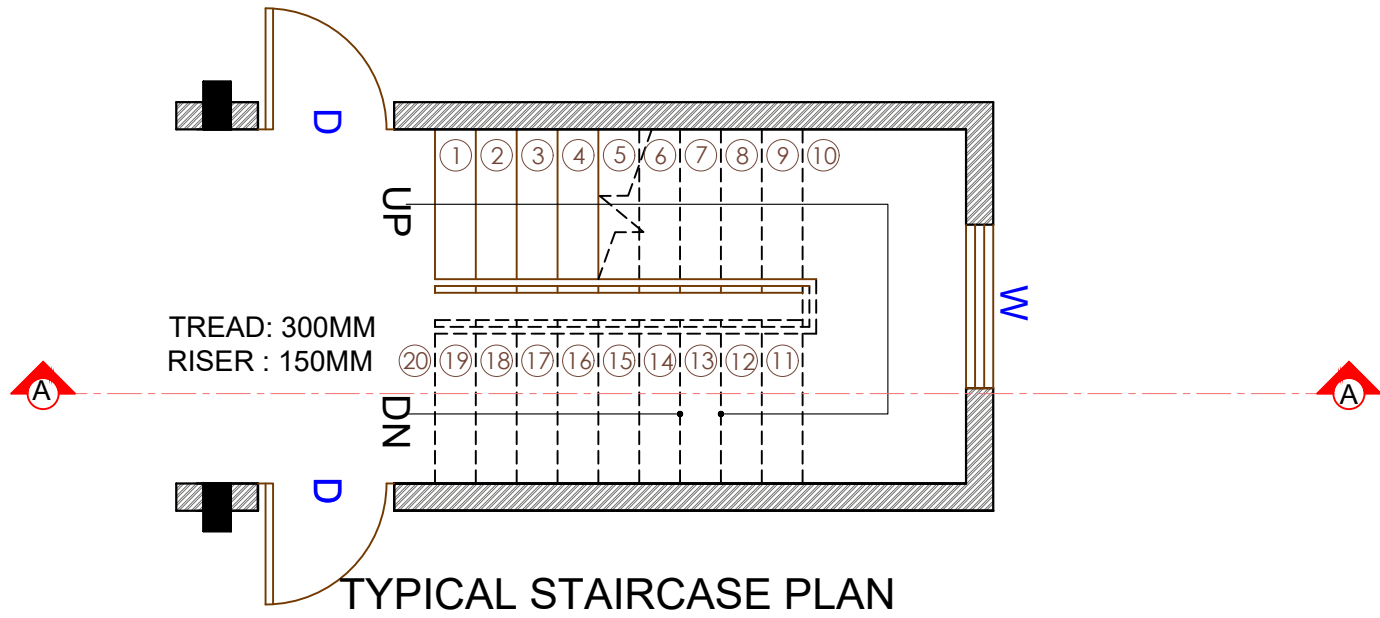
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		PAGE NO :	CHECKED : AJ.
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DATE : 01/09/2025



DRG. TITLE	H1 TYPE (GAD QUARTER) FLOOR PLAN
CLIENT NAME	EXECUTIVE ENGINEER, CHHATTISGARH HOUSING BOARD DIVISION -KORBA,DISTRICT-KORBA
PROJECT	REDEVELOPMENT SCHEME AT KATGHORA SITE 2

OPENING SCHEDULE			
S. NO.	TYPE	NAME	SIZE
1.	D	DOOR	1.00X2.10M.
2.	D1	DOOR	0.90X2.10M.
3.	D2	DOOR	0.75X2.10M.
4.	W	WINDOW	1.20X1.50M.
5.	WK	WINDOW	0.60X1.00M.
6.	W2	WINDOW	1.00X1.50M.
7.	V	VENTILATOR	0.60X0.60M.
NO.	DATE	ISSUED	
PRINTS ISSUED			
S. NO.	REV	DATE	DESCRIPTION
20250917 - MASTER FILE - KATGHORA GAD & EE. OFFICE			

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STRUCTURAL ENG.	
MEP. CONSULTANT	
NORTH	SCALE : NTS DIM. IN METRES
	DESIGN : VKS
	CHECKED : A.J.
	DRAWN : VKS
DATE : 01/09/2025	

GAD H-1 ,TYPE




FRONT VIEW

DRG. TITLE

GAD H-1 TYPE
FRONT VIEW

CLIENT NAME

EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

PROJECT

REDEVELOPMENT SCHEME AT
KATGHORA SITE 2
(GOVT. FACILITY PART)

REVISIONS

NO.	DATE	ISSUED
PRINTS ISSUED		

S. NO.	REV	DATE	DESCRIPTION
001 30082028_GAD Katghora			

EXECUTIVE ENGINEER


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STRUCTURAL ENG.

MEP. CONSULTANT

NORTH



SCALE : NTS

PAGE NO :

NO.

DESIGN : VKS

CHECKED : A.J.

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DELL E/01, ARCHITECT NAVEEN MUNI/KATGHORA/001 30082028_GAD KATGHORA

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DATE : 01/09/2025

GAD H-1 ,TYPE




VIEW

DRG. TITLE

GAD H-1 TYPE
CORNER VIEW

CLIENT NAME

EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

PROJECT

REDEVELOPMENT SCHEME AT
KATGHORA SITE 2
(GOVT. FACILITY PART)

REVISIONS

NO.	DATE	ISSUED
PRINTS ISSUED		

S. NO.	REV	DATE	DESCRIPTION
001	30082028	GAD	Katghora

EXECUTIVE ENGINEER


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STRUCTURAL ENG.

MEP. CONSULTANT

NORTH



SCALE : NTS

DESIGN : VKS

PAGE NO :

CHECKED :AJ.

NO.

DRAWN : VKS

DELL E:\G1 ARCHITECT NAVEEN MINU\KATGHORA\001 30082028_GAD KATGHORA

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DATE : 01/09/2025

GAD H-1 ,TYPE




SIDE VIEW

DRG. TITLE

GAD H-1 TYPE
SIDE VIEW

CLIENT NAME



EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

PROJECT

REDEVELOPMENT SCHEME AT
KATGHORA SITE 2
(GOVT. FACILITY PART)

REVISIONS

NO.	DATE	ISSUED	
PRINTS ISSUED			
S. NO.	REV	DATE	DESCRIPTION
001 30082028_GAD Katghora			

EXECUTIVE ENGINEER

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STRUCTURAL ENG.

MEP. CONSULTANT

NORTH



SCALE : NTS

DESIGN : VKS

PAGE NO : 1

CHECKED : A.J.

NO.

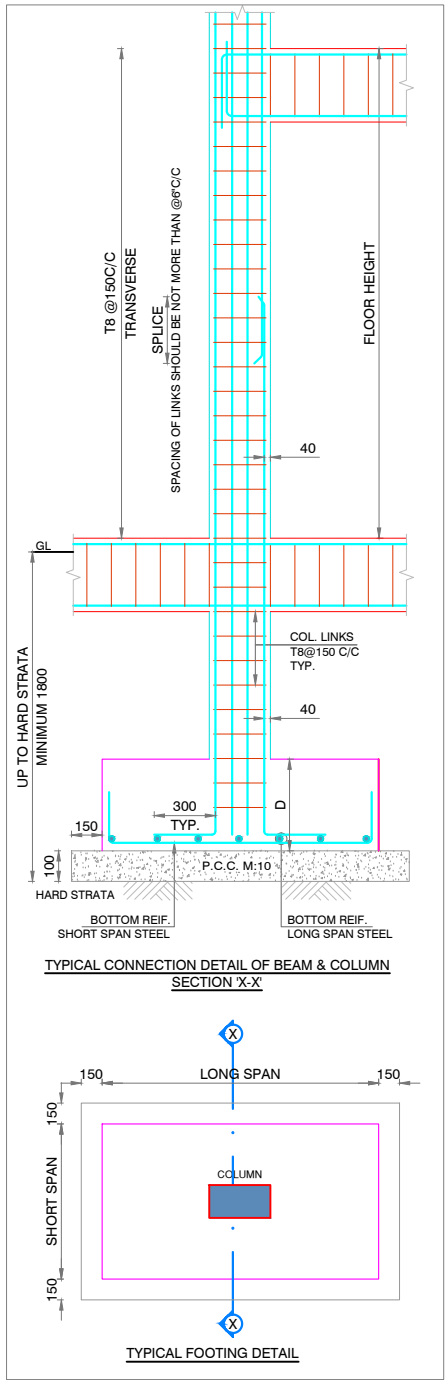
DRAWN : VKS

DELL E:\01. ARCHITECT NAVEEN MINU\KATGHORA\001 30082028_GAD KATGHORA

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DATE : 01/09/2025

REDEVELOPMENT SCHEME AT KATGHORA SITE 2



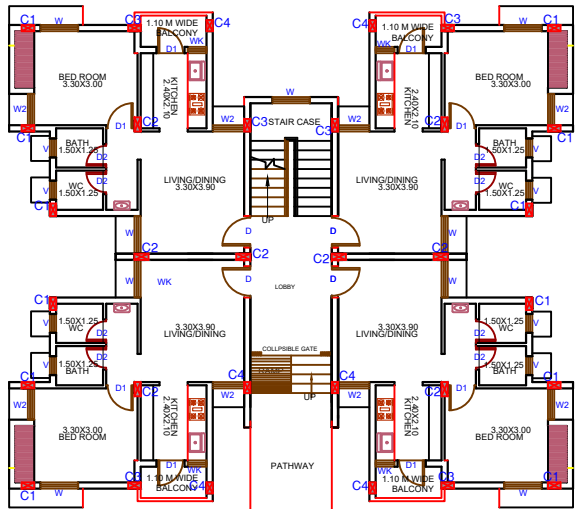
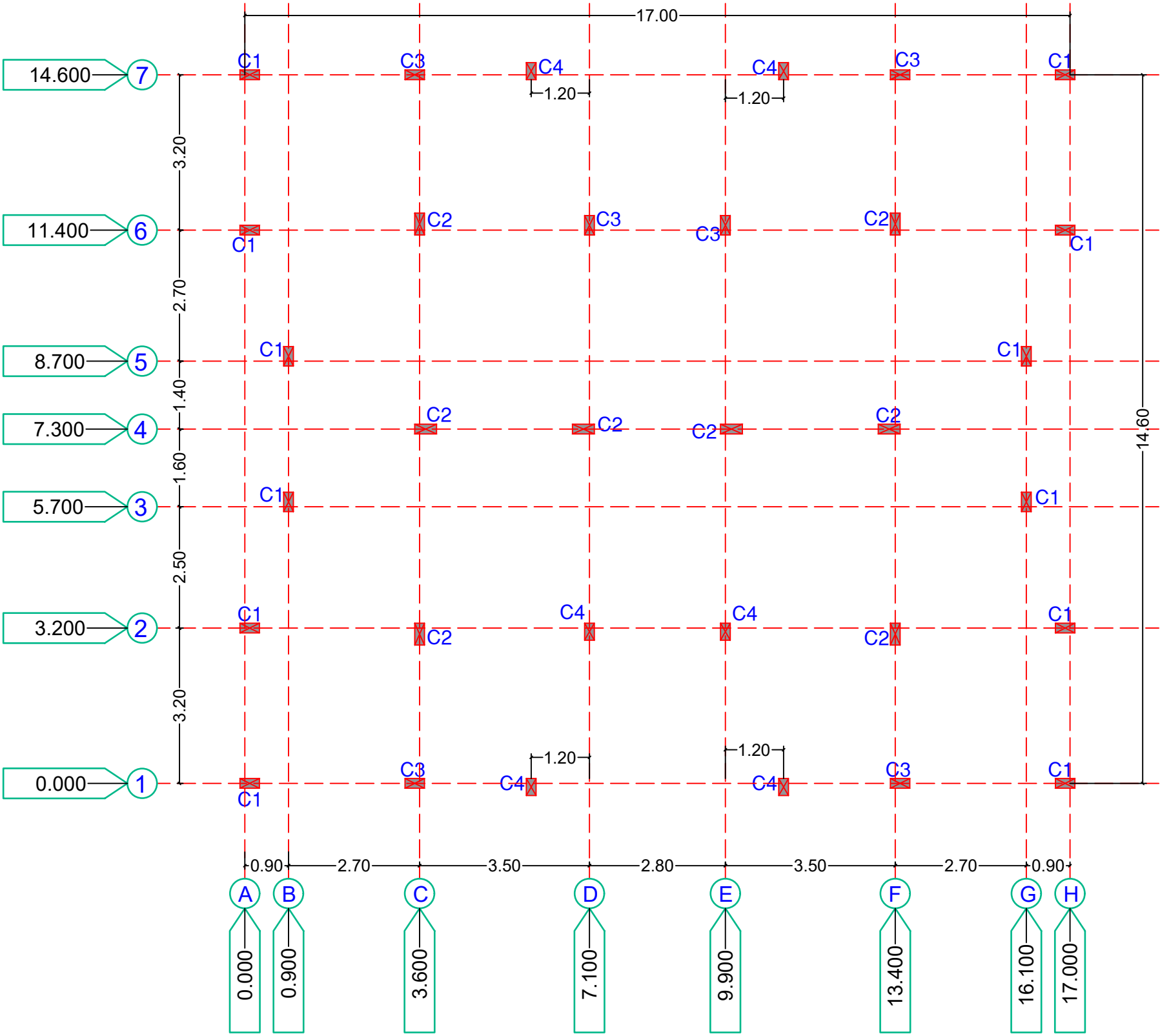
COLUMN SECTIONAL TOP VIEW

C1 200x400		400 10x12 VERT. BARS		12
C2 200x450		450 4x16 VERT. BARS		12
C3 200x400		400 4x16 VERT. BARS		12
C4 200x350		350 6x12 VERT. BARS		12

COLUMN SCHEDULE

SECOND TO MUMTY	M25 Fe500	SIZE	200 X 400	200 X 450	200 X 400	200 X 350
		STEEL	8-T12	8-T12	8-T12	6-T12
		LINKS	T8@150 C/C	T8@150 C/C	T8@150 C/C	T8@150 C/C
FIRST TO SECOND	M25 Fe500	SIZE	200 X 400	200 X 450	200 X 400	200 X 350
		STEEL	8-T12	4-T16 + 4-T12	8-T12	6-T12
		LINKS	T8@150 C/C	T8@150 C/C	T8@150 C/C	T8@150 C/C
PLINTH TO FIRST	M25 Fe500	SIZE	200 X 400	200 X 450	200 X 400	200 X 350
		STEEL	10-T12	4-T16 + 6-T12	4-T16 + 4-T12	6-T12
		LINKS	T8@150 C/C	T8@150 C/C	T8@150 C/C	T8@150 C/C
BASE TO PLINTH	M25 Fe500	SIZE	200 X 400	200 X 450	200 X 400	200 X 350
		STEEL	10-T12	4-T16 + 6-T12	4-T16 + 4-T12	6-T12
		LINKS	T8@150 C/C	T8@150 C/C	T8@150 C/C	T8@150 C/C
COLUMN MARKED			C1	C2	C3	C4

COLUMN LAYOUT



KEY PLAN

CONCRETE MIX : M 25, GRADE OF STEEL : Fe 500

1. SAFE BEARING CAPACITY OF SOIL

S.B.C. OF SOIL FOR DESIGN OF FOUNDATION HAS BEEN TAKEN AS SPECIFIED. MINIMUM DEPTH SHALL BE UP TO HARD STRATA. IN CASE OF ANY DOUBT REGARDING S.B.C. DURING EXCAVATION, THE MATTER SHALL BE REPORTED TO THE GEO-TECH. CONSULTANT.

2. REINFORCING STEEL

U.N.O. ALL REINFORCEMENT SHALL BE OF HIGH STRENGTH DEFORMED BARS OF SPECIFIED GRADE CONFORMING TO IS:1786 ALL REINFORCING STEEL TO BE OF TESTED QUALITY.

3. CONCRETE

U.N.O. CONCRETE MIX FOR ALL ELEMENT SHALL BE OF SPECIFIED GRADE CONFORMING IS: 456-2000.

4. P.C.C.

PLAIN CEMENT CONCRETE M-10

5. COVER

U.N.O. IN THE DWG. CLEAR COVER TO MAIN REINFORCEMENT SHALL BE AS FOLLOWS :-
(1) FOOTING (50 mm) (3) BEAM (25 mm)
(2) COLUMN (40 mm) (4) SLAB (20 mm)
OR DIA. OF BAR WHICHEVER IS GREATER.

GENERAL NOTES

- EXTRA TOP OR BENT-UP BARS SHALL BE EXTENDED UPTO 0.3L IN ADJACENT SPAN OVER A CONTINUOUS SUPPORT, AND ANCHOR DOWN AT END SUPPORT.
- AT BEAM & COLUMN JUNCTION, BEAM BARS IF IN CONFLICT WITH COLUMN BARS SHALL BE GRADUALLY BENT & PLACED CLEAR OFF COLUMN BARS. UNDER NO CIRCUMSTANCES COLUMN VERTICAL BARS SHALL BE BENT TO ACCOMMODATE BEAM BARS.
- CONFINING STIRRUPS IN BEAM COLUMN JUNCTION SHALL BE PROVIDED AT THE SPACING INDICATED. HOWEVER IF BEAMS ARE CONNECTED ON ALL THE FOUR DIRECTIONS OF COLUMN THE SPACING SHOULD BE DOUBLED.
- RINGS/STIRRUPS SIZE IN COLUMN IS SAME BELOW AND ABOVE G.L.
- U.N.O. MINIMUM LAP LENGTH SHALL BE 50 TIMES OF BAR DIAMETER OF SMALLER BAR AT ANY SECTION.
- NOT MORE THAN 50% OF BARS SHALL BE LAPPED AT A SECTION. THE LOCATION OF LAPPING SHALL BE AVOIDED AS FOLLOWS :-
(a) FOR FLOOR BEAMS/SLAB CLOSE TO MID SPAN IN BOTTOM BARS & CLOSE TO SUPPORT IN TOP BARS.
(b) FOR FOUNDATION BEAM/RAFT LAPS CLOSE TO MID SPAN IN TOP BARS & CLOSE TO SUPPORT IN BOTTOM BARS.
- IN HANGERS LAPPING OF BARS IS NOT PERMITTED BET. FLOORS.
- STIRRUPS FOR CANTILEVER BEAMS TO HAVE HOOK AT BOTTOM.
- REMARK: 4 LEGGED BEAMS ALL LOCATIONS U.N.O.
- USE OF NEEDLE VIBRATOR AND PLASTISIZER RECOMMENDED FOR R.C.C. WORK.
- BURNT OIL NOT PERMITTED FOR DE-SHUTTERING.
- CURING: EXPOSED SURFACE OF CONCRETE SHALL BE KEPT CONTINUOUSLY IN WET CONDITION MINIMUM FOR 14 DAYS.
- CUTOUT OPENING: ANY TYPE OF OPENINGS FOR PLUMBING, DRAINAGE OR ELECTRICAL NOT PERMITTED IN R.C.C. BEAMS AND COLUMNS DURING OR AFTER CASTING.
- USE DENSIFIED COATED PLYWOOD FOR SHUTTERING & FORMWORK.
- FOR SLEEVES PROVIDE ADDL. TWO RINGS SPACED @ 75MM C/C ON EITHER SIDE OF IT.
- U.N.O. IN THE DWG. CONSTRUCTION JOINT SHOULD BE APPROVED BY ENGINEER AT SITE. CONSTRUCTION JOINT SHOULD BE AT QUARTER SPAN OF BEAM AND SLAB. IN NO CONDITION SHOULD BE AT THE SUPPORT.
- READ THIS DWG. WITH RELEVANT ARCHITECTURAL & SERVICES DWG.
- DO NOT SCALE THE DWG. ONLY WRITTEN DIMENSION ARE TO BE FOLLOWED.
- ALL DIMENSIONS ARE IN MM. EXCEPT IN LAYOUT. LEVELS ARE IN METER.
- IN CASE OF ANY AMBIGUITY, PLEASE BRING IT TO THE NOTICE OF THIS OFFICE BEFORE EXECUTION OF WORK.
- SHUTTERING & SCAFFOLDING IS AT THE RESPONSIBILITY OF CONTRACTOR.
- STRIPPING TIME TABLE AS PER IS: 456-2000
- TOP BARS OF ALL CANTILEVER BEAM / SLAB SHOULD BE EXTENDED ON OPPOSITE SIDE UP TO 1.5 TIMES CANTILEVER PROJECTION LENGTH.
- U.N.O. - UNLESS NOTED OTHERWISE

DESIGNED FOR G+1 ONLY

Gross Safe Bearing Capacity - 112.23 kN/m²

As per information from CGHB EE Korba

LEGEND

1. = HYSD BAR

H1 TYPE
(GAD QUARTER)
CENTER LINE



EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

REDEVELOPMENT
SCHEME AT KATGHORA
SITE 2

AREA STATEMENT

BUILT UP AREA OF : 1 UNIT	42.91 SQM.
SUPER BUILT UP AREA OF : 1 UNIT	49.57 SQM.
CARPET AREA OF : 1 UNIT	36.55 SQM.
BUA. GF. :	198.28SQM.
BUA. FF. :	198.28SQM.
BUA MUMTY :	15.60 SQM.

TOTAL BUILT UP AREA OF : 412.16 SQM.

OPENING SCHEDULE

S. NO.	TYPE	NAME	SIZE
	D	DOOR	1.00X2.10M.
	D1	DOOR	0.90X2.10M.
	D2	DOOR	0.80X2.10M.
	W	WINDOW	1.50X1.50M.
	W1	WINDOW	1.20X1.00M.
	W2	WINDOW	0.8X1.00M.
	WK	WINDOW	1.00X1.00M.
	V	VENTILATOR	0.60X0.60M.

NO.	DATE	ISSUED	
PRINTS ISSUED			
S. NO.	REV	DATE	DESCRIPTION

NOTE: This Drawing is a based on the concept drawing provided by C.G.H.B. Division Korba

EXECUTIVE ENGINEER

ARCHITECTS
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E-mail: ar.abhinavjaiswal31@gmail.com

STRUCTURAL ENG.

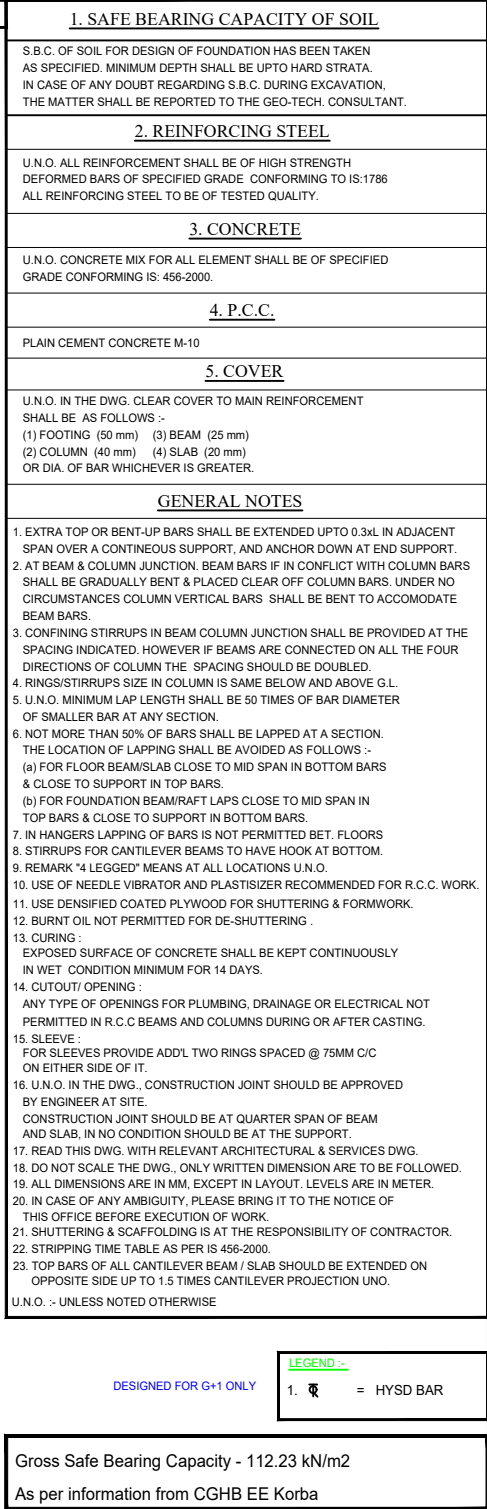
MEP. CONSULTANT

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DATE : 01/09/2025

REDEVELOPMENT SCHEME AT KATGHORA SITE 2



BEAM NO.	SIZE		BOTTOM REINFORCEMENT		TOP REINFORCEMENT		STIRRUPS		REMARK
	B	D	THROUGH OUT	MID SPAN 0.7xL	THROUGH OUT	EXTRA TOP 0.25xL FROM FACE OF COLUMN ON EACH SIDE	UPTO 2D FROM FACE OF COLUMN	AT MID SPAN	
GB1	200	350	2x12 Φ	2x10 Φ	2x12 Φ	2x10 Φ	8 Φ @150	8 Φ @150	---
GBR1	200	350	2x12 Φ	---	2x12 Φ 2x10 Φ	---	8 Φ @150	8 Φ @150	---
GB2	200	350	2x12 Φ	1x10 Φ	2x12 Φ	1x10 Φ	8 Φ @150	8 Φ @150	---
GBR2	200	350	2x12 Φ	---	2x12 Φ 1x10 Φ	---	8 Φ @150	8 Φ @150	---
GB3	200	350	2x12 Φ	---	2x12 Φ	---	8 Φ @150	8 Φ @150	---
GB4	200	300	2x12 Φ	---	2x12 Φ	---	8 Φ @150	8 Φ @150	---

Dwg. Title		H1 TYPE (GAD QUARTER) GROUND BEAM	
Client Name		 EXECUTIVE ENGINEER, CHHATTISGARH HOUSING BOARD DIVISION -KORBA, DISTRICT-KORBA	
Project		REDEVELOPMENT SCHEME AT KATGHORA SITE 2	
AREA STATEMENT			
BUILT UP AREA OF : 42.91 SQM. 1 UNIT SUPER BUILT TUP AREA OF : 49.57 SQM. 1 UNIT CARPET AREA OF : 36.55 SQM. 1 UNIT			
BUA. GF. : 198.28SQM. BUA. FF. : 198.28SQM. BUA. MUMTY : 15.60 SQM.			
TOTAL BUILT UP AREA OF : 412.16 SQM. 1 BLOCK			
OPENING SCHEDULE			
S. NO.	TYPE	NAME	SIZE
	D	DOOR	1.00X2.10M.
	D1	DOOR	0.90X2.10M.
	D2	DOOR	0.80X2.10M.
	W	WINDOW	1.50X1.50M.
	W1	WINDOW	1.20X1.00M.
	W2	WINDOW	0.8X1.00M.
	WK	WINDOW	1.00X1.00M.
	V	VENTILATOR	0.60X0.60M.
REVISIONS			
NO. DATE ISSUED			
PRINTS ISSUED			
S. NO. REV DATE DESCRIPTION			
CGHB_KATGHORA_STRUC_MAIN			
NOTE: This Drawing is a based on the concept drawing provided by C.G.H.B. Division Korba			
EXECUTIVE ENGINEER			
ARCHITECTS			
Ar. Abhinav Jaiswal Raipur C-10, Rajendra Park, Mahaveer Nagar, Raipur, Chhattisgarh Mob:- +91-8817780410 E-mail: ar.abhinavjaiswal31@gmail.com			
STRUCTURAL ENG.			
MEP. CONSULTANT			
NORTH			
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DESIGN : VKS CHECKED :AJ. DRAWN : VKS			
ASIS D:\V DATA\01_ARCHITECT NIVEN MAN\CGHB KATGHORA\01_DWG\CGHB_KATGHORA_STRUC_MAIN			
This Drawing is a property of <i>Ar. Abhinav Jaiswal</i> , and is not to be produced, copied, loaned over to a third party or used for any purpose other than which it is loaned for.			
DATE: 01/09/2025			

REDEVELOPMENT SCHEME AT KATGHORA SITE 2




BEAM NO.	SIZE		BOTTOM REINFORCEMENT		TOP REINFORCEMENT		STIRRUPS		REMARK
	B	D	THROUGH OUT	MID SPAN 0.7xL	THROUGH OUT	EXTRA TOP 0.25xL FROM FACE OF COLUMN ON EACH SIDE	UPTO 2D FROM FACE OF COLUMN	AT MID SPAN	
SB1	200	350	2x12 ￼	2x12 ￼	2x12 ￼	2x12 ￼	8 ￼ @150	8 ￼ @150	---
SB2	200	350	2x12 ￼	2x10 ￼	2x12 ￼	2x10 ￼	8 ￼ @150	8 ￼ @150	---
SBR2	200	350	2x12 ￼	---	4x12 ￼	---	8 ￼ @150	8 ￼ @150	---
SB3	200	350	2x12 ￼	1x10 ￼	2x12 ￼	1x10 ￼	8 ￼ @150	8 ￼ @150	---
SB4	200	350	2x12 ￼	---	2x12 ￼	---	8 ￼ @150	8 ￼ @150	---
SB5	200	300	2x12 ￼	1x10 ￼	2x12 ￼	1x10 ￼	8 ￼ @150	8 ￼ @150	---
SB6	200	300	2x12 ￼	---	2x12 ￼	---	8 ￼ @150	8 ￼ @150	---

SLAB MARKED	THICKNESS	TYPE	REINFORCEMENT		REMARK
			SHORT BAR	LONG BAR	
S1	125	TWO WAY	8@125C\C (ALT. BENT UP)	8@125C\C (ALT. BENT UP)	---
S2	125	TWO WAY	8@125C\C (ALT. BENT UP)	8@150C\C (ALT. BENT UP)	---
S3	125	T/B MESH	8@150C\C	8@150C\C	---
S4	125	ONE WAY	8@150C\C (ALT. BENT UP)	8@150C\C (DIST.)	---
CS1	125	ONE WAY	10@150C\C (ALT. BENT UP)	10@150C\C (DIST.)	---



DESIGNED FOR G+1 ONLY

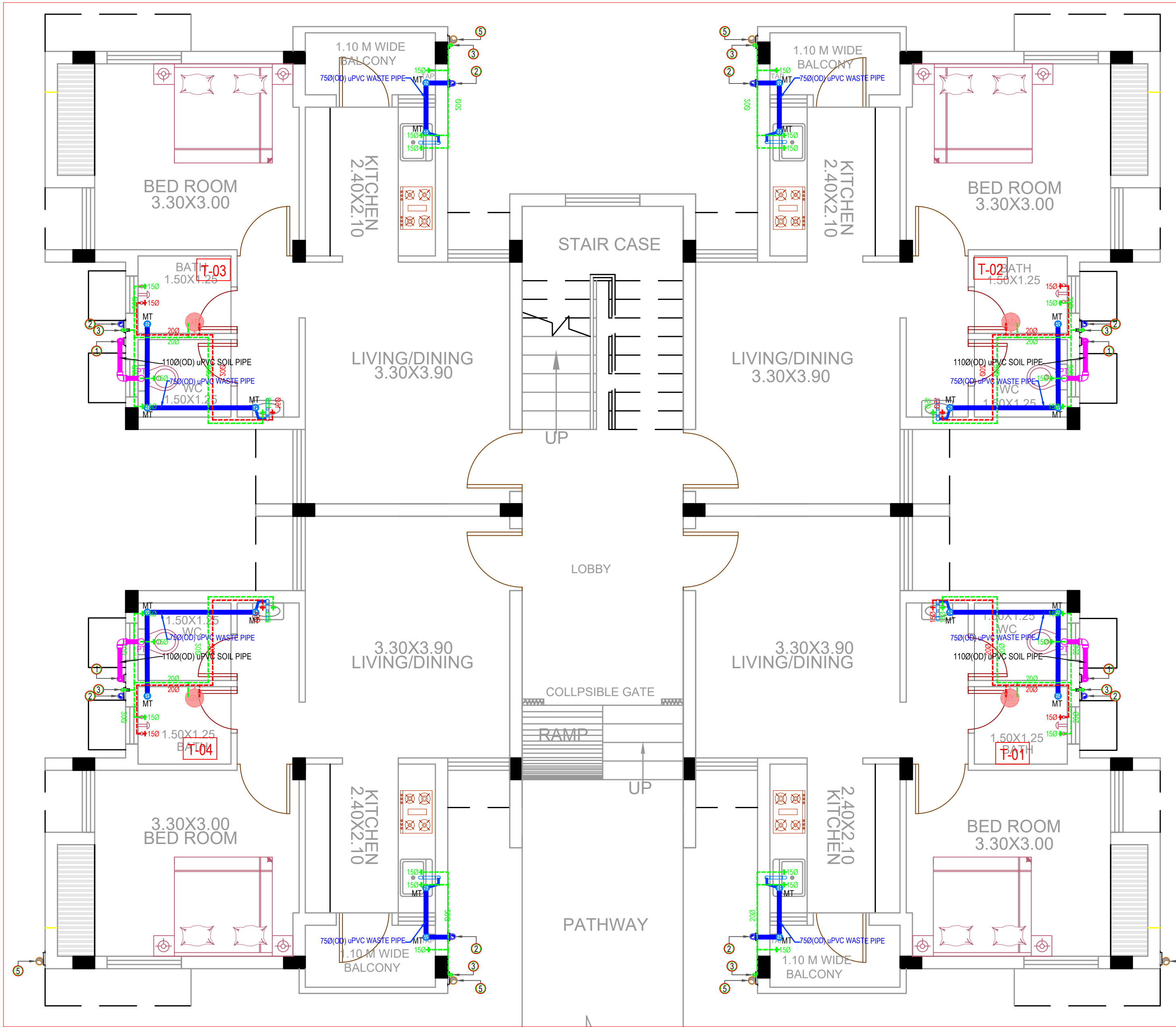
LEGEND -

1.  = HYSD BAR

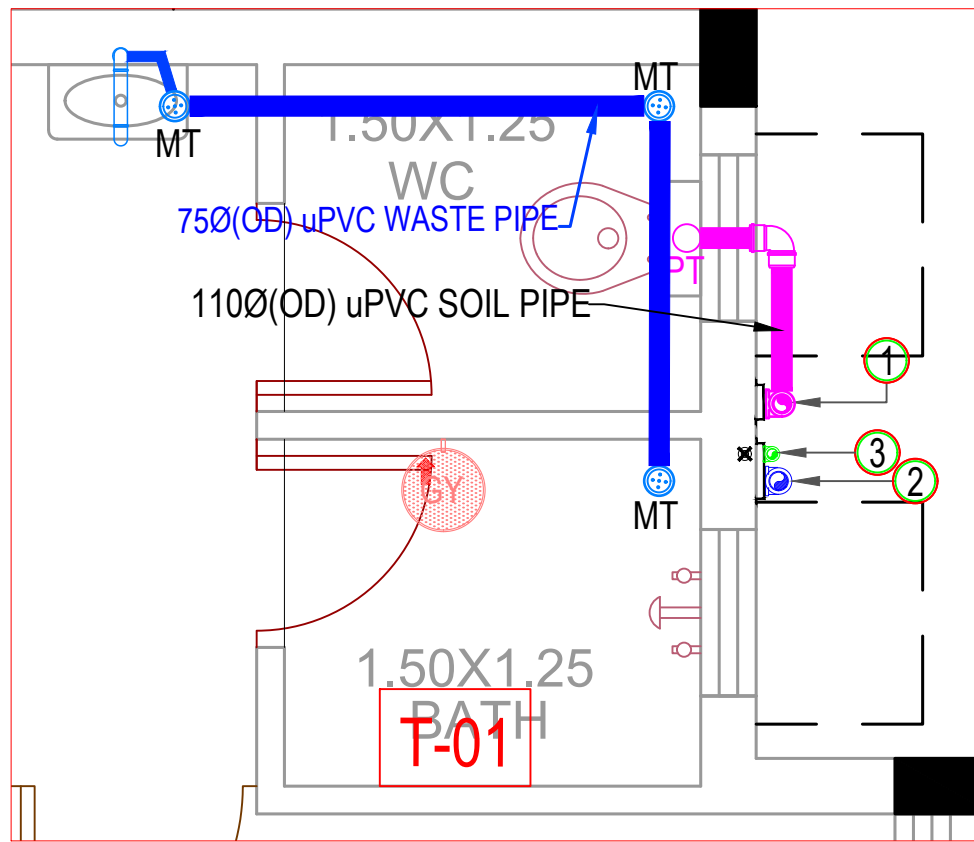
Gross Safe Bearing Capacity - 112.23 kN/m²

As per information from CGHB EE Korba

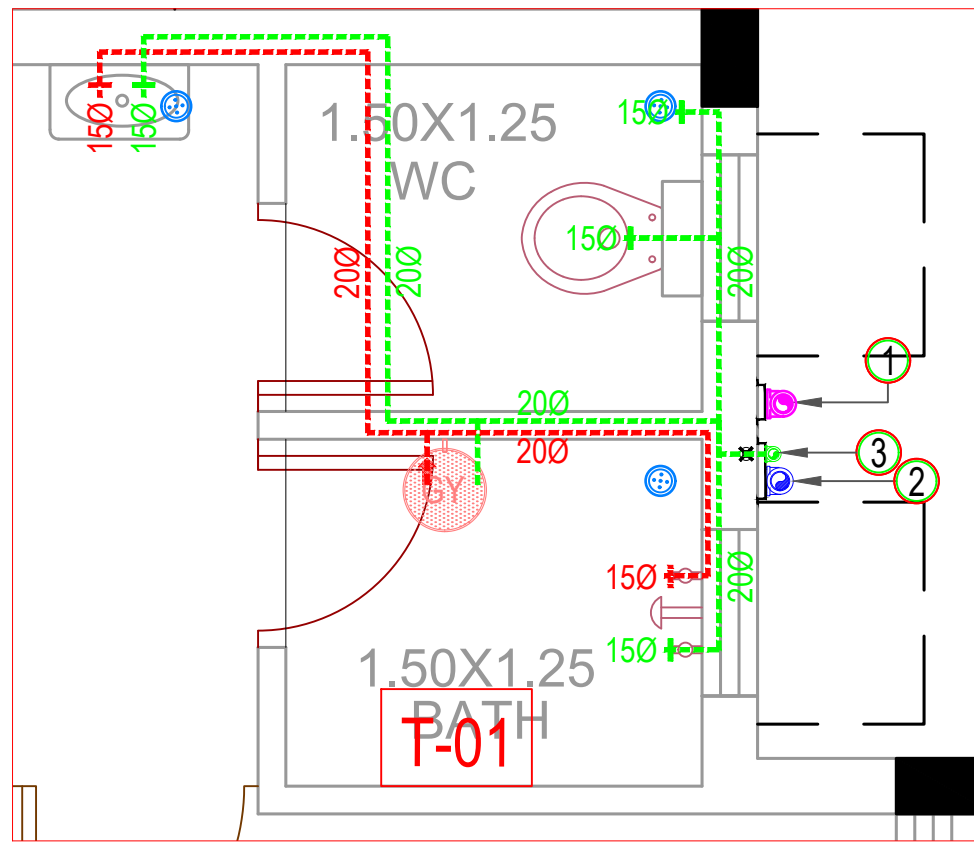
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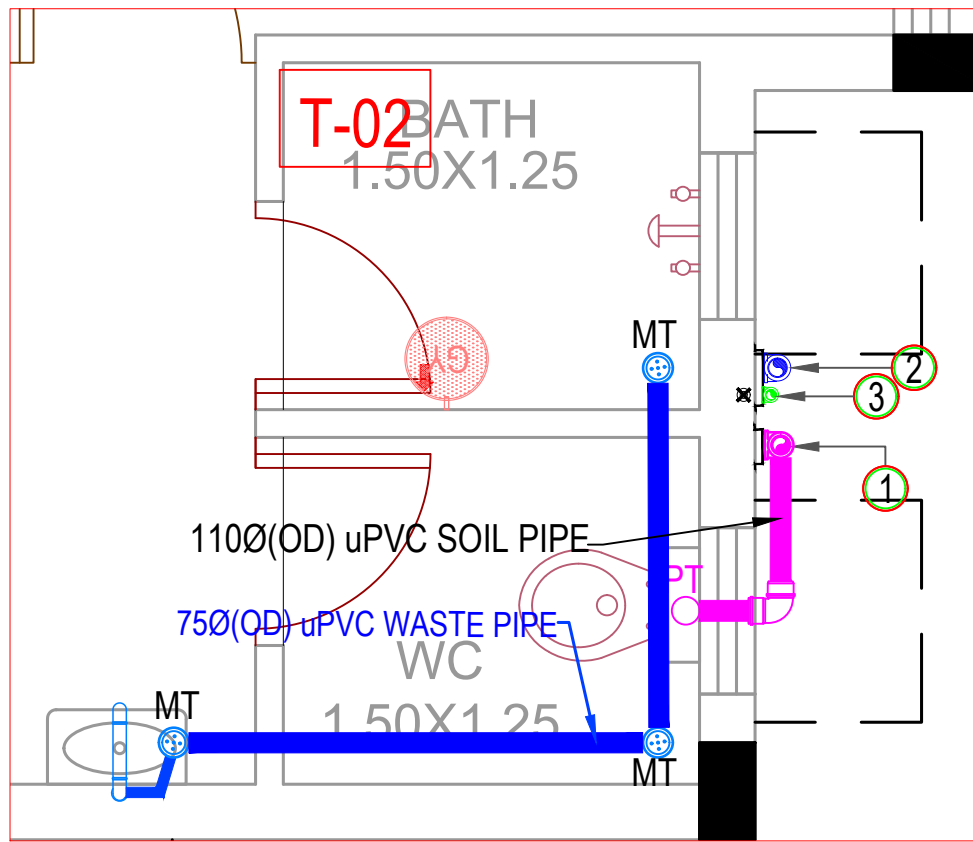
GROUND FLOOR - TOILET LAYOUT PLAN (H1-TYPE)



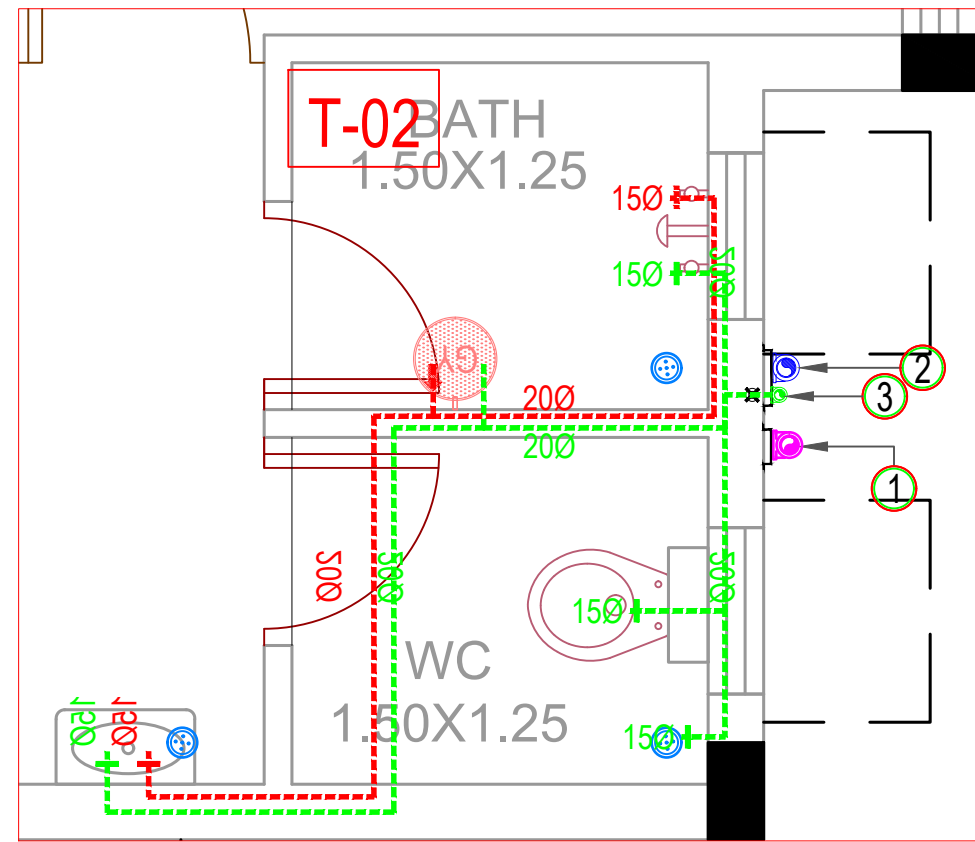
T- 01 - WASTE WATER LINE PLAN



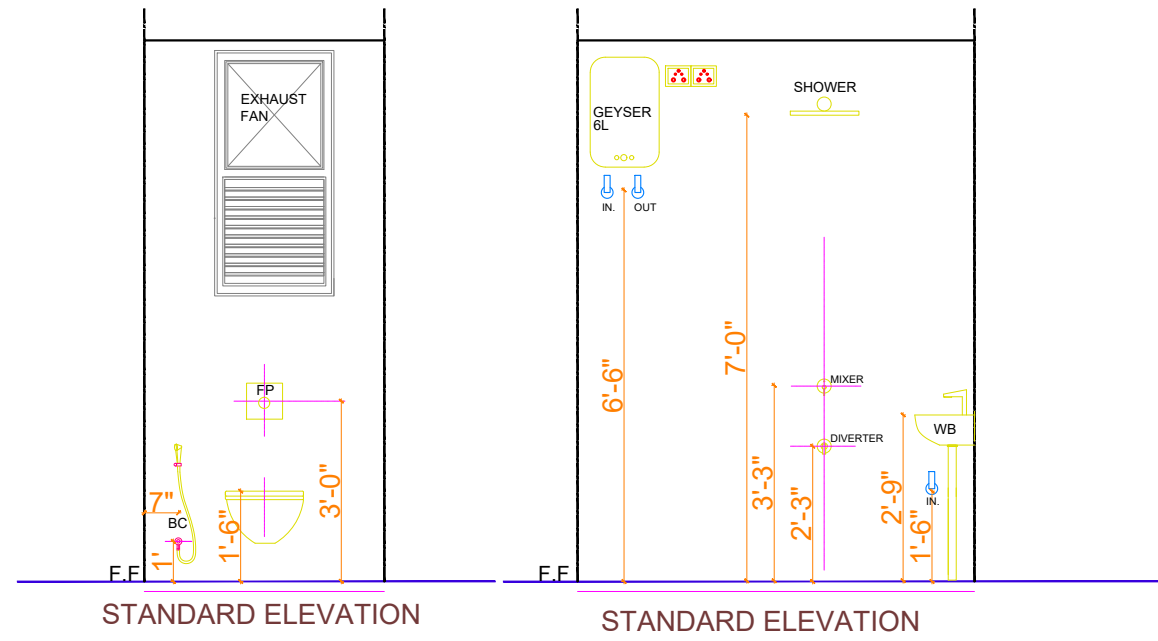
T- 01 - WATER SUPPLY LINE PLAN



T- 02 - WASTE WATER LINE PLAN



T- 02 - WATER SUPPLY LINE PLAN



LEGEND FOR PLUMBING	
MARK	DESCRIPTION
✕	BALL VALVE / CONTROL VALVE
—	uPVC SOIL PIPE
—	uPVC WASTE PIPE
—	40 Ø(OD) uPVC WASTE PIPE
—	110Ø(OD) PVC RAIN WATER PIPE
M.T	MULTI TRAP
F.T	FLOOR TRAP
G.T	GULLY TRAP 300X300
M.H.S	MANHOLE FOR SEWERAGE 600X600
CB	CATCH BASIN 450X450
—	DRINKING/COOL WATER SUPPLY PIPE
—	HOT WATER SUPPLY PIPE
—	750(OD) PVC RAIN WATER PIPE
PT	P - TRAP
—	BOTTLE - TRAP
—	3" SHOWER DRAIN
UT	URINAL - TRAP

H1 TYPE
GROUND FLOOR
PLUMBING DRAWING

EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

REDEVELOPMENT SCHEME
AT KATGHORA SITE 2
(GOVT FACILITY PART)

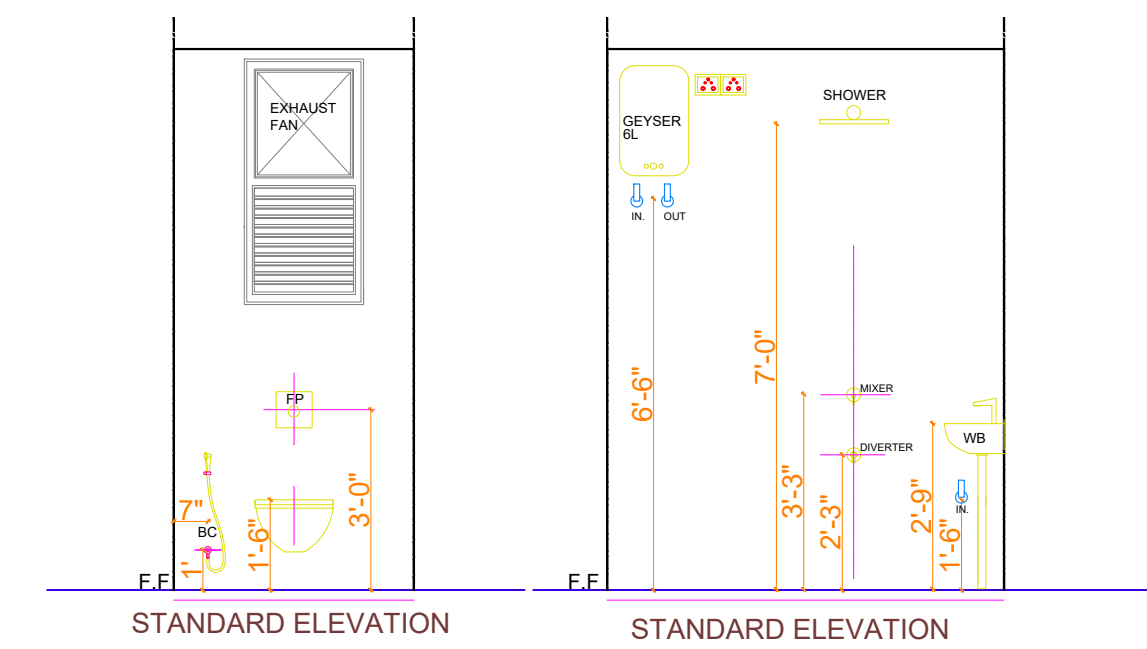
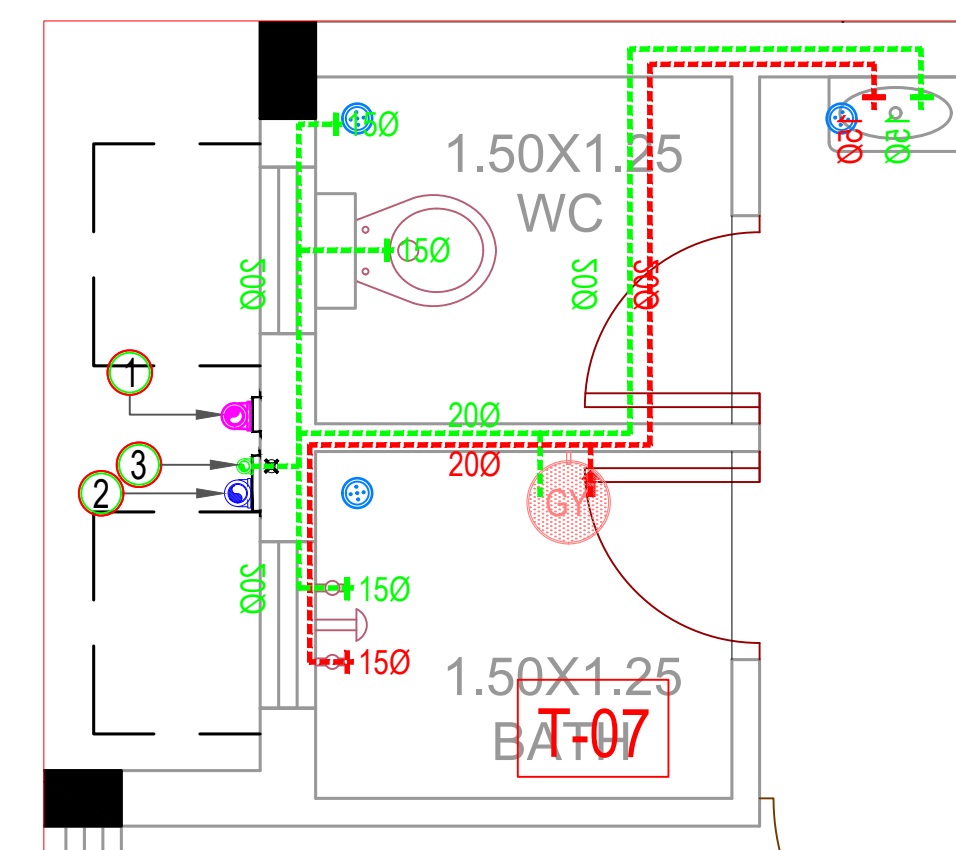
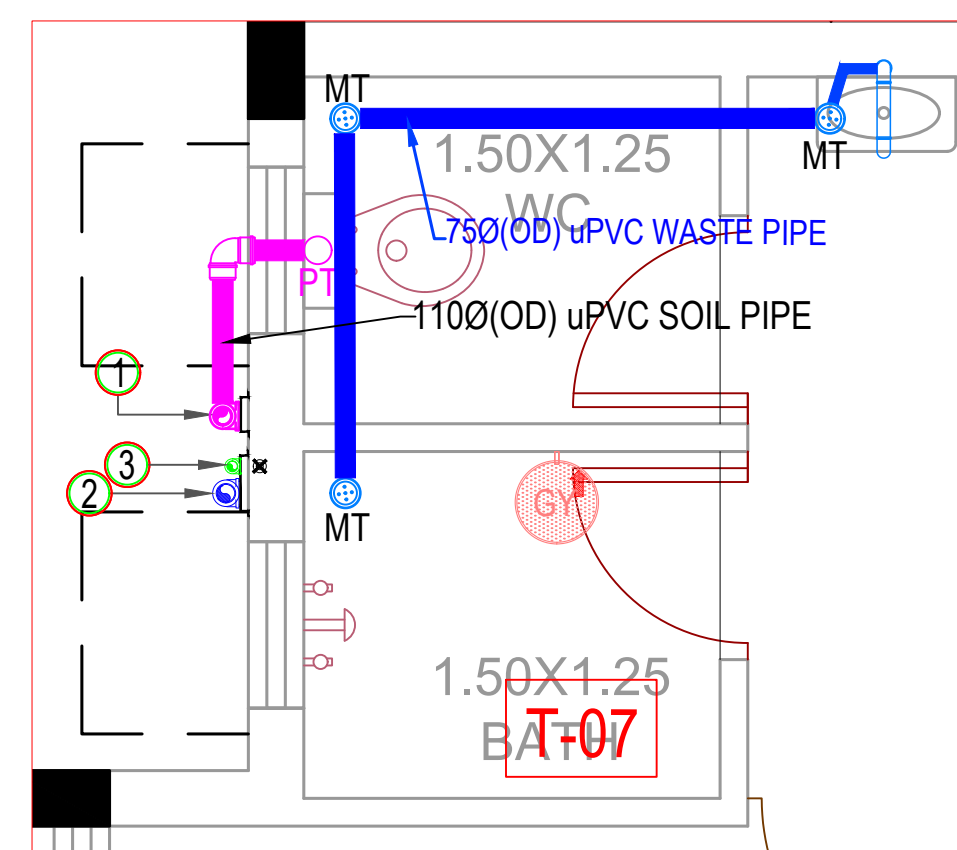
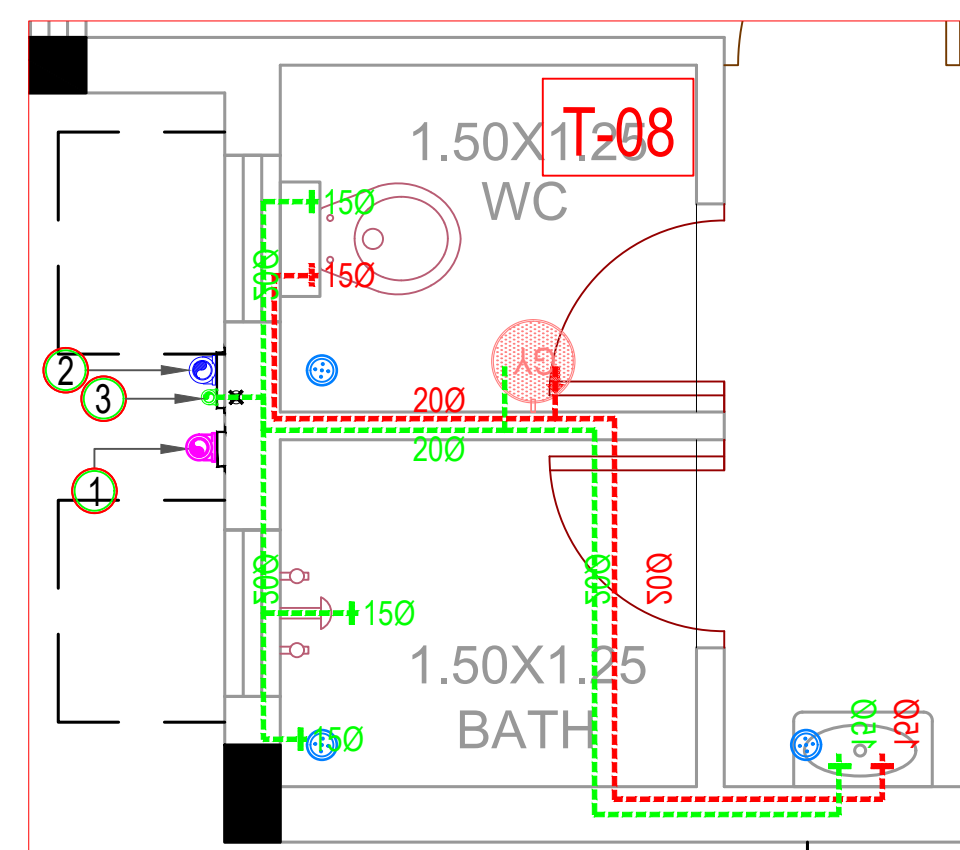
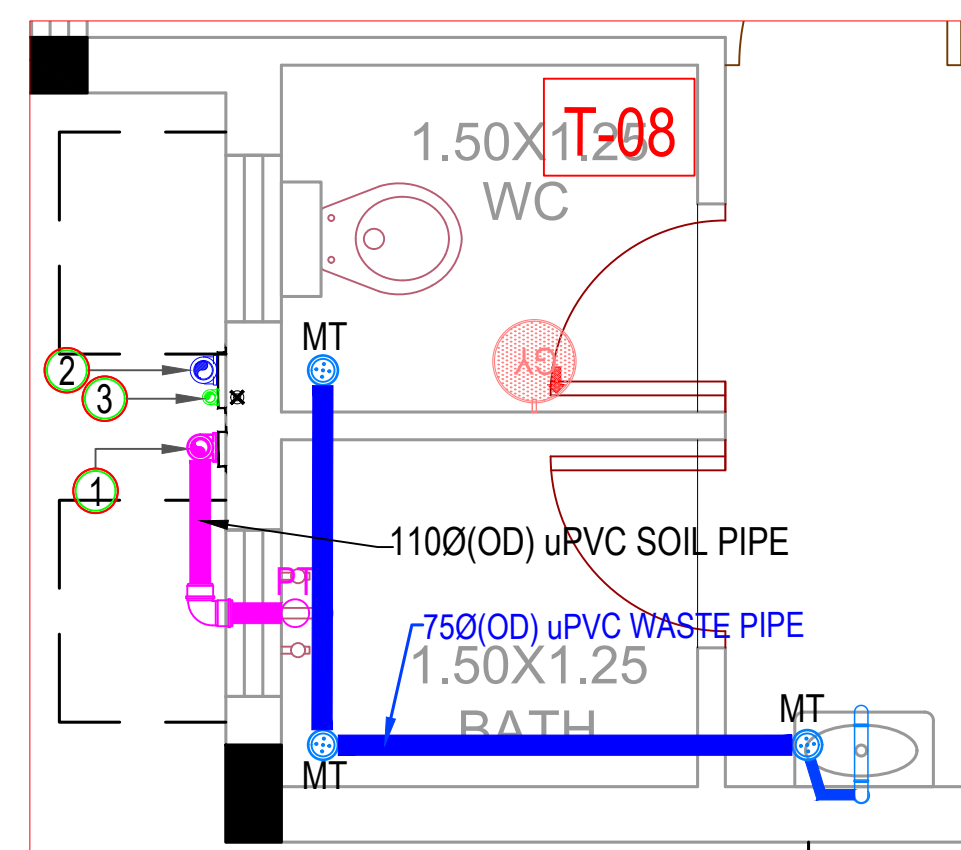
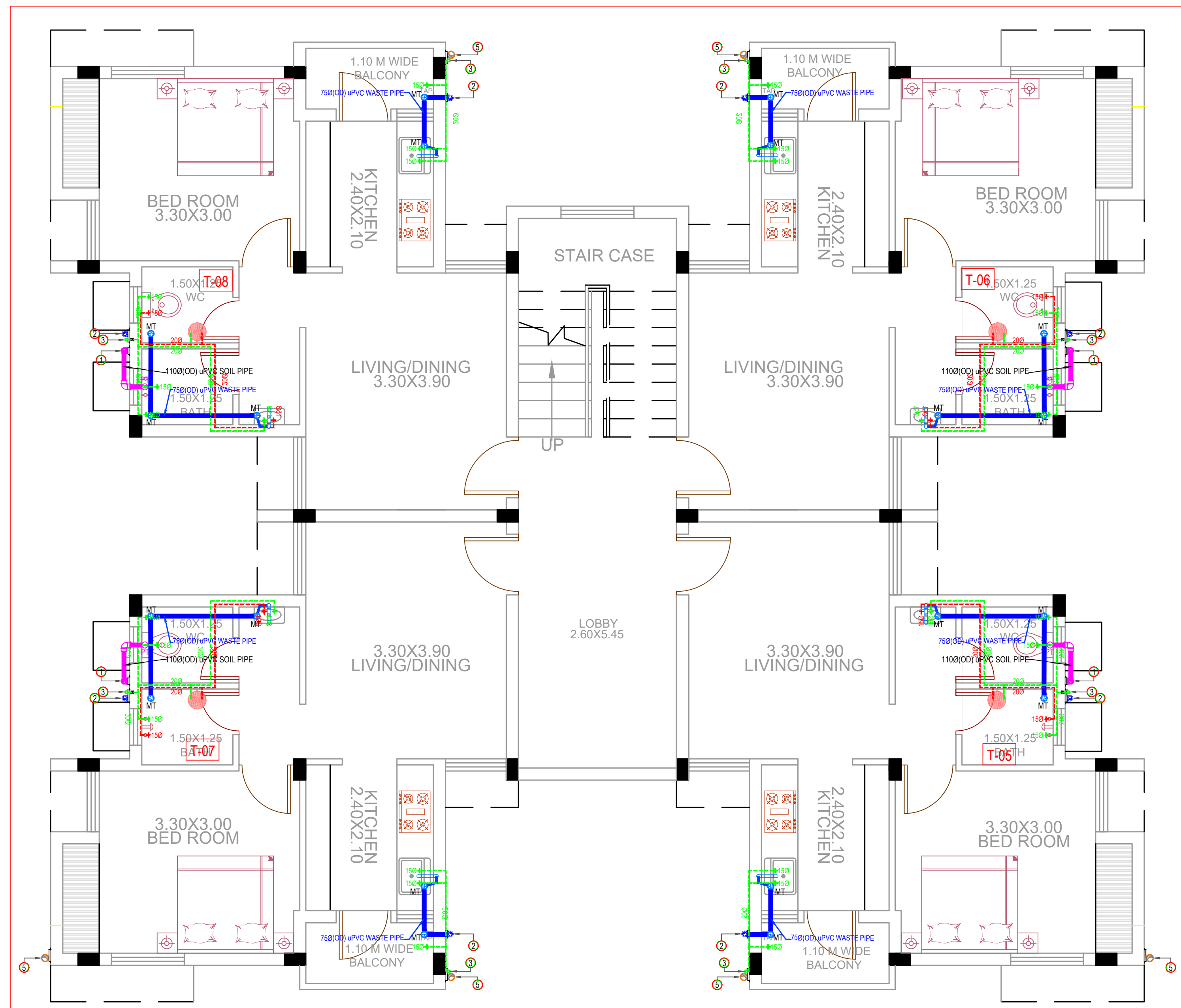
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



















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


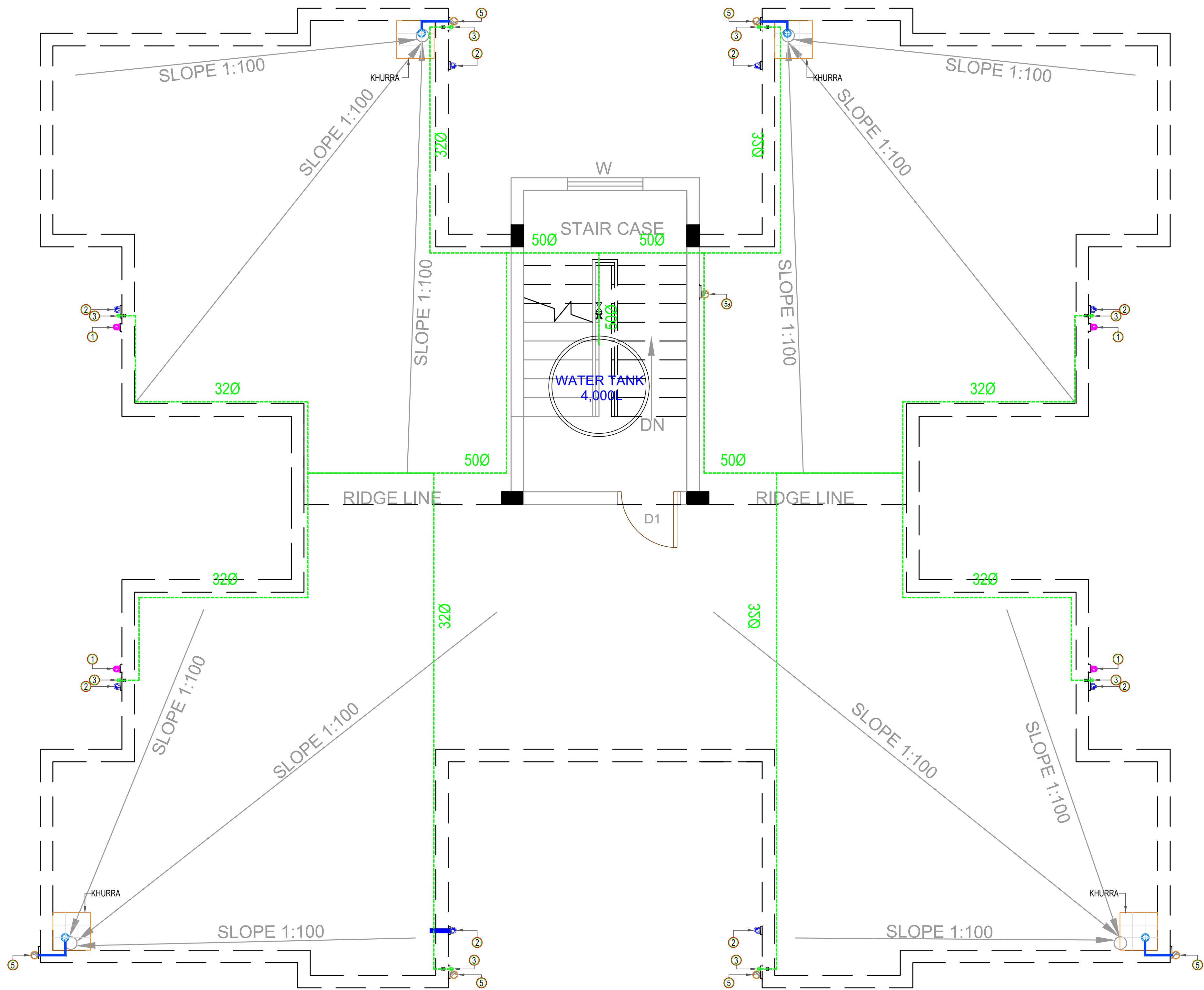
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DATE : 01/09/2025

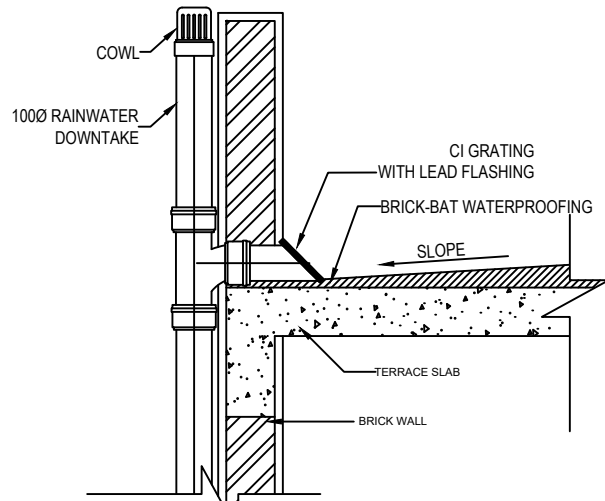


LEGEND FOR PLUMBING		
MARK	DESCRIPTION	
	BALL VALVE / CONTROL VALVE	
	uPVC SOIL PIPE	 ①
	uPVC WASTE PIPE	 ②
	40 Ø(OD)PVC WASTE PIPE	
	1100(ØD) PVC RAIN WATER PIPE	
M.T	MULTI TRAP	 ③
F.T	FLOOR TRAP	 ④
G.T	GULLY TRAP 300X300	 ⑤
M.H.S	MANHOLE FOR SEWERAGE 600X600	 ⑥
CB	CATCH BASIN 450X450	 ⑦
	DRINKING/COOL WATER SUPPLY PIPE	 ⑧
	HOT WATER SUPPLY PIPE	 ⑨
	750(ØD) PVC RAIN WATER PIPE	 ⑩
PT	P - TRAP	 ⑪
	BOTTLE - TRAP	
	3" SHOWER DRAIN	
UT	URINAL - TRAP	 ⑫

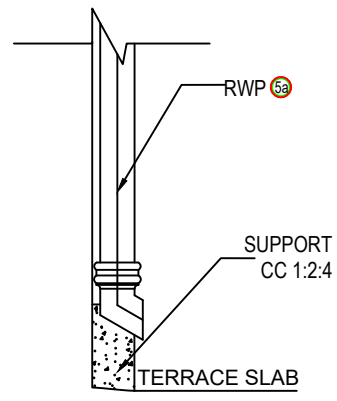
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Client Name		<div></div> <div>EXECUTIVE ENGINEER, CHHATTISGARH HOUSING BOARD DIVISION -KORBA,DISTRICT-KORBA</div>		
Project		REDEVELOPMENT SCHEME AT KATGHORA SITE 2 (GOVT FACILITY PART)		
Revisions				
NO.		DATE	ISSUED	
PRINTS ISSUED				
S. NO.		REV	DATE	DESCRIPTION
04		- RO	- H1-BLOCK PLUMBING DWG -	CGHB, KATGHORA
EXECUTIVE ENGINEER				
ARCHITECTS		Ar. Abhinav Jaiswal Raipur C-10, Rajendra Park, Mahaveer Nagar, Raipur, Chhattisgarh Mob:- +91-8817780410 E-mail: ar.abhinavjaiswal31@gmail.com		
STRUCTURAL ENG.				
MEP CONSULTANT		<div></div> <div>PLUMBING - FIRE - ELECTRICAL</div> <div>www.varunamepconsultant.com</div>		
NORTH		<div></div>		
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DATE : 01/09/2025				



LEGEND FOR PLUMBING	
MARK	DESCRIPTION
✕	BALL VALVE / CONTROL VALVE
—	uPVC SOIL PIPE
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M.T	MULTI TRAP
F.T	FLOOR TRAP
G.T	GULLY TRAP 300X300
M.H.S	MANHOLE FOR SEWERAGE 600X600
CB	CATCH BASIN 450X450
—	DRINKING/COOL WATER SUPPLY PIPE
—	HOT WATER SUPPLY PIPE
—	75Ø(OD) PVC RAIN WATER PIPE
PT	P - TRAP
—	BOTTLE - TRAP
—	3" SHOWER DRAIN
UT	URINAL - TRAP



KHURRA DETAIL



RAIN WATER PIPE SUPPORT

H1 TYPE
SECOND FLOOR
PLUMBING DRAWING

EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA, DISTRICT-KORBA

REDEVELOPMENT SCHEME
AT KATGHORA SITE 2
(GOVT FACILITY PART)

REVISIONS	NO.	DATE	ISSUED	
	PRINTS ISSUED			
		S. NO.	REV	DATE
04 - RO - H1-BLOCK PLUMBING DWG - CGHB, KATGHORA				

EXECUTIVE ENGINEER

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Raipur, Chhattisgarh
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STRUCTURAL ENG.

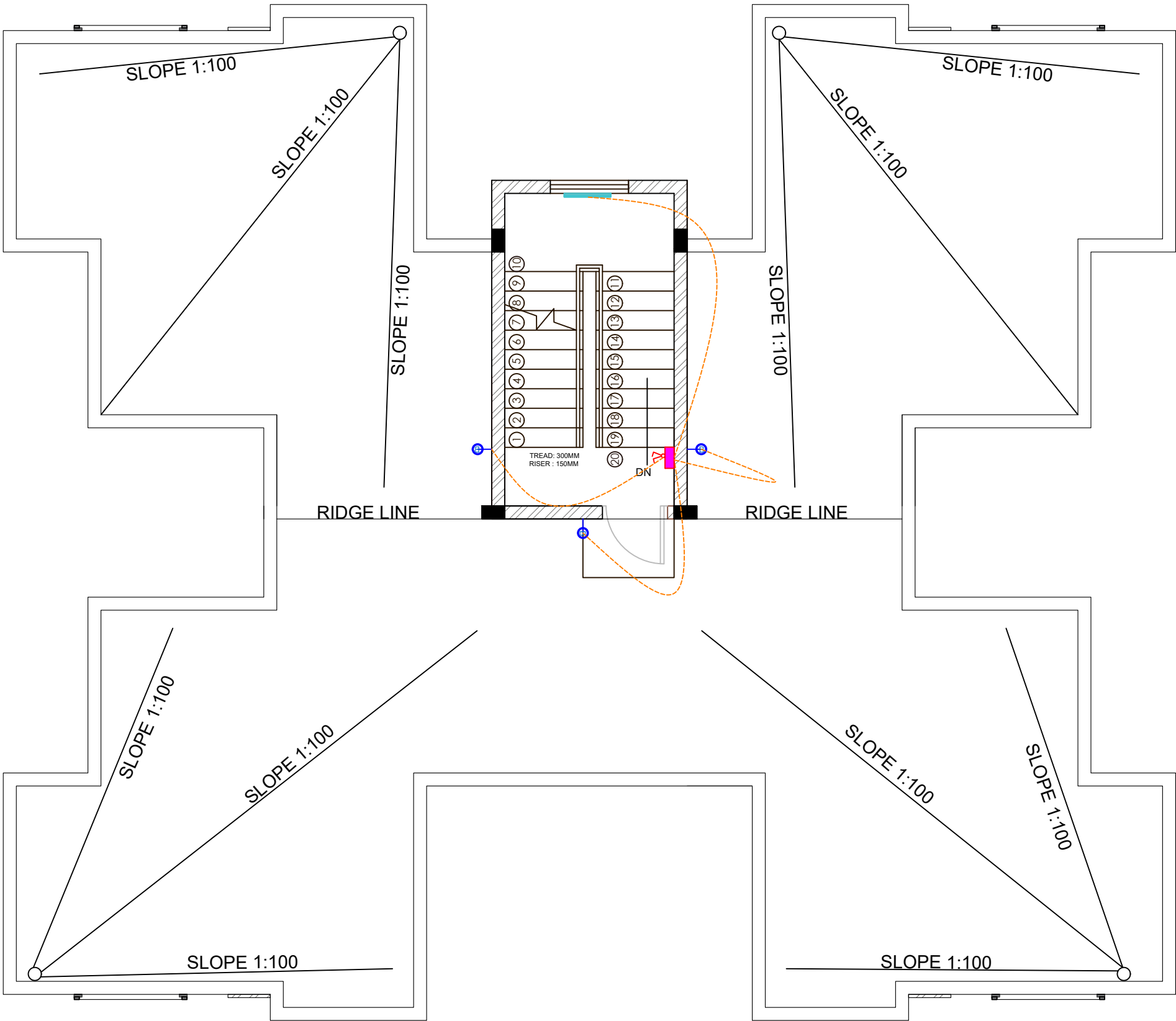
MEP- CONSULTANT
VARUNA
PLUMBING - FIRE - ELECTRICAL
www.varunamepconsultant.com

NORTH	SCALE : NTS DIM. IN METRES	DESIGN : Salya
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SR.NO.	DESCRIPTION	SYMBOL	HEIGHT FROM FFL
1	SWITCH BOARD -01	SB-01	1370
2	SWITCH BOARD -02	SB-02	600
2	SWITCH BOARD -03	SB-03	1140
3	15 W PANEL		
4	CEILING FAN		
5	PICTURE LIGHT		2100
6	GEYSER		2440
7	AC with 3" pvc conduit for outdoor line(optional)	AC	2750
8	TUBELIGHT		2450
9	DOOR BELL		1370
10	BLUE/ZERO LIGHT		2750
11	LIGHT POINT		2750
12	EXHAUST		
13	CHIMNEY		2100
14	CEILING AC		
15.	PROFILE LIGHT		

SR.NO.	DESCRIPTION	SYMBOL	HEIGHT FROM FFL
16	SEPARATE BOARD 1-SWITCH AND 1-6A SOCKET		1370/600
17	LAN POINT		
18	TV POINT		600
19	T.P. POINT		
20	CALL BELL POINT		1370
21	LED LIGHT 15W		
22	TWO WAY		
23	MCB BOARD		
24	METERING BOARD		
25	POWER POINT 1-SWITCH AND 1-16A SOCKET		1370
26	CONTROL BOARD		
27	STREET LIGHT		
28	BULK POINT		2750

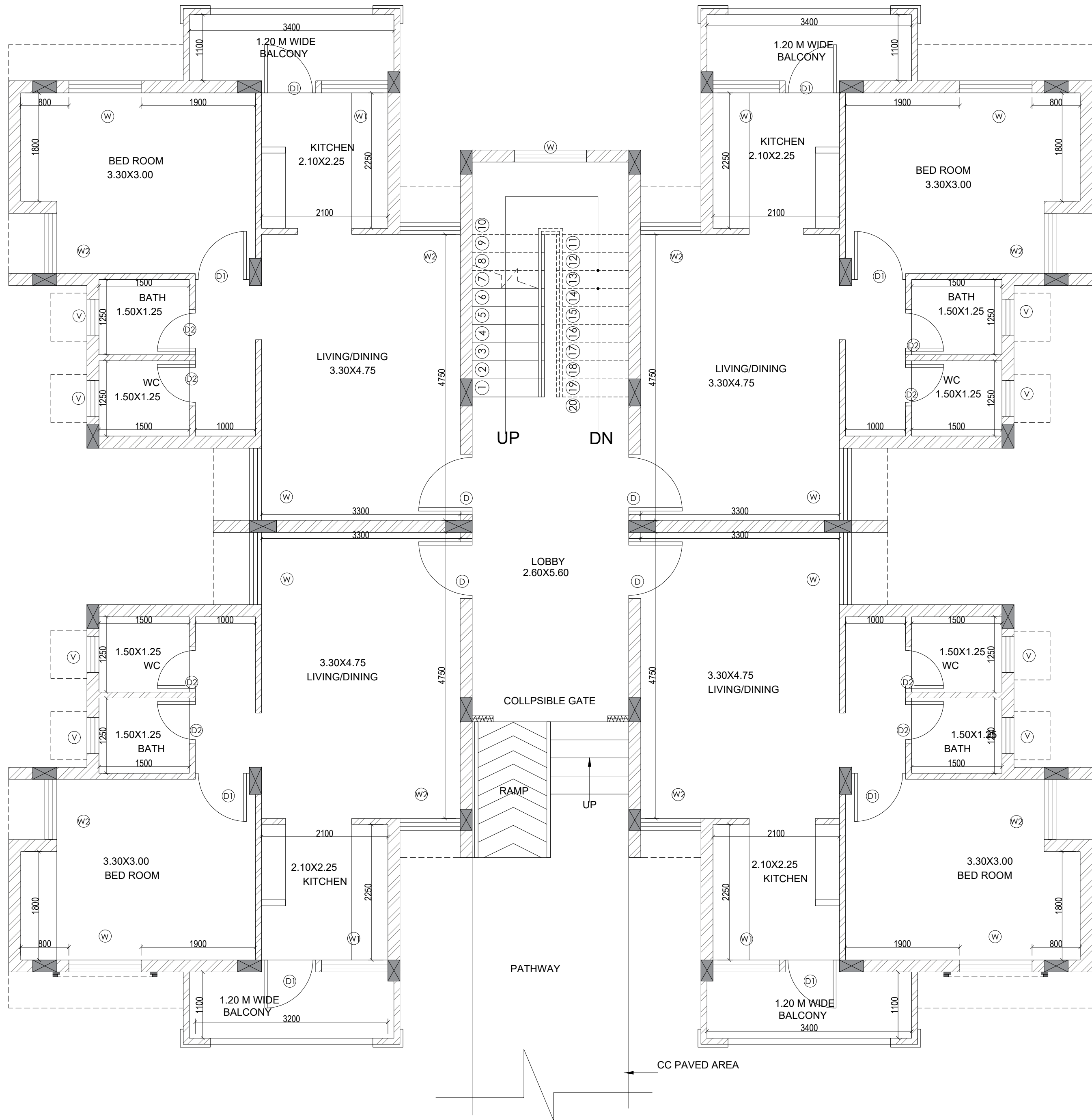


H1 - TYPE TERRACE FLOOR ELECTRICAL PLAN (G+1)

DRG. TITLE	ELECTRICAL DRAWING																																						
CLIENT NAME	 EXECUTIVE ENGINEER, CHHATTISGARH HOUSING BOARD DIVISION -KORBA,DISTRICT-KORBA																																						
PROJECT	REDEVELOPMENT SCHEME AT KATGHORA SITE 2																																						
REVISIONS	<table><thead><tr><th>NO.</th><th>DATE</th><th>ISSUED</th><th></th></tr></thead><tbody><tr><td colspan="4">PRINTS ISSUED</td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td>S. NO.</td><td>REV</td><td>DATE</td><td>DESCRIPTION</td></tr></tbody></table>			NO.	DATE	ISSUED		PRINTS ISSUED																												S. NO.	REV	DATE	DESCRIPTION
NO.	DATE	ISSUED																																					
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S. NO.	REV	DATE	DESCRIPTION																																				
EXECUTIVE ENGINEER																																							
ARCHITECTS	Ar. Abhinav Jaiswal Raipur C-10, Rajendra Park, Mahaveer Nagar, Raipur, Chhattisgarh Mob:- +91-8817780410 E-mail: ar.abhinavjaiswal31@gmail.com																																						
STRUCTURAL ENG.																																							
MEP- CONSULTANT	 PLUMBING - FIRE - ELECTRICAL www.varunamepconsultant.com																																						
NORTH		SCALE : MTS DIM. IN METRE	DESIGN : Salya																																				
PAGE NO : 380		CHECKED : Salya																																					
NO.		DRAWN :																																					
DATE : 01/09/2025																																							

H TYPE

1. ARCHITECTURAL DRAWINGS
2. 3D RENDERS
3. STRUCTURAL DRAWINGS
4. PLUMBING
5. ELECTRICAL




GROUND FLOOR PLAN(G+1)

H TYPE

DWG. TITLE

H TYPE
(GAD QUARTER)
GROUND FLOOR
PLAN

CLIENT NAME



EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

PROJECT

REDEVELOPMENT SCHEME
AT KATGHORA SITE 2
(GOVT. FACILITY PART)

AREA STATEMENT

BUILT UP AREA OF : 46.38 SQM.
1 UNIT
SUPER BUIL TUP AREA OF : 53.08 SQM.
1 UNIT
CARPET AREA OF : 39.18 SQM.
1 UNIT

BUA. GF. : 212.32 SQM.
BUA. FF. (2UNITS) : 119.56 SQM.
BUA MUMTY : 19.05 SQM.

TOTAL BUILT UP AREA OF : 350.93 SQM.
1 BLOCK

OPENING SCHEDULE

S. NO.	TYPE	NAME	SIZE
1.	D	DOOR	1.00X2.10M.
2.	D1	DOOR	0.90X2.10M.
3.	D2	DOOR	0.80X2.10M.
4.	W	WINDOW	1.20X1.50M.
5.	W1	WINDOW	1.10X1.00M.
6.	W2	WINDOW	1.00X1.50M.
7.	V	VENTILATOR	0.60X0.60M.

NO.

DATE

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S. NO.

REV

DATE

DESCRIPTION

20250924 KATGHORA GAD

REVISIONS

NOTE: This Drawing is based on the concept drawing provided by C.G.H.B. Division Korba

EXECUTIVE ENGINEER


ARCHITECTS

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STRUCTURAL ENG.

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NORTH



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DIM. IN METRES

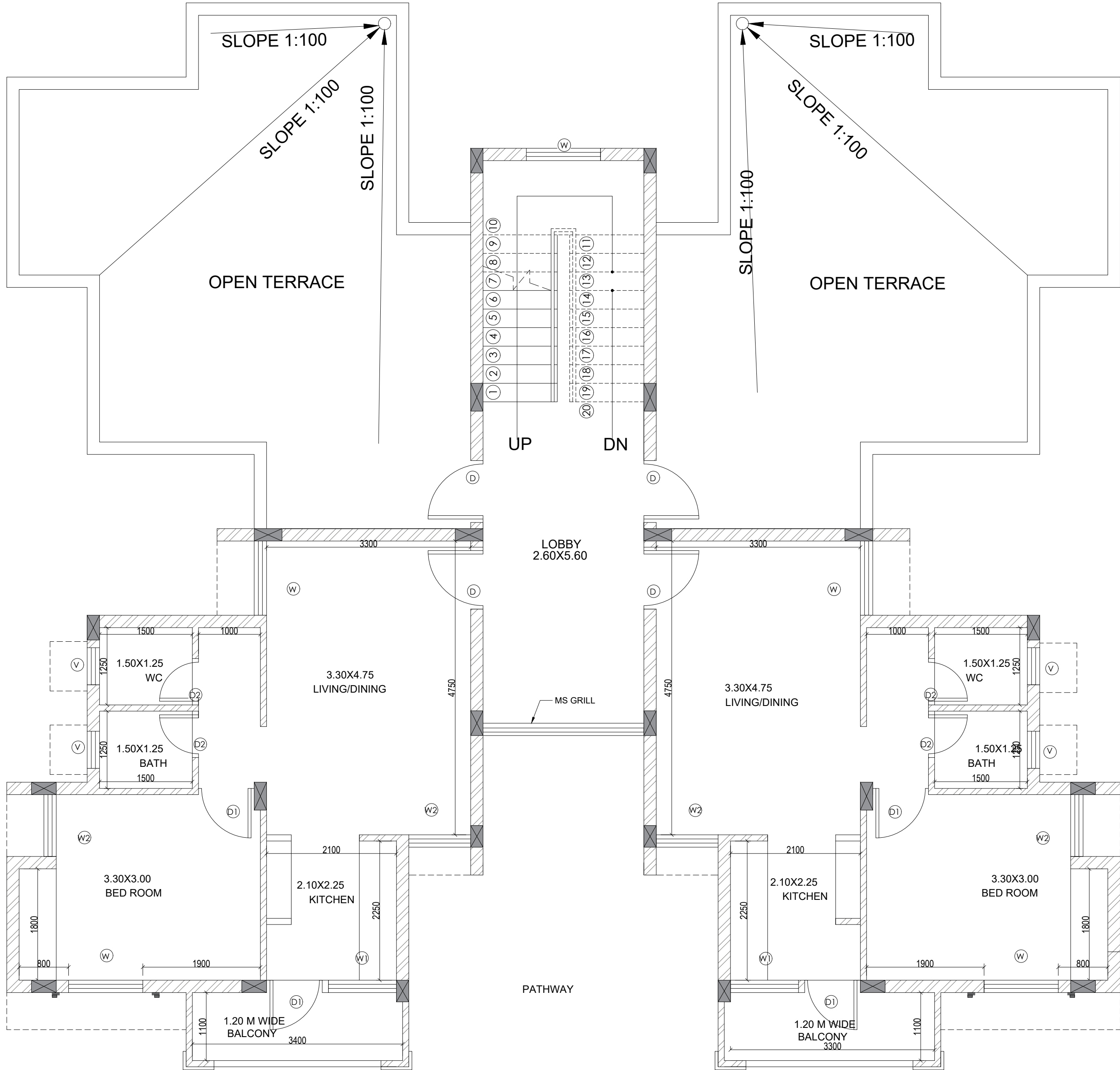
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FIRST FLOOR PLAN

H TYPE

DWG. TITLE

H TYPE
(GAD QUARTER)
FIRST FLOOR PLAN

CLIENT NAME

EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

PROJECT

REDEVELOPMENT SCHEME
AT KATGHORA SITE 2
(GOVT. FACILITY PART)

AREA STATEMENT	
BUILT UP AREA OF : 1 UNIT	46.38 SQM.
SUPER BUIL TUP AREA OF : 1 UNIT	53.08 SQM.
CARPET AREA OF : 1 UNIT	39.18 SQM.

BUA. GF.	:	212.32 SQM.
BUA. FF. (2UNITS)	:	119.56 SQM.
BUA MUMTY	:	19.05 SQM.

TOTAL BUILT UP AREA OF 1 BLOCK	:	350.93 SQM.
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OPENING SCHEDULE

S. NO.	TYPE	NAME	SIZE
1.	D	DOOR	1.00X2.10M.
2.	D1	DOOR	0.90X2.10M.
3.	D2	DOOR	0.80X2.10M.
4.	W	WINDOW	1.20X1.50M.
5.	W1	WINDOW	1.00X1.00M.
6.	W2	WINDOW	1.00X1.50M.
7.	V	VENTILATOR	0.60X0.60M.

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S. NO.	REV	DATE	DESCRIPTION

20250924 KATGHORA GAD

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EXECUTIVE ENGINEER

ARCHITECTS

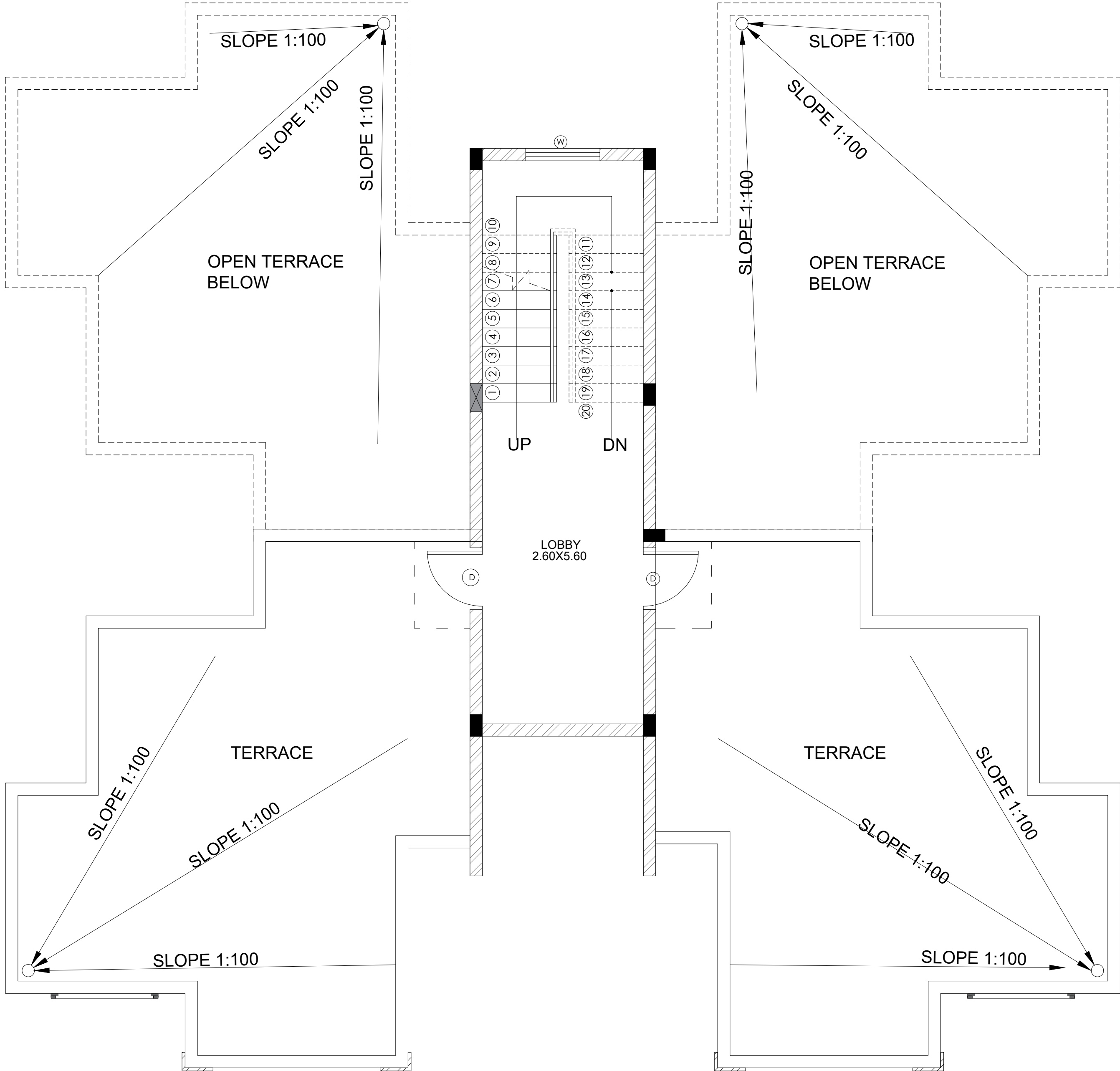
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TERRACE FLOOR PLAN

DWG. TITLE

H TYPE
(GAD QUARTER)
TERRACE FLOOR
PLAN

CLIENT NAME

 EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

PROJECT

REDEVELOPMENT SCHEME
AT KATGHORA SITE 2
(GOVT. FACILITY PART)

AREA STATEMENT

BUILT UP AREA OF : 46.38 SQM.
1 UNIT
SUPER BUIL TUP AREA OF : 53.08 SQM.
1 UNIT
CARPET AREA OF : 39.18 SQM.
1 UNIT

BUA. GF. : 212.32 SQM.
BUA. FF. (2UNITS) : 119.56 SQM.
BUA MUMTY : 19.05 SQM.

TOTAL BUILT UP AREA OF : 350.93 SQM.
1 BLOCK

OPENING SCHEDULE

S. NO.	TYPE	NAME	SIZE
1.	D	DOOR	1.00X2.10M.
2.	D1	DOOR	0.90X2.10M.
3.	D2	DOOR	0.80X2.10M.
4.	W	WINDOW	1.20X1.50M.
5.	W1	WINDOW	1.00X1.00M.
6.	W2	WINDOW	1.00X1.50M.
7.	V	VENTILATOR	0.60X0.60M.

NO.

DATE

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S. NO.

REV

DATE

DESCRIPTION

20250924 KATGHORA GAD

EXECUTIVE ENGINEER


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MEP- CONSULTANT

NORTH



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DATE : 01/09/2025

REDEVELOPMENT SCHEME AT KATGHORA SITE 2

H TYPE(GAD
QUARTER)
ELEVATION

EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

REDEVELOPMENT
SCHEME AT KATGHORA
SITE 2

OPENING SCHEDULE

S. NO.	TYPE	NAME	SIZE
	D	DOOR	1.00X2.10M.
	D1	DOOR	0.90X2.10M.
	D2	DOOR	0.80X2.10M.
	W	WINDOW	1.50X1.50M.
	W1	WINDOW	1.20X1.00M.
	W2	WINDOW	0.8X1.00M.
	WK	WINDOW	1.00X1.00M.
	V	VENTILATOR	0.60X0.60M.

S. NO.	REV	DATE	DESCRIPTION
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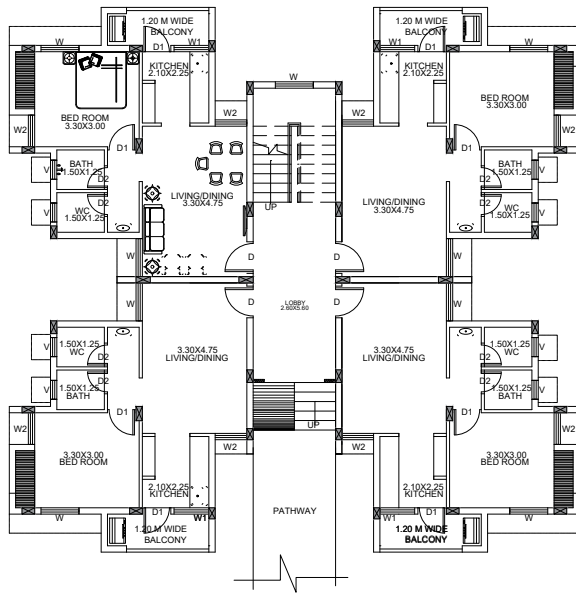
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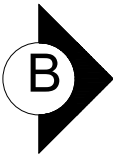
STRUCTURAL ENG.

MEP- CONSULTANT

ELEVATION 'B'



KEY PLAN



REDEVELOPMENT SCHEME AT KATGHORA SITE 2

H TYPE(GAD
QUARTER)
SECTION

EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

REDEVELOPMENT
SCHEME AT KATGHORA
SITE 2

OPENING SCHEDULE

S. NO.	TYPE	NAME	SIZE
	D	DOOR	1.00X2.10M.
	D1	DOOR	0.90X2.10M.
	D2	DOOR	0.80X2.10M.
	W	WINDOW	1.50X1.50M.
	W1	WINDOW	1.20X1.00M.
	W2	WINDOW	0.8X1.00M.
	WK	WINDOW	1.00X1.00M.
	V	VENTILATOR	0.60X0.60M.

S. NO.	REV	DATE	DESCRIPTION
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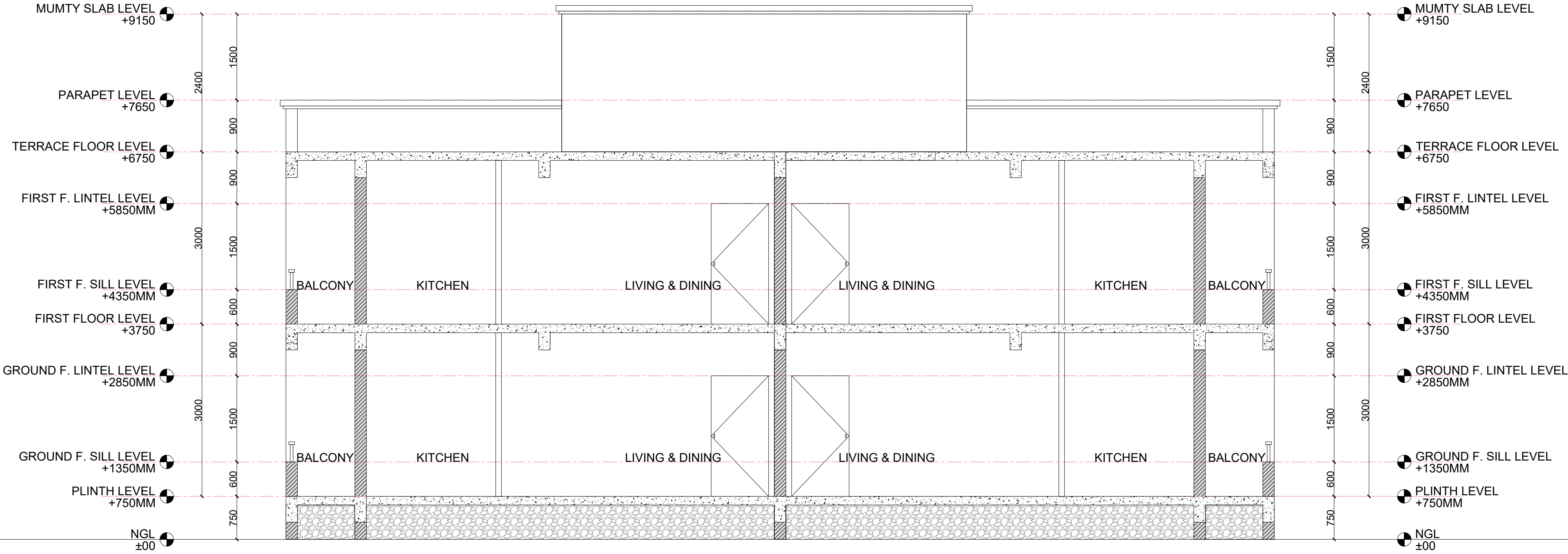
EXECUTIVE ENGINEER

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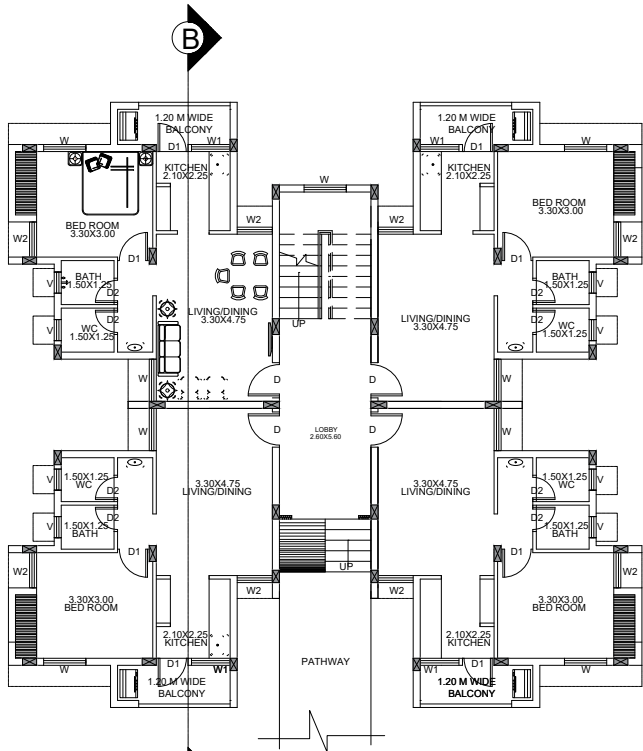
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MEP- CONSULTANT

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	NO.	



SECTION 'BB'



KEY PLAN

REDEVELOPMENT SCHEME AT KATGHORA SITE 2

H TYPE(GAD
QUARTER)
ELEVATION



EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

REDEVELOPMENT
SCHEME AT KATGHORA
SITE 2

OPENING SCHEDULE

S. NO.	TYPE	NAME	SIZE
	D	DOOR	1.00X2.10M.
	D1	DOOR	0.90X2.10M.
	D2	DOOR	0.80X2.10M.
	W	WINDOW	1.50X1.50M.
	W1	WINDOW	1.20X1.00M.
	W2	WINDOW	0.8X1.00M.
	WK	WINDOW	1.00X1.00M.
	V	VENTILATOR	0.60X0.60M.

REVISIONS

NO.	DATE	ISSUED	
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EXECUTIVE ENGINEER

ARCHITECTS

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NORTH

SCALE : NTS

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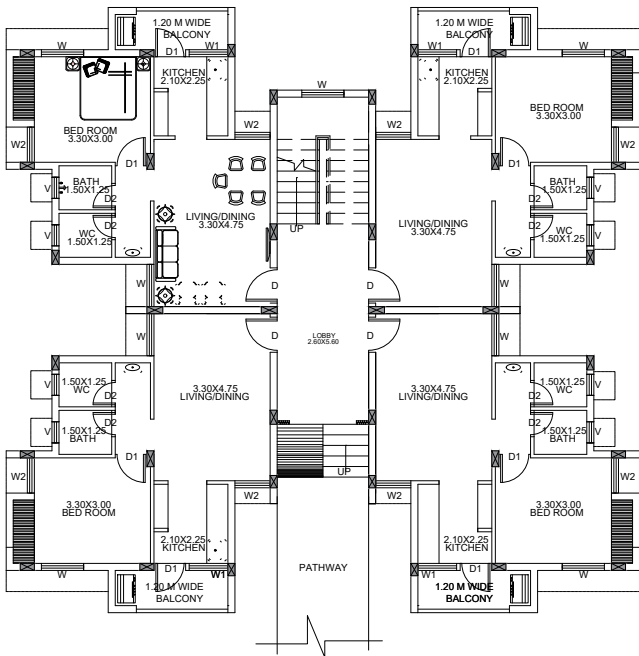
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DATE : 01/09/2025

H TYPE

ELEVATION 'A'



KEY PLAN



LINTEL LVL.

FFL. LVL. ±00

1200

900(R/O)

750(R/O)

MD

D1

D2

MAIN DOOR (DOUBLE RIVET -125 MM x 75 MM) (TEAK WOOD) ELEVATION

DOOR 1 (SINLE RIVET -100 MM x 62.5 MM WPC FRAME) ELEVATION

DOOR 2 (SINLE RIVET -100 MM x 62.5 MM WPC FRAME) ELEVATION

PLAN

PLAN

PLAN

WPC FRAME AS/DETAIL DWG.

WPC FRAME AS/DETAIL DWG.

FINISHING AS/DETAIL M.S. FRAME AS/DETAIL DWG.

DOOR SCHEDULE

SCALE - N.T.S.

ALL MAIN DOOR ARE TEAK WOOD

WPC FRAME

1.MD-125 MM x 75 MM

2.OTHER DOOR -100MM x 62.5MM

Flush door shutters, core of block board construction with frame of first class hard wood and well matched first class Indian teak ply veneering on one face and commercial ply veneering on the other face of the shutter with vertical grains, cross bands and face veneering excluding hinges.

DRG. TITLE	H TYPE(GAD) DOOR & WINDOW SCHEDULE					
CLIENT NAME	<div><div></div><div>EXECUTIVE ENGINEER, CHHATTISGARH HOUSING BOARD DIVISION -KORBA,DISTRICT-KORBA</div></div>					
PROJECT	REDEVELOPMENT SCHEME AT KATGHORA SITE 2					
AREA STATEMENT						
BUILT UP AREA OF : 72.85 SQM. 1 UNIT SUPER BUIL TUP AREA OF : 84.5 SQM. 1 UNIT						
BUA. GF. : 169.54 SQM. BUA. FF. : 169.54 SQM. BUA MUMTY : 16.53 SQM.						
TOTAL BUILT UP AREA OF : 355.61 SQM. 1 BLOCK						
OPENING SCHEDULE						
S. NO.	TYPE	NAME	SIZE			
	D	DOOR	1.00X2.10M.			
	D1	DOOR	0.90X2.10M.			
	D2	DOOR	0.75X2.10M.			
	W	WINDOW	1.50X1.50M.			
	W1	WINDOW	1.20X1.00M.			
	W2	WINDOW	0.8X1.00M.			
	WK	WINDOW	1.00X1.00M.			
	V	VENTILATOR	0.60X0.60M.			
NO.						
DATE						
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REV						
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DESCRIPTION						
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EXECUTIVE ENGINEER						
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DATE : 01/09/2025						

LINTEL LVL.

SILL LVL.

FFL. LVL. ±00

1500

1200

800

1000

600

W

W1

W2

WK

V

SLIDING WINDOW ELEVATION

SLIDING WINDOW ELEVATION

SLIDING WINDOW ELEVATION

SLIDING WINDOW ELEVATION

VENTILLATOR ELEVATION

PLAN

PLAN

PLAN

PLAN

PLAN

WINDOW SCHEDULE (1.5 MM POWDER COATED ALUMINUM WINDOW)

SCALE - N.T.S.

Window Width

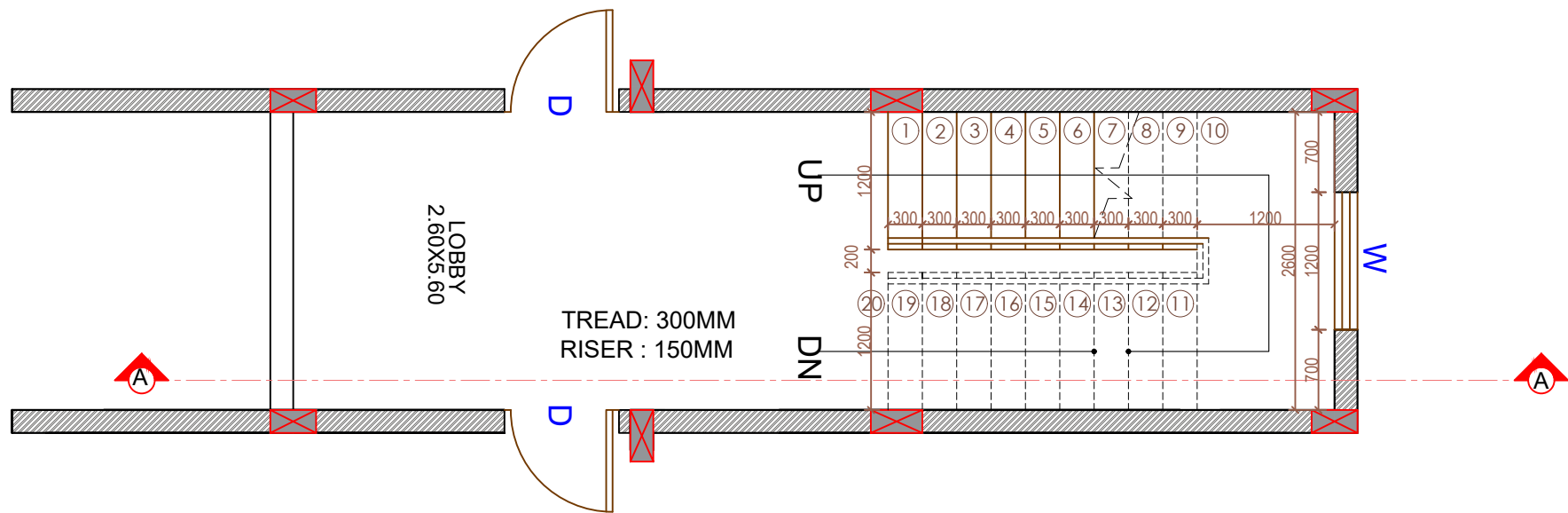
Window height

Granite Chokhat (FASICA) Half Round Edge

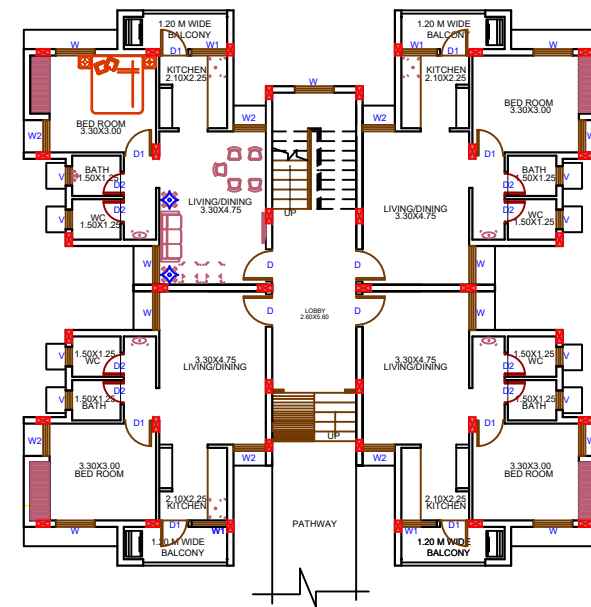
1.5 MM POWDER COATED ALUMINUM DOOR & WINDOW

1. SLIDING DOOR -3 TRACK TWO GLASS & ONE MOSQUITO TRACK.

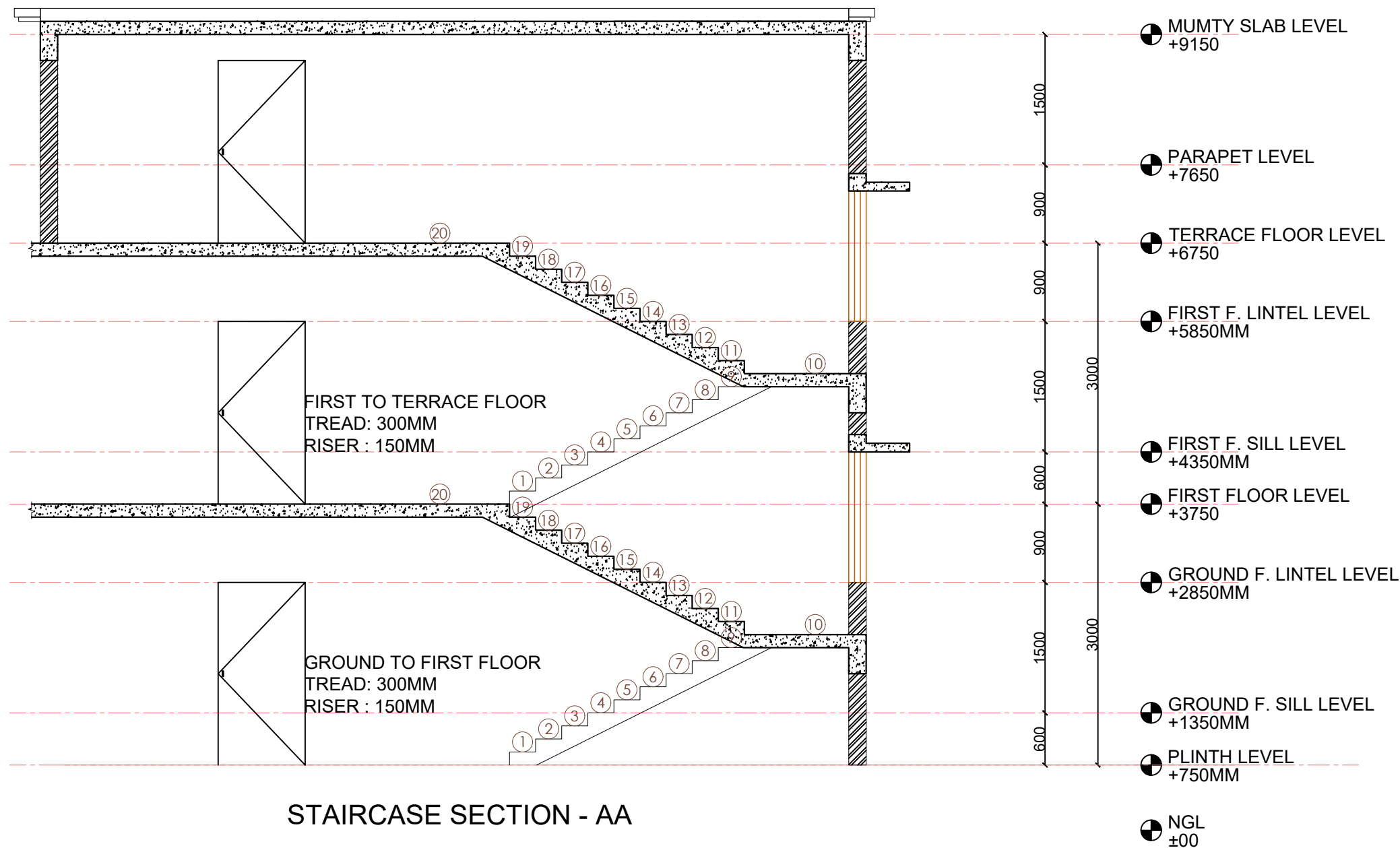
2. SLIDING WINDOW -3 TRACK TWO GLASS & ONE MOSQUITO TRACK.



TYPICAL STAIRCASE PLAN



KEY PLAN (H TYPE)



STAIRCASE SECTION - AA

H TYPE
(GAD QUARTER)
STAIRCASE DETAIL

EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

REDEVELOPMENT
SCHEME AT KATGHORA
SITE 2

OPENING SCHEDULE

S. NO.	TYPE	NAME	SIZE
1.	D	DOOR	1.00X2.10M.
2.	D1	DOOR	0.90X2.10M.
3.	D2	DOOR	0.80X2.10M.
4.	W	WINDOW	1.20X1.50M.
5.	W1	WINDOW	1.00X1.00M.
6.	W2	WINDOW	1.00X1.50M.
7.	V	VENTILATOR	0.60X0.60M.

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S. NO.	REV	DATE	DESCRIPTION
20250917 - MASTER FILE - KATGHORA GAD & EE. OFFICE			

NOTE: This Drawing is a based on the concept drawing provided by C.G.H.B. Division Korba

EXECUTIVE ENGINEER

ARCHITECTS
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STRUCTURAL ENG.

MEP. CONSULTANT

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		DRAWN : VKS

DATE : 01/09/2025

GAD H-TYPE



FRONT VIEW

GAD H-TYPE
FRONT VIEW

EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

REDEVELOPMENT SCHEME AT
KATGHORA SITE 2
(GOVT. FACILITY PART)








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PAGE NO : 1	CHECKED : A.J.
NO.	DRAWN : VKS

DELL E/01. ARCHITECT NAVEEN MINU/KATGHORA/001 30082028_GAD KATGHORA
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over to a third party or used for any purpose other than which it is issued for.
DATE : 01/09/2025

A 3D architectural rendering of a modern, two-story building with a beige facade and white trim. The building features arched windows, balconies with railings, and a flat roof. A person in a plaid shirt is standing in the foreground, looking at the building. The background shows green trees and a clear blue sky.

DRG. TITLE		GAD H-TYPE CORNER VIEW																																																					
CLIENT NAME		 EXECUTIVE ENGINEER, CHHATTISGARH HOUSING BOARD DIVISION -KORBA,DISTRICT-KORBA																																																					
PROJECT		REDEVELOPMENT SCHEME AT KATGHORA SITE 2 (GOVT. FACILITY PART)																																																					
REVISONS		<table border="1"><tr><td colspan="4"></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td>NO.</td><td>DATE</td><td>ISSUED</td><td></td></tr><tr><td colspan="4">PRINTS ISSUED</td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td>S. NO.</td><td>REV</td><td>DATE</td><td>DESCRIPTION</td></tr><tr><td colspan="4">001 30082028_GAD Katghora</td></tr></table>																						NO.	DATE	ISSUED		PRINTS ISSUED																				S. NO.	REV	DATE	DESCRIPTION	001 30082028_GAD Katghora			
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EXECUTIVE ENGINEER																																																							
ARCHITECTS		Ar. Abhinav Jaiswal Raipur C-10, Rajendra Park, Mahaveer Nagar, Raipur, Chhattisgarh Mob:- +91-8817780410 E-mail: ar.abhinavjaiswal31@gmail.com																																																					
STRUCTURAL ENG.																																																							
MEP. CONSULTANT																																																							
NORTH		<table border="1"><tr><td rowspan="3"></td><td>SCALE : NTS</td><td>DESIGN : VKS</td></tr><tr><td>PAGE NO : </td><td>CHECKED : AJ.</td></tr><tr><td>NO.</td><td>DRAWN : VKS</td></tr></table>			SCALE : NTS	DESIGN : VKS	PAGE NO : 	CHECKED : AJ.	NO.	DRAWN : VKS																																													
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DATE: 01/09/2025																																																							

GAD H-TYPE



SIDE VIEW

GAD H-TYPE
SIDE VIEW

EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

REDEVELOPMENT SCHEME AT
KATGHORA SITE 2
(GOVT. FACILITY PART)

REVISIONS			
NO.	DATE	ISSUED	
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001 30082028_GAD Katghora			

EXECUTIVE ENGINEER

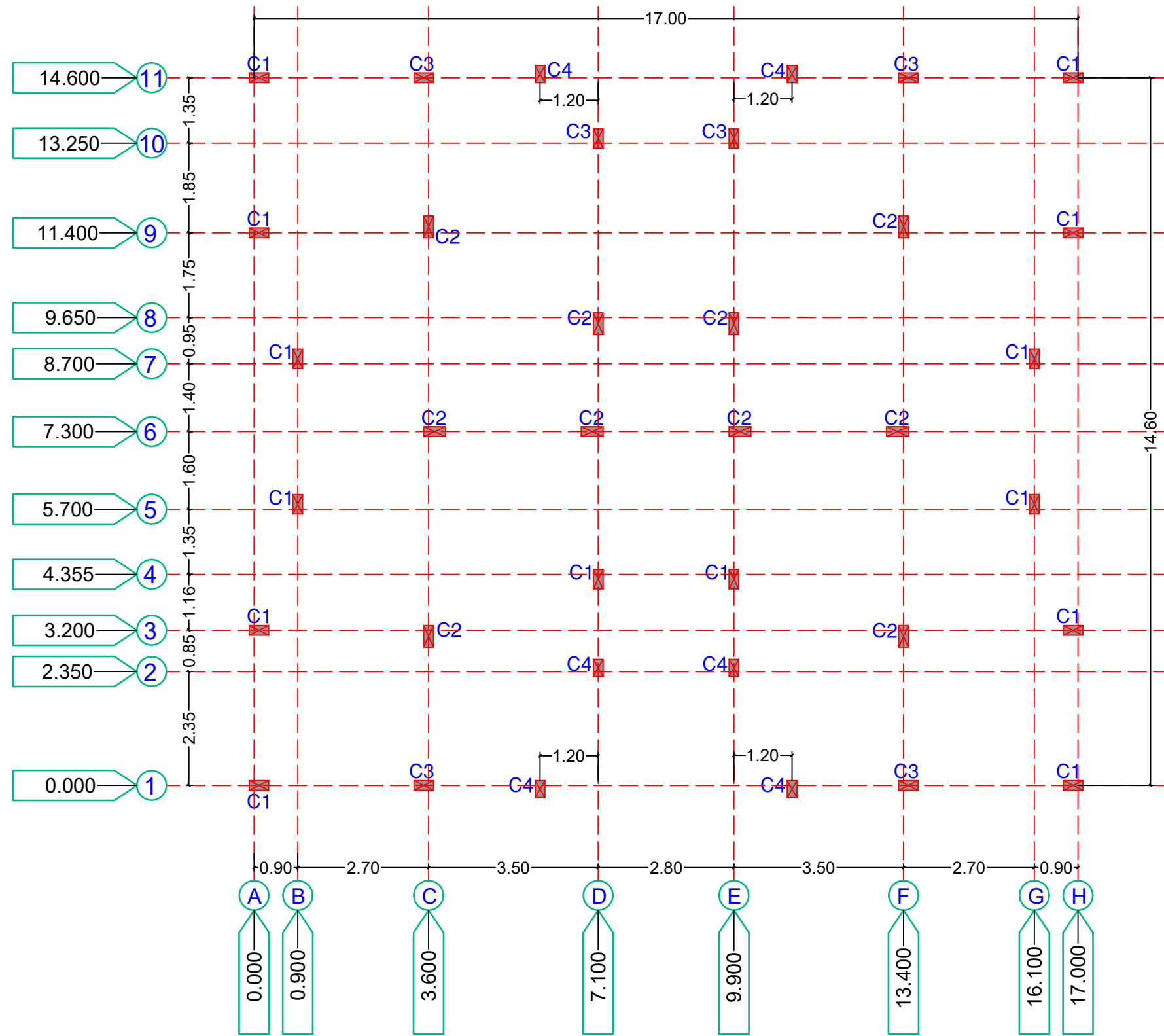
Ar. Abhinav Jaiswal
Raipur
C-10, Rajendra Park, Mahaveer Nagar,
Raipur, Chhattisgarh
Mob:- +91-8817780410
E-mail: ar.abhinavjaiswal31@gmail.com

STRUCTURAL ENG.

MEP. CONSULTANT

NORTH	SCALE : NTS	DESIGN : VKS
	PAGE NO : 1	CHECKED : A.J.
	NO.	DRAWN : VKS

DATE : 01/09/2025



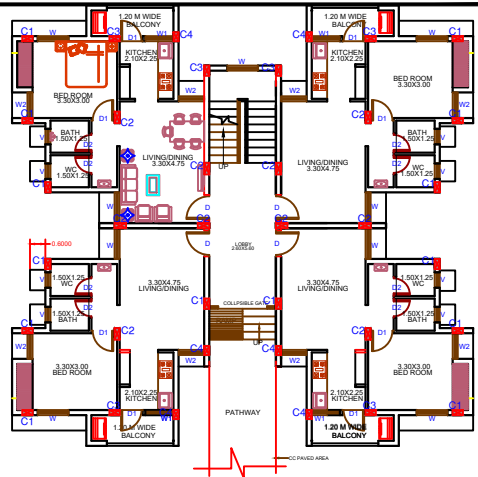
<p>C1</p> <p>200x400</p>	<p>400 10x12 mm VERT. BARS</p>	<p>● - 12 mm</p>
<p>C2</p> <p>200x450</p>	<p>450 8x12 mm VERT. BARS</p>	<p>● - 16 mm ● - 12 mm</p>
<p>C3</p> <p>200x400</p>	<p>400 4x12 mm VERT. BARS</p>	<p>● - 16 mm ● - 12 mm</p>
<p>C4</p> <p>200x350</p>	<p>350 6x12 mm VERT. BARS</p>	<p>● - 12 mm</p>

SECOND TO MUMTY	M25 Fe500	SIZE	200 X 400	200 X 450	200 X 400	200 X 350
		STEEL	8-T12	8-T12	8-T12	6-T12
		LINKS	T8@150 C/C	T8@150 C/C	T8@150 C/C	T8@150 C/C
FIRST TO SECOND	M25 Fe500	SIZE	200 X 400	200 X 450	200 X 400	200 X 350
		STEEL	8-T12	4-T16 + 4-T12	8-T12	6-T12
		LINKS	T8@150 C/C	T8@150 C/C	T8@150 C/C	T8@150 C/C
PLINTH TO FIRST	M25 Fe500	SIZE	200 X 400	200 X 450	200 X 400	200 X 350
		STEEL	10-T12	4-T16 + 6-T12	4-T16 + 4-T12	6-T12
		LINKS	T8@150 C/C	T8@150 C/C	T8@150 C/C	T8@150 C/C
BASE TO PLINTH	M25 Fe500	SIZE	200 X 400	200 X 450	200 X 400	200 X 350
		STEEL	10-T12	4-T16 + 6-T12	4-T16 + 4-T12	6-T12
		LINKS	T8@150 C/C	T8@150 C/C	T8@150 C/C	T8@150 C/C
COLUMN MARKED			C1	C2	C3	C4

COLUMN LAYOUT

COLUMN NO.	EXCAVATION SIZE	PCC. THK.	FOUNDATION		BOT. REINFORCEMENT		TOP REINFORCEMENT	
			FOOTING SIZE	FOOTING DEPTH	LONG LOWER TIER	SHORT UPPER TIER	LONG LOWER TIER	SHORT UPPER TIER
CF1	---	100	4800 x 2700	500	12 Φ @150	12 Φ @150	10 Φ @150	10 Φ @150
CF2	---	100	AS PER FOOTING LAYOUT	450	10 Φ @125	10 Φ @125	10 Φ @150	10 Φ @150

<p><u>1. SAFE BEARING CAPACITY OF SOIL</u></p> <p>S.B.C. OF SOIL FOR DESIGN OF FOUNDATION HAS BEEN TAKEN AS SPECIFIED. MINIMUM DEPTH SHALL BE UPTO HARD STRATA. IN CASE OF ANY DOUBT REGARDING S.B.C. DURING EXCAVATION, THE MATTER SHALL BE REPORTED TO THE GEO-TECH. CONSULTANT.</p>
<p><u>2. REINFORCING STEEL</u></p> <p>U.N.O. ALL REINFORCEMENT SHALL BE OF HIGH STRENGTH DEFORMED BARS OF SPECIFIED GRADE CONFORMING TO IS:1786 ALL REINFORCING STEEL TO BE OF TESTED QUALITY.</p>
<p><u>3. CONCRETE</u></p> <p>U.N.O. CONCRETE MIX FOR ALL ELEMENT SHALL BE OF SPECIFIED GRADE CONFORMING IS: 456-2000.</p>
<p><u>4. P.C.C.</u></p> <p>PLAIN CEMENT CONCRETE M-10</p>
<p><u>5. COVER</u></p> <p>U.N.O. IN THE DWG. CLEAR COVER TO MAIN REINFORCEMENT SHALL BE AS FOLLOWS :-</p> <p>(1) FOOTING (50 mm) (3) BEAM (25 mm)</p> <p>(2) COLUMN (40 mm) (4) SLAB (20 mm)</p> <p>OR DIA. OF BAR WHICHEVER IS GREATER.</p>
<p><u>GENERAL NOTES</u></p> <ol style="list-style-type: none"> EXTRA TOP OR BENT-UP BARS SHALL BE EXTENDED UPTO 0.3xL IN ADJACENT SPAN OVER A CONTINUOUS SUPPORT, AND ANCHOR DOWN AT END SUPPORT. AT BEAM & COLUMN JUNCTION, BEAM BARS IF IN CONFLICT WITH COLUMN BARS SHALL BE GRADUALLY BENT & PLACED CLEAR OFF COLUMN BARS. UNDER NO CIRCUMSTANCES COLUMN VERTICAL BARS SHALL BE BENT TO ACCOMMODATE CONFINING STIRRUPS IN BEAM COLUMN JUNCTION SHALL BE PROVIDED AT THE SPACING INDICATED. HOWEVER IF BEAMS ARE CONNECTED ON ALL THE FOUR DIRECTIONS OF COLUMN THE SPACING SHOULD BE DOUBLED. RINGS/STIRRUPS SIZE IN COLUMN IS SAME BELOW AND ABOVE G.L. U.N.O. MINIMUM LAP LENGTH SHALL BE 50 TIMES OF BAR DIAMETER OF SMALLER BAR AT ANY SECTION. NOT MORE THAN 50% OF BARS SHALL BE LAPPED AT A SECTION. THE LOCATION OF LAPPING SHALL BE AVOIDED AS FOLLOWS :- <ol style="list-style-type: none"> FOR FLOOR BEAM/SLAB CLOSE TO MID SPAN IN BOTTOM BARS & CLOSE TO SUPPORT IN TOP BARS. FOR FOUNDATION BEAM/RAFT LAPS CLOSE TO MID SPAN IN TOP BARS & CLOSE TO SUPPORT IN BOTTOM BARS. IN HANGERS LAPPING OF BARS IS NOT PERMITTED BET. FLOORS STIRRUPS FOR CANTILEVER BEAMS TO HAVE HOOK AT BOTTOM. REMARK "4 LEGGED" MEANS AT ALL LOCATIONS U.N.O. USE OF NEEDLE VIBRATOR AND PLASTISIZER RECOMMENDED FOR R.C.C. WORK. USE DESIGNED COATED PLYWOOD FOR SHUTTERING & FORMWORK. BURNT OIL NOT PERMITTED FOR DE-SHUTTERING . <p>EXPPOSED SURFACE OF CONCRETE SHALL BE KEPT CONTINUOUSLY IN WET CONDITION MINIMUM FOR 14 DAYS.</p> <p><u>14. CUTOFF/ OPENING :</u></p> <p>ANY TYPE OF OPENINGS FOR PLUMBING, DRAINAGE OR ELECTRICAL NOT PERMITTED IN R.C.C BEAMS AND COLUMNS DURING OR AFTER CASTING.</p> <p>FOR SLEEVES PROVIDE ADD'L TWO RINGS SPACED @ 75MM C/C ON EITHER SIDE OF IT.</p> <ol style="list-style-type: none"> U.N.O. IN THE DWG., CONSTRUCTION JOINT SHOULD BE APPROVED BY ENGINEER AT SITE. CONSTRUCTION JOINT SHOULD BE AT QUARTER SPAN OF BEAM AND SLAB, IN NO CONDITION SHOULD BE AT THE SUPPORT. READ THIS DWG. WITH RELEVANT ARCHITECTURAL & SERVICES DWG. DO NOT SCALE THE DWG, ONLY WRITTEN DIMENSION ARE TO BE FOLLOWED. ALL DIMENSIONS ARE IN MM, EXCEPT IN LAYOUT. LEVELS ARE IN METER. IN CASE OF ANY AMBIGUITY, PLEASE BRING IT TO THE NOTICE OF THIS OFFICE BEFORE EXECUTION OF WORK. SHUTTERING & SCAFFOLDING IS AT THE RESPONSIBILITY OF CONTRACTOR. STRIPPING TIME TABLE AS PER IS 456-2000. TOP BARS OF ALL CANTILEVER BEAM / SLAB SHOULD BE EXTENDED ON OPPOSITE SIDE UP TO 1.5 TIMES CANTILEVER PROJECTION UNO. <p><u>U.N.O. :- UNLESS NOTED OTHERWISE</u></p>



KEY PLAN

[illegible]



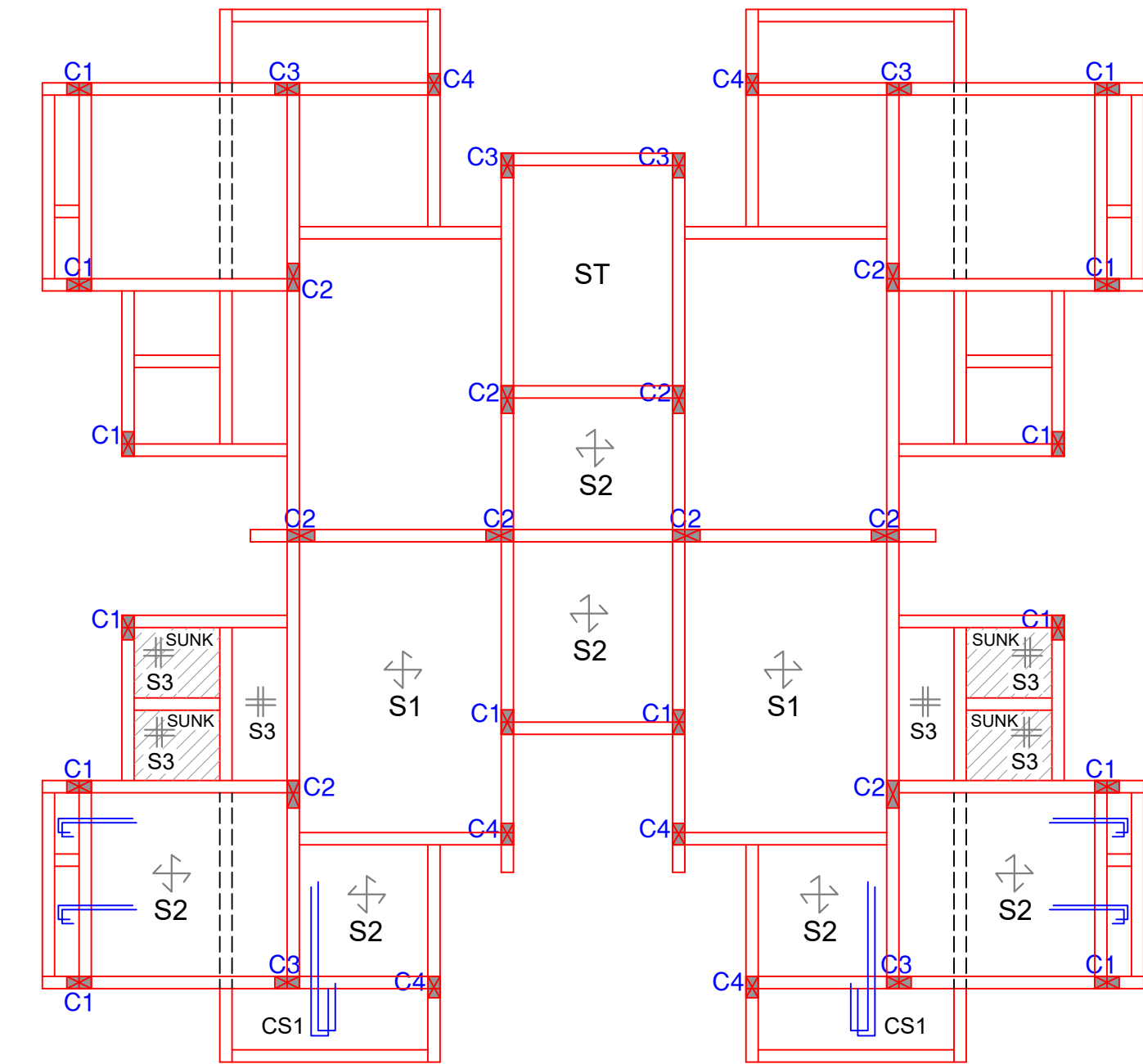
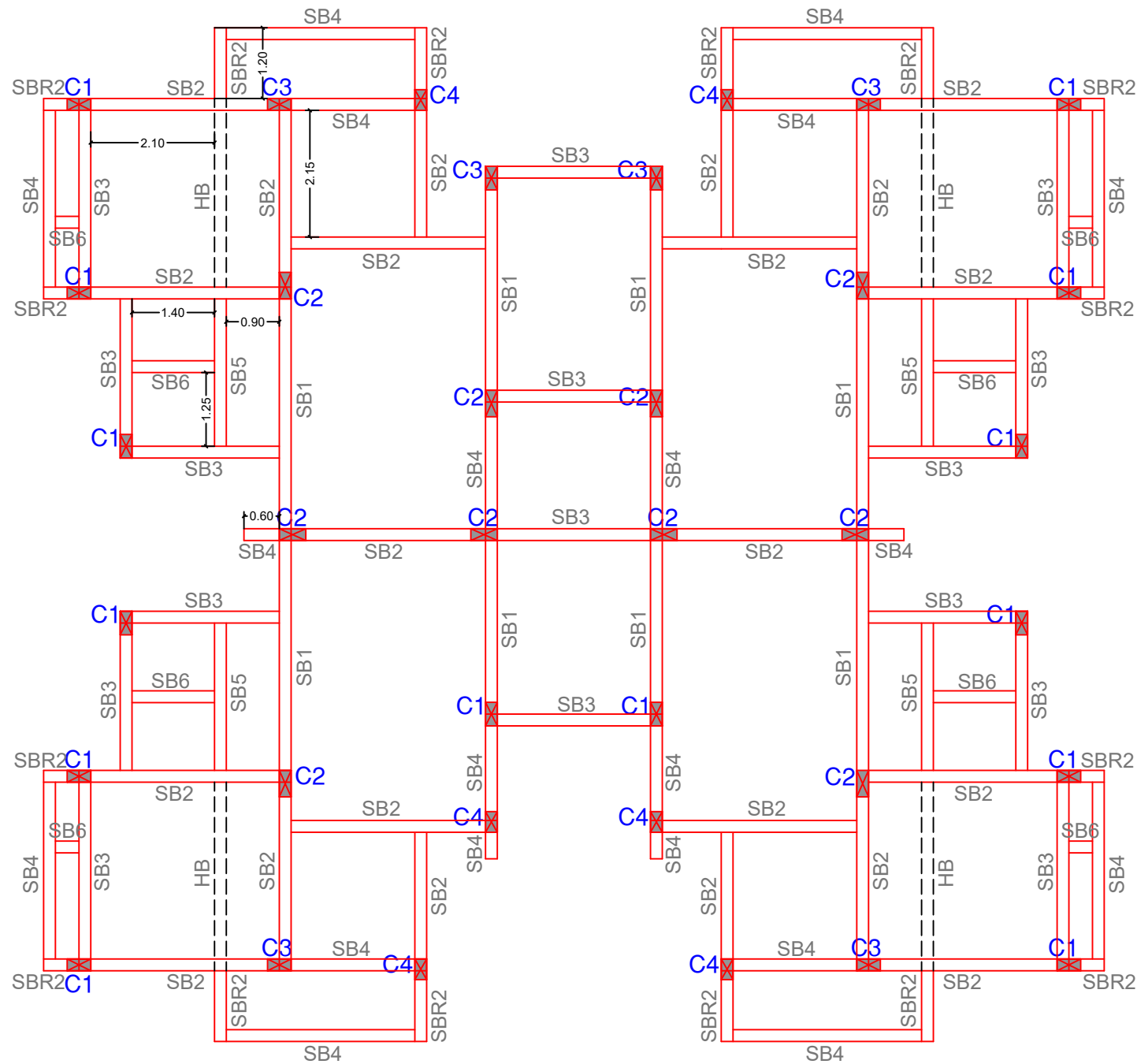
TOP STEEL	M25:Fe500	SHORT DIR	---	---	---	---	
		LONG DIR	---	---	---	---	
BOTTOM STEEL		SHORT DIR	T10@125 C/C	T12@150 C/C	T10@125 C/C	T10@150 C/C	
		LONG DIR	T10@125 C/C	T12@150 C/C	T10@125 C/C	T10@150 C/C	
DETAIL OF FOOTING		D,d	400	450	400	350	
		SIZE	1950 x 2100	2400 x 2700	1950 x 2100	1650 x 1800	
P.C.C		M10	150 THK	3250 x 2400	2700 x 3000	3250 x 2400	1950 x 2100
COLUMNS MARKED		C1/F1	C2/F2	C3/F3	C4/F4		
REMARKED		BOX	BOX	BOX	BOX		

Gross Safe Bearing Capacity - 112.23 kN/m²
As per information from CGHB EE Korba



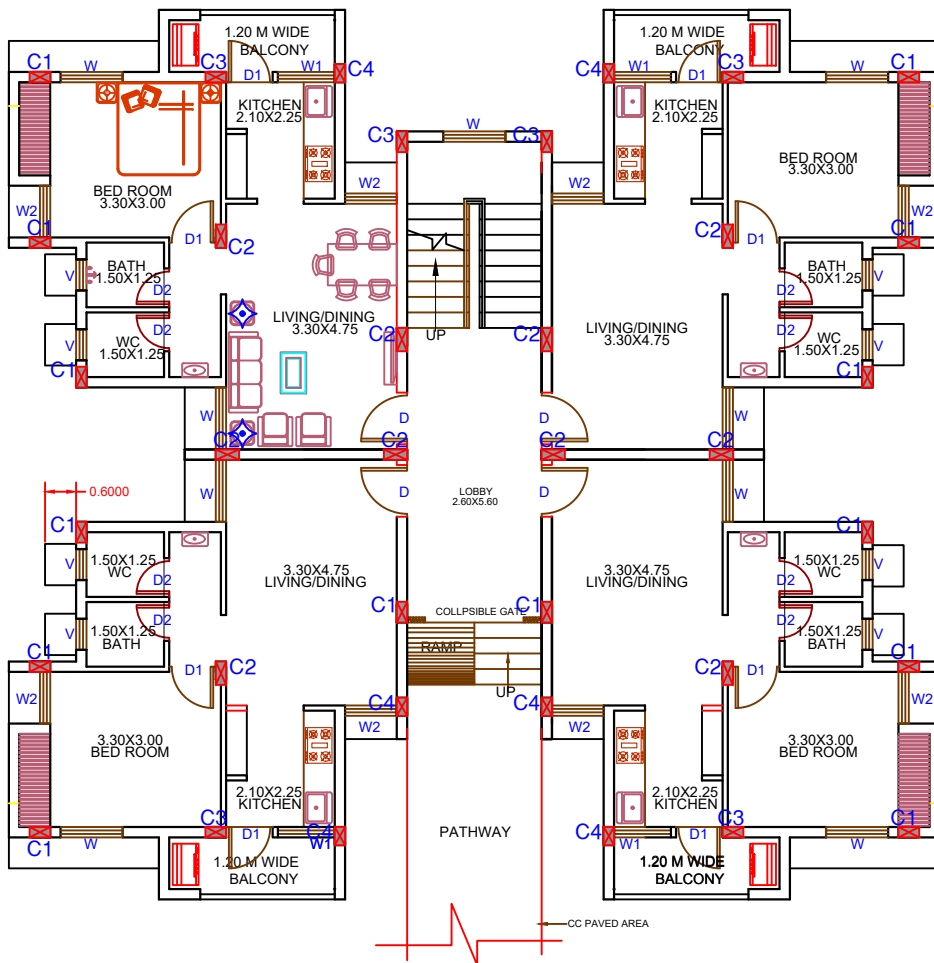
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DATE: 01/09/2025



SCHEDULE OF SLAB BEAMS

BEAM NO.	SIZE		BOTTOM REINFORCEMENT		TOP REINFORCEMENT		STIRRUPS		REMARK
	B	D	THROUGH OUT	MID SPAN 0.7xL	THROUGH OUT	EXTRA TOP 0.25xL FROM FACE OF COLUMN ON EACH SIDE	UPTO 2D FROM FACE OF COLUMN	AT MID SPAN	
SB1	200	350	2x12	2x12	2x12	2x12	8 @ 150	8 @ 150	---
SB2	200	350	2x12	2x10	2x12	2x10	8 @ 150	8 @ 150	---
SBR2	200	350	2x12	---	4x12	---	8 @ 150	8 @ 150	---
SB3	200	350	2x12	1x10	2x12	1x10	8 @ 150	8 @ 150	---
SB4	200	350	2x12	---	2x12	---	8 @ 150	8 @ 150	---
SB5	200	300	2x12	1x10	2x12	1x10	8 @ 150	8 @ 150	---
SB6	200	300	2x12	---	2x12	---	8 @ 150	8 @ 150	---
HB	300	125	3X12	---	3X12	---	8 @ 150	8 @ 150	---



KEY PLAN

SCHEDULE OF SLABS

SLAB MARKED	THICKNESS	TYPE	REINFORCEMENT		REMARK
			SHORT BAR	LONG BAR	
S1	125	TWO WAY	8@125C (ALT. BENT UP)	8@125C (ALT. BENT UP)	---
S2	125	TWO WAY	8@150C (ALT. BENT UP)	8@150C (ALT. BENT UP)	---
S3	125	T/B MESH	8@150C	8@150C	---
CS1	125	ONE WAY	10@150C (ALT. BENT UP)	10@150C (DIST.)	---

NOTE: TOP BARS OF ALL CANTILEVER BEAM / SLAB SHOULD BE EXTENDED ON OPPOSITE SIDE UP TO 1.5 TIMES CANTILEVER PROJECTION UNO.

1. SAFE BEARING CAPACITY OF SOIL

S.B.C. OF SOIL FOR DESIGN OF FOUNDATION HAS BEEN TAKEN AS SPECIFIED. MINIMUM DEPTH SHALL BE UPTO HARD STRATA. IN CASE OF ANY DOUBT REGARDING S.B.C. DURING EXCAVATION, THE MATTER SHALL BE REPORTED TO THE GEO-TECH. CONSULTANT.

2. REINFORCING STEEL

U.N.O. ALL REINFORCEMENT SHALL BE OF HIGH STRENGTH DEFORMED BARS OF SPECIFIED GRADE CONFORMING TO IS:1786 ALL REINFORCING STEEL TO BE OF TESTED QUALITY.

3. CONCRETE

U.N.O. CONCRETE MIX FOR ALL ELEMENT SHALL BE OF SPECIFIED GRADE CONFORMING IS: 456-2000.

4. P.C.C.

PLAIN CEMENT CONCRETE M-10

5. COVER

U.N.O. IN THE DWG. CLEAR COVER TO MAIN REINFORCEMENT SHALL BE AS FOLLOWS :-

- (1) FOOTING (50 mm) (3) BEAM (25 mm)
(2) COLUMN (40 mm) (4) SLAB (20 mm)
OR DIA. OF BAR WHICHEVER IS GREATER.

GENERAL NOTES

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- CONFINING STIRRUPS IN BEAM COLUMN JUNCTION SHALL BE PROVIDED AT THE SPACING INDICATED. HOWEVER IF BEAMS ARE CONNECTED ON ALL THE FOUR DIRECTIONS OF COLUMN THE SPACING SHOULD BE DOUBLED.
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- U.N.O. MINIMUM LAP LENGTH SHALL BE 50 TIMES OF BAR DIAMETER OF SMALLER BAR AT ANY SECTION.
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- STIRRUPS FOR CANTILEVER BEAMS TO HAVE HOOK AT BOTTOM.
- REMARK "4 LEGGED" MEANS AT ALL LOCATIONS U.N.O.
- USE OF NEEDLE VIBRATOR AND PLASTISIZER RECOMMENDED FOR R.C.C. WORK.
- USE DENSIFIED COATED PLYWOOD FOR SHUTTERING & FORMWORK.
- BURNT OIL NOT PERMITTED FOR DE-SHUTTERING .

EXPOSED SURFACE OF CONCRETE SHALL BE KEPT CONTINUOUSLY IN WET CONDITION MINIMUM FOR 14 DAYS.

14. CUTOUT/ OPENING :

ANY TYPE OF OPENINGS FOR PLUMBING, DRAINAGE OR ELECTRICAL NOT PERMITTED IN R.C.C BEAMS AND COLUMNS DURING OR AFTER CASTING.

FOR SLEEVES PROVIDE ADD'L TWO RINGS SPACED @ 75MM C/C ON EITHER SIDE OF IT.

16. U.N.O. IN THE DWG., CONSTRUCTION JOINT SHOULD BE APPROVED BY ENGINEER AT SITE.

CONSTRUCTION JOINT SHOULD BE AT QUARTER SPAN OF BEAM AND SLAB. IN NO CONDITION SHOULD BE AT THE SUPPORT.

17. READ THIS DWG. WITH RELEVANT ARCHITECTURAL & SERVICES DWG.

18. DO NOT SCALE THE DWG., ONLY WRITTEN DIMENSION ARE TO BE FOLLOWED.

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22. STRIPPING TIME TABLE AS PER IS 456-2000.

23. TOP BARS OF ALL CANTILEVER BEAM / SLAB SHOULD BE EXTENDED ON OPPOSITE SIDE UP TO 1.5 TIMES CANTILEVER PROJECTION UNO.

U.N.O. :- UNLESS NOTED OTHERWISE

Gross Safe Bearing Capacity - 112.23 kN/m2

As per information from CGHB EE Korba

H TYPE
(GAD QUARTER)
BEAM & SLAB BEAM



EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

REDEVELOPMENT SCHEME AT
KATGHORA SITE 2
(GOVT FACILITY PART)

AREA STATEMENT

BUILT UP AREA OF : 1 UNIT	46.38 SQM.
SUPER BUILT TUP AREA OF : 1 UNIT	53.08 SQM.
CARPET AREA OF : 1 UNIT	39.18 SQM.

BUA. GF. :	212.32 SQM.
BUA. FF. (2UNITS) :	119.56 SQM.
BUA MUMTY :	19.05 SQM.

TOTAL BUILT UP AREA OF
1 BLOCK : 350.93 SQM.

OPENING SCHEDULE

S. NO.	TYPE	NAME	SIZE
1.	D	DOOR	1.00X2.10M.
2.	D1	DOOR	0.90X2.10M.
3.	D2	DOOR	0.75X2.10M.
4.	W	WINDOW	1.50X1.50M.
5.	W1	WINDOW	1.20X1.50M.
6.	WK	WINDOW	1.00X1.00M.
7.	V	VENTILATOR	0.60X0.60M.

NO.	DATE	ISSUED	
PRINTS ISSUED			
S. NO.	REV	DATE	DESCRIPTION
CGHB_KATGHORA_STRUC_MAIN			

NOTE: This Drawing is a based on the concept drawing provided by C.G.H.B. Division Korba

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Raipur, Chhattisgarh
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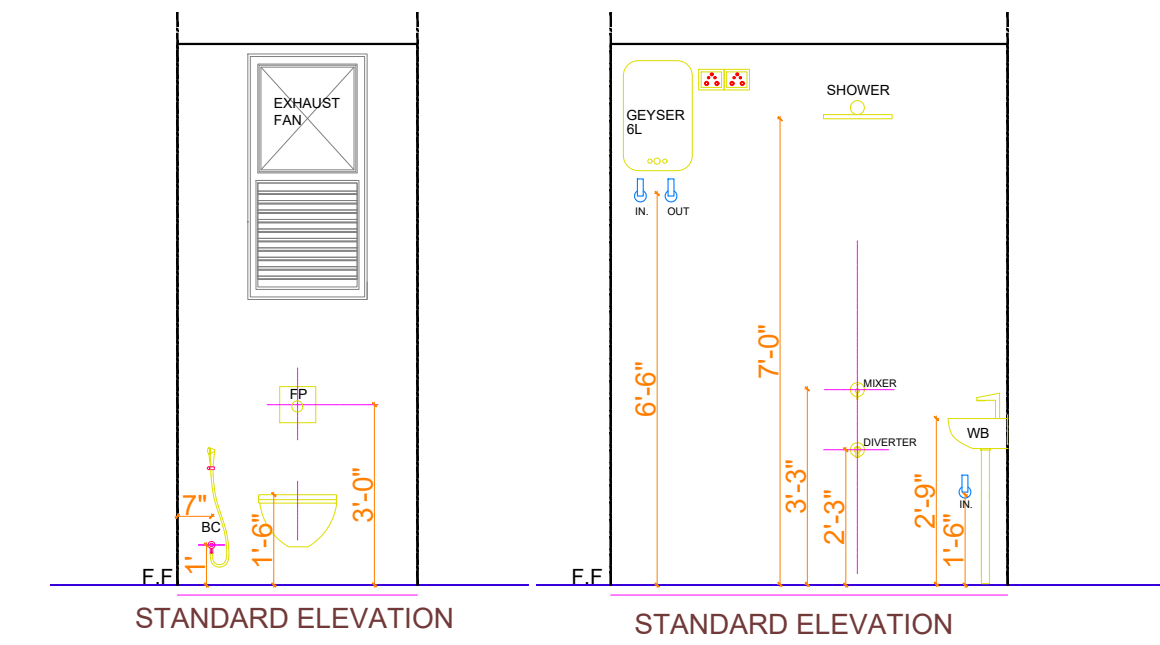
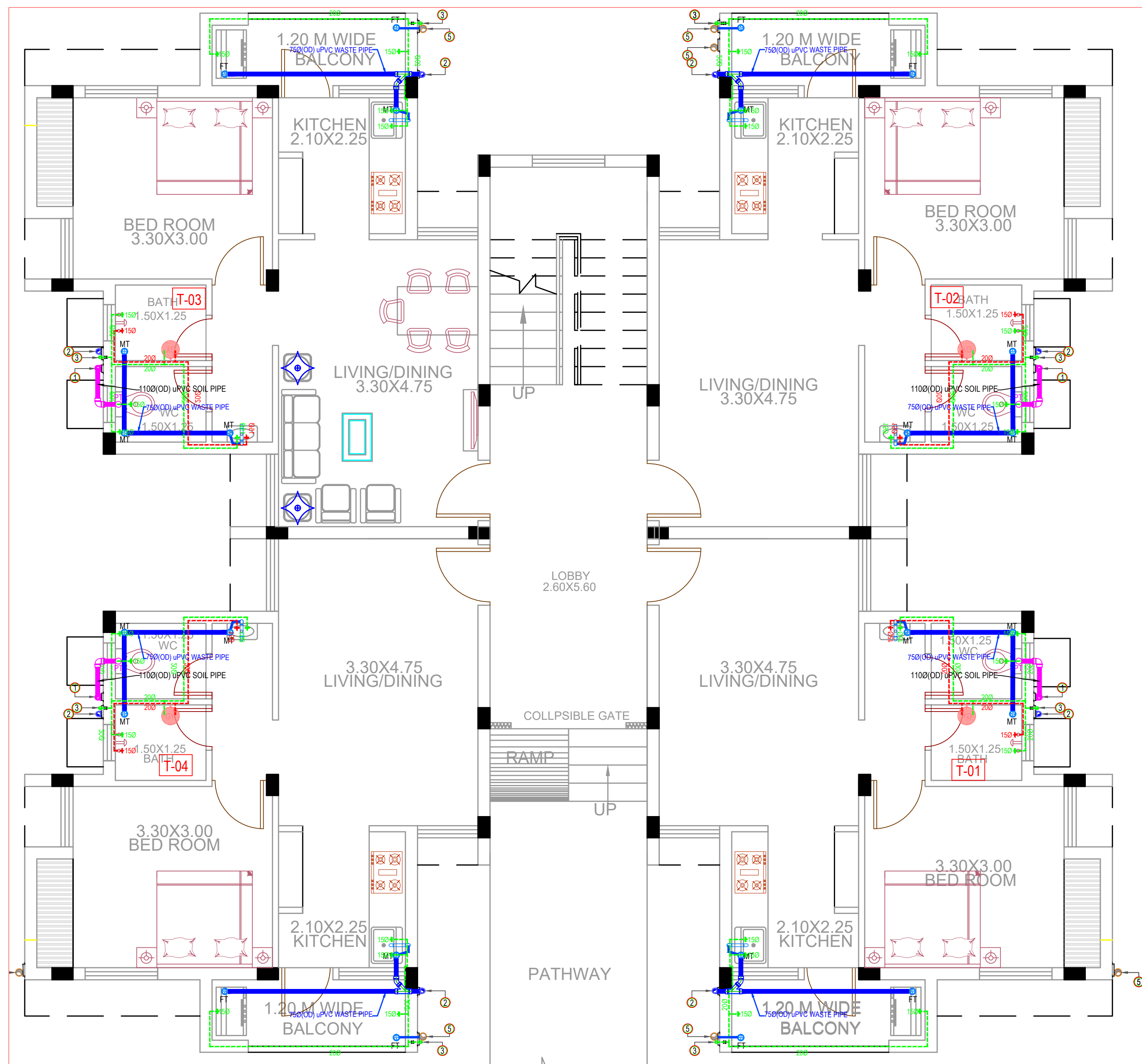
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SCALE : NTS
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DESIGN : VKS
CHECKED : AJ.
DRAWN : VKS

ASIS DAY DATA/01, ARCHITECT NAREN MINA/CGHB KATGHORA/01, DWG/CGHB_KATGHORA_STRUC_MAIN

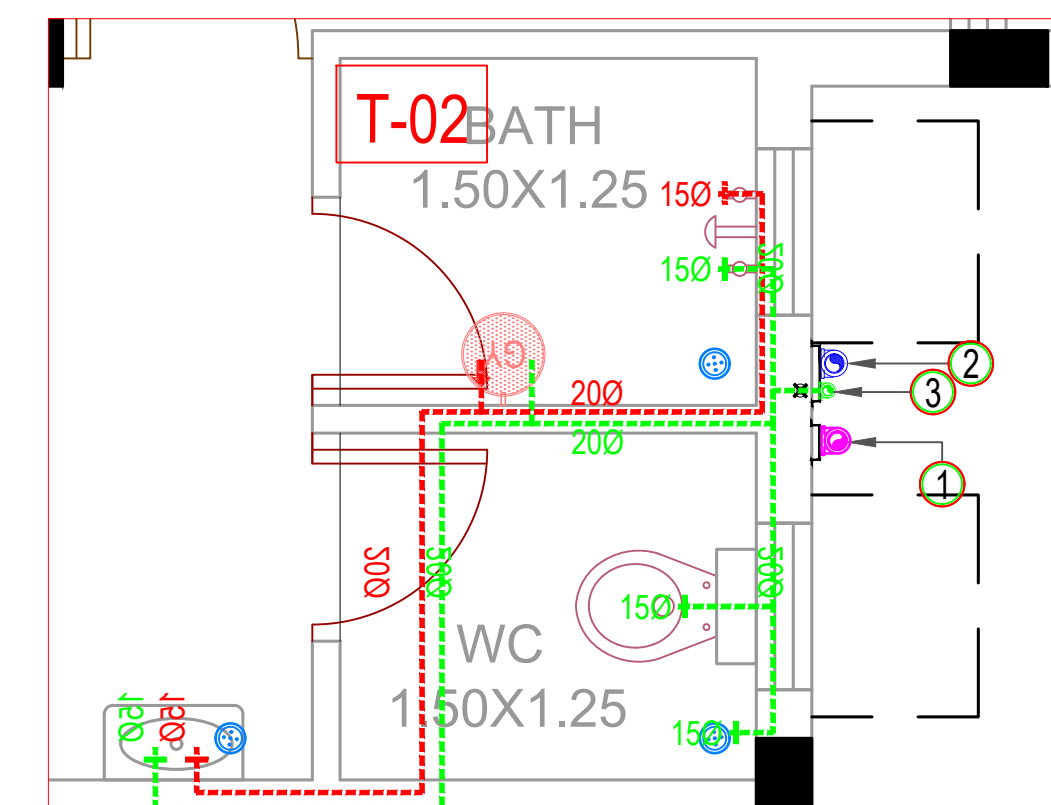
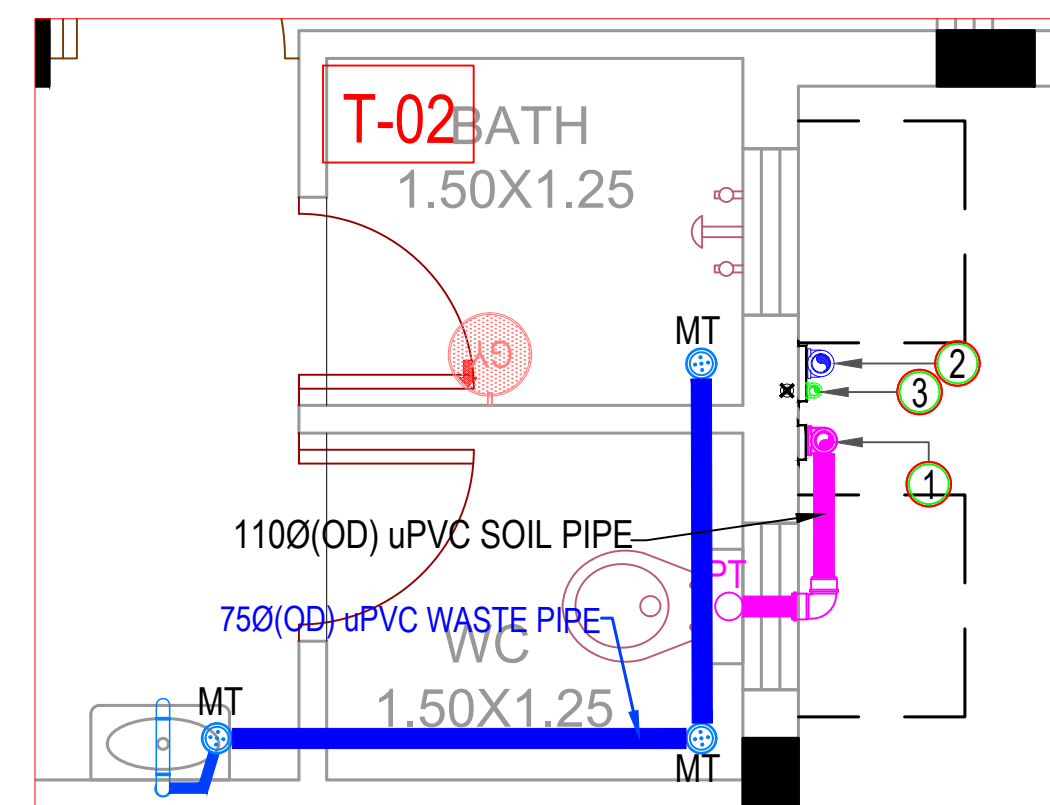
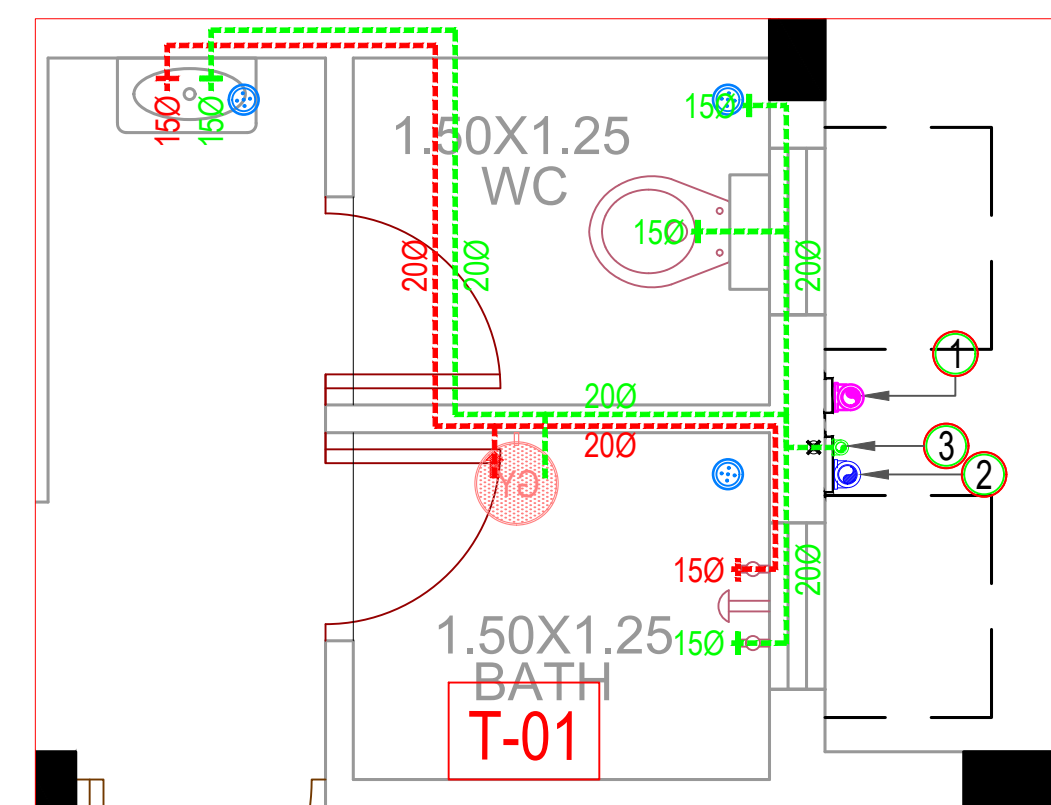
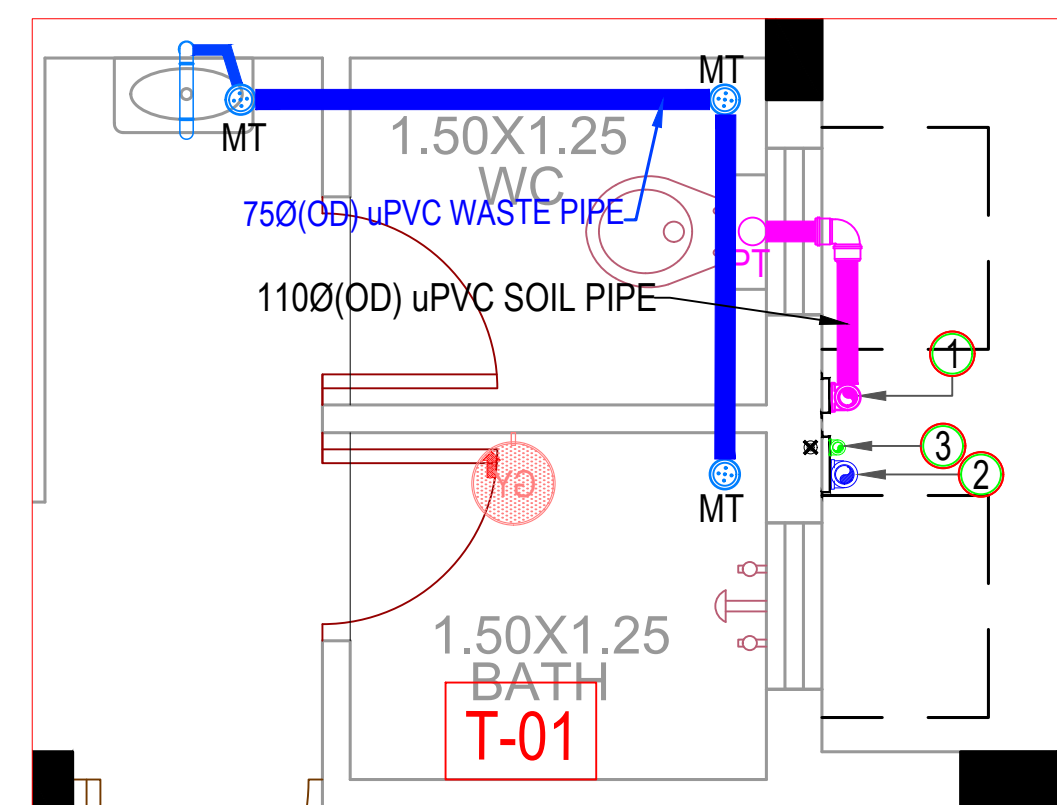
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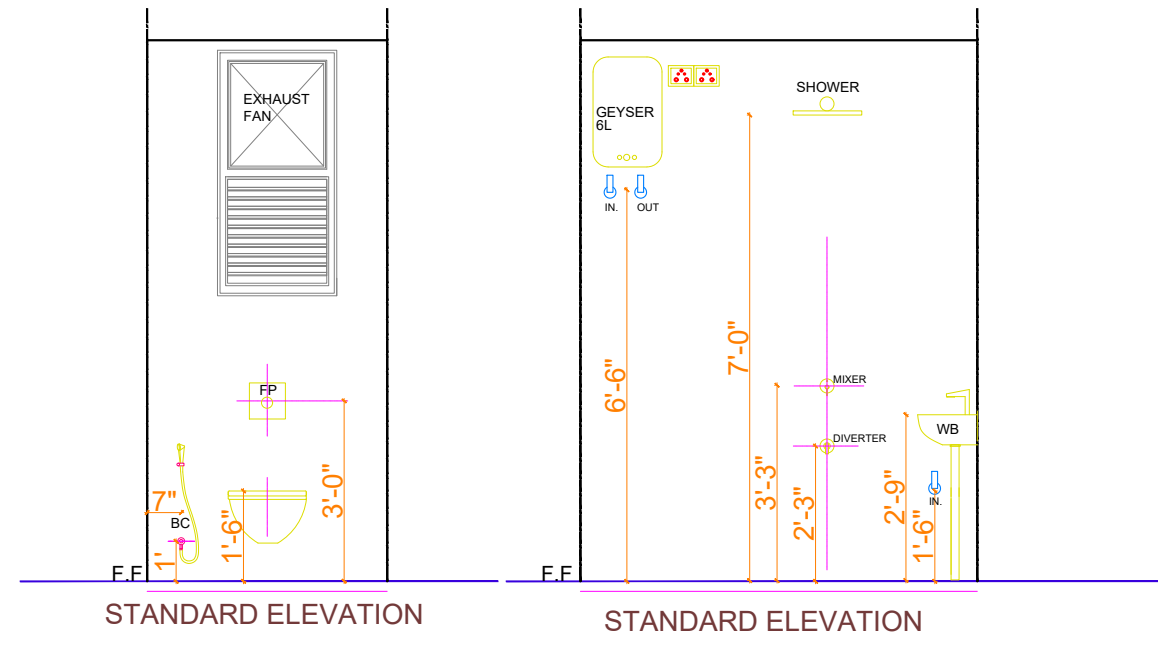
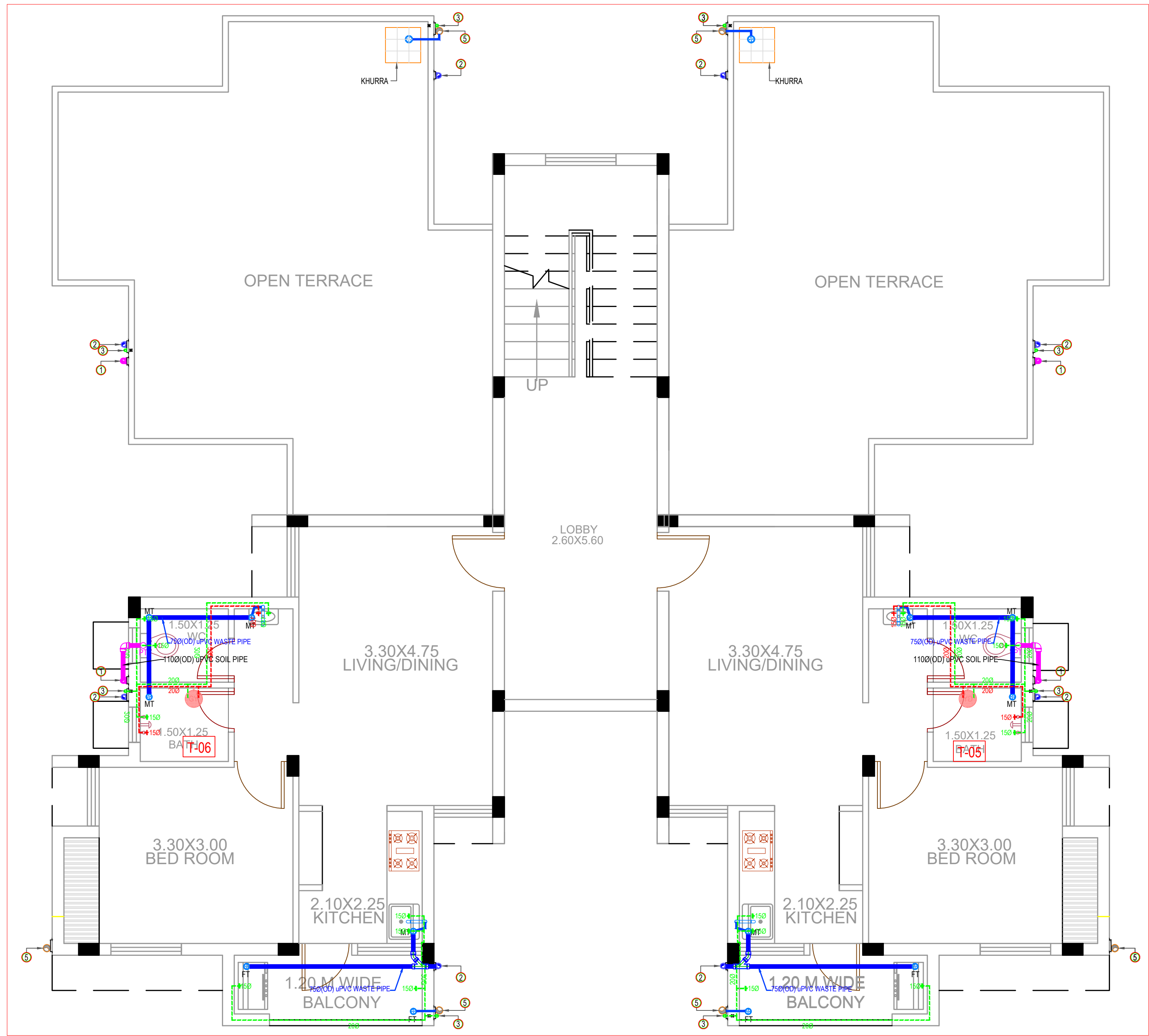
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LEGEND FOR PLUMBING		
MARK	DESCRIPTION	
	BALL VALVE / CONTROL VALVE	
	uPVC SOIL PIPE	 ①
	uPVC WASTE PIPE	 ②
	40 Ø(OD) uPVC WASTE PIPE	
	110(Ø) PVC RAIN WATER PIPE	 ③
M.T	MULTI TRAP	
F.T	FLOOR TRAP	
G.T	GULLY TRAP 300X300	
M.H.S	MANHOLE FOR SEWERAGE 600X600	
CB	CATCH BASIN 450X450	
	DRINKING/COOL WATER SUPPLY PIPE	 ④
	HOT WATER SUPPLY PIPE	 ⑤
	75(ØD) PVC RAIN WATER PIPE	 ⑥
PT	P - TRAP	 PT ⑦
	BOTTLE - TRAP	
	3" SHOWER DRAIN	
UT	URINAL - TRAP	 UT ⑧

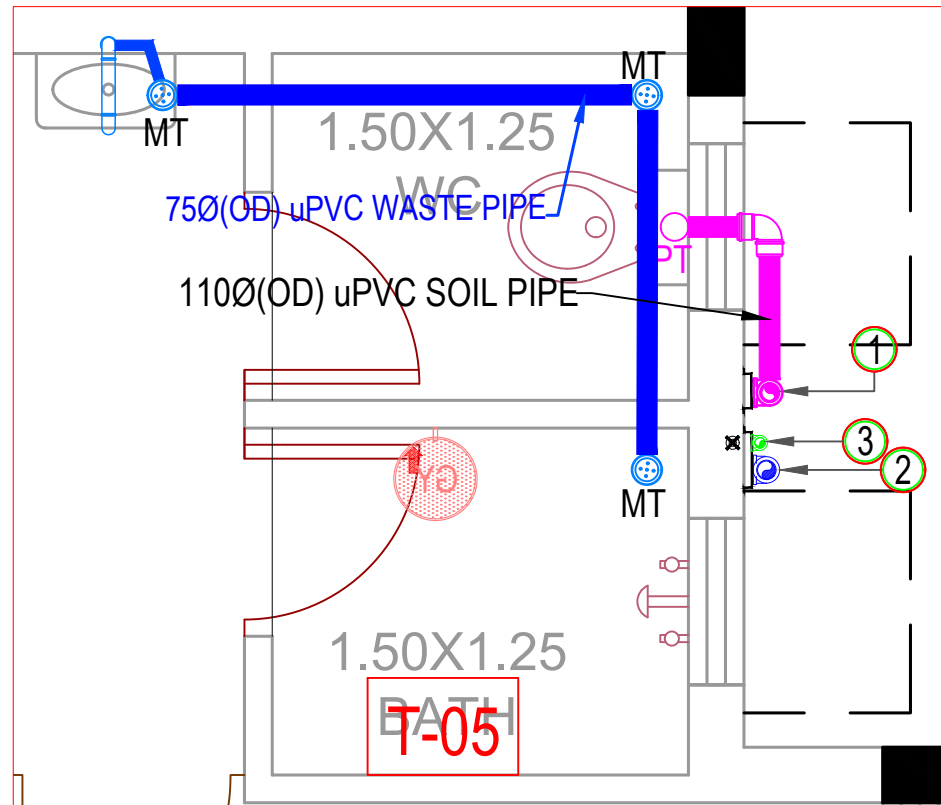
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PLUMBING DRAWING		DRG. TITLE	
EXECUTIVE ENGINEER, CHHATTISGARH HOUSING BOARD DIVISION -KORBA, DISTRICT-KORBA		CLIENT NAME	
REDEVELOPMENT SCHEME AT KATGHORA SITE 2 (GOVT FACILITY PART)		PROJECT	
NO.		DATE	
ISSUED		PRINTS ISSUED	
S. NO.		REV	
DATE		DESCRIPTION	
03 - RO - H-BLOCK PLUMBING DWG - CHHB, KATGHORA			
EXECUTIVE ENGINEER			
ARCHITECTS		Ar. Abhinav Jaiswal Raipur C-10, Rajendra Park, Mahaveer Nagar, Raipur, Chhattisgarh Mob:- +91-8817780410 E-mail: ar.abhinavjaiswal31@gmail.com	
STRUCTURAL ENG.			
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DESIGN : Satya CHECKED : Satya DRAWN :			
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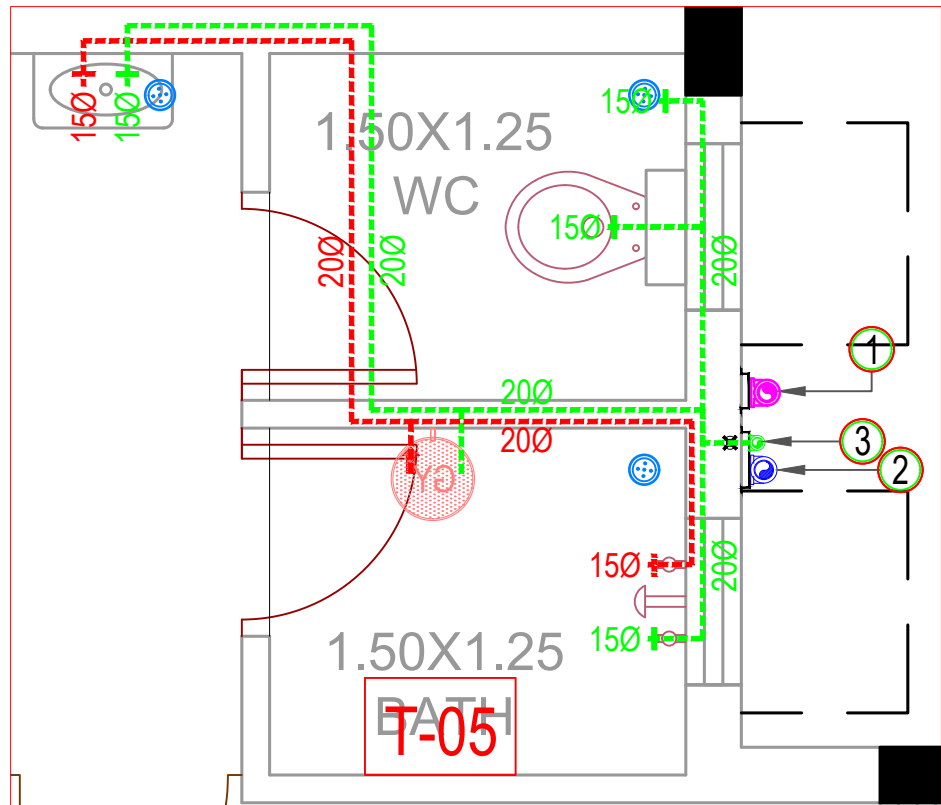


LEGEND FOR PLUMBING	
MARK	DESCRIPTION
✕	BALL VALVE / CONTROL VALVE
— (blue)	uPVC SOIL PIPE
— (green)	uPVC WASTE PIPE
— (red)	40 Ø(OD) uPVC WASTE PIPE
— (orange)	110Ø(OD) PVC RAIN WATER PIPE
M.T.	MULTI TRAP
F.T.	FLOOR TRAP
G.T.	GULLY TRAP 300X300
M.H.S.	MANHOLE FOR SEWERAGE 600X600
CB	CATCH BASIN 450X450
— (green)	DRINKING/COOL WATER SUPPLY PIPE
— (red)	HOT WATER SUPPLY PIPE
— (orange)	75Ø(OD) PVC RAIN WATER PIPE
PT	P - TRAP
— (blue)	BOTTLE - TRAP
— (blue)	3" SHOWER DRAIN
UT	URINAL - TRAP

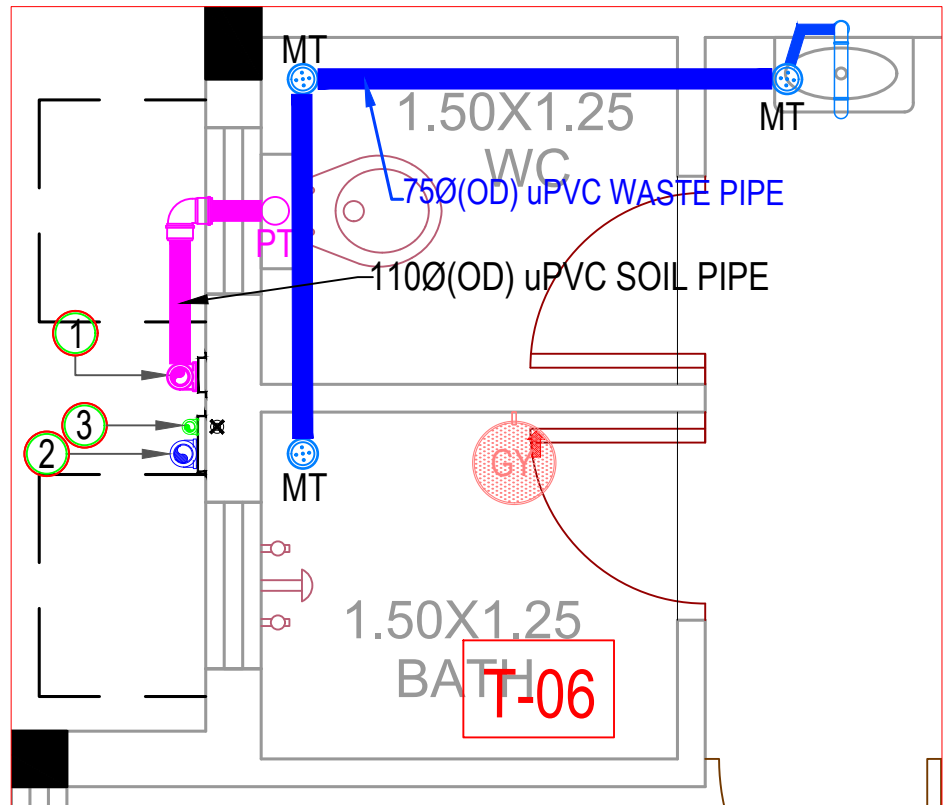
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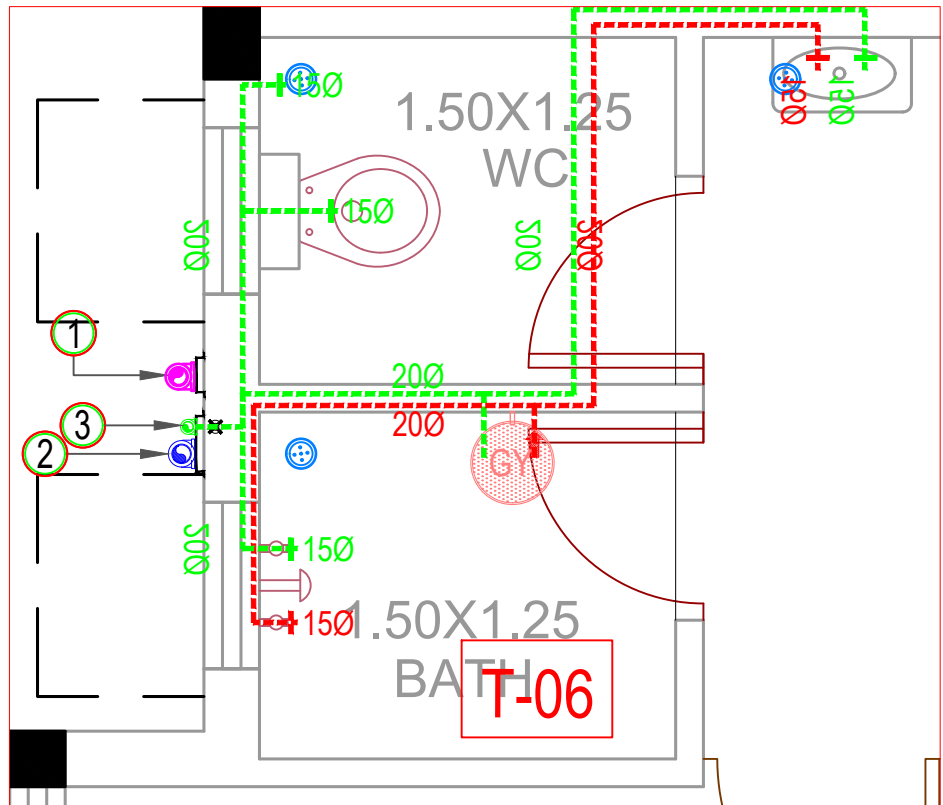
T- 05 - WASTE WATER LINE PLAN



T- 05 - WATER SUPPLY LINE PLAN



T- 06 - WASTE WATER LINE PLAN



T- 06 - WATER SUPPLY LINE PLAN

H TYPE
FIRST FLOOR
PLUMBING DRAWING

EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

REDEVELOPMENT SCHEME
AT KATGHORA SITE 2
(GOVT FACILITY PART)

NO. DATE ISSUED

PRINTS ISSUED

S. NO. REV DATE DESCRIPTION
03 - RO - H-BLOCK PLUMBING DWG - CGHB, KATGHORA

EXECUTIVE ENGINEER

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ARCHITECTS

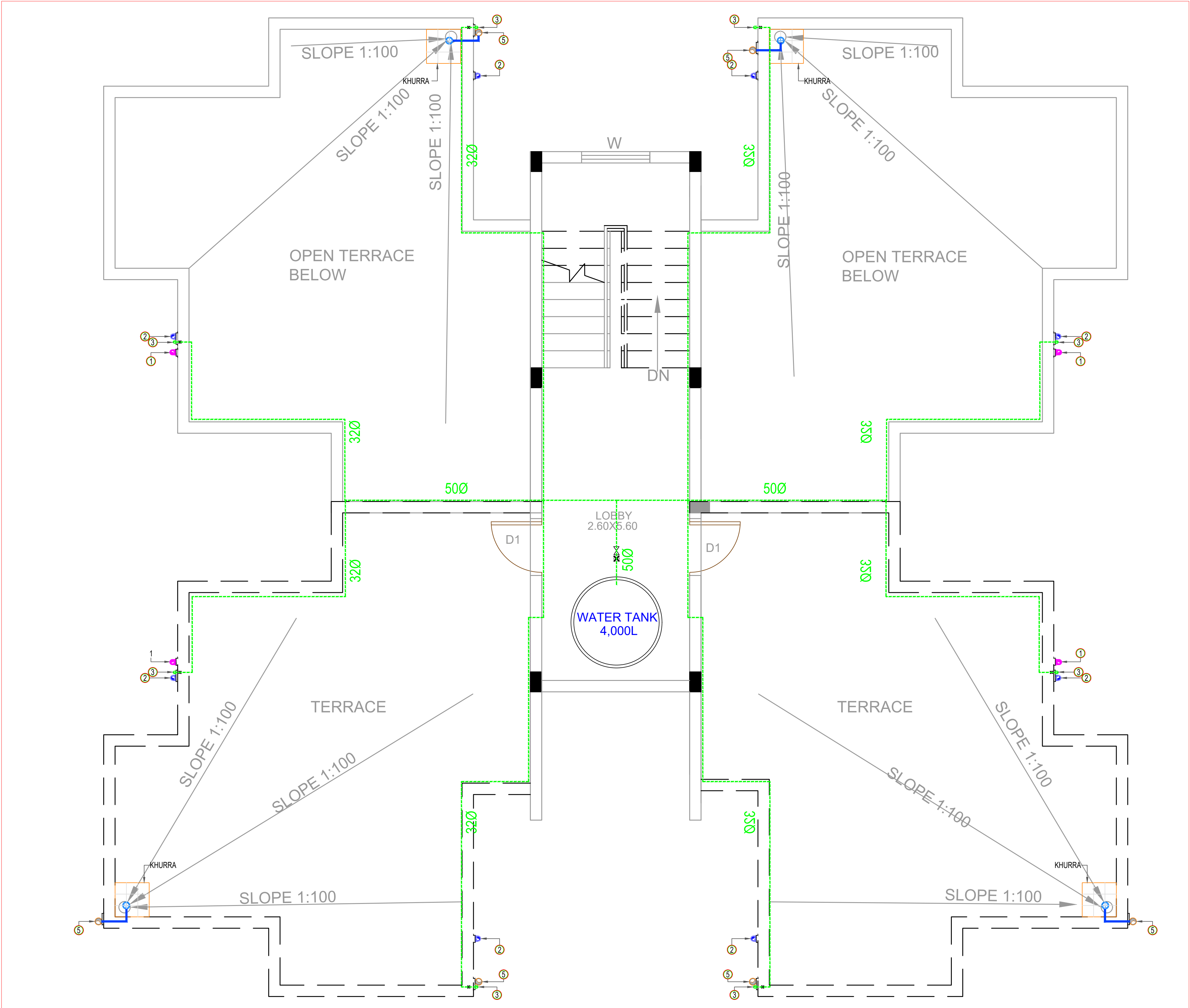
STRUCTURAL ENG.

MEP CONSULTANT

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CHECKED : Satya
DRAWN :
DATE : 01/09/2025

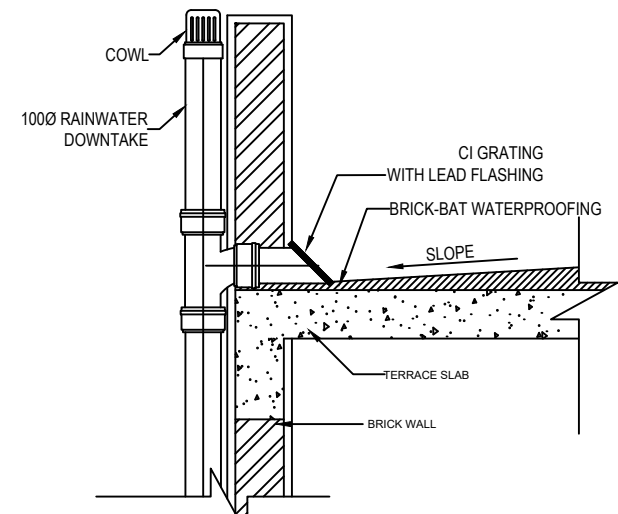
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MIN-10 (E)01, ARCHITECT NAVEEN MINA\KATGHORA\20250919 PDF FILES\03 - RO - H-BLOCK PLUMBING DWG -
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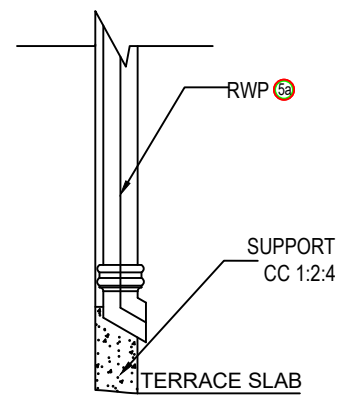


TERRACE FLOOR - PLUMBING DWG (H-TYPE)

LEGEND FOR PLUMBING	
MARK	DESCRIPTION
✕	BALL VALVE / CONTROL VALVE
—	UPVC SOIL PIPE
—	UPVC WASTE PIPE
—	40 Ø(OD)UPVC WASTE PIPE
—	110Ø(OD) PVC RAIN WATER PIPE
M.T	MULTI TRAP
F.T	FLOOR TRAP
G.T	GULLY TRAP 300X300
M.H.S	MANHOLE FOR SEWERAGE 600X600
CB	CATCH BASIN 450X450
—	DRINKING/COOL WATER SUPPLY PIPE
—	HOT WATER SUPPLY PIPE
—	75Ø(OD) PVC RAIN WATER PIPE
PT	P - TRAP
—	BOTTLE - TRAP
—	3" SHOWER DRAIN
UT	URINAL - TRAP



KHURRA DETAIL



RAIN WATER PIPE SUPPORT

H TYPE
TERRACE FLOOR
PLUMBING DRAWING

EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

REDEVELOPMENT SCHEME
AT KATGHORA SITE 2
(GOVT FACILITY PART)

NO.	DATE	ISSUED
PRINTS ISSUED		
S. NO.	REV	DATE
03 - RO - H-BLOCK PLUMBING DWG - CGHB, KATGHORA		

EXECUTIVE ENGINEER

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STRUCTURAL ENG.

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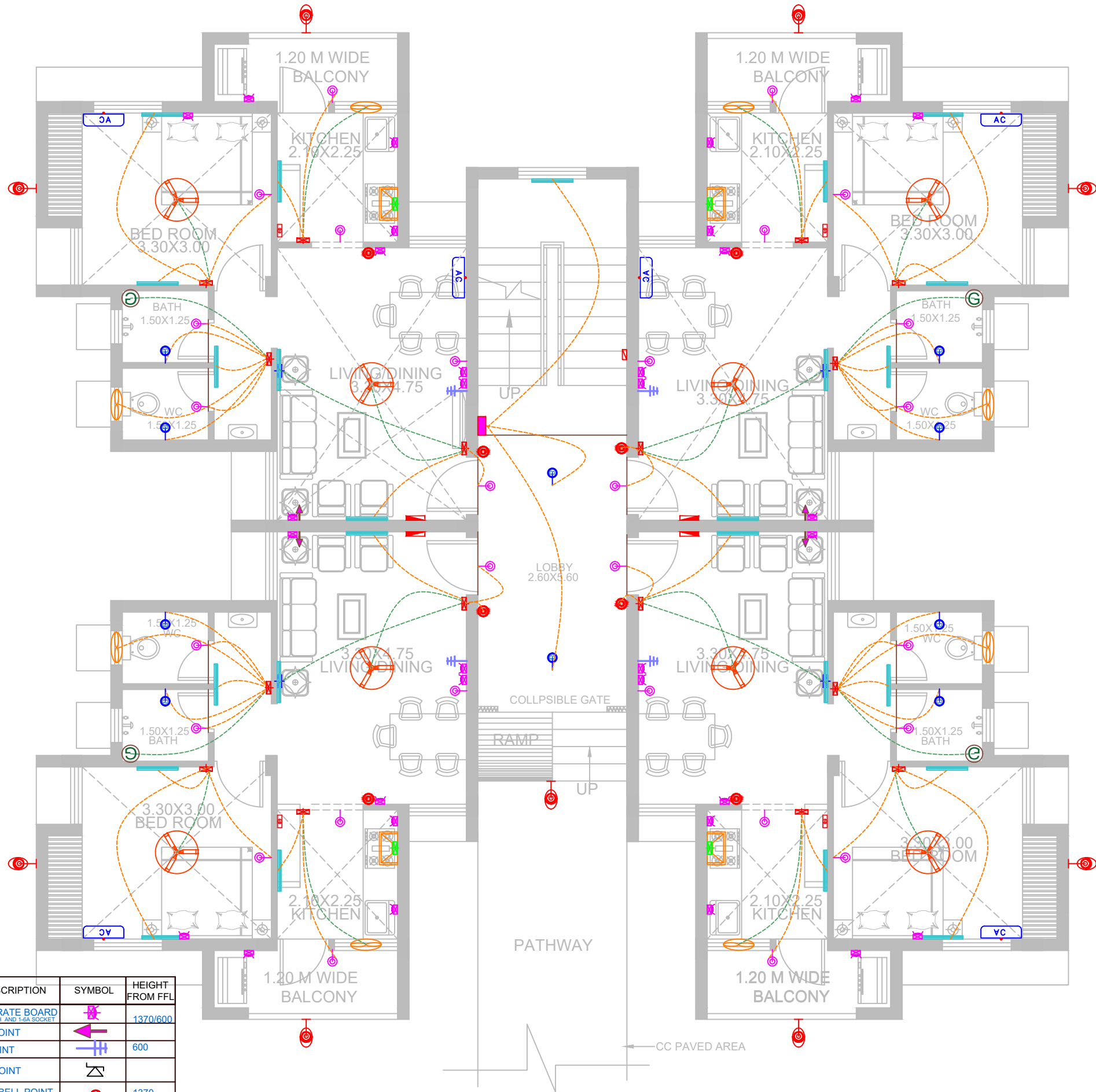
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DATE : 01/09/2025

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SR.NO.	DESCRIPTION	SYMBOL	HEIGHT FROM FFL
1	SWITCH BOARD -01	SB-01	1370
2	SWITCH BOARD -02	SB-02	600
2	SWITCH BOARD -03	SB-03	1140
3	15 W PANEL		
4	CEILING FAN		
5	PICTURE LIGHT		2100
6	GEYSER		2440
7	AC with 3" pvc conduit for outdoor line(optional)	AC	2750
8	TUBELIGHT		2450
9	DOOR BELL		1370
10	BLUE/ZERO LIGHT		2750
11	LIGHT POINT		2750
12	EXHAUST		
13	CHIMNEY		2100
14	CEILING AC		
15.	PROFILE LIGHT		

SR.NO.	DESCRIPTION	SYMBOL	HEIGHT FROM FFL
16	SEPARATE BOARD 1-SWITCH AND 1-6A SOCKET		1370/600
17	LAN POINT		
18	TV POINT		600
19	T.P. POINT		
20	CALL BELL POINT		1370
21	LED LIGHT 15W		
22	TWO WAY		
23	MCB BOARD		
24	METERING BOARD		
25	POWER POINT 1-SWITCH AND 1-6A SOCKET		1370
26	CONTROL BOARD		
27	STREET LIGHT		
28	BULK POINT		2750



H - TYPE GROUND FLOOR ELECTRICAL PLAN(G+1)

DRG. TITLE
ELECTRICAL DRAWING

CLIENT NAME
EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

PROJECT
REDEVELOPMENT
SCHEME AT KATGHORA
SITE 2

NO.	DATE	ISSUED	
PRINTS ISSUED			
S. NO.	REV	DATE	DESCRIPTION
Electrical Drawing_CGHB_GAD_Katghora			

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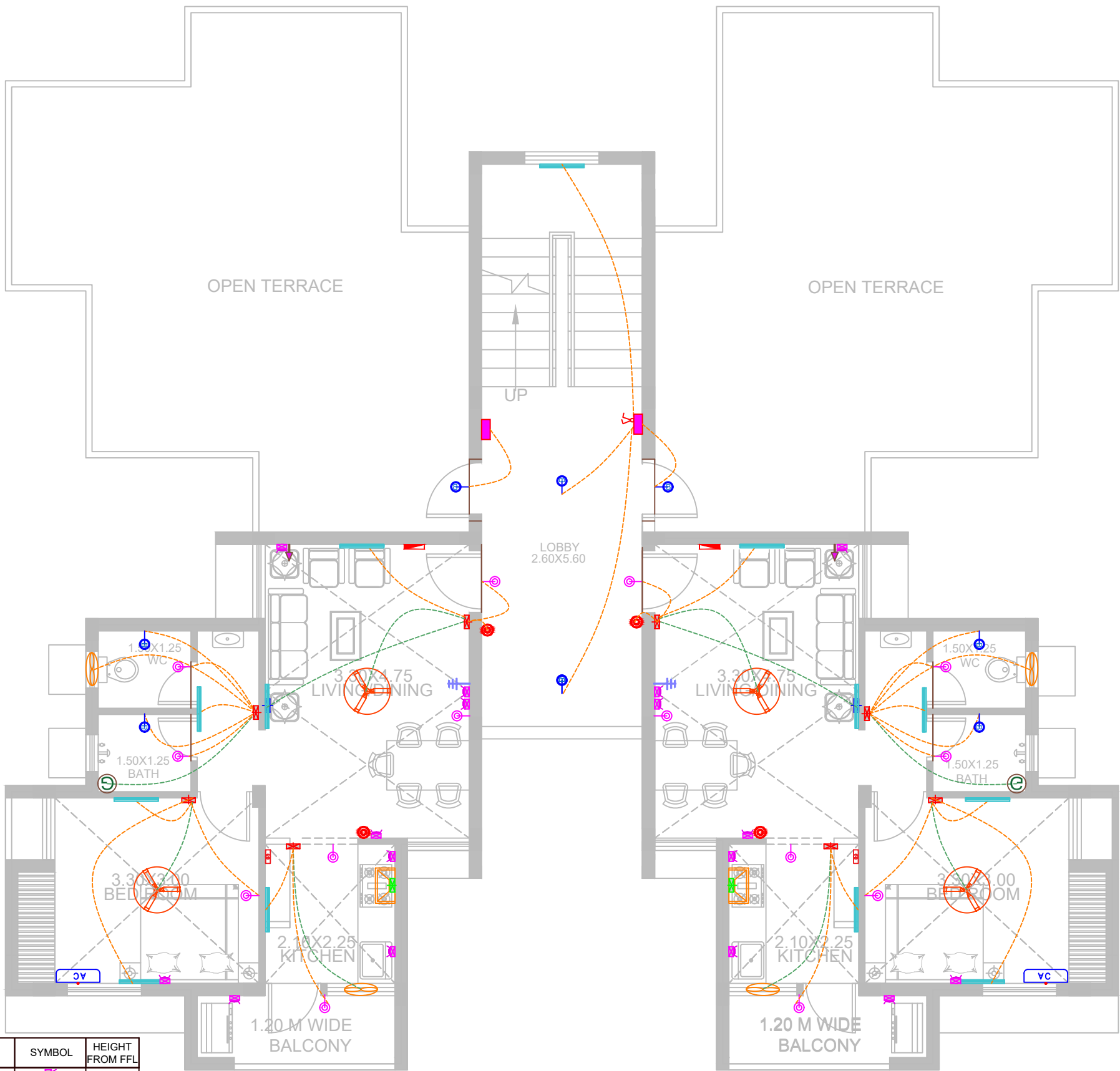
STRUCTURAL ENG.

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	NO.	DRAWN :

SR.NO.	DESCRIPTION	SYMBOL	HEIGHT FROM FFL
1	SWITCH BOARD -01	SB-01	1370
2	SWITCH BOARD -02	SB-02	600
2	SWITCH BOARD -03	SB-03	1140
3	15 W PANEL		
4	CEILING FAN		
5	PICTURE LIGHT		2100
6	GEYSER		2440
7	AC with 3" pvc conduit for outdoor line(optional)	AC	2750
8	TUBELIGHT		2450
9	DOOR BELL		1370
10	BLUE/ZERO LIGHT		2750
11	LIGHT POINT		2750
12	EXHAUST		
13	CHIMNEY		2100
14	CEILING AC		
15.	PROFILE LIGHT		

SR.NO.	DESCRIPTION	SYMBOL	HEIGHT FROM FFL
16	SEPARATE BOARD 1-SWITCH AND 1-6A SOCKET		1370/600
17	LAN POINT		
18	TV POINT		600
19	T.P. POINT		
20	CALL BELL POINT		1370
21	LED LIGHT 15W		
22	TWO WAY		
23	MCB BOARD		
24	METERING BOARD		
25	POWER POINT 1-SWITCH AND 1-6A SOCKET		1370
26	CONTROL BOARD		
27	STREET LIGHT		
28	BULK POINT		2750



H - TYPE FIRST FLOOR
ELECTRICAL PLAN(G+1)

DWG. TITLE
ELECTRICAL DRAWING

CLIENT NAME
EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

PROJECT
REDEVELOPMENT
SCHEME AT KATGHORA
SITE 2

NO.	DATE	ISSUED	
PRINTS ISSUED			
S. NO.	REV	DATE	DESCRIPTION
Electrical Drawing_CGHB_GAD_Katghora			

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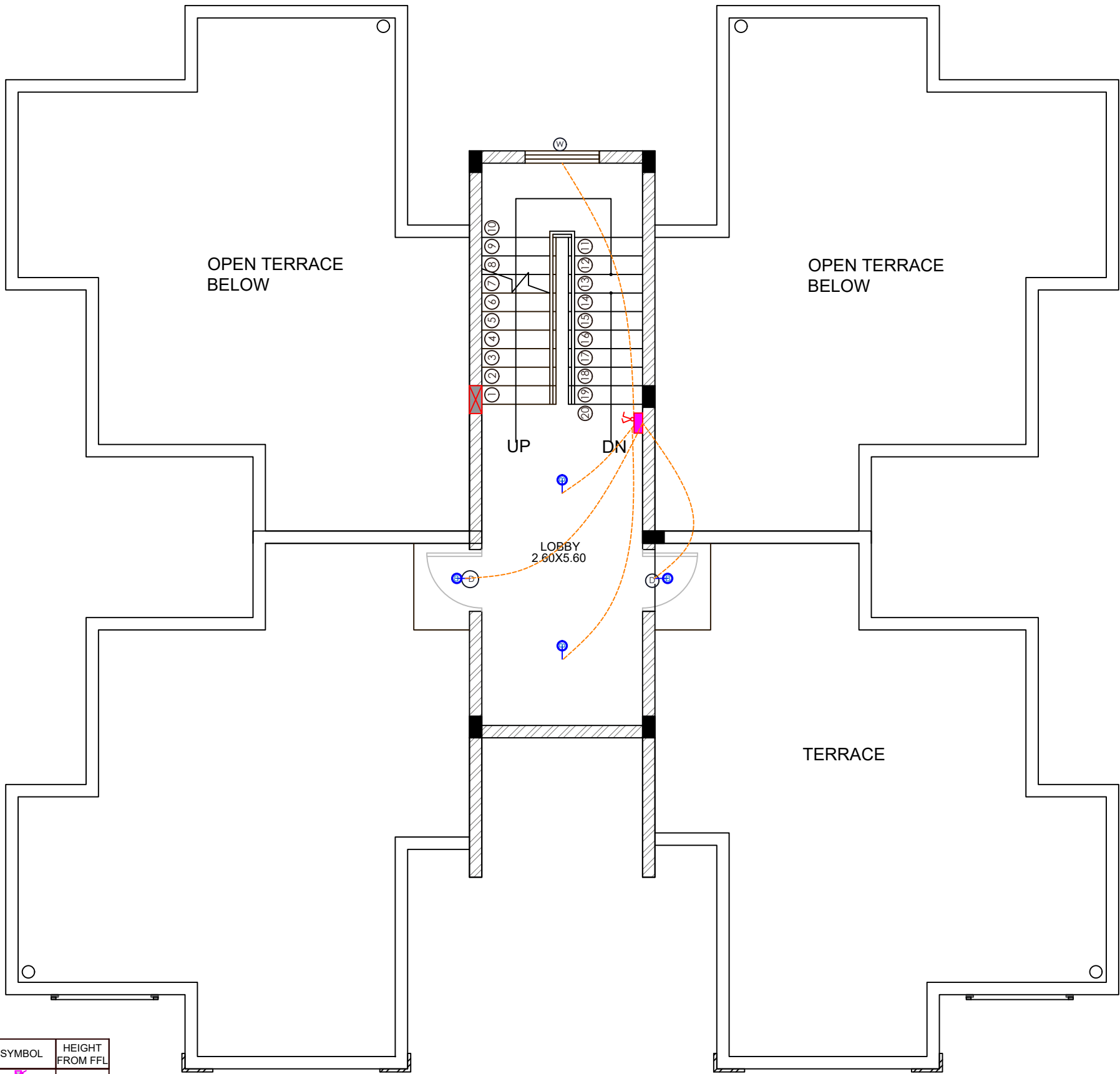
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SR.NO.	DESCRIPTION	SYMBOL	HEIGHT FROM FFL
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9	DOOR BELL		1370
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11	LIGHT POINT		2750
12	EXHAUST		
13	CHIMNEY		2100
14	CEILING AC		
15.	PROFILE LIGHT		

SR.NO.	DESCRIPTION	SYMBOL	HEIGHT FROM FFL
16	SEPARATE BOARD 1-SWITCH AND 1-6A SOCKET		1370/600
17	LAN POINT		
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20	CALL BELL POINT		1370
21	LED LIGHT 15W		
22	TWO WAY		
23	MCB BOARD		
24	METERING BOARD		
25	POWER POINT 1-SWITCH AND 1-15A SOCKET		1370
26	CONTROL BOARD		
27	STREET LIGHT		
28	BULK POINT		2750




TERRACE FLOOR PLAN

DWG. TITLE

ELECTRICAL DRAWING

CLIENT NAME

EXECUTIVE ENGINEER,
CHHATTISGARH HOUSING BOARD
DIVISION -KORBA,DISTRICT-KORBA

PROJECT

REDEVELOPMENT
SCHEME AT KATGHORA
SITE 2

REVISIONS

NO.	DATE	ISSUED	
PRINTS ISSUED			
S. NO.	REV	DATE	DESCRIPTION

Electrical Drawing_CGHB_GAD_Katghora


EXECUTIVE ENGINEER

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NORTH



SCALE : MTS

DIM. IN METRE

PAGE NO : 403

NO.

DESIGN : Salya

CHECKED : Salya

DRAWN :

DATE : 01/09/2025

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ANNEXURE 3
(Technical Specification)

Specifications for Construction of GAD Quarters, Offices, Outer development, and Colony.

SPECIFICATION FOR LAND DEVELOPMENT OF 0.95 ACRES AT SITE –II (WRE/Irr.)
UNDER REDEVELOPMENT AT KATGHORA, DIST-KORBA

Sr.No.	Particulars	Details
01.	Area Clearance	Clearing Grass and Removal of Rubbish (clearing grass and removal of rubbish up to a distance of 50 meters outside the periphery of the area) if required as per direction of Engineer in charge.
02.	Site Leveling Work :-	Surface dressing of the ground including removing vegetation and making up undulations and in – equalities as per requirement and filling of the ground up to 50 cm with local earth from approved source in layer not exceeding 20 cm in depth including ramming, watering, dressing etc. complete as per direction of Engineer in charge.
03.	R.C.C. Road Work :-	<p>All roads shall be rigid pavements and shall be constructed as per detail specification.</p> <ul style="list-style-type: none"> • Granular Sub-base as per Table:- 400-1 thickness not less than 150 mm by Plant mix method (with Mechanically crushed stone only), For Lower Sub-base with Grading-III Material.Construction of granular sub-base by providing graded Material, carriage of mixed Material to work site, spreading in uniform layers with motor grader on prepared surface watering, rolling and compacting with vibratory power roller at OMC to achieve the desired density, complete as per clause 401 .Thickness -150 mm, As per attached drawing. • Wet Mix Macadam (Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver in sub-base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density as per clause 406.) Thickness -150 mm, As per attached drawing. • Providing and laying nominal mix cement concrete with crushed stone aggregate using concrete mixer in foundation, plinth and at ground level excluding cost of
	B. 9 Mtr. wide R.C.C. Road. (Length=25.00 mtr)	
	<u>C. 7.5Mtr. wide R.C.C. Road.</u> (Length =36.00 mtr)	

		<p>form work. 1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size).PCC thickness – 100 mm, As per attached drawing.</p> <ul style="list-style-type: none"> • Cement Concrete Pavement - (Providing and laying design mix reinforced cement concrete with crushed graded stone aggregate 20mm nominal size using batching plant, transit mixer and concrete pump, in all works upto plinth level excluding cost of form work. DESIGN MIX RMC M-25 Grade-Thickness -150 mm, As per attached drawing. • Both Side Shoulder – <p>Construction of Shoulders (Construction of shoulders as per clause 408 with selected soil from borrow pits / borrow areas having CBR not less than 12 and shall have L.L. and P.I. not more than 25% and 6% respectively, inclusive of all leads and lifts, including clearing and scrapping of existing surface, providing required cross fall, compacting. watering rolling and royalty charges etc. complete. With smooth wheeled roller.Both side min width 75 cm and 45 cm depth</p>
04.	Culvert 9.00 mtr.	Construction of RCC box culvert 1 Nos. for 9.0 mtr. wide road with excavation of soil up to 1.5 mtr. with base course of 1:4:8 of thickness 150 mm, RCC with mix of RMC M-25 base thickness 200 mm, wall thickness 200 mm and slab thickness 200 mm thick with i/c refilling along sides of wall complete in all respect. As per attached drawing.
5	A. RCC Drain 600mm (L=120 m)	<ul style="list-style-type: none"> • Construction of RCC drain with RMC M-25 Grade Concrete Raft 150 mm Thickness & Both Wall Thickness 150 mm For 600mm wide RCC Drain.. • Construction of RCC drain with RMC M-25 Grade Concrete Raft 100 mm Thickness & Both Wall Thickness 100 mm For 500mm & 400 mm wide RCC Drain. <p>with base course PCC 1:4:8 concrete i/c excavation, refilling along sides of wall and formwork as per attached detail Drawing, maintain slope and depth of drain as per Site Condition. Indicative Drawing attached.</p>
	B. RCC Drain 500mm (L=20 m)	
	C. RCC Drain 400mm (L=60 m)	
06.	Tube Well	02 Nos. Boring Drilling Bore Well Perfectly Vertical Depth as per requirement, Suitable 150mm Dia & unplasticized PVC medium

		<p>well casing (CM) pipe of required dia, conforming to IS: 12818 length 40 Mtr. Length With Suitable Cap & Development of Tubewell as per direction of Engineer-in-charge. (02 Nos.) Guaranteed Bore With Minimum 3 Inch discharge with installing and fitting of</p> <p>Submersible pump</p> <ul style="list-style-type: none"> • 2.0 HP, single phase – 2 nos • 3.0 HP, single phase - 2 nos <p>(MAKE-KIRLOSKAR,CROMPTON,CRI)</p> <p>including all necessary fitting of pipe, cables all pipe and electric connection with starter all other as per requirement of functioning condition as per Site Requirement.</p> <ul style="list-style-type: none"> • Supplying and fixing of following sizes 'B' class G I pipe with welded steel flange of suitable size at both the end of every pipe length, fixing with submersible pump and lowering with the pump in the bore well including necessary rubber gasket, nuts & bolts etc. as required.- 50 mm dia (length as per site requirement) • Supplying and fixing of following sizes 'B' class G I pipe with all necessary Tee's, bends, sockets in the suction/delivery line including cutting and threading etc. as required. 50 mm dia (length as per site requirement) • (MAKE-JINDAL,SURYA,TATA)
07.	External Water Supply Works.	<ul style="list-style-type: none"> • The water supply system shall be designed 75mm, (Length=190 Mtr.) & 100mm (Length=20 Mtr.) dia dia CPVC pipe line Including Excavation Of Trenches & Refilling with all fittings like Brass/Gun Metal Gate Valve, CI Sluice Valve, Machinery Chambers & all other requirement to complete the work in all respect as approved by Engineer-in-charge. (Make – Finolex,Supreme,Astral) Indicative Drawing attached. • Constructing masonry Chamber 60x60x75 cm, inside with modular well burnt clay bricks of 35 kg/ cm² in cement mortar 1:4 (1 cement : 4 coarse sand) for fire hydrants, with C.I. surface box 350x350 mm top and 165 mm deep (inside) with chained lid and RCC top slab 1:2:4

		<p>mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) necessary excavation foundation concrete 1:5:10 (1 cement : 5 fine sand:10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick finished with a floating coat of neat cement complete as per standard design :- 5 nos</p>
08.	<p>External Sewer Line Works NP2 Hume Pipe Line with inspection chamber.</p>	<p>The sewer line system shall be designed with Providing and laying non-pressure NP2 class (light duty) R.C.C. pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc complete.</p> <ul style="list-style-type: none"> • 150mm (Length=350.00 Mtr.), • 200mm (Length=20.00 Mtr.), • 300mm (Length=10.00 Mtr.) • Providing and constructing brick masonry chamber for underground pipe and bends with well burnt modular clay bricks crushing strength not less than 35kg/cm² in cement mortar 1:4 (1 cement : 4 coarse sand) RCC cover of suitable size and 75mm thick with 1:1.5:3 mix (1 cement :1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size) including reinforcement 8mm dia bars at 150mm both ways and MS hooks for lifting, including foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished smooth with a floating coat of neat cement on walls and bed concrete etc. complete as per standard design : Inside dimensions 600x 850 mm and 45 cm deep for pipe line with three or more inlets- chamber - 60 nos • Constructing brick masonry manhole with well burnt modular clay bricks crushing strength not less than 35 kg/ cm² in cement mortar 1:4 (1 cement : 4 coarse sand) R.C.C. top slab wit 1:2:4 mix (1 cement : 2 coarse sand: 4 graded stone aggregate 20 mm nominal size) foundation in cement concrete 1:4:8 mix (1 cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size) inside

		<p>plastering 12mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand: 4 graded stone aggregate 20mm nominal size) finished with a floating of neat cement complete as per standard design. Inside size 90x80 cm and 45 cm deep including RCC cover with frame 450x600 mm internal dimensions. chamber - 02 nos</p> <p>Indicative Drawing attached.</p>
09.	Septic Tank & Biodigester	<ul style="list-style-type: none"> • Septic Tank - Construction of 1 Nos. RCC septic tank with RMC M-25 Concrete of minimum size of raft 8.25mX3.70mX0.15M, outer wall thickness min 200mm, 100mm buffel wall and slab thickness 120mm with 1 nos manhole for service, base course of 1:4:8 of thickness 100mm with side back filling, all necessary fittings, inlet outlet connection, opening covers etc. complete in all respect as per attached drawing. (Septic tank Inner size 7.00x2.50x2.00 mtr) • Bio Digester- Providing and Installing bio digester unit based on DRDO technology made of fiber reinforced plastic having composition and the technical specifications such as:Parentage of fiber glass (glass content in fiber glass should be minimum 30%) :- 33.33%Water absorption (as per ASTM) ; - 0.30%Flammability :- as per ASTM Tensile strength :-115 MPA Specific gravity at 25 degree centigrade :-1.45 IZOD impact strength :- 65 KJ/M2 Heat deflection/distort temperature :-65 deg C Corrosion resistance (non corrosive) fitted with Inlet pipe size rigid PVC :-100mmOutlet pipe size rigid PVC :-80mmGas outlet rigid PVC with valve :- 20mm Bacteria immobilization PVC matrix(on all partition) and capacity :- UPTO 100 USER SIZE (2.5m X2.0m X 1.0m) Capacity of bio-digester :- 5000 liters Area of top, bottom and side walls:- 19.00 sq.m. Area of partition walls :- 8.00 sq.m Total weight of FRP:- 248.40 kg Bacteria inoculums quantity :- 1400liters Minimum

		thickness of side walls/top and bottom :- 6mm Number of inside partitions :- 4 Minimum thickness of partition wall:-3mm.
10.	Sump Well with pump Room	<p>Sumpwell inner size 3.00 x 2.50 x 2.50 m</p> <p>Construction of 1 Nos. RCC sump well of capacity 20,000 Lit for each with RMC M-25 Grade Concrete of minimum size of raft thickness 150mm , outer wall thickness min 200mm, slab thickness 125mm with 2 nos manhole for service, base course of 1:4:8 of thickness 150mm, including water stopper in each joint in wall with side back filling, all necessary fittings covers etc.</p> <p>Inner Water Proofing –</p> <p>Providing and laying three course damp proofing treatment in water reservoir, sump, tank etc., with bitumen felt and blown type petroleum bitumen at the rate of 1.6 Kg/sqm 1st, 3rd course and 2nd course with tar felt including applying priming coat at the rate of 0.25 litre per sqm and fillets and rounding corners, wherever required, complete. Bitumen felt of type 2 grade 2 (Fibre base)</p> <p>Pump Room Above Sump Well –</p> <p>including constructing pump house over sumpwell 3mX3mX3m Size with 20 cm brick wall 1:6, RCC Slab, Lintel, chhajja, Doors, windows, shutters with chowkhat & fitting, holdfast including nuts & Bolts, plastering 6 mm C.M. 1:4 & 12/15 mm C.M. 1:5 Painting exterior surface with ACRYLIC SMOOTH exterior paint & painting inner Distempering with acrylic washable distemper to give an even shade.</p> <p>Installing 1 functioning and 1 standby mono-block electric pump set for water supply system</p> <ul style="list-style-type: none"> • 5 HP, 750 LPM, 20 m head, suction size 80 mm, delivery size 65 mm – 1 nos • 7.5 HP, 650 LPM, 30 m head, suction size 80 mm, delivery size 65 mm – 1nos

		<p>(MAKE-KIRLOSKAR,CROMPTON,CRI)</p> <p>including all necessary fitting of pipe, cables all pipe and electric connection with starter all other as per requirement of functioning condition as per Site Requirement And shall be in ready to use condition complete in all respect</p>
11.	<p>Campus Compound Wall-</p> <p>(Total Lenth – 160 mtr)</p>	<p>Construction of compound wall with RCC frame structure with RMC M-25 Grade Concrete for foundation column and plinth or ground beam, brick work with with modular fly-ash lime bricks (FaLG Bricks) confirming to IS:12894-2002 of class designation 4.0 above beam height upto 1.5 meter plastering on both face of wall 15mm thick cement plaster on the rough side of single or half brick wall of mix:In Cement Mortar 1:5 (1 cement : 5 fine sand) and 12mm thick cement plaster of mixIn Cement Mortar 1:5 (1 cement : 5 fine sand) and Painting exterior surface with ACRYLIC SMOOTH exterior paint of required shade as per manufacturer's specifications to give protective and decorative finish including cleaning washing of surface etc. complete with: On new work (Two or more coats applied @ 1.43 ltr/ 10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/ 10 sqm</p> <p>Paint make- Asian,Dulux,Nippon</p>
12.	<p>Entrance Gate- for Office & Colony</p>	<p>Providing and fixing 2 nos of M.S. gate for main entrance of campus with angle iron and tubular structure with RCC column on both side complete in all respect.</p> <p>Size 3.50 x 1.80 mtr (Minimun wiegth – 50 kg /sqm)</p>
13	<p>Gantry Gate</p>	<p>Gantry Gate (Cantilever Type) Size 4.88x1.83m as per Drawing.</p>
14.	<p>Paver work (Approach Road & Road Widening Area)</p>	<p>Paver Block Work</p> <p>(a) PCC – 1:4:8 (thickness 100 mm) below paver work</p> <ul style="list-style-type: none"> • in front of F,G,H,H1 & OFFICE-type building to road– 3.00 x 4.00 m • Front Road Widening area – 63.00 x 10.20 m <p>(b) Providing & laying 60mm thick precast interlocking concrete blocks of approved size (approx 305 sqcm)</p>

		<p>and shape/ pattern, over 40 mm thick average complete coarse sand bed with joints of 3mm thick filled by fine sand including leveling with surface vibrator, temping and sweeping etc. complete of minimum compressive strength of 250 kg/sq.cm Pigment Coloured precast interlock concrete blocks</p> <ul style="list-style-type: none"> • in front of F,G,H,H1 & OFFICE-type building to road- 3.00 x 4.00 m • Front Road Widening area – 63.00 x 10.20 m <p>Including Excavation and Filling as per Site Requirement.</p>
15.	Rain Water Harvesting	Construction of Rain Water Harvesting pit for area of 0.95 Acre as per Standard norms of Municipal/State Govt and as per requirement.
16.	Cleaning of all Open Area	Clean all site from deboned scraped unused building material etc. and make site fit for good and healthy Living.


 Sub-Engineer
 C.G. Housing Board
 Sub Div.- 1 Korba


 Assistant Engineer
 C.G. Housing Board
 Sub Div.-1 Korba


 Executive Engineer
 C.G. Housing Board
 Division-Korba

GENERAL SPECIFICATION

F - Type (Block - 1Nos, Unit -4 Quarter) - G+1 Floor

1. **Building Details:** The bidder is to construct the F-TYPE Block building as per following details:-

- | | | |
|-------|---------------------|--|
| (i) | Location | - WRE/Irrig Staff quarter at Redevelopment Katghora Site - II, Teh- Katghora, Distt - Korba (CG) |
| (ii) | No of Block | - 01 Nos Block
(02 unit Ground Floor & 02 unit First Floor-Total 04 Quater) |
| (iii) | Total Built up Area | - As per attached Building drawing
(470.80 Sqm). |
| (iv) | Opening Size | The size of Door, window and other openings to be as per drawing or decided by the board. |
| (v) | Soil SBC | - 11.44 Ton/sqm |

2. **Scope of Structural design:**

R.C.C. framed Structural design - as per enclosed drawing & Structural Design.

Requirements are given below:-

- a. **Foundation:** The foundations for building shall be R.C.C. column –footing foundation up to required depth below natural ground level or on Geo–technical report of soil strata and design requirement. The Foundation & Plinth Beam shall be RCC.
- b. **Super Structure:** As per design R.C.C. Framed Structure with Design mix RMC M25 grade grades shall be adopted.
- c. **Reinforcement** – Fe 500D of TMT. All steel shall be procured from 'Original producers' who manufacture billets directly from iron ores and roll the billets to produce steel conforming to IS:1786, No re-rolled steel shall be incorporated in the works."

3. **General specification:**

1	Plinth work	:	Base Work- Base concrete 1:4:8, Minimum 10cm thick or as per Structural Design below footing . RCC Work- As per design R.C.C. frame structure with Design mix RMC M25 grade concrete as designed shall be adopted for different components : <ul style="list-style-type: none">• R.C.C. Foundation as per approved design.• R.C.C. Beams & column Plinth level as per approved design.
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		<ul style="list-style-type: none"> • R.C.C. Foundation as per approved design. • R.C.C. Beams & column Plinth level as per approved design. • Reinforcement - FE 500D TMT as per approved design. <p>(Make:- GOEL/ Shrishtii/ Nakoda / GK)</p> <p>Plinth height –</p> <p>Minimum 0.75 mtr. from finished top road level in front of house and adequate steps to be provided as per requirement for front and back entry as per design.</p> <p>Plinth filling –</p> <p>Hard Moorum/sand/stone dust should be filled at plinth, wash area, rear stair and porch area (Extra excavated stuff can be used when useful otherwise will have to be disposed out.) Plot shall also be leveled up to required depth below plinth level from borrow pit soil or from excavated stuff is seemed to be good for filling.</p> <p>Damp proof course –</p> <p>Damp proof course of 1:2:4 cement concrete 50mm thick (with 10mm to 20 mm grade hard metal)</p> <p>Approach slab-</p> <p>RMC M-25 in 120mm thickness from existing road edge to entrance gate approach slab to be done as per direction of Engineer in charge.</p> <p>Anti Termite Work-</p> <p>Surface treatment by spreading emulsion under floor, over the plinth area before laying base concrete for Anti termite treatment should be done in each-houses (chemical used-chlorpyriphos/lindane) with recommended diluting (with water) by manufacturer (05 year service guarantee) and should be done as directed by Engineer-in-Charge.</p> <p>Brick Work-</p> <p>Masonry work in plinth & foundation with Fly Ash bricks in cement mortar 1:5 (1- cement : 5-fine aggregate) crushing strength of bricks should not be less than 35Kg./sqcm. & plastered all exposed side in cement mortar 1:5 (1-cement:5-Sand) as per mentioned above plinth height.</p> <p>Plinth Protection Work-</p> <p>Making 50mm thick plinth protection of plain cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded crushed stone aggregate 20mm nominal size) over 75mm bed of dry brick ballast 40mm nominal size well rammed and consolidated and grouted with sand including finishing the top smooth. Width – 1.20 mtr</p> <p>Base Work-</p> <p>Base concrete 1:4:8 10cm thick Should be done at Floor Level.</p>
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2	Superstructure	:	<p>RCC frame structure (Column,Beam,Slab,Chajja,Lintel Beam,Stair Case,etc all) & Mumty with RMC M-25 concrete as per approved structural drawing ,Grade of concrete should not be less than RMC M25 including all related work (Make of Cement - ACC / AMBUJA / ULTRATECH CEMENT).</p> <p>Note – Lintel beam will be provided throughout at lintel level of all floor.</p> <p>All R.C.C. sun shade (chhajjas) shall be casted with plain face and bottom surface with drip mould and smooth quarter round cement concrete (haller) at top with cement concrete RMC M25,cement concrete haller at corner of Roof slab should also be provided</p>
3	Masonry Work	:	<p>A) 20cm thick Brick work with modular fly-ash lime bricks (FaLG Bricks) confirming to IS:12894-2002 of class designation 4.0 in foundation, plinth , Super Structure & Boundary Wall in: Cement Mortar 1:6 (1 cement : 6 coarse sand) as per Drawing.</p> <p>B) Half brick thick brick masonry with fly-ash lime bricks (FaLG Bricks) confirming to IS:12894-2002 of class designation 4.0 in superstructure above plinth level upto plinth level: Cement Mortar 1:4 (1 cement : 4 coarse sand) as per Drawing.</p> <p>C) RCC bend of 10 cm thick with main bar of 8mm 2 bars and 8 mm dia Pin @ 20 mm C/C at Window sill,RCC bend of 10 cm thick with main bar of 8mm 2 bars and 8 mm dia Pin @ 20 mm C/C for half brick complete wall at sill level .</p> <p>D) Mumty & Parapet wall with One/half brick thick Fly ash bricks or MS grills height up to 0.90 mtr(as per elevation) and 50mm thick CC coping (1:2:4:) at top.</p>
3	Slab	:	As per R.C.C. design approved by N.I.T or any other government engineering college for roofing with reinforcement. For grading of roof slab 50mm thick cement concrete flooring with cement concrete 1:2:4 finished with a floating coat of neat cement with water proofing compound at the top of the roof shall be done.
4	Ceiling Height	:	3.0 meter clear height
5	Joinery	:	<p>Door Frame (Excluding WC/Bath)– Providing and fixing Wood frames of doors Sal, bijasal, benteak, khair, haldu with section size 0.125 x 0.075 m (Double Ptam for all outer door) all door opening including fixing of necessary Hole fast,butt hinges and screws and applying a priming coat of approved steel primer.</p> <p>Door Shutters – (a) Main Entry Teak Wood Door:- Providing and fixing 35mm thick glazed shutter frames for windows, clerestory</p>

		<p>windows, ventilators etc. using glass panes including M.S. butt hinges with necessary screws but excluding glass panes. (Area of shutter to be measured without deducting paneling area). Teak wood</p> <p>Providing and fixing paneling in paneled or paneled and glazed shutters for doors etc. (only area of paneling to be measured). Paneling for or paneled and glazed shutters 25 mm to 40 mm thick: Teak wood (16mm thick panel)</p> <p>(Make:-Kothari/National/Green/Century)</p> <p>(b) Main Entry Mesh Door with Teak Wood :- Providing and fixing 30mm thick wire gauge shutter having top and style rail 95mm width, bottom and lock rail 197mm width, using galvanized M.S. wire dia of 0.45mm for doors, windows, clerestory windows excluding hinges. Teak Wood</p> <p>(Make:-Kothari/National/Green/Century)</p> <p>(1) All Other doors:- 35 mm thick flush door shutters, conforming to IS : 2202 (Part-I), decorative type core of block board construction with frame of first class hard wood and well matched teak ply veneering with vertical grains or cross bands and face veneers on both faces of shutters excluding hinges. .</p> <p>(Make:-Kothari/National/Green/Century)</p> <p>(2) Front Corridor entrance - Providing and fixing steel door made of angle iron of suitable sizes with M.S. grill of approved pattern made of M.S. flats or square or round bars coat of red oxide zinc chromate primer. (Openable Iron Grill Gate,Weight of gate @ min. 20 kg/sqm),(Opening size as per Drawing),Design decided by engineer in charge</p> <p>(3) Brass Door Fittings for one door-</p> <p>Entrance Flush door-</p> <ul style="list-style-type: none"> i. Sliding bolt (L- Drop) : 1 no. 300 × 16X 2.5mm. ii. Door stopper double : 1 no. iii. Handle : 2 nos. 150 mm (Clear) iv. Latch : 1 no. 300x12x2.5mm. v. Tower bolt (barrel type) : 1 no.250x10mm vi. Brass Butt hinges : 3 no. heavy 125x2.5mm upto 0.90 mtr door opening and 4 no heavy 125x2.5mm for more than 0.90 mtr door opening
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		<p>PVC Door aluminium fittings for one door-</p> <ul style="list-style-type: none"> • Door Handle: 2 nos. 100 mm • Latch: 2 no. 250 × 12 mm <p>Door Frame and shutter for WC / Bath-</p> <ul style="list-style-type: none"> • Providing and fixing factory made PVC door shutters of specified thickness made of styles and rails of a UPVC hollow section of specified size 59x24 mm and wall thickness 2 mm ± 0.2 mm with inbuilt edging on both sides. The styles and rails mitred and joined at the corners by means of M.S. galvanised/ plastic brackets of size 75x220 mm having wall thickness 1.0 mm and stainless steel screws. 30 mm thick door shutters with styles and rails of size 60x30 mm • Providing and fixing factory made UPVC door frame made of UPVC profile section having an overall dimension as below (tolerance ± 1mm) with wall thickness 2.0mm ± 0.2mm, corners of the door frame to be jointed with galvanized brackets and stainless steel screws, joints mitred and plastic welded. The hinge side vertical of the frames reinforced by galvanized M.S. tube of size 19 X 19mm and 1mm ± 0.1mm wall thickness and 3 nos. stainless steel hinges fixed to the frame complete as per manufacturers specification and direction of Engineer-in-charge. Extruded section Profile size 42x50 mm. (Make : - Sintex/Eureka) <p>Railling- SS railing of SS Grade 304 in Stair Case and M.S. Grill minimum 12 mm dia bar in Window/Ventilation/balcony of multi sections to be provided as per Approved Design & direction of Engineer in charge.</p>
6	Window & Ventilator	<p>: Grill-</p> <p>M.S. Grill of min. 12 mm sq bar vertical @ 125mm c/c and min. 12mm sq bar horizontal @ 125mm c/c and frame of M.S. flats 35x5 mm welded to outer frame of windows etc. including applying a priming coat of primer.</p> <p>Window-</p> <p>Window, Ventilator frame & Shutter : Providing and fixing aluminum work Three track windows, two track ventilators and fixed partitions made out of extruded aluminum standard section minimum thickness 1.2 mm with powder coating conforming to IS: 733, IS: 1285 mitred and jointed mechanically including aluminum cleats, neoprene weather stripping gasket beveled edge beading, screws duly fixed in wall/ floor with fixing clips or hold fasteners or bolts and nuts as required aluminum sections shall be anodized transparent or dyed to approved shade according to IS: 1868 i/c Glazing With float glass panes of 5 mm thickness and fixing wire gauge of average width of aperture 1.56mm with wire of 0.35mm at</p>

		<p>three track window.</p> <p>For shutter of doors, windows & ventilators including providing and making provision for fixing of fitting wherever required including the cost of PVC/ neoprene gasket required including all fittings and Glazing With float glass panes of 5 mm thickness.(Aluminum Window Make-Jindal/Hindalco),(Glass make-saint-Gobain/modi)</p> <p>Nominal mix C.C. 1:2:4 50mm thick at all window and ventilation sills.</p>
7	Flooring	<p>A Providing and laying DOUBLE/MULTI CHARGE (minimum 2.0 mm thick layer) vitrified floor tiles with water absorption less than 0.5% and conforming to IS : 15622 of approved make in all colours and shades and size mentioned below (+/- 10mm), laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand) including grouting the joints with white cement and matching pigments etc. complete.. Size 600x600 mm thickness 9 to 10 mm All Bedrooms, Almirah,Dining , Drawing Room, kitchen ,Corridor,below Stair case area,front of toilet,AC ledge,Door Sill,etc. all area should be provided with 100 mm skirting all around of same tiles. As per drawing (Make :KAJARIA / RAK/ORIENT)</p> <p>B Providing and Fixing rectified glazed ceramic floor tiles of 1st quality conforming to IS: 15622-2017 of approved make,in all colours shade over 20mm thick bed of cement mortar 1:3 (1 cement:3 coarse sand) and joining with grey cement slurry @ 3.3kg per sqm. including pointing in white cement mixed with matching pigment complete. Size 300x300 mm In Toilet, Bath & Utility Area,etc As per drawing (Make :KAJARIA / RAK/ORIENT)</p> <p>C Providing and fixing Rectified ceramic glazed wall tiles conforming to IS : 15622 of approved make, colours, shades and size on wall and dados over 12 mm thick bed of cement Mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm including pointing in white cement mixed with matching pigment complete. size 300x450mm</p> <ul style="list-style-type: none"> Toilet/Bathroom Wall ht- 2.10 Mtr <p>. As per drawing (Make :KAJARIA / RAK/ORIENT)</p> <p>D 15 mm thick Table rubbed polished Grey/Pink Granite stone slab in Stair case risers and treads & Entrance steps skirting dado and pillars laid on 12mm (Average) thick base of cement mortar 1:3 (1 cement : 3 coarse sand) and jointed with grey cement slurry including rubbing and polishing etc. complete in Entrance stair,back stair and steps as per approved drawing. Moulding & Polishing as per requirement</p>
8	Kitchen Platform	<p>:</p> <p>15mm thick Black Granite work (machine cut, table rubbed & mirror polished) for kitchen platform, vanity counters, Door sills and similar locations of required size laid over 20mm thick base cement mortar 1:4 (1 cement : 4 coarse sand) including joints treated with white cement mixed with matching pigment including rubbing and polishing to edge moulding to give high gloss finish. Granite stone black with full Moulding & polishing in 60 cm wide Kitchen platform ,kitchn patta 125 mm ht all around & Kitchen Dado 60 cm above Platform.</p>

9	Plaster	:	<p>a) 6mm thick plaster in cm 1:4 on ceiling, chhajjas and RCC work as required shall be done.</p> <p>b) 12mm/15 mm inner wall, outer wall in CM 1:4 as required shall be done.</p> <p>c) According to the building elevation the contractor will have to develop the elevation (like groove, moulding, patta, projection and others elevation design) in the building.</p> <p>d) Add Water proofing compound in external plaster @ of 1 kg for 4 sqm area.</p>
10	Drip Course ,Concrete Gola & Parapet coping	:	Drip course 5.00 cm x 1.3 cm. to be done on exposed R.C.C. work and concrete gola 7.50cm x 7.50cm also to be done at junctions of wall slab & above chhajja corner. 50mm thick Nominal mix C.C. 1:2:4 parapet coping to be done and Neat Cement punning over chajja
11	Painting	:	<p>Inner Surface -</p> <ol style="list-style-type: none"> 1) Providing and applying 2mm thick ready mix exterior grade approved make putty (like Birla wall care, Asian, J.K. wall putty) to make the surface smooth and even at all inner surface including porch, balcony, verandah & chajja bottom. 2) Applying one coat of cement primer on wall surface (applied @ 0.80 litres/10 sqm) complete. 3) Wall painting with acrylic luxury emulsion (plastic) paint of required shade to give an even shade. On new work (two or more coats) <p>(Make:- Asian/Dulux/Nippon)</p> <p>Outer Surface</p> <ol style="list-style-type: none"> 1) Painting exterior surface with ACRYLIC SMOOTH exterior paint of required shade as per manufacturer's specifications to give protective and decorative finish including cleaning washing of surface etc. complete with: On new work (Two or more coats applied @ 1.43 ltr/ 10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/ 10 sqm) 2) . (Make:- Asian apex ultima Only) <p>Wood & Grill -</p> <p>Synthetic Enamel Paint of approved make two or more coat coats including priming coat for doors Shutter, frame, Window & Ventilator, Main Gate & Parapet grill</p> <ul style="list-style-type: none"> • Door Shutter paint - Providing and laying Melamine polish on new wood work (two or more coats) with spray machine after preparing surface by rubbing down smooth with sand papers, preparation of surface, applying 5 to 10 coats of French spirit polish, applying two coats of

			Melamine sealer and finally applying two coats of Melamine clear as per manufacturers specifications complete: (Make:- Asian/Dulux/Nippon)
12	Chicken Mesh	:	30 cm Wide Chicken Mesh will be provided at each junction of inner & outer Face of brick masonry and RCC Column/Beam work & to be provided and at electrical conduit
13	Water Proofing		<p>For WCs, bathroom, kitchen-</p> <p>Providing and laying water proofing treatment in sunken portion of WCs, bathroom, kitchen etc., by applying cement slurry mixed with water proofing cement compound consisting of following applications including surface preparation in superstructure of 15mm ms dia drain pipe</p> <p>i) First layer of slurry of cement @ 0.488 kg/sqm mixed with water proofing cement compound @ 0.253 kg/sqm. This layer will be allowed to air cure for 4 hours.</p> <p>ii) Second layer of slurry of cement @ 0.242 kg/sqm mixed with water proofing cement compound @ 0.126 kg/sqm. This layer will be allowed to air cure for 4 hours followed with water curing for 48 hours. The rate includes treatment and sealing of all joints, corners, junctions of pipes and masonry with polymer mixed slurry.</p> <p>Make- Asian,Sika,Dr Fixit</p>
14	Internal Water Supply		<p>• Water Supply Pipe Line Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge. Concealed/External Work including cutting chases and making good the walls etc.,. 15mm,25mm & 32 as per requirement/drawing.(Make- Astra,Finolex,Supreme)</p> <p>In each house as required Providing and fixing 15 mm nominal bore C.P. brass fittings of approved make and conforming to IS:8931 including C.P. brass extension if required:</p> <ul style="list-style-type: none"> • Bib cock (400 grams) • Long nose bib cock (500 grams) for Kitchen • Piller Cock (400 grams) - • Angle valve for basin mixer and geyser points (450gms) • Stop cock (concealed) (600 grams)-wherever required. • Wall mixer with elegant knob (1400 grams) • Hand shower set with flexible extension pipe

		<ul style="list-style-type: none"> • Providing and fixing in position. (Each House) chromium shower bath 100 X 15 mm casted or sheet pressed with rim complete including gasket joint at any floor • Health foscet (hand jet) with flexible connection pipe (for WC) – • CP brass water jet to be fixed in seat cover of WC with flexible connection pipe – • Soap Dish Plate • Towel rail (600mm long x 20mm dia) • Brass Ferrule 15/20 mm nominal bore • Unions and other fittings <p>Above Sanitary Fittings decided by Engineer In charge/or as per drawing.</p> <p>(Make:- Jaquar/ Hindware/ Kohler)</p> <p>A) As per requirement in each house Providing and fixing in position 100 mm PVC nahani trap & SS drain jail with hinged perforated cover complete with gasket and cement caulked joints including making necessary chases and holes in floors and walls and repairing the same to original condition with providing and fixing chromium plated Nahani Trap grating/CP Squar Jali.</p>
15	Kitchen Sink	<p>Providing and fixing Stainless Steel of size 560x410x215 mm A ISI 304 (18/8) kitchen sink without drain board as per IS 13983 with C.I. brackets and stainless steel plug 40 mm including painting of fittings and brackets, cutting and making good the walls wherever required with fixing of flexible P.V.C. waste pipe up to nahani trap etc. all complete as approved by Engineer In charge.</p> <p>(Make:- Nirali/Zayna/Sincore)</p>
16	Wash hand basins	<p>Providing and fixing in position White Oval or Round size 550x400 mm flat back with pedestal comprising of glazed vitreous china of specified size with central slot for single valve, only and enamel of aluminum paint, cast iron brackets, 32 mm dia G.I. Waste coupling with C.P. chain & bottle trap set with extension pipes and hard rubber plug, 15mm lead inlet connection not less than 375mm in length with 15mm dia CP brass heavy angle cock (450 grams) location decided by Engineer-in-charge/or as per drawing.</p> <p>(Make:- Jaquar/ Hindware/ Kohler)</p>
17	Water closet	<ol style="list-style-type: none"> 1. Providing and fixing vitreous china water closet (European type W.C. pan) with white ISI marked plastic seat and lid, 10 litre low level white P.V.C. flushing cistern (same colour), conforming to IS : 7231, with all fittings and fixtures & Providing. White Wall Hung type /White pedestal type location decided by Engineer-in-charge/or as per drawing. 2 Providing and fixing water closet pan (Indian type W.C. pan),

		<p>100mm P or S trap, 10 litre low level P.V.C. flushing cistern (same colour) conforming to IS : 7231, with flush bend and other fittings and fixtures of size White Orissa pattern W.C. pan of size 580x440 mm. location decided location decided by Engineer-in-charge/or as per drawing.</p> <p>(Make:- Jaquar/ Hindware/ Kohler)</p>
18	Valves	<p>As per requirement Providing and fixing in position best Indian make gun metal high pressure full way or Gate valve (peets Pattern) with iron wheel head complete.</p> <p>a) 20 mm Dia b) 25 mm dia</p> <p>Location and size of valve as per decided by Engineer-in-charge and requirement</p> <p>As per requirement in each house Providing and fixing in position G.M. heavy ferrule 15/20mm dia including making holes of Pipes line and making gasket joints etc. complete inclusive of clamps.</p>
19	Water storage tanks	<p>Providing and hoisting and fixed 1000 liters capacity in each house water polyethylene water storage tank made out of F.D.A. approved as per IS 1270-1996 HDPE materials suitable for rotational molding vertical type and capable of holding required capacity of water with in the permissible tolerance limit for HDPE materials with provision for inlet, outlet, cleaning and overflow connection with heavy duty nipple socket drain plug etc. to facilitate inter connection and providing overflow brass cock at any height & Standard weight. Including float valve and PVC gate valve required nos. and size.</p> <p>Cement concrete base is to be done below the tank. Location and make decided by Engineer-in-charge.</p> <p>(Make:- Sintex/Astral/Ocean)</p>
20	Internal Sanitary and Collecting Chamber	<p>A) As per requirement Providing and fixing in position SQUARE MOUTH gully trap grade "A" complete with C.I. grating brick masonry chamber with well burnt modular clay bricks crushing strength not less than 35kg/cm² water tight rcc cover as per standard design (100x100mm size P type) as per drawing and directed as Engineer-in-charge.</p> <p>B) Sewage disposal from WC with 75 and 110 mm SWR PVC pipe & waste water from kitchen, Toilet & Bathroom with 75 and 110 mm SWR PVC pipe & fittings as required . Provide 110 mm SWR PVC pipe for Rain water as directed by Engineer – in – charge. It shall be responsibility of contractor to make essential arrangements for disposal of rain water from terrace (roof slab) by providing proper slope in roof slab and by providing appropriate SWR PVC pipes and fittings all complete as per drawing and directed as Engineer-in-charge.</p>

		<p>(Make:- Supreme/Finolex/Astral/)</p> <p>The sewer pipeline work will have to be connected to external sewer Main line with required size of 150 mm dia PVC SWR pipe and 450x600 mm and 600 x 600 mm size brick masonry chamber with 75 mm thick R.C.C. Precast cover with M.S. bar handle where ever required as per drawing and directed as Engineer-in-charge.</p> <p>C) Concrete 1:2:4 haunching all around PVC Pipe</p> <p>Note:-As per Site condition Final decision taken by Engineer-in-charge of water supply and sewerage work/system if required</p>
	Special Note	<p>All Work Mentioned In General Specification Must be Done By Contractor & If Any Work Is Omitted In General Specification UnKnowingly And Is present In DPR of the project, Those Work Must be Done By Contractor Without Any Litigation</p>
		<p>All Material should confirming to latest IS Specification Code</p>



SUB-ENGINEER
C.G. HOUSING BOARD
SUB-DIV., KORBA



ASSISTANT ENGINEER
C.G. HOUSING BOARD
SUB-DIV., KORBA



EXECUTIVE ENGINEER
C.G. HOUSING BOARD
DIVISION-KORBA

GENERAL SPECIFICATION

G - Type (Block - 1Nos, Unit -4 Quarter) - G+1 Floor

1. **Building Details:** The bidder is to construct the G-TYPE Block building as per following details:-

- | | | |
|-------|---------------------|--|
| (i) | Location | - WRE/Irrig Staff quarter at Redevelopment Katghora Site - II, Teh- Katghora, Distt - Korba (CG) |
| (ii) | No of Block | - 01 Nos Block
(02 unit Ground Floor & 02 unit First Floor-Total 04 Quater) |
| (iii) | Total Built up Area | - As per attached Building drawing
(351.41 Sqm). |
| (iv) | Opening Size | The size of Door, window and other openings to be as per drawing or decided by the board. |
| (v) | Soil SBC | - 11.44 Ton/sqm |

2. **Scope of Structural design:**

R.C.C. framed Structural design - as per enclosed drawing & Structural Design.

Requirements are given below:-

- a. **Foundation:** The foundations for building shall be R.C.C. column –footing foundation up to required depth below natural ground level or on Geo–technical report of soil strata and design requirement. The Foundation & Plinth Beam shall be RCC.
- b. **Super Structure:** As per design R.C.C. Framed Structure with Design mix RMC M25 grade grades shall be adopted.
- c. **Reinforcement** – Fe 500D of TMT. All steel shall be procured form 'Original producers' who manufacture billets directly from iron ores and roll the billets to produce steel conforming to IS:1786, No re-rolled steel shall be incorporated in the works."

3. **General specification:**

1	Plinth work	:	Base Work- Base concrete 1:4:8, Minimum 10cm thick or as per Structural Design below footing . RCC Work- As per design R.C.C. frame structure with Design mix RMC M25 grade concrete as designed shall be adopted for different components : <ul style="list-style-type: none">• R.C.C. Foundation as per approved design.
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		<ul style="list-style-type: none"> • R.C.C. Foundation as per approved design. • R.C.C. Beams & column Plinth level as per approved design. • Reinforcement - FE 500D TMT as per approved design. <p>(Make:- GOEL/ Shrishtil/ Nakoda / GK)</p> <p>Plinth height –</p> <p>Minimum 0.75 mtr. from finished top road level in front of house and adequate steps to be provided as per requirement for front and back entry as per design.</p> <p>Plinth filling –</p> <p>Hard Moorum/sand/stone dust should be filled at plinth, wash area, rear stair and porch area (Extra excavated stuff can be used when useful otherwise will have to be disposed out.) Plot shall also be leveled up to required depth below plinth level from borrow pit soil or from excavated stuff is seemed to be good for filling.</p> <p>Damp proof course –</p> <p>Damp proof course of 1:2:4 cement concrete 50mm thick (with 10mm to 20 mm grade hard metal)</p> <p>Approach slab-</p> <p>RMC M25 in 120mm thickness from existing road edge to entrance gate approach slab to be done as per direction of Engineer in charge.</p> <p>Anti Termite Work-</p> <p>Surface treatment by spreading emulsion under floor, over the plinth area before laying base concrete for Anti termite treatment should be done in each-houses (chemical used-chlorpyrphos/lindane) with recommended diluting (with water) by manufacturer (05 year service guarantee) and should be done as directed by Engineer-in-Charge.</p> <p>Brick Work-</p> <p>Masonry work in plinth & foundation with Fly Ash bricks in cement mortar 1:5 (1- cement : 5-fine aggregate) crushing strength of bricks should not be less than 35Kg./sqcm. & plastered all exposed side in cement mortar 1:5 (1-cement:5-Sand) as per mentioned above plinth height.</p> <p>Plinth Protection Work-</p> <p>Making 50mm thick plinth protection of plain cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded crushed stone aggregate 20mm nominal size) over 75mm bed of dry brick ballast 40mm nominal size well rammed and consolidated and grouted with sand including finishing the top smooth. Width – 1.20 mtr</p> <p>Base Work-</p> <p>Base concrete 1:4:8 10cm thick Should be done at Floor Level.</p>
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2	Superstructure	:	<p>RCC frame structure (Column,Beam,Slab,Chajja,Lintel Beam,Stair Case,etc all) & Mumty with RMC M-25 concrete as per approved structural drawing ,Grade of concrete should not be less than RMC M25 including all related work (Make of Cement - ACC / AMBUJA / ULTRATECH CEMENT).</p> <p>Note – Lintel beam will be provided throughout at lintel level of all floor.</p> <p>All R.C.C. sun shade (chhajjas) shall be casted with plain face and bottom surface with drip mould and smooth quarter round cement concrete (haller) at top with cement concrete RMC M25,cement concrete haller at corner of Roof slab should also be provided</p>
3	Masonry Work	:	<p>A) 20cm thick Brick work with modular fly-ash lime bricks (FaLG Bricks) confirming to IS:12894-2002 of class designation 4.0 in foundation, plinth , Super Structure & Boundary Wall in: Cement Mortar 1:6 (1 cement : 6 coarse sand) as per Drawing.</p> <p>B) Half brick thick brick masonry with fly-ash lime bricks (FaLG Bricks) confirming to IS:12894-2002 of class designation 4.0 in superstructure above plinth level upto plinth level: Cement Mortar 1:4 (1 cement : 4 coarse sand) as per Drawing.</p> <p>C) RCC bend of 10 cm thick with main bar of 8mm 2 bars and 8 mm dia Pin @ 20 mm C/C at Window sill,RCC bend of 10 cm thick with main bar of 8mm 2 bars and 8 mm dia Pin @ 20 mm C/C for half brick complete wall at sill level .</p> <p>D) Mumty & Parapet wall with One/half brick thick Fly ash bricks or MS grills height up to 0.90 mtr(as per elevation) and 50mm thick CC coping (1:2:4:) at top.</p>
3	Slab	:	As per R.C.C. design approved by N.I.T or any other government engineering college for roofing with reinforcement. For grading of roof slab 50mm thick cement concrete flooring with cement concrete 1:2:4 finished with a floating coat of neat cement with water proofing compound at the top of the roof shall be done.
4	Ceiling Height	:	3.0 meter clear height
5	Joinery	:	<p>Door Frame (Excluding WC/Bath)– Providing and fixing Wood frames of doors Sal, bijasal, benteak, khair, haldu with section size 0.125 x 0.075 m (Double Ptam for all outer door) all door opening including fixing of necessary Hole fast,butt hinges and screws and applying a priming coat of approved steel primer.</p> <p>Door Shutters – (a) Main Entry Teak Wood Door:- Providing and fixing 35mm thick glazed shutter frames for windows, clerestory</p>

		<p>windows, ventilators etc. using glass panes including M.S. butt hinges with necessary screws but excluding glass panes. (Area of shutter to be measured without deducting paneling area). Teak wood</p> <p>Providing and fixing paneling in paneled or paneled and glazed shutters for doors etc. (only area of paneling to be measured). Paneling for or paneled and glazed shutters 25 mm to 40 mm thick: Teak wood (16mm thick panel)</p> <p>(Make:-Kothari/National/Green/Century)</p> <p>(b) Main Entry Mesh Door with Teak Wood :- Providing and fixing 30mm thick wire gauge shutter having top and style rail 95mm width, bottom and lock rail 197mm width, using galvanized M.S. wire dia of 0.45mm for doors, windows, clerestory windows excluding hinges. Teak Wood</p> <p>(Make:-Kothari/National/Green/Century)</p> <p>(1) All Other doors:- 35 mm thick flush door shutters, conforming to IS : 2202 (Part-I), decorative type core of block board construction with frame of first class hard wood and well matched teak ply veneering with vertical grains or cross bands and face veneers on both faces of shutters excluding hinges. .</p> <p>(Make:-Kothari/National/Green/Century)</p> <p>(2) Front Corridor entrance - Providing and fixing steel door made of angle iron of suitable sizes with M.S. grill of approved pattern made of M.S. flats or square or round bars coat of red oxide zinc chromate primer. (Openable Iron Grill Gate,Weight of gate @ min. 20 kg/sqm),(Opening size as per Drawing),Design decided by engineer in charge</p> <p>(3) Brass Door Fittings for one door-</p> <p>Entrance Flush door-</p> <ul style="list-style-type: none"> i. Sliding bolt (L- Drop) : 1 no. 300 × 16X 2.5mm. ii. Door stopper double : 1 no. iii. Handle : 2 nos. 150 mm (Clear) iv. Latch : 1 no. 300x12x2.5mm. v. Tower bolt (barrel type) : 1 no.250x10mm vi. Brass Butt hinges : 3 no. heavy 125x2.5mm upto 0.90 mtr door opening and 4 no heavy 125x2.5mm for more than 0.90 mtr door opening <p>PVC Door aluminium fittings for one door-</p>
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		<ul style="list-style-type: none"> • Door Handle: 2 nos. 100 mm • Latch: 2 no. 250 × 12 mm <p>Door Frame and shutter for WC / Bath-</p> <ul style="list-style-type: none"> • Providing and fixing factory made PVC door shutters of specified thickness made of styles and rails of a UPVC hollow section of specified size 59x24 mm and wall thickness 2 mm ± 0.2 mm with inbuilt edging on both sides. The styles and rails mitred and joined at the corners by means of M.S. galvanised/ plastic brackets of size 75x220 mm having wall thickness 1.0 mm and stainless steel screws. 30 mm thick door shutters with styles and rails of size 60x30 mm • Providing and fixing factory made UPVC door frame made of UPVC profile section having an overall dimension as below (tolerance ± 1mm) with wall thickness 2.0mm ± 0.2mm, corners of the door frame to be jointed with galvanized brackets and stainless steel screws, joints mitred and plastic welded. The hinge side vertical of the frames reinforced by galvanized M.S. tube of size 19 X 19mm and 1mm ± 0.1mm wall thickness and 3 nos. stainless steel hinges fixed to the frame complete as per manufacturers specification and direction of Engineer-in-charge. Extruded section Profile size 42x50 mm. (Make : - Sintex/Eureka) <p>Railling- SS railing of SS Grade 304 in Stair Case and M.S. Grill minimum 12 mm dia bar in Window/Ventilation/balcony of multi sections to be provided as per Approved Design & direction of Engineer in charge.</p>
6	Window & Ventilator	<p>: Grill-</p> <p>M.S. Grill of min. 12 mm sq bar vertical @ 125mm c/c and min. 12mm sq bar horizontal @ 125mm c/c and frame of M.S. flats 35x5 mm welded to outer frame of windows etc. including applying a priming coat of primer.</p> <p>Window-</p> <p>Window, Ventilator frame & Shutter : Providing and fixing aluminum work Three track windows, two track ventilators and fixed partitions made out of extruded aluminum standard section minimum thickness 1.2 mm with powder coating conforming to IS: 733, IS: 1285 mitred and jointed mechanically including aluminum cleats, neoprene weather stripping gasket beveled edge beading, screws duly fixed in wall/ floor with fixing clips or hold fasteners or bolts and nuts as required aluminum sections shall be anodized transparent or dyed to approved shade according to IS: 1868 i/c Glazing With float glass panes of 5 mm thickness and fixing wire gauge of average width of aperture 1.56mm with wire of 0.35mm at</p>

			<p>three track window.</p> <p>For shutter of doors, windows & ventilators including providing and making provision for fixing of fitting wherever required including the cost of PVC/ neoprene gasket required including all fittings and Glazing With float glass panes of 5 mm thickness.(Aluminum Window Make-Jindal/Hindalco),(Glass make-saint-Gobain/modi)</p> <p>Nominal mix C.C. 1:2:4 50mm thick at all window and ventilation sills.</p>
7	Flooring	<p>A Providing and laying DOUBLE/MULTI CHARGE (minimum 2.0 mm thick layer) vitrified floor tiles with water absorption less than 0.5% and conforming to IS : 15622 of approved make in all colours and shades and size mentioned below (+/- 10mm), laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand) including grouting the joints with white cement and matching pigments etc. complete.. Size 600x600 mm thickness 9 to 10 mm All Bedrooms, Almirah,Dining , Drawing Room, kitchen ,Corridor,below Stair case area,front of toilet,AC ledge,Door Sill,etc. all area should be provided with 100 mm skirting all around of same tiles. As per drawing (Make :KAJARIA / RAK/ORIENT)</p> <p>B Providing and Fixing rectified glazed ceramic floor tiles of 1st quality conforming to IS: 15622-2017 of approved make,in all colours shade over 20mm thick bed of cement mortar 1:3 (1 cement:3 coarse sand) and joining with grey cement slurry @ 3.3kg per sqm. including pointing in white cement mixed with matching pigment complete. Size 300x300 mm In Toilet, Bath & Utility Area,etc As per drawing (Make :KAJARIA / RAK/ORIENT)</p> <p>C Providing and fixing Rectified ceramic glazed wall tiles conforming to IS : 15622 of approved make, colours, shades and size on wall and dados over 12 mm thick bed of cement Mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm including pointing in white cement mixed with matching pigment complete. size 300x450mm</p> <ul style="list-style-type: none"> Toilet/Bathroom Wall ht- 2.10 Mtr <p>. As per drawing (Make :KAJARIA / RAK/ORIENT)</p> <p>D 15 mm thick Table rubbed polished Grey/Pink Granite stone slab in Stair case risers and treads & Entrance steps skirting dado and pillars laid on 12mm (Average) thick base of cement mortar 1:3 (1 cement : 3 coarse sand) and jointed with grey cement slurry including rubbing and polishing etc. complete in Entrance stair,back stair and steps as per approved drawing. Moulding & Polishing as per requirement</p>	
8	Kitchen Platform	:	<p>15mm thick Granite stone grey/pink (machine cut, table rubbed & mirror polished) for kitchen platform, vanity counters, Door sills and similar locations of required size laid over 20mm thick base cement mortar 1:4 (1 cement : 4 coarse sand) including joints treated with white cement mixed with matching pigment including rubbing and polishing to edge moulding to give high gloss finish. Granite stone black with full Moulding & polishing in 60 cm wide Kitchen</p>

			platform ,kitchn patta 125 mm ht all around & Kitchen Dado 60 cm above Platform.
9	Plaster	:	<ul style="list-style-type: none"> a) 6mm thick plaster in cm 1:4 on ceiling, chhajjas and RCC work as required shall be done. b) 12mm/15 mm inner wall, outer wall in CM 1:4 as required shall be done. c) According to the building elevation the contractor will have to develop the elevation (like groove, moulding, patta, projection and others elevation design) in the building. d) Add Water proofing compound in external plaster @ of 1 kg for 4 sqm area..
10	Drip Course ,Concrete Gola & Parapet coping	:	Drip course 5.00 cm x 1.3 cm. to be done on exposed R.C.C. work and concrete gola 7.50cm x 7.50cm also to be done at junctions of wall slab & above chhajja corner. 50mm thick Nominal mix C.C. 1:2:4 parapet coping to be done and Neat Cement punning over chajja
11	Painting	:	<p>Inner Surface -</p> <ul style="list-style-type: none"> 1) Providing and applying 2mm thick ready mix exterior grade approved make putty (like Birla wall care, Asian, J.K. wall putty) to make the surface smooth and even at all inner surface including porch, balcony, verandah & chajja bottom. 2) Applying one coat of cement primer on wall surface (applied @ 0.80 litrs/10 sqm) complete. 3) Wall painting with acrylic luxury emulsion (plastic) paint of required shade to give an even shade. On new work (two or more coats) <p>(Make:- Asian/Dulux/Nippon)</p> <p>Outer Surface</p> <ul style="list-style-type: none"> 1) Painting exterior surface with ACRYLIC SMOOTH exterior paint of required shade as per manufacturer's specifications to give protective and decorative finish including cleaning washing of surface etc. complete with: On new work (Two or more coats applied @ 1.43 ltr/ 10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/ 10 sqm) 2) . (Make:- Asian apex ultima Only) <p>Wood & Grill -</p> <p>Synthetic Enamel Paint of approved make two or more coat coats including priming coat for doors Shutter, frame, Window & Ventilator, Main Gate & Parapet grill</p> <p>Door Shutter paint - Providing and laying Melamine polish on new wood work (two or more coats) with spray machine after preparing surface by rubbing down smooth with sand papers, preparation of surface, applying 5 to 10 coats of French sprit polish, applying two</p>

			coats of Melamine sealer and finally applying two coats of Melamine clear as per manufacturers specifications complete: (Make:- Dulux/Asian/Nippon)
12	Chicken Mesh	:	30 cm Wide Chicken Mesh will be provided at each junction of inner & outer Face of brick masonry and RCC Column/Beam work & to be provided and at electrical conduit
13	Water Proofing		<p>For WCs, bathroom, kitchen-</p> <p>Providing and laying water proofing treatment in sunken portion of WCs, bathroom, kitchen etc., by applying cement slurry mixed with water proofing cement compound consisting of following applications including surface preparation in superstructure of 15mm ms dia drain pipe</p> <p>i) First layer of slurry of cement @ 0.488 kg/sqm mixed with water proofing cement compound @ 0.253 kg/sqm. This layer will be allowed to air cure for 4 hours.</p> <p>ii) Second layer of slurry of cement @ 0.242 kg/sqm mixed with water proofing cement compound @ 0.126 kg/sqm. This layer will be allowed to air cure for 4 hours followed with water curing for 48 hours. The rate includes treatment and sealing of all joints, corners, junctions of pipes and masonry with polymer mixed slurry. Make- Asian,Sika,Dr Fixit</p>
14	Internal Water Supply		<ul style="list-style-type: none"> • Water Supply Pipe Line Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge. Concealed/External Work including cutting chases and making good the walls etc., 15mm,25mm & 32 as per requirement/drawing (Make- Astra,Finolex,Supreme) In each house as required Providing and fixing 15 mm nominal bore C.P. brass fittings of approved make and conforming to IS:8931 including C.P. brass extension if required: <ul style="list-style-type: none"> • Bib cock (400 grams) • Long nose bib cock (500 grams) for Kitchen • Piller Cock (400 grams) - • Angle valve for basin mixer and geyser points (450gms) • Stop cock (concealed) (600 grams)-wherever required. • Wall mixer with elegant knob (1400 grams) • Hand shower set with flexible extension pipe

		<ul style="list-style-type: none"> • Providing and fixing in position. (Each House) chromium shower bath 100 X 15 mm casted or sheet pressed with rim complete including gasket joint at any floor • Health foscet (hand jet) with flexible connection pipe (for WC) – • CP brass water jet to be fixed in seat cover of WC with flexible connection pipe – • Soap Dish Plate • Towel rail (600mm long x 20mm dia) • Brass Ferrule 15/20 mm nominal bore • Unions and other fittings <p>Above Sanitary Fittings decided by Engineer In charge/or as per drawing.</p> <p>(Make:- Jaquar/ Hindware/ Kohler)</p> <p>A) As per requirement in each house Providing and fixing in position 100 mm PVC nahani trap & SS drain jail with hinged perforated cover complete with gasket and cement caulked joints including making necessary chases and holes in floors and walls and repairing the same to original condition with providing and fixing chromium plated Nahani Trap grating/CP Squar Jali.</p>
15	Kitchen Sink	<p>Providing and fixing Stainless Steel of size 560x410x215 mm A ISI 304 (18/8) kitchen sink without drain board as per IS 13983 with C.I. brackets and stainless steel plug 40 mm including painting of fittings and brackets, cutting and making good the walls wherever required with fixing of flexible P.V.C. waste pipe up to nahani trap etc. all complete as approved by Engineer In charge.</p> <p>(Make:- Nirali/Zayna/Sincore)</p>
16	Wash hand basins	<p>Providing and fixing in position White Oval or Round size 550x400 mm flat back with pedestal comprising of glazed vitreous china of specified size with central slot for single valve, only and enamel of aluminum paint, cast iron brackets, 32 mm dia G.I. Waste coupling with C.P. chain & bottle trap set with extension pipes and hard rubber plug, 15mm lead inlet connection not less than 375mm in length with 15mm dia CP brass heavy angle cock (450 grams) location decided by Engineer-in-charge/or as per drawing.</p> <p>(Make:- Jaquar/ Hindware/ Kohler)</p>
17	Water closet	<ol style="list-style-type: none"> 1. Providing and fixing vitreous china water closet (European type W.C. pan) with white ISI marked plastic seat and lid, 10 litre low level white P.V.C. flushing cistern (same colour), conforming to IS : 7231, with all fittings and fixtures & Providing. White pedestal type location decided by Engineer-in-charge/or as per drawing. 2 Providing and fixing water closet pan (Indian type W.C. pan),

		<p>100mm P or S trap, 10 litre low level P.V.C. flushing cistern (same colour) conforming to IS : 7231, with flush bend and other fittings and fixtures of size White Orissa pattern W.C. pan of size 580x440 mm. location decided location decided by Engineer-in-charge/or as per drawing.</p> <p>(Make:- Jaquar/ Hindware/ Kohler)</p>
18	Valves	<p>As per requirement Providing and fixing in position best Indian make gun metal high pressure full way or Gate valve (peets Pattern) with iron wheel head complete.</p> <p>a) 20 mm Dia b) 25 mm dia</p> <p>Location and size of valve as per decided by Engineer-in-charge and requirement</p> <p>As per requirement in each house Providing and fixing in position G.M. heavy ferrule 15/20mm dia including making holes of Pipes line and making gasket joints etc. complete inclusive of clamps.</p>
19	Water storage tanks	<p>Providing and hoisting and fixed 1000 liters capacity in each house water polyethylene water storage tank made out of F.D.A. approved as per IS 1270-1996 HDPE materials suitable for rotational molding vertical type and capable of holding required capacity of water with in the permissible tolerance limit for HDPE materials with provision for inlet, outlet, cleaning and overflow connection with heavy duty nipple socket drain plug etc. to facilitate inter connection and providing overflow brass cock at any height & Standard weight. Including float valve and PVC gate valve required nos. and size.</p> <p>Cement concrete base is to be done below the tank. Location and make decided by Engineer-in-charge.</p> <p>(Make:- Sintex/Ocean/Astral)</p>
20	Internal Sanitary and Collecting Chamber	<p>A) As per requirement Providing and fixing in position SQUARE MOUTH gully trap grade "A" complete with C.I. grating brick masonry chamber with well burnt modular clay bricks crushing strength not less than 35kg/cm² water tight rec cover as per standard design (100x100mm size P type) as per drawing and directed as Engineer-in-charge.</p> <p>B) Sewage disposal from WC with 75 and 110 mm SWR PVC pipe & waste water from kitchen, Toilet & Bathroom with 75 and 110 mm SWR PVC pipe & fittings as required . Provide 110 mm SWR PVC pipe for Rain water as directed by Engineer – in – charge. It shall be responsibility of contractor to make essential arrangements for disposal of rain water from terrace (roof slab) by providing proper slope in roof slab and by providing appropriate SWR PVC pipes and fittings all complete as per drawing and directed as Engineer-in-charge.</p>

		<p>(Make:- Supreme/Finolex/Astral/)</p> <p>The sewer pipeline work will have to be connected to external sewer Main line with required size of 150 mm dia PVC SWR pipe and 450x600 mm and 600 x 600 mm size brick masonry chamber with 75 mm thick R.C.C. Precast cover with M.S. bar handle where ever required as per drawing and directed as Engineer-in-charge.</p> <p>C) Concrete 1:2:4 haunching all around PVC Pipe</p> <p>Note:-As per Site condition Final decision taken by Engineer-in-charge of water supply and sewerage work/system if required</p>
	Special Note	<p>All Work Mentioned In General Specification Must be Done By Contractor & If Any Work Is Omitted In General Specification UnKnowingly And Is present In DPR of the project, Those Work Must be Done By Contractor Without Any Litigation</p>
		All Material should confirming to latest IS Specification Code



SUB-ENGINEER
C.G. HOUSING BOARD
SUB-DIV., KORBA



ASSISTANT ENGINEER
C.G. HOUSING BOARD
SUB-DIV., KORBA



EXECUTIVE ENGINEER
C.G. HOUSING BOARD
DIVISION-KORBA

GENERAL SPECIFICATION

H - Type (Block - 1Nos, Unit -6 Quarter) - G+1 Floor

1. **Building Details:** The bidder is to construct the G-TYPE Block building as per following details:-

- | | | |
|-------|---------------------|--|
| (i) | Location | - WRE/Irrig Staff quarter at Redevelopment Katghora Site - II, Teh- Katghora, Distt - Korba (CG) |
| (ii) | No of Block | - 01 Nos Block
(04 unit Ground Floor & 02 unit First Floor-Total 06 Quater) |
| (iii) | Total Built up Area | - As per attached Building drawing
(350.93 Sqm). |
| (iv) | Opening Size | The size of Door, window and other openings to be as per drawing or decided by the board. |
| (v) | Soil SBC | - 11.44 Ton/sqm |

2. **Scope of Structural design:**

R.C.C. framed Structural design - as per enclosed drawing & Structural Design.

Requirements are given below:-

- a. **Foundation:** The foundations for building shall be R.C.C. column –footing foundation up to required depth below natural ground level or on Geo–technical report of soil strata and design requirement. The Foundation & Plinth Beam shall be RCC.
- b. **Super Structure:** As per design R.C.C. Framed Structure with Design mix RMC M25 grade grades shall be adopted.
- c. **Reinforcement** – Fe 500D of TMT. All steel shall be procured from 'Original producers' who manufacture billets directly from iron ores and roll the billets to produce steel conforming to IS:1786, No re-rolled steel shall be incorporated in the works."

3. **General specification:**

1	Plinth work	:	Base Work- Base concrete 1:4:8, Minimum 10cm thick or as per Structural Design below footing . RCC Work- As per design R.C.C. frame structure with Design mix RMC M25 grade concrete as designed shall be adopted for different components : <ul style="list-style-type: none">• R.C.C. Foundation as per approved design.
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		<ul style="list-style-type: none"> • R.C.C. Foundation as per approved design. • R.C.C. Beams & column Plinth level as per approved design. • Reinforcement - FE 500D TMT as per approved design. <p>(Make:- GOEL/ Shrishtii/ Nakoda / GK)</p> <p>Plinth height –</p> <p>Minimum 0.75 mtr. from finished top road level in front of house and adequate steps to be provided as per requirement for front and back entry as per design.</p> <p>Plinth filling –</p> <p>Hard Moorum/sand/stone dust should be filled at plinth, wash area, rear stair and porch area (Extra excavated stuff can be used when useful otherwise will have to be disposed out.) Plot shall also be leveled up to required depth below plinth level from borrow pit soil or from excavated stuff is seemed to be good for filling.</p> <p>Damp proof course –</p> <p>Damp proof course of 1:2:4 cement concrete 50mm thick (with 10mm to 20 mm grade hard metal)</p> <p>Approach slab-</p> <p>RMC M-25 in 120mm thickness from existing road edge to entrance gate approach slab to be done as per direction of Engineer in charge.</p> <p>Anti Termite Work-</p> <p>Surface treatment by spreading emulsion under floor, over the plinth area before laying base concrete for Anti termite treatment should be done in each-houses (chemical used-chlorpyriphos/lindane) with recommended diluting (with water) by manufacturer (05 year service guarantee) and should be done as directed by Engineer-in-Charge.</p> <p>Brick Work-</p> <p>Masonry work in plinth & foundation with Fly Ash bricks in cement mortar 1:5 (1- cement : 5-fine aggregate) crushing strength of bricks should not be less than 35Kg./sqcm. & plastered all exposed side in cement mortar 1:5 (1-cement:5-Sand) as per mentioned above plinth height.</p> <p>Plinth Protection Work-</p> <p>Making 50mm thick plinth protection of plain cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded crushed stone aggregate 20mm nominal size) over 75mm bed of dry brick ballast 40mm nominal size well rammed and consolidated and grouted with sand including finishing the top smooth. Width – 1.20 mtr</p> <p>Base Work-</p>
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			Base concrete 1:4:8 10cm thick Should be done at Floor Level.
2	Superstructure	:	<p>RCC frame structure (Column,Beam,Slab,Chajja,Lintel Beam,Stair Case,etc all) & Mumty with RMC M-25 concrete as per approved structural drawing ,Grade of concrete should not be less than RMC M25 including all related work (Make of Cement - ACC / AMBUJA / ULTRATECH CEMENT).</p> <p>Note – Lintel beam will be provided throughout at lintel level of all floor.</p> <p>All R.C.C. sun shade (chhajjas) shall be casted with plain face and bottom surface with drip mould and smooth quarter round cement concrete (haller) at top with cement concrete RMC M25,cement concrete haller at corner of Roof slab should also be provided</p>
3	Masonry Work	:	<p>A) 20cm thick Brick work with modular fly-ash lime bricks (FaLG Bricks) confirming to IS:12894-2002 of class designation 4.0 in foundation, plinth , Super Structure & Boundary Wall in: Cement Mortar 1:6 (1 cement : 6 coarse sand) as per Drawing.</p> <p>B) Half brick thick brick masonry with fly-ash lime bricks (FaLG Bricks) confirming to IS:12894-2002 of class designation 4.0 in superstructure above plinth level upto plinth level: Cement Mortar 1:4 (1 cement : 4 coarse sand) as per Drawing.</p> <p>C) RCC bend of 10 cm thick with main bar of 8mm 2 bars and 8 mm dia Pin @ 20 mm C/C at Window sill,RCC bend of 10 cm thick with main bar of 8mm 2 bars and 8 mm dia Pin @ 20 mm C/C for half brick complete wall at sill level .</p> <p>D) Mumty & Parapet wall with One/half brick thick Fly ash bricks or MS grills height up to 0.90 mtr(as per elevation) and 50mm thick CC copping (1:2:4:) at top.</p>
3	Slab	:	As per R.C.C. design approved by N.I.T or any other government engineering college for roofing with reinforcement. For grading of roof slab 50mm thick cement concrete flooring with cement concrete 1:2:4 finished with a floating coat of neat cement with water proofing compound at the top of the roof shall be done.
4	Ceiling Height	:	3.0 meter clear height
5	Joinery	:	<p>Outer Main Door Frame Providing and fixing Wood frames of doors Sal, bijasal, benteak, khair, haldu with section size 0.125 x 0.075 m including fixing of necessary Hole fast,butt hinges and screws and applying a priming coat of approved steel primer.</p> <p>Door Shutters – (a) Main Entry Teak Wood Door:- Providing and fixing</p>

			<p>35mm thick glazed shutter frames for windows, clerestory windows, ventilators etc. using glass panes including M.S. butt hinges with necessary screws but excluding glass panes. (Area of shutter to be measured without deducting paneling area). Teak wood</p> <p>Providing and fixing paneling in paneled or paneled and glazed shutters for doors etc. (only area of paneling to be measured). Paneling for or paneled and glazed shutters 25 mm to 40 mm thick: Teak wood (16mm thick panel)</p> <p>(Make:-Kothari/National/Green/Century)</p> <p>(b) Main Entry Mesh Door with Teak Wood :- Providing and fixing 30mm thick wire gauge shutter having top and style rail 95mm width, bottom and lock rail 197mm width, using galvanized M.S. wire dia of 0.45mm for doors, windows, clerestory windows excluding hinges. Teak Wood</p> <p>(Make:-Kothari/National/Green/Century)</p> <p>Door Frame (Excluding WC/Bath)– Providing and fixing M.S. frames of doors, windows, ventilators and cupboards joints mitred and welded with 15x3 mm lugs 10cm long embedded in cement concrete blocks 15x10x10cm of grade M-10 or with wooden plugs and screws or with dash fastener or rawl plugs and screws or with fixing clips or with bolts and nuts as required including fixing of necessary butt hinges and screws and applying a priming coat of approved steel primer. Other door frame – 35 x 35 x 5 mm</p> <p>Door Shutters – (1) All Other doors:- 35 mm thick lush door shutters, conforming to IS 2202 (Part 1), interior grade, commercial type, core of block board construction with frame of first class hard wood and well matched commercial ply veneering with vertical grains, cross bands and face veneers on both faces of shutters excluding hinges.. .</p> <p>(Make:-Kothari/National/Green/Century)</p> <p>(2) Front Corridor entrance – Providing and fixing steel door made of angle iron of suitable sizes with M.S. grill of approved pattern made of M.S. flats or square or round bars coat of red oxide zinc chromate primer. (Openable Iron Grill Gate,Weight of gate @ min. 20 kg/sqm),(Opening size as per Drawing),Design</p>
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			<p>decided by engineer in charge</p> <p>(3) Brass Door Fittings for one door-</p> <p>Entrance Flush door-</p> <ul style="list-style-type: none"> i. Sliding bolt (L- Drop) : 1 no. 300 × 16 x 2.5mm. ii. Door stopper double : 1 no. iii. Handle : 2 nos. 150 mm (Clear) iv. Latch : 1 no. 300x12x2.5mm. v. Tower bolt (barrel type) : 1 no.250x10mm vi. Brass Butt hinges : 3 no. heavy 125x2.5mm upto 0.90 mtr door opening and 4 no heavy 125x2.5mm for more than 0.90 mtr door opening <p>PVC Door aluminium fittings for one door-</p> <ul style="list-style-type: none"> • Door Handle: 2 nos. 100 mm • Latch: 2 no. 250 × 12 mm <p>Door Frame and shutter for WC / Bath-</p> <ul style="list-style-type: none"> • Providing and fixing factory made PVC door shutters of specified thickness made of styles and rails of a UPVC hollow section of specified size 59x24 mm and wall thickness 2 mm ± 0.2 mm with inbuilt edging on both sides. The styles and rails mitred and joined at the corners by means of M.S. galvanised/ plastic brackets of size 75x220 mm having wall thickness 1.0 mm and stainless steel screws. 30 mm thick door shutters with styles and rails of size 60x30 mm • Providing and fixing factory made UPVC door frame made of UPVC profile section having an overall dimension as below (tolerance ± 1mm) with wall thickness 2.0mm ± 0.2mm, corners of the door frame to be jointed with galvanized brackets and stainless steel screws, joints mitred and plastic welded. The hinge side vertical of the frames reinforced by galvanized M.S. tube of size 19 X 19mm and 1mm ± 0.1mm wall thickness and 3 nos. stainless steel hinges fixed to the frame complete as per manufacturers specification and direction of Engineer-in-charge. Extruded section Profile size 42x50 mm. <p>(Make : - Sintex/Eureka)</p> <p>Railling- MS Hollow Pipe Railing in Stair Case and M.S. Grill minimum 12 mm dia bar in Window/Ventilation/balcony of multi sections to be provided as per Approved Design & direction of Engineer in charge.</p>
6	Window & Ventilator	:	<p>Grill-</p> <p>M.S. Grill of min. 12 mm sq bar vertical @ 125mm c/c and min. 12mm sq bar horizontal @ 125mm c/c and frame of M.S. flats 35x5 mm welded to outer frame of windows etc. including applying a</p>

		<p>priming coat of primer.</p> <p>Window-</p> <p>Window, Ventilator frame & Shutter : Providing and fixing aluminum work Three track windows, two track ventilators and fixed partitions made out of extruded aluminum standard section minimum thickness 1.2 mm with powder coating conforming to IS: 733, IS: 1285 mitred and jointed mechanically including aluminum cleats, neoprene weather stripping gasket beveled edge beading, screws duly fixed in wall/ floor with fixing clips or hold fasteners or bolts and nuts as required aluminum sections shall be anodized transparent or dyed to approved shade according to IS: 1868 i/c Glazing With float glass panes of 5 mm thickness and fixing wire gauge of average width of aperture 1.56mm with wire of 0.35mm at three track window.</p> <p>For shutter of doors, windows & ventilators including providing and making provision for fixing of fitting wherever required including the cost of PVC/ neoprene gasket required including all fittings and Glazing With float glass panes of 4 mm thickness.(Aluminum Window Make-Jindal/Hindalco),(Glass make-saint-Gobain/modi)</p> <p>Nominal mix C.C. 1:2:4 50mm thick at all window and ventilation sills.</p>
		<p>A Providing and Fixing rectified glazed ceramic floor tiles of 1st quality conforming to IS: 15622-2017 of approved make,in all colours shade over 20mm thick bed of cement mortar 1:3 (1 cement:3 coarse sand) and joining with grey cement slurry @ 3.3kg per sqm. including pointing in white cement mixed with matching pigment complete. Size 300x300 mm In bedroom,living,kitchen,balcony,passage,below stair,almirah,door sill,Toilet, Bath & Utility Area,etc As per drawing . (Make :KAJARIA / RAK/ORIENT)</p> <p>B Providing and fixing Rectified ceramic glazed wall tiles conforming to IS : 15622 of approved make, colours, shades and size on wall and dados over 12 mm thick bed of cement Mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm including pointing in white cement mixed with matching pigment complete. size 300x450mm</p> <ul style="list-style-type: none"> Toilet/Bathroom Wall ht- 2.10 Mtr Kitchen Dado 60 cm above Platform. <p>. As per drawing . (Make :KAJARIA / RAK/ORIENT)</p> <p>C 25 mm thick KOTA slab in Stair case risers and treads & Entrance steps skirting dado and pillars laid on 12mm (Average) thick base of cement mortar 1:3 (1 cement : 3 coarse sand) and jointed with grey cement slurry including rubbing and polishing etc. complete in Entrance stair,back stair and steps as per approved drawing. Moulding & Polishing as per requirement</p>
8	Kitchen Platform	<p>: 25 mm thick KOTA (machine cut, table rubbed & mirror polished) for kitchen platform, vanity counters, Door sills and similar locations of required size laid over 20mm thick base cement mortar 1:4 (1 cement :</p>

			4 coarse sand) including joints treated with white cement mixed with matching pigment including rubbing and polishing to edge moulding to give high gloss finish. Granite stone black with full Moulding & polishing in 60 cm wide Kitchen platform ,kitchn patta 125 mm ht all around .
9	Plaster	:	<ul style="list-style-type: none"> a) 6mm thick plaster in cm 1:4 on ceiling, chhajjas and RCC work as required shall be done. b) 12mm/15 mm inner wall, outer wall in CM 1:4 as required shall be done. c) According to the building elevation the contractor will have to develop the elevation (like groove, moulding, patta, projection and others elevation design) in the building. d) Add Water proofing compound in external plaster @ of 1 kg for 4 sqm area.
10	Drip Course ,Concrete Gola & Parapet coping	:	Drip course 5.00 cm x 1.3 cm. to be done on exposed R.C.C. work and concrete gola 7.50cm x 7.50cm also to be done at junctions of wall slab & above chhajja corner. 50mm thick Nominal mix C.C. 1:2:4 parapet coping to be done and Neat Cement punning over chajja
11	Painting	:	<p>Inner Surface -</p> <ul style="list-style-type: none"> 1) Providing and applying 2mm thick ready mix exterior grade approved make putty (like Birla wall care, Asian, J.K. wall putty) to make the surface smooth and even at all inner surface including porch, balcony, verandah & chajja bottom. 2) Applying one coat of cement primer on wall surface (applied @ 0.80 litres/10 sqm) complete. 3) Wall painting with acrylic luxury emulsion (plastic) paint of required shade to give an even shade. On new work (two or more coats) <p>(Make:- Asian/Dulux/Nippon)</p> <p>Outer Surface</p> <ul style="list-style-type: none"> 1) Painting exterior surface with ACRYLIC SMOOTH exterior paint of required shade as per manufacturer's specifications to give protective and decorative finish including cleaning washing of surface etc. complete with: On new work (Two or more coats applied @ 1.43 ltr/ 10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/ 10 sqm) 2) . (Make:- Asian apex ultima Only) <p>Wood & Grill -</p> <p>Synthetic Enamel Paint of approved make two or more coat coats including priming coat for doors Shutter, frame, Window & Ventilator, Main Gate & Parapet grill</p> <p>(Make:- Dulux/Asian/Nippon)</p>

12	Chicken Mesh	:	30 cm Wide Chicken Mesh will be provided at each junction of inner & outer Face of brick masonry and RCC Column/Beam work & to be provided and at electrical conduit
13	Water Proofing		<p>For WCs, bathroom, kitchen-</p> <p>Providing and laying water proofing treatment in sunken portion of WCs, bathroom, kitchen etc., by applying cement slurry mixed with water proofing cement compound consisting of following applications including surface preparation in superstructure of 15mm ms dia drain pipe</p> <p>i) First layer of slurry of cement @ 0.488 kg/sqm mixed with water proofing cement compound @ 0.253 kg/sqm. This layer will be allowed to air cure for 4 hours.</p> <p>ii) Second layer of slurry of cement @ 0.242 kg/sqm mixed with water proofing cement compound @ 0.126 kg/sqm. This layer will be allowed to air cure for 4 hours followed with water curing for 48 hours. The rate includes treatment and sealing of all joints, corners, junctions of pipes and masonry with polymer mixed slurry. Make- Asian,Sika,Dr Fixit</p>
14	Internal Water Supply		<ul style="list-style-type: none"> • Water Supply Pipe Line Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge. Concealed/External Work including cutting chases and making good the walls etc., 15mm,25mm & 32 as per requirement/drawing (Make- Astra/,Finolex,Supreme) <p>In each house as required Providing and fixing 15 mm nominal bore C.P. brass fittings of approved make and conforming to IS:8931 including C.P. brass extension if required:</p> <ul style="list-style-type: none"> • Bib cock (400 grams) • Long nose bib cock (500 grams) for Kitchen • Piller Cock (400 grams) - • Angle valve for basin mixer and geyser points (450gms) • Stop cock (concealed) (600 grams)-wherever required. • Wall mixer with elegant knob (1400 grams) • Hand shower set with flexible extension pipe

		<ul style="list-style-type: none"> Providing and fixing in position. (Each House) chromium shower bath 100 X 15 mm casted or sheet pressed with ri complete including gasket joint at any floor Soap Dish Plate Towel rail (600mm long x 20mm dia) Brass Ferrule 15/20 mm nominal bore Unions and other fittings <p>Above Sanitary Fittings decided by Engineer In charge/or as per drawing.</p> <p>(Make:- Jaquar/ Hindware/Parryware)</p> <p>A) As per requirement in each house Providing and fixing in position 100 mm PVC nahani trap & SS drain jail with hinged perforated cover complete with gasket and cement caulked joints including making necessary chases and holes in floors and walls and repairing the same to original condition with providing and fixing chromium plated Nahani Trap grating/CP Squar Jali.</p>
15	Kitchen Sink	<p>Providing and fixing Stainless Steel of size 560x410x215 mm A ISI 304 (18/8) kitchen sink without drain board as per IS 13983 with C.I. brackets and stainless steel plug 40 mm including painting of fittings and brackets, cutting and making good the walls wherever required with fixing of flexible P.V.C. waste pipe up to nahani trap etc. all complete as approved by Engineer In charge.</p> <p>(Make:- Nirali/Zayna/Sincore)</p>
16	Wash hand basins	<p>Providing and fixing in position White Oval or Round size 550x400 mm flat back with pedestal comprising of glazed vitreous china of specified size with central slot for single valve, only and enamel of aluminum paint, cast iron brackets, 32 mm dia G.I. Waste coupling with C.P. chain & bottle trap set with extension pipes and hard rubber plug, 15mm lead inlet connection not less than 375mm in length with 15mm dia CP brass heavy angle cock (450 grams) location decided by Engineer-in-charge/or as per drawing.</p> <p>(Make:- Jaquar/ Hindware/Parryware)</p>
17	Water closet	<p>1 Providing and fixing water closet pan (Indian type W.C. pan), 100mm P or S trap, 10 litre low level P.V.C. flushing cistern (same colour) conforming to IS : 7231, with flush bend and other fittings and fixtures of size White Orissa pattern W.C. pan of size 580x440 mm. location decided location decided by Engineer-in-charge/or as per drawing.</p> <p>(Make:- Jaquar/ Hindware/Parryware)</p>
18	Valves	<p>As per requirement Providing and fixing in position best Indian make gun metal high pressure full way or Gate valve (peets Pattern) with iron wheel head complete.</p>

		<p>a) 20 mm Dia b) 25 mm dia</p> <p>Location and size of valve as per decided by Engineer-in-charge and requirement</p> <p>As per requirement in each house Providing and fixing in position G.M. heavy ferrule 15/20mm dia including making holes of Pipes line and making gasket joints etc. complete inclusive of clamps.</p>
19	Water storage tanks	<p>Providing and hoisting and fixed 1000 liters capacity in each house water polyethylene water storage tank made out of F.D.A. approved as per IS 1270-1996 HDPE materials suitable for rotational molding vertical type and capable of holding required capacity of water with in the permissible tolerance limit for HDPE materials with provision for inlet, outlet, cleaning and overflow connection with heavy duty nipple socket drain plug etc. to facilitate inter connection and providing overflow brass cock at any height & Standard weight. Including float valve and PVC gate valve required nos. and size.</p> <p>Cement concrete base is to be done below the tank. Location and make decided by Engineer-in-charge.</p> <p>(Make:- Sintex/OceanAstral)</p>
20	Internal Sanitary and Collecting Chamber	<p>A) As per requirement Providing and fixing in position SQUARE MOUTH gully trap grade "A" complete with C.I. grating brick masonry chamber with well burnt modular clay bricks crushing strength not less than 35kg/cm² water tight rcc cover as per standard design (100x100mm size P type) as per drawing and directed as Engineer-in-charge.</p> <p>B) Sewage disposal from WC with 75 and 110 mm SWR PVC pipe & waste water from kitchen, Toilet & Bathroom with 75 and 110 mm SWR PVC pipe & fittings as required . Provide 110 mm SWR PVC pipe for Rain water as directed by Engineer – in – charge. It shall be responsibility of contractor to make essential arrangements for disposal of rain water from terrace (roof slab) by providing proper slope in roof slab and by providing appropriate SWR PVC pipes and fittings all complete as per drawing and directed as Engineer-in-charge.</p> <p>(Make:- Supreme/Finolex/Astral/)</p> <p>The sewer pipeline work will have to be connected to external sewer Main line with required size of 150 mm dia PVC SWR pipe and 450x600 mm and 600 x 600 mm size brick masonry chamber with 75 mm thick R.C.C. Precast cover with M.S. bar handle where ever required as per drawing and directed as Engineer-in-charge.</p> <p>C) Concrete 1:2:4 haunching all around PVC Pipe</p> <p>Note:-As per Site condition Final decision taken by Engineer-in-charge of water supply and sewerage work/system if required</p>

	Special Note	<p>All Work Mentioned In General Specification Must be Done By Contractor & If Any Work Is Omitted In General Specification UnKnowingly And Is present In DPR of the project, Those Work Must be Done By Contractor Without Any Litigation</p> <p>All Material should confirming to latest IS Specification Code</p>
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SUB-ENGINEER
C.G. HOUSING BOARD
SUB-DIV., KORBA



ASSISTANT ENGINEER
C.G. HOUSING BOARD
SUB-DIV., KORBA



EXECUTIVE ENGINEER
C.G. HOUSING BOARD
DIVISION KORBA

GENERAL SPECIFICATION

H 1 – Type (Block - 1Nos, Unit -8 Quarter) – G+1 Floor

1. **Building Details:** The bidder is to construct the G-TYPE Block building as per following details:-

- (i) Location - WRE/Irrig Staff quarter at Redevelopment Katghora Site - II, Teh- Katghora, Distt - Korba (CG)
- (ii) No of Block - 01 Nos Block
(04 unit Ground Floor & 04 unit First Floor-Total 08 Quater)
- (iii) Total Built up Area - As per attached Building drawing
(412.16 Sqm).
- (iv) Opening Size The size of Door, window and other openings to be as per drawing or decided by the board.
- (v) Soil SBC - 11.44 Ton/sqm

2. **Scope of Structural design:**

R.C.C. framed Structural design to be done by contractor on his own cost as per given Soil SBC Value. The approval of structural design will be done by any N.I.T or any government engineering college, it will also be done by contractor on his own cost.

Requirements are given below:-

- a. **Foundation:** The foundations for building shall be R.C.C. column –footing foundation up to required depth below natural ground level or on Geo–technical report of soil strata and design requirement. The Foundation & Plinth Beam shall be RCC.
- b. **Super Structure:** As per design R.C.C. Framed Structure with Design mix RMC M25 grade grades shall be adopted.
- c. **Reinforcement** – Fe 500D of TMT. All steel shall be procured form 'Original producers' who manufacture billets directly from iron ores and roll the billets to produce steel conforming to IS:1786, No re-rolled steel shall be incorporated in the works."

3. **General specification:**

1	Plinth work	:	Base Work- Base concrete 1:4:8, Minimum 10cm thick or as per Structural Design below footing . RCC Work- As per design R.C.C. frame structure with Design mix RMC M25 grade concrete as designed shall be adopted for different components :
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		<ul style="list-style-type: none"> • R.C.C. Foundation as per approved design. • R.C.C. Beams & column Plinth level as per approved design. • Reinforcement - FE 500D TMT as per approved design. <p>(Make:- GOEL/ Shrishtii/ Nakoda / GK)</p> <p>Plinth height –</p> <p>Minimum 0.75 mtr. from finished top road level in front of house and adequate steps to be provided as per requirement for front and back entry as per design.</p> <p>Plinth filling –</p> <p>Hard Moorum/sand/stone dust should be filled at plinth, wash area, rear stair and porch area (Extra excavated stuff can be used when useful otherwise will have to be disposed out.) Plot shall also be leveled up to required depth below plinth level from borrow pit soil or from excavated stuff is seemed to be good for filling.</p> <p>Damp proof course –</p> <p>Damp proof course of 1:2:4 cement concrete 50mm thick (with 10mm to 20 mm grade hard metal)</p> <p>Approach slab-</p> <p>RMC M25 in 120mm thickness from existing road edge to entrance gate approach slab to be done as per direction of Engineer in charge.</p> <p>Anti Termite Work-</p> <p>Surface treatment by spreading emulsion under floor, over the plinth area before laying base concrete for Anti termite treatment should be done in each-houses (chemical used-chlorpyrphos/lindane) with recommended diluting (with water) by manufacturer (05 year service guarantee) and should be done as directed by Engineer-in-Charge.</p> <p>Brick Work-</p> <p>Masonry work in plinth & foundation with Fly Ash bricks in cement mortar 1:5 (1- cement : 5-fine aggregate) crushing strength of bricks should not be less than 35Kg./sqcm. & plastered all exposed side in cement mortar 1:5 (1-cement:5-Sand) as per mentioned above plinth height.</p> <p>Plinth Protection Work-</p> <p>Making 50mm thick plinth protection of plain cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded crushed stone aggregate 20mm nominal size) over 75mm bed of dry brick ballast 40mm nominal size well rammed and consolidated and grouted with sand including finishing the top smooth. Width – 1.20 mtr</p> <p>Base Work-</p> <p>Base concrete 1:4:8 10cm thick Should be done at Floor Level.</p>
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2	Superstructure	:	<p>RCC frame structure (Column,Beam,Slab,Chajja,Lintel Beam,Stair Case,etc all) & Mumty with RMC M-25 concrete as per approved structural drawing ,Grade of concrete should not be less than RMC M25 including all related work (Make of Cement - ACC / AMBUJA / ULTRATECH CEMENT).</p> <p>Note – Lintel beam will be provided throughout at lintle level of all floor.</p> <p>All R.C.C. sun shade (chhajjas) shall be casted with plain face and bottom surface with drip mould and smooth quarter round cement concrete (haller) at top with cement concrete RMC M25,cement concrete haller at corner of Roof slab should also be provided</p>
3	Masonry Work	:	<p>A) 20cm thick Brick work with modular fly-ash lime bricks (FaLG Bricks) confirming to IS:12894-2002 of class designation 4.0 in foundation, plinth , Super Structure & Boundary Wall in: Cement Mortar 1:6 (1 cement : 6 coarse sand) as per Drawing.</p> <p>B) Half brick thick brick masonry with fly-ash lime bricks (FaLG Bricks) confirming to IS:12894-2002 of class designation 4.0 in superstructure above plinth level upto plinth level: Cement Mortar 1:4 (1 cement : 4 coarse sand) as per Drawing.</p> <p>C) RCC bend of 10 cm thick with main bar of 8mm 2 bars and 8 mm dia Pin @ 20 mm C/C at Window sill,RCC bend of 10 cm thick with main bar of 8mm 2 bars and 8 mm dia Pin @ 20 mm C/C for half brick complete wall at sill level .</p> <p>D) Mumty & Parapet wall with One/half brick thick Fly ash bricks or MS grills height up to 0.90 mtr(as per elevation) and 50mm thick CC coping (1:2:4:) at top.</p>
3	Slab	:	As per R.C.C. design approved by N.I.T or any other government engineering college for roofing with reinforcement. For grading of roof slab 50mm thick cement concrete flooring with cement concrete 1:2:4 finished with a floating coat of neat cement with water proofing compound at the top of the roof shall be done.
4	Ceiling Height	:	3.0 meter clear height
5	Joinery	:	<p>Outer Main Door Frame Providing and fixing Wood frames of doors Sal, bijasal, benteak, khair, haldu with section size 0.125 x 0.075 m including fixing of necessary Hole fast,butt hinges and screws and applying a priming coat of approved steel primer.</p> <p>Door Shutters – (a) Main Entry Teak Wood Door:- Providing and fixing 35mm thick glazed shutter frames for windows, clerestory windows, ventilators etc. using glass panes including M.S.</p>

		<p>butt hinges with necessary screws but excluding glass panes. (Area of shutter to be measured without deducting paneling area). Teak wood</p> <p>Providing and fixing paneling in paneled or paneled and glazed shutters for doors etc. (only area of paneling to be measured). Paneling for or paneled and glazed shutters 25 mm to 40 mm thick: Teak wood (16mm thick panel)</p> <p>(Make:-Kothari/National/Green/Century)</p> <p>(b) Main Entry Mesh Door with Teak Wood :- Providing and fixing 30mm thick wire gauge shutter having top and style rail 95mm width, bottom and lock rail 197mm width, using galvanized M.S. wire dia of 0.45mm for doors, windows, clerestory windows excluding hinges. Teak Wood</p> <p>(Make:-Kothari/National/Green/Century)</p> <p>Door Frame (Excluding WC/Bath)– Providing and fixing M.S. frames of doors, windows, ventilators and cupboards joints mitred and welded with 15x3 mm lugs 10cm long embedded in cement concrete blocks 15x10x10cm of grade M-10 or with wooden plugs and screws or with dash fastener or rawl plugs and screws or with fixing clips or with bolts and nuts as required including fixing of necessary butt hinges and screws and applying a priming coat of approved steel primer.</p> <p>Other door frame – 35 x 35 x 5 mm</p> <p>Door Shutters –</p> <p>(1) All Other doors:- 35 mm thick lush door shutters, conforming to IS 2202 (Part 1), interior grade, commercial type, core of block board construction with frame of first class hard wood and well matched commercial ply veneering with vertical grains, cross bands and face veneers on both faces of shutters excluding hinges..</p> <p>(Make:-Kothari/National/Green/Century/cghb aproved)</p> <p>(2) Front Corridor entrance - Providing and fixing steel door made of angle iron of suitable sizes with M.S. grill of approved pattern made of M.S. flats or square or round bars coat of red oxide zinc chromate primer. (Openable Iron Grill Gate,Weight of gate @ min. 20 kg/sqm),(Opening size as per Drawing),Design</p>
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		<p>decided by engineer in charge</p> <p>(3) Brass Door Fittings for one door-</p> <p>Entrance Flush door-</p> <p>i. Sliding bolt (L- Drop) : 1 no. 300 × 16 x 2.5mm.</p> <p>ii. Door stopper double : 1 no.</p> <p>iii. Handle : 2 nos. 150 mm (Clear)</p> <p>iv. Latch : 1 no. 300x12x2.5mm.</p> <p>v. Tower bolt (barrel type) : 1 no.250x10mm</p> <p>vi. Brass Butt hinges : 3 no. heavy 125x2.5mm upto 0.90 mtr door opening and 4 no heavy 125x2.5mm for more than 0.90 mtr door opening</p> <p>PVC Door aluminium fittings for one door-</p> <ul style="list-style-type: none"> • Door Handle: 2 nos. 100 mm • Latch: 2 no. 250 × 12 mm <p>Door Frame and shutter for WC / Bath-</p> <ul style="list-style-type: none"> • Providing and fixing factory made PVC door shutters of specified thickness made of styles and rails of a UPVC hollow section of specified size 59x24 mm and wall thickness 2 mm ± 0.2 mm with inbuilt edging on both sides. The styles and rails mitred and joined at the corners by means of M.S. galvanised/ plastic brackets of size 75x220 mm having wall thickness 1.0 mm and stainless steel screws. 30 mm thick door shutters with styles and rails of size 60x30 mm • Providing and fixing factory made UPVC door frame made of UPVC profile section having an overall dimension as below (tolerance ± 1mm) with wall thickness 2.0mm ± 0.2mm, corners of the door frame to be jointed with galvanized brackets and stainless steel screws, joints mitred and plastic welded. The hinge side vertical of the frames reinforced by galvanized M.S. tube of size 19 X 19mm and 1mm ± 0.1mm wall thickness and 3 nos. stainless steel hinges fixed to the frame complete as per manufacturers specification and direction of Engineer-in-charge. Extruded section Profile size 42x50 mm. <p>(Make : - Sintex/Eureka)</p> <p>Railling-</p> <p>MS Hollow Pipe Railing in Stair Case and M.S. Grill minimum 12 mm dia bar in Window/Ventilation/balcony of multi sections to be provided as per Approved Design & direction of Engineer in charge.</p>
6	Window & Ventilator	<p>: Grill-</p> <p>M.S. Grill of min. 12 mm sq bar vertical @ 125mm c/c and min. 12mm sq bar horizontal @ 125mm c/c and frame of M.S. flats 35x5 mm welded to outer frame of windows etc. including applying a</p>

		<p>priming coat of primer.</p> <p>Window-</p> <p>Window, Ventilator frame & Shutter : Providing and fixing aluminum work Three track windows, two track ventilators and fixed partitions made out of extruded aluminum standard section minimum thickness 1.2 mm with powder coating conforming to IS: 733, IS: 1285 mitred and jointed mechanically including aluminum cleats, neoprene weather stripping gasket beveled edge beading, screws duly fixed in wall/ floor with fixing clips or hold fasteners or bolts and nuts as required aluminum sections shall be anodized transparent or dyed to approved shade according to IS: 1868 i/c Glazing With float glass panes of 5 mm thickness and fixing wire gauge of average width of aperture 1.56mm with wire of 0.35mm at three track window.</p> <p>For shutter of doors, windows & ventilators including providing and making provision for fixing of fitting wherever required including the cost of PVC/ neoprene gasket required including all fittings and Glazing With float glass panes of 4 mm thickness.(Aluminum Window Make-Jindal/Hindalco),(Glass make-saint-Gobain/modi)</p> <p>Nominal mix C.C. 1:2:4 50mm thick at all window and ventilation sills.</p>
		<p>A Providing and Fixing rectified glazed ceramic floor tiles of 1st quality conforming to IS: 15622-2017 of approved make,in all colours shade over 20mm thick bed of cement mortar 1:3 (1 cement:3 course sand) and joining with grey cement slurry @ 3.3kg per sqm. including pointing in white cement mixed with matching pigment complete. Size 300x300 mm In bedroom,living,kitchen,balcony,passage,below stair,almirah,door sill,Toilet, Bath & Utility Area,etc As per drawing . (Make :KAJARIA / RAK/ORIENT)</p> <p>B Providing and fixing Rectified ceramic glazed wall tiles conforming to IS : 15622 of approved make, colours, shades and size on wall and dados over 12 mm thick bed of cement Mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm including pointing in white cement mixed with matching pigment complete. size 300x450mm</p> <ul style="list-style-type: none"> • Toilet/Bathroom Wall ht- 2.10 Mtr • Kitchen Dado 60 cm above Platform. <p>. As per drawing . (Make :KAJARIA / RAK/ORIENT)</p> <p>C 25 mm thick KOTA slab in Stair case risers and treads & Entrance steps skirting dado and pillars laid on 12mm (Average) thick base of cement mortar 1:3 (1 cement : 3 coarse sand) and jointed with grey cement slurry including rubbing and polishing etc. complete in Entrance stair,back stair and steps as per approved drawing. Moulding & Polishing as per requirement</p>
8	Kitchen Platform	: 25 mm thick KOTA (machine cut, table rubbed & mirror polished) for kitchen platform, vanity counters, Door sills and similar locations of required size laid over 20mm thick base cement mortar 1:4 (1 cement :

			4 coarse sand) including joints treated with white cement mixed with matching pigment including rubbing and polishing to edge moulding to give high gloss finish. Granite stone black with full Moulding & polishing in 60 cm wide Kitchen platform ,kitchn patta 125 mm ht all around .
9	Plaster	:	<p>a) 6mm thick plaster in cm 1:4 on ceiling, chhajjas and RCC work as required shall be done.</p> <p>b) 12mm/15 mm inner wall, outer wall in CM 1:4 as required shall be done.</p> <p>c) According to the building elevation the contractor will have to develop the elevation (like groove, moulding, patta, projection and others elevation design) in the building.</p> <p>d) Add Water proofing compound in external plaster @ of 1 kg for 4 sqm area.</p>
10	Drip Course ,Concrete Gola & Parapet coping	:	Drip course 5.00 cm x 1.3 cm. to be done on exposed R.C.C. work and concrete gola 7.50cm x 7.50cm also to be done at junctions of wall slab & above chhajja corner. 50mm thick Nominal mix C.C. 1:2:4 parapet coping to be done and Neat Cement punning over chajja
11	Painting	:	<p>Inner Surface -</p> <ol style="list-style-type: none"> 1) Providing and applying 2mm thick ready mix exterior grade approved make putty (like Birla wall care, Asian, J.K. wall putty) to make the surface smooth and even at all inner surface including porch, balcony, verandah & chajja bottom. 2) Applying one coat of cement primer on wall surface (applied @ 0.80 litres/10 sqm) complete. 3) Wall painting with acrylic luxury emulsion (plastic) paint of required shade to give an even shade. On new work (two or more coats) <p>(Make:- Asian/Dulux/Nippon)</p> <p>Outer Surface</p> <ol style="list-style-type: none"> 1) Painting exterior surface with ACRYLIC SMOOTH exterior paint of required shade as per manufacturer's specifications to give protective and decorative finish including cleaning washing of surface etc. complete with: On new work (Two or more coats applied @ 1.43 ltr/ 10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/ 10 sqm) 2) . (Make:- Asian apex ultima Only) <p>Wood & Grill -</p> <p>Synthetic Enamel Paint of approved make two or more coat coats including priming coat for doors Shutter, frame, Window & Ventilator, Main Gate & Parapet grill</p> <p>(Make:- Dulux/Asian/Nippon)</p>

12	Chicken Mesh	:	30 cm Wide Chicken Mesh will be provided at each junction of inner & outer Face of brick masonry and RCC Column/Beam work & to be provided and at electrical conduit
13	Water Proofing		<p>For WCs, bathroom, kitchen-</p> <p>Providing and laying water proofing treatment in sunken portion of WCs, bathroom, kitchen etc., by applying cement slurry mixed with water proofing cement compound consisting of following applications including surface preparation in superstructure of 15mm ms dia drain pipe</p> <p>i) First layer of slurry of cement @ 0.488 kg/sqm mixed with water proofing cement compound @ 0.253 kg/sqm. This layer will be allowed to air cure for 4 hours.</p> <p>ii) Second layer of slurry of cement @ 0.242 kg/sqm mixed with water proofing cement compound @ 0.126 kg/sqm. This layer will be allowed to air cure for 4 hours followed with water curing for 48 hours. The rate includes treatment and sealing of all joints, corners, junctions of pipes and masonry with polymer mixed slurry. Make- Asian,Sika,Dr Fixit</p>
14	Internal Water Supply		<p>• Water Supply Pipe Line Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge. Concealed/External Work including cutting chases and making good the walls etc.,. 15mm,25mm & 32 as per requirement/drawing (Make- Astra/,Finolex,Supreme)</p> <p>In each house as required Providing and fixing 15 mm nominal bore C.P. brass fittings of approved make and conforming to IS:8931 including C.P. brass extension if required:</p> <ul style="list-style-type: none"> • Bib cock (400 grams) • Long nose bib cock (500 grams) for Kitchen • Piller Cock (400 grams) - • Angle valve for basin mixer and geyser points (450gms) • Stop cock (concealed) (600 grams)-wherever required. • Wall mixer with elegant knob (1400 grams) • Hand shower set with flexible extension pipe

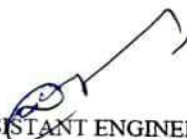
		<ul style="list-style-type: none"> • Providing and fixing in position. (Each House) chromium shower bath 100 X 15 mm casted or sheet pressed with rubber complete including gasket joint at any floor • Soap Dish Plate • Towel rail (600mm long x 20mm dia) • Brass Ferrule 15/20 mm nominal bore • Unions and other fittings <p>Above Sanitary Fittings decided by Engineer In charge/or as per drawing.</p> <p>(Make:- Jaquar/ Hindware/Parryware)</p> <p>A) As per requirement in each house Providing and fixing in position 100 mm PVC nahani trap & SS drain jail with hinged perforated cover complete with gasket and cement caulked joints including making necessary chases and holes in floors and walls and repairing the same to original condition with providing and fixing chromium plated Nahani Trap grating/CP Squar Jali.</p>
15	Kitchen Sink	<p>Providing and fixing Stainless Steel of size 560x410x215 mm A ISI 304 (18/8) kitchen sink without drain board as per IS 13983 with C.I. brackets and stainless steel plug 40 mm including painting of fittings and brackets, cutting and making good the walls wherever required with fixing of flexible P.V.C. waste pipe up to nahani trap etc. all complete as approved by Engineer In charge.</p> <p>(Make:- Nirali/Zayna/Sincore)</p>
16	Wash hand basins	<p>Providing and fixing in position White Oval or Round size 550x400 mm flat back with pedestal comprising of glazed vitreous china of specified size with central slot for single valve, only and enamel of aluminum paint, cast iron brackets, 32 mm dia G.I. Waste coupling with C.P. chain & bottle trap set with extension pipes and hard rubber plug, 15mm lead inlet connection not less than 375mm in length with 15mm dia CP brass heavy angle cock (450 grams) location decided by Engineer-in-charge/or as per drawing.</p> <p>(Make:- Jaquar/ Hindware/Parryware)</p>
17	Water closet	<p>1 Providing and fixing water closet pan (Indian type W.C. pan), 100mm P or S trap, 10 litre low level P.V.C. flushing cistern (same colour) conforming to IS : 7231, with flush bend and other fittings and fixtures of size White Orissa pattern W.C. pan of size 580x440 mm. location decided location decided by Engineer-in-charge/or as per drawing.</p> <p>(Make:- Jaquar/ Hindware/Parryware)</p>
18	Valves	<p>As per requirement Providing and fixing in position best Indian make gun metal high pressure full way or Gate valve (peets Pattern) with iron wheel head complete.</p>

		<p>a) 20 mm Dia b) 25 mm dia</p> <p>Location and size of valve as per decided by Engineer-in-charge and requirement</p> <p>As per requirement in each house Providing and fixing in position G.M. heavy ferrule 15/20mm dia including making holes of Pipes line and making gasket joints etc. complete inclusive of clamps.</p>
19	Water storage tanks	<p>Providing and hoisting and fixed 1000 liters capacity in each house water polyethylene water storage tank made out of F.D.A. approved as per IS 1270-1996 HDPE materials suitable for rotational molding vertical type and capable of holding required capacity of water with in the permissible tolerance limit for HDPE materials with provision for inlet, outlet, cleaning and overflow connection with heavy duty nipple socket drain plug etc. to facilitate inter connection and providing overflow brass cock at any height & Standard weight. Including float valve and PVC gate valve required nos. and size.</p> <p>Cement concrete base is to be done below the tank. Location and make decided by Engineer-in-charge. (Make:- Sintex/Ocean/Astral/)</p>
20	Internal Sanitary and Collecting Chamber	<p>A) As per requirement Providing and fixing in position SQUARE MOUTH gully trap grade "A" complete with C.I. grating brick masonry chamber with well burnt modular clay bricks crushing strength not less than 35kg/cm² water tight rcc cover as per standard design (100x100mm size P type) as per drawing and directed as Engineer-in-charge.</p> <p>B) Sewage disposal from WC with 75 and 110 mm SWR PVC pipe & waste water from kitchen, Toilet & Bathroom with 75 and 110 mm SWR PVC pipe & fittings as required . Provide 110 mm SWR PVC pipe for Rain water as directed by Engineer – in – charge. It shall be responsibility of contractor to make essential arrangements for disposal of rain water from terrace (roof slab) by providing proper slope in roof slab and by providing appropriate SWR PVC pipes and fittings all complete as per drawing and directed as Engineer-in-charge. (Make:- Supreme/Finolex/Astral/)</p> <p>The sewer pipeline work will have to be connected to external sewer Main line with required size of 150 mm dia PVC SWR pipe and 450x600 mm and 600 x 600 mm size brick masonry chamber with 75 mm thick R.C.C. Precast cover with M.S. bar handle where ever required as per drawing and directed as Engineer-in-charge.</p> <p>C) Concrete 1:2:4 haunching all around PVC Pipe</p> <p>Note:-As per Site condition Final decision taken by Engineer-in-charge of water supply and sewerage work/system if required</p>

	Special Note	All Work Mentioned In General Specification Must be Done By Contractor & If Any Work Is Omitted In General Specification UnKnowingly And Is present In DPR of the project, Those Work Must be Done By Contractor Without Any Litigation
		All Material should confirming to latest IS Specification Code



SUB-ENGINEER
C.G. HOUSING BOARD
SUB-DIV., KORBA



ASSISTANT ENGINEER
C.G. HOUSING BOARD
SUB-DIV., KORBA



EXECUTIVE ENGINEER
C.G. HOUSING BOARD
DIVISION-KORBA

GENERAL SPECIFICATION

Office Block – 1 Nos, - G+2 Floor

1. **Building Details:** The bidder is to construct the Office type Block building as per following details:-

- | | | |
|-------|--------------|---|
| (i) | Location | - WRE/Irrig Staff quarter at Redevelopment Katghora Site - II,
Teh- Katghora, Distt - Korba (CG) |
| (ii) | No of Block | - 01 Nos Block |
| | | Total Built up Area - As per attached Building drawing
(627.65 Sqm). |
| (iii) | Opening Size | The size of Door, window and other openings to be as per
drawing or decided by the board. |
| (iv) | Soil SBC | - 11.44 Ton/sqm |

2. **Scope of Structural design:**

R.C.C. framed Structural design - as per enclosed drawing & Structural Design.

Requirements are given below:-

- a. **Foundation:** The foundations for building shall be R.C.C. column –footing foundation up to required depth below natural ground level or on Geo–technical report of soil strata and design requirement. The Foundation & Plinth Beam shall be RCC.
- b. **Super Structure:** As per design R.C.C. Framed Structure with Design mix RMC M25 grade grades shall be adopted.
- c. **Reinforcement** – Fe 500D of TMT. All steel shall be procured from 'Original producers' who manufacture billets directly from iron ores and roll the billets to produce steel conforming to IS:1786, No re-rolled steel shall be incorporated in the works."

3. **General specification:**

1	Plinth work	:	Base Work- Base concrete 1:4:8, Minimum 10cm thick or as per Structural Design below footing . RCC Work- As per design R.C.C. frame structure with Design mix RMC M25 grade concrete as designed shall be adopted for different components : <ul style="list-style-type: none">• R.C.C. Foundation as per approved design.• R.C.C. Beams & column Plinth level as per approved design.• Reinforcement - FE 500D TMT as per approved design. (Make:- GOEL/ Shrishtii/ Nakoda / GK)
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		<p>(Make:- GOEL/ Shrishtii/ Nakoda / GK)</p> <p>Plinth height –</p> <p>Minimum 0.75 mtr. from finished top road level in front of house and adequate steps to be provided as per requirement for front and back entry as per design.</p> <p>Plinth filling –</p> <p>Hard Moorum/sand/stone dust should be filled at plinth, wash area, rear stair and porch area (Extra excavated stuff can be used when useful otherwise will have to be disposed out.) Plot shall also be leveled up to required depth below plinth level from borrow pit soil or from excavated stuff is seemed to be good for filling.</p> <p>Damp proof course –</p> <p>Damp proof course of 1:2:4 cement concrete 50mm thick (with 10mm to 20 mm grade hard metal)</p> <p>Approach slab-</p> <p>RMC M-25 in 120mm thickness from existing road edge to entrance gate approach slab to be done as per direction of Engineer in charge.</p> <p>Anti Termite Work-</p> <p>Surface treatment by spreading emulsion under floor, over the plinth area before laying base concrete for Anti termite treatment should be done in each-houses (chemical used-chlorpyriphos/lindane) with recommended diluting (with water) by manufacturer (05 year service guarantee) and should be done as directed by Engineer-in-Charge.</p> <p>Brick Work-</p> <p>Masonry work in plinth & foundation with Fly Ash bricks in cement mortar 1:5 (1- cement : 5-fine aggregate) crushing strength of bricks should not be less than 35Kg./sqcm. & plastered all exposed side in cement mortar 1:5 (1-cement:5-Sand) as per mentioned above plinth height.</p> <p>Plinth Protection Work-</p> <p>Making 50mm thick plinth protection of plain cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded crushed stone aggregate 20mm nominal size) over 75mm bed of dry brick ballast 40mm nominal size well rammed and consolidated and grouted with sand including finishing the top smooth. Width – 1.20 mtr</p> <p>Base Work-</p> <p>Base concrete 1:4:8 10cm thick Should be done at Floor Level.</p>
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2	Superstructure	:	<p>RCC frame structure (Column,Beam,Slab,Chajja,Lintel Beam,Stair Case,etc all) & Mumty with RMC M25 concrete as per approved structural drawing ,Grade of concrete should not be less than RMC M25 including all related work (Make of Cement - ACC / AMBUJA / ULTRATECH CEMENT).</p> <p>Note – Lintel beam will be provided throughout at lintle level of all floor.</p> <p>All R.C.C. sun shade (chhajjas) shall be casted with plain face and bottom surface with drip mould and smooth quarter round cement concrete (haller) at top with cement concrete RMC M25,cement concrete haller at corner of Roof slab should also be provided</p>
3	Masonry Work	:	<p>A) 20cm thick Brick work with modular fly-ash lime bricks (FaLG Bricks) confirming to IS:12894-2002 of class designation 4.0 in foundation, plinth , Super Structure & Boundary Wall in: Cement Mortar 1:6 (1 cement : 6 coarse sand) as per Drawing.</p> <p>B) Half brick thick brick masonry with fly-ash lime bricks (FaLG Bricks) confirming to IS:12894-2002 of class designation 4.0 in superstructure above plinth level upto plinth level: Cement Mortar 1:4 (1 cement : 4 coarse sand) as per Drawing.</p> <p>C) RCC bend of 10 cm thick with main bar of 8mm 2 bars and 8 mm dia Pin @ 20 mm C/C at Window sill,RCC bend of 10 cm thick with main bar of 8mm 2 bars and 8 mm dia Pin @ 20 mm C/C for half brick complete wall at sill level .</p> <p>D) Mumty & Parapet wall with One/half brick thick Fly ash bricks or MS grills height up to 0.90 mtr(as per elevation) and 50mm thick CC coping (1:2:4:) at top.</p>
3	Slab	:	As per R.C.C. design approved by N.I.T or any other government engineering college for roofing with reinforcement. For grading of roof slab 50mm thick cement concrete flooring with cement concrete 1:2:4 finished with a floating coat of neat cement with water proofing compound at the top of the roof shall be done.
4	Ceiling Height	:	3.30 meter clear height
5	Joinery	:	<p>Outer Main Door Frame Providing and fixing Wood frames of doors Sal, bijasal, benteak, khair, haldu with section size 0.125 x 0.075 m including fixing of necessary Hole fast,butt hinges and screws and applying a priming coat of approved steel primer.</p> <p>Door Shutters – (a) Main Entry Teak Wood Door:- Providing and fixing 35mm thick glazed shutter frames for windows, clerestory windows, ventilators etc. using glass panes including M.S. butt hinges with necessary screws but excluding glass panes. (Area of shutter to be measured without deducting</p>

		<p>paneling area). Teak wood</p> <p>Providing and fixing paneling in paneled or paneled and glazed shutters for doors etc. (only area of paneling to be measured). Paneling for or paneled and glazed shutters 25 mm to 40 mm thick: Teak wood (16mm thick panel)</p> <p>(Make:-Kothari/National/Green/Century)</p> <p>(b) Main Entry Mesh Door with Teak Wood :- Providing and fixing 30mm thick wire gauge shutter having top and style rail 95mm width, bottom and lock rail 197mm width, using galvanized M.S. wire dia of 0.45mm for doors, windows, clerestory windows excluding hinges. Teak Wood</p> <p>(Make:-Kothari/National/Green/Century)</p> <p>Door Frame (Excluding WC/Bath)– Providing and fixing M.S. frames of doors, windows, ventilators and cupboards joints mitred and welded with 15x3 mm lugs 10cm long embedded in cement concrete blocks 15x10x10cm of grade M-10 or with wooden plugs and screws or with dash fastener or rawl plugs and screws or with fixing clips or with bolts and nuts as required including fixing of necessary butt hinges and screws and applying a priming coat of approved steel primer. door frame – 35 x 35 x 5 mm</p> <p>Door Frame (Excluding WC/Bath)– Providing and fixing Wood frames of doors Sal, bijasal, benteak, khair, haldu with section size 0.125 x 0.075 m (Double Ptam for all outer door) all door opening including fixing of necessary Hole fast,butt hinges and screws and applying a priming coat of approved steel primer.</p> <p>Door Shutters –</p> <p>(1) All other doors:- 35 mm thick flush door shutters, conforming to IS : 2202 (Part-I), decorative type core of block board construction with frame of first class hard wood and well matched teak ply veneering with vertical grains or cross bands and face veneers on both faces of shutters excluding hinges. .</p> <p>(Make:-Kothari/National/Green/Century)</p> <p>(2) Front Corridor entrance - Providing and fixing steel door made of angle iron of suitable sizes with M.S. grill of approved pattern made of M.S. flats or square or round bars coat of red oxide zinc chromate primer. (Openable Iron Grill Gate,Weight of gate @ min. 20 kg/sqm),(Opening size as per Drawing),Design</p>
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		<p>decided by engineer in charge</p> <p>(3) Brass Door Fittings for one door-</p> <p>Entrance Flush door-</p> <p>i. Sliding bolt (L- Drop) : 1 no. 300 × 16X 2.5mm. ii. Door stopper double : 1 no. iii. Handle : 2 nos. 150 mm (Clear) iv. Latch : 1 no. 300x12x2.5mm. v. Tower bolt (barrel type) : 1 no.250x10mm vi. Brass Butt hinges : 3 no. heavy 125x2.5mm upto 0.90 mtr door opening and 4 no heavy 125x2.5mm for more than 0.90 mtr door opening</p> <p>PVC Door aluminium fittings for one door-</p> <ul style="list-style-type: none"> • Door Handle: 2 nos. 100 mm • Latch: 2 no. 250 × 12 mm <p>Door Frame and shutter for WC / Bath-</p> <ul style="list-style-type: none"> • Providing and fixing factory made PVC door shutters of specified thickness made of styles and rails of a UPVC hollow section of specified size 59x24 mm and wall thickness 2 mm ± 0.2 mm with inbuilt edging on both sides. The styles and rails mitred and joined at the corners by means of M.S. galvanised/ plastic brackets of size 75x220 mm having wall thickness 1.0 mm and stainless steel screws. 30 mm thick door shutters with styles and rails of size 60x30 mm • Providing and fixing factory made UPVC door frame made of UPVC profile section having an overall dimension as below (tolerance ± 1mm) with wall thickness 2.0mm ± 0.2mm, corners of the door frame to be jointed with galvanized brackets and stainless steel screws, joints mitred and plastic welded. The hinge side vertical of the frames reinforced by galvanized M.S. tube of size 19 X 19mm and 1mm ± 0.1mm wall thickness and 3 nos. stainless steel hinges fixed to the frame complete as per manufacturers specification and direction of Engineer-in-charge. Extruded section Profile size 42x50 mm. (Make : - Sintex/Eureka) <p>Railling- SS railing of SS Grade 304 in Stair Case and M.S. Grill minimum 12 mm dia bar in Window/Ventilation/balcony of multi sections to be provided as per Approved Design & direction of Engineer in charge.</p>
6	Window & Ventilator	<p>: Grill-</p> <p>M.S. Grill of min. 12 mm sq bar vertical @ 125mm c/c and min. 12mm sq bar horizontal @ 125mm c/c and frame of M.S. flats 35x5 mm welded to outer frame of windows etc. including applying a</p>

		<p>priming coat of primer.</p> <p>Window-</p> <p>Window, Ventilator frame & Shutter : Providing and fixing aluminum work Three track windows, two track ventilators and fixed partitions made out of extruded aluminum standard section minimum thickness 1.2 mm with powder coating conforming to IS: 733, IS: 1285 mitred and jointed mechanically including aluminum cleats, neoprene weather stripping gasket beveled edge beading, screws duly fixed in wall/ floor with fixing clips or hold fasteners or bolts and nuts as required aluminum sections shall be anodized transparent or dyed to approved shade according to IS: 1868 i/c Glazing With float glass panes of 4 mm thickness and fixing wire gauge of average width of aperture 1.56mm with wire of 0.35mm at three track window.</p> <p>For shutter of doors, windows & ventilators including providing and making provision for fixing of fitting wherever required including the cost of PVC/ neoprene gasket required including all fittings and Glazing With float glass panes of 5 mm thickness.(Aluminum Window Make-Jindal/Hindalco),(Glass make-saint-Gobain/modi)</p> <p>Nominal mix C.C. 1:2:4 50mm thick at all window and ventilation sills.</p>
7	Flooring	<p>A Providing and laying DOUBLE/MULTI CHARGE (minimum 2.0 mm thick layer) vitrified floor tiles with water absorption less than 0.5% and conforming to IS : 15622 of approved make in all colours and shades and size mentioned below (+/- 10mm), laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand) including grouting the joints with white cement and matching pigments etc. complete.. Size 600x600 mm thickness 9 to 10 mm,Store,AE Chamber,EE chamber,technical section,corridor,section,Front of Toilet,below stair area,Meeting hall ,Door Sill,etc. all area should be provided with 100 mm skirting all around of same tiles. As per drawing (Make KAJARIA / RAK/ORIENT)</p> <p>B Providing and Fixing rectified glazed ceramic floor tiles of 1st quality conforming to IS: 15622-2017 of approved make,in all colours shade over 20mm thick bed of cement mortar 1:3 (1 cement:3 coarse sand) and joining with grey cement slurry @ 3.3kg per sqm. including pointing in white cement mixed with matching pigment complete. Size 300x300 mm In Toilet, Bath,etc As per drawing . (Make KAJARIA / RAK/ORIENT)</p> <p>C Providing and fixing Rectified ceramic glazed wall tiles conforming to IS : 15622 of approved make, colours, shades and size on wall and dados over 12 mm thick bed of cement Mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm including pointing in white cement mixed with matching pigment complete. size 300x450mm</p> <ul style="list-style-type: none"> • Toilet/Bathroom Wall ht- 2.10 Mtr <p>. As per drawing . (Make KAJARIA / RAK/ORIENT)</p>


		D	15 mm thick Table rubbed polished Grey/Pink Granite stone slab in Stair case risers and treads & Entrance steps skirting dado and pillars laid on 12mm (Average) thick base of cement mortar 1:3 (1 cement : 3 coarse sand) and jointed with grey cement slurry including rubbing and polishing etc. complete in Entrance stair,back stair and steps as per approved drawing. Moulding & Polishing as per requirement.
		E	Providing & laying 60mm thick precast interlocking concrete blocks of approved size (approx 305 sqcm) and shape/ pattern, over 40 mm thick average complete coarse sand bed with joints of 3mm thick filled by fine sand including leveling with surface vibrator, temping and sweeping etc. complete of minimum compressive strength of 250 kg/sq.cm Pigment Coloured (rubber mould) precast interlock concrete blocks Around porch 14.40 x 9.90 sqm area
8	Kitchen Platform	:	15mm thick Black Granite work (machine cut, table rubbed & mirror polished) for kitchen platform, vanity counters, Door sills and similar locations of required size laid over 20mm thick base cement mortar 1:4 (1 cement : 4 coarse sand) including joints treated with white cement mixed with matching pigment including rubbing and polishing to edge moulding to give high gloss finish. Granite stone black with full Moulding & polishing in 60 cm wide Kitchen platform ,kitchen patta 125 mm ht all around & Kitchen Dado 60 cm above Platform.
9	Plaster	:	<ul style="list-style-type: none"> a) 6mm thick plaster in cm 1:4 on ceiling, chhajjas and RCC work as required shall be done. b) 12mm/15 mm inner wall, outer wall in CM 1:4 as required shall be done. c) According to the building elevation the contractor will have to develop the elevation (like groove, moulding, patta, projection and others elevation design) in the building. d) Add Water proofing compound in external plaster @ of 1 kg for 4 sqm area.
10	Drip Course ,Concrete Gola & Parapet coping	:	Drip course 5.00 cm x 1.3 cm. to be done on exposed R.C.C. work and concrete gola 7.50cm x 7.50cm also to be done at junctions of wall slab & above chhajja corner. 50mm thick Nominal mix C.C. 1:2:4 parapet coping to be done and Neat Cement punning over chajja
11	Painting	:	Inner Surface - <ul style="list-style-type: none"> 1) Providing and applying 2mm thick ready mix exterior grade approved make putty (like Birla wall care, Asian, J.K. wall putty) to make the surface smooth and even at all inner surface including porch, balcony, verandah & chajja bottom. 2) Applying one coat of cement primer on wall surface (applied @ 0.80 litres/10 sqm) complete. 3) Wall painting with acrylic luxury emulsion (plastic) paint of required shade to give an even shade. On new work (two or more coats)

			<p>(Make:- Asian/Dulux/Nippon)</p> <p>Outer Surface</p> <p>1) Painting exterior surface with ACRYLIC SMOOTH exterior paint of required shade as per manufacturer's specifications to give protective and decorative finish including cleaning washing of surface etc. complete with: On new work (Two or more coats applied @ 1.43 ltr/ 10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/ 10 sqm)</p> <p>2) . (Make:- Asian apex ultima Only)</p> <p>Wood & Grill -</p> <p>Synthetic Enamel Paint of approved make two or more coat coats including priming coat for doors Shutter,frame,Window & Ventilator,Main Gate & Parapet grill</p> <p>Door Shutter paint - Providing and laying Melamine polish on new wood work (two or more coats) with spray machine after preparing surface by rubbing down smooth with sand papers, preparation of surface, applying 5 to 10 coats of French spirit polish, applying two coats of Melamine sealer and finally applying two coats of Melamine clear as per manufacturers specifications complete: (Make:- Dulux/Asian/Nippon)</p>
12	Chicken Mesh	:	30 cm Wide Chicken Mesh will be provided at each junction of inner & outer Face of brick masonry and RCC Column/Beam work & to be provided and at electrical conduit
13	Water Proofing		<p>For WCs, bathroom, kitchen-</p> <p>Providing and laying water proofing treatment in sunken portion of WCs, bathroom, kitchen etc., by applying cement slurry mixed with water proofing cement compound consisting of following applications including surface preparation in superstructure of 15mm ms dia drain pipe</p> <p>i) First layer of slurry of cement @ 0.488 kg/sqm mixed with water proofing cement compound @ 0.253 kg/sqm. This layer will be allowed to air cure for 4 hours.</p> <p>ii) Second layer of slurry of cement @ 0.242 kg/sqm mixed with water proofing cement compound@ 0.126 kg/sqm. This layer will be allowed to air cure for 4 hours followed with water curing for 48 hours. The rate includes treatment and sealing of all joints, corners, junctions of pipes and masonry with polymer mixed slurry. Make- Asian,Sika,Dr Fixit</p>
14	Internal Water Supply		<ul style="list-style-type: none"> • Water Supply Pipe Line Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including

		<p>testing of joints complete as per direction of Engineer in Charge. Concealed/External Work including cutting chases and making good the walls etc., 15mm,25mm & 32 as per requirement/drawing</p> <p>(Make- Astra/,Finolex,Supreme)</p> <p>In each house as required</p> <p>Providing and fixing 15 mm nominal bore C.P. brass fittings of approved make and conforming to IS:8931 including C.P. brass extension if required:</p> <ul style="list-style-type: none"> • Bib cock (400 grams) • Long nose bib cock (500 grams) for Kitchen • Piller Cock (400 grams) - • Angle valve for basin mixer and geyser points (450gms) • Stop cock (concealed) (600 grams)-wherever required. • Wall mixer with elegant knob (1400 grams) • Hand shower set with flexible extension pipe • Providing and fixing in position. (Each House) chromium shower bath 100 X 15 mm casted or sheet pressed with ri complete including gasket joint at any floor • Health foscet (hand jet) with flexible connection pipe (for WC) – • CP brass water jet to be fixed in seat cover of WC with flexible connection pipe – • Soap Dish Plate • Towel rail (600mm long x 20mm dia) • Brass Ferrule 15/20 mm nominal bore • Unions and other fittings <p>Above Sanitary Fittings decided by Engineer In charge/or as per drawing.</p> <p>(Make:- Jaquar/ Hindware/ Kohler)</p> <p>A) As per requirement in each house Providing and fixing in position 100 mm PVC nahani trap & SS drain jail with hinged perforated cover complete with gasket and cement caulked joints including making necessary chases and holes in floors and walls and repairing the same to original condition with providing and fixing chromium plated Nahani Trap grating/CP Squar Jali.</p>
15	Kitchen Sink	<p>Providing and fixing Stainless Steel of size 560x410x215 mm A ISI 304 (18/8) kitchen sink without drain board as per IS 13983 with C.I. brackets and stainless steel plug 40 mm including painting of fittings and brackets, cutting and making good the walls wherever required with fixing of flexible P.V.C. waste pipe up to nahani trap etc. all complete as approved by Engineer In charge.</p> <p>(Make:- Nirali/Zayna/Sincore)</p>

16	Wash hand basins	<p>Providing and fixing in position White Oval or Round size 550x400 mm flat back with pedestal comprising of glazed vitreous china of specified size with central slot for single valve, only and enamel of aluminum paint, cast iron brackets, 32 mm dia G.I. Waste coupling with C.P. chain & bottle trap set with extension pipes and hard rubber plug, 15mm lead inlet connection not less than 375mm in length with 15mm dia CP brass heavy angle cock (450 grams) location decided by Engineer-in-charge/or as per drawing. (Make:- Jaquar/ Hindware/ Kohler)</p>
17	Water closet	<p>1. Providing and fixing vitreous china water closet (European type W.C. pan) with white ISI marked plastic seat and lid, 10 litre low level white P.V.C. flushing cistern (same colour), conforming to IS : 7231, with all fittings and fixtures & Providing. White pedestal type location decided by Engineer-in-charge/or as per drawing.</p> <p>2 Providing and fixing water closet pan (Indian type W.C. pan), 100mm P or S trap, 10 litre low level P.V.C. flushing cistern (same colour) conforming to IS : 7231, with flush bend and other fittings and fixtures of size White Orissa pattern W.C. pan of size 580x440 mm. location decided location decided by Engineer-in-charge/or as per drawing. (Make:- Jaquar/ Hindware/ Kohler)</p>
18	Valves	<p>As per requirement Providing and fixing in position best Indian make gun metal high pressure full way or Gate valve (peets Pattern) with iron wheel head complete.</p> <p>a) 20 mm Dia b) 25 mm dia</p> <p>Location and size of valve as per decided by Engineer-in-charge and requirement</p> <p>As per requirement in each house Providing and fixing in position G.M. heavy ferrule 15/20mm dia including making holes of Pipes line and making gasket joints etc. complete inclusive of clamps.</p>
19	Water storage tanks	<p>Providing and hoisting and fixed 2000 liters capacity water polyethylene water storage tank made out of F.D.A. approved as per IS 1270-1996 HDPE materials suitable for rotational molding vertical type and capable of holding required capacity of water with in the permissible tolerance limit for HDPE materials with provision for inlet, outlet, cleaning and overflow connection with heavy duty nipple socket drain plug etc. to facilitate inter connection and providing overflow brass cock at any height & Standard weight. Including float valve and PVC gate valve required nos. and size.</p> <p>Cement concrete base is to be done below the tank. Location and make decided by Engineer-in-charge. (Make:- Sintex/Ocean/Astral/)</p>

20	Internal Sanitary and Collecting Chamber	<p>A) As per requirement Providing and fixing in position SQUARE MOUTH gully trap grade "A" complete with C.I. grating brick masonry chamber with well burnt modular clay bricks crushing strength not less than 35kg/cm² water tight rcc cover as per standard design (100x100mm size P type) as per drawing and directed as Engineer-in-charge.</p> <p>B) Sewage disposal from WC with 75 and 110 mm SWR PVC pipe & waste water from kitchen, Toilet & Bathroom with 75 and 110 mm SWR PVC pipe & fittings as required . Provide 110 mm SWR PVC pipe for Rain water as directed by Engineer – in – charge. It shall be responsibility of contractor to make essential arrangements for disposal of rain water from terrace (roof slab) by providing proper slope in roof slab and by providing appropriate SWR PVC pipes and fittings all complete as per drawing and directed as Engineer-in-charge.</p> <p>(Make:- Supreme/Finolex/Astral/)</p> <p>The sewer pipeline work will have to be connected to external sewer Main line with required size of 150 mm dia PVC SWR pipe and 450x600 mm and 600 x 600 mm size brick masonry chamber with 75 mm thick R.C.C. Precast cover with M.S. bar handle where ever required as per drawing and directed as Engineer-in-charge.</p> <p>C) Concrete 1:2:4 haunching all around PVC Pipe</p> <p>Note:-As per Site condition Final decision taken by Engineer-in-charge of water supply and sewerage work/system if required</p>
	Special Note	<p>All Work Mentioned In General Specification Must be Done By Contractor & If Any Work Is Omitted In General Specification UnKnowingly And Is present In DPR of the project, Those Work Must be Done By Contractor Without Any Litigation</p>
		All Material should confirming to latest IS Specification Code


 SUB-ENGINEER
 C.G. HOUSING BOARD
 SUB-DIV., KORBA


 ASSISTANT ENGINEER
 C.G. HOUSING BOARD
 SUB-DIV., KORBA


 EXECUTIVE ENGINEER
 C.G. HOUSING BOARD
 DIVISION-KORBA

**GENERAL SPECIFICATION OF EXTERNAL ELECTRIFICATION WORK FOR GAD AREA
UNDER REDEVELOPMENT SCHEME AT KATGHORA (SITE-2), DISTT-KORBA (C.G.)**

1	External Electrification	<p>: 1. HT POLE :-</p> <p>Supply and erection of 'H' Beam Pole 152x152 mm size, 11 meter long 37.1 kg/Mtr Weight HT over head line single length supports complete with aligning and keeping it in truly verticle position, including digging of required size filling with M15 grade cement concrete of 0.60 mtr. Dia of required depth around the pole including muffing of 0.50 meter from ground level of 45 mm dia with plaster & 02 coat of approved make weather proof paint as per specification with 20 cm thick base foundation refilling the pit including painting of pole and other fittings with bitumen paint in bottom and one coat of red oxide and two coats of aluminum paint etc of approved make, the depth of foundation shall be 1/6 of the length of pole with Providing and fixing earthing arrangement for poles with G.I. lead of 115 turns of 50 mm dia connection with bracket/cross arm by pole with 4 mm dia GI lead through 15 mm dia 'B' class approved make G.I. protection pipe of length from bottom of pole to 1.5 meters above ground level packing of charcoal powder and salt as per specification including excavation of pit in all type of soil / rocks etc and supplying and fixing of 12x16 gauge bar-bed wire of specified length for safety measures as per IE rules including all staples and all other necessary materials complete as required and supplying and fixing of 11 KV Denger board as per specification complete. Including V-Cross arm, Top clamp, Single pole cut point, Cantilever, Service ring, 'H' Beam clamp or any other fitting as per specification and site requirement. - 10 Nos.</p> <p>2. LT POLE :-</p> <p>Supply and erection of RS Joist 175x85 or 175x90 mm size, 9 meter long 19.3 kg/Mtr Weight LT over head line single length supports complete with aligning and keeping it in truly verticle position, including digging of required size filling with M15 grade cement concrete of 0.60 mtr. Dia of required depth around the pole including muffing of 0.50 meter from ground level of 45 mm dia with plaster & 02 coat of approved make weather proof paint as per specification with 20 cm thick base foundation refilling the pit including painting of pole and other fittings with bitumen paint in bottom and one coat of red oxide and two coats of aluminum paint etc of approved make, the depth of foundation shall be 1/6 of the length of pole with Providing and fixing earthing arrangement for poles with G.I. lead of 115 turns of 50 mm dia connection with bracket/cross arm by pole with 4 mm dia GI lead through 15 mm dia 'B' class approved make G.I. protection pipe of length from bottom of pole to 1.5 meters above ground level packing of charcoal powder and salt as per specification including excavation of pit in all type of soil / rocks etc as per specification complete. Including Service ring, clamp or any other fitting as per specification and site requirement.- 20 Nos.</p> <p>3. TRANSFORMER :-</p>
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		<p>transformer LT terminal to distribution box MCCB complete. as per requirement of work and decided by Engineer-in-charge. Earthing the transformer neutral, transformer body and distribution box with 25 x 3mm G.I. strip and connections etc. Hanging the transformer and distribution box with 100mm x 50mm angle channel & other fittings with clamp etc. as per specification complete.</p> <p>4. STAY WIRE :- Supplying and erection of stay set complete (galvanized) With 7/3.15 mm dia G.I. stay wire, 19/20 mm dia x 1.8 metre long stay rod, anchor plate of size 300mmx300mmx6.4 mm, thimble stay clamps, bow tightener, strain insulator and specified G.I. stay wire in cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size) foundation including excavation and refilling etc. as per specification. Quantity is as per requirement of work and decided by Engineer-in-charge.</p> <p>5. PIECING CONNETOR :- Supplying and installation of insulation piecing connector made of UV stablized thermoplastic materials with contact teeth of copper alloy materials, electro galvanized hexagonal head nut and bolt, pressure pad, rubber pads etc. complete connection of Street light/ Distribution Box/ Tee connection/ Service connection suitable for 16 to 95 Sqmm. main conductor and 1-5 to 50 Sqmm tab conductor of AB cable. Quantity is as per requirement of work and decided by Engineer-in-charge.</p> <p>6. DISTRIBUTION BOX :- Supplying and fixing of Distribution box (3- phase) for housing 5 nos. 10 Amps MCCB including accessories for fixing in HT/LT pole suitable for AB XLPE cable with required length of 16 Sqmm single core unarmored cable of Polycab/ Havells/ RR kabel Make ISI, 1100 volt Grade. Quantity is as per requirement of work and decided by Engineer-in-charge.</p> <p>7. ARIAL BUNCH CABLE :-</p>

		<p>Supplying, Laying, Testing & Commissioning of CSPDCL approved make XLPE insulated and PVC sheathed heavy duty 3x70+1x16+1x50 Sqmm. Aerial bunch power cable confirming to IS-7098/Part-I/88 with latest amendment, 1.1 KV grade unarmoured cable with aluminium solid/ stranded conductor. The cable shall be laid in air as per specifications. Along with Suspension Clamp of Assemble made of aluminium alloy with electro galvanized MS bolt and washer plastic base cover, Dead end/ anchoring clamp made of extruded aluminium alloy with electro galvanized MS U bend Both and washer etc complete for 16 to 95 Sqmm uninsulated messenger wire of ABC cable, Universal Distribution Connector (Tee connector) made of extruded aluminium alloy with electro galvanized MS U bend both and washer etc complete for 16 to 95 Sqmm uninsulated messenger wire of AB cable & Earthing connector (1 bolt type) made of extruded aluminium alloy with electro zinc plated M.S. bolt and washer, pressure epad top clamp etc complete suitable for 2.5 to 50 Sqmm conductor of ABC cable etc. as per specification. The length of cable and quantity of Suspension Clamp, Dead end/ anchoring clamp, Universal Distribution Connector & Earthing connector is as per requirement of work and decided by Engineer-in-charge.</p> <p>8. ACSR CONDUCTOR :-</p> <p>Supply and erection of CSPDCL approved make Rabbit 6/1/3.35mm dia with calculated aluminium area 52.88 sq.mm, weight 214 kg/ km (100 amps) standard ACSR (aluminium conductor steel reinforced) confirming to IS 398-1961 of with CSPDCL approved make 11 KV glazed porcelain pin insulator with G.I. spindle, CSPDCL approved make 11 KV glazed porcelain disc type insulator with tension hardware at height upto 14m from ground level including stringing, binding with insulator, jointing wherever required, jumpering, tearing off connection complete etc and Making internal connection between transformer, lightning arrester, AB switch, D.O. fuses including providing and connection with 05 ACSR conductor, heat shrinkage heavy duty PVC sleeves, soldering insulation tape binding etc. complete with all other necessary material complete and ready for charging as per IE rules as per specification including clearing off obstacle if any. The length of conductor and quantity of pin and disc insulator is as per requirement of work and decided by Engineer-in-charge.</p>
		<p>9. AIR BREAK SWITCH :-</p> <p>Supplying, Fixing & Testing of CSPDCL approved make 11 KV gang operated air break switch with 3 insulator per phase complete with the operating rod and locking arrangement as required as per specification on existing pole with 100mmx50mm angle channel & other fittings with clamp etc. complete (set of three numbers).- 03 nos. (02 Nos. for transformer DP & 01 Nos. for Tapping point). Earthing the AB Switch with 25 x 3 mm G.I. strip and connections etc. as required.</p> <p>10. D.O FUSE :-</p> <p>Supplying and erection of CSPDCL approved make 11 KV D.O. fuse unit on existing two pole structure with insulators and all other accessories complete including locking arrangement as per specification with 100mmx50mm angle channel & other fittings with clamp etc.- 02 nos. Earthing the D.O Fuse with 25x3mm G.I. strip and connections etc. as required.</p> <p>11. LIGHTNING ARRESTOR :-</p> <p>Supplying and erection of CSPDCL approved make three piece nonlinear resistor type lightning arrester suitable for 3 wire, 11 KV overhead lines with rated voltage 9 KV (rms) with a nominal discharge current rating of 5 KA and complete with galvanised clamping arrangement, G.I. bolts, nuts, washers etc. as per specification with 100mmx50mm angle channel & other fittings with clamp.- 02 nos. Earthing the Lightning arrester with 25x3 mm G.I. strip and connections etc. as required.</p> <p>12. LED STREET LIGHT :-</p>

		<p>Supplying, installation, testing and commissioning of 45 watt Wipro/ Havells/ Crompton Make 230/250 volts LED street light fitting with all accessories like driver heat sink made of die cast aluminium with IP66 protection and 10 KV surge protection on pole bracket including connection earthing etc complete as per specification and furnishing 5 yrs warranty certificate. P.F should be greater than 0.9 LED chip efficiency ratio ≥ 120 lumens/watt. And connection with 3x1.5 Sqmm FRLS PVC insulated copper conductor wire of Polycab/ Havells/ RR kabel Make ISI. etc – 43 Nos.</p> <p>13. STREET LIGHT PANEL :- Fabrication, supply, installation, testing and commissioning of cubical type compartmentalized wall/ floor mounted power cum control panel board of specified size and above 300 mm and upto 450 mm depth made out of not less than 2 mm thick CRCA MS sheet with 100 amp (20 x 5 mm) aluminium bus bar (3 phase + neutral) of required lenth, 01 nos. 04 pole 63 amp MCCB (10 KA) of Havells/ Legrand/ ABB make, 04 nos. 100/5 amp CT, 03 nos. LED indicating lamp, 01 nos. VAF, 03 nos. 40 amps TP&N MCB of Havells/ Legrand/ ABB make, 01 Nos. 04 pole 415/500 volts 40 amps rating (AC-1 Duty) power contactor, 01 Nos. Analoge type Time switch (timer), interconnection between MCCB to bus bar, connection with 4x10.00 sqmm FRLS PVC insulated copper wire of Polycab/ Havells/ RR kabel Make for each TP&N MCB of suitable lenth and suitable size compartment for 01 nos. 3 phase energy meter. as per specification.– 01 Nos. Including One meter long iron stand & Earthing the Panel with 25x3mm G.I. strip and connections etc. as required.</p> <p>14. WATER WORKS PANEL :- Supply and fixing of outdoor type floor mounted weather, dust and vermin proof of IP:55 type LT main feeder pillar distribution box made or 16 gauge MS sheet with clamping arrangements, lockable hinged door duly painted on all sides with red oxide, anti rust and corrosion treatment, two coats of synthetic enamel paints or approved made and shade consisting of 01 Nos. 63 Amp TP&N MCCB (36 KA) of Havells/ Legrand/ ABB make, 100 amp (20x5 mm) aluminium bus bar (3 phase + neutral) of required lenth, 03 Nos. 40 Amp TP&N MCCB (25 KA) of Havells/ Legrand/ ABB make, 02 Nos. G.I. earth terminal, 02 Nos. 07 lever goderaj padlock with keys, 01 Nos. Light points with switch and holder with 1x28 watt CFL, 04 nos. 100/5 amp CT, 03 nos. LED indicating lamp, 01 nos. VAF, interconnection between MCCB to bus bar, connection with 4x10.00 sqmm FRLS PVC insulated copper wire of Polycab/ Havells/ RR kabel Make for each TP&N MCCB of suitable lenth and suitable size compartment for 01 nos. 3 phase energy meter. as per specification.– 02 Nos. Including One meter long iron stand & Earthing the Panel with 25 x 3 mm G.I. strip and connections etc. as required.</p>
		<p>15. EARTHING :- (A) Earthing with 2 meter long G.I. pipe and 25 kg back filling compound including making bore pit of minimum 150 mm dia providing and laying approved make earthing electrode of pipe in pipe technology as per IS 3043 (R 2016) -1987 made of corrosion free G.I pipes having outer pipe of 80 mm dia and inner pipe of 50 mm dia and filling with specified qty highly conductive compound around pipe and above that with soft soil in bore pit complete and providing masonry enclosure with cover plate having locking arrngment and watering pipe etc.as per specification.– 05 nos.</p> <p>(B) Providing and fixing earthing arrangement with 40 mm dia "B" class G.I. pipe electrode of Tata/ Jindal/ Prakash Surya make i/c packing of charcoal power and salt as per specification watering pipe 20 mm dia GI with 40 x 20 mm reducer connection etc. complete with refilling the pit as required i/c excavation of pit in all type of soil providing and making brick masonry chamber of suitable size with CI frame and cover funnal etc complete. as per IS specification. – 10 nos.</p> <p>16. SERVICE CABLE :-</p>

	<p>Supplying and laying of 4x16 Sqmm. size Polycab/ Havells/ Gloster make one number PVC insulated, PVC sheathed, steel armoured, aluminum conductor power cable of 1.1 KV grade on existing Surface/ air and erection of G.I. guard wire of size 8 SWG to 4 SWG including binding at each meter, required angle/ channel iron cross arms/ bracket and 4x16 Sqmm size end termination with brass compression gland and alluminium lugs as per specification for service connection for Water works and Street light panel from LT pole to panel.</p> <p>17. SOLAR POWER PLANT :- 22 KW on-grid solar power plant with all type of codel formalities (if required) through CREDA/CSPDCL/ANY OTHER GOVT. DEPARTMENT.</p>
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Sub Engineer (Elect.)
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Electrical Sub Div.-Bilaspur

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Electrical Sub Div.-Bilaspur

Executive Engineer (Elect.)
Chhattisgarh Housing Board
Electrical Division-Bilaspur

01	Internal Electrification (For 01 Nos. F Type Block)	<p>: 1. POINT WIRING :- 136 Points. Wiring for Light/Fan/Exhaust Fan/Call Bell Point with 3x1.5 Sqmm FRLS PVC Insulated standard copper conductor wire of Polycab/ Havells/ RR Kabel Make ISI in concealed, FRLS PVC Conduit (Heavy duty, thickness of pipe should be 2 mm) of Sarswati/ Polycab/ AKG Make ISI with Crabtree (Murano)/ Legrand (Arteor) Make ISI 5/6 amp modular switch, modular base and cover plate, Suitable Size G.I. box, fan hook box, two module size stepped type fan regulator, ceiling rose, connector, holder, dummy plates, phenolic laminated sheet cover of 180 mm dia 3 mm thick etc.</p> <p>2. TWIN CONTROL :- 36 Points. Wiring for twin control light point with 3x1.5 Sqmm FRLS PVC insulated stranded copper conductor wire of Polycab/ Havells / RR Kabel Make ISI in concealed FRLS PVC conduit (heavy duty, thickness of pipe should be 2 mm) of Sarswati / Polycab / AKG Make ISI with Crabtree (Murano) / Legrand (Arteor) Make ISI 5/6 amp modular Two way switch, modular base and cover plate, suitable size G.I. box, ceiling rose, connector, holder, dummy plates etc.</p> <p>3. Moduler type 3 Pin 5/6 Amps Socket Outlet & 5/6 Amps Switch Including cost of base and cover plate and G.I. Box etc - 44 Points.</p> <p>4. SEPARATE BOARD :- 48 Points. Wiring for light plug Point with 3x2.5 Sqmm FRLS PVC Insulated stranded copper conductor wire of Polycab/ Havells/ RR Kabel Make ISI in concealed FRLS PVC Conduit (Heavy duty, thickness of pipe should be 2 mm) of Sarswati / Polycab/ AKG Make ISI along with Crabtree (Murano)/ Legrand (Arteor) Make ISI 6 amps modular switch & 3 pin 6 amps socket outlet with modular base and cover plate, suitable size G.I. box etc.</p> <p>5. POWER PLUG POINT :- 36 Points. Wiring for power plug Point with 3x4.00 Sqmm FRLS PVC Insulated standard copper conductor wire of Polycab/ Havells/ RR Kabel Make ISI in concealed FRLS PVC Conduit (Heavy duty, thickness of pipe should be 2 mm) of Sarswati/ Polycab/ AKG Make ISI along with Crabtree (Murano)/ Legrand (Arteor) Make ISI 16 amps modular switch & 6 pin 16 amps socket outlet with modular base and cover plate, suitable size G.I. box etc.</p> <p>6. CIRCUIT & SUBMAIN WIRING :- Wiring for Circuit wiring with 3x2.5 Sqmm FRLS PVC insulated copper conductor wire of Polycab/ Havells/ RR kabel Make ISI in concealed FRLS 20 mm, 25 mm and 32 mm dia PVC Conduit (Heavy duty, thickness of pipe should be 2 mm) of Sarswati/ Polycab/ AKG Make ISI and Submain wiring of 6x10.00 Sqmm of FRLS PVC insulated copper conductor wire of Polycab/ Havells/ RR Kabel Make ISI in concealed FRLS 40 mm dia PVC Conduit (Heavy duty, thickness of pipe should be 2 mm) of Sarswati/ Polycab/ AKG Make ISI etc. Length of</p>
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		<p>Circuit & Submain wiring is as per required of the work and Electrical Drawing.</p> <p>7. INVERTER WIRING :- Inverter wiring with 1x2.5 Sqmm and 1x4.0 Sqmm FRLS PVC insulated copper conductor wire of Polycab/ Havells/ RR kabel Make ISI in existing concealed FRLS PVC conduit of 20 mm, 25 mm and 32 mm (Heavy duty, thickness of pipe should be 2 mm) of Sarswati/ Polycab/ AKG Make ISI and 15/16 amp modular switch, 6 pin 15/16 amp modular socket outlet and 3 pin 16 amps power plug etc. Length of inverter wiring is as per required of the work and Electrical Drawing.</p> <p>8. MCB DB & MCBS :- (Havells/Legrand/ABB make) Blanking Plate required in remaining space of MCB DB as required (A) 4 way double door TPN, MCB DB - 04 Nos. (B) 63 amps, 440 volts, 'C' curve TP&N MCB - 04 Nos. (C) 6 to 32 amps, 240 volts, 'C' curve SP MCB - 48 Nos. (D) 4 way double door SP&N, MCB DB - 01 Nos. (E) 6 to 32 amps, 240 volts, 'C' curve DP MCB - 01 Nos. (F) 6 to 32 amps, 240 volts, 'C' curve SP MCB - 02 Nos.</p> <p>9. EARTHING :- Earthing with 2 meter long G.I. pipe and 25 kg back filling compound including making bore pit of minimum 150 mm dia providing and laying approved make earthing electrode of pipe in pipe technology as per IS 3043 (R 2016) -1987 made of corrosion free G.I pipes having outer pipe of 80 mm dia and inner pipe of 50 mm dia and filling with specified qty highly conductive compound around pipe and above that with soft soil in bore pit complete and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc.as per specification - 01 set. including 25 mm x 5 mm G.I strip from earth electrode at 0.5 meter depth below ground level from earth pit to Metering panel as per required of the work. (Separately each earthing point to Metering panel)</p> <p>10. T.V. WIRING :- 12 Nos. Supplying,drawing and Testing of RG-6 grade co-axial TV wire of Polycab/ Havells/ RR Kabel Make FRLS PVC insulated, shielded with fine tinned copper braid and protected with PVC sheath With concealed FRLS PVC Conduit (Heavy duty, thickness of pipe should be 2 mm) of Sarswati/ Polycab/ AKG Make ISI 25mm PVC conduit along with Crabtree (Murano)/ Legrand (Arteor) Make ISI T.V. Antenna Socket Outlet With 75mm x 75mm (1/2 Moudule) G.I. box along With Modular base & cover plate etc Complete. Length of T.V wiring is as per required of the work and Electrical Drawing. (Separately each T.V point to Outer)</p> <p>11. NET WIRING :- 04 Nos. Supplying,drawing and Testing of 4 CAT 6 LAN FRLS PVC insulated copper conductor unarmoured NET wire of Polycab/ Havells/ RR Kabel Make With concealed, FRLS PVC Conduit (Heavy duty, thickness of pipe should be 2 mm) of Sarswati/</p>
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		<p>Polycab/ AKG Make ISI 25 mm PVC conduit along with Crabtree (Murano)/ Legrand (Arteor) Make ISI telephone socket outlet With 75mm x 75mm (1/2 Moudule) G.I. box along With Modular base & cover plate etc Complete.</p> <p>12. LED BULK HEAD FITTING :- 29 Nos. Supplying,installation,testing and commissioning of 10 watt Wipro/ Havells/ Crompton Make LED Bulk Head fitting complete with Electronic Driver, Heat sink, Capacitor complete with all other accessories on surface including connection earthing etc complete as per specification and P.F. Should be greater then 0.9 LED chip efficiency ratio ≥ 100 lumens/watt IP65.</p> <p>13. CELLING FAN :- 20 Nos. Supplying,installation,testing and commissioning of 1200 mm sweep BEE 5 Star Usha/ Havells/ Crompton (ISI) Make celling fan including wiring the down rods of standard length up to 30 cm with 1.5 sqmm FRLS PVC insulated single core cable earthing etc. complete as required. P.F should be greater than 0.9. including 180 mm dia 3 mm thick phenolic laminated sheet cover.</p> <p>14. EXHAUST FAN :- 16 Nos. Supplying,installation,testing and commissioning of 300 mm sweep Usha/ Havells/ Crompton (ISI) Make heavy duty (continuous running) 1400 rpm exhaust fan complete as per specification. P.F should be greater than 0.9. etc.</p> <p>15. LED TUBE LIGHT :- 30 Nos. Supplying,installation,testing and commissioning of 18/20 watt (4 feet) Wipro/ Havells/ Crompton Make LED tube light fitting including batten with electronic driver heat sink capacitor complete with all other accessories on surface/in false ceiling including connection earthing etc complete as per specification and furnishing 5 yrs warranty certificate. IP 20 P.F should be greater than 0.9. LED chip efficiency ratio ≥ 100 lumens/watt.</p> <p>16. LED STREET LIGHT :- 08 Nos Supplying,installation,testing and commissioning of 45 watt Wipro/ Havells/ Crompton Make 230/250 volts LED street light fitting with all accessories like driver heat sink made of die cast alluminium with IP66 protection and 10 KV surge protection on pole bracket including connection earthing etc complete as per specification and furnishing 5 yrs warranty certificate. P.F should be greater than 0.9 LED chip efficiency ratio ≥ 120 lumens/watt. and wiring with 3x1.5 Sqmm FRLS PVC insulated copper conductor wire of Polycab/ Havells/ RR kabel Make ISI in the existing surface from each street light to point as per specification.</p> <p>17. METERING PANEL :- Fabrication, supply, installation, testing and commissioning of cubical type compartmentalized wall/floor mounted power cum control panel board of specified size and up to 300 mm depth made out of not less than 2 mm thik CRCA MS sheet with 200</p>
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		<p>amp alluminium bus bar (3 phase+neutral) of required lenth, 01 nos. 4 pole 125 amp MCCB (35 KA) of Havells/ Legrand/ ABB make, 04 nos. 200/5 amp CT, 03 nos. LED indicating lamp, 01 nos. VAF, 04 nos. 63 amps TP&N MCB of Havells/ Legrand/ ABB make, interconnection between BBC and switchgears with 35 sqmm (125 amp) copper conductor incuding thimbles for each phase and neutral, 16 sqmm (63 amp) FRLS PVC insulated copper wire of Polycab/ Havells/ RR kabel Make for each meter of suilable lenth and suitable size compartments for 04 nos. 3 phase energy meter.as per specification.– 01 Nos.</p> <p>18. SERVICE CABLE :-</p> <p>(A) Supplying, laying and testing of 3.5x35 Sqmm size Polycab/ Havells/ Gloster make FRLS PVC insulated, PVC sheathed, steel armoured, aluminum conductor power cable of 1.1 KV grade on 63 mm outer dia HDPE pipe of 4 kg/cum and 3.5x35 Sqmm size end termination with brass compression gland and alluminium lugs as per specification for service connection from LT pole to Metering panel. (01 Nos. connected and 01 Nos. Stand-by cable for each Panel)</p> <p>(B) Supplying, laying and testing of 2x6.0 Sqmm size Polycab/ Havells/ Gloster make FRLS PVC insulated, PVC sheathed, steel armoured, aluminum conductor power cable of 1.1 KV grade on existing RCC Hume pipe/ Surface/ air and erection of G.I. guard wire of size 8 SWG to 4 SWG including binding at each meter, required angle/channel iron cross arms/ bracket. as per specification. for common service connection from LT pole to common area MCBDB near Metering panel. (01 Nos. connected cable for each MCBDB).</p> <p>Note:- As Per Site Condition Final Decision of Internal Electrification Work giving by Engineer-in-charge/EE (Electrical), Electrical division-Bilaspur.</p>
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Executive Engineer (Elect.)
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Infrastructure Development Board
Elect. Div.-Bilaspur

01	Internal Electrification (For 01 Nos. G Type Block)	<p>: 1. POINT WIRING :- 117 Points. Wiring for Light/Fan/Exhaust Fan/Call Bell Point with 3x1.5 Sqmm FRLS PVC Insulated standard copper conductor wire of Polycab/ Havells/ RR Kabel Make ISI in concealed, FRLS PVC Conduit (Heavy duty, thickness of pipe should be 2 mm) of Sarswati/ Polycab/ AKG Make ISI with Crabtree (Murano)/ Legrand (Arteor) Make ISI 5/6 amp modular switch, modular base and cover plate, Suitable Size G.I. box, fan hook box, two module size stepped type fan regulator, ceiling rose, connector, holder, dummy plates, phenolic laminated sheet cover of 180 mm dia 3 mm thick etc.</p> <p>2. TWIN CONTROL :- 20 Points. Wiring for twin control light point with 3x1.5 Sqmm FRLS PVC insulated stranded copper conductor wire of Polycab/ Havells / RR Kabel Make ISI in concealed FRLS PVC conduit (heavy duty, thickness of pipe should be 2 mm) of Sarswati / Polycab / AKG Make ISI with Crabtree (Murano) / Legrand (Arteor) Make ISI 5/6 amp modular Two way switch, modular base and cover plate, suitable size G.I. box, ceiling rose, connector, holder, dummy plates etc.</p> <p>3. Moduler type 3 Pin 5/6 Amps Socket Outlet & 5/6 Amps Switch Including cost of base and cover plate and G.I. Box etc - 32 Points.</p> <p>4. SEPARATE BOARD :- 40 Points. Wiring for light plug Point with 3x2.5 Sqmm FRLS PVC Insulated stranded copper conductor wire of Polycab/ Havells/ RR Kabel Make ISI in concealed FRLS PVC Conduit (Heavy duty, thickness of pipe should be 2 mm) of Sarswati / Polycab/ AKG Make ISI along with Crabtree (Murano)/ Legrand (Arteor) Make ISI 6 amps modular switch & 3 pin 6 amps socket outlet with modular base and cover plate, suitable size G.I. box etc.</p> <p>5. POWER PLUG POINT :- 24 Points. Wiring for power plug Point with 3x4.00 Sqmm FRLS PVC Insulated standard copper conductor wire of Polycab/ Havells/ RR Kabel Make ISI in concealed FRLS PVC Conduit (Heavy duty, thickness of pipe should be 2 mm) of Sarswati/ Polycab/ AKG Make ISI along with Crabtree (Murano)/ Legrand (Arteor) Make ISI 16 amps modular switch & 6 pin 16 amps socket outlet with modular base and cover plate, suitable size G.I. box etc.</p> <p>6. CIRCUIT & SUBMAIN WIRING :- Wiring for Circuit wiring with 3x2.5 Sqmm FRLS PVC insulated copper conductor wire of Polycab/ Havells/ RR kabel Make ISI in concealed FRLS 20 mm, 25 mm and 32 mm dia PVC Conduit (Heavy duty, thickness of pipe should be 2 mm) of Sarswati/ Polycab/ AKG Make ISI and Submain wiring of 6x10.00 Sqmm of FRLS PVC insulated copper conductor wire of Polycab/ Havells/ RR Kabel Make ISI in concealed FRLS</p>
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		<p>40 mm dia PVC Conduit (Heavy duty, thickness of pipe should be 2 mm) of Sarswati/ Polycab/ AKG Make ISI etc. Length of Circuit & Submain wiring is as per required of the work and Electrical Drawing.</p> <p>7. INVERTER WIRING :- Inverter wiring with 1x2.5 Sqmm and 1x4.0 Sqmm FRLS PVC insulated copper conductor wire of Polycab/ Havells/ RR kabel Make ISI in existing concealed FRLS PVC conduit of 20 mm, 25 mm and 32 mm (Heavy duty, thickness of pipe should be 2 mm) of Sarswati/ Polycab/ AKG Make ISI and 15/16 amp modular switch, 6 pin 15/16 amp modular socket outlet and 3 pin 16 amps power plug etc. Length of inverter wiring is as per required of the work and Electrical Drawing.</p> <p>8. MCB DB & MCBS :- (Havells/Legrand/ABB make) Blanking Plate required in remaining space of MCB DB as required (A) 4 way double door TPN, MCB DB - 04 Nos. (B) 63 amps, 440 volts, 'C' curve TP&N MCB - 04 Nos. (C) 6 to 32 amps, 240 volts, 'C' curve SP MCB - 48 Nos. (D) 4 way double door SP&N, MCB DB - 01 Nos. (E) 6 to 32 amps, 240 volts, 'C' curve DP MCB - 01 Nos. (F) 6 to 32 amps, 240 volts, 'C' curve SP MCB - 02 Nos.</p> <p>9. EARTHING :- Earthing with 2 meter long G.I. pipe and 25 kg back filling compound including making bore pit of minimum 150 mm dia providing and laying approved make earthing electrode of pipe in pipe technology as per IS 3043 (R 2016) -1987 made of corrosion free G.I pipes having outer pipe of 80 mm dia and inner pipe of 50 mm dia and filling with specified qty highly conductive compound around pipe and above that with soft soil in bore pit complete and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc.as per specification - 01 set. including 25 mm x 5 mm G.I strip from earth pit to Metering panel as per required of the work.(Separately each earthing point to Metering panel)</p> <p>10. T.V. WIRING :- 08 Nos. Supplying,drawing and Testing of RG-6 grade co-axial TV wire of Polycab/ Havells/ RR Kabel Make FRLS PVC insulated, shielded with fine tinned copper braid and protected with PVC sheath With concealed FRLS PVC Conduit (Heavy duty, thickness of pipe should be 2 mm) of Sarswati/ Polycab/ AKG Make ISI 25mm PVC conduit along with Crabtree (Murano)/ Legrand (Arteor) Make ISI T.V. Antenna Socket Outlet With 75mm x 75mm (1/2 Moudule) G.I. box along With Modular base & cover plate etc Complete.</p> <p>11. NET WIRING :- 04 Nos. Supplying,drawing and Testing of 4 CAT 6 LAN FRLS PVC insulated copper conductor unarmoured NET wire of Polycab/ Havells/ RR Kabel Make With concealed, FRLS PVC Conduit</p>
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		<p>(Heavy duty, thickness of pipe should be 2 mm) of Sarswati/ Polycab/ AKG Make ISI 25 mm PVC conduit along with Crabtree (Murano)/ Legrand (Arteor) Make ISI telephone socket outlet With 75mm x 75mm (1/2 Moudule) G.I. box along With Modular base & cover plate etc Complete.</p> <p>12. LED BULK HEAD FITTING :- 25 Nos. Supplying,installation,testing and commissioning of 10 watt Wipro/ Havells/ Crompton Make LED Bulk Head fitting complete with Electronic Driver, Heat sink, Capacitor complete with all other accessories on surface including connection earthing etc complete as per specification and P.F. Should be greater then 0.9 LED chip efficiency ratio ≥ 100 lumens/watt IP65.</p> <p>13. CELLING FAN :- 16 Nos. Supplying,installation,testing and commissioning of 1200 mm sweep BEE 5 Star Usha/ Havells/ Crompton (ISI) Make celling fan including wiring the down rods of standard length up to 30 cm with 1.5 sqmm FRLS PVC insulated single core cable earthing etc. complete as required. P.F should be greater than 0.9. including 180 mm dia 3 mm thick phenolic laminated sheet cover.</p> <p>14. EXHAUST FAN :- 12 Nos. Supplying,installation,testing and commissioning of 300 mm sweep Usha/ Havells/ Crompton (ISI) Make heavy duty (continuous running) 1400 rpm exhaust fan complete as per specification. P.F should be greater than 0.9. etc.</p> <p>15. LED TUBE LIGHT :- 20 Nos. Supplying,installation,testing and commissioning of 18/20 watt (4 feet) Wipro/ Havells/ Crompton Make LED tube light fitting including batten with electronic driver heat sink capacitor complete with all other accessories on surface/in false ceiling including connection earthing etc complete as per specification and furnishing 5 yrs warranty certificate. IP 20 P.F should be greater than 0.9. LED chip efficiency ratio ≥ 100 lumens/watt.</p> <p>16. LED STREET LIGHT :- 08 Nos. Supplying,installation,testing and commissioning of 45 watt Wipro/ Havells/ Crompton Make 230/250 volts LED street light fitting with all accessories like driver heat sink made of die cast alluminium with IP66 protection and 10 KV surge protection on pole bracket including connection earthing etc complete as per specification and furnishing 5 yrs warranty certificate. P.F should be greater than 0.9 LED chip efficiency ratio ≥ 120 lumens/watt. and wiring with 3x1.5 Sqmm FRLS PVC insulated copper conductor wire of Polycab/ Havells/ RR kabel Make ISI in the existing surface from each street light to point as per specification.</p> <p>17. METERING PANEL :- Fabrication, supply, installation, testing and commissioning of cubical type compartmentalized wall/floor mounted power cum</p>
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		<p>control panel board of specified size and up to 300 mm depth made out of not less than 2 mm thick CRCA MS sheet with 200 amp aluminium bus bar (3 phase+neutral) of required length, 01 nos. 4 pole 125 amp MCCB (35 KA) of Havells/ Legrand/ ABB make, 04 nos. 200/5 amp CT, 03 nos. LED indicating lamp, 01 nos. VAF, 04 nos. 63 amps TP&N MCB of Havells/ Legrand/ ABB make, interconnection between BBC and switchgears with 35 sqmm (125 amp) copper conductor including thimbles for each phase and neutral, 16 sqmm (63 amp) FRLS PVC insulated copper wire of Polycab/ Havells/ RR kabel Make for each meter of suitable length and suitable size compartments for 04 nos. 3 phase energy meter as per specification.– 01 Nos.</p> <p>18. SERVICE CABLE :-</p> <p>(A) Supplying, laying and testing of 3.5x35 Sqmm size Polycab/ Havells/ Gloster make FRLS PVC insulated, PVC sheathed, steel armoured, aluminum conductor power cable of 1.1 KV grade on 63 mm outer dia HDPE pipe of 4 kg/cum and 3.5x35 Sqmm size end termination with brass compression gland and aluminium lugs as per specification for service connection from LT pole to Metering panel. (01 Nos. connected and 01 Nos. Stand-by cable for each Panel)</p> <p>(B) Supplying, laying and testing of 2x6.0 Sqmm size Polycab/ Havells/ Gloster make FRLS PVC insulated, PVC sheathed, steel armoured, aluminum conductor power cable of 1.1 KV grade on existing RCC Hume pipe/ Surface/ air and erection of G.I. guard wire of size 8 SWG to 4 SWG including binding at each meter, required angle/channel iron cross arms/ bracket. as per specification. for common service connection from LT pole to common area MCBDB near Metering panel. (01 Nos. connected cable for each MCBDB).</p> <p>Note:- As Per Site Condition Final Decision of Internal Electrification Work giving by Engineer-in-charge/EE (Electrical), Electrical division-Bilaspur.</p>
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Infrastructure Development Board
Elect. Div.-Bilaspur

01	Internal Electrification (For 01 Nos. H Type Block)	<p>: 1. POINT WIRING :- 137 Points. Wiring for Light/Fan/Exhaust Fan/Call Bell Point with 3x1.5 Sqmm FRLS PVC Insulated standard copper conductor wire of Polycab/ Havells/ RR Kabel Make ISI in concealed, FRLS PVC Conduit (Heavy duty, thickness of pipe should be 2 mm) of Sarswati/ Polycab/ AKG Make ISI with Havells (Reo)/ Legrand (Britzy) Make ISI 5/6 amp modular switch, modular base and cover plate, Suitable Size G.I. box, fan hook box, two module size stepped type fan regulator, ceiling rose, connector, holder, dummy plates, phenolic laminated sheet cover of 180 mm dia 3 mm thick etc.</p> <p>2. TWIN CONTROL :- 04 Points. Wiring for twin control light point with 3x1.5 Sqmm FRLS PVC insulated stranded copper conductor wire of Polycab/ Havells / RR Kabel Make ISI in concealed FRLS PVC conduit (heavy duty, thickness of pipe should be 2 mm) of Sarswati / Polycab / AKG Make ISI with Havells (Reo)/ Legrand (Britzy) Make ISI 5/6 amp modular Two way switch, modular base and cover plate, suitable size G.I. box, ceiling rose, connector, holder, dummy plates etc.</p> <p>3. Moduler type 3 Pin 5/6 Amps Socket Outlet & 5/6 Amps Switch Including cost of base and cover plate and G.I. Box etc – 30 Points.</p> <p>4. SEPARATE BOARD :- 42 Points. Wiring for light plug Point with 3x2.5 Sqmm FRLS PVC Insulated stranded copper conductor wire of Polycab/ Havells/ RR Kabel Make ISI in concealed FRLS PVC Conduit (Heavy duty, thickness of pipe should be 2 mm) of Sarswati / Polycab/ AKG Make ISI along with Havells (Reo)/ Legrand (Britzy) Make ISI 6 amps modular switch & 3 pin 6 amps socket outlet with modular base and cover plate, suitable size G.I. box etc.</p> <p>5. POWER PLUG POINT :- 24 Points. Wiring for power plug Point with 3x4.00 Sqmm FRLS PVC Insulated standard copper conductor wire of Polycab/ Havells/ RR Kabel Make ISI in concealed FRLS PVC Conduit (Heavy duty, thickness of pipe should be 2 mm) of Sarswati/ Polycab/ AKG Make ISI along with Havells (Reo)/ Legrand (Britzy) Make ISI 16 amps modular switch & 6 pin 16 amps socket outlet with modular base and cover plate, suitable size G.I. box etc.</p> <p>6. CIRCUIT & SUBMAIN WIRING :- Wiring for Circuit wiring with 3x2.5 Sqmm FRLS PVC insulated copper conductor wire of Polycab/ Havells/ RR kabel Make ISI in concealed FRLS 20 mm, 25 mm and 32 mm dia PVC Conduit (Heavy duty, thickness of pipe should be 2 mm) of Sarswati/ Polycab/ AKG Make ISI and Submain wiring of 6x6.00 Sqmm of FRLS PVC insulated copper conductor wire of Polycab/ Havells/ RR Kabel Make ISI in concealed FRLS 32 mm dia PVC Conduit (Heavy duty, thickness of pipe should be 2 mm) of Sarswati/ Polycab/ AKG Make ISI etc. Length of</p>
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		<p>Circuit & Submain wiring is as per required of the work and Electrical Drawing.</p> <p>7. MCB DB & MCBS :- (Havells/Legrand/ABB make) Blanking Plate required in remaining space of MCB DB as required (A) 4 way double door TPN, MCB DB - 06 Nos. (B) 63 amps, 440 volts, 'C' curve TP&N MCB - 06 Nos. (C) 6 to 32 amps, 240 volts, 'C' curve SP MCB - 60 Nos. (D) 4 way double door SP&N, MCB DB - 01 Nos. (E) 6 to 32 amps, 240 volts, 'C' curve DP MCB - 01 Nos. (F) 6 to 32 amps, 240 volts, 'C' curve SP MCB - 02 Nos.</p> <p>9. EARTHING :- Earthing with 2 meter long G.I. pipe and 25 kg back filling compound including making bore pit of minimum 150 mm dia providing and laying approved make earthing electrode of pipe in pipe technology as per IS 3043 (R 2016) -1987 made of corrosion free G.I pipes having outer pipe of 80 mm dia and inner pipe of 50 mm dia and filling with specified qty highly conductive compound around pipe and above that with soft soil in bore pit complete and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc.as per specification – 01 set. including 25 mm x 5 mm G.I strip from earth pit to Metering panel as per required of the work.(Separately each earthing point to Metering panel)</p> <p>10. T.V. WIRING :- 06 Nos. Supplying,drawing and Testing of RG-6 grade co-axial TV wire of Polycab/ Havells/ RR Kabel Make FRLS PVC insulated, shielded with fine tinned copper braid and protected with PVC sheath With concealed FRLS PVC Conduit (Heavy duty, thickness of pipe should be 2 mm) of Sarswati/ Polycab/ AKG Make ISI 25mm PVC conduit along with Havells (Reo)/ Legrand (Britzy) Make ISI T.V. Antenna Socket Outlet With 75mm x 75mm (1/2 Moudule) G.I. box along With Modular base & cover plate etc Complete. (Separately each T.V point to Outer)</p> <p>11. NET WIRING :- 06 Nos. Supplying,drawing and Testing of 4 CAT 6 LAN FRLS PVC insulated copper conductor unarmoured NET wire of Polycab/ Havells/ RR Kabel Make With concealed, FRLS PVC Conduit (Heavy duty, thickness of pipe should be 2 mm) of Sarswati/ Polycab/ AKG Make ISI 25 mm PVC conduit along with Crabtree (Murano)/ Legrand (Arteor) Make ISI telephone socket outlet With 75mm x 75mm (1/2 Moudule) G.I. box along With Modular base & cover plate etc Complete.</p> <p>12. LED BULK HEAD FITTING :- 20 Nos. Supplying,installation,testing and commissioning of 10 watt Wipro/ Havells/ Crompton Make LED Bulk Head fitting complete with Electronic Driver, Heat sink, Capacitor complete with all other accessories on surface including connection earthing etc complete as per specification and P.F. Should be</p>
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		<p>greater then 0.9 LED chip efficiency ratio ≥ 100 lumens/watt IP65.</p> <p>13. CELLING FAN :- 12 Nos. Supplying,installation,testing and commissioning of 1200 mm sweep BEE 5 Star Usha/ Havells/ Crompton (ISI) Make celling fan including wiring the down rods of standard length up to 30 cm with 1.5 sqmm FRLS PVC insulated single core cable earthing etc. complete as required. P.F should be greater than 0.9. including 180 mm dia 3 mm thick phenolic laminated sheet cover.</p> <p>14. EXHAUST FAN :- 12 Nos. Supplying,installation,testing and commissioning of 300 mm sweep Usha/ Havells/ Crompton (ISI) Make heavy duty (continuous running) 1400 rpm exhaust fan complete as per specification. P.F should be greater than 0.9. etc.</p> <p>15. LED TUBE LIGHT :- 32 Nos. Supplying,installation,testing and commissioning of 18/20 watt (4 feet) Wipro/ Havells/ Crompton Make LED tube light fitting including batten with electronic driver heat sink capacitor complete with all other accessories on surface/in false ceiling including connection earthing etc complete as per specification and furnishing 5 yrs warranty certificate. IP 20 P.F should be greater than 0.9. LED chip efficiency ratio ≥ 100 lumens/watt.</p> <p>16. LED STREET LIGHT :- 09 Nos. Supplying,installation,testing and commissioning of 45 watt Wipro/ Havells/ Crompton Make 230/250 volts LED street light fitting with all accessories like driver heat sink made of die cast alluminium with IP66 protection and 10 KV surge protection on pole bracket including connection earthing etc complete as per specification and furnishing 5 yrs warranty certificate. P.F should be greater than 0.9 LED chip efficiency ratio ≥ 120 lumens/watt. and wiring with 3x1.5 Sqmm FRLS PVC insulated copper conductor wire of Polycab/ Havells/ RR kabel Make ISI in the existing surface from each street light to point as per specification.etc.</p> <p>17. METERING PANEL :- Fabrication, supply, installation, testing and commissioning of cubical type compartmentalized wall/floor mounted power cum control panel board of specified size and up to 300 mm depth made out of not less than 2 mm thik CRCA MS sheet with 200 amp alluminium bus bar (3 phase+neutral) of required lenth, 01 nos. 4 pole 125 amp MCCB (35 KA) of Havells/ Legrand/ ABB make, 04 nos. 200/5 amp CT, 03 nos. LED indicating lamp, 01 nos. VAF, 06 nos. 63 amps TP&N MCB of Havells/ Legrand/ ABB make, interconnection between BBC and switchgears with 35 sqmm (125 amp) copper conductor incuding thimbles for each phase and neutral, 16 sqmm (63 amp) FRLS PVC insulated copper wire of Polycab/ Havells/ RR kabel Make for each meter of suilable lenth and suitable size compartments for 06 nos. 3 phase energy meter.as per specification.– 01 Nos.</p>
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		<p>18. SERVICE CABLE :- Supplying, laying and testing of 3.5x50 Sqmm size Polycab/ Havells/ Gloster make FRLS PVC insulated, PVC sheathed, steel armoured, aluminum conductor power cable of 1.1 KV grade on 63 mm outer dia HDPE pipe of 4 kg/cum and 3.5x35 Sqmm size end termination with brass compression gland and alluminium lugs as per specification for service connection from LT pole to Metering panel. (01 Nos. connected and 01 Nos. Stand-by cable for each Panel)</p> <p>(B) Supplying, laying and testing of 2x6.0 Sqmm size Polycab/ Havells/ Gloster make FRLS PVC insulated, PVC sheathed, steel armoured, aluminum conductor power cable of 1.1 KV grade on existing RCC Hume pipe/ Surface/ air and erection of G.I. guard wire of size 8 SWG to 4 SWG including binding at each meter, required angle/channel iron cross arms/ bracket. as per specification. for common service connection from LT pole to common area MCBDB near Metering panel. (01 Nos. connected cable for each MCBDB).</p> <p>Note:- As Per Site Condition Final Decision of Internal Electrification Work giving by Engineer-in-charge/EE (Electrical), Electrical division-Bilaspur.</p>
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Sub Engineer (Elect.)
Chhattisgarh Housing &
Infrastructure Development Board
Elect. Sub Div.-Bilaspur

Assistant Engineer (Elect.)
Chhattisgarh Housing &
Infrastructure Development Board
Elect. Sub Div.-Bilaspur

Executive Engineer (Elect.)
Chhattisgarh Housing &
Infrastructure Development Board
Elect. Div.-Bilaspur

01	Internal Electrification (For 01 Nos. H1 Type Block)	<p>: 1. POINT WIRING :- 174 Points. Wiring for Light/Fan/Exhaust Fan/Call Bell Point with 3x1.5 Sqmm FRLS PVC Insulated standard copper conductor wire of Polycab/ Havells/ RR Kabel Make ISI in concealed, FRLS PVC Conduit (Heavy duty, thickness of pipe should be 2 mm) of Sarswati/ Polycab/ AKG Make ISI with Havells (Reo)/ Legrand (Britzy) Make ISI 5/6 amp modular switch, modular base and cover plate, Suitable Size G.I. box, fan hook box, two module size stepped type fan regulator, ceiling rose, connector, holder, dummy plates, phenolic laminated sheet cover of 180 mm dia 3 mm thick etc.</p> <p>2. TWIN CONTROL :- 04 Points. Wiring for twin control light point with 3x1.5 Sqmm FRLS PVC insulated stranded copper conductor wire of Polycab/ Havells / RR Kabel Make ISI in concealed FRLS PVC conduit (heavy duty, thickness of pipe should be 2 mm) of Sarswati / Polycab / AKG Make ISI with Havells (Reo)/ Legrand (Britzy) Make ISI 5/6 amp modular Two way switch, modular base and cover plate, suitable size G.I. box, ceiling rose, connector, holder, dummy plates etc.</p> <p>3. Moduler type 3 Pin 5/6 Amps Socket Outlet & 5/6 Amps Switch Including cost of base and cover plate and G.I. Box etc - 40 Points.</p> <p>4. SEPARATE BOARD :- 56 Points. Wiring for light plug Point with 3x2.5 Sqmm FRLS PVC Insulated stranded copper conductor wire of Polycab/ Havells/ RR Kabel Make ISI in concealed FRLS PVC Conduit (Heavy duty, thickness of pipe should be 2 mm) of Sarswati / Polycab/ AKG Make ISI along with Havells (Reo)/ Legrand (Britzy) Make ISI 6 amps modular switch & 3 pin 6 amps socket outlet with modular base and cover plate, suitable size G.I. box etc.</p> <p>5. POWER PLUG POINT :- 32 Points. Wiring for power plug Point with 3x4.00 Sqmm FRLS PVC Insulated standard copper conductor wire of Polycab/ Havells/ RR Kabel Make ISI in concealed FRLS PVC Conduit (Heavy duty, thickness of pipe should be 2 mm) of Sarswati/ Polycab/ AKG Make ISI along with Havells (Reo)/ Legrand (Britzy) Make ISI 16 amps modular switch & 6 pin 16 amps socket outlet with modular base and cover plate, suitable size G.I. box etc.</p> <p>6. CIRCUIT & SUBMAIN WIRING :- Wiring for Circuit wiring with 3x2.5 Sqmm FRLS PVC insulated copper conductor wire of Polycab/ Havells/ RR kabel Make ISI in concealed FRLS 20 mm, 25 mm and 32 mm dia PVC Conduit (Heavy duty, thickness of pipe should be 2 mm) of Sarswati/ Polycab/ AKG Make ISI and Submain wiring of 6x6.00 Sqmm of FRLS PVC insulated copper conductor wire of Polycab/ Havells/ RR Kabel Make ISI in concealed FRLS 32 mm dia PVC Conduit (Heavy duty, thickness of pipe should be 2 mm) of Sarswati/ Polycab/ AKG Make ISI etc. Length of Circuit & Submain wiring is as per required of the work and</p>
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		<p>Electrical Drawing.</p> <p>7. MCB DB & MCBS :- (Havells/Legrand/ABB make) Blanking Plate required in remaining space of MCB DB as required (A) 4 way double door TPN, MCB DB - 08 Nos. (B) 63 amps, 440 volts, 'C' curve TP&N MCB - 08 Nos. (C) 6 to 32 amps, 240 volts, 'C' curve SP MCB – 80 Nos. (D) 4 way double door SP&N, MCB DB - 01 Nos. (E) 6 to 32 amps, 240 volts, 'C' curve DP MCB - 01 Nos. (F) 6 to 32 amps, 240 volts, 'C' curve SP MCB - 02 Nos.</p> <p>9. EARTHING :- Earthing with 2 meter long G.I. pipe and 25 kg back filling compound including making bore pit of minimum 150 mm dia providing and laying approved make earthing electrode of pipe in pipe technology as per IS 3043 (R 2016) -1987 made of corrosion free G.I pipes having outer pipe of 80 mm dia and inner pipe of 50 mm dia and filling with specified qty highly conductive compound around pipe and above that with soft soil in bore pit complete and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc.as per specification - 02 set. including 25 mm x 5 mm G.I strip from earth pit to Metering panel as per required of the work.(Separately each earthing point to Metering panel)</p> <p>10. T.V. WIRING :- 08 Nos. Supplying,drawing and Testing of RG-6 grade co-axial TV wire of Polycab/ Havells/ RR Kabel Make FRLS PVC insulated, shielded with fine tinned copper braid and protected with PVC sheath With concealed FRLS PVC Conduit (Heavy duty, thickness of pipe should be 2 mm) of Sarswati/ Polycab/ AKG Make ISI 25mm PVC conduit along with Havells (Reo)/ Legrand (Britzy) Make ISI T.V. Antenna Socket Outlet With 75mm x 75mm (1/2 Moudule) G.I. box along With Modular base & cover plate etc Complete.</p> <p>11. NET WIRING :- 08 Nos. Supplying,drawing and Testing of 4 CAT 6 LAN FRLS PVC insulated copper conductor unarmoured NET wire of Polycab/ Havells/ RR Kabel Make With concealed, FRLS PVC Conduit (Heavy duty, thickness of pipe should be 2 mm) of Sarswati/ Polycab/ AKG Make ISI 25 mm PVC conduit along with Crabtree (Murano)/ Legrand (Arteor) Make ISI telephone socket outlet With 75mm x 75mm (1/2 Moudule) G.I. box along With Modular base & cover plate etc Complete.</p> <p>12. LED BULK HEAD FITTING :- 21 Nos. Supplying,installation,testing and commissioning of 10 watt Wipro/ Havells/ Crompton Make LED Bulk Head fitting complete with Electronic Driver, Heat sink, Capacitor complete with all other accessories on surface including connection earthing etc complete as per specification and P.F. Should be greater then 0.9 LED chip efficiency ratio ≥ 100 lumens/watt IP65.</p>
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		<p>13. CELLING FAN :- 16 Nos. Supplying, installation, testing and commissioning of 1200 mm sweep BEE 5 Star Usha/ Havells/ Crompton (ISI) Make ceiling fan including wiring the down rods of standard length up to 30 cm with 1.5 sqmm FRLS PVC insulated single core cable earthing etc. complete as required. P.F should be greater than 0.9. including 180 mm dia 3 mm thick phenolic laminated sheet cover.</p> <p>14. EXHAUST FAN :- 16 Nos. Supplying, installation, testing and commissioning of 300 mm sweep Usha/ Havells/ Crompton (ISI) Make heavy duty (continuous running) 1400 rpm exhaust fan complete as per specification. P.F should be greater than 0.9. etc.</p> <p>15. LED TUBE LIGHT :- 42 Nos. Supplying, installation, testing and commissioning of 18/20 watt (4 feet) Wipro/ Havells/ Crompton Make LED tube light fitting including batten with electronic driver heat sink capacitor complete with all other accessories on surface/in false ceiling including connection earthing etc complete as per specification and furnishing 5 yrs warranty certificate. IP 20 P.F should be greater than 0.9. LED chip efficiency ratio ≥ 100 lumens/watt.</p> <p>16. LED STREET LIGHT :- 09 Nos. Supplying, installation, testing and commissioning of 45 watt Wipro/ Havells/ Crompton Make 230/250 volts LED street light fitting with all accessories like driver heat sink made of die cast aluminium with IP66 protection and 10 KV surge protection on pole bracket including connection earthing etc complete as per specification and furnishing 5 yrs warranty certificate. P.F should be greater than 0.9 LED chip efficiency ratio ≥ 120 lumens/watt. and wiring with 3x1.5 Sqmm FRLS PVC insulated copper conductor wire of Polycab/ Havells/ RR kabel Make ISI in the existing surface from each street light to point as per specification. etc.</p> <p>17. METERING PANEL :- Fabrication, supply, installation, testing and commissioning of cubical type compartmentalized wall/floor mounted power cum control panel board of specified size and uo to 300 mm depth made out of not less than 2 mm thick CRCA MS sheet with 200 amp aluminium bus bar (3 phase+neutral) of required length, 01 nos. 4 pole 125 amp MCCB (35 KA) of Havells/ Legrand/ ABB make, 04 nos. 200/5 amp CT, 03 nos. LED indicating lamp, 01 nos. VAF, 04 nos. 63 amps TP&N MCB of Havells/ Legrand/ ABB make, interconnection between BBC and switchgears with 35 sqmm (125 amp) copper conductor including thimbles for each phase and neutral, 16 sqmm (63 amp) FRLS PVC insulated copper wire of Polycab/ Havells/ RR kabel Make for each meter of suitable length and suitable size compartments for 04 nos. 3 phase energy meter. as per specification. – 02 Nos.</p> <p>18. SERVICE CABLE :- (A) Supplying, laying and testing of 3.5x35 Sqmm size Polycab/ Havells/ Gloster make FRLS PVC insulated, PVC</p>
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		<p>sheathed, steel armoured, aluminum conductor power cable of 1.1 KV grade on 63 mm outer dia HDPE pipe of 4 kg/cum and 3.5x35 Sqmm size end termination with brass compression gland and alluminium lugs as per specification for service connection from LT pole to Metering panel. (01 Nos. connected and 01 Nos. Stand-by cable for each Panel)</p> <p>(B) Supplying, laying and testing of 2x6.0 Sqmm size Polycab/ Havells/ Gloster make FRLS PVC insulated, PVC sheathed, steel armoured, aluminum conductor power cable of 1.1 KV grade on existing RCC Hume pipe/ Surface/ air and erection of G.I. guard wire of size 8 SWG to 4 SWG including binding at each meter, required angle/channel iron cross arms/ bracket. as per specification. for common service connection from LT pole to common area MCBDB near Metering panel. (01 Nos. connected cable for each MCBDB).</p> <p>Note:- As Per Site Condition Final Decision of Internal Electrification Work giving by Engineer-in-charge/EE (Electrical), Electrical division-Bilaspur.</p>
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Sub Engineer (Elect.)
Chhattisgarh Housing &
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Elect. Sub Div.-Bilaspur

Assistant Engineer (Elect.)
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Infrastructure Development Board
Elect. Sub Div.-Bilaspur

Executive Engineer (Elect.)
Chhattisgarh Housing &
Infrastructure Development Board
Elect. Div.-Bilaspur

01	Internal Electrification (For EE & AE Office building)	<p>: 1. POINT WIRING :- 215 Points. Wiring for Light/Fan/Exhaust Fan/Call Bell Point with 3x1.5 Sqmm FRLS PVC Insulated standard copper conductor wire of Polycab/ Havells/ RR Kabel Make ISI in concealed, FRLS PVC Conduit (Heavy duty, thickness of pipe should be 2 mm) of Sarswati/ Polycab/ AKG Make ISI with Crabtree (Murano)/ Legrand (Arteor) Make ISI 5/6 amp modular switch, modular base and cover plate, Suitable Size G.I. box, fan hook box, two module size stepped type fan regulator, ceiling rose, connector, holder, dummy plates, phenolic laminated sheet cover of 180 mm dia 3 mm thick etc.</p> <p>2. TWIN CONTROL :- 06 Points. Wiring for twin control light point with 3x1.5 Sqmm FRLS PVC insulated stranded copper conductor wire of Polycab/ Havells / RR Kabel Make ISI in concealed FRLS PVC conduit (heavy duty, thickness of pipe should be 2 mm) of Sarswati / Polycab / AKG Make ISI with Crabtree (Murano) / Legrand (Arteor) Make ISI 5/6 amp modular Two way switch, modular base and cover plate, suitable size G.I. box, ceiling rose, connector, holder, dummy plates etc.</p> <p>3. Moduler type 3 Pin 5/6 Amps Socket Outlet & 5/6 Amps Switch Including cost of base and cover plate and G.I. Box etc - 37 Points.</p> <p>4. SEPARATE BOARD :- 68 Points. Wiring for light plug Point with 3x2.5 Sqmm FRLS PVC Insulated stranded copper conductor wire of Polycab/ Havells/ RR Kabel Make ISI in concealed FRLS PVC Conduit (Heavy duty, thickness of pipe should be 2 mm) of Sarswati / Polycab/ AKG Make ISI along with Crabtree (Murano)/ Legrand (Arteor) Make ISI 6 amps modular switch & 3 pin 6 amps socket outlet with modular base and cover plate, suitable size G.I. box etc.</p> <p>5. POWER PLUG POINT :- 25 Points. Wiring for power plug Point with 3x4.00 Sqmm FRLS PVC Insulated standard copper conductor wire of Polycab/ Havells/ RR Kabel Make ISI in concealed FRLS PVC Conduit (Heavy duty, thickness of pipe should be 2 mm) of Sarswati/ Polycab/ AKG Make ISI along with Crabtree (Murano)/ Legrand (Arteor) Make ISI 25/32 amps A.C. starter switch & 6 pin 16 amps socket outlet with modular base and cover plate, suitable size G.I. box etc.</p> <p>6. CIRCUIT & SUBMAIN WIRING :- Wiring for Circuit wiring with 3x2.5 Sqmm FRLS PVC insulated copper conductor wire of Polycab/ Havells/ RR kabel Make ISI in concealed FRLS 20 mm, 25 mm and 32 mm dia PVC Conduit (Heavy duty, thickness of pipe should be 2 mm) of Sarswati/ Polycab/ AKG Make ISI and Submain wiring of 6x10.00 Sqmm of FRLS PVC insulated copper conductor wire of Polycab/ Havells/ RR Kabel Make ISI in concealed FRLS 40 mm dia PVC Conduit (Heavy duty, thickness of pipe should</p>
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		<p>be 2 mm) of Sarswati/ Polycab/ AKG Make ISI etc. Length of Circuit & Submain wiring is as per required of the work and Electrical Drawing.</p> <p>7. INVERTER WIRING :- Inverter wiring with 1x2.5 Sqmm, 1x4.0 Sqmm and 4x10.00 Sqmm FRLS PVC insulated copper conductor wire of Polycab/ Havells/ RR kabel Make ISI in existing concealed FRLS PVC conduit of 20 mm, 25 mm and 32 mm (Heavy duty, thickness of pipe should be 2 mm) of Sarswati/ Polycab/ AKG Make ISI and 15/16 amp modular switch, 6 pin 15/16 amp modular socket outlet and 3 pin 16 amps power plug etc. Length of inverter wiring is as per required of the work and Electrical Drawing.</p> <p>8. MCB DB & MCBS :- (Havells/Legrand/ABB make) Blanking Plate required in remaining space of MCB DB as required</p> <p>(A) 6 way double door TPN, MCB DB - 03 Nos. (B) 6 way double door TPN, MCB DB - 01 Nos. (C) 63 amps, 440 volts, 'C' curve TP&N MCB - 04 Nos. (D) 6 to 32 amps, 240 volts, 'C' curve SP MCB - 64 Nos.</p> <p>9. EARTHING :- Earthing with 2 meter long G.I. pipe and 25 kg back filling compound including making bore pit of minimum 150 mm dia providing and laying approved make earthing electrode of pipe in pipe technology as per IS 3043 (R 2016) -1987 made of corrosion free G.I pipes having outer pipe of 80 mm dia and inner pipe of 50 mm dia and filling with specified qty highly conductive compound around pipe and above that with soft soil in bore pit complete and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc.as per specification - 02 set. including 25 mm x 5 mm G.I strip from earth electrode at 0.5 meter depth below ground level from earth pit to Metering panel as per required of the work.(Separately each earthing point to Metering panel)</p> <p>10. T.V. WIRING :- 01 Nos. Supplying,drawing and Testing of RG-6 grade co-axial TV wire of Polycab/ Havells/ RR Kabel Make FRLS PVC insulated, shielded with fine tinned copper braid and protected with PVC sheath With concealed FRLS PVC Conduit (Heavy duty, thickness of pipe should be 2 mm) of Sarswati/ Polycab/ AKG Make ISI 25mm PVC conduit along with Crabtree (Murano)/ Legrand (Arteor) Make ISI T.V. Antenna Socket Outlet With 75mm x 75mm (1/2 Moudule) G.I. box along With Modular base & cover plate etc Complete.</p> <p>11. T.P. WIRING :- 02 Nos. Supplying,drawing and Testing of 2 pair 0.5 mm FRLS PVC insulated copper conductor unarmoured T.P wire of Polycab/ Havells/ RR Kabel Make With concealed, FRLS PVC Conduit (Heavy duty, thickness of pipe should be 2 mm) of Sarswati/ Polycab/ AKG Make ISI 25 mm PVC conduit along with Crabtree (Murano)/ Legrand (Arteor) Make ISI telephone</p>
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		<p>socket outlet With 75mm x 75mm (1/2 Moudule) G.I. box along With Modular base & cover plate etc Complete.</p> <p>12. LAN WIRING :- 17 Nos. Supplying and drawing of 4 pair cat 6 LAN wire of Polycab/ Havells/ RR Kabel Make With concealed, FRLS PVC Conduit (Heavy duty, thickness of pipe should be 2 mm) of Sarswati/ Polycab/ AKG Make ISI 25 mm PVC conduit along with Crabtree (Murano)/ Legrand (Arteor) Make ISI computer outlet jack With 75mm x 75mm (1/2 Moudule) G.I. box along With Modular base & cover plate etc Complete.</p> <p>13. LED BULK HEAD FITTING :- 06 Nos. Supplying,installation,testing and commissioning of 10 watt Wipro/ Havells/ Crompton Make LED Bulk Head fitting complete with Electronic Driver, Heat sink, Capacitor complete with all other accessories on surface including connection earthing etc complete as per specification and P.F. Should be greater then 0.9 LED chip efficiency ratio ≥ 100 lumens/watt IP65.</p> <p>14. CELLING FAN :- 42 Nos. Supplying,installation,testing and commissioning of 1200 mm sweep BEE 5 Star Usha/ Havells/ Crompton (ISI) Make celling fan including wiring the down rods of standard length up to 30 cm with 1.5 sqmm FRLS PVC insulated single core cable earthing etc. complete as required. P.F should be greater than 0.9. including 180 mm dia 3 mm thik phenolic laminated sheet cover.</p> <p>15. EXHAUST FAN :- 13 Nos. Supplying,installation,testing and commissioning of 300 mm sweep Usha/ Havells/ Crompton (ISI) Make heavy duty (continuous running) 1400 rpm exhaust fan complete as per specification. P.F should be greater than 0.9. etc.</p> <p>16. LED TUBE LIGHT :- 92 Nos. Supplying,installation,testing and commissioning of 18/20 watt (4 feet) Wipro/ Havells/ Crompton Make LED tube light fitting including batten with electronic driver heat sink capacitor complete with all other accessories on surface/in false ceiling including connection earthing etc complete as per specification and furnishing 5 yrs warranty certificate. IP 20 P.F should be greater than 0.9. LED chip efficiency ratio ≥ 100 lumens/watt.</p> <p>17. LED DOWN LIGHT :- 24 Nos. Supplying,installation,testing and commissioning of 15/16 watt Wipro/ Havells/ Crompton Make LED fitting down lighters in round/square shape complete with electronic driver heat sink capacitor and all other accessories on surface/in false ceiling etc. complete as per specification and P.F should be greater than 0.9. LED chip efficiency ratio ≥ 100 lumens/watt.</p> <p>18. LED STREET LIGHT :- 10 Nos. Supplying,installation,testing and commissioning of 45 watt</p>
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		<p>Wipro/ Havells/ Crompton Make 230/250 volts LED street light fitting with all accessories like driver heat sink made of die cast aluminium with IP66 protection and 10 KV surge protection on pole bracket including connection earthing etc complete as per specification and furnishing 5 yrs warranty certificate. P.F should be greater than 0.9 LED chip efficiency ratio ≥ 120 lumens/watt. and wiring with 3x1.5 Sqmm FRLS PVC insulated copper conductor wire of Polycab/ Havells/ RR kabel Make ISI in the existing surface from each street light to point as per specification.</p> <p>19. AIR CONDITIONER :- Supplying and installation of DAIKIN/ MITSUBISHI/ O-GENERAL Make Split type Inverter/Non Inverter air conditioner unit with cooling unit (copper coil) and condensing unit (copper coil) including 5 years compressor warranty and cooling unit on wall inside and condensing unit on out side wall/ ceiling /floor at desired location with standard length of copper piping with insulation and power cable including supplying and fixing of Microtek/ V-Guard make wall mounting type voltage stabilizer with input volts 160-250,output volts 200-240 volts and double step relay and providing and fixing necessary good quality powder coated MS frame etc. complete as per specification. (A) 1.0 Ton split type capacity 3000 kcal/hr (3 star) with 4 KVA Stabilizer - 03 Nos. (B) 1.5 Ton split type capacity 4500 kcal/hr (3 star) with 4 KVA Stabilizer - 08 Nos. (C) 2.0 Ton split type capacity 6000 kcal/hr (3 star) with 5 KVA Stabilizer - 01 Nos.</p> <p>20. WATER COOLER :- 01 Nos. Supplying, installation, testing and commissioning of VOLTAS/ BLUE STAR/ AQUA GUARD Make 40/80 Leter/hr. Water cooler storage type ISI marked , eco friendly non CFC refrigerant water tank and cooler cabinet sheet material-stainless steel (grade AISI 304) with thickness is greater than 0.8 mm, with PUF insulation including all accessories connection etc complete as per specification.</p> <p>21. WATER PURIFIER :- 01 Nos. Supplying, installation, testing and commissioning of HAVELLS/ KENT/ AQUA GUARD Make 25 Leter/hr. Output capacity of RO purification systemwith UF/UV/TDS controller and UV lamp (IS 14724 Ultra violet disinfection) and minimum three stage purification, automatic on/off, water conforming standard IS 10500 With inbuild storage tank including all accessories connection etc complete as per specification.</p> <p>22. METERING PANEL :- Fabrication, supply, installation, testing and commissioning of cubical type compartmentalized wall/floor mounted power cum</p>
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		<p>control panel board of specified size and up to 300 mm depth made out of not less than 2 mm thick CRCA MS sheet with 200 amp aluminium bus bar (3 phase+neutral) of required length, 01 nos. 4 pole 125 amp MCCB (35 KA) of Havells/ Legrand/ ABB make, 04 nos. 200/5 amp CT, 03 nos. LED indicating lamp, 01 nos. VAF, 05 nos. 63 amps TP&N MCB of Havells/ Legrand/ ABB make, interconnection between BBC and switchgears with 35 sqmm (125 amp) copper conductor including thimbles for each phase and neutral, 16 sqmm (63 amp) FRLS PVC insulated copper wire of Polycab/ Havells/ RR kabel Make for each TP&N MCB of suitable length and suitable size compartment for 01 nos. 3 phase energy meter.as per specification.– 01 Nos.</p> <p>23. SERVICE CABLE :- Supplying, laying and testing of 3.5x50 Sqmm size Polycab/ Havells/ Gloster make FRLS PVC insulated, PVC sheathed, steel armoured, aluminum conductor power cable of 1.1 KV grade on existing RCC Hume pipe/ Surface/ air and erection of G.I. guard wire of size 8 SWG to 4 SWG including binding at each meter, required angle/channel iron cross arms/ bracket and 3.5x50 Sqmm size end termination with brass compression gland and aluminium lugs as per specification for service connection from LT pole to Metering panel. (01 Nos. connected and 01 Nos. Stand-by cable)</p> <p>Note:- As Per Site Condition Final Decision of Internal Electrification Work giving by Engineer-in-charge/EE (Electrical), Electrical division-Bilaspur.</p>
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Sub Engineer (Elect.)
Chhattisgarh Housing &
Infrastructure Development Board
Elect. Sub Div.-Bilaspur

Assistant Engineer (Elect.)
Chhattisgarh Housing &
Infrastructure Development Board
Elect. Sub Div.-Bilaspur

Executive Engineer (Elect.)
Chhattisgarh Housing &
Infrastructure Development Board
Elect. Div.-Bilaspur

S.NO	TERMS AND CONDITION FOR ELECTRICAL WORK
1	It is compulsory to execute the all type of electrical work through valid "A" Class electrical contractor registered in CG licencing board.(copy of registration should be submitted along with concern letter).
2	The Developer shall be responsible for sanction of estimate as per attached technical specification according to latest CSERC norms for external electrification work through over head/under ground system from CSPDCL along with payment of supervision charges,system strengthening charges, transformer testing charges,line charging permission charges,GST and other charges (if required) to the CSPDCL.NO extra payment or reimbursement will be made to the developer for the same.
3	All necessary code permissions from CSPDCL/Electrical Safety Department/Any other Govt. Department for above installation should be obtained by the developer on his own cost.
4	In Case of any technical dispute (if arises) general specification for electrical work (part ii external) 1974 of CPWD and I.E. rules 1956 with upto date amendments will be applicable & final.
5	Make & specification of all electrical items as specified should be strictly followed by developer in case of internal electrification it is compulsory to get approval of SLD/DWG from CGHB.
6	The developer will be responsible for any theft and damage of material (if occurs) till the completion of work and taken over by CSPDCL/Concern Department of CG GOVT.
7	It is responsibility of developer to handing over the External Electrification work to CSPDCL along with line charging certificate and other required documents.
8	It is compulsory to submit the copy of handed over document to CGHB.
9	The developer will be responsible for approval of line route Installation drawing & charging permission from CG Licensing board to CGHB
10	The developer should submit the GTP (i.e. General Technical particulars) of all the major electrical equipments (i.e.) CSS, LT feeder pillar, lift, DG set, Lightning Arrester, Street light pole, street light fitting, Cable, Panels etc & got approval from CG Housing Board before supply of any electrical material.
11	The developer will be responsible for testing of CSS/TRANSFORMER/PANEL/DG SET before supply of the same on his own cost.NO extra payment or reimbursement will be made to the developer for the same.
12	It is compulsory for all type of panel work the panel manufacture should have valid C.P.R.I. approval.
13	It is compulsory to submit 05 Year guarantee certificate of CSS, DG set, Lightning Arrester & Lift from original manufacture.guarantee period starts after completion of work.
14	The Developer will be responsible for taking shut down (if required) from CSPDCL OR Any other department for execution and commissioning of work at his own cost.
15	The work includes shifting of electrical/communication line and related system from site. It is responsibility of developer to shifting of the same through concern department and also made payment.NO extra payment or reimbursement will be made to the developer for the same.
16	The work includes taking electrical/communication connection along with installation of meter from concern department for all common services. It is responsibility of developer to taking electrical/communication connection along with installation of meter from concern department and also made payment.NO extra payment or reimbursement will be made to the developer for the same.

Sub Engineer (Elect.)
Chhattisgarh Housing Board

Assistant Engineer (Elect.)
Chhattisgarh Housing Board

Executive Engineer (Elect.)
Chhattisgarh Housing Board
Electrical Division-Bilaspur

ANNEXURE 4
(Land Use Details)

ANNEXURE 5

(FAR Details)

कार्यालय उप संचालक, नगर तथा ग्राम निवेश, क्षेत्रीय कार्यालय कोरबा,
जिला-कोरबा (छ.ग.)

क्रमांक/460/Misc-34/नगानि./2026
प्रति,

कोरबा, दिनांक 04-06-2026

कार्यापालन अभियंता,
छ.ग. गृह निर्माण एवं अधोसंरचना
विकास मंडल संभाग-कोरबा
जिला कोरबा (छ0ग0)

विषय:- छत्तीसगढ़ गृह निर्माण एवं अधोसंरचना विकास मण्डल संभाग-कोरबा अंतर्गत कटघोरा में रि-डव्हलपमेंट योजना हेतु खसरा नं. 1825/1/क रकबा 4.33 एकड़ भूमि एवं खसरा नं. 926/1/क रकबा 3.11 एकड़ भूमि पर योजना क्रियान्वयन हेतु FAR Ratio के संबंध में।

संदर्भ:- आपका पत्र क्र. 938/का.अभि./तक.शाखा/2026 कोरबा दिनांक 01.06.2026।

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उपरोक्त विषयांतर्गत संदर्भित पत्र के तारतम्य में सूचित किया जाता है कि संभाग कोरबा अंतर्गत कटघोरा में रि-डव्हलपमेंट योजना के क्रियान्वयन हेतु योजना के लिये प्रचलित FAR के संबंध में जानकारी चाही गई है। तत्संबंध में अवगत कराया जाता है कि ग्राम कटघोरा का निवेश क्षेत्र गठित किया जा चुका है। निवेश क्षेत्र अंतर्गत छ.ग. भूमि विकास नियम, 1984 प्रभावशील है। छ.ग. नगर तथा ग्राम निवेश अधिनियम, 1973 की धारा-15(4) के तहत निवेश क्षेत्र का वर्तमान भूमि उपयोग अंगीकृत किया जाकर धारा-16 प्रभावशील किया गया है। निवेश क्षेत्र का वर्तमान में मास्टर प्लान तैयार करने की कार्यवाही की जा रही है। निवेश क्षेत्र अंतर्गत किसी भी प्रकार के विकास के क्रियान्वयन (01 एकड़ से अधिक) हेतु संचालक, नगर तथा ग्राम निवेश नवा रायपुर अटल नगर सक्षम प्राधिकारी है। छ.ग. भूमि विकास नियम, 1984 के नियम 60 में समूह गृह निर्माण हेतु मार्ग की चौड़ाई, भूखण्ड का आकार, तल तथा ऊँचाई के संबंध में प्रावधान दिया गया है। इसी प्रकार नियम 61 में तल क्षेत्र का अनुपात उपयोग के विभिन्न समूहों के लिये सारणी-7 में प्रावधान किया गया है। छ.ग. भूमि विकास नियम, 1984 के नियम 60 एवं 61 की छायाप्रति आवश्यक कार्यवाही हेतु संलग्न कर भेजी जा रही है।

संलग्न:- उपरोक्तानुसार।

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Ganesh Ram Turkane
Date: 04-06-2026
17:32:11

उप संचालक
नगर तथा ग्राम निवेश,
कोरबा (छ0ग0)

(2) भवन में परिवर्धन या विस्तार—भवन में परिवर्धन या विस्तार की अनुमति तभी दी जाएगी जबकि परिवर्धन/ विस्तार के लिए खुले स्थानों से ऐसा परिवर्धन/ विस्तार किए जाने के पश्चात् भी नियम 56 की अपेक्षाओं की पूर्ति हो जाती हो

60. समूह गृह निर्माण — (1) बहुमंजिले गृह खंडों को अधिमान दिया जाएगा—समूह गृह निर्माण विकास अधिमानतः बहुमंजिले गृह खंडों के रूप में किया जाएगा, इसमें यह सड़कों तथा भू-खंडों में भूमि का परंपरागत उप विभाजन नहीं होगा। स्थल तथा अधिभोगियों की समर्थिकी आवश्यकता के अभिविन्यास रेखाओं के अच्छी डिजाइन के मानकों के द्वारा शासित होंगे जिनका विनियमन प्राधिकारी द्वारा किया जाएगा।

(2) अल्प लागत की गृह निर्माण योजना हेतु आवासों के लिए पहुँच मार्ग—समाज के कमजोर वर्गों के लिए अल्प लागत के गृह निर्माण योजना के लिए पहुँच मार्ग फुटपाथ सहित बनाए जाएंगे तथा उनकी चौड़ाई डिजाइन की अपेक्षाओं के अनुसार निर्धारित की जाएगी। फुटपाथ अधिमानतः 6 मीटर चौड़ाई की आवासीय सड़क की बंद गली अथवा लूप स्ट्रीट पर खुला होगा।

(3) भू-खंडों का न्यूनतम आकार—इस प्रकार के विकास के लिए स्थल का न्यूनतम आकार 5000 वर्ग मीटर होगा।

(4) तल तथा ऊँचाई के संबंध में कोई निर्धारित सीमा नहीं होगी—संरक्षित स्मारकों तथा हवाई अड्डों आदि के निकट स्थित क्षेत्रों को छोड़ फर्शी तथा ऊँचाई के संबंध में कोई सीमा लागू नहीं होगी किन्तु विभिन्न जगहों के घनत्व के क्षेत्रों के लिए व्याप्त क्षेत्र तथा जल क्षेत्र का अनुपात सारणी 5 में दिए गए अनुसार होगा जब तक कि वृहद आयोजना (विकास योजना) में अन्यथा उपबंधित न हो।

सारणी 6

[नियम 60 (4)]

समूह गृह निर्माण के लिए तल क्षेत्र अनुपात तथा व्याप्ति का क्षेत्र

क्रमांक	सकल आवासीय घनत्व व्यक्ति/ हेक्टर	अधिकतम व्याप्ति क्षेत्र प्रतिशत में	तल क्षेत्र अनुपात
(1)	125	25	0.73
(2)	250	30	1.25
(3)	425	33.1/3	1.50
(4)	500	35	1.75
(5)	625	35	2.00

टीपः- 1 तल क्षेत्र की संगणना सभी तलों के अंतर्गत आने वाले क्षेत्र के रूप में की जाएगी जब तक कि विशेष रूप से अपवर्जित न किया गया हो।

टीपः- 2 व्याप्त क्षेत्र की संगणना निम्नलिखित घटाने के पश्चात् समूह गृह निर्माण के लिए आरक्षित संपूर्ण क्षेत्र के आधार पर की जाएगी।

(एक) किसी राजमार्ग के क्षेत्र 25 मीटर तक कोई सड़कें तथा 18 मीटर चौड़ी आवासीय सड़क समूह गृह निर्माण क्षेत्र के आसपास की सड़क (आवासीय सड़क, लूप स्ट्रीट बंदगली, सर्विस लेन तथा फुटपाथों के क्षेत्र घटाया नहीं जाएगा)।

(दो) शालेय क्षेत्र (नर्सरी स्कूलों के स्थलों को छोड़कर) तथा समूह गृह निर्माण क्षेत्र के अन्तर्गत आने वाली अन्य सामुदायिक सुविधायें, और

(तीन) खेल के मैदानों और सामान्य स्वरूप के प्लाटों को छोड़कर खुले स्थान।

(तीन) क्षेत्र तथा ऊँचाई की सीमाएं

61. तल क्षेत्र का अनुपात—तल क्षेत्र का अनुपात (त.क्षे.अ.) उपयोग के विभिन्न समूहों के लिए नीचे सारणी 7 में दिए गए अनुसार होगा।

सारणी 7

(नियम 61)

त.क्षे.अ. विभिन्न उपयोग समूहों के लिए

क्रमांक	उपयोग समूह त.क्षे.अ.	टिप्पणियाँ																																																																																								
1.	आवासिक	त.क्षे.अ. तथा घनत्व संबंधित स्थान के विकास आयोजना में उपबंधित किए अनुसार अपनाया जा सकेगा।																																																																																								
2.	व्यापारिक वाणिज्यिक	1.00 निकटवर्ती विक्रय केन्द्र। 1.20 उप जिला विक्रय केन्द्र/ जिला विक्रय केन्द्र। 1.50 केन्द्रीय व्यापारिक जिला क्षेत्र। 3.00 कार्यालय क्षेत्र।																																																																																								
3.	शिक्षा	1.00																																																																																								
4.	संस्थागत .	1.50																																																																																								
5.	सभा असेम्बली	1.50																																																																																								
6.	औद्योगिक	<table><tr><th>स. क्र.</th><th>क्षेत्रफल हेक्टेयर में</th><th>ग्राऊण्ड कवरेज</th><th colspan="4">प्रस्तावित सेट-बैक</th><th>एफ.ए. आर.</th></tr><tr><th></th><th></th><th></th><th>सामने</th><th>पीछे</th><th>साईड-1</th><th>साईड-2</th><th></th></tr><tr><td>1.</td><td>0.05</td><td>70%</td><td>3.0</td><td>3.0</td><td>3.0</td><td>3.0</td><td>1.25</td></tr><tr><td>2.</td><td>0.05-0.10</td><td>70%</td><td>4.5</td><td>3.0</td><td>3.0</td><td>3.0</td><td>1.25</td></tr><tr><td>3.</td><td>0.10-0.20</td><td>70%</td><td>6.0</td><td>4.5</td><td>4.5</td><td>4.5</td><td>1.00</td></tr><tr><td>4.</td><td>0.20-0.30</td><td>70%</td><td>7.5</td><td>4.5</td><td>4.5</td><td>4.5</td><td>1.00</td></tr><tr><td>5.</td><td>0.30-0.50</td><td>70%</td><td>7.5</td><td>6.0</td><td>4.5</td><td>4.5</td><td>1.00</td></tr><tr><td>6.</td><td>0.50-1.00</td><td>70%</td><td>10.0</td><td>6.0</td><td>9.0</td><td>9.0</td><td>1.00</td></tr><tr><td>7.</td><td>1.0 से ऊपर</td><td>70%</td><td>12.0</td><td>7.5</td><td>9.0</td><td>9.0</td><td>1.00</td></tr><tr><td colspan="8">फ्लैटेड उद्योगों के लिए</td></tr><tr><td colspan="2">न्यूनतम भू-खण्ड क्षेत्र 1500 वर्ग मीटर (0.15 हेक्टेयर)</td><td>50%</td><td>12.0</td><td>7.50</td><td>7.50</td><td>7.50</td><td>3.0]]</td></tr></table>	स. क्र.	क्षेत्रफल हेक्टेयर में	ग्राऊण्ड कवरेज	प्रस्तावित सेट-बैक				एफ.ए. आर.				सामने	पीछे	साईड-1	साईड-2		1.	0.05	70%	3.0	3.0	3.0	3.0	1.25	2.	0.05-0.10	70%	4.5	3.0	3.0	3.0	1.25	3.	0.10-0.20	70%	6.0	4.5	4.5	4.5	1.00	4.	0.20-0.30	70%	7.5	4.5	4.5	4.5	1.00	5.	0.30-0.50	70%	7.5	6.0	4.5	4.5	1.00	6.	0.50-1.00	70%	10.0	6.0	9.0	9.0	1.00	7.	1.0 से ऊपर	70%	12.0	7.5	9.0	9.0	1.00	फ्लैटेड उद्योगों के लिए								न्यूनतम भू-खण्ड क्षेत्र 1500 वर्ग मीटर (0.15 हेक्टेयर)		50%	12.0	7.50	7.50	7.50	3.0]]
स. क्र.	क्षेत्रफल हेक्टेयर में	ग्राऊण्ड कवरेज	प्रस्तावित सेट-बैक				एफ.ए. आर.																																																																																			
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³[टीप-1]:- उस दशा में जहां भूखंड का स्वामी अपने भूखंड का कोई भाग किसी सार्वजनिक सड़क का विहित सड़क चौड़ाई के लिए, किसी प्रतिकर का दावा किए बिना, अधिकारी को सौंप देता है और उसमें निहित कर देता है वहां उसे, उसके द्वारा सौंपे गए क्षेत्र के (भीतर) दुगने क्षेत्र को उसके भूखंडों के शेष भाग में मिलाकर उस आधार पर संगणित अनुपात में फर्श क्षेत्र की अनुमति दी जाएगी।

⁴[(2) झुग्गी-झोपड़ी क्षेत्र के पुनर्विकास के प्रकरण में, उस क्षेत्र हेतु अनुज्ञप्ति तल क्षेत्र अनुपात (एफ.ए.आर.) के साथ-साथ 0.50 की सीमा तक अतिरिक्त तल क्षेत्र अनुपात अनुज्ञात किया जा सकेगा, परन्तु भवन की ऊँचाई निर्धारित मापदंड के अनुसार ही हो।

(3) 200 से 500 वर्ग मीटर क्षेत्रफल के भूखंड पर केवल एक तथा 50 वर्गमीटर से अधिक क्षेत्रफल वाले भूखंड पर दो सर्वेन्ट आवास निर्धारित तल क्षेत्र अनुपात (एफ.ए.आर.) के अतिरिक्त अनुज्ञेय होंगे, एक सर्वेन्ट आवास का आकार 20 वर्गमीटर से अधिक नहीं होगा, न्यूनतम 11 वर्गमीटर क्षेत्रफल का एक रिहायशी कमरा और शेष 9 वर्गमीटर में रसोई घर, बरामदा तथा एक शौचालय सम्मिलित होगा।

1. अधिसूचना क्र. एफ 7-27/2017/32, दिनांक 6 अक्टूबर, 2018 द्वारा प्रतिस्थापित। छ.ग. राजपत्र (असाधारण), दिनांक 6-10-2018, पृष्ठ क्रमांक 819-820(1-14) पर प्रकाशित।
2. अधिसूचना क्र. एफ 07-22/2023/32, दिनांक 24 दिसंबर, 2024 द्वारा प्रतिस्थापित। छ.ग. राजपत्र (असाधारण), दिनांक 24-12-2024, पृष्ठ क्रमांक 1742(1) पर प्रकाशित।
3. अधिसूचना क्र. एफ 23-107-95-यतीस-1, दिनांक 31 अगस्त, 1998 द्वारा पुनर्जमांकित (1-9-1998 से प्रभावी)।
4. अधिसूचना क्र. एफ 23-107-95-यतीस-1, दिनांक 31 अगस्त, 1998 द्वारा अंतःस्थापित (1-9-1998 से प्रभावी)।

1[(4) 2.4 मीटर ऊंचाई की स्टिल्ट पार्किंग, 100 वर्गमीटर या उससे अधिक के आवासीय भूखण्ड, जिसकी न्यूनतम चौड़ाई 7.5 मीटर से कम न हो, पर अनुज्ञेय आच्छादित क्षेत्र के भीतर, स्वीकार्य होगी तथा ऐसे स्टिल्ट पार्किंग क्षेत्र की गणना तल क्षेत्र अनुपात (एफ.ए.आर.) के लिए तथा अनुज्ञेय ऊंचाई की गणना हेतु नहीं की जाएगी।]

स्पष्टीकरण— 2.4 मीटर की स्पष्ट ऊंचाई से अभिप्रेत है तल स्तर (फ्लोर लेवल) तथा बीम के निचले तल के बीच की ऊंचाई (लम्बवत दूरी)। यदि बीम के निचले तल के नीचे सेवाएं जैसे अग्निशमन पाईप, एयर कंडिशनिंग पाईप, सिवरेज पाईप आदि आते हों तो स्पष्ट ऊंचाई को 90 से.मी. तक आवश्यकतानुसार शिथिल किया जा सकेगा।]

(5) किसी शहर/नगर के पुराने भाग के क्षेत्रों के प्रकरण में पुनर्विकास रेखांक तैयार हो जाने के पश्चात् पुरानी और क्षतिग्रस्त संरचनाओं का पुनर्निर्माण किया जाएगा और यदि आवश्यक हो तो उस क्षेत्र के लिए भवनों की प्रावधिक ऊंचाई के अध्यधीन रहते हुए उस क्षेत्र के लिए सामान्यता विहित तल क्षेत्र अनुपात के अतिरिक्त 0.25 की सीमा तक अतिरिक्त तल क्षेत्र मंजूर किया जा सकेगा परंतु यदि उस क्षेत्र का पुनर्विकास रेखांक तैयार न किया गया हो तो ऐसा लाभ नहीं दिया जाएगा।

2[(6) प्रकरण में जहां भूमि/भूखण्ड/भवन, कमजोर आय वर्ग (ई.डब्ल्यू.एस.) को निःशुल्क / टोकन मूल्य पर उपलब्ध कराया जाता है तो ऐसे भूमि/भूखण्ड/भवन का तल क्षेत्र अनुपात अतिरिक्त रूप से उसी परियोजना में देय होगा अथवा कुल परियोजना क्षेत्र का 3% विकल्प के रूप में वाणिज्यिक उपयोग हेतु स्वीकार्य किया जाएगा।

(7) प्रकरण में जहां समूह आवास योजना में कमजोर आय वर्ग के लिए विहित सीमा से अधिक में आवास निर्मित किया जाता है और निःशुल्क/टोकन मूल्य पर उपलब्ध कराया जाता है वहां समतुल्य अतिरिक्त निर्मित क्षेत्र देय होगा, जो स्वीकृत तल क्षेत्र अनुपात के अतिरिक्त होगा।]

3[(8) 100 मीटर या उससे अधिक चौड़ाई वाले पहुंच मार्ग पर, 5 एकड़ या उससे अधिक क्षेत्रफल वाले वाणिज्यिक भूखण्डों के प्रकरणों में 5.0 तलक्षेत्र अनुपात अनुज्ञेय होगा। ऐसी स्थिति में जहां ऐसे वाणिज्यिक भूखण्ड केन्द्रीय व्यापारिक जिला केन्द्र (सी.बी.डी.) अथवा ट्रांजिट ओरिएटेड डेव्लपमेंट (टी.ओ.डी.), जैसा कि संबंधित विकास योजनाओं में परिभाषित किया गया हो, में स्थित हो, 2.0 अतिरिक्त तलक्षेत्र अनुपात अनुज्ञेय होगा।]

62. ऊंचाई की सीमा— मंजिलों की ऊंचाई तथा संख्या, तल क्षेत्र अनुपात में संबंधित होगी। खुले स्थान तथा भूखंडों के सामने की सड़क की ऊंचाई नीचे लिखे गए ब्यौरे के अनुसार होगी:—

(क) भवन की अधिकतम ऊंचाई लगी हुई सड़क की चौड़ाई तथा सामने के खुले स्थानों के दुगने से अधिक नहीं होगी। Deleted

(ख) यदि कोई भवन भिन्न-भिन्न चौड़ाई की दो या अधिक सड़कों से लगा हुआ हो, तो भवन उस सड़क के सामने है ऐसा समझा जाएगा जिसकी चौड़ाई अधिक हो और भवन की ऊंचाई उस सड़क की चौड़ाई से विनियमित होगी और उसे नियम 56 के अनुरूप रहते हुए संकीर्ण की ओर 24 मि. गहराई तक इस ऊंचाई को बनाए रखा जा सकेगा।

(ग) हवाई अड्डों के पास के भवनों के लिए ऐसे भवनों की अधिकतम ऊंचाई सारणी 8 में दिए गए अनुसार होगी :

परन्तु इस नियम में अन्तर्विष्ट किसी बात का यह अर्थ नहीं लगाया जाएगा कि वह उक्त क्षेत्र में उपलब्ध विद्यमान अग्निशामक उपस्कर तथा अन्य नागरिक सुविधाओं को ध्यान में रखते हुए प्राधिकारी द्वारा किसी क्षेत्र में अनुज्ञा की गई ऊंचाई का भवन निर्माण करने का कोई अधिकार प्रदान करती है।

1. अधिसूचना क्र. एफ 7-05/2013/32, दिनांक 7 अगस्त 2013 द्वारा प्रतिस्थापित। छ.ग. राजपत्र (असाधारण), दिनांक 7 अगस्त 2013 पृष्ठ क्रमांक 704 (1-9) पर प्रकाशित।
2. अधिसूचना क्र. एफ 7-05/2013/32, दिनांक 7 अगस्त 2013 द्वारा अंतःस्थापित। छ.ग. राजपत्र (असाधारण), दिनांक 7 अगस्त 2013 पृष्ठ 704 (1-9) पर प्रकाशित।
3. अधिसूचना क्र. एफ 07-22/2023/32, दिनांक 24 दिसंबर, 2024 द्वारा जोड़ा गया। छ.ग. राजपत्र (असाधारण), दिनांक 24-12-2024, पृष्ठ क्रमांक 1742(1) पर प्रकाशित।

कटघोरा

वर्तमान भूमि :

संकेत विवरण
LEGEND

रिक्त
VACANT LAND

आवासीय
RESIDENTIAL

वाणिज्यिक
COMMERCIAL

औद्योगिक
INDUSTRIAL

परिवहन एवं संचार
TRANSPORT & COMMUNICATION

सड़कें तथा गलियाँ
ROADS & STREETS

सार्वजनिक सुविधाएँ एवं सेवाएँ
PUBLIC AMENITIES

सार्वजनिक एवं अर्धसार्वजनिक
PUBLIC & SEMI - PUBLIC

खुली भूमि
OPEN SPACE

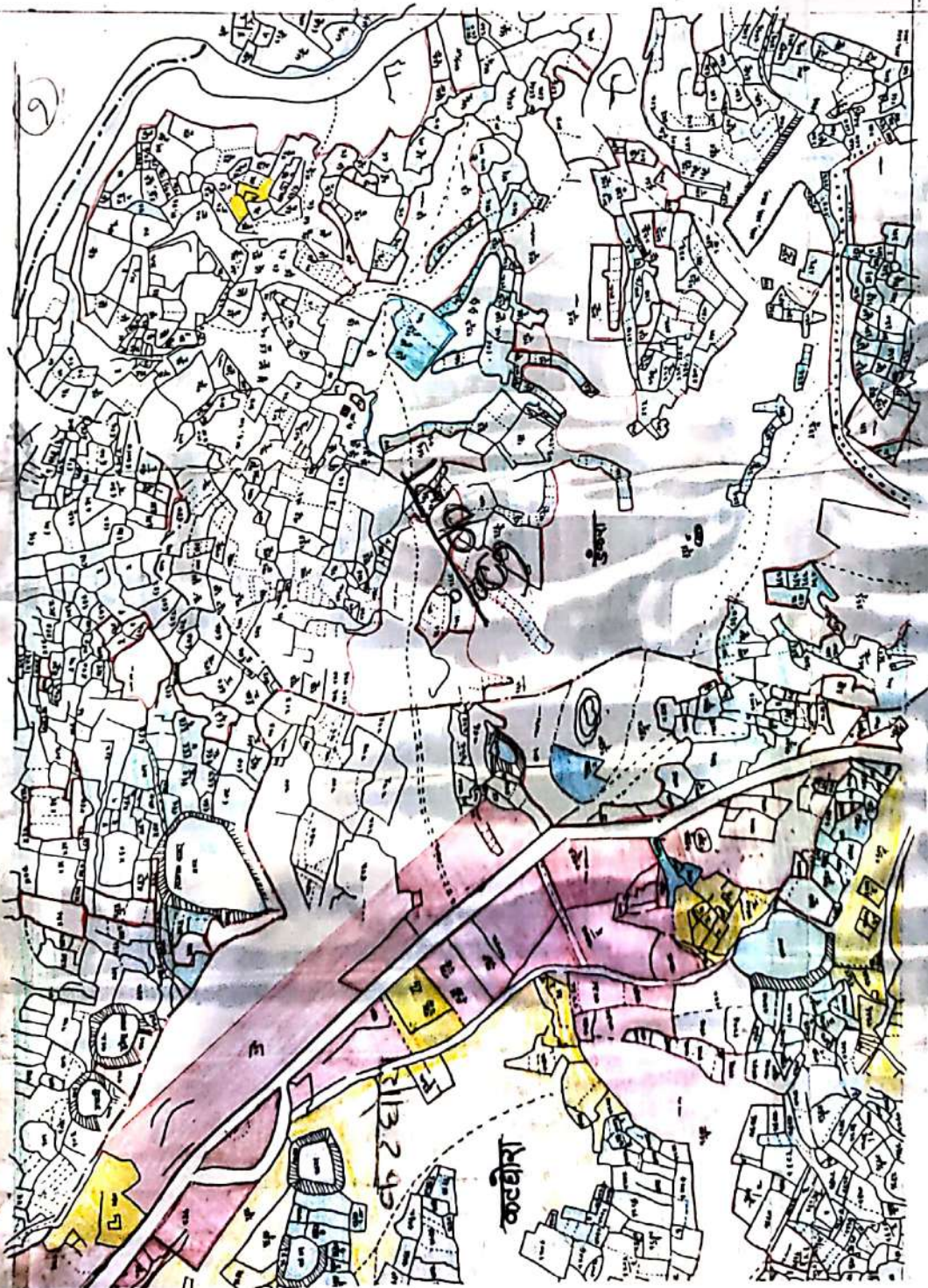
कृषि भूमि
AGRICULTURE

जलसागर
WATER BODY

माप
SCALE



नरपोप/डुंकरा



N1M1	N1E1	X
S1M1	S1E1	S1E2
S2M1	S2E1	S2E2

भारतीय संकेत

सर्वोच्च न्यायालय द्वारा जारी किया गया अधिसूचना 1973 (अ. 33)
द्वारा 1973) का भाग 18 (1) अधिनियम (IV) के अंतर्गत
'अनुसूचित' एवं 'अनुसूचित' क्षेत्रों को धारा 18 (1) के अंतर्गत

इसे सम्पत्ति रिकार्ड में सम्मिलित करें
NOTES > MAP TO BE TREATED AS PROPERTY RECORD.

ANNEXURE 6
(Soil Testing Report)

Marshal Geo Test Laboratory

For Testing of Civil Engineering Materials

ISO 9001:2015



Certified By :

Standardisation Testing
& Quality Certification
Directorate
UDYAM-CG-14-0000899

Sheet 1 of 3

Date:- 13/12/2022

T.R. No. / MGTL / TRR / R-1012221/R-1

To,
The Executive Engineer
CG Housing Board,
Division - Korba (C.G.)

Subject :- Test result of soil sample for the proposed construction under Irrigation Department of 3.11 & 4.33 Acre Land under Redevelopment Scheme at Block Katghora, Distt. Korba (C.G.)

Your Ref:- Letter No. 2505/E.E./T.S./Division/2022 Korba Dtd:- 06/12/2022

Sample ID Mark :- Depth- 2.00 m (As reported)

Location : Khasara No. 926/1, Rakba 3.11 Acre, Katghora.

Dear Sir,

Vice subject and reference cited above, the test results report is as follows: -

Mechanical Testing
Soil and Rock (Clays & Soils)

PARTICULAR OF SAMPLE (S)

Nature:- Disturbed Soil Sample

Soil Condition:- Moist

Sample No.(S) Details:- One Sample (Lab Sample ID : R-1012221/S-1)

Laboratory Performance Area : Soil Testing Area

DL of Receipt in the Lab :-10/12/2022

LAB JOB NO. :- R-1012221/J-1

Testing Date :- 13/12/2022

S. No.	Parameters	Test Method	TEST RESULT	
			Result	Unit
1	Type of Soil	As per IS 2720 Part XIII (Direct Shear Test)	Clayey Sand	
2	Sampling Depth from EGL (As reported)		2.00 m	
3	Bulk Density (Remoulded)		1.85	t/m^3
4	C_u Value of Soil		0.15	t/m^2
5	Φ_u value of Soil		32.20	degree
6	Safe Bearing Capacity		11.44	t/m^2

Remark:-

1. SBC is calculated based on shear failure criteria as per IS 6403 : 1981.
2. SBC has been computed taking 1.0 m x 1.0 m footing size.
3. GWT Effect is taken into consideration while calculating SBC.

P.S. City Road, Near Kushalpur Chowk,
Chongorabhata, Ring Road No. -01,
Raipur 492013 (C.G.), Ph. : 7879798900
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Marshal Geo Test Laboratory

For Testing of Civil Engineering Materials

ISO 9001:2015



Certified By :
Standardisation Testing
& Quality Certification
Directorate
UDYAM-CG-14-0000895

Sheet 2 of 3

R. No. / MGTL / TRR / R-1012221/R-1

GRAIN SIZE ANALYSIS

Table - 2

JOB NO. :- R-1012221/J-1

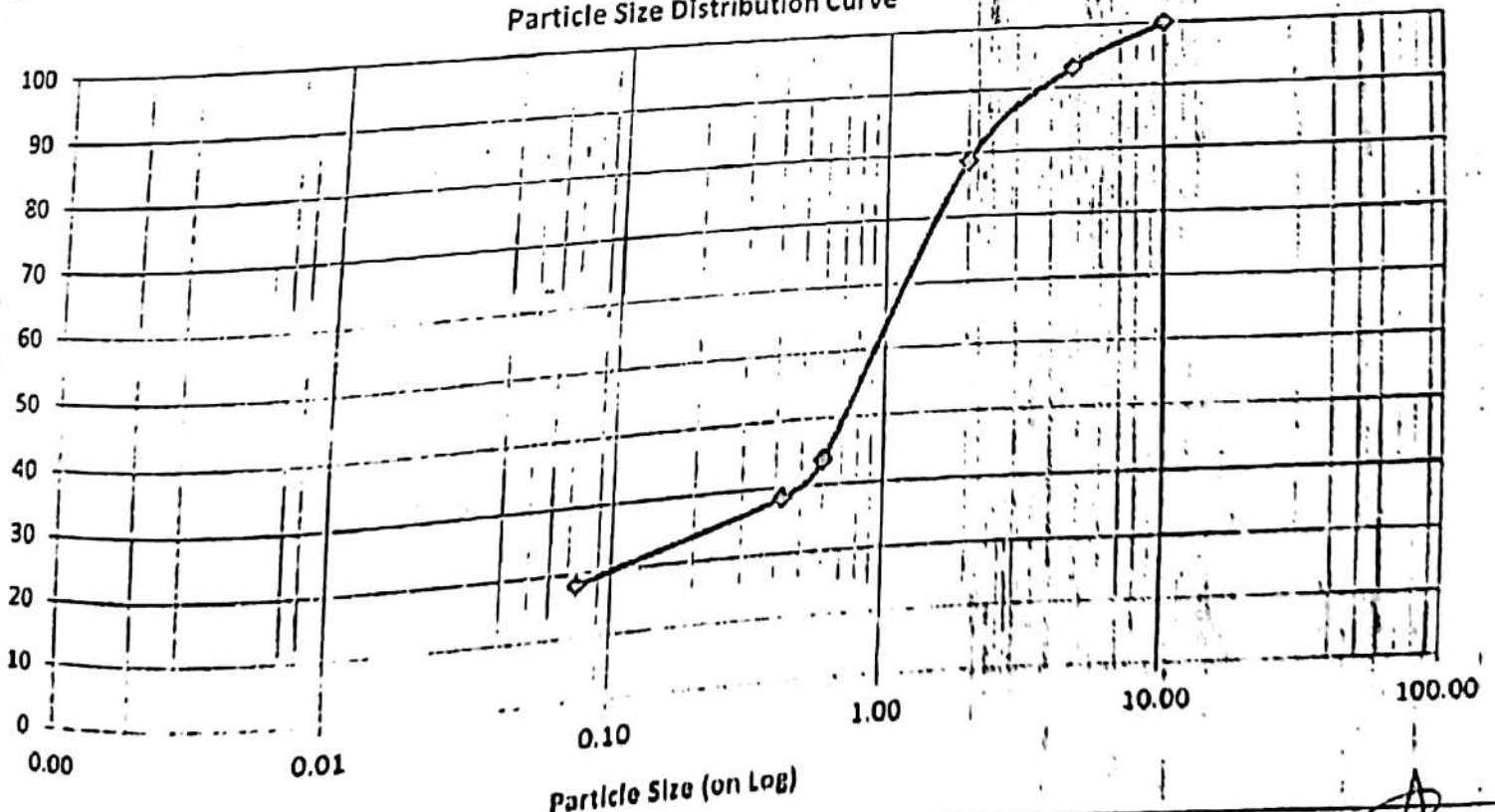
Wt of sample	500	Grams			
Sieve Size in MM	Weight Retained (Gm)	Cumulative Weight Retained (Gm)	Cum. Wt. of sample passing through sieve (Gm)	Percentage of Passing	
10.00	0	0	500	100.00	
4.750	34	34	466	93.20	
2.000	72	106	394	78.80	
0.600	224	330	170	34.00	
0.425	27	357	143	28.60	
0.075	52	409	91	18.20	

Table No. - 3

JOB NO. :- R-1012221/J-1

GRAVEL %	SAND			CLAY AND SILT %
	Fine Sand %	Medium Sand %	Coarse Sand %	
6.80	10.40	50.20	14.40	18.20

Particle Size Distribution Curve





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Certified By:
 Dr. Anil Kumar
 Director
 STQC
 New Delhi
 110002

T.R. No. / MGTL / TRR / R-1012221/R-1

Sheet 3 of 3

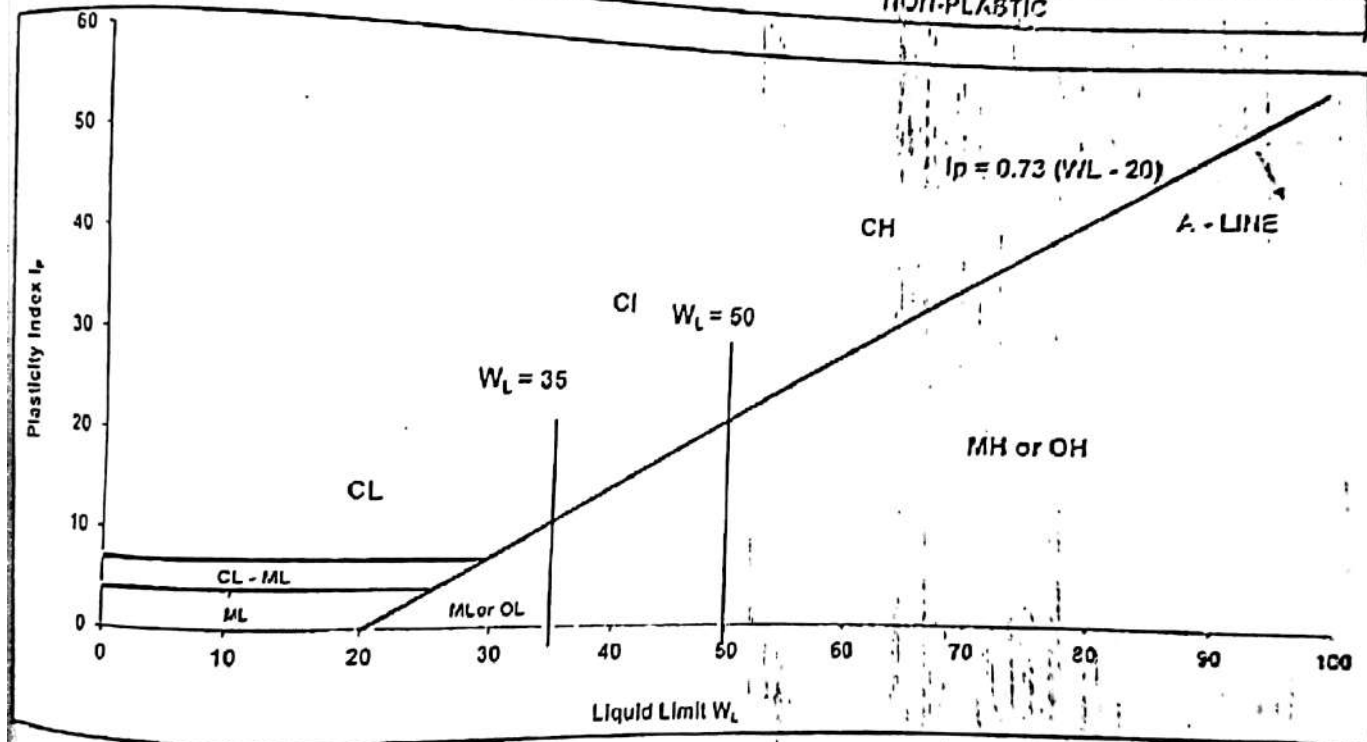
Table - 4

LAB JOB NO. :- R-1012221/J-1

LIQUID LIMIT PLASTIC LIMIT PLASTICITY INDEX

Sr. No.	Classification	LL	PL	PI
		%	%	%
1	Clayey Sand (SC)			

NON-PLASTIC



[Signature]

Verified by
 Ashay Mehara
 (M. Tech. Geotech)

[Signature]

Authorised Signatory
 Arun Bhatia (CEO)

- 1 Samples not Drawn by us, unless otherwise mentioned.
- 2 Samples may be destroyed / Removed away from Laboratory after Testing, unless otherwise particular request is made.
- 3 This report in full or part may not be reproduced, published or used for any legal action unless prior permission is secured from C.E.O. MGTL Raipur. Subject to Raipur Jurisdiction.
- 4 Although Site name has been mentioned, MGTL is not responsible for the actual site conditions.
- 5 This report pertains to only sample Tested at Raipur Laboratory.

*****END OF REPORT*****

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