

Name of Project : Flower Garden, River Front**Client : SRFDA****Document: Abstract Sheet of Landscape & Irrigation work****Part - A - SPRINKLER**

Sr. No.	Item Description	Unit	Rate in Rs.
	SPRINKLER , DRIP & HYDRANT IRRIGATION SYSTEM		
1.0	Piping Network Providing of PVC pipes (IS:4985- 88), and fittings & Accessories like tees, elbows, bends, junctions, Reducers etc; as required/directed at site a) PVC Pipe 4" Sch 40	Mtr	658.00
1.1	b) PVC Pipe 3" Sch 40	Mtr	463.00
1.2	c) PVC Pipe 2.5" Sch 40	Mtr	355.00
1.3	d) PVC Pipe 75mm x 10kg/cm2	Mtr	260.00
1.4	e) PVC Pipe 63mm x 10kg/cm2	Mtr	182.00
1.5	f) PVC Pipe 040mm x 10 kg/cm2	Mtr	80.00
1.6	g) PVC Pipe 2" Sch 40	Mtr	218.00
1.7	h) PVC Pipe Sch 40 1"	Mtr	104.00
1.8	i) RCC Hume Pipe Half Round 3" to 6"	Mtr	196.00
2.0	Providing of Non-Potable Water Marked Rotary or Spray Pop-up sprinkler 4" (5 to 7 Mtr Radius) with Check Valve, Wiper Seal, Flow Shield complete with required nozzle	Nos	850.00
2.1	Providing of Swing Joint 1/2" with PP Clamp Saddle with Chromed Nut Bolt & Nitrile Rubber Gasket	Nos	196.00
2.2	Providing INLINE Drip Pressure Compensating 16mm 18" Spaced 2 to 3.5 LPH, 4 Bar Pressure Rating, 1.2mm Thickness, Brown Color	Mtr	35.00
2.3	17mm Insert Fittings - Brown Color - Take Off, Elbow, Tees, End Cap	Set	64.00
2.4	9" Long Lateral Hold Stake - MS Gavanized	Nos	11.00
2.5	Providing of 16 mm - 4 Bar Pressure Rating, 1.2mm Thickness, LEED Compliance, Brown Color, PE pipe -together with all required accessories.	Mtr	17.00
3.0	Valves Providing of Various Valves with required Fittings & Tapping PP Clamp Saddles with Chromed Nut Bolt & Nitrile Rubber Ring a) Master Valve Diapharm Solenoid Valve Flanged 110mm (4)" PN 10	Nos	50,025.00
3.1	b) PVC Ball Valve 63mm PN 16	Nos	1,553.00
3.2	c) 1" Double Acting Air cum Vacum Release Valve with GM Valve	Nos	3,393.00
3.3	d) Lockable Quick Coupling Hydrant valve 1" with Four Sets of Key & Sweilve Elbow	Nos	6,038.00
3.4	e) Rectangular Valve Box 12'	Nos	2,128.00
3.5	f) Round Valve Box 7"	Nos	863.00
3.6	g) Water Meter 4"	Nos	89,700.00
3.7	h) Non Return Valve 4"	Nos	10,925.00
3.8	i) Round Valve Box 10"	Nos	1,035.00
3.9	j) PVC Ball Valve 90mm	Nos	3,163.00
3.10	k) PVC Ball Valve 75mm	Nos	2,703.00
3.11	l) PVC Butter Fly Valve 4"	Nos	8,970.00
4.0	Automation Providing Automation Items for Irrigation with all its required accessories. a) Irrigation Controller 8 to 48 Station, Out Dorr, 230 VAC Unit, Capable of running 4 Independent Programs with Power Back up Lithium Coin-Cell Battery	Set	48,875.00
4.1	b) 2" Solenoid Valve - 2" BSP Female Threaded, Pressure - 1 to 10 Bar	Nos	5,756.00
4.2	c) Double Seathed Direct Barrier Irrigation Automation Cable 1.5 Sq.MM Black	Mtr	23.00
4.3	d) Votage Stabilizer 1 Kva	Nos	14,375.00
4.4	e) Weather Prrof Cable Connection DBY	Nos	173.00
4.5	f) Valve - Pressure Regulating	Nos	3,680.00
5.00	Filteration Unit Providing Fully Automatic Self Cleaing Filter, Pressure Differential Based, 80/110 Micron, Flanged End & all required Accesories a) Screen Filter Self Cleaning 3" - 40m3	Nos	385,250.00
5.1	b) Header Assembly 4"/ 6 " for Each Filter & Pump saction Made of Galavnized Pipes or PVC Sch 80 Pipe Fittings	Nos	44,275.00
5.2	c) Glyserene Filled Pressure Gauge 2" Dia	Nos	633.00
6.0	Pump Station - Providing, of VFD Based Pump Station giving flow of 9 Ips at 35 m head complete Set (2 working + 1 stand By) with Pressure Tank, Panel & all required accessories.	Set	441,255.00
7.0	Exacavating, Laying, Joiting & Commissioning PVC Pipes from 250mm OD to 25mm OD, Trench Size minimum 600mm Deep for Main Lines, 300mm to 450mm Deep for Submain Lines, Backfilling with compaction and removing excess soil up to 50m Lead from site. Includes Installation & Commissioning of all Irrigation hardwares like Sprinklers, Dripper, Drip Lines, Valves, Saddles, Swing Joints, Valve Boxes, Filter Unit & Automation Items Complete as per drawing, specifications, instruction & directions of the Engineer-in-charge.	Mtr	118.00

Sr. No.	Item Description	Unit	Rate in Rs.
7.1	Providing & Fixing Suitable Thrust Block for Main Line at Bend, Tee etc.	Nos	1,150.00
8.0	Operation & Maintenance of Irrigation System Daily Operation of Irrigation System by using Automation, Routine Check up of Pump Station, Cleaning of Screen Filter, Checking Cable Connection, Valves & Servicing them as per requirement. Attending minor repair works as & when required. Maintaining Daily Log sheet provided.	Months	8,050.00
8.1	SITC of Gear Drive Pop up Sprinkler 8-12 meter Radius Rotor with Check Valve of Rain Bird / Toro make	Nos	1,250.00
8.2	SITC of Spray Pop Up Sprinkler 3 to 5 Meter Radius of Rain Bird / Toro make	Nos	550.00
8.3	SITC of Swing Joing 3/4" of Rain Bird/Toro make	Nos	150.00
8.4	SITC of Swing Joint 1/2" of Rain Bird/Toro make	Nos	133.00
8.5	SITC of PP Clamp Saddle 3/4" PN 16 of Astore/Cepex make	Nos	87.00
8.6	SITC of PP Clamp Saddle 1/2" PN 16 of Astore/Cepex make	Nos	69.00
9.0	Bore well - Inclusive of Drilling , Developing , Providing Casing Pipe , Pump, cable , Panel , Column Pipe etc. a complete borewell construction job a) Casing Pipe 8" Dia using MS / PVC Deep Well Pipe - Plain & Ribbed Screen	Meter	-
9.1	b) Column Pipe 4" Galvanized or uPVC Pipe	Meter	-
9.2	c) Submersible Pump V6 having discharge of 9 LPS @ 140 Mtr Head with Auto Level Panel with Centrifugal Seperator / Filter of 40m3	Nos	-
9.3	d) Pilot Drilling of 20" Dia, making of Pit, Gravel Providing & Packing, Lowering of Pipes, Compressor development using Top line Air Line, Lowering of Pump, Cable, Fixing of Auto Level Panel & other civil work	Job	-
9.4	e) Hot Deep Galvanised with Powder coated Header for Distrubution 4" including all required Fittings to connect with Valves on Water Supply Main Line	Nos	-
9.5	f) Dewatering Pump 4" Outlet, MOC – CI Pump Flow – 10 lps @ 12 m with Dischrge Line 4" & Valves	Nos	45,540.00
10.0	DWC / PE Crossing Sleeve Pipes 6"	Meter	612.00
10.1	DWC / PE Crossing Sleeve Pipes 4"	Meter	425.00
10.2	DWC / PE Crossing Sleeve Pipes 3"	Meter	341.00
PART - B - PIPING			

Sr. No.	Item Description	Unit	Rate in Rs.
	MISTER AT FLOWER GARDEN		
1.0	Piping Network Providing of PVC pipes (ASTM STANDARD), and fittings & Accessories like tees, elbows, bends, junctions, Reducers with support clamp at existing structure etc; as required/directed at site a) PVC Pipe 1.5" Sch 40	Mtr	230.00
1.1	b) PVC Pipe 1" Sch 40	Mtr	173.00
1.2	c) LLDPE 16MM X 4KG/CM2	Mtr	115.00
2.0	Providing of Fogger above height 2to8 mtr with support clamp/ wire with 28 LPH discharge at 4kg/cm2 pressure, spray pattern must be in mist form with Check Valve, wight block etc as per required/directed by engineer	Nos	230.00
3.0	Providing Pump with pressure switch, tank, & complete header with valve assembly with 1.5 LPS flow & 45 Mtr Head with accessories	L.S	23,575.00
4.0	Providing Disc type Filter of 7M3/hr flow with assembly PN -10 with accessories	Nos	9,775.00
5.0	Providing of Time Base Controller with necessary arrangement as per require/directed at site	Nos	5,175.00
6.0	Valves Providing of Various Valves with required Fittings & Tapping PP Clamp Saddles with Chromed Nut Bolt & Nitrile Rubber Ring a) Diapharm Solenoid Valve Flanged 1" PN 10	Nos	3,738.00
6.1	b) PVC Ball Valve 1" PN 16	Nos	1,438.00
6.2	c) 1" Double Acting Air cum Vacuum Release Valve with GM Valve	Nos	2,881.00
6.3	e) Rectangular Valve Box 12"	Nos	2,128.00
6.4	f) Round Valve Box 7"	Nos	863.00
6.5	g) Water Meter 1"	Nos	14,375.00
6.6	h) Non Return Valve 1.5"	Nos	2,588.00
7.0	Excavating, Laying, Joiting & Commissioning PVC Pipes from 50mm OD to 25mm OD, Trench Size minimum 600mm Deep for Main Lines, 300mm to 450mm Deep for Submain Lines, Backfilling with compaction and removing excess soil up to 50m Lead from site. Includes Installation & Commissioning of all Items Complete as per drawing, specifications, instruction & directions of the Engineer-in-charge.	Mtr	121.00
PART - C - PLUMBING			
1	SANITARY FIXTURES & FITTINGS		
	Note : For make of sanitary fixtures & fittings refer list of approved makes as given in technical specifications. The makes / models are for identification only & final make/ model to be supplied by the Contractor shall be as directed by the Architect / Owner / Project Manager.		
1.1	Providing and fixing wash down wall mounting EWC-P of approved shade, conforming to Pattern 2 of IS: 2556 (Part -II), with SWR Selfit Soil PVC pipe and plug bend as per specifications; glazed vitreous / Cloured European Water Closet with Cistern (IS-2326), with grouting the CI chair in side the floor/wall, rubber gaskets, connecting PVC 110mm dia soil pipe with PVC coupling, nuts, mounting cistern on WC., and solid verity heavy duty plastic seat cover as per IS-2548, of approved make; cutting and making jari work etc. complete.	Nos.	10800
	EWC-P : CERA CLAIR WHITE WALL HUNG EXTENDED 'P' NO.2035		
	CISTERN : CERA CLAIR WHITE TWIN FLUSH TYPE(5ltr. & 10ltr. flush) NO.2115		
	SEAT COVER : CERA CLAIR WHITE SOFT CLOSE TYPE NO.2325		
1.2	Providing & fixing wall Orissapan white W.C PVC pan connector, having all internal fittings complete with rubber buffers, C.P. nuts, bolts, etc making holes in walls floors, & making good. The scope also include providing & fixing of 15 mm C.P. brass bib cocks of best quality.	Nos.	4200
	ORISSAPAN :- CERA (OR) 530 X 400MM WHITE NO. 2071		
	BIB COCK : JAQUAR/ KHOLAR - CONTINENTAL - 037 - CP		
1.3	Providing & fixing Floor Mounting type white Anglo Indian type Water closet - 'P' or 'S' trap with half and full flush type low level Cistern of IS: 2556 (Part - II), with trap, approved make., PVC pan connector, seat & lid (heavy duty) C.P. brass hinges, including all internal fittings complete with rubber buffers, C.P. nuts, bolts, etc making holes in walls floors, & making good.	Nos.	5160
	Anglo Indian Water Closet - 'P'- 'S' : Cera/Parryware/Kholar/Hindware Makes White Floor Mounting Water Closet.		
	Half and Full Flush type Cistern:- Low Level (Ceramic Tank)		
	Cera/Parryware/Kholar/Hindware Makes White		
	Seat Cover : Heavy Duty Cera/Parryware/Kholar/Hindware Makes		

Sr. No.	Item Description	Unit	Rate in Rs.
1.4	Providing and fixing White glazed vitreous Wash Basin Oval Under-Counter, size 550x460 mm dia., with supporting M.S. or C.I. Brackets, 1 no, 32 mm CP Bottle trap with extension piece to wall flange with rubber adopter for waste connection and waste coupling.; with rack bolt fittings.	Nos.	4200
	OVAL UNDER COUNTER BASIN: Equivalent to CERA CLAIR WHITE NO.1005 of Cera/Parryware/Kholar/Hindware Makes		
	WASTE COUPLING : (HALF THREAD)JAQUAR/ KHOLAR MAKES		
	BOTTLE TRAP : (With Internal Partition)JAQUAR/ KHOLAR MAKES		
1.5	Providing and fixing White glazed vitreous Wash Basin Round Table Top , size 450 mm dia., with supporting M.S. or C.I. Brackets, 1 no, 32 mm CP Bottle trap with extension piece to wall flange with rubber adopter for waste connection and waste coupling. comp. etc.	Nos.	4200
	ROUND TABLE TOP OVER COUNTER BASIN: CERA CLAIR WHITE NO.1005 Cera/Parryware/Kholar/Hindware Makes		
	WASTE COUPLING : (HALF THREAD)JAQUAR/ KHOLAR MAKES		
	BOTTLE TRAP : (With Internal Partition)JAQUAR/ KHOLAR MAKES		
1.6	Providing and fixing White glazed vitreous Wash Basin Rectangular wall mounting type , size 550 x 450 mm., with supporting M.S. or C.I. Brackets, 1 no, 32 mm CP Bottle trap with extension piece to wall flange with rubber adopter for waste connection and waste coupling. comp. etc.	Nos.	3660
	RECTANGULAR WALL MOUNTING BASIN: CERA CLAIR WHITE NO.1005 Cera/Parryware/Kholar/Hindware Makes		
	WASTE COUPLING : (HALF THREAD)JAQUAR/ KHOLAR MAKES		
	BOTTLE TRAP : (With Internal Partition)JAQUAR/ KHOLAR MAKES		
1.7	Supply and fixing Sensotronic Type hot and cold water basin mixer with installation box with control valve Battery / Electric operated automatic flushes of approved make. System provided with a solenoid valve and valve connected to a 6 volts lithium battery. Unit automatically serves (the range in about 40 cms) and flushes in two steps. The pre flush is for 2 seconds duration and the final flushing is for 7 seconds duration etc, complete., with required braided pipes from sensor tap to angular stop cock.	Nos.	18600
	SENSOR FAUCET FOR WASH BESINCOMPLETE WITH CONTROL BOX (BATTERY OPERATED) JAQUAR/ KHOLAR MAKES		
1.8	Providing and fixing central hole basin prassmatic pillar cock, with required braided pipes from basin pillar tap to angular stop cock etc complete.	Nos.	1140
	PRASSMATIC PILLAR TAP:JAQUAR/ KHOLAR MAKES-CONTINENTAL-NO.		
1.9	Providing & fixing of Flush cock with wall Flange 25mm with lever knob complete in all respects including cutting and making good the walls etc.	Nos.	2340
	FLUSH COCK JAQUAR/ KHOLAR MAKES-CONTINENTAL-NO. 1081A		
1.1	Providing and fixing high level pneumatic flush tank 15 ltr. with approved shade, conforming to Pattern 2 of IS: 2326 (Part -II), with PVC Flush pipe , Vent pipe , and operating flush knob , with all internal fittings as per specifications; pipe with PVC coupling, nuts, mounting cistern above WC., cutting and making jari work etc. complete. (For All Type of EWC)	Nos.	3540
	PNEUMATIC FLUSH TANK : COMMANDER MAKE/		
1.11	Providing and fixing grab bar fabricated from 32mm dia seamless stainless steel tube 2mm thick in bath room with non slip gripping surface, polished wall flange at end of bars with heavy duty anchor fasteners & accessories.	Nos.	1860
	GRAB BAR : JAQUAR - HOTELIER ACC - 1501 - CP		
1.12	Providing & fixing in position best Indian make toilet recessed type paper holder complete in all respects including cutting and making good the walls etc.	Nos.	1500
	TOILET PAPER : JAQUAR/ KHOLAR MAKES - ACC - 1553 - CP		
1.13	Providing & fixing in position 15 mm C.P. brass bib cocks of best quality (as approved by the Engineer-in-Charge).	Nos.	750
	2-way BIB COCK : JAQUAR/ KHOLAR MAKES - Continental -041 - CP		
1.14	Providing & fixing 15mm C.P. brass angle valve with C.P. copper connecting pipe 450 mm long and nuts, washer and brass flange complete, including cutting and making good the wall where required. (For Geyser, Wash basin, Flush Tank, R.O. plant Inlets)	Nos.	1500
	ANGLE VALVE : JAQUAR/ KHOLAR MAKES -Continental - 053		
	COPPER PIPE : JAQUAR - ALLIED - 805		
1.15	Providing & fixing C.P. brass towel ring fixed to rawl plug with C.P. brass screws.	Nos.	1260
	TOWEL RING : JAQUAR/ KHOLAR MAKES - CONTINENTAL - ACC - 1121 - CP		

Sr. No.	Item Description	Unit	Rate in Rs.
1.16	Providing & fixing towel rail of approved make including, providing & fixing C.P. brass screws, making holes in walls & making good. Size 600 mm x 20 mm dia (JAQUAR/ KHOLAR MAKES CONTI - 1111 - CP)	Nos.	1500
1.17	Providing & fixing of Tumbler Holder, with all accessories to complete the item. TUMBLER HOLDER : JAQUAR/ KHOLAR MAKES - CONTINENTAL - ACC - 1141 - CP	Nos.	1140
1.18	Fixing stainless steel recessed type soap dish of approved make. Including providing & fixing screws, washers, cutting & making good the walls. SOAP DISH : JAQUAR/ KHOLAR MAKES - CONTINENTAL - ACC - 1131 - CP	Nos.	840
1.19	Providing & fixing C.P. brass liquid soap container of best quality.JAQUAR/ KHOLAR MAKES	Nos.	1140
1.2	Providing & fixing stainless steel sink, R.S. or C.I. Painted brackets painted, 40mm dia. C.P. waste, C.P. brass chain and rubber plug, strainer with necessary C.P. brass unions complete including painting the fittings and cutting and making good the walls wherever required, with CP sink cock with raised "J" shaped swinging spout NIRALI - GRACE - PLAIN - 510 X 432 MM (ONLY BOWL) JAQUAR/ KHOLAR MAKES - Continental - SINK COCK WITH RAISED "J" SHAPED SWINGING SPOUT (NO. 347).	Nos.	9360
1.21	Providing & fixing in position best Indian make C.P. brass twin way QUOTE and hat hooks fixed into wall with C.P.brass screws and rawlplugs etc. complete including cutting and making good the walls etc.(Jaquar Cat - CAN - 1161). DOUBLE QUOTE HOOKS: JAQUAR/ KHOLAR MAKES- CONTINENTAL-ACC- 1161-CP.	Nos.	930
1.22	Providing & fixing white vitreous china flat back urinal of size 590x375x390mm as per IS-2556 (Part-2) with C.I. hangers and 15mm dia. C.P. spreader,32mm dia CP bottle trap and pipe to wall with C.P. flange complete including cutting and making good the walls and floors wherever required. FLAT BACK LARGE URINAL : (CERA/ PARRYWARE/HINDWARE/KHOLAR MAKES) WASTE COUPLING (FULL THREAD)JAQUAR/ KHOLAR MAKES PRESSMATIC AUTO ON/OFF ANGULAR STOP COCK:- JAQUAR/KHOLAR MAKES	Nos.	3120
1.23	Providing & fixing of concealed stop cock with wall flange and complete., for the following sizes. (For Toilet Master Control Valve)		
1.23.1	15mm dia. JAQUAR/ KHOLAR MAKES CONTINENTAL CP: NO.069	Nos.	840
1.23.2	20mm dia. JAQUAR/ KHOLAR MAKES CONTINENTAL CP: NO.087	Nos.	1320
1.23.3	25mm dia. JAQUAR/ KHOLAR MAKES CONTINENTAL CP: NO.1081	Nos.	1680
1.24	Providing & fixing in position 15 mm C.P. brass bib cocks of best quality (as approved by the Engineer-in-Charge). BIB COCK : JAQUAR/ KHOLAR MAKES - Continental -037 - CP	Nos.	1170
1.25	Providing & fixing of Hand Shower (Health Faucet), with 8mm Dia,1Rmt Long pvc Tube and Wall Hook accessories to complete the item. HAND SHOWER : JAQUAR/ KHOLAR MAKES - ALLIED- 563 - CP	Nos	2100
1.26	Providing & fixing in position 15 mm C.P. brass Prassmatics Angular stop cock of best quality (as approved by the Engineer-in-Charge). PRASS MATIC ANGULAR STOP COCK : JAQUAR/ KHOLAR MAKES - Continental -077 - CP SUB TOTAL of 1.0.....	Nos.	690
2.0	INTERNAL DRAINAGE : (SOIL, WASTE, VENT AND RAIN WATER PIPES & FITTINGS)		
2.1	Providing fixing, testing and commissioning in position 3 RmtSWR PVC PIPE TYPE-B(6Kg/cm2.) self fit pipe conforming to IS:13592 including all fittings such as bends, junctions, inspection doors, offests, cowl, access pieces/plugs etc. jointing with PVC Adhesive joints including cutting holes in walls and making good the same. (Inside TOILET + VERTICAL drops) (Supreme/ Finolex/ Astral Makes) SOIL WATER:-		
2.1.1	110 mm dia.	Rmt	384
2.1.2	75 mm dia. (Vent Pipe)	Rmt	300
2.2	Providing fixing, testing and commissioning in position 3 Rmt SWR PVC PIPE TYPE-B(6Kg/cm2.) self fit pipe conforming to IS:13592 including all fittings such as bends, junctions, inspection doors, offests, cowl, access pieces/plugs etc. jointing with PVC Adhesive joints including cutting holes in walls and making good the same. (INSIDE TOILET+ VERTICAL DROPS) (Supreme/ Finolex/Astral Makes) WASTE WATER:-		

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2.2.1	110 mm dia.	Rmt	384
2.2.2		Rmt	300
2.2.3	50 mm dia	Rmt	144
2.2.4	40 mm dia	Rmt	126
2.3	Providing & fixing PVC Floor Trap OR multi floor trap of 75mm dia diameter, with necessary distance piece of 75mm dia pipe and 150x150mm grating, making necessary SLAB /WALLholes and cutting walls, etc complete. (Supreme/ Finolex/ Prince/ Astral Makes)		
2.3.1	110mm x 75mm	Nos.	786
2.3.2	110mm x 50mm	Nos.	780
2.3.3	110mm x 110mm	Nos.	1020
2.4	Providing and fixing PVC Pipe ISI marked brand as per IS:4985 (6 kg.) complete with PVC Fittings & clamps & hinges including cutting and making good the walls & ceiling for waste pipes, connections & as directed by the Engineer-in-Charge.(Supreme/ Finolex/ Prince/ Astral Makes)		
2.4.1	50 mm nominal bore (For Kitchen Water : Wash out)	Rmt	144
2.4.2	40mm nominal bore (For Basin Water : Wash out)	Rmt	132
2.5	Providing and fixing M.S. holder-bat clamps of approved design to PVC pipe embedded in and including cement concrete blocks 10x10x10cm of 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) include		
2.5.1	For 110 mm dia. pipe	Nos.	78
2.5.2	For 75 mm dia. pipe	Nos.	72
2.5.3	For 50 mm dia. pipe	Nos.	60
2.5.4	For 40 mm dia. pipe	Nos.	60
2.6	Making Khurras 45x45cm with average minimum thickness of 5 cm. cement concrete 1:2:4(1 cement:2 coarse sand :4 graded stone aggregate of 20mm nominal size) over P.V.C. sheet 1mx1mx400micron, finished with 12mm cement plaster 1:3 (1 cement: 3 coarse sand) and a QUOTE of neat cement rounding the edge sand making and finishing the outlet complete.	Nos.	612
2.7	Providing and fixing to the inlet mouth of rain water pipe cast iron grating 15cm diameter not less than 440grams.	Nos.	242
2.8	Providing fixing, testing and commissioning in position 3 RmtSWR PVC PIPE TYPE-B(6Kg/cm2.) self fit pipe conforming to IS:13592 including all fittings such as bends, junctions, inspection doors, offsets, cowl, access pieces/plugs etc. jointing with PVC Adhesive joints including cutting holes in walls and making good the same. (Vertical Drops) (Supreme/ Finolex/ Astral Makes)		
	RAIN WATER:-		
2.8.1	160 mm dia.	Rmt	660
2.8.2	110 mm dia.	Rmt	360
2.8.3	75 mm dia.	Rmt	264
	SUB TOTAL of 2.0.....		
3.0	COLD / HOT /DRINKING WATER SUPPLY:		
	INTERNAL WATER SUPPLY WORK:-		
3.1	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes CDR-13.5 class, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings including fixing the pipe with clamps at 1.00m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of engineer in charge. (Internal Concealed pipe work) (Make : Ashirwad, Ajay, Astral)		
	DOMESTIC & FLUSHING WATER SUPPLY PIPES		
3.1.1	15 mm dia	Rmt	176
3.1.2	20 mm dia	Rmt	248
3.1.3	25 mm dia	Rmt	264
3.1.4	32 mm dia	Rmt	288
3.1.5	40 mm dia	Rmt	306
3.1.6	50 mm dia	Rmt	348
	EXTERNAL WATER SUPPLY WORK:-		
3.2	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) SDR-13.5 Class pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings including fixing the pipe with clamps at 1.00m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of engineer in charge. (External open pipeing work) (Make : Ashirwad, Ajay, Astral)		
3.2.1	15 mm dia	Rmt	168
3.2.2	20 mm dia	Rmt	182
3.2.3	25 mm dia	Rmt	210
3.2.4	32 mm dia	Rmt	261
3.2.5	40 mm dia	Rmt	326

Sr. No.	Item Description	Unit	Rate in Rs.
3.2.6	50 mm dia (Riser+Vertical Drops+Ring main)	Rmt	534
3.3	Supply, instalation, testing & commissioning of gunmetal, male or female threaded isolation control valve (Wheel Valve), confirming to IS 778, PN 1.0, with necessary specials, union, nipples etc., to complete the job. (For Vertical Shaft Drons Work) (Zoloto/ R.B./Audco)		
3.3.1	15mm dia	Nos.	510
3.3.2	20mm dia.	Nos.	780
3.3.3	25mm dia.	Nos.	1020
3.3.4	32mm dia.	Nos.	1380
3.3.5	40mm dia.	Nos.	11740
3.3.6	50mm dia.	Nos.	2100
3.4	Supply, instalation, testing & commissioning of gunmetal, male or female threaded isolation control valve (Ball Valve), confirming to latest IS , PN 1.0, with necessary specials, union, nipples etc., to complete the job. (For Terrace Ring) (Zoloto/ Audco/ R.B.)		
3.4.1	32mm dia.	Nos.	1380
3.4.2	40mm dia.	Nos.	1740
3.4.3	50mm dia.	Nos.	2100
3.5	Supplying, fitting & fixing Non return valve (Spring type Dual plate type) as per API 594/598 , tested to 10 kg/sq.cm etc. complete. (Zoloto/ Audco/ R.B./ Spirex)		
3.5.1	25mm dia.	Nos.	1080
3.5.2	32mm dia.	Nos.	1260
3.5.3	40mm dia.	Nos.	1620
3.5.4	50mm dia.	Nos.	1800
3.6	Supply, Installation, Testing and Commissioning of 25 mm dia. air release valve. (Zoloto/ Audco/ R.B./ Spirex)	Nos.	840
3.7	Providing and fixing float valve with pressure type (Copper) float of approved make.(Zoloto/ Audco/ R.B./ Spirex)	Nos.	0
3.7.1	25mm dia.	Nos.	1380
3.7.2	32mm dia.	Nos.	1740
3.7.3	40mm dia.	Nos.	2100
3.8	Providing and fixing mosquito proof stainless steel overflow grating for tanks.(Zoloto/ Audco/ R.B./ Spirex)		
3.8.1	100mm dia.	Nos.	660
3.9	Supplying, installing, testing & commissioning of 'HDPE' double layer water storage tank including holes for inlet, outlet, overflow, level indicator, drain & vent points, manhole cover, suitable steel supporting structure complete.(Sintex Makes)		
3.9.1	1000 ltr.	Nos.	7800
3.9.2	2500 ltr.	Nos.	15000
3.9.3	5000 ltr.	Nos.	34200
3.1	Supply, installation, testing and commissioning of Domestic Water meters horizontal inerential, single or multi jet, dry dial, suitable for 50 deg. C, duly sealed against tampering, complete with coupling conforming to Class B, IS 779-1994 (latest edition) or ISO 4064, readings in metric system.		
3.10.1	25 mm dia.	Nos.	1980
3.10.2	32 mm dia.	Nos.	3300
3.10.3	40 mm dia.	Nos.	4620
3.10.4	50 mm dia.	Nos.	6600
3.11	Supply, installation, testing & commissioning of short body double flanged cast iron, non rising spindle type Sluice Valve complete with C.I. body, Bronze LTB2 Seat rings, SS shaft and conforming to IS 780 / 14846 and suitable for PN 10 including companion flanges & CS Hardware etc. (Audco/ Zoloto/ R.B./)		
3.11.1	25 mm dia.	Nos.	1200
3.11.2	32 mm dia.	Nos.	1380
3.11.3	40 mm dia.	Nos.	1740
3.11.4	50 mm dia.	Nos.	2100
	SUB TOTAL of 3.0....		
4	EXTERNAL DRAINAGE AND STORM WATER SUPPLY		
4.1	Construction of road Storm water chamber of the following sizes in brick work with bricks of class 75 in cement mortar 1 : 5 (1 cement : 5 find sand) necessary foundation concrete (M-15). Inside & outside plastering 12 mm thick with cement mortar 1 : 3 with a floating a coat of neat cement. Including the RCC top slab (M-25) for fixing the FRC Seat and Cover including necessary excavation, dewatering, refilling, watering, ramming, removing, the surplus excavated material and making good the same complete as required. Cost shall be inclusive of providing, FRC grating with frame.		
4.1.1	Internal size 1200 x 900 X 1200 ; FRC Grating with frame 600 x 600 mm (20 MT Capacity) With Frame and cover	Nos.	10200

Sr. No.	Item Description	Unit	Rate in Rs.
4.1.2	Extra for every 10cm height or part thereof of chamber with above specification and size	Nos.	780
4.1.3	Internal size 900 x 800X1000 ; FRC Grating with frame 600 x 600 mm (20 MT Capacity) With Frame and cover	Nos.	8100
4.1.4	Extra for every 10cm height or part thereof of chamber with above specification and size	Nos.	630
4.1.5	Internal size 600 x 600 X900 FRC Grating with frame 600 x 600 mm (20 MT Capacity) With Frame and cover	Nos.	6900
4.1.6	Extra for every 10cm height or part thereof of chamber with above specification and size	Nos.	480
4.2	Designing and constructing brick masonry inspection chamber of the following sizes in brick work of class 75 in cement mortar 1:5 (1 cement:5 fine sand), R.C.C. top slab with M-25 mix embeded with frame for manhole, RCC foundation slab. M-25 mix both inside and outside of plastering 12 mm thick with cement motar 1:3 (1 cement : 3 coarse sand) with a floating coat of neat cement on inside face, proper water proofing to ensure no ground water seepage in the manhole, Poly propylene (conforming to ASTM D - 4101) foot rests (meeting the 224 kg load requirement as per IS 5455) at 300 mm spacing, benching and making channels with 1:2:4 cement concrete neatly finished, including necessary centering and shuttering, reinforcement, excavation, in all kind of soil, dewatering, refilling, watering, ramming and removing the surplus excavated earth, making good the same complete as required.		
a)	1200 x 900 X 1200 mm size	Nos.	9600
b)	Extra for every 10cm height or part thereof of chamber with above specification and size	Nos.	780
c)	1500 x 900 X 1200 mm size	Nos.	12000
d)	Extra for every 10cm height or part thereof of chamber with above specification and size	Nos.	1200
e)	FRC Heavy duty Cover 35 MT Capacity 580 mm diameter clear opening with seat	Nos.	2160
4.3	Providing and fixing stoneware gully trap of the following sizes in brick masonry chamber of standard design with first class bricks and trap to be set in cement concrete 1:2:4, both side 12mm thick plastering with floating coat of neat cement. Making necessary connections & providing water tight D.I. cover with frame of 300mm x 300mm internal size. The weight of cover & frame not be less than 8 kg as per standard design. Including necessary excavation, dewatering, refilling, watering, ramming and removing the surplus excavated material and making good the same complete as required.		
a)	300 x 300X600mm chamber with 150 x 100mm size 'P' trap	Nos.	1500
b)	450 x 450X600mm chamber with 150 x 150mm size 'P' trap	Nos.	3600
4.4	Providing and supplying tested pipes including freight, taxes, insurance and laying and jointing them along with specials such as tees, bends, reducers and jointing material and joints including lighting, guarding, barricading and other safety provisions, cutting the pipes, inspection/testing after laying etc. complete for following material of construction and sizes of ISI Marked RCC NP3 socket and spigot pipes conforming to IS 458:2003(excluding cost of excavation, refilling, etc.)		
	one rubber ring should be supplied with each full length socketed pipe, cost including in rates below		
	Class NP3		
4.4.1	300 mm dia	RMT	870
4.4.2	450 mm dia	RMT	1200
4.4.3	600 mm dia	RMT	1680
4.4.4	900 mm dia	RMT	3120
4.5	Providing, laying, jointing and testing in position the following glazed stone ware pipes grade 'A' with stiff mixture of cement mortar in the proportion of 1:1 (1 cement : 1 fine sand) laid below ground level in trenches upto required depth including excavation in all kind of soil (hard / soft), dewatering, refilling, watering, ramming & removing the surplus excavated material and making good the same complete as required. Cost shall be inclusive of providing protection to pipe all round / haunches as per specification		
4.5.1	150 mm dia	RM	264
4.5.2	230 mm dia	RM	330
4.5.3	300 mm dia	RM	372

Sr. No.	Item Description	Unit	Rate in Rs.
4.6	Making connection to Municipal sewer / storm water drain including necessary excavation and breaking the wall of municipal manhole of RCC/ Brick masonry and making good the same with Brick masonry/RCC and making drains etc. complete. Removing the excavated surplus material. This also includes the contractor for liasoning work such as filling necessary applications, submission of forms for approval to the municipal authorities, depositing and making channels for the necessary fees and other amounts as required for getting the premises / installations inspected and approved and all other formalities required till the sewer / storm water connection is obtained. All the expenses incurred in this regard shall be borne by the Contractor, except for the payments to be made for any security deposits which will be reimbursed on production of original voucher.		
4.6.1	For Sewer / Storm water Connection (Up to 900 mm diameter) in RCC Chamber	Job	8400
4.6.2	For Sewer / Storm water Connection (Up to 900 mm diameter) in Brick masonry Chamber	Job	4800
4.7	Constructing brick masonry chamber (for housing lawn hydrant) of brick work with bricks of class 75 in cement mortar 1:5 (1 cement:5 fine sand) plastering internal face with cement 1:3 (1 cement mortar: 3 fine sand) and a rough plaster on outer face with a floating coat of neat cement. R.C.C. top slab with manhole cover & frame. Including excavation, dewatering, refilling, watering, ramming & removing the surplus excavated material complete as required. (All sizes are clear internal sizes).		
4.7.1	Size 300 x 300 x 450 mm deep (with 300 x 300 LD : DI cover (Wt : 8 kg))	No.	6120
4.7.2	Size 450 x 450 x 600 mm deep (with 450 x 450 MD; DI cover (Wt : 20 kg))	No.	6900
4.7.3	Extra for every 10cm height of chamber in Brick Masonary with above specification	Nos.	150
	SUB TOTAL of 4.0....		
5	LANDSCAPE WATER SUPPLY:		
5.1	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes CDR-13.5 class, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings including fixing the pipe with clamps at 1.00m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of engineer in charge. (Internal Concealed pipe work) (Make : Ashirwad, Ajay, Astral)		
5.1.1	15 mm dia	Rmt	176
5.1.2	20 mm dia	Rmt	248
5.1.3	25 mm dia	Rmt	264
5.1.4	32 mm dia	Rmt	288
5.1.5	40 mm dia	Rmt	306
5.1.6	50 mm dia	Rmt	348
5.2	EXTERNAL WATER SUPPLY WORK:-		
5.2.1	Providing and fixing CPVC (Chlorinated Poly Vinyl Chloride) water supply pipes with pipe as per CTS SDR 11 (operating pressure - 7 Bar @ 82 Deg C and 28 Bar @ 23 Deg C)for pipes from 1/2 Inch to 2 Inch. Schedule 40 Pipe to be used from 2-1/2 Inch to 6 Inch. Pipes shall be joined using solvent welded CPVC fittings i.e. Tees, Elbows, Couplers, Unions, Reducers, brushings etc. including transition fittings (connection between CPVC & metal pipe/GI) i.e. Brass Adaptors (both Male & Female threaded) conforming to ASTM D-2846. ASTM F441 with only CPVC solvent cement conforming to ASTM F-493. (Make : Ashirwad, Ajay, Astral)		
	Cost shall be inclusive of (a)Making maximum of 7.5 x 7.5 cm chasing in wall and floors for the pipe, making good the same by using 1:1 cement mortar over the wire mesh and providing protection to embedded pipes and fittings (in wall chase) by wrapping two layers of 400 micron polythene sheet including proper overlaps on joints complete as required or (b) Fixing/supporting the pipes (& fittings) at wall/ceiling level supported by galvanized clamps, hangers etc, as per specification. Exposed pipes to be painted of legends with direction arrow. GI pipe sleeves suitable higher size shall be provided wherever the pipes are crossing the fire rated walls / floors slab and sealing the sleeves with glass wool in between and fire sealant compound at either end all as per Project Manager's / Consultant requirement. All termination points for installation of faucets shall have brass termination fittings. Installation shall be to as per Technical Manual of manufacturer of pipes & fittings.		
5.2.1.1	1/2" dia (15 mm)	RM	176
5.2.1.2	3/4" dia (20 mm)	RM	248

Sr. No.	Item Description	Unit	Rate in Rs.
5.2.1.3	1" dia (25 mm)	RM	264
5.2.1.4	1.1/4" dia (32 mm)	RM	288
5.2.1.5	1.1/2" dia (40 mm)	RM	306
5.2.1.6	2" dia (50 mm)	RM	348
5.2.1.7	2.1/2" dia (65 mm)	RM	450
5.2.1.8	3" dia (80 mm)	RM	600
5.2.1.9	4" dia (100 mm)	RM	690
5.2.1.10	6" dia (150 mm)	RM	1080
5.3.1	Providing and fixing CPVC (Chlorinated Poly Vinyl Chloride) valve for following size as per CTS SDR 11 (operating pressure - 7 Bar @ 82 Deg C and 28 Bar @ 23 Deg C) Valves shall be joined using solvent welded CPVC fittings i.e. Tees, Elbows, Couplers, Unions, Reducers, brushings etc. including transition fittings (connection between CPVC & metal pipe/GI) i.e. Brass Adaptors (both Male & Female threaded) conforming to ASTM D-2846. ASTM F441 with only CPVC solvent cement conforming to ASTM F-493. (Make : Ashimad, Aloy, Astrol)		
5.3.1.1	1/2" dia (15 mm)	Nos	270
5.3.1.2	3/4" dia (20 mm)	Nos	390
5.3.1.3	1" dia (25 mm)	Nos	510
5.3.1.4	1.1/4" dia (32 mm)	Nos	588
5.3.1.5	1.1/2" dia (40 mm)	Nos	648
5.3.1.6	2" dia (50 mm)	Nos	780
5.3.1.7	2.1/2" dia (65 mm)	Nos	930
5.3.1.8	3" dia (80 mm)	Nos	1080
5.3.1.9	4" dia (100 mm)	Nos	1230
5.3.1.10	6" dia (150 mm)	Nos	1380
	SUB TOTAL of 5.0....		
6	BORE WELL :-		
6.1	"Boring of 200 mm diameter bore & sinking up to 200 mtr depth, Charges for electro logging for tube well, Charges for mud cutting & disposal by Tanker day to day from the site without staking at site, Charges for Cement sealing work if required, Providing, Laying, Testing & Commissioning of 150 mm dia NB MS ERW pipes having minimum 5mm thickness with square face & chaplas confirming to IS-4270 Size: 150mm dia, 150mm Johnson filtration make continuous slotted strainer pipe having minimum tensile strength 18mt collapsible strength: 3 kg/sq. cm in slot opening of 1mm slot opening, 150mm Johnson filtration make continuous slotted strainer pipe having minimum tensile strength 18mt collapsible strength : 3 kg/ sq. cm. in slot opening of 1.5mm slot opening, Cost of bail plug 150 mm dia x 5 mm minimum wall thickness x 5 mt. length with welded cone at the bottom with 55 mm length x 1.5 mm width 2900 Nos. Slot in 3 mt. length of bail plug at the bottom, 150 mm dia. Well cap as per requirement, Supplying, washing and shrouding with approved gravel, the annular gap between the casing pipe and the remaining annular space to be filled in with puddle clay (for which no measurement will be taken and paid for),	No	864000
	Washing and developing the tube well with the air compressor and furnishing yield test by continuous pumping with air compressor for minimum 4 hours till the availability of sand free clear water or as specified, Including cost of fuel and necessary equipment, Supplying, installing and connecting on site suitable approved make flat type cable for above submersible pump with P.V.C. clamps at every 1.5 m. distance etc. complete as per approved sample and as directed Providing of 50mm dia UPVC heavy quality column pipe, as per IS 12818-2000 with all fittings, coupler & wire lock Supply of following size of TOP & BOTTOM accessories i.e. adaptor set (CI) long, pump guard set, starter pipe rubber ring for submersible pump & UPVC column pipe as directed by Engineer - in - charge with necessary plumbing as required, Providing & fixing of sluice valve as per tender specification"		
6.2	Providing, & fixing Bore well submersible pump-motor set for bore of 100mm dia having suitable for 10HP , 3 Phase, 415 V, 50 Hz. motor having following discharge capacity. The pump shall be operated at 2900 RPM. The scope shall also include all required accessories viz. strainer, foot valve, level guard, delivery pressure guage, Standard double length flat submersible cable, float with control cable etc. as per specifications and data sheet Capacity: 120 to 125 LPM Head : 155 to 120m	No.	36000

Sr. No.	Item Description	Unit	Rate in Rs.
6.3	RISER PUMP :- Supply, installation, testing & commissioning of submersible pumps directly coupled with the motor with SS casing, SS impeller, SS shaft and driven by 415 V AC, 3 phase, 50 Hz. motor running at 2900 RPM speed and shall be supplied with all accessories viz. strainer / foot valve, base plate, coupling, etc. complete. The scope shall also include suction & delivery piping & valves, Auto level sensor base operation sytem including cableing, starter panel etc comp.(Groundfos make)Capacity : 10cu. Rmt/ hr. (1 woking +1 stand by system. Head : 40 MTRS	Nos	48000
	SUB TOTAL of 6.0....		
7	HYDROPNEUMATIC SYSTEM		
	Supply, Installation, Testing And Commissioning Of Compact Self Contained Skid Mounted Hydropneumatic System As Follows: (Groundfos / ITT Lowara / Kirloskar)	SET	390000
	a. In-Line, Multisage, centrifugal pumps with SS-304 casing and impeller and SS-316 shaft, CI base & head TEFC motor (with mechanical seal)		
	(Vendor to submit performance curves and technical catalog of the proposed model for review & information)		
	The pump shall be selected for performance at best efficiency point. However, the pump selection shall be suitable for performance with set point @ + 20% of the rated head.		
	Nos. of Pumps : 1 working + 1 Stand By		
	Water Flow Rate : 8.88 LPS		
	Head : 40 M		
	b. External Pump mounted or wall mounted microprocessor PID controller and frequency inverter integrated in a single body or as separate components with pressure sensor transmitter minimum two lined LCD display, diodes to indicate pump ready, pump running and fault and capable to communicate with other controllers following MODBUS-RTU or BACNET Class-2 protocol through RS485 port. System should be capable to compensate for frictional losses at lower flows. All alarms should be displayed in the controller. System should be equipped with dry running protection		
	c. Complete (Skid mounted wall mounted / floor mounted) electrical control panel comprising of all accessories such as PLCs, pressure switches, pressure transducers, control wiring and any other necessary imports etc. (list to be provided by the vendor)		
	d. Precharged diaphragm pressure vessel with food grade membrane, charging connection, connected to outlet header with necessary flanges, gaskets, isolating valves, nuts/bolts etc complete.		
	e. Set of accessories such as pressure switches, pressure transducers, inter connecting power and control cabling etc. complete		
	f. Accessories like NRVs, isolating valves, SS-304 (non-Magnetic) suction and delivery header, pressure gauge, MS base frame (Synthetic enamel painted over a coat of primer)		
	g. Complete with Power panel & VFD Complete in all respect.		
	Hydropneumatic System as described above		