DETAILED ESTIMATE

Jal Jeevan Mission (JJM)-JJM PROVIDING FHTCS TO ALL HOUSEHOLD IN ERATTAYAR AND KAMAKSHI (PART) PANCHAYATHS IN IDUKKI DISTRICTS-Providing and Laying Distribution Network and FHTC's for various zones-Pipeline Work

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
1	Cost of materials						
1.001	100.98.116						
	Supply of DI K9 Pipe Conforming to IS 8329/2000, 150mm Dia.						
	Supply of DI K9 Pipe Conforming to IS 8329/2000, 150mm Dia.						
	From wtp	1	772.000				772.000
	From Tenali city	1	2358.000				2358.000
	From Adayalakallu	1	120.000				120.000
	From Naguthotty	1	206.000				206.000
	From Heropadi	1	1240.000				1240.000
	For future maintenance2.5%	1	4696.000			0.025000	117.400
	Deduction for MS Pipe	-100	1.000			1.000000	-100.000
	Rounded	1				0.600000	0.600
	Total						**4714.000**
						Total Quantity in metre	**4714.000**
1.002	100.98.117						
	Supply of DI K9 Pipe Conforming to IS 8329/2000, 200mm Dia.						
	Supply of DI K9 Pipe Conforming to IS 8329/2000, 200mm Dia						
	From wtp	1	155.000				155.000
	From Tenali city	1	304.000				304.000
	From Vazhavara	1	33.000				33.000
	From Naguthotty	1	20.000				20.000
	From Heropadi	1	603.000				603.000
	For future maintenance 2.5%	1	1115.000	1.000	1.000	0.025000	27.875
	Deduction fir MS Pipe	-60	1.000		1.000	1.000000	-60.000
	Rounded	1				0.125000	0.125

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Total						**1083.000**
						Total Quantity in metre	**1083.000**
1.003	100.98.118						
	Supply of DI K9 Pipe Conforming to IS 8329/2000, 250mm Dia.						
	Supply of DI K9 Pipe Conforming to IS 8329/2000, 250mm Dia.						
	From wtp	1	635.000				635.000
	For future Maintenance 2.5%	1	635.000			0.025000	15.875
	Deduction for MS pipe	-20	1.000				-20.000
	Rounded	1				0.125000	0.125
	Total						**631.000**
						Total Quantity in metre	**631.000**
1.004	100.98.135						
	Supply of HDPE Pipe PE 100 (IS 4984/1995), 8kg, 110mm Outer Dia.						
	HDPE PIPE 8Kg						
	From WTP	1	8240.000				8240.000
	From Nanguthotty	1	10065.000				10065.000
	From Heropadi	1	8806.000				8806.000
	Total						**27111.000**
						Total Quantity in metre	**27111.000**
1.005	OD79784/2022-2023						
	Supply of specials for HDPE Pipe PE100 ,8(kg) as per direction.						
	Specials for 110 mm HDPE 8(kg) pipe						
	Specials	1	27111.000				27111.000
	Total						**27111.000**
						Total Quantity in metre	**27111.000**
1.006	100.98.155						
	Supply of HDPE Pipe PE 100 (IS 4984/1995), 10kg, 110mm Outer Dia.						
	Supply of PE Pipe, PE100, PN10, 110mm dia, conforming to IS 4984/1995.						
	From WTP	1	680.000				680.000

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	From Nanguthotty	1	2330.000				2330.000
	From Heropadi	1	7118.000				7118.000
	Total						**10128.000**
						Total Quantity in metre	**10128.000**
1.007	OD79826/2022-2023						
	Supply of Specials for HDPE Pipe 10(kg) as per direction						
	Specials for 110 mm HDPE 10(kg) pipe						
	Specials	1	10128.000				10128.000
	Total						**10128.000**
						Total Quantity in metre	**10128.000**
1.008	100.98.195						
	Supply of HDPE Pipe PE 100 (IS 4984/1995), 16kg, 110mm Outer Dia.						
	Supply of PE Pipe, PE100, PN16, 110mm dia, conforming to IS 4984/1995						
	From WTP	1	624.000				624.000
	From Nanguthotty	1	16562.000				16562.000
	From Heropadi	1	11149.000				11149.000
	Deduction for 100 mm GI Pipe	-360	1.000				-360.000
	Total						**27975.000**
						Total Quantity in metre	**27975.000**
1.009	OD79869/2022-2023						
	Supply of Specials for 110 mm dia HDPE 16(kg) pipe						
	Specials for 110 mm HDPE 16(kg)Pipe						
		1	27975.000				27975.000
	Total						**27975.000**
						Total Quantity in metre	**27975.000**
1.010	100.98.134						
	Supply of HDPE Pipe PE 100 (IS 4984/1995), 8kg, 90mm Outer Dia.						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Supply of PE Pipe, PE100, PN6, 90mm dia, conforming to IS 4984/1995.						
	From Tenalicity	1	4308.000				4308.000
	From Vazhavara	1	2773.000				2773.000
	From Adayalakallu	1	1786.000				1786.000
	From Kurissummootil padi	1	1338.000				1338.000
	Total						**10205.000**
						Total Quantity in metre	**10205.000**
1.011	OD79888/2022-2023						
	Supply of Specials for 90 mm HDPE 8 Kg Pipe						
	Specials for 90 mm HDPE Pipe						
	Specials	1	10205.000				10205.000
	Total						**10205.000**
						Total Quantity in metre	**10205.000**
1.012	100.98.154						
	Supply of HDPE Pipe PE 100 (IS 4984/1995), 10kg, 90mm Outer Dia.						
	Supply 90 mm HDPE 10(kg)						
	From Tenali city	1	1920.000				1920.000
	From Vazhavara	1	1424.000				1424.000
	From Adayalakallu	1	971.000				971.000
	From Kurissummootil padi	1	3785.000				3785.000
	Total						**8100.000**
						Total Quantity in metre	**8100.000**
1.013	OD79908/2022-2023						
	Supply specials for 90 mm HDPE 90 mm 10(kg)pipe						
	Specials for 90mm HDPE 10 (kg)						
		1	8100.000				8100.000
	Total						**8100.000**
						Total Quantity in metre	**8100.000**
1.014	100.98.194						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Supply of HDPE Pipe PE 100 (IS 4984/1995), 16kg, 90mm Outer Dia.						
	Supply of PE Pipe, PE100, PN16, 90mm dia, conforming to IS 4984/1995						
	From Tenali city	1	1922.000				1922.000
	Vazhavara	1	2972.000				2972.000
	Adayalakkallu	1	3904.000				3904.000
	Deduction for 80 mm GI Pipe	-360	1.000				-360.000
	Total						**8438.000**
						Total Quantity in metre	**8438.000**
1.015	OD79931/2022-2023						
	Specials for 90 mm HDPE Pipe 16 (kg)						
	Specials for 90 mm HDPE Pipe 16(kg)						
		1	8438.000				8438.000
	Total						**8438.000**
						Total Quantity in metre	**8438.000**
1.016	OD74262/2022-2023						
	Supply of 100mm GI (M) pipes						
	100 mm GI Pipe						
	For culvert gap closing	30	12.000				360.000
	Total						**360.000**
						Total Quantity in metre	**360.000**
1.017	OD79681/2022-2023						
	Specials for 100 mm GI pipe medium						
	Specials for 100 mm GI Pipe						
	Specials	1	360.000				360.000
	Total						**360.000**
						Total Quantity in metre	**360.000**
1.018	100.98.440						
	Supply of CI Air Valve, Conforming to IS 14848 - 2000, Single Orifice, Small Orifice Type S1, Size 25mm.						
	Supply of CI Air Valve,25 mm Single orifice						
	Air valve	265					265.000
	Total						**265.000**
						Total Quantity in no	**265.000**
1.019	100.98.445						
	Supply of CI Air Valve, Conforming to IS 14848 - 2000, Double Orifice Type DS2, Size 40mm.						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Supply of CI Air Valve, Double Orifice Size 40mm.						
	Air valve	50					50.000
	Total						**50.000**
						Total Quantity in no	**50.000**
1.020	100.98.436						
	Supply of CI Air Valve, Conforming to IS 14848 - 2000, Kinetic Air Valve Type DK, Size 80mm.						
	Air valve						
	80mm	12					12.000
	Total						**12.000**
						Total Quantity in no	**12.000**
1.021	100.98.457						
	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 80mm.						
	Supply of CI Double Flanged Sluice Valve Sluice Valve with Cap PN 1.6, Size 80mm						
	80mm Sluice valve	88					88.000
	80mm Sluice valve for Scour	7					7.000
	Total						**95.000**
						Total Quantity in no	**95.000**
1.022	100.98.458						
	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 100mm.						
	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 100mm.						
		60					60.000
	for Scour	10					10.000
	Total						**70.000**
						Total Quantity in no	**70.000**
1.023	100.98.460						
	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 150mm.						
	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 150mm.						
	150mm sluice valve	9					9.000
	Total						**9.000**
						Total Quantity in no	**9.000**

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
1.024	100.98.461						
	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 200mm.						
	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 200mm.						
		5					5.000
	Total						**5.000**
						Total Quantity in no	**5.000**
1.025	100.98.462						
	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 250mm.						
	250 mm sluice valve						
	Sluice valve	3					3.000
	Total						**3.000**
						Total Quantity in no	**3.000**
2	Working charge for Distribution System						
2.001	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 1.5m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20cm in depth, including consolidating each deposited layer by ramming, watering, etc., and disposing of surplus excavated soil as directed, within a lead of 50m, in all kinds of soil.						
	EW excavation in all kinds of soil-65%						
	250 mm DI K9	1	635.000	0.900	1.200	0.650000	445.770
	200 mm DI K9	1	1115.000	0.800	1.150	0.650000	666.770
	150 mm DI K9	1	4696.000	0.700	1.050	0.650000	2243.514
	110 mm PE	1	65214.000	0.600	1.000	0.650000	25433.460
	90 mm PE	1	26743.000	0.500	0.900	0.650000	7822.328
	Deduction for road cutting	-1	1100.000	0.800	0.200		-176.000
	Total						**36435.842**
						Total Quantity in cum	**36435.842**
2.002	100.1.5						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Excavating trenches of required width for pipes, cables, etc., including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20cm 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, in Ordinary Rock.						
	EW excavation in ordinary rock-25%						
	250 mm DI k9	1	635.000	0.900	1.200	0.250000	171.450
	200 mm DI k9	1	1115.000	0.800	1.150	0.250000	256.450
	150 mm DI k9	1	4696.000	0.700	1.050	0.250000	862.890
	110 mm PE	1	65214.000	0.600	1.000	0.250000	9782.100
	90 mm PE	1	26743.000	0.500	0.900	0.250000	3008.588
	Total						**14081.478**
						Total Quantity in cum	**14081.478**
2.003	100.2.7						
	Excavating trenches of required width for pipes, cables, etc., including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20cm in depth, including consolidating each deposited layer by ramming, watering, etc., and disposing of surplus excavated soil as directed, within a lead of 50m, in Medium Rock where Blasting is Prohibited.						
	EW excavation in Medium Rock-5%						
	250 mm DI k9	1	635.000	0.900	1.200	0.050000	34.290
	200 mm DI k9	1	1115.000	0.800	1.150	0.050000	51.290
	150 mm DI k9	1	4696.000	0.700	1.050	0.050000	172.578
	110 mm PE	1	65214.000	0.600	1.000	0.050000	1956.420
	90 mm PE	1	26743.000	0.500	0.900	0.050000	601.718
	Total						**2816.296**
						Total Quantity in cum	**2816.296**
2.004	100.4.1						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	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 up to 1.50m (depth from 0.0m 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 of blasting)						
	EW excavation in hard rock-5%						
	250 mm DI K9	1	635.000	0.900	1.200	0.050000	34.290
	200 mm DI K9	1	1115.000	0.800	1.150	0.050000	51.290
	150 mm DI K9	1	4696.000	0.700	1.050	0.050000	172.578
	110 mm HDPE	1	65214.000	0.600	1.000	0.050000	1956.420
	90 mm HDPE	1	26743.000	0.500	0.900	0.050000	601.718
	Total						**2816.296**
						Total Quantity in cum	**2816.296**
2.005	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						
	Filling with contractor's own earth						
	250 mm DI K9	1	635.000	0.900	1.200	0.010000	6.858
	200 mm DI K9	1	1115.000	0.800	1.150	0.010000	10.258
	150 mm DI K9	1	4696.000	0.700	1.050	0.010000	34.516
	Total						**51.632**
						Total Quantity in cum	**51.632**
2.006	100.8.1						
	Fencing one side of trenches, 1.50m height with two rows of 10cm plastic caution tape in vertical casuarina pole (girth 15cm to 24cm) fixed at 2m intervals.						
	Fencing one side of trenches						
	250 mm DI K9	1	635.000				635.000
	200 mm DI K9	1	1115.000				1115.000
	150 mm DI K9	1	4696.000				4696.000
	110 mm PE	1	64214.000				64214.000
	90 mm PE	1	26743.000				26743.000

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Total						**97403.000**
						Total Quantity in metre	**97403.000**
2.007	100.59.1						
	Cutting the bituminous / concrete roads with cutting machine for a minimum depth of 200mm along the sides of proposed alignment of the pipe to be laid without causing any damage to other utilities, including the charges for hire and conveyance of tools and plant, cost of consumables and charges for lighting, watching, ribbon fencing, caution boards, traffic diversion, and as per the direction of departmental officers etc. complete, before carrying out the demolition of bituminous / concrete road by mechanical means and carrying out the excavation.						
	Cutting the bituminous/ concrete roads						
	road crossing	50	5.000				250.000
	road side	10	500.000				5000.000
	Total						**5250.000**
						Total Quantity in metre	**5250.000**
2.008	15.59						
	Dismantling of flexible pavement (bituminous courses) by mechanical means and disposal of dismantled material up to a lead of 1 kilo metre, as per direction of Engineer-in-charge.						
	Dismantling of flexible pavement						
	road crossing	50	5.000	0.600	0.200		30.000
	road side	10	500.000	0.600	0.200		600.000
	Total						**630.000**
						Total Quantity in cum	**630.000**
2.009	15.2.2						
	Demolishing cement concrete manually / by mechanical means including disposal of material within 50 metres lead as per direction of Engineer - in-Charge.Nominal concrete 1:4:8 leaner mix (including equivalent design mix)						
	Demolishing Concrete						
		1	2000.000	0.800	0.150		240.000
	Total						**240.000**
						Total Quantity in cum	**240.000**
2.010	100.14.2						
	Conveying and laying S&S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS: 8329 excluding cost of pipes and specials: 150mm diameter Ductile Iron Class K-9 Pipes.						
	Conveying and laying S &S Centrifugally Cast/Ductile Iron pipes-150 mm						
		1	4696.000				4696.000
	Total						**4696.000**

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
						Total Quantity in metre	**4696.000**
2.011	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						
	Providing push - on-joints to Centrifugally						
	150mm dia. pipe	845					845.000
	Total						**845.000**
						Total Quantity in joint	**845.000**
2.012	OD109578/2022-2023						
	Labour for cutting D.I. pipe with steel saw. 150 mm diameter D.I. pipe						
	Labour for cutting 150 mm DI pipe						
		52					52.000
	Total						**52.000**
						Total Quantity in Each Cut	**52.000**
2.013	18.30.4						
	Providing flanged joints to double flanged C.I./ D.I pipes and specials, including testing of joints:150 mm diameter pipe						
	Providing flanged joints to double flanged C.I./ D.I pipes						
	150mm dia.pipe	20					20.000
	Total						**20.000**
						Total Quantity in no	**20.000**
2.014	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						
	Testing 150mm DI/CI pipeline						
	Testing 150mm DI/CI pipeline	1	4696.000				4696.000
	Total						**4696.000**
						Total Quantity in metre	**4696.000**
2.015	100.14.3						
	Conveying and laying S&S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS: 8329 excluding cost of pipes and specials: 200mm diameter Ductile Iron Class K-9 Pipes.						
	Conveying and laying S &S Centrifugally Cast/Ductile Iron pipes-200 mm						
		1	1115.000				1115.000
	Total						**1115.000**

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
						Total Quantity in metre	**1115.000**
2.016	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						
	Providing push - on-joints						
	200mm dia. pipe	200					200.000
	Total						**200.000**
						Total Quantity in joint	**200.000**
2.017	OD109584/2022-2023						
	Labour for cutting D.I. pipe with steel saw. 150 mm diameter D.I. pipe						
	Labour for cutting D.I. pipe with steel saw. 200 mm diameter D.I. pipe						
		35					35.000
	Total						**35.000**
						Total Quantity in Each Cut	**35.000**
2.018	18.30.5						
	Providing flanged joints to double flanged C.I./ D.I pipes and specials, including testing of joints:200 mm diameter pipe						
	Providing flanged joints to double flanged C.I./ D.I pipes						
	200 mm dia. pipe	15					15.000
	Total						**15.000**
						Total Quantity in no	**15.000**
2.019	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						
	Testing 200mm DI/CI pipeline						
	Testing 200mm DI/CI pipeline	1	1115.000				1115.000
	Total						**1115.000**
						Total Quantity in metre	**1115.000**
2.020	100.14.4						
	Conveying and laying S&S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS: 8329 excluding cost of pipes and specials: 250mm diameter Ductile Iron Class K-9 Pipes.						
	Laying 250 mm DI Pipe						
		1	635.000				635.000
	Total						**635.000**

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
						Total Quantity in metre	**635.000**
2.021	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						
	Push on Joint						
	250 mm Dia	120	1.000			1.000000	120.000
	Total						**120.000**
						Total Quantity in joint	**120.000**
2.022	18.30.6						
	Providing flanged joints to double flanged C.I./ D.I pipes and specials, including testing of joints:250 mm diameter pipe						
	flanged joint 250 mm						
		12					12.000
	Total						**12.000**
						Total Quantity in no	**12.000**
2.023	OD109590/2022-2023						
	Labour for cutting D.I. pipe with steel saw. 250 mm diameter D.I. pipe						
	Labour for cutting D.I. pipe with steel saw. 250 mm diameter D.I. pipe						
		15					15.000
	Total						**15.000**
						Total Quantity in Each Cut	**15.000**
2.024	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						
	Testing 250 mm DI Pipe						
	250 mm DI Pipe	1	635.000				635.000
	Total						**635.000**
						Total Quantity in metre	**635.000**
2.025	100.10.1						
	Laying HDPE pipes (IS : 4984) on land portion including conveying within initial lead and aligning the pipes, electro-fusion welding using automatic or semi-automatic electrofusion machines, testing the pipeline thus fabricated to suit the hydraulic working pressure and after testing, aligning the pipeline, lowering the pipe in position into the trenches already made, testing the line to suitable pressure with potable water before back filling and levelling the trenches including all labour charge, hire for appliances etc., complete but excluding cost of pipe and fittings: 90mm Nominal Outer Diameter pipes.						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Laying HDPE pipes-90 mm						
		1	26743.000				26743.000
	Total						**26743.000**
						Total Quantity in metre	**26743.000**
2.026	100.10.2						
	Laying HDPE pipes (IS : 4984) on land portion including conveying within initial lead and aligning the pipes, electro-fusion welding using automatic or semi-automatic electrofusion machines, testing the pipeline thus fabricated to suit the hydraulic working pressure and after testing, aligning the pipeline, lowering the pipe in position into the trenches already made, testing the line to suitable pressure with potable water before back filling and levelling the trenches including all labour charge, hire for appliances etc., complete but excluding cost of pipe and fittings: 110mm Nominal Outer Diameter Pipes.						
	Laying HDPE pipes-110 mm						
		1	64938.000				64938.000
	Total						**64938.000**
						Total Quantity in metre	**64938.000**
2.027	18.12.8						
	Providing and fixing G.I. pipes complete with G.I fittings including trenching and refilling etc. External work80 mm dia nominal bore						
	Laying 80 mm GI Pipe						
		1	40135.000				40135.000
	Total						**40135.000**
						Total Quantity in metre	**40135.000**
2.028	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 for External work: 100mm diameter nominal bore.						
	Conveying and fixing GI pipes						
		1	360.000				360.000
	Total						**360.000**
						Total Quantity in metre	**360.000**
2.029	18.67.1						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Providing and laying S & S C.I. Standard specials suitable for mechanical jointing as per IS 13382:Upto 300 mm dia						
	Providing and laying S&S C.I						
	250 mm DI	4				0.360000	1.440
	200 mm DI	7				0.270000	1.890
	150 mm DI	13				0.200000	2.600
	Total						**5.930**
						Total Quantity in quintal	**5.930**
2.030	18.68.1						
	Providing and laying D.I specials of class K - 12 suitable for push - on jointing as per IS : 9523 :Upt 600 mm dia						
	Providing and laying D.I						
	250mm 90deg bend	2				0.480000	0.960
	250mm 45deg.bend	4				0.360000	1.440
	250mm22.5 deg bend	6				0.320000	1.920
	250mm11.25 deg bend	8				0.300000	2.400
	200mm 90deg bend	2				0.320000	0.640
	200mm 45deg.bend	4				0.260000	1.040
	200mm 22.5 deg bend	8				0.230000	1.840
	200mm 11.25 deg bend	12				0.210000	2.520
	150mm 90 deg bend	6				0.200000	1.200
	150mm 45 deg bend	8				0.160000	1.280
	150mm 22.5 deg bend	20				0.150000	3.000
	150mm 11.25 deg bend	32				0.140000	4.480
	250x200 reducer	1				0.280000	0.280
	200x150 Reducer	3				0.220000	0.660

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	150x100 reducer	12				0.140000	1.680
	150x80 reducer	12				0.130000	1.560
	150x150tee	3				0.260000	0.780
	150x100 Tee	12				0.220000	2.640
	150x80tee	25				0.200000	5.000
	200x200tee	2				0.410000	0.820
	200x80tee	2				0.290000	0.580
	250mm tail piece	2				0.280000	0.560
	200mm tail piece	5				0.200000	1.000
	150mm tail piece	3				0.140000	0.420
	Total						**38.700**
						Total Quantity in quintal	**38.700**
2.031	100.32.1						
	Conveying and fixing C. I. Single Acting Air Valve of approved quality with bolts, nuts, rubber insertions etc., complete, but excluding the cost of air valve (tail pieces, if required, will be paid separately): 25mm Single Acting Air Valve.						
	Conveying and fixing C I Single acting Air Valve						
	25 mm air valve	265					265.000
	Total						**265.000**
						Total Quantity in no	**265.000**
2.032	100.32.2						
	Conveying and fixing C. I. Single Acting Air Valve of approved quality with bolts, nuts, rubber insertions etc., complete, but excluding the cost of air valve (tail pieces, if required, will be paid separately): 40mm Single Acting Air Valve.						
	Conveying and fixing C I Single acting Air Valve						
	40mm air valve	50					50.000
	Total						**50.000**
						Total Quantity in no	**50.000**
2.033	100.32.4						
	Conveying and fixing C. I. Double Acting Air Valve of approved quality with bolts, nuts, rubber insertions etc., complete, but excluding the cost of air valve (tail pieces, if required, will be paid separately): 80mm Double Acting Air Valve.						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Air valve						
	80 mm	12					12.000
	Total						**12.000**
						Total Quantity in no	**12.000**
2.034	100.31.1.1						
	Conveying and fixing C.I. sluice valves (with cap) by providing bolts, nuts, rubber insertions etc., complete, but excluding the cost of the valve (tail pieces, if required, will be paid separately): 80mm diameter, Class I.						
	Conveying and fixing C.I. sluice valves						
	80 mm CI sluice valve	95					95.000
	Total						**95.000**
						Total Quantity in no	**95.000**
2.035	100.31.1.2						
	Conveying and fixing C.I. sluice valves (with cap) by providing bolts, nuts, rubber insertions etc., complete, but excluding the cost of the valve (tail pieces, if required, will be paid separately): 100mm diameter, Class I.						
	Conveying and fixing C.I. sluice valves						
	100 mm CI sluice valve	70					70.000
	Total						**70.000**
						Total Quantity in no	**70.000**
2.036	100.31.1.4						
	Conveying and fixing C.I. sluice valves (with cap) by providing bolts, nuts, rubber insertions etc., complete, but excluding the cost of the valve (tail pieces, if required, will be paid separately): 150mm diameter, Class I.						
	Conveying and fixing C.I. sluice valves 150						
	150mm CI sluice valve	9					9.000
	Total						**9.000**
						Total Quantity in no	**9.000**
2.037	100.31.1.5						
	Conveying and fixing C.I. sluice valves (with cap) by providing bolts, nuts, rubber insertions etc., complete, but excluding the cost of the valve (tail pieces, if required, will be paid separately): 200mm diameter, Class I.						
	Conveying and fixing C.I. sluice valves						
	200mm CI sluice valve	5					5.000
	Total						**5.000**
						Total Quantity in no	**5.000**

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
2.038	100.31.1.6						
	Conveying and fixing C.I. sluice valves (with cap) by providing bolts, nuts, rubber insertions etc., complete, but excluding the cost of the valve (tail pieces, if required, will be paid separately): 250mm diameter, Class I.						
	250 mm Sluice Valve						
		3					3.000
	Total						**3.000**
						Total Quantity in no	**3.000**
2.039	OD74264/2022-2023						
	Supply and fixing of stainless steel spring loaded pressure relief valve as per IS 9739(1981)						
	Pressure relief valve						
		30					30.000
	Total						**30.000**
						Total Quantity in no	**30.000**
2.040	100.37.6.1						
	In situ fabrication of M.S. pipes of size 150mm (I.D.) using 8mm thick M.S. plate including cost and conveyance charges of M.S. 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.						
	150 mm MS pipe						
		1	100.000				100.000
	Total						**100.000**
						Total Quantity in metre	**100.000**
2.041	100.37.6.2						
	Fabricating M.S. flanges of diameter 150mm using 12mm thick M.S. plate including cost and conveyance charges of M.S. 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 M.S. plates.						
	Fabricating M.S flanges 150mm dia						
	MS flange	12					12.000
	Total						**12.000**
						Total Quantity in no	**12.000**
2.042	100.37.6.3						
	Cutting 150mm (I.D.) M.S. 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 M.S. plates.						
	Cutting MS pipe						
	Cutting	24					24.000

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Total						**24.000**
						Total Quantity in no	**24.000**
2.043	100.37.6.4						
	Welding 150mm (I.D.) M.S. 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 M.S. plates.						
	Welding MS pipe						
	Welding	24					24.000
	Total						**24.000**
						Total Quantity in no	**24.000**
2.044	100.37.6.5						
	Grinding cut and weld edges of 150mm (I.D.) M.S. pipes during fabrication work including all labour and hire charges of tools etc., complete: For pipes fabricated with 8mm thick M.S. plates.						
	Grinding MS pipe						
	Grinding	48					48.000
	Total						**48.000**
						Total Quantity in no	**48.000**
2.045	100.37.7.1						
	In situ fabrication of M.S. pipes of size 200mm (I.D.) using 8mm thick M.S. plate including cost and conveyance charges of M.S. 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.						
	Fabricating M.S pipe of 200mm Dia						
	MS Fabrication	1	60.000				60.000
	Total						**60.000**
						Total Quantity in metre	**60.000**
2.046	100.37.7.2						
	Fabricating M.S. flanges of diameter 200mm using 12mm thick M.S. plate including cost and conveyance charges of M.S. 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 M.S. plates.						
	Fabricating M.S Fianges of 200mm Dia						
	MS flange	12					12.000
	Total						**12.000**
						Total Quantity in no	**12.000**
2.047	100.37.7.3						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Cutting 200mm (I.D.) M.S. 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 M.S. plates.						
	Cutting M.S pipe						
	Cutting	24					24.000
	Total						**24.000**
						Total Quantity in no	**24.000**
2.048	100.37.7.4						
	Welding 200mm (I.D.) M.S. 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 M.S. plates.						
	Welding MS pipe						
	Welding	24					24.000
	Total						**24.000**
						Total Quantity in no	**24.000**
2.049	100.37.7.5						
	Grinding cut and weld edges of 200mm (I.D.) M.S. pipes during fabrication work including all labour and hire charges of tools etc., complete: For pipes fabricated with 8mm thick M.S. plates.						
	Grinding MS pipe						
	Grinding	48					48.000
	Total						**48.000**
						Total Quantity in no	**48.000**
2.050	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						
	Earth work for valve chamber of size 1x1x1.3						
	Sluice valves	110	1.700	1.500	1.500		420.750
	For 80 mm Air valve	12	1.700	1.500	1.500		45.900
	Total						**466.650**
						Total Quantity in cum	**466.650**
2.051	OD109570/2022-2023						
	Earthwork excavation by mechanical means (Hydrolic excavator)/manual means in foundation trenches or drains (exceeding 1.5 up to 3m.						
	For second depth						
	Sluice valves	110	1.700	1.500	0.300		84.150

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	For 80 mm Air valve	12	1.700	1.500	0.300		9.180
	Total						**93.330**
						Total Quantity in cum	**93.330**
2.052	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)						
	PCC						
	valve chamber of size 1*1*1.3 m	122	1.700	1.700	0.100		35.258
	Total						**35.258**
						Total Quantity in cum	**35.258**
2.053	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 (zone-III) : 4 graded stone aggregate 20 mm nominal size)						
	Concrete for Anchor block						
	Anchor block	52	0.800	0.800	0.800		26.624
	Deduction of pipe volume for Anchor block large	-52	3.14*.1*.1		0.800		-1.306
	Anchor block small	266	0.600	0.600	0.600		57.456
	Deduction of pipe volume for Anchor block small	-266	3.14*.075*.075		0.600		-2.819
	Total						**79.955**
						Total Quantity in cum	**79.955**
2.054	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						
	Providing and laying in position specified grade of reinforced cement concrete						
	valve chamber base	122	1.500	1.500	0.150		41.175
	valve chamber - side wall	122	2*1.5+2*1	1.300	0.250		198.250
	valve chamber - cover slab	122	1.500	1.500	0.250		68.625

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Total						**308.050**
						Total Quantity in cum	**308.050**
2.055	5.9.1						
	Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of columns, etc for mass concrete						
	Centering and shuttering						
	valve chamber - side wall inside	122	4.000		1.300		634.400
	valve chamber - side wall out side	122	6.000		1.300		951.600
	cover slab	122	1.500	1.500			274.500
	cover slab- sides	122	6.000		0.250		183.000
	For anchor block	52	3.200		0.800		133.120
	For anchor block small	266	1.800		0.800		383.040
	Total						**2559.660**
						Total Quantity in sqm	**2559.660**
2.056	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						
	Steel reinforcement for R.C.C work						
	For valve chamber	1	308.050			60.000000	18483.000
	For Anchor block	1	79.955			30.000000	2398.650
	Total						**20881.650**
						Total Quantity in kilogram	**20881.650**
3	Providing FHTC to various Zones						
3.001	100.60.13.1.2						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Providing 15mm (1/2 inch) house connection with 15mm water meter from existing PVC / HDPE mains up to 110 mm dia., up to a length of 5m using 20mm (1/2 inch) PE Pipe, PE80, PN16, Conforming to IS 4984: 2016 or later edition and PP PN 16 Compression / GM / Brass specials viz. brass ferrule, brass hexagonal nipple, GM full way wheel valve, bend, MTA, FTA, couplers, PVC Service Saddle of suitable size etc. and connecting with the mains, testing the joints etc. complete including trenching and refilling in all kinds of soil up to a depth of 1.50m for main line tracing and trench of average cross section 0.3m x 0.75m for laying connection pipe and service pipe, fixing water meter, lighting, watching, providing caution boards, traffic control etc. complete including cost of materials, hire for tools, cost of consumables and labour charges, including the cost of tested Class B Multijet water meter with ISI mark and weather resistant PP / PE meter box of minimum size 300mm x 200mm x 150mm, but excluding charges for cutting the concrete / tarred / bituminous roads etc, and as per the direction of the departmental officers.						
	Providing 15mm (1/2 inch) house connection with 15mm water meter from existing PVC / HDPE						
	Providing 15mm (1/2 inch) house connection	1322					1322.000
	Total						**1322.000**
						Total Quantity in no	**1322.000**
3.002	100.60.13.3.2						
	Providing 20mm (3/4 inch) house connection with 15mm water meter from existing PVC / HDPE mains up to 110 mm dia., up to a length of 5m using 25mm (3/4 inch) PE Pipe, PE80, PN16, Conforming to IS 4984: 2016 or later edition and PP PN 16 Compression / GM / Brass specials viz. brass ferrule, brass hexagonal nipple, GM full way wheel valve, bend, MTA, FTA, couplers, PVC Service Saddle of suitable size etc. and connecting with the mains, testing the joints etc. complete including trenching and refilling in all kinds of soil up to a depth of 1.50m for main line tracing and trench of average cross section 0.3m x 0.75m for laying connection pipe and service pipe, fixing water meter, lighting, watching, providing caution boards, traffic control etc. complete including cost of materials, hire for tools, cost of consumables and labour charges,including the cost of tested Class B Multijet water meter and weather with ISI mark resistant PP / PE meter box of minimum size 300mm x 200mm x 150mm, but excluding charges for cutting the concrete / tarred / bituminous roads etc, and as per the direction of the departmental officers.						
	Providing 20mm (3/4 inch) house connection with 15mm water meter from existing PVC / HDPE						
	Providing 20mm (3/4 inch) house connection	1113					1113.000
	Total						**1113.000**
						Total Quantity in no	**1113.000**
3.003	100.60.13.7.2						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Providing 15mm (1/2 inch) house connection with 15mm water meter from existing CI mains up to 125 mm dia., up to a length of 5 m using 20mm (1/2 inch) PE Pipe, PE80, PN16, Conforming to IS 4984: 2016 or later edition and PP PN 16 Compression / GM / Brass specials viz. brass ferrule, brass hexagonal nipple, GM full way wheel valve, bend, MTA, FTA, couplers etc. and connecting with the mains, testing the joints etc. complete including trenching and refilling in all kinds of soil up to a depth of 1.50m for main line tracing and trench of average cross section 0.3m x 0.75m for laying connection pipe and service pipe, fixing water meter, lighting, watching, providing caution boards, traffic control etc. complete including cost of materials, hire for tools, cost of consumables and labour charges, including the cost of tested Class B Multijet water meter with ISI mark and weather resistant PP / PE meter box of minimum size 300mm x 200mm x 150mm, but excluding charges for cutting the concrete / tarred / bituminous roads etc, and as per the direction of the departmental officers						
	Providing 15mm (1/2 inch) house connection with 15mm water meter from existing CI mains						
	Providing 15mm (1/2 inch) house connection	598					598.000
	Total						**598.000**
						Total Quantity in no	**598.000**
3.004	100.60.13.9.2						
	Providing 20mm (3/4 inch) house connection with 15mm water meter from existing CI mains up to 125 mm dia., up to a length of 5 m using 25mm (3/4 inch) PE Pipe, PE80, PN16, Conforming to IS 4984: 2016 or later edition and PP PN 16 Compression / GM / Brass specials viz. brass ferrule, brass hexagonal nipple, GM full way wheel valve, bend, MTA, FTA, couplers etc. and connecting with the mains, testing the joints etc. complete including trenching and refilling in all kinds of soil up to a depth of 1.50m for main line tracing and trench of average cross section 0.3m x 0.75m for laying connection pipe and service pipe, fixing water meter, lighting, watching, providing caution boards, traffic control etc. complete including cost of materials, hire for tools, cost of consumables and labour charges, including the cost of tested Class B Multijet water meter with ISI mark and weather resistant PP / PE meter box of minimum size 300mm x 200mm x 150mm, but excluding charges for cutting the concrete / tarred / bituminous roads etc, and as per the direction of the departmental officers						
	Providing 20mm (3/4 inch) house connection with 15mm water meter from existing CI mains						
	Providing 20mm (3/4 inch) house connection	922					922.000
	Total						**922.000**
						Total Quantity in no	**922.000**
3.005	100.60.14.7.2						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Providing 15mm (1/2 inch) house connection with 15mm water meter from existing CI mains from 150mm to 200mm dia., up to a length of 5 m using 20mm (1/2 inch) PE Pipe, PE80, PN16, Conforming to IS 4984: 2016 or later edition and PP PN 16 Compression / GM / Brass specials viz. brass ferrule, brass hexagonal nipple, GM full way wheel valve, bend, MTA, FTA, couplers etc. and connecting with the mains, testing the joints etc. complete including trenching and refilling in all kinds of soil up to a depth of 1.50m for main line tracing and trench of average cross section 0.3m x 0.75m for laying connection pipe and service pipe, fixing water meter, lighting, watching, providing caution boards, traffic control etc. complete including cost of materials, hire for tools, cost of consumables and labour charges, including the cost of tested Class B Multijet water meter with ISI mark and weather resistant PP / PE meter box of minimum size 300mm x 200mm x 150mm, but excluding charges for cutting the concrete / tarred / bituminous roads etc, and as per the direction of the departmental officers.						
	Providing 15mm (1/2 inch) house connection with 15mm water meter from existing CI mains						
	Providing 15mm (1/2 inch) house connection	121					121.000
	Total						**121.000**
						Total Quantity in no	**121.000**
3.006	100.60.14.9.2						
	Providing 20mm (3/4 inch) house connection with 15mm water meter from existing CI mains from 150mm to 200mm dia., up to a length of 5 m using 25mm (3/4 inch) PE Pipe, PE80, PN16, Conforming to IS 4984: 2016 or later edition and PP PN 16 Compression / GM / Brass specials viz. brass ferrule, brass hexagonal nipple, GM full way wheel valve, bend, MTA, FTA, couplers etc. and connecting with the mains, testing the joints etc. complete including trenching and refilling in all kinds of soil up to a depth of 1.50m for main line tracing and trench of average cross section 0.3m x 0.75m for laying connection pipe and service pipe, fixing water meter, lighting, watching, providing caution boards, traffic control etc. complete including cost of materials, hire for tools, cost of consumables and labour charges, including the cost of tested Class B Multijet water meter with ISI mark and weather resistant PP / PE meter box of minimum size 300mm x 200mm x 150mm, but excluding charges for cutting the concrete / tarred / bituminous roads etc, and as per the direction of the departmental officers.						
	Providing 20mm (3/4 inch) house connection with 15mm water meter from existing CI mains						
	Providing 20mm (3/4 inch) house connection	152					152.000
	Total						**152.000**
						Total Quantity in no	**152.000**
3.007	100.60.21.1.1						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Providing 15mm (1/2 inch) GM Air Valve in the water meter assembly for 15mm water connection, using 20mm (1/2 inch) PE Pipe, PE80, PN16, Conforming to IS 4984: 2016 or later edition and PP PN 16 Compression specials including cost of materials, consumables, hire for tools and labour charges etc. complete and as per the directions of the department officers.						
	Providing 15mm (1/2 inch) GM Air Valve						
	Providing 15mm (1/2 inch) GM Air Valve	2041					2041.000
	Total						**2041.000**
						Total Quantity in no	**2041.000**
3.008	100.60.21.2.1						
	Providing 20mm (3/4 inch) GM Air Valve in the water meter assembly for 20mm water connection, using 25mm (3/4 inch) PE Pipe, PE80, PN16, Conforming to IS 4984: 2016 or later edition and PP PN 16 Compression specials including cost of materials, consumables, hire for tools and labour charges etc. complete and as per the directions of the department officers.						
	Providing 20mm (3/4 inch) GM Air Valve						
	Providing 20mm (3/4 inch) GM Air Valve	2187					2187.000
	Total						**2187.000**
						Total Quantity in no	**2187.000**
3.009	100.60.23.3.1						
	Providing 15mm PVC Tap in the water meter assembly for 15mm (1/2 inch) water connection, using 20mm (1/2 inch) Indian Standard uPVC Class 6 pipes, uPVC specials and PP PN 16 Compression specials including cost of materials, consumables, hire charges for tools and labour charges etc. complete and as per the direction of departmental officers.						
	Providing 15mm PVC tap						
	Providing 15mm PVC tap	2041					2041.000
	Total						**2041.000**
						Total Quantity in no	**2041.000**
3.010	100.60.23.4.1						
	Providing 15mm PVC Tap in the water meter assembly for 20mm (3/4 inch) water connection, using 25mm (3/4 inch) Indian Standard Class 6 uPVC pipes, uPVC specials and PP PN 16 Compression specials including cost of materials, consumables, hire charges for tools and labour charges etc. complete and as per the direction of departmental officers.						
	Providing 15mm PVC tap						
	Providing 15mm PVC tap	2187					2187.000
	Total						**2187.000**

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
						Total Quantity in no	**2187.000**
3.011	100.60.15.1.1						
	Providing additional length of house connection pipe using 20 mm (1/2 inch) PE Pipe, PE80, PN16, Conforming to IS 4984: 2016 or later edition and PN16 specials and testing the joints etc., by trenching and refilling in all kinds of soil with trench of average cross section 0.3m x 0.75m for laying of connection pipe and service pipe, lighting, watching, providing caution boards, traffic control etc., including cost of materials, hire for tools, cost of consumables and labour charges etc. complete, but excluding the cost of cutting of concrete / tarred / bituminous roads etc., and as per the directions of the department officers.						
	Providing additional length of house connection pipe using 20 mm						
	Providing additional length of house connection pipe using 20 mm	2041	24.000				48984.000
	Total						**48984.000**
						Total Quantity in metre	**48984.000**
3.012	100.60.15.2.1						
	Providing additional length of house connection pipe using 25 mm (3/4 inch) PE Pipe, PE80, PN16, Conforming to IS 4984: 2016 or later edition and PN 16 specials and testing the joints etc., by trenching and refilling in all kinds of soil with trench of average cross section 0.3m x 0.75m for laying of connection pipe and service pipe, lighting, watching, providing caution boards, traffic control etc., including cost of materials, hire for tools, cost of consumables and labour charges etc. complete, but excluding the cost of cutting of concrete / tarred / bituminous roads etc., and as per the directions of the department officers.						
	Providing additional length of house connection pipe using 25 mm						
	Providing additional length of house connection pipe using 25 mm	2187	48.000				104976.000
	Total						**104976.000**
						Total Quantity in metre	**104976.000**
3.013	100.59.1						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Cutting the bituminous / concrete roads with cutting machine for a minimum depth of 200mm along the sides of proposed alignment of the pipe to be laid without causing any damage to other utilities, including the charges for hire and conveyance of tools and plant, cost of consumables and charges for lighting, watching, ribbon fencing, caution boards, traffic diversion, and as per the direction of departmental officers etc. complete, before carrying out the demolition of bituminous / concrete road by mechanical means and carrying out the excavation.						
	Cutting the bituminous / concrete roads with cutting machine						
	Crossing	150	8.000			2.000000	2400.000
	road edge	250	4.000			4.000000	4000.000
	Total						**6400.000**
						Total Quantity in metre	**6400.000**
3.014	15.59						
	Dismantling of flexible pavement (bituminous courses) by mechanical means and disposal of dismantled material up to a lead of 1 kilo metre, as per direction of Engineer-in-charge.						
	Dismantling of flexible pavement (bituminous courses) by mechanical means						
	road crossing	150	4.000	0.300	0.500		90.000
	road edge	250	1.000	1.000	0.600		150.000
	Total						**240.000**
						Total Quantity in cum	**240.000**
3.015	100.60.8.1						
	Replacing the chocked / damaged 15mm (1/2 inch) house connection with 15mm (1/2 inch) water meter from existing mains, up to a length of 5m using 20mm Indian Standard Class 6 uPVC pipe and uPVC / Brass specials viz. brass ferrule, Elbow, MTA, FTA, couplers etc. and connecting with the mains, testing the joints etc. complete including trenching and refilling in all kinds of soil up to a depth of 1.50m for main line tracing and trench of average cross section 0.3m x 0.75m for laying connection pipe and service pipe, safely removing & re-fixing existing water meter, lighting, watching, providing caution boards, traffic control etc. complete including cost of materials, hire for tools, cost of consumables and labour charges but excluding cost of water meter and meter box and excluding charges for cutting the concrete / tarred / bituminous roads and as per the directions of the department officers						
	Replacing the chocked / damaged 15mm (1/2 inch) house connection with 15mm (1/2 inch) water meter						
	Replacing the chocked / damaged 15mm (1/2 inch) house connection	2807					2807.000
	Total						**2807.000**
						Total Quantity in no	**2807.000**

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
3.016	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 (zone-III) : 4 graded stone aggregate 20 mm nominal size)						
	cement concrete 1:2:4						
	for road concrete	150	4.000	0.300	0.150		27.000
	for road concrete	250	1.000	1.000	0.150		37.500
	Total						**64.500**
						Total Quantity in cum	**64.500**
4	Road Restoration Charges						
4.001	3.11						
	Removal of unserviceable soil including excavation, loading and disposal upto 1000 metres lead but excluding replacement by suitable soil which shall be paid separately as per clause 305.						
	Removal of unserviceable soil						
	PWD berm	1	30500.000	0.800	0.200		4880.000
	PWD CC	1	5500.000	0.800	0.400		1760.000
	PWD TC	1	500.000	0.800	0.500		200.000
	SH berm	1	20500.000	0.800	0.200		3280.000
	SH CC	1	5500.000	0.800	0.500		2200.000
	SH TC	1	250.000	0.800	0.500		100.000
	SH interlock	1	1250.000	0.800	0.400		400.000
	Total						**12820.000**
						Total Quantity in cum	**12820.000**
4.002	10.2						
	Maintenance of Earthen Shoulder (filling with fresh soil) Making up the loss of material/ irregularities on the shoulder to the design level by adding fresh approved soil and compacting it with appropriate equipment.						
	maintenance of shoulder						
	PWD berm	1	30500.000	0.800	0.200		4880.000
	Total						**4880.000**
						Total Quantity in sqm	**4880.000**
4.003	4.2.A.1						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Construction of granular sub-base by providing graded material, spreading in uniform layers with a motor grader on a prepared surface, mixing by mix in-place method with rotavator at OMC, and compacting with a vibratory roller to achieve the desired density, complete as per clause 401. Grading-III -For lower sub-base - Mix in Place Method						
	GSB						
	PWD CC	1	5500.000	0.800	0.250		1100.000
	PWD TC	1	500.000	0.800	0.250		100.000
	SH berm	1	20500.000	0.800	0.200		3280.000
	SH CC	1	5500.000	0.800	0.250		1100.000
	SH TC	1	250.000	0.800	0.250		50.000
	SH interlock	1	1250.000	0.800	0.300		300.000
	Total						**5930.000**
						Total Quantity in cum	**5930.000**
4.004	4.12						
	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.						
	WMM						
	PWD TC	1	500.000	0.800	0.250		100.000
	SH CC	1	5500.000	0.800	0.250		1100.000
	SH TC	1	250.000	0.800	0.250		50.000
	Total						**1250.000**
						Total Quantity in cum	**1250.000**
4.005	5.1.a						
	Providing and applying primer coat with bitumen emulsion (SS) on prepared surface of granular Base including clearing of road surface and spraying primer at the rate of 0.70 - 1.0 kg/sqm using mechanical means.						
	prime coat						
	PWD TC	1	500.000	1.200			600.000
	SH TC	1	250.000	1.200			300.000
	Total						**900.000**
						Total Quantity in sqm	**900.000**
4.006	5.7.1						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Providing, laying and rolling of close-graded premix surfacing material of 20 mm thickness composed of 11.2 mm to 0.09 mm (Type-A) aggregates using viscosity grade bitumen (VG - 30) to the required line, grade, and level to serve as wearing course on a previously prepared base, including mixing in a suitable HMP of appropriate capacity not less than 75 tonnes/hour., laying and rolling with a Smooth wheeled roller 8-10 tonne capacity, and finishing to the required level and grade.						
	PWD TC						
	close graded premix	1	500.000	1.200			600.000
	Total						**600.000**
						Total Quantity in sqm	**600.000**
4.007	5.8.a						
	Providing and laying surface dressing as wearing course in single coat using crushed stone aggregates of specified size on a layer of bituminous binder (VG 30) laid on the prepared surface and rolling with 8-10 tonne smooth wheeled steel roller. Grading I - 19 mm nominal chipping size						
	pwd tc						
	close graded premix	1	500.000	1.200			600.000
	Total						**600.000**
						Total Quantity in sqm	**600.000**
4.008	5.2.b						
	Providing and applying tack coat with bitumen emulsion (RS) using emulsion pressure distributor at the rate of 0.25 - 0.30 kg per sqm on the prepared Granular Surface cleaned with mechanical broom.						
	tack coat						
	PWD TC	1	500.000	1.200			600.000
	SH TC	1	250.000	1.200			300.000
	Total						**900.000**
						Total Quantity in sqm	**900.000**
4.009	5.3.2.a						
	Providing and laying bituminous macadam with 80-100 TPH hot mix plant producing an average output of 75 tonnes per hour using crushed aggregates of specified grading premixed with a bituminous binder (VG 30), transported to the site, laid over a previously prepared surface with paver finisher to the required grade, level, and alignment and rolled as per clauses 501.6 and 501.7 to achieve the desired compaction For Grading II - (19 mm nominal size)						
	BM & BC roads						
	BM	1	250.000	1.200	0.050		15.000
	Total						**15.000**
						Total Quantity in cum	**15.000**
4.010	5.2.a						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Providing and applying tack coat with bitumen emulsion(RS) using emulsion pressure distributor at the rate of 0.20 - 0.30 kg per sqm on the prepared bituminous surface cleaned with mechanical broom.						
	tack coat						
	tack coat	1	250.000	1.200			300.000
	Total						**300.000**
						Total Quantity in sqm	**300.000**
4.011	5.6.1.a						
	Providing and laying bituminous concrete with 80-100 TPH hot mix plant producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with a bituminous binder(NRMB) @ 5.2 percent of mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level, and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 507 complete in all respects For Grading - I (19 mm nominal size)						
	BM & BC roads						
	BC	1	250.000	1.200	0.030		9.000
	Total						**9.000**
						Total Quantity in cum	**9.000**
4.012	12.8.B.1						
	Plain/Reinforced Cement Concrete in Open Foundation complete as per Drawing and Technical Specifications PCC Grade M20 						
	CC						
	PWD CC	1	5500.000	0.800	0.075		330.000
	SH CC	1	5500.000	0.800	0.075		330.000
	Total						**660.000**
						Total Quantity in cum	**660.000**
4.013	12.4						
	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.						
	CC						
	PWD CC	1	5500.000	0.800	0.150		660.000
	SH CC	1	5500.000	0.800	0.150		660.000
	Total						**1320.000**
						Total Quantity in cum	**1320.000**
4.014	OD109487/2022-2023						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Taking out existing CC interlocking paver blocks from footpath/ central verge, including removal of rubbish etc., disposal of unserviceable material to the dumping ground, for which payment shall be made separately and stacking of serviceable material within 50 metre lead as per direction of Engineer-in-Charge.						
	Interlock removal						
	SH interlock	1	1250.000	1.200			1500.000
	Total						**1500.000**
						Total Quantity in sqm	**1500.000**
4.015	OD109488/2022-2023						
	Laying old cement concrete interlocking paver blocks of any design/ shape laid in required line, level, curvature, colour and pattern over and including 50 mm thick compacted bed of coarse sand, filling the joints with fine sand etc. all complete as per the direction of Engineer-in-charge. (Old CC paver blocks shall be supplied by the department free of cost.)						
	Laying old interlocking tile						
	SH interlock	1	1250.000	1.200			1500.000
	Total						**1500.000**
						Total Quantity in sqm	**1500.000**