New Delhi Municipal Council
(NDMC)

DRAFT
BIDDING DOCUMENT

for the

Selection of Contractor for Implementation of Continuous (24 x 7) Pressurised Water Supply in NDMC and Operation & Maintenance of the System for the Period of Five Years

(Following single stage two envelope bidding procedure)

Part II – Price Bid

Issued on: __/___/2016

Invitation for Bids No.: NDMC/TENDER NO. _____

Employer: New Delhi Municipal Council

State : New Delhi

Country: **India**

Bill of Quantities

A. **Preamble to Bill of Quantities**

1. The Bill of Quantities (BOQ) shall be read in conjunction with the section 6.23 for particular item description and section 6 for specific requirements, section 7 GCC & section 8 PCC for payments terms & conditions.

2. The quantities given in the BOQ are estimated and provisional, and are given to provide a common basis for bidding. The basis of payment will be the actual quantities of work ordered and carried out, as measured by the Contractor and verified by the Employer's Representative, and valued at the rates and prices bid in the priced BOQ, where applicable, and otherwise at such rates and prices as the Employer's Representative may fix within the terms of the Contract.

3. The rates for specific material and goods falling under Excise Exemption as per Central Excise Notification no. 12/2012-CE dated 17-03-2012 issued & updated by Government of India time to time shall be without any excise duty. Excise Exemption on the materials like pipes, valves, specials, flow meter, instrument, etc. shall be availed under this project. Contractor shall be responsible to get the Exemption and liaison with concerned department. However, NDMC shall assist Contractor to obtain certification towards Exemption of Excise Duties. The responsibility for obtaining any such exemptions from the Competent Authority will remain with the Contractor and the Employer shall not in any way be responsible for admissibility of the claims or eligibility of the Contractor.

4. The rates and prices bid in the priced Bill of Quantities shall, except as otherwise provided under the Contract, include all construction equipment, labor, supervision, materials, surveying, setting out, erection, maintenance, all lead and lift, insurance, profit, taxes, and duties, together with all general risks, liabilities, and obligations set out or implied in the Contract.

5. General directions and descriptions of work and Materials are not necessarily repeated nor summarized in the Bill of Quantities. References to the relevant sections of the Contract documentation shall be made before entering prices against each item in the priced Bill of Quantities.

6. The method of execution and measurement of completed work for payment shall be in accordance to the respective procedures provided in the Technical Specifications or Particular Specifications under this Contract and in the absence of which shall be in accordance to the relevant BIS Standard and Standard Specification published by CPWD, Government of India as the case may be.

7. Rock is defined as all material that, in the opinion of the Employer's Representative, require blasting, or the use of metal wedges and sledgehammers, or the use of compressed air drilling for their removal, and that cannot be extracted by ripping with a tractor of at least 150 brake horse power (BHP) with a single, rear-mounted, heavy-duty ripper.

8. All defective works are liable to be demolished, rebuilt and defective materials replaced by the contractor at his own cost and time

9. In view of the site location and their prevailing condition, it is mandatory to the Contractor to visit

the site and make himself thoroughly familiar with the site conditions, access and account for all possible difficulties and other requirements mentioned elsewhere in his bid prior to submission. When a contractor submits his bid for this work, it will be considered that he has quoted for this work with full and complete knowledge of the site and prevailing conditions, and no claim for additional compensation shall be entertained on this account.

10. Description of items in this BOQ is by itself not complete, and for a full description the BOQ should be read together with the section 6.23 for respective items Technical Specifications. Rates quoted in the BOQ are deemed to have included all aspects covered in the Preamble and Technical Specifications.

11. The Bidder shall, in the course of studying the bid document, point out all his/her remarks on the documents and make all his/her queries to the Employer at the time of pre-bid meeting who will study these remarks and clarify any discrepancy between the Bidding Documents.

12. Submissions shall be strictly in accordance with the documents and shall not be qualified in any other way. The Bidder shall not alter the text of the BOQ.

13. Extra and excess items of work shall not vitiate the Contract. The Contractor shall be bound to execute extra items of work as directed by the Engineer. The rates for extra items will be as per rates decided under Contract Conditions.

14. For the evaluation process, if requested by the Evaluation Committee, the Bidder shall provide a sheet analysis for all priced items showing how the rate entered was derived. Successful bidder shall submit the same to the Employer.

15. The rates shall be deemed to include all the cost of Works described in the Bidding Documents to operate, maintain and manage the water supply with in the project area as per the scope of work.

16. The Bidder shall satisfy himself/herself as to the meaning of every item in the BOQ. The rates and prices inserted in the BOQ by the bidder shall be deemed to cover all costs, taxes, customs and import duties, levies, profits, risks, liabilities, insurance and obligations set forth or implied in the bid, as well as proper operation, maintenance and management of the Works including, but not limited to the following:

    (i) All labor and Materials including consumables;

    (ii) All temporary work of every description required including over ground pumping and other requirements to avoid disruption to the service whilst maintenance or repair work is carried out;

    (iii) The provision and use of all equipment, tools and Plant of every kind, whether mechanical or non-mechanical, required for the expeditious carrying out of the Works in their proper sequence;

    (iv) Provision for scaffolding, staging, guard rails, temporary stairs, temporary access during execution, approach roads up to the Site for the movement of vehicles, and heavy excavation machinery with supporting transport facility;

    (v) Provision for excavation, back-filling, bringing to the Site extra fill for back-fill, making good and reinstating surfaces, disposing of surplus material, dealing with all ground water and wastewater flows, and for work in close proximity to other utility apparatus including protecting that apparatus;

(vi) Provision for work on pipe line corridors such as traffic control measures, safety barriers, obtaining any approvals and permits from authorities, and reinstatement of surfaces;

(vii) Cooperation and coordination of the work with related authorities, other contractors and utilities, including obtaining their permission before starting the related Works if required; and

(viii) Providing security arrangements to guard the Site and premises at all times and to maintain strict control on the movement of Materials and labor until the completion of the work.

17. Electricity costs and initial connection charges associated with operations shall be paid by NDMC directly to the electricity service provider. The power connections shall be obtained in the name of NDMC, the charges of which will be paid by NDMC directly to electricity department or reimbursed under provisional sum if paid by the Contractor.

18. The serviceable materials, recovered while shifting of utilities as ascertained by the Engineer, shall be deposited at designated store yards or as directed by the Engineer. No payment shall be made to the Contractor in this regard.

19. Works itemized in the BOQ will be subject to measurement. Such measurement will be in the unit of measurement shown the BOQ and payment shall be made on the measured quantities.

20. Any item of work which is specified and required for the construction works, but not included or itemized in the BOQ, shall be treated as an extra item and will be paid separately.

21. All rules and regulations of the labor department, contract labor Laws, provident fund and employee state insurance and connected Laws, and all other Laws of the land are to be complied with by the Bidder within the quoted rates.

22. NDMC will provide required space for construction of service centers, and stores may be in NDMC campuses or at suitable locations. No land will be provided by the Employer to the Contractor for constructing any structure for his labor, workman and supervisory camps, un-authorized hutments, at the Site or within the premises. The Contractor shall make his/her own arrangements for the same outside the premises/boundary. These, if any, shall be with the knowledge of and prior approval of the Employer's Representative.

23. In the event of multiple pipes laying for pure water, horticulture water & flushing water i.e. during parallel pipe laying single trench shall be used with necessary clearance between the pipes. In such scenario, width for the same shall be considered as per following ;

Pipe diameter for	P1, P2, P3
Permissible maximum width	W1, W2, W3
Total Width Required	= W1+W2+W3= W

The rate of excavation shall be corresponding to pipe diameter for which permissible width is 'W". In case there is no diameter of pipe for which permissible width is equal to 'W' then two or more size pipe whose cumulative width is equal to or near to W, the permissible rate of payment for excavation shall be equal to cumulative rate for such pipe size.

For Example:-

Pipe diameter in mm	100	150	300
Permissible maximum width	0.75	0.75	0.9
Total Width Required	0.75+0.75+0.9=2.4		

24. Bidders shall quote the fees / rates as per following;

i) DMA Establishment Cost shall be minimum 6% of total Contract Price (Evaluated Bid Price)
ii) Operation & Maintenance service fees shall be minimum 22% of total Contract Price as per BoQ

iii) The ratio of DMA Establishment Fees, Construction Works cost & Operation and maintenance fees shall be in the ration of 0.4:8.0:1.6

Any increase in Construction Works cost shall be subject to comparison to the ratio above. In that case, Construction works cost will be reduced and adjusted with DMA Establishment Fees and Operation and Maintenance Fees proportionately by keeping the total Bid Price unchanged.

25. Metric System and Abbreviations

Millilitre	ml
Million Litres per Day	mld
Million Litre	ML
Litre	ltr
Linear meter	m
Gram	gm
Square metre	m^2
Cubic metre	m^3
Number	No.
Kilogram	kg
Lump Sum	LS
Indian Rupees	Rs
Millimetre	mm
Square Centimetre	cm^2
Square Millimetre	mm^2

26. The abbreviations used in the Specification and BOQ shall be read as follows:

IS	Indian Standard
BHP	Brake Horsepower
BS	British Standard
Cm or CM or cm	Centimeter
Cum or CUM	Cubic Meter
MM or mm	Millimeter /s
Rm or RM or RMT	Running Meters
Sqm	Square Meters
SqKm	Square Kilometers
Qty.	Quantity
Drg.	Drawing
No. or Nos.	Number or Numbers
PCC	Plain Cement Concrete
RCC	Reinforced Cement Concrete
Rs.	Indian Rupees

Bill of Quantities
(Provided in Part 2)

APPENDIX-__
FINANCIAL BID FORM

Name of the Project :
Selection of Contractor for Implementation of continuous (24 x7) pressurized Water Supply in NDMC and Operation & Maintenance of the system for the period of 5 years

Parameter	Quoted Value (In Rs. Crore)	
Bid Project Cost (DMA Establishment Cost + Construction Works	-	(To be quoted by Bidder)
O&M Service Cost	-	(To be quoted by Bidder)

% of Construction Support Payment of Bid Project Cost	60%	
% of Contribution for Annuity Payment of Bid Project Cost	40%	
EMI Interest Rate	8.25%	(To be quoted by Bidder)
Discounting rate	10.00%	

Fig In Crore

Month	Annuity Payment (In Rs. Crore)	O&M Payment (In Rs. Crore)	Total	Present Value Factor @ 10%	Present Value
(1)	(2)	(3)	(4)= (2)+(3)	(5)	(6) = (4) x (5)
				0.83%	
1	NIL	NIL	NIL	0.9917	-
2	NIL	NIL	NIL	0.9835	-
3	NIL	NIL	NIL	0.9754	-
4	NIL	NIL	NIL	0.9673	-
5	NIL	NIL	NIL	0.9594	-
6	NIL	NIL	NIL	0.9514	-
7	NIL	NIL	NIL	0.9436	-
8	NIL	NIL	NIL	0.9358	-
9	NIL	NIL	NIL	0.9280	-
10	NIL	NIL	NIL	0.9204	-
11	NIL	NIL	NIL	0.9128	-
12	NIL	NIL	NIL	0.9052	-
13	NIL	NIL	NIL	0.8977	-
14	NIL	NIL	NIL	0.8903	-
15	NIL	NIL	NIL	0.8830	-
16	NIL	NIL	NIL	0.8757	-
17	NIL	NIL	NIL	0.8684	-
18	NIL	NIL	NIL	0.8612	-
19	NIL	NIL	NIL	0.8541	-
20	NIL	NIL	NIL	0.8471	-
21	NIL	NIL	NIL	0.8401	-
22	NIL	NIL	NIL	0.8331	-
23	NIL	NIL	NIL	0.8262	-
24	NIL	NIL	NIL	0.8194	-
25	0.00	0.000	-	0.8126	-
26	0.00	0.000	-	0.8059	-
27	0.00	0.000	-	0.7993	-
28	0.00	0.000	-	0.7927	-
29	0.00	0.000	-	0.7861	-
30	0.00	0.000	-	0.7796	-
31	0.00	0.000	-	0.7732	-
32	0.00	0.000	-	0.7668	-
33	0.00	0.000	-	0.7604	-
34	0.00	0.000	-	0.7542	-
35	0.00	0.000	-	0.7479	-
36	0.00	0.000	-	0.7417	-
37	0.00	0.000	-	0.7356	-
38	0.00	0.000	-	0.7295	-
39	0.00	0.000	-	0.7235	-
40	0.00	0.000	-	0.7175	-
41	0.00	0.000	-	0.7116	-
42	0.00	0.000	-	0.7057	-
43	0.00	0.000	-	0.6999	-
44	0.00	0.000	-	0.6941	-

45	0.00	0.000	-	0.6884	-
46	0.00	0.000	-	0.6827	-
47	0.00	0.000	-	0.6770	-
48	0.00	0.000	-	0.6714	-
49	0.00	0.000	-	0.6659	-
50	0.00	0.000	-	0.6604	-
51	0.00	0.000	-	0.6549	-
52	0.00	0.000	-	0.6495	-
53	0.00	0.000	-	0.6441	-
54	0.00	0.000	-	0.6388	-
55	0.00	0.000	-	0.6335	-
56	0.00	0.000	-	0.6283	-
57	0.00	0.000	-	0.6231	-
58	0.00	0.000	-	0.6180	-
59	0.00	0.000	-	0.6129	-
60	0.00	0.000	-	0.6078	-
61	0.00	0.000	-	0.6028	-
62	0.00	0.000	-	0.5978	-
63	0.00	0.000	-	0.5928	-
64	0.00	0.000	-	0.5879	-
65	0.00	0.000	-	0.5831	-
66	0.00	0.000	-	0.5783	-
67	0.00	0.000	-	0.5735	-
68	0.00	0.000	-	0.5687	-
69	0.00	0.000	-	0.5640	-
70	0.00	0.000	-	0.5594	-
71	0.00	0.000	-	0.5548	-
72	0.00	0.000	-	0.5502	-
73	0.00	0.000	-	0.5456	-
74	0.00	0.000	-	0.5411	-
75	0.00	0.000	-	0.5366	-
76	0.00	0.000	-	0.5322	-
77	0.00	0.000	-	0.5278	-
78	0.00	0.000	-	0.5235	-
79	0.00	0.000	-	0.5191	-
80	0.00	0.000	-	0.5148	-
81	0.00	0.000	-	0.5106	-
82	0.00	0.000	-	0.5064	-
83	0.00	0.000	-	0.5022	-
84	0.00	0.000	-	0.4980	-
	Evaluated Value (Present Value) Contractor's share (60% of Capex + O&M) In Rs. Crore >>>>				**-**
	NDMC's share (40% of Capex) In Rs. Crore >>>>				**-**
				Total Evaluated Bid Value In Rs. Crore >>>>	**-**

Name: In the capacity of_____

Signed

Duly authorised to sign the bid for and on behalf of _____

Dated on _____ day of _____, _____

Notes:

1. Evaluated bid price shall be present value of Annuity Payment (EMI) and O&M Payment for 60 months as per the above table.
2. The discount factor for calculation of present value shall be 10% (p.a.)per annum.
3. Responsive bidder with lowest evaluated bid price shall be consider as selected bidder as per RFP.
4. The Bidder has to quote in Highlighted cells only.
5. The payment of 40% of Bid Project Cost shall be paid during the construction period.
6. The payment of 60% of Bid Project Cost shall be paid in 60 EMIs after the construction period of 2 years and shall be calculated as per the below mention formula: **EMI = P × r × ((1+r)^n/((1+r)^n-1))**

where,

P = Total Certified Amount invested by the Contractor (60% of Total Certified Amount of Capital Cost)

r = Monthly rate of Interest

n = total no. of months i.e. 60 months

Schedule R-1: Price Bid Summary Sheet

Price Bid Summary Sheet

Sr. No.	Description			Total Amount INR
1	**Establishment of District Meter Areas** (Item no 1 As per Price bid Schedule R-2)			-
2	**Construction works** (Item no 2 to 192 As per Price bid Schedule R-3)			-
3	**Total Design & Construction Cost (1+2)**	**In Figure**		-
		In Words		
4	**O & M Services Cost** (Item no 193 As per Price bid Schedule R-4)			-
		In Words		

Schedule R-1: Price Bid Summary Sheet

Price Bid Summary Sheet

SCHEDULE-R 2 Establishment of District Meter Areas

Item No.	Particulars of item	Unit	Total Quantity	Rate	Total Amount
1	A. Establishment of District Meter Areas and submission of reports 1. Formation OF DMA 2.Baseline validation of project area , map updating , updating pipe line network of project areas. etc. 3. Experts services-3 Nos , Simulation of Pure water transmission mains & Distribution network etc. 4. Consumer survey of the project areas 5. Revised Rehabilitation Plan for the project Area B.water loss reduction (NRW) and management services 1. Water loss reduction study 2. Leak detection suerveys, investigations, pressure management, reports, inlet outlet flow loggeres report etc. complete. 3. including leak detection, leak reduction with latest technologies like helium gas, smart ball, sahara, listening stick, leak noise correlators or as appropriate. C. achieving continuous (24 x 7) pressurized water supply in DMA and as per detailed technical specification provided in Vol - II 6.23.1	per connection	**30000** Number		-
			Total Amount in Rs.		**-**

Schedule R-1: Price Bid Summary Sheet

Price Bid Summary Sheet

SCHEDULE-R 3 Captial Cost For Construction work

2	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30cm in depth. 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50m and lift upto 1.5m, disposed earth to be levelled and neatly dressed a) All kind of soil	cubicmetre	8732.51 cubicmetre		-
3	Excavation work by mechanical means (Hydraulic excavator)/ manual means in foundation trenches or drains (not exceeding 1.5m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soils as directed, within a lead of 50 m. b) Ordinary rock	cubicmetre	384.03 cubicmetre		-
4	Excavation work by mechanical means (Hydraulic excavator)/ manual means in foundation trenches or drains (not exceeding 1.5m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soils as directed, within a lead of 50 m. C) Hard rock (blasting prohibited)	cubicmetre	232.44 cubicmetre		-
5	Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth upto 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m . a) **All kind of soil** Pipe not exceeding 80 mm dia.	metre	115924.00 metre		-
5.1	b) Pipe exceeding 80 mm dia. but not exceeding 300 mm dia	metre	130874.00 metre		-
5.2	c) Pipe exceeding 300 mm dia. but not exceeding 600 mm dia	metre	5557.00 metre		-
5.3	Extra for excvating trenches for pipes, cables, etc in all kinds of soil for depth exceeding 1.5m, but not exceeding 3m in depth . (Rate is over corresponding basic rates for depth upto 1.5 meter)-**All kind of soil** a) Pipe exceeding 300 mm dia. but not exceeding 600 mm	metre	1049.00 metre		-
5.4	Extra for excvating trenches for pipes, cables, etc in all kinds of soil for depth exceeding 3m, but not exceeding 4.5m in depth . (Rate is over corresponding basic rates for depth upto 1.5 meter) **All kind of soil**-a) Pipe exceeding 300 mm dia. but not exceeding 600 mm Lift 1.5 to 3.0 m	metre	245.00 metre		-

Schedule R-1: Price Bid Summary Sheet

Price Bid Summary Sheet

6	Excavating trenches of required width for pipes, cables, etc, including excavation for sockets, depth upto 1.5 m, including getting out the excavated materials, returning the soil as required in layers not exceeding 20 cm in depth, including consolidating each deposited layers by ramming, watering etc., stacking serviceable material for measurements and disposal of unserviceable material as directed, within a lead of 50 m : **Ordinary rock** Lift 0 to 1.5 m				
6.1	a) Pipe exceeding 80 mm dia. but not exceeding 300 mm dia	metre	23600.00 metre		-
6.2	b) Pipe exceeding 300 mm dia. but not exceeding 600 mm dia	metre	2316.00 metre		-
6.3	Extra for excvating trenches for pipes, cables, etc in ordinary/hard rock exceeding 1.5 m in depth, but not exceeding 3m in depth . (Rate is over corresponding basic rates for depth upto 1.5 meter) **Ordinary rock** (blasting prohibited) a) Pipe exceeding 80 mm dia. but not exceeding 300 mm dia	metre	329.00 metre		-
6.4	Extra for excavating trenches for pipes, cables, etc. in ordinary/hard rock exceeding 3m in depth but not exceeding 4.5 m. (Rate is over corresponding basic item for depth upto 1.5 metre). **Ordinary rock** b) Pipe exceeding 300 mm dia. but not exceeding 600 mm dia	metre	76.00 metre		-
7	Excavation trenches of required width of pipes, cables etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth upto 1.5 m including getting out the excavated soil, and then returning the soil as required , in layers not exceeding 20 cm in depth including consolidating each deposited layer by ramming, watering etc and disposing of surplus excavated soil as directed, within a lead of 50 m. hard rock (blasting prohibited)				
7.1	a) Pipe exceeding 80 mm dia. but not exceeding 300 mm dia	metre	14159.00 metre		-
7.2	b) Pipe exceeding 300 mm dia. but not exceeding 600 mm dia	metre	1561.00 metre		-
7.3	Extra for excvating trenches for pipes, cables, etc in ordinary/hard rock exceeding 1.5 m in depth, but not exceeding 3m in depth . (Rate is over corresponding basic rates for depth upto 1.5 meter) hard rock (blasting prohibited) a) Pipe exceeding 300 mm dia. but not exceeding 600 mm dia	metre	178.00 metre		-
7.4	Extra for excvating trenches for pipes, cables, etc in ordinary/hard rock exceeding 1.5 m in depth, but not exceeding 3m in depth . (Rate is over corresponding basic rates for depth upto 1.5 meter) hard rock (blasting prohibited) a) Pipe exceeding 300 mm	metre	40.00 metre		-
8	Open timbering in trenches including strutting and shoring complete (measurements to be taken of the face area timbered):				
8.1	a) Depth not exceeding 1.5 m	sqm	25541.30 sqm		-

Schedule R-1: Price Bid Summary Sheet

Price Bid Summary Sheet

8.2	b) depth exceeding 1.5 m but not exceeding 3 m.	sqm	3949.90 sqm		-
8.3	c) depth exceeding 3 m but not exceeding 4.5 m.	sqm	250.50 sqm		-
9	Extra rate for quantites of works, executed :In or under water and / or liquid mud, including pumping out water as required				
9.1	a) Depth not exceeding 1.5 m	per mtr depth	25541.30 per mtr depth		-
9.2	b) depth exceeding 1.5 m but not exceeding 3 m.	per mtr depth	3949.90 per mtr depth		-
9.3	c) depth exceeding 3 m but not exceeding 4.5 m.	per mtr depth	250.50 per mtr depth		-
10	Providing push-on-joints to Centrifugally (Spun) Cast Iron Pipes or Ductile Iron Pipes including testing of joints and the cost of rubber gasket .				
10.1	a) 100 mm dia Ductile Iron Class K-7 Pipes	joint	7426.00 joint		-
10.2	b) 150 mm dia Ductile Iron Class K-7 Pipes	joint	7468.00 joint		-
10.3	c) 200 mm dia Ductile Iron Class K-7 Pipes	joint	1046.00 joint		-
10.4	d) 250 mm dia Ductile Iron Class K-7 Pipes	joint	359.00 joint		-
10.5	e) 300 mm dia Ductile Iron Class K-7 Pipes	joint	770.00 joint		-
10.6	f) 350 mm dia Ductile Iron Class K-7 Pipes	joint	36.00 joint		-
10.7	g) 400 mm dia Ductile Iron Class K-7 Pipes	joint	106.00 joint		-
10.8	h) 450 mm dia Ductile Iron Class K-7 Pipes	joint	2.00 joint		-
10.9	i) 500 mm dia Ductile Iron Class K-7 Pipes	joint	173.00 joint		-
10.10	j) 600 mm dia Ductile Iron Class K-7 Pipes	joint	211.00 joint		-
10.11	k) 700 mm dia Ductile Iron Class K-7 Pipes	joint	4.00 joint		-
11	Providing and laying S&S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS : 8329.				
11.1	a) 100 mm dia Ductile Iron Class K-7 Pipes	metre	40843.00 metre		-
11.2	b) 150 mm dia Ductile Iron Class K-7 Pipes	metre	41076.00 metre		-
11.3	c) 200 mm dia Ductile Iron Class K-7 Pipes	metre	5754.00 metre		-
11.4	d) 250 mm dia Ductile Iron Class K-7 Pipes	metre	3952.00 metre		-
11.5	e) 300 mm dia Ductile Iron Class K-7 Pipes	metre	4233.00 metre		-
11.6	f) 350 mm dia Ductile Iron Class K-7 Pipes	metre	200.00 metre		-
11.7	g) 400 mm dia Ductile Iron Class K-7 Pipes	metre	585.00 metre		-
11.8	h) 450 mm dia Ductile Iron Class K-7 Pipes	metre	9.00 metre		-
11.9	i) 500 mm dia Ductile Iron Class K-7 Pipes	metre	949.00 metre		-
11.10	j) 600 mm dia Ductile Iron Class K-7 Pipes	metre	1163.00 metre		-

Schedule R-1: Price Bid Summary Sheet

Price Bid Summary Sheet

11.11	k) 700 mm dia Ductile Iron Class K-7 Pipes	metre 0.00	22.00 metre		-
12	Providing and laying D.I. specials of class K-12 suitable for push-on jointing as per IS : 9523.				
12.1	a) Upto 600 mm dia	quintal	1810.50 quintal		-
12.2	b) Above 600 mm dia	quintal	15.50 quintal		-
13	Providing and laying D.I. Specials of Class K - 12 suitable for mechanical jointing as per IS : 9523.				
13.1	a) Upto 600 mm dia	quintal	1660.50 quintal		-
13.2	b) Above 600 mm dia	quintal	15.50 quintal		-
14	Providing and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc.				
14.1	External work a) 15 mm dia. nominal bore	metre	80682.00 metre		-
14.2	External work b) 20 mm dia. nominal bore	metre	3546.00 metre		-
14.3	External work c) 25 mm dia. nominal bore	metre	1542.00 metre		-
14.4	External work d) 32 mm dia. nominal bore	metre	6.00 metre		-
14.5	External work e) 40 mm dia. nominal bore	metre	633.00 metre		-
14.6	External work f) 50 mm dia. nominal bore	metre	444.00 metre		-
15	Providing flanged joints to double flanged C.I./ D.I. pipes and specials, including testing of joints.				
15.1	a)100 mm diameter pipe	each	998.00 each		-
15.2	b)150 mm diameter pipe	each	842.00 each		-
15.3	c) 200 mm diameter pipe	each	341.00 each		-
15.4	d) 250 mm diameter pipe	each	218.00 each		-
15.5	e) 300 mm diameter pipe	each	260.00 each		-
15.6	f) 350 mm diameter pipe	each	4.00 each		-
15.7	g) 400 mm diameter pipe	each	102.00 each		-
15.8	h) 450 mm diameter pipe	each	25.00 each		-
15.9	i) 500 mm diameter pipe	each	68.00 each		-
15.10	j) 600 mm diameter pipe	each	63.00 each		-
15.11	l) 800 mm diameter pipe	each	20.00 each		-
15.12	n) 1000 mm diameter pipe	each	16.00 each		-
16	Labour for cutting C.I. pipe with steel saw.				
16.1	a) 100 mm diameter pipe C.I pipe	each	200.00 each		-
16.2	b) 150 mm diameter pipe C.I pipe	each	200.00 each		-
16.3	c) 200 mm diameter pipe C.I pipe	each	200.00 each		-
16.4	d) 250 mm diameter pipe C.I pipe	each	200.00 each		-

Schedule R-1: Price Bid Summary Sheet

Price Bid Summary Sheet

16.5	e) 300 mm diameter pipe C.I Pipe	each	200.00 each		-
16.6	f) 350 mm diameter pipe C.I Pipe	each	200.00 each		-
16.7	g) 400 mm diameter pipe C.I Pipe	each	100.00 each		-
16.8	h) 450 mm diameter pipe C.I Pipe	each	100.00 each		-
16.9	i) 500 mm diameter pipe C.I Pipe	each	100.00 each		-
16.10	j) 600 mm diameter pipe C.I pipe	each	100.00 each		-
17	Providing lead caulked joints to spun iron or C.I. pipes and specials, including testing of joints but excluding the cost of pig lead.				
17.1	a) 100 mm diameter pipe	each	10.00 each		-
17.2	b) 150 mm diameter pipe	each	10.00 each		-
17.3	c) 200 mm diameter pipe	each	10.00 each		-
17.4	d) 250 mm diameter pipe	each	10.00 each		-
17.5	e) 300 mm diameter pipe	each	10.00 each		-
17.6	f) 350 mm diameter pipe	each	10.00 each		-
17.7	g) 400 mm diameter pipe	each	10.00 each		-
17.8	h) 450 mm diameter pipe	each	10.00 each		-
17.9	i) 500 mm diameter pipe	each	10.00 each		-
17.10	j) 600 mm diameter pipe	each	10.00 each		-
18	Supplying pig lead at site of work	quintal	50.00 quintal		-
19	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	cubicmetre	54222.35 cubicmetre		-
20	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level.				
20.1	a) 1:4:8(1 cement :4 coarse sand :8 graded stone aggregate 40 mm nominal size)	cubicmetre	929.93 cubicmetre		-
20.2	b) 1:3:6(1 cement :3 coarse sand :6 graded stone aggregate 20 mm nominal size)	cubicmetre	2604.00 cubicmetre		-
20.3	c) 1:2:4 (1 cement :2 coarse sand :4 graded stone aggregate 20 mm nominal size)	cubicmetre	1181.00 cubicmetre		-
21	Centering and shuttering including strutting, propping etc. and removal of form for:				
21.1	a) Foundations, footings, bases of columns, etc. for mass concrete	sqm	15245.60 sqm		-

Schedule R-1: Price Bid Summary Sheet

Price Bid Summary Sheet

21.2	b) Suspended floors, roofs, landings, balconies and access platform.	sqm	31251.93 sqm		-
21.3	c) Walls (any thickness) including attached pilasters, buttresses, plinth and string courses etc.	sqm	2591.80 sqm		-
21.4	d) Lintels, beams, plinth beams, girders, bressumers and cantilevers	sqm	8730.59 sqm		-
	e) Columns, Pillars, Piers, Abutments, Posts and Struts	sqm	331.60		-
			sqm		
22	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundation and plinth in: Cement mortar 1:4 (1 cement : 4 coarse sand)	cubicmetre	138.94 cubicmetre		-
23	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 : a)1:2:4 (cement:2 Coarse sand:4 graded stone aggregate 20 mm nominal Size)	cubicmetre	16844.77 cubicmetre		-
24	12 mm cement plaster of mix 1 :4 (1 cement , 4 fine sand)	sqm	2424.07 sqm		-
25	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level. Thermo-Mechanically Treated bars	kilogram	390720.27 kilogram		-
26	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	kilogram	15667.00 kilogram		-
27	Welding by gas or electric plant including transportation of plant at site etc. complete	cm	10010.00 cm		-
28	Hire charges of pump set of capacity 4000 litres/hour	per shift	16000.00 per shift		-
29	Providing orange colour safety foot rest of minimum 6 mm thickness and encapsulated as per IS 10910 on 12 mm dia steel bar as per IS:1786, having minimum cross section as 23 mmx 25 mm and overall min length 263 mm and width as 165 mm with minimum 112 mm space between protruded legs having 2 mm tread on top surface of ribbing of chequering besides necessary and adequate anchoring projections on tail length of 138 mm as per standard drawing and suitable to withstand the bend test and chemical resistance test as per specifications and having manufacture's permanent identification mark to be visible even after fixing, including fixing in manholes with 30 x20 x15 cm cement concrete block 1:3:6 (1 cement : 3 Coarse sand : 6 graded stone aggregate 20 mm nominal size) complete as per design.	each	1000.00 each		-

Schedule R-1: Price Bid Summary Sheet

Price Bid Summary Sheet

30	Disinfecting C.I./M.S/D.I/HDPE water mains by flushing with water containing bleaching powder @ 0.5 gms per litre of water and cleaning the same with fresh water, operation to be repeated three times including getting the sample of water from the disinfected main tested in the municipal laboratory.				
30.1	a) 100 mm diameter C.I pipes	100 m	9437.99 100 m		-
30.2	b) 150 mm diameter C.I pipes	100 m	21204.20 100 m		-
30.3	c) 200 mm diameter C.I pipes	100 m	11975.82 100 m		-
30.4	d) 250 mm diameter C.I pipes	100 m	4290.34 100 m		-
30.5	e) 300 mm diameter C.I pipes	100 m	8720.28 100 m		-
30.6	f) 350 mm diameter C.I pipes	100 m	400.00 100 m		-
30.7	g) 400 mm diameter C.I pipes	100 m	9070.23 100 m		-
30.8	h) 450 mm diameter C.I pipes	100 m	17.00 100 m		-
30.9	i) 500 mm diameter C.I pipes	100 m	3507.78 100 m		-
30.10	j) 600 mm diameter C.I pipes	100 m	2358.88 100 m		-
30.11	l) 800 mm diameter C.I pipes	100 m	48.91 100 m		-
30.12	n) 1000 mmdiameter C.I pipes	100 m	38.46 100 m		-
31	Demolishing RCC work manually/ by mechanical means including stacking of steel bars and disposal of unserviceable material within 50 metres lead as per direction of Engineer in charge	cubicmetre	3091.00 cubicmetre		-
32	Demolishing brick work manually/ by mechanical means including stacking of servicable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer in charge. a) In cement mortar	cubicmetre	426.00 cubicmetre		-
33	Demolishing cement concrete manually by mechanical means including disposal of material within 50metres lead as per direction of engineer in chrgeof Engineer in charge.				
33.1	a) Nominal concrete 1:3:6 or richer mix (i/c equivalent design mix)	cubicmetre	2600.00 cubicmetre		-
33.2	b) Nominal concrete 1:4:8 or leaner mix (i/c equivalent	cubicmetre	2600.00 cubicmetre		-
34	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.				
34.1	a)250 mm dia. RCC Pipe	metre	100.00 metre		-
34.2	b)300 mm dia. RCC Pipe	metre	100.00 metre		-
34.3	c)450 mm dia. RCC Pipe	metre	100.00 metre		-

Schedule R-1: Price Bid Summary Sheet

Price Bid Summary Sheet

35	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means, including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all leads including all lifts involved.	cubicmetre	27622.43 cubicmetre		-
36	Supply of MS pipe of MS plate 6 mm thick including cutting, moulding , painting both sides with bitumenous paint of approved brand conforming to IS 3589 and other relevant codes complete in all respect as directed by enginner in charge				
36.1	a) 300 mm diameter pipe, 6 mm thickness	kilogram	191670.00 kilogram		-
36.2	b) 350 mm diameter pipe, 6 mm thickness	kilogram	10536.00 kilogram		-
36.3	c) 400 mm diameter pipe, 6 mm thickness	kilogram	37551.00 kilogram		-
36.4	d) 450 mm diameter pipe, 6 mm thickness	kilogram	607.00 kilogram		-
36.5	e) 500 mm diameter pipe, 6 mm thickness	kilogram	74057.00 kilogram		-
36.6	e) 600 mm diameter pipe, 6 mm thickness	kilogram	108795.00 kilogram		-
36.7	f) 700 mm diameter pipe, 6 mm thickness	kilogram	4389.00 kilogram		-
36.8	g) 800 mm dia 8 mm thickness	kilogram	6378.00 kilogram		-
36.9	i) 1000 mm dia 8 mm thickness	kilogram	7166.00 kilogram		-
37	Supply of MS pipeof MS plate of 12 mm thick including painting with epoxy paint inside and bitumenous paint for trenchesless laying				
37.1	a) 800 mm diameter pipe, 12 mm thickness	kilogram	48066.00 kilogram		-
37.2	b) 900 mm diameter pipe, 12 mm thickness	kilogram	53986.00 kilogram		-
37.3	c) 1000 mm diameter pipe, 12 mm thickness	kilogram	59906.00 kilogram		-
37.4	d) 1100 mm diameter pipe, 12 mm thickness	kilogram	131652.00 kilogram		-
38	Supply of M.S. special of M.S. plate including cutting ,moulding painting both sides with bituminious paints of approved brand conferming to IS 3589 and other relivent code complete in all respect as directed by Engg in charge.				
38.1	a) 300 mm diameter special, 6 mm thickness	kilogram	38334.00 kilogram		-
38.2	b) 350 mm diameter special, 6 mm thickness	kilogram	2107.00 kilogram		-
38.3	c) 400 mm diameter special, 6 mm thickness	kilogram	7449.00 kilogram		-
38.4	d) 450 mm diameter special, 6 mm thickness	kilogram	121.00 kilogram		-
38.5	e) 500 mm diameter special, 6 mm thickness	kilogram	14737.00 kilogram		-
38.6	e) 600 mm diameter special, 6 mm thickness	kilogram	28219.00 kilogram		-
38.7	e) 700 mm diameterspecial, 6 mm thickness	kilogram	878.00 kilogram		-
38.8	f) 800 mm dia 8 mm thickness	kilogram	1116.00 kilogram		-
38.9	h) 1000 mm dia 8 mm thickness	kilogram	717.00 kilogram		-

Schedule R-1: Price Bid Summary Sheet

Price Bid Summary Sheet

39	Providing & Supplying in standard lengths Polyetheline pipes conforming to IS-4984 with necessary jointing material like mechanical connectors i.e. thread/insert joint/quick release coupler joint/ compression fittings joint or flanged joint including all taxes (central and local) transportation and frieght charges, inspection charges, loading/unloading charges, conveyance to the departmental stores / site and stacking the same in closed shade duly protecting from sunrays & rains etc. Complete (Rates without ED)				
	O.Dia 10 Kg/cm2 (Class V)				
39.1	a) 110 mm outer diameter Pipe	metre	139939.00 metre		-
39.2	b) 160 mm outer diameter Pipe	metre	159673.00 metre		-
39.3	c) 200 mm outer diameter Pipe	metre	52636.00 metre		-
39.4	d) 250 mm dia O.D HDPE pipe (I.D- 209mm)	metre	33834.00 metre		-
39.5	e) 315 mm dia O.D HDPE pipe (I.D- 263.6mm)	metre	25428.00 metre		-
39.6	f) 400 mm dia O.D HDPE pipe (I.D- 331.8mm)	metre	9904.00 metre		-
39.7	g) 500 mm dia O.D HDPE pipe (I.D- 415mm)	metre	8915.00 metre		-
39.8	h) 630 mm dia O.D HDPE pipe (I.D- 523mm)	metre	3388.00 metre		-
39.9	i) 800 mm dia O.D HDPE pipe (I.D- 664.2 mm)	metre	4891.00 metre		-
39.10	j)1000 mm dia O.D HDPE pipe (I.D- 869.4 mm)	metre	3846.00 metre		-
40	Lowering laying HDPE Pipes & special by heatings to the ends of pipe with the help of tefflon coated electric method heater to the required temperature and then pressing the ends together against each other , to form a monolithic and leak proof joint by thermosetting process. The pressing may be required to be done with Hydraulic jacks including butt fusion machine & electrofusion Etc. Complete with all material labour as directed by Engineer in charge including giving satisfactory hydraulic testing.				
40.1	a) 110 mm outer diameter Pipe	metre	31219.00 metre		-
40.2	b) 160 mm outer diameter Pipe	metre	39817.00 metre		-
40.3	c) 200 mm outer diameter Pipe	metre	15130.00 metre		-
40.4	d) 250 mm dia O.D HDPE pipe (I.D- 209mm)	metre	6767.00 metre		-
40.5	e) 315 mm dia O.D HDPE pipe (I.D- 263.6mm)	metre	5086.00 metre		-
40.6	f) 400 mm dia O.D HDPE pipe (I.D- 331.8mm)	metre	1981.00 metre		-
40.7	g) 500 mm dia O.D HDPE pipe (I.D- 415mm)	metre	1783.00 metre		-
40.8	h) 630 mm dia O.D HDPE pipe (I.D- 523mm)	metre	678.00 metre		-
40.9	i) 800 mm dia O.D HDPE pipe (I.D- 664.2 mm)	metre	978.00 metre		-
40.10	j)1000 mm dia O.D HDPE pipe (I.D- 869.4 mm)	metre	769.00 metre		-

Schedule R-1: Price Bid Summary Sheet

Price Bid Summary Sheet

41	Providing & supply of electro fusion fittings in accordance with BS EN 12201 : part -3 suitable for drinking water with black blue colour manufactured from compound PE 80/ PE 100 virgin polymer and compatible with PE 80/ PE 100 pipes in pressure rating SDR11 with min PN 12.5 rated for water application & shall be inclusive of all cost such as testing all taxes releated to central, state & municipal inspection charges , transportation upto site , transit insurance, loading unloading , stacking etc. complete				
	Coupler				
41.1	a) 20 mm outer diameter	each	26874.00 each		-
41.2	b) 25 mm outer diameter	each	1182.00 each		-
41.3	c) 32 mm outer diameter	each	514.00 each		-
41.4	d) 50 mm outer diameter	each	2.00 each		-
41.5	e) 63 mm outer diameter	each	211.00 each		-
41.6	f) 110 mm outer diameter	each	2799.00 each		-
41.7	g) 160 mm outer diameter	each	697.00 each		-
41.8	h) 200 mm outer diameter	each	271.00 each		-
41.9	i) 250 mm dia	each	113.00 each		-
41.10	j) 315 mm dia	each	85.00 each		-
41.11	k) 400 mm dia.	each	33.00 each		-
41.12	l) 500 mm dia.	each	30.00 each		-
41.13	m) 630 mm dia.	each	11.00 each		-
41.14	n) 1000 mm dia.	each	13.00 each		-
	Equal tee				
41.15	a) 110 mm outer diameter	each	1386.00 each		-
41.16	b) 160 mm outer diameter	each	1564.00 each		-
41.17	c) 200 mm outer diameter	each	506.00 each		-
41.18	d) 250 mm dia	each	338.00 each		-
41.19	e) 315 mm dia	each	2.00 each		-
41.20	f) 400 mm dia.	each	99.00 each		-
41.21	g) 500 mm dia.	each	18.00 each		-
41.22	h) 630 mm dia.	each	10.00 each		-
41.23	i) 800 mm dia.	each	3.00 each		-
41.24	j) 1000 mm dia.	each	10.00 each		-
	Bend 90 deg.				
41.25	a) 20 mm outer diameter	each	53748.00 each		-
41.26	b) 25 mm outer diameter	each	2364.00		-

Schedule R-1: Price Bid Summary Sheet

Price Bid Summary Sheet

			each		
41.27	c) 32 mm outer diameter	each	1028.00 each		-
41.28	d) 50 mm outer diameter	each	4.00 each		-
41.29	e) 63 mm outer diameter	each	422.00 each		-
41.30	f) 110 mm outer diameter	each	2726.00 each		-
41.31	g) 160 mm outer diameter	each	769.00 each		-
41.32	h) 200 mm outer diameter	each	247.00 each		-
41.33	i) 250 mm dia	each	169.00 each		-
41.34	j) 315 mm dia	each	128.00 each		-
41.35	k) 400 mm dia.	each	49.00 each		-
41.36	l) 500 mm dia.	each	45.00 each		-
41.37	m) 630 mm dia.	each	17.00 each		-
41.38	n) 1000 mm dia.	each	19.00 each		-
	Reducer				
41.39	160x110 mm outer diameter	each	1001.00 each		-
41.40	200 x110 mm	each	136.00 each		-
41.41	200 x160 mm outer diameter	each	949.00 each		-
41.42	250 x 110	each	136.00 each		-
41.43	250 x 160	each	150.00 each		-
41.44	250 x 200	each	94.00 each		-
41.45	315 x 110	each	68.00 each		-
41.46	315 x 160	each	300.00 each		-
41.47	315 x 200	each	94.00 each		-
41.48	315 x 250	each	67.00 each		-
41.49	400 x 110	each	68.00 each		-
41.50	400 x 160	each	150.00 each		-
41.51	400 x 250	each	67.00 each		-
41.52	400 x 315	each	50.00 each		-
41.53	500 x 250	each	34.00 each		-
41.54	500 x 315	each	23.00 each		-
41.55	500 x 400	each	4.00 each		-
41.56	630 x 250	each	34.00 each		-
41.57	630 x 315	each	47.00 each		-
41.58	630 x 400	each	4.00		-

Schedule R-1: Price Bid Summary Sheet

Price Bid Summary Sheet

			each		
41.59	630 x 500	each	2.00 each		-
41.60	1000 x 400	each	8.00 each		-
41.61	1000 x 500	each	1.00 each		-
41.62	1000 x 600	each	1.00 each		-
41.63	1000 x 900	each	1.00 each		-
	End cap				
41.64	110 mm outer diameter	each	140.00 each		-
41.65	160 mm outer diameter	each	120.00 each		-
41.66	200 mm outer diameter	each	41.00 each		-
41.67	250 mm dia	each	22.00 each		-
41.68	315 mm dia	each	17.00 each		-
41.69	400 mm dia	each	6.00 each		-
41.70	500 mm dia	each	6.00 each		-
41.71	630 mm dia	each	2.00 each		-
41.72	1000 mm dia	each	3.00 each		-
42	Supply of Double flanged Butterfly valve Manually operated EKN model or equiliant model for water application with nickel weld overlay & micro finished integral seat face which is corrosion resistant and tight in both directions, installation possible in any postion, double offset disk design, replaceable disk seal ring without dismentaling the valve, with hand wheel. inclusive of all taxes. octorie, etc Body:Ductile Iron to GGG-40,Disk :Ductile Iron to GGG-40,Body Seat face:Integral, Nickel weld overlay and micro finished, Disk seal: EPDM, end less profile sealing ring, Shafts : Stainless steel to 1.4021,Bearing assembly :Fully enclosed, all parts of corrosion resistance Materials. Shaft Sealed with 'O'-rings of EPDM, Shaft bearings: Bronze (VAG,AVK,Bayard make)				
	Manually operated				
42.1	a) 350 mm Diameter, PN-1.6	each	1.00 each		-
42.2	b) 400 mm Diameter, PN-1.6	each	29.00 each		-
42.3	c) 450 mm Diameter, PN-1.6	each	10.00 each		-
42.4	d) 500 mm Diameter, PN-1.6	each	26.00 each		-
42.5	e) 600 mm Diameter, PN-1.6	each	26.00 each		-
42.6	f) 700 mm Diameter, PN-1.6	each	10.00 each		-
42.7	g) 800 mm Diameter, PN-1.6	each	10.00 each		-
42.8	h) 1000 mm Diameter, PN-1.6	each	8.00 each		-

Schedule R-1: Price Bid Summary Sheet

Price Bid Summary Sheet

	With Actuator (electrically operated)				
42.7	a) 300 mm Diameter, PN-1.6	each	26.00 each		-
42.8	b) 350 mm Diameter, PN-1.6	each	1.00 each		-
42.9	c) 400 mm Diameter, PN-1.6	each	6.00 each		-
42.10	d) 450 mm Diameter, PN-1.6	each	2.00 each		-
42.11	e) 500 mm Diameter, PN-1.6	each	4.00 each		-
42.12	f) 600 mm Diameter, PN-1.6	each	2.00 each		-
43	Supply of Double flanges Manually operated glandless, sluice Valves, resilient seated with straight pocket less body passage with inside stem screw. Inside and outside epoxy powder coated(EP-P) with minimum thickness of 250µ. Specs. as under Body & Bonnet : Ductile Iron to IS 1865 Gr. 400/12(GGG – 40) ,Wedge : Ductile Iron to IS 1865 Gr. 400/12(GGG – 40) fully vulcanized with EPDM Rubber Gr W 270 , Stem Seals : NBR 'O' rings in Bronze Bush ,Stem : Stainless steel to 1.4021/IS 6603 , Stem nut : Brass , Body, Bonnet Gasket : EPDM. (VAG,AVK,Bayard make)				
43.1	a) 100 mm Diameter, PN-1.6	each	312.00 each		-
43.2	b) 150 mm Diameter, PN-1.6	each	414.00 each		-
43.3	c) 200 mm Diameter, PN-1.6	each	165.00 each		-
43.4	d) 250 mm Diameter, PN-1.6	each	116.00 each		-
43.5	e) 300 mm Diameter, PN-1.6	each	109.00 each		-
44	Supply of single chamber compact design air valve or equiliant model. directly operated by the flow medium and 100% tamper proof, light weight, automatic air venting of working fluid for feed, main and supply lines, one big orifice and one small orifice to expel the air continuously from the pipe lines, designed for Air admission during draining of pipe line, venting during pump starting and continuous venting during pump operation. Ends : Flanged to DIN 2501., Pressure test : Per DIN 3230 Part 4, Surface protection : Electrostatic Epoxy powder coating (EP-P) inside & outside, Body & Cover : Ductile Iron GGG -40, Float & shell : Austenitic Alloy steel , Gaskets& Seals : EPDM (VAG,AVK,Bayard make)				
44.1	a) 50 mm Diameter, PN-1.6	each	29.00 No		-
44.2	b) 80 mm Diameter, PN-1.6	each	7.00 No		-
44.3	c) 100 mm Diameter, PN-1.6	each	157.00 No		-
44.4	d) 150 mm Diameter, PN-1.6	each	12.00 No		-
44.5	e) 200 mm Diameter, PN-1.6	each	31.00 No		-

Schedule R-1: Price Bid Summary Sheet

Price Bid Summary Sheet

45	Fixing in postion Sluice valve/butterfly valve providing flange joint (2. no) including bolts nuts 3 mm thick , two washers for each bolt rubber insertion etc all complete				
45.1	a) 100 mm Diameter, PN-1.6	each	495.00 each		-
45.2	b) 150 mm Diameter, PN-1.6	each	426.00 each		-
45.3	c) 200 mm Diameter, PN-1.6	each	196.00 each		-
45.4	d) 250 mm Diameter, PN-1.6	each	116.00 each		-
45.5	e) 300 mm Diameter, PN-1.6	each	135.00 each		-
45.6	f) 350 mm Diameter, PN-1.6	each	2.00 each		-
45.7	g) 400 mm Diameter, PN-1.6	each	35.00 each		-
45.8	h) 450 mm Diameter, PN-1.6	each	12.00 each		-
45.9	i) 500 mm Diameter, PN-1.6	each	33.00 each		-
45.10	j) 600 mm Diameter, PN-1.6	each	28.00 each		-
45.11	k) 700 mm Diameter, PN-1.6	each	10.00 each		-
45.12	l) 800 mm Diameter, PN-1.7	each	10.00 each		-
45.13	n) 1000 mm Diameter, PN-1.9	each	8.00 each		-
46	Manufacture supply and commission of Electromagnetic flow meter (EMF) for row/ pure water with accuracy 0.5% of measured value and protection as per given specifications for size 100mm - 1000mm. Including sensor, transmitter, surge arrestor, 25mtere sensor/ transmitter cable, GI duct of suaitable size for 25 mtrs/ each flow meter including pipe cutting, levelling and installation of flow meter in pipe lines with necessary tool tackles cranes etc. as may be required at site and based on technical specification etc. as per attached with 10 years battery back-up.with data logger				
46.1	a) 150 mm Diameter	each	15.00 each		-
46.2	b) 200 mm Diameter	each	13.00 each		-
46.3	c) 250 mm Diameter	each	11.00 each		-
46.4	d) 300 mm Diameter	each	30.00 each		-
46.5	e) 400 mm Diameter	each	5.00 each		-
46.6	f) 450 mm Diameter	each	9.00 each		-
46.7	g) 500 mm Diameter	each	5.00 each		-
46.8	h) 600 mm Diameter	each	11.00 each		-
46.9	i) 700 mm Diameter	each	8.00 each		-
46.10	j) 800 mm Diameter	each	1.00 each		-

Schedule R-1: Price Bid Summary Sheet

Price Bid Summary Sheet

47	Providing installing multi-jet Bulk water meters, with inbuilt wireless AMR facility based on R/F technology , dry dial, inferential type , Multijet Magnetically coupled, class 'B' Water meters complete with brass nuts and nipples confirming to IS: 779:1994 or ISO 4064:1993 standard with EEC/OIML/MID certification mark with protection class of IP68"., marked to read in metric system, along with manufactures test & guarantee certificate, including cost of all materials, GI fitting including Including supplying at store and transporting from store to consumer connections in Municipal Area. Straight reading mete.				
47.1	a) 40 mm diamter	each	211.00 each		-
47.2	b) 50 mm diamter	each	148.00 each		-
47.3	c) 80 mm diamter	each	100.00 each		-
47.4	d) 100 mm diamter	each	28.00 each		-
47.5	e) 150 mm diamter	each	5.00 each		-
47.6	f) 200 mm diamter	each	1.00 each		-
47.7	g) 250 mm diamter	each	1.00 each		-
47.7	h) 300 mm diamter	each	1.00 each		-
48	Supply of Hand Held unit to capture the data logged from meters type AnyQuest for Walk by with HHU Software Licence and Accessries(Cradle , charger etc) (For bulk meter & domestic meter)	each	2.00 each		-
49	Software toencode/Analysze/Export the data collected from AnyQuest for walk by System	each	1.00 each		-
50	Providing installing multi-jet Domestic water meters, with inbuilt wireless AMR facility based on R/F technology , dry dial, inferential type , Multijet Magnetically coupled, class 'B' Water meters complete with brass nuts and nipples confirming to IS: 779:1994 or ISO 4064:1993 standard EEC/OIML/MID certification mark with protection class of IP68"., marked to read in metric system, along with manufactures test & guarantee certificate, including cost of all materials, GI fitting including Including supplying at store and transporting from store to consumer connections in Municipal Area. Straight reading meter.				
50.1	a) 15 mm diamter	each	26874.00 each		-
50.2	b) 20 mm diamter	each	1182.00 each		-
50.3	c) 25 mm diamter	each	514.00 each		-
50.4	d) 32 mm diamter	each	2.00 each		-
51	Providing and fixing brass stop cock of approved quality :				
51.1	a) 15 mm diamter	each	26874.00 each		-
51.2	b) 20 mm diamter	each	1182.00 each		-

Schedule R-1: Price Bid Summary Sheet

Price Bid Summary Sheet

51.3	c) 25 mm diamter	each	514.00 each		-
51.4	d) 40 mm diamter	each	2.00 each		-
52	Providing and supplying, laying & jointing Blue MDPE pipes confirming to ISO 4427:1996 manufactured from virgin resin PE-80 food grade compounded Raw Material having Blue colour only with quality assurance certificate from quality agencies like WRC/CIPET (India) /DVGM/KIWA/SPGN etc. for usage in drinking water system.The cost shall include testing of all materials,all taxes central, state, Municipal, inspection charges, transportation upto site , transit insurance, loading, unloaading, stacking etc. complete as specified and directed (With ED) PN 16 (SDR 9)				
52.1	a) 20 mm diameter (outer diameter)	metre	214992.00 metre		-
52.2	b) 25 mm diameter (outer diameter)	metre	9456.00 metre		-
52.3	c) 32 mm diameter (outer diameter)	metre	4112.00 metre		-
52.4	d) 40 mm diameter (outer diameter)	metre	16.00 metre		-
52.5	e) 50 mm diameter (outer diameter)	metre	1688.00 metre		-
52.6	f) 63 mm diameter (outer diameter)	metre	1184.00 metre		-
53	Ductile Iron strap saddle for house service connection to replace the ferrules on Cast and Ductile iron pipes for different diameters of pipes and house service connection. With Complete assembly 1. strap -SR304- Powder coated, 2. outer body - DI-Powder coated, 3 Sealing bush-EPDM-Orignal black,4 Outer sleeve-ductile plastic-Pigmented Colour,56. Top Hex Bush For Ferrule- brass- orignal, 7. Nut For Strap - Brass-orignal,8 Retainer For Bolt -Brass-orignal 9. Strap Tightening Bolt- Stainless Steel 304,10. 'U'shape Locking Pin-Stainless Steel 304,11. Springs -Stainless Steel 304,12. Split Pins-Stainless Steel 304,13. 13'O' Ring (Seal For Ferrule)-EPDM-orignal black				
53.1	a) 100 mm Diameter	each	12440.00 each		-
53.2	b) 150 mm Diameter	each	10994.00 each		-
53.3	c) 200 mm Diameter	each	3472.00 each		-
54	Providing and supply of Electrofusion fittings in accordance with BS EN 12201: Part-3 suitabel for drinking water with in black /blue colour manufactured from compounded PE 80/ PE 100 virgin polymer and compatible with PE 80 / PE 100 pipes, in pressure rating SDR -11 with min. PN -12.5 rated for water application and shall be inclusive of all cost such as testing, all taxes related to central , state and muncipal , inspection charges, transportation upto site, transit insurance, loading , unloading, stacking etc. complete. (rate with E.D) **Ferrule Tapping Tee**				
54.1	a) Saddle dia 110x20mm	each	1134.00 each		-
54.2	b) Saddle dia 110x25mm	each	12.00 each		-
54.3	c) Saddle dia 110x40mm	each	6.00		-

Schedule R-1: Price Bid Summary Sheet

Price Bid Summary Sheet

			each		
54.4	d) Saddle dia 160x20mm	each	556.00 each		-
54.5	e) Saddle dia 160x25mm	each	12.00 each		-
54.6	f) Saddle dia 160x40mm	each	6.00 each		-
54.7	g) Saddle dia 160x50mm	each	6.00 each		-
54.8	h) Saddle dia 200x20mm	each	289.00 each		-
55	Making cross connection to existing distribution main of any type including excavation, breaking and removing existing pipes, lowering, laying of specials and pipes in their position, refilling, closing the water supply in that area, dewatering and restarting the water supply, etc. complete as directed by Engineer-in-charge for following diameters of existing pipeline, irrespective of diameter of branch line (the number of joints involved will be paid separately depending upon the nature of joints and required pipes, exluding cost of valves and specials) but including jointing material such as rubber ring, nut bolts ETC.				
55.1	a) 100mm Diameter	each	45.00 No		-
55.2	b) 150mm Diameter	each	51.00 No		-
55.3	c) 200mm Diameter	each	26.00 each		-
55.4	d) 250mm Diameter	each	16.00 each		-
55.5	e) 300mm Diameter	each	30.00 each		-
55.6	f) 350mm Diameter	each	2.00 each		-
55.7	g) 400mm Diameter	each	13.00 each		-
55.8	h) 450mm Diameter	each	2.00 each		-
55.9	i) 500mm Diameter	each	1.00 each		-
55.10	j) 600mm Diameter	each	13.00 each		-
55.11	k) 700mm Diameter	each	1.00 each		-
55.12	L) 750mm Diameter	each	1.00 each		-
55.13	m) 800mm Diameter	each	1.00 No		-
55.14	n) 900mm Diameter	each	1.00 each		-
55.15	o) 1000 mm Diameter	each	1.00 each		-

Schedule R-1: Price Bid Summary Sheet

Price Bid Summary Sheet

56	Installation of HDPE product pipe by HDD method including preparing and setting up the plant and equipment, preparing new pipe work material, installing new pipe-work and commissioning system or making the system ready for commissioning by HDD operation including , all releated civil and mechanical works like excvation, shoring/strutting etc. drilling, stringing, reaming, and pulling back the new pipe- work on the designed bore path alignment, proper disposal of drilling fluid and restoration of site after completion all inclusive as per InSTT:101-2007: code of practice for horizontal directional Technique suiting Indian Condition. (in mixed soil)				
56.1	100 mm & upto 150 mm dia	metre	122613.00 metre		-
56.2	HDPE duct pipe above 150 mm to 200 mm	metre	119856.00 metre		-
56.3	200 mm & upto 300 mm dia	metre	39030.00 metre		-
56.4	HDPE duct pipe above 300 mm to 350 mm	metre	20342.00 metre		-
56.5	HDPE duct pipe above 350 mm to 450 mm	metre	7923.00 metre		-
56.6	HDPE duct above 450 mm to 600 mm	metre	7132.00 metre		-
56.7	HDPE duct above 600 mm to 750 mm	metre	2710.00 metre		-
56.8	HDPE duct above 750 mm to 1000 mm	metre	6990.00 metre		-
57	Installation of steel product pipe by HDD method including preparing and setting up the plant and equipment, preparing new pipe work material, installing new pipe-work and commissioning system or making the system ready for commissioning by HDD operation including , all releated civil and mechanical works like excvation, shoring/strutting etc. drilling, stringing, reaming, and pulling back the new pipe- work on the designed bore path alignment, proper disposal of drilling fluid and restoration of site after completion all inclusive as per InSTT:101-2007: code of practice for horizontal directional Technique suiting Indian Condition. (in mixed soil)				
57.1	700 mm dia & upto 1000 mm dia.	metre	1586.00 metre		-
57.2	1000 mm dia & 1300 mm dia	metre	400.00 metre		-
58	Conducting Ground Penetrating Radar Survey in a coridor of 4-6 meter width to detect buried utilities lik pipes, cables etc. in such corridor . Marking of the detected utilities on the map of corridor with information of location and depth to the top of various utilities detected . work to be conducted using 500 Mhz and 300 mhz antenna for best possible resolution and penetration	metre	369006.00 metre		-
59	Providing and fixing water meter box,of HDPE material , including necessary excavation, cost of locking arrangement etc complete of suitable size for 15 to 40 mm dia..	each	28572.00		-
			each		

Schedule R-1: Price Bid Summary Sheet

Price Bid Summary Sheet

60	Double flange Ductile Iron Flange adaptor for CI,DI & PVC/HDPE pipes to allow an easy dismentling of the valves				
60.1	a) 100 mm diameter	each	80.00 each		-
60.2	b) 150 mm diameter	each	228.00 each		-
60.3	c) 200 mm diameter	each	142.00 each		-
61	Carrying out volumateric test of water meter installed by contractor under demo project at customer location bypassing water through water meter & the same measurment in a container (20 ltrs) having measuring scale				
61.1	a) 15 mm diameter	each	8062.00 each		-
61.2	b) 20 mm diameter	each	355.00 each		-
61.3	c) 25 mm diameter	each	154.00 each		-
61.4	d) 40 mm diameter	each	63.00 each		-
61.5	e) 50 mm diameter	each	44.00 each		-
61.6	f) 80 mm diameter	each	30.00 each		-
61.7	g) 100 mm diameter	each	13.00 each		-
61.8	h) 150 mm diameter	each	8.00 each		-
62	Carrying out internal water audit leak test of consumer permisses for checking leakages in the existing piping system, leakages of u/g tank & over head storage tank of consumer concealed water piping, leaking taps, defective float valves etc(with all equipments required to detect the test)	each	29101.00 each		-
63	Supply laying installation of MS Black pipe 40 mm dia for encassing the MDPE service pipes at places of drainage crossings	metre	4489.00 metre		-
64	Metal Inserted Elbow/adaptor with female Threaded Off Take for MDPE pipe to G.I pipe connection				
64.1	a) 20mmx15mm diameter	No	27468.00 No		-
64.2	b) 25mmx20mm diameter	No	1182.00 No		-
64.3	c) 32mmx25mm diameter	No	514.00 No		-

Schedule R-1: Price Bid Summary Sheet

Price Bid Summary Sheet

65	Supplying Pressure Reducing Valves (PRV). Functions: Maintains a constant downstream pressure regardless of flustuations in inlet pressure or flow. (Model No. 106/206 PR) Body, Cover & Stem Cap in Ductile Iron ASTM A 536 65/45/12. Stem, Seat Ring, Spring of SS: 316. Diaphragm, Seals, O-Rings EPDM/Buna N.The Valve body will be straight type and not Y type. The SS: 316 Seat Rings shall be guaranted for life of the Valves for potable water use only. The Valve shall have removable Stem Cap for in line inspection and easy maintainence. The painting shall be NSF 61 fusion bonded epoxy coating safe for drinking water. All external fasteners shall be SS: 304. The Valve shall be supplied with 1 No. DVPL or equivalent make DI Resilient Seated Gate Valve for maintainence isolation. Singer make				
65.1	a) 100mm Diameter	No	12.00 No		-
65.2	b) 150mm Diameter	No	9.00 No		-
65.3	c) 200mm Diameter	No	4.00 No		-
65.4	d) 300mm Diameter	No	8.00 No		-
66	Providing, erecting, commissioning & giving test & trial for a period of one month including one year free maintenance after commissioning of Electro chlorinator capable of generating chlorine form common salt by electrolysis using electrodes in form of sodium hypo chlorite solution containing 6-8 gms/lit of available chlorine in batch or continuous process and capable of providing 8 hrs storage of hypochlorite in case of power failure. The electro chlorinator shall comprise of following. * Electrolytic cell consisting dimensionally stable electrodes made from Gr I Titanium sheet with multi metal Oxide coating. * Electolyzer tank made from PVC -FRP or Acrylic. * Power pack consisting of transformer rectifier for generating suitable DC current from AC supply along with the control switch for dosing pumps, etc through MCB's contacts, relays and wiring. * Control panel for the electro chlorinator consisting of DC voltage and current display income phase status unit on-off switches fuses etc. * Dosing tank of suitable capacity made from PVC/FRP. * Dosing pumps of special quality (1W+1S) suitable to handle hypo chlorite solution. * Entire chlorine solution pipeline shall be of PVC Chlorine test 5ppm. kit suitable to measure residual chlorine up to EC 16-10 1500 gms / hr	each	2.00 each		-
67	Cutting bitumeneous road and taking out soling, matteling including sorting, screening and stacking with in a lead of 50 including cost of barricading & Chokidar	cum	13957.88 cum		-

Schedule R-1: Price Bid Summary Sheet

Price Bid Summary Sheet

68	Providing & fixing gun metal ferrule of IS-2692 as approved by Engineer-in-charge of approved make list of NDMC				
68.1	a) 15 mm diameter	each	26874.00 each		-
68.2	b) 20 mm diameter	each	1182.00 each		-
68.3	c) 20 mm diameter	each	514.00 each		-
68.4	d) 40 mm diameter	each	2.00 each		-
69	Installation of LDPE /MDPE Pipe by Moling Method including making of entry and exist pits, all related civil works like excavation, shoring/strutting, maintaning the pits, backfilling the pits after pipe installation etc. and restoration of site after completion but excluding the cost of Pipe. all kind of soil				
69.1	a) 20 mm (I.D. 15 mm) diameter	metre	107496.00 metre		-
69.2	b) 25 mm (I.D. 20 mm) diameter	metre	4728.00 metre		-
69.3	c) 32 mm (I.D. 25 mm) diameter	metre	2056.00 metre		-
69.4	d) 40 mm (I.D. 32 mm) diameter	metre	8.00 metre		-
69.5	e) 50 mm (I.D. 40 mm) diameter	metre	844.00 metre		-
69.6	f) 63 mm (I.D. 50 mm) diameter	metre	592.00 metre		-
70	Providing and installation Pipe ends and slip on flange (PE 100, HDPE) including all taxes (Central and local), transportation and freight charges, inspection charges, loading, unloading charges, conveyance to departmental stores etc.				
70.1	a) 110 mm diameter	Each	200.00 Each		-
70.2	b) 160 mm diameter	Each	100.00 Each		-
70.3	c) 200 mm diameter	Each	100.00 Each		-
71	Lowering laying in position to correct line and level including M. S. pipes with / without any outcoating on pedestals or chairs upon prepared formation. The rate to include loading, unloading hoisting, marginal cutting wherever required, assembling and tack welding, and transporatation upto 500 M. etc. completed as specified.				
71.1	a) 300 mm diameter pipe, 6 mm thickness	metre	4233.00 metre		-
71.2	b) 350 mm diameter pipe, 6 mm thickness	metre	200.00 metre		-
71.3	c) 400 mm diameter pipe, 6 mm thickness	metre	585.00 metre		-
71.4	d) 450 mm diameter pipe, 6 mm thickness	metre	9.00 metre		-
71.5	e) 500 mm diameter pipe, 6 mm thickness	metre	949.00 metre		-
71.6	e) 600 mm diameter pipe, 6 mm thickness	metre	1163.00 metre		-
71.7	f) 700 mm diameter pipe, 6 mm thickness	metre	22.00 metre		-
71.8	g) 800 mm diameter pipe, 12 mm thickness	metre	200.00 metre		-

Schedule R-1: Price Bid Summary Sheet					
Price Bid Summary Sheet					
71.9	h) 900 mm diameter pipe, 12 mm thickness	metre	200.00 metre		-
71.10	i) 1000 mm diameter pipe, 12 mm thickness	metre	200.00 metre		-
71.11	j) 1100 mm diameter pipe, 12 mm thickness	metre	400.00 metre		-
72	Providing, erecting and commissioning M.S. Dismantling joint as per requirement and Department's approved drawing and specifications, including machining and rubber rings and suitable for 16 kg/cm2 working pressure with required flanges of suitable size with nut bolts etc complete. The joint should have through long bolts so that during normal working pressure there should be no sliding movement of sliding flanges. L.O.F. (length over flange) should not be less than 75% of dia.				
72.1	b) 200 mm Diameter	each	136.00 each		-
72.2	c) 250 mm Diameter	each	87.00 each		-
72.3	d) 300 mm Diameter	each	89.00 each		-
72.4	e) 400 mm Diameter	each	25.00		-

Schedule R-1: Price Bid Summary Sheet

Price Bid Summary Sheet

			each		
72.5	f) 450 mm Diameter	each	9.00 each		-
72.6	g) 500 mm Diameter	each	23.00 each		-
72.7	h) 600 mm Diameter	each	18.00 each		-
72.8	i) 700 mm Diameter	each	8.00 each		-
72.9	j) 800 mm Diameter	each	11.00 each		-
72.10	k) 1000 mm dia.	each	8.00 each		-
73	Constructing masonry Chamber 90x90x100 cm inside, in brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for sluice valve, with C.I. surface box 100 mm top diameter, 160 mm bottom diameter and 180 mm deep (inside) with chained lid and RCC top slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), i/c necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick, finished with a floating coat of neat cement complete as per standard design :				
73.1	With common burnt clay F.P.S.(non modular) bricks of class designation 7.5 (for size 100 to 300 mm valve)	each	970.00 each		-
74	Constructing masonry Chamber 120x120x100 cm inside, in brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for sluice valve, with C.I. surface box 100 mm top diameter, 160 mm bottom diameter and 180 mm deep (inside) with chained lid and RCC top slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) , i/c necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick, finished with a floating coat of neat cement complete as per standard design :				
74.1	With common burnt clay F.P.S.(non modular) bricks of class designation 7.5 (for size 350 to 900 mm valve)	each	20.00 each		-
Rehabilitation of Exiting UGR/ BPS in NDMC Area					
75	Reinforced Cement Concrete work in walls (any thickness), including attached plasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. upto floor five level excluding cost of centering, shuttering, finishing and reinforcment . 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size)	cubicmetre	2165.00 cubicmetre		-

Schedule R-1: Price Bid Summary Sheet

Price Bid Summary Sheet

76	Finishing with epoxy paint (two or more coats) at all locations prepared and applied as per manufacturers specifications including appropriate priming coat, preparation of surface, etc complete				
76.1	a) on steel work	Sqm	7864.59 Sqm		-
76.2	b) on concrete work	Sqm	39323.00 Sqm		-
77	Providing and applying 2 component Zinc epoxy Primer at 40 micron thickness in a single coat using brush on the cleaned reinforcement bar as a passivation layer including necessary tools and tackles for mixing the parts and all consumables, etc., complete	liters	1000.00 liters		-
78	Providing & Fixing Shear anchors of 10/12 mm dia of sufficient length by drilling in the concrete for all Microconcrete jacketing works at 500 mm c/c and grouting by high strength, quick setting polyester resin grout including cutting, bending of steel, all tools tackles, etc., complete	Nos	1573.00 Nos		-
79	Providing and applying site mix polymer modified mortar in 1:3 cement mortar with 20%,polymer by weight of cement on the spalled portions of beams, slab soffits, etc., up to 40 mm thickness in 2 to 3 layers. The mortar shall develop compressive strength up to 15 Mpa in 3 days. The rate shall include necessary surface preparation, removing rust from rebar and cleaning, profiling of concrete, all necessary tools and tackles.	liters	786.00 liters		-
80	Providing & applying free flow, self compacting Microconcrete into the watertight shuttering for columns, beams jacketing at pre decided thickness admixed with 6 mm down pre washed cleaned stone aggrgates in the ratio of 1:0.5 as per manufacturer's specifications. The cost of providing the shuttering shall be paid separately.	cum	134.00 cum		-
81	Providing and carrying injection grouting using cement slurry admixed with expansive additive in required dosage to compensate the shrinkage including drilling and fixing 12 mm dia packer of length 75 mm into a 150 mm deep hole with fast setting putty by suitable grouting pump under pressure till the refusal, cutting of nozzle after the grouting and finishing with fast setting mortar, etc., complete	kilogram	47107.00		-

Schedule R-1: Price Bid Summary Sheet

Price Bid Summary Sheet

			kilogram		
82	P/ A polymer modified cementitious compound for surface leveling up to 5 mm thickness on the rough surface on walls, slab bottom, etc., before application of Polyurea, wherever required, including all tools & tackles, etc., complete	Sqm	26363.93 Sqm		-
83	Providing & applying 95 % solids, flexible, elastomeric, UV stable, 2 component, waterproof, highly tough, odour free, chemical resistant, fast setting, negligible wastage, colour stable, Polyaspartic Sanitile 985 PA Coating, tensile strength 2920 psi, at 0.5 mm thick polyaspartic system over the substrate, brush applied as per manufacturer's specifications including all necessary tools, tackles, primer application, surface preparation, filling of cracks with suitable compound, solvent for overlaps, all transportation, etc., complete.	Sqm	26363.93 Sqm		-
84	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 & 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.).	kilogram	1049.60 kilogram		-
85	Extra for every additional lift of 1.5 m or part thereof in excavation / banking excavated or stacked materials.	cubicmetre	3888.00 cubicmetre		-
CONSTRUCTION OF PUMP HOUSE, AND CIVIL STRUCTURES AS REQUIRED AT HASANPUR & Talkatora					
86	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30cm in depth. 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50m and lift upto 1.5m, disposed earth to be levelled and neatly dressed.				
86.1	All kinds of soil	cubicmetre	65.20 cubicmetre		-
86.2	Ordinary Rock	cubicmetre	20.40 cubicmetre		-
86.3	Hard rock	cubicmetre	31.40 cubicmetre		-
87	Supplying and filling in plinth with Jamuna sand under floors, including watering, ramming, consolidating and dressing complete.	cubicmetre	47.00 cubicmetre		-
88	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. All kinds of soil	100 sqm	342.00 100 sqm		-

Schedule R-1: Price Bid Summary Sheet

Price Bid Summary Sheet

89	DESIGN MIX CONCRETE Providing and laying in position machine batched, machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge. All works above plinth level upto floor V level				
89.1	a) foundation	cubicmetre	114.00 cubicmetre		-
89.2	b) super structure	cubicmetre	146.00 cubicmetre		-
90	Add or deduct for providing richer or leaner mixes at all Providing M30 grade concrete by using 420kg of cement per cum of concrete grade BMC/ RMC	cubicmetre	260.00 cubicmetre		-
91	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundation and plinth in: Cement mortar 1:6 (1 cement : 6 coarse sand)	cubicmetre	57.83 cubicmetre		-
92	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level in all shapes and sizes in : Cement mortar 1:6 (1 cement : 6 coarse sand)	Sqm	217.00 Sqm		-
93	52 mm thick cement concrete flooring with concrete hardener topping, under layer 40 mm thick cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) 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 mixed @ 2 litre per 50 kg of cement or as per manufacturer's specifications. This includes cost of cement slurry, but excluding the cost of nosing of steps etc. complete.	Sqm	313.61 Sqm		-
94	Providing and fixing glass strips in joints of terrazo/ cement concrete floors.40 mm wide and 4 mm thick	metre	101.40 metre		-
95	Painting top of roofs with bitumen of approved quality @ 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 :With residual type petroleum bitumen of penetration 80/100	Sqm	365.18 Sqm		-
96	Making khurras 45x45 cm with average minimum thickness of 5 cm cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate of 20 mm nominal size) over P.V.C. sheet 1 m x1 m x 400 micron, finished with 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) and a coat of neat cement, rounding the edges and making and finishing the outlet complete.	Each	12.00 Each		-

Schedule R-1: Price Bid Summary Sheet

Price Bid Summary Sheet

97	Providing gola 75x75 mm in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 stone aggregate 10 mm and down gauge), including finishing with cement mortar 1:3 (1 cement : 3 fine sand) as per standard design :In 75x75mm deep chase	metre	118.00 metre		-
98	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, (i) Single socketed pipes. 110 mm diameter	metre	104.00 metre		-
99	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 10x10x10 cm of 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) and cost of cutting holes and making good the walls etc. : 100 mm diameter	Each	70.00 Each		-
100	15 mm cement plaster on the rough side of single or half brick wall 1:4 (1 cement : 4 coarse sand)	sqm	910.00 sqm		-
101	6 mm cement plaster to ceiling of mix 1:3 (1 cement : 3	Sqm	766.00 Sqm		-
102	Rough cast plaster upto 10 m height above ground level with a mixture of sand and gravel or crushed stone from 6 mm to 10 mm nominal size, dashed over and including the fresh plaster in two layers, under layer 12 mm cement plaster 1:4 (1 cement : 4 coarse sand) and top layer 10 mm cement plaster 1:3 (1 cement : 3 fine sand) mixed with 10% finely grounded hydrated lime by volume of cement. Ordinary cement finish using ordinary cement	Sqm	797.00 Sqm		-
103	White washing with lime to give an even shade New work	Sqm	1676.00 Sqm		-
104	Distempering with dry distemper of approved brand and manufacture (two or more coats) and of required shade on new work, over and including priming coat of whiting to give an even shade.	Sqm	1676.00 Sqm		-
105	Finishing walls with water proofing cement paint of required shade New work (Two or more coats applied @ 3.84 kg/10 sqm)	Sqm	797.00 Sqm		-
106	Providing and fixing brass stop cock of approved quality : 15 mm nominal bore	Each	4.00 Each		-
107	Providing and fixing white vitreous china pedestal type water closet (European type) with seat and lid, 10 litre low level white vitreous china flushing cistern & C.P. flush bend with fittings & C.I.brackets, 40 mm flush bend, overflow arrangement 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 : W.C. pan with ISI marked white solid plastic seat and lid.	Each	2.00 Each		-

Schedule R-1: Price Bid Summary Sheet

Price Bid Summary Sheet

108	Providing and fixing white vitreous china flat back or wall corner type lipped front urinal basin of 430x260x350 mm and 340x410x265 mm 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 :One urinal basin with 5 liter white P.V.C. automatic flushing cistern.	Each	4.00 Each		-
109	Providing and fixing white vitreous china pedestal for wash basin completely recessed at the back for the reception of pipes and fittings.	Each	2.00 Each		-
110	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 :Oval shape 450x350mm (outer dimensions)	Each	2.00 Each		-
111	Providing and fixing soil, waste and vent pipes : 100 mm	meter	60.00 meter		-
112	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	2.00 Each		-
113	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. 600mm long towel rail with total length of 645mm, width 78mm and effective height of 88mm, weighing not less than 190gms .	Each	2.00 Each		-
114	Providing, laying and jointing glazed stoneware pipes grade 'A' with stiff mixture of cement mortar in the proportion of 1:1 (1 cement : 1 fine sand) including testing of joints etc. complete : 100 mm diameter	Each	60.00 Each		-
115	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 : 100x100 mm size P type With Sewer bricks conforming to IS : 4885	Each	4.00 Each		-

Schedule R-1: Price Bid Summary Sheet

Price Bid Summary Sheet

116	Manufacturing, supplying and fixing retro reflective sign boards made up of 2 mm thick aluminium sheet, face to be fully covered with high intensity encapsulated type heat activated retro reflective sheeting conforming to type - IV of ASTM-D 4956-01 in blue and silver white or other colour combination including subject matter, message (bi-lingual), symbols and borders etc. as per IRC ; 67:2001, pasted on substrate by an adhesive backing which shall be activated by applying heat and pressure conforming to class -2 of ASTM-D-4956-01 and fixing the same with suitable sized aluminium alloy rivets @ 20 cm c/c to back support frame of M.S. angle iron of size 25x25x3 mm along with theft resistant measures, mounted and fixed with 2 Nos. M.S. angles of size 35x35x5 mm to a vertical post made up to M.S. Tee section ISMT 50x50x6 mm welded with base plate of size 100x100x5 mm at the bottom end and including making holes in pipes, angles flats, providing & fixing M.S. message plate of required size, steel work to be painted with two or more coats of synthetic enamel paint of required shade and of approved brand & manufacture over priming coat of zinc chromate yellow primer (vertical MS-Tee support to be painted in black and white colours).Backside of aluminium sheet to be painted with two or more coats of epoxy paint over and including appropriate priming coat including all leads and lifts etc. complete as per drawing , specification and direction of Engineer--in-charge. Mandatory/ Regulatory sign boards of 900mm dia - meter with part as length of 3750mm	sqm	20.00 sqm		-
117	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 & 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.).	Kilogram	200.00 Kilogram		-
118	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 5 mm thick FRP laminate for panels conforming to IS: 14856, including fixing to frames	Sqm	10.00 Sqm		-

Schedule R-1: Price Bid Summary Sheet

Price Bid Summary Sheet

119	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 27.5 cm long wire springs grade No.2 and M.S. top cover of required thickness for rolling shutters.80 x 1.25 M.S. laths with 1.25 mm thick top cover	Sqm	40.00 Sqm		-
120	Providing and fixing ball bearing for rolling shutters	Each	9.00 Each		-
121	Extra for providing mechanical device chain and crank operation for operating rolling shutters (Exceeding 16.80 sq.m in the area)	Sqm	40.50 Sqm		-
122	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	8.00 Each		-
123	Providing and fixing Fiber Glass Reinforced plastic (FRP) Door Frames of cross-section 90 mm x 45 mm having single rebate of 32 mm x 15 mm to receive shutter of 30 mm thickness .The laminate shall be moulded with fire resistant grade unsaturated polyester resin and chopped mat . Door frame laminate shall be 2 mm thick and shall be filled with suitable wooden block in all the three legs. The frame shall be covered with fiber glass from all sides. M.S. stay shall be provided at the bottom to steady the frame.	metre	24.00 metre		-
124	Providing and fixing glazing in aluminium door, window, ventilator Shutters and partitions etc. with PVC/ neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-incharge . (Cost of aluminium snap beading shall be paid in basic item): With float glass panes of 5.50 mm thickness	Sqm	24.00 Sqm		-
125	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				
125.1	Coupler (110 mm)	Each	4.00 Each		-
125.2	Bend 87.5^0 (110 mm)	Each	12.00 Each		-
125.3	(shoe (plain) 110 mm shoe	Each	4.00 Each		-
126	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	2.00 Each		-

Schedule R-1: Price Bid Summary Sheet

Price Bid Summary Sheet

127	Providing & fixing unplasticised -PVC pipe clips of approved design to unplasticised - pVC rain water pipes by means of 50x50x50 mm hard wood plugs, screwed with M.S. screws of required length including cutting brick work and fixing cement mortor 1:4 (1 cement : 4 coarse sand) and making good the wall etc. complete (110 mm)	Each	10.00 Each		-
Providing & installation of Pre paid Kiosk					
128	Providing and installation of Water fountain/kiosk with prepayment with 1 wateroutlet including Handheld Electronic Payment Terminal(EPT), Infrared remote controller (IRC), Electronickey (for quantity > 500), Software to download data from the EPT to a PC and necessary Civilwork for instalation.	Each	3.00 Each		-
Providing, erecting, and giving satisfactory test &trial of HSC Pumps for NDMC Area					
129	Designing, providing erecting, commissioning and giving test and trial of horizontal split casing centrifugal pumps capable of discharging 57.87 Lps. Against total head of 42 mts suitable for Electric motor of 1500 RPM for VFD Drive with coupling, base plate & accesoriesi.e. Pressure gauges,copling guard,MS companion flanges,foundation bolts etc. .	each	6.00 each		-
130	Designing, providing erecting, commissioning and giving test and trial of horizontal split casing centrifugal pumps capable of discharging 57.87 Lps. Against total head of 35 mts suitable for Electric motor of 1500 RPM for VFD Drive with coupling, base plate & accesoriesi.e. Pressure gauges,copling guard,MS companion flanges,foundation bolts etc. .	each	3.00 each		-
131	Designing, Providing, Erecting, commissioning PN-1.6, ISI mark CI D/F reflux valves (non-return valves) of following dia including all taxes (Central and Local), railway freight, inspection charges unloding from railway wagon, loading into truck, transportation upto departmental stroes/ site, unloading, stacking etc. complete. Reflux valves as per I.S.5312 Part I (1984) a) 250 mm diameter	each	9.00 each		-
132	Providing, fabricating and fixing expansion joints for pipelines as per the drawing. The rate to include machining the strakes and steel ring as shown in the drawing and welding on either automatic welding machine or manually, Rate includes plates and flats required for expansion joint and all other materials such as synthetic rubber, rubber ring, etc. complete. including packing as per specifications, grease, bolts and nuts, etc. including local handling, all types of taxes and duties etc. complete. a) 250 mm diameter	each	9.00 each		-

Schedule R-1: Price Bid Summary Sheet

Price Bid Summary Sheet

133	Electric Operated Circular or Rectangular Travelling Crane (Single Girder) Providing, erecting and commissioning single girder Electrically Operated Rectangular Over head Travelling Crane with 6 m lift complete with wire rope hoist, class II duty, all three motions electrically operated by suitable rating motor IP 54, control panel and down pendant control block. 5 Tonne Capacity Above 6 m upto 8 m span	each	3.00 each		-
134	Down Shop Lead system for above crane	metre	45.00 metre		-
135	Sqaure Bar/ rail:- Providing erecting and fixing square bar of EN 8 as rail for overhead crane on provided track, grirder/ contineous corbel beam, including supporting plate and J bolts of 50 X 50 mm (EN-8)	metre	90.00 metre		-
136	RSJ:- Providing stuctural steel work in single stanchions composed of RSJ, channel, etc, with caps, bases, mild steel plates, angles, brackets, cleats, gusset plates, anchor bolts, etc. as per detailed design and drawing or as directed by Engineer-in-charge including cutting, fabrication, hoisting, erecting, fixing in position, making riveted/ bolted / welded connections and one coats of anticorrosive paint and over it two coats of oil painting, etc. complete.	kilogram	1800.00 kilogram		-
Providing, erecting, and giving satisfactory test &trial of Electrical Work for Pump houses					
137	Main incomer and pump control panel as per SLD and as given below 1. Supplying and erecting contactor L&T make ML-4 or suitable from MN series for motor starter suitable from 60 HP to 75 HP. 2.Providing & erecting 3 Pole MCCB up to 100A of 25kA SC rating, thermal and magnetic setting with provided leads on iron frame/laminated board as per specification No. SW-SWR/MCCB 3.Supplying & erecting Bank of polypropylene condensers with the standard of 10,10 &5 Kvar unit of power factor correction on 3 phase, 50Hz, 400 volts. 4.VFD (variable frequency drives) 30KW, 440 volt. 5.Providing & erecting 3 Pole MCCB of 200A Capacity with S.C. rating 35 kA thermal and magnetic setting with provided leads on iron frame/laminated board as per specification no. SW-SWR/MCCB 6. Sheet metal enclosurer, busbar, indication & metering, insulator single &three Phase Plug point, Contactor & MCB for Capacitor, Energy Meter... etc.	Each	1.00 Each		-

Schedule R-1: Price Bid Summary Sheet

Price Bid Summary Sheet

138	Main incomer and pump control panel as per SLD and as given below 1. Supplying and erecting contactor L&T make ML-4 or suitable from MN series for motor starter suitable from 60 HP to 75 HP. 2.Providing & erecting 3 Pole MCCB up to 100A of 25kA SC rating, thermal and magnetic setting with provided leads on iron frame/laminated board as per specification No. SW-SWR/MCCB 3.Supplying & erecting Bank of polypropylene condensers with the standard of 10,10 &5 Kvar unit of power factor correction on 3 phase, 50Hz, 400 volts. 4.VFD (variable frequency drives) 30KW, 440 volt. 5.Providing & erecting 3 Pole MCCB of 200A Capacity with S.C. rating 35 kA thermal and magnetic setting with provided leads on iron frame/laminated board as per specification no. SW-SWR/MCCB 6. Sheet metal enclosurer, busbar, indication & metering, insulator single &three Phase Plug point, Contactor & MCB for Capacitor, Energy Meter... etc.	Each	1.00 Each		-
139	Main incomer and pump control panel as per SLD and as given below 1. Supplying and erecting contactor L&T make ML-4 or suitable from MN series for motor starter suitable from 60 HP to 75 HP. 2.Providing & erecting 3 Pole MCCB up to 100A of 25kA SC rating, thermal and magnetic setting with provided leads on iron frame/laminated board as per specification No. SW-SWR/MCCB 3.Supplying & erecting Bank of polypropylene condensers with the standard of 10,10 &5 Kvar unit of power factor correction on 3 phase, 50Hz, 400 volts. 4.VFD (variable frequency drives) 30KW, 440 volt. 5.Providing & erecting 3 Pole MCCB of 200A Capacity with S.C. rating 35 kA thermal and magnetic setting with provided leads on iron frame/laminated board as per specification no. SW-SWR/MCCB 6. Sheet metal enclosurer, busbar, indication & metering, insulator single &three Phase Plug point, Contactor & MCB for Capacitor, Energy Meter... etc.	Each	1.00 Each		-
140	Cables Aluminum conductor Three core, XLPE/ PVC insulated & armored cable (3corex35 sq. mm)	metre	330.00 metre		-
141	Supplying & erecting Siemens type brass cable glands for 3 core 35 sq mm for PVC armoured cable.	Each	22.00 Each		-
142	Motors (35KW) Supplying & erecting and giving test and trail 1500 RPM squirrel cage invertor duty induction motor continuous rating suitable for operation at 415volts	Each	6.00 Each		-

Schedule R-1: Price Bid Summary Sheet

Price Bid Summary Sheet

143	Motors (30KW) Supplying & erecting and giving test and trail 1500 RPM squirrel cage invertor duty induction motor continuous rating suitable for operation at 415volts	Each	3.00 Each		-
144	Supplying and erecting earthing system with pipe in pipe with necessary ancillary materials and earth pit.	Each	18.00 Each		-
145	Supplying and erecting G.I. strips used for earthing with	kilogram	150.00 kilogram		-
146	Supplying & erecting 2x28W T-5 Energy Efficient Retrofit/ Stand aloneFluorescent Tube light Fitting (EETLF) box type complete withElectronic Ballast having pf > 0.98 & THD <10 and lamp holders dulywired ready to use for 230 Volts, 50 Hz. Single phase AC Supply to IS:10322 as per quality requirements and erected on varnished woodenblocks with flexible wire twin core 24/0,2mm.and marking Sr. No. and dateof erection.	Each	20.00 Each		-
147	Supplying & erecting Wiring for circuit / submain wiring along with earth wire, 2 x 2.5 sq.mm + 1 x 2.5 sq.mm earth wire of FR PVC insulated copper conductor, single core cable in surface / recessed medium class MS conduit as required	metre	85.00 metre		-
148	Supplying & erecting 20 mm dia ISI marked Steel conduit	metre	85.00 metre		-
149	Supplying & erecting 6 amps to 32 amps ratings SPN MCb, "C" curve 10 kA breaking capacity	Each	8.00 Each		-
150	Supplying & erecting 25 amps rating 2 pole RCCB, 100 mA/300 mA	Each	2.00 Each		-
151	Supplying & erecting 2+4 way, SPN, single door MCB DB	Each	2.00 Each		-
152	Wiring for light point/fan point/exhaust fan point/call bell point with 1.5 sq.mm FR PVC insulated copper conductor single core cable in surface /recessed steel conduit, with modular switch, modular plate, suitable GI Box and earthing the point with 1.5 sq.mmFR PVC insulated copper conductor single core cable etc as required.	point	20.00 point		-
Automation AND SACADA For NDMC Area					
153	Supply, delivery, installation, testing, training and commissioning of Pressure measuring instruments as per the General Specifications described Technical Specifications for Instrumentation of this document. Consisting of pressure transducers, pressure transmitters with cabinet for pressure transmitter, digital pressure indicator, sensors, converters, cables, structure required for mounting viz:platforms, railings, etc and all required installation hardware complete and as directed by Engineer-in -charge and as per detailed technical specification provided in Vol - II 6.23.151				
153.1	At UGR / DMA's	Each	158.00		-

Schedule R-1: Price Bid Summary Sheet

Price Bid Summary Sheet

153.2	At BPS, Transmission mains & Dist. System	Each	96.00 Each		-
154	Supply, delivery, installation, testing, training and commissioning of level measurement systems to measure UGR / GSR level and water / sump level at pump house / BPS as per detailed technical specification provided in Vol - II 6.23.152. Consisting of level transducers, level transmitters, sensors, converters, cables, digital level indicators with proper cabinets, structure required for mounting the level transducer viz: platforms, railings etc and all required installation hardware complete and as directed by Engineer-in-charge	Each	30.00 Each		-
155	Supply, delivery, installation, testing, training and commissioning of Chlorine Residual measuring instruments and as per detailed technical specification provided in Vol - II 6.23.153. Consisting of transducers, transmitters, sensors, converters, cables, proper cabinets,structure required for mounting viz: platforms, railings etc and all required installation hardware complete and as directed by Engineer-in-charge	Each	55.00 Each		-
156	Supply, delivery, installation, testing, training and commissioning of RPM measuring instruments and as per detailed technical specification provided in Vol - II 6.23.154. Consisting of transducers, transmitters, sensors, converters, cables, structure required for mounting the transducer viz:chambers, platforms, railings etc and all required installation hardware complete and as directed by Engineer-in -charge	Pump Set	90.00 Pump Set		-
157	Supply, delivery, installation, testing, training and commissioning of Energy measuring (Power analyser) instrumentsand as per detailed technical specification provided in Vol - II 6.23.155. Communicating type energy monitoring system capable of monitoring all energy parameters consisting of transducers, transmitters, sensors, converters, cables, cabinets, structure required for mounting the transducer viz: platforms, railings etc and all required installation hardware / software complete etc. and as directed by Engineer-in -charge	each set	90.00 each set		-
158	Supply, delivery, installation, testing, training and commissioning of PLC based Control Panels and as per detailed technical specification provided in Vol - II 6.23.156. Consisting of of all required relays, selector switches, push buttons, power supplies,power points, transducers, transmitters, cables, structure and furniture required for mounting viz; railings, plateforms etc. complete and all required installation hardware, wiring complete and as directed by Engineer-in -charge	each set	20.00 each set		-

Schedule R-1: Price Bid Summary Sheet

Price Bid Summary Sheet

159	Supply, delivery, installation, testing, training and commissioning of all required sensors & instruments required to communicate / interface with GPRS / GSM Data loggers as per detailed technical specification provided in Vol - II 6.23.157. Consisting of transducers, transmitters, converters, cables, structure required for mounting the transducer viz: chambers, platforms, railings etc and all required installation hardware complete and as directed by Engineer-in -charge	each set	114.00 each set		-
160	Supply, delivery, installation, testing for interfacing of valve actuators required for automatic control of existing Sluice Valves and as per detailed technical specification provided in Vol - II 6.23.158. Consisting of required transmitters, cables, hand wheel for emergency manual operation , wired on terminal blocks, and including repairs and reconditioning the existing Sluice Vaves etc., complete and all required installation hardware complete and as directed by Engineer-in -charge				
160.1	At BPS & Distribution system	each set	40.00 each set		-
160.2	a) At BPS/ Pump House (Valve Actautors)	each set	40.00 each set		-
160.3	b) Locations in distribution system	each set	40.00 each set		-
161	Supply, delivery, erection, installation, testing and commissioning of all required communication interface, SCADA interfaces, telemetry interfaces, RTUs / PLC hardwares, controls, cables and all required accessories to communicate with all field instruments to receive, store, transfer data /information as per detailed Technical specifications provide in section 6.23.159 of Vol-II. Consisting of PLC / RTUs system with all peripherals, converters & cabinets, power points and structure required for mounting viz: platforms, railings etc and all required hardware / softwares complete and as directed by Engineer-in -charge				
161.1	PLC (non redudant) @ at BPS	each set	17 each set		-
161.2	PLC (Hot Standby) at Central Control Station + 2 Pump	each set	3.00 each set		-
161.3	RTU @ Remote Locations / UGR's/ DMA's	each set	35.00 each set		-
162	Supply, delivery, erection, installation, testing and commissioning of Lighting / Surge protection system with all required accessories for all field instruments, controls, towers, antennas etc. and as per detailed technical specification provided in Vol - II 6.23.160. Consisting of all protection/lightning devices with all peripherals, cabinets and structure required for mounting viz: chambers, platforms, railings etc. with all required hardware complete and as directed by Engineer-in -charge				
162.1	a) At UGR / GSR / tappings locations	each set	37.00 each set		-
162.2	b) At BPS / NEW Pump House	each set	8.00 each set		-

Schedule R-1: Price Bid Summary Sheet

Price Bid Summary Sheet

163	Supply, delivery, erection, installation, testing and commissioning of Instrumentation Cable with all required accessories for all field instruments & controls i.e. for telemetry & SCADA system and as per detailed technical specification provided in Vol - II 6.23.161. Consisting of all peripherals and structure required for mounting viz: furnitires, platforms, railings etc. with all required hardware complte and as directed by Engineer-in -charge	meter	2000.00 meter		-
164	Supply, delivery, erection, installation, testing, training and commissioning of Wirless Telemetry as a communication media including GPS site survey of all locations for detrmining communication parameters & towers for Central Monitoring system with proper Towers/ Antennas /subscriber module / reflector disk at each location and central location and all necessary accessories inclusive of all liscence fees at all locations of UGR/GSR/ BPS/ Pumping stations and as per detailed technical specification provided in Vol - II 6.23.162. Consisting of all required equipments, Towers, Antennas, subscriber module, disk, pedestal for tower base, lightning arrestors, cables, structure required for mounting viz: poles, platforms, railings, furnitures etc and all required installation hardwares complete and as directed by Engineer-in -charge				
164.1	RF Modem	Each	20.00 Each		-
164.2	GPRS Modem	Each	45.00 Each		-
165	Providing Fabricated self supported triangular shape MS tubular Tower of suitable height from ground , providing matched pedestal for tower base, providing aluminium earthing wire upto nearest earth terminal, providing GI lightening arrestor at WTP / pump House locations and At Central Location (NDMC Head office) and as per detailed technical specification provided in Vol - II 6.23.163				
165.1	a) Tower Height upto 5 meter	Each	1.00 Each		-
165.2	b) Tower Height 10 to 15 meter	Each	1.00 Each		-
165.3	c) Tower Height 25 to 30 meter	Each	5.00 Each		-
166	Supply, delivery, erection, installation, testing, training and commissioning of local SCADA system at each pumping station. including all necessary instruments & controls with all accessories and as per detailed technical specification provided in Vol - II 6.23.164. Consisting of all supervising controls and equipments, cables, Monitoring equipments, hardwares to communicate with telemetey system, structure required for mounting viz: platforms, railings, furnitures, cabinets etc. complete complete and all required installation hardwares and as directed by Engineer-in -charge At BPS/ Pump House Locations	Pumping station	20.00 Pumping station		-

Schedule R-1: Price Bid Summary Sheet

Price Bid Summary Sheet

167	2) Supply, delivery, erection, installation, testing, training and commissioning of local SCADA PC consol for running SCADA softwares etc.& its all accessories and as per detailed technical specification provided in Vol - II 6.23.165. and all required accessories, printers and all mounting structues viz, furnitures, cabinets, platforms, railings, cables etc.complete and as directed by Engineer-in -charge	Each	20.00 Each		-
168	3) Supply, delivery, erection, installation, testing, training and commissioning of local SCADA Server & Softwares including all asscocited softwares like Operating system, database software, SCADA software, application software WDMS, IMIS, pump house resource planning software etc.& its all accessoriesand as per detailed technical specification provided in Vol - II 6.23.166. Softwares Consisting of Windows based MMI Software inclusive of all liscence to provide dynamic graphics, process mimics, real time & historical trending, group displays, faceplate displays, alarm management and reports and all mounting structues viz, furnitures, cabinets, platforms, railings, cables etc. as directed by Engineer-in -charge	Each	20.00 Each		-
169	a) Supply, delivery, erection, installation, testing, training and commissioning of Central Monitoring System for all UGR/GSR / Pumping stations including a) project Plan b) System hardware c) System Software d) Control Room Furniture e) Large Video Display System and all necessary accessories as per theTechnical Specifications for establishing Central Monitoring & Control Station with Central SCADA server and web enabled integarted GIS system and as per as per detailed technical specification provided in Vol - II 6.23.167. Consisting of all monitoring equipments, cables, all hardwares/softwares to communicate with telemetey system, power supplies, battery power banks, structure required for mounting viz: furnitures, Stand cabinets, platforms, railings etc. and all required installation hardwares and as directed by Engineer-in -charge	system	1.00 system		-
170	Supply, delivery, erection, installation, testing, and commissioning of Central Server PC for storing data including all necessary accessories and as per detailed technical specification provided in Vol - II 6.23.168. Consisting of reputed make Server PC along with networking components and inrenet connection for web enabled data facility, color printers and all mounting structues viz, furnitures, cabinets, platforms, railings etc. and all required installation softwares and hardwares cables and as directed by Engineer-in -charge	system	1.00 system		-

Schedule R-1: Price Bid Summary Sheet

Price Bid Summary Sheet

171	Supply, delivery, erection, installation, testing, training and commissioning of PCs, Softwares, Keyboards, Printers etc. including all asscocited softwares like Operating system, database software, application software, resource planning, WDM software etc.& its all accessoriesand as per detailed technical specification provided in Vol - II 6.23.169. and all mounting structues viz, furnitures, chambers, platforms, railings, cables etc. as directed by Engineer-in -charge.	each	5.00 each		-
172	Supply, delivery, erection, testing and commissioning of Uninterrupted Power Supply system and as per detailed technical specification provided in Vol - II 6.23.170: for 240 V AC 50 Hz. consisting of inverters and Lead Acid Batteries of high capacity and all electrical power supplies & point arragment, mounting structues viz, furnitures, chambers, platforms, railings, cables etc. and as directed by the Engineer-in -charge				
172.1	a) At UGR/ GSR locations/ BPS	Each	40.00 Each		-
172.2	b) At Central Location NDMC Hq. + Gol Market office	Each	2.00 Each		-
173	Supply, delivery, erection, installation, testing and commissioning of Air conditioning unit for Central control Room with all accessories and as per detailed technical specification provided in Vol - II 6.23.171. Consisting of 2 tonn capacity, sized to maintain a temperature of 24 + 1 degree Celsius, 50 % relative humidity inside at all time, energy efficient. Itshall be constructed with the strength and rigidity adequate for normal conditions of handling, transport and usage. All power point and mounting structues viz, furnitures, cabinets platforms, railings, cables etc. complete shall be provided and as directed by Engineer-in -charge				
173.1	a) AT BPS / Pump locations	Each	20.00 Each		-
173.2	b) At Central Monitoring Control room	Each	2.00 Each		-
174	Supply, delivery, installation, testing, and commissioning of Outdoor Display Monitors as per detailed technical specification provided in Vol - II 6.23.174 Consisting of transducers, transmitters, sensors, converters, cables, cabinets, structure, screns, required for mounting the transducer viz: platforms, railings etc and all required installation hardware complete and as directed by Engineer-in -charge	Each	30 Each		-
175	Supply, delivery, installation, testing, training and commissioning of pH Measuring System as per detailed technical specification provided in Vol - II 6.23.173. Consisting of transducers, transmitters, sensors, converters, cables, cabinets, structure required for mounting the transducer viz: platforms, railings etc and all required installation hardware complete and as directed by Engineer-in -charge	each set	55.00 each set		-

Schedule R-1: Price Bid Summary Sheet

Price Bid Summary Sheet

176	Supply, delivery, installation, testing, training and commissioning of Conductivity Measuring System as per detailed technical specification provided in Vol - II 6.23.174. Consisting of transducers, transmitters, sensors, converters, cables, cabinets, structure required for mounting the transducer viz: platforms, railings etc and all required installation hardware complete and as directed by Engineer-in -charge	each set	30.00 each set		-
177	Supply, delivery, installation, testing, training and commissioning of Turbidity Measuring System as per detailed technical specification provided in Vol - II 6.23.175. Consisting of transducers, transmitters, sensors, converters, cables, cabinets, structure required for mounting the transducer viz: platforms, railings etc and all required installation hardware complete and as directed by Engineer-in -charge	each set	30.00 each set		-
Replacement of Existing pumping Machinery					
178	Replacement of existing Pumps and Motors : Supply & delivery at site brand new and fixing and commissioning , best efficient approved make centrifugal pump conforming to the latest ISS 1520 & ISS 5120 including cost of motor, pump, panel boards, VFD drives, suction, delivery piping on the pump side, electrical cabling, including all accesories and civil, electrical & mechanical work etc.(including dismantling old pumps) and as per detailed technical specification provided in Vol - II 6.23.176				
178.1	Mandir marg BPS (Flow :- 68 lps & Head 24 mtr , HP-90)	each set	3.00 each set		-
178.2	North avenue BPS (Flow :- 26 lps & Head 38 mtr , HP-25)	each set	2.00 each set		-
178.3	Bangali marke BPS (Flow :- 60 lps & Head 30 mtr , HP-100)	each set	2.00 each set		-
178.4	Tilka Marg BPS (Flow :- 60 lps & Head 40 mtr , HP-500)	each set	5.00 each set		-
178.5	Moti Bag BPS (Flow :- 70 lps & Head 45 mtr , HP-180)	each set	3.00 each set		-
178.6	Netaji BPS (Flow :- 45 lps & Head 35 mtr , HP-160)	each set	4.00 each set		-
178.7	Netaji BPS (Flow :- 45 lps & Head 40 mtr , HP-150)	each set	3.00 each set		-
178.8	Jor bag BPS (Flow :- 147.5 lps & Head 35 mtr , HP-500)	each set	5.00 each set		-
178.9	Bharti Nagar BPS (Flow :- 75 lps & Head 30 mtr , HP-300)	each set	3.00 each set		-
178.10	Pandara Road BPS (Flow :- 45 lps & Head 35 mtr , HP-40)	each set	1.00 each set		-

Schedule R-1: Price Bid Summary Sheet

Price Bid Summary Sheet

178.11	Pandara Road BPS (Flow :- 45 lps & Head 35 mtr , HP-80)	each set	2.00 each set		-
Road Restoration					
179	Road Restoration of Bituminous Concrete surface as per NDMC Restoration Specfication	sqm	163352.30 sqm		-
180	Road Restoration of Cement concrete road as per NDMC Restoration Specfication	sqm	29171.60 sqm		-
181	Additional charges for trench less cutting excluding area of pits	metre	328582.00 metre		-
182	Restoration of Chequerred tiles/RCC Slab/CC slab on Walkway/ footpaths etc. as per NDMC Restoration Specfication	sqm	16022.10 sqm		-
183	Restoration of Red/white sand stone on footpath/ walkway etc. as per NDMC Restoration Specfication	sqm	10948.44 sqm		-
184	Restoration of 'Brick on edge flooring etc. as per NDMC Restoration Specfication	sqm	10948.44 sqm		-
185	Restoration of 'Interlocking footpath/walkway etc. as per NDMC Restoration Specfication	sqm	21095.76 sqm		-
186	Restoration of 'D.Q. Stone flooring as per NDMC Restoration Specfication	sqm	9257.22 sqm		-
187	Restoration of ''a) katcha/green of road berm/non irrigated area as per NDMC Restoration Specfication	sqm	5904.44 sqm		-
188	Restoration of b) irrigated devloped /green maintained areas. as per NDMC Restoration Specfication	sqm	5904.44 sqm		-
189	Restoration of ''c)Landscaping greens including flower beds as per NDMC Restoration Specfication	sqm	4213.22 sqm		-
190	Restoration of ""'Granite of any colour and shade footpath walkway as per NDMC Restoration Specfication	sqm	10948.44 sqm		-
191	Restoration of '"G.R.C./ULTRA Tiles footpath /walkways as per NDMC Restoration Specfication	sqm	16022.10 sqm		-
192	Additional charges for trenchless cutting with hand mooling excluding area of pit.	metre	115724.00 metre		-
			Total Amount in Rs.		**-**

Schedule-R-4 O & M Services Cost

193	**Operation & Maintenance Cost From date of commissioning of DMAs and as per detailed technical specification provided in Vol - II 6.23.187** 60x30000=1800000+288000=2088000	Per Connections /Month	**2088000** Connections Month		-
			Total Amount in Rs.		**-**