

Schedule-B

LATUR MUNICIPAL CORPORATION**Project Name : Underground Sewerage Scheme Phase-2 for Latur City Under Maharashtra
Suwarna Jayanti Nagarothan Mahaabhiyan (2nd Call)****Recapulation Sheet of Shedule-B**

SR. NO.	DESCRIPTION OF SUBWORK	Cost Put to Tender Rs.
	CIVIL WORKS	
	ALLIED WORKS	
1	House Service Connections Zone-I (23463 Nos)	464802030
	House Service Connections Zone-II (33705 Nos)	667696050
2	Road Reinstating Work - For Zone I	407840915
	Road Reinstating Work - For Zone II	566300120
3	SPS 53 MLD CAPACITY	86177017
4	Rising Main 200 meter 1200 mm D.I K-9	13130397
	ELECTRO-MECHANICAL WORKS AT STP & WET WELL	
5	Non Clog Submersible Sewage Pumping Machinery at Wet Well	69351901
6	SCADA & Automation for Pumping Machinery at Wet Well & 53 MLD STP	2774051
7	Solar Power Plant at Wet Well	18864398
8	TRIAL & RUN FOR 3 months	355300
	TOTAL COST PUT TO TENDER RS	2297292179

ALLIED WORKS**Sub work 1- House Service Connection**

Qty	Description of Item	Unit	Rate		Amount (Rs.)
			In figure	In Words	
23463	Zone-1 Providing drainage connection as per specification (Rate Rs. / HH)	Nos	19810	Nineteen Thousand Eight Hundred Ten Rupees	464802030
33705	Zone-2 Providing drainage connection as per specification (Rate Rs. / HH)	Nos	19810	Nineteen Thousand Eight Hundred Ten Rupees	667696050

Sub work No 02: Road Reinstening Work					
Qty	Description of Item	Unit	Rate		Amount (Rs.)
			In figure	In Words	
Zone-1					
13921.1	<p>Item No.1: Road Reinstating of WBM Road to its original level Supplying hard murum/ kankar at the road site, including conveying and stacking, Spreading , Compacting the hard murum including laying in layers on each side including artificial watering, Providing, laying, spreading and compacting stone aggregates of specific size to water bound macadam specification including spreading in uniform thickness, hand packing to proper grade and camber, applying and brooming requisite type of screening/ binding Materials to fill up the interstices of coarse aggregate, watering and compacting with Intelligent Compactor with compaction analyzer and V-Sat attachment. to the required density. Grading I (Using Screening Type A (13.2) mm Aggregate) Based on detail Specifications</p>	Sqm	630.01	Six Hundred Thirty Rupees and One Paise	8770431
Zone-2					
12611.1	<p>Item No.1: Road Reinstating of WBM Road to its original level Supplying hard murum/ kankar at the road site, including conveying and stacking, Spreading , Compacting the hard murum including laying in layers on each side including artificial watering, Providing, laying, spreading and compacting stone aggregates of specific size to water bound macadam specification including spreading in uniform thickness, hand packing to proper grade and camber, applying and brooming requisite type of screening/ binding Materials to fill up the interstices of coarse aggregate, watering and compacting with Intelligent Compactor with compaction analyzer and V-Sat attachment. to the required density. Grading I (Using Screening Type A (13.2) mm Aggregate) Based on detail Specifications</p>	Sqm	630.01	Six Hundred Thirty Rupees and One Paise	7945117

Sub work No 02: Road Reinstening Work					
Qty	Description of Item	Unit	Rate		Amount (Rs.)
			In figure	In Words	
	ZONE-1				
	<p>Item No.2: Road Reinstating of Bitumen Road to its original level Supplying hard murum/ kankar at the road site, including conveying and stacking, Spreading , Compacting the hard murum including laying in layers on each side including artificial watering, Providing, laying, spreading and compacting stone aggregates of specific sizes to water bound macadam specification including spreading in uniform thickness, hand packing to proper grade and camber, applying and brooming requisite type of screening/ binding Materials to fill up the interstices of coarse aggregate, watering and compacting with Intelligent Compactor with compaction analyzer and V-Sat attachment. to the required density. Grading I (Using Screening Type A (13.2) mm Aggregate) Based on detail Specifications</p>				
46220	<p>BITUMINOUS MACADAM: Proving and laying bituminous macadam using crushed aggregates of Grading 1, premixed with bituminous binder, transported to site with VTS , laid over a previously prepared surface, finished to the required grade, level, alignment, and rolling to achieve the desired compaction for 150 mm compacted thickness with 3.3 % VG-30 Bitumen.</p>	Sqm	2447.69	Two Thousand Four Hundred Forty Seven Rupees and Sixty Eight Paise	113132021
	<p>BITUMINOUS CONCRETE:--Providing and laying bituminous concrete using crushed aggregate of grading 1, premixed with bituminous binder @5.40% by weight of total mix and filler, transported at site with VTS, laid over a previously prepared surface, finished to the required grade ,level, alignment, and rolling to achieve the desired density for 50mm compacted thickness with drum mix plant with SCADA, Sensor paver and Vibratory roller excluding prime/Tack coat etc. complete Bitumen of specified grade with stone dust filler. (VG-30 bulk bitumen rates are considered to arrive at rates)</p>				

Qty	Description of Item	Unit	Rate		Amount (Rs.)
			In figure	In Words	
	ZONE-2				
92200	<p>Item No.2: Road Reinstating of Bitumen Road to its original level Supplying hard murum/ kankar at the road site, including conveying and stacking, Spreading , Compacting the hard murum including laying in layers on each side including artificial watering, Providing, laying, spreading and compacting stone aggregates of specific sizes to water bound macadam specification including spreading in uniform thickness, hand packing to proper grade and camber, applying and brooming requisite type of screening/ binding Materials to fill up the interstices of coarse aggregate, <u>watering and compacting with Intelligent Compactor with</u></p> <p>BITUMINOUS MACADAM: Proving and laying bituminous macadam using crushed aggregates of Grading 1, premixed with bituminous binder, transported to site with VTS , laid over a previously prepared surface, finished to the required grade, level, alignment, and rolling to achieve the desired compaction for 150 mm compacted thickness with 3.3 % VG-30 Bitumen.</p>	Sqm	2447.69	Two Thousand Four Hundred Forty Seven Rupees and Sixty Eight Paise	225676598
	<p>BITUMINOUS CONCRETE:--Providing and laying bituminous concrete using crushed aggregate of grading 1, premixed with bituminous binder @5.40% by weight of total mix and filler, transported at site with VTS, laid over a previously prepared surface, finished to the required grade ,level, alignment, and rolling to achieve the desired density for 50mm compacted thickness with drum mix plant with SCADA, Sensor paver and Vibratory roller excluding prime/Tack coat etc. complete Bitumen of specified grade with stone dust filler. (VG-30 bulk bitumen rates are considered to arrive at rates)</p>				

Sub work No 02: Road Reinstening Work					
Qty	Description of Item	Unit	Rate		Amount (Rs.)
			In figure	In Words	
	ZONE-1				
85280	Item No-03 Road Reinstating of Cocrete Road to its original level Supplying hard murum/ kankar at the road site, including conveying and stacking, Spreading , Compacting the hard murum including laying in layers on each side including artificial watering etc.	Sqm	3352.90	Three Thousand Three Hundred Fifty Two Rupees and Ninety Paise	285938463
	Construction of dry lean cement concrete Sub- base over a prepared sub-grade with coarse and fine aggregate (natural sand/ VSI grade finely washed crushed sand) conforming to IS: 383, the size of coarse aggregate not exceeding 25 mm, , cement content not to be less than 150 kg/ cum, optimum moisture content to be determined during trial length construction, concrete strength not to be less than 10 Mpa at 7 days, mixed in a batching plant/ Weigh batch mixer, transported to site with all leads and lifts, laid with a paver with electronic sensor /by suitable means as approved by Engineer-in charge , compacting with vibratory roller, finishing, curing and including preparation of sub-grade surface if required etc. complete.				
	Providing and laying in situ / ready mix M-20 cement concrete of trap/granite /quartzite/gneiss metal for approach slab / Rigid pavement including compacting, finishing, curing etc.complete.(excluding reinforcement) (with reversible drum type mixer/concrete batch mix plant (pan mixer) with SCADA with fine agreeegates of required specifications (Natural sand /VSI sand finely washed etc), cement 6.40 bags/cumt)				
	ZONE-2				
	Item No-03 Road Reinstating of Cocrete Road to its original level Supplying hard murum/ kankar at the road site, including conveying and stacking, Spreading , Compacting the hard murum including laying in layers on each side including artificial watering etc.				

Qty	Description of Item	Unit	Rate		Amount (Rs.)
			In figure	In Words	
99220	<p>Construction of dry lean cement concrete Sub- base over a prepared sub-grade with coarse and fine aggregate (natural sand/ VSI grade finely washed crushed sand) conforming to IS: 383, the size of coarse aggregate not exceeding 25 mm, , cement content not to be less than 150 kg/ cum, optimum moisture content to be determined during trial length construction, concrete strength not to be less than 10 Mpa at 7 days, mixed in a batching plant/ Weigh batch mixer, transported to site with all leads and lifts laid with a paver with electronic sensor /by</p>	Sqm	3352.90	<p>Three Thousand Three Hundred Fifty Two Rupees and Ninety Paise</p>	332678404
	<p>Providing and laying in situ / ready mix M-20 cement concrete of trap/granite /quartzite/gneiss metal for approach slab / Rigid pavement including compacting, finishing, curing etc.complete.(excluding reinforcement) (with reversible drum type mixer/concrete batch mix plant (pan mixer) with SCADA with fine aggregates of required specifications (Natural sand /VSI sand finely washed etc), cement 6.40 bags/cumt)</p>				

Sub work No 03: SPS 53 MLD CAPACITY at STP For Z-1 & Z-2					
Qty	Description of Item	Unit	Rate		Amount (Rs.)
			In figure	In Words	
	Excavation in general in soft material comprising of soft soil, soft murum, sand, hard murum with boulders in wet or dry condition for Head Works i.e. Intake Well, Connecting Pipe, Jack Well, Pump House, Supply Well, etc. for lift 0 to 1.5 M and lead of 150 M including baricating, gurading, disposing off surplus excavated stuff within a radius of 0.5 km. as directed by Engineer-in- charge, etc. complete excluding refilling.				
1,025.00	a) From 0.0 to 1.5 m.	Cmt	334.00	Three Hundred Thirty Four Rupees	342,350.00
1,000.00	b) From 1.5 to 3.0 m.	Cmt	364.00	Three Hundred Sixty Four Rupees	364,000.00
	Excavation in general in hard material comprising of soft rock, hard rock, Manjara rock, etc, by blasting / controlled blasting, chiselling as required in wet or dry condition for Head Works i.e. Intake Well, Connecting Pipe, Jack Well, Pump House, supply Well, etc. for lift 0 to 1.5 M and lead of 150 M including baricading, guarding, disposing off surplus excavated stuff within a radius of 0.5 km. as directed by Engineer-in-charge, excluding refilling.				
975.00	From 3 to 4.5 m.	Cmt	809.00	Eight Hundred Nine Rupees	788,775.00
950.00	From 4.5 to 6.0 m.	Cmt	840.00	Eight Hundred Forty Rupees	798,000.00
750.00	From 6.0 to 7.5 m.	Cmt	871.00	Eight Hundred Seventy One Rupees	653,250.00
700.00	From 7.5 to 9.0 m.	Cmt	902.00	Nine Hundred Two Rupees	631,400.00
225.00	From 9.0 to 10.5 m.	Cmt	933.00	Nine Hundred Thirty Three Rupees	209,925.00
30.00	From 10.5 to 12.0 m.	Cmt	964.00	Nine Hundred Sixty Four Rupees	28,920.00
2,827.50	Refilling the trenches with available approved excavated stuff with soft materials first over pipeline and then hard material in 15cm layers with all lead and lifts including consolidation , surcharging etc. complete.	Cmt	92.00	Ninety Two Rupees	260,130.00
7,000.00	Dewatering the excavated trenches and pools of water in the building trenches / pipeline trenches, well works by using pumps and other devices including disposing off water to safe distance as directed by Engineer-in -charge (including cost of machinery, labour, fuel), stc complete.	BHP/Hr	89.00	Eighty Nine Rupees	623,000.00
4,775.00	Transportation Disposal of excavated material including loading and unloading, lead up to 5 km etc. Complete As per statement VI	Cmt	414.02	Four Hundred Fourteen Rupees and Two Paise	1,976,945.50
125.00	Providing and laying in situ, M-15 grade of C.C. of trap/ granite/ quartzite/ gneiss/ metal for foundation and bedding including dewatering, formwork, compacting and curing, finishing, etc.complete	Cmt	6,469.10	Six Thousand Four Hundred Sixty Nine Rupees and Ten Paise	808,637.50

Qty	Description of Item	Unit	Rate		Amount (Rs.)
			In figure	In Words	
	Providing and casting in situ cement concrete of trap/granite/gneiss metal of approved quality for RCC works as per detailed drawings and design for as directed by Engineer In charge including normal dewatering centering form work, compaction, finishing the formed surfaces with Cm 1:3 of sufficient minimum thickness to give a smooth and even surface wherever necessary or roughning if special finish is to be provided and curing etc.complete.(By weigh batching and mix design for M-300 only.Use of L & T, ACC, Ambuja, Birla Gold, Manikgadh, Rajshree Etc. cement is permitted.)(Excluding MS or Tor steel reinforcement.) . RCC M- 300				
550.00	Raft Foundation	Cmt	9,012.30	Nine Thousand Twelve Rupees and Thirty Paise	4,956,765.00
1,510.00	Verical Wall (0 to 5 m Depth)	Cmt	10,172.00	Ten Thousand One Hundred Seventy Two Rupees	15,359,720.00
1,350.00	Verical Wall (5 to 10 m Depth)	Cmt	11,189.20	Eleven Thousand One Hundred Eighty Nine Rupees and Twenty Paise	15,105,420.00
8.00	Column (0 to 5 mt Depth)	Cmt	9,651.00	Nine Thousand Six Hundred Fifty One Rupees	77,208.00
8.00	Column (5 to 10 mt Depth)	Cmt	10,616.10	Ten Thousand Six Hundred Sixteen Rupees and Ten Paise	84,928.80
135.00	Slab	Cmt	10,172.00	Ten Thousand One Hundred Seventy Two Rupees	1,373,220.00
100.00	Beam	Cmt	9,486.00	Nine Thousand Four Hundred Eighty Six Rupees	948,600.00
	Providing and casting in situ cement concrete of trap/granite/gneiss metal of approved quality for RCC works as per detailed drawings and design for as directed by Engineer In charge including normal dewatering centering form work, compaction, finishing the formed surfaces with Cm 1:3 of sufficient minimum thickness to give a smooth and even surface wherever necessary or roughning if special finish is to be provided and curing etc.complete.(By weigh batching and mix design for M-300 only.Use of L & T, ACC, Ambuja, Birla Gold, Manikgadh, Rajshree Etc. cement is permitted.)(Excluding MS or Tor steel reinforcement.) . RCC M- 250				
50.00	Column	Cmt	9,651.00	Nine Thousand Six Hundred Fifty One Rupees	482,550.00
100.00	Slab	Cmt	10,172.00	Ten Thousand One Hundred Seventy Two Rupees	1,017,200.00
100.00	Beam	Cmt	9,486.00	Nine Thousand Four Hundred Eighty Six Rupees	948,600.00

Qty	Description of Item	Unit	Rate		Amount (Rs.)
			In figure	In Words	
10.00	Chajja & Lintel	Cmt	9,919.00	Nine Thousand Nine Hundred Nineteen Rupees	99,190.00
	Providing and fixing in position steel bar reinforcement of various diameters for RCC piles, caps, footings, foundations, lintels, parapets, copings, fins, arches, etc. as per detailed designs, drawings and schedules; including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required, etc. complete. (including cost of binding wire). c)Corrosion Resistant Steel(Fe500)				
307.56	c)Corrosion Resistant Steel(Fe500)	MT	86,091.00	Eighty Six Thousand Ninety One Rupees	26,478,147.96
250.00	Providing and fixing 900mm high S.S.304 Grade Stainless steel railing with 40mm diameter and 1.5mm thick at top,40mm diameter and 1.5mm thick vertical supports spaced at 1.5m center to center and 8mm thick toughened glass including fabricating ,fixtures, erecting , necessary welding , grinding , finishing, buffing to stainless steel pipe etc. complete.	Sqmt	4,704.00	Four Thousand Seven Hundred Four Rupees	1,176,000.00
450.00	Providing and fixing MS chequered plate flooring of 8 mm thickness supported on MS Angle (25 X25X 5mm size) including weilding,cutting and fabricating the plate to required square or rounding shape, amking holes in plates, including providing and applying 3 coats of anti corrosive paint, etc. complete as directed bu EIC. State SOR SECTION-M : WELL SINKING AND RIVER INFILTRATION WORKS	Sqmt	6,389.00	Six Thousand Three Hundred Eighty Nine Rupees	2,875,050.00
123.65	Providing second class burnt brick masonry with conventional /I.S.type bricks in cement mortar 1:6 in Super Structure of inner walls & external walls, including bailing out water manually, striking joints on unexposed faces, racking out joints on exposed faces and watering etc. complete.	Cmt	7,994.00	Seven Thousand Nine Hundred Ninety Four Rupees	988,442.11
750.00	Providing internal cement plaster 20 mm thick in a two coat coat, without neeru finish to concrete or brick surface in all positions including racking out joints, scaffolding and curing etc. complete	Sqmt	393.00	Three Hundred Ninety Three Rupees	294,750.00

Qty	Description of Item	Unit	Rate		Amount (Rs.)
			In figure	In Words	
1,140.00	Providing sand faced plaster externally in cement mortar using Kharsalia/Kasaba or similar type of sand,in all positions including base coat of 15mm thick in C.M. 1:4 using waterproofing compound at 1kg.per cement bag curing the same for not less than 2 days and keeping the surface of the base coat rough to receive the sand faced treatment 6 to 8mm thick in C.M. 1:4 finishing the surface by taking out grains and curing for fourteen days scaffolding etc.complete.	Sqmt	639.00	Six Hundred Thirty Nine Rupees	728,460.00
610.00	Providing and laying water proofing to Terrace with brick bats laid in required slope to drain the water for any span after cleaning the base surface applying a coat of cement slurry & mixed with approved water proofing compound & laying the brick bats on bottom layer of CM 1:5 & mixed with approved water proofing compound filling upto half depth of brick bats, curing this layer for 3 days applying cement slurry over this layer, jointing of brick bats with CM 1:3 & mixed with approved water proofing compound & finally top finishing with average 20mm thick layer of same mortar including finishing the surface smooth with cement slurry & mixed with approved water proofing compound, marking the finished surface with false squares of 300mm x 300mm making the junctions at the parapet rounded & tapered towards top for required height with drip mould at the junction of plaster & curing etc. complete with guarentee of seven years. spec. no. as directed by Engineer in charge.	Sqmt	1,155.00	One Thousand One Hundred Fifty Five Rupees	704,550.00
610.00	Providing and laying cement concrete flooring 50mm thick with 1:2:4 cement concrete laid to proper level & slope in alternate bays including compaction, filling joints, marking lines to give the appearance of tiles of 30cm x 30cm or other size laid diagonally/ square etc. finishing smooth (with extra cement) in any colour as directed and curing complete	Sqmt	581.00	Five Hundred Eighty One Rupees	354,410.00
750.00	Providing and applying washable oil bound distemper of approved manufacture and colour to the plastered surface,in two coats, including scaffolding preparing the surface, watering for two days etc complete (including primer coat)	Sqmt	19.00	Nineteen Rupees	14,250.00
1,140.00	Providing and applying Three coats of water proof cement paint of approved manufacture and of approved colour to the plastered surface including scaffolding if necessary, cleaning and preparing the surface, watering for two days complete.	Sqmt	104.00	One Hundred Four Rupees	118,560.00

Qty	Description of Item	Unit	Rate		Amount (Rs.)
			In figure	In Words	
15.00	Providing structural steel work in single stanchions composed of RSJ, channel, etc. with caps, bases, mild steel plates, angles, brackets, cleats, gusset plates, anchor bolts, etc. as per detailed design and drawing or as directed by Engineer-in-charge including cutting, fabrication, hoisting, erecting, fixing in position, making riveted / bolted / welded connections and one coat of anticorrosive paint and over it two coats of oil painting, etc. complete.	mt	84,020.00	Eighty Four Thousand Twenty Rupees	1,260,300.00
1,000.00	Providing and fixing M.S. Sluice gates in position as per detailed drawings and specification including cost of all materials, labour, operating pedestal, connecting rod, painting with three coats of anticorrosive paint, etc. complete.	Kg	101.00	One Hundred One Rupees	101,000.00
35.00	Providing and fixing rolling shutter fabricated from steel laths of minimum thickness 0.9 mm with lock plate of 3.15 mm thickness reinforced with 35 x 35 x 5 mm angle section fitted with sliding bolts and handles for both sides, deep M.S. channel section of depth and thickness not less than 65 mm and 3.15 mm respectively with hold fast arrangements, M.S. Bracket plate 300 x 300 x 3.15 mm minimum size and shape with square bar, suspension shaft of minimum 32 mm diameter, hood cover of M.S. sheet not less than 0.9 mm thickness and of any size at top and safety devices including mechanical gear operation arrangement consisting of worm gear wheels and worms of high grade cast iron or mild steel and one coat of red lead primer etc. complete. (I.S. 62481979) (Without mechanical gear)	Sqmt	4,829.00	Four Thousand Eight Hundred Twenty Nine Rupees	169,015.00
30.00	Providing and fixing steel frame door of angle 50 x 50 x 6 mm with mild steel bars 16 mm dia. horizontally at 10mm c/c for ventilator portion including iron hold fast boxes for fixing shutters including welding, finishing, painting etc. complete. 3	Sqmt	1,999.00	One Thousand Nine Hundred Ninety Nine Rupees	59,970.00

Qty	Description of Item	Unit	Rate		Amount (Rs.)
			In figure	In Words	
200.00	Providing and fixing in position. (as per I.S.1868 / 1982) Aluminium sliding window of two tracks with rectangular pipe having overall dimension 63.50 x 38.10 x 1.02 mm at weight 0.547 kg/Rmt. and window frame bottom track section 61.85 x 31.75 x 1.20 mm at weight 0.695 kg/Rmt. Top and side track section 61.85 x 31.75 x 1.30 mm at weight 0.659 kg/Rmt. The shutter should be of bearing bottom 40 x 18 x 1.25 mm at weight 0.417 kg/Rmt. Inter locking section 40 x 18 x 1.10 mm at weight 0.469 kg/Rmt. And handle section 40 x 18 x 1.25 mm at weight 0.417 kg/Rmt. and top section 40 x 18 x 1.25 mm at weight 0.417 kg/Rmt. As per detailed drawings and as directed by Engineer in charge with all necessary <u>Aluminium sections fixtures and fastenings such as roller bearing in</u>	Sqmt	5,479.00	Five Thousand Four Hundred Seventy Nine Rupees	1,095,800.00
	Valve Chamber with precast steel fibre reinforced concrete frame and covers (S.F.R.C. frame and covers) Providing and constructing B.B. masonry valve chamber with 15cm thick 1:2:4 proportion PCC bedding, excluding excavation, B.B. masonry in CM 1:5 proportion precast S.F.R.C. frame and cover, etc. complete as directed by Engineer in charge.As above of 1.5 x 1.5 m internal size and depth upto 1.5m with precast RCC slab cover.				
4.00	.As above of 1.5 x 1.5 m internal size and depth upto 1.5m with precast RCC slab cover.	Nos	32,458.00	Thirty Two Thousand Four Hundred Fifty Eight Rupees	129,832.00
1.00	Design charges for hydraulic and structural design of Wet Well and all relating components such as receiving chamber, screen chamber, etc.including scrutiny of design from Govt Engg College,its compliance upto final approval etc. complete.	Job	1,689,745.00	Sixteen Lakh Eighty Nine Thousand Seven Hundred Forty Five Rupees	1,689,745.00
				Total Amount for UGT & Pump House Rs.	86,177,016.87

Sub work No 04: PUMPING MAIN FROM PUMPING STATION TO STP (53 MLD CAPACITY)

Qty	Description of Item	Unit	Rate		Amount (Rs.)
			In figure	In Words	
	Excavation for foundation / pipe trenches in hard murum including removing the excavated material upto a distance of 50 M and lifts as below, stacking and spreading as directed by Engineer-in-charge, normal dewatering, preparing the bed for foundation and excluding backfilling, etc. complete.(Bd-A-2/259)				
625.00	a) From 0.0 to 1.5 m.	cmt	187.00	One Hundred Eighty Seven Rupees	116,875.00
425.00	b) From 1.5 m to 3.0 m	cmt	202.00	Two Hundred Two Rupees	85,850.00
	Filling in plinth and floors murum bedding in trenches with approved murum from excavated materials from foundation in 15 cm to 20 cm layers including watering and compaction,etc.complete. State SOR Section E Excavation Item No 16 Page 41				
75.00	murrum bedding	cmt	92.00	Ninety Two Rupees	6,900.00
	Providing D.I. pipes (push on joints pressure pipes of D. I. of following class and diameters confirming to the I. S. specification inclusive cost of jointing materials (Rubber gasket of EPDM Quality) excluding GST levied by GOI & GOM in all respect including Third party inspection charges of TPI Agency approved by MJP including Transit insurance, Railway Freight Unloading from railway wagon, Loading into Truck, Transportation to departmental store, unloading, stacking etc. completed as directed by Engineer in charges (IS 1536/2001 for pipes and IS 158/1969 and IS 12820/1989 or latest edition/ revision with amendments for Rubber Gaskets.				
200.00	1200 mm DI K-9	rmt	38,427.00	Thirty Eight Thousand Four Hundred Twenty Seven Rupees	7,685,400.00
200.00	Lowering laying and jointing with SBR ruber gaskets C.I. S/S pipes of various classes with CI / MS specials of following diameter in proper position, grade and alignment as directed by Engineer-in-charge including conveyance of material from stores to site of work, including cost of jointing materials and rubber rings labour etc. complete.	rmt	1,387.00	One Thousand Three Hundred Eighty Seven Rupees	277,400.00

Qty	Description of Item	Unit	Rate		Amount (Rs.)
			In figure	In Words	
2.00	Providing , and double flanged sluice valves conforming to IS-2906/14846 including worm gear arrangements as per test pressure stainless steel spindle, caps, includiing all taxes, transportation, etc. complete. 1200 mm PN -1.0 (With by pass arrangement)	no	1,487,180.00	Fourteen Lakh Eighty Seven Thousand One Hundred Eighty Rupees	2,974,360.00
	Lowering, laying and jointing in position following C.I. D/F Reflux valves, Butterfly valves and Sluice valves including cost of all labour jointing material, including nut bolts and giving satisfactory hydraulic testing etc.complete. (Rate for all class of valves.)				
2.00	1200 mm PN -1.0 (With by pass arrangement)	no	24,545.00	Twenty Four Thousand Five Hundred Forty Five Rupees	49,090.00
	Providing fixing in position and jointing high performance CI air Valves for water combination type (Kinetic air valve along with automatic air valve), Double ball , Double orifice with stainless steel balls, tamper proof air vents rolling seal mechanism for air release and anti vacuum application designed for 16 kg/cm2 working pressure and tested for 20 kg/cm 2 pressure. (Rate to include gaskets, bolts , nuts and any other material required for jointing and its transportation etc.. including all taxes duties except octroi)				
1.00	C.I.ARV FLFF PN1.6 200mmDia.	no	51,811.00	Fifty One Thousand Eight Hundred Eleven Rupees	51,811.00
	Providing and fixing in position air valve shaft including providing and fixing GI Medium Class or 6 mm thick M.S. pipe shaft 2.70 M long over branch flange of air valve tee, providing PCC block of M-150 concrete 150 mm thick around the air valve tee including encasing of vertical shaft in PCC M-150 as shown in type design together with providing and making flanged joints wherever required and fixing of air valve over the shaft excluding cost of air valve and branch flanged air valve tee. etc. complete as per type design and as directed by Engineer-in-charge for following diameters of pipe lines (type design attached.)				
	Foundation on Murum and Harder Strata. 200 to 400 mm				
1.00	0	no	7,515.00	Seven Thousand Five Hundred Fifteen Rupees	7,515.00

Qty	Description of Item	Unit	Rate		Amount (Rs.)
			In figure	In Words	
	Providing and laying in situ. Cement concrete M-15/1:2:4 of trap/ granite/ quartzite/ gneiss metal for foundation and bedding including dewatering, compacting and curing etc. complete.				
10.00	In PCC M-150	cmt	5,881.00	Five Thousand Eight Hundred Eighty One Rupees	58,810.00
	State SOR Section G Excavation Item No 1 Page 47				
	Providing and casting in situ Cement Concrete of trap/granite/quartzite/ gneiss metal of approved quality for RCC work as per detailed drawings and designs or as directed by Engineer-in- charge including normal dewatering, centering, form work, compaction, finishing the formed surfaces with CM 1:3 of sufficient minimum thickness if special finish is to be provided and curing, etc. complete. (By weigh batching and mix design for M-250 and M-300 only. Use of L&T, A.C. C., Ambuja, Birla Gold, Manikgad, Rajashree, etc. cement is permitted)				
70.00	For Encasing and Footing in RCC M-250	cmt	7,927.00	Seven Thousand Nine Hundred Twenty Seven Rupees	554,890.00
	Providing and laying in situ Cement concrete of trap/granite/quartzite/ gneiss metal for RCC work in foundation like raft, grillage, strip foundation and footing of RCC columns and steel stanchions including normal dewatering, form work, compaction, finishing and curing, etc. complete. (By weigh batching and mix design for M-250 and M-300 only. Use of L & T, A.C.C., Ambuja, Birla Gold, Manikgad, Rajashree, etc. cement is permitted.)				
30.00	For Thurst Block In RCC M-250	cmt	7,927.00	Seven Thousand Nine Hundred Twenty Seven Rupees	237,810.00
	Providing and fixing in position steel bar reinforcement of various diameters for RCC pipes, caps, footings, foundation, slabs, beams, columns, canopies, staircases. newels, chajjas, lintels, pardies, copings, fins, arches, etc. as per detailed designs, drawings and schedules; including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required, etc. complete. (including cost of binding wire)				
10.00	c)Corrosion Resistant Steel(Fe500)	MT	86,091.00	Eighty Six Thousand Ninety One Rupees	860,910.00

Qty	Description of Item	Unit	Rate		Amount (Rs.)
			In figure	In Words	
	Valve Chamber with Precast RCC Covers Providing and constructing B.B. masonry valve chamber with 15 cm thick 1:3:6 proportion PCC bedding, excluding excavation, B.B. masonry in CM1:5 proportion precast RCC frame and cover, etc. complete as directed by Engineer-in-charge.				
1.00	As above of 1.5 x 1.5 M internal size and depth upto 1.5 M with precast R.C.C slab cover.	Nos	32,458.00	Thirty Two Thousand Four Hundred Fifty Eight Rupees	32,458.00
1,047.67	Refilling the trenches with available excavated stuff with soft material first over pipeline and then hard material in 15 cm layers with all leads and lifts including consolidation, surcharging, etc. complete	cmt	92.00	Ninety Two Rupees	96,385.37
	Hydraulic testing of M.S. pipeline to specified pressure including cost of all materials and labour and water for testing for the length upto 1km., using reciprocating type pumps which should be able to provide specified test pressure gauges and other necessary equipments, labour, operation charges, etc. required for testing. The rate under this item shall also include cost of retesting, if necessary.				
0.50	Above 1050 mm. upto 1200 mm. dia. (I.D.)	Km	67,866.00	Sixty Seven Thousand Eight Hundred Sixty Six Rupees	33,933.00
				Total Amount Rs.	13,130,397.37

Sub work No 05: Providing, Designing, Erecting and Commissioning with Test and Trial of Non-Clog Submersible Sewage Pumpsets and allied Electrical and Mechanical Equipments for Latur Underground Sewerage Scheme.[Wet Well to 53 MLD STP]

Qty	Description of Item	Unit	Rate		Amount (Rs.)
			In figure	In Words	
	Item No.1 : Non Clog Submersible Sewage Pump				
	Providing, designing, erecting and commissioning Submersible non clog pump to handle unscreened crude sewage specific grvity 1.05 and solids and organic waste upto 100 mm size. The pump should be capable of delivering a discharge (stated below) against head (stated below) at 1000/1500 RPM speed and suitable for single as well as parallel operation with similar pumps. Generally the pump shall conform to IS 9137,IS 5600 with Squirrel Cage. induction electric motor A.C. 3 phase, 415 V. 50 Hz. Voltage/frequency variation +/-6% and 3% respectively and 1000/1500 RPM speed motor rating to have a suitable margin over the maximum power absorbed by any of the pumps during the entire working range of pump Electric motor shall generally conform to IS:325 including third party inspection and				
8	a) H=19 m, Q=333.31 LPS, HP=170	Nos	1317625.00	Thirteen Lakh Seventeen Thousand Six Hundred Twenty Five Rupees	10541000.00
	Item No.2: Glandless Sluice Valve				
	Providing, erecting, testing and commissioning C.I. Glandless Sluice valves suitable for working pressure as below with standard non rising spindle, handwheel, cap etc and manufactured as per IS 2906/14846 and as per detailed specifications with bypass arrangement.				
8	a) 450 mm dia. PN 1.0	Nos	114604.00	One Lakh Fourteen Thousand Six Hundred Four Rupees	916832.00
1	b) 1200 mm dia. PN 1.0	No	1511725.00	Fifteen Lakh Eleven Thousand Seven Hundred Twenty Five Rupees	1511725.00
	MJP Civil CSR 2023-24, I. N. 2 & 4, P. N. 146 & 148				
	Item No. 3 : Reflux Valve				

Qty	Description of Item	Unit	Rate		Amount (Rs.)
			In figure	In Words	
	Providing, supplying, lowering, laying and jointing ISI mark CI/DF reflux valve (non return valve) with bypass arrangement including railway freight, inspection charges, unloading from railway wagon, loading into truck, transportation upto departmental stores, unloading, stacking, cost of all labour jointing material, including nut bolts etc. excluding GST levied by GOI & GOM in all respect including third party inspection etc. complete				
8	a) 450 mm dia. PN 1.0	Nos	147458.00	One Lakh Forty Seven Thousand Four Hundred Fifty Eight Rupees	1179664.00
1	b) 1200 mm dia. PN 1.6	No	1354325.00	Thirteen Lakh Fifty Four Thousand Three Hundred Twenty Five Rupees	1354325.00
	Item No.4 : Kinetic Air Valve				
	Providing, supplying, lowering, laying and fixing in proper alignment and position Kinetic Double Orifice type Air Valves confirming to IS 14845 as per MJP's standard specifications as directed by Engineer-in-charge combined with screw down isolating valve, small orifice elastic ball resting on a gun metal orifice nipple, large orifice vulcanite ball seating on moulded seat ring, inlet face and drilled, including insurance, third party inspection charges, loading, unloading, transportation upto departmental stores, cost of conveyance from stores to site of work, cost of all material excluding GST levied by GOI & GOM in all respect etc. complete.				
1	200 mm dia. PN 1.0	No	35244.00	Thirty Five Thousand Two Hundred Forty Four Rupees	35244.00

Qty	Description of Item	Unit	Rate		Amount (Rs.)
			In figure	In Words	
	Providing, erecting electric Valve actuators totally enclosed, weather-proof and dust proof construction with IP-67, protection class suitable for installation in any position without lubrication, leakage or other operational difficulty with special grease filled gear box and hand wheel for emergency manual operation which will automatically dis-engage on restoration of power to motor and with 10 watt single phase space heater and continuous local mechanical position indicator and individually replaceable counter gear assembly and with two torque and four limit switches with S.S. flap and operated with gear driven cams and of rating 250 Volt, 5 Amp, AC/DC, torque switch dial and with TEFC squirrel cage induction motor working on 440 Volts +/- 10%, 3 phase, 50 Hz AC of intermittent duty rating S-2, insulation class "F" and temp rise restricted to class "B" with IP - 67 protection class suitable for DOL starting and with three thermostat and 30% over load margin. The torque rating of reduction gear box shall be atleast 1.5 times max. torque required for opening and closing of valve with integral starter for ON & OFF operation with third party inspection charges.				
8	a) 450 mm dia.	Nos	126656.00	One Lakh Twenty Six Thousand Six Hundred Fifty Six Rupees	1013248.00
1	b) 1200 mm dia.	No	189428.00	One Lakh Eighty Nine Thousand Four Hundred Twenty Eight Rupees	189428.00

Qty	Description of Item	Unit	Rate		Amount (Rs.)
			In figure	In Words	
	Item No.6 : Mechanical Coarse Screen				
2	Providing, Erecting, Commissioning with test and trial of Multi Rake Coarse Bar Screen of SS 304 with 1 HP motor drive, SS Chain and Sprocket arrangement with multiple Raking Combs and Auto-reverse mechanism for Screen Protection including third party inspection as per specifications. Channel Size: 3200 mm W* 16000 mm Deep including freeboard upto operating platform level. Screen Machine Size: 50mm*10mm bars and 20 mm bar spacing (Clear), 75 degree inclination angle and 1 HP Geared Motor Drive.	Nos	7704576.00	Seventy Seven Lakh Four Thousand Five Hundred Seventy Six Rupees	15409152.00
	Item No.7 : Manual Coarse Screen				
2	Providing, Erecting, Commissioning with test and trial of Manual Coarse Screen of SS 304, 1000 mm W* 1500 mm Long having bar size of 50mm*10mm and spacing 20 mm @ 60 degree as per specifications including third party inspection.	Nos	152625.00	One Lakh Fifty Two Thousand Six Hundred Twenty Five Rupees	305250.00
	Item No.8 : Belt Conveyor				
1	Providing, Erecting, Commissioning with test and trial of Mild Steel Bi-Directional Belt Conveyor 600 mm W* 7500 mm Long as per specifications including third party inspection. The conveyor shall have 600 mm wide 3 Ply Nylon Reinforced Endless Rubber Belt with Belt thickness 8 mm.	No	523500.00	Five Lakh Twenty Three Thousand Five Hundred Rupees	523500.00
	Item No.9 : Control Panel for Mechanical Screen				

Qty	Description of Item	Unit	Rate		Amount (Rs.)
			In figure	In Words	
1	Providing, Erecting, Comissioning with test and trial of Control Panel for 2 Screen with SCADA (Basic) with AGEcho Level Sensor (Upstream) including third party inspection as per specifications.	No	149750.00	One Lakh Forty Nine Thousand Seven Hundred Fifty Rupees	149750.00
	Item No.10 : CI Sluice Gate				
2	Providing, Erecting, Comissioning with test and trial of Thimble mounted Manual Sluice Gates 2500 mmW* 1400mm Ht. of CI FG 260 with extended spindle and MSEP Head stock assembly and pedestal for Hand wheel mounting for Coarse screen inlet chambers including third party inspection as per specifications.	Nos	1092750.00	Ten Lakh Ninety Two Thousand Seven Hundred Fifty Rupees	2185500.00
	Item No. 11 : DI Double Flanged Pipe				
	Providing and erecting ISI standard welded DI double flanged pipe excluding GST levied by GOI & GOM in all respect, railway freight, insurance, unloading from railway wagon, loading into truck transport to store / site, unloading, stacking etc. complete as directed by Engineer -in- charge.				
140	450 mm dia.	Rmt	15308.00	Fifteen Thousand Three Hundred Eight Rupees	2143120.00

Qty	Description of Item	Unit	Rate		Amount (Rs.)
			In figure	In Words	
	Item No. 12 : DI Double Flanged Bend 90 Deg				
	Providing and erecting D.I. fitting with ISI mark flanged joints confirming to table 12 to 31 of IS 9523/2000 upto latest amendments including cost of SBR/ EDPM tyton rings. Fittings should be with internally ordinary portland cement mortar lined and externally metallic zinc coating/zinc rich paint with finishing layer of black bitumen coating including transportation & excluding all statutory duties and taxes such as GST levied by Gol and GoM in all respect etc. complete.				
8	450 mm dia. Double Flange Bend 90 Deg -PN-10	Nos	29043.00	Twenty Nine Thousand Forty Three Rupees	232344.00
	Item No. 13 : MS ERW Pipe				
	Manufacturing, providing and erecting spirally welded / ERW/ SAW / fabricated M. S. pipes (Commercial Quality) including procurements of plates, gas cutting to required size rolling, tack welding assembling in suitable lengths to form pipes, welding on automatic welding machine and forming 'V' edge on both ends of pipes including railway freight, insurance, unloading from railway wagon, loading into truck, transport to stores, unloading, stacking, excluding GST levied by GOI & GOM in all respect etc. complete as per IS - 3589 and IS-5504 as applicable as per specifications (No negative tolerance in thickness is permissible).				
50	1200 mm dia.I.D.Thickness 12 mm	Rmt	33737.00	Thirty Three Thousand Seven Hundred Thirty Seven Rupees	1686850.00
	Item No. 14 : MS Double Flanged Specials				

Qty	Description of Item	Unit	Rate		Amount (Rs.)
			In figure	In Words	
7500	Providing and erecting ISI standard MS specials of required thickness with 3 coats of approved epoxy paint (Shalimar, Ciba or Mahindra & Mahindra make) from inside and outside including all taxes (Central and local), octroi, inspection charges, transportation to stores/ site and stacking etc. complete. Double flanged specials	Kg	95.00	Ninety Five Rupees	712500.00
	Item No. 15 : Iron Work				
5	M S fabrication for lifting arrangement, Base frame of pump sets like RSJ, Channel, angle etc comp	MT	84020.00	Eighty Four Thousand Twenty Rupees	420100.00
	MJP Civil CSR 2023-24, I. N. 7, P. N. 70				
	Item No. 16 : CI Double Flanged Pipe & Specials				
4500	Providing and erecting ISI standard CI double flanged pipe & specials including all statutory duties & taxes such as GST levied by GOI & GOM in all respect, railway freight, insurance, unloading from railway wagon, loading into truck transport to departmental store /site, unloading stacking etc. complete.	Kg	88.00	Eighty Eight Rupees	396000.00
	Item No. 17 : MS Flanges				
2500	Providing fabricating erecting M.S.Flanges sleep on type of required size and thickness with both side machined.	Kg	171.00	One Hundred Seventy One Rupees	427500.00

Qty	Description of Item	Unit	Rate		Amount (Rs.)
			In figure	In Words	
	Item No. 18 : Pressure Gauge				
8	Providing, erecting Pressure gauge Glyserine filled Bourdon's type of 150 mm dia. as per IS 3624:1987 of required range complete with syphon tube, isolating cock suitable for 12 mm dia G.I.Pipe. Pressure gauge shall be installed as directed,with tapping on rising main. Mounting - Direct bottom, Stainless Steel body, Toughened glass window.	Nos	2010.00	Two Thousand Ten Rupees	16080.00
	Item No. 19 : Main LT Panel				
1	Providing, Erecting, Commissioning and testing 415 volts, 3 phase 4 wire 50 Hz LT switch gear panel floor mounting, cubical type, vermin and vibrvation proof factory made extensible type with 14 SWG sheet metal and suitable MS angle frame,suitable size bus bars including third party inspection.	Job	1740558.00	Seventeen Lakh Forty Thousand Five Hundred Fifty Eight Rupees	1740558.00
	Item No. 20: Auto Transformer Starter				
8	Providing erecting and giving test and trial of Fully Automatic, Auto Transformer Starter with Air Break Contactor, assembled locally with contactors of approved make in 14 SWG sheet steel fabricated, floor mounted type cubical panel, suitable for operation on 380 - 440 Volts, 3 Phase, 50 Hz, fitted with accessories as below with third party inspection.The incoming and outgoing cable end boxes shall be on either sides of main panel. The cable entries from auto transformer shall be totally	Nos	268811.00	Two Lakh Sixty Eight Thousand Eight Hundred Eleven Rupees	2150488.00

Qty	Description of Item	Unit	Rate		Amount (Rs.)
			In figure	In Words	
	Item No. 21 : APFC PANEL				
1	Supplying and erecting 250 kVAr, 440 V 3 phase, 50 Hz., Contactor Logic & Intelligent Relay micro APFC passive filter panel, consisting of suitable steps of APP/MPP type capacitor units with Detuned (harmonic filter) reactors of suitable rating , APFC panel shall be compliance to IEC 61439 and power quality IEC 61921 standard as per specification no CP-ED/APFC.	No	594224.00	Five Lakh Ninety Four Thousand Two Hundred Twenty Four Rupees	594224.00
	Item No. 22 :Cable				
120	A) Supplying , erecting & terminating XLPE insulated, galvanised steel formed wire armoured (strip) cable 11 kV(E), 3 x120 sq. mm. aluminium conductor laid in provided trench / pipe as per specification no. CB-HT.	m	1536.00	One Thousand Five Hundred Thirty Six Rupees	184320.00
4	B)Providing and erecting Heat shrinkable indoor termination kit for 11 kV (E) XLPE HT cable 3x120 to 185 sq. mm. with necessary material as per specification no. CB-JT/HT.	Nos.	10474.00	Ten Thousand Four Hundred Seventy Four Rupees	41896.00
10	C) Providing and erecting Heat shrinkable out door termination kit for 11 kV (E) XLPE HT cable 3x120 to 185 sq. mm. with necessary material as per specification no. CB-JT/HT.	Nos.	13124.00	Thirteen Thousand One Hundred Twenty Four Rupees	131240.00
	D) Supplying and erecting, XLPE / PVC insulated, armoured cable 1100 V grade with ISI mark single core, stranded aluminium conductor with 6 mm thick 25 mm width M.S. spacer with G.I. Earth wire 6 sq mm, complete erected on wall / on pole with 25 X 3 mm M.S.				
2400	i) Single Core 630 Sq. mm Cable in double run including TPI	m	1209.50	One Thousand Two Hundred Nine Rupees and Fifty Paise	2902800.00

Qty	Description of Item	Unit	Rate		Amount (Rs.)
			In figure	In Words	
800	ii) Single Core 400 Sq. mm. Cable including TPI	m	782.50	Seven Hundred Eighty Two Rupees and Fifty Paise	626000.00
50	E) Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 3½ core 300 sq. mm. aluminium conductor complete erected with glands & lugs, on wall/trusses/pole or laid in provided trench/ pipe as per specification no. CB-LT/AL (For APFC Panel)	Rmt	1636.00	One Thousand Six Hundred Thirty Six Rupees	81800.00
650	F) Supplying and erecting 3 Core 35 Sq. mm. Flat flexible submersible cable with, Copper Conductor, PVC insulated, and PVC sheathed (In three run)	m	1400.00	One Thousand Four Hundred Rupees	910000.00
300	G) Supplying and erecting armoured 3 Core 2.5 Sq. mm. control cable with ISI mark stranded / solid copper conductor 1.1 kV grade complete erected on wall / panel or in provided trench in an approved manner.	m	173.00	One Hundred Seventy Three Rupees	51900.00
1	H) Control Cables for VCB, CTs, PTs, Relay and Scanner Panel etc. complete.	Job	60000.00	Sixty Thousand Rupees	60000.00
	I) Providing and laying RCC (M-150) cable duct of size given below for laying electric cable including form work for centering M.S. bar reinforcement, necessary excavation bolder filling, PCC (M100), compacting, curing , plastering, including providing and fixing 35 X 35 X 5 mm M.S. angles, RCC pre cast cover of Adequate length with 100 mm over lap on either walls etc complete and providing RCC pre cast covers.				
200	Cable Duct 2 tier - 750 W x 750 D	m	1444.00	One Thousand Four Hundred Forty Four Rupees	288800.00

Qty	Description of Item	Unit	Rate		Amount (Rs.)
			In figure	In Words	
	Item No. 23 : Earthing				
35	Providing earthing with galvanized iron earth plate size 60 x 60 x 0.6 cm with funnel with a wire mesh for watering and brick masonry block C.I. cover complete with all materials, testing & recording the results as per specification.	Nos.	6055.00	Six Thousand Fifty Five Rupees	211925.00
	Item No. 24: GI Strip				
2500	Supplying and erecting GI strip of high purity required size used for earthing on wall and/or any other purpose with necessary GI clamps fixed on wall painted with bituminous paint with joints required. As per specification no EA-EP.	Kg	222.00	Two Hundred Twenty Two Rupees	555000.00
	PWD Elect. CSR 2022-23, I. N. 9-2-3, P. N. 160				
	Item No. 25 : Electrically Operated Circular Travelling Crane (Double Girder)				
1	a) Providing, erecting and commissioning Double girder Electrically Operated Rectangular Over head Travelling Crane with 9 m lift complete with wire rope hoist, class II duty, all three motions electrically operated by suitable rating motor IP 54, control panel and down pendant control block. 5 Tonne Capacity, 22 m span with third party inspection.	No	4210000.00	Forty Two Lakh Ten Thousand Rupees	4210000.00
	As per Budgetary Offer				
75	b) Providing, erecting and fixing square bar of EN 8 as rail for over head crane on provided track, girder / continuous corbel beam, including supporting plate and "J" bolts. 50 X 50 mm (EN 8)	Mtr	2453.00	Two Thousand Four Hundred Fifty Three Rupees	183975.00
	MJP Mech. CSR 2023-24, I. N. LF 5-1, P. N. 22				

Qty	Description of Item	Unit	Rate		Amount (Rs.)
			In figure	In Words	
	Item No. 26 : Electrification				
1	Electrification work for indoor and out door as per analysis	Job	244045.00	Two Lakh Forty Four Thousand Forty Five Rupees	244045.00
	As per Rate Analysis				
	Item No. 27: Tools				
1	Providing tools for maintenance of pumping machinery	Job	38773.00	Thirty Eight Thousand Seven Hundred Seventy Three Rupees	38773.00
	Item No.28: Concrete Foundation				
60	Providing Cement concrete foundation for pump in 1:2:4 with required size and length of foundation bolts and nuts (cost with wooden box is included).	cum	5011.00	Five Thousand Eleven Rupees	300660.00
	Item No. 29 : Diesel Generator				
1	Supplying, erecting, testing and commissioning of diesel generating set with alternator of 750 kVA output continuous rating, 3 Phase, 415 V, 50c/s 0.8 p. f. A.C supply, a totally enclosed air cooled / liquid cooled multi-cylinder diesel engine developing suitable BHP at 1500 rpm with 10% overload for 1 hour in 12 hours, along with standard accessories, self-excited, self-regulated, screen protected alternator with static excitation system running at 1500 RPM as per IS 4722-2001 with voltage regulation +/- 5 %, with performance class G2 and maximum fuel consumption 126.4 Ltr/hr @75% loading. Both the engine and alternator direct coupled on a common fabricated steel base frame and mounted on anti-vibrating pads with standard control panel comprising meters, switchgears, indicators connected with suitable wires/cables, the complete set enclosed in composite acoustic enclosure as fully assembled integral unit made of 16 SWG CRCA sheet, sound absorbing material to restrict sound level up to 75 dB at 1.0 m, provided with first filling of oil, diesel not less than 990 Ltr etc. on provided M20 Grade CC Foundation and obtaining necessary approval from Electrical Inspector as per specification no. GEN-DG.	No	5421443.00	Fifty Four Lakh Twenty One Thousand Four Hundred Forty Three Rupees	5421443.00

Qty	Description of Item	Unit	Rate		Amount (Rs.)
			In figure	In Words	
	Item No. 30: AMF Panel				
1	Supplying, erecting, testing and commissioning of microprocessor based AMF panel suitable for diesel generating set of above 500 kVA up to 750 kVA capacity Three phase, 415 Volts, 50Hz A.C. with all standard features, safeties etc as per specification no. GEN-AMF.	No	620657.00	Six Lakh Twenty Thousand Six Hundred Fifty Seven Rupees	620657.00
	Item No. 31: Relay Metering and Scanner Panel				
1	Providing, Erecting and Commissioning relay metering and scanner panel for out door VCB and Transformer ..	No	315584.00	Three Lakh Fifteen Thousand Five Hundred Eighty Four Rupees	315584.00
	Item No. 32 : Transformer 11/0.433 KV				
2	Providing, erecting and commissioning 800 KVA out door type copper wound transformer as per per IS 1180 (Part I) : 2014 Level I (as per amendment no.(4) to IS 1180 (Part I) : 2014) continuously rated for 3 Ph, 50 Hz, at full load and temp. rise not exceeding 45° C by thermometer in oil and 50°C by the resistance in winding after continuous run resistance in winding after continuous run at full load rating, the transformer should have oil immersed winding having vector group DY 11, HT side connected in Delta and LT side connected in Star with neutral brought out connected to provided separate earthing. The transformer shall have power terminal arrangement, bushings / cable end box on HT side and cable end box on LT side. 2 Nos. channels with stoppers shall be provided and	Nos	2397502.00	Twenty Three Lakh Ninety Seven Thousand Five Hundred Two Rupees	4795004.00

Qty	Description of Item	Unit	Rate		Amount (Rs.)
			In figure	In Words	
	Item No. 33 : 11/0.415 KV Substation				
1	Providing Errectig testing and commissing Tranformer HT Substation suitable for 11 KV, 800 KVA power transformer, including lightening arrester, AB switches, DO fuses, ACSR conductors and insulators, steel stuctures with ISMB and ISMC substation civil works levelling , concrete plinth for steel structure , transformer ,,chain link fencing with gates , first aid equipments, fire extinguishers including taking permission from MCDP.	Job	1115654.00	Eleven Lakh Fifteen Thousand Six Hundred Fifty Four Rupees	1115654.00
	Item No. 34 : RMU				
1	Supplying, erecting, testing & commissioning 11kV, 630A, 21kA/3sec, 3 way outdoor, extensible motorised SCADA compatible RMU, internal arc tested consisting of 1 no. feeder with 1 LBS and 2 nos. feeder with 2 VCB. compliant to IEC 62271 -100,200 and 102, as per specification no. SW-HTS/RMU SCADA.	No	598300.00	Five Lakh Ninety Eight Thousand Three Hundred Rupees	598300.00
	PWD Elect. CSR 2022-23, I. N. 5-9-21, P. N. 101				

Qty	Description of Item	Unit	Rate		Amount (Rs.)
			In figure	In Words	
	Item No. 35 : Substation Isolation Panel				
1	Providing erecting testing and commissioning of The panel shall be with suitable size copper wiring for panel and for control wiring as per detailed	Job	626723.00	Six Lakh Twenty Six Thousand Seven Hundred Twenty Three Rupees	626723.00
	As per Rate Analysis				
	Item No. 36 : Ultrasonic Insrtion Fixed type Flowmeter				
1	Ultrasonic Insertion Fixed type Flow Meter (Single Channel) Providing, installing and giving satisfactory test & trial of Ultrasonic Insertion Fixed type flow meter working on conditions & specifications, calibration, inspection, testing, training, guarantee and manufacturers test certificate/ declaration copy along with accessories as mentioned in a (1) to (16) below & with inbuilt assembly to fix the insertion type transducer on the pipeline with third party inspection.	No	278895.00	Two Lakh Seventy Eight Thousand Eight Hundred Ninety Five Rupees	278895.00
	Item No. 37 : Test & Trial				
12	Operation and maintenance for above pumping machinery with skill labour with pump operator and helper etc. complete.	months	113670.00	One Lakh Thirteen Thousand Six Hundred Seventy Rupees	1364040.00
			TOTAL	Rs.	69351901.00

Sub work No 06.:Designing, Providing, Erecting, Testing and Commissioning of Automation System for Non clog Submersible Pumping Machinery for SPS at Wet Well with Six years Comprehensive Maintainance.					
Qty	Description of Item	Unit	Rate		Amount (Rs.)
			In figure	In Words	
	Item No 1:- Ultrasonic level transmitter				
QTY.	Designing, Supplying, Installing, commissioning & testing of	No	71384.00	Seventy One Thousand Three Hundred Eighty Four Rupees	71384.00
1.00	Ultrasonic Raddar type level transmitter CE marked with following technical parameters at Raw Water Pump House and interfacing with PLC panel including mounting arrangement & TPI.				
	Output-4-20 mA/HART				
	Power supply - 24V DC ext.				
	Display - 4" LED				
	Range- 0 to 20. mtrs				
	Accuracy - +/- 0.25% of Full Scale or better				
	Enclosure- IP 68				
	Mounting - On PLC panel				
	Item No. 2 :- Pressure Transmitter				
	Designing, Supplying, Installing, commissioning & testing	Nos	37524.00	Thirty Seven Thousand Five Hundred Twenty Four Rupees	300192.00
8.00	of pressure transmitter CE marked with following technical parameters at Raw Water Pump House and Interfacing with PLC panel including mounting arrangement & TPI.				
	Medium- Water				
	Output 4-20 mA/HART				
	Power supply - 24V DC ext.				
	Display - 4" LED				
	Accuracy - +/- 0.1 % of full scale or better				
	Enclosure- IP 68				
	Item No 3 - Power Analyser	Nos	33265.00	Thirty Three Thousand Two Hundred Sixty Five Rupees	266120.00
8.00	Designing, Supplying, Installing, commissioning & testing of Power Analyser interfacing to PLC Panel with modbus				
	communicatuion port, as per IEC 62053 and in the				
	prescribed format including mounting arrangement.				
	Item No 4a -PLC panel for Raw water pump House with Four Pumps				

Qty	Description of Item	Unit	Rate		Amount (Rs.)
			In figure	In Words	
	Design, manufacture, supply, installation, testing and commissioning of indoor type PLC panel of size approx. 1000 mm X 700 mm X 1500mm (LBH), fabricated out of min. 2 mm thick CRCA sheet powder coated to Siemens gray color. The Panel shall be provided with reputed make PLC with following accessories as well as input output configuration. The PLC shall be programmed with IEC 61131 standards for control, monitoring and communication of equipments & instruments at Raw water Pumphouse. PLC shall have Ethernet port & protocol for Modbus TCP communication with following IO	Nos	222189.00	Two Lakh Twenty Two Thousand One Hundred Eighty Nine Rupees	444378.00
	DI –16 num DO – 16 num AI –16 num AO – 8 num 7 inch color TFT HMI complete with programming shall be provided to interact with PLC. The panel shall include all the accessories (not limited to following) to achieve purpose of smooth & trouble free operation of pump house.				
2.00	MCB 10A DP – 1 num MCB 4A DP – 4 num 24 VDC Power Supply 10A – 1num Push Buttons – 7 num Selector Switch - 2 num Control Contactor – 4 num Annunciator with 6 Windows NO to NC Type Electronic Hooter – 1 num Control Transformer – 1 num Emergency PB – 1 num Panel Cooling Fan – 1 num Panel Light with Door Switch –1 num Indication Lamp –5 num Wiring + TB etc – 1 lot Hardware – 1 lot with TPI and actuator operation through SCADA and 25% spare I/O's	Control			
	MJP Mech. CSR 2023-24, I.N. SA 1.4.2, P.N. 117				
	ITEM NO.4b :- UPS				

Qty	Description of Item	Unit	Rate		Amount (Rs.)
			In figure	In Words	
1.00	Supplying, erecting, testing and commissioning of 3kVA capacity online pure sine wave with backup time of hrs. PWM & IGBT based UPS with 0.8 to unity output pf, single phase input & 1 phase output complete with all protections as per specification no. AP-UPS.	Nos	49181.00	Forty Nine Thousand One Hundred Eighty One Rupees	49181.00
	PWD Elect. CSR 2022-23, I.N. 3-7-3, P.N. 50				
	Item no.4c: Battery for UPS				
4.00	SSupplying and erecting 12V/150Ah tubular battery with battery terminal wire, duly charged with 36 months warranty complete.	Nos	18877.00	Eighteen Thousand Eight Hundred Seventy Seven Rupees	75508.00
	Item No 5 - Scada system for Raw water pump House				
	Design, manufacture, supply, installation, testing and commissioning of SCADA System for pump house. Windows based PC with latest configuration & OS complete with necessary office & antivirus softwares. PC configuration shall not be less than Intel i5 10th Gen CPU, 16 GB Ram, 128 GB SDD, 500 GB HDD, DVD RW, Rs232 & Rs485 port, 2 RJ45 ports, Keyboard, Optical Mouse, 32 inch color TFT Monitor, Latest Windows Pro OS, Microsoft Office & Antivirus & Internet Security software for 3 years license.	Job	274638.00	Two Lakh Seventy Four Thousand Six Hundred Thirty Eight Rupees	274638.00
	SCADA Software of reputed company with developer & runtime license with minimum 256 number of Tags with following features & functions 1. Supervise real-time data in the form of graphical presentation 2. Control pumping processes locally or through Remote locations 3. Dynamic process Graphic, It should resemble the process mimic. SCADA should have good library of symbols so that develop the mimic as per required. When operator sees the screen he should know what's going in plant.				
1.00	4. Alarm summery & Alarm history, SCADA system must be able to detect, display, and log alarms and events. When there are problems the SCADA system must notify the operators to take corrective action. 5. Acquire real-time data as well as logs data with Real time trend & Historical time trend. 6. Web Connectivity, Real-time displays can be accessed on remotely attached PCs and notebooks using internet. SCADA Programming shall be done so as operator can visualize and control complete pump house operation from operator desk. All important alarms & events shall be logged. All the data from field instruments & equipments shall be logged. There shall be provision to take reports in required formats of real time & historical data, events & alarms.				

Qty	Description of Item	Unit	Rate		Amount (Rs.)
			In figure	In Words	
	There shall be provision of broadcasting messages, emails of reporting information. There shall be provision of access security. An Industrial grade Din rail mounting ethernet switch with 5 ports shall be provided. An Industrial grade modem with 4G/5G GSM connectivity shall be provided. With synchronization and interfacing with SCADA of STP for smooth and complete operation of STP and wet well pumping machinery.				
	MJP Mech. CSR 2023-24, I.N. SA 1.4.4, P.N. 120				
	Item No 6 - Power Cable				
	Designing, Supplying, Installing, commissioning & testing with Terminating & Interfacing of 2 C x 1.5 sq.mm as per IS	Mtrs	110.00	One Hundred Ten Rupees	27500.00
250.00	694 twisted shielded copper armoured conductor on wall in GI tray or in ground suitable for supplied D. C. Voltage.				
	Item No. 7:- Signal Cable				
	Designing, Supplying, Installing, commissioning & testing with Terminating & Interfacing of following cables, as per IS 694 copper shielded, twisted, multistranded armoured cable on wall in GI tray or on ground.				
250.00	1. 2 pair x 1.0 sq.mm	Mtrs	200.00	Two Hundred Rupees	50000.00
250.00	2. 3 pair x 1.0 sq.mm.	Mtrs	254.00	Two Hundred Fifty Four Rupees	63500.00
250.00	3. 4.5 pair x 1.0 sq.mm.	Mtrs	373.00	Three Hundred Seventy Three Rupees	93250.00
200.00	4. 8 pair x 1.0 sq.mm.	Mtrs	668.00	Six Hundred Sixty Eight Rupees	133600.00
	Item No. 8:- Communication Cable				
	Designing, Supplying, Installing, commissioning & testing with Terminating & Interfacing of CAT 6 as per ISO/IEC-11801 std.cable for networking on wall in GI tray or on ground etc.	Mtrs	53.00	Fifty Three Rupees	13250.00
	Item No 9 :- Cable Tray as required				
700.00	Providing & erecting hot dipped galvanised cover suitable for perforated type Cable tray manufactured from 18 SWG (1.2 mm thick) GI sheet of 200 mm width & 20 mm height complete with necessary hardware.	Mtrs	455.00	Four Hundred Fifty Five Rupees	318500.00

Qty	Description of Item	Unit	Rate		Amount (Rs.)
			In figure	In Words	
	Item No 10 :- Surveillance System				
1.00	Designing, supplying, installing, commissioning & testing of CCTV IR water proof camera suitable for upto 100ft. with control key board, DVR, Hard Disk,cables, UPT transreceivers etc. complete with not less than following specifications. 1. Four numbers of IP Camera with night vision functionality with range up to 30 meters. Camera construction shall be suitable for weather proof outdoor installation. 2. Eight Channel DVR with metal body construction, having software features of motion detect recording. 3. 3.5 inch 2 GB HDD 4. 8 port POE Switch 5. 32 inch LED Screen, Keyboard & mouse.	No	56336.00	Fifty Six Thousand Three Hundred Thirty Six Rupees	56336.00
	Item No. 11 :- pH Analyser				
	Design, Supply, Installation, Testing of pH Analyser as per IUPAC (International Union for Pure & Applied Chemistry)at	No	111060.00	One Lakh Eleven Thousand Sixty Rupees	111060.00
1.00	A.F. and -Interfacing with PLC panel including Mounting arrangement. Range: 0-14 pH Accuracy : Better than 0.1% of full scale , Supply Voltage : 24V dc, Output : 4 20 mA/HART As per IEC 61000-6-2 & IEC 61000-6-3				
	TOTAL COST	Rs.			2348397.00
	Item No. 12 :- Comprehensive Operation and Maitenance				
	Comprehensive Operation and Maitenance charges of the whole scheme on SCADA & PLC ... etc. complete as per specification				
	During first year Free				
	During second year 3% of Total cost				44033.00
	During third year 5 % of Total cost				73389.00
	During forth year 7% of Total cost				102744.00
	During fifth year 7% of Total cost				102744.00
	During Sixth year 7% of Total cost				102744.00
	TOTAL AMOUNT	Rs.			2774051.00

Sub work No 07.:Estimate for Providing, Erecting, Commissioning and Testing of on grid Solar Power Plant under Net Metering Policy at Wet Well

Qty	Description of Item	Unit	Rate		Amount (Rs.)
			In figure	In Words	
	Item No.1 : Solar Power Plant				
	Design, Supply and Procurement, Erecting, Testing & Commissioning with Five years comprehensive operation & Maintenance of Solar Power Plant under NET-METERING Policy including one year of guarantee period.				
	1) SOLAR PV MODULES – Poly Crystalline minimum 320 Watt Peak				
	2) MODULE MOUNTING STRUCTURE - The mounting steel structure shall be as per latest BIS code hot dip galvanization of mounting structure shall be in compliance of BIS as per detailed specification				
	3) STRING COMBINER BOX OR ARRAY JUNCTION BOXES - as per detailed specification				
	4) POWER CONDITIONING UNIT (PCU) - as per detailed specification				
	5) DC DISTRIBUTION BOARD (DCDB) - as per				
	6) AC DISTRIBUTION BOARD (ACDB) - as per detailed specification				
	7) AREA LIGHTING - as per detailed specification				
	8) METERING AND DATA MONITORING OF POWER PLANT- as per detailed specification				
	9) WIRING, CABLES AND CABLE ACCESSORIES – as per detailed specification				
	10) EARTHING – as per detailed specification				
	11) LIGHTNING & OVER VOLTAGE PROTECTION – as per detailed specification				
	12) ERECTION, TESTING & COMMISSIONING – as per detailed specification				
	13) CIVIL WORKS– as per detailed specification				
	14) APPROVALS FOR NET-METERING -				
	All necessary documentation and approval from various agencies including but not limited to MNRE, MEDA, MAHADISCOM,CEIG as applicable under NET-METERING policy – as specified				

Qty	Description of Item	Unit	Rate		Amount (Rs.)
			In figure	In Words	
525	At Wet Well	kWP	35886.00	Thirty Five Thousand Eight Hundred Eighty Six Rupees	18840150.00
	Item No.2 : Net Meter				
1	Supplying and erecting AC three phase HT CT multifunction net meter DLMS compliance of accuracy class 0.5, 3x 63.5V, 50Hz, with backlit LCD display, optical port & RS 232 port(measures import kWh, kVAh, export kWh, kVAh, net kWh, kVAh, V, I, kW, 6 months history of energy, load survey, TOD, tamper detection & logging, power ON/OFF events, instantaneous parameters of rating 1/5A with display in absence of power) with wiring connections and mounting hardware on provided panels complete with calibration certificate from manufacturer.	No	24248.00	Twenty Four Thousand Two Hundred Forty Eight Rupees	24248.00
				TOTAL	18864398.00