

**M.P. WATER AND LAND MANAGEMENT INSTITUTE
(WALMI), BHOPAL**

Address: Kolar Rd, Near Kaliyasote Dam, Bhopal, Madhya Pradesh - 462016

Website: <http://www.mpwalmi.org>

Phone: 0755-2492672, 2492432

**Material and Services
For
Beautification / Afforestation Works
REQUEST FOR PROPOSAL (RFP)**



Last date of Submission: 30/05 /2023 before 05:00 p.m.

M.P. Water and Land Management Institute

Kaliyasote Dam, Bhopal

Beautification / Afforestation

REQUEST FOR PROPOSAL (RFP)

INVITATION NOTICE

WALMI invites online Request for Proposal (RFP) from reputed registered firms / agencies for supplying various kinds of materials and providing services/works for beautification / afforestation works to be done by the institute on terraces and other suitable places. The estimated cost of work is Rs. 10 crore (Rupees Ten Crore only). The details of the request for proposal (RFP) are available on the website www.mpwalmi.org of the Institute. The last date for submission of request for proposal (RFP) is 30.05.2023

Director

WALMI, Bhopal

REQUEST FOR PROPOSAL (RFP)
INVITATION NOTICE
DETAILS OF REQUEST FOR PROPOSAL (RFP)
OF MATERIAL AND SERVICES FOR
BEAUTIFICATION / AFFORESTATION WORKS

1.	Particulars	Selection and empanelment of firms/agencies through Request for Proposal (RFP) for the supply of materials and providing services and works to be executed for beautification / afforestation works in the WALMI campus and other places of Bhopal city as per the requirement shown in Annexure-I .
1.a.	Validity of the Empanelment	2 years from the date of Agreement contract with empaneled firm/agency
2.	Website address for details of the Request for Proposal (RFP) notifications.	www.mpwalmi.org
3.	Estimated cost of supply of material and providing services, execution of works.	Rs. 10 crore (Rupees Ten crore only)
4.	Starting date and last Date and Time for receiving the Request for Proposal (RFP).	1. Request for Proposal (RFP) submission starting date and Time: 10:30 A.m. Date: 20/05/2023 Place: MP WALMI, Bhopal 2. Request for Proposal (RFP) submission last date and Time: 5:00 p.m. Date: 30/05/2023 Place: MP WALMI, Bhopal
5.	Time, date and place of opening of Request for Proposal (RFP)	Time: 3:00 p.m. Date: 01/06/2023 Place: MP WALMI, Bhopal
6.	Date of Issue of Letter to the selected Firm / Agency for the supply of materials and for providing services/works.	Will Be intimated later through email as and when work order is issue to the selected Firm / Agency for the supply of materials and for providing services.

1. INTRODUCTION

M.P. Water and Land Management Institute (WALMI), Bhopal plans to undertake beautification and afforestation works for which request for proposal (RFP) are invited for the supply of materials for beautification and for providing services/execution of works from the reputed registered firms and agencies. The selected firm/agency will be valid for a period of 2 years. Interested reputed registered firm/agency can submit request for proposal (RFP). The selection of the firm/agency will be done on the basis of the lowest rates and quality of the material and quality of works. For details please logon to www.mpwalmi.org. The last date for the submission of Request for Proposal (RFP): 30/05 /2023 before 05:00 p.m.

2. SCOPE OF WORK

The selected firm/agency is expected to undertake and implement the following:

1. The selected firm/agency has to supply the approved materials of standard quality as per the approved rates with in the stipulated time period.
2. The selected Firm / Agency has to undertake and complete the work ordered services/works as per the approved Request for Proposal (RFP) rates maintaining the standard quality and quantity.

3. ELIGIBILITY CRITERIA

The firm/agency that fulfils the following requirements is eligible to submit REQUEST FOR PROPOSAL (RFP).

1. **Only the registered firms/agencies are eligible to submit Request for Proposal (RFP) along with the copy of firm/agency registration with the concerned Department of the Government.**
2. **The Firm/agency's Total annual turnover of the last three years should be at least Rs. 40 crore (Rupees Forty crore only).**
3. **The Firm/agency's should have work experience in the field of Agriculture and Horticulture in reputed/Training/ research /Educational Institute. The Firm/ agency Work done at least rupees 1.0 Crore in last two years. Attached the necessary work orders/work completion certificate with tender documents.**

4. The Firm/agency's should have Work experience in Rain Water Harvesting field at least rupees 20 lakhs work done in last two years work with reputed Training/ research/Educational/ Institute. Attached the necessary work completion certificates with tender documents.

3. The firm/agency should not be under declaration of ineligibility for corrupt or fraudulent practices or deficiencies of services or blacklisted by any of the Government agencies/PSU/Private company/Private factory etc at the time of bidding. The firm/agency has to give an undertaking to this effect along with the Request for Proposal (RFP).

4. HOW TO APPLY

The eligible firms/agencies can submit REQUEST FOR PROPOSAL (RFP) in their letter head in the Request for Proposal (RFP) format enclosed as Annexure-II,III&IV along with the copies of relevant firm/agency documents and should be sent to : The Director, M.P. Water and Land Management Institute WALMI, Bhopal. The envelope should be superscribed with "**Request For Proposal (RFP) FOR SUPPLY OF MATERIAL AND PROVIDING SERVICES FOR BEAUTIFICATION/ AFFORESTATION WORKS**" by post/courier/self.

5. EARNEST MONEY DEPOSIT

The firm/agency should submit an Earnest Money Deposit (EMD) of Rs. 20 lakhs (Rupees Twenty Lakhs Only) along with the Request for Proposal (RFP) by way of Demand Draft in favour "Director, M.P. Water and Land Management Institute", payable at Bhopal which should be valid for a period of three months, on the following conditions.

1. Request For Proposal (RFP) not accompanied by the EMD will be rejected.
2. EMD will be returned not later than 12 days from Request For Proposal (RFP) approved date without any interest, to the Firm / Agency other than the approved Firm/ Agency. The EMD of the successful Firm / Agency shall be returned after signing of the Agreement and submission of performance security of Rs. 40 lakh (Rupees Forty lakh only). The Demand draft should not be older than 7 days from the Bid submission date.
3. The performance security will be forfeited, if the firm/agency fails to abide by the Request for Proposal (RFP) conditions or any other reasons

significant in this process in the material supply/execution of works.

6. PERFORMANCE SECURITY: Performance security of Rs. 40 lakhs (Rupees Forty lakhs only) in the form of account payee, demand draft/ banker cheque/ FDR in favour of Director WALMI to be deposited at time of Agreement (as per Annexure-V). This performance security amount will only be returned after the successful supply of standards materials /providing services /executing awarded works with in stipulated time limit and after the Agreement period. In case of supply of substandard quality/quantity materials and substandard execution of works for which payments are made, such amount shall be recovered from the performance security amount or entire/partial Performance security amount shall be forfeited.

7. DECLARATION: The firm/agency shall have to submit an Affidavit in the form of declaration (Annexure III) along with the Request For Proposal (RFP) documents.

8. SUPPLY OF MATERIALS AND WORKS TO BE EXECUTED-

- 1. The Request for Proposal (RFP) materials are to be supplied in the WALMI campus/any part of Bhopal city and hence the request for proposal (RFP) should quote the rates including the transportation charges up to WALMI/any part of Bhopal city.**
- 2. The services to be given and works to be executed will be in the WALMI area/any part of Bhopal city and hence the request for proposal (RFP) shall quote rates accordingly.**

9. SEALING & MARKING OF REQUEST FOR PROPOSAL (RFP)

The firm/agency shall submit the Request for Proposal (RFP) in an envelope as below:

The Request For Proposal (RFP) shall be sealed in an envelope and shall be marked as "**Request for proposal (RFP) FOR SUPPLY OF MATERIAL AND PROVIDING SERVICES FOR BEAUTIFICATION/ AFFORESTATION WORKS**".

The Envelope- shall contain the following:

- I. Earnest Money Deposit in a separate sealed envelope marked as "EMD".
- II. Request for proposal (RFP) Document duly filled up and signed with the copies of documents (Annexure II,III&IV).
- III. Certified and attested copies of firm/agency registration, GST No, PAN no, experience in supply of materials and execution of works, Attested

copies etc.

10. It will not be mandatory on the part of WALMI to issue work orders for all the materials and the quantities, and the works and size of the area of works indicated in Annexure-I. Work orders for materials and works shall be issued only as per the actual requirements from time to time.

11. PAYMENT TO FIRM/AGENCY :

- 1. The payment to the selected material Firm / Agency shall be made after the verification and after the satisfaction of quality and quantity of the materials supplied.**
- 2. The payment to the selected Firm / Agency shall be made after successful completion of services/works and verification and after satisfaction of quality and quantity of services/works as per the work orders.**

12. The Director of the institute shall have the power to cancel any/all the REQUEST FOR PROPOSAL (RFP) at any time of Request For Proposal (RFP) process period.

13. Request for Proposal (RFP) received after the due date and time will not be accepted.

14. This Request for proposal (RFP) is for empanelment of agencies. It any agency quoted higher rates in willing to work on lowest quoted rates will be empanelled on request.

15. Allotment of work will be on sole discretion of Director WALMI among empanelled agencies.

ANNEXURE -I**(APPROXIMATE REQUIREMENT OF WALMI)****REQUIREMENT OF THE MATERIALS TO BE SUPPLIED AND SERVICES/WORKS TO BE DONE****FOR****BEAUTIFICATION / AFFORESTATION WORK IN WALMI/OTHER PARTS OF MADHYA PRADESH**

Sl. No.	Particulars	Required Approximate Quantity/Unit	Unit of the cost to be Quoted	Rate (Rs.)
A	Name of Item			
1	Assam Bamboo (3 Inch Diameter)	2000 m	Per Running Meter	
2	Half Round Bamboo (3 Inch Diameter)	2500 m	Per Running Meter	
3	Waterproof Plywood – 16 mm	150 sqm	Per Sq.M	
4	Waterproof Plywood – 14 mm	100 sqm	Per Sq.M	
5	Waterproof Plywood – 12 mm	75 sqm	Per Sq.M	
6	Waterproof Plywood – 8 mm	50 sqm	Per Sq.M	
7	275 GSM Ultra Violet (UV) Vermi Compost Fabric	150 sqm	Per Sq. M.	
8	350 GSM Ultra Violet (UV) Vermi Compost Fabric	100 sqm	Per Sq. M.	
9	460 GSM Ultra Violet (UV) Vermi Compost Fabric	75 sqm	Per Sq. M.	
10	480 GSM Ultra Violet (UV) Vermi Compost Fabric	50 sqm	Per Sq. M.	
11	1.5" Iron Pipe	50 kg	Per KG	
12	2" Iron Pipe	100kg	Per KG	
13	2.5" Iron Pipe	50 kg	Per KG	
14	3" Iron Pipe	50 kg	Per KG	
15	4" Iron Pipe	100 kg	Per KG	
16	1.5" Steel Pipe	30 kg	Per KG	
17	2" Steel Pipe	30 kg	Per KG	
18	2.5" Steel Pipe	30 kg	Per KG	
19	3" Steel Pipe	40 kg	Per KG	
20	4" Steel Pipe	30 kg	Per KG	
21	Bio liquid organic manure jeevamrut	1000 litre	Per litre	
22	Bio liquid organic manure Ghan jeevamrut	1000 litre	Per litre	
23	Dry Gobar Khad (Cow Dung Manure)-Farmyard manure	200 cubic M.	Per Cubic M.	
24	Dhan Bhunsi (Rice Bran/husk)	2000 Kg	Per Kilogram	
25	Khas (Used in Coolers)	100 Kg	Per Kilogram	

Sl. No.	Particulars	Required Approximate Quantity/Unit	Unit of the cost to be Quoted	
26	Black cotton Soil	500 cubic M.	Per Cubic M.	
27	Bamboo sticks (3 to 6 inch dia.) length 1.5M.	5000 Numbers	Per 1.5 M. Stick	
28	Gehun Bhunsa (Wheat Bran)	100 Cubic M.	Per Cubic M.	
29	Sugarcane Bagas	100 Cubic M.	Per Cubic M.	
30	Paddy Straw	100 Cubic M.	Per Cubic M.	
31	Jute Rope (Sutli)	100 Kg	Per Kilogram	
32	Clay Pot Small (Size 6 inch dia. 8 inch height)	300 No.	Per Pot	
33	Clay Pot Medium (Size 8 inch dia. 10 inch height)	200 No.	Per Pot	
34	Clay Pot Large (Size 12 inch dia. 16 inch height)	150 No	Per Pot	
35	Clay Pot Large (Size 14 inch dia. 18 inch height)	150 No	Per Pot	
36	Ceramic Pot Small (Size 6 inch dia. 8 inch height)	300 No.	Per Pot	
37	Ceramic Pot Medium (Size 8 inch dia. 10 inch height)	200 No.	Per Pot	
38	Ceramic Pot Large (Size 12 inch dia. 16 inch height)	150 No	Per Pot	
39	Ceramic Pot Large (Size 14 inch dia. 18 inch height)	150 No	Per Pot	
40	Cement Pot Small (Size 6 inch dia. 8 inch height)	300 No.	Per Pot	
41	Cement Pot Medium (Size 8 inch dia. 10 inch height)	200 No.	Per Pot	
42	Cement Pot Large (Size 12 inch dia. 16 inch height)	150 No	Per Pot	
43	Cement Pot Large (Size 14 inch dia. 18 inch height)	150 No	Per Pot	
44	Plastic Pot Small (Size 6 inch dia. 8 inch height)	300 No.	Per Pot	
45	Plastic Pot Medium (Size 8 inch dia. 10 inch height)	200 No.	Per Pot	
46	Plastic Pot Large (Size 12 inch dia. 16 inch height)	150 No	Per Pot	
47	Plastic Pot Large (Size 14 inch dia. 18 inch height)	150 No	Per Pot	
48	Terracotta Pot Small (Size 6 inch dia. 8 inch height)	300 No.	Per Pot	
49	Terracotta Pot Medium (Size 8 inch dia. 10 inch height)	200 No.	Per Pot	
50	Terracotta Pot Large (Size 12 inch dia. 16 inch height)	150 No	Per Pot	
51	Terracotta Pot Large (Size 14 inch dia. 18 inch height)	150 No	Per Pot	
52	Iron Ring 6 inch dia. with iron string with 3 inch moulded hook. iron rod size 8 mm.	100 No.	Per piece	
53	Clay Saucer shape plates - 10 inch dia.	100 No.	Per piece	
54	Copra Supply	100	Cum	
55	Brick 1 st class	10000	No.	
56	Cement	100	per bag	

57	Sand	100	Cum	
58	Aggregate	100	Cum	
No.	Particulars	Required Approximate Quantity/Unit	Unit of the cost to be Quoted	
1	Wooden Chair (Sample to be shown)	40 No.	Per Chair	
2	Wooden Tea Table – 3'x2' (Sample to be shown)	10 No.	Per Table	
3	Bamboo Chair (Sample to be shown)	40 No.	Per Chair	
4	Bamboo Tea Table – 3'x2' (Sample to be shown)	10 No.	Per Table	

C	Green Grass Artificial Carpet – Heavy Dense	300 Sq. M.	Per Sq. M.	
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D	Water spray fountains (3m height And Upto 5 m diameter) - with specifications of nozzles, pipe fitting , water spray height and width, motor	4 Water spray fountains	Per water spray fountain to be quoted solar and battery driven separately	
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E	List of Plants					
	पौधे के नाम	पौधे के उम्र	पौधे के ऊंचाई			
1.	आम	1 से 2 वर्ष	75 से 90 से.मी	500	प्रति पौधा	
2.	अनार	1 से 2 वर्ष	75 से 90 से.मी	500	प्रति पौधा	
3.	चीकू	1 से 2 वर्ष	75 से 90 से.मी	500	प्रति पौधा	
4.	अमरूद	1 से 2 वर्ष	75 से 90 से.मी	500	प्रति पौधा	
5.	मौसमी	1 से 2 वर्ष	75 से 90 से.मी	200	प्रति पौधा	
6.	चकोट्टा	1 वर्ष	60 से 80 से.मी	200	प्रति पौधा	
7.	पीपल	1 वर्ष	60 से 80 से.मी	500	प्रति पौधा	
8.	महुआ	1 वर्ष	60 से 80 से.मी	500	प्रति पौधा	
9.	हरा	1 वर्ष	60 से 80 से.मी	500	प्रति पौधा	
10.	शीशम	1 वर्ष	60 से 80 से.मी	500	प्रति पौधा	
11.	तिनसा	1 वर्ष	60 से 80 से.मी	500	प्रति पौधा	
12.	कुरुलू	1 वर्ष	60 से 80 से.मी	500	प्रति पौधा	
13.	सीता अशोक	1 वर्ष	60 से 80 से.मी	500	प्रति पौधा	
14.	कचनार	1 वर्ष	60 से 80 से.मी	500	प्रति पौधा	

15.	शहतूत	1 वर्ष	60 से 80 से.मी	500	प्रति पौधा	
16.	गूलर	1 वर्ष	60 से 80 से.मी	500	प्रति पौधा	
17.	अर्जुन	1 वर्ष	60 से 80 से.मी	500	प्रति पौधा	
18.	गरुड़	1 वर्ष	60 से 80 से.मी	500	प्रति पौधा	
19.	अचार	1 वर्ष	60 से 80 से.मी	500	प्रति पौधा	
20.	बेल	1 वर्ष	60 से 80 से.मी	500	प्रति पौधा	
21.	बड़	1 वर्ष	60 से 80 से.मी	500	प्रति पौधा	
22.	रुद्राक्ष	1 वर्ष	60 से 80 से.मी	500	प्रति पौधा	
23.	आंवला	1 वर्ष	60 से 80 से.मी	500	प्रति पौधा	
24.	नारियल	2 वर्ष	75 से 90 से.मी	50	प्रति पौधा	
25.	केला	1 से 2 वर्ष	75 से 90 से.मी	50	प्रति पौधा	
26.	आई ऑफ गोडेस	1 वर्ष	60 से 80 से.मी	50	प्रति पौधा	
27.	बांस बुद्धा	1 वर्ष	60 से 80 से.मी	50	प्रति पौधा	
28.	बांस गोल्डन	1 वर्ष	60 से 80 से.मी	50	प्रति पौधा	
29.	फाइक्स	1 वर्ष	60 से 80 से.मी	50	प्रति पौधा	
30.	मेरीगोल्ड (गेंदा)	1 वर्ष	60 से 80 से.मी	50	प्रति पौधा	
31.	क्रोन फ्लावर	1 वर्ष	60 से 80 से.मी	50	प्रति पौधा	
32.	नेस्चेरियम	1 वर्ष	60 से 80 से.मी	50	प्रति पौधा	
33.	सालविया	1 वर्ष	60 से 80 से.मी	50	प्रति पौधा	
34.	पिटोनिया	1 वर्ष	60 से 80 से.मी	50	प्रति पौधा	
35.	सिनासिया	1 वर्ष	60 से 80 से.मी	50	प्रति पौधा	
36.	ऑफिस टाइम	1 वर्ष	60 से 80 से.मी	50	प्रति पौधा	
37.	एस्टर	1 वर्ष	60 से 80 से.मी	50	प्रति पौधा	
38.	डायमंड	1 वर्ष	60 से 80 से.मी	50	प्रति पौधा	
39.	बरबीना	1 वर्ष	60 से 80 से.मी	50	प्रति पौधा	
40.	सेवन्ती	1 वर्ष	60 से 80 से.मी	50	प्रति पौधा	
41.	बेगोनिया	1 वर्ष	60 से 80 से.मी	50	प्रति पौधा	
42.	मैंगनिफिशेंट क्रोटन	1 वर्ष	60 से 80 से.मी	50	प्रति पौधा	
43.	गोल्डन क्रोटन	1 वर्ष	60 से 80 से.मी	50	प्रति पौधा	
44.	फ्लोरिडा सेलेक्ट क्रोटन	1 वर्ष	60 से 80 से.मी	50	प्रति पौधा	
45.	जनजीवर क्रोटन	1 वर्ष	60 से 80 से.मी	50	प्रति पौधा	
46.	अन्य सभी क्रोटन	1 वर्ष	60 से 80 से.मी	50	प्रति पौधा	
47.	फ्लोमेरिया	1 वर्ष	60 से 80 से.मी	50	प्रति पौधा	
48.	गोल्डन रेटरी	1 वर्ष	60 से 80 से.मी	50	प्रति पौधा	

49.	प्राईड ऑफ इंडिया	1 वर्ष	60 से 80 से.मी	50	प्रति पौधा	
50.	किसमस ट्री	1 वर्ष	60 से 80 से.मी	50	प्रति पौधा	
51.	थूजा	1 वर्ष	60 से 80 से.मी	50	प्रति पौधा	
52.	रेड बाटल ब्रश	1 वर्ष	60 से 80 से.मी	50	प्रति पौधा	
53.	हल्दी (बीज)	—	.	20 kg	प्रति किलो	
54.	नीम	1 वर्ष	60 से 80 से.मी	500	प्रति पौधा	
55.	लेवेण्डर	1 वर्ष	60 से 80 से.मी	20	प्रति पौधा	
56.	सतावर	1 वर्ष	60 से 80 से.मी	20	प्रति पौधा	
57.	लाजवंती	1 वर्ष	60 से 80 से.मी	20	प्रति पौधा	
58.	सर्पगन्धा	1 वर्ष	60 से 80 से.मी	50	प्रति पौधा	
59.	काली मूसली	1 वर्ष	60 से 80 से.मी	15	प्रति पौधा	
60.	मधुमालती	1 वर्ष	60 से 80 से.मी	15	प्रति पौधा	
61.	मीठा नीम	1 वर्ष	60 से 80 से.मी	100	प्रति पौधा	
62.	रामा तुलसी	1 वर्ष	60 से 80 से.मी	20	प्रति पौधा	
63.	कृष्णा तुलसी	1 वर्ष	60 से 80 से.मी	20	प्रति पौधा	
64.	अमृता तुलसी	1 वर्ष	60 से 80 से.मी	20	प्रति पौधा	
65.	वाना तुलसी	1 वर्ष	60 से 80 से.मी	20	प्रति पौधा	
66.	वृंदा तुलसी	1 वर्ष	60 से 80 से.मी	20	प्रति पौधा	
67.	जूही	1 वर्ष	60 से 80 से.मी	20	प्रति पौधा	
68.	चंपा	1 वर्ष	60 से 80 से.मी	20	प्रति पौधा	
69.	चमेली	1 वर्ष	60 से 80 से.मी	20	प्रति पौधा	
70.	मोगरा	1 वर्ष	60 से 80 से.मी	20	प्रति पौधा	
71.	गुलाब	1 वर्ष	60 से 80 से.मी	50	प्रति पौधा	
72.	रातरानी	1 वर्ष	60 से 80 से.मी	20	प्रति पौधा	
73.	रजनीगंधा	1 वर्ष	60 से 80 से.मी	20	प्रति पौधा	
74.	अगस्तका	1 वर्ष	60 से 80 से.मी	20	प्रति पौधा	
75.	वर्जीनिया	1 वर्ष	60 से 80 से.मी	20	प्रति पौधा	
76.	अपराजिता	1 वर्ष	60 से 80 से.मी	100	प्रति पौधा	
77.	राखी बेल	1 वर्ष	60 से 80 से.मी	20	प्रति पौधा	
78.	मनी प्लांट	1 वर्ष	60 से 80 से.मी	20	प्रति पौधा	
79.	पान प्लांट	1 वर्ष	60 से 80 से.मी	20	प्रति पौधा	
80.	कनेर	1 वर्ष	60 से 80 से.मी	20	प्रति पौधा	
81.	लिली	1 वर्ष	60 से 80 से.मी	20	प्रति पौधा	
82.	सदासुहागन	1 वर्ष	60 से 80 से.मी	20	प्रति पौधा	
83.	कदम	1 वर्ष	60 से 80 से.मी	200	प्रति पौधा	

84.	खेर	1 वर्ष	60 से 80 से.मी	500	प्रति पौधा	
85.	खस	1 वर्ष	60 से 80 से.मी	100	प्रति पौधा	
86.	जामुन	1 वर्ष	60 से 80 से.मी	500	प्रति पौधा	
87.	खमेर	1 वर्ष	60 से 80 से.मी	500	प्रति पौधा	
88.	कचनार	1 वर्ष	60 से 80 से.मी	200	प्रति पौधा	
89.	मुनगा	1 वर्ष	60 से 80 से.मी	500	प्रति पौधा	
90.	रीठा	1 वर्ष	60 से 80 से.मी	200	प्रति पौधा	
91.	चिरौल	1 वर्ष	60 से 80 से.मी	500	प्रति पौधा	
92.	बरगद	1 वर्ष	60 से 80 से.मी	300	प्रति पौधा	
93.	पारिजात	1 वर्ष	60 से 80 से.मी	300	प्रति पौधा	
94.	सिंदूरी	1 वर्ष	60 से 80 से.मी	300	प्रति पौधा	
95.	एलोविरा	1 वर्ष	60 से 80 से.मी	50	प्रति पौधा	
96.	बबूल	1 वर्ष	60 से 80 से.मी	100	प्रति पौधा	
97.	अमलतास	1 वर्ष	60 से 80 से.मी	50	प्रति पौधा	
98.	इमली	1 वर्ष	60 से 80 से.मी	50	प्रति पौधा	
99.	करंज	1 वर्ष	60 से 80 से.मी	500	प्रति पौधा	
100.	हर्रा	1 वर्ष	60 से 80 से.मी	400	प्रति पौधा	
101.	बहेड़ा	1 वर्ष	60 से 80 से.मी	500	प्रति पौधा	
102.	तेंदू	1 वर्ष	60 से 80 से.मी	500	प्रति पौधा	
103.	लसौड़ा	1 वर्ष	60 से 80 से.मी	500	प्रति पौधा	
104.	बेलपत्र	1 वर्ष	60 से 80 से.मी	500	प्रति पौधा	
105.	सफेद सीरस	1 वर्ष	60 से 80 से.मी	500	प्रति पौधा	
106.	काला सीरस	1 वर्ष	60 से 80 से.मी	500	प्रति पौधा	
107.	अन्य पौधे	1 वर्ष	60 से 80 से.मी	500	प्रति पौधा	
108	Moas Grass			100 kg	kg	

F	Painting and Fine Arts			
1	Texture Work on Bamboo	2500 Sq.M.	Per Sq.M.	
2	Texture Work on Cement Wall	500 Sq.M.	Per Sq.M.	
3	Texture Work on Stone Wall	500 Sq.M.	Per Sq.M.	
4	Stone Touch Wood Work on Stone Wall	1000 Sq.M.	Per Sq.M.	
5	Painting on Brick Wall	500 Sq.M.	Per Sq.M.	
6	Painting on Concerts Wall	1000 Sq.M.	Per Sq.M.	
7	Painting on Clay Wall	50 Sq.M.	Per Sq.M.	
8	Fine Art Painting on Floor	150 Sq.M.	Per Sq.M.	
9	Light Colour Painting on Floor	150 Sq.M.	Per Sq.M.	
10	Medium Colour Painting on Floor	150 Sq.M.	Per Sq.M.	
11	Dark Colour Painting on Floor	150 Sq.M.	Per Sq.M.	
Sl. No.	Particulars	Required Approximate Quantity/Unit	Unit of the cost to be Quoted	
G	Fabrication Work			
1	M.S.Square Pipe 2"x2"	50 kg	Per kg	
2	M.S.Square Pipe 2.5"x2.5"	50 kg	Per kg	
3	M.S.Square Pipe 3"x3"	50 kg	Per kg	
4	M.S.Square Pipe 4"x4"	50 kg	Per kg	
H	Printing Work			
1	Flex Banner – Star Sheet	100 Sq.M.	Per Sq.M.	
2	MS board (14 gauge) for name plate with required colour and paint of size 30cmx 45cm with 12 mm vertical support rod of length 1 m	100	Per Board	
3	MS board (14 gauge) for sign board with required colour and paint with vertical support (board size not bigger than 1m x 1.5m)	100	Per Sqm	
4	Name Plate –ACP Sheet 3 mm	50 Sq.M.	Per Sq.M.	
5	Name Plate –ACP Sheet 4 mm	50 Sq.M.	Per Sq.M.	
6	Vinyl Painting	200 Sq.M.	Per Sq. M	
I	Machinery			
a	Soil digging and leveling removing debris, weeds, big stones	200 hour	Per hours	

	etc from the site. with JCB machine			
b	Road Roller For Compaction At required place at site	100 hours	Per hours	
c	Cultivator For cultivate At Required Place At Site	100 hour	Per hour	
Sl. No.	Particulars	Required Approximate Quantity/Unit	Unit of the cost to be Quoted	
1	Surface dressing of the ground including removing vegetation and in-equalities not exceeding 15 cm deep and disposal of rubbish, lead upto 50 m and lift upto 1.5 m.	100000 Sqm	100Sqm	
2	Supplying and filling in plinth under floors including, watering, ramming consolidating and dressing complete. Moorum/Hard copra	100 Cum	Cum	
3	Supplying and filling in plinth under floors including, watering, ramming consolidating and dressing complete Crusher Stone Dust	100 Cum	Cum	
4	Making bajri path including preparation of subgrade, supplying and laying brick aggregate of 50mm nominal size 7.5 cm deep with blinding material consisting of 12 mm moorum and 12 mm red bajri consolidated with road roller.	500 Sqm	Sqm	
5	Granite work gang saw cut (polished and machine cut) of thickness 18mm for wall lining (veneer work), backing filled with a grout of average 12 mm thick in cement mortar 1:3 (1 cement : 3 sand) including pointing with white cement mortar 1:2 (1 white cement : 2 marble dust) with an admixture of pigment to match the marble shade: (To be secured to the backing by means of cramps, which shall be paid for separately). Fine granite dark Black/dark Red/ White with self design/ pattern/ crystals of other colors of glitter	50 Sqm	Sqm	
6	Supplying and stacking of good earth specific useful for plantation at site including royalty if any and carriage	100 Cum	Cum	
7	Supplying and stacking at site dump manure from approved source, including carriage	100 Cum	Cum	
8	Mixing earth and sludge or manure in the required proportion specified or directed by the Engineer-in-charge.	100 Cum	Cum	
9	Grassing with Selection No.1 grass including watering and maintenance of the lawn for 30 days or more till the grass forms a thick lawn, free from weeds and fit for mowing including supplying good earth, if needed (the grass and good earth shall be paid for separately): In rows 5 cm apart in both directions.	10000 Sqm	100 Sqm	
10	Planting different variety of plants Shrubs (75-90 cm height) Bahunia Tomentosa, Beloperone Species, Caselpinnia Pulcherima, Bird of Paradise, Callandra Emarginata, Callandra Hybrida, Cassia Bi flora, Cassia Laevigata,	1000Sqm	Sqm	

	Cestrum Nocturnum, Dombeya Mastersii, Euphorbia Caracasana, Euphorbia Pulcherima, Excorea bicolor, Excorea tri color, Ficus Blackii, Ficus Reginold, Ficus Panda, Gardenia, Gulphinia, Jasminoides, Hamelia Pattens, Heliconia, Hibiscus Rosasinensis, Hibiscus Verigated, Hibiscus Viceroy, Jatropha Multifida, Largestomia Indica, Malpighia Coccigera, Murraya Exotica, Murraya Koeniggi, Murraya Sambucum, Mussaenda Erythrophylla, Nerium Oleander, Nyctanthus Arbortristis, Plumbago Capensis, Putranjeeva Roxburghii, Tabernaemontana Coronaria, Tabernaemontana Divaricata, Tecoma Gaudi Chaudi, Tecoma Stans, Thevetia Nerifolia, Thuja Compacta and equivalent plant			
11	Creepers plants (height :30cm to 45 cm) Allamanda Cathartica, Allamanda Grandiflora, Allamanda Violacea, Begonia Venusta, Boughan Villas (Variety : Butiana, Lady Mary Bearing, Mahaara, Mohan, Scarlet Queen Variagata, Glabra Formosa, Peruviana Odissi, Partha, Shubhra, Thimma, Spectabilis, L.N. Birla, Refulgens), Clerodendrum Splendens, Clerodendrum Thompsonae, Ipomea Purpurea, Jasminum Grandiflorum, Jasminum Humile (Yellow), Passiflora Caerulea (Rakhi Bel), Petrea Volubilis, Quis Qualis Indica, Tecoma Grandiflora, Veronia Elaegnifolia (Curtain Creeper), Mandvella, Garlic Creeper, Callimitis	500	Each	
12	Ground cover plants height: 30cm-45cm Alpinia Verigated, Alternanthera species, Aspyragus Myerri, Aspyragus Springenii, Aspidistra, Canna (regular, Dwarf), Chlorodendron Inermii, Chlorophytum (Green), Chlorophytum verigated, Coffea Chinensis, Dianella Verigated, Durranta (Goldiana, Green, Verigated), Euphorbia Milli hybrid, Ipomea (Golden leaves), Iresine herbistii, Juniper Prostata, Juniper Africana, Ophiopogon plant, Ophiopogon jaburan, Portulacaria Afra (jade Plant), Schefflera Green, Schefflera verigated, Setcreasea Purpurea, Syngonium (Butterfly) species, Syngonium miniature, Syngonium Dwarf, Syngonium variegated, Tradescantia, Wadelia Trilobata, Zebrina Tradescantia, Pendanas, Spider Lily Black, Spider Lily verigated, Aclypha (Red, Green,Mini), Lantana (Red, Yellow, Purple, White, verigated), Haemalia Mini and similar plants.	1000	Each	
13	Any of one from Alyssum, Anemone, Antirrhinium Hybrid, Aster Hybrid, Begonia and its different varieties, Calendula, Carnation, Coleus, Daisy, Dianthus, Fressia, Gazania, Impatiens, Kalanchoe, Marigold Inca, Missam branthemum, Nemasia, Nasturtium, Ornamental Kale, Pansy Hybrid Sakata, Petunia Hybrids such as Bravo, Star and Picotee, Salvia, Stock, Stock, Verbena. Any of one from Celosia, Caladium Hybrid, Cockscomb, Cosmos, Gaillardia, Gomphorena, Kochchea, Portulacca, Sunflower Hybrid, Sunflower Single, Tapiocca Variegated (Manihot Esculenta), Vinca, Zinnia Hybrids.	500	Each	

14	Rose plants height: 30cm & above	400	Each	
15	Standard Roses H.T. Variety	400	Each	
16	Excavation in dumped stones or malba or soil including stacking of serviceable and unserviceable material separately and disposal of unserviceable material lead upto 50 m and lift upto 1.5 m disposed material to be neatly dressed.	200 Cum	Cum	
17	Earth work in excavation by manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan) including dressing of side sand ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. (No extra lift is payable if work is done by mechanical means)	500 Cum	Cum	
18	Earth work in excavation by mechanical means (Hydraulic Excavator) means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan) including dressing of side sand ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. (No extra lift is payable if work is done by mechanical means)	100 Cum	Cum	
19	Preparation of mounds of various size and shape by available excavated /supplied earth in layers not exceeding 20 cm in depth, breaking clods, watering of Each layer, dressing etc. lead upto 50 metre and lift upto 1.5 m complete as per direction of Engineer-in-Charge.	50 Cum	Cum	
20	Stone bench Providing and fixing of 3 seater stone bench made of 75mm thick stone slab finished by different numbers of ambry stone and two coats of 124 no sealer coat to prevent from weather including fixing on a pedestal (cost of pedestal to be paid separately)etc. complete as per direction of engineer in charge. Size: length 1500mm, width 600mm, legs height 500 mm, back support height 500mm	50	Each	
21	Demolishing R.C.C. work manually/ by mechanical means including stacking of steel bars and disposal of unserviceable material within 50 meters lead as per direction of Engineer-in-charge.	10 Cum	Cum	
22	Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding upto floor level including cost of binding wire, wastage and over laps upto 12mm horizontal/ inclined position of reinforcement bars in slab and beams, plinth, chajjas, lintels, upto 4.5m vertical length of reinforcement in wall columns (over laps	2000 Kg	Kg	

	shall be provided as per requirement of IS : 13920; IS 456 & SP : 34) etc. complete Thermo-Mechanically Treated bars. (Fe 500 D or more).			
23	Providing and laying cement concrete in retaining walls, return walls, walls (any thickness) including attached pilasters, columns, piers, abutments, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window sills, fillets etc. up to floor two level, excluding the cost of centering, shuttering and finishing :Grade Concrete M20	100 Cum	Cum	
24	Centering and shuttering including strutting, propping etc. and removal of form work for :	1000 Sqm	Sqm	
25	Cement concrete grade M-20 (Nominal Mix) with 20 mm maximum size of stone aggregate.	50 Cum	Cum	
26	Brick work with fly ash lime bricks (FALG Bricks) conforming to IS:12894- 2002, class designation 75 Kg/CM2 (average compressive strength) up to plinth level	20 Cum	Cum	
27	Brick work with chimney brick of class designation 40 in superstructure above plinth level upto floor 2 level including the cost of scaffolding in Cement mortar 1:4(1 cement : 4 coarse sand)	20 Cum	Cum	
28	Random rubble masonry with hard stone in foundation and plinth with Cement mortar 1:6 (1 cement : 6 coarse sand)	30 Cum	Cum	
29	Coursed rubble masonry (first sort) with hard stone in foundation and plinth with Cement mortar 1:6 (1 cement : 6 coarse sand)	50 Cum	Cum	
30	18 mm cement plaster in two coats under layer 12 mm thick cement plaster 1:5 (1 cement: 5 coarse sand) and a top layer 6mm thick cement plaster 1:3 (1 cement: 3 coarse sand) finished rough with sponge.	500 Sqm	Sqm	
31	Finishing with Deluxe Multi surface paint system for interiors and exteriors using Primer as per manufacturers specifications : Two or more coats on walls applied @ 1.25 ltr/10 sqm. over and including one coat of Special primer applied @ 0.75 ltr/10 sqm.	1000 Sqm	Sqm	
32	Painting on G.S. sheet with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade : New work (two or more coats) including a coat of approvedsteel primer but excluding a coat of mordant solution	300 Sqm	Sqm	
33	Forming groove of uniform size from 12x12mm and upto 25x15mm in plastered surface as per approved pattern using wooden battens, nailed to the under layer including removal of wooden battens, repairs to the edges of plaster panel and finishing the groove complete as per specifications and direction of the Engineer-in-Charge.	1000 Meter	Meter	

34	Providing and fixing M.S. Tubular frames for doors, windows, ventilators and cupboard with any section made of 1.60mm or 1.25mm thick M.S. Sheet, joints mitred and welded and grinded finish with profiles required size with 15x3mm lugs 10cm long embedded in cement concrete M-10 (Nominal Mix with 20mm maximum size of stone aggregate) blocks 15x10x10cm or with wooden plugs and screws 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 primers. In gratings, frames, guard bar, ladder, railings, brackets, gates and similar works.	500 Kg	Kg	
35	Providing and fixing stainless steel (Grade 304) railing made of Hollow tubes, channels, plates etc. including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts and bolts complete i/c fixing the railing with necessary accessories and stainless steel dash fasteners , stainless steel bolts etc., of required size, on the top of the floor or the side of waist slab with suitable arrangement as per approval of Engineer-in-charge. (for payment purpose only weight of stainless steel members shall be considered excluding fixing accessories such as nuts, bolts, fasteners etc.)	100 kg	kg	
36	Drilling of perfectly vertical bore hole of 150mm diameter up to desired depth below ground level in all types of strata including all works pertaining to drilling such as transportation, installation and removal of drilling machine etc. complete. In intertrappean formations (collapsible strata between rocks) including charges for transportation and making all necessary arrangements etc. including lowering and fixing of 125mm nominal diameter (gig. or U.P.V.C.) Casing pipe.	500 meter	meter	
37	Labour charges for installation of submersible pumping sets at 50m or more depth temporarily in the tubewell for a maximum of eight hours for the purpose of conducting yield test for tube well. (Any one of the below depending on the approximate yield observed during drilling operations). Submersible pumping set upto 2.2 kW to 7.5 kW	5	each	
38	I.S.I. marked UPVC casing pipe conforming to IS 4985/1988 (with up-to-date amendments) Screen pipes with ribs 125mm dia	300	meter	
39	Neat cement punning	Sqm	Sqm	
40	Providing, erecting and giving test of submersible pump et conforming to IS 8034 and motor conforming to IS 9283, with water proof winding. Pump shall be suitable for	5	Each	

	various delivery head and discharge with stainless steel shaft. Motor suitable for working on 415 V \pm 10%, 3 Ph, 50 Hz A.C. Supply, with cable guard, thrust carbon/fiber bearing to withstand entire hydraulic thrust. The pump set shall be suitable for direct coupling, with suitable suction strainer. Pump should have suitable discharge out let as per manufacturer's design. Antithrust stream lined non return valve shall be provided with the pump. 3 m submersible copper conductor cable in single / double run and 2 pairs of suitable size erection clamp 10 mm thick shall be provided with each pump			
41	Providing, laying, Jointing & field testing of High Density Polyethylene pipes, (HDPE) confirming to IS 4984/ 14151/ 12786/ 13488 with necessary jointing material like mechanical connector or jointing pipes by heating to the ends of pipes with the help of Teflon coated electric mirror/ heater to the required temperature and then pressing the ends together against each other, to form a monolithic & leak proof joint by thermosetting process. It may be required to be done with Jacks/Hydraulic Jacks/ But fusion machine. (50mm & above fusion jointed & below 50mm mechanical jointed). 63mm	1000	RM	
42	Gravels of in the recharge pit Supplying, filling, spreading and leveling gravels of size range 5 mm to 10 mm, in the recharge pit, over the existing layer of boulders, in required thickness, for all leads and lifts, all complete as per direction of Engineer-in Charge	300 cum	Cum	
43	Stone boulders in recharge pit Supplying, filling, spreading and leveling stone boulders of size range 5 cm to 20 cm, in recharge pit, in the required thickness, for all leads and lifts, all complete as per direction of Engineer-incharge.	200 Cum	Cum	
44	Garden Water Fall upto height 4 m , with All plumbing connection	5	Each	
45	Topiaries of Animal And Plant	10	Each	
46	lightning garden light (at surface	100	Each	
47	Perforated Path Way with 1st class brick or well burnt brick 50mm thick compacted bed of stone dust/sand filling the joints with sand etc.	500 Sqm	Sqm	
48	Fencing with R.C.C. post placed at required distance, embedded in cement concrete blocks, every 15th post, last but one end post and corner post shall be strutted on both sides and end post one side only, provided with horizontal lines and two diagonals of barbed wire weighing 9.38 kg per 100 metres(minimum) between the two posts fitted and fixed with G.I. staples on wooden plugs or G.I. binding wire tied to 6 mm bar nibs fixed while casting the post with GI barbed wire. 5 row of barbed wire	1000 meter	Per meter	

49	Perforated Path Way with flagged stone 50mm thick compacted bed of stone dust/sand filling the joints with sand etc.	300 Sqm	Sqm	
50	Providing and fixing G.I. chain link fabric fencing of required width in mesh of G.I. wire of dia. 3mm including strengthening with 2mm dia. wire or nuts, bolts and washers as required complete, with RCC posts of specified material and of standard design placed and embedded in cement concrete blocks 45x45x60cm of mix 1:5:10 (1cement :5 sand : 10 graded stone aggregate 40mm nominal size) every 15th post, last but one end post and corner post shall be strutted on both sides and end post on one side only and struts embedded in cement concrete blocks 70x45x50cm of the same mix, as per the direction of Engineer-in- Charge.	500 Sqm	Sqm	
51	22 cm thick dry stone pitching without quarry spall with individual stone of 22 cm depth and minimum size 0.014 cum complete	500 Cum	Cum	
52	Construct Water proof Saucer of size (Bottom Dia = 1 m And Top Diameter = 3 m with Depth 0.75 m) And Sand Stone Cladding over saucer Surface, And Provide and install 2000 liter water tank over Stone Masonary platform with All plumbing fittings.	20	Each	
53	Providing and applying plaster of paris putty of 2 mm thickness over plastered surface to prepare the surface even and smooth complete	500 Sqm	Sqm	
54	White washing with lime to give an even shade: New work (three or more coats)	100 Sqm	Sqm	
55	Providing and Installation of designer tuffen glass 12 mm thick	50 Sqm	Sqm	
56	With 40mm nominal size graded stone aggregate M-15 - Grade concrete	30 Cum	Cum	
57	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work upto plinth level :	10 Cum	Cum	
58	Providing And fitting of CNC Cutting MS Sheet with MS Fabricated Frame	1000 kg	Kg	
59	Providing and install with all required material of walmi green wall (with required Plants)	100 sqm	sqm	
60	Providing And installation of uPVC pipe line with all required fitting = 15mm dia. pipe	100 meter	meter	
61	Providing And installation of uPVC pipe line with all required fitting 25mm dia. pipe	100 meter	meter	
62	Providing And installation of uPVC pipe line with all required fitting 32mm dia. pipe	100 meter	meter	
63	Providing And installation of uPVC pipe line with all required fitting 40mm dia. pipe	50 meter	meter	

64	Providing And installation of uPVC pipe line with all required fitting 50mm dia. pipe	50 meter	meter	
65	Providing And installation of PVC pipe line with all required fitting 2" dia. pipe	100 meter	meter	
66	Providing And installation of PVC pipe line with all required fitting 4" dia. pipe	300 meter	meter	
67	Providing And installation of PVC pipe line with all required fitting 6" dia. pipe	200 meter	meter	
68	Providing And installation of PVC pipe line with all required fitting 8" dia. pipe	50 meter	meter	
69	Providing and laying factory made machine pressed precast cement concrete interlocking paver block of any shape and size conforming to IS:15658- 2006 and ISI marked of 60 mm thickness, M-30 grade with grey cement and pigment all as specified. Made by block making machine with strong vibratory compaction, laid in required colour and pattern over and including 50mm thick compacted bed of stone dust, filling the joints with sand etc. all complete as per the direction of Engineer-in Charge.	400 Sqm	Sqm	
70	Finishing walls by any mechanical or manual means with Acrylic Smooth exterior paint (Economy Exterior) of required shade including all scaffolding. New work (Two or more coat applied @ 1.67ltr/10sqm over and including one coat undiluted exterior waterproofing coating @ 2.39 litre/10 sqm with crack bridging ability of upto 0.5mm on horizontal surfaces with an elongation of 150% and water proofing of upto 3 bars on vertical surface	500 Sqm	Sqm	
71	Design, supply, fabrication, transportation and erection of structural steel/mild steel built-up sections for steel building in column, rafter, truss, floor joist, wind bracings, tie beam, foundation bolts, fasteners etc. Including two coats of Epoxy paint and one coat of primer. These structural steel/built-up sections shall be manufactured using advanced CNC Plasma/Oxy Acetylene cutter and H Beam Welding line. Welding shall be in full depth on both sides of the plate adopting relevant I.S Code.	1000 kg	kg	

S.No	Description of Items	Unit	Rate (In Rs.)
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2.1	Surface dressing of the ground including removing vegetation and in-equalities not exceeding 15 cm deep and disposal of rubbish, lead upto 50 m and lift upto 1.5 m.	
2.1.1	All kinds of soil.	100Sqm
2.2	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth upto 30 cm measured at a height of 1 m above ground level and removal of rubbish upto a distance of 50 meter outside the periphery of the area cleared.	100Sqm
2.3	Clearing grass and removal of the rubbish upto a distance of 50 m outside the periphery of the area cleared.	100Sqm
2.4	Felling trees of the girth (measured at a height of 1 m above ground level) including cutting of trunks and branches removing the roots and stacking of serviceable material and disposal of unserviceable material.	
2.4.1	Beyond 30 cm girth upto and including 60 cm girth	Each
2.4.2	Beyond 60 cm girth upto and including 120 cm girth	Each
2.4.3	Beyond 1200 cm girth upto and including 240 cm girth	Each
2.4.4	above 240 cm girth	Each
2.5	Earth work in surface excavation not exceeding 30 cm in depth but exceeding 1.5 m in width as well as 10 sqm on plan including disposal of excavated earth upto 50 m and lift upto 1.5 m, disposed soil to be levelled and neatly dressed.	
2.5.1	All kinds of soil	Sqm
2.6	Earth work in excavation for foundation, trenches for pipes / cables or drains etc. by mechanical means / manual means (exceeding 30cm in depth.) including ramming of bottom, dressing of sides, disposal of excavated earth including of all lift and lead upto 50m. Disposed earth to be levelled and neatly dressed.	
2.6.1	All kinds of soil	Cum
2.6.2	Ordinary rock	Cum
2.6.3	Hard rock (requiring blasting)	Cum
2.6.4	Hard rock (blasting prohibited)	Cum
2.7	Close timbering in trenches including strutting, shoring and packing cavities (wherever required) complete. (Measurements to be taken of the face area timbered).	
2.7.1	Depth not exceeding 1.5m	Sqm

2.7.2	Depth exceeding 1.5m but not exceeding 3 m.	Sqm
2.7.3	Depth exceeding 3m but not exceeding 4.5 m.	Sqm
2.8	Close timbering in case of shafts, wells, cesspits, manholes and the like including strutting, shoring and packing cavities (wherever required) etc. complete. (Measurements to be taken of the face area timbered).	
2.8.1	Depth not exceeding 1.5m	Sqm
2.8.2	Depth exceeding 1.5m but not exceeding 3 m.	Sqm
2.8.3	Depth exceeding 3m but not exceeding 4.5 m.	Sqm
2.9	Close timbering over areas including strutting, shoring and packing, cavities (wherever required) etc. complete. (Measurements to be taken of the face area timbered) :	
2.9.1	Depth not exceeding 1.5m	Sqm
2.9.2	Depth exceeding 1.5m but not exceeding 3 m.	Sqm
2.9.3	Depth exceeding 3m but not exceeding 4.5 m.	Sqm
2.10	Extra for planking, strutting and packing materials for cavities (in close timbering) if required to be left permanently in position. (Face area of timber permanently left to be measured).	
2.11	Open timbering in trenches including strutting and shoring complete (measurements to be taken of the face area timbered):	
2.11.1	Depth not exceeding 1.5m	Sqm
2.11.2	Depth exceeding 1.5m but not exceeding 3 m.	Sqm
2.11.3	Depth exceeding 3m but not exceeding 4.5 m.	Sqm
2.12	Open timbering in case of shafts, wells, cesspits, manholes and the like including strutting and shoring complete (Measurements to be taken of the face area timbered):	
2.12.1	Depth not exceeding 1.5 m.	Sqm
2.12.2	Depth exceeding 1.5m but not exceeding 3 m.	Sqm
2.12.3	Depth exceeding 3m but not exceeding 4.5 m.	Sqm
2.13	Open timbering over areas including strutting, shoring etc. complete. (Measurements to be taken of the face area timbered):	
2.13.1	Depth not exceeding 1.5 m.	Sqm
2.13.2	Depth exceeding 1.5m but not exceeding 3 m.	Sqm
2.13.3	Depth exceeding 3m but not exceeding 4.5 m.	Sqm
2.14	Extra for planking and strutting in open timbering if required to be left permanently in position. (Face area of the timber permanently left to be measured).	

2.15	Extra rates for quantities of works, executed in difficult conditions: (The extra percentage rate is applicable in respect of each item but limited to quantities of work executed in these difficult conditions).	
2.15.1	In or under water and/or liquid mud, including pumping out water as required.(All water that may accumulate in excavations during the progress of the work from seepage, (not due to the negligence of the contractor), shall be bailed, pumped out or otherwise removed. The contractor shall take adequate measures for bailing and/or pumping out water from excavations and/or construct diversion channels, bunds, sumps, etc)	
2.15.2	In or under foul position, including pumping out water as required.(Excavation, where sewage, sewage gases or foul conditions are met with from any source, shall fall in this category. Decision of the. Engineer-in-Charge whether the work is in foul position or not shall be final.)	
2.16	Filling by available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	Cum
2.17	Extra for every additional lift of 1.5 m or part thereof in.	
2.17.1	All kinds of soil.	Cum
2.17.2	Ordinary or hard rock.	Cum
2.18	Supplying and filling in plinth under floors including, watering, ramming consolidating and dressing complete.	
2.18.1	Moorum/Hard copra	Cum
2.18.2	Crusher Stone Dust	Cum
2.19	Ploughing the existing ground to a depth of 15 cm to 25 cm and watering the same.	
2.19.1	All kinds of soil.	100Sqm
2.20	Diluting and injecting chemical emulsion for POST- CONSTRUCTIONAL anti-termite treatment (including the cost of chemical emulsion .	

2.20.1	Along external wall where the apron is not provided using chemical emulsion @ 7.5 liters / sqm of the vertical surface of the substructure to a depth of 300 mm including excavation channel along the wall & rodding etc. complete. With Chlorpyrifos/ Lindane E.C. 20% with 1% concentration.	Meter
2.20.2	Along the external wall below concrete or masonry apron using chemical emulsion @ 2.25 litres per linear meter including drilling and plugging holes etc. With Chlorpyrifos/ Lindane E.C. 20% with 1% sqm concentration.	Meter
2.21	Treatment of soil under existing floors using chemical emulsion @ one liter per hole, 300 mm apart including drilling 12 mm diameter holes and plugging with cement mortar 1 :2 (1 cement : 2 Coarse sand) to match the existing floor : With Chlorpyrifos/Lindane E.C. 20% with 1% concentration.	Sqm
2.22	Treatment of existing masonry using chemical emulsion @ one litre per hole at 300 mm interval including drilling holes at 45 degree and plugging them with cement mortar 1:2 (1 cement : 2 coarse sand) to the full depth of the hole : With Chlorpyrifos/Lindane E.C. 20% with 1% concentration.	Meter
2.23	Treatment at points of contact of wood work by chemical emulsion Chlorpyrifos/ Lindane (in oil or kerosene based solution) @ 0.5 litres per hole by drilling 6 mm dia holes at downward angle of 45 degree at 150 mm centre to centre and sealing the same.	Meter
2.24	Deduct for disposed soil not levelled and neatly dressed (against Item No. 2.6)	Cum
3.1	Cement Mortar 1:1 (1 cement : 1 sand)	cum
3.2	Cement mortar 1:2 (1 cement : 2 sand).	cum
3.3	Cement mortar 1:3 (1 cement : 3 sand).	cum
3.4	Cement mortar 1:4 (1 cement : 4 sand).	cum
3.5	Cement mortar 1:5 (1 cement : 5 sand).	cum
3.6	Cement mortar 1:6 (1 cement : 6 sand).	cum

3.7	Cement mortar 1:2 (1 cement : 2 marble dust).	cum
3.8	Cement mortar 1:5 (1 cement : 5 marble dust).	cum
3.9	White cement mortar 1:2 (1 white cement : 2 marble dust).	cum
3.10	White cement mortar 1:3 (1 white cement : 3 marble dust).	cum
3.11	White cement mortar 1:5 (1 white cement : 5 marble dust).	cum
3.12	Mortar in lime, surkhi (50% Red & 50% Light Yellow) and marble dust (1:1.5:0.5)	cum
4.1	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering All work up to plinth level.	
4.1.1	Cement concrete grade M-25 (Nominal Mix) with 20 mm maximum size of stone aggregate	Cum
4.1.2	Cement concrete grade M-20 (Nominal Mix) with 20 mm maximum size of stone aggregate	Cum
4.1.3	Cement concrete grade M-15 (Nominal Mix) with 20 mm maximum size of stone aggregate	Cum
4.1.4	Cement concrete grade M-10 (Nominal Mix) with 20 mm maximum size of stone aggregate	Cum
4.1.5	Cement concrete grade M-15 (Nominal Mix) with 40 mm maximum size of stone aggregate	Cum
4.1.6	Cement concrete grade M-10 (Nominal Mix) with 40 mm maximum size of stone aggregate	Cum
4.1.7	Cement concrete grade M-7.5 (Nominal Mix) with 40 mm maximum size of stone aggregate	Cum
4.1.8	Labour rate for Item No.- 4.1.1 to 4.1.7	Cum
4.1.9	1:2:3½:9 (1 ordinary portland cement : 2 Fly ash : 3½ coarse sand : 9 graded stone aggregate 40 mm nominal size)	Cum
4.1.10	1:2½:4:11 (1 ordinary portland cement : 2½ fly ash : 4 coarse sand : 11 graded stone aggregate 40 mm nominal)	Cum
4.2	Providing and laying cement concrete in retaining walls, return walls, walls (any thickness) including attached pilasters, columns, piers, abutments, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window sills, fillets etc. up to floor two level, excluding the cost of centering, shuttering and finishing :	

4.2.1	Cement concrete grade M-25 (Nominal Mix) with 20 mm maximum size of stone aggregate	Cum
4.2.2	Concrete grade M-20 (nominal mix) with 20 mm maximum size of stone aggregate	Cum
4.2.3	Concrete grade M-15 (nominal mix) with 20 mm maximum size of stone aggregate	Cum
4.2.4	Concrete grade M-10 (nominal mix) with 20 mm maximum size of stone aggregate	Cum
4.2.5	Concrete grade M-15 (nominal mix) with 40 mm maximum size of stone aggregate	Cum
4.2.6	Concrete grade M-10 (nominal mix) with 40 mm maximum size of stone aggregate	Cum
4.2.7	Labour rate for Item No.- 4.2.1 to 4.2.5	Cum
4.3	Providing and laying cement concrete in kerbs, steps and the like at or near ground level excluding the cost of centering, shuttering and finishing.	
4.3.1	Cement concrete grade M-15 (Nominal Mix) with 20 mm maximum size of stone aggregate	Cum
4.3.2	Cement concrete grade M-10 (Nominal Mix) with 20 mm maximum size of stone aggregate	Cum
4.3.3	Labour rate for Item No.- 4.3.1 to 4.3.2	Cum
4.4	Providing and fixing up to floor Two level precast cement concrete string or lacing courses, copings, bed plates, anchor blocks, plain window sills, shelves, louvers, steps, stair cases, etc. including hoisting and setting in position with cement mortar 1:3 (1 Cement : 3 coarse sand), cost of required centering, shuttering and finishing smooth with 6mm thick cement plaster 1:3 (1 Cement : 3 fine sand) on exposed surfaces complete.	
4.4.1	Cement concrete grade M-25 (Nominal Mix) with 20 mm maximum size of stone aggregate	Cum
4.4.2	Cement concrete grade M-20 (Nominal Mix) with 20 mm maximum size of stone aggregate	Cum
4.4.3	Labour rate for Item No.- 4.4.1 to 4.4.2	Cum
4.5	Providing and fixing at or near ground level precast cement concrete in kerbs, edgings etc. as per approved pattern and setting in position with cement mortar 1:3 (1 Cement : 3 coarse sand) including the cost of required centering, shuttering and finishing smooth with 6mm thick cement plaster 1:3 (1 cement : 3 fine sand) on exposed surfaces complete.	
4.5.1	Cement concrete grade M-15 (Nominal Mix) with 20 mm maximum size of stone aggregate	Cum

4.6	Providing and fixing up to floor Two level precast cement concrete solid block including hoisting and setting in position with cement mortar 1:3 (1 cement : 3 coarse sand), cost of required centering, shuttering and finishing smooth with 6mm thick cement plaster 1:3 (1 cement : 3 fine sand) on exposed surfaces complete :	
4.6.1	Cement concrete grade M-15 (Nominal Mix) with 20 mm maximum size of stone aggregate	Cum
4.6.2	Cement concrete grade M-10 (Nominal Mix) with 20 mm maximum size of stone aggregate	Cum
4.7	Providing and fixing up to floor Two level precast cement concrete hollow block including hoisting and setting in position with cement mortar 1:3 (1 cement : 3 coarse sand), cost of required centering, shuttering and finishing smooth with 6mm thick cement plaster 1:3 (1 cement : 3 fine sand) on exposed surfaces complete :	
4.7.1	Cement concrete grade M-15 (Nominal Mix) with 20 mm maximum size of stone aggregate	Cum
4.7.2	Cement concrete grade M-10 (Nominal Mix) with 20 mm maximum size of stone aggregate	Cum
4.8	Extra for Plain / Precast concrete work in superstructure above floor Two level for each floors or part thereof.	Cum
4.9	Extra for laying concrete in or under water and/or liquid mud including cost of pumping or bailing out water and removing slush etc. complete.	Cum
4.10	Extra for laying concrete in or under foul positions.	Cum
4.11	Making plinth protection 50mm thick of Cement concrete grade M- 10 (Nominal Mix with 20 mm maximum size of stone aggregate) over 75mm bed by dry brick ballast 40mm nominal size well rammed and consolidated and grouted with fine sand including finishing the top smooth.	Sqm
4.12	Plum Cement concrete 1:2:4 with 75% graded metal of maxium size 40 mm and 25% plum of 150mm size.	Cum
4.13	Providing and laying damp-proof course 40mm thick with cement concrete M-15 (Nominal Mix) with 10/12 mm maximum size of stone aggregate.	Sqm
4.13.1	Labour rate for Item No.- 4.9	Sqm

4.14	Providing and laying damp-proof course 50mm thick with cement Concrete grade M-15 (Nominal Mix) with 20 mm maximum size of stone aggregate	Sqm
4.14.1	Labour rate for Item No.- 4.10	Sqm
4.15	Extra for providing and mixing water proofing material as per IS Standard in cement concrete work. Qty as prescribed by the manufacturer.	Per bag of 50 kg cement
4.16	Applying a coat of residual petroleum bitumen of penetration 80/100 of approved quality using 1.7kg per square meter on damp proof course after cleaning the surface with brushes and finally with a piece of cloth lightly soaked in kerosene oil.	Sqm
4.17	Providing and placing in position 125 mm dia Precast Bollards 600 mm high of required shape including providing M.S. Pipe Sleeve 50 mm dia 300 mm long in the Bollard and M.S. Pipes 40 mm dia and 450 mm long with 150x150x6mm M.S. plate welded at bottom and embedded 150mm in cement concrete grade M-10 (Nominal Mix with 20 mm maximum size of stone aggregate) including necessary excavation of size 250x 250x 450mm deep for the same in bitumen/ concrete pavement at specified spacing.	Each
5.1	Providing and laying in position specified grade of reinforced cement concrete excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level :	
5.1.1	Cement concrete grade M-20 (Nominal Mix) with 20 mm maximum size of stone aggregate.	Cum
5.2	Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc.above plinth level and up to floor two level excluding cost of centering, shuttering and reinforcement etc.	
5.2.1	Cement concrete grade M-20 (Nominal Mix) with 20 mm maximum size of stone aggregate.	Cum

5.3	Reinforced cement concrete work in beams, suspended floors, roofs having slope up to 15° landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases and spiral stair cases up to floor two level excluding the cost of centering, shuttering and reinforcement with Cement concrete grade M-20 (Nominal Mix) with 20 mm maximum size of stone aggregate.	Cum
5.4	Providing and laying up to floor two level reinforced cement concrete in kerbs, steps and the like excluding the cost of centering, shuttering and reinforcement with Cement concrete grade M 20 (Nominal Mix) with 20 mm maximum size of stone aggregate.	Cum
5.5	Reinforced cement concrete work in arches, archribs, domes, vaults, shells, folded plate and roofs having slope more than 15° up to floor two level excluding the cost of centering, shuttering and reinforcement with Cement concrete grade M-20 (Nominal Mix) with 20 mm maximum size of stone aggregate.	Cum
5.6	Reinforced cement concrete work in chimneys, shafts, up to floor two level excluding the cost of centering, shuttering and reinforcement with Cement concrete grade M-20 (Nominal Mix) with 20 mm maximum size of stone aggregate.	Cum
5.7	Reinforced cement concrete work in well-steining excluding the cost of centering, shuttering and reinforcement with Cement concrete grade M-20 (Nominal Mix) with 20 mm maximum size of stone aggregate.	Cum
5.8	Reinforced cement concrete work in vertical and horizontal fins individually or forming box louvers, facias and eaves boards up to floor two level excluding the cost of centering, shuttering and reinforcement with Cement concrete grade M-20 (Nominal Mix) with 20 mm maximum size of stone aggregate.	Cum

5.9	Providing, hoisting and fixing up to floor two level precast reinforced cement concrete in lintels, manhole cover, shelves and like including setting in cement mortar 1:3 (1 cement : 3 sand), cost of required centering, shuttering and finishing with neat cement punning on exposed surfaces but excluding the cost of reinforcement with M 20 –Grade Concrete.	Cum
5.10	Providing precast cement concrete Jali of cement concrete grade M-15 (Nominal Mix) with 6 mm maximum size of stone aggregate reinforced with 1.6 mm dia mild steel wire including centering and shuttering, roughening cleaning, fixing and finishing in cement mortar 1:3 (1 cement: 3 fine sand) etc. complete excluding plastering of the jambs, sills and soffits.	
5.10.1	50 mm thick	Sqm
5.10.2	40 mm thick	Sqm
5.10.3	25 mm thick	Sqm
5.11	Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding upto floor level including cost of binding wire, wastage and over laps upto 12mm horizontal/ inclined position of reinforcement bars in slab and beams, plinth, chajjas, lintels, upto 4.5m vertical length of reinforcement in wall columns (over laps shall be provided as per requirement of IS : 13920; IS 456 & SP : 34) etc. complete.	
5.11.1	Mild steel and Medium Tensile steel bars.	kilogram
5.11.2	Hot rolled deformed bars	kilogram
5.11.3	Cold twisted bars	kilogram
5.11.4	Thermo-Mechanically Treated bars. (Fe 500 D or more)	kilogram
5.11.5	Hard drawn steel wire	kilogram
5.11.6	Hard drawn steel wire fabric	kilogram
5.11.7	Add extra for providing reinforcement above Floor two level for every additional floor or part there of.	kilogram
5.12	Providing and fixing in position copper plate as per design for expansion joints.	kilogram
5.13	Providing and filling in position, blown bitumen in expansion joints.	per cm depth per cm width per 100m length

5.14	Providing and filling in position bitumen mix filler of Proportion 80 kg. of hot bitumen, 1 kg. of cement and 0.25 cubicmeter of coarse sand for expansion joints.	per cm depth per cm width per 100m length
5.15	Providing and fixing in position 12mm thick bitumen impregnated fibre board conforming to IS: 1838 including cost of primer, sealing compound in expansion joints.	Sqm
5.16	Providing and fixing sheet covering over expansion joints with iron screws as per design to match the colour / shade of wall treatment.	
5.16.1	Non-asbestos fibre cement board 6 mm thick as per IS: 14862.	
5.16.1.1	150mm wide.	R.M
5.16.1.2	200mm wide.	R.M
5.16.1.3	250mm wide.	R.M
5.16.2	Aluminium fluted strips 3.15mm thick.	
5.16.2.1	150 mm wide.	R.M
5.16.2.2	200 mm wide.	R.M
5.16.2.3	250 mm wide	R.M
5.17	Providing and fixing in position stainless steel grade 304 plate - 1.0 mm as per design for expansion Joints.	
5.17.1	200 mm wide	Meter
5.17.2	300 mm wide	Meter
5.18	Providing plaster drip course/ groove in plastered surface or moulding to R.C.C. projections.	Meter
5.19	Extra for laying reinforced cement concrete in or under water and/ or liquid mud including cost of pumping or bailing out water and removing slush etc., complete.	Cum
5.20	Extra for laying reinforced cement concrete in or under foul positions.	Cum

5.21	Providing and laying in position machine batched and machine mixed and machine vibrated design mix cement concrete of M-25 grade mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, for reinforced cement concrete work including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement. including Admixtures in recommended proportions as per IS 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge.	
5.21.1	Upto Plinth level	Cum
5.21.2	Above Plinth upto floor 2 level	Cum
5.22	Extra for richer mixes at all floor levels.	
5.22.2	Providing M-30 grade concrete instead of M-25 grade BMC.	Cum
5.22.2	Providing M-35 grade concrete instead of M-25 grade BMC.	cum
5.22.3	Providing M-40 grade concrete instead of M-25 grade BMC.	Cum
5.23	Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site on work in transit mixer for all leads, having continuous agitated mixer, manufacturer as per mix design of specified grade for reinforced cement work, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement. including Admixtures in recommended proportions as per IS 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge.	
5.23.1	Upto Plinth level	Cum
5.23.2	Above Plinth upto floor 2 level	Cum
5.24	Extra for richer mixes at all floor levels.	
5.24.1	Providing M-30 grade concrete instead of M-25 grade RMC.	Cum
5.24.2	Providing M-35 grade concrete instead of M-25 grade RMC.	cum
5.24.3	Providing M-34 grade concrete instead of M-25 grade RMC.	Cum

5.25	Extra for R.C.C./B.M.C./R.M.C. all works above floor 2 level for each floors or part thereof.	Cum
5.26	Providing and placing in position precast reinforced cement concrete waffle units square or rectangular as per design and shape for floors and roofs in 1:1½:3 (1 Cement : 1½ coarse sand : 3 graded stone aggregate 10mm nominal size) including flush or deep ruled pointing at joints in Cement mortar 1:2 (1 Cement : 2 Fine sand), making necessary holes of required sizes for carrying through service lines etc., providing steel hooks for lifting etc, form work in precasting, handling, hoisting, centering and erection complete for all floor levels but excluding the cost of reinforcement.	Cum
5.27	Supplying and applying pre tested and approved water based concrete curing compound to concrete/ masonry surface, all as per manufacturer's specification and direction of Engineer-in-charge.	
5.27.1	Non pigmented wet curing compound	sqm
5.27.2	Pigmented wet curing compound.	sqm
5.28	Providing and fixing in position factory made precast RCC M-40 doors and windows frames having excellent smooth finish as per IS: 6523 with reinforcement of 3 Nos, 6 mm dia main bars tied with 3 mm M.S stirrups placed @ 200 mm C/C and 6 numbers high strength polymer blocks of required size for fixing hinges including providing 6 no specially designed M.S. galvanised sleeves for accomodating 6 mm dia fully threaded bolts for fixing hold fast on vertical members, providing suitable arrangement for recieving sliding door bolts and tower bolt etc all complete, as per the direction of Engineer in charge. (The cost of hold fast and Cement Concrete block of 1:3:6 (1 Cement : 3 sand : 6 Graded stone agreegate 20mm nominal size) mix is also included in the item.) The frame shall be measured in running meter correct to two places of decimal.	
5.28.1	Door frame 125 mmx 60 mm	RM
5.28.2	Door frame 100mmx 60 mm	RM
5.28.3	Door frame 85 mmx 60 mm	RM

5.29	Providing and fixing in position pre moulded compressible filler board made from polymer base in black color approved make conforming to the specifications having minimum density of 95 kg / cum, non staining, with less than 1 percent water absorption and compression recovery of 93 percent minimum including cost of double sided adhesive tape, sealant etc. in expansion joints.	
5.29.1	12 mm thick	Sqm
5.29.2	25 mm thick.	Sqm
6.1	Brick work with well burnt chimney bricks in bulls patent trench kiln manufactured by ghol process, crushing strength not less than 40kg /sqcm and water absorption not more than 15% in foundation and plinth.	
6.1.1	Cement mortar 1:4 (1 cement : 4 coarse sand)	Cum
6.1.2	Cement mortar 1:6 (1 cement : 6 coarse sand	Cum
6.1.3	Labour rate for Item No.- 6.1.1 to 6.1.2	Cum
6.2	Brick work with well burnt chimney bricks in bulls patent trench kiln ,crushing strength not less than 25kg /sqcm and water absorption not more than 20% in foundation and plinth	
6.2.1	Cement mortar 1:4 (1 cement : 4 coarse sand)	Cum
6.2.2	Cement mortar 1:6 (1 cement : 6 coarse sand	Cum
6.2.3	Labour rate for Item No.- 6.2.1 to 6.2.2	Cum
6.3	Brick work with chimney brick of class designation 40 in superstructure above plinth level upto floor 2 level including the cost of scaffolding in :	
6.3.1	Cement mortar 1:4(1 cement : 4 coarse sand)	Cum
6.3.2	Cement mortar 1:6(1 cement : 6 coarse sand)	Cum
6.3.3	Labour rate for Item No.- 6.3.1	Cum
6.4	Half brick masonry with of class designation 40 in foundation and plinth in.	
6.4.1	Cement mortar 1:3 (1 cement : 3 coarse sand)	Sqm
6.4.2	Cement mortar 1:4 (1 cement : 4 coarse sand)	Sqm
6.4.3	Labour rate for Item No.- 6.9.1 to 6.9.2	Sqm
6.5	Half brick masonry with of class designation 40 in super structure above plinth level up to floor 2 level including the cost of scaffolding.	
6.5.1	Cement mortar 1:3 (1 cement : 3 coarse sand)	Sqm
6.5.2	Cement mortar 1:4 (1 cement : 4 coarse sand)	Sqm
6.5.3	Labour rate for Item No.- 6.10.1 to 6.10.2	Sqm

6.6	Extra for half brick masonry in superstructure, above floor 2 level for every floors or part thereof by mechanical means by lifting material using mobile crane.	Sqm
6.7	Extra for providing and placing in position 2 Nos. 8mm dia. M.S. / HYSD bars at every third course of half brick masonry.	Sqm
6.8	Brick work will well burnt open bhatta bricks crushing strength not less than 25kg/cm ² and water absorption not more than 20% in foundation and plinth In cm 1:6.	Cum
6.8.1	Labour rate for Item No.- 6.38	Cum
6.9	Brick work will well burnt open bhatta bricks crushing strength not less than 25kg/cm ² and water absorption not more than 20% in above plinth level upto floor two level in cm 1:6 including the cost of scaffolding etc.	Cum
6.9.1	Labour rate for Item No.- 6.39	Cum
6.10	Add Extra from item No. 6.8 & 6.9 if Mortar used 1:4 instead of 1:6.	cum
6.11	Half brick masonry with open bhatta of class designation 25 in foundation and plinth including the cost of scaffolding :	
6.11.1	Cement mortar 1 : 3 (1 cement : 3 coarse sand)	sqm
6.11.2	Cement mortar 1 : 4 (1 cement : 4 coarse sand)	sqm
6.12	Half brick masonry with open bhatta of class designation 25 in superstructure above plinth level upto floor 2 level including the cost of scaffolding.	
6.12.1	Cement mortar 1 : 3 (1 cement : 3 coarse sand)	sqm
6.12.2	Cement mortar 1 : 4 (1 cement : 4 coarse sand)	sqm
6.13	Brick work with fly ash lime bricks (FALG Bricks) conforming to IS:12894- 2002, class designation 50 (average compressive strength) upto plinth level :	
6.13.1	Cement mortar 1:4 (1 cement : 4 coarse sand)	Cum
6.13.2	Cement mortar 1:6 (1 cement : 6 coarse sand)	Cum
6.14	Brick work with fly ash lime bricks (FALG Bricks) conforming to IS:12894- 2002, class designation 50 (average compressive strength) in superstructure above plinth level up to floor 2 level including the cost of scaffolding :	
6.14.1	Cement mortar 1:4 (1 cement : 4 coarse sand)	Cum
6.14.2	Cement mortar 1:6 (1 cement : 6 coarse sand)	Cum

6.15	Half Brick work with fly ash lime bricks (FALG Bricks) conforming to IS:12894-2002, class designation 50 (average compressive strength) in superstructure above plinth level up to floor 2 level including the cost of scaffolding :	
6.15.1	Cement mortar 1:3 (1 cement : 3 coarse sand)	Sqm
6.15.2	Cement mortar 1:4 (1 cement : 4 coarse sand)	Sqm
6.16	Brick work with fly ash lime bricks (FALG Bricks) conforming to IS:12894-2002, class designation 75 Kg/CM ² (average compressive strength) up to plinth level :	
6.16.1	Cement mortar 1:4 (1 cement : 4 coarse sand)	Cum
6.16.2	Cement mortar 1:6 (1 cement : 6 coarse sand)	Cum
6.17	Brick work with fly ash lime bricks (FALG Bricks) conforming to IS:12894- 2002, class designation 75 Kg/CM ² (average compressive strength) in superstructure above plinth level up to floor 2 level including the cost of scaffolding :	
6.17.1	Cement mortar 1:4 (1 cement : 4 coarse sand)	Cum
6.17.2	Cement mortar 1:6 (1 cement : 6 coarse sand)	Cum
6.18	Half Brick work with fly ash lime bricks (FALG Bricks) conforming to IS:12894-2002, class designation 75 Kg/CM ² (average compressive strength) in superstructure above plinth level up to floor 2 level including the cost of scaffolding :	
6.18.1	Cement mortar 1:3 (1 cement : 3 coarse sand)	Sqm
6.18.2	Cement mortar 1:4 (1 cement : 4 coarse sand)	Sqm
6.19	Extra for brick work in superstructure above floor 2 level for each floors or part there of .	Cum
6.20	Brick work in plain arches in superstructure including centering and shuttering complete for span up to 6 meters with of class designation 40 in cement mortar 1:3 (1 cement : 3 coarse sand).	Cum
6.21	Brick work in gauged arches in superstructure in cement mortar 1:3 (1 cement : 3 coarse sand) including centering and shuttering complete, for span up to 6 meters with of class designation 40.	Cum
6.22	Extra for additional cost of centering for arches exceeding 6m span including all shuttering, bolting, wedging and removal. (Area of the soffit to be measured).	Sqm

6.23	Honey-comb brick work 10 cm thick with bricks of class designation 40 in cement mortar 1:4 (1 cement : 4 coarse sand).	Sqm
6.24	Honey-comb brick work 10 cm thick with open bhatta brick of class designation 25 in cement mortar in 1:4 (1 cement : 4 coarse sand)	sqm
6.25	Providing and laying Autoclaved Aerated Concrete (AAC) blocks masonry, using AAC blocks (Size length 300, 400, 500, 600 Height 200, 250, 300 Width 100, 150, 200, 250mm) conforming to IS 2185 PART-3, having compressive strength not less than 3 Mpa (Grade H) in super structure, blocks jointed with cement mortar 1:6 (1 cement : 6 sand) or with polymer modified cement mortar as per ASTM 1660-09, applied in uniform thickness of 2 to 3 mm in horizontal and verticals joints using special trowel, polymer modified mortar having minimum compressive strength and minimum splitting tensile strength of not less than 5 MPa and 0.34 MPa respectively as per ASTM international standard including raking out joints. The surface of masonry units (AAC-Block) should be slightly moist prior to application of jointing mortar. Block should be gently pressed down using a rubber mallet to expel out entrapped air and the masonry shall be carried for even days for cement mortar and two days for polymer modified mortar. Ist layer of masonry block shall be placed on perfectly leveled surface, which if required, shall be leveled with M-20 cement concrete at plinth or floor level. Masonry shall have 75mm thick RCC band with M-20 cement concrete and 2 bars of 8mm dia. Such bands shall be spaced at interval of 1.8 meter in vertical direction. RCC bands shall be measured with AAC block masonry. Rates include all materials including steel bars wastage, scaffolding and all labour etc. complete upto floor two level :	
6.25.1	AAC masonry in cement mortar 1:6 (1 cement : 6 sand)	Cum
6.25.2	ACC Masonary in polymer modified mortar	Cum
6.26	Extra for AAC masonry work in superstructure above floor two level for each additional floor or part.	Cum

6.27	Providing and laying Gypsum panel partitions 100mm thick with water proof Gypsum panels of size 666x500x100mm, made of calcite phosphor Gypsum fixed with tongue and groove, jointed with bonding plaster as per manufacturers specifications in superstructure above plinth level up to floor 5 level. Gypsum blocks will have a minimum compressive strength of 9.3 kg/cm ²	Sqm
6.28	Extra for Gypsum panel Partitions in superstructure above floor V level for every Four or part thereof.	Sqm
6.29	Brick work with common burnt clay machine moulded perforated modular bricks of class designation 125 conforming to IS : 2222 -1991 in exposed brick work including making horizontal and vertical grooves 10 mm wide 12mm deep complete from ground level up to floor two level in cement mortar 1:6 (1 cement : 6 coarse sand).	Cum
6.30	Extra for exposed brick work in superstructure above floor two level, for each floor or part there of.	Cum
7.1	Random rubble masonry with hard stone in foundation and plinth with Cement mortar 1:6 (1 cement : 6 coarse sand)	Cum
7.2	Extra for random rubble masonry with hard stone in superstructure above plinth level and upto floor 2 level	Cum
7.3	Extra for random rubble masonry with hard stone in superstructure above floor 2 level for each floor or part thereof.	Cum
7.4	Extra for random rubble masonry with hard stone in :	
7.4.1	Square or rectangular pillars	Cum
7.4.2	Circular pillars.	Cum
7.5	Extra for random rubble masonry with hard stone curved on plan for a mean radius not exceeding 6 m.	Cum
7.6	Coursed rubble masonry (first sort) with hard stone in foundation and plinth with Cement mortar 1:6 (1 cement : 6 coarse sand)	Cum
7.7	Coursed rubble masonry (second sort) with hard stone in foundation & plinth with Cement mortar 1:6 (1 cement : 6 coarse sand)	Cum

7.8	Extra for coursed rubble masonry with hard stone (first or second sort) in superstructure above plinth level & upto 2 floor level.	Cum
7.9	Extra for coursed rubble masonry with hard stone (first or second sort) in superstructure above floor 2 level for every floors or part thereof.	Cum
7.10	Extra for coursed rubble masonry with hard stone (first or second sort) in :	
7.10.1	Square or rectangular pillars	Cum
7.10.2	Circular pillars.	Cum
7.11	Extra for coursed rubble masonry with hard stone (first or second sort) curved on plan for a mean radius not exceeding 6 m.	Cum
7.12	Stone work in plain ashlar masonry in super structure upto floor two level in cement mortar 1:4 (1 cement : 4 coarse sand) including pointing with cement mortar 1:2 (1 white cement : 2 Marble dust) with an admixture of pigment matching the stone shade :	
7.12.1	One face dressed.	
7.12.1.1	Red sand stone	Cum
7.12.1.2	White sand stone	Cum
7.12.2	Both face dressed.	
7.12.2.1	Red sand stone	Cum
7.12.2.2	White sand stone	Cum
7.13	Stone work plain ashlar masonry in arches in cement mortar 1:3 (1 cement : 3 coarse sand) including centring, shuttering and pointing with white cement mortar 1:2 (1 white cement : 2 Marble dust) with an admixture of pigment matching the stone shade.	
7.13.1	Red sand stone	Cum
7.13.2	White sand stone	Cum
7.14	Stone work plain ashlar masonry in domes in cement mortar 1:3 (1 cement : 3 coarse sand) including centring, shuttering and pointing with white cement mortar 1:2 (1 white cement : 2 Marble dust) with an admixture of pigment matching the stone shade.	
7.14.1	Red sand stone	Cum

7.14.2	White sand stone	Cum
7.15	Stone work ashlar punched (ordinary) in superstructure upto floor two level in cement mortar 1:4 (1 white cement : 4 coarse sand) including pointing with cement mortar 1:2 (1 white cement : 2 Marble dust) with an admixture of pigment matching the stone shade.	
7.15.1	Red sand stone.	
7.15.1.1	One faced punched.	Cum
7.15.1.1.2	Double faced punched.	Cum
7.15.2	White sand stone.	
7.15.2.1	One faced punched.	Cum
7.15.2.2	Double faced punched.	Cum
7.16	Extra for stone work, plain ashlar or ashlar punched above floor 2 level for every floor or part thereof.	Cum
7.17	Extra for plain ashlar or ashlar punched in :	
7.17.1	Square or rectangular pillars	Cum
7.18	Extra for stone work; plain ashlar or ashlar punched curved on plan with a mean radius not exceeding 6 m.	Cum
7.19	Extra for additional cost of centering for arches exceeding 6m span including all strutting, bolting, wedging etc. And removal (area of soffit to be measured).	Sqm
7.20	Stone work sunk or moulded or sunk and moulded upto floor two level in cement mortar 1:4 (1 cement : 4 coarse sand) including pointing with white cement mortar 1:2 (1 white cement : 2 Marble dust) with an admixture of pigment matching the stone shade :	
7.20.1	Red sand stone	Cum
7.20.2	White sand stone	Cum
7.21	Extra for stone work sunk or moulded or sunk and moulded or carved in :	
7.21.1	Triangular or Square or rectangular pillars	Cum
7.21.2	Circular or polygonal pillars	Cum

7.22	Extra for stone work sunk or moulded in cornices.	per meter per cm girth
7.23	Stone work (machine cut edges) for wall lining etc. (veneer work) backing filled with a grout of 12mm thick cement mortar 1:3 (1 cement : 3 coarse sand) including pointing in white cement mortar 1:2 (1 white cement : 2 Marble dust) with an admixture of pigment matching the stone shade : (To be secured to the backing by means of cramps which shall be paid separately) :	
7.23.1	Red sand stone - exposed face fine dressed with rough backing.	
7.23.1.1	70 mm thick.	Sqm
7.23.1.2	60 mm thick	Sqm
7.23.1.3	50 mm thick	Sqm
7.23.1.4	40 mm thick	Sqm
7.23.1.5	30 mm thick	Sqm
7.23.2	Red sand stone - Exposed face machine cut and table rubbed with rough backing.	
7.23.2.1	70 mm thick.	Sqm
7.23.2.2	60 mm thick	Sqm
7.23.2.3	50 mm thick	Sqm
7.23.2.4	40 mm thick	Sqm
7.23.2.5	30 mm thick	Sqm
7.23.3	White sand stone - exposed face fine dressed with rough backing	
7.23.3.1	70 mm thick.	Sqm
7.23.3.2	60 mm thick	Sqm
7.23.3.3	50 mm thick	Sqm
7.23.3.4	40 mm thick	Sqm
7.23.3.5	30 mm thick	Sqm

7.23.4	White sand stone - Exposed face machine cut and table rubbed with rough backing.	
7.23.4.1	70 mm thick.	Sqm
7.23.4.2	60 mm thick	Sqm
7.23.4.3	50 mm thick	Sqm
7.23.4.4	40 mm thick	Sqm
7.23.4.5	30 mm thick	Sqm
7.24	Extra for stone work (veneer work) curved on plan with a mean radius not exceeding 6 m.	Cum
7.25	Providing and fixing stainless steel cramps of required size and shape for anchoring stone wall lining to the backing or securing adjacent stones in stone wall lining in cement mortar 1:2 (1 cement : 2 coarse sand) including making the necessary chases in stone and holes in walls wherever required.	Kg
7.26	Providing and fixing stone dowels 10x5x2.50 cm cut to double wedge shape as per design in cement mortar 1:2 (1 cement : 2 coarse sand) including making the necessary chases.	Each
7.27	Providing and fixing copper pins 7.5 cm long 6 mm diameter for securing adjacent stones in stone wall lining in cement mortar 1:2 (1 cement : 2 coarse sand) including making the necessary chases.	Each
7.28	Providing and fixing sloping chajja of stone 40 mm thick and upto 80 cm wide beyond the wall as measured along the slope in cement mortar 1:4 (1 cement : 4 coarse sand) with 12mm diameter anchoring steel bar 45 cm long fixed in each stone and supported on and including with bricks cover of class designation 40 in cement mortar 1:4 (1 cement : 4 coarse sand) including pointing in cement mortar 1:2 (1 white cement : 2 stone dust) with an admixture of pigment matching the stone shade:	
7.28.1	Red sand stone:	
7.28.1.1	With chimney Bricks (25 Kg/cm ²)	Sqm
7.28.2	White sand stone:	

7.28.2.1	With chimney bricks (25 Kg/cm ²)	Sqm
7.29	Providing and fixing horizontal chajja of stone 40 mm thick and upto 80 cm projection in cement mortar 1:4 (1 cement : 4 coarse sand) including pointing in white cement mortar 1:2 (1 white cement : 2 Marble dust) with an admixture of pigment matching the stone shade:	
7.29.1	Red sand stone:	Sqm
7.29.2	White sand stone:	Sqm
7.30	30mm red sand stone sun-shade (chisel-dressed) supported on red sand stone brackets, fixed in walls with cement mortar 1:4 (1 cement : 4 coarse sand) including finishing complete.	Sqm
7.31	Providing and fixing red sand stone brackets 55x22.5x45cm sunk and moulded including providing and fixing with 4 Nos. gun metal cramp 25x6mm 30 cm long and dowel bars 7.5 cm long 6 mm dia as per design.	Each
7.32	Stone work, plain in copings, cornices, string courses and plinth courses, upto 75 mm thick in Cement mortar 1:6 (1 cement : 6 coarse sand) including pointing with white cement mortar 1:2 (1 white cement : 2 Marble dust) with an admixture of pigment matching the stone shade.	
7.32.1	Red sand stone:	Sqm
7.32.2	White sand stone:	Sqm
7.33	Providing and fixing stone jali 40mm thick in cement mortar 1:3(1cement : 3 coarse sand) including pointing in white cement mortar 1:2 (1white cement : 2 Marble dust) with an admixture of pigment, matching the stone shade, jali slab without any chamfers etc.	
7.33.1	Red sand stone:	Sqm
7.33.2	White sand stone:	Sqm
7.34	Extra for laying stone work in or under water and/or liquid mud including cost of pumping or bailing out water and removing slush etc. complete.	Cum
7.35	Extra for laying stone work in or under foul position.	Cum

7.36	Wall lining butch work upto 10m height with red/ white sand stone 40 mm thick rough facing on the exposed surface with stone strips of minimum length 300 mm and required width including embedding every tenth layer and bottom most layer in masonry or concrete after making necessary chases of size 75x75mm and by providing layer of 75mm thick strips i/c 12mm thick bed of cement mortar 1:3 (1 Cement : 3 coarse sand) i/c ruled pointing in cement mortar 1:2 (1 white cement : 2 Marble dust) with an admixture of pigment to match the shade of stone complete as per direction of Engineer-in- charge.	Sqm
7.37	Stone work (machine cut edges) for wall lining upto 10 m height etc. (Veneer work) backing filled with a grout of 12mm thick cement mortar 1:3 (1 Cement : 3 coarse sand) and jointed with Cement mortar 1:2 (1 cement : 2 stone dust) including rubbing and polishing complete. (To be secured to the backing by means of cramps which shall be paid for separately).	
7.37.1	Kota stone slabs exposed face dressed and rubbed - 25 mm thick	Sqm
7.38	Stone tile work for wall lining upto 10 m height with special adhesive over 12mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) including pointing in white cement with an admixture of pigment to match the stone shade.	
7.38.1	8mm thick (mirror polished and machine cut edge)	
7.38.1.1	Granite stone of any colour and shade.	Sqm
7.38.1.2	Raj Nagar plain white marble/ Udaipur green marble/ Zebra black marble.	Sqm
7.39	Extra for stone work for wall lining on exterior walls of height more than 10 m from ground level for every additional height of 3m or part there of.	Sqm
7.40	Providing and fixing dry cladding upto 10 meter heights with 30mm thick gang saw cut stone with (machine cut edges) of uniform colour and size upto 1mx1m, fixed to structural steel frame work and/ or with the help of cramps, pins etc. and sealing the joints with approved weather sealant as per Architectural drawing and direction of Engineer-in-charge. (The steel frame work, stainless steel cramps and pins etc. shall be paid for separately.)	
7.40.1	Red sand stone.	Sqm

7.40.2	White sand stone	Sqm
7.41	<p>Providing and fixing structural steel frame (for dry cladding with 30 mm thick gang saw cut with machine cut edges sand stone) on walls at all heights using M.S. square/ rectangular tube in the required pattern as per architectural drawing including cost of cutting, bending, welding etc. The frame work shall be supported in wall with the help of MS brackets/ lugs of angle iron/ flats etc. which shall be welded to the frame and embedded in brick wall with cement concrete block of CC grade M-15 stone aggregate 20mm nominal size of size 300x230x300mm including cost of necessary centring and shuttering and with approved expansion hold fasteners on CC/RCC surface including drilling necessary holes. Approved cramps/ pins etc. shall be welded to the frame work to support stone cladding the steel work will be given a priming coat of Zinc primer as approved by Engineer-in-charge and painted with two or more coats of epoxy paint (Shop drawings shall be submitted by the contractor to the Engineer-in-charge for approval before execution). The frame work shall be fixed in true horizontal & vertical lines/planes. (Only structural steel frame work shall be measured for the purpose of payment, stainless steel cramps shall be paid for separately and nothing extra shall be paid.)</p> <p>Providing and fixing adjustable stainless steel cramps of approved quality and of required shape and size adjustable with stainless steel nuts bolts and washer (total weight not less than 260 gms) for dry stone cladding fixed on frame work at suitable location including making necessary recesses in stone slab, drilling required holes etc complete as per direction of the Engineer.</p>	Kg
7.42		Each
8.1	Marble work gang saw cut (polished and machine cut) of thickness 16mm for wall lining (veneer work) in cement mortar 1:3 (1 cement : 3 coarse sand) including pointing with white cement mortar 1:2 (1 white cement:2 marble dust) with an admixture of pigment to match the marble shade:(To be secured to the backing by means of cramps, which shall be paid for separately).	
8.1.1	Raj Nagar Plain white marble	
(a)	Area of slab upto 0.50 sqm	Sqm
(b)	Area of slab over 0.50 sqm	Sqm
8.1.2	Udaipur green marble	
(a)	Area of slab upto 0.50 sqm	Sqm

(b)	Area of slab over 0.50 sqm	Sqm
8.1.3	Zebra black marble	
(a)	Area of slab upto 0.50 sqm	Sqm
(b)	Area of slab over 0.50 sqm	Sqm
8.1.4	Makrana Marble	
(a)	Area of slab upto 0.50 sqm	Sqm
(b)	Area of slab over 0.50 sqm	Sqm
8.1.5	Katni Marble	
(a)	Area of slab upto 0.50 sqm	Sqm
(b)	Area of slab over 0.50 sqm	Sqm
8.2	Providing and fixing 16mm thick gang saw cut mirror polished premoulded and prepolished) machine cut for kitchen platforms, vanity counters, window sills , facias and similar locations of required size of approved shade, colour and texture laid over 20mm thick base cement mortar 1:4 (1 cement : 4 coarse sand) with joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing to edge to give high gloss finish etc. complete at all levels.	
8.2.1	Raj Nagar Plain white marble	
8.2.1.1	Area of slab upto 0.50 sqm.	Sqm
8.2.1.2	Area of slab over 0.50 sqm.	Sqm
8.2.2	Udaipur green marble	
8.2.2.1	Area of slab upto 0.50 sqm.	Sqm
8.2.2.2	Area of slab over 0.50 sqm.	Sqm
8.2.3	Zebra black marble	
8.2.3.1	Area of slab upto 0.50 sqm.	Sqm
8.2.3.2	Area of slab over 0.50 sqm.	Sqm
8.2.4	Makrana Marble	
8.2.4.1	Area of slab upto 0.50 sqm.	Sqm
8.2.4.2	Area of slab over 0.50 sqm.	Sqm
8.2.5	Katni Marble	
8.2.5.1	Area of slab upto 0.50 sqm.	Sqm
8.2.5.2	Area of slab over 0.50 sqm.	Sqm
8.2.6	Granite of any colour and shade	
8.2.6.1	Area of slab upto 0.50 sqm	Sqm
8.2.6.2	Area of slab over 0.50 sqm.	Sqm
8.3	Extra for providing full edge moulding to 16mm thick marble stone counters, Vanities etc. including machine polishing to edge to give high gloss finish etc. complete as per design approved by Engineer-in- Charge.	
8.3.1	Marble work	meter
8.3.2	Granite work.	meter

8.4	Extra for fixing marble /granite stone over and above corresponding basic item, in facia and drops of width upto 150 mm with epoxy resin based adhesive including cleaning etc. complete.	meter
8.5	Extra for providing opening of required size & shape for wash basins/ kitchen sink in kitchen platform, vanity counters and similar location in marble/Granite/stone work including necessary holes for pillar taps etc. including rubbing and polishing of cut edges etc. complete.	Each
8.6	Mirror polishing on marble work/Granite work/stone work where ever required to give high gloss finish complete.	Sqm
8.7	Providing and fixing cramps of required size & shape in RCC/ CC/ brick masonry backing with cement mortar 1:2 (1 cement :2 coarse sand) including drilling necessary hole in stones and embedding the cramp in the hole (fastener to be paid separately).	
8.7.1	Gunmetal cramps.	Kg
8.7.2	Stainless steel cramps.	Kg
8.8	Providing and fixing expansion hold fasteners on C.C. /R.C.C. brick masonry surface backing including drilling necessary holes and the cost of bolt etc complete.	
8.8.1	Wedge expansion type	
8.8.1.1	Fastener with threaded dia 6 mm.	Each
8.8.1.2	Fastener with threaded dia 10 mm.	Each
8.8.1.3	Fastener with threaded dia 12 mm.	Each
8.9	Stone tile (polished) work for wall lining over 12mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and cement slurry @ 3.3 kg/sqm including pointing in white cement complete.	
8.9.1	8mm thick.	
8.9.1.1	Raj nagar plain white marble/ Udaipur green marble/ Zebra black marble.	Sqm
8.9.1.2	Granite of any colour and shade.	Sqm
8.10	Providing and fixing stone slab table rubbed, edges rounded and polished of size 75x50 cm deep and 1.8 cm thick fixed in urinal partitions by cutting a chase of appropriate width with chase cutter and embedding the stone in the chase with epoxy grout or with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 6 mm nominal size) as per direction of Engineer-in- charge and finished smooth.	

8.10.1	White Agaria Marble Stone.	Sqm
8.10.2	Granite Stone of approved shade.	Sqm
9.1	Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position :	
9.1.1	Second class teak wood	Cum
9.1.2	Sal wood	Cum
9.1.3	Kiln seasoned and chemically treated Hard wood. (Haldu, Kail, Bija wood)	Cum
9.1.4	Labour rate for Item No.- 9.1.1 to 9.1.3	Cum
9.2	Providing laminated veneer lumber conforming to IS:14616 and TAD -15: 2001 (Part B) in factory made frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position as per directions of Engineer-in-charge.	Cum
9.3	Providing wood work in frames of false ceiling, partitions etc. sawn and put up in position :	
9.3.1	Sal wood	Cum
9.3.2	Kiln seasoned and chemically treated Hard wood. (Haldu, Kail, Bija wood)	Cum
9.3.3	Labour rate for Item No.- 9.3.1, 9.3.2	Cum
9.4	Extra for additional labour for circular works, such as in frames of fan light:	
9.4.1	Second class teak wood	Cum
9.4.2	Sal wood	Cum
9.4.3	Kiln seasoned and chemically treated Hard wood. (Haldu, Kail, Bija wood)	Cum
9.5	Providing and fixing panelled or panelled and glazed wooden shutters for doors, windows and clerestory windows including ISI marked M.S pressed bright finished butt hinges with necessary screws excluding, panelling / glazing which will be paid for separately.	
9.5.1	Second class teak wood	
9.5.1.1	35 mm thick shutters	Sqm
9.5.1.2	30 mm thick shutters	Sqm
9.5.2	Kiln seasoned and chemically treated Hard wood. (Haldu, Kail, Bija wood)	
9.5.2.1	35 mm thick shutters	Sqm
9.5.2.2	30 mm thick shutters	Sqm

9.6	Providing and fixing panelling or panelling and glazing in panelled or panelled and glazed shutters for doors, windows and clerestory windows (Area of opening for panel inserts excluding portion inside grooves or rebates to be measured). Panelling for panelled or panelled and glazed shutters 25 mm to 40 mm thick :	
9.6.1	Second class teak wood	Sqm
9.6.2	Kiln seasoned and chemically treated Hard wood. (Haldu, Kail, Bija wood)	Sqm
9.6.3	Ply wood 5 ply, 9 mm thick :	
9.6.3.1	Decorative plywood both side decorative veneer (Type - I) conforming to IS 1328 BWR type.	Sqm
9.6.3.2	Decorative plywood one side decorative veneer and commercial veneer on other face (Type 1) conforming to IS 1328 BWR Type	Sqm
9.6.4	Ply wood 7 ply, 9 mm thick	
9.6.4.1	Decorative plywood one side decorative veneer and commercial veneer on other face (Type 1) conforming to IS 1328 BWR Type	Sqm
9.6.5	Particle Board 12 mm thick	
9.6.5.1	Plain particle board flat pressed, 3 layer or graded wood particle board medium density Grade I, IS : 3087 marked.	Sqm
9.6.5.2	Veneered flat pressed three layer or graded wood particle board with commercial veneering on both sides conforming to IS:3097, grade I.	Sqm
9.6.5.3	Pre-laminated particle board with decorative lamination on one side and balancing lamination on other side, Grade I, Type II IS: 12823 marked.	Sqm
9.6.5.4	Pre-laminated particle board with decorative lamination on both sides, Grade I, Type II, IS:12823 marked.	Sqm
9.6.5.5	Providing and fixing Coir veneer board (conforming to IS : 14842- 2000) : 12mm thick	Sqm
9.6.6	Providing and fixing Float glass panes	
9.6.6.1	4mm thick glass panes	Sqm
9.6.6.2	5.5mm thick glass panes	Sqm

9.7	Providing and fixing 35 mm thick factory made laminated veneer lumber door shutter conforming to IS : 14616 and TADS 15:2001 (Part B) including ISI marked M.S. pressed bright finished butt hinges with necessary screws as per directions of Engineer and panelling with panels of:	
9.7.1	12mm thick plain grade -1,medium density flat pressed three layer particle board FPT-1 (Flat pressed three layer) or graded wood particle board FPT-1 IS:3087 marked bonded with BWP type synthetic resin adhesive as per IS : 848 : (Plain particle board)	Sqm
9.7.2	12 mm thick pre-laminated particle board (decorative lamination on both sides) grade - 1, medium density flat pressed, three layer particle board FPT - I or graded wood particle board FPT - I, conforming to IS : 3087 bonded with BWP type synthetic resin adhesive as per IS : 848 and pre- laminated conforming to IS : 12823 Grade 1, Type - II marked:	Sqm
9.7.3	12 mm thick one side Pre-laminated particle board (decorative lamination on one side and other sides balancing lamination) grade - 1 medium density flat pressed, three layer particle board FPT - I or graded wood particle board FPT-1 conforming to IS : 3087 bonded with BWP type synthetic resin adhesive as per IS : 848 and pre-laminated conforming to IS : 12823 Grade -1, Type II marked:	Sqm
9.8	Providing and fixing glazed shutters for doors, windows and clerestory windows using 4 mm thick float glass panes including black enamelled ISI marked M.S butt hinges with necessary screws.	
9.8.1	Second class teak wood	
9.8.1.1	35 mm thick	Sqm
9.8.1.2	30 mm thick	Sqm
9.8.2	Kiln seasoned and chemically treated Hard wood. (Haldu, Kail, Bija wood)	
9.8.2.1	35 mm thick	Sqm
9.8.2.2	30 mm thick	Sqm

9.9	Providing and fixing factory made laminated veneer lumber glazed shutter conforming to IS: 14616 and TADS 15:2001 (Part B) , using 4mm thick float glass panes for doors, windows and clerestory windows including ISI marked M.S pressed bright finished butt hinges with necessary screws as per directions of Engineer. 30 mm thick shutters	Sqm
9.10	Extra for Providing heavy sheet float glass panes instead of ordinary float glass in glazed doors, windows and clerestory window shutters. (Area of opening for glass panes excluding portion inside rebate shall be measured)	
9.10.1	10.00mm to 12.00mm thick float glass	Sqm
9.10.2	5.50mm thick Safety glass	Sqm
9.10.3	10.00mm to 12.00mm thick Safety glass	Sqm
9.11	Extra for Providing frosted glass panes 4 mm thick instead of ordinary float glass panes 4 mm thick in doors, windows and clerestory window shutters. (Area of opening for glass panes excluding portion inside rebateshall be measured).	Sqm
9.12	Deduct for providing pin headed glass panes instead of ordinary float glass panes weighing 4 mm thick in doors, windows and clerestory windows, shutters (Area of opening for glass panes excluding portion inside rebate shall be measured).	Sqm
9.13	Extra for providing ISI marked Stainless Steel butt hinges instead of M.S. pressed bright finished butt hinges with necessary screws. (Shutter area to be measured).	Sqm
9.14	Deduct if fixed shutters (without hinges) are provided instead of openable shutters for doors, windows or clerestory windows.	Sqm
9.15	Providing and fixing 25 mm thick Second Class teak wood shutters using 4.00mm thick float glass panes for cup board etc. :	
9.15.1	Panelled or panelled & glazed shutters :	
9.15.1.1	ISI marked anodised aluminium butt hinges with necessary screws.	Sqm
9.15.1.2	Piano Hinges	Sqm
9.15.2	Glazed shutters :	
9.15.2.1	ISI marked anodised aluminium butt hinges with necessary screws.	Sqm

9.15.2.2	Piano Hinges	Sqm
9.16	Providing and fixing flat pressed 3 layer particle board medium density exterior grade (Grade I) or graded wood particle board IS : 3087 marked to frame, backing or studding with screws etc. complete (Frames, backing or studding to be paid separately) :	
9.16.1	12 mm thick	Sqm
9.16.2	18 mm thick	Sqm
9.17	Providing and fixing Pre-laminated flat pressed 3 layer (medium density) particle board or graded wood particle board IS : 3087 marked with one side decorative and other side balancing lamination Grade I, Type II exterior grade IS : 12823 marked in shelves with screws and fittings wherever required, edges to be painted with polyurethane primer (fittings to be paid separately).	
9.17.1	18 mm thick	Sqm
9.17.2	25 mm thick	Sqm
9.18	Providing and fixing ISI marked flush door shutters conforming to IS: 2202 (Part I) decorative type, core of block board construction with frame of 1st class hard wood and well matched teak 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters using following hinges.	
9.18.1	35 mm thick including ISI marked Stainless Steel butt hinges with necessary screws.	Sqm
9.18.2	30 mm thick including ISI marked Stainless Steel butt hinges with necessary screws	Sqm
9.18.3	25 mm thick (for cupboard) including ISI marked nickel plated bright finished M.S. Piano hinges IS : 3818 fixed with necessary screws.	Sqm
9.19	Providing and fixing ISI marked flush door shutters conforming to IS: 2202 (Part I) non-decorative type, core of block board construction with frame of 1st class hard wood and well matched commercial 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters using following hinges.	
9.19.1	35 mm thick including ISI marked Stainless Steel butt hinges with necessary screws.	Sqm

9.19.2	30 mm thick including ISI marked Stainless Steel butt hinges with necessary screws.	Sqm
9.19.3	25 mm thick (for cupboard) including ISI marked nickel plated bright finished M.S. Piano hinges IS : 3818 fixed with necessary screws.	Sqm
9.20	Extra for Providing and fixing flush doors with decorative veneering instead of non decorative ISI marked flush door shutters to IS : 2202 Part-1 on one side only.	Sqm
9.21	Extra for providing lipping with 2nd class teak wood battens 25 mm minimum depth on all edges of shutters (over all area of door shutter to be measured).	Sqm
9.22	Extra for providing vision panel not exceeding 0.1 sqm in all type of flush doors (cost of glass excluded) (overall area of door shutter to be measured) :	
9.22.1	Rectangular or square.	Sqm
9.22.2	Circular.	Sqm
9.23	Extra if louvers (not exceeding 0.2 sqm) are provided in flush door shutters (overall area of door shutters to be measured).	Sqm
9.24	Extra for cutting rebate in flush door shutters (Total area of the shutter to be measured).	Sqm
9.25	Providing and fixing 35mm thick wire gauze shutters using galvanised M.S. wire gauze of average width of aperture 1.4mm in both direction with wire of dia. 0.63 mm for doors, windows and clerestory windows including ISI marked bright finished M.S. butt hinges with necessary screws :	
9.25.1	Second class teak wood.	Sqm
9.25.2	Kiln seasoned and chemically treated Hard wood. (Haldu, Kail, Bija wood)	sqm
9.26	Providing and fixing 35mm thick wire gauze shutters using galvanised M.S. wire gauze of average width of aperture 1.4mm in both direction with wire of dia. 0.63 mm for doors, windows and clerestory windows including ISI marked stainless steel butt hinges with necessary screws :	
9.26.1	Second class teak wood.	Sqm

9.26.1	Kiln seasoned and chemically treated Hard wood. (Haldu, Kail, Bija wood)	Sqm
9.27	Providing and fixing 30mm thick wire gauge shutters using galvanised M.S. wire gauge of average width of aperture 1.4mm in both direction with wire of dia. 0.63 mm for doors, windows and clerestory windows including ISI marked Stainless Steel butt hinges with necessary screws :	
9.27.1	Second class teak wood.	Sqm
9.27.2	Kiln seasoned and chemically treated Hard wood. (Haldu, Kail, Bija wood)	Sqm
9.28	Providing and fixing 30mm thick wire gauze shutters using galvanised M.S. wire gauze of average width of aperture 1.4mm in both direction with wire of dia 0.63 mm for doors, windows and clerestory windows including ISI marked bright finished M.S. butt hinges with necessary screws :	
9.28.1	Second class teak wood.	Sqm
9.28.2	Kiln seasoned and chemically treated Hard wood. (Haldu, Kail, Bija wood)	Sqm
9.29	Providing and fixing wire gauze laminated veneer lumber shutters conforming to IS : 14616, and as per TADS 15 :2001 (Part B) using galvanised wire gauze with average width of aperture 1.4mm in both directions with wire of dia 0.63mm as per IS :1568 for doors, windows and clerestory windows including ISI marked bright finished or/ and black enamelled M.S. butt hinges with necessary screws as per directions of Engineer.	
9.29.1	35 mm thick shutters	Sqm
9.29.2	30 mm thick shutters	Sqm
9.30	Providing 50x50x50mm 2nd class teak wood plugs including cutting brick work and fixing in cement mortar 1:3 (1 cement : 3 fine sand) and making good the walls etc.	Each
9.31	Providing and fixing expandable fasteners of specified size with necessary plastic sleeves and galvanised M.S. screws including drilling holes in masonry work /CC/ R.C.C. and making good etc. complete.	
9.31.1	25 mm long	Each
9.31.2	32 mm long	Each

9.31.3	40 mm long	Each
9.31.4	50 mm long	Each
9.32	Providing and fixing 2nd class teak wood plain lining, tongued and grooved on and including wooden plugs complete with necessary screws and priming coat on unexposed surface.	
9.32.1	40 mm thick	Sqm
9.32.2	25 mm thick	Sqm
9.32.3	20 mm thick	Sqm
9.32.4	12 mm thick	Sqm
9.33	Providing and fixing in wall lining flat pressed three layer (medium density) particle board or graded wood Prelaminated one side decorative lamination, on other side balancing lamination Grade I, Type II, IS : 12823 marked including priming coat on unexposed surface, with necessary fixing arrangement and screws etc. complete :	
9.33.1	12 mm thick	Sqm
9.33.2	18 mm thick	Sqm
9.33.3	25 mm thick	Sqm
9.34	Providing and fixing specified wood frame work consisting of battens 50x25mm fixed with rawl plug and drilling necessary holes for rawl plug etc. including priming coat complete with Hard wood.	Cum
9.35	Providing and fixing plywood 4 mm thick one side decorative veneer conforming to IS: 1328 (type-1) for plain lining / cladding with necessary screws, priming coat on unexposed surface with: Decorative veneer facings of approved manufacture	Sqm
9.36	Providing and fixing 4mm thick coir veneer board, ISI marked IS : 14842 - 2000, plain lining with necessary screws, priming coat on unexposed surface etc., complete.	Sqm
9.37	Providing and fixing skirting of Pre-laminated with (one side decorative and other side balancing lamination) flat pressed, 3 layer or graded particle board (medium density) Grade I, Type II, IS :12823 marked, with necessary fixing arrangements and screws including drilling necessary holes for rawl plugs etc. and priming coat on unexposed surface complete:	
9.37.1	18 mm thick	Sqm
9.37.2	25 mm thick	Sqm

9.38	Providing and fixing wooden moulded beading to door and window frames with iron screws, plugs and priming coat on unexposed surface etc. complete:	
9.38.1	2nd class teak wood	
9.38.1.1	50x12 mm	meter
9.38.1.2	50 x 20 mm	meter
9.38.2	Hard wood	
9.38.2.1	50x12 mm	meter
9.38.2.2	50 x 20 mm	meter
9.39	Providing and fixing plain jaffri of 35x10 mm laths placed 35 mm apart (frames to be paid separately) including fixing 50x12 mm beading complete with: Second class teak wood	Sqm
9.40	Providing and fixing 18 mm thick, 150 mm wide pelmet of flat pressed 3 layer or graded wood particle board medium density grade I, IS : 3087 marked including top cover of 6 mm commercial ply wood conforming to IS: 303 BWR grade, nickel plated M.S. pipe 20 mm dia (heavy type) curtain rod with nickel plated brackets including fixing with 25x3 mm M.S. flat 10 cm long and rawl plugs 50 mm long (designation 10 no.) etc all complete	meter
9.41	Providing and fixing 18 mm thick, 150 mm wide pelmet of coir veneer board ISI marked IS : 14842 - 2000, including top cover of 6 mm coir veneer board, nickle plated M.S. Pipe 20 mm dia. (heavy type) curtain rod with nickel plated brackets including fixing with 25x3 mm M.S. Flat 10 cm long and rawl plug 50 mm long (designation 10 No.) etc., all complete	meter
9.42	Extra for using veneered particle board conforming to IS 3097 Grade I, in item of pelmet 18mm thick 150mm wide.	
9.42.1	Non decorative veneer on both sides.	meter
9.42.2	Particle board with decorative veneering on both sides.	meter
9.43	Providing and fixing teak wood lipping of size 25x3 mm in pelmet.	meter

9.44	Providing and fixing curtain rods of 1.25 mm thick chromium plated brass plate, with two chromium plated brass brackets fixed with C.P. brass screws and wooden plugs, etc., wherever necessary complete :	
9.44.1	12mm dia (18 gauge)	meter
9.44.2	20 mm dia (18 gauge)	meter
9.44.3	25 mm dia (18 gauge)	meter
9.45	Providing and fixing nickel plated M.S. pipe curtain rods with nickel plated brackets :	
9.45.1	20 mm dia (heavy type)	meter
9.45.2	25 mm dia (heavy type)	meter
9.46	Providing and fixing M.S. grills of required pattern in frames of windows etc. with M.S. flats, square or round bars etc. all complete.	
9.46.1	Fixed to steel windows by welding.	Kg
9.46.2	Fixed to openings /wooden frames with rawl plugs screws etc.	Kg
9.47	Providing and fixing expanded metal 20x60mm strands 3.25mm wide and 1.6mm thick for windows etc. including 62x19mm beading of IInd class teak wood.	Sqm
9.48	Providing and fixing hard drawn steel wire fabric 75x25 mm mesh of weight not less than 7.75 Kg per sqm to window frames etc. including 62x19 mm beading of second class teak wood.	Sqm
9.49	Providing and fixing fly proof galvanised M.S. wire gauze to windows and clerestory windows using galvanised M.S. wire gage with average width of aperture 1.4 mm in both directions with wire of dia. 0.63 mm.	
9.49.1	With 2nd class teak wood beading 62X19 mm.	Sqm
9.49.2	With 12 mm mild steel U beading.	Sqm
9.50	Deduct for fixing 75x25mm hard drawn steel wire fabric of weight not less than 7.75Kg. per sqm in panelled and glazed door and window shutter instead of glass sheet 4mm thick including the difference cost of material.	Sqm
9.51	Providing 40x5 mm flat iron hold fast 40 cm long including fixing to frame with 10 mm diameter bolts, nuts and wooden plugs and embeddings in cement concrete M-10 (Nominal Mix with 20 mm maximum size of stone aggregate) block 30x10x15 cm.	Each

9.52	Providing beams including hoisting, fixing in position and applying wood preservative for the unexposed surfaces, etc. complete with :	
9.52.1	Sal Wood	Cum
9.52.2	Hard wood.	Cum
9.53	Providing and fixing ISI marked M.S. pressed butt hinges bright finished with necessary screws etc. complete :	
9.53.1	125x65x2.12 mm	Each
9.53.2	100x58x1.90 mm	Each
9.53.3	75x47x1.70 mm	Each
9.53.4	50x37x1.50 mm	Each
9.54	Providing and fixing IS : 1341 marked M.S. heavy weight butt hinges with necessary screws etc. complete :	
9.54.1	125x90x4.00 mm	Each
9.54.2	100x75x3.50 mm	Each
9.54.3	75x60x3.10 mm	Each
9.54.4	50x40x2.50 mm	each
9.55	Providing and fixing ISI marked oxidised M.S. pressed butt hinges with necessary screws etc. complete.	
9.55.1	125x65x2.12 mm	Each
9.55.2	100x58x1.90 mm	Each
9.55.3	75x47x1.70 mm	Each
9.55.4	50x37x1.50 mm	Each
9.56	Providing and fixing ISI marked oxidised M.S. pressed Parliamentary hinges with necessary screws etc. complete	
9.56.1	150x125x27x2.50 mm	Each
9.56.2	125x125x27x2.50 mm	Each
9.56.3	100x125x27x2.50 mm	Each
9.56.4	75x100x20x2.24 mm	Each
9.57	Providing and fixing ISI marked oxidised M.S. single acting spring hinges with necessary screws etc. complete	
9.57.1	150 mm	Each
9.57.2	125 mm	Each
9.57.3	100 mm	Each
9.58	Providing and fixing oxidised M.S. double acting spring hinges with necessary screws etc. complete.	
9.58.1	150 mm	Each
9.58.2	125 mm	Each

9.58.3	100 mm	Each
9.59	Providing M.S. Piano hinges ISI marked IS : 3818 finished with nickel plating and fixing with necessary screws etc. complete.	
9.59.1	Overall width 35 mm.	meter
9.59.2	Overall width 50 mm.	meter
9.59.3	Overall width 65 mm.	meter
9.60	Providing and fixing ISI marked oxidised M.S. sliding door bolts with nuts and screws etc. complete :	
9.60.1	300x16 mm	Each
9.60.2	250x16 mm	Each
9.61	Providing and fixing ISI marked oxidised M.S. tower bolt black finish, (Barrel type) with necessary screws etc. complete :	
9.61.1	250x10 mm	Each
9.61.2	200x10 mm	Each
9.61.3	150x10 mm	Each
9.61.4	100x10 mm	Each
9.62	Providing and fixing ISI marked 85x42mm oxidised M.S. pull bolt lock conforming to IS : 7534 with necessary screws bolts, nut and washers etc. complete.	Each
9.63	Providing and fixing ISI marked oxidised M.S. door latches conforming to IS:5930 with screws etc. complete :	
9.63.1	300x20x6 mm	Each
9.63.2	250x20x6 mm	Each
9.64	Providing and fixing ISI marked oxidised M.S. handles conforming to IS:4992 with necessary screws etc. complete :	
9.64.1	125 mm	Each
9.64.2	100 mm	Each
9.64.3	75mm	Each
9.65	Providing and fixing oxidised Mild Steel hasp and staple (safety type) conforming to IS : 363 with necessary screws etc. complete :	
9.65.1	150mm	Each
9.65.2	115mm	Each
9.65.3	90mm	Each

9.66	Providing and fixing oxidised M.S. casement stays (straight peg type) with necessary screws etc. complete.	
9.66.1	300 mm weighing not less than 200 gms.	Each
9.66.2	250 mm weighing not less than 150 gms.	Each
9.66.3	200 mm weighing not less than 120 gms.	Each
9.67	Providing and fixing oxidised M.S. Safety chain with necessary fixtures for doors. (Weighting not less than 450 gms.)	Each
9.68	Providing and fixing IS : 12817 marked stainless steel butt hinges with stainless steel screws etc. complete :	
9.68.1	125x64x1.90 mm	Each
9.68.2	100X58X1.90 mm	Each
9.68.3	75x47x1.80 mm	Each
9.68.4	50x37x1.50 mm	Each
9.69	Providing and fixing IS : 12817 marked stainless steel butt hinges (heavy weight) with stainless steel screws etc. complete :	
9.69.1	125x64x2.50 mm	Each
9.69.2	100x60x2.50 mm	Each
9.69.3	75x50x2.50 mm	Each
9.70	Providing and fixing bright finished brass butt hinges with necessary screws etc. complete :	
9.70.1	125x85x5.5 mm (heavy type)	Each
9.70.2	125x70x4 mm (ordinary type)	Each
9.70.3	100x85x5.5 mm (heavy type)	Each
9.70.4	100x70x4 mm (ordinary type)	Each
9.70.5	75x65x4 mm (heavy type)	Each
9.70.6	75x40x2.5 mm (ordinary type)	Each
9.70.7	50x40x2.5 mm (ordinary type)	Each
9.71	Providing and fixing bright finished brass parliamentary hinges with necessary screws etc. complete :	
9.71.1	150x125x27x5 mm	Each
9.71.2	125x125x27x5 mm	Each
9.71.3	100x125x27x5 mm	Each
9.71.4	75x100x20x3.2 mm	Each
9.72	Providing and fixing bright finished brass tower bolts (barrel type) with necessary screws etc. complete :	
9.72.1	300x10 mm	Each
9.72.2	250x10 mm	Each
9.72.3	200x10 mm	Each
9.72.4	150x10 mm	Each

9.72.5	100x10 mm	Each
9.73	Providing and fixing bright finished brass door latch with necessary screws etc. complete :	
9.73.1	300x16x5 mm	Each
9.73.2	250x16x5 mm	Each
9.74	Providing and fixing bright finished brass 100 mm mortice latch and lock with 6 levers and a pair of lever handles with necessary screws etc. complete (best make of approved quality).	Each
9.75	Providing and fixing bright finished brass 100 mm mortice latch with one dead bolt and a pair of lever handles with necessary screws etc. complete (best make of approved quality).	Each
9.76	Providing and fixing bright finished brass night latch including necessary screws etc. complete (best make of approved quality).	Each
9.77	Providing and fixing special quality bright finished brass cupboard or ward robe locks with four levers including necessary screws etc. complete (best make of approved quality) :	
9.77.1	40mm	Each
9.77.2	50mm	Each
9.77.3	65mm	Each
9.77.4	75mm	Each
9.78	Providing and fixing 50 mm bright finished brass cup board or wardrobe knob with necessary screws (best make of approved quality)	Each
9.79	Providing and fixing bright finished brass handles with screws etc. complete :	
9.79.1	125 mm	Each
9.79.2	100 mm	Each
9.79.3	75mm	Each
9.80	Providing and fixing bright finished brass hanging type floor door stopper with necessary screws, etc. complete.	Each
9.81	Providing and fixing ISI : 3564 marked Aluminium die cast body tubular type universal hydraulic door closer with necessary accessories and screws etc. complete.	Each

9.82	Providing and fixing ISI : 3564 marked aluminium extruded section body tubular type universal hydraulic door closer with double speed adjustment with necessary accessories and screws etc. complete.	Each
9.83	Providing and fixing bright finished brass casement window fastener with necessary screws etc. complete.	Each
9.84	Providing and fixing bright finished brass casement stays (straight peg type) with necessary screws etc. complete :	
9.84.1	300 mm weighing not less than 330 gms	Each
9.84.2	250 mm weighing not less than 280 gms	Each
9.84.3	200 mm weighing not less than 240 gms	Each
9.85	Providing and fixing bright finished brass hasp and staple (safety type) with necessary screws etc. complete:	
9.85.1	150 mm	Each
9.85.2	115 mm	Each
9.85.3	90 mm	Each
9.86	Providing and fixing chromium plated brass 100 mm mortice latch and lock with 6 levers and a pair of lever handles with necessary screws etc. complete (best make of approved quality).	Each
9.87	Providing and fixing chromium plated brass night latch including necessary screws etc. complete (Best make of approved quality).	Each
9.88	Providing and fixing special quality chromium plated brass cupboard locks with six levers including necessary screws etc. complete (Best make of approved quality) of :	
9.88.1	Size 40 mm	Each
9.88.2	Size 50 mm	Each
9.88.3	Size 65 mm	Each
9.88.4	Size 75 mm	Each
9.89	Providing and fixing chromium plated brass 50 mm cupboard or wardrobe knobs with nuts complete.	Each
9.90	Providing and fixing chromium plated brass handles with necessary screws etc. complete:	
9.90.1	125 mm	Each

9.90.2	100 mm	Each
9.90.3	75 mm	Each
9.91	Providing and fixing chromium plated brass casement window fastener with necessary screws etc. complete.	Each
9.92	Providing and fixing chromium plated brass casement stays (straight peg type) with necessary screws etc. complete :	
9.92.1	300 mm weighing not less than 330 gms	Each
9.92.2	250 mm weighing not less than 280 gms	Each
9.92.3	200 mm weighing not less than 240 gms	Each
9.93	Providing and fixing ISI marked aluminium butt hinges ISI marked anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade with necessary screws etc. complete:	
9.93.1	125x75x4 mm	Each
9.93.2	125x63x4 mm	Each
9.93.3	100x75x4 mm	Each
9.93.4	100x63x4 mm	Each
9.93.5	100x63x3.2 mm	Each
9.93.6	75x63x4 mm	Each
9.93.7	75x63x3.2 mm	Each
9.93.8	75x45x3.2 mm	Each
9.94	Providing and fixing aluminium sliding door bolts ISI marked anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade with nuts and screws etc. complete :	
9.94.1	300x16 mm	Each
9.94.2	250x16 mm	Each
9.95	Providing and fixing aluminium tower bolts ISI marked anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade with necessary screws etc. complete :	
9.95.1	300x10 mm	Each
9.95.2	250x10 mm	Each
9.95.3	200x10 mm	Each
9.95.4	150x10 mm	Each
9.95.5	100x10 mm	Each

9.96	Providing and fixing aluminium pull bolt lock anodised ISI marked (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour and shade with necessary screws bolts, nut and washers etc. complete.	Each
9.97	Providing and fixing 50cm long aluminium kicking plate 100x3.15 mm anodised (anodic coating not less than grade AC 10 as per IS :1868) transparent or dyed to required colour or shade with necessary screws etc. complete.	Each
9.98	Providing and fixing aluminium handles ISI marked anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade with necessary screws etc. complete :	
9.98.1	125 mm	Each
9.98.2	100 mm	Each
9.98.3	75 mm	Each
9.99	Providing and fixing aluminium hanging floor door stopper ISI marked anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour and shade with necessary screws etc. complete.	
9.99.1	Single rubber stopper	Each
9.99.2	Twin rubber stopper	Each
9.100	Providing and fixing aluminium casement stays ISI marked anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour and shade with necessary screws etc. complete.	Each
9.101	Providing and fixing bright finished brass 100 mm mortice latch and lock ISI marked with six levers and a pair of anodised (anodic coating not less than grade AC 10 as per IS : 1868) aluminium lever handles with necessary screws etc. complete (Best make of approved quality).	Each
9.102	Providing and fixing aluminium tee channels (heavy duty) with rollers, stop end in pelmets as curtain rod.	meter

9.103	<p>Providing and fixing partition upto ceiling height consisting of G.I. frame and required board including providing and fixing of frame work made of special section power pressed/ roll form G.I. sheet with zinc coating of 120 gms/sqm(both side inclusive), consisting of floor and ceiling channel 50mm wide having equal flanges of 32 mm and 0.50 mm thick, fixed to the floor and ceiling at the spacing of 610 mm centre to centre with dash fastener of 12.5 mm dia meter 50 mm length or suitable anchor fastener or metal screws with nylon plugs and the studs 48 mm wide having one flange of 34 mm and other flange 36 mm and 0.50 mm thick fixed vertically within flanges of floor and ceiling channel and placed at a spacing of 610mm centre to centre by 6 mm dia bolts and nuts, including fixing of studs along both ends of partition fixed flush to wall with suitable anchor fastener or metal screws with nylon plugs at spacing of 450 mm centre to centre, and fixing of boards to both side of frame work by 25 mm long dry wall screws on studs, floor and ceiling channels at the spacing of 300 mm centre to centre. The boards are to be fixed to the frame work with joints staggered to avoid through cracks, M.S. fixing channel of 99 mm width (0.9 mm thick having two flanges of 9.5 mm each) to be provided at the horizontal joints of two boards, fixed to the studs using metal to metal flat head screws, including jointing and finishing to a flush finish with recommended jointing compound, jointing tape, angle beads at corner (25 mm x 25 mm x 0.5 mm), joint finisher and two coats of primer suitable for board as per manufacture's specification and direction of engineer in charge all complete.</p>	
9.103.1	75mm overall thickness partition with 12.5mm thick double skin fire rated board conforming to IS: 2095: part I.	Sqm
9.103.2	75mm overall thickness partition with 12.5mm thick double skin tapered edge plain Gypsum board conforming to IS: 2095: part I	Sqm
9.103.3	66mm overall thickness Partition with 8mm thick double skin Calcium Silicate Board made with Calcareous & Siliceous materials reinforced with cellulose fiber manufactured through autoclaving process with Compressive Strength 225 kg/sq.cm, Bending Strength 100 kg/ sg.cm.	Sqm
9.103.4	66mm overall thickness partition using 8mm thick double skin non-asbestos multipurpose cement board reinforced with cellulose fibre manufactured through autoclaving process (High pressure steam cured) as per IS: 14862 with suitable fibre cement screw.	Sqm

9.104	Providing and fixing PTMT handles with necessary screws etc. complete.	
9.104.1	125x34x24 mm weighing not less than 23 gms.	Each
9.104.2	150x34x24 mm weighing not less than 26 gms.	Each
9.105	Providing and fixing PTMT Butt hinges with necessary screws etc. complete.	
9.105.1	75x60x10 mm fitted with 5.5 mm dia M.S. Bright Bar Rod weighing not less than 34 gms.	Each
9.105.2	100x75x10 mm fitted with 5.5 mm dia MS Bright Bar Rod weighing not less than 53 gms.	Each
9.106	Providing and fixing PTMT Tower Bolts with 12 mm one piece rod inside and necessary screws etc., complete.	
9.106.1	152x42x18 mm weighing not less than 60 gms.	Each
9.106.2	202x42x18 mm weighing not less than 78 gms.	Each
9.107	Providing and fixing PTMT door catcher of length 72 mm and dia. of 42 mm with suitable washers weighing not less than 33 gms.	Each
9.108	Providing and fixing Bamboo jaffery/ fencing consisting of superior quality 25mm dia (Average) half cut bamboo placed vertically and fixed together with three numbers horizontal running members of Hard wood in scantling of section 50X25mm fixed with nails and G.I wire to existing surface complete as per direction of Engineer-in-charge.	Sqm
9.109	Providing and fixing wooden moulded corner beading of triangular shape to the junction of panelling etc. with iron screws, plugs and priming coat on unexposed surface etc. complete 2nd class teak wood.	
9.109.1	50x50mm (base and height).	meter
9.110	Providing and fixing 2nd class teak wood lipping/ moulded beading or taj beading of size 18X5mm fixed with wooden adhesive of approved quality and screws/ nails on the edges of the Pre-laminated particle board as per direction of Engineer-in-charge.	meter
9.111	Providing and fixing magnetic catcher in cupboard / ward robe shutters including fixing with necessary screws etc. complete (Best make of approved quality).	

9.111.1	Triple strip vertical type.	Each
9.111.2	Double strip (horizontal type).	Each
9.112	Providing and fixing powder coated telescopic drawer channels 300mm long with necessary screws etc. complete as per directions of Engineer-in-charge.	Each
9.113	Providing and fixing sliding arrangement in racks/ cupboards/cabinets shutter by P/F stainless steel rollers to run inside C or E aluminium channel section (The payment of C or E channel shall be made separately)	Each
9.114	Providing and fixing factory made UPVC door frame made of UPVC extruded section having an overall dimension as below (tolerance ± 1 mm) with wall thickness $2.0\text{mm} \pm 0.2\text{mm}$, corners of the door frame to be mitred and welded of plastic, galvanized brackets and stainless steel screws. The hinge side vertical of the frames reinforced by galvanized M.S. tube of size 19 X 19mm and $1\text{mm} \pm 0.1\text{mm}$ wall thickness and 3 nos. stainless steel hinges fixed to the frame complete as per manufacturers specification and direction of Engineer-in-charge	
9.114.1	Extruded section profile size 48x40 mm.	meter
9.114.2	Extruded section profile size 42x50 mm.	meter
9.115	Providing and fixing to existing door frames. 24 mm thick factory made PVC door shutters made of styles and rails of a UPVC hollow section of size 59x24 mm and wall thickness $2\text{ mm} \pm 0.2\text{ mm}$ 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 1.0mm and stainless steel screws. The styles of the shutter reinforced by inserting galvanised M.S. tube of size 20x20 mm and $1\text{ mm} \pm 0.1\text{ mm}$ wall thickness. The lock rail made up of 'H' section, a UPVC hollow section of size 100x24 mm and $2\text{ mm} \pm 0.2\text{ mm}$ wall thickness fixed to the shutter styles by means of plastic/galvanised	
9.115.1	M.S. 'U' cleats. The shutter frame filled with a UPVC multi- chambered single panel of size not less than 620 mm, having over all thickness of 20 mm and $1\text{ mm} \pm 0.1\text{ mm}$ wall thickness. The panels filled vertically and tie bar at two places by inserting horizontally 6 mm galvanised M.S. rod and fastened with nuts and washers, complete as per manufacturer's specification and direction of Engineer-in- charge. (For W.C. and bathroom door shutter).	Sqm

- 30 mm thick factory made Polyvinyl Chloride (PVC) door shutter made of styles and rails of a UPVC hollow section of size 60x30 mm and wall thickness 2 mm \pm 0.2 mm with inbuilt decorative moulding edging on one side. 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. The styles of the shutter reinforced by inserting galvanised M.S. tube of size 25x20 mm and 1 mm \pm 0.1 mm wall thickness. The lock rail made up of 'H' section, a UPVC hollow section of size 100x30 mm and 2 mm \pm 0.2 mm wall thickness fixed to the shutter styles by means of plastic/ galvanised M.S. 'U' cleats. The shutter frame filled with a UPVC multi- chambered single panel of size not less than 620 mm, having over all thickness of 20 mm and 1 mm \pm 0.1 mm wall thickness . The panels filled vertically and tie bar at two places by inserting horizontally 6 mm galvanised M.S. rod and fastened with nuts and washers, complete as per manufacturer's specification and direction of Engineer-in-charge.
- 9.115.2 Sqm
- 25mm thick PVC flush door shutters made out of a one piece Multi chamber extruded PVC section of the size of 762mm X 25mm or less as per requirement with an average wall thickness of 1mm \pm 0.3mm. PVC foam end cap of size 23x10mm are provided on both vertical edges to ensure the overall thickness of 25mm. An M.S. tube having dimensions 19mm x 19mm is inserted along the hinge side of the door. Core of the door shutter should be filled with High Density Polyurethane foam. The Top & Bottom edges of the shutter are covered with an end-cap of the size 25MM X 11MM. Door shutter shall be reinforced with special polymeric reinforcements as per manufactures' specification and direction of Engineer-in-charge to take up necessary hardware and fixtures. Stickers indicating the locations of hardware will be pasted at appropriate places
- 9.115.3 Sqm

- 9.116 Providing and fixing factory made P.V.C. door frame of size 50x47mm with a wall thickness of 5mm, made out of extruded 5mm rigid PVC foam sheet mitred at corners and joined with 2 Nos. of 150mm long brackets of 15x15mm M.S. square tube, the vertical door profiles to be reinforced with 19x19mm M.S. square tube of 19 gauge, EPDM rubber gasket weather seal to be provided through out the frame. The door frame to be fixed to the wall using M.S. screws of 65/100mm size complete as per manufacturers specification and direction of Engineer-in-Charge. meter
- 9.117 Providing and fixing to existing door frames. 30mm thick factory made panel PVC door shutter consisting of frame made out of M.S. tubes of 19 gauge thickness and size of 19mm x 19mm for styles and 15x15mm for top & bottom rails. M.S. frame shall have a coat of steel primers of approved make and manufacture M.S. frame covered with 5mm thick heat moulded PVC 'C' channel of size 30mm thickness, 70mm width out of which 50mm shall be flat and 20mm shall be tapered in 45degree angle on either side forming styles; and 5mm thick, 95mm wide PVC sheet out of which 75mm shall be flat and 20mm shall be tapered in 45 degree on the inner side to form top and bottom rail and 115mm wide PVC sheet out of which 75mm shall be flat and 20mm shall be tapered on both sides to form lock rail. Top, bottom and lock rails shall be provided either side of the panel. 10mm (5mm x 2) thick, 20mm wide cross PVC sheet be provided as gap insert for top rail & bottom rail. paneling of 5mm thick both side PVC sheet to be fitted in the M.S. frame welded/ sealed to the styles & rails with 7mm (5mm+2mm) thick x 15mm wide PVC sheet beading on inner side, and joined together with solvent cement adhesive. An additional 5mm thick PVC strip of 20mm width is to be stuck on the interior side of the 'C' Channel using PVC solvent adhesive etc. complete as per direction of Engineer-in- charge. Manufacturer's specification & drawing (for W.C. and bathroom door shutter). SQM.
- 9.117.1

9.117.2	<p>30mm thick factory made solid both side Pre-laminated panel PVC door shutter consisting of frame made out of M.S. tubes of 19 gauge thickness and size of 19mmx19mm for styles and 15x15mm for top & bottom rails. M.S. frame shall have a coat of steel primers of approved make and manufacture. M.S. frame covered with 5mm thick heat moulded Pre-laminated PVC 'C' channel of size 30mm thickness, 70mm width out of which 50mm shall be flat and 20mm shall be tapered in 45degree angle on either side forming styles; and 5mm thick, 95mm wide PVC sheet out of which 75mm shall be flat and 20mm shall be tapered in 45 degree on the inner side to form top and bottom rail and 115mm wide PVC sheet out of which 75mm shall be flat and 20mm shall be tapered on both sides to form lock rail. Top, bottom and lock rails shall be provided either side of the panel. 10mm (5mmx2) thick, 20mm wide cross PVC sheet be provided as gap insert for top rail & bottom rail. paneling of 5mm thick both side Pre-laminated PVC sheet to be fitted in the M.S. frame welded/ sealed to the styles & rails with 7mm (5mm+2mm) thick x 15mm wide PVC sheet beading on inner side, and joined together with solvent cement adhesive. An additional 5mm thick PVC strip of 20mm width is to be stuck on the interior side of the 'C' Channel using PVC solvent adhesive etc. complete as per direction of Engineer-in-charge. Manufacturer's specification & drawing (for W.C. and bathroom door shutter).</p>	Sqm.
9.118	<p>Providing and fixing of Fiber Glass Reinforced plastic (FRP) Door Frames of three legged of cross-section 90mm x 45mm having single rebate of 32mm x 15mm to receive shutter of 30mm thickness .The laminate doorframe molded with fire resistant grade unsaturated polyester resin and chopped mat .Doorframe laminate shall be 2mm thick and shall be filled with suitable wooden block in all the three legs. The frame shall be covered with fiberglass from all sides. M.S. stay shall be provided at the bottom to steady the frame.</p>	meter
9.119	<p>Providing and fixing to existing door frames.</p>	

9.119.1	30 mm thick Glass Fibre Reinforced Plastic (FRP) panelled door shutter of required colour and approved brand and manufacture, made with fire - retardant grade unsaturated polyester resin, moulded to 3 mm thick FRP laminate for forming hollow rails and styles, with wooden frame and suitable blocks of seasoned wood inside at required places for fixing of fittings, cast monolithically with 5mm thick FRP laminate for panels and conforming to IS: 14856 - 2000 including fixing to frames	Sqm
9.119.2	30mm thick fiberglass reinforced plastic (F.R.P.) flush door shutter in different plain and wood finish made with fire retardant grade unsaturated polyester resin, moulded to 3mm thick FRP laminate all around, with suitable wooden blocks inside at required places for fixing of fittings and polyurethane foam (PUF) / Polystyrene foam to be used as filler material throughout the hollow panel, casted monolithically with testing parameters of F.R.P. laminate conforming to table - 3 of IS: 14856 : 2000, complete as per direction of Engineer-in-charge.	Sqm
9.120	Providing and fixing factory made door frame (single rebate) made of solid PVC foam profile with homogenous fine cellular structure having smooth outer integral skin having 60mm width & 30mm thickness and shall be fixed to wall as per instructions of engineer- in-charge using 100x8 sheet metal CSK screws.	meter
9.121	Providing and fixing 28 mm thick door shutter made of solid PVC foam profile with homogenous fine cellular structure having smooth outer integral skin having 71mm width & 28mm thick as styles and rails. Joints are made using solvent adhesive and GI 'C' sections (39mm x 19mm x 0.6mm thick) or M S pipe (40mm x 20mm) stiffener frame insert & telescopic polymeric 'L' corners .The panel shall be filled with 3mm thick high - pressure compact laminate as per manufacturer's specifications and direction of Engineer-in-charge, cover moulding shall be provided for covering fixing screws and elegant look.(for W.C. and bathroom door shutter).	Sqm

9.122	Providing and fixing PVC rigid foam sheet 1mm thick on existing door shutters (bathroom and W.C. doors) using synthetic rubber based adhesive.	Sqm
9.123	Providing and fixing 12mm thick panelling or panelling and glazing in panelled or panelled and glazed shutters for doors, windows and clerestory windows (area of opening for panel inserts excluding portion inside grooves or rebates to be measured). Panelling for panelled or panelled and glazed shutters 25mm to 40mm thick.	
9.123.1	Marine plywood of lamination / painting quality and conforming to IS: 710	sqm
9.123.2	Fire retardant plywood of lamination / painting quality conforming to IS: 5509.	Sqm
9.124	Providing & Fixing decorative high pressure laminated sheet of plain / wood grain in gloss / matt / suede finish with high density protective surface layer and reverse side of adhesive bonding quality conforming to IS : 2046 Type S including cost of adhesive of approved quality.	
9.124.1	1.5 mm thick	Sqm
9.124.2	1.0 mm thick	Sqm
9.125	Providing and fixing factory made Fiberglass Reinforced plastics (F.R.P.) chajja 4mm thick of required colour, size and design made by Resin Transfer Moulding (RTM) Machine Technology, resulting in void free compact laminate in single piece, having smooth gradual slope curvature for easy drainage of water and duly reinforced by 2nos. vertically and 1nos. horizontally 50x2mm thick M.S. flat with 12mm in built hole for grouting on the existing wall along with the 50mm flanges duly inserted and sealed in the wall complete in one single piece casted monolithically, including all necessary fittings . The FRP Chajja should be manufactured using unsaturated Polyester resin as per IS: 6746 duly reinforced with fibre glass chopped strand mat (CSM) as per IS: 11551 complete with protective Gel coat U/V coating on Top for complete resistance from the extreme of temperature, weather & sunlight.	Sqm

9.126	<p>Providing and fixing cup board shutters 25mm thick, with Pre- laminated flat pressed three layer particle board or graded wood particle board IS: 12823 marked exterior grade (Grade I Type II) having one side decorative lamination and other side balancing lamination including IInd class teak wood lipping of 25mm wide x12 mm thick with necessary screws and bright finished stainless steel piano hinges complete as per direction of the Engineer-in-Charge</p>	Sqm
9.127	<p>Providing and fixing cup board shutters with 25mm thick veneered particle board IS : 3097 marked exterior grade (Grade I) of approved make including IInd class teak wood lipping of 25mm wide x 12 mm thick with necessary screws and bright finished stainless steel piano hinges complete as per direction of Engineer-in-Charge.</p>	
9.127.1	<p>With decorative veneering on one side and commercial veering on other side.</p>	Sqm
9.127.2	<p>With non decorative veneering on both sides.</p>	Sqm
9.128	<p>Providing and fixing aluminum U beading of required size to Pre- laminated /flush door shutter including fixing etc. complete as per direction of Engineer-in-charge.</p>	Kg.
9.129	<p>Providing and fixing, in position concealed G.I. section for wall paneling using board of required thickness fixed on the 'W' profile (0.55mm thick) having a knurled web of 51.55mm and two flanges of 26mm each with lips of 10.55 mm placed @ 610mm C/C in perimeter channel having one flange of 20mm and another flange of 30mm with thickness of 0.55mm and web of length 27mm. Perimeter channel is fixed on the floor and the ceiling with the nylon sleeves @ 610mm C/C with fully threaded self- tapping drywall screws. Board is fixed to the 'W' profile with 25 mm countersunk ribbed head screws @ 200mm C/C., all complete as per the drawing & directions of engineer-in-charge the joints of the boards are finished with specially formulated jointing compound and 48mm wide jointing tape to provide seamless finish.</p>	

9.129.1	Tapered edge calcium silicate board made with calcareous & siliceous materials reinforced with cellulose fiber manufactured through autoclaving process to give stable crystalline structure with compressive strength 225 kg/sq.cm, Bending strength 100 kg/sq.cm. - 10mm thick.	Sqm
9.129.2	Non -asbestos multipurpose cement board reinforced with cellulose fibre manufactured through autoclaving process (high pressure steam cured) as per IS 14862 with suitable fibre cement screw. - 8 mm thick	Sqm
9.129.3	Gypsum board conforming to IS: 2095 - 1996: Part - I . 12.5 mm thick	Sqm
10.1	Structural steel work in single section fixed with or without connecting plate including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	Kg
10.2	Structural steel work riveted, bolted or welded in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete:	Kg.
10.3	Providing and fixing in position collapsible steel shutters (Channel Gate) with vertical channels 20x10x2 mm and braced with flat iron diagonals 20x5mm size with top and bottom rail of T-iron 40x40x6 mm with 40mm dia, steel pulleys complete with bolts, nuts, locking arrangement, stoppers, handles, including applying a priming coat of approved steel primer. Rates includes recess cutting in floor and making good the same where ever required.	Sqm
10.4	Providing and fixing 1mm thick M.S. sheet sliding-shutters with frame and diagonal braces of 40x40x6mm angle iron, 3mm M.S. gusset plates at the junction and corners 25mm dia pulley, 40x40x6mm angle and T-iron guide at the top and bottom respectively including applying a priming coat of approved steel primer.	Sqm

10.5	Providing and fixing 1mm thick M.S. sheet door with frame of 40x40x6mm angle iron and 3mm M.S. gusset plates at the junctions and corners, all necessary fittings complete, including applying a priming coat of approved steel primer.	
10.5.1	Using M.S. angels 40x40x6 mm for diagonal braces.	Sqm
10.5.2	Using flats 30x6mm for diagonal braces and central cross piece.	Sqm
10.6	Supplying and fixing rolling shutters of approved make, made of required size M.S. laths interlocked together through their entire length and jointed together at the end by end locks mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete including the cost of providing and fixing necessary 27.5cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to IS : 4454 Part-I. and M.S. top cover of required thickness for rolling shutters.	
10.6.1	80x1.25mm M.S. laths with 1.25 mm thick top cover.	Sqm
10.6.2	80x1.20 mm M.S. laths with 1.20 mm thick top cover.	Sqm
10.6.3	80x0.90 mm M.S. laths with 0.90 mm thick top cover.	Sqm
10.7	Providing and fixing ball bearing for rolling shutters.	Each
10.8	Extra for providing mechanical device chain and crank operation for operating rolling shutters.	
10.8.1	Exceeding 10.00 sqm and upto 16.80 sqm in the area.	Sqm
10.8.2	Exceeding 16.80 sqm in area.	Sqm
10.9	Extra for providing grilled rolling shutters manufactured out of 8 mm dia. M.S. bar instead of laths as per design approved by Engineer in-charge.(area of grill to be measured).	Sqm
10.10	Providing and fixing factory made ISI marked steel glazed doors, windows and ventilators side /top /centre hung with beading and all members such as F7D, F4B, K11 B and K12 B etc. complete of standard rolled steel sections, joints mitred and flash butt welded and sash bars tenoned and riveted, including providing and fixing of hinges, pivots, including priming coat of approved steel primer, but excluding the cost of other fittings, complete all as per approved design (sectional weight of only steel members shall be measured for payment).	

10.10.1	Fixing with 15x3 mm lugs 10 cm. long embedded in cement concrete block 15x10x10 cm of Cement Concrete 1:3:6 (1 Cement : 3 sand : 6 graded stone aggregate 20 mm nominal size).	Kg.
10.10.2	Fixing with carbon steel galvanised dash fastener of required dia and size (to be paid for separately).	Kg.
10.10.3	Extra for providing and fixing steel beading of approved shape and section with screw instead of glazing clips and metal sash putty in steel doors, windows, ventilators and composite units.	meter
10.11	Providing and fixing L-iron or T-iron frames for doors, windows and ventilators of mild steel L-section or Tee-sections, joints mitred and welded, including fixing of necessary butt hinges and screws and applying a priming coat of approved steel primer. Fixing with 15x3 mm lugs 10 cm. long embedded in cement concrete block 15x10x10 cm of Cement Concrete 1:3:6 (1 Cement : 3 sand : 6 graded stone aggregate 20 mm nominal size).	Kg.
10.12	Providing and fixing pressed steel door frames confirming to IS: 4351 manufactured from commercial mild steel sheet of 1.25 mm thickness including hinges jamb, lock jamb, bead and if required angle threshold of mild steel angle of section 50x25mm, or base ties of 1.25mm pressed mild steel welded or rigidly fixed together by mechanical means, adjustable lugs with split end tail to each jamb including steel butt hinges 2.5mm thick with mortar guards, lock strike- plate and shock absorbers as specified and applying a coat of approved steel primer after pre-treatment of the surface as directed by Engineer-in-charge:	
10.12.1	Single rebate 80x50mm	Rmt
10.12.2	Single rebate 100x50mm	Rmt
10.12.3	Double rebate 115x50mm	Rmt
10.13	Providing and fixing pressed steel door confirming to IS: 4351 manufactured from commercial mild steel sheet of 3.15mm thickness and applying a coat of approved steel primer after pre- treatment of the surface as directed by Engineer-in-charge:	Sqm

10.14	Providing and fixing M.S. Tubular frames for doors, windows, ventilators and cupboard with any section made of 1.60mm or 1.25mm thick M.S. Sheet, joints mitred and welded and grinded finish with profiles required size with 15x3mm lugs 10cm long embedded in cement concrete M-10 (Nominal Mix with 20mm maximum size of stone aggregate) blocks 15x10x10cm or with wooden plugs and screws 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 primers.	Kg.
10.14.1	Steel work welded in built up sections/ framed work including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required.	
10.14.1.1	In stringers, treads, landings etc. of stair cases including use of chequered plate wherever required, all complete.	Kg.
10.14.1.2	In gratings, frames, guard bar, ladder, railings, brackets, gates and similar works.	Kg.
10.15	Steel work in built up M.S. tubular section (round, square or rectangular Hollow tube etc.) trusses/frame work etc./ railing work etc. including cutting, hoisting fixing in position and applying a priming coat of approved steel primer, welded and bolted including special shaped washers etc. complete.	
10.15.1	Hot finished welded type tubes.	Kg.
10.15.2	Hot finished seamless type tubes.	Kg.
10.15.3	Electric resistance or induction butt welded tubes.	Kg.
10.16	Providing and fixing circular/ Hexagonal cast iron or M.S. sheet box for ceiling fan clamp of internal dia 140mm, 73mm height, top lid of 1.5mm thick M.S. sheet with its top surface hacked for proper bonding, top lid shall be screwed into the cast iron/ M.S. sheet box by means of 3.3mm dia. round headed screws, one lock at the corners. Clamp shall be made of 12mm dia M.S. bar bent to shape as per standard drawing.	Each
10.17	Providing and fixing M.S. round holding down bolts with nuts and washer plates complete.	Kg.
10.18	Providing and fixing bolts including nuts and washers complete.	Kg.

10.19	Providing and fixing M.S. rivets of sizes in position.	Kg.
10.20	Welding by gas or electric plant including transportation of plant at site etc. complete.	Cm
10.21	R.C.C. Standards post/ struts/rails/ poles of mix 1:1.5:3 (1 cement : 1.5 sand : 3 graded stone aggregate 12.5 mm nominal size) with wooden plugs or 6mm bar nibs wherever required as per direction of Engineer-in-charge including fixing (cost of earth works in excavation, concrete works in foundation to be paid separately).	Cum
10.21.1	Providing and fixing Welded steel wire fabric of required width heaving rectangular mesh painted with two or more coats of enamel paint of approved shade over a coat of primer (Painting to be paid for separately).	Kg
10.22	Fencing with R.C.C. post placed at required distance, embedded in cement concrete blocks, every 15th post, last but one end post and corner post shall be strutted on both sides and end post one side only, provided with horizontal lines and two diagonals of barbed wire weighing 9.38 kg per 100 metres (minimun) between the two posts fitted and fixed with G.I. staples on wooden plugs or G.I. binding wire tied to 6 mm bar nibs fixed while casting the post (cost of R.C.C. posts, struts, earth work and concrete to be paid for separately) :- Payment to be made per metre cost of total length of barbed wire used.	
10.22.1	With G.I. barbed wire	Meter
10.23	Providing and fixing Angle iron post & strut of required size including bottom to be split and bent at right angle in opposite direction for 10 cm length and drilling holes upto 10 mm dia. etc. complete.	Kg.

10.24	<p>Providing and fixing concertina coil fencing with punched tape concertina coil 600 mm dia 10 metre openable length (total length 90 m), having 50 nos rounds per 6 metre length, upto 3 m height of wall with existing angle iron 'Y' shaped placed 2.4 m or 3.00m apart and with 9 horizontal R.B.T. reinforced arbed wire, stud tied with G.I. staples and G.I. clips to retain horizontal, including necessary bolts or</p> <p>G.I. barbed wire tied to angle iron, all complete as per direction of Engineer-incharge, with reinforced barbed tape(R.B.T.) / Spring core (2.5 mm thick) wire of high tensile strength of 165 kg/ sq mm with tape (0.52 mm thick) and weight 43.478 gm/ metre (cost of M.S. angle, C.C. blocks shall be paid separately).</p>	Meter
10.25	<p>Providing and fixing G.I. chain link fabric fencing of required width and mesh size including strengthening with 2mm dia wire or nuts, bolts and washers as required complete with posts of specified material and of standard design placed and embedded in cement concrete blocks 45x45x60cm of mix 1:5:10 (1cement :5 sand :10 graded stone aggregate 40mm nominal size) every 15th post, last but one end post and corner post shall be struttred on both sides and end post on one side only and struts embedded in cement concrete blocks 70x45x50cm of the same mix, as per the direction of Engineer- in- charge. (Cost of post, painting, earthwork and CC to be paid separately)</p>	
10.25.1	Made of G.I. wire.	Sqm
10.25.2	Made of G.I. wire, PVC coated to achieve outer dia. not less than 5mm in required colour and shade.	Kg.
10.26	<p>Providing and fixing stainless steel (Grade 304) railing made of Hollow tubes, channels, plates etc. including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts and bolts complete i/c fixing the railing with necessary accessories and stainless steel dash fasteners , stainless steel bolts etc., of required size, on the top of the floor or the side of waist slab with suitable arrangement as per approval of Engineer-in-charge. (for payment purpose only weight of stainless steel members shall be considered excluding fixing accessories such as nuts, bolts, fasteners etc.)</p>	Kg

10.27	Providing and fixing fly proof wire gauze to windows, clerestory windows and doors with M.S. Flat 15x3mm and nuts and bolts complete.	
10.27.1	Galvanised M.S. Wire gauze with 0.63mm dia wire and 1.4 mm aperture on both sides	Sqm
10.27.2	Stainless steel (grade 304) wire gauze of 0.5 mm dia wire and 1.4 mm aperture on both sides.	Sqm
11.1	Brick on edge (Depth) flooring with bricks of class designation 40 including cement slurry etc. complete in cement mortar with chimney brick class designation 40.	
11.1.1	1:4 (1 cement : 4 coarse sand)	Sqm
11.1.2	1:6 (1cement : 6 coarse sand)	Sqm
11.1.3	Deduct from Item no.11.1.1 & 11.1.2 if open Bhatta bricks are used.	Sqm
11.2	Dry brick on edge flooring in required pattern with bricks of class designation 40 on a bed of 12 mm mud mortar including filling joints with Sand (with M.S. bricks) complete.	Sqm
11.3	Cement concrete flooring M-15 (nominal mix) finished with a floating coat of neat cement including cement slurry, but excluding the cost of nosing of steps etc. complete.	
11.3.1	40mm thick with 20mm maximum size of stone aggregate.	Sqm
11.4	52 mm thick cement concrete flooring with concrete hardener topping under layer 40 mm thick cement concrete grade M-15 (Nominal Mix with 20mm maximum size of stone aggregate) and top layer 12 mm thick cement hardener consisting of mix 1:2 (1 cement hardener mix : 2 graded stone aggregate 6 mm nominal size) by volume .hardening compound is mixed @ 2 litre per 50 kg of cement or as per manufacturers specifications. This includes cost of cement slurry, but excluding the cost of nosing of steps etc. complete.	Sqm

11.5	62 mm thick cement concrete flooring with concrete hardener topping under layer 50 mm thick cement concrete grade M-15 (Nominal Mix with 20mm maximum size of stone aggregate) and top layer 12mm thick cement hardener consisting of mix 1:2 (1 cement hardener mix : 2 graded stone aggregate 6mm nominal size) by volume. Hardening compound is mixed @ 2 litre per 50kg of cement or as per manufactures specifications. This includes cost of cement slurry, but excluding the cost of nosing of steps etc. complete.	Sqm
11.6	Cement plaster skirting 18mm thick (up to 30 cm height) with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement.	Sqm
11.7	Extra for making chequers of approved pattern on cement concrete floors, steps, landing, pavements etc.	Sqm
11.8	40 mm thick marble chips flooring rubbed and polished to granolithic finish, under layer 34 mm thick cement concrete grade M-15 (Nominal Mix with 12.5mm maximum size of stone aggregate) and top layer 6mm thick with white, black, chocolate, grey, yellow or green marble chips of sizes from 1mm to 4mm nominal size laid in cement marble powder mix 3:1 (3 cement : 1 marble powder) by weight in proportion of 4:7 (4 cement marble powder mix : 7 marble chips) by volume including cement slurry etc. complete :	
11.8.1	Dark shade pigment with ordinary cement.	Sqm
11.8.2	Light shade pigment with white cement.	Sqm
11.8.3	Medium shade pigment with 50% white cement and 50% ordinary cement.	Sqm
11.8.4	White cement without any pigment.	Sqm
11.8.5	Light shade pigment with ordinary cement.	Sqm
11.8.6	Ordinary cement without any pigment.	Sqm
11.9	40 mm thick marble chips flooring, rubbed and polished to granolithic finish, under layer 31mm thick cement concrete grade M-15 (Nominal Mix with 12.5mm maximum size of stone aggregate) and top layer 9mm thick with white, black, chocolate, grey, yellow or green marble chips of sizes from 4mm to 7mm nominal size laid in cement marble powder mix 3:1 (3 cement : 1 marble powder) by weight in proportion of 4:7 (4 cement marble powder : 7 marble chips) by volume including cement slurry etc. complete.	
11.9.1	Dark shade pigment with Ordinary cement.	Sqm
11.9.2	Light shade pigment with white cement.	Sqm

11.9.3	Medium shade pigment with 50% white cement and 50% ordinary cement.	Sqm
11.9.4	White cement without any pigment.	Sqm
11.9.5	Light shade pigment with ordinary cement.	Sqm
11.9.6	Ordinary cement without any pigment.	Sqm
11.10	40 mm thick marble chips flooring, rubbed and polished to granolithic finish, under layer 28 mm thick cement concrete M-15 (Nominal Mix with 12.5mm maximum size of stone aggregate) and top layer 12mm thick with white, black, chocolate, grey yellow or green marble chips of sizes from 7mm to 10mm nominal size laid in cement marble powder mix 3:1 (3 cement : 1 marble powder) by weight in proportion of 2:3 (2 cement marble powder mix : 3 marble chips) by volume including cement slurry etc. complete :	
11.10.1	Dark shade pigment with ordinary cement.	Sqm
11.10.2	Light shade pigment with white cement.	Sqm
11.10.3	Medium shade pigment with 50% white cement and 50% ordinary cement.	Sqm
11.10.4	White cement without any pigment.	Sqm
11.10.5	Light shade pigment with ordinary cement.	Sqm
11.10.6	Ordinary cement without any pigment.	Sqm
11.11	Marble chips skirting (up to 30 cm height) 18 mm thick with under layer 12 mm thick in cement plaster 1:3 (1 cement : 3 coarse sand) : rubbed and polished to granolithic finish, top layer 6 mm thick with white, black, chocolate, grey, yellow or green marble chips of sizes from smallest to 4 mm nominal size laid in cement marble powder mix 3:1 (3 cement : 1 marble powder) by weight in proportion of 4:7 (4 cement marble powder mix : 7 marble chips) by volume :	
11.11.1	Dark shade pigment with ordinary cement.	Sqm
11.11.2	Light shade pigment with white cement.	Sqm
11.11.3	Medium shade pigment with 50% white cement and 50% ordinary cement.	Sqm
11.11.4	White cement without any pigment.	Sqm
11.11.5	Light shade pigment with ordinary cement.	Sqm
11.11.6	Ordinary cement without any pigment.	Sqm
11.12	Providing and fixing glass strips 40 mm wide and 4 mm thick in joints of terrazo/cement concrete floors.	meter
11.13	Extra for laying terrazo flooring on staircase treads not exceeding 30 cm in width including cost of forming, nosing etc.	Sqm

11.14	18 mm thick crazy marble stone white, black or as specified marble stone flooring including filling the gaps with light shade pigment with white cement marble powder mixture (3 parts of white cement : 1 part of marble powder) by weight in proportion of 4:7 (4 cement marble powder mix : 7 white, black or white and black marble chips of sizes from 1mm to 4mm nominal size by volume) and under layer 25mm thick cement concrete M-15 (Nominal Mix with 12.5mm maximum size of stone aggregate) rubbing, polishing and cement slurry etc. complete.	Sqm
11.15	Precast terrazzo tiles 18-20mm thick with graded marble chips of size upto 12mm laid in floors, and landings, jointed with neat cement slurry mixed with pigment to match the shade of the tiles including rubbing and polishing complete with precast tiles on 20mm thick bed of cement mortar 1:4 (1 cement :4 coarse sand)	
11.15.1	Light shade using white cement.	Sqm
11.15.2	Medium shade using 50%white cement and 50% ordinary cement.	Sqm
11.15.3	Dark shade using ordinary cement.	Sqm
11.15.4	Ordinary cement without any pigment.	Sqm
11.16	Extra if terrazzo tiles are laid in treads of steps not exceeding 30 cm in width.	Sqm
11.17	Precast terrazzo tiles 18-20mm thick with graded marble chips of sizes upto 12 mm in skirting and risers of steps not exceeding 30 cm in height on 12 mm thick cement plaster 1:3 (1 cement : 3 coarse sand) jointed with neat cement slurry mixed with pigment to match the shade of the tiles, including rubbing and polishing complete with tiles of :	
11.17.1	Light shade using white cement.	Sqm
11.17.2	Medium shade using 50%white cement and 50% ordinary cement.	Sqm
11.17.3	Dark shade using ordinary cement.	Sqm
11.17.4	Ordinary cement without any pigment.	Sqm
11.18	Chequered terrazzo tiles 18-20mm thick with graded marble chips of size up to 6 mm in floors jointed with neat cement slurry mixed with pigment to match the shade of the tiles including rubbing and polishing complete on 20 mm thick bed of cement mortar 1:4 (1 cement :4 coarse sand) :	
11.18.1	Light shade using white cement.	Sqm
11.18.2	Medium shade using 50%white cement and 50% Grey cement.	Sqm

11.18.3	Dark shade using ordinary cement.	Sqm
11.18.4	Ordinary cement without any pigment.	Sqm
11.19	Chequerred precast cement concrete tiles 18-20mm thick in footpath & courtyard jointed with neat cement slurry mixed with pigment to match the shade of tiles including rubbing and cleaning etc. complete on 20 mm thick bed of cement mortar 1:4 (1 cement: 4 coarse sand).	
11.19.1	Light shade using white cement.	Sqm
11.19.2	Medium shade using 50%white cement and 50% Grey cement.	Sqm
11.19.3	Dark shade using ordinary cement.	Sqm
11.19.4	Ordinary cement without any pigment.	Sqm
11.20	Providing and fixing 8mm to 10mm thick acid and or alkali resistant tiles of approved make and colour using acid and or alkali resisting mortar bedding and joints filled with acid and or alkali resisting cement as per IS : 4457 complete as per the direction of Engineer-in- Charge.	
11.20.1	In flooring on a bed of 10 mm thick mortar 1:4 (1 acid proof cement : 4 coarse sand).	Sqm
11.21.2	In dado/skirting on 12 mm thick mortar 1:4 (1 acid proof cement : 4 coarse sand).	Sqm
11.21	Tile work in skirting, risers of steps and dado (up to 2 m height) over 12 mm thick bed of cement mortar 1:4 (1 cement : 4 coarse sand) and jointed with grey cement slurry @ 3.3 kg/sqm including pointing in white cement mixed with pigment of matching shade complete.	
11.21.1	Marble tiles (polished) Raj Nagar. - 8 mm thick	Sqm
11.22	Marble stone flooring with 16mm to 18mm thick marble stone (sample of marble shall be approved by Engineer-in-charge of Laid over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) jointed with grey cement slurry including rubbing and polishing complete with :	
11.22.1	Makrana white second quality.	Sqm
11.22.2	Raj Nagar plain	Sqm
11.22.3	Agaria White	Sqm
11.22.4	Black Zebra.	Sqm
11.22.5	Udaipur green marble	Sqm
11.22.6	Pink plain marble.	Sqm
11.23	Extra for pre finished nosing to treads of steps of marble stone.	meter

11.24	Extra for marble stone flooring in treads of steps and risers using single length up to 2.00 meter .	Sqm
11.25	Kota stone 25mm thick flooring over 20 mm (average) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab including rubbing and polishing complete with base of 1:4 cement mortar (1 cement : 4 coarse sand) (minimum size of kota stone 2.0 sqft)	Sqm
11.26	Kota stone slabs 25mm thick in risers of steps, skirting,dado and pillars laid on 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 slabs, including rubbing and polishing complete.	Sqm
11.27	40 mm thick fine dressed stone flooring over 20 mm (average) thick base of cement mortar 1:3 (1cement : 3 coarse sand) with joints finished flush with cement mortar 1:3.	
11.27.1	Red sand stone	Sqm
11.27.2	White sand stone	Sqm
11.28	40 mm thick machine rubbed stone flooring over 20 mm (average) thick base of cement mortar 1:5 (1 cement :5 coarse sand) with joints 3mm thick, side buttered with cement mortar 1:2 (1 cement : 2 sand) admixed with pigment to match the shade of stone and pointing with same mortar.	
11.28.1	Red sand stone	Sqm
11.28.2	White sand stone	Sqm
11.29	Extra for pre finished nosing in treads of steps of Kota stone/ sand stone slab.	meter
11.30	Extra for Kota stone/ sand stone in treads of steps and risers using single length above 1.05 meter .	Sqm
11.31	Providing and fixing Ist quality ceramic glazed wall tiles conforming to IS : 15622 (6 to 7mm thick) of approved make in all colours, shades of any size as approved by Engineer-in-Charge in skirting, risers of steps and dados over 12 mm thick bed of cement Mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry including pointing in white cement mixed with pigment of matching shade complete.	Sqm

11.32	Providing and laying Ceramic glazed floor tiles 300x300mm or more (6 to 7 mm thick) of 1st quality conforming to IS : 15622 of approved make in colours such as White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick Cement Mortar 1:4 (1 Cement : 4 Coarse sand) including pointing the joints with white cement and matching pigment etc., complete.	Sqm
11.33	Providing and laying rectified Glazed Ceramic floor tiles 300x300 mm or more (8mm to 10mm thick) of 1st quality conforming to IS : 15622 of approved make in and colours 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.	Sqm
11.34	Providing and laying rectified Glazed Ceramic wall tiles 300x450 mm or more (8mm to 10mm thick) of 1st quality conforming to IS : 15622 of approved make in all colours, laid on 12 mm thick Cement Mortar 1:3 (1 Cement : 3 Coarse sand) including grouting the joints with white cement and matching pigments etc., complete.	Sqm
11.35	Providing and laying vitrified floor tiles (without Soluble salt) or printed (with soluble salt) Nano polished (Glossy finish) in different sizes with water absorption less than 0.05% and conforming to IS : 15622 of approved make in all colours & shades, 1st quality/ premium quality in flooring laid on 20mm thick cement mortar 1:4 (1 cement : 4 sand) including grouting the joints with white cement and matching pigments etc. complete. Size 600x600mm as per manufacturer specification.	Sqm
11.36	Providing and laying vitrified floor tiles (without soluble salt) or printed (with soluble salt) Nano polished (Glossy finish) in different sizes with water absorption less than 0.05% and conforming to IS : 15622 of approved make in all colours & shades, 1st quality/ premium quality in skirting laid on 12mm thick cement mortar 1:4 (1 cement : 4 sand) including grouting the joints with white cement and matching pigments etc. complete. Size 600x600mm thickness as per manufacturer specification).	Sqm

11.37	Providing and laying vitrified floor tiles Multi/Dobule charged (Minimum top layer thickness 2.0mm) Neno Polished self design, in different size with water absorption less than 0.05% and conforming to IS : 15622 of approved make in all colours & shades Ist premium quality in flooring laid on 12mm thick cement mortar 1:4 (1 cement : 4 sand) including grouting the joints with white cement and matching pigments etc. complete. (thickness as per manufacturer specification)	Sqm
11.38	Providing and laying vitrified floor tiles Multi/Dobule charged (Minimum top layer thickness 2.0mm) Neno Polished self design, in different size with water absorption less than 0.05% and conforming to IS : 15622 of approved make in all colours & shades Ist premium quality in skirting laid on 12mm thick cement mortar 1:4 (1 cement : 4 sand) including grouting the joints with white cement and matching pigments etc. complete. (thickness as per manufacturer specification)	Sqm
11.39	Deduct for not using 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand) bedding in laying of floor tiles.	Sqm
11.40	Fixing glazed/ Ceramic/ Vitrified floor tiles with cement based high polymer modified quick-set tile adhesive (Water based) conforming to IS: 15477 , using 5kg. adhesive per sqm of tile area, in average 3mm thickness with fixing material.	Sqm
11.41	Making bajri path including preparation of subgrade, supplying and laying brick aggregate of 50mm nominal size 7.5 cm deep with blinding material consisting of 12 mm moorum and 12 mm red bajri consolidated with road roller.	Sqm
11.42	Providing and fixing at or near ground level factory made RCC pavement slab of M-30 grade of size 450x450x50mm (HPL or equivalent) including reinforcement with 6mm dia M.S. bars 4 nos on each side including setting in position in footpath to the required level and line over a bed of 20mm average thick cement mortar (1 cement : 3 coarse sand) having thickness not more than 5mm except on curve including filling of joints with same cement mortar and making grooves etc. complete as per direction of Engineer-in-charge.	Sqm

11.43	Providing and laying 60 mm thick factory made cement concrete interlocking paver block of M -30 grade made by block making machine with strong vibratory compaction and of approved size and design/shape laid in required colour and pattern over and including 50 mm thick compacted bed of stone dust sand, filling the joints with coarse sand etc. all complete as per the direction of Engineer-in-charge.	Sqm
11.43.1	Providing and laying 80mm thick factory made cement concrete interlocking paver block of M -40 grade made by block making machine with strong vibratory compaction and of approved size and design/ shape laid in required colour and pattern over and including 50mm thick compacted bed of stone dust sand, filling the joints with coarse sand etc. all complete as per the direction of Engineer-in-charge.	Sqm
11.43.2	Providing and laying 100 mm thick factory made cement concrete interlocking paver block of M -40 grade made by block making machine with strong vibratory compaction and of approved size and design/ shape laid in required colour and pattern over and including 50mm thick compacted bed of Stone dust sand, filling the joints with coarse sand etc. all complete as per the direction of Engineer-in-charge.	Sqm
11.44	Providing and laying 60mm thick factory made cement concrete interlocking paver block of M-30 grade reflective type rubber moduled glossy colour paving block made by block making machine with strong vibratory compaction and of approved size and shape laid in required colour and pattern over and including 50mm thick compacted bed of stone dust/sand filling the joints with sand etc. all complete as per the direction of Engineer in charge including locking edges wherever required with cement concrete M15 grade or cement mortar 1:3 with pigment of required shade to match the colour /shade of block including cost of labour, material , etc. all complete.	Sqm
11.45	Granite work gang saw cut (polished and machine cut) of thickness 18mm for wall lining (veneer work), backing filled with a grout of average 12 mm thick in cement mortar 1:3 (1 cement : 3 sand) including pointing with white cement mortar 1:2 (1 white cement : 2 marble dust) with an admixture of pigment to match the marble shade: (To be secured to the backing by means of cramps, which shall be paid for separately).	
11.45.1	Area of Slab Over 0.50 Sqm	

11.45.1.1	Fine granite dark Black/dark Red/ White with self design/ pattern/ crystals of other colors of glitter.	Sqm
14.45.1.2	Course granite light Black/ light Red/ off White with self design/ pattern/ crystals of other colour of glitter.	Sqm
11.45.2	Area of slab upto 0.50 Sqm	
11.45.2.1	Fine granite dark Black/dark Red/ White with self design/ pattern/ crystals of other colors of glitter.	Sqm
11.45.2.2	Course granite light Black/ light Red/ off White with self design/ pattern/ crystals of other colour of glitter.	Sqm
12.1	Providing & fixing corrugated Galvanised steel (CGS) sheet roofing including vertical/curved surface fixed with polymer coated J or L hooks, bolts and nuts 8mm diameter with bitumen and G.I. limpet washers or with G.I. limpet washers filled with white lead and including a coat of approved steel primer and two coats of approved paint on overlapping of sheets complete (up to any pitch in orizontal/vertical or curved surfaces) excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required.	
12.1.1	1.00mm thick with zinc coating not less than 275gm/m ²	Sqm
12.1.2	0.80mm thick with zinc coating not less than 275gm/m ²	Sqm
12.1.3	0.63 mm thick with zinc coating not less than 275gm/m ²	Sqm
12.2	Extra for straight cutting in C.G.S. sheet roofing of any thickness for making opening of area exceeding 40 sq. decimeter for chimney stacks, sky light etc. :	Meter
12.3	Extra for circular cutting in C.G.S. sheet roofing of any thickness for making opening of area exceeding 40 square decimeter :	Meter
12.4	Providing & fixing ridges or hips of width 60 cm over all width plain G.S. sheet fixed with polymer coated J. or L hooks, bolts and nuts 8 mm dia. G.I. limpet and bitumen washers complete.	
12.4.1	0.80mm thick with zinc coating not less than 275gm/m ²	Meter
12.4.2	0.63mm thick with zinc coating not less than 275gm/m ²	Meter

12.5	Providing & fixing valleys of 90cm wide overall in plain G.S. sheet fixed with polymer coated J, or L hooks, bolts and nuts 8mm dia.. G.I. limpet and bitumen washers complete :	
12.5.1	1.60mm thick with zinc coating not less than 350gm/m ²	Meter
12.6	Providing & fixing flashing of 40 cm over all width flashing in plain, G.S. sheet fixed with polymer coated J, or L hooks, bolts and nuts, G.I. limpet and bitumen washer complete, bent to shape and fixed in wall with cement mortar 1:3 (1cement : 3 coarse sand).	
12.6.1	1.00mm thick with zinc coating not less than 275gm/m ²	Meter
12.7	Providing and fixing plain G.S. sheet gutter with iron brackets 40x3mm size, bolts, nuts and washers etc. including making necessary connections with rain water pipes complete.	
12.7.1	Providing and fixing 15 cm wide 45 cm over all semi circular plain G.S. sheet gutter with iron brackets 40x3mm size, bolts, nuts and washers etc. including making necessary connections with rain water pipes complete.	
12.7.1.1	0.80mm thick with zinc coating not less than 275gm/m ²	Meter
12.7.1.2	0.63mm thick with zinc coating not less than 275gm/m ²	Meter
12.7.2	Providing and fixing Trapezoidal (Top width 0.3m, bottom width 0.2m and depth 0.1m) plain G.S. sheet gutter with iron brackets 40x3mm size, bolts, nuts and washers etc. including making necessary connections with rain water pipes complete.	
12.7.2.1	0.80mm thick with zinc coating not less than 275gm/m ²	Meter
12.7.2.2	0.63mm thick with zinc coating not less than 275gm/m ²	Meter

12.8	Supply & installation of precoated galvanised iron profile sheets (size, shape and pitch of corrugation as approved by Engineer-in-charge) 0.50 mm $\pm 5\%$ total coated thickness (TCT) thick Zinc coating 120gsm as per IS: 277 in 240mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15- 18 microns. Sheet should have protective guard film of 25 microns minimum to avoid scratches while transportation and should be supplied in single length upto 12 meter or as desired by Engineer-in charge. The sheet shall be fixed using self drilling/self tapping screws of size (5.5x 55mm) with EPDM seal or with polymer coated J or L hooks, bolts and nuts 8mm diameter with bitumen and G.I. limpet washers or with G.I. limpet washers filled with white lead complete upto any pitch in horizontal/vertical or curved surfaces excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required.	Sqm
12.9	Providing and fixing precoated galvanised steel sheet roofing accessories 0.50 mm $\pm 5\%$ total coated thickness (TCT) thick Zinc coating 120gsm as per IS: 277 in 240mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns using self drilling/ self tapping screws or with polymer coated J or L hooks, bolts and nuts and or G.I. seam bolts and nuts, G.I. plain and bitumen washers complete :	
12.9.1	Ridges plain (500 - 600mm).	Meter
12.9.2	Flashings/ Aprons.(Upto 600 mm)	Meter
12.9.3	North light curves.	Meter
12.9.4	Barge board (Upto 300 mm).	Meter
12.9.5	Crimp curve	Sqm
12.9.6	Gutter .(600 mm over all girth).	Meter
12.10	Providing & fixing UV stabilised fiberglass reinforced plastic sheet roofing up to any pitch including fixing with polymer coated 'J' or 'L' hooks, bolts & nuts 8mm dia. G.I plain/bitumen washers complete but excluding the cost of purlins, rafters, trusses etc. The sheets shall be manufactured out of 2400 TEX panel rovigs incorporating minimum 0.3% Ultra-violet stabiliser in resin system under approximately 2400 psi and hot cured. They shall be of uniform pigmentation and thickness without air pockets and shall conform to IS 10192 and IS 12866.The sheets shall be opaque or translucent, clear or pigmented, textured or smooth as specified.	

12.10.1	2mm thick corrugated (2.5" or 4.2" or 6") or step-down (2" or 3" or 6") as specified.	Sqm
12.10.2	2mm thick flat.	Sqm
12.11	Providing & fixing non-asbestos high impact Polypropylene reinforced cement 6 mm thick corrugated sheets (as per IS: 14871) roofing up to any pitch and fixing with polymer coated J, or L hooks, bolts and nuts 6mm dia. G.I. plain and bitumen washers or with self drilling fastener and EPDM washers etc. complete excluding the cost of purlins, rafters and trusses: corrugated sheets and including cutting to size and shape wherever required.	Sqm
12.12	Extra for straight cutting in non-asbestos polypropylene reinforced cement corrugated, semi-corrugated 6mm thick sheet roofing for making openings of area exceeding 40 square decimeter for chimney stacks, skylights etc.	Meter
12.13	Extra for circular cutting in non-asbestos polypropylene reinforced cement corrugated/semi-corrugated 6mm thick sheet roofing for making openings of area exceeding 40 square decimeter.	Meter
12.14	Extra for providing and fixing wind ties of 40x 6mm flat iron section.	Meter
12.15	Providing and fixing ridges and hips in non-asbestos fibre cement high impact polypropylene reinforced roofing with suitable fixing accessories or self drilling fastener and EPDM washer etc. complete.	
12.15.1	Corrugated serrated adjustable ridges	Meter
12.15.2	Plain wing adjustable ridges	Meter
12.15.3	Close fitting adjustable ridges	Meter
12.15.4	Unserrated adjustable hips	Meter
12.16	Providing and fixing non-asbestos fibre cement high impact polypropylene reinforced roofing accessories in all colours with polymer coated J or L hooks, bolts and nuts and or G.I. seam bolts and nuts, G.I. plain and bitumen washers or with self drilling fastener and EPDM washer etc. complete:	
12.16.1	Corrugated apron pieces	Meter
12.16.2	Eave's filler pieces	Meter
12.16.3	North light curves	Meter
12.16.4	Ventilator curves	Meter
12.16.5	Barge boards	Meter
12.16.6	Ridge finials	Meter
12.16.7	Special north light curves	Meter
12.16.8	S type louvers	Meter

12.17	Providing & fixing flat iron brackets 50x3mm size with necessary bolts, nuts and washers etc. for fixing asbestos cement/G.S. sheets gutters with purlins.	Meter
12.18	Painting top of roofs with bitumen of approved quality (UG10) at 17kg per 10 sqm impregnated with a coat of coarse sand at 60 cudm per 10 sqm including cleaning the slab surface with brushes and finally with a piece of cloth lightly soaked in kerosene oil complete :	Sqm
12.19	10 cm thick (average) mud phaska of damped brick earth on roofs laid to slope consolidated and plastered with 25 mm thick mud mortar mixed with bhusa at 35 kg per cum of earth and gobri leaping with mix 1:1 (1 clay : 1 cow dung) and covered with flat tile bricks of class designation 100 grouted with cement mortar 1:3 (1 cement : 3 fine sand) mixed with 2% of integral water proofing compound by weight of cement and finished neat :	
12.19.1	With chimney brick tiles	Sqm
12.20	10cm thick (average) mud phaska of damped brick earth on roofs laid to slope consolidated and plastered with 25mm thick mud mortar with bhusa at 35kg per cum of earth and gobri leaping with mix 1:1 (1 clay : 1 cow-dung) and covered with machine moulded tile bricks of class designation 125 conforming to IS:2690 (Part I) - 1992 grouted with cement mortar 1:3 (1 cement : 3 fine sand) mixed with 2% of integral water proofing compound by weight of cement and finished neat.	
12.20.1	With machine moulded Chimney brick tiles	Sqm
12.21	Extra for every additional 1 cm thickness of mud phaska	Sqm
12.22	Providing and laying pressed clay tiles (as per approved pattern 20 mm nominal thickness and of approved size) on roofs jointed with cement mortar 1:4 (1 cement : 4 coarse sand) mixed with 2% integral water proofing compound laid over a bed of 20 mm thick cement mortar 1:4 (1 cement : 4 coarse sand) and finished neat complete.	Sqm
12.23	Providing gola 75x75 mm in cement concrete M-15 with aggregate 10mm and down gauge including finishing with cement mortar 1:3 (1 cement : 3 fine sand) as per standard design : In 75x75mm deep chase.	Meter

12.24	Making khurras 45x45 cm with average minimum thickness of 5 cm cement concrete M-15 with aggregate of 20 mm nominal size over P.V.C. sheet 1mx1mx400micron, finished with 12mm cement plaster 1:3 (1cement : 3 coarse sand) and a coat of neat cement rounding the edge sand making and finishing the outlet complete.	Each
12.25	Providing sand stone slab for roofing and laying them in cement mortar 1 : 4 (1 cement : 4 coarse sand) over wooden karries or R.C.C. battens (Karries and battens to be paid separately) including pointing the ceiling joints with cement mortar 1:3 (1 cement : 3 fine sand) complete :	
12.25.1	Red sand stone slab (40 to 50mm thick)	Sqm
12.25.2	White sand stone slab : (40 to 50mm thick)	Sqm
12.26	Providing and fixing fiber insulating board ceiling of approved quality with necessary nails etc.complete (frame work to be paid separately) :	
12.26.1	Natural colour insulating board (12 mm thick)	Sqm
12.26.2	White face insulating board (12 mm thick)	Sqm
12.26.3	Flame retardant face insulating board (12mm thick)	Sqm
12.27	Providing and fixing (12mm thick) flat pressed 3 layer medium density particle board or graded particle board (Grade I) IS: 3087 marked in ceiling with necessary nails etc. complete (frame work to be paid separately) :	Sqm
12.28	Providing and fixing 6mm thick plain Multipurpose Cement board (High Pressure steam cured) as per IS : 14862 : 2000) with suitable fibre cement screw in ceiling etc. complete (frame work to be paid separately) :	Sqm
12.29	Extra for Circular cutting and waste in ceiling with:	
12.29.1	2nd class teak wood planks (20 mm thick)	Meter
12.29.2	Natural colour insulating board (12mm thick)	Meter
12.29.3	White face insulating board: (12mm thick)	Meter
12.29.4	Flame retardant face insulating board: (12mm thick)	Meter
12.29.5	Standard quality hard board sheet: (3mm thick)	Meter
12.30	Extra for providing and fixing ceiling to curved surfaces in narrow widths	Sqm

12.31	<p>Providing and fixing false ceiling with 12 mm thick plain/semi perforated or with design ceiling tiles of BWP type phenol formaldehyde synthetic resin bonded pressed particle board conforming to IS:3087 finished with a coat of aluminium primer on both sides & edges and two coats of synthetic enamel paint of approved quality on exposed face to be fixed on a grid made out of anodised aluminium(with 15 micron anodic coating) T-sections 35x15x1.5 mm size main runners and cross runners 23.5x19x1.5mm fixed to main runners placed 600 mm centre to centre both ways so as to form a grid of 600 mm square. The frame work shall be suspended from ceiling by level adjusting hangers of 6 mm dia M.S rod fixed to roof slab by means of ceiling cleats. The suspenders shall be placed 600x1200 mm centre to centre including fixing to the frame with C.P brace screws and applying a priming coat of zinc chromate yellow primer (aluminium frame work shall be paid separately).</p>	Sqm
12.32	<p>Extra for providing 3mm thick translucent white acrylic plastic sheets of approved quality in false ceiling instead of 12 mm thick plain/or with design particle board ceiling tiles in item above.</p>	Sqm
12.33	<p>Providing 10mm thick plaster of Paris (gypsum anhydrous) ceiling up to a height of 5m above floor level over first class kail wood strips 25x6mm with 10mm gap in between and reinforced with rabbit wire mesh fixed to any frame (frame work to be paid separately) :</p>	
12.33.1	Flat surfaces	Sqm
12.33.2	Curved surfaces	Sqm
12.34	<p>Extra for any sunk or raised mouldings in the plaster of Paris (Gypsum anhydrous) ceiling</p>	Sqm
12.35	<p>Extra for providing plaster of Paris (Gypsum anhydrous) ceiling above 5 meters height from floor level.</p>	sqm per meter height
12.36	<p>Providing and fixing thermal insulation of ceiling (under deck insulation) with Resin Bonded Fibre glass wool conforming to IS : 8183 density 24kg/m³, 50mm thick, wrapped in 200 G Virgin Polythene bags fixed to ceiling with metallic cleats (50x50x3 mm) @ 60 cm and wire mesh of 12.5mm x 24g wire and mesh, for top most ceiling of building.</p>	Sqm

12.37	Providing and fixing thermal insulation with Resin Bonded Fibre glass wool conforming to IS: 8193. Density 16kg/m ³ , 50mm thick, wrapped in 200G Virgin Polythene bags placed over existing false ceiling and held in position by criss-crossing GI wire.	Sqm
12.38	Thermal Insulation of roofing with Expanded polystyrene fixed with suitable adhesive to the false ceiling as per the directions of the Engineer-in-charge	
12.38.1	With Type N - Normal 50 mm thick	Sqm
12.38.2	With Type SE - Self Extinguishing type 50 mm thick	Sqm
12.39	Providing and fixing 100 mm diameter and 60 cm long rain water spout in cement mortar 1:4 (1 cement : 4 fine sand).	
12.39.1	Stone ware spout	Each
12.40	Providing and fixing M.S. holder bat clamps of approved design to C.I. or S.C.I. rain water pipes embedded in and including cement concrete blocks 10x10x10cm of M-15 grade concrete with aggregate 20 mm nominal size and cost of cutting holes and making good the walls etc. :	
12.40.1	100 mm diameter	Each
12.40.2	150 mm diameter	Each
12.41	Providing lead caulked joints to sand cast iron rain water pipes and fittings:	
12.41.1	100 mm diameter	Each
12.41.2	150 mm diameter	Each
12.43	Providing and fixing to the inlet mouth of rain water pipe cast iron grating 15 cm diameter and weighing not less than 440 grams.	Each

	<p>Providing and fixing at all height false ceiling including providing and fixing of frame work made of special sections power pressed from M.S. sheet and galvanised in accordance with zinc coating of grade 350 as per IS : 277 and consisting of angle cleats of size 25mm wide x 1.6mm thick with flanges of 22mm and 37mm at 1200mm centre to centre one flange fixed to the ceiling with dash fastener 12.5mm dia x 40mm long with 6mm dia bolts to the angle hangers of 25x25x0.55mm of required length, and other end of angle hanger being fixed with nut and bolts to G.I. channels 45x15x0.9mm running at the rate of 1200mm centre to centre to which the ceiling section 0.5mm thick button wedge of 80mm with tapered flanges of 26mm each having clips of 10.5mm at 450mm centre to centre shall be fixed in a direction perpendicular to</p>	
12.44	<p>G.I. channel with connecting clips made out of 2.64mm dia 230mm long G.I. wire at every junction including fixing the gypsum board with ceiling section and perimeter channels 0.5mm thick 27mm high having flanges of 20mm and 30mm long, the perimeter of ceiling fixed to wall/partition with the help of rawl plugs at 450mm centre to centre with 25mm long drive-all screws @ 230mm interval including jointing and fixing to a flush finish of tapered and square edges of the board with recommended filler, jointing tapes, finisher and two coats of primer suitable for board as per manufactures specification and also including the cost of making openings for light fittings, grills, diffusers, cutouts made with frame of perimeter channels suitably fixed all complete as per drawing and specification and direction of the Engineer in Charge but excluding the cost of painting with :</p>	
12.44.1	<p>12.5 mm thick tapered edge gypsum board conforming to IS: 2095-Part I.</p>	Sqm
12.45	<p>Providing and fixing to the inlet mouth of rain water pipe PTMT (an Engineering Thermoplastic) grating square (Slit) 150 mm square with a height of 8 mm and weighing not less than 100 gms.</p>	Each

12.46	<p>Providing and Fixing of sky lights consisting of Multi cell/tight cell Polycarbonate Panel System of approved colour, 16 mm thick (minimum) having uniform in color with an integral Tight-Cell core constructed not to exceed 4mmx4mm in a cross section, Vertical Standing Seam manufactured at both sides of the panel. Snap-on connector to interlock the panels shall have a grip-lock double tooth locking mechanism to ensure maximum uplift capability and shall be of same color as that of panel. Panel shall be factory sealed/end welded panels with additional End-cap/Aluminium U-Profile (mill finish) for ends. Panel shall be co-extruded with special anti glare compound and UV protected. The full system shall be fitted on MS purlins perpendicular to direction of sheeting with purlin spacing as specified by Manufacturer.</p> <p>The rate includes cost of all the operations, labour and all materials and tests (as applicable) involved such as bolts nuts and screws etc. and labour for cutting bending to required profile, necessary scaffolding, hoisting in position etc. for proper completion of the work etc. complete as per specification drawings and direction of Engineer in charge. Finished surface area of roofing fixed over steel tublar structure shall be measured for payment. MS tabular frame work shall be measured separately for payment.</p>	Sqm
12.47	<p>Providing & fixing pressed clay tile (Mangalore tile) 20 mm nominal hickness and of approved size and as per approved pattern ceiling on steel frame work complete (steel frame work to be paid separately).</p>	Sqm
12.48	<p>Providing & laying pressed clay tile ridge (Mangalore tile) of 20mm thickness of approved pattern ceiling over steel frame work complete (steel frame work to be paid separately).</p>	Sqm

12.49	<p>Providing and fixing False Ceiling Tiles of approved materials of size 595 x 595mm in true horizontal level suspended on inter locking metal grid of hot dipped galvanised steel sections (galvanized @ 170 gsm/sqm.) consisting of main "T" runner suitably spaced at joints to get required length and of size 24x38mm made from 0.30mm thick (minimum) sheet spaced at 1200mm center to center and cross "T" of size 24x25mm made of 0.30mm thick (minimum) sheet, 1200mm long spaced between main "T" at 600mm center to center to form a grid of 1200x600mm and secondary cross "T" of length 600mm and size 24x25mm made of 0.30 mm thick (minimum) sheet to be interlocked at middle of the 1200x600mm panel to form grids of 600x600mm and laying false ceiling tiles of approved texture in the grid including, wherever,required, cutting/making, opening for services like diffusers, grills, light fittings, fixtures, smoke detectors etc. Main "T" runners to be suspended from ceiling using GI slotted cleats fixed to ceiling with 6 mm dia and 50mm long dash fasteners, 4mm GI adjustable rods with galvanised level clips spaced at 1200m center to center along main T, bottom exposed width of 24mm of all T- sections shall be pre-painted with polyester paint, all complete at all heights as per specifications drawings and as directed by Engineer-in-Charge.(The rate is excluding cost of tiles which will be paid separately).</p>	Sqm.
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12.50	<p>Providing and fixing and applying plaster of paris (POP) false ceiling consisting of frame work made with 50 mm sq. M.S tubes of 18 G thickness as main runners at 600 mm c/c both ways, suspended/supported with M.S flats 25 x 4 mm from existing R.C.C slab including providing and fixing expanded metal of size 5.25 mm x 1.25 mm thickness welded to main runner and applying POP (Calcium sulphate semihydrate variety) to the expanded metal of thickness not less than 10mm finished smooth to line and level including necessary supports scaffolding etc. as required and also including applying a coat of red oxide zinc chromate primer over the M.S frame work and suspenders complete.</p>	Sqm
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12.51	<p>Providing and fixing on wall face unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A including jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansion.</p>	
12.51.1	<p>(i) Single socketed pipes. 75mm diameter</p>	Meter

12.51.2	110mm diameter	Meter
12.51.3	Labour rate for Item No. 12.41.1 to 12.41.2	Meter
12.52	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A including jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansion.	
12.52.1	Coupler	
12.52.1.1	75mm	Each
12.52.1.2	110mm	Each
12.52.2	Single pushfit Coupler :	
12.52.2.1	75mm	Each
12.52.2.2	110mm	Each
12.52.3	Single tee with door	
12.52.3.1	75x75x75 mm	Each
12.52.3.2	110x110x110 mm	Each
12.52.4	Single tee without door	
12.52.4.1	75x75x75 mm	Each
12.52.4.2	110x110x110 mm	Each
12.52.5	Bend 87.5°	
12.52.5.1	75 mm bend	Each
12.52.5.2	110 mm bend	Each
12.52.6	Shoe (Plain)	
12.52.6.1	75 mm Shoe	Each
12.52.6.2	100 mm shoe	Each
13.1	12 mm cement plaster of mix :	
13.1.1	1:4 (1 cement: 4 sand)	Sqm
13.1.2	1:6 (1 cement: 6 sand)	Sqm
13.2	15 mm cement plaster on rough side of single or half brick wall of mix	
13.2.1	1:4 (1 cement: 4 sand)	Sqm
13.2.2	1:6 (1 cement: 6 sand)	Sqm
13.3	20 mm cement plaster of mix :	
13.3.1	1:4 (1 cement: 4 sand)	Sqm

13.3.2	1:6 (1 cement: 6 sand)	Sqm
13.4	12 mm cement plaster finished with a floating coat of neat cement of mix :	
13.4.1	1:3 (1 cement: 3 sand)	Sqm
13.4.2	1:4 (1 cement: 4 sand)	Sqm
13.5	15 mm cement plaster on rough side of single or half brick wall finished with a floating coat of neat cement of mix :	
13.5.1	1:3 (1 cement: 3 sand)	Sqm
13.5.2	1:4 (1 cement: 4 sand)	Sqm
13.6	20mm cement plaster 1:3(1 cement : coarse sand) finished with coat of neat cement	Sqm
13.10	18 mm cement plaster in two coats under layer 12 mm thick cement plaster 1:5 (1 cement: 5 coarse sand) finished with a top layer 6mm thick cement plaster 1:4 (1 cement: 4 fine sand).	Sqm
13.11	18 mm cement plaster in two coats under layer 12 mm thick cement plaster 1:5 (1 cement: 5 coarse sand) and a top layer 6mm thick cement plaster 1:3 (1 cement: 3 coarse sand) finished rough with sponge.	Sqm
13.12	6 mm cement plaster of mix :	
13.12.1	1:3 (1 cement: 3 fine sand)	Sqm
13.13	6 mm cement plaster 1:3 (1 cement: 3 fine sand) finished with a floating coat of neat cement and thick coat of Lime wash on top of walls when dry for bearing of R.C.C. slabs and beams.	Sqm
13.14	Providing sand faced plaster upto 10meter height above ground level concrete or brick masonry surfaces in two coats, base coat of 13 mm thick in cement mortar 1:4 (1 cement : 4 sand), clearing the surface by combing it and finishing coat of 8 mm. thick in cement mortar 1:3 (1 cement: 3 sand) and taking out surface grains by mechanical arrangement including cost of all material, labour, and T and P including all lead, lift and scaffolding etc. complete.	Sqm
13.15	Neat cement punning	Sqm

13.16	Rough cast plaster upto 10m height above ground level with a mixture of sand and gravel or crushed stone from 6mm to 10mm nominal size dashed over and including the fresh plaster in two layers, under layer 12mm cement plaster 1:4 (1 cement: 4 coarse sand) and top layer 10mm cement plaster 1:3 (1 cement: 3 fine sand) mixed with 10% finely grounded hydrated lime by volume of ordinary cement.	Sqm
13.17	Pebble dash plaster upto 10m height above ground level with a mixture of washed pebble or crushed stone 6mm to 12.5mm nominal size dashed over and including fresh plaster in two layers under layer 12mm cement plaster 1:4 (1 cement: 4 coarse sand) and top layer 10mm cement plaster with cement mortar 1:3 (1 cement: 3 fine sand) mixed with 10% finely grounded hydrated lime by volume of cement.	Sqm
13.18	Extra for providing and mixing water proofing material in cement plaster work in proportion recommended by the manufacturers.	Per bag (50Kg) of cement used in mixed
13.19	Extra for plastering exterior walls of height more than 10 m from ground level for every additional height of 3 m or part thereof.	Sqm
13.20	Extra for plastering on circular work not exceeding 6 m in radius:	
13.20.1	In one coat	Sqm
13.20.2	In two coat	Sqm
13.21	Extra for plastering done on moulding cornices or architraves including neat finish to line and level:	
13.21.1	In one coat	Sqm
13.21.2	In two coat	Sqm
13.22	Extra for plastering :	
13.22.1	Spherical ceiling	Sqm
13.22.2	Groined ceiling	Sqm
13.22.3	Flewing soffits	Sqm
13.23	Providing and applying plaster of paris putty of 2 mm thickness over plastered surface to prepare the surface even and smooth complete	Sqm
13.24	Providing and applying plaster of paris punning of 10 mm average thickness over plastered surface to prepare the surface even and smooth complete	Sqm

13.25	Providing and applying 1.0 mm thick white cement based wall putty of best quality, over plastered surface to prepare the surface even and smooth complete.	Sqm
13.26	Extra for lining out plaster to imitate stone or concrete blocks walling	Sqm
13.27	12 mm thick plain cement mortar bands in cement mortar 1:4 (1 cement: 4 sand) :	
13.27.1	Flush Band	Meter
13.27.2	Sunk Band	Meter
13.27.3	Raised Band	Meter
13.27.4	Moulded Band	Meter
13.28	18 mm thick plain cement mortar band in cement mortar 1:4 (1 cement:4 sand):	
13.28.1	Flush Band	Meter
13.28.2	Sunk Band	Meter
13.28.3	Raised Band	Meter
13.28.4	Moulded Band	Meter
13.29	18 mm thick moulded cement mortar band in two coats under layer 12mm thick with cement mortar 1:5 (1 cement: 5 coarse sand) top layer 6mm thick with cement mortar 1:4 (1 cement: 4 fine sand).	cm per meter
13.30	Pointing on brick work or brick flooring with cement mortar 1:3 (1 cement: 3 sand) :	
13.30.1	Flush / Ruled/ Struck or weathered pointing.	Sqm
13.30.2	Raised and cut pointing	Sqm
13.31	Pointing on tile brick work with cement mortar 1:3 (1cement:3 sand)	
13.31.1	Flush/ Ruled/ Struck or weathered pointing	Sqm
13.32	Pointing on stone work with cement mortar 1:3 (1 cement: 3 sand) :	
13.32.1	Flush/ Ruled pointing	Sqm
13.32.2	Raised and cut pointing	Sqm
13.33	Raised and cut pointing on stone work in white cement mortar 1:3 (1white cement: 3 marble dust)	Sqm
13.34	Pointing on stone slab ceiling with cement mortar 1:2 (1 cement: 2 sand): Flush/ Ruled pointing	Sqm
13.35	Extra for pointing on walls on the outside at height more than 10m from ground level for every additional height of 3m or part there of.	Sqm

13.36	White washing with lime to give an even shade:	
13.36.1	New work (three or more coats)	Sqm
13.36.2	Satna lime wash on walls one coat	Sqm
13.37	Colour washing such as green, blue or buff to give an even shade - New work (two or more coats) with a base coat of white washing with lime	Sqm
13.38	Distempering with 1st quality acrylic distemper (ready mixed) of approved manufacturer, of required shade and colour complete, as per manufacturer's specification. Two or more coats on new work.	Sqm
13.39	Wall painting with plastic emulsion paint of approved brand and manufacture to give an even shade: Two or more coats on new work	Sqm
13.40	Wall painting with premium acrylic emulsion paint of interior grade, having VOC (Volatile Organic Compound) content less than 50 grams/ litre. of approved brand and manufacture, including applying additional coats wherever required to achieve even shade and colour.	
13.40.1	One coat.	Sqm
13.40.2	Two coats.	Sqm
13.41	Applying one coat of cement primer of approved brand and manufacture on wall surface : Cement primer.	Sqm
13.42	Finishing walls with water proofing cement paint of required shade - New work (Two or more coats applied @ 3.84 kg/10 sqm).	Sqm
13.43	Finishing walls with textured exterior paint of required shade :	
13.43.1	New work (Two or more coats applied @ 3.28 ltr/10 sqm) over and including priming coat of exterior primer applied @ 2.20kg/10 sqm.	Sqm
13.44	Finishing walls with Acrylic Smooth exterior paint of required shade:	
13.44.1	New work (Two or more coat applied @ 1.67 ltr/10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/ 10 sqm).	Sqm
13.45.	Finishing walls with Premium Acrylic Smooth exterior paint with Silicone additives of required shade	

13.45.1	New work (Two or more coats applied @ 1.43 ltr/ 10 sqm. over and including priming coat of exterior primer applied @ 2.20 kg/ 10 sqm).	Sqm
13.46	Finishing with Deluxe Multi surface paint system for interiors and exteriors using Primer as per manufacturers specifications :	
13.46.1	Two or more coats on walls applied @ 1.25 ltr/10 sqm. over and including one coat of Special primer applied @ 0.75 ltr/10 sqm.	Sqm
13.46.2	Painting wood work with Deluxe Multi Surface Paint of required shade. Two or more coat applied @0.90 ltr/10 sqm over an under coat of primer applied @0.75 ltr/ 10 sqm of approved brand or manufacture	Sqm
13.46.3	Painting Steel work with Deluxe Multi Surface Paint to give an even shade. Two or more coat applied @0.90 ltr/10 sqm over an under coat of primer applied @ 0.80 ltr/ 10 sqm of approved brand or manufacture	Sqm
13.47	Applying priming coat :	
13.47.1	With ready mixed pink or Grey primer of approved brand and manufacture on wood work (hard and soft wood)	Sqm
13.47.2	With ready mixed aluminium primer of approved brand and manufacture on resinous wood and plywood	Sqm
13.47.3	With ready mixed red oxide zinc chromate primer of approved brand and manufacture on steel galvanised iron/steel works	Sqm
13.47.4	With ready mixed red oxide zinc chromate primer of approved brand and manufacture on steel work (second coat)	Sqm
13.48	Painting with silicon and acrylic emulsion based water thinnable sealer of approved brand and manufacture on wet or patchy portion of plastered surfaces:	
13.48.1	One coat	Sqm
13.48.2	Two coats	Sqm
13.49	Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete.	
13.49.1	On steel work	Sqm
13.49.2	On concrete work	Sqm

13.50	Painting on G.S. sheet with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade : New work (two or more coats) including a coat of approved steel primer but excluding a coat of mordant solution.	Sqm
13.51	Applying a coat of mordant solution on G.S. sheet :	
13.51.1	With a solution of 38 gms of copper acetate in a litre of soft water	Sqm
13.51.2	With a solution made of 13 gms of hydrochloric acid in a solution of 13 gms each of copper chloride, copper nitrate and ammonium chloride dissolved in a litre of soft water.	Sqm
13.52	Painting (two or more coats) on rain water, soil, waste and vent pipes and fittings with black anticorrosive bitumastic paint approved brand and manufacture over and including a priming of ready mixed zinc chromate yellow primer on new work :	
13.52.1	75 mm diameter pipes	meter
13.52.2	100 mm diameter pipes	meter
13.52.3	150 mm diameter pipes	meter
13.53	Painting (two or more coats) on rain water, soil, waste and vent pipes and fittings with synthetic enamel paint of approved brand and manufacture and required colour over a priming coat of approved steel primer on new work.	
13.53.1	75 mm diameter pipes	meter
13.53.2	100 mm diameter pipes	meter
13.53.3	150 mm diameter pipes	meter
13.54	Painting with oil type wood preservative of approved brand and manufacture: New work (two or more coats)	Sqm
13.55	Providing and applying two coats of fire retardant paint unthinned on cleaned wood/ply surface @ 3.5 sqm per litre per coat including preparation of base surface as per recommendations of manufacturer to make the surface fire retardant.	Sqm
13.56	Coal tarring two coats on new work using 0.16 and 0.12 litre coal tar per sqm in the first coat and second coat respectively.	Sqm
13.57	Painting with aluminium paint of approved brand and manufacture to give an even shade - Two or more coats on new work	Sqm

13.58	Painting with acid proof paint of approved brand and manufacture of required colour to give an even shade: Two or more coats on new work.	Sqm
13.59	Painting with black anti-corrosive bitumastic paint of approved brand and manufacture to give an even shade: Two or more coats on new work.	Sqm
13.60	Floor painting with floor enamel paint of approved brand and manufacture of required colour to give an even shade: Two or more coats on new work.	Sqm
13.61	Varnishing with varnish of approved brand and manufacture:	
13.61.1	Two or more coats of glue sizing with copal varnish over an under coat of flatting varnish.	Sqm
13.61.2	Two or more coats glue sizing with spar varnish or an under coat of flatting varnish.	Sqm
13.62	French spirit polishing : Two or more coats on new works including a coat of wood filler.	Sqm
13.63	Polishing on wood work with ready mixed wax polish of approved brand and manufacture : New work	Sqm
13.64	Floor polishing on masonry or concrete floors with wax polish of approved brand and manufacture.	Sqm
13.65	Lettering with black Japan paint of approved brand and manufacture	per letter per cm height

13.66	Washed stone grit plaster on exterior walls of height upto 10 M. above level in two layers, under layer 12mm cement plaster 1:4 (1 cement: 4 coarse sand) furrowing the under layer with scratching tool, applying cement slurry on the under layer @ 2 Kg of cement per square meter, top layer 15mm cement plaster 1:1/2:2 (1 cement: 1/2 coarse sand : 2 stone chipping 10mm nominal size) in panels with groove all around as per approved pattern including scrubbing and washing, the top layer with brushes and water to expose the stone chippings ,complete as per specification and direction of Engineer-in- charge (Payment for providing grooves shall be made separately).	Sqm
13.67	Forming groove of uniform size in the top layer of washed stone grit plaster as per approved pattern using wooden battens, nailed to the under layer including removal of wooden battens, repair to the edges of panels and finishing the groove complete as per specifications and direction of the Engineer-in-charge :	
13.67.1	15 mm wide and 15 mm deep groove	meter
13.67.2	20 mm wide and 15 mm deep groove	meter
13.68	Extra for washed grit plaster on exterior walls of height more than 10m from ground level for every additional height of 3 m or part thereof.	Sqm
13.69	Extra for washed stone grit plaster on circular work not exceeding 6m in radius (in two coats).	Sqm
13.70	Forming groove of uniform size from 12x12mm and upto 25x15mm in plastered surface as per approved pattern using wooden battens, nailed to the under layer including removal of wooden battens, repairs to the edges of plaster panel and finishing the groove complete as per specifications and direction of the Engineer-in-Charge.	meter
13.71	Extra for using white cement in place of ordinary cement in the top layer of the item of washed stone grit plaster.	Sqm

13.72	Providing and applying 12 mm thick (average) premixed formulated one coat gypsum lightweight plaster having additives and light weight aggregates as vermiculite/ perlite respectively conforming to IS: 2547 (Part - 1 & II) 1976, applied on hacked / uneven background such as bare brick/ block/ RCC work on walls & ceiling at all floors and locations, finished in smooth line and level etc. complete.	Sqm
13.73	Providing and fixing chicken mesh as per ISI specification and in the required width with 50mm long Bombay nails on vertical and horizontal junctions of RCC and brick wall including scaffolding and all lead and lift etc. complete before plastering upt 10 meter height.	Sqm
14.1	Repairs to plaster of thickness 12mm to 20mm in patches of area 2.5 sq. meter and under including cutting the patch in proper shape, raking out joints and preparing and plastering the surface of the walls complete including disposal of rubbish to the dumping ground with in 50 meters lead :	
14.1.1	With cement mortar 1:4 (1 cement : 4 fine sand)	Sqm
14.1.2	With cement mortar 1:4 (1cement: 4 coarse sand).	Sqm
14.2	Fixing chowkhats in existing opening including embedding chowkhats in floors or walls cutting masonry for holdfasts embedding hold fasts in cement concrete blocks with cement concrete grade M-10 (Nominal Mix with 20mm maximum size of stone aggregate) painting two coats of approved wood preservative to sides of chowkhats and making good the damages to walls and floors as required complete including disposal of rubbish to the dumping ground within 50 meter lead :	
14.2.1	Door chowkhats	Each
14.2.2	Window chowkhats	Each
14.2.3	Clerestory window chowkhats	Each
14.3	Fixing chowkhat in existing opening in brick / RCC wall with dash fasteners of appropriate size/ chemical fastener (3nos on each vertical member of door chowkhat and 2 nos. on each vertical member of window 1.20 meter height as per UADD/CPWD specification including Cost of dash fasteners/ chemical fastener.	Each

14.4	Making the opening in brick masonry including dismantling in floor or walls by cutting masonry and making good the damages to walls, flooring and jambs complete to match existing surface i/c disposal of mulba/ rubbish to the nearest municipal dumping ground.	
14.4.1	For door/ window/ clerestory window.	Sqm
14.5	Renewing glass panes, with putty and nails wherever necessary:	
14.5.1	Float glass panes of thickness 4 mm	Sqm
14.5.2	Float glass panes of thickness 5.5 mm	Sqm
14.6	Renewing glass panes, with wooden fillets wherever necessary:	
14.6.1	Float glass panes of thickness 4 mm	Sqm
14.6.2	Float glass panes of thickness 5.5 mm	Sqm
14.7	Renewing glass panes and refixing existing wooden fillets:	
14.7.1	Float glass panes of thickness 4 mm	Sqm
14.7.2	Float glass panes of thickness 5.5 mm	Sqm
14.8	Supplying and fixing new wooden fillets wherever necessary:	
14.8.1	2nd class teak wood fillets	meter
14.8.2	Hard wood fillets.	meter
14.9	Renewal of old putty of glass panes (length)	meter
14.10	Refixing old glass panes with putty and nails	Sqm
14.11	Fixing old glass panes with wooden fillets (excluding cost of fillets)	Sqm
14.12	Providing and fixing 16 mm M.S. Fan clamps of standard shape and size in existing R.C.C. slab including cutting chase, anchoring clamp to reinforcement bar, including cleaning, refilling, making good the chase with matching concrete, plastering and painting the exposed portion of the clamps complete.	Each

14.13	Regrading terracing of mud phaska covered with tiles or brick, in cement mortar by dismantling tiles or bricks, removing mud plaster preparing the surface of mud phaska to proper slope relaying mud plaster gobri leaping and tiles or bricks, grouted in cement mortar 1:3 (1cement : 3 fine sand) including replacing unserviceable tiles or bricks with new ones and disposal of unserviceable material the dumping ground (the cost of the new tiles or brick excluded) upto 50 meters lead.	Sqm
14.14	Replacing sand stone slabs in roofing laid in cement mortar 1:4 (1 cement : 4 coarse sand) including necessary repairs and cement pointing with same mortar complete including disposal of rubbish to dumping ground within 50 meters of lead :	
14.14.1	Red/ white sand stone slabs 30 to 50 mm thick.	Sqm
14.15	Supply and replacing wooden battens in old roofs, including making good the holes in wall and painting with oil type wood preservative of approved brand and manufacture complete including removal of rubbish within 50 meters lead :	
14.15.1	Other then teak wood battens.	Cum
14.16	Supply and replacing wooden beams in old roofs including making good the holes in walls and painting with oil type wood preservative of approved brand and manufacture complete including removal of rubbish to the dumping ground within 50 meters lead :	
14.16.1	Not exceeding 4.00 meters in length.	
14.16.1.1	Other then teak wood beams (Sal Wood)	Cum
14.16.1.2	Hollock wood beams	Cum
14.16.2	Above 4.00 meters and upto 5.00 meters length.	
14.16.2.1	Other then teak wood beams (Sal Wood)	Cum
14.16.2.2	Hollock wood beams	Cum
14.17	Raking out joints in lime or cement mortar and preparing the surface for re-pointing or replastering including disposal of rubbish to the dumping ground within 50 meters lead.	Sqm
14.18	Taking out wind ties from roof including cutting out rusted bolts, nuts etc. and removing materials to any distance within compound and stacking.	Kg.

14.19	Fixing of old wind tie with new fittings including painting two or more coats with anticorrosive bitumastic paint of approved brand & manufacturer over and including priming coat of ready mixed zinc chromate yellow primer of approved brand.	meter
14.20	Supply and replacing bottom rail of collapsible gate including making good all damages and applying priming coat of zinc chromate yellow primer of approved brand and manufacturer.	Kg
14.21	Supply and replacing wrought iron or M.S. Wheel or roller of old steel door or gate and fitting and fixing the same with necessary clamps, nuts and bolts/welding and erection etc. complete.	
14.21.1	Wheel 50 mm dia. and below.	per wheel
14.21.2	Wheel above 50 mm dia.	per wheel
14.22	Brick work with open bhutta bricks of class designation 25 in mud mortar.	Cum
14.23	Providing and fixing 25 mm thick shutters for cup board etc. :	
14.23.1	Panelled or panelled & glazed shutters of :	
14.23.1.1	Superior class teak wood including nickel plated bright finished M.S. piano hinges with necessary screws.	Sqm
14.23.1.2	1st class teak wood including nickel plated bright finished M.S. piano hinges with necessary screws.	Sqm
14.23.2	Glazed shutters of :	
14.23.2.1	Superior class teak wood including nickel plated bright finished M.S. piano hinges with necessary screws.	Sqm
14.23.2.2	1st class teak wood including nickel plated bright finished M.S. piano hinges with necessary screws.	Sqm
14.24	Providing and fixing plain jaffri door and window shutters including bright or/and black enamelled M.S. butt hinges with necessary screws 35x10mm laths placed 35mm apart (frames to be paid separately) including fixing 50x12mm beading complete .	
14.24.1	Second class teak wood.	Sqm
14.24.2	Hard wood finger	Sqm
14.25	Providing and fixing curtain rods of 1.25mm thick brass plates with two brass brackets fixed with brass screws and wooden plugs etc. wherever necessary complete.	
14.25.1	20 mm diameter.(18 gauge)	meter

14.25.2	25 mm diameter. (18 gauge)	meter
14.26	Providing and fixing M.S. round or square bars with M.S. flats at required spacing in wooden frames of windows and clerestory windows.	Kg
14.27	Providing joists (karries) including hoisting fixing in position and applying wood preservative on unexposed surface etc. complete with:	
14.27.1	Other then teak wood.	Cum
14.27.2	Hollock wood.	cum
14.28	Providing and fixing bright finished brass single acting spring hinges with necessary screws etc. complete :	
14.28.1	150mm	Each
14.28.2	125mm	Each
14.28.3	100mm	Each
14.29	Providing and fixing bright finished brass double acting spring hinges with necessary screws etc. complete :	
14.29.1	150mm	Each
14.29.2	125mm	Each
14.29.3	100mm	Each
14.30	Providing and fixing bright finished brass flush bolts with necessary screws etc. complete :	
14.30.1	250mm	Each
14.30.2	150mm	Each
14.30.3	100mm	Each
14.31	Providing and fixing 150 mm bright finished floor brass door stopper with rubber cushion, screws etc. to suit shutter thickness complete.	Each
14.32	Providing and fixing bright finished brass hard drawn hooks and eyes :	
14.32.1	300mm	Each
14.32.2	250mm	Each
14.32.3	200mm	Each
14.32.4	150mm	Each
14.32.5	100mm	Each
14.33	Providing and fixing bright finished brass fan light pivot with necessary screws etc. complete.	Each
14.34	Providing and fixing 300 mm long bright finished brass chain with hook for fan light including necessary screws etc. complete.	Each

14.35	Providing and fixing bright finished brass quadrant stay 300mm long with necessary screws etc. complete.	Each
14.36	Providing and fixing bright finished brass helical door spring (superior quality).	Each
14.37	Providing and fixing chromium plated brass butt hinges with necessary screws etc. complete.	
14.37.1	125x70x4 mm (ordinary type)	Each
14.37.2	100x70x4 mm (ordinary type)	Each
14.37.3	75x65x4 mm (heavy type)	Each
14.37.4	75x40x2.5 mm (ordinary type)	Each
14.37.5	50x40x2.5 mm (ordinary type)	Each
14.38	Providing and fixing 85x42mm chromium plated brass pull bolt lock with necessary screws, nuts, bolts and washers etc. complete.	Each
14.39	Removing white or colour wash by scrapping and sand papering and preparing the surface smooth including necessary repairs to scratches etc. complete	Sqm
14.40	White washing with lime to give an even shade :	
14.40.1	Old work (two or more coats)	Sqm
14.40.2	Old work (one or more coats)	Sqm
14.41	Removing dry or oil bound distemper, water proofing cement paint and the like by scrapping, sand papering and preparing the surface smooth including necessary repairs to scratches etc. complete.	Sqm
14.42	Distempering with oil bound washable distemper of approved brand and manufacture to give an even shade : Old work (one or more coats)	Sqm
14.43	Distempering with 1st quality acrylic washable distemper (ready made) of approved manufacturer and of required shade and colour complete. as per manufacturer's specification. One or more coats on old work.	Sqm
14.44	Painting on G.S. sheet with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade : Old work (one or more coats)	Sqm

14.45	Painting (one or more coats) on rain water, soil, waste and vent pipes and fittings with black anticorrosive bitumastic paint of approved brand and manufacture on old work :	
14.45.1	75 mm diameter pipes	meter
14.45.2	100 mm diameter pipes	meter
14.45.3	150 mm diameter pipes	meter
14.46	Painting (two or more coats) on rain water, soil, waste and vent pipes and fittings with aluminium paint of approved brand and manufacture over a priming coat of ready mixed zinc chromate yellow primer on new work :	
14.46.1	75 mm diameter pipes	meter
14.46.2	100 mm diameter pipes	meter
14.46.3	150 mm diameter pipes	meter
14.47	Painting (one or more coats) on rain water, soil, waste and vent pipes and fittings with synthetic enamel paint of approved brand and manufacture and required colour on old work :	
14.47.1	75 mm diameter pipes	meter
14.47.2	100 mm diameter pipes	meter
14.47.3	150 mm diameter pipes	meter
14.48	Painting with oil type wood preservative of approved brand and manufacture : Old work (one or more coats)	Sqm
14.49	Wall painting with plastic emulsion paint of approved brand and manufacture to give an even shade : One or more coats on old work.	Sqm
14.50	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade : One or more coats on old work.	Sqm
14.51	Painting with aluminium paint of approved brand and manufacture to give an even shade : One or more coats on old work.	Sqm
14.52	Painting with acid proof paint of approved brand and manufacture of required colour to give an even shade : One or more coats on old work.	Sqm
14.53	Painting with black anti-corrosive bitumastic paint of approved brand and manufacture to give an even shade : One or more coats	Sqm

14.54	French spirit polishing : One or more coats on old work.	Sqm
14.55	Polishing on wood work with ready made wax polish of approved brand and manufacture : Old work	Sqm
14.56	Re-lettering with black Japan paint of approved brand and manufacture.	Per letter per cm height
14.57	Painting (one or more coats) with black Japan paint of approved brand and manufacture to give an even shade.	Sqm
14.58	Providing and fixing C.P. brass chain and rubber plug complete for sink or wash basin :	
14.58.1	32mm dia	Each
14.58.2	40mm dia	Each
14.59	Finishing walls with water proofing cement paint of required shade	
14.59.1	Old work (one or more coats applied @ 2.20 kg/10 sqm) over priming coat of primer applied @ 0.80 litres/10 sqm complete including cost of Priming coat.	Sqm
14.59.2	Old work (one or more coats @ 2.20 kg/10 sqm) complete.	Sqm
14.60	Finishing walls with textured exterior paint of required shade :	
14.60.1	Old work (Two or more coats on existing cement paint surface applied @ 3.28 ltr/10 sqm.	Sqm
14.60.2	Old work (One or more coats) applied @ 1.82 ltr/10 sqm.	Sqm
14.61	Finishing walls with Acrylic Smooth exterior paint of required shade	
14.61.1	Old work (Two or more coat applied @ 1.67 ltr/ 10 sqm) on existing cement paint surface).	Sqm
14.61.2	Old work (One or more coat applied @ 0.90 ltr/10 sqm).	Sqm
14.62	Finishing walls with Premium Acrylic Smooth exterior paint with Silicone additives of required shade	
14.62.1	Old work (Two or more coats applied @ 1.43 ltr/ 10 sqm) over existing cement paint surface.	Sqm
14.62.2	Old work (one or more coats applied @ 0.83 ltr/10 sqm).	Sqm

14.63	Varnishing with varnish of approved brand and manufacture:	
14.63.1	One or more coats with copal varnish.	Sqm
14.63.2	One or more coats with spar varnish.	Sqm
14.64	Melamine polishing on wood work (one or more coat).	Sqm
14.65	Varnishing with flatting varnish of approved brand and manufacture one or more coats on old work.	Sqm
15.1	Demolishing lime concrete manually / by mechanical means and disposal of material within 50 meters lead as per direction of Engineer in charge.	Cum
15.2	Demolishing cement concrete manually/by mechanical means including disposal of material within 50 meters lead as per direction of Engineer-in-charge.	
15.2.1	1:3:6 or richer mix	Cum
15.2.2	1:4:8 or leaner mix	Cum
15.3	Demolishing R.C.C. work manually/ by mechanical means including stacking of steel bars and disposal of unserviceable material within 50 meters lead as per direction of Engineer-in-charge.	Cum
15.4	Extra for cutting reinforcement bars manually/by mechanical means in R.C.C. (Payment shall be made on the cross sectional area of R.C.C. or as per direction of Engineer -in-charge.	Sqm
15.5	Extra for scrapping, cleaning and straightening reinforcement from R.C.C.	Kg
15.6	Demolishing brick work manually/by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 meters lead as per direction of Engineer-in-	
15.6.1	In lime mortar	Cum
15.6.2	In cement mortar	Cum
15.7	Removing mortar from bricks and cleaning bricks including stacking within a lead of 50m (stacks of cleaned bricks shall be measured):	
15.7.1	From brick work in lime mortar	1000 Nos
15.7.2	From brick work in cement mortar	1000 Nos

15.8	Demolishing stone masonry manually/by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50meters lead as per direction of Engineer-in-charge:	
15.8.1	In lime mortar	Cum
15.8.2	In cement mortar	Cum
15.9	Removing mortar from and cleaning stones and concrete articles (net quantity of stacks of cleaned materials will be measured) :	
15.9.1	In lime mortar	Cum
15.9.2	In cement mortar	Cum
15.10	Dismantling doors, windows and clerestory windows (steel or wood) shutter including chowkhats, architrave, holdfasts etc. complete and stacking within 50 meters lead.	
15.10.1	Of area 3 sq. meters and below	Each
15.10.2	Of area beyond 3 sq. meters	Each
15.11	Taking out doors, windows and clerestory window shutters (steel or wood) including stacking within 50 meters lead:	
15.11.1	Of area 3 sq. meters and below	Each
15.11.2	Of area beyond 3 sq. meters	Each
15.12	Dismantling wood work in frames, trusses, purlins and rafters upto 10 meters span and 5 meters height including stacking the material within 50 meters lead:	
15.12.1	Of sectional area 40 square centimeters and above.	Cum
15.13	Extra for dismantling trusses, rafters, purlins etc. of wood work for every additional span of one meter or part thereof beyond 10 meters :	
15.13.1	Of sectional area 40 square centimeters and above.	Cum per meter span
15.13.2	Of sectional area below 40 square centimeters.	Meter Per mtr. Span
15.14	Extra for dismantling trusses, rafters, purlins etc. of wood work for every additional height of one meter or part thereof beyond 5 meters :	
15.14.1	Of sectional area 40 square centimeters and above.	Cum per meter height
15.14.2	Of sectional area below 40 square centimeters.	meter per meter height

15.15	Dismantling steel work in single sections including dismembering and stacking within 50 meters lead in:	
15.15.1	R.S. Joists	quintal
15.15.2	Channels, angles, tees and flats	quintal
15.16	Dismantling steel work in built up sections in angles, tees, flats and channels including all gusset plates, bolts, nuts, cutting rivets, welding etc. including dismembering and stacking within 50 meters lead.	Kg
15.17	Dismantling steel work manually/ by mechanical means in built up sections without dismembering and stacking within 50 meters lead as per direction of Engineer-in-charge.	Kg
15.18	Extra for dismantling trusses, rafters, purlins etc. of steel work for every additional span of one meter or part thereof beyond 10 meters	quintal
15.19	Extra for dismantling trusses, rafters, purlins etc. of steel work for every additional height of one meter or part thereof beyond 5 meters.	quintal
15.20	Extra for marking of structural steel work required to be re-erected.	Kg.
15.21	Dismantling tile work in floors and roofs laid in cement mortar including stacking material within 50 meters lead.	
15.21.1	For thickness of tiles upto 25 mm	Sqm
15.21.2	For thickness of tiles above 25 mm and up to 40 mm	Sqm
15.22	Demolishing dry brick pitching in floors, drains etc. including stacking serviceable material and disposal of unserviceable material within 50 meters lead :	Cum
15.23	Dismantling stone slab flooring laid in cement mortar including stacking of serviceable material and disposal of unserviceable material within 50 meters lead.	Sqm
15.24	Demolishing brick tile covering in terracing including stacking of serviceable material and disposal of unserviceable material within 50 meters lead.	Sqm
15.25	Demolishing mud phaska in terracing and disposal of material within 50 meters lead.	Cum

15.26	Dismantling roofing including ridges, hips valleys and gutters etc., and stacking the material within 50 meters lead of:	
15.26.1	G.S. Sheet	Sqm
15.26.2	Asbestos sheet	Sqm
15.27	Dismantling stone slab roofing over wooden karries or R.C.C. battens (dismantling karries and battens to be paid for separately) including stacking of serviceable material and disposal of unserviceable material within 50 meters lead.	Sqm
15.28	Dismantling tiled roofing with battens boarding etc. complete including stacking of serviceable material and disposal of unserviceable material within 50 meters lead.	Sqm
15.29	Dismantling wooden ballies in posts and struts including stacking within 50 meters lead.	meter
15.30	Dismantling and stacking within 50meters lead,fencing posts or struts including all earth work and dismantling of concrete etc.in base of:	
15.30.1	T' or 'L' iron or pipe	Each
15.30.2	R.C.C.	Each
15.31	Cutting ballies or wooden posts of fencing at the point of projection above the concrete or ground and stacking the same within 50 meters lead.	Each
15.32	Dismantling barbed wire or flexible wire rope in fencing including making rolls and stacking within 50 meters lead.	Kg
15.33	Dismantling wooden trellis work excluding frames but including stacking the serviceable material within 50 meters lead.	Sqm
15.34	Dismantling expanded metal or I.R.C. fabrics with necessary battens and beading including stacking the serviceable material within 50 meters lead.	Sqm
15.35	Dismantling wooden boardings in lining of walls and partitions, excluding supporting members but including stacking within 50 meters lead :	
15.35.1	Up to 10 mm thick	Sqm
15.35.2	Thickness above 10 mm up to 25 mm	Sqm
15.35.3	Thickness above 25 mm up to 40 mm	Sqm

15.36	Dismantling precast concrete or stone slabs in walls, partition walls etc. including stacking within 50 meters lead:	
15.36.1	Thickness up to 40 mm	Sqm
15.36.2	Thickness above 40 mm up to 75 mm	Sqm
15.37	Dismantling cement asbestos or other hard board ceiling or partition walls including stacking of serviceable materials and disposal of unserviceable materials within 50 meters lead.	Sqm
15.38	Dismantling C.I. or asbestos rain water pipe with fittings and clamps including stacking the material within 50 meters lead :	
15.38.1	75 to 80 mm dia pipe.	meter
15.38.2	100 mm dia pipe	meter
15.38.3	150 mm dia pipe	meter
15.39	Dismantling G.I. pipes (external work) including excavation and refilling trenches after taking out the pipes, manually/ by mechanical means including stacking of pipes within 50 meters lead as per direction of Engineer-in-charge :	
15.39.1	Upto 40 mm nominal bore	meter
15.39.2	Above 40 mm nominal bore	meter
15.40	Dismantling C.I. pipes including excavation and refilling trenches after taking out the pipes, manually/ by mechanical means breaking lead caulked joints, melting of lead and making into blocks including stacking of pipes, lead at site within 50 meter lead as per direction of Engineer- in-charge:	
15.40.1	Up to 150 mm diameter	meter
15.40.2	Above 150 mm dia up to 300 mm dia.	meter
15.40.3	Above 300 mm diameter	meter
15.41	Dismantling of road gully chamber of various sizes including C.I. grating with frame including stacking of useful materials near the site and disposal of unserviceable materials into municipal dumps within 50 meters lead including refilling the excavated gap.	Eac h
15.42	Dismantling of flushing cistern of any size including stacking of useful materials near the site and disposal of unserviceable materials within 50 meters lead.	Eac h
15.43	Dismantling of C.I. sluice valve including stacking of useful materials within a lead of 50 meters	

15.43.1	Up to 150 mm diameter	h	Eac
15.43.2	Above 150 mm diameter	h	Eac
15.44	Dismantling of spindle fire hydrant including stacking of useful materials within 50 meters lead.	h	Eac
15.45	Dismantling old plaster or skirting upto 15 mm thickness, raking out joints and cleaning the surface for plaster upto two floor level including disposal of rubbish within 50 meters lead and including scaffolding etc.		Sqm
15.46	Dismantling aluminium/ Gypsum partitions, doors, windows, fixed glazing and false ceiling including disposal of unserviceable surplus material and stacking of serviceable material with in 50 meters lead as directed by Engineer-in-charge.		Sqm
16.1	Boring, Providing and installing cast in situ single under reamed piles of specified diameter and length in M 20 cement concrete, excluding the cost of steel reinforcement but including the cost of boring, cement concrete, all complete. (Length of pile for payment shall be measured upto to the bottom of pile cap) :		
16.1.1	250 mm dia piles	meter	
16.1.2	300 mm dia piles	meter	
16.1.3	400 mm dia piles	meter	
16.1.4	450 mm dia piles	meter	
16.1.5	500 mm dia piles	meter	
16.1.6	600 mm dia piles	meter	
16.2	Providing, driving and installing driven cast-in-situ reinforced cement concrete piles of specified diameter and length below the pile cap M 35 in cement concrete, to carry safe working load not less than specified, excluding the cost of steel reinforcement but including the cost of shoe and the length of pile to be embedded in the pile cap etc. all complete. (Length of pile for payment shall be measured from top of shoe to the bottom of pile cap) :		
16.2.1	400 mm dia piles	meter	
16.2.2	450 mm dia piles	meter	
16.2.3	500 mm dia piles	meter	
16.2.4	550 mm dia piles	meter	
16.2.5	750 mm dia piles.	meter	
16.2.6	1000 mm dia piles.	meter	
16.2.7	1200 mm dia piles.	meter	
16.2.8	1500 mm dia piles.	meter	

16.3	Boring, providing and installing bored cast-in-situ reinforced cement concrete pile of specified diameter and length below the pile cap M 35 in cement concrete, to carry a safe working load not less than specified, excluding the cost of steel reinforcement but including the cost of boring with, bentonite solution and temporary casing of appropriate length for setting out and removal of same and the length of the pile to be embedded in the pile cap etc. all complete, including removal of excavated earth with all lifts and leads (Length of pile for payment shall be measured upto bottom of pile cap).	
16.3.1	300 mm dia piles	meter
16.3.2	400 mm dia piles	meter
16.3.3	450 mm dia piles	meter
16.3.4	500 mm dia piles	meter
16.3.5	600 mm dia piles	meter
16.3.6	750 mm dia piles.	meter
16.3.7	1000 mm dia piles.	meter
16.3.8	1200 mm dia piles.	meter
16.3.9	1500 mm dia piles.	meter

16.4	Providing,driving and installing driven Pre-cast reinforced cement concrete piles of specified diameter and length below the pile cap in M 35 cement concrete to carry safe working load not less than specified.With a central through preformed hole with M.S. black pipe of dia, 40mm for grouting with cement sand grouting of mix 1:2 (1 cement : 2 coarse sand) under sufficient positive pressure to ensure complete filling including centring,shuttering, driving and removing the steel casing pipe and lifting casing etc. complete but excluding the cost of steel reinforcement. (Length of pile for payment shall be measured from top of the shoe to the bottom of pile cap).	
16.4.1	400 mm dia piles.	meter
16.4.2	450 mm dia piles.	meter
16.4.3	500 mm dia piles.	meter
16.4.4	550 mm dia piles.	meter
16.4.5	750 mm dia piles.	meter
16.4.6	1000 mm dia piles.	meter

16.5	Vertical load testing of piles in accordance with IS 2911 (Part IV) including installation of loading platform and preparation of pile head or construction of test cap and dismantling of test cap after test etc. complete as per specification & the direction of Engineer in-charge.	
16.5.1	Single pile upto 50 tonne capacity	

16.5.1.1	Initial test.	per test
16.5.1.2	Routine test	per test
16.5.2	Single pile above 50 tonne and upto 100 tonne capacity	
16.5.2.1	Initial test.	per test
16.5.2.2	Routine test	per test
16.5.3	Group of two or more piles upto 50 tonne capacity	
16.5.3.1	Initial test.	per test
16.5.3.2	Routine test	per test
16.6	Cyclic vertical load testing of pile in accordance with IS Code of practice IS: 2911(part IV) including preparation of pile head etc for.	
16.6.1	Single pile.	
16.6.1.1	Upto 50 tonne capacity pile.	per test
16.6.1.2	Above 50 tonne and upto 100 tonne capacity pile.	per test
16.6.2	Group of two piles.	
16.6.2.1	Upto 50 tonne capacity each.	per test
16.7	Lateral load testing of single pile in accordance with IS Code of practice IS : 2911 (Part IV) for determining safe allowable lateral load on pile :	
16.7.1	Upto 50 tonne capacity pile.	per test
16.7.2	Above 50 tonne and upto 100 tonne capacity pile.	per test
16.8	Deduct for casing pipe and bentonite solution in 16.3	
16.8.1	300 mm dia piles	meter
16.8.2	400 mm dia piles	meter
16.8.3	450 mm dia piles	meter
16.8.4	500 mm dia piles	meter
16.8.5	600 mm dia piles	meter
16.8.6	750 mm dia piles.	meter
16.8.7	1000 mm dia piles.	meter
16.8.8	1200 mm dia piles.	meter
16.8.9	1500 mm dia piles.	meter

17.1	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS : 1285, fixed with rawl plugs and screws or with fixing clips, or with expansion hold fasteners including necessary filling up of gaps at junctions, at top, bottom and sides with required PVC/neoprene felt etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing and paneling to be paid for separately) :	
17.1.1	For fixed portion	
17.1.1.1	Anodised aluminium(anodised transparent or dyed to required shade according to IS:1868,Minimum anodic coating of grade AC15)	Kg
17.1.1.2	Powder coated aluminium (minimum thickness of powder coating 50 micron)	Kg
17.1.1.3	Polyester powder coated aluminium (minimum thickness of polyester powder coating 50 micron)	Kg
17.1.2	For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of PVC / neoprene gasket required (Fittings shall be paid for separately).	
17.1.2.1	Anodised aluminium(anodised transparent or dyed to required shade according to IS:1868,Minimum anodic coating of grade AC15)	Kg
17.1.2.2	Powder coated aluminium (minimum thickness of powder coating 50 micron)	Kg
17.1.2.3	Polyester powder coated aluminium (minimum thickness of polyester powder coating 50 micron)	Kg
17.2	Providing and fixing 12mm thick prelaminated particle board flat pressed three layer or graded wood particle board conforming to IS: 12823 Grade I Type II, in panelling fixed in aluminum doors, windows shutters and partition frames with C.P. brass / stainless steel screws etc. complete as per architectural drawings and directions of Engineer-in-charge	
17.2.1	Pre-laminated particle board with decorative lamination on one side and balancing lamination on other side.	Sqm

17.2.2	Pre-laminated particle board with decorative lamination on both sides.	Sqm
17.3	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM Rubber neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge (Cost of aluminium snap beading shall be paid in basic item):	
17.3.1	With float glass panes of 4.0 mm thickness	Sqm
17.3.2	With float glass panes of 5.50 mm thickness	Sqm
17.3.3	With float glass panes of 8 mm thickness	Sqm
17.4	Add extra for providing and fixing froasted glass instead of float glass	
17.4.1	With glass panes of 4.0 mm thickness	Sqm
17.4.2	With glass panes of 5.50 mm thickness	Sqm
17.4.3	With glass panes of 8 mm thickness	Sqm
17.5	Providing and fixing double action hydraulic floor spring of approved brand and manufacture IS : 6315 marked, for doors including cost of cutting floors as required, embedding in floors and cover plates with brass pivot and single piece M.S. sheet outer box with slide plate etc. complete as per the direction of Engineer-in-charge.	
17.5.1	With stainless steel cover plate	Each
17.5.2	With brass cover plate	Each
17.6	Providing and fixing powder coated aluminium work (minimum thickness of powder coating 50 micron) consisting of tee/ angle sections, of approved make conforming to IS : 733 in frames of false ceiling including aluminium angle cleats with necessary C.P. brass/ stainless steel sunk screws, aluminium perimeter angles fixed to wall with rawl plugs @ 450 mm centre to centre and fixing the frame work to G.I. level adjusting hangers 6 mm dia. with necessary cadmium plated machine screws all complete as per approved architectural drawings and direction of the Engineer-in-charge (level adjusting hangers, ceiling cleats and expansion hold fasteners to be paid for separately).	Kg

17.7	Providing and fixing 6 mm dia. G.I. level adjusting hangers (upto 1200mm length), fixed to roof slabs by means of ceiling cleats made out of G.I. flat 40x3mm size 60 mm long and stainless steel expandable dash fastener of 12.5 mm dia and 50 mm long, complete as per direction of Engineer -in-charge.	Each
17.8	Providing and fixing machine moulded aluminium covering of approved pattern & design, made out of machine cut aluminium sheet and machine holed for receiving screws, over expansion joints on vertical surfaces/ceilings with full threaded, cadmium plated steel screws 4mm dia. stem, 30mm long and aluminium washers 2mm thick, 15mm dia. at a staggered pitch of 200mm centre to centre including drilling holes in the receiving surface and providing expandable plastic sleeves in holes etc. complete.	
17.8.1	Anodised aluminium sheet 2.5mm thick (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15)	Kg
17.8.2	Powder coated aluminium sheet 2.5mm thick (minimum thickness of powder coating 50 micron)	Kg
17.9	Filling the gap in between aluminium frame & adjacent RCC/ Brick/ Stone work by providing weather silicon sealant over backer rod of approved quality as per architectural drawings and direction of Engineer-in-charge complete.	meter
17.10	Extra for applying additional anodic coating AC 25 instead of AC 15 to aluminium extruded sections. For fixed portion, shutters of doors, windows & ventilators	Kg
17.11	Providing and fixing double glazed hermetically sealed glazing in aluminium windows, ventilators and partition etc. with 6 mm thick clear float glass both side having 12 mm air gap including providing EPDM gasket, perforated aluminium spacers, desiccants, sealant (Both primary and secondary sealant) etc. as per specification drawings and direction of Engineer-in-charge complete.	Sqm

17.12	Providing and fixing stainless steel (SS 304 grade) adjustable friction windows stays of approved quality with necessary stainless steel screws etc. to the side hung windows as per direction of Engineer-in- charge complete.	
17.12.1	205 X 19 mm	Each
17.12.2	255 X 19 mm	Each
17.12.3	355 X 19 mm	Each
17.12.4	510 X 19 mm	Each
17.12.5	710 X 19 mm	Each
17.13	Providing and fixing aluminium tubular handle bar 32 mm outer dia, 3.0 mm thick & 2100 mm long with SS screws etc .complete as per direction of Engineer-in-Charge.	
17.13.1	Anodized (AC 15) aluminium tubular handle bar	Each
17.13.2	Powder coated minimum thickness 50 micron aluminium tubular handle bar.	Each
17.13.3	Polyester powder coated minimum thickness 50 micron aluminium tubular handle bar	Each
17.14	Providing and fixing 100mm brass locks (best make of approved quality) for aluminium doors including necessary cutting and making good etc. complete.	Each
17.15	Providing and fixing anodised aluminium (anodised transparent or dyed to required shade according to IS:1868. Minimum anodic coating of grade AC 15) sub frame work for windows and ventilators a with extruded built up standard tubular sections of approved make conforming to IS: 733 and IS :1285 fixed with rawl plugs and stainless steel screws etc.	Kg
17.16	Providing and fixing aluminium casement windows fastener of required length for aluminium windows with necessary screws etc. complete.	
17.16.1	Anodized (AC 15) aluminium	Each
17.16.1	Powder coated minimum thickness 50 micron aluminium.	Each
17.16.2	Polyester powder coated minimum thickness 50 micron aluminium.	Each
17.17	Providing and fixing aluminium round shape handle of outer dia 100mm with SS screws etc. complete as per direction of Engineer- in-charge	
17.17.1	Anodized (AC 15) aluminium	Each
17.17.2	Powder coated minimum thickness 50 micron aluminium.	Each

17.17.3	Polyester powder coated minimum thickness 50 micron aluminium.	Each
17.18	Providing and fixing anodised aluminium grill (anodised transparent or dyed to required shade according to IS: 1868 with minimum anodic coating of grade AC15) of approved design/pattern, with approved standard section and fixed to the existing window frame with C.P. brass/ stainless steel screws @ 200mm centre to centre, including cutting the grill to proper opening size for fixing and operation of handles and fixing approved anodised aluminium standard section around the opening, all complete as per requirement and direction of Engineer-in-charge. (Only weight of grill to be measured for payment).	Kg.
17.19	Providing and fixing 12 mm thick frameless toughened glass door shutter of approved brand and manufacture, including providing and fixing top bottom pivot spring type fixing arrangement and making necessary holes etc. for fixing required door fittings, all complete as per direction of Engineer-in-charge (Door handle, lock and stopper etc.to be paid separately).	Sqm
17.20	Providing and fixing 50 micron thick reflective one way type heat /light control film to window/door glazing as marketed under the brand name garware/3M or equivalent as approved.	Sqm
17.21	Designing, fabricating, testing, protection, installing and fixing in position semi (grid) unitized system of structural glazing (with open joints) for linear as well as curvilinear portions of the building for all heights and all levels, including: (a) Structural analysis & design and preparation of shop drawings for the specified design loads conforming to IS 875 part III (the system must passed the proof test at 1.5 times design wind pressure without any failure), including functional design of the aluminum sections for fixing glazing panels of various thicknesses, aluminium cleats, sleeves and splice plates etc. gaskets, screws, toggles, nuts, bolts, clamps etc., structural and weather silicone sealants, flashings, fire stop (barrier)-cum-smoke seals, microwave cured EPDM gaskets for water tightness, pressure equalisation & drainage and protection against fire hazard including: (b) Fabricating and supplying serrated M.S. hot dip galvanised / Aluminium alloy of 6005 T5 brackets of required sizes, sections and profiles etc. to	SQM.

accommodate 3 Dimensional movement for achieving perfect verticality and fixing structural glazing system rigidly to the RCC/ masonry/structural steel framework of building structure using stainless steel anchor fasteners/ bolts, nylon separator to prevent bimetallic contacts with nuts and washers etc. of stainless steel grade 316, of the required capacity and in required numbers.

(c) Providing and filling, two part pump filled, structural silicone sealant and one part weather silicone sealant compatible with the structural silicone sealant of required bite size in a clean and controlled factory / work shop environment, including double sided spacer tape, setting blocks and backer rod, all of approved grade, brand and manufacture, as per the approved sealant design, within and all around the perimeter for holding glass.

(d) Providing and fixing in position flashings of solid aluminium sheet 1 mm thick and of sizes, shapes and profiles, as required as per the site conditions, to seal the gap between the building structure and all its interfaces with curtain glazing to make it watertight.

(e) Making provision for drainage of moisture/ water that enters the curtain glazing system to make it watertight, by incorporating principles of pressure equalization, providing suitable gutter profiles at bottom (if required), making necessary holes of required sizes and of required numbers etc.

complete. This item includes cost of all inputs of designing, labour for fabricating and installation of aluminium grid, installation of glazed units, T&P, scaffolding and other incidental charges including wastages etc., enabling temporary structures and services, cranes or cradles etc. as described above and as specified. The item includes the cost of getting all the structural and functional design including shop drawings checked by a structural designer, duly approved by Engineer-in-charge. The item also includes the cost of all mock ups at site, cost of all samples of the individual components for testing in an approved laboratory, field tests on the assembled working structural glazing as specified, cleaning and protection till the handing over of the building for occupation. In the end, the Contractor shall provide a water tight structural glazing having all the performance characteristics etc. all complete as required, as per the Architectural drawings, as per item description, as specified, as per the approved shop drawings and as directed by the Engineer- in-Charge.

Note:- 1. The cost of providing extruded aluminium frames, shadow boxes, extruded aluminium section capping for fixing in the grooves of the curtain glazing and vermin proof stainless steel wire mesh shall be paid for separately under relevant items under this

sub-head. However, for the purpose of payment, only the actual area of structural glazing (including width of grooves) on the external face shall be measured in sqm. up to two decimal places.

Note:-2. The following performance test are to be conducted on structural glazing system if area of structural glazing exceeds 2500 Sqm from the certified laboratories accredited by NABL(National Accreditation Board for Testing and Calibration Laboratories), Department of Science & Technologies, India. Cost of Testing is inclusive in Rates. Performance Testing of Structural glazing system Tests to be conducted in the NABL accredited lab.

1. Performance Laboratory Test for Air Leakage Test (-50pa to - 300pa) & (+50pa to +300pa) as per ASTM E-283-04 testing method for a range of testing limit 1 to 200 mVhr.
2. Static Water Penetration Test. (50pa to 1500pa) as per ASTM E- 331-09 testing method for a range up to 2000 ml.
3. Dynamic Water Penetration (50pa to 1500pa) as per AAMA 501.01- 05 testing method for a range upto 2000 ml.
4. Structural Performance Deflection and deformation by static air pressure test (1.5 times design wind pressure without any failure) as per ASTM E-330- 10 testing method for a range upto 50 mm.
5. Seismic Movement Test (upto 30 mm) as per AAMA 501.4-09 testing method for Qualitative test, Tests to be conducted on site.
6. Onsite Test for Water Leakage for a pressure range 50 kpa to 240 kpa (35psi) upto 2000 ML.

Providing and laying integral cement based treatment for water proofing on horizontal surface at all depth below ground level for under ground structures as directed by Engineer-in-Charge and consisting of :

- (i) 1st layer of 22mm to 25mm thick Kota rough stone slab over a 25mm thick base of cement mortar 1:3 (1 cement : 3 coarse sand) mixed with water proofing compound conforming to IS:2645 in the recommended proportion over the leveling course (leveling course to be paid separately). Joints sealed and grouted with cement slurry mixed with water proofing compound.
- (ii) 2nd layer of 25mm thick cement mortar 1:3 (1 cement: 3 coarse sand) mixed with water proofing compound in recommended proportions.
- (iii) Finishing top with stone aggregate of 10mm to 12mm nominal size spreading @ 8 cu dm/sqm thoroughly embedded in the 2nd layer. (with 5 years guarantee)

18.1

Sqm

18.2	<p>Providing and laying integral cement based treatment for water proofing on the vertical surface by fixing rough kota specified stone slab 22 mm to 25mm thick with cement slurry mixed with water proofing compound conforming to IS:2645 in recommended proportions with a gap of 20mm (minimum) between stone slabs and the receiving surfaces and filling the gaps with neat cement slurry mixed with water proofing compound and finishing the exterior of stone slab with cement mortar 1:3 (1 cement : 3 coarse sand) 20mm thick with neat cement punning mixed with water proofing compound in recommended proportion complete at all levels and as directed by Engineer-in-charge : (with 5 year Service guarantee).</p>	Sqm
18.3	<p>Providing and laying water proofing treatment to vertical and horizontal surfaces of depressed portions of W.C., kitchen and the like consisting of :</p> <p>a) Ist course of applying cement slurry @ 4.4 Kg/sqm mixed with water proofing compound conforming to IS 2645 in recommended proportions including rounding off junction of vertical and horizontal surface.</p> <p>b) IInd course of 20mm cement plaster 1:3 (1 cement : 3 sand) mixed with water proofing compound in recommended proportion including rounding off junction of vertical and horizontal surface.</p> <p>c) IIIrd course of applying blown or residual bitumen applied hot at 1.7 Kg. per sqm of area.</p> <p>d) IVth course of 400 micron thick PVC sheet. (Overlaps at joints of PVC sheet should be 100 mm wide and pasted to each other with bitumen @ 1.7 Kg/sqm.) (with 5 years service guarantee)</p>	Sqm
18.4	<p>Providing and Placing in position suitable PVC water stops conforming to IS:12200 for construction/ expansion joints between two RCC members and fixed to the reinforcement with binding wire before pouring concrete etc. complete : (with 5 years service guarantee)</p>	
18.4.1	Serrated with central bulb (225mm wide, 8-11mm thick).	meter
18.4.2	Dumb bell with central bulb (180mm wide, 8mm thick).	meter
18.4.3	Kickers (320mm wide, 5mm thick).	meter

- Providing and laying water proofing treatment in sunken portion of WCs, bathroom etc., by applying cement slurry mixed with water proofing cement compound consisting of applying :
- 18.5 (a) 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. Sqm
- (b) 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 preparation of surface, treatment and sealing of all joints, corners, junctions of pipes and masonry with polymer mixed slurry.
- Providing and laying water proofing treatment on roofs of slabs by applying cement slurry mixed with water proofing cement compound consisting of applying:
- 18.6 (a) after surface preparation, first layer of slurry of cement @ 0.488 kg/sqm mixed with water proofing cement compound @ 0.253 kg/sqm. Sqm
- (b) laying second layer of Fibre glass cloth when the first layer is still green. Overlaps of joints of fibre cloth should not be less than 10 cm.
- (c) third layer of 1.5 mm thickness consisting of slurry of cement @ 1.289 kg/sqm mixed with water proofing cement compound @ 0.670 kg/sqm and coarse sand @ 1.289 kg/sqm. This will be allowed to air cure for 4 hours followed by water curing for 48 hours. The entire treatment will be taken upto 30cm on parapet wall and tucked into groove in parapet all around.
- Providing and laying integral cement based water proofing treatment including preparation of surface as required for treatment of roofs, balconies, terraces etc consisting of following operations:
- 18.7 (a) Applying a slurry coat of neat cement using 2.75 kg/sqm. of cement admixed with water proofing compound conforming to IS. 2645 and approved by Engineer-in-charge over the RCC slab including adjoining walls upto 300mm height including cleaning the surface before treatment.
- (b) Laying brick bats with mortar using broken bricks/brick bats 25 mm to 115mm size with 50% of cement mortar 1:5 (1 cement : 5 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge over 20 mm thick layer of cement mortar of mix 1:5 (1 cement : 5 coarse sand) admixed with water proofing compound conforming to IS : 2645 and

approved by Engineer-in-charge to required slope and treating similarly the adjoining walls upto 300 mm height including rounding of junctions of walls and slabs.

(c) After two days of proper curing applying a second coat of cement slurry using 2.75kg/sqm of cement admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in- charge.

(d) Finishing the surface with 20 mm thick jointless cement mortar of mix 1:4 (1 cement :4 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in- charge including laying glass fibre cloth of approved quality in top layer of plaster and finally finishing the surface with trowel with neat cement slurry and making pattern of 300x300 mm square 3mm deep.

(e) The whole terrace so finished shall be flooded with water for a minimum period of two weeks for curing and for final test. All above operations to be done in order and as directed and specified by the Engineer-in-Charge : (with 5 Year Service Guarantee)

19.1	Centering and shuttering including strutting, propping stretching etc. complete for and removal of form work by sheet plate or ply wood shuttering for :	
19.1.1	Foundations, footings, bases of columns, etc. For mass concrete.	Sqm
19.1.2	Walls (any thickness) including attached pilasters, buttresses, plinth and string courses etc	Sqm
19.1.3	Suspended floors, roofs, landings, balconies and access platform.	Sqm
19.1.4	Shelves (Cast in situ)	Sqm
19.1.5	Lintels, beams, plinth beams, girders, bressumers and cantilevers.	Sqm
19.1.6	Columns, Pillars, Piers, Abutments, Posts and Struts.	Sqm
19.1.7	Stairs, (excluding landings) except spiral-staircases.	Sqm
19.1.8	Spiral staircases (including landing).	Sqm
19.1.9	Arches, domes, vaults up to 6 m span	Sqm
19.1.10	Extra for arches, domes, vaults exceeding 6 m span	Sqm
19.1.11	Chimneys and shafts	Sqm
19.1.12	Well steining	Sqm
19.1.13	Vertical and horizontal fins individually or forming box	Sqm
19.1.14	Extra for shuttering in circular work or any other geometrical shape (20% of respective centering and shuttering items).	Sqm
19.1.15	Small lintels not exceeding 1.5m clear span, moulding as in cornices, window sills, string courses, bands, copings, bed plates, anchor blocks and the like.	Sqm
19.1.16	Cornices and mouldings	Sqm

19.1.17	Small surfaces such as cantilever ends, brackets and ends of steps, caps and bases to pilasters and columns and the like.	Sqm
19.1.18	Weather shade, Chajjas, corbels etc., including edges	Sqm
19.2	Providing and fixing tie bolt, spring coil and plastic cone in wall shuttering complete as per the direction of Engineer-in-charge	
19.2.1	12 mm dia. & 100 mm length.	Each
19.2.2	12 mm dia. & 150 mm length.	Each
19.2.3	20 mm dia. & 150 mm length.	Each
19.2.4	20 mm dia.& 225 mm length.	Each
19.3	Extra for additional height of suspended floors, roofs, landing, beams & balconis in centering, shuttering where ever required with adequate bracing, propping etc. including cost of de-shuttering and decentering at all levels, over a height of 4.2 m, for every additional height of 1 meter or part thereof. (Plan area to be measured)	Sqm
19.4	Providing and fixing double scaffolding system (cup lock type) on the exterior side, up to seven story height made with 40mm dia. M.S. tube 1.5m centre to centre horizontal & vertical tubes joining with cup & lock system with M.S. tubes, M.S. tube challies, M.S. clamps and M.S. staircase system in the scaffolding for working platform etc.and maintaining it in a serviceable condition for the required duration as approved and removing it there after. The scaffolding system shall be stiffened with bracings, runners, connection with the building etc wherever required for inspection of work at required locations with essential safety features for the workmen etc. complete as per directions and approval of Engineer-in-charge. The lavational area of the scaffolding shall be measured for payment purpose. The payment will be made once irrespective of duration of scaffolding.	Sqm
20.1	Excavation of trench for laying of pipe for water harvesting at ground floor and refilling watering and ramming the average depth of trench is 0.65 meter.	
20.1.1	Excavation for 75mm	Meter
20.1.2	Excavation for 90mm	Meter
20.1.3	Excavation for 110mm	Meter
20.1.4	Excavation for 160mm	Meter

20.2	Providing & laying of P.V.C. pipe for roof top harvesting from roof slab to Ground floor including all fittings, jointing material with bypass arrangement with suitable valves.	
20.2.1	P.V.C. pipe 6kg/sqm (75 mm)	Sqm
20.2.2	P.V.C. pipe 6kg/sqm (90 mm)	Sqm
20.2.3	P.V.C. pipe 6kg/sqm (110 mm)	Sqm
20.2.4	P.V.C. pipe 6kg/sqm (160 mm)	Sqm
20.3	Boring holes with Auger upto depth of 3.6 m for water harvesting system.	
20.3.1	150 mm dia	RM
20.3.2	200 mm dia	RM
20.4	Add for ever 50 cm depth where depth is more than 3.6 m	
20.4.1	150 mm dia	RM
20.4.2	200 mm dia	RM
20.5	Providing PVC pipe slotted as per direction of Engineer-in-Charge and fixing in Rain water recharge pit/Percolation pit or Soakway with jute coir wrapping pipe.	
20.5.1	150 mm dia	RM
20.5.2	200 mm dia	RM
20.6	Providing and laying filter material as given below in recharge pit/ percolation pit or soak pit/ waste water treatment system.	
20.6.1	Course Sand (1.5 mm to 2.00 mm)	Cum
20.6.2	Gravel/Pebbles (5 to 25 mm)	Cum
20.7	Brick bats	Cum
20.8	Plantation of reed grass in waste water treatment system.	Sqm
20.9	Providing and fixing of unplasticised rigid PVC rain water harvesting filter kit UV protected with filter, PVC valve, conforming to IS : 1392, working pressure 4 kg/sqcm Type B, minimum capacity 20 kilolitre/ hour, of approved make including all accessories like unplasticised PVC pipe clips of approved design with bombay nail of required length including making good the wall etc. complete for designed catchment area.	
20.9.1	75mm diameter PVC Pipe, having wall thickness 3.2 mm for 100 sqm catchment area.	Each

20.10	Providing and fixing of unplasticised rigid PVC rain water harvesting filter kit including filter of 160mm diameter wall thickness 3.2mm with PVC valve, 110mm diameter UV protected conforming to ID : 13592 for working pressure 6 Kg/sqcm Type B capacity 40 kilo liter/hour of "Jal Santosh: make or equivalent and including all accessories like unplasticied PVC pipe cliips of approved design with bombay nail for required length including making good the wall etc. complete for catchment area upto 200 sqm.	Each
20.11	Borewell adaptor for connecting Rain Water Harvesting pipe line to borewell.	
20.11.1	Borewell adaptor 75mm	Each
20.11.2	Borewell adaptor 110mm	Each
20.11.3	Borewell adaptor 160mm	Each
21.1	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plane and brass threaded fitting 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 testing of joints complete as per direction of Engineer in Charge. Internal work - Exposed on wall.	
21.1.1	15 mm nominal outer dia .Pipes.	Meter
21.1.2	20 mm nominal outer dia .Pipes.	Meter
21.1.3	25 mm nominal outer dia .Pipes.	Meter
21.1.4	32 mm nominal outer dia .Pipes.	Meter
21.1.5	40 mm nominal outer dia .Pipes.	Meter
21.1.6	50 mm nominal outer dia .Pipes.	Meter
21.2	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.	
21.2.1	15 mm nominal outer dia .Pipes.	Meter
21.2.2	20 mm nominal outer dia .Pipes.	Meter
21.2.3	25 mm nominal outer dia .Pipes.	Meter
21.2.4	32 mm nominal outer dia .Pipes.	Meter

21.3	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings This includes jointing of pipes & fittings with one step CPVC solvent cement ,trenching ,refilling & testing of joints complete as per direction of Engineer in Charge. External work	
21.3.1	15 mm nominal outer dia .Pipes.	Meter
21.3.2	20 mm nominal outer dia .Pipes.	Meter
21.3.3	25 mm nominal outer dia .Pipes.	Meter
21.3.4	32 mm nominal outer dia .Pipes.	Meter
21.3.5	40 mm nominal outer dia .Pipes.	Meter
21.3.6	50 mm nominal outer dia .Pipes.	Meter
21.3.7	62.50 mm nominal inner dia Pipes.	Meter
21.3.8	75 mm nominal inner dia .Pipes.	Meter
21.3.9	100mm nominal inner dia .Pipes.	Meter
21.3.10	150 mm nominal inner dia .Pipes.	Meter
21.4	Providing and fixing medium grade G.I. pipes medium class (ISI mark) complete with G.I. fittings (ISI mark) and clamps, including cutting and making good the walls etc. Internal work – Exposed on wall.	
21.4.1	15 mm dia. nominal bore	Meter
21.4.2	20 mm dia. nominal bore	Meter
21.4.3	25 mm dia. nominal bore	Meter
21.4.4	32 mm dia. nominal bore	Meter
21.4.5	40 mm dia. nominal bore	Meter
21.4.6	50 mm dia. nominal bore	Meter
21.5	Concealed pipe including painting with anti corrosive bitumastic paint, cutting chases and making good the wall.	
21.5.1	15 mm dia nominal bore	Meter
21.5.2	20 mm dia nominal bore	Meter
21.6	Providing and fixing G.I. pipes medium class complete with G.I. fittings as per IS : 1239 (Part-2) including trenching and refilling etc. External work	
21.6.1	15 mm dia. nominal bore	Meter
21.6.2	20 mm dia. nominal bore	Meter
21.6.3	25 mm dia. nominal bore	Meter
21.6.4	32 mm dia. nominal bore	Meter
21.6.5	40 mm dia. nominal bore	Meter
21.6.6	50 mm dia. nominal bore	Meter
21.6.7	65 mm dia. nominal bore	Meter
21.6.8	80 mm dia. nominal bore	Meter

21.7	Making connection of G.I. distribution branch with G.I. main of following sizes by providing and fixing tee, including cutting and threading the pipe etc. complete :	
21.7.1	25 to 40 mm nominal bore	each
21.7.2	50 to 80 mm nominal bore	each
21.8	Fixing water meter and stop cock in G.I. pipe line including cutting and threading the pipe and making long screws etc. complete (cost of water meter and stop cock to be paid separately).	Each
PP- R PIPES		
21.9	Providing and fixing 3 layer PP-R (Poly propylene Random copolymer) pipes SDR 7.4 U V stabilized & anti -microbial fusion welded, having thermal stability for hot & cold water supply including all PP - R plain & brass threaded polypropylene random fittings i/c fixing the pipe with clamps at 1.00 m spacing. This includes testing of joints complete as per direction of Engineer in Charge. Internal work – Exposed on wall.	
21.9.1	PN - 16 Pipe, 16 mm OD	Meter
21.9.2	PN - 16 Pipe, 20 mm OD	Meter
21.9.3	PN - 16 Pipe, 25 mm OD	Meter
21.9.4	PN - 16 Pipe, 32 mm OD	Meter
21.9.5	PN - 16 Pipe, 40 mm OD	Meter
21.9.6	PN - 16 Pipe, 50 mm OD	Meter
21.10	Providing and fixing 3 layer PP-R (Poly propylene Random copolymer) pipes SDR 7.4 U V stabilized & anti - microbial fusion welded, having thermal stability for hot & cold water supply including all PP - R plain & brass threaded polypropylene random fittings i/c fixing the pipe with clamps at 1.00 m spacing. This includes 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.	
21.10.1	PN - 16 Pipe, 16 mm OD	Meter
21.10.2	PN - 16 Pipe, 20 mm OD	Meter
21.10.3	PN - 16 Pipe, 25 mm OD	Meter
21.10.4	PN - 16 Pipe, 32 mm OD	Meter
21.11	Providing and fixing 3 layer PP-R (Poly propylene Random copolymer) pipes UV stabilized & anti-microbial fusion welded, having thermal stability for hot & cold water supply including all PP-R plain & brass threaded polypropylene random fittings including trenching ,refilling & testing of joints complete as per direction of Engineer in Charge. External work	

21.11.1	PN - 16 Pipe, 16 mm OD (SDR – 7.4)	Meter
21.11.2	PN - 16 Pipe, 20 mm OD (SDR – 7.4)	Meter
21.11.3	PN - 16 Pipe, 25 mm OD (SDR – 7.4)	Meter
21.11.4	PN - 16 Pipe, 32 mm OD (SDR – 7.4)	Meter
21.11.5	PN - 16 Pipe, 40 mm OD (SDR – 7.4)	Meter
21.11.6	PN - 16 Pipe, 50 mm OD (SDR – 7.4)	Meter
21.11.7	PN - 16 Pipe, 63mm OD (SDR – 7.4)	Meter
21.11.8	PN - 16 Pipe, 75 mm OD (SDR – 7.4)	Meter
21.11.9	PN - 16 Pipe, 90 mm OD (SDR – 7.4)	Meter
21.11.10	PN - 10 Pipe, 110 mm OD (SDR - 11)	Meter
21.11.11	PN - 10 Pipe, 160 mm OD (SDR - 11)	Meter

BRASS FITTINGS

21.12	Providing and fixing brass bib cock of approved quality :	
21.12.1	15 mm nominal bore 0.40kg	each
21.12.2	20 mm nominal bore 0.75kg	each
21.13	Providing and fixing brass stop cock of approved quality :	
21.13.1	15 mm nominal bore 0.40kg	each
21.13.2	20 mm nominal bore 0.75kg	each
21.14	Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end):	
21.14.1	15 mm nominal bore	each
21.14.2	20 mm nominal bore	each
21.14.3	25 mm nominal bore	each
21.14.4	32 mm nominal bore.	each
21.14.5	40 mm nominal bore	each
21.14.6	50 mm nominal bore	each
21.14.7	65 mm nominal bore	each
21.14.8	80 mm nominal bore	each
21.15	Providing and fixing ball valve (brass) of approved quality, High or low pressure, with plastic floats complete :	
21.15.1	15 mm nominal bore	each
21.15.2	20 mm nominal bore	each
21.15.3	25 mm nominal bore	each

21.16	Providing and fixing gun metal non- return valve of approved quality (screwed end) :	
21.16.1	25 mm nominal bore	
21.16.1.1	Horizontal	each
21.16.1.2	Vertical	each
21.16.2	32 mm nominal bore	
21.16.2.1	Horizontal	each
21.16.2.2	Vertical	each
21.16.3	40 mm nominal bore	
21.16.3.1	Horizontal	each
21.16.3.2	Vertical	each
21.16.4	50 mm nominal bore	
21.16.4.1	Horizontal	each
21.16.4.2	Vertical	each
21.16.5	65 mm nominal bore	
21.16.5.1	Horizontal	each
21.16.5.2	Vertical	each
21.16.6	80 mm nominal bore	
21.16.6.1	Horizontal	each
21.16.6.2	Vertical	each
21.17	Providing and fixing brass ferrule with C.I. mouth cover including boring and tapping the main :	
21.17.1	15 mm nominal bore	Each
21.17.2	20 mm nominal bore	Each
21.17.3	25 mm nominal bore	Each
21.18	Providing and fixing uplasticised PVC connection pipe with brass unions	
21.18.1	30 cm length	
21.18.1.1	15 mm nominal bore	Each
21.18.1.2	20 mm nominal bore	Each
21.18.2	45 cm length	
21.18.2.1	15 mm nominal bore	Each
21.18.2.2	20 mm nominal bore	Each

21.19	Providing and fixing C.P. brass shower rose with 15 or 20 mm inlet :	
21.19.1	100 mm diameter	Each
21.19.2	150 mm diameter	Each
21.20	Painting G.I. pipes and fittings with synthetic enamel white paint over a ready mixed priming coat, both of approved quality for new work :	
21.20.1	15 mm diameter pipe.	Meter
21.20.2	20 mm diameter pipe.	Meter
21.20.3	25 mm diameter pipe.	Meter
21.20.4	32 mm diameter pipe.	Meter
21.20.5	40 mm diameter pipe.	Meter
21.20.6	50 mm diameter pipe.	Meter
21.21	Repainting G.I. pipes and fittings with synthetic enamel white paint of approved quality :	
21.21.1	15 mm diameter pipe.	Meter
21.21.2	20 mm diameter pipe.	Meter
21.21.3	25 mm diameter pipe	Meter
21.21.4	32 mm diameter pipe	Meter
21.21.5	40 mm diameter pipe	Meter
21.21.6	50 mm diameter pipe	Meter
21.22	Painting G.I. pipes and fittings with two coats of anticorrosive bitumastic paint of approved quality :	
21.22.1	15 mm diameter	Meter
21.22.2	20 mm diameter pipe	Meter
21.22.3	25 mm diameter pipe	Meter
21.22.4	32 mm diameter pipe	Meter
21.22.5	40 mm diameter pipe	Meter
21.22.6	50 mm diameter pipe	Meter
21.22.7	65 mm diameter pipe	Meter
21.22.8	80 mm diameter pipe	Meter
21.23	Providing and fixing G.I. Union (ISI mark) in G.I. pipe line including cutting and threading the pipe and making long screws etc complete (new work) :	
21.23.1	15 mm nominal bore.	each
21.23.2	20 mm nominal bore.	each
21.23.3	25 mm nominal bore.	each
21.23.4	32 mm nominal bore.	each
21.23.5	40 mm nominal bore.	each
21.23.6	50 mm nominal bore.	each
21.23.7	65 mm nominal bore.	each
21.23.8	80 mm nominal bore.	each

21.24	Providing and fixing G.I. Union (ISI mark) in existing G.I. pipe line, cutting and threading the pipe and making long screws including excavation, refilling the earth or cutting of wall and making good the same complete wherever required :	
21.24.1	15 mm nominal bore.	each
21.24.2	20 mm nominal bore.	each
21.24.3	25 mm nominal bore.	each
21.24.4	32 mm nominal bore.	each
21.24.5	40 mm nominal bore.	each
21.24.6	50 mm nominal bore.	each
21.24.7	65 mm nominal bore.	each
21.24.8	80 mm nominal bore.	each
21.25	Providing and placing on terrace at all floor 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.	Ltr.
21.26	C.P.BRASS FITTINGS. Providing and fixing C.P. brass bib cock of approved quality conforming to IS:8931 - 15 mm nominal bore.	Each
21.27	Providing and fixing C.P. brass long nose bib cock of approved quality conforming to IS standards and weighing not less than 810 gms. - 15 mm nominal bore.	Each
21.28	Providing and fixing C.P. brass long body bib cock of approved quality conforming to IS standards and weighing not less than 690 gms. - 15 mm nominal bore	Each
21.29	Providing and fixing C.P. brass stop cock (concealed) of standard design and of approved make conforming to IS:8931. - 15 mm nominal bore.	Each
21.30	Providing and fixing C.P. brass angle valve for basin mixer and geyser points of approved quality conforming to IS:8931 - 15 mm nominal bore	Each
21.31	Providing and fixing C.P. brass pillar cock approved quality and make conforming to IS:specification.- 15 mm nominal bore 125 mm long foam flow	Each
21.32	Providing and fixing C.P. brass base and mixer of approved quality and make conforming to IS: specification. - 15 mm nominal bore.	Each

21.33	Providing and fixing C.P. brass wall mixer of approved quality and make conforming to IS: specification. - 15 mm nominal bore.	Each
21.34	Providing and fixing C.P. brass sink mixer of approved quality and make conforming to IS: specification. 15 mm nominal bore.	Each
21.35	Providing and fixing C.P. brass grating of approved quality and make conforming to IS: specification. - 100 mm dia.	Each
21.36	Polytetra Methyline Tetraphthalate (PTMT) Fittings Providing and fixing PTMT bib cock of approved quality and colour.	
21.36.1	15mm nominal bore, 86mm long. Weighing not less than 88 gms.	Each
21.36.2	15 mm nominal bore, 122mm long. Weighing not less than 99 gms	Each
21.36.3	15 mm nominal bore, 165mm long. Weighing not less than 110 gms.	Each
21.36.4	15mm nominal bore, 90mm long. Weighing not less than 93 gms.	Each
21.37	Providing and fixing PTMT stop cock of approved quality and colour.	
21.37.1	15 mm nominal bore, 86mm long. Weighing not less than 88 gms	Each
21.37.2	20mm nominal bore, 89mm long. Weighing not less than 88 gms.	Each
21.37.3	Concealed stop cock, 15mm nominal bore, 108mm long. Weighing not less than 108 gms.	Each
21.38	Providing and fixing PTMT pillar cock of approved quality and colour .	
21.38.1	15mm nominal bore, 107mm long. Weighing not less than 110 gms.	Each
21.38.2	15mm nominal bore, 125mm long foam flow. Weighing not less than 120 gms	Each
21.39	Providing and fixing PTMT, push cock of approved quality and colour.	
21.39.1	15 mm nominal bore, 98mm long. Weighing not less than 75 gms.	Each
21.39.2	15 mm nominal bore, 80mm long. Weighing not less than 46 gms.	Each
21.40.1	A. Providing & fixing PTMT grating of approved quality and colour. Circular type.	
21.40.1.1	100 mm nominal dia.	Each
21.40.1.2	125 mm nominal dia with 25 mm waste hole	Each

21.40.2	B. Providing & fixing PTMT grating of approved quality and colour Rectangular type with openable circular lid.	
21.40.2.1	150 mm nominal size square 100 mm diameter of the inner hinged round grating.	Each
21.41	Providing and fixing PTMT angle stop cock 15 mm nominal bore. Wieghing not less than 85 gms.	Each
21.42	Providing and fixing PTMT swivelling shower, 15mm nominal bore, wieghing not less than 40 gms.	Each
21.43	Providing and fixing PTMT soap dish holder having length of 138 mm, breadth 102 mm height of 75mm with concealed fitting arrangements, Weighing not less than 106 gms.	Each
21.44	Providing & fixing PTMT Ball cock of approved quality, colour and make complete with epoxy coated aluminum rod with LP/HDPE plastic ball.	
21.44.1	15 mm nominal bore, 105 mm long weighing not less than 138 gms.	Each
21.44.2	20 mm nominal bore, 120 mm long wieghing not less than 198 gms.	Each
21.44.3	25 mm nominal bore, 152mm long weighing not less than 440 gms.	Each
21.44.4	40 mm nominal bore, 206 mm long. weighing not less than 690 gms.	Each
21.44.5	50 mm nominal bore, 242 mm long ,weighing not less than 1240 gms.	Each
21.45	Providing and fixing PTMT extension nipple for Water tank pipe fittings of approved quality and colour.	
21.45.1	15mm nominal bore, Weighing not less than 32 gms.	Each
21.45.2	20mm nominal bore, Weighing not less than 40 gms.	Each
21.45.3	25mm nominal bore, Weighing not less than 62 gms.	Each
21.46	AIR VALVE AND WATER METER (BULK TYPE) Providing and fixing C.I. double acting air valve of approved quality with bolts, nuts, rubber insertions etc. complete (The tail pieces, tapers etc if required will be paid separately) :	
21.46.1	50 mm dia	Each
21.46.2	80 mm dia	Each
21.46.3	100 mm dia	Each
21.47	Cutting holes up to 30x30 cm in walls of any thickness including making good the same.	per hole

21.48	Cutting holes up to 15x15 cm in R.C.C. floors and roofs for passing drain pipe etc. and repairing the hole after insertion of drain pipe etc. with cement concrete grade M-15 (Nominal Mix with 20mm maximum size of stone aggregate) including finishing complete so as to make it leak proof.	Each
21.49	Providing and fixing enclosed type water meter (bulk type) conforming to IS 2373 and tested by Engineer in charge complete with bolts & nuts rubber insertions etc.(the tail pieces if required will be paid separately)	
21.49.1	80 mm dia nominal bore	Each
21.49.2	100 mm dia nominal bore	Each
21.49.3	150 mm dia nominal bore	Each
21.49.4	200 mm dia nominal bore	Each
21.50	Providing and fixing C.I. dirt box strainer for bulk type water meter with bolts & nuts rubber insertions etc.complete conforming to IS 2373 :	
21.50.1	80 mm dia nominal bore	Each
21.50.2	100 mm dia nominal bore	Each
21.50.3	150 mm dia nominal bore	Each
21.50.4	200 mm dia nominal bore	Each
21.51	Making chases up to 7.5 x 7.5 cm in wallls including making good and finishing with matching surface after housing G.I.pipe etc.	Meter
22.1	Providing, laying and jointing glazed stoneware pipes class SP-1 with stiff mixture of cement mortar in the proportion of 1:1 (1 cement : 1 sand) including testing of joints etc. complete : Excavation to be paid seperataly	
22.1.1	100 mm diameter	ach E
22.1.1	150 mm diameter	ach E
22.1.1	200 mm diameter	ach E
22.1.1	250 mm diameter	ach E
22.1.1	300 mm diameter	ach E
22.2	Providing and laying cement concrete 1:5:10 (1 cement : 5 sand : 10 graded stone aggregate 40 mm nominal size) all-round S.W. pipes including bed concrete as per standard design:	
22.2.1	100 mm diameter S.W. pipe	Met er
22.2.2	150 mm diameter S.W. pipe	Met er
22.2.3	200 mm diameter S.W. pipe	Met

		er	
22.2.5	250 mm diameter S.W. pipe	er	Met
22.2.6	300 mm diameter S.W. pipe	er	Met
22.3	Providing and laying cement concrete 1:5:10 (1 cement : 5 sand : 10 graded stone aggregate 40 mm nominal size) upto haunches of S.W. pipes including bed concrete as per standard design :		
22.3.1	100 mm diameter S.W. pipe	er	Met
22.3.2	150 mm diameter S.W. pipe	er	Met
22.3.4	200 mm diameter S.W. pipe	er	Met
22.3.6	250 mm diameter S.W. pipe	er	Met
22.3.7	300 mm diameter S.W. pipe	er	Met
22.4	Providing and fixing square-mouth S.W. gully trap grade 'A' complete with C.I. grating brick masonry chamber with water tight C.I. cover with frame of 300 x300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design : With Modular Bricks class designation 40.		
22.4.1	100 x 100 mm size P type	ach	E
22.4.2	150 x 100 mm size P type.	ach	E
22.4.3	180 x 150 mm size P type.	ach	E
22.5	Dismantling of old S.W. pipes including breaking of joints and bed concrete stacking of useful materials near the site within 50 m lead and disposal of unserviceable materials into municipal dumps:		
22.5.1	100 mm diameter	er	Met
22.5.2	150 mm diameter	er	Met
22.5.3	200 mm diameter	er	Met
22.5.4	250 mm diameter	er	Met
22.5.5	300 mm diameter	er	Met
22.5.6	350 mm diameter	er	Met
22.5.7	400 mm diameter	er	Met

22.5.8	450 mm diameter	er	Met
22.6	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 :		
22.6.1	100 mm dia. R.C.C. pipe	er	Met
22.6.2	150 mm dia. R.C.C. pipe	er	Met
22.6.3	250 mm dia. R.C.C. pipe	er	Met
22.6.4	300 mm dia. R.C.C. pipe	er	Met
22.6.5	450 mm dia. R.C.C. pipe	er	Met
22.6.6	500 mm dia. R.C.C. pipe	er	Met
22.6.7	600 mm dia. R.C.C. pipe	er	Met
22.7	Making connection of drain or sewer line with existing manhole including breaking into and making good the walls, floors with cement concrete grade M-15 (Nominal Mix with 20mm maximum size of stone aggregate) cement plastered on both sides with cement mortar 1:3 (1 cement : 3 sand) finished with a floating coat of neat cement and making necessary channels for the drain etc. complete :		
22.7.1	For pipes 100 to 230 mm diameter	ach	E
22.7.2	For pipes 250 to 300 mm diameter	ach	E
22.7.3	For pipes 350 to 450 mm diameter	ach	E
22.8	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. - 20 m long	ach	E
22.9	Providing and fixing S.W. intercepting trap in manholes with stiff mixture of cement mortar 1:1 (1 cement : 1 fine sand) including testing of joints etc. complete :		
22.9.1	100 mm dia	ach	E
22.9.2	150 mm dia	ach	E

22.10	Providing and laying below ground unplasticised PVC pipe to with stand working pressure of 4 kg/cm ² solid waste pipes confirming to IS:13592 and IS:4985 including jointing with seal ring confirming to IS :5282 leaving 10mm gap for thermal expansion all necessary fittings etc. complete. Excavation to be paid seperately.		
22.10.1	110 mm diameter OD	er	Met
22.10.2	160 mm diameter OD	er	Met
22.10.3	200 mm diameter OD	er	Met
22.11	Making soak pit 2.5 m diameter 3.0 meter deep with 45 x 45 cm dry brick honey comb shaft with bricks of class designation 40 and S.W. drain pip 100 mm diameter, 1.8 m long complete. Over the filling shall be placed single matting which shall be covered with minimum layer of 7.5 cm earth. The shaft be covered with 7.5 cm thick stone or R.C.C. slab 10 cm wide and 10 cm deep brick edging with bricks of class designation 40 shall be provided round the pit. The connection of the open surface drain to the soak pit shall be made by means of 100 mm diameter S.W. pipe with open joints, as per standard design. (Fig 2.25)	ach	E
23.1	Providing and fixing white vitreous china water closet squatting pan (Indian type) P or S trap, complete including cutting and making good the walls and floors wherever required :		
23.1.1	Long pattern W.C. pan of size 580 mm	Each	
23.1.2	Orissa pattern W.C. pan of size 580x440 mm	Each	
23.2	Extra for using coloured W.C. pan instead of white W.C. pan		
23.2.1	Orissa pattern W.C. pan 580x440 mm	Each	
23.3	Extra for using coloured pedestal type W.C pan (European type) instead of white vitreous china W.C pan and cistern.	Each	
23.4	Providing and fixing solid plastic seat with lid for pedestal type W.C. pan complete :		
23.4.1	White solid plastic seat with lid	Each	
23.4.2	Black solid plastic seat with lid	Each	

23.5	Providing and fixing P.V.C. low level flushing cistern with manually controlled device (handle lever) conforming to IS : 7231, with all fittings and fixtures complete.	
23.5.1	10 litre capacity - White	Each
23.5.2	10 litre capacity - coloured	Each
23.6	Providing and fixing controlled flush, low level cistern made of vitreous china with all fittings complete.	
23.6.1	10 litre (full flush) capacity-white	Each
23.6.2	10 litre (full flush) capacity-coloured	Each
23.7	Providing and fixing white vitreous china flat back or wall corner type lipped front urinal basin of 430x260x350mm and 340x410x265mm sizes respectively with automatic flushing cistern with standard flush pipe and C.P. brass spreaders with brass unions and G.I clamps complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required :	
23.7.1	One urinal basin with 5 litre white P.V.C. automatic flushing cistern.	Each
23.7.2	Range of two urinal basins with 5 litre white P.V.C. automatic flushing cistern.	Each
23.7.3	Range of three urinal basins with 10 litre white P.V.C. automatic flushing cistern.	Each
23.7.4	Range of four urinal basins with 10 litre white P.V.C. automatic flushing cistern.	Each
23.8	Providing and fixing white vitreous china flat back half stall urinal of size 580x380x350mm with white PVC automatic flushing cistern, with fittings, standard size C.P. brass flush pipe, spreaders with unions and clamps (all in C.P. brass) with waste fitting as per IS : 2556, C.I. trap with outlet grating and other couplings in C.P. brass including painting of fittings and cutting and making good the walls and floors wherever required :	
23.8.1	Single half stall urinal with 5 litre P.V.C. automatic flushingcistern.	Each
23.8.2	Range of two half stall urinals with 5 litre P.V.C. automatic flushing cistern.	Each

23.8.3	Range of three half stall urinals with 10 litre P.V.C. automatic flushing cistern.	Each
23.8.4	Range of four half stall urinals with 10 litre P.V.C. automatic flushing cistern.	each
23.9	Providing and fixing one piece construction white vitreous china squatting plate with an integral longitudinal flushing pipe, white P.V.C. automatic flushing cistern, with fittings, standard size G.I. flush pipe for back and front flush with standard spreader pipes with fittings, G.I clamps and C.P. brass coupling complete including painting of fittings and cutting and making good the walls and floors etc. wherever required :	
23.9.1	Single squatting plate with 5 litre P.V.C. automatic flushing cistern.	Each
23.9.2	Range of two squatting plates with 5 litre P.V.C. automatic flushing cistern.	Each
23.9.3	Range of three squatting plates with 10 litre P.V.C. automatic flushing cistern.	Each
23.9.4	Range of four squatting plates with 10 litre P.V.C. automatic flushing cistern.	Each
23.10	Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require :	
23.10.1	White Vitreous China Wash basin size 630x450 mm with a pair of 15 mm C.P. brass pillar taps.	Each
23.10.2	White Vitreous China Wash basin size 630x450 mm with a single 15 mm C.P. brass pillar tap.	Each
23.10.3	White Vitreous China Wash basin size 550x400 mm with a pair of 15 mm C.P. brass pillar taps.	Each
23.10.4	White Vitreous China Flat back wash basin size 550x400 mm with single 15 mm C.P. brass pillar tap.	Each
23.10.5	White Vitreous China Angle back wash basin size 600x480 mm with single 15 mm C.P. brass pillar tap.	Each

23.10.6	White Vitreous China Angle back wash basin size 400x400 mm with single 15 mm C.P. brass pillar tap.	Each
23.10.7	White Vitreous China Flat back wash basin size 450x300 mm with single 15 mm C.P. brass pillar tap.	Each
23.10.8	White Vitreous China Surgeon type wash basin of size 660x460 mm with a pair of 15 mm C.P. brass pillar taps with elbow operated levers.	Each
23.10.9	White Vitreous China Surgeon type wash basin of size 660x460 mm with single 15 mm C.P. brass pillar taps with elbow operated levers ISI marked.	Each
23.10.10	Stainless Steel AISI-304(18/8) Round basin 405x355mm with single 15 mm C.P. brass pillar tap.	Each
23.10.11	Stainless Steel AISI-304(18/8) Wash basin 530x345 mm with single 15 mm C.P. brass pillar tap.	Each
23.11	Providing and fixing white vitreous china pedestal for wash basin completely recessed at the back for the reception of pipes and fittings.	Each
23.12	Providing and fixing kitchen sink with C.I. brackets, C.P. brass chain with rubber plug, 40 mm C.P. brass waste complete, including painting the fittings and brackets, cutting and making good the walls wherever required :	
23.12.1	White glazed fire clay kitchen sink of size 600x450x250mm.	Each
23.13	Providing and fixing Stainless Steel A ISI 304 (18/8) kitchen sink as per IS 13983 with C.I. brackets and stainless steel plug 40 mm including painting of fittings and brackets, cutting and making good the walls wherever required :	
23.13.1	Kitchen sink with drain board	
23.13.1.1	510x1040 mm bowl depth 250mm.	Each
23.13.1.2	510x1040 mm bowl depth 225mm.	Each
23.13.1.3	510x1040 mm bowl depth 200mm.	Each
23.13.1.4	460x915 mm bowl depth 178mm.	Each
23.13.2	Kitchen sink without drain board	

23.13.2.1	610x510 mm bowl depth 200 mm.	Each
23.13.2.2	610x460 mm bowl depth 200 mm.	Each
23.13.2.3	470x420 mm bowl depth 178 mm.	Each
23.14	Providing and fixing white vitreous china laboratory sink with C.I. brackets, C.P. brass chain with rubber plug 40mm C.P brass waste and 40mm C.P. brass trap with necessary C.P. brass unions complete including painting of fittings and brackets, cutting and making good the wall wherever required :	
23.14.1	Size 450x300x150mm	Each
23.14.2	Size 600x450x200mm	Each
23.15	Providing and fixing draining board with C.I. brackets including painting of rackets, cutting and making good the walls wherever required :	
23.15.1	White glazed fire clay draining board of size 600x450x25mm	Each
23.16	Providing and fixing a pair of white vitreous china foot rests of standard pattern for squatting pan water closet:	
23.16.1	250x130x30 mm	Pair
23.16.2	250x125x25 mm	Pair
23.17	Providing and fixing G.I. inlet connection for flush pipe connecting with W.C. pan.	Each
23.18	Providing and fixing white vitreous china flat back or wall corner type lipped front urinal basin of 430x260x350mm or 340x410 x265mm sizes respectively.	Each
23.19	Providing and fixing white vitreous china squatting plate urinal with integral rim longitudinal flush pipe.	Each
23.20	Providing and fixing white vitreous china wash basin including making all connections but excluding the cost of fittings :	
23.20.1	Flat back wash basin of size 630x450mm.	Each
23.20.2	Flat back wash basin of size 550x400mm.	Each
23.20.3	Angle back wash basin of size 600x480mm.	Each
23.20.4	Angle back wash basin of size 400x400mm.	Each

23.20.5	Flat back wash basin of size 450x300mm.	Each
23.20.6	Surgeon type wash basin of size 660x460mm.	Each
23.21	Providing and fixing kitchen sink including making all connections excluding cost of fittings.	
23.21.1	White glazed fire clay sink of size 600x450x250mm.	Each
23.22	Providing and fixing white vitreous china laboratory sink including making all connections excluding cost of fittings:	
23.22.1	Size 450x300x150 mm.	Each
23.22.2	Size 600x450x200 mm.	Each
23.23	Providing and fixing P.V.C. waste pipe for sink or wash basin including P.V.C. waste fittings complete.	
23.23.1	Semi rigid pipe	
23.23.1.1	32 mm dia	Each
23.23.1.2	40mm dia	Each
23.23.2	Flexible pipe	
23.23.2.1	32mm dia	Each
23.23.2.2	40mm dia	Each
23.24	Providing and fixing 100 mm sand cast Iron grating for gully trap.	Each
23.25	Providing and fixing 150 mm sand cast Iron grating.	Each
23.26	Providing and fixing in position 25mm diameter mosquito proof coupling of approved municipal design.	Each
23.27	Providing and fixing 600x450 mm beveled edge mirror of superior glass (of approved quality) complete with 6 mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers complete.	Each
23.28	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing :	
23.28.1	Circular shape 450mm dia.	Each
23.28.2	Rectangular shape 453x357mm	Each

23.28.3	Oval shape 450x350mm (outer dimensions)	Each
23.28.4	Rectangular shape 1500x450 mm	Each
23.29	Providing and fixing 600x120x5mm glass shelf with edges round of apported on anodised aluminium angle frame with C.P. brass brackets and guard rail complete fixed with 40 mm long screws, rawl plugs etc., complete.	Each
23.30	Providing and fixing toilet paper holder :	
23.30.1	C.P. brass	Each
23.30.2	Vitreous China	Each
23.31	Providing and fixing soil, waste and vent pipes :	
23.31.1	100 mm dia	
23.31.1.1	Sand cast iron S&S pipe as per IS : 1729	Meter
23.31.1.3	Centrifugally cast (spun) iron socketed pipe as per IS: 3989.	Meter
23.31.2	75 mm diameter	
23.31.2.1	Sand cast iron S&S pipe as per IS : 1729	Meter
23.31.2.2	Centrifugally cast (spun) iron socketed pipe as per IS: 3989.	Meter
23.32	Providing and filling the joints with spun yarn cement slurry and cement mortar 1:2 (1 cement : 2 fine sand) in S.C.I./ C.I. Pipes :	
23.32.1	75 mm dia pipe	Each
23.32.2	100mm dia pipe	Each
23.33	Providing and fixing M.S. holder-bat clamps of approved design to Sand Cast iron/cast iron (spun) pipe embedded in and including cement concrete blocks 10x10x10cm of cement concrete grade M-15 (Nominal Mix with 20mm maximum size of stone aggregate) including cost of cutting holes and making good the walls etc. :	
23.33.1	For 100mm dia pipe	Each
23.33.2	For 75mm dia pipe	Each
23.34	Providing and fixing bend of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete.	
23.34.1	100 mm	
23.34.1.1	Sand cast iron S&S as per IS - 1729	Each

23.34.1.2	Spun cast iron S&S as per IS - 3989	Each
23.34.2	75 mm dia	
23.34.2.1	Sand cast iron S&S as per IS - 1729	Each
23.34.2.2	Spun cast iron S&S as per IS- 3989	Each
23.35	Providing and fixing plain bend of required degree.	
23.35.1	100 mm	
23.35.1.1	Sand cast iron S&S as per IS - 1729	Each
23.35.1.2	Spun cast iron S&S as per IS - 3989	Each
23.35.2	75 mm dia	
23.35.1.1	Sand cast iron S&S as per IS - 1729	Each
23.35.1.2	Spun cast iron S&S as per IS- 3989	Each
23.36	Providing and fixing heel rest sanitary bend	
23.36.1	100 mm	
23.36.1.1	Sand cast iron S&S as per IS - 1729	Each
23.36.1.2	Spun cast iron S&S as per IS - 3989	Each
23.36.2	75 mm dia	
23.36.1.1	Sand cast iron S&S as per IS - 1729	Each
23.36.1.2	Spun cast iron S&S as per IS- 3989	Each
23.37	Providing and fixing double equal junction of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete :	
23.37.1	100x100x100x100mm	
23.37.1.1	Sand cast iron S&S as per IS - 1729	Each
23.37.1.2	Spun cast iron S&S as per IS - 3989	Each
23.37.2	75x75x75x75 mm	
23.37.1.1	Sand cast iron S&S as per IS - 1729	Each
23.37.1.2	Spun cast iron S&S as per IS - 3989	Each
23.38	Providing and fixing double equal plain junction of required degree.	
23.38.1	100x100x100x100mm	

23.38.1.1	Sand cast iron S&S as per IS - 1729	Each
23.38.1.2	Spun cast iron S&S as per IS - 3989	Each
23.38.2	75x75x75x75 mm	
23.38.2.1	Sand cast iron S&S as per IS - 1729	Each
23.38.2.2	Spun cast iron S&S as per IS - 3989	Each
23.39	Providing and fixing single equal plain junction of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete.	
23.39.1	100x100x100x100mm	
23.39.1.1	Sand cast iron S&S as per IS - 1729	Each
23.39.1.2	Spun cast iron S&S as per IS - 3989	Each
23.39.2	75x75x75x75 mm	
23.39.2.1	Sand cast iron S&S as per IS - 1729	Each
23.39.2.2	Spun cast iron S&S as per IS - 3989	Each
23.40	Providing and fixing single equal plain junction of required degree :	
23.40.1	100x100x100x100mm	
23.40.1.1	Sand cast iron S&S as per IS - 1729	Each
23.40.1.2	Spun cast iron S&S as per IS - 3989	Each
23.40.2	75x75x75x75 mm	
23.40.2.1	Sand cast iron S&S as per IS - 1729	Each
23.40.2.2	Spun cast iron S&S as per IS - 3989	Each
23.41	Providing and fixing double unequal junction of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete :	
23.41.1	100x100x75x75mm	
23.41.1.1	Sand cast iron S&S as per IS - 1729	Each
23.41.1.2	Spun cast iron S&S as per IS - 3989	Each
23.42	Providing and fixing double unequal plain junction of required degree:	

23.42.1	100x100x75x75mm	
23.42.1.1	Sand cast iron S&S as per IS - 1729	Each
23.42.2	Spun cast iron S&S as per IS - 3989	Each
23.43	Providing and fixing single unequal junction of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete :	
23.43.1	100x100x75mm	
23.43.1.1	Sand cast iron S&S as per IS - 1729	Each
23.43.1.2	Spun cast iron S&S as per IS - 3989	Each
23.44	Providing and fixing single unequal plain junction of required degree :	
23.44.1	100x100x75mm	
23.44.1.1	Sand cast iron S&S as per IS - 1729	Each
23.44.1.2	Spun cast iron S&S as per IS - 3989	Each
23.45	Providing and fixing double equal plain invert branch of required degree:	
23.45.1	100x100x100x100mm	
23.45.1.1	Sand cast iron S&S as per IS - 1729	Each
23.45.1.2	Spun cast iron S&S as per IS - 3989	Each
23.45.2	75x75x75x75 mm	
23.45.2.1	Sand cast iron S&S as per IS - 1729	Each
23.45.2.2	Spun cast iron S&S as per IS - 3989	Each
23.46	Providing and fixing single equal plain invert branch of required degree:	
23.46.1	100x100x100x100mm	
23.46.1.1	Sand cast iron S&S as per IS - 1729	Each
23.46.1.2	Spun cast iron S&S as per IS - 3989	Each
23.46.2	75x75x75x75 mm	
23.46.2.1	Sand cast iron S&S as per IS - 1729	Each
23.46.2.2	Spun cast iron S&S as per IS - 3989	Each

23.47	Providing and fixing double unequal invert branch of required degree	
23.47.1	100x100x75x75mm	
23.47.1.1	Sand cast iron S&S as per IS - 1729	Each
23.47.1.2	Spun cast iron S&S as per IS - 3989	Each
23.48	Providing and fixing single unequal plain invert branch of required degree :	
23.48.1	100x100x75mm	
23.48.1.1	Sand cast iron S&S as per IS - 1729	Each
23.48.1.2	Spun cast iron S&S as per IS - 3989	Each
23.49	Providing and fixing sand cast iron S&S off sets as per IS: 1729	
23.49.1	75 mm off sets	
23.49.1.1	With 75 mm dia. pipe	Each
23.49.1.2	With 100 mm dia. pipe	Each
23.49.2	114 mm off sets	
23.49.2.1	With 75 mm dia. pipe	Each
23.49.2.2	With 100 mm dia. Pipe	Each
23.49.3	152 mm off sets	
23.49.3.1	With 75 mm dia. pipe	Each
23.49.3.2	With 100 mm dia. Pipe	Each
23.50	Providing and fixing Spun cast iron S&S off sets as per IS: 3989.	
23.50.1	75 mm off sets	
23.50.1.1	With 75 mm dia. pipe	Each
23.50.2	150 mm off sets	
23.50.2.1	With 75 mm dia. pipe	Each
23.50.2.2	With 100 mm dia. Pipe	Each

23.51	Providing and fixing door piece, insertion rubber washer 3mm thick, bolts & nuts complete :	
23.51.1	100mm	
23.51.1.1	Sand cast iron S&S as per IS - 1729	Each
23.51.1.2	Spun cast iron S&S as per IS - 3989	Each
23.51.2	75mm	
23.51.2.1	Sand cast iron S&S as per IS - 1729	Each
23.51.2.2	Spun cast iron S&S as per IS - 3989	Each
23.52	Providing and fixing terminal guard:	
23.52.1	100mm	
23.52.1.1	Sand cast iron S&S as per IS - 1729	Each
23.52.1.2	Spun cast iron S&S as per IS - 3989	Each
23.52.2	75mm	
23.52.2.1	Sand cast iron S&S as per IS - 1729	Each
23.52.2.2	Spun cast iron S&S as per IS - 3989	Each
23.53	Providing and fixing collar:	
23.53.1	100mm	
23.53.1.1	Sand cast iron S&S as per IS - 1729	Each
23.53.1.2	Spun cast iron S&S as per IS - 3989	Each
23.53.2	75mm	
23.53.2.1	Sand cast iron S&S as per IS - 1729	Each
23.53.2.2	Spun cast iron S&S as per IS - 3989	Each
23.54	Providing lead caulked joints to sand cast iron/centrifugally cast (spun) iron pipes and fittings of diameter:	
23.54.1	100mm	Each
23.54.2	75mm	Each
23.55	Providing and fixing M.S. stays and clamps for sand cast iron/centrifugally cast (spun) iron pipes of diameter :	
23.55.1	100mm	Each

23.55.2	75mm	Each
23.56	Providing and fixing trap of self cleansing design with screwed down or hinged grating with or without vent arm complete, including cost of cutting and making good the walls and floors :	
23.56.1	100 mm inlet and 100 mm outlet	
23.56.1.1	Spun cast iron S&S as per IS: 3989.	Each
23.56.1.2	Sand Cast Iron S&S as per IS: 1729.	Each
23.56.2	100 mm inlet and 75 mm outlet	
23.56.2.1	Spun cast iron S&S as per IS - 3989	Each
23.56.2.2	Sand Cast Iron S&S as per IS- 1729.	Each
23.57	Providing and fixing to the inlet mouth of rain water pipe PTMT (an Engineering Thermoplastic) grating square (Slit) 150 mm square with a height of 8 mm and weighing not less than 100 gms.	Each
23.58	Cutting chases in brick masonry walls for following diameter sand cast iron/ centrifugally cast (spun) iron pipes and making good the same with cement concrete grade M-10 (Nominal Mix with 20mm maximum size of stone aggregate) including necessary plaster and pointing in cement mortar 1:4 (1 cement : 4 coarse sand) :	
23.58.1	100mm dia	meter
23.58.2	75mm dia	meter
23.59	Painting sand cast iron/ centrifugally cast (spun) iron soil, waste vent pipes and fittings with paint of any colour such as chocolate grey, or buff etc. over a coat of primer (of approved quality) for new work :	
23.59.1	100 mm diameter pipe	Meter
23.59.2	75 mm diameter pipe	Meter
23.60	Repainting sand cast iron/ centrifugally cast iron (spun) iron, soil, waste, vent pipes and fittings with paint of any colour such as chocolate, grey or buff etc :	
23.60.1	100 mm diameter pipe	Meter
23.60.2	75 mm diameter pipe	Meter

23.61	Providing and fixing unplasticised PVC soil and waste pipes conforming to IS: 13592 Type B including jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansion. Single socketed pipes for working pressure of 4 kg/sqcm.	
23.61.1	75 mm diameter (minimum wall thickness 3.2mm)	Sqm
23.61.2	110 mm diameter (minimum wall thickness 3.2mm)	Sqm
23.62	Providing and fixing on wall face unplasticised PVC moulded fittings/ accessories for unplasticised (PVC-u) soil and waste pipes conforming to IS: 13592 Type B including jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansion.	
23.62.1	Coupler	
23.62.1.1	75 mm	Each
23.62.1.2	110 mm	Each
23.62.2	Single pushfit Coupler	
23.62.2.1	75 mm	Each
23.62.2.2	110 mm	Each
23.62.3	Single tee with door	
23.62.3.1	75x75x75 mm	Each
23.62.3.2	110x110x110 mm	Each
23.62.4	Single tee without door	
23.62.4.1	75x75x75 mm	Each
23.62.4.2	110x110x110 mm	Each
23.62.5	Bend 87.50	
23.62.5.1	75 mm bend	Each
23.62.5.2	110 mm bend	Each
23.62.6	Shoe (Plain)	
23.62.6.1	75 mm Shoe	Each
23.62.6.2	100 mm shoe	Each
23.62.7	Vent Cowl (Self Fit)	
23.62.7.1	75 mm	Each
23.62.7.2	110 mm	Each
23.62.8	Single Y Bend	

23.62.8.1	75 mm	Each
23.62.8.2	110 mm	Each
23.62.9	Single Y with Door	
23.62.9.1	75 mm	Each
23.62.9.2	110 mm	Each
23.62.10	Multi Floor Trap	
23.62.10.1	110x75x40	Each
23.62.11	N-Trap without Jali	
23.62.11.1	110x75 mm	Each
23.62.11.2	110x110 mm	Each
23.63	Providing and fixing Unplasticised -PVC pipe clips of approved design to Unplasticised - PVC soil and waste pipes by means of bombay nail of required length including and making good the wall etc. complete.	
23.63.1	75mm dia	Each
23.63.2	110mm dia	Each
23.64	Providing and fixing uPVC trap of self cleaning design complet. Including cost of cutting and making good the wall and floors.	
23.64.1	100 mm inlet and 75 mm outlet	Each
23.65	Providing and fixing vitreous china dual purpose closet suitable for use as squatting pan or European type water closet (Anglo Indian W.C pan) with seat lid with C.P. brass hinges and rubber buffers, 10 litre low level flushing cistern with fitting and brackets, 40mm flush bend 20mm over flow pipe with specials of standard make and mosquito proof coupling of approved municipal design complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required :	
23.65.1	White vitreous china dual purpose WC pan with white solid plastic seat and lid with white vitreous china flushing cistern and C.P. flush bend.	Each

23.66	Providing and fixing PTMT Waste Coupling for wash basin and sink, of approved quality and colour.	
23.66.1	Waste coupling 31mm of 79mm length and 62mm breadth weighing not less than 45gms.	Each
23.66.2	Waste coupling 38mm of 83mm length and 77mm breadth, weighing not less than 60gms.	Each
23.67	Providing and fixing PTMT Bottle Trap for Wash basin and sink.	
23.67.1	Bottle trap 31mm single piece moulded with height of 270mm, effective length of tail pipe 260mm from the centre of the waste coupling 77mm breadth with 25mm minimum water seal, weighing not less than 260gms.	Each
23.67.2	Bottle trap 38mm single piece moulded with height of 270mm, effective length of tail pipe 260mm from the centre of the waste coupling 77mm breadth with 25mm minimum water seal, weighing not less than 263gms.	Each
23.68	Providing and fixing PTMT liquid soap container 109mm wide, 125mm high and 112mm distance from wall of standard shape with bracket of the same materials with snap fittings of approved quality and colour. weighing not less than 105 gms.	Each
23.69	Providing and fixing PTMT towel ring trapezoidal shape 215mm long, 200mm wide with a minimum distances of 37mm from wall face with concealed fittings arrangement of approved quality and colour. Weighing not less than 88 gms.	Each
23.70	Providing and fixing PTMT towel rail complete with brackets fixed to wooden cleats with CP brass screws with concealed fitting arrangement of approved quality and colour.	
23.70.1	450MM long towel rail with total length of 495mm, 78mm wide and effective height of 88mm, weighing not less than 170gms.	Each
23.70.2	600mm long towel rail with total length of 645mm, width 78mm and effective height of 88mm, weighing not less than 190gms.	Each

23.71	Providing and fixing PTMT shelf 440 mm long, 124 mm width and 36 mm height of approved quality and colour. Weighing not less than 300 gms.	Each
23.72	Providing and fixing PTMT 15 mm Urinal spreader size 95x69x100 mm with 1/2" BSP thread and shapes. Weighing not less than 60 gms.	Each
23.73	Providing and fixing PTMT urinal cock of approved quality and colour.	
23.73.1	15 mm nominal bore, 80mm long. 42 mm high and 30mm wide with BSP female threads weighing not less than 48 gms.	Each
23.74	Providing and fixing PTMT soap Dish Holder having length of 138mm, breadth 102mm, height of 75mm with concealed fitting arrangements. Weighing not less than 106 gms.	Each
23.75	Providing and fixing M.S. holder bat clamp of approved design to sand cast iron/ cast iron (spun) pipes comprising of M.S. flat brackets made of 50x5mm flat of specified shape, projecting 75mm outside the wall surface and fixed on wall with 4nos, 6mm dia expansion hold fasteners including drilling necessary holes in brick wall/ CC/ RCC surface and the cost of bolts etc. The pipes shall be fixed to the already fixed brackets with the help of 30mm x1.6mm galvanised M.S. flats of specified shape and of total length 420mm and shall be fixed with M.S. nuts, bolts, & washers of size 25x6mm, one bolts on each side of the pipe.	
23.75.1	Total bracket length 580mm of approved shape and design (for single 100mm dia pipe).	Each
23.75.2	Total bracket length 810mm of approved shape and design (for two 100mm dia pipes).	Each
23.75.3	Total bracket length 1040mm of approved shape and design (for three 100mm dia pipes).	Each

24.1	Providing, laying, Jointing & field testing of High Density Polyethylene pipes, (HDPE) confirming to IS 4984/ 14151/ 12786/ 13488 with necessary jointing material like mechanical connector or jointing pipes by heating to the ends of pipes with the help of Teflon coated electric mirror/ heater to the required temperature and then pressing the ends together against each other, to form a monolithic & leak proof joint by thermosetting process. It may be required to be done with Jacks/Hydraulic Jacks/ But fusion machine. (50mm & above fusion jointed & below 50mm mechanical jointed)	
24.1.1	25 mm dia	RM
24.1.2	32 mm dia	RM
24.1.3	40 mm dia	RM
24.1.4	50 mm dia	RM
24.1.5	63 mm dia	RM
24.1.6	75 mm dia	RM
24.1.7	90 mm dia	RM
24.1.8	110 mm dia	RM
24.1.9	125 mm dia	RM
24.1.10	140 mm dia	RM
24.1.11	160 mm dia	RM
24.2	Supply of I.S.I. marked G.I. casing pipe (Plain) medium class in 4 to 7 meters length one end fitted with socket as per I.S. 1239 (Part-1 & Part-2) 1992 with IVth revision (Up-to-date amendments)	
24.2.1	100 mm dia	meter
24.2.2	125 mm dia	meter
24.2.3	150 mm dia	meter
24.3	I.S.I. marked UPVC casing pipe confirming to IS 4985/1988 (with up-to-date amendments)	
24.3.1	CS casing pipes 150 mm dia	meter
24.3.2	CS casing pipes 200 mm dia	meter
24.4	Providing and fixing of well cap on top of the tube well for protection	
24.4.1	125mm dia	each
24.4.2	150mm dia	each
24.4.3	200mm dia	each

24.5	<p>Drilling of perfectly vertical bore hole of a diameter suitable to receive 150mm nominal diameter casing pipe upto desired depth below ground level inclusive of the labour charges for transporting, lowering and fixing of 150mm nominal diameter M,S./G.I./U.P.V.C. casing pipe inside the bore hole including all works pertaining to drilling such as transportation, installation and removal of drilling machine etc. complete. For all type of strata</p>	meter
24.6	<p>Drilling of perfectly vertical bore hole of a diameter suitable to receive 200mm nominal diameter casing pipe upto desired depth below ground level inclusive of the labour charges for transporting, lowering and fixing of 200mm nominal diameter M,S./G.I./U.P.V.C. casing pipe inside the bore hole including all works pertaining to drilling such as transportation, installation and removal of drilling machine etc. complete. For all type of strata</p>	meter
24.7	<p>Providing, erecting and giving test of submersible pump set conforming to IS 8034 and motor conforming to IS 9283, with water proof winding. Pump shall be suitable for various delivery head and discharge with stainless steel shaft. Motor suitable for working on 415 V \pm 10%, 3 Ph, 50 Hz A.C. Supply, with cable guard, thrust carbon/fiber bearing to withstand entire hydraulic thrust. The pump set shall be suitable for direct coupling, with suitable suction strainer. Pump should have suitable discharge out let as per manufacturer's design. Antithrust stream lined non return valve shall be provided with the pump. 3 m submersible copper conductor cable in single / double run and 2 pairs of suitable size erection clamp 10 mm thick shall be provided with each pump Submersible Pump set 100 mm dia (with Polypropylene/ Noryl Impeller) up to 20 stages</p>	
24.7.1	1.5 HP	EACH
24.7.2	2 HP	EACH
24.7.3	2.5 HP	EACH
24.7.4	3 HP	EACH

24.7.5	4 HP	EACH
24.7.6	5 HP	EACH
25.1	Planting permanent hedges including digging of trenches, 60 cm wide and 45 cm deep, refilling the excavated earth mixed with compost/manure, (compost/manure will be paid separately) and supplying and planting hedge plants (lemon, doranta, Red iver, clerodendron, pedilanthus etc at 30 cm apart including watering and maintenance for 3 months) .	Meter
25.2	Planting of Trees and their Maintenance for one Year (Planting of trees by the road side (Avenue trees) in 0.60 m dia holes, 1 m deep dug in the ground, mixing the soil with decayed farm yard/sludge manure, planting the saplings, backfilling the trench, watering, fixing the tree guard and maintaining the plants for one year)	Each
25.4	Edging with 2nd class bricks laid dry length wise including excavation, refilling, consolidating with hand packing and spreading surplus earth within a lead of 50 m.	Meter
25.5	Supplying, stacking and spreading of good earth for plantation at site including royalty and carriage (earth measured in stacks will be reduced by 20% for payment.	Cum
25.6	Supplying and stacking sludge at site including royalty and carriage up to 1 km (sludge measured in stacks will be reduced by 8% for payment).	cum
25.7	Supplying, stacking and spreading compost/manure from approved source, (manure measured in stacks will be reduced by 8% for payment)	Cum
25.8	Mixing & spreading earth and manure in proportion as specified or directed.	Cum
25.9	Uprooting rank vegetation and weeds by digging the area to a depth of 30 cm removing all weeds and other growth with roots by forking repeatedly, breaking clods, rough dressing, flooding with water, uprooting fresh growths after 10 to 15 days and then fine dressing for planting new grass, including disposal of all rubbish with all leads and lifts.	sqm

- 25.10 Grassing with 'Doob' grass including watering and maintenance of the lawn for 30 days or more till the grass forms a thick lawn free from weeds and fit for mowing. **(if needed good earth shall be paid separately).**
- 25.10.1 In rows 15 cm apart in either direction. 100 sqm
- 25.10.2 In rows 7.5 cm apart in either direction. 100 sqm
- 25.10.3 In rows 5 cm apart in either direction. 100 sqm
- 25.11 Providing and laying Selected type of Grass turf with earth 50mm to 60mm thickness on existing ground prepared with proper level and ramming with required tools wooden and than rolling the surface with light roller, making the surface smoothen and light watering the same, as per direction of Engineer-in-Charge. sqm
- 25.12 Providing and Laying Mexican/Zyosia carpet grass Turf with earth 50mm to 60mm thickness on existing ground prepared with proper level and ramming with tools wooden (Durmuth) and then rolling the surface with light roller make the surface smoothen and light watering with sprinkler and maintenance for 30 days or more till the grass establishes properly, as per direction of Engineer-in-Charge. Sqm
- 25.13 Digging holes in ordinary soil and refilling the same with the excavated earth mixed with manure or sludge in the ratio of 2:1 by volume (2 parts of stacked volume of earth after reduction by 20% : 1 part of stacked volume of manure after reduction by 8%) flooding with water, dressing including removal of rubbish and surplus earth, if any with all leads and lifts (cost of manure, sludge or extra good earth if needed to be paid for separately) :
- 25.13.1 Holes 120 cm dia and 120 cm deep. Each
- 25.13.2 Holes 60 cm dia and 60 cm deep. Each
- 25.13.3 Holes 45 cm dia, and 45 cm deep. Each
- 25.13.4 Holes 30 cm dia, and 30 cm deep. Each
- 25.14 Providing and planting different variety of plants of approved quality and sizes as mentioned including making pits of required size at site, refilled with B.C. Soil mixture manuring and pesticide etc. complete (to be paid separately) including watering and 90 days maintenance from the date of final bill as per direction of Engineer-in-Charge complete in all respect (B.C. Mixture paid separately).

25.14.1	Shrubs :-	
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25.14.2	Bahunia Tomentosa, Beloperone Species, Caselpinnia Pulcherima, Bird of Paradise, Callandra Emarginata, Callandra Hybrida, Cassia Bi flora, Cassia Laevigata, Cestrum Nocturnum, Dombeya Mastersii, Euphorbia Caracasana, Euphorbia Pulcherima, Excorea bi color, Excorea tri color, Ficus Blackii, Ficus Reginold, Ficus Panda, Gardenia, Gulphinia, Jasminoides, Hamelia Pattens, Heliconia, Hibiscus Rosasinensis, Hibiscus Verigated, Hibiscus Viceroy, Jatropha Multifida, Largestomia Indica, Malpighia Coccigera, Murraya Exotica, Murraya Koeniggi, Murraya Sambucum, Mussaenda Erythrophylla, Nerium Oleander, Nyctanthus Arbortristis, Plumbago Capensis, Putranjeeva Roxburghii, Tabernaemontana Coronaria, Tabernaemontana Divaricata, Tecoma Gaudi Chaudi, Tecoma Stans, Thevetia Nerifolia, Thuja Compacta and equivalent plants.	Each
25.14.3	Creeper plants (height:30cm to 45 cm)	
25.14.4	Allamanda Cathartica, Allamanda Grandiflora, Allamanda Violacea, Begonia Venustha, Boughan Villas (Variety : Butiana, Lady Mary Bearing, Mahaara, Mohan, Scarlet Queen Variagata, Glabra Formosa, Peruviana Odissi, Partha, Shubhra, Thimma, Spectabilis, L.N. Birla, Refulgens), Clerodendrum Splendens, Clerodendrum Thompsonae, Ipomea Purpurea, Jasminum Grandiflorum, Jasminum Humile (Yellow), Passiflora Caerulea (Rakhi Bel), Petrea Volubilis, Quis Qualis Indica, Tecoma Grandiflora, Veronia Elaegnifolia (Curtain Creeper), Mandvella, Garlic Creeper, Callimitis	Each
25.14.5	Ground cover plants height: 30cm-45cm	
25.14.6	Alpinia Verigated, Alternanthera species, Aspyragus Myerri, Aspyragus Springenii, Aspidistra, Canna (regular, Dwarf), Chlorodendron Inermii, Chlorophytum (Green), Chlorophytum verigated, Coffea Chinensis, Dianella Verigated, Durranta (Goldiana, Green, Verigated), Euphorbia Milli hybrid, Ipomea (Golden leaves), Iresine herbstii, Juniper Prostata, Juniper Africana, Ophiopogon plant, Ophiopogon jaburan, Portulacaria Afra (jade Plant), Schefflera Green, Schefflera verigated, Setcreasea Purpurea, Syngonium (Butterfly) species, Syngonium miniature, Syngonium Dwarf, Syngonium variegated, Tradescantia, Wadelia Trilobata, Zebrina Tradescantia, Pendanas, Spider Lily Black, Spider Lily verigated, Aclypha (Red, Green,Mini), Lantana (Red, Yellow, Purple, White, verigated), Haemalia Mini and similar plants.	Each
25.14.7	Winter seasonal height: 20-30 cm	

25.14.8	Any of one from Alyssum, Anemone, Antirrhinum Hybrid, Aster Hybrid, Begonia and its different varieties, Calendula, Carnation, Coleus, Daisy, Dianthus, Fressia, Gazania, Impatiens, Kalanchoe, Marigold Inca, Missam branthemum, Nemasia, Nasturtium, Ornamental Kale, Pansy Hybrid Sakata, Petunia Hybrids such as Bravo, Star and Picotee, Salvia, Stock, Stock, Verbena	Each
25.14.9	Summer and rainy seasonal plants	
25.14.10	Any of one from Celosia, Caladium Hybrid, Cockscomb, Cosmos, Gaillardia, Gomphorena, Kochchea, Portulacca, Sunflower Hybrid, Sunflower Single, Tapiocca Variegated (Manihot Esculenta), Vinca, Zinnia Hybrids.	Each
25.14.11	Rose Budded of H.T variety and miniature Roses. height: 30cm & above	Each
25.14.12	Plant Creeper Rose Varieties	Each
25.14.13	Standard Roses H.T. Variety	Each
25.15	Transplantation of trees including trimming the branches of full grown trees as per the requirement, giving the wax treatment of the trimmed area of branches, uprooting the tree and transporting the uprooted tree to the specified site of the transplantation as directed by the engineer-in-charge upto 12 km lead including all lifts, transplanting the uprooted tree by digging a required size of pit, filling it with fresh garden soil and manure as per the requirement and maintaing it for a period of 4 months by watering, weeding, manuring etc complete.	
25.15.1	A) Trees having trunk girth upto 1.0 metre	each
25.15.2	B) Trees having trunk girth more than 1.0 metre upto 1.5 meter	each
25.15.3	C) Trees having trunk girth more than 1.5 mt upto 2.0 metre	each
25.15.4	D) Trees having trunk girth more than 2.0 metre	each
	Note 60% of the above rates will be paid after the transplantation and balance 40% shall be paid after the expiry of maintenance period i.e. 4 months. Balance 40% shall not be payable if the tree doesn't survive after the maintenance period	
25.16	Providing & fixing tree guard of specified size with Angle Iron/ Flats and welded mesh or chainlink mesh as per approved design by Engineer in charge including applying approved steel primer.	
25.16.1	Steel work in built up section for construction of tree guard	Kg

25.16.2	Providing and fixing welded steel square / rectangular mesh of required size & applying a priming coat of approved steel primer.	Kg
25.16.3	Providing and fixing G.I. chain link mesh of required size made of G.I. wire including strengthening with 2mm dia wire or nuts, bolts & washers as required complete.	Kg
25.17	Providing and fixing of White Marbles circular/oval in shape (stone) pebbles of size 2"to 2.50" dia in natural colour at site of work including loading, unloading, carriage with all taxes paid etc. and as per direction of Engineer-in-Charge.	kg
25.18	Providing and fixing of 3 seater stone bench made of 75mm thick stone slab finished by different numbers of ambry stone and two coats of 124 no sealer coat to prevent from weather including fixing on a pedestal (cost of pedestal to be paid separately)etc. complete as per direction of engineer in charge. Size: length 1500mm, width 600mm, legs height 500 mm, back support height 500mm.	Each
25.19	Providing and fixing of stone table made of 75mm thick stone slab finished by different numbers of ambry stone and two coats of 124 no sealer coat to prevent from weather including fixing on a pedestal (cost of pedestal to be paid separately)etc. complete as per direction of engineer in charge. Size: length 1000mm, width 600mm, legs height 750 mm.	Each

Note:

- 1. Above indicated quantities may vary up to 10 to 20 % more are less as per the actual requirement.**
- 2. It will not be mandatory on the part of WALMI to issue work orders for all the materials and the quantities, and the works and extent of the area indicated in Annexure I above. Work orders for materials and works shall be issued only as per the actual requirements from to time to time.**

ANNEXURE II

To be submitted by the Firm /Agency

Request for proposal (RFP) proposal of Material and Services For Beautification / Afforestation Works

1.	Name of the firm/agency	
2.	Address of the firm/agency	
3.	Address of office in Bhopal/other city in Madhya Pradesh, if any.	
4.	Status: firm/partnership Legal status of the firm/agency (Company /Partnership firm/NGO-copy of registration to be submitted along with the technical bid)	
5.	Whether a single entity or firm? If partnership firm/agency, please submit the details of firm/agency partners other than: 1. Lead partner 2. Other partners (maximum 2 partners other than lead partner)	
6.	Name of the Proprietor/Partners/Directors	
7.	Name, Designation, E mail ID & Mob. No. of the contact person	
8.	A. Name, Designation & specimen signature of Authorized Signatory on behalf of the agency/firm (or) B. Authorized Signatory of the lead firm/agency	
9.	Telephone nos. of firm/agency & alternate E-mail ID, if any.	
10.	Turnover details of firm/agency last three financial years.	
11.	PAN number	
12.	GST No.	
13.	Total number of Government Department supplies in the last five years - Name of the Department/PSU (work orders/completion certificate to be attached).	
14.	Total experience with firm/agency related to supply of materials, services and works - specify type of materials supplied and type of services/works executed (attach copies of relevant work orders/documents)	
15.	Amount & DD no and date of Application fee and EMD	

ANNEXURE III
(To be submitted by the Firm /Agency)
DECLARATION- (Affidit)

1. I/We have read the instructions contained in the **Request For Proposal (RFP)** document and I/We understand that if any false/incorrect information/document submitted by me/us in this bidding process is detected at any point of time or at a later date, any contract/agreement made between ourselves and M.P. Water and Land Management Institute (WALMI), Bhopal on the basis of the information given by me/us can be treated as invalid by M.P. Water and Land Management Institute (WALMI), Bhopal, and I / We will be solely responsible for the consequences including cancelation of work order.
2. I/We agree that the decision of M.P. Water and Land Management Institute (WALMI), Bhopal in selection of firm / agency will be final, and binding to me/us.
3. All the information furnished by me/us above here is correct to the best of my/our knowledge and belief.
4. I / We agree that I / We have no objection if enquiries are made about the information/documents submitted by me / us here in above and/or in the accompanying sheets.

Place:

Date:

(Seal of the Bidder)

SIGNATURE

Name & Designation

ANNEXURE -IV

(To be submitted by the Firm /Agency)

RATE PROPOSAL

**OF THE MATERIALS TO BE SUPPLIED AND SERVICES/WORKS TO BE DONE TO BE
SUBMITTED BY FIRMS/AGENCIES**

FOR

BEAUTIFICATION / AFFORESTATION WORK IN WALMI

**(The materials to be supplied FOR WALMI- quote rates including transportation
charges up to WALMI/Any other place in Bhopal city)**

Sl. No.	Particulars	Unit cost to be Quoted by the firm/ Agency in Rs.	Total Cost Quoted by the firm/ Agency (Rs)
A	Name of Item		
1	Assam Bamboo (3 Inch Diameter)	Per Running Meter	
2	Half Round Bamboo (3 Inch Diameter)	Per Running Meter	
3	Waterproof Plywood – 16 mm	Per Sq.M	
4	Waterproof Plywood – 14 mm	Per Sq.M	
5	Waterproof Plywood – 12 mm	Per Sq.M	
6	Waterproof Plywood – 8 mm	Per Sq.M	
7	275 GSM Ultra Violet (UV) Vermi Compost Fabric	Per Sq. M.	
8	350 GSM Ultra Violet (UV) Vermi Compost Fabric	Per Sq. M.	
9	460 GSM Ultra Violet (UV) Vermi Compost Fabric	Per Sq. M.	
10	480 GSM Ultra Violet (UV) Vermi Compost Fabric	Per Sq. M.	
11	1.5" Iron Pipe	Per KG	
12	2" Iron Pipe	Per KG	
13	2.5" Iron Pipe	Per KG	
14	3" Iron Pipe	Per KG	
15	4" Iron Pipe	Per KG	
16	1.5" Steel Pipe	Per KG	
17	2" Steel Pipe	Per KG	

18	2.5" Steel Pipe	Per KG	
19	3" Steel Pipe	Per KG	
Sl. No	Particulars	Unit cost to be Quoted by the firm/ Agency in Rs.	Total Cost Quoted by the firm/ Agency (Rs)
20	4" Steel Pipe	Per KG	
21	Bio liquid organic manure jeevamrut	Per litre	
22	Bio liquid organic manure Ghan jeevamrut	Per litre	
23	Dry Gobar Khad (Cow Dung Manure)-Farmyard manure	Per Cubic M.	
24	Dhan Bhunsi (Rice Bran/husk)	Per Kilogram	
25	Khas (Used in Coolers)	Per Kilogram	
26	Black cotton Soil	Per Cubic M.	
27	Bamboo sticks (3 to 6 inch dia.) length 1.5M.	Per 1.5 M. Stick	
28	Gehun Bhunsa (Wheat Bran)	Per Cubic M.	
29	Sugarcane Bagas	Per Cubic M.	
30	Paddy Straw	Per Cubic M.	
31	Jute Rope (Sutli)	Per Kilogram	
32	Clay Pot Small (Size 6 inch dia. 8 inch height)	Per Pot	
33	Clay Pot Medium (Size 8 inch dia. 10 inch height)	Per Pot	
34	Clay Pot Large (Size 12 inch dia. 16 inch height)	Per Pot	
35	Clay Pot Large (Size 14 inch dia. 18 inch height)	Per Pot	
36	Ceramic Pot Small (Size 6 inch dia. 8 inch height)	Per Pot	
37	Ceramic Pot Medium (Size 8 inch dia. 10 inch height)	Per Pot	
38	Ceramic Pot Large (Size 12 inch dia. 16 inch height)	Per Pot	
39	Ceramic Pot Large (Size 14 inch dia. 18 inch height)	Per Pot	
40	Cement Pot Small (Size 6 inch dia. 8 inch height)	Per Pot	
41	Cement Pot Medium (Size 8 inch dia. 10 inch height)	Per Pot	
42	Cement Pot Large (Size 12 inch dia. 16 inch height)	Per Pot	
43	Cement Pot Large (Size 14 inch dia. 18 inch height)	Per Pot	
44	Plastic Pot Small (Size 6 inch dia. 8 inch height)	Per Pot	
45	Plastic Pot Medium (Size 8 inch dia. 10 inch height)	Per Pot	
46	Plastic Pot Large (Size 12 inch dia. 16 inch height)	Per Pot	

47	Plastic Pot Large (Size 14 inch dia. 18 inch height)	Per Pot	
48	Terracotta Pot Small (Size 6 inch dia. 8 inch height)	Per Pot	
49	Terracotta Pot Medium (Size 8 inch dia. 10 inch height)	Per Pot	
50	Terracotta Pot Large (Size 12 inch dia. 16 inch height)	Per Pot	
51	Terracotta Pot Large (Size 14 inch dia. 18 inch height)	Per Pot	
52	Iron Ring 6 inch dia. with iron string with 3 inch moulded hook. iron rod size 8 mm.	Per piece	
53	Clay Saucer shape plates - 10 inch dia.	Per piece	
54	Copra Supply	Cum	
55	Brick 1 st class	No.	
56	Cement	per bag	
57	Sand	Cum	
58	Aggregate	Cum	

No.	Particulars	Unit cost to be Quoted by the firm/ Agency in Rs.	Total Cost Quoted by the firm/ Agency (Rs)
1	Wooden Chair (Sample to be shown)	Per Chair	
2	Wooden Tea Table – 3'x2' (Sample to be shown)	Per Table	
3	Bamboo Chair (Sample to be shown)	Per Chair	
4	Bamboo Tea Table – 3'x2' (Sample to be shown)	Per Table	
C	Green Grass Artificial Carpet – Heavy Dense	Per Sq. M.	
D	Water spray fountains (3m height And Upto 5 m diameter) - with specifications of nozzles, pipe fitting , water spray height and width, motor	Per water spray fountain to be quoted	

E	List of Plants				
	पौधों के नाम	पौधों की उम्र	पौधों की उंचाई	प्रति पौधा	
1.	आम	1 से 2 वर्ष	75 से 90 से.मी	प्रति पौधा	
2.	अनार	1 से 2 वर्ष	75 से 90 से.मी	प्रति पौधा	

3.	चीकू	1 से 2 वर्ष	75 से 90 से.मी	प्रति पौधा	
4.	अमरुद	1 से 2 वर्ष	75 से 90 से.मी	प्रति पौधा	
5.	मौसमी	1 से 2 वर्ष	75 से 90 से.मी	प्रति पौधा	
6.	चकोट्रा	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
7.	पीपल	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
8.	महुआ	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
9.	हर्रा	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
10.	शीशम	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
11.	तिनसा	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
12.	कुरुलू	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
13.	सीता अशोक	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
14.	कचनार	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
15.	शहतूत	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
16.	गूलर	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
17.	अर्जुन	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
18.	गरुड़	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
19.	अचार	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
20.	बेल	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
21.	बड़	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
22.	रुद्राक्ष	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
23.	आंवला	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
24.	नारियल	2 वर्ष	60 से 80 से.मी	प्रति पौधा	
25.	केला	1 से 2 वर्ष	60 से 80 से.मी	प्रति पौधा	
26.	आई ऑफ गोडेस	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
27.	बांस बुद्धा	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
28.	बांस गोल्डन	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
29.	फाइकस	1 वर्ष	60 से 80 से	प्रति पौधा	
30.	मेरीगोल्ड (गेंदा)	1 वर्ष	60 से 80 से	प्रति पौधा	
31.	क्रोन फ्लावर	1 वर्ष	60 से 80 से	प्रति पौधा	
32.	नेस्चेरियम	1 वर्ष	60 से 80 से	प्रति पौधा	
33.	सालविया	1 वर्ष	60 से 80 से	प्रति पौधा	
34.	पिटोनिया	1 वर्ष	60 से 80 से	प्रति पौधा	
35.	सिनासिया	1 वर्ष	60 से 80 से	प्रति पौधा	

36.	ऑफिस टाइम	1 वर्ष	60 से 80 से	प्रति पौधा	
37.	एस्टर	1 वर्ष	60 से 80 से	प्रति पौधा	
38.	डायमंड	1 वर्ष	60 से 80 से	प्रति पौधा	
39.	बरबीना	1 वर्ष	60 से 80 से	प्रति पौधा	
40.	सेवन्ती	1 वर्ष	60 से 80 से	प्रति पौधा	
41.	बेगोनिया	1 वर्ष	60 से 80 से	प्रति पौधा	
42.	मैंगनिफिशेंट क्रोटन	1 वर्ष	60 से 80 से	प्रति पौधा	
43.	गोल्डन क्रोटन	1 वर्ष	60 से 80 से	प्रति पौधा	
44.	फ्लोरिडा सेलेक्ट क्रोटन	1 वर्ष	60 से 80 से	प्रति पौधा	
45.	जनजीवर क्रोटन	1 वर्ष	60 से 80 से	प्रति पौधा	
46.	अन्य सभी क्रोटन	1 वर्ष	60 से 80 से	प्रति पौधा	
47.	फलोमेरिया	1 वर्ष	60 से 80 से	प्रति पौधा	
48.	गोल्डन रेटरी	1 वर्ष	60 से 80 से	प्रति पौधा	
49.	प्राइड ऑफ इंडिया	1 वर्ष	60 से 80 से	प्रति पौधा	
50.	किसमस ट्री	1 वर्ष	60 से 80 से	प्रति पौधा	
51.	थूजा	1 वर्ष	60 से 80 से	प्रति पौधा	
52.	रेड बाटल ब्रश	1 वर्ष	60 से 80 से	प्रति पौधा	
53.	हल्दी (बीज)	1 वर्ष	60 से 80 से	प्रति पौधा	
54.	नीम	1 वर्ष	60 से 80 से	प्रति पौधा	
55.	लेवेण्डर	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
56.	सतावर	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
57.	लाजवंती	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
58.	सर्पगन्धा	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
59.	काली मूसली	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
60.	मधुमालती	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
61.	मीठा नीम	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
62.	रामा तुलसी	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
63.	कृष्णा तुलसी	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
64.	अमृता तुलसी	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
65.	वाना तुलसी	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
66.	वृंदा तुलसी	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
67.	जूही	1 वर्ष	60 से 80 से.मी	प्रति पौधा	

68.	चंपा	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
69.	चमेली	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
70.	मोगरा	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
71.	गुलाब	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
72.	रातरानी	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
73.	रजनीगंधा	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
74.	अगस्तका	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
75.	वर्जीनिया	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
76.	अपराजिता	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
77.	राखी बेल	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
78.	मनी प्लांट	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
79.	पान प्लांट	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
80.	कनेर	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
81.	लिली	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
82.	सदासुहागन	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
83.	कदम	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
84.	खेर	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
85.	खस	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
86.	जामुन	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
87.	खमेर	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
88.	कचनार	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
89.	मुनगा	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
90.	रीठा	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
91.	चिरौल	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
92.	बरगद	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
93.	पारिजात	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
94.	सिंदूरी	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
95.	एलोविरा	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
96.	बबूल	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
97.	अमलतास	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
98.	इमली	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
99.	करंज	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
100.	हरा	1 वर्ष	60 से 80 से.मी	प्रति पौधा	

101	बहेड़ा	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
102	तेंदू	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
103	लसौड़ा	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
104	बेलपत्र	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
105	सफेद सीरस	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
106	काला सीरस	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
107	अन्य पौधे	1 वर्ष	60 से 80 से.मी	प्रति पौधा	
	Moas Grass				

F	Painting and Fine Arts		
1	Texture Work on Bamboo	Per Sq.M.	
2	Texture Work on Cement Wall	Per Sq.M.	
3	Texture Work on Stone Wall	Per Sq.M.	
4	Stone Touch Wood Work on Stone Wall	Per Sq.M.	
5	Painting on Brick Wall	Per Sq.M.	
6	Painting on Concerts Wall	Per Sq.M.	
7	Painting on Clay Wall	Per Sq.M.	
8	Fine Art Painting on Floor	Per Sq.M.	
9	Light Colour Painting on Floor	Per Sq.M.	
10	Medium Colour Painting on Floor	Per Sq.M.	
11	Dark Colour Painting on Floor	Per Sq.M.	
Sl. No.	Particulars	Unit cost to be Quoted by the firm/ Agency in Rs.	Total Cost Quoted by the firm/ Agency (Rs)
G	Fabrication Work		
1	M.S.Square Pipe 2"x2	Per kg	
2	M.S.Square Pipe 2.5"x2.5"	Per kg	
3	M.S.Square Pipe 3"x3"	Per kg	
4	M.S.Square Pipe 4"x4"	Per kg	
H			
1	Flex Banner – Star Sheet	Per Sq.M.	

2	MS board (14 gauge) for name plate with required colour and paint of size 30cmx 45cm with 12 mm vertical support rod of length 1 m	Per Board	
3	MS board (14 gauge) for sign board with required colour and paint with vertical support (board size not bigger than 1m x1.5m)	Per Sqm	
4	Name Plate –ACP Sheet 3 mm	Per Sq.M.	
5	Name Plate –ACP Sheet 4 mm	Per Sq.M.	
6	Vinyl Painting	Per Sq. M	
I	Machinery		
a	Soil digging and leveling removing debris, weeds, big stones etc from the site. with JCB machine	Per hour	
b	Road Roller For Compaction At required place at site	Per hour	
c	Cultivator For cultivate At Required Place At Site	Per hour	
Sl. No.	Particulars	Unit cost to be Quoted by the firm/ Agency in Rs.	Total Cost Quoted by the firm/ Agency (Rs)
1	Surface dressing of the ground including removing vegetation and in-equalities not exceeding 15 cm deep and disposal of rubbish, lead upto 50 m and lift upto 1.5 m.	100Sqm	
2	Supplying and filling in plinth under floors including, watering, ramming consolidating and dressing complete. Moorum/Hard copra	Cum	
3	Supplying and filling in plinth under floors including, watering, ramming consolidating and dressing complete Crusher Stone Dust	Cum	
4	Making bajri path including preparation of subgrade, supplying and laying brick aggregate of 50mm nominal size 7.5 cm deep with blinding material consisting of 12 mm moorum and 12 mm red bajri consolidated with road roller.	Sqm	
5	Granite work gang saw cut (polished and machine cut) of thickness 18mm for wall lining (veneer work), backing filled with a grout of average 12 mm thick in cement mortar 1:3 (1 cement : 3 sand) including pointing with white cement mortar 1:2 (1 white cement : 2 marble dust) with an admixture of pigment to match the marble shade: (To be secured to the backing by means of cramps, which shall be paid for separately). Fine granite dark Black/dark Red/ White with self design/ pattern/ crystals of other colors of glitter	Sqm	
6	Supplying and stacking of good earth specific useful for plantation at site including royalty if any and carriage	Cum	
7	Supplying and stacking at site dump manure from approved source, including carriage	Cum	

8	Mixing earth and sludge or manure in the required proportion specified or directed by the Engineer-in-charge.	Cum	
9	Grassing with Selection No.1 grass including watering and maintenance of the lawn for 30 days or more till the grass forms a thick lawn, free from weeds and fit for mowing including supplying good earth, if needed (the grass and good earth shall be paid for separately): In rows 5 cm apart in both directions.	100 Sqm	
10	Planting different variety of plants Shrubs (75-90 cm height) Bahunia Tomentosa, Beloperone Species, Caselpinnia Pulcherima, Bird of Paradise, Callandra Emarginata, Callandra Hybrida, Cassia Bi flora, Cassia Laevigata, Cestrum Nocturnum, Dombeya Mastersii, Euphorbia Caracasana, Euphorbia Pulcherima, Excorea bicolor, Excorea tri color, Ficus Blackii, Ficus Reginold, Ficus Panda, Gardenia, Gulphinia, Jasminoides, Hamelia Pattens, Heliconia, Hibiscus Rosasinensis, Hibiscus Verigated, Hibiscus Viceroy, Jatropha Multifida, Largestomia Indica, Malpighia Coccigera, Murraya Exotica, Murraya Koeniggi, Murraya Sambucum, Mussaenda Erythrophylla, Nerium Oleander, Nyctanthus Arbortristis, Plumbago Capensis, Putranjeeva Roxburghii, Tabernaemontana Coronaria, Tabernaemontana Divaricata, Tecoma Gaudi Chaudi, Tecoma Stans, Thevetia Nerifolia, Thuja Compacta and equivalent plant	Sqm	
11	Creeper plants (height :30cm to 45 cm) Allamanda Cathartica, Allamanda Grandiflora, Allamanda Violacea, Begonia Venustha, Boughan Villas (Variety : Butiana, Lady Mary Bearing, Mahaara, Mohan, Scarlet Queen Variagata, Glabra Formosa, Peruviana Odissi, Partha, Shubhra, Thimma, Spectabilis, L.N. Birla, Refulgens), Clerodendrum Splendens, Clerodendrum Thompsonae, Ipomea Purpurea, Jasminum Grandiflorum, Jasminum Humile (Yellow), Passiflora Caerulea (Rakhi Bel), Petrea Volubilis, Quis Qualis Indica, Tecoma Grandiflora, Veronia Elaeagnifolia (Curtain Creeper), Mandvella, Garlic Creeper, Callimitis	Each	
12	Ground cover plants height: 30cm-45cm Alpinia Verigated, Alternanthera species, Aspyragus Myerri, Aspyragus Springenii, Aspidistra, Canna (regular, Dwarf), Chlorodendron Inermii, Chlorophytum (Green), Chlorophytum verigated, Coffea Chinensis, Dianella Verigated, Durranta (Goldiana, Green, Verigated), Euphorbia Milli hybrid, Ipomea (Golden leaves), Iresine herbstii, Juniper Prostata, Juniper Africana, Ophiopogon plant, Ophiopogon jaburan, Portulacaria Afra (jade Plant), Schefflera Green, Schefflera verigated, Setcreasea Purpurea, Syngonium (Butterfly) species, Syngonium miniature, Syngonium Dwarf, Syngonium variegated, Tradescantia, Wadelia Trilobata, Zebrina Tradescantia, Pandanus, Spider Lily Black, Spider Lily verigated, Aclypha (Red, Green, Mini), Lantana (Red, Yellow, Purple, White, verigated), Haemalia Mini and similar plants.	Each	
13	Any of one from Alyssum, Anemone, Antirrhinum Hybrid, Aster Hybrid, Begonia and its different	Each	

	varieties, Calendula, Carnation, Coleus, Daisy, Dianthus, Fressia, Gazania, Impatiens, Kalanchoe, Marigold Inca, Missam branthemum, Nemasia, Nasturtium, Ornamental Kale, Pansy Hybrid Sakata, Petunia Hybrids such as Bravo, Star and Picotee, Salvia, Stock, Stock, Verbena. Any of one from Celosia, Caladium Hybrid, Cockscomb, Cosmos, Gaillardia, Gomphorena, Kochchea, Portulacca, Sunflower Hybrid, Sunflower Single, Tapiocca Variegated (Manihot Esculenta), Vinca, Zinnia Hybrids.		
14	Rose plants height: 30cm & above	Each	
15	Standard Roses H.T. Variety	Each	
16	Excavation in dumped stones or malba or soil including stacking of serviceable and unserviceable material separately and disposal of unserviceable material lead upto 50 m and lift upto 1.5 m disposed material to be neatly dressed.	Cum	
17	Earth work in excavation by manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan) including dressing of side sand ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. (No extra lift is payable if work is done by mechanical means)	Cum	
18	Earth work in excavation by mechanical means (Hydraulic Excavator) means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan) including dressing of side sand ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. (No extra lift is payable if work is done by mechanical means)	Cum	
19	Preparation of mounds of various size and shape by available excavated /supplied earth in layers not exceeding 20 cm in depth, breaking clods, watering of Each layer, dressing etc. lead upto 50 metre and lift upto 1.5 m complete as per direction of Engineer-in-Charge.	Cum	
20	Stone bench Providing and fixing of 3 seater stone bench made of 75mm thick stone slab finished by different numbers of ambry stone and two coats of 124 no sealer coat to prevent from weather including fixing on a pedestal (cost of pedestal to be paid separately)etc. complete as per direction of engineer in charge. Size: length 1500mm, width 600mm, legs height 500 mm, back support height 500mm	Each	
21	Demolishing R.C.C. work manually/ by mechanical means including stacking of steel bars and disposal of unserviceable material within 50 meters lead as per direction of Engineer-in-	Cum	

	charge.		
22	Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding upto floor level including cost of binding wire, wastage and over laps upto 12mm horizontal/ inclined position of reinforcement bars in slab and beams, plinth, chajjas, lintels, upto 4.5m vertical length of reinforcement in wall columns (over laps shall be provided as per requirement of IS : 13920; IS 456 & SP : 34) etc. complete Thermo-Mechanically Treated bars. (Fe 500 D or more).	Kg	
23	Providing and laying cement concrete in retaining walls, return walls, walls (any thickness) including attached pilasters, columns, piers, abutments, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window sills, fillets etc. up to floor two level, excluding the cost of centering, shuttering and finishing : Grade Concrete M20	Cum	
24	Centering and shuttering including strutting, propping etc. and removal of form work for :	Sqm	
25	Cement concrete grade M-20 (Nominal Mix) with 20 mm maximum size of stone aggregate.	Cum	
26	Brick work with fly ash lime bricks (FALG Bricks) conforming to IS:12894- 2002, class designation 75 Kg/CM2 (average compressive strength) up to plinth level	Cum	
27	Brick work with chimney brick of class designation 40 in superstructure above plinth level upto floor 2 level including the cost of scaffolding in Cement mortar 1:4 (1 cement : 4 coarse sand)	Cum	
28	Random rubble masonry with hard stone in foundation and plinth with Cement mortar 1:6 (1 cement : 6 coarse sand)	Cum	
29	Coursed rubble masonry (first sort) with hard stone in foundation and plinth with Cement mortar 1:6 (1 cement : 6 coarse sand)	Cum	
30	18 mm cement plaster in two coats under layer 12 mm thick cement plaster 1:5 (1 cement: 5 coarse sand) and a top layer 6mm thick cement plaster 1:3 (1 cement: 3 coarse sand) finished rough with sponge.	Sqm	
31	Finishing with Deluxe Multi surface paint system for interiors and exteriors using Primer as per manufacturers specifications : Two or more coats on walls applied @ 1.25 ltr/10 sqm. over and including one coat of Special primer applied @ 0.75 ltr/10 sqm.	Sqm	
32	Painting on G.S. sheet with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade : New work (two or more coats) including a coat of approved steel primer but excluding a coat of mordant solution	Sqm	
33	Forming groove of uniform size from 12x12mm and upto 25x15mm in plastered surface as per approved pattern using	Meter	

	wooden battens, nailed to the under layer including removal of wooden battens, repairs to the edges of plaster panel and finishing the groove complete as per specifications and direction of the Engineer-in-Charge.		
34	Providing and fixing M.S. Tubular frames for doors, windows, ventilators and cupboard with any section made of 1.60mm or 1.25mm thick M.S. Sheet, joints mitred and welded and grinded finish with profiles required size with 15x3mm lugs 10cm long embedded in cement concrete M-10 (Nominal Mix with 20mm maximum size of stone aggregate) blocks 15x10x10cm or with wooden plugs and screws 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 primers. In gratings, frames, guard bar, ladder, railings, brackets, gates and similar works.	Kg	
35	Providing and fixing stainless steel (Grade 304) railing made of Hollow tubes, channels, plates etc. including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts and bolts complete i/c fixing the railing with necessary accessories and stainless steel dash fasteners, stainless steel bolts etc., of required size, on the top of the floor or the side of waist slab with suitable arrangement as per approval of Engineer-in-charge. (for payment purpose only weight of stainless steel members shall be considered excluding fixing accessories such as nuts, bolts, fasteners etc.)	kg	
36	Drilling of perfectly vertical bore hole of 150mm diameter up to desired depth below ground level in all types of strata including all works pertaining to drilling such as transportation, installation and removal of drilling machine etc. complete. In intertrappean formations (collapsible strata between rocks) including charges for transportation and making all necessary arrangements etc. including lowering and fixing of 125mm nominal diameter (gig. or U.P.V.C.) Casing pipe.	Each	
37	Labour charges for installation of submersible pumping sets at 50m or more depth temporarily in the tubewell for a maximum of eight hours for the purpose of conducting yield test for tube well. (Any one of the below depending on the approximate yield observed during drilling operations). Submersible pumping set upto 2.2 kW to 7.5 kW	Meter	
38	I.S.I. marked UPVC casing pipe conforming to IS 4985/1988 (with up-to-date amendments) Screen pipes with ribs 125mm dia	meter	
39	Neat cement punning	Sqm	

40	Providing, laying, Jointing & field testing of High Density Polyethylene pipes, (HDPE) confirming to IS 4984/ 14151/ 12786/ 13488 with necessary jointing material like mechanical connector or jointing pipes by heating to the ends of pipes with the help of Teflon coated electric mirror/ heater to the required temperature and then pressing the ends together against each other, to form a monolithic & leak proof joint by thermosetting process. It may be required to be done with Jacks/Hydraulic Jacks/ But fusion machine. (50mm & above fusion jointed & below 50mm mechanical jointed). 63mm	Each	
41	Providing, laying, Jointing & field testing of High Density Polyethylene pipes, (HDPE) confirming to IS 4984/ 14151/ 12786/ 13488 with necessary jointing material like mechanical connector or jointing pipes by heating to the ends of pipes with the help of Teflon coated electric mirror/ heater to the required temperature and then pressing the ends together against each other, to form a monolithic & leak proof joint by thermosetting process. It may be required to be done with Jacks/Hydraulic Jacks/ But fusion machine. (50mm & above fusion jointed & below 50mm mechanical jointed). 63mm	RM	
42	Gravels of in the recharge pit Supplying, filling, spreading and leveling gravels of size range 5 mm to 10 mm, in the recharge pit, over the existing layer of boulders, in required thickness, for all leads and lifts, all complete as per direction of Engineer-in Charge	Cum	
43	Stone boulders in recharge pit Supplying, filling, spreading and leveling stone boulders of size range 5 cm to 20 cm, in recharge pit, in the required thickness, for all leads and lifts, all complete as per direction of Engineer-incharge.	Cum	
44	Garden Water Fall, with All plumbing connection	Each	
45	Topiaries of Animal And Plant	Each	
46	lightning garden light (at surface	Each	
47	Perforated Path Way with 1st class brick or well burnt brick 50mm thick compacted bed of stone dust/sand filling the joints with sand etc.	Sqm	
48	Fencing with R.C.C. post placed at required distance, embedded in cement concrete blocks, every 15th post, last but one end post and corner post shall be strutted on both sides and end post one side only, provided with horizontal lines and two diagonals of barbed wire weighing 9.38 kg per 100 metres(minimum) between the two posts fitted and fixed with G.I. staples on wooden plugs or G.I. binding wire tied to 6 mm bar nibs fixed while casting the post with GI barbed wire. 5 row of barbed wire	Per meter	
49	Perforated Path Way with flagged stone 50mm thick compacted bed of stone dust/sand filling the joints with sand etc.	Sqm	

50	Providing and fixing G.I. chain link fabric fencing of required width in mesh of G.I. wire of dia. 3mm including strengthening with 2mm dia. wire or nuts, bolts and washers as required complete, with RCC posts of specified material and of standard design placed and embedded in cement concrete blocks 45x45x60cm of mix 1:5:10 (1cement :5 sand : 10 graded stone aggregate 40mm nominal size) every 15th post, last but one end post and corner post shall be strutted on both sides and end post on one side only and struts embedded in cement concrete blocks 70x45x50cm of the same mix, as per the direction of Engineer-in- Charge.	Sqm	
51	22 cm thick dry stone pitching without quarry spall with individual stone of 22 cm depth and minimum size 0.014 cum complete	Cum	
52	Construct Water proof Saucer of size (Bottom Dia = 1 m And Top Diameter = 3 m with Depth 0.75 m) And Sand Stone Cladding over saucer Surface, And Provide and install 2000 liter water tank over Stone Masonary platform with All plumbing fittings.	Each	
53	Providing and applying plaster of paris putty of 2 mm thickness over plastered surface to prepare the surface even and smooth complete	Sqm	
54	White washing with lime to give an even shade: New work (three or more coats)	Sqm	
55	Providing and Installation of designer tuffen glass 12 mm thick	Sqm	
56	With 40mm nominal size graded stone aggregate M-15 - Grade concrete	Cum	
57	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work upto plinth level :	Cum	
58	Providing And fitting of CNC Cutting MS Sheet with MS Fabricated Frame	kg	
59	Providing and install with all required material of walmi green wall (with required Plants)	sqm	
60	Providing And installation of uPVC pipe line with all required fitting = 15mm dia. pipe	meter	
61	Providing And installation of uPVC pipe line with all required fitting 25mm dia. pipe	meter	
62	Providing And installation of uPVC pipe line with all required fitting 32mm dia. pipe	meter	
63	Providing And installation of uPVC pipe line with all required fitting 40mm dia. pipe	meter	

64	Providing And installation of uPVC pipe line with all required fitting 50mm dia. pipe	meter	
65	Providing And installation of PVC pipe line with all required fitting 2" dia. pipe	meter	
66	Providing And installation of PVC pipe line with all required fitting 4" dia. pipe	meter	
67	Providing And installation of PVC pipe line with all required fitting 6" dia. pipe	meter	
68	Providing And installation of PVC pipe line with all required fitting 8" dia. pipe	meter	
69	Providing and laying factory made machine pressed precast cement concrete interlocking paver block of any shape and size conforming to IS:15658- 2006 and ISI marked of 60 mm thickness, M-30 grade with grey cement and pigment all as specified. Made by block making machine with strong vibratory compaction, laid in required colour and pattern over and including 50mm thick compacted bed of stone dust, filling the joints with sand etc. all complete as per the direction of Engineer-in Charge.	Sqm	
70	Finishing walls by any mechanical or manual means with Acrylic Smooth exterior paint (Economy Exterior) of required shade including all scaffolding. New work (Two or more coat applied @ 1.67ltr/10sqm over and including one coat undiluted exterior waterproofing coating @ 2.39 litre/10 sqm with crack bridging ability of upto 0.5mm on horizontal surfaces with an elongation of 150% and water proofing of upto 3 bars on vertical surface	Sqm	
71	Design, supply, fabrication, transportation and erection of structural steel/mild steel built-up sections for steel building in column, rafter, truss, floor joist, wind bracings, tie beam, foundation bolts, fasteners etc. Including two coats of Epoxy paint and one coat of primer. These structural steel/built-up sections shall be manufactured using advanced CNC Plasma/Oxy Acetylene cutter and H Beam Welding line. Welding shall be in full depth on both sides of the plate adopting relevant I.S Code.	kg	

ANNEXURE -V

(To be executed between WALMI and Firm / Agency after finalization of Request For Proposal (RFP))

AGREEMENT

This agreement is made and executed onday of..... 2022, at(“Agreement”).

BETWEEN,

Madhya Pradesh Water and Land Management Institute, situated at M. P. WATER AND LAND MANAGEMENT INSTITUTE, WALMI Hills, Kaliyasote Dam, Kolar Road, P. Box 538, Ravishankar Nagar, Bhopal – 462016 (hereinafter referred to as “WALMI”, which expression shall, unless it be repugnant to the context or meaning thereof, be deemed to mean and include its successors and assigns) represented through its Director, who is duly authorized by WALMI to execute this Agreement; of the first part,

AND

M/s ----- a Firm registered under the [Indian Partnership Act, 1932 **OR** The Limited Liability Partnership Act, 2008 (as applicable)], having its registered office at (Hereinafter referred to as “**Empanelled Agency**”, which expression shall, unless it be repugnant to the context or meaning thereof, be deemed to mean and include its successors and assigns) represented through the (Designation of the Authorized Signatory), who is duly authorized by the Empanelled Agency to execute this Agreement; of the second part.

WHEREAS

- (a) WALMI had published Request for Proposal (RFP) dated 18.04.2022 (“Firm / Agency”), for empanelment of firm /agency for the supply of materials for beautification/afforestation and providing services/execution of works pertaining to WALMI Forest afforestation through Miyawaki method, **Services** In response to the aforementioned Request for Proposal (RFP), the Empanelled Agency submitted its Request for Proposal (RFP) proposal

dated along with execution of a performance security amount of Rs. 8 lakhs (Rupees Eight Lakhs Only) by way of account payee, demand draft/ banker cheque/ FDR in favour of the Director, WALMI;

- (b) After following the due procedure as laid down in the said Request for Proposal (RFP) and consequent upon the due completion of the evaluation process of proposals received in response thereof, Empanelled Agency has been selected as one of the eligible entities for empanelment by WALMI for the execution of supply materials and services/works in the WALMI forest afforestation for a period of 2 (two) years starting from -

AND

- (c) The Empanelled Agency has agreed to the supply of materials/services/works of WALMI in accordance with the terms and conditions contained in the Request for Proposal (RFP) and those contained in this Agreement.

The parties here to being desirous of reducing into writing the terms and conditions of the empanelment and of the work to be carried out by the Empanelled Agency, have agreed as hereinafter. The terms and conditions contained in the Request for Proposal (RFP) shall be read as part and parcel of this Agreement, except that in case of any inconsistency, the terms contained in this Agreement shall prevail. This Agreement shall also not restrain the parties from setting forth such further or other terms, modifying or altering this Agreement to ensure due execution of the work contemplated under this Agreement; provided no such modification or alteration shall be in derogation to the material terms of this Agreement.

1. Scope of Services and general terms and conditions

As per the requirement of WALMI, the Empanelled Agency shall be required to undertake supply of materials/execution of works, Services from time-to-time, during the period of the Agreement.

The Empanelled Agency hereby understands and agrees that this Agreement merely broadly outlines the scope of work (i.e. is only indicative of the nature thereof) and is intended to provide a better understanding about the subject matter thereof, and shall not be construed or interpreted as limiting in any way or manner the scope of work and obligations of the Empanelled Agency set forth herein or WALMI's rights to amend, alter, change, supplement or clarify the scope of work, or the terms thereof or herein contained.

As per the requirement of WALMI, the Empanelled Agency shall be required to undertake supply of materials/execution of works, Services from time-to-time

primarily including (but not limited to) Identification of land for afforestation and execution of WALMI Forest afforestation as specified in the Request for Proposal (RFP) proposal and as per the work orders (whether oral or in writing), as issued by WALMI from time to time, and as and when called upon to do so by the authorized representatives of WALMI, during the period of the Agreement. It is hereby clarified that the scope of Services as afore-mentioned is only indicative of the nature thereof, and shall be subject to being altered, modified, expanded or supplemented, as deemed fit by the Director, WALMI.

- I. The continuance of a Empanelled Agency on the panel shall be subject to satisfactory performance of Services by the Empanelled Agency. If, at any point of time during the period of empanelment, WALMI is not satisfied with the performance of an Empanelled Agency, WALMI shall have the right to delist such Empanelled Agency from the panel, and initiate the mechanism to incorporate a suitable replacement thereof. In such an event, WALMI shall also have the right to invoke, forfeit and encase Performance Security Guaranty.
- II. WALMI reserves the right to seek clarification from any Empanelled Agency regarding the supply of materials/execution of works, Services at any point of time. In the scenario of an Empanelled Agency not responding to the quotation/inquiry by WALMI on three occasions, whether successively or otherwise, WALMI may delist such Empanelled Agency from the panel.
- III. WALMI reserves the right to dissolve the empanelment of Empanelled Agency, without assigning any reasons in respect thereof. The decision of the Director, WALMI in this regard shall be binding and final.
- IV. The Empanelled Agency shall perform thorough / exhaustive quality checks (i.e. correctness, consistency, data entry / coding etc.) and ensure work quality in respect of provision of Services.
- V. WALMI may also sanction an order against the Empanelled Agency, including declaring the Empanelled Agency ineligible, either indefinitely or for a stated period of time, if it at any time it is determined that the Empanelled Agency has, directly or through an agent, engaged in corrupt, fraudulent, restrictive or coercive practices in competing for, or in executing the work order of WALMI.
- VI. It is hereby clarified that the intellectual property rights (“IPR”) vesting in all documents and outputs developed specifically for WALMI will rest solely with WALMI. Further, all IPR in the planning, preparing strategy, developing creative ideas, developing and production of advertisement,

publicity and other resource material, etc. made in the course of performance of supply of materials/execution of works, Services by the Empanelled Agency shall absolutely belong to WALMI.

- VII. The Empanelled Agency shall not engage in any activities that conflict with the interest of WALMI under the Agreement.
- VIII. The Empanelled Agency shall supply of materials/execution of works, Services and carry out their obligations hereunder with all due diligence, efficiency and economy, in accordance with generally accepted professional ethics, standards and practices, and shall observe sound management practices, and employ appropriate technology, safe and effective equipment, machinery, materials and methods.
- IX. The Empanelled Agency hereby also undertakes that it is not suspended/blacklisted or under the period of suspension by any other ministry/department or agency/autonomous bodies/PSUs of Government of India or any state governments/ UTs. The Empanelled Agency further agrees to inform WALMI if they are blacklisted / suspended subsequently within 3 (three) days of receiving the suspension order.
- X. The Empanelled Agency undertakes that it shall, at all times, comply with both the existing and future laws, rules and guidelines issued by the Government of India, Govt of Madhya Pradesh and WALMI.

2. Allocation of work

- I. WALMI shall not, under any circumstances, guarantee the placement of work orders for supply of materials/execution of works, Services to the empaneled agency under this Agreement. It is hereby clarified that the supply of materials/execution of works, Services work shall be allotted on a case-to-case basis based on the selection criteria as deemed fit by WALMI, and as and when the need for the same arises, in the opinion of the Director, WALMI. The criteria for allocation of work, as specified in the FIRM / AGENCY, shall also be taken into account while allocating work to the Empanelled Agency. **It will not be mandatory on the part of WALMI to issue work orders for all the materials and the quantities, and the works and extent of the area indicated in Annexure 1. Work orders for materials and works shall be issued only as per the requirements from to time to time.** The Director, WALMI, shall reserve the absolute discretion in this respect.

- II. In case the Empanelled Agency fails to meet the WALMI's requirements in terms of quality and timeliness, WALMI shall be at liberty to award the work to the agency listed next in preference in the rotational cycle of Empanelled Agencies, at the risk and cost of the failed Empanelled Agency.

3. Period of empanelment:

- I. The empanelment of the Empanelled Agency shall be initially valid for a period of 2 (two) years from the date of empanelment, subject to review each year depending upon the performance of the Empanelled Agency. Such empanelment shall be liable to extension thereafter upon review of Empanelled Agency's performance and on mutually agreed terms. The Director, WALMI, however, reserves the right to take a final decision on this without assigning any reason thereof.
- II. It is hereby clarified that the quality of performance related to the execution WALMI forest afforestation service, is the essence of the contract and in the event of failure to perform as per the terms and conditions of the Agreement and to the satisfaction of WALMI; WALMI shall be free to take suitable decisions with respect to the continuance of the contract.

4. Payment Terms

- I. In the event that it is deemed fit to allocate a certain piece of work to the Empanelled Agency and upon satisfactory completion of the said task, payment shall be made to the concerned Empanelled Agency as prescribed in the Request for Proposal (RFP) document and WALMI Shall have the right to change the payment period as per the requirement of the project.
- II. The payment terms and penalties for delays in completion of the task shall be changed and finalized by WALMI as per the requirement.
- III. The Empanelled Agency should raise the invoice post execution of contract in the name of WALMI. The payment shall be released within 45 (forty five) days of invoice raised by the Empanelled Agency. All applicable taxes including GST, etc. will be deducted at source from the final bills as required under the Income Tax Act, 1961.
- IV. WALMI shall disburse the payment only after all due verifications have been done for the invoices submitted by the Empanelled Agency.
- V. The Empanelled Agency shall not receive any income in connection with the engagement except as provided for in the Agreement unless specifically authorized by WALMI.

5. **Work order cancellation:** WALMI also reserves the right to cancel the work order in the event of one or more of the following circumstances:
- I. Delay in performance of the allotted task beyond the date specified in the work order;
 - II. Material discrepancy in the performance from the agreed format or incompatibility therewith;
 - III. If the Empanelled Agency goes into liquidation voluntarily or otherwise; and/or
 - IV. Breach by the Empanelled Agency of any of the terms and conditions of this Agreement (including REQUEST FOR PROPOSAL (RFP)).
 - V. In addition to the cancellation of work order, WALMI reserves the right to forfeit the amount of performance security submitted to WALMI by the Empanelled Agency and delisting the Empanelled Agency.
6. **Penalty and Liquidated Damages (LD) for breach of this Agreement :** If the Empanelled Agency fails to comply with the obligations contained in this Agreement (including failure to perform the allotted work within the stipulated schedule, breach of any third party IPR, etc.), WALMI may, without prejudice to its other remedies under this Agreement, deduct from the consideration payable, as LD, a sum equivalent to 0.5 percent of the total consideration amount for each and every calendar day of the delay. Such penalty shall be deducted from the bills of the Empanelled Agency, or through the invocation of the performance security. WALMI may also, in such an event, consider removal of Empanelled Agency from the empanelled list. Where the penalty has been deducted by invoking the performance security thereby resulting in a reduction in the amount, the Empanelled Agency shall, within 7 (seven) working days from date of such deduction, ensure that the amount of performance security gets restored to the position prior to such invocation.
7. **Indemnity to WALMI:** The Empanelled Agency hereby declares and covenants to defend, indemnify and hold WALMI and its Director, affiliates, employees (whether regular, retained or contracted), successors in interest and permitted assigns harmless from and against all claims, liabilities, costs, charges, damages or assertions of liability of any kind or nature resulting from:
- (a) Any breach of terms, covenants and conditions or other provisions hereof, or any actions or omissions hereunder;
 - (b) Any failure to comply with applicable legislation, statutes, ordinances,

regulations, circulars administrative rulings or requirements of law;

- (c) The misfeasance, malfeasance, negligence, defaults, misconduct or fraudulent acts of and/or by the Empanelled Agency or its representatives, employees, directors, agents, representatives;
- (d) Fraudulent, improper, incorrect, wrongful or negligent performance, work, service, willful misconduct, act or omission by the Empanelled Agency including any of its employees, and representatives; and
- (g) Any and all actions, suits, proceedings, assessments, settlement, arbitration judgments, cost and expenses, including attorneys' fees, resulting from any of the matters set forth herein above;

8. Termination of Contract and de-empanelment:

- I. WALMI shall de-empanel the Empanelled Agency, if the Empanelled Agency is found to be engaged in corrupt, fraudulent, and unfair trade practices, including any coercive or collusive activities. In this context:
 - (a) "Corrupt practice" means the offering, giving, receiving or soliciting of anything of value to influence the action of WALMI or any personnel in the execution of allotted work.
 - (b) "Fraudulent practice" means a misrepresentation of facts, in order to influence a procurement process or the execution of a work order, pertaining to WALMI, and includes collusive practices among Empanelled Agencies specifically designed to establish proposal prices at artificially high or non-competitive levels and to deprive WALMI of the benefits of free and open competition.
 - (c) "Unfair trade practices" means supply of services incompatible with the agreed work order, general terms and conditions or scope of Services contained herein.
 - (d) WALMI has the right to impose penalty or terminate the contract, depending on the severity of such occurrences.
- II. Further, WALMI reserves the right to withdraw/ terminate empanelment in any of following circumstances:
 - a) where there is a breach of the terms and conditions contained herein (including the Request for Proposal (RFP)) and the Empanelled Agency fails to perform the Services to the satisfaction of WALMI;
 - b) where the Empanelled Agency becomes insolvent / bankrupt, or a resolution is passed for the winding up of the Empanelled Agency entity;

- c) where the information provided to WALMI by the Empanelled Agency is found to be incorrect and misleading, and where there is misrepresentation of material facts pertaining to the provision of Services by the Empanelled Agency to WALMI;
- d) where the Empanelled Agency fails to meet the conditions of empanelment within the specified time period;
- e) where the Empanelled Agency makes misleading claims about the empanelment status; and / or
- f) where there is sufficient evidence that prima facie establishes a breach of third party IPR by the Empanelled Agency.

III. WALMI shall, at all times, be entitled to determine and terminate this Agreement without assigning any reason, by giving 07 (seven) days' notice to the Empanelled Agency, and such agency shall have no claims of whatsoever nature against WALMI. In case of such termination, WALMI shall pay the Empanelled Agency charges only upto the effective date of termination. However, any such termination shall not relieve the Empanelled Agency of any of the Services provided by them prior to such termination.

9. **No claim certificate:** The Empanelled Agency shall not be entitled to make any claim, whatsoever, against WALMI under or by virtue of or arising out of the empanelment nor will WALMI entertain or consider any such claim for the jobs accepted post empanelment.

10. **Publicity:** Any publicity by the Empanelled Agency in which the name of the WALMI shall not be carried out without the explicit written permission of WALMI.

11. **Confidentiality and Conflict of Interest:**

I. Except with the prior written consent of WALMI, the Empanelled Agency and its personnel shall not, at any time, communicate to any person or entity any confidential information acquired in the course of the Agreement or after the expiration of this empanelment, nor shall the Empanelled Agency and its personnel make public the recommendations formulated in the course of, or as a result of, the Services.

II. WALMI shall have the right to claim damages from the Empanelled Agency to the extent of the loss suffered, on account of the disclosure of confidential information by the Empanelled Agency.

III. The Empanelled Agency shall hold WALMI's interests paramount, without

any consideration for future work, and strictly avoid conflict of interest with other assignments or their own interests. If during the period of this contract, a conflict of interest arises for any reasons, the Empanelled Agency shall promptly disclose the same to the WALMI and seek its instructions.

12. Outsourcing and assignment:

- I. The Empanelled Agency shall not assign the work, whole or in part, to any other agency, even its own subsidiary or parent agency, to perform its obligation under the Agreement, without prior consent of WALMI.
- II. The Empanelled Agency shall not assign or transfer any of the rights under this Agreement to a third party without consent of WALMI in writing. Any such assignment without consent shall neither absolve the assignor of its liabilities and obligations under this Agreement, nor create in favour of the assignee any rights or privileges as against WALMI.

13. Change of name: During the period of empanelment, if the name of the Empanelled Agency has undergone a change due to acquisition, amalgamation etc, the Empanelled Agency shall inform WALMI within 30 (thirty) days of the event. In such cases, all the obligations under the contract with WALMI should be passed on for compliance to the new Empanelled Agency.

14. Relationship: The parties are independent contractors. Nothing in this Agreement or in the activities contemplated by the parties pursuant to this Agreement shall be deemed to create an agency, partnership, employment or joint venture relationship between the parties. Each party shall be deemed to be acting solely on its own behalf and except as expressly stated has no authority to pledge the credit of or in our obligations or perform any acts or make any statements on behalf of the other party. Neither party shall represent to any person or permit any person to act upon the belief that it has any such authority from the other party. Neither party's officers or employees, agents or contractors shall be deemed officers, employees, agents or contractors of the other party for any purpose.

15. Number of Copies: The Empanelled Agency shall be the person liable to pay the requisite stamp duty payable as per appropriate provisions of the stamp laws in force in the State of Madhya Pradesh. This agreement is made in duplicate and WALMI and the Empanelled Agency shall each retain one original duly signed by the authorized signatories of the parties hereto.

16. Notice: Any notice to be given hereunder shall be in writing and shall either be delivered personally within normal office hours and on working days or sent by

registered post A.D. at the registered addresses mentioned in this Agreement within 15 (fifteen) days. A notice shall be deemed to have been served as follows:

(a) if personally delivered, at the time of delivery; or

(b) if sent by registered post A.D., at the time of delivery or transmission thereof within normal office times and on working days.

17. **Failure to Exercise rights:** Any omission on the part of WALMI at any time to exercise any of its rights under the terms of engagement of the Agreement shall not be deemed to amount as waiver on the part of WALMI of its rights and in no way impair or affect the validity of the terms and the privilege of WALMI to enforce its rights at any time subsequently.
18. **Force Majeure:** For the purpose of this clause, 'Force Majeure' shall mean an event that is unforeseeable, beyond the control of the parties and not involving the parties' fault or negligence. Such events may include acts of the Government either in its sovereign or in its contractual capacity, war, civil war, insurrection, riots, revolutions, fire, floods, epidemics, quarantine, restrictions, freight, embargoes, radioactivity and earthquakes. The Empanelled Agency shall not be liable if the delay in the discharge of its obligations under this agreement is the result of an event of Force Majeure as defined above.
- If a Force Majeure situation arises, the Empanelled Agency shall promptly notify to WALMI in writing of such conditions and the cause thereof. Unless otherwise directed by WALMI in writing, the Empanelled Agency shall continue to perform its obligations under this Agreement, as far as it is reasonably practical and shall seek all reasonable means of performance not prevented by the Force Majeure event.
19. **Dispute Resolution:** The WALMI and the Empanelled Agency shall make every effort to resolve amicably by direct negotiation any disagreement or dispute arising between them. In the event of non-resolution of the dispute or disagreement in the afore-stated manner, such dispute shall be referred to the Director, WALMI, and the decision of the Director in this respect shall be binding upon the Empanelled Agency.
20. **Jurisdiction:** This Agreement shall be governed by, and construed in accordance with, the laws of India and the Hon'ble Courts in Madhya Pradesh shall have exclusive jurisdiction over all disputes arising under, pursuant to and/ or in connection with the Agreement.
21. **Entire Agreement:** This Agreement and, in relation to any Services, the

REQUEST FOR PROPOSAL (RFP) and the work orders (as and when issued) together constitute the complete and exclusive statement of the agreement between the parties with regard to the matter set forth herein, and it supersedes all other agreements, proposals and representations, oral or written, expressed or implied with regard thereto.

22. Limitation of liability:

- I. Except in case of gross negligence or willful misconduct WALMI shall not be liable to the Empanelled Agency for any indirect or consequential loss or damage, loss of use, or loss of profits or interest costs.
- II. Without prejudice to the aforesaid, the aggregate liability of WALMI under this empanelment, shall not exceed the amount of the PBG executed by the Empanelled Agency. Provided that this limitation shall not apply to the obligations of the Empanelled Agency to indemnify WALMI arising out of the contracts/work orders issued for specific engagements.

The parties agree to be bound by the terms and conditions of this Agreement in witness whereof they have signed it through their authorised representatives on this [.] day of [.] 2022.

Sealed, Signed and Delivered by For and on behalf of WALMI

Date:

Place:

Witnessed by

For and on behalf of Empaneled Agency

Date:

Place:

Witnessed by