

**KIIFB Project:TRAN10: WRD025- 06 -WSS to Ayyappankovil Panchayat in Idukki District-Part II-Package-II- Supplying, laying and commissioning 350mm, 300mm& 250mm DI pumping/ gravity main and 80mm GI pumping main, improvement work of Kalthotty sump& pump house, construction of pipe line bridge, design and construction of 1.00LL capacity sump& pump house at Nariyanpara, providing wash water disposal pipe line at WTP Alady and interconnection works etc**

LMR Abstract with DAR 21-IDK(Idukki & Udumbanchola & Peerumedu) 01/07/2022 - 30/09/2022

Sl No	Spec	Description	Quantity	Unit	DSOR Rate	TS Amount	LMR Rate	LMR Amount
5	Appendix A- (1) - Supply and laying 350mm and 300mm DI gravity main/ pumping main pipe from Alady GLSR to Kalthotty sump (Re-arranging)- (a) Cost of materials							
1	100.98.119	Supply of DI K9 Pipe Conforming to IS 8329/2000, 300mm Dia.	1870.00	metre	4520.63	8453578.10	4274.30	7992941.00
			0					
2	100.98.120	Supply of DI K9 Pipe Conforming to IS 8329/2000, 350mm Dia.	5353.00	metre	5506.95	29478703.35	5238.35	28040887.55
			0					
3	100.98.461	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 200mm.	5.000	No	23723.65	118618.25	11794.00	58970.00
4	100.98.463	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 300mm.	1.000	No	43312.35	43312.35	21653.95	21653.95
5	100.98.464	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 350mm.	2.000	No	77806.55	155613.10	31667.35	63334.70
6	od41949/2020_2021	Supply DI specials, Tees, Bends, Collars, Tapers etc.	59.982	quintal	20384.0	1222673.09	19397.05	1163473.85
7	100.98.436	Supply of CI Air Valve, Conforming to IS 14848 - 2000, Kinetic Air Valve Type DK, Size 80mm.						

			4.000	No	11748.55	46994.20	5691.80	22767.20
8	100.98.437	Supply of CI Air Valve, Conforming to IS 14848 - 2000, Kinetic Air Valve Type DK, Size 100mm.						
			6.000	No	17963.75	107782.50	7621.70	45730.20
SI No	Spec	Description	Quantity	Unit	DSOR Rate	TS Amount	LMR Rate	LMR Amount
6	Appendix A - (1) - Supply and laying 350mm and 300mm DI gravity main/ pumping main pipe from Alady GLSR to Kalthotty sump (Re-arranging)-(b) Working charges							
1	100.1.1	Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m : All kinds of soil (Ref. Item No. 2.10.1 of DSR)						
			7346.91 9	cum	579.85	4260110.98	592.25	4351212.78
2	100.1.5	Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m :" Ordinary Rock. (Ref. Item No. 2.13.1 of DSR)						
			1763.26 1	cum	842.1	1484842.09	1033.20	1821801.27
3	100.2.2	Excavation work by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 m <sup>2</sup> on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soils as directed, within a lead of 50 m. Medium Rock (blasting prohibited) New Data derived from Item No.2.9.3						
			293.878	cum	1106.34	325128.99	1547.00	454629.27
4	2.7.3	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed. Hard rock (blasting prohibited)						
			195.918	cum	1248.58	244619.30	1781.60	349047.51

5	100.4.1 Excavating in hard rock for trenches by blasting for laying pipes and stacking useful materials for measurements and disposing unserviceable materials within the initial lead of 50m and lift upto 1.50m (initial depth 0 m to 1.50m) and providing protection by earth filled cement bags during blasting to avoid damages to nearby structures (200 Nos. of earth filled cement bags for 10m <sup>3</sup> blasting) (Ref. Item No. 1004 A of T C)	195.918	cum	4093.4	801970.74	2547.30	499061.92
6	100.8.1 Fencing one side of trenches, 1.50 m height with two rows of 10 cm plastic caution tape in vertical casuarina pole (girth 15cm to 24cm) fixed at 2 m intervals. (Data Prepared based on PWD SDB - Item No.1009)	2900.00 0	metre	28.82	83578.00	29.10	84390.00
7	100.8.2 Fencing 1.50m high with two rows of casuarina poles (girth 15cm to 24cm) tied with coir yarn on vertical casuarina pole (girth 15cm to 24cm) fixed at 1.5m intervals. NEW DATA (Prepared based on PWD SDB - Item No.1009)	4000.00 0	metre	99.36	397440.00	100.25	401000.00
8	50.2.25.1 Filling with contractor's own earth ( excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m as per direction of site Engineer-in-charge	350.000	cum	548.85	192097.50	342.40	119840.00
9	100.14.5 Conveying and laying S&S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS: 8329 excluding cost of pipes and specials : 300 mm dia Ductile Iron Class K-9 Pipes Data derived from 18.72.19 in DAR	1833.00 0	metre	214.13	392500.29	199.55	365775.15
10	100.14.6 Conveying and laying S&S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS: 8329 excluding cost of pipes and specials : 350 mm dia Ductile Iron Class K-9 Pipes Data derived from 18.72.20 in DAR	5248.00 0	metre	283.7	1488857.60	263.05	1380486.40

11	100.31.1.5 "Conveying and fixing C.I. sluice valves (with cap) by providing complete with bolts, nuts, rubber insertions etc. excluding the cost of valve (the tail pieces if required will be paid separately) : 200 mm diameter. Class I" Data derived from item no.18.31.4.1 of DAR	5.000	Nos	1625.9	8129.50	1770.80	8854.00
12	100.31.1.7 "Conveying and fixing C.I. sluice valves (with cap) by providing complete with bolts, nuts, rubber insertions etc. excluding the cost of valve (the tail pieces if required will be paid separately) : 300 mm diameter. Class I" Data derived from item no.18.31.6.1 of DAR	1.000	Nos	2708.11	2708.11	2949.60	2949.60
13	100.31.1.8 "Conveying and fixing C.I. sluice valves (with cap) by providing complete with bolts, nuts, rubber insertions etc. excluding the cost of valve (the tail pieces if required will be paid separately) : 350 mm diameter. Class I" Observed Data derived from item no.18.31.of DAR	2.000	Nos	3616.3	7232.60	3827.40	7654.80
14	100.32.4 Conveying and fixing C I Single acting Air Valve of approved quality with bolts,nuts,rubber insertions etc . excluding the cost of air valve(the tail pieces if required will be paid seperately): 80 mm Double acting Air Valve Data derived from item no.18.59.2 of DAR	4.000	Nos	229.21	916.84	259.35	1037.40
15	100.32.5 Conveying and fixing C I Single acting Air Valve of approved quality with bolts,nuts,rubber insertions etc . excluding the cost of air valve(the tail pieces if required will be paid seperately): 100 mm Double acting Air Valve	6.000	Nos	351.21	2107.26	410.70	2464.20
16	18.30.7 Providing flanged joints to double flanged C.I./ D.I pipes and specials, including testing of joints:300 mm diameter pipe	70.000	Nos	603.77	42263.90	727.55	50928.50
17	18.30.8 Providing flanged joints to double flanged C.I./ D.I pipes and specials, including testing of joints:350 mm diameter pipe	100.000	Nos	811.46	81146.00	921.05	92105.00
18	18.70.5 Providing push - on-joints to Centrifugally (Spun) Cast Iron Pipes or Ductile Iron Pipes including testing of joints and including the cost of rubber gasket:300 mm dia pipe						

		300.000	joint	430.68	129204.00	429.30	128790.00
19	18.70.6 Providing push - on-joints to Centrifugally (Spun) Cast Iron Pipes or Ductile Iron Pipes including testing of joints and including the cost of rubber gasket:350 mm dia pipes						
		1000.00 0	joint	456.93	456930.00	452.50	452500.00
20	18.24 Laying in position S & S or flanged C.I. special such as tees, bends, collars, tapers and caps etc. ( excluding cost of specials).						
		59.982	quintal	603.91	36223.73	616.55	36981.90
21	18.67.1 Providing and laying S & S C.I. Standard specials suitable for mechanical jointing as per IS 13382:Upto 300 mm dia						
		2.400	quintal	14708.65	35300.76	14043.50	33704.40
22	18.67.2 Providing and laying S & S C.I. Standard specials suitable for mechanical jointing as per IS 13382:Above 300 mm dia						
		6.200	quintal	15492.79	96055.30	14786.85	91678.47
23	18.83.7 Labour for cutting C.I. pipe with steel saw.300 mm diameter C.I. pipe						
		10.000	Each Cut	671.63	6716.30	694.55	6945.50
24	18.83.8 Labour for cutting C.I. pipe with steel saw.350 mm diameter C.I pipe						
		25.000	Each Cut	781.1	19527.50	807.85	20196.25
25	100.35.5 Testing 300mm DI/CI pipeline with potable water to the required test pressure. 300 mm dia Observed Data derived from item no.1023 of PHED DATA						
		1833.00 0	metre	57.81	105965.73	60.95	111721.35
26	100.35.6 Testing 350mm DI/CI pipeline with potable water to the required test pressure. 350 mm dia Observed Data derived from item no.1024 of PHED DATA						

		5248.00 0	metre	70.53	370141.44	74.60	391500.80
27	4.1.3 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)						
		10.000	cum	8340.93	83409.30	10609.70	106097.00
28	5.9.1 Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of columns, etc for mass concrete						
		40.000	sqm	350.0	14000.00	347.55	13902.00
29	2.8.1 Earth work in excavation by mechanical means (Hydraulic excavator) /manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.All kinds of soil						
		65.341	cum	309.95	20252.44	319.55	20879.72
30	2.9.1 Excavation work by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soils as directed, within a lead of 50 m.Ordinary rock						
		65.341	cum	550.62	35978.06	738.65	48264.13
31	4.1.6 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:3:6 ( 1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size)						
		17.425	cum	7527.06	131159.02	9712.35	169237.70
32	5.1.2 Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level:1:1:5:3 (1 cement 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size)						
		69.409	cum	9483.15	658215.96	11828.25	820987.00
33	5.22.2 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth levelHard drawn steel wire						
		7000.00 0	kilogram	105.23	736610.00	132.00	924000.00

34	5.9.2 Centering and shuttering including strutting, etc. and removal of form for:Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.							
			202.500	sqm	748.62	151595.55	766.40	155196.00
35	13.1.1 12 mm cement plaster of mix:1:4 ( 1 cement : 4 fine sand)							
			170.100	sqm	327.85	55767.29	386.35	65718.14
SI No	Spec	Description	Quantity	Unit	DSOR Rate	TS Amount	LMR Rate	LMR Amount
11 Appendix A - (2) - Supply and laying 300 mm DI pumping main from Kalthotty sump to Nariyanpara (Re-arranging)- (a) cost of materials								
1	100.98.119 Supply of DI K9 Pipe Conforming to IS 8329/2000, 300mm Dia.							
			4927.00 0	metre	4520.63	22273144.01	4274.30	21059476.10
2	100.98.461 Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 200mm.							
			4.000	No	23723.65	94894.60	11794.00	47176.00
3	100.98.463 Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 300mm.							
			2.000	No	43312.35	86624.70	21653.95	43307.90
4	100.98.440 Supply of CI Air Valve, Conforming to IS 14848 - 2000, Single Orifice, Small Orifice Type S1, Size 25mm.							
			3.000	No	5636.75	16910.25	966.75	2900.25
5	100.98.444 Supply of CI Air Valve, Conforming to IS 14848 - 2000, Single Orifice, Large Orifice Type S2, Size 50mm.							
			5.000	No	6110.65	30553.25	1760.95	8804.75
6	od41949/2020_2021 Supply DI specials, Tees, Bends, Collars, Tapers etc.							
			26.761	quintal	20384.0	545496.22	19397.05	519084.46
SI No	Spec	Description	Quantity	Unit	DSOR Rate	TS Amount	LMR Rate	LMR Amount
12 Appendix A - (2) - Supply and laying 300 mm DI pumping main from Kalthotty sump to Nariyanpara (Re-arranging)- (b) Working charges								

1	100.1.1 Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m : All kinds of soil (Ref. Item No. 2.10.1 of DSR)	4528.12 5	cum	579.85	2625633.28	592.25	2681782.03
2	100.1.5 Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m :" Ordinary Rock. (Ref. Item No. 2.13.1 of DSR)	905.625	cum	842.1	762626.81	1033.20	935691.75
3	100.2.2 Excavation work by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 m <sup>2</sup> on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soils as directed, within a lead of 50 m. Medium Rock (blasting prohibited) New Data derived from Item No.2.9.3	301.875	cum	1106.34	333976.39	1547.00	467000.63
4	2.7.3 Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed. Hard rock (blasting prohibited)	181.125	cum	1248.58	226149.05	1781.60	322692.30
5	100.4.1 Excavating in hard rock for trenches by blasting for laying pipes and stacking useful materials for measurements and disposing unserviceable materials within the initial lead of 50m and lift upto 1.50m (initial depth 0 m to 1.50m) and providing protection by earth filled cement bags during blasting to avoid damages to nearby structures (200 Nos. of earth filled cement bags for 10m <sup>3</sup> blasting) (Ref. Item No. 1004 A of T C)	120.750	cum	4093.4	494278.05	2547.30	307586.48
6	50.2.25.1 Filling with contractor's own earth ( excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m as per direction of site Engineer-in-charge						



		250.000	cum	548.85	137212.50	342.40	85600.00
7	100.8.1 Fencing one side of trenches, 1.50 m height with two rows of 10 cm plastic caution tape in vertical casuarina pole (girth 15cm to 24cm) fixed at 2 m intervals. (Data Prepared based on PWD SDB - Item No.1009)						
		4000.00 0	metre	28.82	115280.00	29.10	116400.00
8	100.14.5 Conveying and laying S&S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS: 8329 excluding cost of pipes and specials : 300 mm dia Ductile Iron Class K-9 Pipes Data derived from 18.72.19 in DAR						
		4830.00 0	metre	214.13	1034247.90	199.55	963826.50
9	18.70.5 Providing push - on-joints to Centrifugally (Spun) Cast Iron Pipes or Ductile Iron Pipes including testing of joints and including the cost of rubber gasket:300 mm dia pipe						
		800.000	joint	430.68	344544.00	429.30	343440.00
10	18.30.7 Providing flanged joints to double flanged C.I./ D.I pipes and specials, including testing of joints:300 mm diameter pipe						
		100.000	Nos	603.77	60377.00	727.55	72755.00
11	18.83.7 Labour for cutting C.I. pipe with steel saw.300 mm diameter C.I. pipe						
		50.000	Each Cut	671.63	33581.50	694.55	34727.50
12	100.35.5 Testing 300mm DI/CI pipeline with potable water to the required test pressure. 300 mm dia Observed Data derived from item no.1023 of PHED DATA						
		4830.00 0	metre	57.81	279222.30	60.95	294388.50
13	100.31.1.5 "Conveying and fixing C.I. sluice valves (with cap) by providing complete with bolts, nuts, rubber insertions etc. excluding the cost of valve (the tail pieces if required will be paid separately) : 200 mm diameter. Class I" Data derived from item no.18.31.4.1 of DAR						
		4.000	Nos	1625.9	6503.60	1770.80	7083.20

14	100.31.1.7 "Conveying and fixing C.I. sluice valves (with cap) by providing complete with bolts, nuts, rubber insertions etc. excluding the cost of valve (the tail pieces if required will be paid separately) : 300 mm diameter. Class I" Data derived from item no.18.31.6.1 of DAR	2.000	Nos	2708.11	5416.22	2949.60	5899.20
15	100.32.1 Conveying and fixing C I Single acting Air Valve of approved quality with bolts,nuts,rubber insertions etc . excluding the cost of air valve(the tail pieces if required will be paid seperately): 25 mm Single acting Air Valve Observed Data derived from item no.18.59.of DAR	3.000	Nos	146.63	439.89	146.60	439.80
16	100.32.3 Conveying and fixing C I Single acting Air Valve of approved quality with bolts,nuts,rubber insertions etc . excluding the cost of air valve(the tail pieces if required will be paid seperately): 50 mm Double acting Air Valve Data derived from item no.18.59.1 of DAR	5.000	Nos	229.21	1146.05	259.35	1296.75
17	18.24 Laying in position S & S or flanged C.I. special such as tees, bends, collars, tapers and caps etc. ( excluding cost of specials).	26.761	quintal	603.91	16161.24	616.55	16499.49
18	18.67.1 Providing and laying S & S C.I. Standard specials suitable for mechanical jointing as per IS 13382:Upto 300 mm dia	4.800	quintal	14708.65	70601.52	14043.50	67408.80
19	2.8.1 Earth work in excavation by mechanical means (Hydraulic excavator) /manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.All kinds of soil	10.891	cum	309.95	3375.67	319.55	3480.22
20	2.9.1 Excavation work by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soils as directed, within a lead of 50 m.Ordinary rock	10.891	cum	550.62	5996.80	738.65	8044.64

21	4.1.6	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:3:6 ( 1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size)	1.453	cum	7527.06	10936.82	9712.35	14112.04
22	5.1.2	Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level:1:1:5:3 (1 cement 1.5 coarse sand :3 graded stone aggregate 20 mm nominal size)	7.832	cum	9483.15	74272.03	11828.25	92638.85
23	5.22.2	Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth level Hard drawn steel wire	783.200	kilogram	105.23	82416.14	132.00	103382.40
24	5.9.2	Centering and shuttering including strutting, etc. and removal of form for:Walls (any thickness) including attached pilasters, buttersesses, plinth and string courses etc.	33.750	sqm	748.62	25265.93	766.40	25866.00
25	13.1.1	12 mm cement plaster of mix:1:4 ( 1 cement : 4 fine sand)	28.350	sqm	327.85	9294.55	386.35	10953.02
26	4.1.3	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)	10.000	cum	8340.93	83409.30	10609.70	106097.00
27	5.9.1	Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of columns, etc for mass concrete	40.000	sqm	350.0	14000.00	347.55	13902.00
SI No	Spec	Description	Quantity	Unit	DSOR Rate	TS Amount	LMR Rate	LMR Amount
13	Appendix A - (3) - Supply and Laying 250mm DI pumping main from Nariyanpara to Idukki kavala (balance work re-arranging)- (a) Cost of materials							
1	100.98.118	Supply of DI K9 Pipe Conforming to IS 8329/2000, 250mm Dia.	1188.00 0	metre	3616.52	4296425.76	3438.05	4084403.40

2	od41949/2020_2021 Supply DI specials, Tees, Bends, Collars, Tapers etc.							
	7.450	quintal	20384.0	151860.80	19397.05	144508.02		
3	100.98.461 Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 200mm.							
	1.000	No	23723.65	23723.65	11794.00	11794.00		
4	100.98.462 Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 250mm.							
	3.000	No	34361.8	103085.40	18345.20	55035.60		
5	100.98.440 Supply of CI Air Valve, Conforming to IS 14848 - 2000, Single Orifice, Small Orifice Type S1, Size 25mm.							
	3.000	No	5636.75	16910.25	966.75	2900.25		
SI No	Spec	Description	Quantity	Unit	DSOR Rate	TS Amount	LMR Rate	LMR Amount
23	Appendix A - (3) - Supply and Laying 250mm DI pumping main from Nariyanpara to Idukki kavala (balance work re-arranging)- (b) Working charges							
1	100.1.1 Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m : All kinds of soil (Ref. Item No. 2.10.1 of DSR)							
	943.651	cum	579.85	547176.03	592.25	558877.30		
2	100.1.5 Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m :" Ordinary Rock. (Ref. Item No. 2.13.1 of DSR)							
	188.730	cum	842.1	158929.53	1033.20	194995.84		

3	100.2.2 Excavation work by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 m <sup>2</sup> on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soils as directed, within a lead of 50 m. Medium Rock (blasting prohibited) New Data derived from Item No.2.9.3	75.492	cum	1106.34	83519.82	1547.00	116786.12
4	2.7.3 Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed. Hard rock (blasting prohibited)	25.164	cum	1248.58	31419.27	1781.60	44832.18
5	100.4.1 Excavating in hard rock for trenches by blasting for laying pipes and stacking useful materials for measurements and disposing unserviceable materials within the initial lead of 50m and lift upto 1.50m (initial depth 0 m to 1.50m) and providing protection by earth filled cement bags during blasting to avoid damages to nearby structures (200 Nos. of earth filled cement bags for 10m <sup>3</sup> blasting) (Ref. Item No. 1004 A of T C)	25.164	cum	4093.4	103006.32	2547.30	64100.26
6	50.2.25.1 Filling with contractor's own earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m as per direction of site Engineer-in-charge	10.000	cum	548.85	5488.50	342.40	3424.00
7	100.8.1 Fencing one side of trenches, 1.50 m height with two rows of 10 cm plastic caution tape in vertical casuarina pole (girth 15cm to 24cm) fixed at 2 m intervals. (Data Prepared based on PWD SDB - Item No.1009)	800.000	metre	28.82	23056.00	29.10	23280.00
8	100.14.4 Conveying and laying S&S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS: 8329 excluding cost of pipes and specials : 250 mm dia Ductile Iron Class K-9 Pipes Data derived from 18.72.18 in DAR	1165.00 0	metre	170.19	198271.35	158.35	184477.75
9	18.70.4 Providing push - on-joints to Centrifugally (Spun) Cast Iron Pipes or Ductile Iron Pipes including testing of joints and including the cost of rubber gasket: 250 mm dia pipes	230.000	joint	329.84	75863.20	328.70	75601.00

10	18.30.6 Providing flanged joints to double flanged C.I./ D.I pipes and specials, including testing of joints:250 mm diameter pipe	25.000	Nos	595.56	14889.00	727.55	18188.75
11	18.83.6 Labour for cutting C.I. pipe with steel saw.250 mm diameter C.I. pipe	15.000	Each Cut	559.11	8386.65	578.20	8673.00
12	100.35.4 Testing 250mm DI/CI pipeline with potable water to the required test pressure . 250 mm dia Observed Data derived from item no.1022 of PHED DATA	1165.00 0	metre	52.99	61733.35	55.60	64774.00
13	100.31.1.5 "Conveying and fixing C.I. sluice valves (with cap) by providing complete with bolts, nuts, rubber insertions etc. excluding the cost of valve (the tail pieces if required will be paid separately) : 200 mm diameter. Class I" Data derived from item no.18.31.4.1 of DAR	1.000	Nos	1625.9	1625.90	1770.80	1770.80
14	100.31.1.6 "Conveying and fixing C.I. sluice valves (with cap) by providing complete with bolts, nuts, rubber insertions etc. excluding the cost of valve (the tail pieces if required will be paid separately) : 250 mm diameter. Class I" Data derived from item no.18.31.5.1 of DAR	3.000	Nos	2304.82	6914.46	2564.25	7692.75
15	100.32.1 Conveying and fixing C I Single acting Air Valve of approved quality with bolts,nuts,rubber insertions etc . excluding the cost of air valve(the tail pieces if required will be paid seperately): 25 mm Single acting Air Valve Observed Data derived from item no.18.59.of DAR	3.000	Nos	146.63	439.89	146.60	439.80
16	18.24 Laying in position S & S or flanged C.I. special such as tees, bends, collars, tapers and caps etc. ( excluding cost of specials).	7.450	quintal	603.91	4499.13	616.55	4593.30
17	18.67.1 Providing and laying S & S C.I. Standard specials suitable for mechanical jointing as per IS 13382:Upto 300 mm dia						

		1.440	quintal	14708.65	21180.46	14043.50	20222.64
18	2.8.1 Earth work in excavation by mechanical means (Hydraulic excavator) /manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.All kinds of soil						
		10.891	cum	309.95	3375.67	319.55	3480.22
19	2.9.1 Excavation work by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soils as directed, within a lead of 50 m.Ordinary rock						
		10.891	cum	550.62	5996.80	738.65	8044.64
20	4.1.6 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:3:6 ( 1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size)						
		1.453	cum	7527.06	10936.82	9712.35	14112.04
21	5.1.2 Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement -All work up to plinth level:1:1:5:3 (1 cement 1.5 coarse sand :3 graded stone aggregate 20 mm nominal size						
		7.832	cum	9483.15	74272.03	11828.25	92638.85
22	5.9.2 Centering and shuttering including strutting, etc. and removal of form for:Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.						
		33.750	sqm	748.62	25265.93	766.40	25866.00
23	5.22.2 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth levelHard drawn steel wire						
		783.200	kilogram	105.23	82416.14	132.00	103382.40
24	13.1.1 12 mm cement plaster of mix:1:4 ( 1 cement : 4 fine sand)						
		28.350	sqm	327.85	9294.55	386.35	10953.02
25	4.1.3 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)						

SI No	Spec	Description	Quantity	Unit	DSOR Rate	TS Amount	LMR Rate	LMR Amount
			5.000	cum	8340.93	41704.65	10609.70	53048.50
26	5.9.1	Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of columns, etc for mass concrete						
			20.000	sqm	350.0	7000.00	347.55	6951.00
24 Appendix B - (1) - Improvements at Kalthotty sump- (a) patch work, painting and providing toilet etc.								
1	2.31	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth up to 30 cm measured at a height of 1 m above ground level and removal of rubbish up to a distance of 50 m outside the periphery of the area cleared						
			40.000	sqm	15.43	617.20	15.60	624.00
2	2.8.1	Earth work in excavation by mechanical means (Hydraulic excavator) /manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.All kinds of soil						
			41.012	cum	309.95	12711.67	319.55	13105.38
3	15.7.4	Demolishing brick work manually / by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-Charge.In cement mortar						
			0.500	cum	1805.99	903.00	1829.35	914.68
4	15.2.1	Demolishing cement concrete manually / by mechanical means including disposal of material within 50 metres lead as per direction of Engineer - in-Charge.Nominal concrete 1:3:6 or richer mix (i/c equivalent design mix)						
			0.225	cum	2134.72	480.31	2162.25	486.51
5	7.1.1	Random rubble masonry with hard stone in foundation and plinth including levelling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 mm nominal size) up to plinth level with:Cement mortar 1:6 (1 cement : 6 coarse sand)						
			5.539	cum	7520.41	41655.55	8030.80	44482.60
6	4.1.5	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)						
			2.192	cum	7690.32	16857.18	9884.65	21667.15



7	50.6.1.3 Solid block masonry using pre cast solid blocks (Factory made) of size 40x20x20cm or nearest available size confirming to IS 2185 Part I of 1979 for super structure above floor two level up to floor V level thickness 20cm and above in: CM 1:6 ( 1 cement :6 coarse sand) etc complete	4.739	cum	7784.73	36891.84	8495.10	40258.28
8	10.5.2 Providing and fixing 1 mm thick M.S. sheet door with frame of 40x40x6 mm angle iron and 3 mm M.S. gusset plates at the junctions and corners, all necessary fittings complete, including applying a priming coat of approved steel primer.Using flats 30x6 mm for diagonal braces and central cross piece	1.441	sqm	5256.35	7574.40	6114.35	8810.78
9	5.1.3 Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level:1:2:4 ( 1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)	0.814	cum	8964.72	7297.28	11245.05	9153.47
10	5.2.2 Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. up tot floor five level excluding cost of centering, shuttering, finishing and reinforcement :1:1.5:3( 1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size)	4.657	cum	11433.93	53247.81	13791.85	64228.65
11	5.22.6 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth levelThermo - Mechanically Treated bars of grade Fe-500D or more	601.811	kilogram	102.61	61751.83	120.80	72698.77
12	5.9.1 Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of columns, etc for mass concrete	8.000	sqm	350.0	2800.00	347.55	2780.40
13	5.9.3 Centering and shuttering including strutting, etc. and removal of form for:Suspended floors, roofs, landings, balconies and access platform	29.311	sqm	851.52	24958.90	907.25	26592.40
14	5.9.5 Centering and shuttering including strutting, etc. and removal of form for:Lintels, beams, plinth beams, girders bressumers and cantilevers	17.740	sqm	678.28	12032.69	731.35	12974.15

15	5.9.6 Centering and shuttering including strutting, etc. and removal of form for:Columns, Pillars, Piers, Abutments, Posts and Struts						
		9.000	sqm	901.48	8113.32	910.10	8190.90
16	13.7.1 12 mm cement plaster finished with a floating coat of neat cement of mix:1:3 ( 1 cement : 3 fine sand)						
		14.081	sqm	418.79	5896.98	486.80	6854.63
17	13.2.1 15 mm cement plaster on the rough side of single or half brick wall of mix:1:4 (1 cement :4 fine sand)						
		68.840	sqm	378.31	26042.86	448.15	30850.65
18	13.44.1 Finishing walls with water proofing cement paint of required shade:New work (Two or more coats applied @ 3.84 kg/10 sqm)						
		328.177	sqm	112.09	36785.36	121.20	39775.05
19	13.48.3 Finishing with Deluxe Multi surface paint system for interiors and exteriors using primer as per manufacturers specifications:Painting Steel work with Deluxe Multi Surface Paint to give an even shade. Two or more coat applied @ 0.90 ltr/10 sqm over an under coat of primer applied @ 0.80 ltr/10 sqm of approved brand and manufacture						
		0.641	sqm	154.62	99.11	157.30	100.83
20	11.21.1.1 Providing and fixing 10 mm thick acid and /or alkali resistant tiles of approved make and colour using acid and / or alkali resisting mortar bedding, and joints filled with acid and /or alkali resisting cement as per IS : 4457, complete as per the direction of Engineer-in-Charge.In flooring on a bed of 10 mm thick mortar 1:4 (1 acid proof cement : 4 coarse sand)Acid and alkali resistant tile						
		3.750	sqm	1836.85	6888.19	2098.50	7869.38
21	11.21.2.1 Providing and fixing 10 mm thick acid and /or alkali resistant tiles of approved make and colour using acid and / or alkali resisting mortar bedding, and joints filled with acid and /or alkali resisting cement as per IS : 4457, complete as per the direction of Engineer-in-Charge.In dado/ skirting on 12 mm thick mortar 1:4 (1 acid proof cement : 4 coarse sand)Acid and alkali resistant tile						
		18.240	sqm	1975.33	36030.02	2235.80	40780.99
22	13.71 Lettering with black Japan pint of approved brand and manufacture						
		1500.00 0	Letterxc m ht	5.8	8700.00	5.85	8775.00

23	50.10.1	Steel work in built up G I tubular ( round, square or rectangular hollow tubes etc.) trusses etc., including cutting, hoisting,fixing in position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washers etc. complete						
		152.460	kg	198.21	30219.10	201.90	30781.67	
24	13.48.2	Finishing with Deluxe Multi surface paint system for interiors and exteriors using primer as per manufacturers specifications:Painting wood work with Deluxe Multi Surface Paint of required shade. Two or more coat applied @ 0.90 ltr/10 sqm over an under coat of primer applied @ 0.75 ltr/10 sqm of approved brand and manufacture						
		7.968	sqm	160.0	1274.88	152.00	1211.14	
25	14.75	Repair to plaster of thickness 12mm to 20 mm in patches of area 2.5 sqm and under,including cutting the patch in proper shape, raking out joints and preparing plasteringthe wall surface with white cement based polymer modified self curing mortar, includingdisposal of rubbish, all complete as per the direction of Engineer-In-Charge.						
		50.000	sqm	629.03	31451.50	765.20	38260.00	
26	od41173/2020_2021	Providing sanitary facilities including 500 ltr water tank,PVC septic tank,water closet,wash basin and other plumbing works and electrical works etc.complete.						
		1.000	No	46398.41	46398.41	46562.55	46562.55	
SI No	Spec	Description	Quantity	Unit	DSOR Rate	TS Amount	LMR Rate	LMR Amount
29 Appendix B - (1) - Improvements at Kalthotty sump- (b) Construction of retaining wall and compound wall								
1	2.31	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth up to 30 cm measured at a height of 1 m above ground level and removal of rubbish up to a distance of 50 m outside the periphery of the area cleared						
		330.000	sqm	15.43	5091.90	15.60	5148.00	
2	2.8.1	Earth work in excavation by mechanical means (Hydraulic excavator) /manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.All kinds of soil						
		70.620	cum	309.95	21888.67	319.55	22566.62	
3	4.1.5	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)						

			11.881	cum	7690.32	91368.69	9884.65	117439.53
4	7.1.1	Random rubble masonry with hard stone in foundation and plinth including levelling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 mm nominal size) up to plinth level with:Cement mortar 1:6 (1 cement : 6 coarse sand)						
			93.283	cum	7520.41	701526.41	8030.80	749137.12
5	5.2.2	Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. up tot floor five level excluding cost of centering, shuttering, finishing and reinforcement :1:1.5:3( 1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size)						
			6.602	cum	11433.93	75486.81	13791.85	91053.79
6	5.22.6	Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth levelThermo - Mechanically Treated bars of grade Fe-500D or more						
			396.002	kilogram	102.61	40633.77	120.80	47837.04
7	50.2.25.1	Filling with contractor's own earth ( excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m as per direction of site Engineer-in-charge						
			66.000	cum	548.85	36224.10	342.40	22598.40
8	50.6.1.3	Solid block masonry using pre cast solid blocks (Factory made) of size 40x20x20cm or nearest available size confirming to IS 2185 Part I of 1979 for super structure above floor two level up to floor V level thickness 20cm and above in: CM 1:6 ( 1 cement :6 coarse sand) etc complete						
			20.401	cum	7784.73	158816.28	8495.10	173308.54
9	13.7.2	12 mm cement plaster finished with a floating coat of neat cement of mix:1:4 ( 1 cement : 4 fine sand)						
			206.400	sqm	403.29	83239.06	468.30	96657.12
10	50.10.1	Steel work in built up G I tubular ( round, square or rectangular hollow tubes etc.) trusses etc., including cutting, hoisting,fixing in position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washers etc. complete						
			61.621	kg	198.21	12213.90	201.90	12441.28
SI No	Spec	Description	Quantity	Unit	DSOR Rate	TS Amount	LMR Rate	LMR Amount
30	Appendix B - (2) - Design and Construction of Pipeline Bridge across kattappana river- (a)- RCC work							

1	2.31 Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth up to 30 cm measured at a height of 1 m above ground level and removal of rubbish up to a distance of 50 m outside the periphery of the area cleared	85.000	sqm	15.43	1311.55	15.60	1326.00
2	2.8.1 Earth work in excavation by mechanical means (Hydraulic excavator) /manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.All kinds of soil	23.520	cum	309.95	7290.02	319.55	7515.82
3	4.1.5 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)	3.920	cum	7690.32	30146.05	9884.65	38747.83
4	5.33.1 Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer - in-charge. Note:- Cement content considered in this item is @ 330 kg/ cum. Excess or less cement used as per design mix is payable or recoverable separately.All work upto plinth level	6.032	cum	9825.93	59270.01	12022.00	72516.70
5	5.33.2 Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer - in-charge. Note:- Cement content considered in this item is @ 330 kg/ cum. Excess or less cement used as per design mix is payable or recoverable separately.All work above plinth level upto floor V level	14.280	cum	11550.4	164939.71	13768.90	196619.89
6	5.34.1 Extra for providing richer mixes at all floor levels. Note:- Excess/less cement over the specified cement content used is payable/ recoverable separately.Providing M-30 grade concrete instead of M-25 grade BMC/RMC. (Note:- Cement content considered in M-30 is @ 340 kg/cum).	20.300	cum	85.7	1739.71	101.65	2063.50

7	5.22.1	Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth levelMild steel and Medium Tensile steel bars	2174.00 0	kg	100.91	219378.34	124.45	270554.30
8	5.9.1	Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of columns, etc for mass concrete	21.440	sqm	350.0	7504.00	347.55	7451.47
9	5.9.3	Centering and shuttering including strutting, etc. and removal of form for:Suspended floors, roofs, landings, balconies and access platform	26.000	sqm	851.52	22139.52	907.25	23588.50
10	5.9.5	Centering and shuttering including strutting, etc. and removal of form for:Lintels, beams, plinth beams, girders bressumers and cantilevers	44.481	sqm	678.28	30170.57	731.35	32531.18
11	5.9.6	Centering and shuttering including strutting, etc. and removal of form for:Columns, Pillars, Piers, Abutments, Posts and Struts	62.400	sqm	901.48	56252.35	910.10	56790.24
12	13.7.1	12 mm cement plaster finished with a floating coat of neat cement of mix:1:3 ( 1 cement : 3 fine sand)	147.840	sqm	418.79	61913.91	486.80	71968.51
13	13.44.1	Finishing walls with water proofing cement paint of required shade:New work (Two or more coats applied @ 3.84 kg/10 sqm)	156.560	sqm	112.09	17548.81	121.20	18975.07
14	10.26.3	Providing and fixing hand rail of approved size by welding etc. to steel ladder railing, balcony railing, staircase railing and similar works, including applying priming coat of approves steel primer.G.I. pipes	452.600	kg	194.18	87885.87	201.15	91040.49
15	100.7.1	Bailing out water with 5 HP engine and pumpset including conveyance to the site, erection, dismantling and taking back of engine and pump, cost of fuel lubricating oil and other stores pay of staff etc. complete. NEW DATA (Prepared based on PHED SDB - Item No.1070)	894.840	Kwh	38.57	34513.98	37.00	33109.08
SI No	Spec	Description	Quantity	Unit	DSOR Rate	TS Amount	LMR Rate	LMR Amount
35 Appendix B - (2) - Design and Construction of pipeline bridge across kattappana river- (b) Steel bridge								

1	10.2	Structural steel work riveted, bolted or welded in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.						
		4019.050	kg	125.04	502542.01	155.85	626368.94	
2	13.52.1	Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete. On steel work						
		81.429	sqm	233.1	18981.10	241.40	19656.96	
SI No	Spec	Description	Quantity	Unit	DSOR Rate	TS Amount	LMR Rate	LMR Amount
36	Appendix B - (2) - Design and Construction of pipeline bridge across at kattappana river- (c) Supply and laying M S pipe and connecting to the existing line							
1	100.37.8.1	Fabricating MS pipes of size 250mm (ID) using 8 mm thick MS plate including cost and conveyance charges of MS plate, all fabrication charges, charges of painting the steel work with two or more coat deluxe multi surface paint to give an even shade over an under coat of primer etc. complete: For pipes fabricated with 8mm thick MS plates.						
		42.000	metre	7163.54	300868.68	10098.45	424134.90	
2	100.1.1	Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m : All kinds of soil (Ref. Item No. 2.10.1 of DSR)						
		7.680	cum	579.85	4453.25	592.25	4548.48	
3	100.37.8.3	Cutting 250 mm (ID) MS pipes for making bends and other specials by gas cutting including cost of gas, all labour and hire charges of tools etc. complete: For pipes fabricated with 8mm thick MS plates.						
		36.000	No	272.02	9792.72	534.80	19252.80	
4	100.37.8.4	Welding 250mm (ID) MS pipes for making bends and other specials by gas/electric welding machine including cost of gas and welding rods ,all labour and hire charges of tools etc. complete: For pipes fabricated with 8mm thick MS plates.						
		50.000	No	1040.81	52040.50	1817.55	90877.50	
5	100.37.8.5	Grinding cut and weld edges of 250 mm (ID) MS pipes during fabrication work including all labour and hire charges of tools etc. complete: For pipes fabricated with 8mm thick MS plates.						
		50.000	No	195.17	9758.50	196.40	9820.00	

6	100.14.4 Conveying and laying S&S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS: 8329 excluding cost of pipes and specials : 250 mm dia Ductile Iron Class K-9 Pipes Data derived from 18.72.18 in DAR	42.000	metre	170.19	7147.98	158.35	6650.70	
7	18.67.1 Providing and laying S & S C.I. Standard specials suitable for mechanical jointing as per IS 13382:Upto 300 mm dia	0.960	quintal	14708.65	14120.30	14043.50	13481.76	
8	5.1.3 Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level:1:2:4 ( 1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)	6.912	cum	8964.72	61964.14	11245.05	77725.79	
9	5.22.6 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth levelThermo - Mechanically Treated bars of grade Fe-500D or more	622.800	kilogram	102.61	63905.51	120.80	75234.24	
10	100.32.2 Kerala Water Authority Conveying and fixing C I Single acting Air Valve of approved quality with bolts,nuts,rubber insertions etc . excluding the cost of air valve(the tail pieces if required will be paid seperately): 40 mm Single acting Air Valve Observed Data derived from item no.18.59.of DAR	1.000	Nos	184.41	184.41	184.40	184.40	
11	100.31.1.1 "Conveying and fixing C.I. sluice valves (with cap) by providing complete with bolts, nuts, rubber insertions etc. excluding the cost of valve (the tail pieces if required will be paid separately) :80 mm diameter. Class I" Observed Data derived from item no.18.31.of DAR	1.000	Nos	613.74	613.74	673.30	673.30	
12	100.98.448 Supply of CI Air Valve with Flanges, Conforming to IS 14845 - 2000, Kinetic Air Valve Type DS1, Size 40mm	1.000	No	7646.15	7646.15	2693.75	2693.75	
13	100.98.457 Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 80mm.	1.000	No	6624.05	6624.05	3131.05	3131.05	
SI No	Spec	Description	Quantity	Unit	DSOR Rate	TS Amount	LMR Rate	LMR Amount
41 Appendix B - (3) - Wash water disposal arrangements at TP- (a) - Cost of materials								



1	100.98.120	Supply of DI K9 Pipe Conforming to IS 8329/2000, 350mm Dia.						
		408.000	metre	5506.95	2246835.60	5238.35	2137246.80	
2	18.71.6	Providing and laying Double Flanged (screwed / welded) Centrifugally (Spun) Cast Iron, Class B (IS : 1536):350 mm dia C.I Double Flanges Pipe						
		40.000	metre	10799.16	431966.40	10297.50	411900.00	
3	100.98.464	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 350mm.						
		2.000	No	77806.55	155613.10	31667.35	63334.70	
4	od81358/2020_2021	Supply DI specials, Tees, Bends, Collars, Tapers etc.						
		18.201	quintal	20384.0	371009.18	19397.05	353045.71	
SI No	Spec	Description	Quantity	Unit	DSOR Rate	TS Amount	LMR Rate	LMR Amount
42 Appendix B - (3) - Wash water disposal arrangements at TP- (b) Working charges								
1	100.1.1	Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m : All kinds of soil (Ref. Item No. 2.10.1 of DSR)						
		572.001	cum	579.85	331674.78	592.25	338767.59	
2	100.14.6	Conveying and laying S&S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS: 8329 excluding cost of pipes and specials : 350 mm dia Ductile Iron Class K-9 Pipes Data derived from 18.72.20 in DAR						
		400.000	metre	283.7	113480.00	263.05	105220.00	
3	100.31.2.8	Conveying and fixing C.I. sluice valves (with cap) by providing complete with bolts, nuts, rubber insertions etc. excluding the cost of valve (the tail pieces if required will be paid separately) : 350 mm diameter. Class II" Observed Data derived from item no.18.31.of DAR						
		2.000	Nos	4148.1	8296.20	4357.00	8714.00	

4	18.83.8 Labour for cutting C.I. pipe with steel saw.350 mm diameter C.I pipe						
		15.000	Each Cut	781.1	11716.50	807.85	12117.75
5	18.70.6 Providing push - on-joints to Centrifugally (Spun) Cast Iron Pipes or Ductile Iron Pipes including testing of joints and including the cost of rubber gasket:350 mm dia pipes						
		85.000	joint	456.93	38839.05	452.50	38462.50
6	18.67.2 Providing and laying S & S C.I. Standard specials suitable for mechanical jointing as per IS 13382:Above 300 mm dia						
		1.240	quintal	15492.79	19211.06	14786.85	18335.69
7	18.24 Laying in position S & S or flanged C.I. special such as tees, bends, collars, tapers and caps etc. ( excluding cost of specials).						
		18.201	quintal	603.91	10991.77	616.55	11221.83
8	100.35.6 Testing 350mm DI/CI pipeline with potable water to the required test pressure. 350 mm dia Observed Data derived from item no.1024 of PHED DATA						
		400.000	metre	70.53	28212.00	74.60	29840.00
9	5.1.3 Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level:1:2:4 ( 1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)						
		61.208	cum	8964.72	548712.58	11245.05	688287.02
10	5.22.6 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth levelThermo - Mechanically Treated bars of grade Fe-500D or more						
		2448.32 0	kilogram	102.61	251222.12	120.80	295757.06
11	5.9.1 Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of columns, etc for mass concrete						
		262.416	sqm	350.0	91845.60	347.55	91202.68

12	od41799/2020_2021 Construction of RCC valve chamber of size 1mx1mx1.4 m cost of excavation work,75mm thick M10 concrete base,150 mm side wall,150mm bottom and cover slab of chamber with M20 concrete with reinforcement including plastering inside and out side of wall.etc.complete.							
			2.000	No	42969.05	85938.10	49377.30	98754.60
SI No	Spec	Description	Quantity	Unit	DSOR Rate	TS Amount	LMR Rate	LMR Amount
47 Appendix B - (4) - supply and laying 80 mm GI pumping main from intermediate sump at Nariyanpara to GLSR at Nariyanpara top using 80 mm GI pipe- (a) Cost of materials								
1	100.98.440 Supply of CI Air Valve, Conforming to IS 14848 - 2000, Single Orifice, Small Orifice Type S1, Size 25mm.							
			3.000	No	5636.75	16910.25	966.75	2900.25
2	100.98.457 Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 80mm.							
			1.000	No	6624.05	6624.05	3131.05	3131.05
3	od41959/2020_2021 Supply of 80mm GI pipe(m)							
			1177.00 0	metre	830.16	977098.32	789.80	929594.60
4	od41983/2020_2021 Specials for 80mm GI pipe -10 % of value of pipe supply-(supplying and laying 80 mm GI pipes from intermediate sump at Nariyanpara to GLSR at Nariyanpara top-(a) Cost of materials)							
			1.000	set	81318.93	81318.93	81318.95	81318.95
SI No	Spec	Description	Quantity	Unit	DSOR Rate	TS Amount	LMR Rate	LMR Amount
48 Appendix B - (4) - supply and laying 80 mm GI pumping main from intermediate sump at Nariyanpara to GLSR at Nariyanpara top using 80 mm GI pipe-(b) Working charges								
1	100.12.8 Conveying and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc. but excluding cost of pipes and fittings - External work. 80 mm dia nominal bore Data derived from item no.18.12.8 of DAR Data for 10 m							
			1177.00 0	metre	217.74	256279.98	220.35	259351.95

2	100.31.2.1 "Conveying and fixing C.I. sluice valves (with cap) by providing complete with bolts, nuts, rubber insertions etc. excluding the cost of valve (the tail pieces if required will be paid separately) : 80 mm diameter. Class II" Observed Data derived from item no.18.31.of DAR	1.000	Nos	652.74	652.74	712.15	712.15	
3	100.32.1 Conveying and fixing C I Single acting Air Valve of approved quality with bolts,nuts,rubber insertions etc . excluding the cost of air valve(the tail pieces if required will be paid seperately): 25 mm Single acting Air Valve Observed Data derived from item no.18.59.of DAR	3.000	Nos	146.63	439.89	146.60	439.80	
4	5.2.2 Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. up tot floor five level excluding cost of centering, shuttering, finishing and reinforcement :1:1.5:3( 1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size)	3.841	cum	11433.93	43917.73	13791.85	52974.50	
5	5.22.6 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth levelThermo - Mechanically Treated bars of grade Fe-500D or more	192.050	kilogram	102.61	19706.25	120.80	23199.64	
6	5.9.1 Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of columns, etc for mass concrete	19.200	sqm	350.0	6720.00	347.55	6672.96	
SI No	Spec	Description	Quantity	Unit	DSOR Rate	TS Amount	LMR Rate	LMR Amount
49 Appendix B - (5) - Design and construction of intermediate sump at Nariyanpara								
1	2.31 Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth up to 30 cm measured at a height of 1 m above ground level and removal of rubbish up to a distance of 50 m outside the periphery of the area cleared	225.000	sqm	15.43	3471.75	15.60	3510.00	
2	2.8.1 Earth work in excavation by mechanical means (Hydraulic excavator) /manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.All kinds of soil	162.000	cum	309.95	50211.90	319.55	51767.10	

3	2.7.2 Earth work in excavation by mechanical means (Hydraulic excavator )/ manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed.Hard rock (requiring blasting)	96.000	cum	749.05	71908.80	1047.20	100531.20
4	4.1.6 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:3:6 ( 1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size)	13.300	cum	7527.06	100109.90	9712.35	129174.26
5	7.1.1 Random rubble masonry with hard stone in foundation and plinth including levelling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 mm nominal size) up to plinth level with:Cement mortar 1:6 (1 cement : 6 coarse sand)	66.500	cum	7520.41	500107.27	8030.80	534048.20
6	4.1.5 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)	9.729	cum	7690.32	74819.12	9884.65	96167.76
7	5.33.2 Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer - in-charge. Note:- Cement content considered in this item is @ 330 kg/ cum. Excess or less cement used as per design mix is payable or recoverable separately.All work above plinth level upto floor V level	46.775	cum	11550.4	540269.96	13768.90	644040.30
8	5.34.1 Extra for providing richer mixes at all floor levels. Note:- Excess/less cement over the specified cement content used is payable/ recoverable separately.Providing M-30 grade concrete instead of M-25 grade BMC/RMC. (Note:- Cement content considered in M-30 is @ 340 kg/cum).	46.775	cum	85.7	4008.62	101.65	4754.68
9	5.22.6 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth levelThermo - Mechanically Treated bars of grade Fe-500D or more	5613.00 0	kilogram	102.61	575949.93	120.80	678050.40

10	5.9.1 Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of columns, etc for mass concrete	18.841	sqm	350.0	6594.35	347.55	6548.19
11	5.9.2 Centering and shuttering including strutting, etc. and removal of form for:Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.	141.000	sqm	748.62	105555.42	766.40	108062.40
12	5.9.3 Centering and shuttering including strutting, etc. and removal of form for:Suspended floors, roofs, landings, balconies and access platform	71.450	sqm	851.52	60841.10	907.25	64823.01
13	5.9.5 Centering and shuttering including strutting, etc. and removal of form for:Lintels, beams, plinth beams, girders bressumers and cantilevers	10.320	sqm	678.28	6999.85	731.35	7547.53
14	5.9.6 Centering and shuttering including strutting, etc. and removal of form for:Columns, Pillars, Piers, Abutments, Posts and Struts	3.600	sqm	901.48	3245.33	910.10	3276.36
15	13.7.1 12 mm cement plaster finished with a floating coat of neat cement of mix:1:3 ( 1 cement : 3 fine sand)	125.900	sqm	418.79	52725.66	486.80	61288.12
16	13.8.2 15 mm cement plaster on rough side of single or half brick wall finished with a floating coat of neat cement of mix:1: 4 ( 1 cement : 4 fine sand)	235.622	sqm	453.75	106913.48	530.10	124903.22
17	100.41.33 Supplying and fixing 500mm dia CI manhole cover with frame( medium duty) charges including all cost, labour charges etc complete.	2.000	Nos	7835.95	15671.90	8938.60	17877.20
18	13.44.1 Finishing walls with water proofing cement paint of required shade:New work (Two or more coats applied @ 3.84 kg/10 sqm)	235.622	sqm	112.09	26410.87	121.20	28557.39
19	10.26.3 Providing and fixing hand rail of approved size by welding etc. to steel ladder railing, balcony railing, staircase railing and similar works, including applying priming coat of approves steel primer.G.I. pipes						

			83.950	kg	194.18	16301.41	201.15	16886.54
20	od149225/2018_2019	DOWEL BARS - Supplying and providing MS dowel bars of size 16 mm dia of 2m long (1m in rock and 1m in concrete ) including drilling holes of 20mm dia to a depth of 1m in rock and filling the gap with cement grout( 0.10kg/each) etc complete.						
			50.000	No	481.8	24090.00	676.55	33827.50
21	od148944/2018_2019	Supplying and fixing 100mm dia vent cowl incl. fitting charges etc. complete						
			2.000	No	3484.5	6969.00	3484.50	6969.00
22	od148945/2018_2019	Supplying & fixing wall casting pipes 300mm - 2 Nos ,150mm - 3 Nos, 80mm - 1 Nos for outlet, scour and overflow including labour charges etc. Complete and interconnecting overflow units distribution line ( rate as per order no : KWA/HO/SP-5160/2014-15/CI Specials dated 29.07.2015)						
			1.000	No	48175.54	48175.54	48175.55	48175.55
SI No	Spec	Description	Quantity	Unit	DSOR Rate	TS Amount	LMR Rate	LMR Amount
50	Appendix B - (6) - construction of intermediate pump house at Nariyanpara- (a) Construction of pump house							
1	2.8.1	Earth work in excavation by mechanical means (Hydraulic excavator) /manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.All kinds of soil						
			24.307	cum	309.95	7533.95	319.55	7767.30
2	50.2.25.1	Filling with contractor's own earth ( excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m as per direction of site Engineer-in-charge						
			19.800	cum	548.85	10867.23	342.40	6779.52
3	7.1.1	Random rubble masonry with hard stone in foundation and plinth including levelling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 mm nominal size) up to plinth level with:Cement mortar 1:6 (1 cement : 6 coarse sand)						
			14.198	cum	7520.41	106774.78	8030.80	114021.30
4	4.1.6	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:3:6 ( 1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size)						

		13.099	cum	7527.06	98596.96	9712.35	127222.07
5	50.6.1.3 Solid block masonry using pre cast solid blocks (Factory made) of size 40x20x20cm or nearest available size confirming to IS 2185 Part I of 1979 for super structure above floor two level up to floor V level thickness 20cm and above in: CM 1:6 ( 1 cement :6 coarse sand) etc complete						
		33.406	cum	7784.73	260056.69	8495.10	283787.31
6	10.6.1 Supplying and fixing rolling shutters of approved make, made of required size M.S. laths, interlocked together through their entire length and jointed together at the end by end locks, mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete, including the cost of providing and fixing necessary 27.5 cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to IS: 4454 - part 1 and M.S. top cover of required thickness for rolling shutters.80x1.25 mm M.S. laths with 1.25 mm thick top cover						
		9.000	sqm	3617.29	32555.61	4136.05	37224.45
7	10.5.1 Providing and fixing 1 mm thick M.S. sheet door with frame of 40x40x6 mm angle iron and 3 mm M.S. gusset plates at the junctions and corners, all necessary fittings complete, including applying a priming coat of approved steel primer.Using M.S. angels 40x40x6 mm for diagonal braces						
		7.081	sqm	5440.63	38525.10	6399.50	45314.86
8	9.6.1 Providing and fixing 35 mm thick factory made laminated veneer lumber door shutter conforming to IS: 14616 and TADS 15:2001 (Part B), including ISI marked M.S.pressed butt hinges bright finished of required size with necessary screws, all complete as per directions of Engineer-in-Charge and panelling with panels of:12 mm thick plain grade- 1, medium density flat pressed three layer particle board FPT- I or graded wood particle board FPT-I, IS : 3087 marked, bonded with BWP type synthetic resin adhesive as per IS: 848:						
		1.441	sqm	3239.48	4668.09	3301.95	4758.11
9	5.1.2 Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level:1:1:5:3 (1 cement 1.5 coarse sand :3 graded stone aggregate 20 mm nominal size						
		4.628	cum	9483.15	43888.02	11828.25	54741.14
10	5.2.2 Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. up tot floor five level excluding cost of centering, shuttering, finishing and reinforcement :1:1.5:3( 1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size)						
		12.898	cum	11433.93	147474.83	13791.85	177887.28
11	5.22.6 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth levelThermo - Mechanically Treated bars of grade Fe-500D or more						



		2103.12 0	kilogram	102.61	215801.14	120.80	254056.90
12	5.9.1 Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of columns, etc for mass concrete						
		15.900	sqm	350.0	5565.00	347.55	5526.05
13	5.9.3 Centering and shuttering including strutting, etc. and removal of form for:Suspended floors, roofs, landings, balconies and access platform						
		80.391	sqm	851.52	68454.54	907.25	72934.73
14	5.9.5 Centering and shuttering including strutting, etc. and removal of form for:Lintels, beams, plinth beams, girders bressumers and cantilevers						
		22.026	sqm	678.28	14939.80	731.35	16108.72
15	5.9.6 Centering and shuttering including strutting, etc. and removal of form for:Columns, Pillars, Piers, Abutments, Posts and Struts						
		11.520	sqm	901.48	10385.05	910.10	10484.35
16	13.7.1 12 mm cement plaster finished with a floating coat of neat cement of mix:1:3 ( 1 cement : 3 fine sand)						
		187.680	sqm	418.79	78598.51	486.80	91362.62
17	13.8.2 15 mm cement plaster on rough side of single or half brick wall finished with a floating coat of neat cement of mix:1: 4 ( 1 cement : 4 fine sand)						
		307.362	sqm	453.75	139465.51	530.10	162932.60
18	13.44.1 Finishing walls with water proofing cement paint of required shade:New work (Two or more coats applied @ 3.84 kg/10 sqm)						
		495.043	sqm	112.09	55489.37	121.20	59999.21
19	13.50.1 Applying priming coat:With ready mixed pink or Grey primer of approved and manufacture on wood work (hard and soft wood)						
		9.000	sqm	70.13	631.17	74.75	672.75
20	13.48.3 Finishing with Deluxe Multi surface paint system for interiors and exteriors using primer as per manufacturers specifications:Painting Steel work with Deluxe Multi Surface Paint to give an even shade. Two or more coat applied @ 0.90 ltr/10 sqm over an under coat of primer applied @ 0.80 ltr/10 sqm of approved brand and manufacture						
		15.601	sqm	154.62	2412.23	157.30	2454.04

21	13.71	Lettering with black Japan pint of approved brand and manufacture						
		1500.00 0	Letterxc m ht	5.8	8700.00	5.85	8775.00	
22	od148939/2018_2019	Providing sanitary facilities and electrical works including water closet ,flushing cistern ,wash basin,septic tank and 100ltr water tank and other required sanitary and electrical fittings.						
		1.000	No	86206.16	86206.16	89801.50	89801.50	
23	od148926/2018_2019	Dry rubble masonry with hard stone in foundation and plinth including levelling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 mm nominal size) up to plinth level with:						
		6.783	cum	4957.19	33624.62	4681.30	31753.26	
24	11.21.1.1	Providing and fixing 10 mm thick acid and /or alkali resistant tiles of approved make and colour using acid and / or alkali resisting mortar bedding, and joints filled with acid and /or alkali resisting cement as per IS : 4457, complete as per the direction of Engineer-in-Charge.In flooring on a bed of 10 mm thick mortar 1:4 (1 acid proof cement : 4 coarse sand)Acid and alkali resistant tile						
		4.200	sqm	1836.85	7714.77	2098.50	8813.70	
25	11.21.2.1	Providing and fixing 10 mm thick acid and /or alkali resistant tiles of approved make and colour using acid and / or alkali resisting mortar bedding, and joints filled with acid and /or alkali resisting cement as per IS : 4457, complete as per the direction of Engineer-in-Charge.In dado/ skirting on 12 mm thick mortar 1:4 (1 acid proof cement : 4 coarse sand)Acid and alkali resistant tile						
		24.040	sqm	1975.33	47486.93	2235.80	53748.63	
SI No	Spec	Description	Quantity	Unit	DSOR Rate	TS Amount	LMR Rate	LMR Amount
51	Appendix B - (6) - construction of intermediate pump house at Nariyanpara- (b) Construction of protection wall and compound wall							
1	2.8.1	Earth work in excavation by mechanical means (Hydraulic excavator) /manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.All kinds of soil						
		41.400	cum	309.95	12831.93	319.55	13229.37	
2	4.1.5	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)						

			5.520	cum	7690.32	42450.57	9884.65	54563.27
3	7.1.1	Random rubble masonry with hard stone in foundation and plinth including levelling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 mm nominal size) up to plinth level with:Cement mortar 1:6 (1 cement : 6 coarse sand)						
			33.120	cum	7520.41	249075.98	8030.80	265980.10
4	5.2.2	Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. up tot floor five level excluding cost of centering, shuttering, finishing and reinforcement :1:1.5:3( 1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size)						
			3.795	cum	11433.93	43391.76	13791.85	52340.07
5	50.2.25.1	Filling with contractor's own earth ( excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m as per direction of site Engineer-in-charge						
			48.600	cum	548.85	26674.11	342.40	16640.64
6	50.6.1.3	Solid block masonry using pre cast solid blocks (Factory made) of size 40x20x20cm or nearest available size confirming to IS 2185 Part I of 1979 for super structure above floor two level up to floor V level thickness 20cm and above in: CM 1:6 ( 1 cement :6 coarse sand) etc complete						
			19.201	cum	7784.73	149474.60	8495.10	163114.42
7	13.7.2	12 mm cement plaster finished with a floating coat of neat cement of mix:1:4 ( 1 cement : 4 fine sand)						
			204.800	sqm	403.29	82593.79	468.30	95907.84
8	50.10.1	Steel work in built up G I tubular ( round, square or rectangular hollow tubes etc.) trusses etc., including cutting, hoisting,fixing in position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washers etc. complete						
			61.621	kg	198.21	12213.90	201.90	12441.28
SI No	Spec	Description	Quantity	Unit	DSOR Rate	TS Amount	LMR Rate	LMR Amount
54	Appendix B - (7) - Supplying and laying 80mm GI pumping main from sump at TP to Alady Kurisumala GLSR - (a) Cost of materials							
1	od190319/2018_2019	Supply of 80mm GI pipe(m)						
			310.000	metre	830.16	257349.60	789.80	244838.00

2	od190323/2018_2019 Specials for 80mm GI pipe							
	1.000	set	21417.9	21417.90	21417.90	21417.90		
3	100.98.428 Supply of CI Non Return Valve, Conforming to IS 5312 Part I - 1984, PN 1.6, Size 80mm.							
	2.000	No	5943.4	11886.80	4160.65	8321.30		
4	100.98.440 Supply of CI Air Valve, Conforming to IS 14848 - 2000, Single Orifice, Small Orifice Type S1, Size 25mm.							
	2.000	No	5636.75	11273.50	966.75	1933.50		
SI No	Spec	Description	Quantity	Unit	DSOR Rate	TS Amount	LMR Rate	LMR Amount
55	Appendix B - (7) - Supplying and laying 80mm GI pumping main from sump at TP to Alady Kurisumala GLSR- (b) Working charges							
1	100.4.1 Excavating in hard rock for trenches by blasting for laying pipes and stacking useful materials for measurements and disposing unserviceable materials within the intial lead of 50m and lift upto 1.50m(intial depth 0 m to 1.50m) and providing protection by earth filled cement bags during blasting to avoid damages to nearby structures(200 Nos. of earth filled cement bags for 10m3 blasting) (Ref. Item No. 1004 A of T C)							
	8.000	cum	4093.4	32747.20	2547.30	20378.40		
2	100.12.8 Kerala Water Authority Conveying and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc. but excluding cost of pipes and fittings - External work. 80 mm dia nominal bore Data derived from item no.18.12.8 of DAR Data for 10 m							
	310.000	metre	217.74	67499.40	220.35	68308.50		
3	100.31.2.1 "Conveying and fixing C.I. sluice valves (with cap) by providing complete with bolts, nuts, rubber insertions etc. excluding the cost of valve (the tail pieces if required will be paid separately) : 80 mm diameter. Class II" Observed Data derived from item no.18.31.of DAR							
	2.000	Nos	652.74	1305.48	712.15	1424.30		
4	100.32.1 Conveying and fixing C I Single acting Air Valve of approved quality with bolts,nuts,rubber insertions etc . excluding the cost of air valve(the tail pieces if required will be paid seperately): 25 mm Single acting Air Valve Observed Data derived from item no.18.59.of DAR							
	2.000	Nos	146.63	293.26	146.60	293.20		

5	5.2.2	Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. up to floor five level excluding cost of centering, shuttering, finishing and reinforcement :1:1.5:3( 1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size)						
		4.557	cum	11433.93	52104.42	13791.85	62849.46	
6	5.22.6	Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth level Thermo - Mechanically Treated bars of grade Fe-500D or more						
		227.851	kilogram	102.61	23379.79	120.80	27524.40	
7	5.9.1	Centering and shuttering including strutting, etc. and removal of form for: Foundations, footings, bases of columns, etc for mass concrete						
		40.500	sqm	350.0	14175.00	347.55	14075.78	
8	od1153/2019_2020	DOWEL BARS - Supplying and providing MS dowel bars of size 16 mm dia of 2m long (1m in rock and 1m in concrete ) including drilling holes of 20mm dia to a depth of 1m in rock and filling the gap with cement grout( 0.10kg/each) etc complete.						
		200.000	No	481.8	96360.00	676.55	135310.00	
9	od1154/2019_2020	80mm GI pipes by cutting and jointing by three run welding to make a water tight joint, painting the welded portion, testing the line to the required pressure, including the charges hire and conveyance of tools, plant and materials to site, as per the direction of departmental officers etc. complete.						
		45.000	No	468.28	21072.60	768.40	34578.00	
SI No	Spec	Description	Quantity	Unit	DSOR Rate	TS Amount	LMR Rate	LMR Amount
62 Appendix B - (8)- Line charging, stabilization & interconnection								
No Specifications added under this Estimate								
SI No	Spec	Description	Quantity	Unit	DSOR Rate	TS Amount	LMR Rate	LMR Amount
64	Appendix B - (8)- Line charging, stabilization & interconnection - (a) Interconnection work of Distribution Zone I from T P sump using 200 mm D I K9 Pipe							
1	100.1.1	Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m : All kinds of soil (Ref. Item No. 2.10.1 of DSR)						

		67.200	cum	579.85	38965.92	592.25	39799.20
2	100.1.5 Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m :" Ordinary Rock. (Ref. Item No. 2.13.1 of DSR)						
		19.201	cum	842.1	16169.16	1033.20	19838.47
3	100.2.1 Excavation work by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 m <sup>2</sup> on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soils as directed, within a lead of 50 m. Medium Rock (Requiring Blasting) New Data derived from Item No.2.9.2 of DAR.						
		6.721	cum	749.12	5034.84	1021.25	6863.82
4	100.1.13 "Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m : Hard Rock(Blasting Prohibited) (Ref. Item No. 2.13.3 Of DSR)						
		2.880	cum	1624.48	4678.50	2180.20	6278.98
5	100.8.1 Fencing one side of trenches, 1.50 m height with two rows of 10 cm plastic caution tape in vertical casuarina pole (girth 15cm to 24cm) fixed at 2 m intervals. (Data Prepared based on PWD SDB - Item No.1009)						
		100.000	metre	28.82	2882.00	29.10	2910.00
6	50.2.25.1 Filling with contractor's own earth ( excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m as per direction of site Engineer-in-charge						
		5.000	cum	548.85	2744.25	342.40	1712.00
7	100.14.3 Conveying and laying S&S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS: 8329 excluding cost of pipes and specials : 200 mm dia Ductile Iron Class K-9 Pipes Data derived from 18.72.17 in DAR						
		100.000	metre	127.45	12745.00	119.25	11925.00

8	18.70.3 Providing push - on-joints to Centrifugally (Spun) Cast Iron Pipes or Ductile Iron Pipes including testing of joints and including the cost of rubber gasket:200 mm dia pipes	20.000	joint	270.11	5402.20	274.60	5492.00
9	18.30.5 Providing flanged joints to double flanged C.I./ D.I pipes and specials, including testing of joints:200 mm diameter pipe	3.000	Nos	436.83	1310.49	510.85	1532.55
10	18.67.1 Providing and laying S & S C.I. Standard specials suitable for mechanical jointing as per IS 13382:Upto 300 mm dia	0.960	quintal	14708.65	14120.30	14043.50	13481.76
11	18.25.1 Providing and laying S & S C.I standard specials such as tees, bends, collars, tapers, caps etc. (Heavy class):Upto 300 mm dia	0.930	quintal	6536.99	6079.40	7875.95	7324.63
12	18.83.5 Labour for cutting C.I. pipe with steel saw.200 mm diameter C.I. pipe	7.000	Each Cut	449.57	3146.99	464.85	3253.95
13	100.35.3 Testing 200mm DI/CI pipeline with potable water to the required test pressure 200 mm dia Observed Data derived from item no.1020 of PHED DATA	100.000	metre	41.56	4156.00	43.50	4350.00
14	4.1.3 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)	3.000	cum	8340.93	25022.79	10609.70	31829.10
15	5.9.1 Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of columns, etc for mass concrete	12.000	sqm	350.0	4200.00	347.55	4170.60

16	100.31.1.5 "Conveying and fixing C.I. sluice valves (with cap) by providing complete with bolts, nuts, rubber insertions etc. excluding the cost of valve (the tail pieces if required will be paid separately) : 200 mm diameter. Class I" Data derived from item no.18.31.4.1 of DAR	1.000	Nos	1625.9	1625.90	1770.80	1770.80	
17	100.32.3 Conveying and fixing C I Single acting Air Valve of approved quality with bolts,nuts,rubber insertions etc . excluding the cost of air valve(the tail pieces if required will be paid seperately): 50 mm Double acting Air Valve Data derived from item no.18.59.1 of DAR	2.000	Nos	229.21	458.42	259.35	518.70	
18	od190175/2018_2019 Construction of RCC valve chamber of size 1mx1mx1m -cost excavation work,75mm thick M10 concrete base,125mm side wall,150mm bottom and cover slab of chamber with M20 concrete with reinforcement including plastering inside and out side of wall.etc.complete.including man hole cover.	1.000	No	42076.66	42076.66	47834.95	47834.95	
19	100.98.117 Supply of DI K9 Pipe Conforming to IS 8329/2000, 200mm Dia.	100.000	metre	2589.08	258908.00	2462.40	246240.00	
20	100.98.435 Supply of CI Air Valve, Conforming to IS 14848 - 2000, Kinetic Air Valve Type DK, Size 50mm.	2.000	No	7951.65	15903.30	3600.75	7201.50	
21	100.98.461 Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 200mm.	1.000	No	23723.65	23723.65	11794.00	11794.00	
SI No	Spec	Description	Quantity	Unit	DSOR Rate	TS Amount	LMR Rate	LMR Amount
65	Appendix B - (8)- Line charging, stabilization& interconnection- (b) Interconnection work to Zone 1A-Marykulam using 80 mm G I pipe							
1	100.12.8 Conveying and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc. but excluding cost of pipes and fittings - External work. 80 mm dia nominal bore Data derived from item no.18.12.8 of DAR Data for 10 m	250.000	metre	217.74	54435.00	220.35	55087.50	



2	100.31.1.1 "Conveying and fixing C.I. sluice valves (with cap) by providing complete with bolts, nuts, rubber insertions etc. excluding the cost of valve (the tail pieces if required will be paid separately) :80 mm diameter. Class I" Observed Data derived from item no.18.31.of DAR	1.000	Nos	613.74	613.74	673.30	673.30	
3	od190319/2018_2019 Supply of 80mm GI pipe(m)	250.000	metre	830.16	207540.00	789.80	197450.00	
4	od3655/2019_2020 Specials for 80 mm GI(m) pipe - 10 % of value of pipe supply.	1.000	set	17272.5	17272.50	17272.50	17272.50	
5	100.98.457 Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 80mm.	1.000	No	6624.05	6624.05	3131.05	3131.05	
SI No	Spec	Description	Quantity	Unit	DSOR Rate	TS Amount	LMR Rate	LMR Amount
66	Appendix B - (8)- Line charging, stabilization& interconnection - (c)- Interconnection work to Labbakada Tank using 150 mm D I K9 Pipe for Pumping main							
1	100.1.1 Kerala Water Authority Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidatingeach deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m : All kinds of soil (Ref. Item No. 2.10.1 of DSR)	115.920	cum	579.85	67216.21	592.25	68653.62	
2	100.1.5 Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidatingeach deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m :" Ordinary Rock. (Ref. Item No. 2.13.1 of DSR)	33.120	cum	842.1	27890.35	1033.20	34219.58	

3	100.2.1 Excavation work by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 m <sup>2</sup> on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soils as directed, within a lead of 50 m. Medium Rock (Requiring Blasting) New Data derived from Item No.2.9.2 of DAR.	11.592	cum	749.12	8683.80	1021.25	11838.33
4	100.1.13 "Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m : Hard Rock(Blasting Prohibited) (Ref. Item No. 2.13.3 Of DSR)	4.968	cum	1624.48	8070.42	2180.20	10831.23
5	100.8.1 Fencing one side of trenches, 1.50 m height with two rows of 10 cm plastic caution tape in vertical casuarina pole (girth 15cm to 24cm) fixed at 2 m intervals. (Data Prepared based on PWD SDB - Item No.1009)	180.000	metre	28.82	5187.60	29.10	5238.00
6	50.2.25.1 Filling with contractor's own earth ( excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m as per direction of site Engineer-in-charge	5.000	cum	548.85	2744.25	342.40	1712.00
7	100.14.2 Conveying and laying S&S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS: 8329 excluding cost of pipes and specials : 150 mm dia Ductile Iron Class K-9 Pipes Data derived from 18.72.16 in DAR	180.000	metre	91.5	16470.00	86.65	15597.00
8	18.70.2 Providing push - on-joints to Centrifugally (Spun) Cast Iron Pipes or Ductile Iron Pipes including testing of joints and including the cost of rubber gasket:150 mm dia pipes	28.000	joint	184.13	5155.64	185.60	5196.80
9	18.30.4 Providing flanged joints to double flanged C.I./ D.I pipes and specials, including testing of joints:150 mm diameter pipe	7.000	Nos	402.3	2816.10	499.20	3494.40

10	18.67.1	Providing and laying S & S C.I. Standard specials suitable for mechanical jointing as per IS 13382:Upto 300 mm dia						
		0.310	quintal	14708.65	4559.68	14043.50	4353.49	
11	18.66.1	Providing and laying S&S.C.I Standard specials such as tees, bends, collars tapers and caps etc., suitable for flanged jointing as per IS: 1538:Upto 300 mm dia						
		2.120	quintal	9150.76	19399.61	8747.05	18543.75	
12	18.83.4	Labour for cutting C.I. pipe with steel saw.150 mm diameter C.I. pipe						
		8.000	Each Cut	337.12	2696.96	348.55	2788.40	
13	100.35.2	Testing 150mm DI/CI pipeline with potable water to the required test pressure 150 mm dia Observed Data derived from item no.1018 of PHED DATA						
		180.000	metre	32.88	5918.40	34.20	6156.00	
14	100.98.116	Supply of DI K9 Pipe Conforming to IS 8329/2000, 150mm Dia.						
		180.000	metre	1890.44	340279.20	1800.35	324063.00	
SI No	Spec	Description	Quantity	Unit	DSOR Rate	TS Amount	LMR Rate	LMR Amount
67		Appendix B - (8)- Line charging, stabilization& interconnection - (d) Interconnection work to distribution line at Labbakada using 250 mm D I k9 pipe						
1	100.1.1	Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidatingeach deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m : All kinds of soil (Ref. Item No. 2.10.1 of DSR)						
		67.200	cum	579.85	38965.92	592.25	39799.20	
2	100.1.5	Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidatingeach deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m :" Ordinary Rock. (Ref. Item No. 2.13.1 of DSR)						
		19.201	cum	842.1	16169.16	1033.20	19838.47	

3	100.2.1 Excavation work by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 m <sup>2</sup> on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soils as directed, within a lead of 50 m. Medium Rock (Requiring Blasting) New Data derived from Item No.2.9.2 of DAR.	6.721	cum	749.12	5034.84	1021.25	6863.82
4	100.1.13 "Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m : Hard Rock(Blasting Prohibited) (Ref. Item No. 2.13.3 Of DSR)	2.880	cum	1624.48	4678.50	2180.20	6278.98
5	100.8.1 Fencing one side of trenches, 1.50 m height with two rows of 10 cm plastic caution tape in vertical casuarina pole (girth 15cm to 24cm) fixed at 2 m intervals. (Data Prepared based on PWD SDB - Item No.1009)	100.000	metre	28.82	2882.00	29.10	2910.00
6	50.2.25.1 Filling with contractor's own earth ( excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m as per direction of site Engineer-in-charge	5.000	cum	548.85	2744.25	342.40	1712.00
7	100.14.4 Conveying and laying S&S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS: 8329 excluding cost of pipes and specials : 250 mm dia Ductile Iron Class K-9 Pipes Data derived from 18.72.18 in DAR	100.000	metre	170.19	17019.00	158.35	15835.00
8	18.70.4 Providing push - on-joints to Centrifugally (Spun) Cast Iron Pipes or Ductile Iron Pipes including testing of joints and including the cost of rubber gasket:250 mm dia pipes	18.000	joint	329.84	5937.12	328.70	5916.60
9	18.30.6 Providing flanged joints to double flanged C.I./ D.I pipes and specials, including testing of joints:250 mm diameter pipe	5.000	Nos	595.56	2977.80	727.55	3637.75

10	18.67.1 Providing and laying S & S C.I. Standard specials suitable for mechanical jointing as per IS 13382:Upto 300 mm dia	0.720	quintal	14708.65	10590.23	14043.50	10111.32
11	18.66.1 Providing and laying S&S.C.I Standard specials such as tees, bends, collars tapers and caps etc., suitable for flanged jointing as per IS: 1538:Upto 300 mm dia	1.360	quintal	9150.76	12445.03	8747.05	11895.99
12	18.83.6 Labour for cutting C.I. pipe with steel saw.250 mm diameter C.I. pipe	5.000	Each Cut	559.11	2795.55	578.20	2891.00
13	100.35.4 Testing 250mm DI/CI pipeline with potable water to the required test pressure . 250 mm dia Observed Data derived from item no.1022 of PHED DATA	100.000	metre	52.99	5299.00	55.60	5560.00
14	100.31.1.6 "Conveying and fixing C.I. sluice valves (with cap) by providing complete with bolts, nuts, rubber insertions etc. excluding the cost of valve (the tail pieces if required will be paid separately) : 250 mm diameter. Class I" Data derived from item no.18.31.5.1 of DAR	1.000	Nos	2304.82	2304.82	2564.25	2564.25
15	100.32.3 Conveying and fixing C I Single acting Air Valve of approved quality with bolts,nuts,rubber insertions etc . excluding the cost of air valve(the tail pieces if required will be paid seperately): 50 mm Double acting Air Valve Data derived from item no.18.59.1 of DAR	1.000	Nos	229.21	229.21	259.35	259.35
16	100.98.118 Supply of DI K9 Pipe Conforming to IS 8329/2000, 250mm Dia.	100.000	metre	3616.52	361652.00	3438.05	343805.00
17	100.98.462 Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 250mm.	1.000	No	34361.8	34361.80	18345.20	18345.20
18	100.98.444 Supply of CI Air Valve, Conforming to IS 14848 - 2000, Single Orifice, Large Orifice Type S2, Size 50mm.						

SI No	Spec	Description	Quantity	Unit	DSOR Rate	TS Amount	LMR Rate	LMR Amount
68 Appendix B - (8)- Line charging, stabilization& interconnection - (e) Interconnection to Kochuthovala Gravity main using 125 mm G I pipe			1.000	No	6110.65	6110.65	1760.95	1760.95
1	100.12.10	"Conveying and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc. but excluding cost of pipes and fittings - External work. 125 mm dia nominal bore Observed Data derived from item no.18.12 of DAR	100.000	metre	274.99	27499.00	277.80	27780.00
2	4.1.3	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)	2.049	cum	8340.93	17090.57	10609.70	21739.28
3	5.9.1	Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of columns, etc for mass concrete	10.241	sqm	350.0	3584.35	347.55	3559.26
4	od189995/2018_2019	Supplying 125mm GI(m) pipe	100.000	metre	1434.45	143445.00	1434.45	143445.00
5	od3663/2019_2020	Specials for 125 mm GI(m) pipe - 10 % of value of pipe supply.	1.000	set	14345.0	14345.00	14345.00	14345.00
69 Appendix B - (8)- Line charging, stabilization& interconnection - (f) Interconnection work to Distribution from Kochuthovala G L tank using 200 mm D I pipe			67.200	cum	579.85	38965.92	592.25	39799.20
1	100.1.1	Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidatingeach deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m : All kinds of soil (Ref. Item No. 2.10.1 of DSR)	67.200	cum	579.85	38965.92	592.25	39799.20

2	100.1.5 Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m :" Ordinary Rock. (Ref. Item No. 2.13.1 of DSR)	19.201	cum	842.1	16169.16	1033.20	19838.47
3	100.2.1 Excavation work by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 m <sup>2</sup> on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soils as directed, within a lead of 50 m. Medium Rock (Requiring Blasting) New Data derived from Item No.2.9.2 of DAR.	6.721	cum	749.12	5034.84	1021.25	6863.82
4	100.1.13 "Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m : Hard Rock(Blasting Prohibited) (Ref. Item No. 2.13.3 Of DSR)	2.880	cum	1624.48	4678.50	2180.20	6278.98
5	100.8.1 Fencing one side of trenches, 1.50 m height with two rows of 10 cm plastic caution tape in vertical casuarina pole (girth 15cm to 24cm) fixed at 2 m intervals. (Data Prepared based on PWD SDB - Item No.1009)	100.000	metre	28.82	2882.00	29.10	2910.00
6	50.2.25.1 Filling with contractor's own earth ( excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m as per direction of site Engineer-in-charge	5.000	cum	548.85	2744.25	342.40	1712.00
7	100.14.3 Conveying and laying S&S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS: 8329 excluding cost of pipes and specials : 200 mm dia Ductile Iron Class K-9 Pipes Data derived from 18.72.17 in DAR	100.000	metre	127.45	12745.00	119.25	11925.00

8	18.70.3 Providing push - on-joints to Centrifugally (Spun) Cast Iron Pipes or Ductile Iron Pipes including testing of joints and including the cost of rubber gasket:200 mm dia pipes	18.000	joint	270.11	4861.98	274.60	4942.80
9	18.30.5 Providing flanged joints to double flanged C.I./ D.I pipes and specials, including testing of joints:200 mm diameter pipe	4.000	Nos	436.83	1747.32	510.85	2043.40
10	18.67.1 Providing and laying S & S C.I. Standard specials suitable for mechanical jointing as per IS 13382:Upto 300 mm dia	0.540	quintal	14708.65	7942.67	14043.50	7583.49
11	18.66.1 Providing and laying S&S.C.I Standard specials such as tees, bends, collars tapers and caps etc., suitable for flanged jointing as per IS: 1538:Upto 300 mm dia	1.960	quintal	9150.76	17935.49	8747.05	17144.22
12	18.83.5 Labour for cutting C.I. pipe with steel saw.200 mm diameter C.I. pipe	5.000	Each Cut	449.57	2247.85	464.85	2324.25
13	100.35.3 Testing 200mm DI/CI pipeline with potable water to the required test pressure 200 mm dia Observed Data derived from item no.1020 of PHED DATA	100.000	metre	41.56	4156.00	43.50	4350.00
14	4.1.3 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)	4.000	cum	8340.93	33363.72	10609.70	42438.80
15	5.9.1 Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of columns, etc for mass concrete	16.000	sqm	350.0	5600.00	347.55	5560.80



16	od192891/2018_2019 Construction of RCC valve chamber of size 1mx1mx1.4 m cost of excavation work,75mm thick M10 concrete base,150 mm side wall,150mm bottom and cover slab of chamber with M20 concrete with reinforcement including plastering inside and out side of wall.etc.complete.		1.000	No	42969.05	42969.05	49377.30	49377.30
17	100.31.1.5 "Conveying and fixing C.I. sluice valves (with cap) by providing complete with bolts, nuts, rubber insertions etc. excluding the cost of valve (the tail pieces if required will be paid separately) : 200 mm diameter. Class I" Data derived from item no.18.31.4.1 of DAR		1.000	Nos	1625.9	1625.90	1770.80	1770.80
18	100.32.1 Conveying and fixing C I Single acting Air Valve of approved quality with bolts,nuts,rubber insertions etc . excluding the cost of air valve(the tail pieces if required will be paid seperately): 25 mm Single acting Air Valve Observed Data derived from item no.18.59.of DAR		1.000	Nos	146.63	146.63	146.60	146.60
19	100.98.117 Supply of DI K9 Pipe Conforming to IS 8329/2000, 200mm Dia.		100.000	metre	2589.08	258908.00	2462.40	246240.00
20	100.98.461 Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 200mm.		1.000	No	23723.65	23723.65	11794.00	11794.00
21	100.98.440 Supply of CI Air Valve, Conforming to IS 14848 - 2000, Single Orifice, Small Orifice Type S1, Size 25mm.		1.000	No	5636.75	5636.75	966.75	966.75
SI No	Spec	Description	Quantity	Unit	DSOR Rate	TS Amount	LMR Rate	LMR Amount
70	Appendix B - (8)- Line charging, stabilization& interconnection- (g) Interconnection between Idukkikavala to Market junction Kattappana							
1	100.12.10 "Conveying and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc. but excluding cost of pipes and fittings - External work. 125 mm dia nominal bore Observed Data derived from item no.18.12 of DAR		950.000	metre	274.99	261240.50	277.80	263910.00

2	15.2.1 Demolishing cement concrete manually / by mechanical means including disposal of material within 50 metres lead as per direction of Engineer - in-Charge.Nominal concrete 1:3:6 or richer mix (i/c equivalent design mix)	90.000	cum	2134.72	192124.80	2162.25	194602.50	
3	4.1.3 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)	94.320	cum	8340.93	786716.52	10609.70	1000706.90	
4	od189995/2018_2019 Supplying 125mm GI(m) pipe	950.000	metre	1434.45	1362727.50	1434.45	1362727.50	
5	od3664/2019_2020 Specials for 125 mm GI(m) pipe - 10 % of value of pipe supply.	1.000	set	136277.5	136277.50	136277.50	136277.50	
SI No	Spec	Description	Quantity	Unit	DSOR Rate	TS Amount	LMR Rate	LMR Amount
71	Appendix B - (8)- Line charging, stabilization& interconnection - (h) Gap filling works at various places of distribution system							
1	100.12.6 Conveying and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc. but excluding cost of pipes and fittings - External work. 50 mm dia nominal bore Observed Data derived from item no.18.12.6 of DAR Data for 10 m	300.000	metre	174.65	52395.00	176.90	53070.00	
2	100.12.7 Conveying and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc. but excluding cost of pipes and fittings - External work. 65 mm dia nominal bore Data derived from item no.18.12.7 of DAR Data for 10 m	450.000	metre	217.39	97825.50	220.35	99157.50	
3	100.12.8 Conveying and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc. but excluding cost of pipes and fittings - External work. 80 mm dia nominal bore Data derived from item no.18.12.8 of DAR Data for 10 m							

		600.000	metre	217.74	130644.00	220.35	132210.00
4	100.12.9 Conveying and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc. but excluding cost of pipes and fittings - External work. 100 mm dia nominal bore Observed Data derived from item no.18.12 of DAR						
		300.000	metre	245.48	73644.00	248.15	74445.00
5	100.12.10 "Conveying and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc. but excluding cost of pipes and fittings - External work. 125 mm dia nominal bore Observed Data derived from item no.18.12 of DAR						
		150.000	metre	274.99	41248.50	277.80	41670.00
6	5.1.3 Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level:1:2:4 ( 1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)						
		5.760	cum	8964.72	51636.79	11245.05	64771.49
7	od189999/2018_2019 Supply of 50mm GI pipe (M).						
		300.000	metre	509.59	152877.00	476.20	142860.00
8	od190454/2018_2019 Supply 65 mm GI pipe(m) as per direction						
		450.000	metre	649.33	292198.50	604.00	271800.00
9	od190319/2018_2019 Supply of 80mm GI pipe(m)						
		600.000	metre	830.16	498096.00	789.80	473880.00
10	od190456/2018_2019 Supply of 100 mm GI(m) pipe						
		300.000	metre	1052.32	315696.00	1052.30	315690.00
11	od189995/2018_2019 Supplying 125mm GI(m) pipe						
		150.000	metre	1434.45	215167.50	1434.45	215167.50

12	od269/2019_2020 Specials for GI (m) pipes- KIIFB Ayyappancovil Gap filling works - 50mm, 65mm, 80mm, 100mm, 125mm GI(m) pipes.						
			1.000	set	128868.0	128868.00	128868.00
SI No	Spec	Description	Quantity	Unit	DSOR Rate	TS Amount	LMR Rate
72 Appendix B - (8)- Line charging, stabilization& interconnection - (i) Leak rectification works in distribution system in Zone I, II, III, IV & VI							
1	100.47.1.3	Leak rectification work in 50 mm PVC (Class 2 to 6) pipe line including detecting and locating leak, earth work excavation in all kinds of soil for for exposing leak portion of the pipe including tar cutting / concrete cutting, cutting the pipe diametrically perpendicular to the axis of pipe line with out causing any damages to the remaining portion, dismantling and lifting the pipe from trenches, smoothening the cut ends, conveying the new pipe to the site, cutting and lowering new pipe in to the trenches,placing in position aligning the pipe to line and level and jointing the new pipe with the existing pipe with solvent cement or or any available joint and testing the pipe line by operating the valves concerned, and rectifying the defects if noticed and without causing any damages to the existing utilities and refilling the trenches using excavated earth in layers not exceeding 20cm depth including consolidating each layers by ramming, watering, charges for removing surplus soil from work site, including hire for tools and plant, conveyance of tools and materials, bailing out water, providing caution boards,lighting,watching, ribbon fencing, traffic controlling etc.complete as per the direction of Departmental officers including the cost of pipe and PVC specials; PVC Pipes and specials shall be of good quality and conforming to relevant standards: All Socketed Jointing.					
			20.000	Leak	1399.52	27990.40	1417.85
2	100.47.1.4	Leak rectification work in 63 mm PVC (Class 2 to 6) pipe line including detecting and locating leak, earth work excavation in all kinds of soil for for exposing leak portion of the pipe including tar cutting / concrete cutting, cutting the pipe diametrically perpendicular to the axis of pipe line with out causing any damages to the remaining portion, dismantling and lifting the pipe from trenches, smoothening the cut ends, conveying the new pipe to the site, cutting and lowering new pipe in to the trenches,placing in position aligning the pipe to line and level and jointing the new pipe with the existing pipe with solvent cement or or any available joint and testing the pipe line by operating the valves concerned, and rectifying the defects if noticed and without causing any damages to the existing utilities and refilling the trenches using excavated earth in layers not exceeding 20cm depth including consolidating each layers by ramming, watering, charges for removing surplus soil from work site, including hire for tools and plant, conveyance of tools and materials, bailing out water, providing caution boards,lighting,watching, ribbon fencing, traffic controlling etc.complete as per the direction of Departmental officers including the cost of pipe and PVC specials; PVC Pipes and specials shall be of good quality and conforming to relevant standards: All Socketed Jointing.					
			30.000	Leak	1692.18	50765.40	1711.40
							51342.00

3	<p>100.47.1.5 Leak rectification work in 75 mm PVC (Class 2 to 6) pipe line including detecting and locating leak, earth work excavation in all kinds of soil for for exposing leak portion of the pipe including tar cutting / concrete cutting, cutting the pipe diametrically perpendicular to the axis of pipe line with out causing any damages to the remaining portion, dismantling and lifting the pipe from trenches, smoothening the cut ends, conveying the new pipe to the site, cutting and lowering new pipe in to the trenches,placing in position aligning the pipe to line and level and jointing the new pipe with the existing pipe with solvent cement or or any available joint and testing the pipe line by operating the valves concerned, and rectifying the defects if noticed and without causing any damages to the existing utilities and refilling the trenches using excavated earth in layers not exceeding 20cm depth including consolidating each layers by ramming, watering, charges for removing surplus soil from work site, including hire for tools and plant, conveyance of tools and materials, bailing out water, providing caution boards,lighting,watching, ribbon fencing, traffic controlling etc.complete as per the direction of Departmental officers including the cost of pipe and PVC specials; PVC Pipes and specials shall be of good quality and conforming to relevant standards; PVC Pipes and specials shall be of good quality and conforming to relevant standards: All Socketed Jointing.</p>					
	15.000	Leak	1817.26	27258.90	1837.20	27558.00
4	<p>100.47.1.6 Leak rectification work in 90 mm PVC (Class 2 to 6) pipe line including detecting and locating leak, earth work excavation in all kinds of soil for for exposing leak portion of the pipe including tar cutting / concrete cutting, cutting the pipe diametrically perpendicular to the axis of pipe line with out causing any damages to the remaining portion, dismantling and lifting the pipe from trenches, smoothening the cut ends, conveying the new pipe to the site, cutting and lowering new pipe in to the trenches,placing in position aligning the pipe to line and level and jointing the new pipe with the existing pipe with solvent cement or or any available joint and testing the pipe line by operating the valves concerned, and rectifying the defects if noticed and without causing any damages to the existing utilities and refilling the trenches using excavated earth in layers not exceeding 20cm depth including consolidating each layers by ramming, watering, charges for removing surplus soil from work site, including hire for tools and plant, conveyance of tools and materials, bailing out water, providing caution boards,lighting,watching, ribbon fencing, traffic controlling etc.complete as per the direction of Departmental officers including the cost of pipe and PVC specials; PVC Pipes and specials shall be of good quality and conforming to relevant standards: All Socketed Jointing.</p>					
	15.000	Leak	2046.8	30702.00	2060.20	30903.00

5	<p>100.47.2.1 Leak rectification work in 90 mm PVC (Class 2 to 6) pipe line including detecting and locating leak, earth work excavation in all kinds of soil for for exposing leak portion of the pipe including tar cutting / concrete cutting, cutting the pipe diametrically perpendicular to the axis of pipe line with out causing any damages to the balance portion, dismantling and lifting the pipe from trenches, smoothening the cut ends, conveying the new pipe, cutting and lowering new pipe in to the trenches,placing in position aligning the pipe to line and level and jointing the new pipe with the existing pipe with solvent cement or repairable joint and testing the pipe line by operating the valves concerned, and rectifying the defects if noticed and refilling the trenches in layers not exceeding 20cm depth including consolidating each layers by ramming, watering, charges for removing surplus soil from work site without causing any damages to the existing utilities, including hire for tools and plant, conveyance of tools and materials, bailing out water, providing caution boards,lighting, ribbon fencing, watching, traffic control etc.complete as per the direction of Departmental officers, including the cost of pipe &amp; specials but excluding the cost of CIR Joints; PVC Pipes and specials shall be of good quality and conforming to relevant standards: Socket &amp; CIR Jointing.</p>					
	7.000	Leak	2294.7	16062.90	2317.85	16224.95
6	<p>100.47.2.2 Leak rectification work in 110 mm PVC (Class 2 to 6) pipe line including detecting and locating leak, earth work excavation in all kinds of soil for for exposing leak portion of the pipe including tar cutting / concrete cutting, cutting the pipe diametrically perpendicular to the axis of pipe line with out causing any damages to the balance portion, dismantling and lifting the pipe from trenches, smoothening the cut ends, conveying the new pipe, cutting and lowering new pipe in to the trenches,placing in position aligning the pipe to line and level and jointing the new pipe with the existing pipe with solvent cement or repairable joint and testing the pipe line by operating the valves concerned, and rectifying the defects if noticed and refilling the trenches in layers not exceeding 20cm depth including consolidating each layers by ramming, watering, charges for removing surplus soil from work site without causing any damages to the existing utilities, including hire for tools and plant, conveyance of tools and materials, bailing out water, providing caution boards,lighting, ribbon fencing, watching, traffic control etc.complete as per the direction of Departmental officers, including the cost of pipe &amp; specials but excluding the cost of CIR Joints; PVC Pipes and specials shall be of good quality and conforming to relevant standards: Socket &amp; CIR Jointing.</p>					
	10.000	Leak	2679.96	26799.60	2702.20	27022.00
7	<p>100.47.2.3 Leak rectification work in 140 mm PVC (Class 2 to 6) pipe line including detecting and locating leak, earth work excavation in all kinds of soil for for exposing leak portion of the pipe including tar cutting / concrete cutting, cutting the pipe diametrically perpendicular to the axis of pipe line with out causing any damages to the balance portion, dismantling and lifting the pipe from trenches, smoothening the cut ends, conveying the new pipe, cutting and lowering new pipe in to the trenches,placing in position aligning the pipe to line and level and jointing the new pipe with the existing pipe with solvent cement or repairable joint and testing the pipe line by operating the valves concerned, and rectifying the defects if noticed and refilling the trenches in layers not exceeding 20cm depth including consolidating each layers by ramming, watering, charges for removing surplus soil from work site without causing any damages to the existing utilities, including hire for tools and plant, conveyance of tools and materials, bailing out water, providing caution boards,lighting, ribbon fencing, watching, traffic control etc.complete as per the direction of Departmental officers, including the cost of pipe &amp; specials but excluding the cost of CIR Joints; PVC Pipes and specials shall be of good quality and conforming to relevant standards: Socket &amp; CIR Jointing.</p>					

		10.000	Leak	3225.99	32259.90	3250.70	32507.00
8	100.47.2.4 Leak rectification work in 160 mm PVC (Class 2 to 6) pipe line including detecting and locating leak, earth work excavation in all kinds of soil for exposing leak portion of the pipe including tar cutting / concrete cutting, cutting the pipe diametrically perpendicular to the axis of pipe line with out causing any damages to the balance portion, dismantling and lifting the pipe from trenches, smoothing the cut ends, conveying the new pipe, cutting and lowering new pipe in to the trenches, placing in position aligning the pipe to line and level and jointing the new pipe with the existing pipe with solvent cement or repairable joint and testing the pipe line by operating the valves concerned, and rectifying the defects if noticed and refilling the trenches in layers not exceeding 20cm depth including consolidating each layers by ramming, watering, charges for removing surplus soil from work site without causing any damages to the existing utilities, including hire for tools and plant, conveyance of tools and materials, bailing out water, providing caution boards, lighting, ribbon fencing, watching, traffic control etc. complete as per the direction of Departmental officers, including the cost of pipe & specials but excluding the cost of CIR Joints; PVC Pipes and specials shall be of good quality and conforming to relevant standards: Socket & CIR Jointing.						
		56.000	Leak	3690.21	206651.76	3717.85	208199.60
9	100.49.1.2 Rectification of joint leakages in 150mm DI Pipe (cutting, removing and laying back a length of 1.0m from one side of the joint) including earth work excavation in all kinds of soil for exposing leak portion of the pipe including tar cutting / concrete cutting, by cutting and removing a portion of pipe from the damaged joint without causing any damages to the remaining portion of the line and specials and replacing the pipe with mechanical and tyton joint after cleaning the ends, centering the pipe, providing the joints, testing the line to the required test pressure, rectifying any defects noticed and refilling the trenches using excavated earth in layers not exceeding 20cm depth including consolidating each layers by ramming, watering, removing the surplus soil from the work site, without causing any damages to any other utilities, including the charges of hire and conveyance of tools, plants and materials to the leak site, bailing out water, lighting, watching, ribbon fencing, caution boards, traffic diversion but excluding cost of mechanical joint and as per the direction of departmental officers etc. complete.						
		5.000	Leak	5858.48	29292.40	5953.75	29768.75
10	100.49.1.3 Rectification of joint leakages in 200mm DI Pipe (cutting, removing and laying back a length of 1.0m from one side of the joint) including earth work excavation in all kinds of soil for exposing leak portion of the pipe including tar cutting / concrete cutting, by cutting and removing a portion of pipe from the damaged joint without causing any damages to the remaining portion of the line and specials and replacing the pipe with mechanical and tyton joint after cleaning the ends, centering the pipe, providing the joints, testing the line to the required test pressure, rectifying any defects noticed and refilling the trenches using excavated earth in layers not exceeding 20cm depth including consolidating each layers by ramming, watering, removing the surplus soil from the work site, without causing any damages to any other utilities, including the charges of hire and conveyance of tools, plants and materials to the leak site, bailing out water, lighting, watching, ribbon fencing, caution boards, traffic diversion but excluding cost of mechanical joint and as per the direction of departmental officers etc. complete.						
		3.000	Leak	6986.86	20960.58	7097.35	21292.05

11	100.49.1.4 Rectification of joint leakages in 250mm DI Pipe (cutting, removing and laying back a length of 1.0m from one side of the joint) including earth work excavation in all kinds of soil for exposing leak portion of the pipe including tar cutting / concrete cutting, by cutting and removing a portion of pipe from the damaged joint without causing any damages to the remaining portion of the line and specials and replacing the pipe with mechanical and tyton joint after cleaning the ends, centering the pipe, providing the joints, testing the line to the required test pressure, rectifying any defects noticed and refilling the trenches using excavated earth in layers not exceeding 20cm depth including consolidating each layers by ramming, watering, removing the surplus soil from the work site, without causing any damages to any other utilities, including the charges of hire and conveyance of tools, plants and materials to the leak site, bailing out water, lighting, watching, ribbon fencing, caution boards, traffic diversion but excluding cost of mechanical joint and as per the direction of departmental officers etc. complete.	3.000	Leak	7912.5	23737.50	8027.10	24081.30
12	100.49.1.5 Rectification of joint leakages in 300mm DI Pipe (cutting, removing and laying back a length of 1.0m from one side of the joint) including earth work excavation in all kinds of soil for exposing leak portion of the pipe including tar cutting / concrete cutting, by cutting and removing a portion of pipe from the damaged joint without causing any damages to the remaining portion of the line and specials and replacing the pipe with mechanical and tyton joint after cleaning the ends, centering the pipe, providing the joints, testing the line to the required test pressure, rectifying any defects noticed and refilling the trenches using excavated earth in layers not exceeding 20cm depth including consolidating each layers by ramming, watering, removing the surplus soil from the work site, without causing any damages to any other utilities, including the charges of hire and conveyance of tools, plants and materials to the leak site, bailing out water, lighting, watching, ribbon fencing, caution boards, traffic diversion but excluding cost of mechanical joint and as per the direction of departmental officers etc. complete.	1.000	Leak	8846.13	8846.13	8972.00	8972.00
13	100.50.1.1 Rectification of leakages of 32 mm, 40mm & 50mm GI Pipes by replacing lengths up to 1.0m including earth work excavation in all kindss of soil for exposing leak portion of the pipe including tar / concrete cutting, by cutting, removing and stacking the damaged portion from the existing line without causing any damages to the remaining portion and specials and conveying and replacing with GI Pipes of suitable size and jointing by thraded coupler and union of suitable size including threading, alignment, laying and jointing to make a water tight joint, testing the line to the required pressure, rectifying any defects noticed and refilling the trenches using excavated earth in layers not exceeding 20cm depth including consolidating each layers by ramming, watering, removing the surplus soil from the work site, without causing any damages to any other utilities, including the charges hire and conveyance of tools, plant and materials to the leak site, bailing out water, lighting, watching, ribbon fencing, caution boards, traffic diversion, including the cost of specials but excluding cost of pipe and as per the direction of departmental officers etc. complete.	40.000	Leak	2279.32	91172.80	2299.65	91986.00



14	100.50.1.2 Rectification of leakages of 65 mm GI Pipes by replacing lengths up to 1.0m including earth work excavation in all kindss of soil for exposing leak portion of the pipe including tar / concrete cutting, by cutting, removing and stacking the damaged portion from the existing line without causing any damages to the remaining portion and specials and conveying and replacing with GI Pipes of suitable size and jointing by thraded coupler and union of suitable size including threading, alignment, laying and jointing to make a water tight joint, testing the line to the required pressure, rectifying any defects noticed and refilling the trenches using excavated earth in layers not exceeding 20cm depth including consolidating each layers by ramming, watering, removing the surplus soil from the work site, without causing any damages to any other utilities, including the charges hire and conveyance of tools, plant and materials to the leak site, bailing out water, lighting, watching, ribbon fencing, caution boards, traffic diversion, including the cost of specials but excluding cost of pipe and as per the direction of departmental officers etc. complete.	25.000	Leak	3251.11	81277.75	3268.35	81708.75
15	100.50.1.3 Rectification of leakages of 80 mm GI Pipes by replacing lengths up to 1.0m including earth work excavation in all kindss of soil for exposing leak portion of the pipe including tar / concrete cutting, by cutting, removing and stacking the damaged portion from the existing line without causing any damages to the remaining portion and specials and conveying and replacing with GI Pipes of suitable size and jointing by thraded coupler and union of suitable size including threading, alignment, laying and jointing to make a water tight joint, testing the line to the required pressure, rectifying any defects noticed and refilling the trenches using excavated earth in layers not exceeding 20cm depth including consolidating each layers by ramming, watering, removing the surplus soil from the work site, without causing any damages to any other utilities, including the charges hire and conveyance of tools, plant and materials to the leak site, bailing out water, lighting, watching, ribbon fencing, caution boards, traffic diversion, including the cost of specials but excluding cost of pipe and as per the direction of departmental officers etc. complete.	16.000	Leak	3630.4	58086.40	3807.85	60925.60
16	100.50.1.4 Rectification of leakages of 100 mm GI Pipes by replacing lengths up to 1.0m including earth work excavation in all kindss of soil for exposing leak portion of the pipe including tar / concrete cutting, by cutting, removing and stacking the damaged portion from the existing line without causing any damages to the remaining portion and specials and conveying and replacing with GI Pipes of suitable size and jointing by thraded coupler and union of suitable size including threading, alignment, laying and jointing to make a water tight joint, testing the line to the required pressure, rectifying any defects noticed and refilling the trenches using excavated earth in layers not exceeding 20cm depth including consolidating each layers by ramming, watering, removing the surplus soil from the work site, without causing any damages to any other utilities, including the charges hire and conveyance of tools, plant and materials to the leak site, bailing out water, lighting, watching, ribbon fencing, caution boards, traffic diversion, including the cost of specials but excluding cost of pipe and as per the direction of departmental officers etc. complete.	5.000	Leak	3728.38	18641.90	3794.70	18973.50

17	100.50.1.5 Rectification of leakages of 125 mm GI Pipes by replacing lengths up to 1.0m including earth work excavation in all kindss of soil for exposing leak portion of the pipe including tar / concrete cutting, by cutting, removing and stacking the damaged portion from the existing line without causing any damages to the remaining portion and specials and conveying and replacing with GI Pipes of suitable size and jointing by thraded coupler and union of suitable size including threading, alignment, laying and jointing to make a water tight joint, testing the line to the required pressure, rectifying any defects noticed and refilling the trenches using excavated earth in layers not exceeding 20cm depth including consolidating each layers by ramming, watering, removing the surplus soil from the work site, without causing any damages to any other utilities, including the charges hire and conveyance of tools, plant and materials to the leak site, bailing out water, lighting, watching, ribbon fencing, caution boards, traffic diversion, including the cost of specials but excluding cost of pipe and as per the direction of departmental officers etc. complete.	6.000	Leak	4314.97	25889.82	4390.55	26343.30
18	100.50.1.6 Rectification of leakages of 150 mm GI Pipes by replacing lengths up to 1.0m including earth work excavation in all kindss of soil for exposing leak portion of the pipe including tar / concrete cutting, by cutting, removing and stacking the damaged portion from the existing line without causing any damages to the remaining portion and specials and conveying and replacing with GI Pipes of suitable size and jointing by thraded coupler and union of suitable size including threading, alignment, laying and jointing to make a water tight joint, testing the line to the required pressure, rectifying any defects noticed and refilling the trenches using excavated earth in layers not exceeding 20cm depth including consolidating each layers by ramming, watering, removing the surplus soil from the work site, without causing any damages to any other utilities, including the charges hire and conveyance of tools, plant and materials to the leak site, bailing out water, lighting, watching, ribbon fencing, caution boards, traffic diversion, including the cost of specials but excluding cost of pipe and as per the direction of departmental officers etc. complete.	4.000	Leak	4938.51	19754.04	5024.05	20096.20
19	100.37.3 Welding MS sheet, pipe and special by gas or electric plant for three run welding including cost of welding rod / gas, all labour and hire charges of tools etc complete.	1789.80 0	cm	12.45	22283.01	21.75	38928.15
20	100.58.1 Rectifying the leakages in vertical pipe of public tap connection including earth work excavation in all kinds of soil for exposing the pipeline including concrete / tar cutting, cutting and removing damaged portion of pipe, fixing new 20/25 mm GI pipe and specials in place of damaged portion of pipe and connecting with existing pipe line, testing the line to the required pressure, rectifying any defects noticed and refilling the trenches using excavated earth in layers not exceeding 20cm depth including consolidating each layers by ramming, watering, removing the surplus soil from the work site, without causing any damages to any other utilities, including the charges of hire and conveyance of tools, plants and materials to the leak site, bailing out water, lighting, watching, ribbon fencing, caution boards, traffic diversion, including cost of pipe and specials and as per the direction of departmental officers etc. complete.	10.000	Leak	824.64	8246.40	797.75	7977.50

21	100.56.1	Supplying and fixing 15 / 20 mm PVC public tap after dismantling the damaged tap including all cost of materials, labour charges, hire for tools and as per the direction of the department officers etc complete.						
		15.000	Nos	133.53	2002.95	136.10	2041.50	
22	100.98.1008	Engaging Coolie						
		40.000	Day	917.26	36690.40	929.20	37168.00	
23	13.44.1	Finishing walls with water proofing cement paint of required shade:New work (Two or more coats applied @ 3.84 kg/10 sqm)						
		1200.00 0	sqm	112.09	134508.00	121.20	145440.00	
24	100.98.48	Supply of PVC Tap						
		15.000	No	75.15	1127.25	75.15	1127.25	
SI No	Spec	Description	Quantity	Unit	DSOR Rate	TS Amount	LMR Rate	LMR Amount
81	Appendix B - (8)- Line charging, stabilization& interconnection - (j) Interconnection work of raw water pumping main with aerator at treatment plant using 350mm DIK9 pipes and providing surge arrestor in raw water pumping main							
1	100.1.1	Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidatingeach deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m : All kinds of soil (Ref. Item No. 2.10.1 of DSR)						
		85.801	cum	579.85	49751.71	592.25	50815.64	
2	100.1.5	Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidatingeach deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m :" Ordinary Rock. (Ref. Item No. 2.13.1 of DSR)						
		22.881	cum	842.1	19268.09	1033.20	23640.65	

3	100.2.2 Excavation work by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 m <sup>2</sup> on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soils as directed, within a lead of 50 m. Medium Rock (blasting prohibited) New Data derived from Item No.2.9.3	5.721	cum	1106.34	6329.37	1547.00	8850.39
4	50.2.25.1 Filling with contractor's own earth ( excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m as per direction of site Engineer-in-charge	5.000	cum	548.85	2744.25	342.40	1712.00
5	100.14.6 Conveying and laying S&S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS: 8329 excluding cost of pipes and specials : 350 mm dia Ductile Iron Class K-9 Pipes Data derived from 18.72.20 in DAR	80.000	metre	283.7	22696.00	263.05	21044.00
6	18.70.6 Providing push - on-joints to Centrifugally (Spun) Cast Iron Pipes or Ductile Iron Pipes including testing of joints and including the cost of rubber gasket:350 mm dia pipes	16.000	joint	456.93	7310.88	452.50	7240.00
7	18.30.8 Providing flanged joints to double flanged C.I./ D.I pipes and specials, including testing of joints:350 mm diameter pipe	2.000	Nos	811.46	1622.92	921.05	1842.10
8	18.26.2 Providing and laying flanged C.I. Standard specials such as tees, bends, collars, tapers, caps etc., suitable for flanged jointing as per IS : 1538 :Over 300 mm dia	5.910	quintal	9660.34	57092.61	10512.55	62129.17
9	18.83.8 Labour for cutting C.I. pipe with steel saw.350 mm diameter C.I pipe	8.000	Each Cut	781.1	6248.80	807.85	6462.80
10	100.35.6 Testing 350mm DI/CI pipeline with potable water to the required test pressure. 350 mm dia Observed Data derived from item no.1024 of PHED DATA	80.000	metre	70.53	5642.40	74.60	5968.00

11	4.1.3 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)	30.000	cum	8340.93	250227.90	10609.70	318291.00
12	5.22.6 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth level Thermo - Mechanically Treated bars of grade Fe-500D or more	1200.00 0	kilogram	102.61	123132.00	120.80	144960.00
13	100.37.10.1 Fabricating MS pipes of size 350mm (ID) using 8 mm thick MS plate including cost and conveyance charges of MS plate, all fabrication charges, charges of painting the steel work with two or more coat deluxe multi surface paint to give an even shade over an under coat of primer etc. complete: For pipes fabricated with 8mm thick MS plates.	10.000	metre	9145.95	91459.50	12734.15	127341.50
14	100.37.10.3 Cutting 350 mm (ID) MS pipes for making bends and other specials by gas cutting including cost of gas, all labour and hire charges of tools etc. complete: For pipes fabricated with 8mm thick MS plates.	5.000	No	374.28	1871.40	735.90	3679.50
15	100.37.10.4 Welding 350 mm (ID) MS pipes for making bends and other specials by gas/electric welding machine including cost of gas and welding rods, all labour and hire charges of tools etc. complete: For pipes fabricated with 8mm thick MS plates.	5.000	No	1432.07	7160.35	2500.85	12504.25
16	100.37.10.5 Grinding cut and weld edges of 350 mm (ID) MS pipes during fabrication work including all labour and hire charges of tools etc. complete: For pipes fabricated with 8mm thick MS plates.	5.000	No	268.48	1342.40	270.20	1351.00
17	100.37.6.1 Fabricating MS pipes of size 150mm (ID) using 8 mm thick MS plate including cost and conveyance charges of MS plate, all fabrication charges, charges of painting the steel work with two or more coat deluxe multi surface paint to give an even shade over an under coat of primer etc. complete: For pipes fabricated with 8mm thick MS plates.	2.000	metre	5174.62	10349.24	7454.00	14908.00
18	100.37.6.3 Cutting 150mm (ID) MS pipes for making bends and other specials by gas cutting including cost of gas, all labour and hire charges of tools etc. complete: For pipes fabricated with 8mm thick MS plates.	3.000	No	169.77	509.31	333.75	1001.25

19	100.37.6.4 Welding 150mm (ID) MS pipes for making bends and other specials by gas/electric welding machine including cost of gas and welding rods ,all labour and hire charges of tools etc. complete: For pipes fabricated with 8mm thick MS plates.	3.000	No	649.48	1948.44	1134.25	3402.75
20	100.37.6.5 Grinding cut and weld edges of 150mm (ID) MS pipes during fabrication work including all labour and hire charges of tools etc. complete: For pipes fabricated with 8mm thick MS plates.	3.000	No	121.79	365.37	122.55	367.65
21	100.98.120 Supply of DI K9 Pipe Conforming to IS 8329/2000, 350mm Dia.	80.000	metre	5506.95	440556.00	5238.35	419068.00
22	od83893/2020_2021 Providing 350mm surge arrestor- Earth work in excavation by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.All classes of soil (Rate as per DSR Observed data)	15.000	cum	425.54	6383.10	425.55	6383.25
23	od83894/2020_2021 Providing 350mm surge arrestor- Providing 350mm surge arrestor having test pressure 45Kg/cm2 to the clear water pumping main including cost of specials such as 2 Nos. Tail piece, 2 Nos. Mechanical joints, cutting the existing DI pipe, inserting surge arrestor, jointing with flanged joints etc. including cost of surge arrestor.(Rate as per DSR Observed data)	1.000	No	600000.0	600000.00	600000.0 0	600000.00
24	od83895/2020_2021 Providing 350mm surge arrestor- Cement concrete 1:2:4 using 20mm nominay size metal for anchore block including charges of form work and labour charges etc. complete.(Rate as per DSR Observed data)	5.000	cum	8941.83	44709.15	8941.85	44709.25
25	od83896/2020_2021 Providing 350mm surge arrestor- Providing air cushion valve of diameter - 200mm & test pressure 45 Kg/cm2 with flanged ends including all cost of materials such as 200mm air cushion valve - 1 No., 200mm D/F CI sluice valve - 1 No. etc and all labour charges for fitting the same in position as directed by the departmental officers.(Rate as per DSR Observed data)	1.000	No	409500.0	409500.00	409500.0 0	409500.00

26	od83897/2020_2021 Providing 350mm surge arrestor- Constructing RCC valve chamber of size 2.50m x 1.20m x 1.20m for providing the zero velocity valve including all cost of materials, labour charge, form work etc complete as directed by the departmental officers. (Rate as per DSR Observed data)								
				1.000	No	63841.4	63841.40	63841.40	63841.40
SI No	Spec	Description	Quantity	Unit	DSOR Rate	TS Amount	LMR Rate	LMR Amount	
82 Appendix B- (9) - Road restoration works-(a) PWD road									
1	od178589/2018_2019 Removal of unserviceable soil including excavation, loading and disposal upto 1000 metres lead but excluding replacement by suitable soil which shall be paid separately (PWD sanctioned price rate-specification code-3.11)								
			1246.87 5	cum	47.61	59363.72	47.60	59351.25	
2	od178591/2018_2019 Maintenance of Earthen Shoulder (filling with fresh soil) Making up loss of material/ irregularities on shoulder to the design level by adding fresh approved soil and compacting it with appropriate equipment.(PWD sanctioned rate-specification code- 10.2)								
			4987.50 0	sqm	41.25	205734.38	41.25	205734.38	
3	od178592/2018_2019 Construction of granular sub-base by providing graded material, spreading in uniform layers with motor grader on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with vibratory roller to achieve the desired density, complete as per clause 401. Grading-IV - For lower sub base - Mix in Place Method (PWD sanctioned rate-specification code-4.2.A2)								
			225.000	cum	3178.82	715234.50	3178.80	715230.00	
4	od178593/2018_2019 Providing, laying, spreading and compacting graded stone aggregate to Wet Mix Macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver in sub- base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density.(PWD sanctioned rate-specification code- 4.12)								
			150.000	cum	3344.36	501654.00	3344.35	501652.50	
5	od178594/2018_2019 Prime Coat- Providing and applying primer coat with bitumen emulsion on prepared surface of granular Base including clearing of road surface and spraying primer at the rate of 0.7kg/sqm using mechanical means.(PWD sanctioned rate- specification code-5.1)								

		1500.00 0	sqm	54.39	81585.00	54.40	81600.00	
6	od178595/2018_2019 Supplying and stacking 12mm hard blue granite broken stone in standard heaps for measurement(IRC 3.2.1.a)- PWD sanctioned rate-specification code- 55.2							
		40.500	cum	2631.07	106558.34	2631.05	106557.53	
7	od178596/2018_2019 Supplying and stacking 6mm hard blue granite broken stone in standard heaps for measurement(IRC 3.2.1.a)- PWD sanctioned rate-specification code- 55.3							
		13.500	cum	2631.07	35519.45	2631.05	35519.18	
8	od178597/2018_2019 Supplying and stacking 36mm size hard broken stone in standard heaps for measurement.(PWD sanctioned rate- specification code- 55.4)							
		150.000	cum	2537.36	380604.00	2537.35	380602.50	
9	od178598/2018_2019 Providing, laying and rolling of open graded premix carpet of 20 mm thickness with 0.27 cum of 12 mm departmental aggregates premixed with 12.96 kg of bitumen per 10 sqm using penetration grade bitumen to required line, grade and level on a previously prepared base, after priming the existing surface with 5 kg of bitumen (VG 30) 10 sqm including mixing in a suitable plant, laying and rolling with a three wheel static roller of 80-100 KN capacity, finished to required level and grades, followed by a seal coat of 0.09 cum of 6 mm departmental aggregates premixed with 8.64 kg of bitumen per 10 sqm. By Manual Means- PWD sanctioned rate-specification code-55.1.a							
		1500.00 0	sqm	192.02	288030.00	192.00	288000.00	
10	od178599/2018_2019 Plain cement concrete 1:3:6 nominal mix in foundation with crushed stone aggregate 40 mm nominal size mechanically mixed, placed in foundation and compacted by vibration including curing for 14 days.( PWD sanctioned rate- specification code- 12.4)							
		196.875	cum	7032.06	1384436.81	7032.05	1384434.84	
11	od178600/2018_2019 CPlain/Reinforced Cement Concrete in Open Foundation complete as per Drawing and Technical Specifications PCC Grade M20 (Without formwork) -PWD sanctioned rate-specification code-12.8.b							
		98.438	cum	8523.47	839033.34	8523.45	839031.37	
Sl No	Spec	Description	Quantity	Unit	DSOR Rate	TS Amount	LMR Rate	LMR Amount
83 Appendix B - (9) - Road restoration works- (b) Village/ Panchayat/ PMGSY roads								



1	od178592/2018_2019 Construction of granular sub-base by providing graded material, spreading in uniform layers with motor grader on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with vibratory roller to achieve the desired density, complete as per clause 401. Grading-IV - For lower sub base - Mix in Place Method (PWD sanctioned rate-specification code-4.2.A2)	154.688	cum	3178.82	491725.31	3178.80	491722.21
2	od178593/2018_2019 Providing, laying, spreading and compacting graded stone aggregate to Wet Mix Macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver in sub- base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density.(PWD sanctioned rate-specification code- 4.12)	103.125	cum	3344.36	344887.13	3344.35	344886.09
3	od178594/2018_2019 Prime Coat- Providing and applying primer coat with bitumen emulsion on prepared surface of granular Base including clearing of road surface and spraying primer at the rate of 0.7kg/sqm using mechanical means.(PWD sanctioned rate- specification code-5.1)	1031.25 0	sqm	54.39	56089.69	54.40	56100.00
4	od178595/2018_2019 Supplying and stacking 12mm hard blue granite broken stone in standard heaps for measurement(IRC 3.2.1.a)- PWD sanctioned rate-specification code- 55.2	27.845	cum	2631.07	73262.14	2631.05	73261.59
5	od178596/2018_2019 Supplying and stacking 6mm hard blue granite broken stone in standard heaps for measurement(IRC 3.2.1.a)- PWD sanctioned rate-specification code- 55.3	9.282	cum	2631.07	24421.59	2631.05	24421.41
6	od178597/2018_2019 Supplying and stacking 36mm size hard broken stone in standard heaps for measurement.(PWD sanctioned rate- specification code- 55.4)	92.813	cum	2537.36	235499.99	2537.35	235499.07

7	od178598/2018_2019 Providing, laying and rolling of open graded premix carpet of 20 mm thickness with 0.27 cum of 12 mm departmental aggregates premixed with 12.96 kg of bitumen per 10 sqm using penetration grade bitumen to required line, grade and level on a previously prepared base, after priming the existing surface with 5 kg of bitumen (VG 30) 10 sqm including mixing in a suitable plant, laying and rolling with a three wheel static roller of 80-100 KN capacity, finished to required level and grades, followed by a seal coat of 0.09 cum of 6 mm departmental aggregates premixed with 8.64 kg of bitumen per 10 sqm. By Manual Means- PWD sanctioned rate-specification code-55.1.a							
			1031.25 0	sqm	192.02	198020.63	192.00	198000.00
8	4.1.3 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)							
			67.500	cum	8340.93	563012.78	10609.70	716154.75
SI No	Spec	Description	Quantity	Unit	DSOR Rate	TS Amount	LMR Rate	LMR Amount
84 Appendix B - (8)- Line charging, stabilization& interconnection - (k)- Providing Flow Meters								
1	od90786/2020_2021 Supplying and fixing 200mm Dia Mechanical Flow meter of Woltman type conforming to ISO 4064 Class B of ARAD/ ZENNER/ REYCHEM RPG/ ITRON make and the flow meter shall be tested and certified by FCRI-Palakkad.							
			3.000	No	39140.29	117420.87	39215.55	117646.65
2	od90787/2020_2021 Supplying and fixing 250mm Dia Mechanical Flow meter of Woltman type conforming to ISO 4064 Class B of ARAD/ ZENNER/ REYCHEM RPG/ ITRON make and the flow meter shall be tested and certified by FCRI-Palakkad.							
			2.000	No	81012.36	162024.72	81087.60	162175.20
3	od93515/2020_2021 Supplying and fixing 300mm Dia Electromagnetic Flow meter conforming to protection level of IP-68 for flow sensor and IP-67 for transmitter and having an accuracy level of 0.5 % with (LED/LCD) display unit, UPS and battery. This flow meter should have the housing (flow sensor) to be made of SS304/ carbon steel with anti corrosive protection and inside liner to be made of hard rubber or neoprene all conforming to drinking water standards. The flow meter should be coupled Hart for data acquisition and transfer ,with provision for wireless transfer through GSM. The manufacturer Should have the calibration standard. AS per ISO 17.0.25 and the product shall have sufficient warranty provisions.							

	1.000	No	198254.1 7	198254.17	198329.4 0	198329.40
<b>Estimate PAC</b>						<b>121218018.9 4</b>
<b>LMR Estimate PAC</b>						<b>119935752.0 0</b>
<b>Percentage Excess</b>						<b>-1.06</b>
Rupees Eleven Crore Ninety Nine Lakh Thirty Five Thousand Seven Hundred and Fifty Two Only						



Kerala Water Authority

**PRICE**