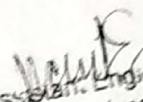
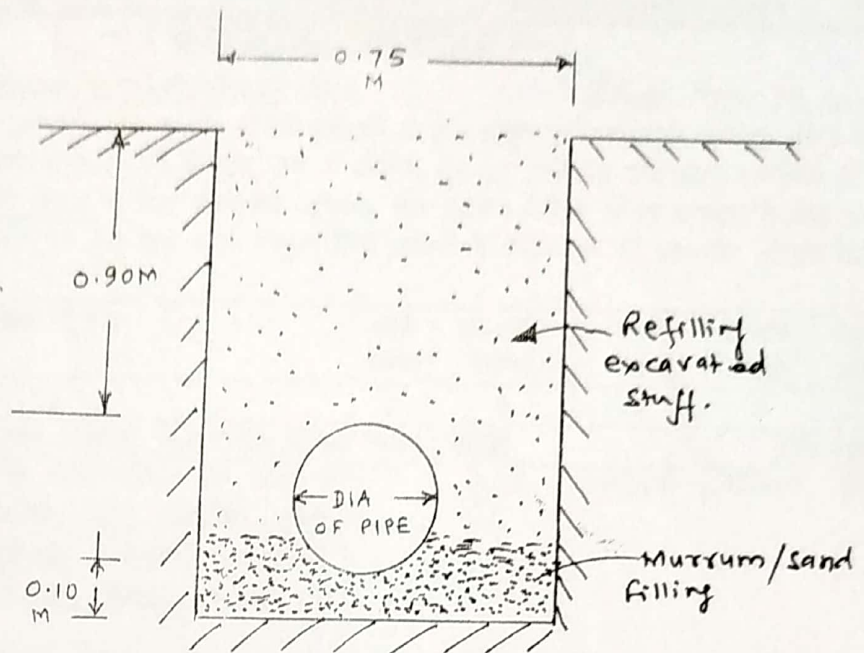


प्रमाण पत्र

प्रमाणित किया जाता है कि, धुरली सगूह जल प्रदाय योजना के अंतर्गत संरक्षित एवं आरक्षित वन क्षेत्र में पाईप लाईन बिछाने हेतु भूमि की खुदाई श्रमिकों द्वारा किया जाएगा एवं किसी भी वृक्ष को नुकसान नहीं पहुँचाया जाएगा।

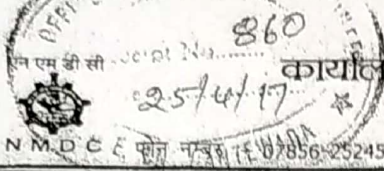

Assistant Engineer,
Public Health Engineering Project
जगदलपुर (C.G.)
लोक सार्वजनिक स्वास्थ्य विभाग
परियोजना उपखण्ड क्रमांक 04
जगदलपुर



TYPICAL CROSS SECTION OF
PIPE LINE WORK. TRENCH

Went
Assistant Engineer,
Public Health Engineering Project
Sub Dn. No 4 Jagdalpur (C.G.)

DHURLI GROUP WATER SUPPLY
SCHEME.



कार्यालय कलेक्टर एवं जिला दण्डाधिकारी जिला-दन्तेवाड़ा (छत्तीसगढ़)

N.M.D.C. फोन नम्बर :- 07856-252455; फैक्स :- 07856-252468; ई-मेल पता :- dmdantewada.csr@gmail.com



—:: प्रशासकीय स्वीकृति आदेश ::—

क्रमांक/1713.../जिला कार्यालय/एनएमडीसी/सम्राजप्रयो/2017

दन्तेवाड़ा, दिनांक ३१/03/2017

कार्यपालन अभियंता, लोक स्वास्थ्य यांत्रिकी दन्तेवाड़ा के द्वारा प्रस्तुत एवं एनएमडीसी काम्प्लेक्स बचेली के द्वारा वर्ष 2016-17 में स्वीकृत बजट अनुसार जिले के लाल पानी से प्रभावित कुल 17 ग्रामों हेतु एनएमडीसी काम्प्लेक्स बचेली के धुरली समूह ग्रामीण जल प्रदाय योजना के तहत कार्यपालन अभियंता, लोक स्वास्थ्य यांत्रिकी विभाग दन्तेवाड़ा से प्राप्त प्राक्कलन मय तकनीकी स्वीकृति के आधार पर उन्हें कार्य एजेंसी नियुक्त निम्न तालिका में दर्शित कार्य की प्रशासकीय स्वीकृति प्रदान की जाती है :-

क्र.	कार्य का नाम	कार्य संख्या	ग्राम/नगर पंचायत	जनपद पंचायत	प्राक्कलित स्वीकृति	प्रशासकीय स्वीकृति
1	2	3	4	5	6	7
कार्य एजेंसी का नाम :- कार्यपालन अभियंता, लोक स्वास्थ्य यांत्रिकी विभाग-दन्तेवाड़ा (राशि लाख में)						
1	धुरली समूह ग्रामीण जल प्रदाय योजना 17 ग्रामों में (गमावाड़ा, धुरली, पोरोकमेली, भांसी, बडेकमेली, दुगेली, मसेनार, गजेनार, खुटेपाल, श्यामगिरी, नकुलनार, कुआकोण्डा, हल्बारास, मोखपाल, मैलावाड़ा, हितावर एवं गोंगपाल)	1	धुरली	दन्तेवाड़ा	4238.00	4238.00
	योग	1			4238.00	4238.00
(प्रशासकीय स्वीकृति की राशि शब्दों में बयालिस करोड़ अड़तिस लाख रुपये मात्र)						

यह स्वीकृति निम्न निर्देशों के तहत प्रदान की जाती है, इनका कड़ाई से पालन किया जावे।

1. कार्य तकनीकी स्वीकृति मापदण्ड के अनुरूप कराई जावे।
2. प्रशासकीय स्वीकृति से अधिक व्यय किसी भी दशा में न किया जावे।
3. कार्यस्थल पर कार्य चलते समय बोर्ड प्रदर्शित करें, जिसमें कार्य के सम्बन्ध में सभी जानकारियों का विवरण एवं एनएमडीसी परियोजना का लोगो हो।
4. सामग्री क्रय करते समय भण्डार क्रय नियमों का कड़ाई से पालन किया जावे।
5. कार्य की प्रगति प्रत्येक माह की 25 तारीख तक इस कार्यालय को उपलब्ध कराना सुनिश्चित करें।
6. प्राप्त राशि का उपयोगिता/पूर्णता प्रमाण पत्र एवं फोटोग्राफ्स अनिवार्य रूप से प्रस्तुत किया जावे।

कलेक्टर

दक्षिण बस्तर दन्तेवाड़ा
दन्तेवाड़ा, दिनांक ३१/03/2017

पृ.क्रमांक/1713 A/जिला कार्यालय/एनएमडीसी/2017

प्रतिलिपि:-

1. आयुक्त, बस्तर संभाग-जगदलपुर।
2. मुख्य कार्यपालन अधिकारी, जिला पंचायत-दन्तेवाड़ा।
3. अनुविभागीय अधिकारी (रा) दन्तेवाड़ा।
4. प्रमुख अभियंता, लोक स्वास्थ्य यांत्रिकी विभाग, इन्द्रावती भवन रायपुर।
5. अधीक्षण अभियंता, लोक स्वास्थ्य यांत्रिकी विभाग, जगदलपुर।
6. कार्यपालन अभियंता, लोक स्वास्थ्य यांत्रिकी विभाग-दन्तेवाड़ा को सूचनार्थ एवं पालनार्थ तथा उक्त कार्यस्थल पर योज एवं लागत राशि का बोर्ड अनिवार्य रूप से प्रदर्शित कर फोटोग्राफ्स प्रस्तुत किया जावे।
7. महाप्रबन्धक, एनएमडीसी बचेली कॉम्प्लेक्स की ओर सूचनार्थ।
8. सूचना पटल पर चस्पा करने हेतु।

दक्षिण बस्तर, दन्तेवाड़ा

DHURLI GROUP WATER SUPPLY SCHEME FOR 17 VILLAGES

Block : Kuakonda & District : Dantewada

GENERAL ABSTRACT

S.R No	Particulars	Amo/Lint (Rs. In lacs)
1	Preliminary	30.19
2	Construction of RCC Anicut of length=120M	372.00
3	RCC Intake Well - 6 m dia, & Total Height of Structure 22.74 m. <i>3rd Mar - CC.</i>	142.00
4	Raw Water Pump with 50% Stand Bye ~ <u>1000</u> 59 HP Centrifugal Pump, Having Discharge 65891.8 LPH With a Head 145 m.	60.32
5	Raw Water Pumping Main ~ <u>26/10/17</u> → <i>N.O done.</i> From Intake Point to WTP Site 250 mm Dia D.I. K-9 Pipes, & Length 16065m.	593.47
6	Water Treatment Plant ~ <u>5/10/16</u> / <i>completion.</i> Capacity 3 MLD	173.33
7	Clear Water Pumps with 50% stand bye 55.5 HP Centrifugal Pump, Having Discharge 63357.5 LPH With a Head 141 m. 22.5 HP Centrifugal Pump, Having Discharge 38712.5 LPH With a Head 93 m.	107.30
8	Clear Water Pumping Mains From WTP to MBR's, & 9 OHT's of 250 to 100 mm Dia. DI K-9 Pipes Length 19321 m.	612.42
9	RCC MBRs MBR I at Porokameli MBR II at Khuthafal	Capacity in KL 230 KL 140 KL 92.32
10	Clear water sump	Capacity in KL 135 11.54
11	Clear Water Gravity Mains Zone I Length 27247 m. Zone II Length 25474 m.	Total length 52721 m. 954.03

Pipe Dia. & Material	Length
100 mm DI K-7 Pipes	25569 m
150 mm DI K-7 Pipes	7093 m
200 mm DI K-7 Pipes	12544 m
250 mm DI K-7 Pipes	7515 m
Total Length	52721 m

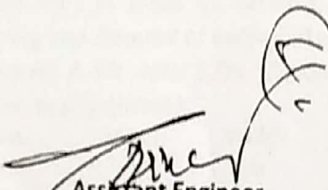
S.R No	Particulars	Amount (Rs. in lacs)																																																															
12	RCC Over Head Tanks of Various Capacities for Respective Villages <table border="1"> <thead> <tr> <th>Name of Village</th><th>Existing</th><th>Proposed</th></tr> </thead> <tbody> <tr><td>Gamawada</td><td>--</td><td>70 KL</td></tr> <tr><td>Dhurli-I</td><td>--</td><td>45 KL</td></tr> <tr><td>Dhurli-II</td><td>--</td><td>45 KL</td></tr> <tr><td>Porokameli</td><td>--</td><td>40 KL</td></tr> <tr><td>Bhansi</td><td>--</td><td>80 KL</td></tr> <tr><td>Bade Kamali</td><td>--</td><td>80 KL</td></tr> <tr><td>Dugeli-I</td><td>--</td><td>55 KL</td></tr> <tr><td>Dugeli-II</td><td>--</td><td>55 KL</td></tr> <tr><td>Masenar</td><td>--</td><td>90 KL</td></tr> <tr><td>Ganjenar</td><td>--</td><td>100 KL</td></tr> <tr><td>Khutepal</td><td>--</td><td>40 KL</td></tr> <tr><td>Shyamgiri</td><td>--</td><td>40 KL</td></tr> <tr><td>Nakulnar</td><td>--</td><td>120 KL</td></tr> <tr><td>Kuakonda</td><td>--</td><td>180 KL</td></tr> <tr><td>Halbaras</td><td>--</td><td>40 KL</td></tr> <tr><td>Mokhapal</td><td>90 KL</td><td>--</td></tr> <tr><td>Mailawada</td><td>--</td><td>90 KL</td></tr> <tr><td>Hitwar</td><td>--</td><td>70 KL</td></tr> <tr><td>Gongpal</td><td>--</td><td>60 KL</td></tr> <tr> <td>TOTAL</td><td>90 KL</td><td>1300 KL</td></tr> </tbody> </table>	Name of Village	Existing	Proposed	Gamawada	--	70 KL	Dhurli-I	--	45 KL	Dhurli-II	--	45 KL	Porokameli	--	40 KL	Bhansi	--	80 KL	Bade Kamali	--	80 KL	Dugeli-I	--	55 KL	Dugeli-II	--	55 KL	Masenar	--	90 KL	Ganjenar	--	100 KL	Khutepal	--	40 KL	Shyamgiri	--	40 KL	Nakulnar	--	120 KL	Kuakonda	--	180 KL	Halbaras	--	40 KL	Mokhapal	90 KL	--	Mailawada	--	90 KL	Hitwar	--	70 KL	Gongpal	--	60 KL	TOTAL	90 KL	1300 KL	182.10
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13	Distribution Network 200mm to 90 mm Dia UPVC pipes.Class 6 Kg Total Length of Distribution 222385 m Distribution Proposed 222385 m. <table border="1"> <thead> <tr> <th>Pipe Dia. & Material</th><th>Existing</th><th>Proposed</th></tr> </thead> <tbody> <tr><td>160 mm UPVC 6 Kg</td><td>0 m</td><td>1066 m</td></tr> <tr><td>140 mm UPVC 6 Kg</td><td>0 m</td><td>2400 m</td></tr> <tr><td>110 mm UPVC 6 Kg</td><td>0 m</td><td>6962 m</td></tr> <tr><td>90 mm UPVC 6 kg</td><td>0 m</td><td>211957 m</td></tr> <tr><td>Total</td><td>0 m</td><td>222385 m</td></tr> <tr><td>Total Distribution Length</td><td colspan="2">222385 m</td></tr> </tbody> </table>	Pipe Dia. & Material	Existing	Proposed	160 mm UPVC 6 Kg	0 m	1066 m	140 mm UPVC 6 Kg	0 m	2400 m	110 mm UPVC 6 Kg	0 m	6962 m	90 mm UPVC 6 kg	0 m	211957 m	Total	0 m	222385 m	Total Distribution Length	222385 m		747.39																																										
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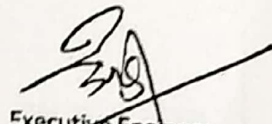
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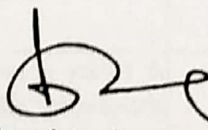
S.R No	Particulars	Amount (Rs. in lacs)
14	Bulk Flow Meter at each village Inlet Junction 100 mm 17 Nos. 150 mm 3 Nos. 200 mm 6 Nos.	35.21
15	Miscellaneous	81.25

Add 1% for contingencies

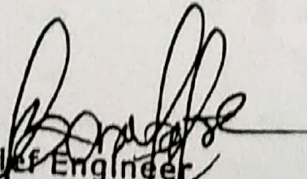
Net cost	4195.77
	41.96
Gross cost	4237.72
Say Rs. in Lacs	4238.00
Rs. in Cr.	42.38


Assistant Engineer
Public Health Engineering
Sub Division Dantewada (C.G)


Executive Engineer
Public Health Engineering Division
Dantewada (C.G)


Superintending Engineer
Public Health Engineering Circle
Jagdalpur (C.G)

Technically Sanctioned for Rs. 4238 Lakh
in words Rs. forty two crore Thirty eight Lakh only
Estimate No. 28 /TS/Dated 03/01/2017.


Chief Engineer
Public Health Engg. Deptt.
Jagdalpur Zone, Jagdalpur (C.G.)

85

DHURLI GROUP WATER SUPPLY SCHEME FOR 17 VILLAGES

Block : Kuakonda & District : Dantewada

Estimate No. - 5

RAW WATER PUMPING MAIN

		Estimated Cost Rs. 593.47 Lacs			
S.NO.	PARTICULARS	QUANTITY	RATE	PER	AMOUNT
1	Earthwork in excavation for pipe trench in all kinds of soil and WBM in areas including dressing, watering and ramming and disposal of excavated earth lead upto 50m & lift upto 1.5m, disposal earth to be levelled, neatly dressed Dia. Length Width Depth mm m m m 250 16065.00 0.85 0.6625 (CG PHE SOR P.19 It.No. 2.1)	9046.603125	144.00	Cum	1302710.85
2	Earth work in Excavation for pipe trench in Hard Soil areas including dressing, watering and ramming and disposal of Excavated earth lead up to 50 meters and lift up to 1.5m, disposal earth to be levelled, neatly dressed. Dia. Length Width Depth mm m m m 250 16065.00 0.85 0.48 (CG PHE SOR P.19 It.No. 2.2)	6486.24375	191.00	Cum	1238872.56
3	Earth work in excavation for pipe trench in all kinds of soft rock in areas i/c dressing, watering and ramming and disposal of excavated earth lead upto 50 meters & lift upto 1.5m, disposal earth to be leveled, neatly dressed. Dia. Length Width Depth mm m m m 250 16065 0.85 0.1125 (CG PHE SOR P.19 It.No. 2.5a)	1536.215625	334.00	Cum	513096.02
4	Pumping out water caused by springs, tides or river seepage, broken water mains or drains. (CG PHE SOR P.20 It.No. 2.9)	200	51.00	KL	10200.00
5	Providing, laying & jointing following socket & spigot centrifugally cast(spun) Ductile iron pressure pipes with inside cement motor lining (class K - 9) conforming to IS 8329/2000 with suitable Rubber Gasket (Push on) joint as per IS : 5382/85 250 mm dia D.I pipe class K - 9 (CG PHE SOR P.74 It.No. 6.3)	16065	2851.00	Mtr	45801315.00
6	Add 10 % for DI Specials				4580131.50
6	Filling with moorum for pipe bedding or over the 10% of Total 1607 0.15 1.05 length _____ m m m (CG PHE SOR P.20 It.No. 2.11)	253.02375	620	Cum	156874.73

	PARTICULARS	QUANTITY	RATE	PER	AMOUNT
	Filling available excavated earth in trenches, plinth sides of foundation in layers not exceeding 20cm, in depth including consolidation of each layer by ramming watering, lead up to 50m and lift up to 1.5m in all kinds of soils				
	Total Quantity of Excavation	9046.603125			
	Deduct volume of pipe	1041.21			
	Deduct volume of WBM Road Cutting 20x1.2x.2	5.00			
	(CG PHE SOR P.20 It.No. 2.10.1)	8000.39	45.00	Cum	360017.56
8	In walls and superstructure up to 4 meter, height above plinth (with 20mm nominal graded metal) excluding the cost of centring shuttering. For thrust blocks 81 no. x 1.0 x 1.5 x 1	121.5	4484.00	Cum	544806.00
	(CG PHE SOR P.21 It.No. 2.21.1.3)				
9	Providing and placing in position cold twisted or uncoated HYSD steel bar and hot rolled deformed steel reinforcement for R.C.C. work i/c cutting, bending, binding etc. complete i/c cost of binding wire and wastage. Sub structure 121.5 x (1/100) x 7850	9537.75	55.00	per Kg	524576.25
	(CG PHE SOR P.23 It.No. 2.25.1.2)				
10	Construction of Rcc valve chamber with Rcc precast covers 100mm to 300mm dia For 500 mm dia	33	12482.00	each	411906.00
	(CG PHE SOR Item No. 23.10(1.6) Page No.259)				
11	Restoring of CC Roads Providing & laying mechanically mixed cement concrete 20mm nominal size graded crushed stone excluding cost of centering & shuttering. In Plinth & foundation 1:2:4 20 m	5	4031.00	Cum	20155.00
	(C.G. PHE SOR P.-21 It. No. 2.21.1.2)				

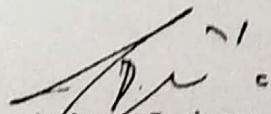
Total

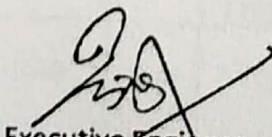
55464661.46

Add 7% for market rate 3882526.30

Say 593.47

Lacs


Assistant Engineer
Public Health Engineering
Sub Division Dantewada (C.G)


Executive Engineer
Public Health Engineering Division
Dantewada (C.G)

DHURLI GROUP WATER SUPPLY SCHEME FOR 17 VILLAGES

Block : Kuakonda & District : Dantewada

Estimate No. - 8

CLEAR WATER PUMPING MAIN

Estimated Cost Rs.612.42Lacs

S. NO.		PARTICULARS	QTY	RATE	PER	AMOUNT
1	Earthwork in excavation for pipe trench in all kinds of soil in areas including dressing, watering and ramming and disposal of excavated earth lead upto 50m & lift upto 1.50 mt. including disposal work DiaL D W 250mm dia D.I pipe class K - 910235 0.5 0.70 200mm dia D.I pipe class K - 95774 0.5 0.70 100mm dia D.I pipe class K - 93312 0.5 0.70 (CG PHE SOR P.19 It.No. 2.1)19321		3582.25 2021.00 1160.00 6763.25	144	Cum	973908.00
2	Earth work in Excavation for pipe trench in Hard Soil areas including dressing, watering and ramming and disposal of Excavated earth lead up to 50 meters and lift up to 1.5m, disposal earth to be levelled, neatly dressed. DiaL D W 250mm dia D.I pipe class K - 910235 0.475 0.70 200mm dia D.I pipe class K - 95774 0.456 0.70 100mm dia D.I pipe class K - 93312 0.418 0.70 (CG PHE SOR P.19 It.No. 2.2)		3403.14 1844.00 970.00 6217.14	191	Cum	1187473.74
2	Earth work in excavation for pipe trench in all kinds of soft rock in areas i/c dressing, watering and ramming and disposal of excavated earth lead upto 50 meters & lift upto 1.5m, disposal earth to be leveled, neatly dressed. DiaL D W 250mm dia D.I pipe class K - 910235 0.11 1.05 200mm dia D.I pipe class K - 95774 0.11 1.05 100mm dia D.I pipe class K - 93312 0.10 1.05 (CG PHE SOR P.19 It.No. 2.5a)		1209.01 654.78 344.29 2208.08	334	Cum	737498.72
3	Pumping out water caused by springs, tides or river seepage, broken water mains. (CG PHE SOR P.20 It.No. 2.9)		1200	51	KL	61200.00
4	Providing, laying & jointing following socket & spigot centrifugally cast(spun) Ductile iron pressure pipes with inside cement motor lining (class K - 9) conforming to IS 8329/2000 with suitable Rubber Gasket (Push on) joint as per IS : 5382/85 250mm dia D.I pipe class K - 9 200mm dia D.I pipe class K - 9 100mm dia D.I pipe class K - 9 (CG PHE SOR P.74 It.No. 6.3)		10235.00 5774.00 3312.00 19321.00	2851 2146 1040	Mtr Mtr Mtr	29179985.00 12391004.00 3444480.00
5	Add 15% for DI Specials					6752320.35
6	Filling with moorum for pipe bedding or over the pipe i/c 10% of Total length 1932 0.15 1.05 m m m (CG PHE SOR P.20 It.No. 2.11)		304.30575	620	Cum	188669.57
6	Filling available excavated earth in trenches, plinth sides of foundation in layers not exceeding 20cm. in depth including consolidation of each layer by ramming watering, lead up to 50m and lift up to 1.5m in all kinds of soils Quantity of Excavation Deduct volume		8971.33			

S. NO.	PARTICULARS	QTY	RATE	PER	AMOUNT
	of pipe & Moorum Quantity Deduct Volume of Pipe Deduct Volume of Concrete (CG PHE SOR P.20 It.No. 2.10.1)	806.46 79.68 8085.19			
7	Providing & laying mechanically mixed cement concrete 20mm nominal size graded crushed stone excluding cost of centering & shuttering. 193 x 0.6 x 0.15 2 x 1 x .15 (CG PHE SOR P.21 It.No. 2.21.1.1)	17.37 0.30 17.67	45	Cum	368833.58
8	Providing & laying mechanically mixed cement concrete 20mm maximum size graded crushed stone excluding cost of centring & shuttering. Superstructure. for Encasing pipe in road crossings 193 m x 0.6 x 0.6 Less pipe volum of 250mm pipe Net Quantity of Concrete For thrust blocks 2 Nos. 1 1 (CG PHE SOR P.21 It.No. 2.21.1.3)	69.48 9.47 60.01 2 62.01	3325	Cum	58752.75
9	Providing and placing in position cold twisted or un-coated HYSD steel bar and hot rolled deformed steel reinforcement for R.C.C. work i/c cutting, bending, binding etc. complete i/c cost of binding wire and wastage. Sub structure 62.01 x (.5/100)*7850 (CG PHE SOR P.23 It.No. 2.25.1.2)	2433.8925	55	per Kg	133864.09
10	Construction of Rcc valve chamber with Rcc precast covers 100mm to 300mm dia (CG PHE SOR Item No. 23.10(1.6) Page No.259)	35	12482	each	436870.00
11	Restoring of CC Roads Providing & laying mechanically mixed cement concrete 20mm nominal size graded crushed stone excluding cost of centering & shuttering. In Plinth & foundation 1:2:4 (C.G. PHE SOR P.-21 It. No. 2.21.1.2)	260	4031	Cum	1048060.00

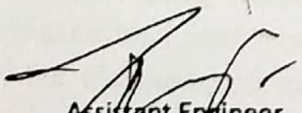
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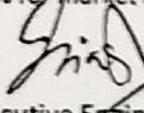
57235972.58

Add 7% for market rate 4006518.08

Say 612.42

Lacs


Assistant Engineer
Public Health Engineering
Sub Division Dantewada (C.G)


Executive Engineer
Public Health Engineering Division
Dantewada (C.G)

89

DHURLI GROUP WATER SUPPLY SCHEME FOR 17 VILLAGES
REVISE ESTIMATE FOR PROVIDING, LAYING AND JOINTING OF GRAVITY MAIN FROM
MBR TO RCC OHT (100 TO 250 MM DI K -7)/52721 M
(Unified Schedule of rates (PART-1) for water supply, sewerage works in force from 07.02.2013 issued by
Engineer-in-charge public Health Engineering Department, Raipur Chhattisgarh)

Estimated Cost Rs. 821.93 Laes

S.R. No.	Particulars	Qty.	Rate (In Rs.)	Unit	Amount (In Laes)	Remark
1	Cutting of Water bound macadam road including disposal of material within 50m lead. $800 \times 0.70 \times 0.30 = 168.00$	168.00	236.00	Cum	0.39648	CG PHE USOR 2.17/20
2	Cutting of bituminous road including disposal of material within 50m lead. $150 \times 0.70 \times 0.05 = 5.25$	5.25	317.00	Cum	0.0166	CG PHE USOR 2.18/20
3	Demolishing C.C./R.C.C. work by mechanical means including stacking of service able material and disposal of unservice able material with in 50m, lead. $1000 \times 0.70 \times 0.30 = 210.00$	210.00	700.00	Cum	1.470	CG PHE USOR 2.19/20
4	Earth work in excavation for pipe trench in ordinary soil areas including dressing, watering and ramming and disposal of excavated earth lead upto 50 meters and lift upto 1.5m, disposal earth to be levelled, neatly dressed. $50771 \times 0.70 \times 0.30 = 10661.91$	10661.91	144.00	Cum	15.3532	CG PHE USOR 2.1/19
5	Earth work in excavation for pipe trench in hard soil areas including dressing, watering and ramming and disposal of excavated earth lead upto 50 meters and lift upto 1.5m, disposal earth to be levelled, neatly dressed. 0.50 $50771 \times 0.70 \times 0.40 = 14215.88$ 17763.85	17763.85 <u>14215.88</u>	191.00	Cum	33.94 <u>27.152</u>	CG PHE USOR 2.2/19
6	Earth work in excavation for pipe trench in Laterite soil areas including dressing, watering and ramming and disposal of excavated earth lead upto 50 meters and lift upto 1.5m, disposal earth to be levelled, neatly dressed. $50771 \times 0.70 \times 0.30 = 10661.91$ $1950 \times 0.7 \times 0.9 = 1228.50$	10661.91 1228.50 <u>11890.41</u>	276.00	Cum	3.39 <u>32.818</u>	CG PHE USOR 2.3/19

7	Earth work in excavation for pipe trench in all kinds of rocks in areas including dressing, stacking of useful material and disposal of unserviceable one up to 50 m lead and lift up to 1.5 m. (a) Soft rock with or without blasting or bituminous pavement/cement concrete road. $50771 \times 0.70 \times 0.20 = 7107.94$	7107.94	334.00	Cum	23.7405	CG PHI USOR 2.5(A)/1
8	Pumping out water caused by springs, tides or river seepage, broken water mains or drains or well or the like.	4500.00	51.00	Per KI	2.295	CG PH USOR 2.9/20
9	Filling with murum / river sand for pipe bedding or over the pipe including supply. For filling of WBM bottom+Restoration of Road $3500 \times 0.70 \times 0.20 = 490.00$ Cum	245.00 490.00	620.00	Cum	1.52 (3.04)	20/2.1
10	Providing & laying mechanically mixed cement concrete 20mm maximum size graded crushed stone excluding cost of centring & shuttering. M-20 For Restoration of Roads $[1950 \times (0.60+0.90)/2 \times 0.30]$	438.75	4484.00	Cum	19.67	21/2.21.1
11	Providing, laying and jointing socket & spigot centrifugally cast (Spun) Ductile Iron pressure pipes with inside cement mortar lining (class K-7) Conforming to IS 8329/2000 with suitable Rubber Gasket (Pushon) joints as per IS:5382/85 including testing of joint (laying Conforming to IS 12288 : 1987) 52721 m.					CG PHE USOR 6.1/73
Total Length 78260 mtr 52721 m						
	100 mm dia. D.I. pipe class K-7	25569	720.00	Rmtr	184.097	
	150 mm dia. D.I. pipe class K-7	7093	1051.00	Rmtr	74.547	
	200 mm dia. D.I. pipe class K-7	12544	1608.00	Rmtr	201.708	
	250 mm dia. D.I. pipe class K-7	7515	2125.00	Rmtr	159.694	
12	For construction of thrust block for 40 Nos. Size 0.60 M x 0.60 M x 0.60 M (A) FORM WORK Providing and fixing form work i/c centring shuttering, strutting, staging, propping, bracing etc. complete and i/c /removal of form work. $40 \times (0.60 + 0.60 + 0.60 + 0.60) = 96.00$					CG PHE USOR 2.31+2.31 .1/25
	Foundation / footing/ columnbase/ plinth beam of any shape and size up to plinth level	96.00	139.00	Sqm	0.133	
13	(B) STEEL Providing and placing in position cold twisted or uncoated HYSD steel bar and hot rolled deformed steel reinforcement for R.C.C. work/ cutting, bending, binding etc. complete i/c cost of binding wire and wastage.					CG PHE USOR 2.25+2.25 .1+2.25.1 1/23

Sub structure @ 1% of volume of concrete $1/100 \times 40 \times 0.60 \times 0.60 \times 0.60 \times 7850 = 678.24$ (Density of steel 7850 kg / M ³)		678.24	55.00	Per Kg	0.373	
14	Providing & laying mechanically mixed cement concrete 20 mm maximum size graded crushed stone excluding cost of centring & shuttering.					CG PHE USOR 2.21+2.2 1(3)/2
	In Plinth & foundation. Grade M - 20 $40 \times 0.60 \times 0.60 \times 0.60 = 8.64$	8.64	4484.00	Cum	0.387	
15	Construction of RCC Chamber for CI Sluice valves and Air Valves			As per sub estimate no. 1		
	Valve Chamber with precast RCC covers (1.00 X 1.00X 1.25 METER)	92.00	18865.00		17.3558	
16	Providing, Laying & Jointing of welded double flanged centrifugal cast (spun) ductile Iron pressure pipes Conforming to IS:8329/2000 in the length of 1m. for class K-9 with inside cement mortar lining for the sizes/dia pipes. (laying Conforming to IS 12288 : 1987)					95/6.31
	80 mm diameter	25	5862.00	Each	1.466	
	100 mm diameter	30	7160.00	Each	2.15	
	150 mm diameter	15	10367.00	Each	1.56	
	200 mm diameter	19	14489.0	Each	2.75	
	250 mm diameter	14	19734.0	Each	2.76	
17	Labour for cutting following D.I. pipes of any type and class.					324/32.4
	100 mm dia	35	30.00	per cut	0.0105	
	150 mm dia	40	54.00	per cut	0.0216	
	200 mm dia	42	72.00	Per cut	0.030	
	250 mm dia	25	89.00	per cut	0.0223	
18	Chamfering ductile iron pipes of all types and classes to make suitable for tyton joints.					325/32.8
	100 mm dia.	70	301.00	each	0.2107	
	150 mm dia.	80	301.00	each	0.2408	
	200 mm dia	84	378.00	Each	0.318	
	250 mm dia	50	414.00	each	0.2070	
19	Providing & laying Ductile iron Mechanical joint collar with follower glands Conforming to IS-9523/2000 having dimension as per table 24 of IS-9523/2000 in the nominal diameter/sizes with external bitumen coating and internal cement mortar lining. (laying Conforming to IS 12288 : 1987)					78/6.11
	100 mm dia	35	1459.00	Each	0.5107	
	150 mm dia	20	2451.00	Each	0.4902	
	200 mm dia	18	3071.00	Each	0.553	
	250 mm dia	14	4651.00	Each	0.6511	

21	Providing & Laying Ductile Iron Double Socket 90° Bends Conforming to IS-9523/2000 having dimension as per table 15 of IS-9523/2000 in the following nominal diameter/sizes with external bitumen coating and internal cement mortar lining. (Laying Conforming to IS 12288 : 1987)					79/6.13
	100 mm dia	32	787.00	Each	0.2518	
	150 mm dia	20	1430.00	Each	0.2860	
	200 mm dia	25	2289.00	Each	0.572	
	250 mm dia	18	3224.00	Each	0.58	
21	Providing & Laying Ductile Iron Double Socket 45° Bends Conforming to IS-9523/2000 having dimension as per table 16 of IS-9523/2000 in the nominal diameter/sizes with external bitumen coating and internal cement mortar lining. (Laying Conforming to IS 12288 : 1987)					80/6.15
	100 mm dia	40	715.00	Each	0.2860	
	150 mm dia	22	1144.00	Each	0.2517	
	200 mm dia	25	1863.00	Each	0.47	
	250 mm dia	10	2505.00	Each	0.25	
22	Providing & Laying Ductile Iron Double Socket 22.5° Bends Conforming to IS-9523/2000 having dimension as per table 17 of IS-9523/2000 in the nominal diameter/sizes with external bitumen coating and internal cement mortar lining. (Laying Conforming to IS 12288 : 1987)					81/6.17
	100 mm dia	45	644.00	Each	0.29	
	150 mm dia	20	1073.00	Each	0.21	
	200 mm dia	25	1647.00	Each	0.41	
	250 mm dia	18	2149.00	Each	0.39	
23	Providing & Laying Ductile Iron Double Socket 11.25° bends Conforming to IS-9523/2000 having dimension as per table 18 of IS-9523/2000 in the nominal diameter/sizes with external bitumen coating and internal cement mortar lining. (Laying Conforming to IS 12288 : 1987)					82/6.19
	100 mm dia	50	644.00	Each	0.32	
	150 mm dia	25	1001.00	Each	0.25	
	200 mm dia	30	1502.00	Each	0.45	
	250 mm dia	26	2006.00	Each	0.52	
24	Providing & Laying Ductile Iron All socket Tees Conforming to IS-9523/2000 having dimension as per table 21 of IS-9523/2000 in the nominal diameter/sizes with external bitumen coating and internal cement mortar lining with finishing as per clause 13 of IS-9523/2000. (Laying Conforming to IS 12288 : 1987) (All sizes in mm)					83/6.21

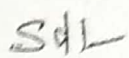
	250 x 100	5	2549.00	Each	0.12	27
	200 x 200	6	2853.00	Each	0.17	
	200 x 100	7	2147.00	Each	0.15	
	100 x 100	10	1974.00	Each	0.11	
	100 x 80	4	1932.00	Each	0.09	
	150 x 80	4	1432.00	Each	0.06	
	150 x 100	6	1503.00	Each	0.09	
	150 x 150	4	1799.00	Each	0.07	
	200 x 80	3	2004.00	Each	0.06	
	200 x 150	3	2434.00	Each	0.07	
	250 x 80	2	2503.00	Each	0.05	
	250 x 150	5	3005.00	Each	0.15	
	250 x 200	5	3366.00	Each	0.17	
	250 x 250	4	3937.00	Each	0.16	
25	Providing & Laying Ductile Iron Double Socket branch flange Tee Conforming to IS-9523/2000 having dimension as per table 21 of IS-9523/2000 in the nominal diameter/sizes with external bitumen coating and internal cement mortar lining with finishing as per clause 13 of IS-9523/2000. (Laying Conforming to IS 12288 : 1987) (All sizes in mm)					27/6/23
	100 x 80 mm	10	1161.00	Each	0.12	
	200 x 80 mm	8	2244.00	Each	0.18	
	200 x 100 mm	4	2399.00	Each	0.16	
	250 x 80 mm	6	2786.00	Each	0.17	
	250 x 100 mm	4	2941.00	Each	0.12	
	150 x 150 mm	7	2080.00	Each	0.15	
	200 x 150 mm	6	2786.00	Each	0.17	
	200 x 200 mm	4	3250.00	Each	0.13	
	250 x 150 mm	6	3495.00	Each	0.20	
	250 x 200 mm	7	3947.00	Each	0.28	
	250 x 250 mm	4	4566.00	Each	0.18	
26	Providing and Laying ductile iron PN-1.6 type flanged sockets Conforming to IS-9523/2000 having dimension as per table 23 of IS-9523/2000 in the nominal diameter/sizes with external bitumen coating and internal cement mortar lining with finishing as per clause 13 of IS-9523/2000. (Laying Conforming to IS 12288 : 1987)					7/6/7
	100 mm dia	35	705.00	Each	0.25	
	150 mm dia	15	1086.00	Each	0.16	
	200 mm dia	20	1544.00	Each	0.31	
	250 mm dia	14	2012.00	Each	0.28	

27	Providing and Laying ductile iron PN-1.6 type flanged spigot Conforming to IS-9523/2000 having dimension as per table 24 of IS-9523/2000 in the nominal diameter/sizes with external bitumen coating and internal cement mortar lining with finishing as per clause 13 of IS-9523/2000. (laying Conforming to IS 12288 : 1987)					77/6.9
	100 mm dia	20	777.00	Each	0.16	
	150 mm dia	10	1237.00	Each	0.12	
	200 mm dia	12	1771.00	Each	0.21	
	250 mm dia	8	2465.00	Each	0.20	
28	Provision of RCC cloumn (M-20) for carrying D.I. pressure pipe Class K-9 dia 150/100 mm at location to cross the nallah.	30	26423.00	as per sub Estt.no.2	7.927	
29	Providing & fixing cast iron double air valves, flanged without in-built isolating valve as per IS : 14845-2000 including jointing & testing with cost of jointing material and rubber insertion all complete as per IS : 13095-1991					8.17/127
	80 mm dia	55	3331.00	Each	1.83	
30	Providing & fixing of Cast iron double flanged sluice valves as per I.S.:14846-2000 fitted with cast iron cap including jointing & testing with cost of jointing material such as bolts, nuts, rubber insertions etc. all complete. (Steel Spindle) PN- 1.6					121/8.1
	100 mm dia	15	4259.00	Each	0.6389	
	150 mm dia	7	6484.00	Each	0.4539	
	200 mm dia	10	11361.0	Each	1.1361	
	250 mm dia	5	15732.0	Each	0.7866	
31	Providing & fixing of Cast iron double flanged Single Door Reflux (non return) valves including jointing & testing with cost of jointing material such as bolts, nuts, rubber insertions etc. all complete as per I.S.: 5312(Part-I)					124/8.10(a)
	100 mm dia	6	2350.00	Each	0.1410	
	150 mm dia	3	3857.00	Each	0.1157	
	200 mm dia	4	6891.0	Each	0.2756	
	250 mm dia	3	9758.0	Each	0.2927	
32	Providing & Laying Ductile Iron Double Socket Reducer Conforming to IS-9523/2000 having dimension as per table 21 of IS-9523/2000 in the nominal diameter/sizes with external bitumen coating and internal cement mortar lining with finishing as per clause 13 of IS-9523/2000. (laying Conforming to IS 12288 : 1987) (All sizes in mm)					8.1/8.1

200 x 100	20	1433.00	Each	0.29	
250 x 200	15	1833.00	Each	0.27	
150 x 100	22	932.00	Each	0.21	
Filling available excavated earth in trenches, lead upto 50 m and lift up to 1.5m in all kind of soil excluding watering and ramming.					
33 Volume of excavation - volume of pipe line/sand/rock $44259.39 - \pi/4 (0.12^2 \times 25569 + 0.17^2 \times 7093 + 0.22^2 \times 12544 + 0.27^2 \times 7515) - 1225 = 41385.13$	41677.79	45.00	Cum	18.755	CG PHI USOR
	41677.79			18.6233	2.10.2/2
Total Rs.				821.9314	795.608
Say Rs.				821.93 Lakh	

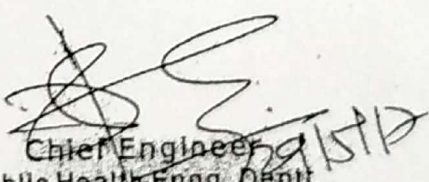
(Rs. Eight Hundred Twenty One Lakh Ninty Three Thousand Only 795.601
 Seven crore ninty five lakh sixty thousand only.


 Assistant Engineer
 Public Health Engg. Sub-Division
 Dantewada


 Executive Engineer
 Public Health Engg. Division
 Dantewada

Superintending Engineer
 Public Health Engineering Deptt.
 Jagdalpur Circle, JAGDALPUR (C.G.)

Technically Sanctioned for Rs. 795.60 lakh
 in words Rs. Seven crore ninty five lakh -
sixty thousand only.
 Estimate No. 03 /TS/Dated 29/01/17


 Chief Engineer
 Public Health Engg. Deptt.
 Jagdalpur Zone, Jagdalpur (C.G.)