822 INAN90

Library
IRC International Water
and Sanitation Centre
Tel.: +31 70 30 689 80
Fax: +31 70 35 899 64

Adv Ind
AP-III

ANDHRA PRADESH
(INDIA)

PROJECT REPORT
NALGONDA DISTRICT

P
RWS
E **NAP**
D **AP-III**

C.P.W.S. Scheme to 226 Revenue Villages and 337 Hamlets in Nalgonda District, ANDHRA PRADESH.

ESTIMATE COST Rs. 9742 lakhs

VOLUME-II ANNEXURES

Chief Engineer
Rural Water Supply
Panchayat Raj Engineering Department
Govt. of Andhra Pradesh.

822-INAN90-14092
-2

ANNEXURES

LIBRARY IRC
PO Box 93190, 2509 AD THE HAGUE
Tel.: +31 70 30 689 80
Fax: +31 70 35 899 64
BARCODE: 14092
LO: 022 INAN 90

ANNEXURE-1

PANCHAYAT RAJ INTERNAL WATER QUALITY MONITORING LABORATORY UPPAL HYDERABAD.

Received from: Dy.Executive Engineer, Nalgonda. Date Received: 29.6.1989. District:Nalgonda.

Sl. No.	Lr.Ref. No.	Particulars.	Name of the village	Name of the Mandal	Date of collection	P.H	Electrical conductivity micromhos.	Total Disolved solids.	Total Hardness as CaCo3	Flouride	Chloride	Nitrate	Sulphate	Iron as FC	Total
2		3	4	5	6	7	8	9	10	11	12	13	14	15	16
1.	2184	N.G.Sagar Canal Water	Nidamanoor	Nidamanoor	21.6.89	7.51	337	206	136	0.6	52	Drent	Nil	Nil	120
													Satisfactory		
2.	2185	6"Ø Bore well PWS Scheme (Proposed)	Vottimarthy	Chityal	27.6.87	7.40	960	592	340	1.8	100	-	-	-	384
													Excess Flouride		

Note:- Specimen No. 2185 contains labricant Oil mixing after flushing the bore well the fresh water may be collected and sent to this laboratory for analysis.

Sd/- Dy. Executive Engineer(PR), Nalgonda.

Sd/- Junior Water Analysist.

//True Copy//

Sd/- x x x,
Executive Engineer,
(PR) Nalgonda.

ANNEXURES

ANNEXURE-2

PANCHAYATI RAJ INTERNAL WATER QUALITY MONITORING LABORATORY

UPPAL, HYDERABAD.

RECEIVED FROM : M/s Eenlaj. Water pump (P) Ltd. Secbad DATE RECEIVED : 21.3.90 DISTRICT : Medak

Sl. No.	LAB. Ref. No.	PARTICULARS	NAME OF THE VILLAGE	NAME OF THE MANDAL	DATE OF COLLECTION	pH	Electrical Conductivity micromhos/cm 25°C	Total Dissolved Solids mg/lit	Total Alkalinity as CaCo, mg/lit	Total Hardness as caco, mg/lit	Fluoride as F mg/lit	Chloride as cl Mg/lit	Nitrate as No, mg/lit	Nitrite as No,	Sulphate as so	Iron as Fe mg/lit	REMARKS
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
8	294	Borewell - V Gopal R Ramaiah House	Ippanthy	Munugode	20/3/90	7.49	2380	1452	488	590	2.0	510	-	Present	Present		Excess Fluoride Nitrite & Sulp
9	295	Borewell - C Veeriah S Muttaiah	-do-	-do-	-do-	7.66	1679	1025	380	372	4.0	312	-	Trace	Present	-	Excess Fluoride
10	296	Borewell - Veera Venkaiah House.	Laxmideviguden	-do-	-do-	7.71	1396	852	452	372	3.6	128	-	Nil	Present	-	Excess Fluoride
11	297	Borewell - B. Yellaiah	-do-	-do-	-do-	7.76	1612	984	540	44	3.4	164	-	Present	Present	-	Excess Fluoride
12	298	Borewell - S. Muthy S/o Dubbalaya House		-do-	-do-	7.68	1330	812	512	148	3.2	196	-	Nil	Present	-	Excess Fluoride
13	299	Borewell - S. Chand Pasha House.	-do-	-do-	-do-	7.80	1310	780	548	164	3.8	108	-	Nil	Trace	-	Excess Fluoride
14	300	Borewell - D. Ramachandrudu.	-do-	-do-	-do-	7.79	1324	812	540	336	2.4	96	-	Nil	Trace	-	Excess Fluoride

R. Partha Sarathy
Junior Water Analyst

PANCHAYATI RAJ INTERNAL WATER QUALITY MONITORING LABORATORY

(21) - 97 UPPAL, HYDERABAD

RECEIVED FROM : DEE PR Chintapally DATE RECEIVED : 17.8.89 DISTRICT : Nlg.

Sl. No.	Lab. Ref. No.	PARTICULARS	NAME OF THE VILLAGE	NAME OF THE MANDAL	DATE OF COLLECTION	pH	Electrical Conductivity micromhos/cm 25°C	Total Dissolved Solids mg/lit.	Total Alkalinity as $CaCO_3$ mg/lit	Total Hardness as $CaCO_3$ mg/lit.	Fluoride as F mg/lit	Chloride as Cl Mg/lit	Nitrate as NO_3	Sulphate as SO_4	Iron as Fe mg/lit.	REMARKS
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
15	2532	Borewell	Chankit	Gurram-pur	-	7.62	1263	734	456	324	3.6	108	NIL	Trace	-	Excess of Fluoride
16	2533	Borewell	Jinnai-Chintha	-do-		7.56	965	589	344	332	1.5	96	NIL	NIL		Suitable
17	2534	Borewell Mandal office	Gurram-puri	-do-		7.52	1071	654	440	284	4.0	124	NIL	NIL		Excess of Fluoride

A. Sathyam

Junior Water Analyst

PANCHAYATI RAJ INTERNAL WATER QUALITY MONITORING LABORATORY

UPPAL, HYDERABAD.

RECEIVED FROM : M/s. Venkatesh Water pump (P) Ltd Secbad DATE RECEIVED : 21-3-90 DISTRICT : Nalgonda

Sl. No.	LAB. Ref. No.	PARTICULARS	NAME OF THE VILLAGE	NAME OF THE MANDAL	DATE OF COLLECTION	pH	Electrical Conductivity micromhos/cm 25°C	Total Dissolved Solids mg/lit	Total Alkalinity as CaCo. mg/lit	Total Hardness as caco, mg/lit.	Fluoride as F mg/lit	Chloride as cl Mg/lit	Nitrate as No, mg/lit	Nitrite as No,	Sulphate as so	Iron as Fe mg/lit	REMARKS
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
22	306	Borewell — Rayanna House —	Kamnaguda	Mungode	20-3-90	7.32	2370	1446	510	510	1.6	450	—	Nil	Present		Excess fluoride
23	307	Borewell — G. Maikaloth G. Papaiah House	—do—	—do—	—do—	7.82	3400	2074	708	760	4.4	820	—	Nil	Present	—	Excess TDS, Total hardness & Fluoride
24	310	Borewell — Church	—do—	—do—	—do—	7.88	2810	1715	804	610	4.8	430	—	Nil	Present	—	Excess TDS, Total Hardness, & Fluoride
25	311	Borewell — Church	—do—	—do—	—do—	7.51	2400	1464	760	590	1.4	320	—	Nil	Present	—	Satisfactory
26	312	Borewell — Bichandar House	Jakolui-gudem	—do—	—do—	7.49	653	399	328	220	1.6	48	—	Nil	Nil	—	Excess fluoride
27	313	Borewell — D. Mallaiah	—do—	—do—	—do—	7.46	925	565	344	280	1.8	100	—	Nil	Nil	—	Excess fluoride
28	314	Borewell — K. Yadaiah, G. Usaiah House	Kachada-puram	—do—	—do—	7.50	857	523	336	300	1.6	60	—	Nil	Nil	—	Excess fluoride

R. Pankajakshy
Junior Water Analyst

PANCHAYATI RAJ INTERNAL WATER QUALITY MONITORING LABORATORY

(19)

UPPAL, HYDERABAD.

RECEIVED FROM : DEE/PR, Chintapally DATE RECEIVED : 29.6.89 DISTRICT : NLG.

Sl. No.	Lab. Reg. No.	PARTICULARS	NAME OF THE VILLAGE	NAME OF THE MANDAL	DATE OF COLLECTION	pH	Electrical Conductivity micromhos/cm 25°C	Total Dissolved Solids mg/lit.	Total Alkalinity as $CaCO_3$ mg/lit.	Total Hardness as $CaCO_3$ mg/lit.	Fluoride as F mg/lit.	Chloride as Cl mg/lit.	Nitrite as NO_2	Sulphate as SO_4	Iron as Fe mg/lit.	REMARKS
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
8	2128	Borewell- Cromellaguda	Vattipally	Marriguda	-	7.52	1015	620	348	356	4.4	100	NIL	NIL	NIL	Excess of Fluoride
9	2129	Borewell- Crollaguda.	Narasimha-pur	-do-		7.61	388	237	164	204	4.4	32	NIL	NIL	NIL	-do-
10	2130	Borewell-	Azzalapuram	-do-		7.56	2730	1666	492	850	2.0	410	NIL	[illegible]	NIL	Excess of TDS Moderate Fluoride
11	2131	Borewell- near Yellareddy House.	Shamirad-pally.	-do-		7.42	582	355	234	240	2.8	48	NIL	NIL	NIL	Excess of Fluoride
12	2132	Borewell- Hajaguda.	Bhattapally	-do-		7.48	665	406	300	188	2.8	40	NIL	NIL	NIL	-do-
13	2133	Borewell- Raghyanaik Tanda	Anthampet	-do-		7.36	1374	839	404	348	4.0	168	Trace	NIL	NIL	-do-
14	2134	Borewell- Bhikha Tanda	Comaraj-guda.	-do-		7.48	1006	614	460	300	5.2	72	NIL	NIL	NIL	-do-
15	2135	Borewell- Chintha Kindi Tanda	Dudurthy	-do-		7.51	1139	695	368	204	4.8	92	NIL	NIL	NIL	-do-

Contd:-P-3.

Junior Water Analyst

PANCHAYATI RAJ INTERNAL WATER QUALITY MONITORING LABORATORY

(15)

UPPAL, HYDERABAD.

RECEIVED FROM : DEO PR/Chintapally DATE RECEIVED : 29.6.89 DISTRICT : NLG.

Sl. No.	LAB. Ref. No.	PARTICULARS	NAME OF THE VILLAGE	NAME OF THE MANDAL	DATE OF COLLECTION	pH	Electrical Conductivity micromhos/cm 25°C	Total Dissolved Solids mg/lit.	Total Alkalinity as $CaCO_3$ mg/lit	Total Hardness as $CaCO_3$ mg/lit.	Fluoride as F mg/lit	Chloride as Cl Mg/lit	Nitrite as NO_2	Sulphate as SO_4	Iron as Fe mg/lit.	REMARKS
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
16	2136	Borewell Pailagudem H/O	Lankalapally	Marri-gudem	—	7.56	1631	995	396	340	2.8	228	NIL	Trace	NIL	Excess of Flu
17	2137	Borewell Surryanaik Tanda H/O	Anthampet		—do—	7.51	911	556	452	268	2.8	52	NIL	NIL	NIL	—do—
18	2138	Borewell Kodigani Tanda	—do—		—do—	7.46	910	556	230	292	4.4	80	NIL	NIL	NIL	—do—
19	2139	Borewell near Bus Stand	—do—		—do—	7.42	1222	746	500	234	5.6	92	NIL	NIL	NIL	—do—
20	2140	Borewell near Hanuma Rao House	Sonaraj-gudem		—do—	7.50	1195	728	500	260	4.8	96	Trace	NIL	NIL	—do—
21	2141	Borewell Harijan wada.	Kondur		—do—	7.44	760	464	344	276	4.4	52	NIL	NIL	NIL	—do—
22	2142	Borewell Panumati Tanda.	—do—		—do—	7.46	784	479	304	224	2.8	56	NIL	NIL	NIL	—do—
23	2143	Borewell near School	Kottala		—do—	7.52	814	497	352	228	2.4	56	NIL	NIL	NIL	—do—

Junior Water Analyst

PANCHAYATI RAJ INTERNAL WATER QUALITY MONITORING LABORATORY

(16) UPPAL, HYDERABAD.

RECEIVED FROM : DEE/PR/ Chintapally DATE RECEIVED : 29.6.89 DISTRICT : NLG

Sl. No.	LAB. Ref. No.	PARTICULARS	NAME OF THE VILLAGE	NAME OF THE MANDAL	DATE OF COLLECTION	pH	Electrical Conductivity micromhos/cm 25°C	Total Dissolved Solids mg/lit.	Total Alkalinity as $CaCO_3$ mg/lit	Total Hardness as $CaCO_3$ mg/lit.	Fluoride as F mg/lit	Chloride as Cl Mg/lit	Nitrate as NO_3	Sulphate as SO_4	Iron as Fe mg/lit.	REMARKS
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
24	2144	Borwell- near Jangaiah House	Nomapuram	Mamidida	-	7.56	1300	793	464	332	3.6	144	NIL	NIL	NIL	Excess of Fluoride
25	2145	Borwell-	Edulagudem	-do-		7.49	1456	889	460	264	5.6	152	NIL	Trace	NIL	— do —
26	2146	Borwell- Bejya Tanda H/O	DBpally	-do-		7.36	1856	1133	540	256	5.2	224	NIL	NIL	NIL	— do —
27	2147	Borwell-	Lankalpally	-do-		7.42	1553	948	440	294	5.4	220	NIL	Trace	NIL	— do —
28	2148	Borwell- Bhoomla Tanda H/O	DBpally	-do-		7.48	1851	1130	500	268	5.2	220	NIL	NIL	NIL	— do —
29	2149	Borwell- Paka Rajah House - Pakagudem H/O.	Lankalpally	-do-		7.50	1300	793	520	236	5.2	132	NIL	NIL	NIL	— do —
30	2150	Borewell-	DBpally	-do-		7.49	1647	1005	548	276	5.2	216	NIL	NIL	NIL	— do —

Contd: P-5

Junior Water Analyst

PANCHAYATI RAJ INTERNAL WATER QUALITY MONITORING LABORATORY

(17)

UPPAL, HYDERABAD.

RECEIVED FROM : DEE. PR. Chintapally DATE RECEIVED : 29.6.89 DISTRICT : NLG.

Sl. No.	LAB. Ref. No.	PARTICULARS	NAME OF THE VILLAGE	NAME OF THE MANDAL	DATE OF COLLECTION	pH	Electrical Conductivity micromhos/cm 25°C	Total Dissolved Solids mg/lit.	Total Alkalinity as CaCo, mg/lit	Total Hardness as caco, mg/lit.	Fluoride as F mg/lit	Chloride as cl Mg/lit	Nitrite as No,	Sulphate as so'	Iron as Fe mg/lit.	REMARKS
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
31	2151	Borewell – Kammaguda. HO –	DB.pally	Mamidgudem	–	7.32	2500	1220	462	296	2.8	328	Trace	NIL	NIL	Excess of Fluoride
32	2152	Borewell – Reddiguda.	Cherlagudem	–do–		7.68	970	592	424	256	5.6	88	NIL	NIL	NIL	–do–
33	2153	Borewell –	Thandampally –	–do–		7.56	844	515	416	292	5.2	60	NIL	NIL	NIL	–do–
34	2154	Borewell – Gollaguda.	Serampet	–do–		7.49	1344	820	552	244	6.0	140	NIL	Trace	NIL	–do–
35.	2155	Borewell –	Munnorgudem.	–do–		7.36	2110	1287	628	312	5.2	228	Trace	Trace	NIL	–do–
36	2156	Borewell –	Ramaddipally.	–do–		7.35	954	582	420	324	4.8	96	Trace	NIL	NIL	–do–

contd: P-6.

Junior Water Analyst

PANCHAYATI RAJ INTERNAL WATER QUALITY MONITORING LABORATORY

(18)

UPPAL, HYDERABAD.

RECEIVED FROM : DEE, PR Chintapally DATE RECEIVED : 29.6.89 DISTRICT : NLG.

Sl. No.	LAB. Ref. No.	PARTICULARS	NAME OF THE VILLAGE	NAME OF THE MANDAL	DATE OF COLLECTION	pH	Electrical Conductivity micromhos/cm 25°C	Total Dissolved Solids mg/lit.	Total Alkalinity as $CaCO_3$ mg/lit	Total Hardness as $CaCO_3$ mg/lit.	Fluoride as F mg/lit	Chloride as Cl Mg/lit	Nitrite as NO_2	Sulphate as SO^{4}	Iron as Fe mg/lit.	REMARKS
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
37	2157	Borewell - Groundwater	Narsivadi - gudem	Marriguda	-	7.41	1076	657	480	268	5.6	100	NIL	NIL	NIL	Excess Fluoride
38	2158	Borewell - Sommapet Tanda	Sommapet	-do-		7.46	1153	704	544	344	5.6	128	NIL	NIL	NIL	-do-
39	2159	Borewell -	Chivanna - guda	-do-		7.48	957	584	400	272	4.4	124	NIL	NIL	NIL	-do-

A. Sulaiman

Junior Water Analyst

ANNEXURE-3

GOVERNMENT OF ANDHRA PRADESH
REVENUE DEPARTMENT

From

Sri.D.Janardhan Rao, I.A.S.,
District Collector,
NALGONDA.

To

The Chief Engineer,
R.W.S & Administration,
HYDERABAD.

LETTER NO. 38/2503/90.

DATED: 26.5.1990.

Sir,

Sub:- BILATERAL ASSISTANCE - Q.P.W.S. Scheme - for providing Water supply to 172 villages and 261 hamlets in Nalgonda District - handedover of Rama Samudram Tank Fed by NS Left Canal at 11/0 KM - near Alwal(V) to PR - Department - Reg.

Ref:- 1. C.E., RWS & Administration, Hyd.Lr.No. 25625/DJ3/Projects/87.dt: 11.3.90.
2. EE., I&CAD, IB Division, Nalgonda, Lr.No. HD-1/235/24, dt: 10.4.1990.
3. RDO, Miryalguda, Lr.No.B/2479/90, dated: 3.5.1990.

* * * *

I invite your attention to the references cited, The Executive Engineer, Irrigation & Command Area Development, I.B. Division, Nalgonda in his letter vide reference 2nd cited informed this Office that he alongwith Executive Engineer (Panchayat Raj) and the Revenue Divisional Officer, Miryalguda, inspected the Rama Samudram tank and expressed his desire to handover the tank alongwith the ayacut to Panchayat Raj Department for Maintenance & Operation avoiding duel control (Copy enclosed).

The Revenue Divisional Officer, informed this Office vide refefence 3rd cited that he along with Executive Engineer (O&M) Nagarjunasagar left Canal Miryalguda has inspected the Ramasamudram tank and recommended the proposal of handing over the Ramasamudram Tank to Panchayat Raj Department for utilising it for drinking water purpose and to extend the existing irrigation facility.

Taking into consideration of all the aspects, approval is hereby accorded for handing over the Ramasamudram Tank at KM 11/0 at NS Left Canal near Alwala (V) to Panchayat Raj Department for providing drinking water supply to 172 (Villages) and 281 hamlets in Nalgonda District which is under submission to Government to pose under bilateral assistance of Royal Netherlands Government with a request to provide alternate arrangements for irrigation the balance ayacut at 24.10 hectors which is irrigated under Ramasamudram Tank.

//ATTESTED//

Yours faithfully,
Sd/-K. Krishna Reddy,
for Collector, Nalgonda.

REVENUE ASSISTANT.

Copy to the Revenue Divl.Officer, Miryalguda.
Copy to the Exe.Engineer (PR) Nalgonda.
Copy to the Exe.Engineer (O&M) NSIC, Miryalguda

For favour of information & necessary action

Copy to the Executive Engineer, I&CAD, IB, Divn, Nalgonda. with a request to take necessary action to handover the Ramasamudram Tank to P.R. Department and also to provide alternate arrangements to Irrigate the balance ayacut at 24.10 Hectors which is under Ramasamudram Tank.

ANNEXURE-4.

PROJECTION OF S.S.R. FOR THE YEAR 1991-92

Sl. No.	Name of the item	Rates as per S.S.R. 87-88	Rates as per S.S.R. 88-89	% increased	Rates as per S.S.R. 88-89	Rates as per S.S.R. 89-90	% increased	Rates as per S.S.R. 89-90	Rates as per S.S.R. 90-91	% increased	Average % increased	Rate arrived for the year 91-92	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	14
							Materials						
1.	R.R. Stone	20-00	22-00	10.00%	22-00	23-10	5.00%	23-10	24-50	6.06	7.02%	Rs.26-22	
2.	C.R.S. Stone	29-50	32-50	10.16%	32-50	34-10	4.92%	34-10	34-10	-	5.02%	Rs.35-81	
3.	40 mm Metal	46-80	46-00	2.56%	46-00	54-10	12.70%	54-10	59-50	9.98	8.41%	Rs.64-50	
4.	20 mm Metal	81-40	89-50	9.95%	89.50	107-40	20-00%	107-40	116-15	10.00%	13.31%	Rs.133-87	
5.	Sand for mortar	4-50	4-50	-	4-50	5-20	15.55%	5-20	5-45	4.80%	6.78%	Rs. 5-82	
6.	Sand for filling	2-50	2-80	12.00%	2-80	2-90	3.87%	2-90	3-00	3.44%	6.33%	Rs. 3-19	
7.	Gravel	3-50	4-00	16.66%	4-00	5-70	42.50%	5-70	6-85	20.17%	26.44%	Rs. 8-66	
8.	Rough stone	10-50	11-60	10.47%	11-60	12-20	5.17%	12-20	13-00	6.55%	7.39%	Rs. 13-96	
							Leads						
1.	Sand 15 Km	21-70	21-70	-	21-70	23-70	9.21%	23-70	27-35	15.40%	8.20%	Rs. 29-59	
2.	Stone & Metal & Rough Stone 10Km	19-65	19-65	-	19665	21-50	9.41%	21-50	24-80	15-34%	8.25%	Rs. 26-84	
3.	Machine Crushed crushed metal 30 Km	29-15	29-15	-	29-15	35-60	22.12%	35-60	41-05	15.30%	12.47%	Rs. 46.16	
4.	Bricks 20 Km	43-20	43-20	-	43-20	47-30	9.49%	47-30	54-40	15.01%	8.16%	Rs. 58.83	
5.	Blasting Charges	12-00	12-00	-	12-00	13-20	10.00%	13-20	14-50	9.84%	6.61%	Rs. 15-45	
6.	Gravel 4 Km	14-35	14-35	-	14-35	15-60	8.70%	15-60	16-05	15.70%	8.13%	Rs. 19-52	
							Centring Charges for Building						
1.	Roof slab upto 150 mm thick	157.50	175-30	10.30	173-30	190-60	9.98	190-60	204-00	7-03	9-01	Rs.223-38	

1	2	3	4	5	6	7	8	9	10	11	12	13
2.	Lintle/Bottom s slabs & bed Blocks	126.00	138.00	10-00	138-60	152-50	10-02	152-50	163-00	6.89	8.97	Rs. 177-62
3.	Sun Shades 0.60 m width	6.50	7.20	10-00	7.20	7-90	9-72	7-90	8-50	7.59	9.36	9-29
4.	Columns	201-50	221-70	10-02	221-70	243-90	10-01	243-90	261-00	7-01	9-01	284-51
5.	Scaffolding	6-50	7-20	10-00	7-20	7-90	9-72	7-90	8-30	5-06	8-26	8-98
						Labour Charges						
1.	First class Mason & Brick layers & painter.	26-00	29-00	12-30	29-20	32-30	10-61	32-30	35-00	8-35	10-42	38-64
2.	2nd class Mason & brick layers & painter.	20-00	22-00	10-00	22-00	24-30	10-45	24-30	26-50	9-05	9-83	29-10
3.	Man mazdoor	14-00	16-10	15-00	16-10	18-50	14-90	18-50	20-00	8-10	12-66	22-53
4.	Woman mazdoor	14-00	16-10	15-00	16-10	18-50	16-80	18-50	20-00	8-10	12-66	22-53
5.	Stone packer	17-00	19-50	5.88	19-50	19-50	-	19-50	21-00	7-69	4-52	21-95
6.	Mixing Mortor	4-00	4-40	10-00	4-40	5-00	13-63	5-00	5-30	6-00	9-87	5.82
7.	Machine Mixing	7-00	7-70	10-00	7-70	8-50	10-38	8-50	9-00	5-88	8-73	9.78
8.	Vibrating charges	7.50	7-50	-	7-50	8-25	10-00	8-25	8.80	6-66	5-55	9-28
9.	Earth work lomy clay soils 20 B	49-50	49-50	-	49-50	54-45	10-00	54-45	94-90	37-55	15-85	86-77
10.	H. Gravelling sails (12B) 20 B	52-80	52-80	-	52-80	58-10	10-03	58-10	78-00	34-25	14-76	89-51
11.	Mixture of gravel, SDR (13B)	55-50	55-50	-	55-50	61-05	10-00	61-05	81-00	32-67	14-22	92-51
12.	SDR (14)	66-50	66-50	-	66-50	73-15	10-00	73-15	90-00	23-04	11-01	99-90
13.	HDR (16)	104-00	104-00	-	104-00	114-40	10-00	114-40	125-00	9-26	6-42	133-02

2	3	4	5	6	7	8	9	10	11	12	13
4. Hard rock blasting 18 (A) (ii) pto 3 Qm.	22-50	24-00	6-66	24-00	24-80	3-33	24-80	26-50	6-85	5-61	27-98
5. -do- Above 3 Qm (19 A(ii))	54-00	59-40	10-00	59-40	59-40	-	59-40	63-50	6-90	5-63	67-07
					P.H. Items						
. Centring charges for OHS as											
) Coloum footings	66-00	85-80	6-60	85-80	85-80	-	85-80	85-80	-	2-20	87-68
) Coloums beams and braces	40-00	52-00	30-00	52-00	52-00	-	52-00	52-00	-	10-00	57-20
) Bottom slab	120-00	156-00	30-00	156-00	156-00	-	156-00	156-00	-	10-00	171-60
) Side wall curved	90-00	114-40	27-11	114-40	114-40	-	114-40	114-40	-	9-03	124-73
) Side wall straight	80-00	89-00	11-25	89-00	89-00	-	89-00	89-00	-	3-75	92-33
) dome	95 00	123-50	30-00	123-50	123-50	-	123-50	123-50	-	10-00	135-00
) Roof slab top	61-00	73-90	21-14	79-30	79-30	-	79-30	79-30	-	7-05	84-89
) Circular braces beams and coloum	46-00	62-40	30-00	62-40	62-40	-	62-40	62-40	-	10-00	68-64
) Plinth beam	31-50	34-70	10-15	34-70	38-20	10 -88	38-20	41-00	7-33	9-18	44-76
					Left Charges						
. Over initial lift 5 m for convey 7 m	10-40	13-50	29-80	13-50	13-50	-	13-50	13-50	-	9-93	14-84
. Delift over initial lift 4 m on part every 2 mts.	3-15	4-10	30-15	4-10	4-10	-	4-10	4-10	-	10-05	4-51

2	3	4	5	6	7	8	9	10	11	12	13
Shabad stone Ordinary polished shabad stone.											
Earth as per 88m 20 A	53-90	53-90	-	53-90	53-90	10-01	53-90	82-50	53-06	21.02	99-84
Hard gravelling soils 20A	57-75	57-75	-	57-75	63-50	9-95	63-50	88-70	35-38	14-44	96-95
0.50 Km lead for Earth work	12-00	12-00	-	12-00	13-10	9-16	13-10	15-00	14-50	7-88	16-18
Consolidation with 2 Tonne roller with watering and taping in layers	8-50	9-40	10-58	9-40	10-35	10-10	10-35	11-00	6-31	9-00	12-00
Shabad stone 10/Sq. mtr.	300-00	325-00	8-33	325-00	375-00	15-38	375-00	400-00	6-66	10-12	440-00
						Lead					
Boiling of water	20-00	20-00	-	20-00	20-00	-	20-00	20-00	-	-	20-00/Qum
Spreading of gravel 2 to 3T roller 150 mm tank bund light jungle clearence.	7-00	7-00	10-00	7-70	8-50	10-58	16-58	8-10	3-05	9-21	9-93
Clearing of light jungle	1-25	1-40	11-00	1-40	1-60	14-28	1-60	1-70	6-25	10-84	1-88
Clearing heavy Jungle	1-60	1-80	12-50	1-80	2-00	11-11	2-00	2-10	5-00	9-53	2-30
Scrub jungle	0.55	0-70	7-69	0-70	0-80	14-28	0-80	0-90	12-50	11-49	1-00
E. Work leads upto 3 leads	7-50	8-40	12-00	8-40	9-30	10-70	9-30	10-20	9-67	10-77	11-30
After 3 leads upto 6 leads	12-00	13-00	10-00	13-20	14-70	11-30	14-70	16-20	10-20	10-52	17-90
R. C. C. Pipes laying & Jointing.	1-73	2-05	16-49	2-05	2-05	-	2-05	2-05	-	6-16	2-17

PROJECTION OF S.S.R. FOR THE YEAR 1991-92

Sl. No.	Name of the item	Rates as per S.S.R 84-85 85-86	86-87 88-89	% increase by 2 years	% increase per year	Rate arrived for the year 91-92	Remarks
1	2	3	4	5	6	7	8
	L/L of 150 mm	2.05	2.70	31.70%	15%	3.10	
	Jointing of 150 mm	5.62/4 = 1.40	7.30/4 = 1.825	30.35%	5%	7.66/4 = 1.91	
	L/L of 200mm	2.47	3.25	31.57%	15%	3.73	
	Jointing of 200 mm	5.62/4 = 1.40	7.30/4 = 1.825	30.35%	5%	7.66/4 = 1.91	
	L/L of 250 mm	2.84	3.75	32.04%	15%	4.31	
	Jointing of 250 mm	7.35/4 = 1.83	9.20/4 = 2.30	25.68%	5%	9.66/4 = 2.41	
	L/L of 300 mm	3.41	4.50	31.96%	15%	5.17	
	Jointing of 300 mm	7.35/4 = 1.83	9.20/4 = 2.30	25.68%	5%	9.66/4 = 2.41	
	L/L of 350 mm	5.86	7.70	31.39%	15%	8.85	
	Jointing of 350 mm	8.40/4 =2.10	11.00/4 = 2.75	30.80%	5%	11.55/4 = 2.88	
	L/L of 400 mm	6.49	8.70	32.01	15%	10.00	
	Jointing of 400 mm	8.40/4 = 2.10	11.00/4 =2.75	30.80%	5%	11.55/4 = 2.88	
	L/L of 450 mm	7.30	9.65	32.19%	15%	11-09	
	Jointing of 450 mm	9.87/4 = 2.46	12.85/4 = 3.21	30.48%	5%	13.49/4 = 3.37	
	L/L of 500 mm	8.00	10.00	31.15%	15%	12.19	
	Jointing of 500 mm	9.87/4 = 2.46	12.85/4 = 3.12	30.48%	5%	13.49/4 = 3.37	
	L/L of 600 mm	8.80	11.60	31.181%	15%	13.34	
	Jointing of 600 mm	11.29/4 = 2.82	14.70/4 = 3.67	30.14%	5%	15.43/4 = 3.85	

1	2	3	4	5	6	7	8
	AC Pipes L/L 80 mm	1.94	2.55	21.44%	5%	2.93	
	Jointing of 80 mm	3.47/4 =0.86	4.55/4 =1.13	31.39%	5%	4.77/4=1.19	
	AC Pipes L/L of 100mm	1.94	2.55	31.44%	15%	2.03	
	Jointing of 100 mm	4.88/4 = 1.22	6.40/4 = 1.60	31.14%	5%	6.72/4=1.68	

Cost of Materials including conveyance Blasteng, Machine crushing Seiognorage & Cess charges

	Name of the Material	Lead in KM	Initial Cost	Conveyance charges	Blasting charges	Machine crushing charges	Seiognorage charges	25% cess charges	Total cost of the materials per KM.	Remark:
	2	3	4	5	6	7	8	9	10	
1	Sand for Motor	15 KM	5.82	26.59	-	-	5.00	1.25	41.66	
2	Sand for filling	15 KM	3.19	29.59	-	-	5.00	1.25	39.03	
3	20 mm Mechine crusned metal	30 KM	133.87	46.10	15.45	33.46	10.00	2.50	241.38	
4	40 mm H.G. Metal	10 KM	64.50	26.84	15.45	-	10.00	2.50	119.29	
5	Rough stone	10 KM	13.96	26.84	-	-	10.00	2.50	53.30	
6	Bricks	20 KM	528.80	58.83	-	-	15.00	3.75	660.38	
7	Gravel	4 KM	8.66	19.52	-	-	5.00	1.25	34.43	
8	Granate stone for Masonry CRS	10 KM	35.81	26.84	15.45	-	10.00	2.50	90.60	
9	Granate stone for Masonry RR		26.22	26.84	15.45	-	10.00	2.50	81.81	
10	Cement								1390/MT	
11	Steel								11000/MT	
12	Polished Surbed stone		1157.89	11.27	-	-	10.00	2.50	1181.66	
13	Shaped stone	10 KM	446.00							

PROJECTION OF AC CLASS 10 RATES FOR THE YEAR 1991-92

Sl. No.	Classification of pipes	During 1987-88	88-89	Percentage increase	88-89	89-90	Percentage increase	89-90	90-91	Percentage increase	Average % increase	Rates of 1991-92	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1.	80 mm Class 10	28.02	28.02	-	28.02	32.85	13.98%	32.85	37-90	15.37%	9.78%	41.60	
2.	100 mm "	35.04	35.04	-	35.04	39.95	14.01%	39.95	46-08	15.36%	9.78%	50.58	
3.	125 mm "	45.07	45.07	-	45.07	51.39	14.02%	51.39	59-29	15.37%	9.79%	65.09	
4.	150 mm "	54.87	54.87	-	54.87	63.69	16.07%	63.69	73-48	15.37%	10.48%	81.18	
5.	200 mm "	81.77	81.77	-	81.77	98.12	19.99%	98.12	121-20	23.52%	14.50%	138.77	
6.	250 mm "	103.00	103.00	-	103.00	123.60	19.47%	123.60	152.67	23.52%	14.43%	174.54	
7.	300 mm "	133.00	133.00	-	133.00	159.60	19.77%	159.60	197.14	23.52%	14.43%	225.58	
8.	350 mm "	181.02	181.02	-	181.02	217.22	20.00%	217.22	268.22	23.52%	14.50%	307.22	
9.	400 mm "	218.28	218.28	-	218.28	261.94	20.00%	261.94	323.56	23.52%	14.50%	370.47	
10.	450 mm "	267.91	267.91	-	267.91	321.49	20.00%	321.49	397.12	23.52%	14.50%	454.70	
11.	500 mm "	337.64	337.54	-	337.64	405.17	20.00%	405.17	500.50	23.52%	14.50%	571.07	
12.	600 mm "	476.81	476.64	-	476.64	572.17	20.04	572.17	706.79	23.52%	14.52%	809.41	
13.	700 mm "					899.11		899.11	1110.65	24.91%	15.00%	1277.24	
	NOTE:												
	Sales tax	5.80	5.80%	-	5.80%	4.16		4.16%	13.06% (on excise duty)			13.06%	
	Excise duty	25.00	25.00%	-	25.00%	26.15%	5%	26.25%	26.25%			26.25%	

PROJECTION OF AC CLASS 15 RATES FOR THE YEAR 1991-92

Sl. No.	Classification of pipes	[illegible] Rates										
		Rates 1987-88	88-89	Percentage Increase	88-89	89-90	Percentage Increase	89-90	90-91	Percentage Increase	Average % Increase	Rates [illegible] 1991-92
1	2	3	4	5	6	7	8	9	10	11	12	13
1.	80 mm Class 15	29.15	29.15	-	29.15	33.23	13.99%	33.23	38.34	15.37%	9.78%	42.05
2.	100 mm ϕ	37.21	37.21	-	37.21	42.42	14.00%	42.42	48.94	15.37%	9.79%	55.73
3.	125 mm ϕ	49.74	49.74	-	49.74	56.70	13.99%	56.70	65.42	15.37%	9.78%	71.81
4.	150 mm ϕ	66.55	66.55	-	66 .55	75.86	13.98%	75.86	87.53	15.35%	9.78%	96.09
5.	200 mm ϕ	98.30	98.30	-	98.30	117.96	20.00%	117.96	145.70	23.51%	14.50%	166.82
6.	250 mm ϕ	125.26	125.26	-	125.26	150.31	19.99%	150.31	185.67	23.52%	14.50%	212.59
7.	300 mm ϕ	171.28	171.28	-	171.28	205.54	20.00%	205.54	253.90	23.52%	14.50%	290.71
8.	350 mm ϕ	235.44	235.44	-	235.44	282.53	20.00%	282.53	349.00	23.52%	14.50%	399.60
9.	400 mm ϕ	305.89	305.89	-	305.89	367.07	20.00%	367.07	453.43	23.52%	14.50%	519.17
10.	450 mm ϕ	360.02	360.02	-	360.02	432.02	19.99%	432.02	533.66	23.52%	14.50%	611.04
11.	500 mm ϕ	447.73	447.73	-	447.73	537.28	20.00%	537.28	663.69	23.52%	14.50%	759.92
12.	600 mm ϕ	582.35	582.35	-	582.35	790.91	35.81	790.91	977.[illegible]	23.52	19.77	1170.15
13.	700 mm ϕ					961.40		961.40	1187.80			

NOTE:

Sales Tax	5.80 %	5.80%	-	5.80%	4.16%		4.16%	13.06%				13.06%
Central Excise duty	25.00%	25.00%	-	25.00%	26.25%	5%	26.25%	26.25%				26.25%

PROJECTION OF AC CLASS 20 RATES FOR THE YEAR 1991-92

S. No.	Classification of pipes	During 1987-88	88-89	Percentage increase	88-89	89-90	Percentage increase	89-90	90-91	Percentage increase	Average % increase	Rate of 1991-92	Re
1	2	3	4	5	6	7	8	9	10	11	12	13	1
1.	80 mm ø	31.20	31.20	-	31.20	35.66	14%	35.66	41.14	15.36%	9.70%	45.16	
2.	100 mm ø	47.09	47.09	-	47.09	53.68	14%	53.68	61.93	15.36%	9.78%	67.98	
3.	125 mm ø	58.35	58.35	-	58.35	66.52	14%	66.52	76.75	15.37%	9.79%	84.26	
4.	150 mm ø	82.32	82.32	-	82.32	93.84	14%	93.84	108.27	15.37%	9.79%	118.86	
5.	200 mm ø					149.63		149.63	184.83	23.52%	16.80%	219.02	
6.	250 mm ø	145.40	145.40	-	145.40	193.19	32.86%	193.19	238.63	23.52%	16.79%	283.46	
7.	300 mm ø	199.35	199.35	-	199.35	265.49	33.17%	265.49	327.95	23.52%	18.89%	389.89	
8.	350 mm ø	265.95	265.95	-	265.95	367.14	38.04%	367.14	453.51	23.52%	20.52%	546.57	
9.	400 mm ø	361.40	361.40	-	361.40	478.35	32.36%	478.35	590.90	23.52%	18.62%	700.92	
10.	450 mm ø	424.15	424.15	-	424.15	578.05	36.86%	572.05	706.64	23.52%	19.46%	844.15	
11.	500 mm ø	530.00	530.00	-	530.00	702.21	32.49%	702.21	867.43	23.52%	18.67%	1025.37	
12.	600 mm ø					1030.88		1030.88	1273.43	23.52%	18.67%	1511.17	
13.	700 mm ø					1304.59		1304.59	1611.54	23.52%	18.67%	1912.41	

NOTE:

Sales Tax	5.80%	5.80%	-	5.80%	4.16%	-	4.16%	13.06%	-	-	13.06%
Excise duty	15.00%	15.00%	-	25.00%	26.25%	5%	26.25%	26.25%	-	-	26.25%

C.I.D. JOINTS AND COUPLINGS FOR A.C. PIPES

Sl. No.	Classification of pipes	R.C.D. Based										
		Period 1987-88	88-89	Percentage increase	88-89	89-90	Percentage increase	89-90	90-91	Percentage increase	Average % increase	Rate of 1991-92
1	2	3	4	5	6	7	8	9	10	11	12	13
	CIP JOINTS											
1.	50 mm	34.20	37.67	9.32%	37.67	52.00	38.04%	52.00	52.00	-	15.78%	60.20
2.	100 mm	40.26	44.37	10.15%	44.37	61.00	37.46%	61.00	61.00	-	15.67%	70.68
3.	125 mm	51.28	56.50	10.57%	56.50	83.00	46.90%	83.00	83.00	-	19.02%	95.78
4.	150 mm	61.27	67.50	10.17%	67.50	94.00	39.25%	94.00	94.00	-	16.47%	109.40
	EXCOUPLINGS											
5.	200 mm	50.92	50.92	-	50.92	61.10	19.99%	73.61	20.47	20.47%		83.53
6.	225 mm	-										
7.	250 mm	67.10	67.10	-	67.10	80.52	20%	80.52	94.08	16.84%	12.28%	105.63
8.	300 mm	81.63	81.63	-	81.63	97.96	20%	98.96	112.34	14.67%	11.55%	129.75
9.	350 mm	100.60	100.60	-	100.60	120.72	20%	120.72	156.68	29.78%	16.89%	182.67
10.	400 mm	132.57	132.57	-	132.57	159.08	20%	159.08	203.72	28.06%	16.02%	236.35
11.	450 mm	155.23	155.23	-	155.23	186.28	20%	186.28	240.55	29.13%	16.37%	279.92
12.	500 mm	183.00	183.00	-	183.00	219.60	20%	219.10	294.66	34.48%	16.16%	348.17
13.	600 mm	236.46	236.46	-	236.46	283.75	20%	283.75	382.69	34.86%	16.20%	452.64
14.	700 mm					515.54	20%	515.54	630.74	22.34 %	14.11%	719.73
15.	800 mm											
16.	900 mm											
17.	1000 mm											
18.	1200 mm											
	Note											
	Sales Tax	5.80%	5.80%		5.80%	4.16%	-	4.46%	-			4.16%
	Excise duty	25.00%	25%		25.00%	26.25%	5%	26.25%	-			26.25%

C.I.D. JOINTS AND COUPLINGS FOR AC PIPES CLASS 15

2	3	4	5	6	7	8	9	10	11	12	13
CID JOINTS (for all Classes)											
1. 80 mm	34.20	37.67	9.32%	37.67	52.00	38.04%	52.00	52.00	-	15.78	60.20
2. 100 mm	40.28	44.37	10.15%	44.37	61.00	37.48%	61.00	61.00	-	15.87%	70.62
3. 125 mm	51.28	56.50	10.17%	56.50	83.00	46.90%	83.00	82.00	-	19.02%	98.76
4. 150 mm	61.27	67.50	10.17%	67.50	94.00	39.25%	94.00	94.00	-	16.47%	109.48
5. 200 mm	50.92	50.92	-	50.92	61.10	19.99%	61.10	85.16	39.37%	19.78%	102.00
6. 250 mm	67.48	67.48	-	67.48	80.98	20.00%	80.98	103.56	27.88%	15.96%	120.00
7. 300 mm	81.86	81.86	-	81.86	98.23	19.99%	98.22	120.46	26.75%	16.26%	146.99
8. 350 mm	101.78	101.78	-	101.78	122.14	20.00%	122.14	175.91	44.02%	21.34%	213.44
9. 400 mm	132.77	132.77	-	132.77	159.32	19.99%	159.32	258.94	62.52%	27.50%	330.14
10. 450 mm	157.50	157.50	-	157.50	189.00	20.00%	189.00	305.71	61.75%	27.25%	389.00
11. 500 mm	184.91	184.91	-	184.91	221.89	19.99%	221.89	368.28	65.97%	28.65%	475.80
12. 600 mm	244.35	244.35	-	244.35	293.22	20.00%	293.22	439.50	49.88%	23.29%	541.85
13. 700 mm					567.55			-			
14. 800 mm											
15. 900 mm											
16. 1000 mm											
17. 1200 mm											
NOTE:											
Sales Tax	5.80%	5.80%		5.80%	4.16%	-	4.16%	-			4.16%
Excise duty	25.00%	25.00%		25.00%	26.25%	5%	26.25%	-			26.25%

C.I.D. JOINTS AND COUPLINGS FOR AC PIPES CLASS 20

1	2	3	4	5	6	7	8	9	10	11	12	13
	C.I.D. JOINTS											
1.	80 mm	34.20	37.67	9.3[illegible]%	37.67	52.00	38.04%	52.00	52.00		15.78%	60.20
2.	100 mm	40.28	44.37	10.15%	44.37	61.00	37.48%	61.00	61.00		15.67%	70.65
3.	125 mm	51.20	56.50	10.17%	56.50	83.00	46.90%	83.00	83.00		19.02%	95.76
4.	150 mm	61.27	67.50	10.17%	67.50	94.00	39.25%	94.00	94.00		16.47%	109.48
	Sx COUPLINGS											
5.	200 mm					65.25		65.25	89.48	37.13%	12.00%	100.21
6.	225 mm											
7.	250 mm	82.76	32.76	-	82.76	101.29	22.39%	101.29	122.69	21.1[illegible]%	14.50%	140.48
8.	300 mm	95.47	95.47	-	95.47	116.86	22.40%	116.86	154.20	31.95%	18.11%	182.12
9.	350 mm	114.68	114.68	-	114.68	140.36	22.39%	140.36	217.16	54.71%	25.70%	272.97
10.	400 mm	166.61	166.61	-	166.61	203.93	22.39%	203.93	324.58	59.16%	27.1[illegible]%	412.80
11.	450 mm	198.56	198.56	-	198.56	243.04	22.40%	243.04	386.58	59.05%	27.1[illegible]%	491.53
12.	500	238.90	238.90	-	238.90	292.42	22.40%	292.42	472.31	61.51%	27.97%	604.41
13.	600 mm					337.66		337.66	555.30	64.45%	28.00%	710.78
14.	700 mm					614.83		614.83	859.87	39.85%	25.00%	1074.83
15.	800 mm											
16.	900 mm											
17.	1000 mm											
18.	1200 mm											
	NOTE:											
	Sales Tax	5.80%	5.80%		5.80%	4.16%		4.16%				4.16%
	Excise duty	25.00%	25%		25%	26.25%	5%	26.25%				26.25%

PROJECTION - COST OF RCC P2 & P3 PIPES

COST OF RCC PIPES

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.
		87-88	88-89		88-89	89-90		89-90	90-91				
1.	80 mm	47.09 P3		-	47.09	54.15	15%	51.15	54.15	-	15%	62.27	
2.		43.74 P2	43.74	-	43.74	50.30	15%	51.15	50.30	-	15%	57.84	
3.	100 mm	57.40	57.40	-	57.40	66.01	15%	51.15	66.01	-	15%	75.91	
4.		51.68	51.68	-	51.68	59.43	15%	51.15	59.43	-	15%	68.34	
5.	150 mm	86.63	86.63	-	86.63	99.62	15%	51.15	99.62	-	15%	114.56	
6.		73.18	73.18	-	73.18	84.16	15%	51.15	84.16	-	15%	96.78	
7.	200 mm	118.00	118.00	-	118.00	135.70	15%	51.15	135.70	-	15%	156.05	
8.		93.00	93.00	-	93.00	106.95	15%	51.15	109.95	-	15%	126.44	
9.	225 mm	130.57	130.57	-	130.57	150.16	15%	51.15	150.16	-	15%	172.68	
10.		102.00	102.00	-	102.00	117.30	15%	51.15	117.30	-	15%	134.89	
11.	250 mm	141.00	141.00	-	141.00	162.15	15%	51.15	162.15	-	15%	186.47	
12.		108.28	108.28	-	108.28	124.52	15%	51.15	124.52	-	15%	143.19	
13.	300 mm	198.50	198.13	-	198.13	227.85	15%	51.15	227.85	-	15%	262.02	
14.		158.50	158.50	-	158.50	182.28	15%	51.15	182.28	-	15%	209.62	

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.
15.	350 mm					305.33	15%	54.15	305.33	-	15%	351.12	
16.						237.82	15%	54.15	237.82	-	15%	273.49	
17.	400 mm					386.46	15%	54.15	386.46	-	15%	444.42	
18.						295.78	15%	54.15	295.78	-	15%	340.14	
19.	500 mm					548.72	15%	54.15	548.72	-	15%	631.02	
20.						417.57	15%	54.15	417.57	-	15%	480.20	
21.	600 mm					710.99	15%	54.15	710.99	-	15%	817.63	
22.						585.18	15%	54.15	585.18	-	15%	672.95	
23.	700 mm					873.25	15%	54.15	873.25	-	15%	1004.24	P3
24.	800 mm					1035.52	15%	54.15	1035.52	-	15%	1190.61	
25.						920.40	15%	54.15	920.40	-	15%	1058.46	
26.	900 mm					-			-	-		-	P3
						1088.02	15%	54.15	1088.02	-	15%	1251.22	P2
28.	1000 mm					-			-			-	P3
28.	1000 mm					1255.63	15%	54.15	1255.63	-	15%	1443.97	P2
29.	1200 mm					-			-			-	
						-			-			-	
30.	450 mm					467.59	15%	54.15	467.59	-	15%	537.72	P2
31.						316.21	15%	54.15	346.21	-	15%	398.14	P3

R.C.C. COLLARS P2

1	2	3	4	5	6	7	8	9	10	11	12	13
1. 80 mm		12.26	12.26	-	12.26	14.10	15.00%	14.10	14.10	-	15%	16.21
2. 100 mm		15.72	15.72	-	15.72	18.08	15.00%	18.08	18.08	-	15%	20.79
3. 150 mm		18.86	18.86	-	18.86	21.69	15.00%	21.69	21.69	-	15%	2[illegible].94
4. 20[illegible] mm		22.94	22.94	-	2 22.94	26.98	14.99%	26.38	26.38	-	15%	30.33
5. 225 mm		29.08	29.08	-	29.08	33.44	14.99%	33.44	33.44	-	15%	38.45
6. 250 mm		33.33	33.33	-	33.33	38.33	15.00%	38.33	38.33	-	15%	44.07
7. 300 mm		[illegible]	45.00	-	45.00	51.75	15.00%	51.75	51.75	-	15%	59.51
8. 350 mm						69.40		69.40	69.40	-	15%	79.81
9. 400 mm						86.25		86.25	86.25	-	15%	99.18
10. 450 mm						95.62		95.62	95.62	-	15%	109.96
11. [illegible]						109.54		109.54	109.54	-	15%	125.97
12. 600 mm						124.55		124.55	124.55	-	15%	143.23
13. 700 mm		P2				152.38		152.38	152.38		15%	175.23
14. 800 mm		P3				357.36		357.36	357.36		15%	393.10
14. 800 mm						180.21		180.21	180.21	-	15%	207.24
15. 900 mm						208.04		208.04	208.04	-	15%	239.24
16. 1000 mm						235.87		235.87	235.87	-	15%	271.25

Sales Tax 11.67%

R.C.C. COLLARE P3

2	3	4	5	6	7	8	9	10	11	12	13
80 mm	14.15	14.15	-	14.15	16.27	14.98%	16.77	16.27	-	15%	18.72
100 mm	18.24	18.24	-	18.24	20.98	15.02%	20.98	20.98	-	15%	24.12
150 mm	24.54	24.54	-	24.54	28.22	14.99%	28.22	28.22	-	15%	32.45
200 mm	35.88	35.88	-	35.88	41.26	14.99%	41.26	41.26	-	15%	47.44
225 mm	40.36	40.36	-	40.36	46.41	14.99%	46.41	46.41	-	15%	53.37
250 mm	46.35	46.35	-	46.35	53.30	14.99%	53.30	53.30	-	15%	61.29
300 mm	55.45	55.45	-	55.45	63.77	17.11%	63.77	63.77	-	15%	73.33
350 mm					105.00		105.00			15%	120.75
400 mm					141.05		141.05			15%	162.20
450 mm					177.10		177.10			15%	203.66
500 mm					213.15						
600 mm					285.26		285.26			15%	328.04
700 mm					358.36		357.36			15%	410.96
800 mm					429.47		429.47			15%	493.89
900 mm							500.00				575.00
1000 mm							650.00				747.50

CONVEYANCE FOR R.C.C. PIPES PER Rmt/PER Km.

1	2	3	4	5	6	7	8	9	10	11	12	13
1. 80 mm ø	P2	0.035	0.035	-	0.035	0.039	11.42%	0.039	0.038	-		0.042
	P3	0.035	0.035	-	0.035	0.039	11.42%	0.039	0.039	-		0.042
2. 100 mm ø	P2	0.046	0.046	-	0.046	0.05	8.69%	0.05	0.05	-		0.055
	P3	0.046	0.046	-	0.046	0.05	8.69%	0.05	0.05	-		0.055
3. 150mm ø	P2	0.058	0.058	-	0.058	0.064	10.34%	0.064	0.064	-		0.070
	P3	0.058	0.058	-	0.058	0.064	10.34%	0.064	0.064	-		0.070
4. 200 mm ø	P2	0.092	0.092	-	0.092	0.101	9.78%	0.101	0.101	-		0.111
	P3	0.092	0.092	-	0.092	0.101	9.78%	0.101	0.101	-		0.111
5. 225 mm ø	P2	0.109	0.109	-	0.109	0.12	10.09%	0.12	0.120	-		0.132
	P3	0.114	0.114	-	0.114	0.125	9.64%	0.125	0.125	-		0.137
6. 250 mm ø	P2	0.127	[illegible]	-	0.127	0.14	10.23	0.14	0.140	-		0.154
	P3	0.138		-	0.138	0.152	10.14%	0.152	0.152	-		0.167
7. 300 mm ø	P2	0.184	0.184		0.184	0.202	9.78%	0.202	0.202	-		0.222
	P3	0.219	0.219	-	0.219	0.241	10.04%	0.241	0.241	-		0.265
8. 350 mm ø	P2					0.253		0.253	0.253		10%	0.278
	P3					0.292		0.292	0.292			0.321
9. 400 mm ø	P2					0.317		0.317	0.317			0.348
	P3	0.345				0.341		0.341	0.341			0.375
10. 450 mm ø	P2					0.341		0.341	0.341		10%	0.375
	P3	0.38									10%	0.418
11. 500 mm ø	P2					0.418		0.418	0.418			0.459
	P3	0.38									10%	0.418
12. 600 mm ø	P2					0.695		0.695	0.695		10%	0.764
	P3	0.632										0.6[illegible]
13. 700 mm ø	P2/P3					0.759						0.825
14. 800 mm ø	P2											
	P3	0.75										

C.I. PIPES

1	2	3	4	5	6	7	8	9	10	11	12	13	14
	S/S Pipes 'LA' Class												
..	80 (3.66)	106.09	119.64	12.77%	119.64	119.64	-	119.64	138.94	16.13%	9.88%	152.66	
2.	80 (4.00)	.			116.75	116.75	-	116.75	-	-			
3.	100 (4.00)	129.46	146.07	12.83%	146.07	146.07	-	146.07	169.76	16.21%	9.68%	186.19	
..	125 (4.00)	150.55											
..	150 (4.00)	187.64	213.70	13.88%	213.70	213.70	-	213.70	251.11	17.5%	10.46%	277.37	
..	200 (4.00)	273.06	311.14	13.94%	311.14	311.14	-	311.14	365.81	17.41%	10.45%	404.03	
..	250 (4.00)	380.92	419.23	13.94%	419.23	419.23	-	419.23	492.30	17.41%	10.45%	543.74	
..	300 (4.00)	474.45	540.61	13.94%	540.61	540.61	-	540.66	635.60	17.57%	10.50%	702.23	
9.	350 (4.00)	598.32	681.70	13.94%	681.70	681.70	-	681.70	891.42	30.76%	14.90%	1024.24	
0.	400 (4.00)	726.10							975.25			1072.77	10% Excess over tender rates
1.	450 (4.00)	876.74							1176.83			1294.50	
2.	500 (4.00)	1031.50							1466.47			1613.10	
3.	600 (4.00)	1416.81							1883.02			2071.30	
4.	700 (4.00)	1830.93							2436.47				
5.	750 (4.00)	2050.60							2726.75			-	
6.	800 (4.00)	2295.37							3054.58			3360.05	
7.	900 (4.00)	2796.08							3726.02			4098.60	
8.	1000 (4.00)	3359.04							4476.20			4923.80	

Sales Tax 4%

Transportation 5%

C.I. L/A Class pipes (Length - 3.66 mts)

C.I. L/A (3.66 mts.)	84-85 85-86	86-87 87_88	88-89 89-90	90-91 %	Cost	Remarks
1	2	3	4	5	6	7
			Lowering & Laying			
150 mm Ø	2.45	2-60 (6.12)%	3.40 (30.77)%	12.30	3.82	
350 mm Ø	5.60	6.10 (8.93)%	7.80 (27.87)	12.27	8.76	
400 mm Ø	6.85	7.45 (8.76)%	9.50 (27.52)	12.09	10.65	
450 mm Ø	8.25	8.95 (8.48)%	11.45 (27.86)	12.14	12-84	
600 mm Ø	12.90	14.00 (8.53)%	17.90 (27.86)	12.13	20.07	
800 mm Ø	22.00	23-10 (5.00)%	30.40 (31.60)	12.20	34.11	
1000 mm ØS	32.05	33.65 (4.99)%	44.40 (31.95)	12.31	49.87	
300 mm Ø	4.45	4.80 (7.87)%	6-20 (29.17)	12.35	6.97	
			Jointing			
150 mm Ø	3.75	3.93 (3.08)%	5.19 (32.06)	12.30	5.83	
300 mm Ø	7.28	7.65 (5.08)%	10.10 (32.03)	12.37	11.35	
350 mm Ø	7.68	8.06 (4.95)%	10.64 (32.01)	12.32	11.95	
400 mm Ø	9.93	10.42 (4.93%%	13.76 (32.05)	12.33	15.46	
450 mm Ø	11.09	11.65 (5.05)%	15.38 (32.02)	12.36	17.28	
600 mm Ø	15.83	16.63 (5.05)%	21.94 (31.95)	12.32	24.65	
600 mm Ø	20.63	21.67 (5.04)%	28.59 (31.93)	12.32	32.11	
1000 mm Ø	27.19	28.55 (5.00)%	37.68 (31.98)	12.33	42.33	

P.S.C PIPES 18 Kgs/Cum

Sl. No.	Diameter	Rates of 1990-91	Rates of 1991-92
1	2	3	4
1.	300 mm	380.00	437.00
2.	350 mm	475.00	546.00
3.	400 mm	530.00	609.00
4.	450 mm	570.00	655.50
5.	500 mm	621.00	714.15
6.	600 mm	745.00	856.75
7.	700 mm	885.00	1017.75
8.	800 mm	1110.00	1276.50
9.	900 mm	1290.00	1483.50
10.	1000 mm	1545.00	1776.75
11.	1200 mm	2130.00	2449.50

Note: 15 % Average annual increase is noticed in respect of R.C.C pipes over the past years. The same average increase is considered for P.S.C pipes also and Rates of 1991-92 rates worked out operating average annual increase on 1990-91 rates.

RATES OF AC.CL.10 PIPES

Dia	INITIAL COST Pipes	CID Joints	Coup-lings.	EXCISE DUTY Pipes (26.25%)	Coup-lings	SALES TAX Pipes (13.06%)	CID Joi-nts. (4.16 %)	Cou-pli-ngs. (13.06 %)	TRANSPORTATION Pipes (4.00 % up-to 150 mm dia. *	S.T. on pi-pes. 13.06 %)	Cou-pli-ngs. (2.00 %).	T O T A L Pipes per kmt.	CID Joi-nts per kmt.	Cou-pli-ngs. per kmt.	Total	Cost of E/T and refilli-ng W & T **	L/L & Join-ting of pipe-line per RMT. L/L	J	Total cost per RMT.	Cost of Specials @ 16% on cost.	Sundries	Total cost of pipe-line per RMT.
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.
80	41.60	15.05	-	10.92	-	5.43	0.62	-	1.66	0.21	-	59.82	15.67	-	75.49	23.08	2.93	1.19	102.69	15.40	0.01	118.10
100	50.58	17.67	-	13.27	-	6.60	0.73	-	2.02	0.26	-	72.73	18.40	-	91.13	23.08	2.93	1.68	118.82	17.82	0.01	136.65
125	65.09	24.69	-	17.08	-	8.50	1.02	-	2.60	0.33	-	93.60	25.71	-	119.31	23.08	2.93	1.68	147.00	22.07	0.00	169.05
150	81.18	27.37	-	21.30	-	10.60	1.13	-	3.24	0.42	-	116.74	28.50	-	145.25	25.00	3.10	1.91	175.35	26.30	0.00	201.65
200	138.77	-	20.88	36.42	3.43	18.12	-	2.72	2.77	-	0.41	196.08	-	27.44	223.52	25.00	3.73	1.91	254.16	38.12	0.02	292.30
250	174.54	-	26.40	45.81	4.28	22.79	-	3.44	3.49	-	0.52	246.63	-	34.64	281.27	25.00	4.31	2.41	312.99	46.95	0.01	359.95
300	225.58	-	32.43	59.21	5.30	29.46	-	4.23	4.51	-	0.64	318.76	-	42.60	361.36	29.91	5.17	2.41	398.85	59.83	0.02	458.70
350	307.22	-	45.66	80.64	7.87	40.12	-	5.96	6.14	-	0.91	434.12	-	60.40	494.52	29.91	8.85	2.88	536.16	80.42	0.02	616.60
400	370.47	-	59.08	97.24	10.42	48.38	-	7.71	7.40	-	1.18	523.49	-	78.39	601.88	33.55	10.00	2.88	648.31	97.25	0.04	745.60
450	454.70	-	69.98	119.35	12.46	59.38	-	9.13	9.09	-	1.39	642.52	-	92.96	735.48	33.55	11.09	3.37	783.48	117.52	0.04	901.05
500	573.07	-	87.04	150.43	15.33	74.84	-	11.36	11.46	-	1.74	809.80	-	115.47	925.27	37.61	12.19	3.37	975.44	146.32	0.04	1121.80
600	809.41	-	113.16	212.47	20.69	105.70	-	14.77	16.18	-	2.26	1143.76	-	150.88	1294.64	43.59	13.34	3.85	1355.42	203.31	0.02	1556.75

*Transportation upto 150 mm dia 4% on Pipes value + Sales Tax at 13.06%. About 200 mm dia 2% on pipes & Couplings value.

** E/T: Excavation & Trenches

** W/T: Watering & Tamping.

RATES OF AC.CL.15 PIPES

...ie	INITIAL COST			EXCISE DUTY		SALES TAX			TRANSPORTATION			TOTAL				Cost of E/T and refilling W & T	L/L & Jointing of pipeline per RMT.		Total cost per RMT.	Cost of Specials @ 16% on cost.	Sundries	Total cost of pipeline per RMT.
	Pipes	CIL Joints	Couplings.	Pipes (26.25%)	Couplings	Pipes (13.06%	CID Joints. (4.16 %)	Couplings. (13.06 %)	Pipes (4.00 % up to 150 mm dia.	S.T. on pipes. 13.06 %)	Couplings. (2.00 %).	Pipes per Mat.	CID Joints per Mat.	Couplings. Per Mat.	Total		L/L	J				
.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.
80	42.08	15.05	-	11.05	-	5.50	0.63	-	1.68	0.22	-	60.53	15.68	-	76.21	23.08	2.93	1.19	103.41	15.51	0.08	119.00
00	53.73	17.67	-	14.10	-	7.02	0.74	-	2.15	0.28	-	77.28	18.41	-	95.60	23.08	2.93	1.68	123.29	18.49	0.02	141.80
.25	71.81	24.70	-	18.85	-	9.38	1.03	-	2.87	0.38	-	103.29	25.73	-	129.02	23.08	2.93	1.68	156.71	23.50	0.04	180.25
150	96.09	27.37	-	25.22	-	12.55	1.14	-	3.84	0.50	-	136.20	28.51	-	166.71	25.00	3.10	1.91	196.72	29.51	0.02	226.25
200	166.82	-	25.50	43.79	4.19	21.79	-	3.33	3.33	-	0.52	235.73	-	33.54	269.27	25.00	3.73	1.91	299.91	44.99	-	344.90
250	212.59	-	30.02	55.80	4.91	27.76	-	3.92	4.25	-	0.60	300.40	-	39.45	339.85	25.00	4.31	2.41	371.57	55.74	0.04	427.35
300	290.71	-	36.75	76.31	6.22	37.97	-	4.80	5.81	-	0.74	410.80	-	48.51	459.31	29.91	5.17	2.41	496.80	74.52	0.03	571.35
350	399.60	-	53.36	104.90	9.13	52.18	-	6.97	7.99	-	1.07	564.68	-	70.53	635.21	29.91	8.85	2.88	676.85	101.53	0.02	778.40
400	519.17	-	82.53	136.28	14.05	67.80	-	10.75	10.38	-	1.65	733.63	-	108.98	842.61	33.55	10.00	2.88	889.04	133.36	-	1022.40
450	611.04	-	97.25	160.40	16.73	79.80	-	12.70	12.22	-	1.94	863.46	-	128.62	992.08	33.55	11.09	3.37	1040.09	156.01	-	1196.10
.00	759.92	-	118.45	199.48	20.17	99.25	-	15.47	15.20	-	2.37	1073.85	-	156.46	1230.31	37.61	12.19	3.37	1283.48	192.52	-	1476.00
.00	1170.15	-	135.46	307.16	24.42	152.82	-	17.69	23.40	-	2.71	1653.53	-	180.28	1833.81	43.59	13.34	3.85	1894.59	284.19	0.02	2178.80

RATES OF AC.CL.20

Dia	INITIAL COST Pipes	CID Joints	Coup-lings.	EXCISE DUTY Pipes (26.25%)	Coup-lings	SALES TAX Pipes (13.06%	CID Joi-nts. (4.16 %)	Cou-pli-ngs. (13.06 %)	TRANSPORTATION Pipes (4.00 % up-to 150 mm dia.	S.T. on pi-pes. 13.06 %)	Cou-pli-ngs. (2.00 %).	T O T A L Pipes per km.	CID Joi-nts per km.	Cou-pli-ngs. per km.	Total	Cost of E/T and refilli-ng W & T	L/L & Join-ting of pipe-line per RMT. L/L	J	Total cost per RMT.	Cost of Specials @ 16% on cost.	Sundries	Total cost of pipe-line per RMT.
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.
80	45.16	15.05	-	11.85	-	5.00	0.63	-	1.81	0.24	-	64.96	15.68	-	80.64	23.08	2.93	1.19	107.84	16.17	0.04	124.05
100	67.98	17.67	-	17.84	-	8.88	0.74	-	2.72	0.36	-	97.78	18.41	-	116.19	23.08	2.93	1.68	143.89	21.58	0.04	165.50
125	84.26	24.69	-	22.11	-	11.00	1.02	-	3.37	0.44	-	121.18	25.71	-	146.89	23.08	2.93	1.68	174.58	26.18	0.04	200.80
150	118.86	27.37	-	31.20	-	15.52	1.14	-	4.75	0.62	-	170.95	28.51	-	199.46	25.00	3.10	1.91	229.43	34.41	0.01	263.85
200	219.02	-	25.05	57.49	4.47	28.60	-	3.27	4.38	-	0.50	305.49	-	33.29	342.78	25.00	2.73	1.91	373.42	56.00	0.03	429.45
250	283.46	-	35.12	74.41	6.16	37.10	-	4.59	5.67	-	0.70	400.64	-	46.57	447.21	25.00	3.73	1.91	477.84	71.67	0.04	549.55
300	389.89	-	45.53	102.35	8.04	50.92	-	5.94	7.80	-	0.91	550.96	-	60.42	611.38	29.91	4.31	2.41	648.01	97.20	0.04	745.25
350	546.87	-	68.24	143.47	11.83	71.38	-	8.91	10.93	-	1.36	772.35	-	90.34	862.69	29.91	5.17	2.41	900.18	135.02	-	1035.20
400	700.92	-	103.20	183.99	18.36	91.54	-	13.47	14.02	-	2.06	990.47	-	137.09	1127.56	33.55	8.85	2.88	1172.84	175.92	0.04	1348.80
450	844.15	-	122.88	221.59	22.04	110.25	-	16.04	16.88	-	2.46	1192.87	-	163.42	1356.29	33.55	10.00	2.88	1402.72	210.40	0.03	1613.15
500	1029.37	-	151.10	270.21	27.00	134.44	-	19.73	20.58	-	3.02	1454.60	-	200.85	1655.45	37.61	11.09	3.37	1707.52	256.12	0.01	1963.65
600	1511.17	-	177.69	396.68	32.02	197.36	-	23.20	30.22	-	3.55	2135.43	-	236.46	2371.89	43.59	12.19	3.37	2431.04	364.65	0.01	2795.70
700	1912.41	-	268.68	502.00	50.07	249.76	-	35.08	38.25	-	5.37	2702.42	-	359.20	3061.62	43.59	13.34	3.85	3122.40	468.36	0.04	3590.80

RATES OF R.C.C P2 CLASS PIPES

Size of pipe in mm	Cost of pipe per mm per Rmt	Cost of bedding	Cost of collar per Rmt	Rate of conveyance per K.M. per Rmt	Transportation for a distance of 50 K.M on Col. No. 5	Total cost of pipe & collar including transportation Col. (3+5+7)	Central excise duty %	Cost of pipe including central excise duty (Col. 8 + Col. 9)	Sales tax @ 11.25% on Col. No. 10	Total cost of pipe including sales tax Rmt Col (10+11)	Cost of Excavation of trench and refilling	Laying and jointing of pipes per Rmt Col. 12 + 13 mm of pipe.	Total cost of pipe laying/Rmt	Cost of [illegible] in (including cost of [illegible] and [illegible] of all [illegible]	[illegible]	[illegible]
2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
100	68.34	20.79	10.39	0.055	2.75	81.48	-	-	9.50	90.98	23.08	8.68	122.14	18.91	-	141.15
150	96.78	24.94	12.47	0.070	3.50	112.75	-	-	13.15	125.90	23.08	13.03	162.00	24.30	-	186.30
200	126.44	30.33	15.16	0.111	5.55	147.15	-	-	17.17	164.32	25.00	17.36	206.68	31.00	0.02	237.70
600	672.95	143.23	71.61	0.764	38.20	782.76	-	-	91.34	874.10	43.59	52.08	969.77	145.47	0.01	1115.25
700	865.70	175.23	87.61	0.764	38.20	991.51	-	-	115.70	1107.21	43.59	60.76	1211.56	181.73	0.01	1393.30

RATES OF P.SC PIPES

Size of pipe in M.M	Cost of pipe per RMT	Cost of Each collar	Cost of collar per RmT	Rate of conveyance per K.M. per RmT	Transportation for a distance of 50 K.M on Col. No. 3	Total cost of pipe & Collar Including Transportation Col. (3+5+7)	Central excise duty @	Cost of pipe including central excise duty (8+9)	Sales tax @ 11.0% on Col. No. on (2+6)	Total cost of pipe Including all taxes per RmT Col (10+11)	Cost of Excavation of Trench and refilling W & T	Laying, lowering and coupling of pipe per RmT @ 2.65/25 mm of pipe, Rs/m	Total cost of pipe line/RmT Col. (12+13+14)	Cost of specials @ 15% on 12 Including const. of chamber.	Cost of [illegible] in [illegible] of [illegible]	Total cost of pipe line per RmT col. (15+16+17)
2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
300	437.00	73.33	36.66	0.265	13.25	486.91	-	-	56.82	543.73	29.91	26.04	599.68	89.95	0.02	689.65
350	546.25	120.75	60.37	0.321	16.05	627.67	-	-	73.24	700.91	29.91	30.38	761.20	114.18	0.02	875.40
400	608.50	162.20	81.10	0.375	18.75	709.35	-	-	82.78	792.13	33.55	34.72	860.40	129.06	0.04	989.50
450	655.50	203.66	101.83	0.418	20.90	778.23	-	-	90. 81	869.04	33.55	39.06	941.65	141.25	-	1082.90
500	714.15	328.04	164.02	0.418	20.90	899.07	-	-	104.92	1003.99	37.61	43.40	1085.00	162.75	-	1247.75
600	856.75	410.96	205.48	0.695	34.75	1096.98	-	-	128.01	1224.99	43.59	52.08	1320.66	198.10	0.04	1518.80
700	1017.75	452.43	226.21	0.760	38.00	1330.84	-	-	155.31	1486.15	43.59	60.76	1590.50	238.58	0.02	1829.10
800	1276.50	493.89	246.95	0.825	41.25	1564.69	-	-	182.59	1747.28	43.59	69.44	1860.31	279.05	0.04	2139.40
900	1483.50	575.00	287.50	1.650	82.50	1853.50	-	-	216.30	2069.80	43.59	78.12	2191.51	328.73	0.01	2520.25
1000	1776.75	747.50	373.75	1.710	85.50	2236.00	-	-	260.94	2496.94	43.59	86.80	2627.33	394.10	0.02	3021.45
1100	2113.15	856.75	429.65	1.710	85.50	2628.30	-	-	300.75	2929.05	43.60	95.50	3068.15	460.25	0.10	3528.50
1200	2449.50	971.00	485.50	1.890	94.50	3029.50	-	-	353.54	3383.04	43.59	104.16	3530.79	529.62	0.04	4060.45

RATES OF R.C.C. P3 PIPES

Size of pipe in M.M	Cost of pipe per RMT [illegible]	Cost of Each collar	Cost of collar per RmT	Rate of conveyance per K.M. per RmT	Transportation for a distance of 50 K.M on Col. No. 3	Total cost of pipe & Collar including Transportation Col. (3+5+7)	Central excise duty @ NIL	Cost of pipe including central excise duty.	Sales tax @ 11.67% on Col. No. on	Total cost of pipe including all taxes per RmT Col (10+11)	Cost of Excavation of Trench and refilling [illegible]	Lowering, Laying and Jointing of pipe per RmT @ [illegible] mm Ø pipe.	Total cost of pipe line/RmT Col. [illegible]	[illegible] @ 15% on [illegible] including const. of chambers [illegible] Cost of ci Specials	[illegible]	[illegible] Cost of pipe line per RmT Col. (15+16+17)
2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
80	62.27	18.71	9.35	0.042	2.10	73.72	-	-	8.60	82.32	23.08	6.94	112.34	16.85	0.01	129.20
100	75.91	24.12	12.06	0.055	2.75	90.72	-	-	10.58	101.30	23.08	8.68	133.06	19.96	0.03	153.05
150	114.56	32.45	16.22	0.070	3.50	134.28	-	-	15.67	149.95	23.08	13.02	186.05	27.91	0.04	214.00
200	156.05	47.44	23.72	0.111	5.55	185.32	-	-	21.62	206.94	25.00	17.36	249.30	37.39	0.01	286.70
225	172.68	53.37	26.68	0.137	6.85	206.21	-	-	24.06	230.27	25.00	19.53	274.80	41.22	0.03	316.05
250	186.47	61.29	30.64	0.067	8.35	225.46	-	-	26.31	251.77	25.00	21.70	298.47	44.77	0.01	343.25
300	262.02	73.33	36.66	0.265	13.25	311.93	-	-	36.40	348.43	29.91	26.04	404.28	60.64	0.03	464.95
350	351.12	120.76	60.37	0.321	16.05	427.54	-	-	49.89	477.43	29.91	30.38	537.72	80.65	0.03	618.40
400	444.42	162.20	81.10	0.375	18.77	544.27	-	-	63.51	607.78	33.55	34.72	676.05	101.40	-	777.45
450	537.72	203.66	101.83	0.418	20.90	660.45	-	-	77.07	737.52	33.55	39.06	810.13	121.51	0.01	931.65
500	631.02	328.04	164.02	0.418	20.90	815.94	-	-	95.22	911.16	37.61	43.40	992.17	148.82	0.01	1141.00
600	871.63	410.96	205.48	0.695	34.75	1111.86	-	-	129.75	1241.61	43.59	52.08	1337.28	200.59	0.03	1537.90
700	1004.24	393.10	196.55	0.835	41.75	1242.54	-	-	145.00	1387.54	43.59	60.76	1191.89	223.78	0.03	1715.70
800	1190.61	493.89	246.94	0.825	41.25	1478.80	-	-	172.57	1651.37	43.59	69.44	1764.40	264.66	0.04	2029.10
1000	1443.97	575.00	287.50	1.710	87.50	1816.97	-	-	212.04	2029.01	43.59	86.80	2159.40	323.91	0.04	2483.35
1200	2401.00	961.00	480.50	1.890	94.50	2976.00	-	-	347.30	3323.30	43.59	104.16	3471.05	520.65	-	3991.70

RATES OF CI.L/A CLASS PIPES

Sl. No.	Size of pipe in M.M	Cost of pipe per RMT	Cost of loading, unloading @ 20% including taxes	Total cost of the pipe	Earth work excavation	Cost of laying	Cost of lead and jointing @ 35/ 1 Kg	Rate of yarn jointing @ Rs. 20/1 Kg	Labour charges for jointing	Total cost of Laying, jointing/R.M.	Total cost of pipe line/metre.	Specials Valves, chamber etc., 15% excess.	Sundries	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1.	150 mmØ	277.37	55.47	332.84	23.08	3.82	39.02	1.31	5.83	49.98	405.90	60.89	0.01	466.80
2.	300 mmØ	702.23	140.45	842.68	29.91	6.97	82.62	3.17	11.35	104.11	976.70	146.51	0.04	1123.25
3.	350 mmØ	1024.24	204.85	1229.09	29.91	8.76	96.39	3.93	11.95	121.03	1380.03	207.00	0.02	1587.05
4.	400 mmØ	1072.77	214.55	1287.32	33.55	10.65	109.02	4.92	15.46	140.05	1460.92	219.14	0.04	1680.10
5.	450 mmØ	1294.50	215.90	1553.40	33.55	12.84	160.66	6.23	17.28	197.01	1783.96	267.58	-	2051.55
6.	600 mmØ	2071.30	414.26	2484.56	43.59	20.07	218.03	7.87	24.65	217.62	2798.77	419.82	0.01	3218.60
7.	800 mmØ	3360.05	672.01	4032.06	43.59	34.11	286.89	9.51	32.11	362.62	4438.27	665.74	0.04	5104.05
8.	1000 mmØ	4923.80	984.76	5908.56	43.59	49.87	470.49	13.44	42.33	576.13	6528.28	979.24	0.03	7507.53

A N N E X U R E - 5

PROVISION OF C.I.SPECIALS - MODEL ESTIMATE

RECAST ESTIMATE FOR RAW WATER PUMPING MAIN FROM JACKWELL TO HEAD WORKS(FILTER BEDS)

C.P.W.S. SCHEME AT IBRAHIMPUR

ESTIMATED COST: Rs. 4.80 LAKHS

PROVISION IS MADE IN THE RECAST ESTIMATE AS FOLLOWS:

PIPES AND OTHER MATERIALS

S.No.	Details	Amount
1.	700 Rmt. Ac.Cl.1. pipes 400 mm dia	Rs. 2,05,310
2.	150 Nos. Ac.Couplings 400 mm dia	Rs. 28,320
3.	97.50 Rmt. C.I.L/A Class pipes 400 mm dia.	Rs. 1,09,600
4.	20 Nos. C.I.D.Joints, 400 mm dia	Rs. 5,57
5.	Cost of jointing with Rubber sheet for C.I.L/A pipes.	Rs. 915
6.	Labour charges for Bloolowering, jointing of CI L/A pipes with Nut Bolts.	Rs. 1,983
7.	Earth excavation of trench work for AC pipes including laying & jointing.	Rs. 25,620
8.	Earth work excavation for CI D/F pipes and jointing .	Rs. 4,202
9.	Bed Concrete for CI L/A S/S Pipes	Rs. 1,500
10.	400 mm dia CI D/F pipes. a) 2 mtrs. long 7 Nos; b) 0.90mtrs. long. 1 No; c) 0.60 mtrs. long. 1 No;	Rs. 29,186
		Rs. 4,12,215

Percentage of provision for specials, chambers, earth work etc., complete. $\frac{100}{412215} \times 62933 = 15.26\%$

SPECIALS, VALVES & CHAMBERS

S.No.	Details	Amount Provided.
1.	1 No. 400 mm dia Sluice valves	Rs. 26,000
2.	1 No. 400 mm dia Reflex valves	Rs. 6,200
3.	1 No. 80 mm dia Air valves	Rs. 720
4.	1 No. 200 mm dia Scour valve	Rs. 4,620
5.	4 Nos. 400 mm dia C.I.Tail pieces.	Rs. 1,600
6.	1 No. CI Air T 400x400x80	Rs. 800
7.	1 No. CI Scour T 400x400x200	Rs. 900
8.	3 Nos. CI D/F, 0.60 mtrs. length. 200 mm dia.	Rs. 1,680
9.	1 No. 200 mm dia CI ducktoot bend.	Rs. 770
10.	1 No. 200 mm dia CI Semi Circular Bend .	Rs. 600
11.	2 Nos. 400 mm dia CI 90° bends.	Rs. 1,500
12.	1 No. 400 mm dia CI Duck foot bend.	Rs. 850
13.	3 Nos. Construction of Chambers for valves,	Rs. 9,000
14.	1 No. -do- Air valve.	Rs. 2,200
15.	Earth work for D/F CI Pipes.0.60 m .	Rs. 150
16.	Labour charges for Valves & Specials.	Rs. 5,343
		Rs. 62,933

ANNEXURE-6

UNIT RATES FOR VARIOUS TECHNICAL COMPONENTS

OHSRs	Rate per Litre	
1) 40,000 litres OHSR	Rs. 4.50	
2) 60,000 Litres OHSR	Rs. 3.50	
3) 80,000m& 1.00 lakh litres OHSR	Rs. 4.00	(due to extra column)
4) 1.50 lakh litres OHSR	Rs. 3.00	
5). Above 1.50 lakh litres OHSR	Rs. 3.00	

GLSRs	
1) 10,000 litres GLSR	Rs. 3.50
2) 20,000 litres GLSR	Rs. 2.75
3) 40,000 litres GLSR	Rs. 1.70
4) 60,000 litres GLSR	Rs. 1.20
5) 80,000 litres GLSR to 2.00 lakh litres GLSR	Rs. 1.00
6) 2.50 lakhs litres GLSR	Rs. 0.56

OTHER WORKS	
1) SUMPS	Rs. 0.75/lit
2) RAPID GRAVITY FILTERS	Rs. 0.56/lit
3) PUMP SETS	Rs. 3,000/H.P.
4) PUMPING STATIONS	Rs. 2,000/SQm
5) OTHER BUILDINGS	Rs. 2,430/SQm.

ANNEXURE-7-a

UNIT ESTIMATES

ABSTRACT ESTIMATE FOR CONSTRUCTION OF SLUICE AT THE CANAL FOR INTAKE POINT FOR CPWS SCHEME - AP II - NALGONDA.

Mø. Sl. No.	Quantity	Particulars	Rate	Per	Amount
1)	3240.00 Cum	Earth Work excavation and depositing at soil with an initial lead of 10 Mts. and lift 2mts. for cutting the canal bank and refilling the same after construction of sluice including sectioning and rolling etc., complete.	200.00	10 Cum	64800-00
2)	120.00 Cum	Laying of C.C.(1:3:6) using 40 mm gauge metal for levelling course including cost and conveyance of all materials and labourcharges complete including seinorage andcess charges complete.	637-45	1 Cum	76494-00
3)	36.00 Rmt	Cost of 900 mmØ RCC P2 class pipes with necessary collars including cost and conveyance of all materials and labour charges	L.S.	-	60000-00
4)	36.00 Rmt	Laying and jointing of 900 mmØ RCC P2 class pipes including lifting, alignment and jointing the collars including all labour charges	18.00	1 Rmt	648-00
5)	100.00 Cum	Construction of CRS masonry in CM (1:5) 2nd sort including cost and conveyance of all materials and labour charges includingseinorage and cess charges complete.	432.60	1 Cum	43260.00
6)	70.00 Sqm	Plastering with cement Mytar (1:3) 20 mm thick including cost and conveyance of all materials and labour charges complete including seinorage and cess charges complete.	390.00	10 Sqm	2730-00
7)	L.S.	Supplying and Fixing of mild steel works such as M.S.rods, channels, gate with wiremesh etc.	L.S.	-	20000-00
8)	L.S.	Provision for unforseen items.			32068-00
			Grand Total		300000-00

DETAILED ESTIMATE FOR THE CONSTRUCTION OF SLUICE AT THE CANAL AT ALWAL VILLAGE FOR C.P.W.S.SCHEME NALGONDA.

Sl. No.	Particulars	No.	L	B	D	Quantity
1)	Earth Work excavation and depositing at soil with an initial lead of 10 Mts. and lift 2mts. for cutting canal bank and refilling the same after construction of luice including sectioning and rolling etc., complete.	1x1	$\frac{6+24}{2}$	$\frac{6+42}{2}$	9.0	3240.00 Cum
2)	Laying of C.C. (1:3:6) using 40mm gaze metal for levelling course including cost and conveyance of all materials including seinorage & cess charges complete.	1x1	21.00	6.00	0.50	63.00
	Alround the pipes for improving base at canal	1x1	18.00	3.00	1.50	81.00
		Add for additional soundness				4.29
						148.29Cum
	Deduct for pipe portaion	$2\times\frac{3.142}{4}$ (1x1x18.00)				28.28Cum
	Net quantity	148.29-28.29 = 120.00 Cum.				
3)	Cost of 900 mmØ RCC p2 class pipes with necessary collars including cost and conveyance of all materials and labour charges.	1x2	18.00	-	-	36.00R.M
4)	Laying and jointing of 900 mm Ø RCC p2 class pipes including lifting, alignment and jointing xxthe collars including all labour charges	1x2	18.00	-	-	36.00R.M
5)	Construction of CRS masonry in Cm(1:5) and sort including cost and conveyance of all materials and labour charges including s/c charges complete.	1x1	6.00	$\frac{(3.6+0.45)}{2}$	8.00	97.20
	Construction of two retaining walls in front of the pipes L.S.	2x1/2	3.00	3.00	0.90	8.00
						0.35
						105.65Cum
	Deduct pipe portion	1x2	$\frac{3.142}{4}$ (1x1x3.6)			5.65
				Net quantity		100.00Cum

1	2	3	4	5	6	7
6.	Plastering with cement Motor (1:3) 20 mm thick including c/c of all materials and labour charges complete including seniprise cess charges complete.					
	Water side	1x1	6.00	-	9.00	54.00
	for retaining walls	2x1/2	3.00	-	3.00	9.00
	Add L.S for top of retaining wall					8.57
						71.57 Sq.mts.
	Deduct pipe portion	1x2	$\frac{(3.142)}{4}$ 1.00	1.00	-	1.57 Sq. mts
				Net quanity		70.00 Cum
7)	Supplying and Fixing of mild steel works such as M.S rods, channels gate with wiremesh etc.				L.S	
8)	L.S. for unforseen item				L.S.	

C.P.W.S. SCHEME FOR VILLAGES IN NALGONDA DISTRICT

ABSTRACT ESTIMATE FOR CONVERTING THE EXISTING RAMASAMUDRAM TANK TO SUMMER STORAGE TANK AT ALWAL (V).

Sl. No.	Description	Quantity	Rate	Per	Amount
1.	Clearing light Jungle from existing tank bund both sides U/S & D/S	19200 Sq.m	1.88	10 Sq.m	3610.00
2.	Earth work excavation and depositing on bank with an additional lead of 0.50 Km over initial lead of 10 m and two additional left over initial left of 2 m in hard stiff clay, stiff B.C and red earth soils including consolidation with 2T. Roller including watering etc., complete for faising and strengthening of existing tank bund and forming new tank bund.	245000 Cum	29.00	1 Cum	7105000/-
3.	Collection and supply of gravel and storing at site for premeasurements and spreading the same over tank bund for gravel casing including cost and conveyance of all materials and beyer charges complete.	4467.00 Cum.	33.00	1 Cum	147411.00
4.	Rough stone dry packing 300 mm thick for revetment including cost and conveyance of all materials and labour charges complete.	4467.00 Cum.	123.35	1 Cum	551004.00
5.	L.S. for unforseen works such as grouting to revetment and blasting the boulders etc.,		L.S		692975.00
					8500000.00

DETAILED ESTIMATE FOR CONVERTING THE EXISTING RAMASAMUDRAM TANK TO SUMMER STORAGE TANK AT ALWAL (V).

Sl. No.	Description	No.	L	B	D	Quantity
1	2	3	4	5	6	7
1.	Clearing of light Jungle from existing tank bund both sides	1X2	800.00	12.00 m	-	19200 Sqm.
2.	Earth work excavation and depositigg on bank with an additional lead of 0.5 Km over initial lead of 10 m and with two additional lifts over initial lift & of 2 m in stiff B.C, red earth and ordinary soils including beeaking clods and sectioning and rolling ~~xxx~~ with 2 Ton Roller including watering for raising and strengthening the bund and to level the tank bund area.	1X1	740.00 m	$\frac{(3+39}{2}$X9-$\frac{2.5+22}{2}$X5)		92685 Cum.
	Levelling the tank bund area	1X1	700	700	0.50 A.V	245000 Cum.
	245000 - 92685 = 152315 Cum will be utilised for forming the new bunds in the other ~~four~~ four sides.					
3.	Gravel casing to U/S side of the tank bund.	1X1	740	20.12	0.30	4467 Cum.
4.	Rough stone dry packing 30 cm thick for revetment including cost and conveyance of all materials and labour charges complete.	1X1	740	20.12	0.30	4467 Cum.
5.	L.S for unforseen items such as grouting to revetment if necessary etc.,			L.S.		

DATA SHEET

1. Earth work excavation and depositing on bank with an additional lead of 0.50 Km over initial led of 10 m and two additional lift over initial lift 2 m in hard stiff clay, stiff B.C and red earth soils including consolidation with stone roller (2) Tonnes including watering for raising the bund.

10 cum cost of Earth work		= 99.84/10 cum
0.50 Km lead for earth work @ 16.50/1Cum		=155.00
Add 3 lifts	11.30/3 lifts	= 11.30
Add watering and consolidation with stone roller of 2 Tonnes		= 12.00
Sundries		= 1.86
		290.00

Rate per 1Cum = 29.00/1Cum

2. Collection of gravel and stocking at site for premeasures and spreading the same for gravel base to tank bund.

1 Cum cost of gravel	8.86/ 1Cum	= 8.66
1 Cum lead for gravel (4Km)	19.52/ 1Cum	=19.52
1 Cum spreading gravel 4.82/ 1Cum		= 4.82
		33.00

3. Rough stone dry packing 30 cm thick for revetment including cost and conveyance of all materials and labour charges complete.

1.10 Cum cost of Rough stone of size 300 mm @ 13.96		= 15.35
0.40 Nos wodder or stone packer	@ 21.95/each	= 8.78
1.10 Nos Man Mazdoors	@ 22.53/each	= 24.78
0.70 Nos. women Mazdoors	@ 22.53/each	= 15.77
1.10 Cum lead for Rough stone (10Km) @ 53.30/1Cum		= 58.63
		123.35/1 Cum

4. Clearing light Jungle = 1.88.

DETAILED CUM ABSTRACT ESTIMATE FOR CONSTRUCTION OF OFFICERS QUARTER FOR N.A.P. NALGONDA.

Sl. No.	Description of item.	No.	L	B	D	Qty	Rate	Amount
1	2	3	4	5	6	7	8	9
1.	Earth work excavation in H.G.soils for foundations with initial ~~xxx~~ lead and lift as per standard specification							
	Alround Building	1x1	47.28	1.20	1.20	68.083		
	C/W between drawing room and kitchen, Dining	1x1	8.18	1.20	1.20	11.779		
	C/W of Drawing room	1x1	3.34	1.20	1.20	4.809		
	C/W of Dining room Kitchen.	1x1	1.54	1.20	1.20	2.217		
	C/W of Bed room, Bath room.	1x1	7.75	1.20	1.20	11.160		
	L/W of Bath room	1x2	2.74	1.20	1.20	7.891		
	C/W of Bath room	1x1	1.24	1.20	1.29	1.786		
	L/W of Verandah	1x1	3.30	1.20	1.20	4.752		
	C/W of Varandah	1x1	1.50	1.20	1.20	2.150		
	Add for Projecting pillars.	1x2	0.34	1.24	1.20	1.011		
	Add for Steps in front.	1x1	2.00	1.20	0.15	0.360		
	Add for Steps in Read.	1x1	0.90	1.20	0.15	0.162		
				Total		116.132	134-20 / 10 cum.	1558-00
2.	Cement concrete (1:4:8) using of40mm guage H.G. broken metal including cost							

1	2	3	4	5	6	7	8	9
	and conveyance of all material and labour charges, water leads, curing for filling foundations as per standard specifications.							
	Alround	1x1	47.28	1.20	0.30	17.020		
	C/W between drawing, dining and Kitchen.	1x1	8.18	1.20	0.30	2.945		
	C/W of Drawing room	1x1	3.34	1.20	0.30	1.202		
	C/W of Drawing and Kitchen	1x1	1.54	1.20	0.30	0.554		
	C/W of Deb room A Bath	1x1	7.75	1.20	0.30	2.790		
	C/W of Bedhroom	1x2	2.74	1.20	0.30	1.972		
	C/W of Bath room	1x1	1.24	1.20	0.30	0.448		
	L/W of Verandah	1x1	3.30	1.20	0.30	1.188		
	C/W of Verandah	1x1	1.50	1.20	0.30	0.540		
	Add for projection in pillars	1x2	0.34	1.20	0.30	0.244		
	Add for steps in front	1x1	2.00	1.20	0.150	0.360		
	Add for steps in rear	1x1	0.90	1.20	0.150	0.162		
				Total		29.127	cum	533.30 / 1cum — 15693 / 00

3. R.R. Stone masonry in CM (1:5) using H.G. stone including cost and conveyance of all material, labour charges, curing etc, complete for filling of foundation as per S.S. for finished item of work.

1	2	3	5	4	6	7	9	10	8
1st FOOTING:									
		Around the building	1x1	47.20	0.90	0.45	19.110		
		L/W between drawing room and Kitchen	1x1	8.49	0.90	0.45	3.434		
		C/W of drawing room	1x1	3.61	0.90	0.45	1.424		
		C/W of Drawing room and Kitched	1x1	1.84	0.90	0.45	0.745		
		C/W of Bed room, A bath	1x1	8.05	0.90	0.45	3.260		
		L/W of Bath room	1x2	3.04	0.90	0.45	2.162		
		C/W of Bath room	1x1	1.54	0.90	0.45	0.623		
		L/W of Verandah	1x1	3.60	0.90	0.45	1.458		
		C/W of Verandah	1x1	1.80	0.90	0.45	0.729		
		Add for Projection of pillars.	1x2	0.34	0.90	0.45	0.275		
	2nd FOOTING								
		Around the Building	1x1	47.28	0.75	0.45	15.957		
		L/W Between Drawing room-Dining-Kitchen room	1x1	8.63	0.75	0.45	2.913		
		C/W Drawing room	1x1	3.79	0.75	0.45	1.279		
		C/W Drawing & Kitchen	1x1	1.99	0.75	0.45	0.672		
		C/W Bed room A Bath	1x1	8.20	0.75	0.45	2.767		
		L/W of Bath room	1x2	3.19	0.75	0.45	2.153		
		C/W of Bath room	1x1	1.69	0.75	0.45	0.570		
		L/W of Verandah	1x1	3.75	0.75	0.45	1.266		
		C/W of Verandah	1x1	1.95	0.75	0.45	0.658		
		Add for pillars.	1x2	0.34	0.75	0.45	0.230		
						Total	62.073 Cum	395.40 Cum.	24544 00

4. C.R.S. masonry in C.M 1:5 2nd sort using HG stone including C/C of all material labour charges, curing etc.,

1	2	3	4	5	6	7	8	9
	complete for finished item of work as per standard specification for Basement							
	Around the building	1x1	47.28	0.60	0.60	17.02		
	L/W between Drawing, Dining	1x1	8.61	0.60	0.60	3.10		
	C/W of Drawing room	1x1	3.90	0.60	0.60	1.41		
	C/W of Dining and Kitchen	1x1	2.14	0.60	0.60	0.77		
	C/W of Bed, Bath and Bed	1x1	8.35	0.60	0.60	3.006		
	L/W of Bath	1x2	3.34	0.60	0.60	2.404		
	C/W of Bath	1x1	1.84	0.60	0.60	0.662		
	L/W of Verandah	1x1	3.90	0.60	0.60	1.404		
	C/W of Verandah	1x1	2.10	0.60	0.60	0.756		
	Add for projection of pillars.	1x2	0.34	0.60	0.60	0.245		
	Add for steps front	1x1	2.00	0.90	0.20	0.36		
		1x1	2000	0.60	0.30	0.24		
		1x1	2.00	0.30	0.20	0.12		
	Add for steps Rear	1x1	0.90	0.90	0.20	0.162		
		1x1	0.90	0.60	0.20	0.108		
		1x1	0.90	0.30	0.20	0.054		
					Total	32.17 Cum	432.60 Cum	13917 00

5.	Flush pointing to basement with C.M.(1:3) to C.R.S. Masonry including C/C of all material, labour charges curing etc., complete for finished item of work							
	Altound the building.	1x1	48.94	-	0.60	29.364 Sqm	156.45 10Sqm	459 00

1	2	3	4	5	6	7	8	9
6.	Refilling the basement with excavated soils other than sand with watering and tamping complying to the standard specification.							
	Drawing room	1X1	5.24	3.94	0.44	9.29		
	Dining room	1X1	3.60	2.14	0.45	3.466		
	Kitchen room	1X1	3.34	2.14	0.45	3.216		
	Verandah	1X1	3.20	1.22	0.45	1.756		
	Bed room	1X2	3.34	3.94	0.45	11.843		
	Bath room	1X1	2.14	1.84	0.45	1.771		
	Hall	1X1	1.74	3.94	0.45	3.085		
				Total		34.627 Cum	56.45 10 cm.	195.00
7.	Super structure with brick masonry in C.M (1:6) using IInd class bricks including cost and conveyance of all material, labour charges scaffolding, curing etc., complete for finished item of work as per S.S.,							
	Alround the building	1X1	47.28	0.35	3.60	59.572		
	L/W between Drawing-Kitchen.	1X1	7.84	0.35	3.60	9.878		
	C/W of Drawing	1X1	4.20	0.35	3.60	5.292		
	C/W of Kitchen-Dining	1X2	2.40	0.35	3.60	6.048		
	C/W of Hall	1X1	6.51	0.35	3.60	8.202		
	C/W of Hall	1X1	2.10	0.35	3.60	2.646		
	Add for Brick pillars	1X1	0.35	0.35	3.60	0.441		

1	2	3	4	5	6	7	8	9
	Add for parapet wall	1X1	47.28	0.23	0.45	4.893		
						96.972 Cum		
a)	Deduct for Doors and windows							
	D	1X9	0.90	0.35	2.00	5.670		
	D_1	1X1	0.75	0.35	1.83	0.480		
	W	1X4	1.50	0.35	1.20	2.520		
	W_1	1X7	0.90	0.35	1.20	2.646		
	V	1X14	0.60	0.35	0.30	0.882		
	(Almirah) A	1X5	1.20	0.23	1.83	2.525		
						14.723 Cum		
b)	Deduct for Lintels over							
	D	1X9	1.38	0.35	0.15	0.552		
	D1	1X1	1.21	0.35	0.15	0.062		
	W	1X4	1.96	0.35	0.15	0.411		
	W2	1X7	1.36	0.35	0.15	0.499		
	A	1X5	1.66	0.35	0.15	0.435		
						2.059 Cum		
c)	Deduct for Bed blocks	2X9	2x23	2x35	2x15	2x211		
	D	2X9	0.23	0.35	0.15	0.211		
	D1	1X2	0.23	0.35	0.15	0.023		
	W	2X4	0.23	0.35	0.15	0.093		
	W2	7X2	0.23	0.35	0.15	0.164		
	A	2X5	0.23	0.35	0.15	0.120		
						0.611 Cum		
	Total Deductions =			17.382 Cum		79.590 Cum	586.70 cum	46695 00
	Net quantity of Brick work							

1	2	3	4	5	6	7	8	9
8.	R.C.C. (1:2:4) mix prop. using 20mm HG crushed metal including cost and conveyance of all material labour charges, curing, watering centering, including cost and fabrication of steel as per S.S.,							
a)	For Lintels over							
	D	1X9	1.36	0.35	0.15	0.642		
	D1	1X1	1.21	0.35	0.15	0.062		
	W	1X4	1.96	0.35	0.15	0.411		
	W1	1X7	1.36	0.35	0.15	0.499		
	A	1X5	1.66	0.35	0.15	0.435		
						2.049 Cu.m	1206.35 Cu.m	2472.00
b)	For Bressumer for verandah							
		1X1	1.67	0.23	0.15	0.130		
		1X1	3.82	0.23	0.15	0.30		
						0.43 Cum	1206.35 Cu.m	519.00
9.	C.C. (1:2:4) for Bed blocks using HG metal including C/C of all material, labour curing etc., complete for finished item of work.							
	Qty. as per item No.7(C)					0.611 Cum	1206.35 Cu.m	737.00

1	2	3	4	5	6	7	8	9
10.	R.C.C. (1:2:4) mix using 20mm HG crushed metal including C/C of all materials, labour charges centering, curing but excluding cost of steel and its fabrication for sun shades of 0.60cm projection beyond face of wall as per S.O.,							
	On windows	1X1	4.30	-	-	4,30		
	From Portion	1X1	2,00	-	-	2,00		
	Windows W	1X2	1,96	-	-	3,92		
	Windows W1	1X6	1,36	-	-	8,16		
	Verandah	1X1	3,60	-	-	3,60		
	Add for shelves	5X3	1.35	-	-	20,25		
						42,23 Rmt	55.55 R.M.	2346.00
12.	R.C.C. (1:2:4) mix using 20mm guage HG metal including cost and conveyance of all materials, labour charges, curing, centering for Roof slab.							
	Dining, Kitchen, Drawing	1X1	8.18	7,83	0,125	7,792		
	Verandah	1X1	3,80	1.60	0,125	0,760		
	Hall	1X1	2,44	2,44	0,125	0,744		
	Bath & Bed room	1X1	4.20	11.86	0,125	6,236		
						15,492		
	Deduct for open portion	1X1	3.20	2,00	0,125	0,800		
			Net quantity			14,692 Cum	1244.20	18280 00

1	2	3	4	5	6	7	8	9
12.	Plastering with C.M(1:3) 12mm thick including cost and conveyance of all material, labour charges, curing with all water leads, as per S.S. for finished item of work for ceiling.							
	Drawing	1X1	8.50	4.80	-	23.30		
	Dining	1X1	3.90	2.40	-	9.360		
	Kitchen	1X1	3.60	2.40	-	8.64		
	Verandah	1X1	3.60	1.80	-	6.41		
	Bed	1X2	3.60	4.20	-	30.24		
	Bath	1X1	2.40	2.10	-	5.04		
	Corridor	1X1	2.78	0.90	-	2.50		
	Hall	1X1	2.00	4.20	-	8.40		
						93.762		
	Deduct for opening	1X1	3.20	2.00	-	6.400		
				Net		87.362 Sqm	215.10 10 sq.m	1879 00

13.	Impertious coat over R.C.C. roof slab with C.M. (1:3) 12mm thick with, Accoproof powderxx at 1Kg 1 Bag of cement including cost and conveyance of all material, labour charges, curing with all water leads for finished item of work as per S.S.,							
	Dining-Kitchen-Drawing	1X1	8.18	7.62	-	62.33		
	Verandah	1X1	3.80	1.60	-	6.080		
	Hall	1X1	2.44	2.34	-	5.709		
	Bath and Bed	1X1	4.20	11.86	-	46.450	284.35 10 sq.m	3428 00
						120.571		

1	2	3	4	5	6	7	8	9
14.	Plastering in C.M(1:5) 12mm thick to inside walls including cost and conveyance of all material and labour charges, curing etc., complete for finished item of works as per standard specification.							
	Drawing	1X2	(5.50+4.20)		3.60	69.84		
	Dining	1X2	(3.9+2.40)		3.60	46.36		
	Kitchen	1X2	(3.6+2.4)		3.60	43.20		
	Hall	1X2	(2+4.2)		3.60	44.64		
	Bed	2X2	(3.6+4.2)		3.60	112.92		
	Carridor	1X2	(2.78+0)		3.60	20.02		
	Bath	1X2	(2.40+2.10)		3.60	32.40		
						367.77		
	Deductions D	1X6	0.90	-	2.00	10.80		
	D1	1X1	0.75	-	2.00	1.37		
						12.17	182.00	6472.00
	Net Quantity.					355.60 sq.m.	10.59M	
15.	Plastering with C.M(1:4) 12 mm thick for outside walls including cost and conveyance of all material, labour curing etc., complete for finished item of work as per S.S.,							
	Drawing & Dining	1X1	7.62	-	3.60	27.432		
	Drawing & Dining	1X1	5.84	-	3.60	21.024		
	Hall	1X1	2.00	-	3.60	7.20		
	Hall	1X1	2.00	-	3.60	7.20		
	Bed	1X1	4.28	-	3.60	15.40		
	Bed-Bath-Bed	1X1	11.95	-	3.60	42.60		
	Bed	1X1	4.28	-	3.60	15.30		

1	2	3	4	5	6	7	8	9
								9/E 139194.00
	Verandah	1X1	1.67	-	3.60	6.01		
	Verandah	1X1	3.47	-	3.60	12.492		
	Brick pillar	1X2	1.36	-	3.60	4.896		
	Add for parapet	1X1	47.28	1.3	-	53.426		
						214.624		
	Deduct D	1X3	0.90	-	2.00	5.40		
	W	1X4	1.50	-	1.20	7.20		
	W1	1X7	0.90	-	1.30	7.56		
						20.16		
	Net Quantity					194.46 Sqm.	130.15 Sqm.	3698.00
16.	Flooring with Shabad stone 40mm thick set in CM (1:6) over a bed of 10CM thick C.C. (1:5:10) and pointing with CM(1:3) including cost and conveyance of all material labour charges, curing etc, complete as per S.S. for finished item of work.							
	Qty. vide Item No. (13)					93.702 Sqm.	1179.40 Sqm	11058 00
17.	Supplying and fixing of best teak wood fully panelled Doors with all fixtures such as tower bolts, hingers, audrop etc, complete as per Drawings specifications in A.P.D.S.S and fixing in position.							
	D	1X9	0.90	-	2.00	16.20		
	D1	1X1	0.75	-	1.89	1.37		
						17.57 Sqm 189 1/2 sft	85.00 Sft.	16067.00

1	2	3	4	5	6	7	8	9
18.	Supplying and fixing of best teak wood windows duly fixed with 16mmØ M.S. rods at 10cm, C/C including fixtures, tower bolts handle etc, complete as per A.P.D.S.S.							
	W	1X4	1.50	-	1.20	7.20		
	W1	1X7	0.90	-	1.20	7.56		
						14.76 or 158.79 Sft.	82.00 Sft.	13019.00
19.	Supplying and fixing of R. .Jallies(0.60x0.30m)	1X14	-	-	-	14 Nos	50.00 P.R	700.00
20.	White washing with best shell-lime in two coats to the walls inside and ceiling including cost and conveyance of all material, labour charges for finished item of work as per S.S.							
	Qty. As per Item No (13) ceiling					87.36		
	Qty. As per Item No. (14)					355.60		
						442.96 Sqm.	16.50 to sqm	731.00
21.	Snowcem painting in two coats over priming coat including cost and conveyance of all materials labour charges, etc., complete.							

1	2	3	4	5	6	7	8	9
	Qty. as per Item No. (15)					194.46		
	Qty. as per ItemNo.(5)					29.36		
						223.82 Sqm	187.65 10 sqm	4200.00
22.	Painting to new wood work to Doors and Windows with ready mixed synthetic Enamel paint in two coats over priming coat including cost of a paint, labour charges, all incidental charges such as brushes snad papers etc., complete for finished item of work as per S.S.,							
	Doors D	9X2¼	0.90	-	2.00	36.45		
	D1	1X2¼	0.75	-	1.83	3.06		
	Window W	4X2 3/4	1.50	-	1.20	19.80		
	W1	7X2 3/4	0.90	-	1.20	20.79		
				Total		80.10 Sqm.	225.00 10 Sqm	1802.00
23.	Fabrication charges of steel including cost of binding wire for finished item of work as per drawings and Designs.					1.5 T	900.00 m.T	1350.00

1	2	3	4	5	6	7	8	9
24.	Cost and Conveyance of Steel					1.5 T	11000/- m.T	16500/
25.	Provision for water supply and sanitary installations					5%		10000.00
26.	Provision for Electrical fittings					10%		20000.00
27.	L.S. for other unforeseen items of work.					L.S		11681.00
				Officers Quarter Per no.			Rs.	250000.00

Rate for Sq.m (Average) $= \frac{250000}{103} = 2427.10$

Say Rs. 2430.00/Sq.m

MODEL DETAILED CUM ABSTRACT ESTIMATE FOR CONSTRUCTION OF O.H.S.Rs

Item	No	L	B	D	40000 OHSR			60000 OHSR			1.00 Lk Lts OHSR			1.5 Lk Lts OHSR		
					Qty	Rate Per	Amount	Qty	Rate Per	Amount	Qty	Rate Per	Amount	Qty	Rate Per	Amount
2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1. Earth work excavation and depositing as bank with initial lead of 50 m and lift of 2 m in hard gravelly soils as per S.S 205 for foundation																
i) for outer columns	1x4	2.00	2.00	1.50							24.00					
ii) for inner columns	1x4	2.00	2.00	1.50	14.42 Cum	134.30 / 10 Cum	194.00	17.34 Cum	134.30 / 10 Cum	233.00	24.00			74.73 Cum	134.30 / 10 Cum	1004.00
											48.00 Cum	134.30 / 10 Cum	645.00			
2. Laying of Plain cement concrete (1:4:8) processing 40 mm H.G. metal including c/c of all materials and labour charges mixing water lead, tamping & and other incidental or operational charges etc., complete for foundation bed.																
i) for Outer columns	1x4	2.00	2.00	0.30							4.80					
ii) for inner columns	1x4	2.00	2.00	0.30	2.883 Cum	533.30 / 1 Cum	1538.00	3.468 Cum	533.30 / 1 Cum	1850.00	4.80			11.21 Cum	533.30	5979.00
											9.60 Cum	533.30 / 1 Cum	5120.00			
3. RCC (1:1½:3) Prop. using 20 mm H.G metal of granite variety obtained by blasting including c/c of all materials and labour charges mixing water lead, curing etc., complete for finished item of work as per S.S. for footings																

2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
i) For base	1x4	1.70	1.70	0.15	1.734			1.176			1.734 Cum					
ii) For Trapezoidal portion	1x4	$0.36\frac{(1.7^2+0.4^2)}{2}+4\frac{(1.2^2+0.4^2)}{2}$			1.46 Cum	1333.10 / 1Cum	1946.00	0.33 / 1.406 Cum	1333.10 / 1Cum	2008	2.135 Cum					
For inner columns																
i) For base	1x4	1.70	1.70	0.15							1.734 Cum					
ii) For trapezoidal portion	$1x4\frac{0.36}{6}$	$\frac{(1.70^2+0.4^2)+4(1.2^2+0.4^2)}{2}$									2.135					
											7.738 Cum	1333.10 / 1Cum	10316	10.72 Cum	1333.10 / 1Cum	14291.00
iii) Ring beam														3.77 Cum	1333.10 / 1 Cum	5026.00
4. V.R.C.C(1:1½:3) prep. using 20 mm H.G metal granite variety obtained by blasting including c/c of all materials and labour charges mixing, water lead and curing etc., complete for finished item of work as per S.8 for columns for outer columns.																
i) below ground level	1x4	0.30	0.30	0.70							0.252 Cum					
ii) 0 to 5 mt.	1x4	0.30	0.30	5.00	2.124 Cum	2007.90 / 1 Cum	4265.00	2.106 Cum	2007.90	4229	1.80 Cum	2007.90 / Cum	4120	2.16 Cum	2007.90 / Cum	4237.00
iii) 5 to 8 m	1x4	0.30	0.30	3.00	1.08 Cum	2022.75 / 1 Cum	2185.00	1.08 Cum	2022.75 / 1 Cum	2185	1.08 Cum	2022.75 / Cum	2185	1.08	2022.75 / Cum	2185.00
iv) 8 to 9.05 m	1x4	0.30	0.30	1.05	0.36 Cum	2037.60 / 1 Cum	734.00	1.08 Cum	2037.06 / 1 Cum	2201	0.378 Cum	2037.60 / Cum	770	0.378	2037.60 / Cum	771.00
For inner columns																
i) below ground level	1x4	0.30	0.30	0.70							0.252 Cum					
ii) 0 to 5 m	1x4	0.30	0.30	5.00							1.80	2007.90 / Cum	4120	2.82 Cum	2007.90 / Cum	5663.00
iii) 5 m to 8m	1x4	0.30	0.30	3.00							1.08 Cum	2022.75 / Cum	2185	1.47 Cum	2022.75 / Cum	2974.00
iv) 8.m to 9.15m	1x4	0.30	0.30	1.15							0.414 Cum	2037.60 / Cum	844	0.612 Cum	2037.60 / Cum	1247.00

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
5.	V.R.C.C (1:1½:3) prop. using 20 mm H.G. metal with required quantity of steel including c/c of all materials, labour charges, curing water lead, centering charges incidental charges etc., complete but excluding cost of steel and its fabrication charges for finished item of work as per S.S for braces.																
	1. for outer columns																
	i) below ground level	1x4	5.22	0.25	0.45							2.35 Cum			4.761 Cum	1946.00 / Cum	9269.00
	ii) 0 to 5 mt	1x4	5.22	0.25	0.45							2.35 Cum	1946.90 / Cum	9150			
	iii) 5 m to 8 mt.	1x4	5.22	0.25	0.45							2.35 Cum	1961.75 / Cum	4610	2.38 Cum	1961.75 / Cum	4669.00
	2. for inner columns																
	i) below ground level	1x4	2.53	0.25	0.45	2.02 Cum	1946.90 / Cum	3933.00	1.134 Cum	1946.90 / Cum	2208.00	1.14 Cum					
	ii) 0 to 5 mt.	1x4	2.53	0.25	0.45							1.14 Cum	1946.90 / Cum	4439	2.232 Cum	1946.90 / Cum	4346.00
	iii) 5 m to 8 mt.	1x4	2.53	0.25	0.45	1.01 Cum	1961.75 / Cum	1981.00	1.134 Cum	1961.75 / Cum	2225.00	1.146 Cum	1961.75 / Cum	2236	1.186 Cum	1961.75 / Cum	2189.00
6.	V.R.C.C (1:1½:3) prop. using 20 mm H.G. metal with required quantity of steel including c/c of all materials labour charges, curing, water lead, centering charges such as operational and incidental charges, etc., complete, but excluding cost of steel and its fabrication charges for finished item of work as per S.S. for bottom ring girder.																

2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
i) for outer columns	II	7.85	0.35	0.40							3.45 Cum			4.591 Cum	1837.95 Cum	8438.00
ii) for inner columns	II	4.00	0.30	0.30	1.03 Cum	1837.95 Cum	1893.00	1.31 Cum	1837.95 Cum	2408	1.13 Cum	1837.95 Cum	8418	1.429 Cum	1837.95 Cum	2627.00
7. V.R.C.C (1:1½:3) prop. using 20 mm H.G. metal with required quantity of steel including c/c of all materials and labour charges such as operational and incidental charges etc., complete but excluding cost of steel and its fabrication charges for finished item of work as per S.S for bottom slab.	II/4	8.2	-	0.30	4.78 Cum	1839.40 Cum	8892.00	5.30 Cum	1839.40 Cum	9749	15.84 Cum	1839.40 Cum	29136	17.59 Cum	1839.40 Cum	32355.00
8. V.R.C.C. (1:1½:3) prop. using 20 mm H.G. metal with required quantity of steel including c/c of all materials and labour charges, curing water lead, centering charges, such as operational and incidental charges etc., complete, but excluding cost of steel and its fabrication charges for finished item of work as per S.S. for cantilever slab.	II$	9.10	0.90	0.10							2.57 Cum	3025.70 Cum	7776	2.60 Cum	3025.70 Cum	7867.00
9. V.R.C.C (1:2½:3) prop. using 20 mm H.G. metal with required quantity of steel including c/c of all materials and labour charges, curing water lead, centering charges, etc., complete but excluding cost of steel and its fabrication charges for finished item of work as per S.S																

2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
for side walls																
ii Side walls																
i) 15 cms thick														1.536 Cum		
ii) 10 cms thick Ist step	1/11	8.10	0.10	2.15	3.76 Cum	2068.70 Cum	7778.00	5.26 Cum	2068.70 Cum	11088.00	5.47 Cum	2068.70 Cum	11316	1.782 Cum	2068.70 Cum	18714.00
IInd step														5.728 Cum		
10. V.R.C.C (1:1½:3) prop. using 20 mm H.G. metal with required quantity of steel including c/c of all materials and labour charges curing water lead, centering, charges, such as operational and incidental charges etc., complete, but excluding cost of steel and its fabrication charges for finished item of work as per 5.8 for inner columns in tank	1x4	0.30	0.30	1.95										0.396 Cum	2057.25 Cum	815.00
Ist step 9.9 to 11mts																
II_nd step 11 to 13.05 mts	1x4	0.30	0.30	1.95							0.70 Cum	2052.45 Cum	1437	0.738 Cum	2072.30 Cum	1530.00
11. V.R.C.C (1:1½:3) prop. using 20 mm H.G. Metal with required quantity of steel including c/c of all materials and labour charges, curing water, lead, centering charges such as operational and incidental charges etc., complete but excluding cost of steel and its fabrication charges for finished item of work as per 5.8 for top ring girder,	II	4.00	0.30	0.20		Cum		Cum	Cum		0.75 Cum	2087.55 Cum	1566	0.754 Cum	2087.55 Cum	1574.00
12. V.R.C.C (1:1½:3) Prop. using 20 mm H.G. metal with required quantity of steel including c/c of all materials and labour charges, curing, water, lead centering,																

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
	charges such as operational and incidental charges for finished item of work as per S.S. for top slab.	$\frac{\pi}{4}$	8.5^2	-	0.15	2.382 Cum	1855.30 Cum	1853	2.37 Cum	1855.30 Cum	4397	8.51 Cum	1855.30 Cum	15789	8.47 Cum	1855.30 Cum	15715.00
13.	Refilling the foundation and basement with excavated soils,(other than sand) complying with standard specifications with watering, tamping, including breaking of clods etc., complete. Net quantity.		-	-	-	10.077 Cum	56.45 10 cum	57.00	10.99 Cum	56.45 10 Cum	62.00	48.00 Cum	56.45 10 Cum	271.00	48.28 Cum	56.45 10 Cum	273.00
14.	Supplying and fixing of R.C.C. pharial of 600 mm as per standard practice.	1 No.	-	-	-	1No.	808.00 Each	700.00	1 No.	700.00 E	700.00	1 No.	L.S	700.00	1 No.	700.00 Each	700.00
15.	S/F of ~~fix~~ ~~pumpfx~~ C.S light type manhole cover 600 mm ϕ	2 No.	-	-	-	1 No.	750.00 Each	750.00	1 No	750.00 E	750.00	1 No	L.S	1500.00	1 No.	750.00 E	750.00
16.	S/F of fly proof ventilatam with necessary copper wire.	2 No.	-	-	-	2No.	750.00 Each	750.00	1 No.	750.00 E	750.00	2 No.	L.S	1500.00	1 No.	750.00 Each	750.00
17.	S/F of R.C.C ladder of approved design 450 mm ϕ width inside.	1 No.	-	-	-	1 No.	2000.00 Each	2000.00	1No.	2000.00 E	2000.00	1 No.	L.S	2000.00	1 No.	2000.00 Each	2000.00
18.	S/F of R.C.C stairs cap outside the Tank	1 No.	-	-	-	1 No.	20000.00	20000.00	1 No.	20000.00 E	20000	1 No.	L.S	20000	1 No.	20000.00	20000.00
19.	S/F of water level indicator	1 No.	-	-	-	1 No.	3000.00 E	3000.00	1 No.	3000.00 E	3000-00	1 No.	L.S	3000.00	1 No.	3000.00 E	3000.00
20.	S/F of lightening arestor of approved practice.	1 No.	-	-	-	1 No.	6000.00 E	6000.00	1 No.	6000.00 E	6000.00	1 No.	L.S	6000.00	1 No.	6000.00 E	6000.00

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	18	18
21.	G.I. Hand railing with M/S angular iron at top all round the tank including c/c of all materials and labour charges, placing in position, centering and curing etc., complete its fabrication charges aws per drawing L.S -		-	-	-	1 No.	5000.00	5000.00	1 No.	5000.00	5000.00	-	L.S	5000.00	1 No.	5000.00	5000.00
22.	Painting with snow cem of approved colour, three coats over a primary coat including c/c of all materials labour charges etc., complete		-	-	-	181.73 / Sqm	187.65 / 10 Sqm	3410.00	187.20 Sqm	187.65 / 10 Sqm	3513.00	446.33 Sqm	187.65 / 10 Sqm	8748.00	490.874 Sqm	187.65 / 10 Sqm	92.02
23.	Provision for GI/CI pipe connection for inlet and outlet, overflow scan arrestor arrangements including sluice valves, wheel duct foot, bends, ball mounths bends, etc., complete.		-	-	-	L.S	50000.00	50000.00	L.S	50000.00	50000.00	L.S	-	50000.00	L.S	50000.00	50000.00
24.	Provision for fixing charges for pipes specials accesseries, wheel, valves, sluice valves, threading charges and other labour charges c/c of all materials and all labour charges etc., complete.		-	-	-	LS	6000.00	6000.00	L.S	6000.00	6000.00	-	L.S	6000.00	L.S	6000.00	6000.00
25.	Provision for lettering with paint of approved colour as suggested by department Officer etc., complete.		-	-	-	L.S	2000.00	2000.00	L.S	2000.00	2000.00	-	L.S	2000.00	L.S	2000.00	2000.00
26.	Provision for drain, near scour over flow arrangements and fixing at site of necessary and bridge on edge and in cm(1:6) near pipe cap etc., complete.		-	-	-	L.S	2000.00	2000.00	L.S	2000.00	2000.00	-	L.S	2000.00	L.S	2000.00	2000.00
27.	Cost of steel and conveyance		-	-	-	2.00 MT	11000.00 / MT	22000.00	2.40 MT	11000.00 / MT	26400.00	7.00 MT	11000.00 / MT	77000	10 MT	11000.00 / MT	11000
28.	Fabrication charges of steel including cost of building wire and placing in position etc., complete.		-	-	-	2.00 MT	900.00 / MT	1800.00	2.40 MT	900.00 / MT	2160.00	7.00 MT	900.00 / MT	6300	10 MT	900.00 / MT	9000.00
29.	Provision for unforeseen items such clearing and levelling the site to the required level etc., complete & ecelation etc.,		-	-	-	L.S	-	17441.00	-	-	34326.00	-	L.S	81801	-	-	70298.00
								180000.00			210000.00			400000.00			450000.00
		UNIT PRICE						4.50/Lit.			3.50/Lit			4.00/Lit			3.00/Lit

MODEL DETAILED CUM ABSTRACT ESTIMATE FOR CONSTRUCTION OF R.C.C. G.L.S.R OF

Description of work	No.	L	B	D	10,000 litres capacity Qty	Rate per	Amount	30,000 lts. capacity Qty	Rate per	Amount	60,000 lts. capacity Qty	Rate per	Amount	1.50 lakhs lts. capacity Qty	Rate per	Amoun
2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Earth work Excavation in foundation and depositing on bank with initial lead of 10 mts. and lift of 2 mts. in loamy and clay soils like B.C.kea earth and ordinary gravels including bailing out of water etc., complete as per S.S. 208		2.75	0.90	0.90	9.67 Cum	134.30	94.00	6.13 Cum	134.30 10 Cum	82-00	14.92 Cum	134.30 10 Cum	200-00	18.56 Cum	134.30 10 Cum	249-00
laying of plain cement concrete (1:4:8) mix using 40 mm H.G. metal of trop variety obtained by blasting including cost and conveyance of all material and labour charges, watering, tamping, curing, mixing charges etc., complete for finished Item of work as per S.S. for foundation bed.	11x	2.75	0.90	0.30	3.22 Cum	533-30 Cum	1243.00	6.13 Cum	533-30 Cum	3269-00	14.92	533.30 Cum	7957.00	23.02	533.30 Cum	12277/
R.R. Stone masonry in Cement mortar (1:5) using H.G.stone including cost and conveyance of all material and labour charges such as mortar mixing, curing, watering and other incidental and operational charges for finished item of work as per S.S. for filling foundations.	11x	2.75	0.60	0.60	4.29	395.40	1236-00							10.71	395.40	4235/-

2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
4 C.R.S. masonry in C.M (1:5) using 2nd sort H.G. stone including cost and conveyance of all materials and labour charges at site such as mixing mortar, curing watering and other incidental and operational chargesfor finished item of work as per S.S. for basement		$\pi \times 2.75$	0.45	0.50	2.41 Cum	432.60	841-00							13.32	432.60	5762/
5 Refilling the basement and foundation with the excavated soils other than sand complying to the standard specification including watering tamping and breaking of clods and all labour charges etc., complete.		$\frac{\pi}{4} \times 2.3^2$		0.50	2.077 Cum	56-45	12-00									
6 Laying of plain cement concrete (1:4:8) mix using 40 mm HG metal of trap variety obtained by blasting including cost and conveyance of all material and labour charges, curing tamping mixing etc., complete for finished item of work as per S.S. for bottom flooring.		$\frac{\pi}{4} \times 3.2^2$		0.15	2.12 Cum	533-30	645-00									
7 V.R.C.C. (1:1½:3) prop. using 20 mm H.G. metal with required steel quanity including cost and conveyance of all material and labour charges curing mixing, centering charges such as incidental and operational charges etc., complete but excluding cost of steel and its fabrication chargesetc for floor slab as per S.S.		$\frac{\pi}{4} \times 3.2^2$		0-10	1.41	1245.40	1001.00	2.04	1245.40	2541.00	4.14	1245.40	5156.00			

A68

Contd...Page...2.

2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
V.R.C.C. (1:1½:3) Prop. using 20 mm H.G. metal wi with required quanity of steel including cost and conveyance of all material and labour charges, curing mixing centering charges such as incidental and operational charges etc., complete but excluding cost of steel and fabrication charges for side walls as per standard specifications.		π x3.10	0.10	1.75	3.24 Cum	2522.40	4288.00	4.34 Cum	2522.40	10947 00	5.126	2522.40	129301 00	11.179	2522 00	28198/-
V.R.C.C. (1:2:4) prop. using 20 mm H.G.metal with required steel quantity including cost and conveyance of all materials and labour charges, mixing centering charges incidental and operational charges etc., complete but excluding cost of steel and its fabrication charges for Top roof slab as per S.S.		π x 3.4^2	-	0.10	0.908	1244.20	1097.00							6.30	1244.00	7830.00
Deduct for manhole cover		π x 0.6^2		0.10	1.519 / 0.882 Cum											
Flush pointing in C.m (1:3) 12 mm thick to C.Rs , masonry including cost and conveyance of all material labour charges, curing, watering lead etc., complete for basement.		π x 3.2	-	0.35	4.67 sqm	156.45	55-00									

2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
V.R.C.C. hand railing with VRCC posts at top alround the tank including c/c of all material, labour charges placing in position cemearing and curing etc., complete but excluding cost of steel and fabrication charges as perdrawing posts at 1.5m intervals Railing @ 0.3m intervals.					L.S	-	750.00	L.S	-	750.00	L.S		1000.00	L.S		750-00
Snow cem painting in two coasts even primary coat including cost and conveyance of all material and labour charges etc.,complete for finished item of work as per S.S.																
Basement		πx3.2	- 0.35	3.52												
Side Walls		πx3.2	- 1.75	17.50												
Top slab		πx0.6^2	- -	11.00												
				32.02 Sqm												
Deduct for manhole cove		πx0.6^2		0.28												
				34.71 sqm	187.65	596.00	52.11 / sqm	187.65 / 10 sqm	978.00	92.62 sqm	187.65 / 10 sqm	1738.00	167.700 / sqm	187.65 / 10 sqm		3147.00
Earth work excavation for foundation and depositing on bank with initial lead of 10m and lift of 2m in loamy and clay soils like B.C.Red soils and ordinary grabel soils etc., complete for plat form alround the tank.		πx 4.35	1.00 0.15	2.54	86.80 / 10 Cum	18.00										

2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
laying of plain cement concrete (1:4:8) prop. using 40 mm H.G. metal of trap variety obtained including cost and conveyance of all material and labour charges watering curing, mixing tamping with all water leads etc., complete for finished item of work as per S.S. for platform		πx4.35	1.00	0.15	2.54 Cum	533.30	1093.00									
laying of plain cement concrete (1:2:4) prop. using 20 mm H.G metal including cost and conveyance of all materials, labour charges, curing, mixing water lead tampingetc., complete for finished item of work for platform.		πx4.275	1.075	0.15	2.164											
for Tim of platform (Korb) outside		π x5.15	0.10	0.10	0.165	1206.35	2810.00									
					2.65 Cum											
Supplying and 9fixing of R.C.C. phenial 600 mmØ as per standard specifications.	1 No.					L.S	700-00	L.S	-	700	L.S	-	700.00	L.S	-	700-00
Supplying and fixing of C.I. light type manhole cover with frame of 600 mmØ	1 No.					L.S	500.00	L.S.	500 each	1000	L.S		750.00	L.S.	500 each	1000-00
Supplying and fixing of fly proof ventilators with necessary copper wire.	2 Nos.					L.S.	1000.00	L.S.	500 each	1000	L.S.	500 each	1000.00	L.S.	500 each	1000.00
Supplying and fixing of M.S.pipe ladder 40 mm Ø with 300 mm width and G.I.Pipes 3/4" steps at 0.3m o/c																

2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
including cost and conveyance cutting, welding and all labour charges etc., complete and embedded and bottom flooring and top slab outside.	1 No.					L.S	2000.00	L.S.		2000.00	L.S		3000.00	L.S.		3000.00
20 Supplying of RCC inside ladder.	1 No.					L.S.	1000.00	L.S.		1000.00				L.S.		1000.00
21 Provision for GI/CI pipe specials connecting for inlet, outlet overflow, and scour arrangements, duck foot bends etc., complete.						L.S.	7500.00	L.S.		7500.00	L.S.		10000.00	L.S.		10000.00
22 Provision for fixing charges of C.I. inlet outlet pipes etc., complete.						L.S.	750.00	L.S.		750.00	L.S.		750.00	L.S.		750.00
23 Provision for lettering with painting of approved colours.						L.S.	750.00	L.S.		750.00	L.S.			L.S.		750.00
24 Supplying and fixing of water level indicator of approved paptern with necessary wire gauge pully including cost and conveyance of all material and labour charges etc., complete.	1 No.					L.S.	500.00	L.S.		500.00	L.S.		500.00	L.S.		500.00
25 Cost and conveyance of steel used for R.C.C. items of work.					0.90 MT	11000/MT	9900.00	0.40 MT	11000/MT	4400.00	500Kg	11000/MT	5500.00	2.284 MT	11000 MT	25124.00

2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Fabrication charges of steel including cost of binding wire and placing in position etc., complete.					0.90 MT	900/MT	810.00	0.40 MT	900/MT	360.00	500Kgs	900/MT	450.00	2.284 MT	900/MT	2056.00
Provision for unforseen items like plastering etc.					L.S.		2147.00	L.S		6572.00	L.S		12133.00	L.S.		41601.00
		Total cost of					35000.00			50000.00			70000.00			175000.00

1	2	3	4	5	6	7	8	9
	b) ii) Steing upto GL & 30 Cm above GL.	$\frac{22}{7}$	10.15	x 0.25	x 4.30	34.25	2522.40	86417/-
4.	RCC (1:4:8)) mix for 20mm guage trap crushed metal including C/c of all materials and all labour charges etc., complete for dome top slab with 0.075 mts.	2xΠxRxHxT	2 x Π		x 9.10	x 1.50 x 0.075	= 6.43 Cm	
5.	RCC (1:1½:3) mix for top ring beam.	$\frac{22}{7}$	10.45	x 0.30	x 0.30	2.95	2087.55	6158/-
	Deduct Man lob cover	1x1	0.60	0.60	0.075	$\frac{0.30}{6.40}$	1855.30	11874/-
6	Supplying & Fixing of RCC Ladder inside 45Cm wide with steps 30 Cm C/C inside the sump for top of dome slab to floor slab duly embaded in CC bed including c/c of all materials labour charges etc., complete.	1 No.		1 no.			1200.00	2000/-
7.	S/F of fly proof ventilator with copper wire mesh of approved pattern			4 Nos.			400.00	3000/-
8.	S/F of C.I. light type man lob cover with frame 60 x 60 cm size in dome slab.			1 No.			500.00	750/-
9.	S/F of RCC phenoil 60 cm dia on top of slab of approved pattern.			1 No.			400.00	700/-
10.	Cost and conveyance of steel for RCC steming.			3.50 @ MT			11000.00	38500/-
11.	Fabrication charges of steel for RCC.			3.50 @ MT			900.00	3150/-
12.	L.S. for U/F item as per actual work done and inside plastering and for over flow inlet pipes etc.,						L.S.	25660/-
13.	Snow cem paint 3 coats for top dome, side wall above GLt etc.,			105.00 @ Sqm.			$\frac{187.65}{10\ Cm}$	1970/-
14.	Hand railing over top dome.			1 No.			L.S.	2000/-

1	2	3	4	5	6	7	8	9
	Provision for over flow and drainage pipe including drainage area U/S items and escalating.							27970/-
							Total Rs.	3,00,000-00

Unit prise = 0.75/litre.

MODEL DETAILED AND ABSTRACT ESTIMATE FOR THE WORK
CONSTRUCTION OF PUMP HOUSE OF SIZE 10 X 4 MTRS. @

Sl No.	Description of work.	No.	Measurements L	B	D	Qty	Rate Per	Amount
1.	2.	3.	4.	5.	6.	7.	8.	9.
1.	Earth work excavation in H.G.soils with an initial lead and lift including all labour charges etc., complete.							
	Long walls	1x2	11.25	0.90	1.20	24.30	134.20	
	Cross walls	1x2	3.45	0.90	1.20	7.45		
						31.75		426.00
2.	Laying of plain cement concrete bed (1:4:8) using 40 mm H.G. metal of trap variety obtained by blasting including C/C of all materials and all labour charges etc., complete for finished item of work as per S.S.for filling foundations.							
	Long walls	1x2	11.25	0.90	0.30	6.07		
	Cross walls	1x2	3.45	0.90	0.30	1.86		
						7.93 cum.	533.30	4229.00
3.	R.W.Stone masonry in c.m.(1:5) using H.G.stone including c/c of all materials and labour charges at site such as morter mixing,curing watering, and other incidental and operational charges for finishing item of work etc., complete.							

1	2.	3.	4.	5.	6.	7.	8.	9.
3.	Long walls	1x2	10.95	0.60	0.90	11.82		
	Cross walls	1x2	3.75	0.80	0.90	4.05		
						25.87 cum.	395.40	6275.00
4.	C.R.S.Masonry in CM(1:5) H.G. stone including c/c/ of all materials and labour charges at site such as moster,mising curing water lead etc., complete for finished item of work.							
	Long wall	1x2	10.80	0.45	0.60	5.83		
	Cross wall	1x2	3.90	0.45	0.60	2.10		
						7.93 cum.	432.80	3431.00
5.	Filling basement with excavated soils other than sand complying with S.S.							
	Room	1x1	9.90	3.90	0.45	17.37 cum.	56.45 cum.	98.00
6.	Brick masonry in cm(1:6) using 2nd class brick and all labour charges at site such as morter mixing,curing water lead etc., complete for finished item of work as per S.S.							
	Long wall	1x2	10.70	0.35	3.00	22.47		
	Cross wall	1x2	4.00	0.35	3.00	8.40		
						30.87		
	for parapet wall around.	1x1	29.88	0.23	0.30	2.06		
						32.93 cum.		
	DUDUCTIONS:							
	Qty of Lintal & bed	1x1	1.65	0.35	0.10	0.05		
	Windows	1x4	1.45	0.35	0.10	0.20		
	Openings Door	1x1	1.22	0.35	0.10	0.90		
	Openings Windows	1x4	0.30	0.35	0.45	0.18		
	Beams	2x2	0.30	0.35	0.15	0.06		
	Bed	1x6	0.30	0.35	0.15	0.09		
		4x4	0.30	0.35	0.15	0.25	3.41	
		Net Qty.	32.93	- 3.41	= 29.52	cum.	586.70	17319.00

1	2	3	4	5	6	7	8	9
7.	S/B of Door with best teak wood including wrought and put up etc., complete.	1x1	1.22	-	2.13	1 No or 2.50 Sqm. or 28.00 Sft.	85.00 / 1 Sq.ft.	2380.00
8.	S/F of RCC jally ventilators including c/c of all materials and all labour charges etc., complete.	1x4	0.45	-	0.30	4 Nos	30.00 / Each	120.00
9.	S/F of fully panelled windows made of teak frame with shutters and fixing of 15 mm Iron roads 10 cm c/c including c/c of all materials and labourcharges etc., complete.	1x4	1.00	-	1.20	4.32 sqm. or 52.00 sq.ft.	82.00 / Each.	4264.00
10.	Concrete cement(1:2:4) using 20 mm H.G.metal including c/c of all materials and labour charges etc. complete for bed beam							
	For doors	1x6	0.30	0.35	0.15	0.09		
	For Windows	4x4	0.30	0.35	0.15	0.25		
	For Beaming	4x2	0.30	0.35	0.15	0.16		
						0.40 cum.	1206.35	483.00
11.	RCC (1:2:4) prop.using 40 mm H.G.Metal and required quantity of slace including c/c of all materials and labour charges etc., complete such as centering,mixing,laying curing,water lead and other operational charges excluding cost of steel for Lintels.							
	Doors	1x1	1.65	0.35	0.10	0.05		
	For Windows	1x4	1.45	0.35	0.10	0.20		
						0.25 cum.	1206.35	302.00

1.	2.	3.	4.	5.	6.	7.	8.	9.
12.	RCC(1:2:4) using 20 mm H.G.Metal including c/c of all materials and all labour charges etc., complete for Survey shades of 0.60 mtrs. Projection excluding constrcting steel & its fabrication.							
	for Doors	1x1	1.65	-	-	1.65		
	for Windows	1x4	1.45	-	-	5.80		
						7.45 Rmt.	55.55 / 1 Rmt.	414.00
13.	RCC (1:2:4)using 20 mm H.G.Metal including c/c all materials and labour charges using 100 Kgs. of steel but excluding cost of steel and fabrication charges.							
	for T beams	1x2	4.70	0.30	0.85	1.269 cum.	1206.35 / 1 cum.	1531.00
14.	RCC (1:2:4) using 20 mm H.G.Metal including c/c of all materials and labour charges etc., using 80 Kgs. of steel but excluding cost of steel and fabrication for roof slab 0.114 mtrs. thick.	1x1	11.90	5.90	0.114	8.00 cum.	1244.20 / 1 cum.	9954.00
15.	Impeaving coat plastering with CM(1:3) 12 mm thick using 1 Kg of Acco proof powder per bag of cement including curing water lead and all materials etc., complete.							
	Rog slab	1x1	11.90	5.90	-	70.21 Sqm.	284.35 / 10 Sqm.	1996.00
16.	Plastering with CM(1:4)12mm thick including c/c of all materials, labour charges, curing scaffolding water lead etc.,complete							
	Outside alround	1x1	30.80	-	3.30	101.64		
	Top of parapet	1x1	29.88	0.23	-	7.47		
	Inside parapet	1x1	28.96	-	0.23	6.66		
						115.77		

1	2	3	4	5	6	7	8	9
16.	DEDUCTIONS							
	Doors	1x1	1.22	-	2.13	5.19		
	Windows	1x4	1.00	-	1.20	4.80		
	Ventilators	1x4	0.45	-	0.30	0.54		
						10.53	190.15	2001.00
	Net quantity = 115.77 - 10.53 = 105.24 Sqm.							
17.	Plastering with CM(1:5) 12 mm thick including c/c of all materials and all labour charges etc., for inside wall.							
	Inside room	1x1	28.00	-	3000	84.00 Sqm.	182.00	1529.00
18.	Plastering with CM(1:3) 12 mm thick including c/c of all materials and all labour charges etc.,							
	Ceiling	1x1	10.00	-	4.00	40.00 Sqm.	215.10	860.00
19.	Flooring with cement concrete(1:5:10) using 40 mm H.G.Metal 100 mm thick and top plastered with CM(1:4) 12 mm thick including c/c lf all materials and all labour charges.	1x1	10.00	4.00	-	40.00 Sqm.	661.25	2645.00
20.	Pointing with CM(1:3) to CRS Masonry for basement cost and conveyance of all materials and labour charges etc.,complete							
	Alround.	1x1	31.20	-	0.60	18.72 Sqm.	156.45	293.00
21.	Painting to Doors and Windown with best enamel paint in two coats including c/c etc., complete.							
	Doors.	1x2¼	1.22	-	2.13	5.84		
	Windows	4x23/4	1.00	-	1.20	13.20		
						19.04 Sqm.	225.00 / 10 Sqm.	428.00

1	2	3	4	5	6	7	8	9
22.	White washing in two coats with best shell line including c/c of all materials & labour charges etc.,							
	Qty. as per item no.18 & 19					124.00 Sqm.	16.50 / 10 Sqm.	205.00
23.	Colour washing to basement and outside walls with gray colour including c/c of all materials and labour charges etc.,							
	Qty. as per painting item no. 16 + 20.					123.96	24.75	307.00
24.	Provision for Electrification including rain water spouts.						LS	500.00
25.	Provision for I.S.S.M.B. 200 girder for lifting the pumps and lowering the pumps.	2 Nos	4.60	25.40	-	233.68	L.S.	5000.00
26.	Cost and conveyance of Steel.						500 Kgs.	5500.00
27.	Fabrication charges of Steel.					500 Kgs.	900.00 / MT.	450.00
28.	L.S. for Filter u/s item.						L.S.	7060.00
						TOTAL:		80000.00

10 x 4 mtrs. size pump room = ~~Rs.~~

Rs. 80,000.00

ANNEXURE-7b

MODEL DATA SHEET

Sl. No.	Quantity	Description of work	Rate	Per	Amount
1	2	3	4	5	6
1.	10.00 Cum	Earth work excavation in foundation and depositing on bank in all available soils like hard stiff clay soils like ordinary gravel soils with initial lead of 10 M and lift of 2M including bailing out of water and all labour charge etc., complete. Add 3 extra leads 3x340.	89.51	10 Cum	89.51
2.	1.00 Cum	Laying of plain cement concrete bed (1:5:10) using 40 mm HB metal of trap variety obtained by blasting including cost & conveyance of all materials and labour charges tamping, complete for finished item of work as per S.S for filling foundation.			
	0.90 Cum	Cost of 40 mm HB metal & conveyance	119.29	Cum	107.36
	0.46 Cum	Cost of sand and conveyance	41.66	"	19.15
	0.132Cum	Cost of cement & Conveyance	1900.00	MT	250.80
	0.46 Cum	Hand mixing charges	8.82	Cum	3.57
	0.06 Nos.	Ist class mason	38.64	Each	2.31
	0.14 Nos.	IInd class mason	29.10	"	4.37
	1.180 Nos.	Man mazdoor	22.53	"	26.58
	1.40 Nos.	Woman mazdoor	22.53	"	31.54
		13% labour importation			19.20
				Sundries	8.05
					471.10
		13% labour importation Sundries on 81.34.			
3.	1.00 Cum	Laying of plain cement concrete bed (1:4:8) using 40 mm HB metal of trap variety obtained by blasting including cost and conveyance of all materials and labour charges tamping, watering, curing mixing etc., complete for item of work as per S.S for filldation			
	0.90 Cum	Cost of 40 mm HB metal	119.29	Cum	107.36
	0.46 Cum	Cost and conveyance of sand	41.66	"	19.15
	0.155 MT	Cost of cement & conveyance	1900.00	MT	315.40
					441.91

1	2	3	4	5	6
	0.46 Cum	Hand mixing charges	5.83		2.67
	0.06 Nos.	Ist class masons	38.64		2.31
	0.14 Nos.	IInd class masons	29.20		4.07
	1.80 Nos.	Man mazdoor	22.53		40.55
	1.40 Nos.	Woman mazdoor			31.53
					10.20
		13% labour importation			533.30
4.1.00	Cum	R.R stone masonary in CM (1:5) using HG stone including cost and ~~xxxxx~~conveyance of all material and labour charges at site such tar mixing laking, watering and other incidental and operational charges for finished item of work.			
	1.10 Cum	Cost of R.R stone and conveyance	53.30	Cum	58.63
	0.34 Cum	Hand mixing charges	5.83	"	1.98
	0.34 Cum	Cost of sand and conveyance	41.66	"	14.16
	0.097 MT	Cost of cement and conveyance	1900.00	MT	184.30
	0.54 Nos.	Ist class masons	38.04		20.55
	1.26 Nos.	IInd class masons	29.10		36.66
	1.40 Nos.	Man mazdoor	22.53		63.09
	1.40 Nos.	Woman mazdoor			
					15.00
		13% labour importation Sundries			0.05
					333.10
	1.10	Scaffolding charges for stone			
	0.34	1.10 RR accecharges			
		13% for labour inportation on 134.06			
5.	10.00 Cum	Reffilling the foundation and basement with excavated and other than sand complying with standard specification including watering, tampering and breaking of clods and all labour charges etc., complete.			83.71
		1/2 the rate of E/W excavation			43.36
		add for watering and tamping			13.07
		Diff: SS20A and 20B			56.45
6.	100 Cum	C.R.S masonary in CM (1:5) 2nd in basement using HG stone including cost and conveyance of all materials and labour charges at site as mixing mortar, curing watering and other including and operational charges for finished item of work per S.S			

A84

1	2	3	4	5	6
6.					
	0.60 Cum	Cost of cut stone &conveyance	90.60		51.36
	0.50 Cum	Cost of R.R. Stone and conveyance	53.30		26.65
	0.32 Cum	Cost of sand zand conveyance	41.66		13.33
	0.75 Nos.	Ist class mason	38.65		28.98
	0.092 MT	Cost of cement conveyance	1900.00		174.80
	0.320 Cum	Hand mixing charges	5.83		1.85
					292.53
	1.75 Nos	IInd class masons	29.11	Each	50.94
	1.10 Nos	Man mazodoor	22.53	"	63.28
	1.10 Nos.	Woman mazdoor			
		13% labour importation Sundries			17.39
					410.01
					702.60
	1.60	Scafolding & charges			
	1.50	0.32 gage stone			
7.		Super structure with brick on C.M (1:5) prop. using bricks including cost and of all materials and labour scafolding, curing charges with complete for finished item for S.S			
	5.12 Nos.	Cost of bricks and conveyance	660.38	1000 No	338.11
	0.28 Cum	Cost of sand and conveyance	41.66		11.66
	0.28 Cum	Hand mixing charges	5.83		1.62
	0.06 MT	Cost of cement and conveyance	1300.00		127.20
	0.42 Nos.	Ist class brick layer	38.64		16.22
	0.20 Nos.	IIAd class brick layer	29.10		20.51
	0.70 Nos.	Man mazdoor	22.53		
	2.10 Nos.	Woman mazdoor	22.53		63.00
	5.12 No.	Sc charges for	8.38		
				Sundries	11.01
					596.70
8.	1.00 Cum	Cement concrete in CM (1:2:4) using 20 mm HB metal obtaining including cost and of all materials and labour charges.such as morcar mixing curing centering etc., complete for finished item of as per S.S			

1	2	3	4	5	6
	0.92 Cum	Cost of 20 mm HG metal & conveyance	241.38	Cum	22.06
	0.46 Cum	Cost sand and conveyance	41.66		19.16
	0.330 MT	Cost of cement and conveyance	1900.00		627.00
	0.460 Cum	Machine mixing charges	9.70		4.19
	0.12 Nos.	Ist class mason	38.64		4.63
	0.28 Nos.	IInd class mason	29.10		8.140
	2.10 Nos.	Man mazdoors	22.53		126.16
	3.50 Nos.	Woman mazdoor			
		13% labour importation			13.05
		38.93			1320.70
	0.92	Scavenge for 20 mm metal			
	0.40	" Sand			
9.	1.00 Cum	Cement concrete for bottom wear coat in (1:2:4) prop. using 20 m metal obtained by blasting including cost and conveyance of materials and labour charges mixing curing, centering etc., finished item of work as per S.S			1028.70
	1.00 Cum	Rate of (1:2:4) as per item No.			
	1.00 Cum	centering charges based on S.S.R 232-L-13	44.76	Sundries	44.76
					1073.50
10.	a)				
	1.00 Cum	Cement concrete in (1:2:4) prop. 20 mm HG metal including cost and conveyance of all materials and labour charges such mortar mixing centering etc., complete for filling item of work as per S.S for Bed			
	1.00 Cum	Rate of C.C (1:2:4) as item No.			1028.70
	1.00 Cum	Centering charges for bed block	177.62		177.62
	Lt			Sundries	0.03
					1205.35
11.	1.00 Cum	R.C.C (1:2:4) prop using 20 mm guage HG metal & required quantity of site including cost and conveyance of all materials and labour charges etc., plate such as centering, mixing, labouring water lead & other operational & including charges but excluding of steel and fabrication charges for linteris.			
	1.00 Cum	Cost of (1:2:4) item No. 8			1028.70
	1.00 Cum	Centering charges			177.62
					0.03
					1206.35

1	2	3	4	5	6
12.	1.00 Rmt	RCC (1:2:4) Prep using 20 mm HG metal 0.60 mt vide projection beyond face for chajjes with required quantity of including and other operation nal and incidental charges including curing water lead etc., complete for finish of work as per S.I.S. for SUN SHADES.			
	0.015	Cost of C.C(1:2:4) as per item No. 8			46.29
		Centering charges 1028.70 9.29 for Rmt	9.29 Sundries		0.02
					55.25
13.	1.00 Cum	RCC (1:2:4) prop. using 20 mm guage HG broken metal with required quantity of steel including cost and conveyance of all materials, labour charges curing watering lead centering charges such as operational and incidental charges etc., complete but excluding cost of steel and fabbication charges 11 mm thick SLAB			
	1.00 Cum	Rate of CC (1:2:4) as item No. 8			1028.70
	0.8663m	Centering charges 92.33	220.38	Cum	73.85
					0.04
					1102.55
14.	1.00 Cum	RCC (1:2:4) prop.using 20 mm guage broken metal with required quantity steel materials labour charge water lead centering charges operational and incidental charge complete but excluding cost its fabrication charges side walls (10 cm thick)			
	1.00 Cum	Rate of cc (1:2:4) as per item no. 8			1028.70
	0.8	Centering charges	92.33	Cum	73.85
					0.04
					1102.55
15.	10.00 Sqm	Impervious coat plastering with CM(1:3) 12 mm thick using 1 kg of A proof power per bag of cemenn-ting curing water lead and all material etc., complete for finished item work as per S.S			
	0.15 Cum	Cost of sand and conveyance	41.66		6.24
	0.15 Cum	Hand mixing charges	5.22		0.87
	0.072	Cost of cement and conveyance	1900.00		136.80
	0.33 Nos.	Ist class mansen	38.61		12.73
	0.77 Nos.	IInd class mansons	28.10		21.63

1	2	3	4	5	6
	0.50 Nos.	Man mazdeor	22.53		36.04
	0.10 Nos.	Woman mazdeor	22.53		
	1.51 Kgs.	Acceproof cement	40.00	Kg	60.00
		Scenarage charges for sand			9.75
	10.00 Sqm	Plastering with C.M(1:6) 12 mm including c/c of all material charges, curing scaffolding etc., complete for finished items.			
	0.15 Cum	Cost of sand and conveyance	41.66		6.24
	0.15 Cum	Hand mixing charges	5.82		0.87
	0.072 MT	Cost of cement & conveyance	1900.00		136.80
	0.33 Nos.	Ist class mason	38.64		12.75
	0.77 Nos.	IInd class mason	23.10		22.10
	0.50 Nos.	Manmazdoor	22.53		36.04
	1.10 Nos.	Womenmazdoor			
					213.10
18.	10.00 Sqm	Flush pinting to CRS masonary CM (1:3) prop. including cost and conveyance of all materials labour charges, curing water lead charges etc., complete as per S.S			
	0.60 Cum	Cost of Sand and conveyance	41.66		2.49
	0.06 Cum	Hand mixing charges	5.82		0.34
	0.029	Cost of cement and conveyance	1900.00		55.10
	0.48 Nos.	Ist class bricke layers	38.64		18.54
	1.12 Nos.	IInd class brick layers	23.10		30.59
	0.50 Nos.	Man mazdoor	22.53		36.59
	1.10 Nos.	Woman mazdoors	22.53		
		13% labour F			11.33
			Sundries		0.02
					156.35
17.	10.00 Sqm	Plastering with CM(1:4) 12 mm thick including cost and conveyance of all materials and labour charges curing, scaffolding, water lead etc., complete for finished item of work as per S.S			
	0.15 Cum	Cost of sand and conveyance	41.66		6.24
	0.15 Cum	Hand mixing charges	5.82		0.87
	0.05MT	Cost of cement and conveyance	1900.00		102.60
	0.33 Nos.	Ist class brick layer	38.64		12.75

1	2	3	4	5	6
	0.77 Nos.	II_nd class brick layer	29.10		22.40
	0.50 Nos.	Man mazdoor	22.53		36.04
	1.10 Nos.	Woman mazdoor			
		71.19 13% L.I			9.25
					190.15
18.	10.00 Sqm	White washing in two coatings with best shelllime including cost and conveyance of all materials and labour charges etc., complete for finished item of work as per S.S			
19.	10.00 Sqm	Painting to doors and windows with best enamel paint in two coats including cost and conveyance etc., complete. S.E., (PR) Kurnool approved rate Memo.No.			
20.	1.00 Cum	Cement concrete in (1:1½:3) prop. using 20 mm HG metal obtained by blasting including cost and conveyance charges such as mortar curing centering etc., complete for finished item of work as per S.S.,			
	0.92 Cum	Cost of 20 mm HG metal and conveyance	241.38		222.06
	0.46 Cum	Cost of sand and conveyance	41.66		19.16
	0.441 MT	Cost of cement and conveyance	1900.00		837.90
	0.28Nos	IInd class masons	29.10		8.14
	0.12 Nos.	Ist class masons	38.64		4.63
	0.10 Nos.	Man mazdoor	22.53		126.16
	3.50 Nos.	Woman mazdoors	22.53		
	1.10 Cum	Vibrating charges	9.28		9.28
			138.93	Sundries 0.01	
					1245.40
21.	1.00 Cum	RCC (1:1½:3) prop. using 20 mm HG gauge broken metal with required steel quantity including cost and conveyance of all materials, labour charges curing, water lead centering charges such as operation and incidental charges etc., but excluding cost of steel and fabrication charges for floor slab			
	1.00 Cum	Rate of C.C (1:1½:3) as per item No. 20			1245.40
	1.00 Cum	Centering charges SSR 232L-13			223.38
		vibrating charges			0.03
					1468.80

1	2	3	4	5	6
22.	1.00 Cum	VRCC (1:1½:3) prop. using 20 mm HG with required steel quantity including cost and conveyance of all material labour charges, curing water lead centering charges such as operation and incidental charges etc., complete but excluding cost of steel and fabrication charges of steel as S.S for side walls			
	1.00 Cum	Rate of C.c (1:1½:3) as per item 20.			1247.40
	10.00 Cum	Centering charges Circular surface	124.73	Sundries	1247.30
		Add (2) lifts	14.84	Cum	29.53
					2322.40
		Straight			1245.00
	10.00 Sqm		92.33		923.30
					2068.70
23.	Sft	Supply and delivery of fully pannelled Doors made of Teak wood frames with 4"X3" scantings with double shutters inclusive of all fixtures and furniture etc., complete as per A.P.S.S but exclusive of fixing at site for the following sizes (approved by the S.E., (PR(Kurnool dt:10.4.1987). a) 4'-6" X 7'-0" b) 3'-8" X 7'-0" c) 3'-0" X 7'-0" d) 3'-3"X 6'-6" e) 3'-3" X 6'-6" f) 3'-0" X 6'-6"		85/sft	
24.		Supply and delivery of fully pannelled windows made of Teak frame with 4"x3" scutiny with shelters and fixing of 16 mm iron rods inclusive cost of all material, furniture and fixtures etc., complete as A.P.S.S., But enclusive of fixing charges at site for the following sizes (approved by S.E., PR Kurnool dt: 14.4.1987) a) 8'-0" X 4'-6" b) 6'-0" X 4'-6" c) 5'-0" X 4'-0" e) 3'-3" X 4'-0" d) 3'-0" X 4'-0"			

1	2	3	4	5	6
25.	10 Sqm	Flooring with shabad stone 40 mm thick set in CM (1:6) over Cl bed 1:5:10 using 40 mm gauge H.B.G metal and pointing with CM(1:3) including cost and conveyance of all material, labour charges curing etc., complete for finished item of work as per standard specification			
	0.47 Cum	Shabad stone	1181.65	10Sqm	495.00
	0.13 Cum	Cement mortar 1:6	503.48		60.41
	0.96 Cum	I class mason	38.64		37.09
	2.24 Cum	II class mason	29.10		65.18
	2.20 Cum	Man mazdoors	22.53		73.34
	1.10	Woman mazdoors	22.53		
	1 Cum	Cost of C.C 1:5:10	471.10		471.10
	0.05	Deduct cost of CM 1:3	959.48		(-) 47.97
		13% labour importation		Sundiries	22.05
					1139.10
26.	1 cum	V.R.C.C (1:1½:3) prep. for Braces			
	1 Cum	Cost of C.C (1:1½:3)			1245.40
	10.22 Sqm	Centering charges 0-5mts.	68.64		701.50
	C.M 1:6	C.M 1:3 / For 5-8 MTs 1 Lift	14.84		1961.74
	1.00 x 41.66	1.0 X 41.66 Sand For 8 - 11 MT			
	0.24 x 1900	0.48 x 1900 Cement			
	1.00 x 5.82	959 mixing 1 Lift	14.84		1976.58
		1.00 x 5.82			
	503.48	959.48			
27.	10 Sqm	Snow cem painting in twocoats over primary coat including cost and conveyance of all material and labour charges etc., complete for finished item of work as per S.S			
	3.5 Kg	Cost of snow cem paint	30.00	M.R	105.00
	0.50 No	I class mason	38.64	Each	19.32
	1.50 No.	Man & woman mazdoors	22.53	"	33.79
	10 Sqm	Scaffolding charges for I and II floor as per item No. 232 to 234.	8.98	10 Sqm	8.98

1	2	3	4	5	6
L.S	Brushes 100 mm wide 4 Nos.			LS	14.50
L.S	For coir rope for scaffolding			LS	0.50
	13% Labour inportation	42.77			5.56
					167.53

28.10 Sqm Plastering with CM (1:5) 12 mm thick including c/c of all material labour charges, curing etc., complete

0.15 Cum	Cost of sand	41.66	Cum	6.24
0.15 Cum	Mixing charges	5.82	"	0.87
0.213 MT	Cost of cement	1900.00	MT	81.70
0.33 No.	I class mason	38.34	Each	12.75
0.77	II class mason	29.10	"	22.40
1.5 No.	Man and woman mazdoor	22.53	"	47.31
0.5 Km	1/2 K.M water lead		K.M	10.71
	13%labour importation		Sundries	0.02
				182.00

29. 10 Sqm Flooring with C.C (1:5:10) using 40 mm H.B.G metal 100 mm thick and Top plastered with C.M(1:4) 12 mm thick including cost and conveyance of all material, labour and other operational and incidental charges including during mixing, water lead etc., complete for finished item of work as per S.S.

1.00 Cum	Cost of C.C (1:5:10)	471.10	Cum	471.10
10 Sqm	Plastering with C.C 1:4 we mm thick	190.15		190.15
30. 1 Cum	V.R.C.C (1:1½:3) propl for footings of OHSR.	1245.10		1245.10
1 Cum	Cost of R.C.C (1:1½:3)	1245.10	Cum	1245.10
1 Cum	centering Charges	87.68		87.68
31. 1 Cum	V.R.C.C (1:1½:3) prop. for columns of OHSR			
1 Cum	Cost of C.C (1:1½:3)	57.20		762.17
13.33 Sqm	Centering charges 0-5 mts			0.03
	5-8			2005.92
	Add 1 Lift	14.84		14.84
				0.01
				2022.75

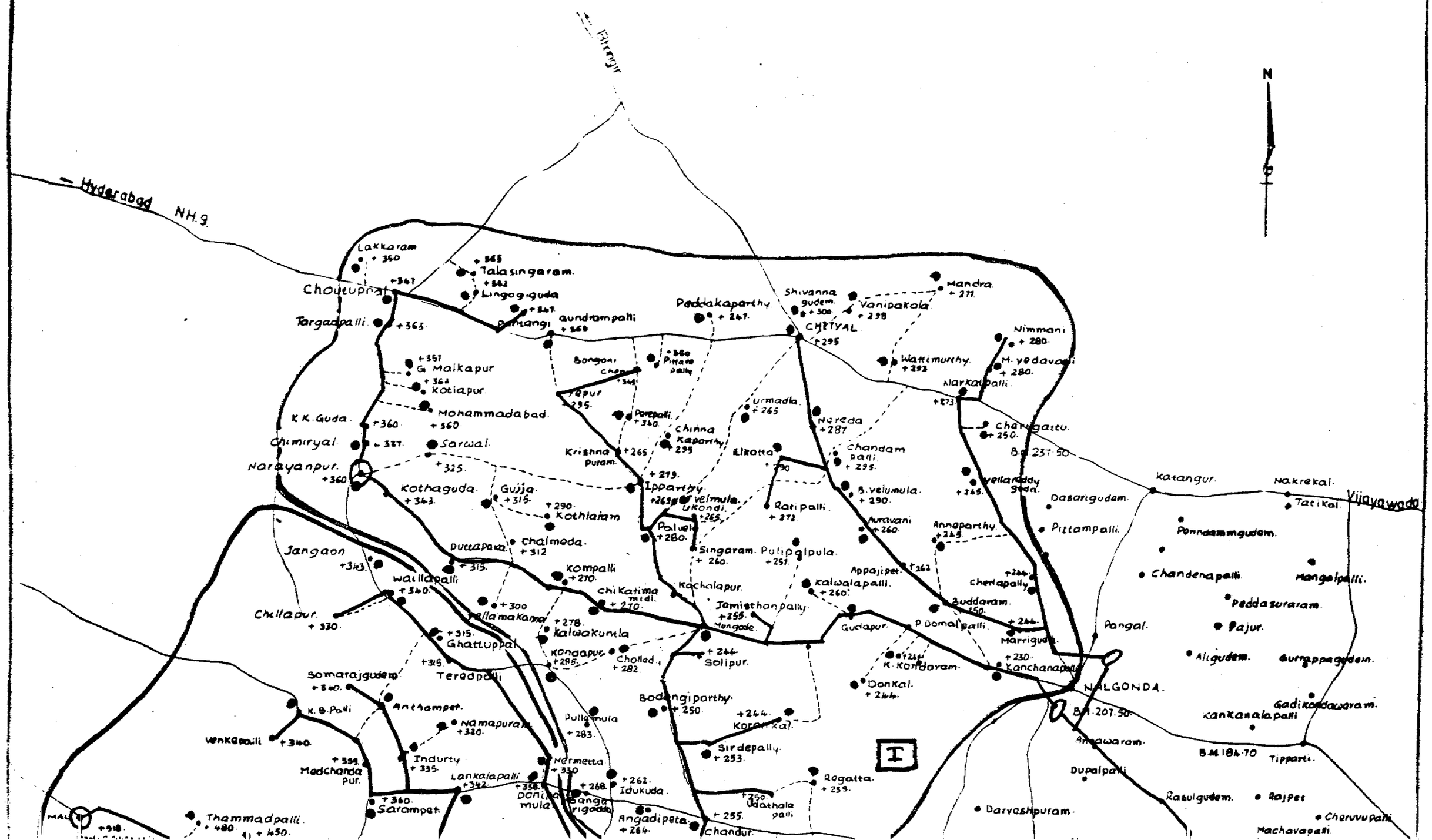
1	2	3	4	5	6
33.	1cum	V.R.C.C (1:1½:3) prop. for bottom Ring girder (outer)			
	1 Cum	Cost of C.C (1:1½:3)			1245.40
	8.2 Sqm	Centering Charges	68.64	Sqm	562.84
		Add 2 lifts upto 8 m	14.84	each	29.68
					0.03
					1837.95
33.	1 Cum	V.R.C.C (1:1½:3) prop. for bottom slab			
	1 Cum	Cost of C.C (1:1½:3)			1245.40
	3.33 Sqm	Centering charges	171.00	Sqm	569.30
		Add 2 lifts	14.84	each	29.63
					0.02
					1832.30
34.	1 cum	V.R.C.C (1:1½:3) prop for Top slab			1245.40
	1 cum	Cost of C.C (1:1½:3)			
	6.66 Sqm	Centering charges	814.89	Sqm	565.25
		Add 3 lifts	14.84	each	44.52
					0.01
					1855.30
35.	1 Cum	V.R.C.C (1:1½:3) Top ring Beam			
	1 cum	cost of C.C (1:1½:3)	1281.00		1245.40
	11.66 Sqm	Centering charges	68.64	Sqm	797.59
		Add 3 lifts	14.84	each	44.52
					0.04
					2087.55
36.	1 cum	V.R.C.C (1:1½:3) prop for contileur slab			
	1 cum	cost of c.c (1:1½:3)			1245.40
	10 Sqm	Centering charges	171.60		1760.00
		Add 2 lifts	2x14.84		3005.40
		Side walls OHSR			29.68
					0.02
					3025.70
	1 cum	VRCC (1:1½:3)			1245.40
		Centering charges			92.33

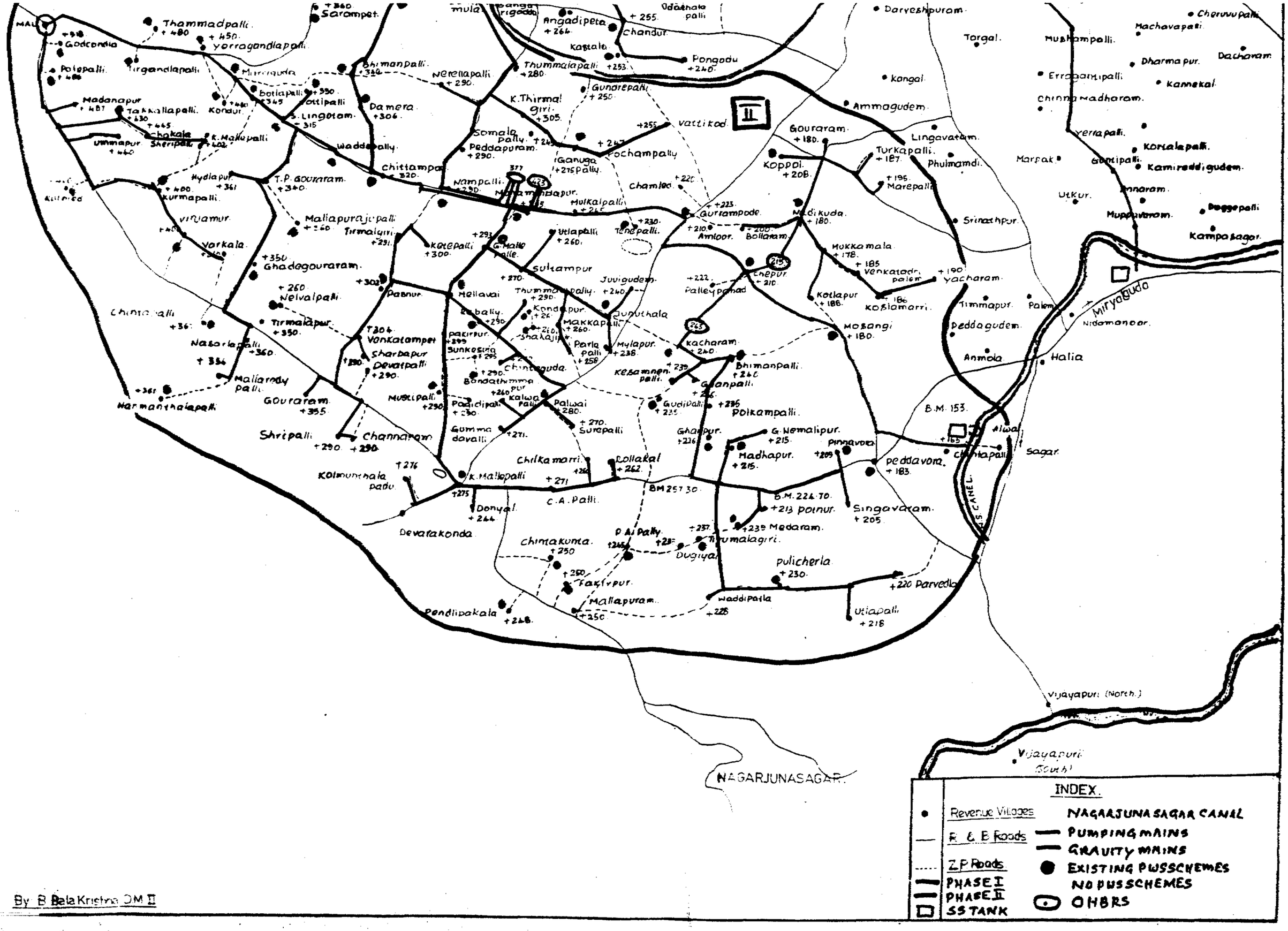
1	2	3	4	5	6
37.	10.00 Cum	Earth work excavation and depositing as bank with an additional bed of 0.5 K.m over initial lead of 10 m and 2 additional lifts over initial lift of 2m in Hard stiff.B.C and red earth soils including consolidation with stone reller of 2 T including ½ Km lead	99.84	10 Cum	99.34
			12.00	10 Cum	12.00
		½ Km lead	16.18	1 Cum	16.18
		13% L.I			13.74
					0.04
					143.30
38.		Collection of gravel and stacking at site for piemeasurements and spreading the same for gravel base to tank bund			
	1 Cum	Cost of gravel	34.43		34.43
	1 cum	lead for gravel(3Km)	9.93		9.33
	1 cum	spreading gravel 34.00			0.04
					44.40
39.		Rough stone dry packing 30 cm thick revetment including c/c of all material and labour charges complete.			
	1.10	Cost of rough stone of size 300 #	153.30		53.63
	0.40 Nos	wadder	2135.00		0.78
	1.10 "	Man mazdoor	22.53		49.55
	0.70 "	Woman mazdoor			
		13% Labour importation 49.33			6.41
				Sundries	0.03
					111.40
		clearing heavy angle as per 1990-91		10 Sqm	2.30
		lish			1.83
		Scrubb			1.00
40.	10 cum	Earth work open well excavation in loamy clayey, B.C soils, red earth and ordinary gravel depositing as bank with lead of 20 mts inclusive all lifts above water level.			
		a) Ist mattu(above water level)			
		ordinary gravel as per No. 9B PWD SSR	89.51	10 Cum	83.51
	10.00	b) Below water level, rate as above Add for Boiling of water			200.00
					283.77

A. P. III.

NALGONDA PROJECT.

Scale 1Cm = 1 Sq m.





By B Bala Krishna DM II

1	2	3	4	5	6
	II	Earth work excavation in H.T soil below water level and depositing on bank with initial lead of 20 mm including all lifts and bailing out water.			
		a) IInd matter Thick the rate as per item No. 12B 86.77 deduct 15%		10 cum	260.31 (-) 39.01 200.00
	10 cum	Bailing out water			0.03
					421.35
		b) Third Matter			
		5 times initial rate @ 86.77			
		Deduct 15%			433.85
	10 cum	Bailing out water			(-) 65.07 200.00 0.02
					568.80
		c) Fourth matter			
		7 times the initial rate @ 86.77			
		Deduct 15%			
	10 cum	Bailing out water.			
		d) Fifth matter			
		9 times initial rate 86.77	780.93		
		Deduct 15%	117.13		603.79
	10 cum	Bailing out water			200.00 0.01
					803.80
		e) Sixth matter			
		12 times initial rate of item 12B 86.87			873.04
		Deduct 15%			200.00
	10 cum	Bailing of water			0.01
					1003.05
	III	Earth work excavation in S. M.R removable by pickane, brow bar below water level and depositng on bank with a lead of 20 m inclusive of all lifts and bailing of water.			
		a) Sixth matter			
		12 times the initial rate 99.00 1198.90 179.82			1017.82
		Deduct 15%			200.00

1	2	3	4	5	6
	10 cum	Bailing out water			0.03
					1473.75
43.		Refilling with excavated soils (other than sand) complying with standard specification (50% of normal rates of earth work be adopted and difference of S.S 20 A and 20B rates for breaking clods, watering & temping).			
		a) Ordinary gravel as per item No. 9B @ 5% of rate difference of 20B & 20A	86.77		43.38
					10.30
		99.84-89.51			53.68
	10 Cu	b) Hard gravel as per item 12 B			43.38
		Difference of 20B & 20A 99.84-89.31			10.33
					53.71
		c) Soft disintegrated rock as per item no. 14 @ 50%			99.90
		Difference of 20 A & 20B			

1	2	3	4	5	6
	10 cum	Bailing out water			0.03
					1473.75
43.		Refilling with excavated soils (other than sand) complying with standard specification (50% of normal rates of earth work be adopted and difference of S.S 20 A and 20B rates for breaking clods, watering & tamping).			
		a) Ordinary gravel as per item No. 9B @ 5% of rate difference of 20B & 20A	86.77		43.38
					10.30
		99.84-89.51			53.68
	10 Cu	b) Hard gravel as per item 12 B			43.38
		Difference of 20B & 20A 99.84-89.31			10.33
					53.71
		c) Soft disintegrated rock as per item no. 14 @ 50%			99.90
		Difference of 20 A & 20B			