

SABARMATI RIVER FRONT DEVELOPMENT



**Sabarmati River Front Development
Corporation Limited**

**2nd Floor, "Riverfront House" B/h. H.K. Arts
College, Between Gandhi & Nehru Bridge,
Pujya Pramukh Swami Marg, River Front Rd,
West, Ahmedabad, Gujarat 380009**

BID DOCUMENT

**CONSTRUCTION OF TROPICAL GARDEN
IN USMANPURA PARK
INCLUDING CIVIL, GLASS DOME, PLUMBING,
ELECTRICAL, , ELV, HVAC, FIRE FIGHTING,
HORTICULTURE WORK
ON WEST BANK OF RIVER SABARMATI**

VOLUME- 03

Bill of Quantities

BILL OF QUANTITIES

MEASUREMENT PREAMBLE

1. All quantities in the Bill of Quantities are estimated quantities. For all payment purposes measurements, as prescribed in the contract document shall be taken and quantities shall be computed from such measurements.
2. The inclusions and exclusions from quoted rates are specified in the details of each item of work in the specifications and the Bill of Quantities. In case there is no specific mention of a particular detail, the mode of measurements as prescribed in MORTH specifications or other standard specification for such an item shall be followed.
3. In the event of contradiction between the MORTH specifications or other standard specification referred to above and this Contract document, the provisions of this Contract document shall prevail.

SABARMATI RIVER FRONT DEVELOPMENT CORPORATION LIMITED (SRFDCL)		
Volume-03		
NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI		
	SECTION 6.1 - CIVIL AND PLUMBING WORKS	21,60,09,758.00
	SECTION 6.2 - MEPF WORKS	19,96,49,649.00
	SECTION 6.3 - HORTICULTURE WORKS	1,65,27,794.00
	SECTION 6.4 - O&M WORKS	2,77,03,906.00
	I / We am / are willing to carry out work at _____ % above / below* percent (should be written in figures and words) of the estimated cost, as mentioned above. Amount of my / our tender works out for Rs. _____ (in figures) Rupees ----- (in words)	45,98,91,107.00
	Note : * Please strike out above or below, whichever is not applicable.	
	1. No extra payment shall be paid for material testing or any other tests as required.	
	2. The unidentified utilities shall be shifted or reconstructed as per prevailing S.O.R rates of Ahmedabad Municipal Corporation/ R & B SOR.	

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ABSTRACT SHEET_TROPICAL GARDEN					
Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
	SECTION I - CIVIL, PLUMBING AND FIRE FIGHTING WORKS				
	CIVIL WORKS_1				
1	SECTION 1 - EARTH WORK				
1.01	Excavation for foundation up to 1.5 m DEPTH including sorting out and stacking of useful material sand disposing off the excavated stuff upto 50 Meter lead.(A) Loose or soft soil	4,613.00	CUM	117.00	5,39,721.00
1.02	Excavation for foundation up to 1.5 m TO 3.0M DEPTH including sorting out and stacking of useful material sand disposing off the excavated stuff upto 50 Meter lead.(A) Loose or soft soil	2,013.00	CUM	130.00	2,61,690.00
1.03	Excavation for foundation up to 3.0M TO 5.0M DEPTH including sorting out and stacking of useful material sand disposing off the excavated stuff upto 50 Meter lead.(A) Loose or soft soil	1,827.00	CUM	143.00	2,61,261.00
1.04	Extra for additional depth more than 5.0 m for excavation for foundation including sorting out and stacking of useful materials and disposing of the excavated stuff upto 50 m lead.(A) Loose or soft soil	777.00	CUM	164.00	1,27,428.00
1.05	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm. In depth consolidating each disposed layer by ramming and watering.	5,455.00	CUM	130.00	7,09,150.00
	TOTAL AMOUNT_SECTION-1 EARTH WORK_A				18,99,250.00
2	SECTION 2 - PCC & RCC WORK				
2.01	Providing and laying cement concrete 1:2:4 (1-Cement:2-Coarse sand:4-graded stone aggregates 20mm nominal size) and curing complete excluding cost of formwork in (A) Foundation and Plinth	863.00	CUM	3,698.00	31,91,374.00
2.02	Providing and laying in position Ready Mixed M- 250 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for a lead up to 10 kms having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in - charge. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 450 kg) (GRADE SLAB)	281.00	CUM	4,902.00	13,77,462.00

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ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
2.03	Providing and laying in position Ready Mixed M-300 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for a lead up to 10 kms having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in - charge. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 475 kg) (Foundation)	512.00	CUM	5,094.00	26,08,128.00
2.04	Providing and laying in position Ready Mixed M-300 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for a lead up to 10 kms having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in - charge. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 475 kg) (RCC BEAM)	271.00	CUM	5,094.00	13,80,474.00
2.05	Providing and laying in position Ready Mixed M-300 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for a lead up to 10 kms having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in - charge. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 475 kg) (RCC COLUMN)	166.00	CUM	5,094.00	8,45,604.00

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ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
2.06	Providing and laying in position Ready Mixed M-300 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for a lead up to 10 kms having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in - charge. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 475 kg) (RCC WALL)	725.00	CUM	5,094.00	36,93,150.00
2.07	Providing and laying in position Ready Mixed M-300 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for a lead up to 10 kms having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in - charge. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 475 kg) (RCC SLAB)	229.00	CUM	5,094.00	11,66,526.00
2.08	Providing and laying cushioning layer on R.C.C. Slab consisting of 75mm thick lime, concrete using brick aggregate of 20mm nominal size mortar comprising of 1-Lime : 2- fine sand	3,404.00	SQM	237.00	8,06,748.00

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ABSTRACT SHEET_TROPICAL GARDEN

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0	1	2	3	4	5
2.09	Providing and laying in position Ready Mixed M-300 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for a lead up to 10 kms having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in - charge. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 475 kg) (STAIRCASE)	19.00	CUM	5,094.00	96,786.00
2.10	Providing TMT Bar FE 550D reinforcement for R.C.C.work including bending, binding and placing in position complete upto floor two level (Foundation to First Floor)	3,15,961.00	Kg	95.00	3,00,16,295.00
2.11	Providing & Laying 15.00 cm thick M200 grade concrete trimix using P21 (water reducing concrete admixture at 100 ml per bag of cement & recon 3 s fiber at 125 gm per bag of cement including making C channel 75 x 75 mm required to maintain level,slope and thickness of the concrete road leveling of placed concrete with surface vibrator and finishing with power floater & trowel light brooming the surface & including cutting & filling of expansion joint as directed by Engineer in charge.	3,450.00	Sqm	784.00	27,04,800.00
TOTAL AMOUNT_SECTION-2_CONCRETE B					4,78,87,347.00
3	SECTION 3 - FORMWORK				
3.01	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. Height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (A) Foundations Footings Bases of Columns etc. and Mass concrete.	792.00	SQM	173.00	1,37,016.00
3.02	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (G) Columns Pillars Posts and struts. (1) Square Rectangular Polygonal in plan.	820.00	SQM	301.00	2,46,820.00

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0	1	2	3	4	5
3.03	Extra for Providing formwork with sheathing steel sheets so as to give a fair finish in (G) Columns, Pillars, Posts and struts. (1) Square, Rectangular or polygonal in plan.	619.00	SQM	95.00	58,805.00
3.04	Extra for additional height of propping and centering where the height of propping and centering exceeds 4 .O M between supporting floor to ceiling including temporary brick or stone pillars for supporting as required. (ii) Height more than 5.0M.and upto 6.0 M.	148.00	SQM	689.00	1,01,972.00
3.05	Extra for Providing formwork with sheathing steel sheets so as to give a fair finish in (G) Columns, Pillars, Posts and struts. (1) Square, Rectangular or polygonal in plan.	148.00	SQM	95.00	14,060.00
3.06	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (G) Columns PillarsPosts and struts. (2)Circular or curved in Plan.	52.00	SQM	426.00	22,152.00
3.07	Extra for Providing formwork with sheathing steel sheets so as to give a fair finish in (G) Columns, Pillars, Posts and struts. (2) Circular or curved in plan	52.00	SQM	95.00	4,940.00
3.08	Extra for additional height of propping and centering where the height of propping and centering exceeds 4 .O M between supporting floor to ceiling including temporary brick or stone pillars for supporting as required. (i)Height more than 4.0 M.and upto 5.0 M.	1.00	SQM	390.00	390.00
3.09	Extra for Providing formwork with sheathing steel sheets so as to give a fair finish in (G) Columns, Pillars, Posts and struts. (2) Circular or curved in plan	1.00	SQM	95.00	95.00
3.10	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (C) Vertical surface such as walls (any thickness) partitions and the like including attached buttresses & string course & the like.	3,158.00	SQM	232.00	7,32,656.00
3.11	Extra for Providing formwork with sheathing steel sheets so as to give a fair finish in (G) Columns, Pillars, Posts and struts. (1) Square, Rectangular or polygonal in plan.	3,158.00	SQM	95.00	3,00,010.00

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0	1	2	3	4	5
3.12	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. Height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (B) Flat surfaces such as soffits of suspended floors slabs Landings and the like. (1) Floors etc. upto 200 mm in thickness.	1,013.00	SQM	255.00	2,58,315.00
3.13	Extra for Providing formwork with sheathing steel sheets so as to give a fair finish in (B)Flat surfaces such as soffits of slabs Landings and the like. (1) Floors etc. upto 200mm in thickness.	1,013.00	SQM	95.00	96,235.00
3.14	Extra for additional height of propping and centering where the height of propping and centering exceeds 4 .O M between supporting floor to ceiling including temporary brick or stone pillars for supporting as required. (iii) Height more than 6.0 M. and upto 7.0 M	451.00	SQM	579.00	2,61,129.00
3.15	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (H) (1) Sides and soffits of Beams Beam Haunchings cantilevers Girders Bressumers and Lintels not exceeding 1 M. in Depth.	2,402.00	SQM	194.00	4,65,988.00
3.16	Extra for Providing formwork with sheathing steel sheets so as to give a fair finish in (H)(1) Sides and soffits of Beams, Beam Haunchingscantilevers Girders, Bressumers and Lintels not exceeding 1 M. in Depth.	2,402.00	SQM	95.00	2,28,190.00
3.17	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. Height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (B) Flat surfaces such as soffits of suspended floors slabs Landings and the like. (1) Floors etc. upto 200 mm in thickness.	142.00	SQM	255.00	36,210.00
3.18	Extra for Providing formwork with sheathing steel sheets so as to give a fair finish in (B)Flat surfaces such as soffits of slabs Landings and the like. (1) Floors etc. upto 200mm in thickness.	142.00	SQM	95.00	13,490.00
TOTAL AMOUNT_SECTION-3 FORMWORK C					29,78,473.00
4	SECTION 4 - STRUCTURAL STEEL				

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0	1	2	3	4	5
4.01	Fabricating, supply and erecting in position Standard Structural steel sections having yield strength of 310N/mm ² conforming to IS 2062 for all structural steel works using ISMB, ISA, ISMC, MS plate, flat, square bars, pipe, square pipe ,etc. including welding, cutting, wastage, etc. complete. The rate is inclusive of welding road, supply & fixing of correct size nut, bolts, washers, paint, with all contractor's materials, labour, tools & plants, in bolted / welded construction as directed by Engineer-in-Charge. Anticorrosive paint must be applied before applied any paint. The rate shall inclusive of providing and applying Epoxy Coating of approved shade, brand and manufacture on new structural steel work with one coat of 30 micron (DFT) of Epilux 4 Zinc Rich primer of Berger Paint India Ltd or equivalent as primer and Two coat each of 35 micron (DFT) of Epilux 84 High Gloss CR enamel of Berger Paint India Ltd or equivalent at all levels. (Total DFT is 30+35+35=100 microns). The waste cut pieces shall not be included in the paying quantity. The work shall be done as per drawing and specification. The work shall be carried out as per IS:800, IS:816 with its latest amendments.	3,24,044.00	KG	128.00	4,14,77,632.00
	TOTAL AMOUNT_SECTION-4_STRUCTURAL STEEL_D				4,14,77,632.00
5	SECTION 5 - FLOORING WORK				
5.01	Providing and laying 100 mm (L) X 100 mm (B) X 100 (H) Granite Cobble Stone flooring over base of 20 mm thick cement mortar 1:6 (1-Cement : 6-coarse sand) or L.M. 1:1.5 including pointing with cement mortar 1:2 (1-cement : 2-stone dust) etc. complete.	449.00	SQM	8,626.00	38,73,074.00
5.02	Providing and laying 600 mm (L) X 100 mm (B) X 200 (H) Granite kerb Stone over base of 20 mm thick cement mortar 1:6 (1-Cement : 6-coarse sand) or L.M. 1:1.5 including pointing with cement mortar 1:2 (1-cement : 2-stone dust) etc. complete.	67.00	Rmt	7,086.00	4,74,762.00
5.03	Providing and laying Telephone Black Leather finished rough chiseled dressed stone flooring over 20mm thick base of cement mortar 1:5 (1-Cement : 5-coarse sand) or L.M. 1:1.5 including pointing with cement mortar 1:2 (1-cement : 2-stone dust) etc. complete. (B) 40mm thick	1,965.00	Sqm	2,136.00	41,97,240.00
5.04	Labour Charges half round edge for Granite	146.00	Rmt	86.00	12,556.00

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0	1	2	3	4	5
5.05	Providing & laying 1200mm X 600 mm with 16 mm Thick Hard Vitrified full body external tiles in desired pattern, in floor, skirting & dado in desired colours, finishes of approved make, shade, pattern and sizes having scratch hardness 7 on Moh's scale with a density of 2.2 to 2.3 & bonding strength of 250 kg/sqcm, of first quality as per design, set in cement slurry (3.3 kg. cement/m2.) over a minimum 35 to 40 mm. thick cement mortar 1:3 bedding laid to proper slope & level with residue and skirting, incl. curing, cleaning with mild oxalic acid, protecting until handing over the project etc. and jointed with white cement based 5 mm wide Kerakoll Epoxy Grout mixed with pigment to match the shade and finished with flush pointing including cleaning the surface etc. complete for all floors/ all levels, etc. complete as per specifications & direction of EIC.	1,225.00	Sqm	1,923.00	23,55,675.00
5.06	Providing and laying 18 mm thick mirror polished Telephone Black Granite in Dado laid on 5-6 mm thick adhesive material Ardiflex S-1 ADHESIVE alongwith undertile primer and Admix AD-1 and jointed with white cement based 5 mm wide Kerakoll Epoxy Grout mixed with pigment to match the shade and finished with flush pointing including cleaning the surface etc. for all floor complete as directed by EIC/Architect	48.00	Sqm	1,194.00	57,312.00
5.07	Providing and fixing pre-cast Rubber Dye / steel Dye inter locking concrete block 60mm thick with grade of concrete M300 pneumatic compressed / vibrated mechanically and as per approved design Confirming to IS 15658 : 2006 including 35 mm Sand layer for levelling and filling the joint with sand in proper line and level as per guidelines of IRC : SP 63-2018 etc. Complete.	301.00	Sqm	700.00	2,10,700.00
5.08	Providing and fixing pre-cast concrete kerb stone of gray cement based concrete block 30cm length,30cm height and 15cm thick of M250 grade concret as per approved design and including excavation for fixing in proper line and level,filling the joint with C:M 1:3 (1 cement:3fine sand) etc complete.	1,250.00	Rmt	375.00	4,68,750.00
5.09	Providing and laying 16-18 mm thick polished granite stone machine cut in single piece (Max. available) in sill and jambs of door ,window,ventilation & lift wall cladding,staircase flooring landing, risers & treads, skirting laid over 10 mm thick cement mortar 1 : 3 (1 cement : 3 coarse sand) and jointed with grey cement slurry with matching pigment incl. rubbing and polishing,half rounding edge and incl. fixing of hilty fastener at every 1/3 span of sill as required size etc. complete colour and shed as approved by architect engineer in charge.	60.00	Sqm	3,277.00	1,96,620.00

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0	1	2	3	4	5
5.10	Providing and fixing glass mosaic wall tiles eith thickness to be specified by the manufacturer, of approved make, in all colours, shades of any size as approved by Engineer-in-Charge, in waterfall area, over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with Grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete.	233.00	Sqm	1,061.00	2,47,213.00
	TOTAL AMOUNT SECTION 5 - FLOORING WORK E				1,20,93,902.00
6	SECTION 6- CEILING WORK				
6.01	Pro. And fixing single layer water proof Marine Ply 12.5 mm thick sections using size 1220 mm x 1830 mm x 8.0 mm suspended by MS suspender channel of size 25 mm x 3 mm with intermediate channel og size 18 mm x 40 mm x 0.8 mm at 1220 mm center to center ceiling section of size 40 mm x 35 mm x 0.55 mm at 457 mm c/c and perimeter channel A of size 20 mm x 27 mm x 30 mm x 0.5 mm at edges & drops incl.paper tap sand sofit cleat, anchor fastener, scoch bolt connecting cleat,joining compound top coat on ceiling incl.making necy.opening for light fitting,diffuser etc. comp. as per detail drawing as directed	1,430.00	Sqm	607.00	8,68,010.00
6.02	Pro. And fixing single layer water proof gypsum board 12.5 mm thick sections using water proof board of size 1220 mm x 1830 mm x 8.0 mm suspended by GI suspender channel of size 25 mm x 3 mm with intermediate channel og size 18 mm x 40 mm x 0.8 mm at 1220 mm center to center ceiling section of size 40 mm x 35 mm x 0.55 mm at 457 mm c/c and perimeter channel A of size 20 mm x 27 mm x 30 mm x 0.5 mm at edges & drops incl.paper tap sand sofit cleat, anchor fastener, scoch bolt connecting cleat,joining compound top coat on ceiling incl.making necy.opening for light fitting,diffuser etc. comp. as per detail drawing as directed	614.00	Sqm	607.00	3,72,698.00
	FTOTAL AMOUNT SECTION 6- CEILING WORK F				12,40,708.00
7	SECTION 7 - MISCELLANEOUS WORK				

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Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
7.01	Providing , cutting, fabricating, installing and fixing in position in true line and level glass railing system sweep -03 or approved equivalent SS 304 grade pipe railing inclined, horizontal and verical pipes / tubes, base plates,bolts,nuts, washers,gaskets, sealants, anchorages etc, including doing approved SS welding at workshop, neatly finished wherever called for,drilling the holes,interlocking the horizontal and vertical pipe members etc. of this section but including providing and fixing 12mm thick glass panels of SAINT GOBIAN or approved equal tempered glass for the following consisting of SS patch fittings, bolts,nuts,washers protecting the same from any damage etc complete as details and as directed at all levels. (Straight)	558.00	Sqmt	9,595.00	53,54,010.00
7.02	Providing , cutting, fabricating, installing and fixing in position in true line and level glass railing system sweep -03 or approved equivalent SS 304 grade pipe railing inclined, horizontal and verical pipes / tubes, base plates,bolts,nuts, washers,gaskets, sealants, anchorages etc, including doing approved SS welding at workshop, neatly finished wherever called for,drilling the holes,interlocking the horizontal and vertical pipe members etc. of this section but including providing and fixing 12mm thick glass panels of SAINT GOBIAN or approved equal tempered glass for the following consisting of SS patch fittings, bolts,nuts,washers protecting the same from any damage etc complete as details and as directed at all levels Elevated Pathway (Curved)	125.00	RMT	15,150.00	18,93,750.00
7.03	Providing PENETRONE integral crystalline water proofing in slurry of hydrophilic in nature for waterproofing treatment to the RCC structures like retaining walls of the FERRO CEMENT, basement, water tanks, roof slabs, podiums, reservior, sewage & water treatment plant, tunnels / subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 parts integral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 parts integral crystalline slurry : 1 part water) for horizontal surfaces and applying the same from negative (internal) side with the help of synthetic fiber brush. The material shall meet the requirements as specified in ACI- 212-3R-2010 i.e by reducing permeability of concrete by more than 90% compared with control concrete as per DIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystalline slurry shall be capable of self-healing of cracks up to a width of 0.50mm. The work shall be carried out all complete as per specification and the direction of the engineer-in-charge. The product performance shall carry guaranteed for 10 years against any leakage.	670.00	Sqm	313.00	2,09,710.00

**NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME,
PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI**

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
7.04	Supply & erection of custom Rock mural wall cladding in waterfall area including lift area.	385.00	Sqm	10,708.00	41,22,580.00
7.05	Clearing and grubbing road land including uprooting rank vegetation grass bushes,shrubs,sapling and trees girth up to 300 mm removal of stumps of trees cut earlier and disposal of unserviceable materials(A) By manual means in area of light jungle	0.60	Ha	84,257.00	50,554.20
7.06	Providing and Fixing Retro Reflective Engineering Grade Board using C.R.C. (M.S.) Sheet 2 mm to 4 mm, angle iron 75 x 75 x 6mm. Descaling and degreasing the board as per requirement using epoxyprimer epoxy paint and carrying retro reflective process by screen painting as directed by MMC etc. complete including transporting and fixing in C.C. 1:4:8 with necessary excavation curing etc. complete as per I.R.C type design.(A) Engineer Grade	750.00	Sqm	9,380.00	70,35,000.00

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
7.07	bencnes Providing and Fixing Relwood furniture work for various decks like benches... All wood work framing such as sitting stands, foot rest, legs, etc.. shall fabricate from wooden battens with any shape and size treated with Anti-Termite and Painted with Spar Varnish respectively under related line item specification under approved make list and manufacturer specifications. Table and benches shall have with clear top, comprising of 50mm thick best quality Relwood, of size 2500mmx450mm (Clear Plank Size: 2500mmx450mm) & 2000mmx450mm (Clear Plank length not less than 2000mm) respectively fixed on Wooden frame work clear top area of any component. It allows: i) All wooden members shall be of seasoned teak wood treated with anti-termite chemical ii) wood plank top shall be treated with exterior grade Spar varnish of MRF/ASIAN or approved per manufacturer specification. Bottom of wood plank floor shall be treated with 2-coats of Black Japan paint with respective primer and application methodology as directed by EIC iii) All supporting post at any interval shall be interlocked and fixed rigidly with planks/metal cleats, screws, nuts & bolts-check nuts (60microne Hot deep Galv./ SS-304) and heavy duty virgin nylon buffers rigidly fixed to post etc.. complete in true line level and alignment to avoid rattle during usage and per details approved. All Wooden frame structures shall be treated with Spar varnish under relevant tender item and mfg. spacs. iv) Various types of molding, grooves, kholiya etc.. shall be dressed with machine and finished in lucrative manner with proper joinery & jointed by inserting z-clips & pins on joints as approved per shop drawing. v) All necessary fittings, fixtures, nut bolts, washer, plates, customize detail for fixing and fittings, exterior grade glues & adhesive, etc. comp. all SS304 shall be with matt / brush finish as desired by architect to complete the entire product with satisfactory level. vi) it shall be wrapped with fixed chapda at specified interval per approved shop drawing with SS-304 patti having min. size 25mmx1 mm with SS nails. vii) It shall be touched up for pin holes, hair cracks with wood saw and adhesive & smoothen. viii) Entire wood deck furniture shall be covered with bubble wrapper to protect the floor against scratches and hand over with neat & clean manner at level of satisfaction of EIC. No extra charge shall be paid in any case. At least one make up shall be prepared as	46.00	Sqmt	25,250.00	11,61,500.00
7.08	Dismantling tiled of stone floors laid in mortar including stacking of serviceable materials and disposal of unserviceable materials with all lead and lift.	1,573.00	Sqm	48.00	75,504.00
7.09	Providing and Fixing 12 mm thick moisture & fire resistant heavy duty Cement Fibre Board (High pressure steam cured) Confirming to ISO 4862-2000 in wall panels of one face of cold formed galvanised light gauge steel frame structure to form wall / partition as & Where directed by Engineer-in- Charge	634.00	Sqm	723.00	4,58,382.00

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
	TOTAL AMOUNT_SECTION 7 - MISCELLANEOUS WORK_G				2,03,60,990.00
8	SECTION 8- MASONRY WORK				
8.01	Brick work using common burnt clay building bricks having crushing strength not less than 35 kg./Sq.Cm. in foundation and plinth in Cement Mortar 1:5. (1- Cement : 5 -fine sand)(B) Conventional	47.00	CUM	4,052.00	1,90,444.00
8.02	Brick work using common burnt clay building bricks having crushing strength not less than 35 kg./Sq.Cm. in foundation and plinth in Cement Mortar 1:5. (1- Cement : 5 -fine sand)(B) Conventional Extra for brick work in superstructure above plinth level upto floor two level (B) Conventional	297.00	CUM	4,317.00	12,82,149.00
8.03	Brick work using common burnt clay building bricks having crushing strength not less than 35 kg./Sq.Cm. in foundation and plinth in Cement Mortar 1:5. (1- Cement : 5 -fine sand)(A) Modular	1,000.00	CUM	4,388.00	43,88,000.00
8.04	Common Burnt clay Bricks Conventional size	7,000.00	NOS	5.00	35,000.00
8.05	(i) Uncoursed Rubble Masonry with hard stone of approved quality in foundations and plinth in Cement Mortar 1:6 (1-cement : 6-coarse sand including levelling up etc. complete	500.00	CUM	2,500.00	12,50,000.00
	TOTAL AMOUNT_SECTION 8- MASONRY WORK_H				71,45,593.00
9	SECTION 9- PLASTER WORK				
9.01	Providing 15mm thick cement plaster in single coat on Rough (Similar)side of single or half brick walls for interior plastering upto floor two level and finished even and smooth in (i) Cement mortar 1:3 (1-cement:3-sand)	2,450.00	Sqm	177.00	4,33,650.00
9.02	20mm thick sand faced cement plaster on walls upto height 10 metres above ground level consisting of 12mm thick backing coat of C.M. 1:3 (1-cement : 3-sand) and 8mm thick finishing coat of C.M. 1:1 (1-cement : 1-sand) etc. complete.	539.00	Sqm	301.00	1,62,239.00

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
9.03	Exterior Heritage Plaster Providing and fixing of HERITAGE Grit Finish textured homogeneous wall finishing system over 20 mm thick sand faced cement plastered (two coat of 12 mm in Cm 1:3 and 8 mm coat in Cm 1 : 1) from BAKELITE HYLAM LTD consisting of a two component system of Dry Grit (25 kgs per Pack) made of pure natural minerals, Additives etc. and pure acrylic polymer bonding agent (5kgs per pack) with the applied thickness of the coating being between 1.0mm-1.5mm to be applied on a cured, smooth level plaster without keying, as per the shades/combinations approved, as per the manufacturer directions, for usages, to be applied by an approved applicator of the manufacturer, as per the directions / supervision of the engineers in charge, all complete. The above textured coating should conform to surface spread of flame Class one of BS 476: Part 7: 1971 and Pull off strength of the coating to meet JISA 6909. (Rate is inclusive of 20 mm plaster) complete as directed by EIC/ Architect	124.00	Sqm	772.00	95,728.00
	TOTAL AMOUNT_SECTION 9- PLASTER WORK I				6,91,617.00
10	SECTION 10- DOORS AND WINDOWS				
10.01	Providing and fixing 35mm thick water proof solid core flush type door shutter (non decorative) and frame of 120 mm X 65 mm first class Ghana teak wood with cross band with of approved make (Battens should be chemically treated & kiln seasoned & binding agent should be phenol phormaldihide) and of required size, as per approved drawing, design and direction. The rate shall also include external lipping of 9 mm thickness of seasoned teak wood equivalent to best quality teak wood all around and both side of shutter (including lipping) with Veneer and three coat of melamine polished approved make and shade as per approved drawing, direction, sample to be got approved by the Architect ect complete as directed by engineer in charge.	61.00	Sqm	7,946.00	4,84,706.00
10.02	Providing and fixing window having extruded aluminum Colour anodized section frame main outer size 127mm x 38.10mm x 1.35mm @wt. 1.384kg/m, horizontal Four track member size 122.20mm x 31.75mm x 1.10mm@ wt 1.205 kg/m, vertical member of size 122.20mm x 31.75mm x 1.50mm @1.398 kg/mt with sliding shutters of horizontal member size 40mm x 18mm x 1.29mm@ 0.456kg/mt ,vertical member of size 40mm x 18mm x 1.29mm @ 0.456 kg/mt with 5 mm thick transparent bronze colour tinted float glass with powder coated aluminum fittings and fixtures and transparent silicon sealant glass fixing to frame as per details etc complete for window.	74.00	Sqm	2,140.00	1,58,360.00

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI					
ABSTRACT SHEET_TROPICAL GARDEN					
Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
	TOTAL AMOUNT_SECTION 10- DOORS AND WINDOWS WORK_J				6,43,066.00
11	SECTION 11- PAINTING WORK				
11.01	Applying two coats of putty & two coats of primer of approved brand and manufacture on new wall surface to give an even shade including thoroughly brushing the surface free from mortar dropping and other foreign matter and sand papered smooth.	2,028.00	Sqm	41.00	83,148.00
11.02	Wall painting (two coats) with plastic emulsion paint of approved brand and manufacture on undecorated wall surface to give an even shade including throughly brushing the surface free from mortar droppings and other foreign matter and sand papered smooth.	2,028.00	Sqm	79.00	1,60,212.00
11.03	Extra over item 31 for every subsequent coat of wall painting with plastic emulsion pain of approved brand.	2,028.00	Sqm	34.00	68,952.00
11.04	Finishing wall with weather proof exterior emulsion paint on wall surface (two coats) to give an required shape even shade after thoroughly brushing the surface to remove all dirt, and remains of loose powdered materials,etc complete	663.00	Sqm	115.00	76,245.00
	TOTAL AMOUNT_SECTION 11- PAINTING WORK_K				3,88,557.00
12	SECTION 12- FACADE WORK				

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
12.01	Design, Fabrication, supply, installation, Protection, Cleaning & Handover of semi-united four-sided structural glazing skylight system custom designed to withstand the design wind pressure conforming to IS-875 part III. (The system must pass the proof test at 1.5 times design wind pressure without any failure) with microwave cured EPDM gaskets, Structural & weather sealants, Open PU cell Spacer tape, backer rod, Bracketing system with MS hot dip galvanized / Aluminium Alloy of 6005 T5 brackets designed to accommodate three dimensional movements with washers, MS Supported skylight plump tolerences upto 40mm, SS 316 grade fasteners, nylon separators to prevent bi-metallic contacts, Aluminium trims and flashings to seal the gaps between Skylight and the building /MS structure all complete required to perform as per specification and drawing in conjunction with BOQ. Horizontal & Vertical subframe profile at fixed intervals. The subframe shall receive base plates fixed rigidly to the subframe profile with SS fasteners in SS 316. The entire assembly shall be fixed on the MS Support grid as per the architect's design drawings. Light fixed provision in Aluminium Cover Profile as per tender drawings. The system design shall be based on Open joint system & design shall include pressure equalization with gaskets for improved weather performance, drainage at all levels, Transom shall be overlap with mullion to have proper drainage to mullion. The design to accommodate building movements, thermal expansions & the seismic movements. The system shall be designed considering surface temperatures of 80-90 deg Cel & temperature differential of 25 deg cel without creating excess stress in the system. All metal joints in the wet area shall be small joint sealant applied to ensure water tightness. The EPDM Gaskets shall be of micro cured with shore A hardness of 60-65. Amee rubber or Gold seal or Osaca or Equivalent with micro curing facility shall be approved suppliers. Each glass panel shall be structurally glazed on the sub-frame profile system. Each glass panel shall be supported for dead load at the bottom of glass with black anodized continuous edge guard profile. The silicon between glass and edge guard / Lighting profile shall be non staining weather sealant. The system shall be designed of height units spanning between the Dead load & wind load brackets with provision to accommodate movement at all levels. The system shall be designed to accommodate DCU Glass panel, Aluminium Edge Guard with Black	53,550.00	KG	600.00	3,21,30,000.00
12.02	Skylight Glass : 37.52mm Laminated glass:- 8mm Thk. Reflective (SKN-Series) HS Glass + 16mm Air Gap + 6mm Thk.Clear HS + 1.52mm Santry Glass Lamination (SGP) + 6mm Clear HS Glass.	2,035.00	Sqm	11,000.00	2,23,85,000.00
12.03	Quote extra over on item (a.1.1) Skylight 10-20% Digital Print (Digital Print design as per Architect Approved)	2,550.00	Sqm	2,500.00	63,75,000.00

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI					
ABSTRACT SHEET_TROPICAL GARDEN					
Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
12.04	Quote extra over on item (a.1) - 2.5 mm Thick Aluminium Solid Sheet Below Solar panel instant of Glass. Providing & fixing the 2.5 mm thick Aluminium Solid Sheet Alloy 3003 cladding in a system. using the grid work support of prefabricated aluminium extruded sections of Alloy 6063 T6 with a stand to the design wind pressure. Visible surfaces shall have a PVDF finish with a minimum 35 micron, conforming to AAMA 2605. The Non-visible aluminium surfaces shall have a minimum chromatinizing treatment.	515.00	Sqm	7,000.00	36,05,000.00
12.05	Design, Fabrication, Supply, Installation, Protection, Cleaning & Handover of Auto Sliding Door Top motor make by DORMAKABA/ OZONE / PORTALP / GEZE including Hardware & accessories fitting for door as per supplier requirement with 12mm thick fully tempered (FT) glass. Door glass of 12 mm thk clear float fully tempered with holes and notches as per fitting requirement. Edges Machine ground mirror polished. With side fix glass fixed in Alum. U-Channel. All Material Make / Vendor list / Supplier list shall be as per tender specification. All shade approval shall be as per Architect's Approval. The quote rate shall include all Design & shop drawing approval from architect & consultant. Quote rate for complete system for Auto Sliding Door as mentioned above under (B) Providing and Fixing of Automatic Sliding Double Door, Door Opening Size:- 1800mm x 3000mm, Door Expansion Size:- 3600mm X 3000mm, Location:- Lower Level, (One Exit Door and One Entry Door), (m²=11)	2.00	Nos.	3,00,000.00	6,00,000.00
12.06	Providing and fixing 4 mm ACP (Aluminum composite Panel) with PVDF Finish as per design. Fixing on 40 x 40 x 2 mm square MS Pipe as required and frame fabricated; painted with bestquality epoxy coatings in black and white bends. The details of each board shall be as per the instruction of engineer in charge.	1,375.00	Sqm	2,020.00	27,77,500.00
	TOTAL AMOUNT SECTION 12- FACADE WORK_L				6,78,72,500.00
	TOTAL AMOUNT OF CIVIL WORKS_1=A+B+C+D+E+F+G+H+I+J+K+L				20,46,79,635.00
	PLUMBING WORKS_2				

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
1	Supply , Installation , Testing & Commissioning of white vitreous china Wall hung type European type water closet Floor Mounting Frame / Wall hung Support as per Model, Installation Kit and "P-Type" Drain Pipe Connection Set with auto stop function, noise less and fast action hanging arrangement , including C.P. bolts, nuts ,solid plastic seat and cover with lid, C.P. brass hinge rubber buffers, with accessories, i/c fixing with nuts & bolts drilled & grouted to walls at required spacing, including cutting and making good the wall and floors wherever required. below item shall be included in SITC: 1. Wall hung type European type water closet with plastic seat, covers , brackets/fittings. 2. Installatio height to be maintain as per ID Drawing. WC-01 : Water closet for Common M/F Toilets	4.00	Each	3,500.00	14,000.00
2	Wash Basin Over Counter with cold water supply: Fixing , testing & Commissioning first quality white vitreous china wash basin over counter mounting, 32 mm C.P. brass waste and UPVC Flexible pipe and pipe to wall with C.P.brass flange and rubber adopter for waste connection complete including filled gap between counter and wash basin with approved type white cement , cutting and making good the walls wherever required. supply of Flexible pipe , waste coupling as approved by client's PM & Connector pipe shall be in scope of tenderer. The quoted rates shall be including fixing of wash basin, Waste coupling, Flexible pipe , angle cock , connector pipe, pillar cock , etc with required cement (white/grey) with required tools, tackles, materials to complete the work up to satisfaction of client's PM. (For Common M/F Toilets)	4.00	Each	2,850.00	11,400.00
3	Supply , Installation , Testing & Commissioning of CP brass health Faucet with Min. 1.0 mtr long flexible tube, wall hook, spray nozzle , with 1 No. CP brass angular stop cock with wall flange etc., complete all accessories of approved. HF -01 : Health faucet for all WC of common Toilets	4.00	Each	200.00	800.00
4	Supply , Installation , Testing & Commissioning of toilet C.P. paper holder in all WC Area. In Common M/F Toilets	4.00	Each	150.00	600.00
5	Supply , Installation , Testing & Commissioning of High grade Brass crome plated bottle trap connection pipe and wall flange 32 mm size complete as per instructions of the engineer-in-charge. For All Public Toilets	4.00	Each	250.00	1,000.00

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
6	Supply , Installation , Testing & Commissioning of 750mm long SS Braided type Flexible Hose Pipe as per instructions of the engineer-in-charge. (This item to be Considered if flexible hose pipe come with washbasin faucet)	2.00	Each	100.00	200.00
7	Supply , Installation , Testing & Commissioning of External Electrical Power operated concealed automatic flushing system for urinals, including front S.S plate chrome sensor with CP brass body, ball valve etc.complete in all respect including cutting and making good the walls wherever required electrical connection complete. (Min. 1.0m Wire length with flush plate and solenoid valve to be concealed in .)	2.00	Each	3,500.00	7,000.00
8	Providing and fixing C.P. brass bib faucet of approved quality conforming to IS:8931 a) 15mm Nominal Bore for janitor areas and any other common area wherever required as per instructions of the engineer-in-charge.	2.00	Each	250.00	500.00
9	Supply , Installation , Testing & Commissioning of C.P. brass angle valve (15mm nominal bore) with wall flange for wash basin & WC Health faucets , Sink , Pantry Sink , Lab Sink etc of approved quality conforming to IS:8931. For Common M/F Toilets	6.00	Each	150.00	900.00
10	KITCHEN SINK(S.S.) Receiving, checking, storing and fixing S. S. sink, single bowl with drainboard with tap point on wall / counter comprising of :- Concealed type brackets fixed to wall with adjustable clamp to push against counter rim. 40 mm heavy plated C.P. waste coupling fitting with or without pop-up. 40 mm heavy plated C.P. bottle trap with cleaning eye with extension piece and wall flange. Painting brackets with two coats of white enamel paint over one coat of primer. 15 mm sink mixer table mounted / wall mounted (S.S. Sink with drain board, sink cock / sink mixer, waste coupling fitting, bottle trap supplied by Owner. Rest including brackets by contractor.	1.00	Each	8,126.00	8,126.00
11	Tissue dispenser Fixing , testing & Commissioning Tissue dispenser etc. complete with required tools, tackles, accessories up to satisfaction of client's PM.	2.00	Each	150.00	300.00
12	Soap Dispenser Fixing , testing & Commissioning soap dispenser complete with required tools, tackles, accessories up to satisfaction of client's PM.	4.00	Each	150.00	600.00

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ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
13	Hand Dryer Fixing , testing & Commissioning automatic hand dryer complete with required tools, tacks, accessories up to satisfaction of client's PM.	2.00	Each	650.00	1,300.00
14	SS Jali Providing and fixing SS 316 grating of below mentioned Size & specification of approved design including setting in floor with cement (White/Greay) mortar to match with floor finish as per architect requirement & suitable for waste and Floor Drain. Complete requirment as per rawing,BOQ,Specification & as directed by EIC/ARCHITECT.	19.00	Each	1,450.00	27,550.00
15	CPVC SDR-11 & SCH-80 Supply, Testing & Commissioning of CPVC (Chlorinated Poly Vinyl Chloride)As per IS 15778 for domestic and Flushing water supply shall be as per specification,schedule,drawings and as described here under CPVC SDR - 11 for Pipe size up to 50mm dia. & Schedule 80 for sizes including 65mm dia and above using high bonded solvent welded CPVC fittings i.e. Tees, Elbows, Couplers, Unions, Reducers, brushings, extension piece (if require) etc. conforming to BS 864 standards with CPVC Pipes conforming to - ASTM D 2846 / ASTM F 441 CPVC SDR 11 fittings conforming to ASTM D 2846 SCH 80 Fittings should be according to ASTM F439 Solvent Cement Should be used : Grade 724 Primer Should be used : Grade P70 clamps/structural metal supports as required/directed at site cut to required length laid and clamped in dry wall chase, ceiling and floor including jointing, making connection to fixtures, threaded elbow , piping with purpose made connectors and along with necessary fixing,nuts,bolts,gaskets,washers,plugs,supports, metal to plastic adopter if required , and arrangement as per specification and drawings. (For External - From UGWT & Further Domestic network)_including irrigation network UGWT to Domestic Distribution 20 mm NB dia	40.00	Rmt	325.00	13,000.00
16	25 mm NB dia	64.70	Rmt	450.00	29,115.00
17	32 mm NB dia	50.40	Rmt	645.00	32,508.00
18	40 mm NB dia	57.00	Rmt	875.00	49,875.00
19	50 mm NB dia	19.60	Rmt	1,450.00	28,420.00
20	65 mm NB dia	0.00	Rmt	2,850.00	0.00

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
21	100 mm NB dia	610.20	Rmt	3,950.00	24,10,290.00
22	Supply , installation, testing & Commissioning of full way lever operated forged brass Ball valve with forged brass hard chrome plated steel ball tested to a pressure rating of PN 16 with threaded joints complete with nuts, bolts, gaskets, washers union etc. Body : Forged Brass Ball : Forged Brass Stem : Brass Lever : Aluminium Gland : Brass Body Seat Ring : PTFE 25 mm dia	13.00	Each	1,150.00	14,950.00
23	32 mm dia	10.00	Each	2,850.00	28,500.00
24	40 mm dia	8.00	Each	3,265.00	26,120.00
25	50 mm dia	8.00	Each	3,950.00	31,600.00
26	Supply, installation ,testing & Commissioning heavy quality butterfly valve PN 16 rating with rubber gasket, flanges / unions, nuts, bolts, washers, etc. complete, as approved by the Architect and Engineer-in-charge for water supply lines of the following nominal bore (NB) size: Body : Cast Iron IS:210. Gr. FG200 Disc : Stainless Steel. CF8 Flow Control Lever: M.S./D.I. 'O' Ring : EPDM Body Lining : EPDM 65 mm dia	8.00	Each	5,495.00	43,960.00
27	80 mm dia	0.00	Each	6,500.00	0.00
28	100 mm dia	11.00	Each	7,450.00	81,950.00
29	Supply , installation , testing and commissioning of Single Acting forged brass Air release valve as per IS 554 PN10 Rating with poly propylene float screwed male end Type complete of the following Nominal bore (NB) Size: 25 mm dia	5.00	Each	2,850.00	14,250.00
30	Providing and fixing Water level indicator for water tanks mounting in panel with level display, alarm (level low or high), and manual reset for alarm, potential free set point contacts etc. complete with electrical wiring to probes and all accessories complete the work. Provision to connect to the building Automation system or pump controller through a suitable port.	4.00	Each	11,139.00	44,556.00

**NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME,
PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI**

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
31	Supply, installation ,testing & Commissioning heavy quality C.I. non return valve (Above 50mm) confirming to IS 778,with Flanged ends, 16 kg/m2 of approved make, on water supply lines of the following nominal bore (NB) size: Cover : Cast Iron Gasket : Rubber as per IS:638 Type B Body : Cast Iron Body Seat Ring : Leaded Tin Bronze as per IS:638Gr. LTB2 Disc Facing : Rubber as per IS:638 Type B Disc : Renewable disc Application 65 mm dia	2.00	Each	5,875.00	11,750.00
32	80 mm dia	0.00	Each	7,950.00	0.00
33	100 mm dia	2.00	Each	9,700.00	19,400.00
34	Supply, installation ,testing & Commissioning C.I. "Y" strainer (Flanged type) PN 10 Rating with stainless steel fine wire mesh perforated sheet basket with necessary flanged / unions nuts, bolts and washers complete as required. body : Cast Iron Gasket : Compressed Asbestos Fibre Cover : Cast Iron Drain Plug : Stainless Steel Screen : Stainless Steel Body : Cast Iron 100 mm dia	5.00	Each	10,851.00	54,255.00

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
35	Silent pipes & fittings Providing, fixing, testing and commissioning of Low db Astral Silencio / ASHIRVAD silent /Huliot pipes AS ring fit. Pipe as per DIN EN 12056 & DIN 1986-100 standard complete with Fittings (specials, tees,Swept tees, bends, elbows, cowls,etc.) and clamps (Chilly or equivalent make) including cutting and making good the walls to the satisfaction of Project Manager and The scope also includes fixing waste pipes to the floor with concrete (1:2:4) bedding for full length and ceiling mounting with necessary clamps/support as per requirment connections, protecting fittings, cleanouts and pipes till the final handing over etc. as per drawings, Testing as per standard , specifications and as directed by the Project Manager for all leads, depth / heights.Bends and pipes rate should be inclusive in pipe rate. The rate shall include cost of labour, loading and unloading, transportation, scaffolding and all other incidental charges etc., with all leads and lifts complete as per specifications, drawings and as directed by the Project Manager. 110 mm dia	44.00	Rmt	2,965.00	1,30,460.00
36	75 mm dia	10.00	Rmt	1,520.00	15,200.00
37	50 mm dia	10.00	Rmt	1,110.00	11,100.00
38	Multi Floor Trap Providing and Fixing , testing and commissioning of Multi floor trap self cleansing & Minimum Water seal 50 mm require , including cost of cutting and making good the walls and floors, embedded in 1:2:4 concrete, fixing of floor trap with necessary arrangements with proper care at all levels, protecting fittings and floor trap till the final handing over etc. as per technical specifications and directed by the Project Manager. 50 mm inlet and 75 mm outlet_Multi floor trap For Waste Water	9.00	Each	1,584.00	14,256.00
39	Providing and fixing PP pipe inlet hopper / Height Riser with Min. three inlets fittings to receive waste pipes from fixtures waste. The hopper shall be Manufactured from 110 mm dia upto 600 mm long pipe complete etc. as per engineer in charge.	7.00	Each	976.00	6,832.00
40	Supply , installation , testing and commissioning rain water Sidewall Parapet CI Body With Aluminium Grate With 4 SS Screw Drains ,size as per drawing required depth with Making Khurra with Proper water proofing and fixing the fittings (Horizontel/vertical arrangment grating) complete as required. 110 mm dia	3.00	Rmt	3,800.00	11,400.00

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ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
41	Providing and fixing Upvc sch80 Pipes ISI marked brand as per ASTM D1785, D2467 complete with fitting and clamps supports including cutting and making good the walls and ceiling for vent pipe and sump rising main from sump pump. (For sump riser Connection) 65 mm dia	250.00	Rmt	825.00	2,06,250.00
42	UPVC SWR Type B- Ring Fit Providing, fixing, testing and commissioning ISI marked UPVC SWR grade Pipe, type B ring fitted as per IS 13592 complete with uPVC Fittings conforms to IS:14735-99 Y (Plain / door), Clean out plug , Swept tees (Plain / door), bends (Plain / door), long bends, cowls etc. and fitting dimensions as per DIN 19531 and DIN 19534, Rubber ring conforms to IS 5382 and G.I pipe clamps (Chilly or equivalent make), brackets at 1m including cutting and making good the walls to the satisfaction of Project Manager and Ceiling for waste pipes, connections and as directed by the Project Manager of following nominal outside diameter waste/soil pipes, cowl of approved and tested quality, fixing of pipes with gully trap and inspection chamber necessary arrangements with proper care, protecting fittings and pipes till the final handing over etc. The rate shall include cost of labour, loading and unloading, transportation, scaffolding and all other incidental charges etc., with all leads and lifts complete as per specifications, drawings and as directed by the Project Manage(For RWD) 75 mm dia	20.00	Rmt	650.00	13,000.00

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
43	DWC HDPE (Double Wall Corrugated High Density Polyethylene) Providing and supplying at Class SN8 structured Wall polyethelene Piping systems (Pipe with online/offline coupler and elastomeric sealing ring) with non-smooth External Annular Corrugated and smooth Internal Surfaces (Double Wall) for non-pressure underground Sewerage & Drainage application as per EN:13476-3 Including all local and central taxes. transportation, freight charges, octroi, Inspection changes, loading, unloading, conveyance to the departmental stores etc. complete.(1D Dia.) Lowering, laying and jointing of class SN 8 structured wall (External Annular Corrugated & Smooth Internal surface) Polyethylene Piping and Fittings with the help of coupler (on line / off Line) attached with one end of pipes, sliding over the elastomeric sealing rubber ring placed on the specified valley of the corrugation at the spigot end, lowering the same into the trench at all level, laying on the lower bedding (constructed at bottom of trenches) at prescribed gradient. depth & alignment, testing the water tightness of the joints, ensuring the continuity tests of specified pipe segments etc. complete as per drawing. specifications & detailed engineering. including carriage of pipes & fittings from site stacks to the place of laying etc. as per direction of Engineer-in-charge. The pipes shall be of following nominal bore (NB) size upto a depth of 1500 mm. Depth to be considred from actual depth of pipe with respect to relevant finished ground level 150 mm Dia	200.00	RM	1,155.00	2,31,000.00
44	200 mm Dia	200.00	RM	1,415.00	2,83,000.00
45	250 mm Dia	100.00	RM	1,880.00	1,88,000.00
46	300 mm Dia	50.00	RM	2,521.00	1,26,050.00

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
47	Constructing Brick masonry Chamber with First class designation brick work in cement mortar 1:5 (1 cement :5 fine sand)with perforated Cover with frame top slab 1:2:4 mix (1 cement:2 coarse sand : 4 graded stone aggregate 20mm nominal size) necessary excavation foundation concrete 1:3:6 (1 cement :3 fine sand : 6 graded stone aggregate 40 mm nominal size) and inside and outside plastering with cement mortar 1:3 (1 cement :3 coarse sand) 12mm thick finished with a floating coat of neat cement complete including using waterproofing compound as per standard design foot rests including fixing in 20 x 20 x 10 cm cement concrete blocks 1:3:6 (1 cement :3 coarse sand :6 graded stone aggregate 20 mm nominal size). The cover shall be capable to withstand 45 tn load. The quoted rate shall be including all excavation in all kind of soil, refilling, ramming, shoring, removing the excavated surplus material as per location shown by project in charge as per drawing/detail Note: for top slab construction client shall supply the available steel and tenderer shall cut it to required length and do the bar binding with required binding wire. 600mm x 600 mm less than 0.9 mtr depth	30.00	Nos.	19,450.00	5,83,500.00
48	Constructing Brick masonry Chamber with First class designation brick work in cement mortar 1:5 (1 cement :5 fine sand)w ith FRP Cover with frame top slab 1:2:4 mix (1 cement:2 coarse sand : 4 graded stone aggregate 20mm nominal size) necessary excavation foundation concrete 1:3:6 (1 cement :3 fine sand : 6 graded stone aggregate 40 mm nominal size) and inside and outside plastering with cement mortar 1:3 (1 cement :3 coarse sand) 12mm thick finished with a floating coat of neat cement complete including using waterproofing compound as per standard design foot rests including fixing in 20 x 20 x 10 cm cement concrete blocks 1:3:6 (1 cement :3 coarse sand :6 graded stone aggregate 20 mm nominal size). The cover shall be capable to withstand 45 tn load. The quoted rate shall be including all excavation in all kind of soil, refilling, ramming, shoring, removing the excavated surplus material as per location shown by project in charge as per drawing/detail Note: for top slab construction client shall supply the available steel and tenderer shall cut it to required length and do the bar binding with required binding wire. 450mm x 450 mm less than 0.6 mtr depth	24.00	Each	7,500.00	1,80,000.00
49	600mm x 600 mm less than 0.6 mtr depth	2.00	Each	9,000.00	18,000.00

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
50	Supply , installation , testing and commissioning of PVC back flow preventor / Non Return valves in Drairage line for avoid rats , fungui ,snacks etc for outer side or STP Side. 150mm	1.00	Each	15,400.00	15,400.00
51	Providing, fixing, jointing and testing PVC gully trap, of 150 mm. dia. inlet and 100 mm. outlet, including excavation in all soil types, bailing or pumping out water from trenches, shoring whenever necessary testing, refilling, in layers ramming & consolidation, removing away the surplus earth & spoils, dumping it on site or carting away to lead of 100 meters as directed, incl. embedding the trap in CC 1:2:4, construction of brick masonry chamber, internal clear size 450 mm. x 450 mm., in brick work 230 mm. thick, in CM 1:4, plastering inside, outside and all exposed surfaces with CM 1:3, 12 mm. thick, providing, fixing CI / pvc frame and cover 450 x 450 mm., weighing together not less than 12.5 Kg., painting of all CI items with 3 coats of approved bitumastic paint, etc. complete.	2.00	Each	9,000.00	18,000.00
52	Constructing Brick Masonry drainage / rain water manhole of following internal dimension at bottom and 0.6m dia at top in cement mortar 1:4 (1 cement : 4 Coarse sand), inside cement plaster 12mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement, 150mm thickness foundation concrete 1:3:6 mix (1 cement : 3 coarse sand : 6 graded stone aggregate 40mm nominal size) and making necessary channel in Cement Concrete 1:2:4 (1 Cement : 2 Coarse Sand : 4 Graded Stone aggregate 20mm nominal size) finished with a floating coat of neat cement all complete as per standard design with common burnt clay F.P.S. (non modular) bricks of class designation 7.5. (Excavation and 12 mm thick cement plaster at the external surface shall be inclusive in this line item) For sewage chamber 600 x 600 mm clear inside dimensions	1.00	Each	9,000.00	9,000.00
53	900 x 800 mm clear inside dimensions	4.00	Each	12,000.00	48,000.00

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ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
54	Supply , Installation , testing and commissioning of FRP (Fiberglass Reinforced Polymer) Manhole cover with frame design as per EN 124 Standard Class Load in removable sections with matching frames of MS angles or making a similar size of offset in floor trimix / concrete, over open channel / chamber as per the drawings and designs and approved by architect and testing of joints complete as per direction of Engineer in Charge. 600mm x 600mm Square Cover for Over head tank cover (500 kg Load Bearing Capacity)	5.00	Each	7,000.00	35,000.00
55	Fabricating, supplying and fixing in position, Precast heavy duty SFRC covers slab as per specifications and drawings, over open channels of all sizes, in removable sections with matching frame of GI angles, including providing and grouting curb angle, straight length or curved, corners end pieces, etc. all situations, including painting etc. complete, as directed. Channels and chambers paid separately. Precast Channel gratings - Light Duty 300 mm X 300 mm (into in dimension from top)	20.00	RMT	16,000.00	3,20,000.00
TOTAL AMOUNT OF PLUMBING WORKS_2					54,72,223.00
FIRE FIGHTING WORKS_3					
1	PUMP HOUSE EQUIPMENT Supply,Installation, Testing and commissioning of Electrical Motor Driven Fire Pump Set (Factory Fitted) suitable for automatic operation consisting of the following as per the specifications of fire fighting requirements given in TAC OR LOCAL AUTHORITY APPROVAL Supply, erection, testing & commissioning of Horizontal end suction fire pumps having cast iron casing, cast iron diffusers, bronze impellers and dynamically balanced, stainless steel 410 shaft running in double ball bearings. Each pump shall be fitted with gland packing and shall be directly coupled on an MS fabricated common base plate duly Epoxy coated to a AC 3 phase, 2900 RPM TEFC EFF - 2 motor of 75 HP with adequate number of Anti Vibration Mounting Pads, "DUNLOP" or equivalent make as per manufacturer's recommendations with Dry Run Protection . Each pump shall be capable of delivering a capacity of 2280 LPM at a total head of 70 mtrs. head.	1.00	Sets	3,75,000.00	3,75,000.00

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ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
2	Supply, erection, testing & commissioning of Horizontal end suction fire pumps having cast iron casing, cast iron diffusers, bronze impellers and dynamically balanced, AISI 304/410 stainless steel shaft running in double ball bearings. Each pump shall be fitted with gland packing and shall be directly coupled on an MS fabricated common base plate to a Diesel Engine, 2300 RPM with adequate number of Anti Vibration Mounting Pads, "DUNLOP" or equivalent make as per manufacturer's recommendations, along with Diesel Tank made from 3 mm Thk M.S. Sheet of 200 Ltrs . Each pump shall be capable of delivering a capacity of 2280 LPM at a total head of 70 mtrs. head. The pump set shall supply along with Batteries of 12V / 24 V, with Battery Cable and required accessories. Battery should be mounted on Stand.	1.00	Set	5,75,000.00	5,75,000.00
3	Supply, erection, testing & commissioning of vertical multistage Jockey Pumps having cast iron casing, cast iron diffusers, bronze impellers and dynamically balanced, stainless steel 410 shaft and MS Fabricated pump base frame duly Epoxy coated. Each pump shall be fitted with mechanical seals and shall be directly coupled on motor stool with AC 3 phase, 2900 RPM TEFC EFF - 2 motor of 15 HP with Dry Run Protection. Each pump shall be capable of delivering a capacity of 180 LPM at 70 mtrs head.	1.00	Sets	90,000.00	90,000.00
4	CONTROL PANEL FOR FIRE PUMPS Fabricating, supply, installation, testing and commissioning of sectionalized floor mounted Main Fire Pump Panels as per the attached SLD & Technical Specifications. Fire Panel should be protected with Tube Based Fire Suppression System with HFC227 Clean Agent gas (UL Approved) as per the Technical Specifications.	1.00	Each	4,50,000.00	4,50,000.00
5	Supply, erection, testing & commissioning of Pressure switches of diaphragm operated SPDT type IP66 suitable range (20 kg/cm ² to 5 kg/cm ²) for pump sets with 25 mm dia SS 316 Ball valves, Fittings like unions / collars / reducers etc.	3.00	Set	6,000.00	18,000.00
6	Supply, erection, testing & commissioning of Pressure gauges of suitable range (0 kg/cm ² to 21 kg/cm ²) for pump sets with 25 mm dia SS 316 Ball valves, siphon, Fittings like unions / collars / reducers etc.	4.00	Set	2,200.00	8,800.00

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ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
7	CABLE TRAY Supply and Erecting of Wire Mess Type GI cable tray of specific dimensions. The cable tray shall be hung from ceiling / fixed to wall with necessary ceiling suspendors, together with tees, bends, Couplers etc including cost for supports as described. The tray shall be earthed. Min size (not a limitation) of supports shall be as follows (a).-up to 300mm tray 2nos. 8mm full threaded G.i. rod with 2nos.anchor fastner and "C" channel support at 500mm distance (b) 450 to 600mm tray 2nos.10mm full treaded G.I. rodwith 2nos. anchor fastner and "C" channel support at 500mm distance (c) 750 / 1000 mm cable tray with fabrication of 25 x 6 or 50 x 3 mm angle frame with min. 4 nos anchor fastner at 500 mm distance. 300 X 50 mm Perforated Cable Tray (2 mm thickness)	20.00	Mtr	400.00	8,000.00
8	150X 50 mm Perforated Cable Tray (2 mm thickness)	20.00	Mtr	300.00	6,000.00
9	G.I. Earthing strips with 80-100 Microns galvanizing of the following Sizes shall be run on floor / ceiling / walls, from the equipment to the nearest Earth pit with neccessory accessories as required. (Earth pit shall be executed by other agencies). 50mm x 6mm thick,	30.00	Mtr	125.00	3,750.00
10	25mm x 3 mm thick,	30.00	Mtr	100.00	3,000.00
11	Aboveground Piping: Supply, Instalation, testing, Commissioning of Heavy duty, 'C' class M.S pipes conforming to IS 1239 / IS 3589 (6 mm thick) including all bends, tees, fittings, supports , Clamps, GI Threaded rods, fasteners, nuts etc cutting the pipes to correct length jointing with M.S Butt Weld fittings, fixing with clamps to G.I brackets / hangers including testing to 16.5 kgs/cm2 pressure ,inserted rubber gaskets, painting with a coat of 50 micron DFT of Zinc di-chromate/Phosphate Epoxy Primer followed by two coats of 2 x 50 micron DFT Acrylic Polyurethane Finish paint of approved shade shall be applied (minimum total DFT of 150 micron). The quoted rate shall also include for chasing / chipping walls/slabs,passing through existing cut-outs and making them good with filler material and finished in cement mortar in the opening for pipes passing through walls,RCC floors, masonry walls as instructed by site engineer. Cost for wastage, loading, unloading of the same shall be included and no seprate cost will be paid on account of the same. Mode of measurement- Pipe length shall be measured along with center line including fittings, specials, bends, tees etc. Payment shall be made only for actual installed and measured length. 250mm nominal dia	12.00	Mtr	4,800.00	57,600.00

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ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
12	200mm nominal dia	18.00	Mtr	3,800.00	68,400.00
13	Aboveground Piping: Supply, Instalation, testing, Commissioning of Heavy duty, 'C' class M.S pipes conforming to IS 1239 / IS 3589 (6 mm thick) including all bends, tees, fittings, supports , Clamps, GI Threaded rods, fasteners, nuts etc cutting the pipes to correct length jointing with M.S Butt Weld fittings, fixing with clamps to G.I. brackets / hangers including testing to 16.5 kgs/cm2 pressure ,inserted rubber gaskets, painting with a coat of 50 micron DFT of Zinc di-chromate/Phosphate Epoxy Primer followed by two coats of 2 x 50 micron DFT Acrylic Polyurethane Finish paint of approved shade shall be applied (minimum total DFT of 150 micron). The quoted rate shall also include for chasing / chipping walls/slabs,passing through existing cut-outs and making them good with filler material and finished in cement mortar in the opening for pipes passing through walls,RCC floors, masonry walls as instructed by site engineer. Cost for wastage, loading, unloading of the same shall be included and no seprate cost will be paid on account of the same. Mode of measurement- Pipe length shall be measured along with center line including fittings, specials, bends, tees etc. Payment shall be made only for actual installed and measured length. 150mm nominal dia	12.00	Mtr	3,400.00	40,800.00
14	100mm nominal dia	18.00	Mtr	2,400.00	43,200.00
15	80mm nominal dia	12.00	Mtr	1,900.00	22,800.00
16	50mm nominal dia	6.00	Mtr	850.00	5,100.00
17	40mm nominal dia	0.00	Mtr	700.00	0.00
18	25mm nominal dia	12.00	Mtr	500.00	6,000.00
19	Supplying, Installing, testing and commissioning of butterfly valves as per BS 5155 (PN16) slim seal with required flanges, nuts, bolts etc. complete. 100mm nominal dia (Lever operated)	2.00	No.	6,000.00	12,000.00
20	50mm nominal dia (Lever operated)	2.00	No.	5,000.00	10,000.00
21	Supply, installation, testing & Commissioning of CI Gate Valves with supervisory Switch of PN 16 with required flanges, nuts, bolts etc. complete. Supervisory switches are to be UL Listed / FM Approved. 300mm nominal dia	0.00	No.	65,000.00	0.00
22	250mm nominal dia	4.00	No.	52,000.00	2,08,000.00
23	200mm nominal dia	2.00	No.	31,000.00	62,000.00
24	150mm nominal dia	2.00	No.	23,500.00	47,000.00
25	100mm nominal dia	1.00	No.	18,200.00	18,200.00
26	80mm nominal dia	1.00	No.	10,500.00	10,500.00

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ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
27	Supplying, installing, testing and commissioning of Forged Brass conforming to IS 6912 Gr. FLB Ball valves with fittings of screwed end type. (PN 16) 15mm dia.	3.00	No.	1,000.00	3,000.00
28	25 mm dia	3.00	No.	1,600.00	4,800.00
29	Supplying, installing and commissioning C.I.flanged Pot type Strainer with SS mesh,suitable flanges, nuts, bolts, gaskets etc. complete. 250mm dia.	2.00	No.	50,000.00	1,00,000.00
30	Supply, Installation, Testing & Commissioning of Swing Type CI Non Return Valves of PN 16 with required flanges, nuts, bolts etc. complete. 200 mm nominal dia	0.00	No.	35,000.00	0.00
31	150 mm nominal dia	2.00	No.	15,000.00	30,000.00
32	80 mm nominal dia	1.00	No.	12,000.00	12,000.00
33	1100 V GRADE POWER / CONTROL CABLES Supplying, laying, testing & commissioning of FRLS outer sheath, PVC inner sheath, XLPE insulated, steel armoured, copper conductor, 1100V grade power cables including termination with lugs and brass cable glands etc.The cables shall be laid in tray. as required..The size of the cables shall as mentioned below, 3.5C x 50 sq.mm Copper armoured for main pumps	30.00	Mtr	2,100.00	63,000.00
34	3 C x 6.0 Sqmm. Copper armoured for Jockey pumps	30.00	Mtr	600.00	18,000.00
35	3 C x 1.5 Sqmm copper armoured for Instrumentation	40.00	Mtr	250.00	10,000.00
36	10 C x 2.5 Sqmm copper armoured cable for Diesel Engine Instrumentation	10.00	Mtr	1,600.00	16,000.00
37	Providing, fixing, testing and commissioning of double flanged vertical air vessel fabricated from 10mm MS plate with dished ends,dia of 450 mm and height 2000 mm with suitable supporting legs, outside painted with 1 coat of 50-micron DFT of Zinc di-chromate/Phosphate Epoxy Primer followed by two coats of 1 x 50-micron DFT Acrylic Polyurethane Finish paint of approved shade shall be applied (minimum total DFT of 150 micron). Paint used for this work shall be lead free quality.Airsel shall be supplied complete with one 25mm dia connection from pump delivery, one 25 mm drain with valve, gunmetal water level gauge, one pressure gauge (0-21 kg/sq cm) and 25 mm sockets for pressure switches and all other required accessories.The air vessel shall be tested to 1.5 times of working pressure of 16 bar. Complete as per technical specification & drawing details	1.00	Set	1,35,000.00	1,35,000.00
38	Supply, installation, testing & Commissioning of SS Expansion Bellows of PN 16 with required flanges, nuts, bolts etc. complete. as per specifications .200 mm nominal dia	2.00	No.	34,000.00	68,000.00
39	150 mm nominal dia	2.00	No.	26,500.00	53,000.00

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
40	100 mm nominal dia	1.00	No.	17,000.00	17,000.00
41	80 mm nominal dia	1.00	No.	12,800.00	12,800.00
42	Supplying, installing and commissioning of Flow Meter UL / FM Approved with suitable flanges, nuts, bolts, gaskets etc. complete. 100mm dia.	1.00	No	1,45,000.00	1,45,000.00
43	HYDRANT SYSTEM Aboveground Piping: Supply, Instalation, testing, Commissioning of Heavy duty, 'C' class M.S pipes conforming to IS 1239 / IS 3589 (6 mm thick) including all bends, tees, fittings, supports , Clamps, GI Threaded rods, fasteners, nuts etc cutting the pipes to correct length jointing with M.S Butt Weld fittings, fixing with clamps to G.I brackets / hangers including testing to 16.5 kgs/cm2 pressure ,inserted rubber gaskets, painting with a coat of 50 micron DFT of Zinc di-chromate/Phosphate Epoxy Primer followed by two coats of 2 x 50 micron DFT Acrylic Polyurethane Finish paint of approved shade shall be applied (minimum total DFT of 150 micron). The quoted rate shall also include for chasing / chipping walls/slabs,passing through existing cut-outs and making them good with filler material and finished in cement mortar in the opening for pipes passing through walls,RCC floors, masonry walls as instructed by site engineer. Cost for wastage, loading, unloading of the same shall be included and no seprate cost will be paid on account of the same. Mode of measurement- Pipe length shall be measured along with center line including fittings, specials, bends, tees etc. Payment shall be made only for actual installed and measured length. 150mm nominal dia	36.00	Mtrs	3,400.00	1,22,400.00
44	100mm nominal dia	6.00	Mtrs	2,400.00	14,400.00
45	80mm nominal dia	12.00	Mtrs	1,900.00	22,800.00
46	50mm nominal dia	0.00	Mtrs	850.00	0.00
47	25mm nominal dia	12.00	Mtrs	500.00	6,000.00

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
48	Underground Piping: Supply, Instalation, testing, Commissioning of Heavy duty, 'C' class M.S pipes conforming to IS 1239 / IS 3589 (6 mm thick) including 4 mm Thick wrapping and Coating confirming to IS 10221 with 25 mm overlap. Fittings like all bends, tees, fittings, supports , Clamps, GI Threaded rods, fasteners, nuts etc cutting the pipes to correct length jointing with M.S Butt Weld fittings, fixing with clamps to M.S. brackets / hangers including testing to 16.5 kgs/cm2 pressure ,inserted rubber gaskets.Wastage, loading & unloading is part of conversion cost and nothing extra shall be paid on this account. Excavation for trench of required width & depth shall be paid under relevant item separately. Mode of measurement- Pipe length shall be measured along with center line including fittings, specials, bends, tees etc. Payment shall be made only for actual installed and measured length. 150mm nominal dia	258.00	Mtrs	3,900.00	10,06,200.00
49	100mm nominal dia	12.00	Mtrs	1,800.00	21,600.00
50	80mm nominal dia	12.00	Mtrs	2,100.00	25,200.00
51	Providing,laying, jointing & Testing of Hume pipe class - NP2 300 mm dia	10.00	Mtrs	1,500.00	15,000.00
52	Supplying, installing, testing and commissioning of butterfly valves with Tamper Switch as per BS 5155 (PN16) slim seal with required flanges, nuts, bolts etc. complete.Tamper Switches to be UL Listed / FM Approved.150mm nominal dia (Lever operated)	5.00	Nos	16,500.00	82,500.00
53	Supply, Installation, Testing & Commissioning of Swing Type CI Non Return Valves of PN 16 with required flanges, nuts, bolts etc. complete.150 mm nominal dia	1.00	Nos	15,000.00	15,000.00
54	Single headed hydrant valve as per IS 5290, made of SS 304 with 63 mm dia instantaneous Supplying, installing, testing and commissioning of hydrant comprising of the following, out & 80 mm dia fanged inlet inlet, blank cap , chain and hand wheel etc complete.	10.00	Nos	6,000.00	60,000.00
55	Supplying, installing, testing and commissioning of S.S. orifice plate of 6 mm thk. for single hydrant.Orifice plate should have projection for identification tag containing hydrant no., floor no. for Hydrant tapping, etc. as required.	10.00	Nos	1,700.00	17,000.00
56	Supply, erection, testing & commissioning of Stainless Steel 304 63 mm dia short size Branch pipe with 20mm dia nozzles with wall brackets to be installed on Wall.	10.00	Nos	2,100.00	21,000.00

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
57	Supply, erection, testing & commissioning of 63 mm x 15 Mtrs long RRL hose pipe Type A complete with pair of SS 304 couplings and Clamps for installation on wall. Working Pressure shall be 14 Kg/ Sq.cm, Test pressure shall be 21 Kg/ Sq.cm and Burst pressure shall be 35 Kg/ Sq.cm.	20.00	Nos	5,700.00	1,14,000.00
58	Supply, erection of FRP.Hose cabinet stand mounted type fabricated out of FRP sheet of 2 mm thick with glass fronted (4mm thick glass with rubber beeding) door and size of the cabinet shall be 600mm x 750 mm x 250 mm. Quoted rate shall be includes suitable all fasteners etc, and cabinet shall be painted of approved colour both inside and out side. Hose cabinet for external hydrant shall have weather proof enclosure.	10.00	Nos	5,000.00	50,000.00
59	Supply, erection, testing & commissioning of Hose reel drum with powder coated finish, fitted with heavy duty MS brackets, of Fixed type with 25 mm dia Rubber braided hose of 36.5M. length with 25 mm Dia Ball valve (on upstream) and SS shut off nozzle, complete.	6.00	Nos	10,000.00	60,000.00
60	Supply, erection, testing & commissioning of Gun metal Air Purge Valve with ball valve & other accessories 25 mm dia BSP male threaded	2.00	Nos	3,000.00	6,000.00
61	Supply & Installation of Fire Man's Axe with Insulated Vulcanizing Rubber with clamps for installation on wall.. Design Standards of Fire Man's Axe should be IS 926.	10.00	Nos	4,000.00	40,000.00
62	Supply, erection of Fire duct Shutter fabricated out of M.S. sheet and frame, door shall be 900mm x 1500 mm min. & fixed with 4 mm thick glass, suitable rubber beeding and locking arrangement. Quoted rate shall be including all fasteners etc, and complete shutter shall be powder coated of approved colour both inside and out side.	6.00	Nos	9,000.00	54,000.00
63	FIRE BRIGADE INLET Supply, installation & testing Providing and fixing SS 304 fire brigade connection 4 way consisting of 4 nos 63 mm dia instantaneous type male coupling with built-in check valves and 150 mm dia. flanged outlet complete with bolts, nuts and rubber insertions as required as per IS:904-1983.Quoted rate shall be included with C.I. Butterfly valve, C.I. Non-return valve,M.S. cabinet of suitable size and mounting supports etc. complete.	1.00	Set	70,000.00	70,000.00
64	Supply, erection, testing & commissioning of 100 dia. Two way fire brigade connection with 63 MM dia SS 304 instantaneous inlet. (For fire tank filling)	1.00	Set	12,000.00	12,000.00

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ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
65	Supply, erection, testing & commissioning of 100 dia. Two way fire brigade connection with 63 MM dia SS 304 instantaneous inlet, 100 mm dia Foot Valve. (For Drawout connection)	1.00	Set	27,000.00	27,000.00
66	Excavation, Backfilling of trenches for underground mains, S.V. Chamber, Inspection & Welding pits, etc. (in dry area): Soft soil	300.00	Cum	350.00	1,05,000.00
67	Valve chamber ith 230 mm brick masonry wall with best quality bricks on a PCC 1:4:8 bed of 100 mm thick. The wall shall be plastered internally smooth in CM1:3 Water proofing is requied and externally rough plastered with sponge finish including curing.The chamber shall be provided with M.S. 6/8 mm thick plate fabricated top cover in leaves with necessary hinges and locking arrangement as approved by the consultant .The size of the chamber shall be 1200 mmx1200 mmx1500 mm in depth.	3.00	Nos	35,000.00	1,05,000.00
68	Supply,Installing and commissioning Portable Fire extinguishers of following type & capacity. Carbon-di- oxide type fire extinguisher of 4.5 kgs. Capacity, CO2 gas filled in brand new seamless cylinder with powder coated finish, made out of Manganese steel, with wheel type valve, discharge nozzle, bend & horn, wall mounting bracket etc. complete, confirming to IS: 15683.	15.00	Nos	5,100.00	76,500.00
69	ABC powder type fire extinguisher of 6 Kgs. Capacity, with initial filling in brand new cylinder with powder coated finish, fitted with Gun metal union, high pressure CO2 gas cartridge, discharge hose, floor trolley type / wall mounting bracket etc. complete, confirming to IS:15683.	15.00	Nos	2,600.00	39,000.00
70	Mechanical Foam type fire extinguisher 9Lts. Capacity, with initial filling in brand new cylinder with powder coated finish, fitted with Gun metal union, high pressure CO2 gas cartridge, hose and ABS type branch pipe and wall mounting bracket etc. complete, confirming to IS: 15683.	2.00	Nos	2,600.00	5,200.00
71	Fire buckets round bottom type enamel painted, white inside & Red out side and Letter "FIRE" in black out side and handle with mounting bracket.	5.00	Nos	850.00	4,250.00
72	Water CO2 type fire extinguisher 9 lts. Capacity, initial filling in brand new cylinder of powder coated finish, fitted with Gun metal union, high pressure CO2 gas cartridge & wall mounting bracket etc. complete confirming to IS:15683 5 Kgs Capacity	5.00	Nos	10,500.00	52,500.00
73	SIGNAGES Supply, erection of emergency exit signages (To be approved by EIC)Emergency Exit (5"X12")	15.00	Nos	325.00	4,875.00

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ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
74	Fire exit (5"X12")	15.00	Nos	325.00	4,875.00
75	Co2 fire extinguishers (8"X16")	15.00	Nos	625.00	9,375.00
76	DCP fire extinguishers (8"X16")	0.00	Nos	625.00	0.00
77	ABC fire extinguishers (8"X16")	15.00	Nos	625.00	9,375.00
78	Mechanical foams fire extinguishers (8"X16")	2.00	Nos	625.00	1,250.00
79	Fire Lift (4"X12")	3.00	Nos	325.00	975.00
80	In case of fire do not use lift, use staircases (8"X8")	3.00	Nos	375.00	1,125.00
81	Fire hose reel. (8"X8")	7.00	Nos	375.00	2,625.00
82	Manual call point. (4"X4")	15.00	Nos	125.00	1,875.00
83	Fire alarm panel. (4"X4")	1.00	Nos	125.00	125.00
84	Fire hydrant (4"X4")	15.00	Nos	125.00	1,875.00
85	Route Markers (10 mtrs rolls)	10.00	Rolls	5,500.00	55,000.00
86	Letters and Nos. (8"X3")	40.00	Nos	175.00	7,000.00
87	PASSIVE COMPONENTS Supply, erection, testing of Passive Fire Protection System (2 Hours Fire Rated) Fire barrier for sealing of floor openings applying gypsum based Mortar System tested in accordance with to UL 1479, BS 476 (Part 20) and IS 12458: 2019 standards and capable of providing a fire and smoke resistance for 120 minutes for both E (Insulation) & I (Integrity) followed by hose-stream test. For floor penetrations, install 8mm dia. rebar with no less than 200mm C/C spacing in both directions and secure the same with 25mm x 25mm x 1.5mm thickness square mesh. Provide/install 2 no's (layers) of 50mm thick rock wool insulation having 140 Kg/M3 density over wire-mesh. Once the rock wool is secured in place, install / pour gypsum based Mortar system to a depth of 40mm adhering to manufacturer's installation guidelines (total depth of the system is minimum 140mm). Chalk the perimeters joints between Rockwool and floor-slab with an acrylic based sealant, and all the combustible and non-combustible penetrant to be chalked with Intumescent sealant or Intumescent Graphite based wrap having intumescent property to maintain the over-all integrity of the system. The system shall be tested with the through penetrants and shall have a valid report or EJ in case of deviation supporting the same.	10.00	M²	13,000.00	1,30,000.00

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ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
88	Fire barrier for sealing of wall openings application with a Intumescent coating Fire stopping System used in combination with Mineral Wool Board tested in accordance to EN 1366-3, ETA-16/0523 standards and capable of providing a fire resistance up to 2 hrs. The product along with the system should be designed for use with single cables, cable bundles, cable trays, combustible and non-combustible pipes, fire dampers and also insulated ventilation systems to prevent the spread of smoke, fire and heat.Application Details in accordance EN 13501 for water based hybrid firestop coating on mineral wool board of minimum density 140 Kg/M3, melting point > 1000 Deg C. The system is tested for a maximum opening size of 1000 mm width and 3000 mm height and openings larger than this shall be done with the help of separation elements.All the services penetrating through the opening mineral wool board 2 x 50 mm thickness to be coated with Intumescent coating fire stopping system. A coating of minimum 0.7mm dry film thickness (DFT) including 50mm on the perimeter of the mineral wool board, sealed thoroughly on both the sides. Identical services (cables) to be bunched together for proper sealing. On the cable trays, cable ladders (plates & flanges), metal pipes to be back coated along their length till 100 mm minimum with a dry film thickness of 1mm (DFT) for a rating of EI 120min.The system shall be tested with the through penetrants and shall have a valid report or a Engineering Judgement supporting the same.	10.00	M²	13,000.00	1,30,000.00
89	Fire Sealant: Acrylic sealant is an acrylic-based, single component fire stopping sealant tested with Minimum 2 hours fire rating when tested in accordance with BS 476, EN 1366 standards and shall be used along periphery of services like Ducts, Pipes, Cable Trays etc without insulation passing through Fire Rated walls & Floors made of concrete, masonry, Metal, Gypsum construction to provide up to 2 Hours insulation & Integrity when subject to the test conditions of BS 476, EN 1366 standards. Fire rated Acrylic Sealant is manufactured to have a wet density of 1.6g/cm3 and a solid content of around 86% and is classified as class D-S2, d0 against reaction to fire and usage category as Class Y1 and can be used as smoke seal in any joint or annual space. It prevents the spread of "cold" smoke.The product is UL Listed with a packaging of 310 ml Cartridges.	25.00	Nos	3,050.00	76,250.00

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ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
90	Fire Sealant: Acrylic sealant is an acrylic-based, single component fire stopping sealant tested with Minimum 2 hours fire rating when tested in accordance with BS 476, EN 1366 standards and shall be used along periphery of services like Ducts, Pipes, Cable Trays etc without insulation passing through Fire Rated walls & Floors made of concrete, masonry, Metal, Gypsum construction to provide up to 2 Hours insulation & Integrity when subject to the test conditions of BS 476, EN 1366 standards. Fire rated Acrylic Sealant is manufactured to have a wet density of 1.6g/cm3 and a solid content of around 86% and is classified as class D-S2, d0 against reaction to fire and usage category as Class Y1 and can be used as smoke seal in any joint or annual space. It prevents the spread of "cold" smoke. The product is UL Listed with a packaging of 310 ml Cartridges.	5.00	M²	27,000.00	1,35,000.00
91	Obtaining clearance from statutory agencies etc.,	1.00	1	2,00,000.00	2,00,000.00
	TOTAL AMOUNT OF FIRE FIGHTING WORKS 3				58,57,900.00
	TOTAL AMOUNT OF CIVIL WORKS AND PLUMBING WORKS I=1+2+3				21,60,09,758.00
	SECTION-II MEPF WORKS				
A	ELECTRICAL WORKS				
1	Point wiring for Light / Bell with 2-1.5 sq.mm & earth wire of 1.5 sq.mm (Green) both are of ISI marked 1.1 KV grade ZHFR PVC insulated multi strand copper wires up to 10 mtr length , in below type of pipe erected with 6A Modular type switch / bell push & accessories and earth continuity of following type, erected on PVC / Metallic/Wooden box, single mounting base frame covered with textured/metallic/white front plate modules erected on / in wall / ceiling as per pipe erected, with necessary Lamp holder/ceiling rose / H.D.Connector as directed. (f) with medium class Rigid PVC pipe and accessories erected concealed in wall/ceiling complete.cat-III	90.00	Pt.	467.00	42,030.00
2	(g) with 16 swg HGS metal conduit pipe and accessories painted black. erected concealed in wall/ceiling complete	110.00	Pt.	593.00	65,230.00

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ABSTRACT SHEET_TROPICAL GARDEN

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0	1	2	3	4	5
3	Point wiring for Tissino / Modular secondary light point with 2-1.5 sq.mm & earth wire of 1.5 sq.mm (green) both are of ISI marked 1.1 KV grade ZHFR PVC insulated multi strand copper wires, in below type of pipe to be erected complete with earth continuity and necessary connection with primary light with accessories erected on Metal / PVC / wooden box covered with 3 mm thick PC(Polycarbonate) / Acrylic sheet for open / concealed wiring. with necessary Lamp holder / ceiling rose / H.D.Connector as directed. (f) with medium class Rigid PVC pipe and accessories erected concealed in wall/ceiling complete	205.00	Pt.	158.00	32,390.00
4	(b) with 16 swg(1.6 mm thick) HGS metal conduit pipe and accessories painted black erected flushed on wall/ceiling complete	150.00	Pt.	188.00	28,200.00
5	Point wiring for FAN with 2-1.5 sq.mm & earth wire of 1.5 sq.mm (Green) both are of .ISI marked 1.1 KV Grade ZHFR PVC insulated multi strand copper wires up to 10 mtr length, in below type of pipe erected with 6A Modular type switch and hum free EME step type electronic fan regulator mounted and accessories with earth continuity of following type erected on PVC / Metallic/Wooden box, single mounting base frame covered with textured/metallic/white front plate modules erected on / in wall / ceiling as per pipe erected. with necessary ceiling rose / H.D.Connector as directed. (a) with medium class Rigid PVC pipe and accessories erected flushed on wall/ceiling complete	15.00	Pt.	623.00	9,345.00
6	Supplying & erecting fan hook box of 10 mm M.S. round bar bounded to the RCC bars up to 50mm length each side and pierced through a 16 Gauge M.S. box / Heavy Duty PVC box complete erected concealed in Ceiling with necessary finishing.	15.00	Each	107.00	1,605.00
7	Providing 2.5mm.thick laminated acrylic sheet to cover the fan hook or Fan box.	15.00	Each	18.00	270.00
8	Point wiring for Individual Plug with & earth wire of 1.5 sq.mm (Green) both are of ISI marked 1.1 KV grade ZHFR PVC insulated multi strand copper wires up to 10 mtr length, in below type of pipe erected complete with Modular type switch & 5 pin Plug erected on PVC / Metallic/Wooden box covered with appropriate front plate modules erected on / in wall / ceiling as per pipe erected with following type of accessories. [I] For 6A Plug and 6 a switch with 2-1.5 sq.mm Cu. Wire from nearby switchboard/mcb db board (a) with medium class Rigid PVC pipe and accessories erected flushed on wall/ceiling complete	60.00	Pt.	463.00	27,780.00

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ABSTRACT SHEET_TROPICAL GARDEN

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0	1	2	3	4	5
9	[II] For 16A Plug and 16 amp switch with 2-2.5 sq.mm Cu. Wire from mcb db board. (a) with medium class Rigid PVC pipe and accessories erected flushed on wall/ceiling complete	60.00	Pt.	696.00	41,760.00
10	Point wiring for on board Looped Plug with 6A Modular type switch & 5 pin socket erected on PVC / Metallic/Wooden box, single mounting base frame covered with textured / metallic/white front plate modules erected on / in wall / ceiling with following type accessories	60.00	Pt.	251.00	15,060.00
11	Providing and erecting ISI mark Medium class RIGID PVC PIPES of following size complete to be erected on/in wall or ceiling erected with necessary PVC fittings & Junction boxes fixed with adhesive solution & Clamps with following dia of pipes, in approved manner as directed (a)20 mm	600.00	Mtr.	23.00	13,800.00
12	(b) 25 mm	1,700.00	Mtr.	32.00	54,400.00
13	Supplying under floor pregalvanised corrosion proof rectangular sheet steel cable trunking of 1.6 mm thick having with stand point load up to 1.33 Ton & free from seepage of concrete of screed water with all accessories,Junction Box,Joints as required and demanded by engineer-incharge and laying/erecting as per OEM guidelines and as per instruction of engineer incharge having following size of dimensions and No of compartments (W x D x T) Cat-III [9] 100mm x 38mm x 1.6 mm with One Compartments	250.00	Mtr.	518.00	1,29,500.00
14	[13] 300mm x 38mm x 1.6 mm with Three Compartments	200.00	Mtr.	1,268.00	2,53,600.00
15	[8] 75mm x 38mm x 1.6 mm with one compartments	150.00	Mtr.	433.00	64,950.00
16	Providing and erecting Mains with 1.1 KV grade ZHFR PVC insulated ISI marked stranded Copper conductor wire in following type of pipe to be erected concealed in /flushed on wall/ceiling, with 1.5 sq. mm copper conductor FRLS PVC insulated stranded wire of green colour for earth continuity of following size (A) With medium class Rigid PVC pipe and accessories (a) 2 wire 1.5 sq. mm	500.00	Mtr.	62.00	31,000.00
17	(b) 2 wire 2.5 sq. mm	5,500.00	Mtr.	82.00	4,51,000.00
18	(B) With 16 swg HGS metal conduit pipe and accessories painted black. (a) 2 wire 1.5 sq. mm	350.00	Mtr.	129.00	45,150.00
19	(b) 2 wire 2.5 sq. mm	1,500.00	Mtr.	153.00	2,29,500.00

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0	1	2	3	4	5
20	providing and erecting Mains with 1.1 KV grade ZHFRPVC insulated ISI marked stranded Copper conductor wire in following type of pipe to be erected in / on wall / ceiling with 2.5 sq. mm copper conductor FRLS PVC insulated stranded wire of green colour for earth continuity of following size (A) with medium class Rigid PVC pipe and accessories (a) 2 wire 4 sq. mm	0.00	Mtr.	111.00	0.00
21	(b) 2 wire 6 sq. mm	0.00	Mtr.	146.00	0.00
22	(g) 4 wire 4 sq. mm	0.00	Mtr.	234.00	0.00
23	(h) 4 wire 6 sq. mm	0.00	Mtr.	258.00	0.00
24	(i) 4 wire 10 sq. mm (use earth wire of 4 sq.mm)	0.00	Mtr.	421.00	0.00
25	(B) with 16 swg HGS metal conduit pipe and accessories painted black. (a) 2 wire 4 sq. mm	600.00	Mtr.	111.00	66,600.00
26	(b) 2 wire 6 sq. mm	400.00	Mtr.	212.00	84,800.00
27	providing and erecting Mains with ISI marked electrolyte stranded copper conductor, Non PVC Zero Halogen free fire retardant insulated copper conductor, insulated wire (HRFR) conforms to IS-694, erected in pipe with 1.5sq. mm copper conductor of same specifications for earth continuity of following size. 2 wire 1.5 sq.mm	600.00	Mtr	51.00	30,600.00
28	2 wire 2.5 sq.mm	600.00	Mtr	71.00	42,600.00
29	2 wire 4.0 sq.mm	300.00	Mtr	101.00	30,300.00
30	4 wire 4.0 sq.mm	500.00	Mtr	180.00	90,000.00
31	Supplying and erecting Flexible PVC insulated multi strand multi core 1.1 kv grade ISI marked copper wires of following size to be erected as directed. (e) 1.50 Sq.mm 3 core round PVC sheathed	2,000.00	Mtr.	44.00	88,000.00
32	Providing & erecting Switch board for Computer or electric apparatus consisting of following modular type accessories mounted with PVC / Metallic concealed/open box with single mounting base frame covered with textured/metallic /white front plate,modules erected with necessary connections as directed 1 no. 6A/16A universal plug-switch combined. 3 nos. 6A Switch 3 nos. 6A 5 pin Plug	6.00	Each	1,071.00	6,426.00

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
33	Providing and erecting Approved make Four pole moulded case circuit breaker having breaking capacity ICU of 25 KA. at 415 V, having normal current rating up to 25 A to 100A. with Fixed thermal & magnetic release suitable to work on A.C. supply 50 c/s. with all internal connections, spreader tinned copper & complete erected in existing 16 G.M.S. housing. ICS=100% of ICU only Cat III	7.00	Each	6,112.00	42,784.00
34	Providing and erecting Approved make Four pole moulded case circuit breaker having breaking capacity ICU of 35 KA. at 415 V. having normal current rating 125A. with Fixed thermal & magnetic release suitable to work on A.C. supply 50 c/s. with all internal connections, spreader tinned copper & complete erected in existing 16 G.M.S. housing. ICS=100% of ICU only Cat III	6.00	Each	7,976.00	47,856.00
35	Providing and erecting Approved make Four pole moulded case circuit breaker having breaking capacity ICU of 35 KA. and above at 415 V . having normal current rating 250A. with variable thermal & magnetic release suitable to work on A.C. supply 50 c/s. with all internal connections, spreader tinned copper & complete erected in existing 16 G.M.S. housing. ICS=100% of ICU only Cat III	1.00	Each	20,739.00	20,739.00
36	Supplying and erecting triple pole & neutral 440V/ 500V panel mounting Aluminium Busbars with four equal Nos. of bus having current density not more than 0.8 Amp. / sq.mm (Rated current / cross section area) duly wrapped with colour insulating tape for phase sequence of following current carrying capacity, erected with necessary bus bar supports /insulators, main cable socket to each busbar, erected in existing cubical panel with necessary connections. (A) Suitable for 100 Amp. Capacity	35.00	Rn.Mtr	654.00	22,890.00
37	(B) Suitable for 200 Amp. Capacity	35.00	Rn.Mtr	1,027.00	35,945.00
38	(C) Suitable for 300 Amp. Capacity	35.00	Rn.Mtr	1,455.00	50,925.00
39	(D) Suitable for 400 Amp. Capacity	35.00	Rn.Mtr	2,183.00	76,405.00
40	(E) Suitable for 630 Amp. capacity	35.00	Rn.Mtr	3,031.00	1,06,085.00
41	(F) Suitable for 800 Amp. capacity	35.00	Rn.Mtr	6,179.00	2,16,265.00
42	(G) Suitable for 1200 Amp. capacity	35.00	Rn.Mtr	7,879.00	2,75,765.00

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
43	Supplying and erecting triple pole & neutral 440V / 500V panel mounting Copper Busbars with four equal Nos. of electrolyte bus having current density not more than 1.6 Amp. / sq.mm (Rated current / cross section area) duly wrapped with colour insulating tape for phase sequence of following current carrying capacity, erected with necessary bus bar supports /insulators, main cable socket to each bar, erected in existing cubical panel with necessary connections. (A) Suitable for 100 Amp. Capacity	50.00	Rn.Mtr	1,942.00	97,100.00
44	(B) Suitable for 200 Amp. capacity	50.00	Rn.Mtr	3,171.00	1,58,550.00
45	(C) Suitable for 300 Amp. capacity	50.00	Rn.Mtr	4,861.00	2,43,050.00
46	(D) Suitable for 400 Amp. capacity	50.00	Rn.Mtr	7,247.00	3,62,350.00
47	(E) Suitable for 630 Amp. capacity	50.00	Rn.Mtr	10,455.00	5,22,750.00
48	providing and erecting Miniature circuit breaker single pole 6A to 25A suitable to operate on 240 V A.C. system and having breaking capacity 10 KA to be erected in existing box. confirming to IS 8828/1996 with ISI Mark Cat.I	300.00	Each	111.00	33,300.00
49	Providing & erecting 240 V MCB double pole switch for motor & inductive load (C Curve) having 10 KA breaking capacity & confirms to IS : 8828 in existing box having following capacity (A) 6 to 32 Amp.	32.00	Each	297.00	9,504.00
50	(B) 40 Amp.	65.00	Each	327.00	21,255.00
51	Providing & erecting 415 V MCB Four Pole for Motor & Inductive Load (C Curve) having 10KA breaking capacity & confirms to IS :8828 in existing box having following capacity (a) 6 to 32 Amp.	30.00	Each	590.00	17,700.00
52	(b)40 Amp.	25.00	Each	662.00	16,550.00
53	(c)63 Amp.	10.00	Each	730.00	7,300.00
54	Providing and erecting Sheet Steel powder coated MCB distribution board - flush / surface mounted fitted with busbar, neutral link, earth bar and DIN rail, Conforms to IS 8623-1 & 3, IEC 61439-1 & 3 without MCB to house appropriate nos. of MCBs.(The DBs should be used of same company of MCB to be used) suitable for (A) single phase incoming and horizontal single phase outgoing (b) sheet steel double door (IP-43) (iii)8 way	2.00	Each	1,141.00	2,282.00

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
55	Providing and erecting Sheet Steel powder coated Vertical MCB distribution board (VTPN) - flush / surface mounted double door (IP54) fitted with insulated copper busbar, isolated neutral link, earth bar and DIN rail, confirming to IS 13032 and BS 5486-1986, IP-54 suitable for 63/100 AMP TPN MCCB + RCCB as incomer and three phase outgoing as per following .(The DBs should be used of same company of MCB to be used) (C)8 way outgoing	2.00	Each	13,688.00	27,376.00
56	providing and erecting Approved make RCCBs conforming to IS: 12640 and having sensitivity of 30 mA and Short Circuit withstand capacity of 10 KA and suitable for operation on single phase 240 V,50Hz. having characteristic of quick action & tripping with all advance feature & do not incorporate any electronic component. for following Max. rating erected as directed (i) 25 Amps.DP	10.00	Each	1,950.00	19,500.00
57	(ii) 40Amps. DP	10.00	Each	2,611.00	26,110.00
58	Providing and erecting required size HOT deep Galvanised iron strip for earthing of H.T. , OCB/ ACB/ Transformer LT panel board, Motors etc. using proper clamp.	300.00	Kg.	77.00	23,100.00
59	Providing and erecting Annealed bare Copper wire 8 to 16 SWG.	300.00	Kg.	787.00	2,36,100.00
60	Providing and erecting HOT deep Galvanised iron strip wire 8 to 16 SWG.	300.00	Kg.	77.00	23,100.00
61	Supplying & erecting earth pit of minimum bore dia.150mm size approved make Earthing Electrode consisting Pipe-in-Pipe Technology as per IS 3043-1987 made of corrosion free hot dipped G.I.Pipes having Outer pipe dia of 50mm having 80-200 Micron galvanising, Inner pipe dia of 25 mm having 200-250 Micron galvanising, connection terminal dia of 12mm with constant ohmic value surrounded by highly conductive compound with high charge dissipation suitable for following type of applications with chamber and heavy duty cover. (A)(approved make OEM has to submit test certificate including value of earth resistance of installation duly stamped and signed by agency and officer Incharge has to ensure the value of earthing resistance mentioned in test Certificate) & having back filling compound of (B) Inner chemical (CCM Compound)- Resistivity:- 0.2 ohm / meter testing as per IEC 62561-2017, Voltage drop:- < 1 volt at no load & dry form, Sulphur content:- <2%(C) Back fill Compound :- Earthing compound should be capable to retain moisture for long time Necessary test report must be submitted by Agency. (a) For Electrical Installation up to 440V in normal soil Length of pipe - 1 Mtr Back filling compound - 1 Nos Bag of 15 Kg.	15.00	Ea.	4,546.00	68,190.00

**NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME,
PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI**

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
62	(b)For Electrical installation up to 11 KV in normal soil. Length of Pipe : 2.00 mtrs Back filling Compound :1 no. Bag of 25 Kg.	10.00	Ea.	5,703.00	57,030.00
63	(c) For Electrical Installation covering Transformer Neutrals, Lightning arrester Earthing, A.C.Plant & Sensitive Computer System(like Automation, SCADA) i.e independent Earthing in normal soil. Length of Pipe : 3.00 mtrs Back filling Compound :2 nos Bags of 25 Kg.	7.00	Ea.	8,851.00	61,957.00
64	Supplying & erecting funnel type earthing having earth plate of following size burred in specifically prepared earth pit 3 mtr. below ground with 40 kg. charcoal and salt with alternate layers of charcoal & salt, 20mm.dia. G.I. pipe with Funnel with a wire mesh for watering & bricks masonry block, C.I. Cover complete as per para 7.3 of IS 3043 with necessary length of double Galvanised Iron / copper earth wire No 6 SWG bolted with lug to the plate and covered in 12 mm dia. G.I. pipe 2.5 mtr long complete connected to the nearest switch gear with end socket as per direction & duly tested by earth tester confirming to IS (As per drawing) with following specification (C) with 60 x 60x 0.315 cms. Copper earth Plate	8.00	Ea.	7,797.00	62,376.00

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
65	Providing & erecting weather proof, dust & vermin proof, floor mounted front operated outdoor type double door cubical panel board necessary IP-54 and above protection as per approval from engineer incharge made from 14 SWG thick CRC M.S. sheet for outer body & doors, 16 SWG thick CRC M.S.sheet for internal partitions with necessary accessories , supporting angles/ flats channel including cutting, bending, drilling, welding, riveting with internal partitions & cable alley as per requirements & instruction of engineer-in-charge with erection of supplied switch gears, BUSBARS, suitable size of inter connecting PVC copper wire / copper-aluminium strips, rubber grommets, rib, bakelite control fuses/MCB for measuring instruments, earth bus & earth bolts, foundation flange - bolts-base Plates, sufficient nos. of hinged doors, handles with locking arrangement and rubber gasket,heavy duty end terminal connection,danger notice board,necessary ventilation,earthing strip complete. The Panel shall be painted with epoxy powder coating. (The rates excludes the cost of switchgears, bus bars, inter connecting mains & Copper Aluminium strips, meters, Fuses etc. The dimension shall be measured excluding base beams) The panel shall be supplied with following approved manufacturers with following size. (B) The standard companies switch gear shall be used and only manufacturers at CPRI approved factory (i) with 350mm depth	10.00	Sq.Mtr	16,162.00	1,61,620.00
66	(ii) with 550 mm. Depth	6.00	Sq.Mtr	21,048.00	1,26,288.00
67	(C) The standard companies switch gear shall be used and only manufacturers as per IEC 61439 for beneficial use. (i) with 350mm depth	10.00	Sq.Mtr	17,777.00	1,77,770.00
68	(ii) with 550 mm. Depth	6.00	Sq.Mtr	23,154.00	1,38,924.00
69	Providing , erecting , fabricating the M.S. structure as per requirement on site incorporating proper size of M.S. angles,square,round, flats, bars, channels, sections complete with cutting, welding, grinding & finishing duly painted with one coat of red oxide with erection on site as per direction of engineer in charge with necessary grouting, cementing, plastering & finishing complete.	150.00	Kg.	77.00	11,550.00
70	Providing and erecting XLPE (IS:7098)(I)-88 ISI armoured cable multistrand / Solid Aluminium conductor for 1.1 KV. to be laid on wall with necessary clamps or in existing trench / pipe of following size of cables (A) 4 core 4 Sq. mm	350.00	Mtr.	114.00	39,900.00
71	(B) 4 core 6 Sq. mm	330.00	Mtr.	123.00	40,590.00

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ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
72	(C) 4 core 10 Sq. mm	566.00	Mtr.	137.00	77,542.00
73	Providing and erecting XLPE(IS:7098)(I)-88 ISI armoured cable multistrand / Solid Copper conductor for 1.1 KV. to be laid on wall with necessary clamps or in existing trench / pipe at road crossing or floor of following size of cables. (C) 4 core 6 Sq. mm	300.00	Mtr.	503.00	1,50,900.00
74	Providing and erecting XLPE(IS:7098)(I)-88 ISI armoured cable multistrand Copper conductor for 1.1 KV. to be laid on wall with necessary clamps or in existing trench / pipe at road crossing or floor of following size of cables. (A) 4 core 10 Sq. mm	600.00	Mtr.	667.00	4,00,200.00
75	(B) 4 core 16 Sq. mm	800.00	Mtr.	975.00	7,80,000.00
76	Providing and erecting XLPE(IS:7098)(I)-88 ISI armoured cable multistrand Aluminium conductor for 1.1 KV. to be laid on wall with necessary clamps or in existing trench / pipe of following size of cables (A) 3 1/2 core 50 Sq. mm (25 Sq. 1/2 mm core)	75.00	Mtr.	279.00	20,925.00
77	(B) 3 1/2 core 25 Sq. mm (16 Sq. mm 1/2 core)	520.00	Mtr.	179.00	93,080.00
78	(E) 3 1/2 core 95 Sq. mm (50 Sq. mm 1/2 core)	900.00	Mtr.	480.00	4,32,000.00
79	(F) 3 1/2 core 120 Sq. mm (70 Sq. mm 1/2 core)	900.00	Mtr.	529.00	4,76,100.00
80	(G) 3 1/2 core 150 Sq. mm (70 Sq. mm 1/2 core)	500.00	Mtr.	719.00	3,59,500.00
81	(H) 3 1/2 core 185 Sq. mm (95 Sq. mm 1/2 core)	300.00	Mtr.	891.00	2,67,300.00
82	(I) 3 1/2 core 240 Sq. mm(120 Sq. mm 1/2 core)	200.00	Mtr.	1,150.00	2,30,000.00
83	Making trench in soft soil of suitable width of 90 cm deep for laying cable or locating the fault all over the run and back filling the same and making the surface as normal ground.	2,500.00	Mtr.	46.00	1,15,000.00
84	Covering of cable with second class bricks or cement tiles laid cover the cable crosswise & also on both sides with covering of 7.5 Cm. layer of sand above & below cable (16 bricks per meter)	2,500.00	Mtr.	133.00	3,32,500.00
85	Providing & laying approved make Double walled corrugated pipes (DWC) of polyethylene(conforming to IS 14930 II)with necessary connecting accessories of same material at required depth in existing trench for laying of cable. below ground / road surface for enclosing cable (A)50 mm outer dia	120.00	Mtr.	62.00	7,440.00
86	(B)63mm outer dia	170.00	Mtr.	73.00	12,410.00
87	(C)90mm outer dia	550.00	Mtr.	95.00	52,250.00
88	E)120mm outer dia	900.00	Mtr.	136.00	1,22,400.00

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
89	Providing and, fixing heavy duty flange type brass cable gland with rubber ring for PVC insulated armoured cable complete with out going tails, insulating tape etc for following size of cables. (A) 2 to 4 core 2.5 / 4 Sq. mm	10.00	Ea.	33.00	330.00
90	(B) 2 to 4 core 6 Sq. mm	15.00	Ea.	38.00	570.00
91	(C) 2 to 4 core 10 Sq. mm	25.00	Ea.	38.00	950.00
92	Providing and, fixing heavy duty flange type brass double compression type cable gland with rubber ring for PVC insulated armoured cable complete with out going tails, insulating tape etc for following size of cables. (A) 3 & 1/2 / 4 core 25 Sq. mm	35.00	Ea.	66.00	2,310.00
93	(B) 3 & 1/2 core 35/50 Sq. mm	15.00	Ea.	75.00	1,125.00
94	Solder less crimping type Aluminium lugs conforming to IS suitable for cable of following size evenly crimped with high pressure tool & connected to switchgear terminals with brass/cadmium plated nut bolts in an approved manner. (A) 1.5/ 2.5/4/6 Sq.mm	160.00	Ea.	6.00	960.00
95	(B) 10 Sq.mm	40.00	Ea.	13.00	520.00
96	(C) 16/25 Sq.mm.	15.00	Ea.	15.00	225.00
97	(D) 35/50 Sq.mm.	45.00	Ea.	20.00	900.00
98	Providing and fixing approved make Perforated C type cable tray. Made from sheet steel. The cable tray should be single or double bended as per required and as per IS 2062/1079 and shall be coated with hot dip galvanizing as per IS 2629/4759. with max 17.5% perforation with coupler plate / Fish plate and GI hardware like nut - bolt and washers etc. erection with necessary support(included) as per Specification and as per instruction of engineer in charge.. (5) 300 X 50 X 2.0 mm Thick	30.00	Mtr.	616.00	18,480.00
99	(3) 150 X 50 X 1.6 mm Thick	400.00	Mtr.	420.00	1,68,000.00
100	Providing and fixing approved make Ladder type cable tray. Made from M.S sheet. The cable tray should be bended as per IS 2062/1079 shall be fabricated of double bended channel section longitudinal members with single bended Channel section. Rungs of members welded to the base of the longitudinal members at 250 mm c/c spacing . as per IS and shall be coated with hot dip galvanizing as per IS 2629/4759. with coupler plate / Fish plate and GI hardware like nut - bolt and washers etc. erected on existing support as per Specification and as per instruction of engineer in charge.. (1) 150 X 50 X 1.6 mm Thick	400.00	Mtr.	276.00	1,10,400.00
101	Flexibel Solar Panel (500W)	176.00	Ea.	25,500.00	44,88,000.00

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
102	Noramal Solar Panel (585/600W)	253.00	Ea.	16,500.00	41,74,500.00
103	Supplying & erecting approved make Digital time switch having lithium cell 6 years operative and operate battery backup 1 channel day clock with 14 memory programme, suitable to operate on 240V + 5%, 16A with, floating contacts Minimum switching setup time 1 minimum & LCD display. Also comprised permanent ON/OFF switching. Programming switches & housed in fire proof thermoplastic enclosure & transparent cover erected as required with necessary connection erected as directed.	9.00	Ea.	3,137.00	28,233.00
104	Providing and erecting AC-3 duty 3 pole power contactor with 2 NO & 2 NC aux contacts complete with 415V/220V operating coil suitable for (L&T, BCH,T.C., Siemens, C&S make). (C) for 60 / 70 A rating	9.00	Ea.	8,061.00	72,549.00
105	Supplying rubber matting of following thickness as per IS:15652/IEC 61111 (b)4mm	10.00	Sq.Mtr	1,017.00	10,170.00
106	Providing pair of rubber hand gloves suitable for working on 11 KV/22 KV supply.	0.00	Ea.	212.00	0.00
107	Supplying and erecting floor mounting stand for keeping four nos. of FIRE buckets comprising 1500 mm in length, 900 mm height frame made out of 30mm X30 mm X 4 mm angle iron with cross supports for legs, welded with 4 hooks and duly painted with one coat of red lead and two coats of approved enamelled silver paint.	4.00	Ea.	933.00	3,732.00
108	Wall hook 22 to 25 cms. projection for keeping fire buckets made out of 15 mm dia. M.S rod grouted in wall to a depth of minimum 15 cms.	4.00	Ea.	60.00	240.00
109	Supplying & erecting carbon dioxide (CO2) fire extinguisher user of following capacity with necessary clamps made from 50 x 6 mm M.S. Flat with nut & bolts grouted in wall complete. [A] For 4.5 Kg Capacity	0.00	Ea	6,526.00	0.00

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ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
110	Supply of 400 KVA Outdoor type Compact Substation consisting of Transformer, HT switchgear and LT Switchgear and confirming to IEC-62227. a) Transformer: 400 KVA Copper wound 11KV /433 V Oil Cool type Transformer with on load tapping range +10 to -10% @ 2.5% (with tolerance), class F , with surge restorers, Digital WTI, IS1171 as per b) HT Compartment: 11KV, 21kA for 3 Sec . 630 A 50 Hz, gas insulated VCB in SS tank in sheet enclosure having provision for one no. direct connection of Incoming supply cable upto 300sq mm and one no. VCB(Manually charging & closing) in series with LBS between VCB and Transformer, Self Powered Relay 3 O/C +1 E/F Relay type CSPR-V5, mechanical ON/OFF indicator, trip coil , Manual Close & Trip PB, live cable indicator, mechanical interlocks, pad locking facility, SF6 gas manometer, cable boots, 3 nos. CTs with Ratio -/1A, CI: 5P10, 2.5 VA for protection c) LV side compartment : one no. MCCB of 630A, 36kA, 4Pole, Microprocessor based release with arrangement for bottom cable termination (100% for phase & 50% for N, Current density - 1A/ sq mm) The enclosure should be of IK10 type.The Enclosure shall construction shall be GI of thickness at least 1.6/2mm.The enclosure shall be Powder Coated. Each compartment will be provided with the door and pad locking arrangement. The Compartment illumination lamp with door operated switch shall be provided for each compartment. The Transformer compartment will have IP-34 ingress protection, whereas the HT/LT compartment will have IP-54 protection.The connection between HT and Transformer shall be by 3 runs of single core 95 sq mm XLPE aluminium cable and between Transformer to LT switchgear shall be by appropriate rating Aluminium PVC sleeved Busbar Add extra Rs 9000/- for integrated steel cubical panel IP 54 to house upto 03 Nos additional outgoing switchgears with proper rating busbar drop,supports etc with arrangement for cable termination etc.(Switchgears is not included in this) Add extra Rs 16000/- for integrated steel cubical panel IP 54 to house upto 06 Nos additional outgoing switchgears with proper rating busbar drop,supports etc with arrangement for cable termination etc.(Switchgears is not included in this)	1.00	Ea.	12,03,396.00	12,03,396.00

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
111	Supplying and erecting, commissioning and testing of Diesel Generating set confirming to IS: 4722:1968 & BS:5514 having continuous rating, 3 phase, 415 volts, 50 cycles A.C. supply comprising of a totally enclosed air/water cooled diesel engine with multi-cylinders developing suitable BHP not less than following capacity at 1500 RPM with 10% overload for one hour in 24 hours with standard accessories like fly wheel, lubricating oil cooler, "A" class governor, heavy duty fuel wheel and lubricating oil filter, oil bath air filler, lubricating oil pressure gauge, end exhaust manifold, standard set of tools with adjustable spanners, screw drivers, cylinder head to cover, joint cylinder head to exhaust, element lube oil filter, 12 / 24 volts electric starting equipment complete with standard heavy duty battery, dynamo, cut-outs, ammeter, necessary wiring, pressure gauge, starter etc and heavy duty Residential type exhaust silencer and vertical hot air duct both indicator lamps duly wired with HRC fuses. The alternator & control panel shall be connected with provided suitable capacity armoured cable and complete with Acoustic enclosure (canopy) made out of 16 SWG CRCA Sheet, sound absorbing material Rockwool of 64 density & 100 mm thick conforming to IS:8183 / PU Foam of 40 Density - at least 40 mm. The resin bonded rockwool covered from inside the canopy by perforated sheet with 3/4 mm holes, sound level not more than 75 dB at a distance of 1 mtr, as per PVCT norms. Erection, commissioning and satisfactory testing as per requirement with first filling of fuel, oil, etc. with guarantee / Warrantee of complete system for Two years. & with obtaining all necessary certificate from Electrical Inspector. The Capacity and Ratings of DG sets are as below. (O) Continuous rating of 160 KVA ,BHP not less than 197 BHP	0.00	Ea.	11,07,205.00	0.00

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
112	Design, Supplying, installing, testing of factory fabricated ready made Three phase APFC Panel Cubical Panel fabrication should be type tested as per IEC 61921, 61439:1&2 Capacitor Duty Contactor for switching as per following Steps Incomer Switch of MCCB type Icu=Ics=50KA at 400/440 Volts, with OC, SC, internal earth fault protection Incomer Switch of MCCB type Icu=Ics=50KA at 400/440 Volts, with OC, SC, internal earth fault protection,Copper tinned insulated Busbar,Cubical panel should be indoor type with IP 43 and IK 10,Metalized polypropylene film tye3-phase 550Volt Capacitor,De tuning Reactor for each capacitor,Panel having Short Circuit and Overload protection,Each step Capacitor having suitable MCB with Sc, OL, internal earth fault relay,Each stage having Stage Contactor (Capacitor load rating),PF regulator master controller having suitable steps with LCD display, Rs 485 Communication port, Indication LED Lamps for main incomer and ON-OFF for each capacitor bank,MS Chanel for Floor mounting, Cable entry as per site situation,Cooling fans for panel (E)150KVAR	1.00	Ea.	4,28,815.00	4,28,815.00
113	Lighting & Power In IP-65 Polycarbonate Panel (As Per SLD)	1.00	Ea.	4,29,959.00	4,29,959.00
114	Providing and erecting ISI Marked 3core 185 Sq.mm XLPE insulated 11 KV armoured cable Aluminium conductor IS-7098 to be laid on wall with clamps or in provided cable trench / pipe approved manner as directed.	250.00	Mtr	1,942.00	4,85,500.00
115	Providing and erecting cable end termination kit, heat shrinkable Push on type Densons/ Raychem/ Elastimold make suitable for 11 KV XLPE cable 3core 185 Sq.mm (A) Outdoor type	2.00	Ea.	14,467.00	28,934.00
116	(B) Indoor type	2.00	Ea.	7,925.00	15,850.00
117	Supplying and erecting approved make online Un-interruptible Power Supply system comprising flat cum-boost charger with IGBT base rectifier & Inverter & sealed maintenance free SMF batteries. The charger having operating capacity for input 160-270V AC & inverter having output 230V,50 Hz Ac with 0.8 load power factor with battery, over/under voltage output with over load & short circuit protection equipment. The system housed in CRC sheet duly powder coated paint with following power backup.with MS painted batteries stand, 10% Overload capacity for momentary load. (J) 20 KVA 3 - phase with 1Hr Backup	1.00	Ea.	3,28,137.00	3,28,137.00

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
118	Providing & erecting weather proof, dust & vermin proof, floor mounted front operated indoor type cubical panel board necessary IP-42 and above protection as per approval from engineer incharge made from 14 SWG thick CRC M.S. sheet for outer body & doors, 16 SWG thick CRC M.S.sheet for internal partitions with necessary accessories , supporting angles/ flats channel including cutting, bending, drilling, welding, riveting with internal partitions & cable alley as per requirements & instruction of engineer-in-charge with erection of supplied switch gears, BUSBARS, suitable size of inter connecting PVC copper wire / copper-aluminium strips, rubber grommets, rib, bakelite control fuses/MCB for measuring instruments, earth bus & earth bolts, foundation flange - bolts-base Plates, sufficient nos. of hinged doors, handles with locking arrangement and rubber gasket,heavy duty end terminal connection,danger notice board,necessary ventilation,earthing strip complete. The Panel shall be painted with epoxy powder coating. (The rates excludes the cost of switchgears, bus bars, inter connecting mains & Copper Aluminium strips, meters, Fuses etc. The dimension shall be measured excluding base beams) The panel shall be supplied with following approved manufacturers with following size. (B) The standard companies switch gear shall be used and only manufacturers at CPRI approved factory (i) with 350mm depth	25.00	Sq.Mtr	14,755.00	3,68,875.00
119	(ii) with 550 mm. Depth	25.00	Sq.Mtr	19,196.00	4,79,900.00
120	(iv) with 1000 mm. depth	25.00	Sq.Mtr	40,594.00	10,14,850.00
121	Supplying and erecting triple pole & neutral 440V/ 500V panel mounting Aluminium Busbars with four equal Nos. of bus having current density not more than 0.8 Amp. / sq.mm (Rated current / cross section area) duly wrapped with colour insulating tape for phase sequence of following current carrying capacity, erected with necessary bus bar supports /insulators, main cable socket to each busbar,erected in existing cubical panel with necessary connections. (A) Suitable for 100 Amp. Capacity	40.00	Rn.Mtr		
122	(B) Suitable for 200 Amp. Capacity	40.00	Rn.Mtr		
123	(C) Suitable for 300 Amp. Capacity	40.00	Rn.Mtr		
124	(D) Suitable for 400 Amp. Capacity	40.00	Rn.Mtr		
125	(E) Suitable for 630 Amp. capacity	40.00	Rn.Mtr		

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
126	providing and erecting Miniature circuit breaker single pole 6A to 25A suitable to operate on 240 V A.C. system and having breaking capacity 10 KA to be erected in existing box. confirming to IS 8828/1996 with ISI Mark	50.00	Ea.	111.00	5,550.00
127	Providing & erecting 240 V MCB double pole switch for motor & inductive load (C Curve) having 10 KA breaking capacity & confirms to IS : 8828 in existing box having following capacity (A) 6 to 32 Amp.	500.00	Ea.	297.00	1,48,500.00
128	(B) 40 Amp.	200.00	Ea.	327.00	65,400.00
129	Providing & erecting 415 V MCB Four Pole for Motor & Inductive Load (C Curve) having 10KA breaking capacity & confirms to IS :8828 in existing box having following capacity (a) 6 to 32 Amp.	300.00	Ea.	5,901.00	17,70,300.00
130	(b)40 Amp.	200.00	Ea.	662.00	1,32,400.00
131	(c)63 Amp.	200.00	Ea.	730.00	1,46,000.00
132	Providing and erecting Approved make Four pole moulded case circuit breaker having breaking capacity ICU of 25 KA. at 415 V, having normal current rating up to 25 A to 100A. with Fixed thermal & magnetic release suitable to work on A.C. supply 50 c/s. with all internal connections, spreader tinned copper & complete erected in existing 16 G.M.S. housing. ICS=100% of ICU only Cat III	50.00	Ea.	6,112.00	3,05,600.00
133	Providing and erecting Approved make Four pole moulded case circuit breaker having breaking capacity ICU of 35 KA. at 415 V. having normal current rating 125A. with Fixed thermal & magnetic release suitable to work on A.C. supply 50 c/s. with all internal connections, spreader tinned copper & complete erected in existing 16 G.M.S. housing. ICS=100% of ICU only Cat III	50.00	Ea.	7,976.00	3,98,800.00
134	Providing and erecting Approved make Four pole moulded case circuit breaker having breaking capacity ICU of 35 KA. and above at 415 V . having normal current rating 250A. with variable thermal & magnetic release suitable to work on A.C. supply 50 c/s. with all internal connections, spreader tinned copper & complete erected in existing 16 G.M.S. housing.	50.00	Ea.	16,061.00	8,03,050.00

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI					
ABSTRACT SHEET_TROPICAL GARDEN					
Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
135	Providing and erecting Approved make Four pole moulded case circuit breaker having breaking capacity ICU of 35 K.A. and above at 415 V . having normal current rating 250A. with variable thermal & magnetic release suitable to work on A.C.supply 50 c/s. with all internal connections, spreader tinned copper & complete erected in existing 16 G.M.S. housing. ICS=100% of ICU only Cat III	50.00	Ea.	20,739.00	10,36,950.00
136	Providing and erecting Approved make Four pole moulded case circuit breaker having breaking capacity ICU of 50 K.A. and above at 415 V having normal current rating up to 630A. with Microprocessor base suitable to work on A.C.supply 50 c/s. with all internal connections, spreader tinned copper & complete erected in existing 16 G.M.S. housing ICS=100% of ICU only Cat III	50.00	Ea.	37,658.00	18,82,900.00
137	Supplying, Erecting, Testing & Commissioning the passenger / stretcher lift having following main features: 13 Passengers, Ground plus 1 upper floor with Rated Speed of 1.0 m/sec., (C) With General PLUS ADDITIONAL SPECIAL FEATURES attached herewith. Prem. Cat.	1.00	Ea.	15,72,501.00	15,72,501.00
138	Supplying & erecting approved make Lift Announcing solid state system in the Passenger/ Stretcher lifts having AC2/ACVV/ACVF drives & automatic doors only. The system comprising following features & facilities. (i) Announcing floor message, message to close period.(ii) Announcing 'Emergency Message' when lift is stuck between floors due to power failure or any other reason. (iii) Instrumental Music between floor announcing.(iv) Announcement in English / Hindi & Gujarati Languages.. (v) Flexible to accommodate special per-programmed message such as name of the building /office.(vi)Volume adjustment control	1.00	Ea.	16,950.00	16,950.00
139	Providing & erecting approved make overload non-start feature & overload warning Indicator system in the lift with making use of sound isolated floating platform & micro switches on SI frame to get sensation of live load inside lift cage at any given moment, with provides new fixtures of overload warning inside lift cage with new relay in the existing control panel to activate 'Overload Non-Start Function with carrying out additional wiring including laying of new travelling cable, include minor civil work & without changing the existing capacity speed stops, travel & operation of the desired lift	1.00	Ea.	32,205.00	32,205.00
	TOTAL AMOUNT OF ELECTRICAL WORKS				3,17,77,790.00
B	PLUMBING PARKS AND GARDENS				

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
1	Variable Speed Hydro-booster System for domestic water supply : HYDROPNEUMATIC SYSTEM AND VARIOUS PUMPS Variable Speed individual VFD Driven in-line, vertical multistage, centrifugal clear water pumps, speed upto 2900 rpm, with CI / SS Suction & Discharge chamber and SS casing (body), S.S 304 impeller and SS-304/410 shaft, C.I. Base with electro coating , connected to a TEFC motor (with mechanical seal) suitable for 380 / 440 volts, 3 phase 50 cycles A.C. supply, SKID mounted Electrical Control Panel , GI Suction & Discharge headers with valves and accessories, Hydro booster pressure vessel rated for 20 bar pressure of approx. 100 liters capacity on common CI/MS epoxy painted skid. Pumpsets to be fixed on RCC/PCC foundation with foundation bolts /vibration eleminating pads as required. (Anti Vibration /foundation Pads, base frame shall be supplied by vendor) Skid mounted Electrical Starter panel IP 42 composite for one set of pumps complete with Main Incoming MCB, individual pump VFDs and MPCB with single phasing preventer, contactors, control contactors, dry run trip relay with presure/flow transmitter in suction header, ON-OFF and TRIP Indicating LED type lamps, PLC based pump controller suitable to work as per operation logic furnished, cascade operation, automatic working/standby selection for equal run time ,cyclic timer etc. suitable for the pump capacity as specified below. Panel shall have auto-manual - off switch for operation in manual mode/automation mode. Panel to have necessary provisions of control relays to provide potential free contacts for BMS controls and monitoring.	2.00	Set	8,95,000.00	17,90,000.00

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
	Set of accessories such as G.I headers for suction and discharge, control valves, non return valves, pressure/flow transducers in suction and discharge lines (both), pressure gauge, electronic flow /level switch with cables for dry run protection and complete inter connecting power and control cabling and all required instrumentation complete shall be included in the offer. Hydro booster pressure vessel of approx. 100 liters capacity rated for 20 bar pressure with interchangeable butyl rubber membrane shall be mounted on the system. Vendor to confirm the capacity of tank and pressure rating For supplying water from U.G. tank to all landscape area and water body Capacity per pump - 20m3/hour Head - 40 mtr Pressure vessel - 100 liters or as per manufacturer recommendation (vendor to submit vessel size calculation as per flow) Pressure vessel location - UGWT pump room Approx. Elec. Load. - as per manufacturer recommendation Location - In pump room level 2 Set = 2 Nos. Pump (1w+1s) & 2 Nos. Pump (1w+1s) 7 years warranty Supply , Installation, testing & commissioning				
2	For supplying water from U.G. tank to all landscape area and water body (SPARE ITEM) Capacity per pump - 20m3/hour Head - 40 mtr Approx. Elec. Load. - as per manufacturer recommendation Location - In pump room level 1 Nos. Pump 7 years warranty Supply , Installation, testing & commissioning	1.00	Nos	4,47,500.00	4,47,500.00

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ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
3	For supplying domestic water from U.G. Tank to HVAC Make-up water tank & Toilets and WTP Capacity per pump - 10m3/hour Head - 30 mtr Pressure vessel - 100 liters or as per manufacturer recommendation (vendor to submit vessel size calculation as per flow) Pressure vessel location - UGWT pump room Approx. Elec. Load. - as per manufacturer recommendation Location - In pump room level 2 Set = 2Nos. Pump (1w+1s) and 2Nos. Pump (1w+1s) 7 years warranty Supply , Installation, testing & commissioning	2.00	Set	4,20,000.00	8,40,000.00
4	For supplying domestic water from U.G. Tank to HVAC Make-up water tank & Toilets and WTP (SPARE ITEM) Capacity per pump - 10m3/hour Head - 30 mtr Approx. Elec. Load. - as per manufacturer recommendation Location - In pump room level 1Nos. Pump 7 years warranty Supply , Installation, testing & commissioning	1.00	NOS	2,10,000.00	2,10,000.00
5	Pressure vessel For HVAC Make-up water tank & Toilets, WTP, landscape area and water body (SPARE ITEM) Pressure vessel - 100 liters or as per manufacturer recommendation (vendor to submit vessel size calculation as per flow) Pressure vessel location - UGWT pump room 7 years warranty Supply , Installation, testing & commissioning	1.00	NOS	50,000.00	50,000.00

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ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
6	DE-WATERING PUMP Pump should be Submersible, clear water pumps, speed upto 2900 rpm, with SS-304 casing, S.S 304 impeller and SS-304 shaft, C.I. Base CED coating & head, connected to a TEFC motor (with mechanical seal) suitable for 400 / 440 volts, 3 phase 50 cycles A.C. supply with 150 mm dia pressure guage with gunmetal isolation valve, vibration eliminating pads as required, M.S fabricated base plate bolted to cement concrete foundations complete. Vendor to submit performance curves and technical catalogue of the proposed model for review and information. Electrical Starter panels complete with O/L Relay with Single phasing preventer feature, earth leakage relay, ON-OFF and Trip Indicating lamps, contactors contacts for Building Automation System, interlocking, level controller with operational mode as one pump working at low level, both pumps at high level with a hooter alarm and cut off at dry level, cascade operation, working / standby sllection, etc. suitable for the motor H.P. as specified below and with provision for remote P.B. on/off complete as required. The on/off operations for all pumps shall be available on central BMS system . De-watering/Sump pump (From sump to external) Capacity per pump - 15m3/hour Head - 20 mtr Approx. Elec. Load. - as per manufacturer recommendation Location - Submerged in water 1 Set = 2Nos. Pump (1w+1s) 7 years warranty Supply, Installation, testing & commissioning	1.00	Set	2,51,300.00	2,51,300.00

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ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
7	AUTOMATIC WATER TREATMENT EQUIPMENTS [WTP : 10 M3/Hr.] Pressue Sand Filter : Providing, fixing, testing and commissioning of vertical self supporting PSF with FRP vessels , pressure gauges at inlet & outlet, sample cock, air vent valve with piping, UPVC Sch 80 piping distribution with diffuser on top & Bottom, 2" Automatic Sidemount Filter Multiport valve and all accessories, with initial charge of filter media of Sands.(Contractor has the responsibility to check the quality of water from actual water analysis report before procuring the equipments) Capacity of Sand Filter : 10 m3/hour Filtration rate (approx) : approx. 10.0 m3/hr/m2 Filter dia (approx.) : 600 mm Dia / As per Vendor Working pressure : 3.0 Kg/Sq.cm Test pressure : 10 kg/cm2 Supply	1.00	Set	2,01,750.00	2,01,750.00
8	Installation, testing & Comissioning	1.00	Set	10,000.00	10,000.00
9	Activated Carbon Filter : Providing, fixing, testing and commissioning of vertical self supporting ACF with FRP vessels , pressure gauges at inlet & outlet, sample cock, air vent valve with piping, UPVC Sch 80 piping distribution with diffuser on top & Bottom, 2" Automatic Sidemount Filter Multiport valve and all accessories, with initial charge of filter media of Sand + Carbon. (Contractor has the responsibility to check the quality of water from actual water analysis report before procuring the equipments) Capacity of ACF : 10 m3/hour Filtration rate (approx) : approx. 10.0 m3/hr/m2 Filter dia (approx.) : 600 mm Dia / As per Vendor Working pressure : 3.0 Kg/Sq.cm Test pressure : 10 kg/cm2 Supply	1.00	Set	2,27,500.00	2,27,500.00
10	Installation, testing & Comissioning	1.00	Set	10,000.00	10,000.00

**NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME,
PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI**

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
11	Softening Plant : Providing, fixing, testing and commissioning of vertical self supporting Softneing plant with FRP vessels , pressure gauges at inlet & outlet, sample cock, air vent valve with piping, UPVC Sch 80 piping distribution with diffuser on top & Bottom, 2" Automatic Sidemount Softner Multiport valve and all accessories + Salt brian tank, with initial charge of Ion Exchnage 225 NA base Softner resins.(Contractor has the responsibility to check the quality of water from actual water analysis report before procuring the equipments) Inlet Hardness : 300 - 500PPM Outlet Hardness : < 50 PPM Capacity of Softner : 10 m3/hour OBR : 150 m3 Suggested Resin Quantity - To be provided by Vendor Softener dia (approx.) : 600 mm Dia / As per Vendor Supply	1.00	Set	11,18,583.00	11,18,583.00
12	Installation, testing & Comissioning	1.00	Set	10,000.00	10,000.00

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ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
13	Providing, fixing, testing & commissioning of skid mounted fully automatic Reverse Osmosis System of output capacity 500 liters / hour designed at a minimum Flux complete as required with the following items (Inlet TDS-500PPM): [FOR MISTING SYSTEM] Antiscalant Dosing System with 0-4 LPH Dosing Pump, level sensors and 100 Ltr Dosing tank - 1 No. Acid Dosing System with 0-4 LPH Dosing Pump, level sensors and 100 Ltr Dosing tank - 1 No. Microne Cartridge filter - 1 No. High pressure pump 2 Nos. pumps with SS-304 casing, S.S 316L impeller and SS- shaft (As per OEM), SS-304 or C.I. Base CED coating & head TEFC IE5 magnetic motor with mechanical seal with Company fitted with company compliance certificate. Vendor to submit performance curves and technical catalogue with all GA Drawing of the proposed model for review and information. R.O. Block - 1 No. Membranes BWRO - 1 Lot Pressure Tubes - 1 Lot RO MSEP skid - 1No. pH correction system 0-4 LPH Dosing Pump, level sensors and 100Ltr Dosing tank - 1 No. Necessary instruments - 1 Lot SS 316 Interconnecting pipe with necessary valve work - 1 Lot i) SS316 (up to HP Pump) - 1 Lot ii) SS316 (HP Pump to Membrane) - 1 Lot Pressure gauges - 1 Lot Rotameter - 1 Lot Control panel with BMS Compatible - 1 No. Conductivity Indicator - 1 No. Level sensors (Permeate Tank) - H/L - 1 No. ORP Control valve - 1 No. relay based control panel. - 1 No. CIP System with SS316 / SS304 pump 1 No.	1.00	Set	11,30,000.00	11,30,000.00

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
14	The reverse osmosis block shall be duly supplemented with adequate pretreatment and post treatment equipment such as filter sodium metabisulphate dosing, anti-scalant dosing and post RO treatment pH correction dosing CIP etc. in line with the raw water characteristics and the required treated water parameters. The plant should consist of the following automation. The on/off operations for all R.O equipment shall be available on central BMS system.Supplier to provide a conductivity meter & automatic (BMS Compatible) motorized ball valve so as to ensure proper blending of treated water of desired quality in treated water . (For drinking).The plant starts when the level at R.O. water storage tank is low and stops when the level at R.O. water storage tank is high.When the level is low, the raw water pump starts. High pressure pumps starts after two minutes of starting of raw water pump.The reject valve closes after 1 minute of starting of high pressure pump.If the pressure at high pressure pumps suction is low / high, the plant trips.When the plant stops due to high level, first the high pressure pump stops and the dump valves opens, after two minutes the raw water pumps and dosing pump stops.When the connectivity is high an alarm is given.The MIMIC provides indications for all the I/Ps and the respective O/Ps.R.O. plant as described above. S.S.316 Storage tank & MS supporting structure on foundation with duly paint with red oxide , Primer of following capacity. of 5000 ltrs	1.00	Each	3,32,459.00	3,32,459.00
15	Installation, testing & Comissioning	1.00	Set	25,000.00	25,000.00
16	Supply, Installation, Testing & Commissioning for Supply of FILTRATION EQUIPMENT Bobbin Wound Filter Dia 600mm, 1.5" Side Connection. Flow Rate : 14m3/hr	1.00	Nos.	97,600.00	97,600.00
17	Side mounted Multiport Valve 1.5"	1.00	Nos.	16,100.00	16,100.00
18	3 piece PVC union 1 1/2" connection	3.00	Nos.	1,100.00	3,300.00
19	Glass Media Grade 1 25kg bag	6.00	Bags	3,800.00	22,800.00
20	Pump Victoria Plus pump 1 HP, I phase. Flow Rate: 16m3/Hr (1W+1S). Filtration Pump	2.00	Nos.	76,400.00	1,52,800.00
21	Kivu High performance plastic centrifugal pump 10 HP. Flowrate : 120m3/h (2 Working for each Waterfall+1 Standby)	3.00	Nos.	9,26,500.00	27,79,500.00
22	POOL BASIN FITTINGS Floor Inlet.Made of White ABS plastic (Filtration)	2.00	Nos.	2,600.00	5,200.00
23	3" adjustable pool floor return inlet. Grille in white ABS. Flow Rate: 20m3/Hr (Waterfall)	16.00	Nos.	6,600.00	1,05,600.00

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
24	Overflow Gutter Drain.Made of White ABS plastic	2.00	Nos.	1,900.00	3,800.00
25	Suction Inlet.Made of White ABS plastic.	1.00	Nos.	1,900.00	1,900.00
26	ABS Wall Conduit 300mm	1.00	Nos.	1,600.00	1,600.00
27	Circular VGB drain	2.00	Nos.	15,700.00	31,400.00
28	UV DISINFECTION Heliox UV LP PE. Flow rate: 14 m3/h @ 30 mJ/cm2, Lamps:1N°, Rated / UV-C power: 56/18 W, Total height : 735 mm, Reactor : Dia 200	1.00	Nos.	3,76,100.00	3,76,100.00
29	UNDERWATER LIGHT Underwater Warm White LED Light 4 W /12V AC. Conduit type with ABS Faceplate. 315 Lumens	8.00	Nos.	57,600.00	4,60,800.00
30	Wall conduit	8.00	Nos.	1,600.00	12,800.00
31	Deck Box	8.00	Nos.	4,700.00	37,600.00
32	Transformers 100W	1.00	Nos.	17,300.00	17,300.00
33	Transformer Protection Box	1.00	Nos.	15,400.00	15,400.00
34	CLEANING & MAINTENANCE Vaccum Head - Classic extruded aluminium pool cleaner 1 1/2" connection 350 mm	1.00	Nos.	24,800.00	24,800.00
35	Telescopic Pole. Length 2.4 - 4.8 m telescopic pole	1.00	Nos.	10,000.00	10,000.00
36	Floating suction hose Ø 38 mm (1 1/2"). 15m Length	1.00	Nos.	10,400.00	10,400.00
37	Supplying of Deep Net.	1.00	Nos.	3,300.00	3,300.00
38	Curved Brush - Shark Series	1.00	Nos.	2,600.00	2,600.00
39	VALVES AND CONTROLS Ball Valve 50 mm (Filling Line-3)	3.00	Nos.	3,100.00	9,300.00
40	Ball Valve 63 mm (Filtration Pump Suc & Del-4, Inlet-1, Drain-2, Suction Inlet-1, BT Suction-1, UV-3)	12.00	Nos.	4,300.00	51,600.00
41	Butterfly Valve Dia 110mm (Waterfall Pump Suc & Del-4)	4.00	Nos.	17,100.00	68,400.00
42	UPVC Flange Adaptor 110 mm	8.00	Nos.	1,200.00	9,600.00
43	UPVC Flange 110 mm	8.00	Nos.	1,400.00	11,200.00
44	Spring Check Valve dia 63mm (Filtration Pump Del-2, BT Suction-1)	3.00	Nos.	3,500.00	10,500.00
45	Flap Check Valve Dia 110mm (Waterfall Pump Del-2)	2.00	Nos.	6,300.00	12,600.00
46	UPVC Flange Adaptor 110 mm	4.00	Nos.	1,200.00	4,800.00
47	UPVC Flange 110 mm	4.00	Nos.	1,400.00	5,600.00
48	Supply, Installation, Testing & Commissioning for Supply of Pump for Misting System	4.00	Nos.	2,52,227.00	10,08,908.00
49	Electrical Cable with Conduict Wiring 2.5 sqmm 4 core	40.00	Meter	356.00	14,240.00
50	SS-316 Piping for Misting System	500.00	Meter	1,537.00	7,68,500.00
51	Mist Nozzle MOC: Brass Connection: 1/4"	210.00	Nos.	874.00	1,83,540.00

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
52	The costs incurred by the Operator in carrying out Operations. Operating costs, Pumproom maintain day-to-day operations For 7 years.	84.00	Month	15,000.00	12,60,000.00
53	Supply, Installation, Testing & Commissioning for Supply of BORE Drilling 8" dia bore hole by reverse circulation method in all kind of soils including rocks, boulders etc. including cost of consumable stores like fuel, lubricants, bentonite mud, material and transportation of rigs machinery etc. and supply of strata chart and all other desired information etc. complete as per the direction of the Engineer-in Charge. Note: Erection and dismantling of boring plant including all arrangement for the transportation of the boring equipment to site of work from the store of contractor at site and back are to be made by the contractor at his own cost. All rates should be quoted for supplying the material at site of work. Pits for collection of water and water for drilling tube well be arranged by the firm / contractor at site his own cost. Performance guarantee and warranty to be provided for 1 year or more as per client's requirement by the vendor.	1.00	Job	8,50,000.00	8,50,000.00
54	Meter bore depth (to be verified by the vendor)	250.00	mtr.		
55	Supply, fixing & lowering in bore well 8" dia (219.10 mm outer dia) ERW MS electric resistant welded pipe pipes with sockets (housing pipe) confirming to IS:4270-1992 (with up to date amendments) duly ISI marked and approved by Engineer-in-Charge. The blind pipe shall be in 4 mtrs to 7 mtrs random length as per the site requirements with 76.02 mm of threaded end(8 threads to an inch or 25.4 mm) manufactured out of 8.00 mm thick MS plate including the cost of requirement number of sockets of size 152.4 mm width made out of 1/2 " (12mm thick) plate including painting with two coats of anti corrosive bitumastic paint of approved brand etc. complete as per the direction of Engineer-in Charge 250 mtr	250.00	mtr.		
56	Supply, fixing & lowering of 2" dia UPVC Heavy duty column pipe with solvent weld socket joints and necessary fittings of brass thread with necessary fittings, such as elbow 90 degree, Long bend , elbow 45 degree, coupling, tee, unions, reducer, bushings, male and female fitting at the end, bend suspenders etc. using uPVC solvent as per standard ASTM F-493, including necessary supports viz., anti corrosive split clamps with anchor fastener to RCC or masonry pedestals and battens, hydro testing and as per technical specifications directed by the Project Manager. 250 MTR	250.00	mtr.		
57	Supply & filling pea gravel of 1m to 3 m size around the casing pipe of bore well including all leads and lifts should pea gravel free from dust, dirt or vegetable manure complete as per the direction of the Engineer-in-Charge. 125 cum	125.00	cum.		

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ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
58	Development of bore well using air compressor of 350 psi, 600 cfm pressure for required number of hrs including fuel etc. complete as per the direction of Engineer-in-Charge. 3 HR.	3.00	HR.		
59	Installation, testing, commissioning of Pumps as mentioned below with required fitting & accessories for the connection of pump with water supply line like pipe, tee, elbow, reducer, coupler, flanges, gasket, adhesive as required , required electric connection, nut & bolts , tool & tackle for completion of work at satisfaction level. the scope includes shifting of pump to the location as directed by client's PM. the required civil works of foundation shall be done by client and pumps shall be supplied by client on FOC basis.				
60	Supply, installation, testing and commissioning Submersible Pump system with level sensor Based Control Panel for Bore To U.G.W. Tank filling.(Domestic) Flow:-20m3/hr @ 250 mtr Head each pump Pump :- 1 Working Float switch :- 2 Nos. Level sensor:- 2 Nos Control Panel :- 1 No. Total Note: The Bore BOQ provided is for reference . Bore vendor has to provide final specifications of bore and based on the depth and quality of water available at the bore location for the best performance of Bore well.	set	set		
	TOTAL AMOUNT OF PLUMBING PARKS AND GARDENS WORKS				1,51,15,580.00
C	HVAC WORK				

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
1	Supply Installation, Testing , Commissioning of VRV/VRF System Supply, installation, testing and commissioning of VRV/VRF outdoor units with following multiple inverter based scroll/Rotary type compressors electronic expansion valve R410A eco friendly green refrigerant cooling mode option ,special pre coated fin type heat exchanger ,low noise direct driven propeller condenser fans in each module with top / side discharge including internal wiring ,microprocessor ,controls, safety devices (Hi-pressure switch , fan drive overload protector, over current relay , inverter overload protector etc.) auto check function for connection error, auto address setting. the condensing unit should be capable of providing cooling between +5 deg. c to 48 deg.c. COP is not less than 2.5 @ 44°C Ambient temperature . Top Discharge outdoor units with cowl & local control module having following feature: Schedule timer, on/ Off control, Mode changing control, Temperature control & error/ faulty signal feedback. Same to be BMS compatible with necessary wiring & accessories. 14 HP	4.00	Nos.	2,91,034.00	11,64,136.00
2	20 HP	1.00	Nos.	3,66,321.00	3,66,321.00
3	SITC of 4-Way Cassette Unit: 4-way cassette type unit comprising of copper evaporator ,electronic expansion valve ,blower ,motor ,filter pad , auto air swing louvers ,temperature & ON/OFF display with inbuilt drain pump & decorative panels including internal wiring ,control. As per specification . 3.20 TR	1.00	Nos.	43,500.00	43,500.00
4	4.00 TR	1.00	Nos.	46,800.00	46,800.00
5	4.60 TR	2.00	Nos.	52,500.00	1,05,000.00
6	SITC of Hi-Wall Unit 2.01 TR	2.00	Nos.	31,110.00	62,220.00

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
7	Supply, installation, testing, Commissioning & Balancing of Air Handling units Supply, Installation, Testing & Commissioning of DOUBLE SKIN TYPE FLOOR MOUNTED AHU/LOFT MOUNTED AHU/CEILING SUSPENDED AHU as per approved dwg/requirement. Comprising of Following : Frame Structure : Thermal break Extruded profile Aluminium Anodised . Panels : Double Skin 43mm Thk. PUF . Inner Skin : 20G .G.I Plain Outer Skin : 20G G.I Percolated Skid : MS Epoxy Coated Drain Pan : 1.2mm Thk SS304 - with 19mm Thk Nitrile Rubber insulation along with 40NB threaded Nipple in SS Construction Sealing Gasket : Food Grade Fan Type : PLUG Type Dampers : Opposed blade are foil low leakage Aluminium anodised damper at supply ,return ,fresh air side . Sections : Mixing Chamber with Access Door Along with Return Air (For AHUs with Ducted Return as per technical specifications.) , Fresh Air dampers , 10 Micron flange type Coil section with Access Door: Along with 6 Row deep coil of copper to suite TR mentioned and shall be AHRI 410 certified. Chilled water coils shall have 12.5 to 15mm dia tubes minimum 0.4mm thick with sine wave aluminium fins firmly bonded to copper tubes assembled in zinc coated steel frame. Coil Section with Access Door: Along with 6 Row deep DX coil to suite TR mentioned . Fan section : Motor Efficiency Class Minimum IE-3 Motor shall be TEFC 50Hz, 415V, IP55 protect, foot mounted UVGI system with Aluminium Framework UV system shall be designed to cover entire face area of the cooling coil and to improve indoor air quality by elimination of Mould, Fungi, and Microbes on cooling coil and Drain Pan. UVGI system shall be suitable to operate with 230V AC, 1 Phase, 50Hz supply.	2.00	Nos.	6,89,500.00	13,79,000.00

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ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
8	2-Stage Evaporating Air Cooling Unit Supply, Installation, Testing & Commissioning of 2-Stage Evaporating Air Cooling Unit as per approved dwg/requirement. Supply, installation, Testing and commissioning of Two stage evaporative cooling system for kitchen supply air shall comprise of Indirect and Direct cooling heat exchangers. Indirect heat exchanger shall be of Engineered Polymer with thermally fused non woven media. Direct heat exchanger shall be made up of cellulose impregmented paper. Air velocity across heat exchangers shall be between 2-2.5 m/s. Unit shall be of 23 ± 1 mm thick CFC free PUF Insulation to density of 38-42Kg/m3. Skin shall be 0.63 mm inner plain and 0.63 mm outer pre-coated GI. Structure shall be of hollow aluminium profile with nylon connectors. Base frame shall be of GI 1.6mm thick with Die cast Al. connectors. HDPE Filters shall be 10 microns. Sump shall be of SS 304 material. Individual submersible type recirculation pump for the Both the stages (Cooling coil-stage-1 & Cooling pad - stage-2) shall be Submersible type of SS 304. UV Treatment Unit for supply Water Fan Section : Motor IE-4, Primary fan shall be DIDW centrifugal backward curved. Secondary fan shall be DIDW centrifugal fan for Draw thru units. It is not required for Blow thru units. Marine lamp, Limit switch, door protection to be provided. Isolators: Rubber Block type isolators below fan structure required to avoid vibration & direct contact of fan with structure Automatic ELECTRICAL CONTROL Panel with following details: Suitable rating incoming MCCB/MCB, 415 V with communication port for communication & BMS. Digital ammeter, CTs & control MCBs. Phase indicating lights & control MCBs (RYB) Push buttons for manual start/stop of motor. Indicating light for starter on/off/trip	2.00	Nos.	39,15,000.00	78,30,000.00
9	Supply, Installation, Testing , Commissioning of EEV KITS with expansion valve for AHU unit's connected VRV / VRF out door units (All require accessories, Cables/ controls consider for Hybrid units & VRV ODU to be consider) (If multi kit required as per TR will be included Consider as single Module) EEV KIT - for FM-AHU having capacity of 18.75 TR	2.00	Set.	50,000.00	1,00,000.00

**NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME,
PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI**

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
10	SITC of Remote control Cordeless remote controllers	5.00	Nos.	4,900.00	24,500.00
11	Corded remote controllers	2.00	Nos.	2,100.00	4,200.00
12	SITC of Central Controller W/o PC Monitoring Systems (BMS Compatable) Supply installation, testing and commissioning of Central Remote Controller. System should have facilities for start, stop, temperature setting, fan speed control, mode control, Group control, emergency start & stop, BMS & fire alarm system access and fault Diagnosis.	1.00	Lot	2,75,000.00	2,75,000.00
13	SITC of All refrigerant Joints Providing, fixing and testing of Variable refrigerant flow distribution REFNUTS / T Joints (pair) in the suction & Liquid lines for various sizes of copper refrigerant piping including insulation etc. as required.	1.00	Sets	30,250.00	30,250.00

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ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
14	Copper piping & Drain piping work Supply, Installation, testing and commissioning including vaccumiazation and Nitrogen testing of following nominal sizes of soft/hard drawn copper refrigerant piping for VRV/VRF system, At terrace level, Shafts & inside the Air-conditioning area refrigerent piping and cabling running should be on the perforated heavy duty cable tray and duly epoxy coated Black painted clamp with jointing/press fittings including accessories, thermal insulation with Closed cell EPDM rubber, having drensity 40-60 kg/m3 & 19mm thickness as per the specifications. Material shall have fire class A (Flame spread:20 & Smoke developed: 150) in accordance with ASTM E-84 and flamability class V-0 as per UL 94. Thermal Conductivity is 0.035 w/m.k at 24°C mean temperature and having μ value ≥ 7000 without any covering. Material shall be Anti-fungal & Anti-Bacterial in accordance with UL181 and ASTM E2180 respectively. NOTE:- 1)The Copper Piping & Piping Circuit should be with Minimum Number of joints, which shall be attained by : (i) Using One End Expanded Tubes (ii) Bending the tubes instead of using elbow joints wherever 90 degree bending is required. (2) Piping should be routed at site in such a manner, that brazed joints in the refrigeration piping are kept to a minimum. (3) The makes of tube fittings shall be same as that of tubes. (4) The thickness of fittings used shall be same as that of the pipe. Pipe Fittings Specification:-Press fittings with press ends shall be manufactured from Copper (UNS C12200) min 99.9% pure and be UL certified recognised component. Three-point press fitting (one before the seal, on the seal and after the seal towards the fitting end) available in sizes 1/4" to 1.3/8" compatible with copper tubes manufactured to ASTM B280/ JIS H 3300. The sealant HNBR O ring in the fitting shall be black in colour, with capacity to withstand temperatures -40 to +140 Degree Celsius. Press fittings shall be capable of withstanding maximum operating pressure of 48 bar (700 psig). Copper fittings shall be supplied with 10 years warranty and installers shall be trained and certified before	450.00	RMT	2,450.00	11,02,500.00
15	Supply, Installation, testing and commissioning of 2Cx1.5 Sqmm power & control cables between indoor and outdoor unit laid in PVC pipe and duly epoxy coated Black painted clamped .	450.00	RMT	235.00	1,05,750.00

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI

ABSTRACT SHEET_TROPICAL GARDEN

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0	1	2	3	4	5
16	Supply, installation, testing & commissioning of PVC Drain piping for the units with 13mm Thick Closed Cell EPDM Insulation and duly epoxy coated Black painted clamped . 50mm dia	50.00	RMT	577.00	28,850.00
17	40mm dia	50.00	RMT	427.00	21,350.00
18	32mm dia	50.00	RMT	345.00	17,250.00
19	Flexible Fire Rated Canvas Connector: At all connections between ducts & fans/ Ducted Units/TFA; fire-retardant, lint-free double canvass/rexin connections of heavy gauge shall be provided. One set of canvas connection include required quantity of canvas for one evaporator indoor unit / Exhaust Or Fresh Air Fan.	4.00	Nos.	3,800.00	15,200.00
20	Testing & Commissioning charges along with topping-up of refrigerant	1.00	Lot	1,22,500.00	1,22,500.00
21	Ducting & Lowside Work Factory Fabricated Ducts as per "SMACNA" Standards & Specifications Supply, Fabrication, installation and testing of sheet metal RECTANGULAR ducts in accordance with the approved shop drawings and as required by the specifications.The supports should comprise of support channel made up of cold rolled steel of quality DX51 or greater and should be hot dip galvanised. All necessary accessories i.e. Threaded Rods, Nuts, Washers should have a minimum strength class of 4.8. All flanged joints to be sealed with 6 mm neoprene gaskets. Duct joints shall be sealed using UL-listed water-based duct sealant for class A air systems (The Supports should be free from welding) 750 - 1500 mm 22 (4 Bolt TDC (E)	1,600.00	MT2	1,300.00	20,80,000.00
22	Factory Fabricated Ducts as per "SMACNA" Standards & Specifications Supply, Fabrication, installation and testing of sheet metal CIRCULAR ducts in accordance with the approved shop drawings and as required by the specifications.The supports should comprise of support channel made up of cold rolled steel of quality DX51 or greater and should be hot dip galvanised. All necessary accessories i.e. Threaded Rods, Nuts, Washers should have a minimum strength class of 4.8. All flanged joints to be sealed with 6 mm neoprene gaskets. Duct joints shall be sealed using UL-listed water-based duct sealant for class A air systems (The Supports should be free from welding) 1 - 750 mm 24 C & SS	50.00	MT2	1,300.00	65,000.00
23	750 - 1500 mm 22 (4 Bolt TDC (E)	50.00	MT2	1,550.00	77,500.00

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ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
24	Insulation Work & Acoustic Work Providing & Fixing Duct thermal insulation with Closed cell Elastomeric Foam made from EPDM with Alu Foil, having density 40-60 kg/m³ & thickness of 19 mm for Supply Air Duct & 13 mm for Return Air Duct Insulation as per the specifications. Base Material shall have fire class A (Flame spread:20 & Smoke developed: 150) in accordance with ASTM E-84 and flammability class V-0 as per UL 94. Thermal Conductivity is 0.035 w/m.k at 24°C mean temperature and having μ value ≥ 7000 without any covering. Material shall be Anti-fungal & Anti-Bacterial in accordance with UL181 and ASTM E2180 respectively. 19 MM THK	150.00	MT2	930.00	1,39,500.00
25	13 MM THK	50.00	MT2	800.00	40,000.00
26	Providing and fixing Acoustic Insulation of open cell nitrile rubber sheet having density of 180-220 kg/m³ and recommended thickness of 15 mm. Absorption coefficient value of Insulation material shall be 0.90 for the 2000 Hz frequency band in accordance to IS:8225/ISO:354/ASTM 423C. Material shall have fire class 1 as per BS 476, part 7. Material Shall be EPA approved and Anti-Fungal & Anti- Bacterial in accordance with ASTM G21 & ASTM E 2180 respectively. It shall be fixed inside of the duct with the help of adhesive as per the specifications given. 15 MM THK	50.00	MT2	1,000.00	50,000.00
27	Ducting Air Distribution Products Motorized Fire Damper : SITC of High quality Galvanized Steel Frame with 1.6mm sheet of thickness as standard. 165mm depth and standard flange height of 30mm of frame. Blade shall be 1.6 mm thick triple V type profile. Drive shaft shall be Motorized. Fire/smoke dampers shall be with ON/OFF type or spring return actuator. The dampers to be fire rated for 2hr. Fire dampers should be supplied with extended fire rated sleeves and control panel. Fire damper assembly should be UL555 certified. Fire damper shall complete with control panel. Fire dampers	2.00	MT2	20,500.00	41,000.00
28	Motorized Modulating type actuators rated for fire dampers.	2.00	Nos	12,000.00	24,000.00
29	Control cabling Note: Fire Damper installation details should be as per our drawings. Fire barrier mouldable putty/sealant should be as per 3M make for sealing the gap around the fire damper.	1.00	Lot	4,300.00	4,300.00

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ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
30	Motorized Volume Control Damper : High quality Galvanized Steel Frame with 1.2mm sheet of thickness as standard. 125mm depth and standard flange height of 25mm of frame. Blade shall be Double skinned high quality extruded Aluminium aerofoil profiles. Drive shaft shall be Electro-plated square rod with Self-lubricating nylon bushings. Nylon gear for blade linkage with Galvanized Steel locking hand quadrant. G.I angle of thickness 0.7mm for Blade stopper. Motorized Volume Control dampers	2.00	MT2	11,000.00	22,000.00
31	Motorized Modulating type actuators	2.00	Nos	9,500.00	19,000.00
32	Control cabling	1.00	Lot	4,300.00	4,300.00
33	Round Diffuser : SITC of Al. extruded powder coated Round diffusers flush type. Provide damper arrangement. Spigot mounted butterfly damper shall be operated from front face of the diffuser. Supply Air diffuser with Round collar damper as per neck size as follows:	25.00	MT2	15,550.00	3,88,750.00
34	Jet Nozzle with collar damper Ø 400 with Neck Size: Ø 400	150.00	MT2	5,150.00	7,72,500.00
35	Wire Mesh Supply, installation , testing and commissioning Welded, galvanized, weather resistant and corrosion resistant Wire Mesh. Mesh gauge (typically 1.2 mm, 12 X 12 mm opening). Instal behind air inlets/ outlets or dampers as insect guard.	5.00	MT2	350.00	1,750.00
36	Supplying & fixing of powder coated extruded aluminium Supply Air Grills with aluminium volume control dampers as per specifications.	10.00	MT2	11,000.00	1,10,000.00
37	SITC of powder coated extruded aluminium Return Air Grills without volume control dampers complete as required.	10.00	MT2	9,500.00	95,000.00
38	Exhaust/Fresh air louvers of 80 mm thick high performance (55% free area) drainable fixed louver type Aluminium frame and blades. Louvers to have framed 13 mm mesh removable mill finish aluminium bird screens. Powder coated fresh air louvers constructed out of extruded aluminium complete with bird screen, filters and damper shall be provided in the clear openings in masonry walls for fresh air of the air handling units. Blades shall be made of not less than 16 gauge aluminium sheet, edges covered with felt to provide air tight closure, and shall be rattle free. Blades shall be made of not less than 16 gauge aluminium sheet, edges covered with felt to provide air tight closure, and shall be rattle free	30.00	MT2	14,900.00	4,47,000.00
TOTAL AMOUNT OF HVAC WORKS					1,72,25,927.00

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
D	DX SYSTEM				
1	Supply-Installation of AIR-COOLED DX System COOLING SYSTEM Supply of Inverter DX System Wall mounted Inverter Hi-wall Unit 2.00 TR	2.00	Nos.	49,000.00	98,000.00
2	Supply & installation of the following components of DX system Refrigerant piping Supply, Installation, testing and commissioning including vaccumiazation and Nitrogen testing of following nominal sizes of soft/hard drawn copper refrigerant piping for DX system, complete with fittings, with suitable adjustable ring type hanger supports, jointing/press fittings including accessories, thermal insulation with Closed cell EPDM rubber, having drensity 40-60 kg/m3 & 19mm thickness as per the specifications. Material shall have fire class A (Flame spread:20 & Smoke developed: 150) in accordance with ASTM E-84 and flamability class V-0 as per UL 94. Thermal Conductivity is 0.035 w/m.k at 24°C mean temperature and having μ value ≥ 7000 without any covering. Material shall be Anti-fungal & Anti-Bacterial in accordance with UL181 and ASTM E2180 respectively. NOTE:- 1)The Copper Piping & Piping Circuit should be with Minimum Number of joints, which shall be attained by : (i) Using One End Expanded Tubes (ii) Bending the tubes instead of using elbow joints wherever 90 degree bending is required. (2) Piping should be routed at site in such a manner, that brazed joints in the refrigeration piping are kept to a minimum. (3) The makes of tube fittings shall be same as that of tubes. (4) The thickness of fittings used shall be same as that of the pipe. Pipe Fittings Specification:-Press fittings with press ends shall be manufactured from Copper (UNS C12200) min 99.9% pure and be UL certified recognised component. Three-point press fitting (one before the seal, on the seal and after the seal towards the fitting end) available in sizes ¼" to 1.3/8" compatible with copper tubes manufactured to ASTM B280/ JIS H 3300. The sealant HNBR O ring in the fitting shall be black in colour, with capacity to withstand temperatures -40 to +140 Degree Celsius. Press fittings shall be capable of withstanding maximum operating pressure of 48 bar (700 psig). Copper fittings shall be supplied with 10 years warranty and installers shall be trained and certified before installation and site supervised by the competent personnel from the manufacturer/	1.00	lot	67,500.00	67,500.00

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
3	Power & Control cables between indoor and outdoor unit laid in PVC pipe and duly epoxy coated Black painted clamped .	1.00	lot	10,700.00	10,700.00
4	M.S.Structure for installing DX outdoor units duly epoxy coated.	80.00	KG	160.00	12,800.00
5	PVC Drain piping for the units with 9mm Thick Closed Cell EPDM Insulation and duly epoxy coated Black painted clamped . 25mm dia	20.00	RMT	280.00	5,600.00
6	Testing & Commissioning charges along with topping-up of refrigerant for DX Inverter Hi-wall units	1.00	Nos.	8,500.00	8,500.00
	TOTAL AMOUNT OF DX SYSTEM WORKS				2,03,100.00
E	VENTILATION SYSTEM WORK				
1	Ventilation Equipments Supply, installation, testing and commissioning of wall/window mounted PROPELLER FAN for exhaust air, complete with in and out louvers, , 3 pin socket with Cabling complete as per specifications, requirements, standards and drawings.dB level not more than 45 in the room 150 CFM - 15mmwg of external static pressure (Womens Toilet & Pantry)	3.00	Nos.	9,500.00	28,500.00
2	200 CFM - 15mmwg of external static pressure (Male Toilet)	2.00	Nos.	9,500.00	19,000.00
3	250 CFM - 15mmwg of external static pressure (Store 1)	1.00	Nos.	10,500.00	10,500.00
4	550 CFM - 15mmwg of external static pressure (Store 2)	1.00	Nos.	14,000.00	14,000.00
5	700 CFM - 15mmwg of external static pressure (Elec. room)	1.00	Nos.	15,780.00	15,780.00

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
6	Supply, installation, testing & Commissioning of Cabinet type Fan as per approved dwg/requirement. Ceiling Suspended Single skin Cabinet Type DIDW type forward curved fan type Exhaust air units as per specification and of following capacities with Built-In Drive And Drive Package. Unit will be in single skin construction fabricated out of Aluminium extruded section and GI Panels. Extruded Aluminium profiles shall be duly anodized as per industrial standards (15 to 18 microns anodizing) GI panels shall be 1.8mm thick duly coated with pure epoxy powder/ liquid polyurethane paint for resistance against humid/polluted weather. Panels shall be secured on the frame with gasket provided between them. Vibration isolators shall be provided between fan base frame and casing. Suitable panel of blower section shall be provided with cable entry hole. Provision of Earthing shall be provided. Inspection doors with hinges made out of aluminium alloy or glass filled nylon shall be provided. Fan shaft will be coated with suitable rust preventives after the final assembly. Noise level shall not be more than 65dBA. Fan motors shall be 3 phases, sq. cage, T.E.F.C. Motor efficiency minimum Class IE3 Automatic ELECTRICAL CONTROL Panel WITH VFD with following details Suitable rating incoming MCCB/MCB, VFD of (380-480 volt) 415 V with communication port for communication & BMS. Digital ammeter, CTs & control MCBs. Phase indicating lights & control MCBs (RYB) Push buttons for manual start/stop of motor. Indicating light for starter on/off/trip. 220/24V control transformer for 2 way motorized valve/ Expansion valve. Interlocking terminals & wiring for fire damper, motorized dampers etc. as per control	1.00	Nos.	70,000.00	70,000.00
7	12000 CFM - 20 mmwg of External Static Pressure	6.00	Nos.	1,63,000.00	9,78,000.00

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
8	Supply, Installation, Testing & Commissioning of Cabinet Type Fan as per approved dwg/requirement. Ceiling Suspended Single skin Cabinet Type DIDW type forward curved fan type Fresh air units as per specification and of following capacities with Built-In Drive And Drive Package. Unit will be in single skin construction fabricated out of Aluminium extruded section and GI Panels. Extruded Aluminium profiles shall be duly anodized as per industrial standards (15 to 18 microns anodizing) GI panels shall be 1.8mm thick duly coated with pure epoxy powder/ liquid polyurethane paint for resistance against humid/polluted weather. Panels shall be secured on the frame with gasket provided between them. Filter section shall have rigid frame fabricated out of GI sheet. Threaded inserts/nuts duly nickel plated shall be pre-fixed on filter frame to secure the filters. Filters shall be flange type with GI casing. Vibration isolators shall be provided between fan base frame and casing. Suitable panel of blower section shall be provided with cable entry hole. Provision of Earthing shall be provided. Inspection doors will hinges made out of aluminium alloy or glass filled nylon shall be provided. Fan shaft will be coated with suitable rust preventives after the final assembly. Noise level shall not be more than 65dBA. Flanged type filters shall be HDPE washable types with filtration level as per requirement. Fan motors shall be 3 phases, sq. cage, T.E.F.C. Motor efficiency minimum Class IE3 5200 CFM - 20 mmwa of External Static Pressure	1.00	Nos.	72,500.00	72,500.00

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
9	Air Distribution System Factory Fabricated G.I Rectangular Ductwork as per SMACNA standard for following gauges Supply, Fabrication, installation and testing of sheet metal ducts in accordance with the approved shop drawings and as required by the specifications. The supports should comprise of support channel made up of cold rolled steel of quality DX51 or greater and should be pre galvanised with minimum GSM of 275. All necessary accessories i.e. Threaded Rods, Nuts, Washers should have a minimum strength class of 4.8. (The Supports should be free from welding) 1 - 750 mm 24 (4 Bolt TDC (E))	500.00	MT2	1,300.00	6,50,000.00
10	750 - 1500 mm 22 (4 Bolt TDC (H))	1,000.00	MT2	1,550.00	15,50,000.00
11	Site Fabricated G.I Rectangular Ductwork as per SMACNA standard for following gauges Supply, installation, balancing and commissioning of fabricated at site GSS sheet metal rectangular/round ducting complete with neoprene rubber gasket,elbows,splitter,hangers, supports etc. as per approved drawings and specifications of following sheet thickness complete as required. Minimum sizes Gauge Joint Type 1 - 750 mm 24 C & SS	100.00	MT2	1,300.00	1,30,000.00
12	750 - 1500 mm 22 (4 Bolt TDC (E))	100.00	MT2	1,550.00	1,55,000.00
13	Ducting Air Distribution Products SITC of powder coated extruded aluminium Supply Air Grills with aluminium volume control dampers as per specifications.	10.00	MT2	11,000.00	1,10,000.00
14	SITC of powder coated extruded aluminium Return Air Grills without volume control dampers as per specification.	10.00	MT2	9,500.00	95,000.00
15	Round Diffuser : SITC of Al. extruded powder coated Round diffusers flush type. Provide damper arrangement. Spigot mounted butterfly damper shall be operated from front face of the diffuser. Supply Air diffuser with Round collar damper as per neck size as follows:	30.00	MT2	15,550.00	4,66,500.00
16	Fire Rated Flexible Canvas Connector: At all connections between ducts & fans/ Ducted Units/TFA; fire-retardant, lint-free double canvass/rexin connections of heavy gauge shall be provided. One set of canvas connection include required quantity of canvas for one evaporator indoor unit / Exhaust Or Fresh Air Fan.	8.00	Nos.	3,800.00	30,400.00

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
17	Motorized Fire Damper : SITC of High quality Galvanized Steel Frame with 1.6mm sheet of thickness as standard. 165mm depth and standard flange height of 30mm of frame. Blade shall be 1.6 mm thick triple V type profile. Drive shaft shall be Motorized. Fire/smoke dampers shall be with ON/OFF type actuator. The dampers to be fire rated for 2hr. Fire dampers should be supplied with extended fire rated sleeves and control panel. Fire damper assembly should be UL555 certified. Fire damper shall complete with control panel. Fire dampers	5.00	MT2	20,500.00	1,02,500.00
18	Motorized Modulating type actuators rated for fire dampers.	2.00	Nos	12,000.00	24,000.00
19	Control cabling Note: Fire Damper installation details should be as per our drawings. Fire barrier mouldable putty/sealant should be as per 3M make for sealing the gap around the fire damper.	1.00	Lot	4,300.00	4,300.00
TOTAL AMOUNT OF VENTILATION SYSTEM WORKS					45,25,980.00
F	CCTV WORK				
1	Network IP BASED CCTV SITC of 2MP, Full HD, 1/2.8 type CMOS image sensor, Vari Focal : 9.0 mm to 22 mm, H.265 / H.264 & MJPEG triple-stream encoding, Max. IR LEDs length 30 m , IP66 rated, 25/30fps@1080P (1920 ×1080), Support ICR for day time and night time operation, Zoom ratio :2.4x Optical (Motorized zoom/ Motorized focus), Bullet Camera.	5.00	Nos.	18,174.00	90,870.00
2	SITC of 2MP, Full HD, 1/2.8 type CMOS image sensor, Vari Focal : 2.8 mm - 12 mm, H.265 / H.264 & MJPEG triple-stream encoding, 25/30fps@1080P (1920 ×1080), Max IR LEDs length 30 m, IP66 rated, Optical Zoom- 4.3x. Vari Focal Dome Camera.	31.00	Nos.	18,154.00	5,62,774.00
3	SITC of 2MP, Full HD, 1/2.8 type CMOS image sensor, fixed lens 2.8 / 3.6 mm, H.265 / H.264 & MJPEG triple-stream encoding, 25/30fps@1080P (1920 ×1080), Max IR LEDs length 30 m, IP66 rated, Fixed Dome Camera.	9.00	Nos.	9,872.00	88,848.00

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
4	Supply, Installation, Testing & Commissioning of IP Network TDN Low-Light IR PTZ Camera with auto tracking, 1/1.9" CMOS, 2 MP @ 25fps, triple stream, H.265, H.264 and MJPEG, Min. Illumination required 0.005 lux @ F1.6 (color) & 0.0005 lux @ F 1.6(B/W), 120dB True WDR, Min. Pixels 1920 × 1080, triple stream, 6mm –180 mm 30x motorized focus & zoom lens, BLC, HLC, 3DNR, Defog, Electronic Image Stabilization, Privacy Mask, IR range with 150mtr IR distance, Dual channel Audio G.711a/G.711u/AAC, 128GB SD card support, Alarm: 7 In/ 2 out, PoE, H.264 High Profile and MJPEG, PoE Class 5 and 12V DC/24VAC, IP 67, IK 10 vandal proof, Having Operating temp range : –40°C to 70° C. Certifications: ONVIF Profile S compliant, UL, CSA 60950-22, CE (EN 50130-4 & EN 55022) , FCC Part 15 & RoHS compliant	0.00	Nos.	1,25,682.00	0.00
5	Supply, installation, testing and commissioning of UL Listed Network Video Recording System (in multiple of 32 channels should be capable of recording at D1 resolution @ 25 FPS @ 40% motion for 100% recording for 30 days. Required HDD for the same to be considered.	2.00	No.	38,950.00	77,900.00
6	Supply , Laying , Testing & Commissioning of 55" LED Display with necessary connectors , inter linking cords etc. complete as required	2.00	No.	45,250.00	90,500.00
7	Supply ,laying of 25 MM PVC conduit(FRLS) including necessary saddles	2,500.00	Mtr	59.00	1,47,500.00
8	Supply , laying , Testing and Commissioning of Power Cable 3 X 1 sq.mm flexible cable for cameras for Bullet cameras	500.00	Mtr	73.00	36,500.00
9	Supply , Laying , Testing & Commissioning of CAT - 6 Cable (UTP) for cameras	4,050.00	Mtr	55.00	2,22,750.00
10	Network Switches, Cabling and Containment POE switch wiith OFC input 24 port layer 3	0.00	Nos.	2,82,150.00	0.00
11	POE switch wiith OFC input 24 port layer 2	2.00	Nos.	73,817.00	1,47,634.00
12	POE switch wiith OFC input 8 port layer 2	1.00	Nos.	30,409.00	30,409.00
13	OFC 5 core single mode in 25 mm PVC Conduit	0.00	Mtr	67.00	0.00
14	19 U Rack(with all accessories such as Patch Chord,Patch Panel,etc)	1.00	Nos.	32,084.00	32,084.00
15	42 U Rack(With all accessories such as patch chord,patch paneletc)	1.00	Nos.	64,598.00	64,598.00
	TOTAL AMOUNT OF CCTV WORKS				15,92,367.00
G	FIRE ALARM SYSTEM WORK				

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
1	Fire Panel & Annunciators Supply, Insallation, Testing and Commissioing of Microprocessor based Multi-loop, True Peer-to-Peer Networkable Addressable Fire Alarm Control Panel with minimum 600 characters LCD display, 4000 event plus 1000 alarm log history events, QWERTY keypad for programming. The panel should be equipped with sufficient numbers of loops considering 20% spare capacity in each loop. . The panel shall work in degrade mode in case of CPU failure, Products not having this feature may offer Redundant CPU. Four access levels, flash EPROM, 240 volts AC power supply, automatic battery charger, 24 volts sealed lead acid batteries sufficient for 24 hours normal working and 30 mins in alarm condition. 1 Loop Panel	1.00	Nos.	3,31,315.00	3,31,315.00
2	Supply, Insallation, Testing and Commissioing of Active Repeater Panel with minimum 80 Characters Liquid Crystal Display with backlit control.	1.00	Nos.	93,105.00	93,105.00
3	Detectors Supply, Insallation, Testing and Commissioing of Addressable Multi-criteria Photo-Thermal Detector with sensitivity range of 0.5 to 4.0% obs/ft.The intelligent multi criteria detection device shall include the ability to combine the signal of the thermal sensor with the signal of the photoelectric signal in an effort to react hastily in the event of a fire situation. It shall also include the inherent ability to distinguish between a fire condition and a false alarm condition by examining the characteristics of the thermal and smoke sensing chambers and comparing them to a database of actual fire and deceptive phenomena. The detector shall have twin bi-colour LED for 360 deg viewing. Addressing shall be with user friendly rotary decimal switches. Designed to meet UL268, 7th Edition	15.00	Nos.	3,987.00	59,805.00

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
4	Supply, Insallation, Testing and Commissioing of Addressable Multi-criteria Photo-Thermal Duct Detector with Sampling Chamber with sensitivity range of 0.5 to 4.0% obs/ft.The intelligent multi criteria detection device shall include the ability to combine the signal of the thermal sensor with the signal of the photoelectric signal in an effort to react hastily in the event of a fire situation. It shall also include the inherent ability to distinguish between a fire condition and a false alarm condition by examining the characteristics of the thermal and smoke sensing chambers and comparing them to a database of actual fire and deceptive phenomena. The detector shall have twin bi-colour LED for 360 deg viewing. Addressing shall be with user friendly rotary decimal switches. Designed to meet UL268, 7th Edition(85 below false ceiling and 84 above false ceiling)	4.00	Nos	11,448.00	45,792.00
5	Supply, Insallation, Testing and Commissioing of Addressable Rate of Rise Heat Detector rated at 8.3 deg C/min. The detector shall have twin bi-colour LED for 360 deg viewing. Addressing shall be with user friendly rotary decimal switches.	5.00	Nos.	2,803.00	14,015.00
6	Supply, Insallation, Testing and Commissioing of Addressable Beam Detector. The beam detector shall be used for High Ceiling application with a detection range upto 100 mtrs having 4 manual & 2 auto sensitivity settings. The beam detector shall be True addressable installed on the SLC circuite & communicate directly with the panel without any interface module	3.00	Nos.	56,907.00	1,70,721.00
7	Response Indicator	0.00	Nos.	145.00	0.00
8	Modules Supply, Insallation, Testing and Commissioing of Addressable Manual Call Point (Pull down / Break Glass Type). The device shall have an LED which shall blink in normal state & get steady on activation to monitor the heath status of the device.	7.00	Nos.	3,143.00	22,001.00
9	Supply, Insallation, Testing and Commissioing of Addressable Control Module for Sounders / Strobes / Sounder cum Strobes. The control module shall provide supervised NAC output rated at 24v DC, 2A. The device shall have an LED which shall blink in normal state & get steady on activation to monitor the heath status of the device. Addressing shall be with user friendly rotary decimal switches. Module shall be supplied with mounting plate from OEM for ease of installation & maintenance.(For SMOKE Extraction Fans)	7.00	Nos.	2,513.00	17,591.00

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ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
10	Supply, Insallation, Testing and Commissioing of Addressable Relay Module for AHU, Access Control, Lifts, Staircase Pressurization, Fire Suppression & other Third Party Outputs. The relay module shall provide contact rated at 24v DC, 2A. The device shall have an LED which shall blink in normal state & get steady on activation to monitor the heath status of the device. Addressing shall be with user friendly rotary decimal switches. Module shall be supplied with mounting plate from OEM for ease of installation & maintenance.(For AHUS)	4.00	Nos.	3,633.00	14,532.00
11	Supply, Insallation, Testing and Commissioing of Addressable Monitor Module for Sprinklers, Panic Bars & other Third Party Inputs. The monitor module shall monitor potential free contacts. The device shall have an LED which shall blink in normal state & get steady on activation to monitor the heath status of the device. Addressing shall be with user friendly rotary decimal switches. Module shall be supplied with mounting plate from OEM for ease of installation & maintenance.	7.00	Nos.	3,633.00	25,431.00
12	Supply, Insallation, Testing and Commissioing of Isolator Module for Isolating short / dewired / loose circuits with automatic resetting arrangement. Isolator Base can also be proposed, however in that case needs to be considered with each detector & module. The device shall have an LED which shall blink in normal state & get steady on activation to monitor the heath status of the device. Module shall be supplied with mounting plate from OEM for ease of installation & maintenance.	2.00	Nos.	3,328.00	6,656.00
13	Supply Installation Testing commissioning of Hooter cum strobe	7.00	Nos.	5,486.00	38,402.00
14	Supply Installation Testing commissioning of Telephone Hand sets	2.00	Nos	3,711.00	7,422.00
15	Supply Installation Testing commissioning of Fire Jacks	4.00	Nos	13,091.00	52,364.00
16	Cables & Accessories Supply, Insallation, Testing and Commissioing of 2 C X 1.5 Sq mm multi stranded twisted unshielded FRLS Armoured Copper cable.(Red Colour)	1,450.00	Rmt.	153.00	2,21,850.00
17	Supply, Insallation, Testing and Commissioing of Junction Box for devices including mounting accessories (3 nos.Gland, Screw, etc...)	59.00	Nos	175.00	10,325.00
18	Supply ,Installation Testing commissioning of 3C X 2.5 Sq MM FRLS copper multistranded armoured power cable.Red Color,	350.00	Rmt.	267.00	93,450.00
	TOTAL AMOUNT OF FIRE ALARM SYSTEM WORK				12,24,777.00
H	DIGITAL PUBLIC ADDRESS & BACKGROUND MUSIC SYSTEM MALL & OFFICE WORK				

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
1	Supply, installation & commissioning of 6W rated False Ceiling / ceiling Mount Speakers with tap offs for 1.5,3 & 6 W with inbuilt 100V Line Matching Transformer, wide opening angle, optimized for music & speech applications with mounting clamps and other required mounting accessories for medical area.	11.00	Nos	1,250.00	13,750.00
2	Supply, installation & commissioning of 6 W rated Floor Mounted Cabinet Speakers with wall mounting brackets with tap offs for 1.5, 3 & 6 W with inbuilt 100V Line Matching Transformer, wide opening angle, optimized for music & speech applications with mounting clamps and other required mounting accessories for medical area	17.00	Nos	3,560.00	60,520.00
3	Supply, installation & commissioning of Rack Mounted 4 Ch x 125 Watt RMS dual channel Audio Power Amplifiers with amplifier output of 100V/ 70V AC, shall work on supply input AC 230/240V-50Hz or DC 24V, with short circuit protection, EOL supervision cards, overload protection & with ventilating Fans with the required interface cards to seamlessly communicate to network controller, the TCPIP interface box , IP paging station etc., as specified in the Tender Specifications. Supply, installation & commissioning of Rack Mounted 4 Ch x 125 Watt RMS dual channel Audio Power Amplifiers with amplifier output of 100V/ 70V AC, shall work on supply input AC 230/240V-50Hz or DC 24V, with short circuit protection, EOL supervision cards, thermal shutdown feature, overload protection & with ventilating Fans with the required interface cards to seamlessly communicate to network controller, paging station etc., as specified in the Tender Specifications. Power supply units shall be part of the offer.	1.00	Nos	65,200.00	65,200.00

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
4	Supply, installation, Testing and Commissioning of Rack mountable Audio Matrix Zone / Network controller with the required audio expanders for the required no of zones in each area/ block. Zone Controllers shall be DSP Based, with the required interface cards to seamlessly communicate to network controllers, amplifiers, communication with paging station, communication with hard wired paging station, Programming software, required license cost etc.), with pre-recorded message manager, expandability to 16 zones, shall accommodate multiple amplifiers, capable to add backup amplifier(if added in future), with required hardware & software with built in fault logger, Amplifier monitoring capability, Integration with FACP, automated evacuation message facility, scheduled time based message announcement facility, with the required interconnecting cables to connect to the amplifiers, zone wise paging & high quality multi-channel background music playing capability with the required fibre optic cables & converters as required and meeting all requirements. Speakers in medical area will have options for announcement and fire message Speakers in common area will have options for Background music system and fire message. Necessary BGM sources needed for the provision of requirements are to be included in the offer. Power supply units shall be part of the offer.	1.00	Lots	1,96,281.00	1,96,281.00
5	Supply, Installation, Testing and Commissioning of 2 mm thick CRCA Sheet Powder Coated 19" rack of suitable height as required with cable manager, power strip, lockable caster wheels to house all the amplifiers, message manager & Zone/ Network controller, TCPIP interface & with cooling fans with properly ventilated louvers and openable, lockable doors	1.00	Lots	32,084.00	32,084.00
6	Supply, installation & commissioning of TCP IP or Non-IP enabled Paging desk console microphone with atleast 50 pages of directory & menu, with In-built 4 W Speaker: Gooseneck Microphone: with housing with the required interface cards to seamlessly communicate to network controllers, amplifiers, the interface boxes . It shall also be possible to connect the Paging console to the Zone/Network controller and make announcement locally in case of failure of the network with required interface card and connectors	1.00	Nos	36,280.00	36,280.00
7	Supply, installation & commissioning of Rack Mounted DVD cum MP3, with USP facility player as specified in the Tender Specifications	1.00	No	12,520.00	12,520.00
8	2corex 1,5 square mm multistranded FRLS,armoured cable.	560.00	RM	153.00	85,680.00
	TOTAL AMOUNT OF DIGITAL PUBLIC ADDRESS & BACKGROUND MUSIC SYSTEM MALL & OFFICE WORK				5,02,315.00

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
I	ACCESS CONTROL SYSTEM WORKS				
1	Supply, Installation, Testing & Commissioning of UL Listed Micro processor based Access Control Reader Module, Each reader module should support 1 Door 2 Reader. Should have 4 supervised Inputs, Inputs may be assigned to door related functions or general purpose I/O, should have 2 general purpose output, Shall have encrypted 128bit AES Communication network	7.00	NOS	23,926.00	1,67,482.00
2	Supply, Installation, Testing & Commissioning of UL Listed Micro processor based IP based Access Control Master Controller with support for 20 readers/10 Door per controllers along with 500000 card capacity, 100000 mobile Connect credential & 80,000 transaction. capable of controlling all readers. Peer-to-Peer communication independent of server, Firmware stored in memory that is easily updated on LAN network, Variable card format supported, Multiple facility codes supported, Multiple card reading technologies support like Mifare, Proximity and Biometric, Including Enclosure Unit for ACS Controller Chassis and SMPS 240 VAC- 12 VDC 5 Amp. with complete accessories as required at site	0.00	NOS	54,190.00	0.00
3	SITC of Client Workstations designed & recommended by OEM to meet the following Criteria : - Ability to process 64 Simultaneous 1080p Streams - Ability to Visualize all Access Control Alarms & Events - Ability to Visualize all Other Systems (Intrusion, Guard Tour etc) Alarms & Events - Ability to connect 4 Video Monitors (HDMI, DVI) simultaneously - Ability to Run 24x7 - CPU : i7 or higher, RAM : 32 GB or Higher, OS HDD : Solid State 256 GB, 1GbE Network Card x 2, 1 TB Local Storage - OS : as recommended by OEM, Anti Virus Pre-loaded - Graphics Card : NVIDIA P2200 or Equivalent with 5GB or more VRAM, 4 Monitor Support	1.00	NOS	1,51,308.00	1,51,308.00

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
4	SITC of Mobile Access, Bluetooth & NFC, 13.56 Mhz, ISO 14443 A&B, Mullion Mounted RFID card reader capable of reading MIFARE® DESFire® EV2 formats, with OSDP V1, V2 and Wiegand communication, minimum read range 6 cm, IP65 (bidder to include gasket/accessories if needed), IK10 with FCC, CE & UL rating. Card Reading Format : Pre-configured & uniquely coded for the customer. The Reader must provide Bluetooth Mobile Credential Reading Capability. The Card OEM must maintain a unique account number for the customer to ensure that the card serial numbers are unique and in chronology based on anytime ordering	7.00	Nos	16,104.00	1,12,728.00
5	SITC of 13.56 Mhz Mifare Desfire EV2, 4K Memory cards, Official NXP registered, provided with NXP certificate from OEM	200.00	NOS	365.00	73,000.00
6	Supply, Installation, Testing & Commissioning of Emergency Break Glass Unit, Green Color with Resettable Key, Plastic Body, Unbreakable Glass, Door Release label & Required all accessories for Mounting	7.00	NOS	4,862.00	34,034.00
7	Supply, Installation, Testing & Commissioning of EM Lock for Single Leaf Door with 600 lbs holding force, 12VDC Power Input, LED Status , Door Status including with complete accessories as required at site	1.00	NOS	4,593.00	4,593.00
8	Supply, Installation, Testing & Commissioning of EM Lock for Double Leaf Door with 600 lbs holding force, 12VDC Power Input, LED Status , Door Status including with complete accessories as required at site	6.00	NOS	8,132.00	48,792.00
9	Supply, Installation, Testing & Commissioning of Push Button.	7.00	NOS	3,449.00	24,143.00
10	Supply, Installation, Testing & Commissioning of 25 mm dia. Open/conceal manner Medium guage rigid PVC pipe with GI pulling wire.	70.00	RMT	67.00	4,690.00
11	Supply, Installation, Testing & Commissioning of 8 Core x 0.75 sqmm Flexible cable	70.00	RMT	140.00	9,800.00
12	Supply, Installation, Testing & Commissioning of 4 Core x 0.75 sqmm Flexible cable	70.00	RMT	92.00	6,440.00
13	Supply, Installation, Testing & Commissioning of 2 Core x 0.75 sqmm Flexible cable	70.00	RMT	45.00	3,150.00
14	Supply, Installation, Testing & Commissioning of 2Core x 1 sqmm Shieldede twisted pair Flexible cable	70.00	RMT	80.00	5,600.00
15	Supply,Installation,testing & Commissioning of CAT 6 Cable inside the PVC rigit Conduit	200.00	RMT	61.00	12,200.00
16	8 Port two Layer switch	1.00	NOS	30,408.00	30,408.00
17	19 U Rack with Accessories	1.00	NOS	32,084.00	32,084.00
18	SITC of Visitor Management Software	1.00	Nos	8,58,878.00	8,58,878.00
TOTAL AMOUNT OF ACCESS CONTROL SYSTEM WORKS					15,79,330.00

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
J	LIGHTING WORKS				
1	Chip brand : Six pcs SMD3535RGB American CREE -LED make LEDs) power : 1.44W/pcs control mode : DMX512 working volt; : DC24V level of protection : IP67 Irritation angle : 120° colour : RGB+W vertrefresh : 3840HZ Grayscale : 65536, Module size : 62*23*17MM manufacturing technique : no welding technology Cable specification : Power : 2 Sq. Mm x 2 Control : 0.5 Sq. mm x 3 material : Imported ABS plastic +PC mask pixels Meter : 12 pixels Special aluminum profiles for rectangular light sources, 28.40MM wide, punched with a hole diameter of 18.10*45.24, 12 holes punched per meter. colour of the aluminium material should be nearly matching with that of the wall / structure material. (Cable Specification : Shell Single-head power supply: 400 Pixels Per Pixel Pitch : 83 mm The	50,424.00	MTR	1,400.00	7,05,93,600.00

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
2	XB-809 Master Controller 1. Ultra-large touch screen, intuitive display, quick and simple operation, controller status monitoring at any time. 2. Powerful performance, able to load up to 160,000 pixels or 80 slave controllers 3. Adopting GPS/Beidou dual satellite synchronization module to realize the synchronization of each frame between multiple devices. 4. Equipped with RS-485 ports (Modbus) and UDP ports for connecting to third-party devices. 5. Supporting Bluetooth control, mobile phone control, real-time PC/mobile phone APP control, LAN file replacement, and the Internet remote file replacement. 6. Supporting timing play and multi-level encryption function. 7. The play content is stored in the SD card, which can store up to 32 effect files. The SD card capacity supports 4G-32GB, supporting single effect play, effect cyclic play, and effect acceleration and deceleration. 8. The master controller can automatically/manually the slave IDs. Multiple controllers can be set together or individually. 9. The master controller has multiple built-in effects and dimming function to test the loaded multi-channel lamps. 10. The controller has DMX512 address writing and testing functions. It can write address for DMX512 IC loaded on single port or all ports, and test the address. 11. The controller should adopt standard TCP/IP network protocol, and the signal transmission is more stable. 100-BASE/1000-BASE transmission rate can be selected. 12. It can be used offline with our T-730/T-790 and can carry up to 160,000 pixel points or 80 controllers. 13.Support GPS/BDS dual-mode-satellite synchronization, wireless RF synchronization, and GPS/BDS dual-mode cyclic synchronization.	1.00	Nos.	12,00,000.00	12,00,000.00

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
3	1. Support 8 output ports, each can carry a maximum of 1024 pixels (11L&DMX512). 2. The port outputs two types of signal protocols: 1. DMX512/1990 international standard protocol and 2. DMX512 extension protocol; SPI/TTL serial port protocol. 3. Load DMX512 lamps, with the output rate of 250K/500K/750Kbs. 4. When controller with Madrix software, each port can load 1/2/3/4/5/6 Univ of lamps (one Univ = 170 point light sources). 5. The output port of the controller is provided with three layers of protection to ensure that the controller output ports are not damaged in case of short circuit, reverse connection, etc. of the controller lamps. The controller ID can be automatically or manually set. Multiple controllers can be set together or individually. The controller has built-in effects to test the loading lamps (both RGB and RGBW lamps). 6. The controller has DMX512 address writing and testing functions. It can write address for DMX512 IC loaded on single port or all ports, and test the address. 7. The communication between controllers adopts the international standard TCP/IP network protocol, with transmission rate of 100-BASE / 1000-BASE adaptive optional, therefore enjoying more stable and faster transmission speed. The maximum transmission distance between each two controllers is up to 100m. If the transmission distance exceeds 100m, switches or optical fibers can be used for long-distance transmission. 8. The controller provides LCD to display the controller model, ID and working status. 9. With its online video software LedPlayer for computer control, the connection status of the controller can be monitored in real time on the computer side. Using online video software LedPlayer for computer control can realize: program timing play, program clip selection, effect brightness adjustment, white balance online adjustment, program play speed adjustment, display text, picture cycle play, etc., which greatly meet the various needs of customers in application and debugging; the online video software LedPlayer also comes with Gamma correction, which can make color display more delicate and vivid.	23.00	Nos.	2,50,000.00	57,50,000.00
4	Lamp size: 20*20*5000MM Number of lamp beads: 60 lamps 5050RGBW Power: 15W/ m Control mode: 512 Control pixel pitch: 20 segments Voltage: DC12V Output method: Direct output/ Side output/ bottom output Protection level: IP67 housing material: Flexible	550.00	Meter	9,500.00	52,25,000.00

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
5	XB-809 Master Controller . 1. Ultra-large touch screen, intuitive display, quick and simple operation, controller status monitoring at any time. 2. Powerful performance, able to load up to 160,000 pixels or 80 slave controllers 3. Adopting GPS/Beidou dual satellite synchronization module to realize the synchronization of each frame between multiple devices. 4. Equipped with RS-485 ports (Modbus) and UDP ports for connecting to third-party devices. 5. Supporting Bluetooth control, mobile phone control, real-time PC/mobile phone APP control, LAN file replacement, and the Internet remote file replacement. 6. Supporting timing play and multi-level encryption function. 7. The play content is stored in the SD card, which can store up to 32 effect files. The SD card capacity supports 4G-32GB, supporting single effect play, effect cyclic play, and effect acceleration and deceleration. 8. The master controller can automatically/manually the slave IDs. Multiple controllers can be set together or individually. 9. The master controller has multiple built-in effects and dimming function to test the loaded multi-channel lamps. 10. The controller has DMX512 address writing and testing functions. It can write address for DMX512 IC loaded on single port or all ports, and test the address. 11. The controller should adopt standard TCP/IP network protocol, and the signal transmission is more stable. 100-BASE/1000-BASE transmission rate can be selected. 12. It can be used offline with our T-730/T-790 and can carry up to 160,000 pixel points or 80 controllers. 13.Support GPS/BDS dual-mode-satellite synchronization, wireless RF synchronization, and GPS/BDS dual-mode cyclic synchronization. 14. IC controller for DMX lamps comes with address writing function.	1.00	Nos.	4,50,000.00	4,50,000.00

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
6	1. Support 8 output ports, each can carry a maximum of 1024 pixels (11L&DMX512). 2. The port outputs two types of signal protocols: ①DMX512/1990 international standard protocol and DMX512 extension protocol; ② SPI/TTL serial port protocol. 3. Load DMX512 lamps, with the output rate of 250K/500K/750Kbs. 4. When controller with Madrix software, each port can load 1/2/3/4/5/6 Univ of lamps (one Univ = 170 point light sources). 5. The output port of the controller is provided with three layers of protection to ensure that the controller output ports are not damaged in case of short circuit, reverse connection, etc. of the controller lamps. The controller ID can be automatically or manually set. Multiple controllers can be set together or individually. The controller has built-in effects to test the loading lamps (both RGB and RGBW lamps). 6. The controller has DMX512 address writing and testing functions. It can write address for DMX512 IC loaded on single port or all ports, and test the address. 7. The communication between controllers adopts the international standard TCP/IP network protocol, with transmission rate of 100-BASE / 1000-BASE adaptive optional, therefore enjoying more stable and faster transmission speed. The maximum transmission distance between each two controllers is up to 100m. If the transmission distance exceeds 100m, switches or optical fibers can be used for long-distance transmission. 8. The controller provides LCD to display the controller model, ID and working status. 9. With its online video software LedPlayer for computer control, the connection status of the controller can be monitored in real time on the computer side. Using online video software LedPlayer for computer control can realize: program timing play, program clip selection, effect brightness adjustment, white balance online adjustment, program play speed adjustment, display text, picture cycle play, etc., which greatly meet the various needs of customers in application and debugging; the online video software LedPlayer also comes with Gamma correction, which can make color display more delicate and vivid. 10. With its online video software LedPlayer for computer control, the connection status of the controller can be monitored in real time on the computer side. Using online video software LedPlayer for computer control can realize: program timing play, program clip	5.00	Nos.	2,50,000.00	12,50,000.00
7	Installation Job This is budegetory price for secondary wiring & Installation, actual cost will be worked out based on drawings and site condntions which may vary. Accessories etc will at actuals based on site condntions/ DB location etc	1.00	Job	1,30,00,000.00	1,30,00,000.00
8	SURFACE CEILLING	106.00	Nos.	1,000.00	1,06,000.00
9	INDIRECT LIGHT	1.00	Nos.	6,54,200.00	6,54,200.00

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
10	PLANT UPLIGHTER	113.00	Nos.	5,000.00	5,65,000.00
11	SURFACE DOWNLIGHT	20.00	Nos.	15,000.00	3,00,000.00
12	DECORATIVE CLUSTER	47.00	Nos.	15,000.00	7,05,000.00
13	UNDERWATER LIGHT	5.00	Nos.	1,00,000.00	5,00,000.00
14	UNDERWATER LIGHT	1.00	Nos.	20,00,000.00	20,00,000.00
15	CEILING RECESSED	30.00	Nos.	10,000.00	3,00,000.00
16	Wall Surface	8.00	Nos.	1,00,000.00	8,00,000.00
17	Wall Surface	490.00	Nos.	10,000.00	49,00,000.00
18	BOLLARD	36.00	Nos.	30,000.00	10,80,000.00
19	DECORATIVE POLE LIGHT	12.00	Nos.	50,000.00	6,00,000.00
20	PLANT UPLIGHTER	219.00	Nos.	5,000.00	10,95,000.00
21	CEILING RECESSED	35.00	Nos.	10,000.00	3,50,000.00
22	CEILING RECESSED	15.00	Nos.	18,000.00	2,70,000.00
23	IN DIRECT PROFILE	1.00	Nos.	2,24,784.00	2,24,784.00
TOTAL AMOUNT OF LIGHTING WORKS					11,19,18,584.00
K	WATERFALL				
1	FILTRATION EQUIPMENT Bobbin Wound Filter Dia 600mm, 1.5" Side Connection. Flow Rate : 14m3/hr	1.00	Nos.	97,600.00	97,600.00
2	Side mounted Multiport Valve 1.5"	1.00	Nos.	16,100.00	16,100.00
3	3 piece PVC union 1 1/2" connection	3.00	Nos.	1,100.00	3,300.00
4	Glass Media Grade 1 25kg bag	6.00	Bags	3,800.00	22,800.00
5	Pump Victoria Plus pump 1 HP, I phase. Flow Rate: 16m3/Hr (1W+1S). Filtration Pump	2.00	Nos.	76,400.00	1,52,800.00
6	Kivu High performance plastic centrifugal pump 10 HP. Flowrate : 120m3/h (2 Working for each Waterfall+1 Standby)	3.00	Nos.	9,26,500.00	27,79,500.00
7	POOL BASIN FITTINGS Floor Inlet.Made of White ABS plastic (Filtration)	2.00	Nos.	2,600.00	5,200.00
8	3" adjustable pool floor return inlet. Grille in white ABS. Flow Rate: 20m3/Hr (Waterfall)	16.00	Nos.	6,600.00	1,05,600.00
9	Overflow Gutter Drain.Made of White ABS plastic	2.00	Nos.	1,900.00	3,800.00
10	Suction Inlet.Made of White ABS plastic.	1.00	Nos.	1,900.00	1,900.00

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
11	ABS Wall Conduit 300mm	1.00	Nos.	1,600.00	1,600.00
12	Circular VGB drain	2.00	Nos.	15,700.00	31,400.00
13	UV DISINFECTION Heliox UV LP PE. Flow rate: 14 m3/h @ 30 mJ/cm2, Lamps:1N°, Rated / UV-C power: 56/18 W, Total height : 735 mm, Reactor : Dia 200	1.00	Nos.	3,76,100.00	3,76,100.00
14	UNDERWATER LIGHT Underwater Warm White LED Light 4 W /12V AC. conduit type with ABS Faceplate. 315 Lumens	8.00	Nos.	57,600.00	4,60,800.00
15	Wall conduit	8.00	Nos.	1,600.00	12,800.00
16	Deck Box	8.00	Nos.	4,700.00	37,600.00
17	Transformers 100W	1.00	Nos.	17,300.00	17,300.00
18	Transformer Protection Box	1.00	Nos.	15,400.00	15,400.00
19	CLEANING & MAINTENANCE Vaccum Head - Classic extruded aluminium pool cleaner 1 1/2" connection 350 mm	1.00	Nos.	24,800.00	24,800.00
20	Telescopic Pole. Length 2.4 - 4.8 m telescopic pole	1.00	Nos.	10,000.00	10,000.00
21	Floating suction hose Ø 38 mm (1 1/2"). 15m Length	1.00	Nos.	10,400.00	10,400.00
22	Supplying of Deep Net.	1.00	Nos.	3,300.00	3,300.00
23	Curved Brush - Shark Series	1.00	Nos.	2,600.00	2,600.00
24	VALVES AND CONTROLS Ball Valve 50 mm (Filling Line-3)	3.00	Nos.	3,100.00	9,300.00
25	Ball Valve 63 mm (Filtration Pump Suc & Del-4, Inlet-1, Drain-2, Suction Inlet-1, BT Suction-1, UV-3)	12.00	Nos.	4,300.00	51,600.00
26	Butterfly Valve Dia 110mm (Waterfall Pump Suc & Del-4)	4.00	Nos.	17,100.00	68,400.00
27	UPVC Flange Adaptor 110 mm	8.00	Nos.	1,200.00	9,600.00
28	UPVC Flange 110 mm	8.00	Nos.	1,400.00	11,200.00
29	Spring Check Valve dia 63mm (Filtration Pump Del-2, BT Suction-1)	3.00	Nos.	3,500.00	10,500.00
30	Flap Check Valve Dia 110mm (Waterfall Pump Del-2)	2.00	Nos.	6,300.00	12,600.00
31	UPVC Flange Adaptor 110 mm	4.00	Nos.	1,200.00	4,800.00
32	UPVC Flange 110 mm	4.00	Nos.	1,400.00	5,600.00
33	FEFS ROCK WALL Supply & Erection of custom designed FEFS Rock wall including lift area(150mm avg. depth considered in Lift area).	5,041.00	Sqft	1,275.00	64,27,275.00
TOTAL AMOUNT OF WATER FALL WORKS					1,08,03,575.00

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ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
L	WATER FEATURE				
1	Filtration Plant with Activated Glass Media Bobbin Wound Polyester Fibre Glass , Filtration Velocity :30 m3/hr/m2 Dia. 800 mm working pressure 2.5 kg/cm2 Flow rate: 24.90 m3/hr outlet connection 63 mm , complete with pressure gauge,manual bleeder,water drain,empty drain for filter media with 700mm bed depth Make: Aqvastar Pro/ AtecPool/Astral	1.00	No.	70,800.00	70,800.00
2	6 Way side mounted Multiport valve with all accessories connection size 63 mm Make: Aqvastar Pro/ AtecPool/Astral	1.00	No.	5,600.00	5,600.00
3	Activated Glass media	330.00	kgs	230.00	75,900.00
4	MULTICYCLONE PRE FILTER Supply & Installation of Multicyclone Prefiltration device that works on the basis of centrifugal water filtration and is designed with no and Water Saver with 50mm connections , Maximum flow capacity 30 m3/hr with a filtration efficiency Of 30-40 micron Made in UK Make: Aqvastar Pro/ AtecPool/Astral	1.00	No.	62,100.00	62,100.00
5	FREQUENCY INVERTOR PANEL Supply & Installation of Frequency Invertor panel to control pump with 35 running speeds, 4 timer programs, classic touch control capable to handle upto 3 HP/1Phase pumps Make: Aqvastar Pro/ AtecPool/Astral	1.00	No.	48,650.00	48,650.00
6	Self Priming Pump ABS plastic impeller of polyperelene flow rate 26m3/hr @9.5 mtrs head with inbuilt prefilter strainer 2hp ,2650 rpm,380 volts, 6.4 Ampr, 3.6KW, Make: Aqvastar Pro/ AtecPool/Astral	2.00	No.	70,060.00	1,40,120.00
7	Chemical Dosing systems 15ltr per hr chemical dosing pump with mixer and storage tank for chemical transperent 100ltr with scale marking Make: Aqvastar Pro/ AtecPool/Astral	1.00	No.	46,500.00	46,500.00

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
8	UV+Ozone Advanced System The UV system shall incorporate an exterior pressure gauge utilizing both PSI & kPa scale, pressure switch with by pass capability, drain. Connection size : 63 mm , The wet reactor shall be 230 cm in diameter. The chamber shall be constructed from injection molded, UV inhibited, virgin polymeric material. low pressure lamp 58 watts input intensity Dose performance 30mj/cm2 at lamp end of life. Nos. of lamp : 3 nos. The EOF not less than 13000 hrs of operation. 230V, 50 Hz. Diameter 285 mm , height 650 mm , Flow rate : 25 m3/hr with recirculation pump Enables swimming without the use of chlorine. Up to 80% disinfection by UV-C. Up to 20% disinfection by copper electrolysis. 316L stainless steel housing. Yields up to 35% more UV-C as a result of reflection. UV-C lamp and copper unit are typically sufficient for 2 swimming seasons. Easy installation and maintenance. The Blue Lagoon UV-C Ionizer is earthed. Make: Aqvastar Pro/ AtecPool/Astral	1.00	No.	2,56,300.00	2,56,300.00
9	Pool Basin Fittings Anti Vortex VGB Drain ABS Square drain 300 mm x 300 mm in White plastic	2.00	No.	4,860.00	9,720.00
10	Wall inlet in ABS white plastic flow rate 2 m3/hr with 50 mm glue connection Make: Aqvastar Pro/ AtecPool/Astral	12.00	No.	1,200.00	14,400.00
11	Suction Nozzle in ABS white plastic for suction sweeper with 2" connection Make: Aqvastar Pro/ AtecPool/Astral	2.00	No.	1,500.00	3,000.00
12	ABS white plastic Skimmer with wide mouth and strainer basket 50mm connection size Make: Aqvastar Pro/ AtecPool/Astral	4.00	No.	7,600.00	30,400.00
13	Underwater Lights Advanced Under Water lights Driver for Underwater light 300 VA , 12/24VDC, IP 67 Make : Meanwell	5.00	No.	7,890.00	39,450.00
14	Deck Box SS Top cover for Underwater light	26.00	No.	2,560.00	66,560.00
15	Steeple Lights LED Steep Lights with Ss profile for shallow area 12v, 12w per meter warm white colour, 20mm size All Stair case, Deck Side Length of pool and inside lap pool seating area	55.00	No.	26,500.00	14,57,500.00

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
16	Water Geyser Jet Nozzles SS 304 Fountain Nozzles Geyser Jet in 32mm connection size complet with ball joint and valve	5.00	No.	6,520.00	32,600.00
17	SS 316 Stand type spot mirror with polycarbon luminaire cover with ABS face 20 W (warm white) 12 /24 V DC Ø 100 mm with SS stand wall mounted type for Overflow channel	5.00	No.	21,560.00	1,07,800.00
18	Sicvencer For RGB Lights with Transforer Make: Aqvastar Pro/ AtecPool/Astral	1.00	No.	15,600.00	15,600.00
19	Fountain Pump 30m3 Flor rate per hr with pre filter Make: Aqvastar Pro/ AtecPool/Astral	2.00	No.	80,650.00	1,61,300.00
20	Maintenance Kit Alumnium body suction sweeper with brushes at the bottom with wheel on each side 450 mm width with clip type connection Make: Aqvastar Pro/ AtecPool/Astral	1.00	No.	4,200.00	4,200.00
21	Reinforced telescopic Handle 4-8 ft long Make: Aqvastar Pro/ AtecPool/Astral	2.00	No.	2,500.00	5,000.00
22	Deep Bag skimmer clip type Make: Aqvastar Pro/ AtecPool/Astral	2.00	No.	1,100.00	2,200.00
23	Curved brush clip type Make: Aqvastar Pro/ AtecPool/Astral	2.00	No.	1,230.00	2,460.00
24	Floating suction ,made of polyethylene blue color 40 mm(1- 1/2") 15 mtrs long Make: Aqvastar Pro/ AtecPool/Astral	2.00	No.	6,500.00	13,000.00
25	Plumbing and Valve Plumbing & Electrical: PVC Piping with complete fittings of 10 bar for swimming pool & Plant Room 300 Sq ft min. 500 mm lower than swimming pool drain (we are considering pump room within 10mtr of pool) 25mm PVC Pipe	12.00	mtrs	142.00	1,704.00
26	50mm PVC Pipe	36.00	mtrs	550.00	19,800.00
27	63mm PVC Pipe	65.00	mtrs	749.00	48,685.00
28	90mm PVC Pipe	30.00	mtrs	1,100.00	33,000.00
29	110mm PVC Pipe	30.00	mtrs	1,250.00	37,500.00
30	160mm PVC Pipe	0.00	mtrs	4,356.00	0.00
31	UPVC Ball Valve solvent Ball Valve Solvent type Ø 50 mm	4.00	No.	550.00	2,200.00
32	Ball Valve Solvent type Ø 32 mm	5.00	No.	410.00	2,050.00
33	Ball valve with valve kit Ø 63 mm	6.00	No.	890.00	5,340.00

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
34	Ball valve with valve kit Ø 32 mm	5.00	No.	540.00	2,700.00
35	Check valve Ø 63 mm solvent type	2.00	No.	3,950.00	7,900.00
36	B/F valve with valve kit Ø 90 mm	12.00	No.	7,850.00	94,200.00
37	B/F valve with valve kit Ø 110 mm	6.00	No.	9,500.00	57,000.00
38	Check valve Ø 110 mm solvent type	6.00	No.	6,660.00	39,960.00
39	E lectrical Panel and Wire Electrical Panel IP 42 for recirculation pumps(02 nos.) , Water wall pumps (02 nos.) ,ELCB or RCCB for underwater lights/ Pumps , MCB for 3 nos. of U/W Light) Panel 16 gauge powder coated, VAF, Indicator Lamp , MCB for pumps	1.00	no.	75,000.00	75,000.00
40	3 core 2.5 mm2 PVC copper cable for pumps with PVC 20 mm conduit in mtrs	75.00	mtrs	225.00	16,875.00
41	2 Core Copper cable with rigid conduit for Underwater light (2.5 mm2)	150.00	mtrs	135.00	20,250.00
42	Supervision,Erection and Commissionig	1.00	Nos.	45,000.00	45,000.00
	TOTAL AMOUNT OF WATER FEATURE WORKS				31,80,324.00
	TOTAL AMOUNT OF MEPF WORKS II=A+B+C+D+E+F+G+H+I+J+K+L				19,96,49,649.00
	SECTION III - HORTICULTURE WORKS				
	IRRIGATION WORK A				
1	Providing & Fixing of VERTICLE MULTI STAGE pumpset of having discharge 4.0 lps @ 35 mtr head (1W+ 1S) with suitable for pumpset having panel box and fixed alongwith following accessories starter, start /stop push buttons , Ammeter, Voltmeter, Indicating lamps, MCB with cable, etc.	1.00	Nos.	7,75,220.00	7,75,220.00
2	Providing & Fixing of AUTOMATIC BACKWASH FILTER- with capacity matching pump design flow having an suitable inlet connections , to create a helical effect in the incoming water, spinning particulate in suspension away from the filtering element and so minimizing cleanings frequency, 3/4" outlet for flushing at bottom of filter & maximum working presure of 10 Bars with pressure gauge.	1.00	Nos.	3,15,100.00	3,15,100.00
3	Providing & Fixing of ,Suction ,Delivery & Header Pipe	1.00	Set	68,710.00	68,710.00
4	Providing & fixing of control Valve in mainline for bypass and flow diversion of approved quality 3"	1.00	Nos.	15,825.00	15,825.00
5	Providing and fixing of Pressure Relief Valve 3"	1.00	Nos.	25,740.00	25,740.00
6	Providing & fixing of Non Return Valve to prevent back flow 3"	1.00	Nos.	22,195.00	22,195.00
7	Supply,Fixing & commissioning of PVC Ball Valve,security pivot to maintain lever in space,double water tight joint,direct injection stem non mechanical ,with a base which permits maximum penetration into the valve of size 1" with Compression Fittings Accessories	14.00	Nos.	2,230.00	31,220.00

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
8	Providing & fixing of 12" Rectangular Valve Box with greenlid and corrugated structure with unique shovel access slot and bolt hole knockout.	14.00	Nos.	2,970.00	41,580.00
9	Providing & fixing of 6"Round box with greenlid and corrugated structure with unique shovel access slot and bolt hole knockout.	7.00	Nos.	985.00	6,895.00
10	Providing & fixing of 3/4" Brass Quick coupling valve made up of solid brass with locking cover corrosion resistant and stainless steel spring. Including service saddle and riser assembly.	7.00	Nos.	2,145.00	15,015.00
11	Providing & fixing of 3/4" Brass Key threads into top of QCV to provide water access And Brass Swivel Elbow.	3.00	Nos.	1,365.00	4,095.00
12	Supply, laying & commissioning in position UPVC Sch.80 pipe and suitable for the respective working pressures with fittings and accessories 1"	420.00	Mtr	235.00	98,700.00
13	Earth work excavation and refilling (450 mm width x 600 mm depth)	420.00	Mtr	125.00	52,500.00
14	Supply,Fixing & commissioning of 16mm Inline Dripline surface Brown colour Drip 1.1mm Thick Class.II with required Fittings	3,000.00	Mtr	48.00	1,44,000.00
15	Supply,Fixing & commissioning of Direct burial 14 AWG x 2C Decoder cable for two way communication between controller and decoders.	330.00	Mtr	285.00	94,050.00
16	Supply,Fixing & commissioning of PVC conduit Pipe complete 32 mm For Decoder Cable	330.00	Mtr	75.00	24,750.00
17	Supply,Fixing & commissioning of AUTOMATION CONTROLLER WITH DECODER SYSTEM outdoor mount with 230/240 VAC internal transformer decoder control system ,turf decoders and line surgeprotectors with options of program BACK UP AND RESTORE, cycle +soak, Raindelay, SOLARSYNC Mini weather station, controlling upto 2 master valve with diagnostic feature in wire shorttest ,voltage test at stations, and with standard accessories complete	1.00	Nos.	95,710.00	95,710.00
18	Supply,Fixing & commissioning of EZ 100 STATION DECODER FOR USE WITH AUTOMATION CONTROLLER	14.00	Nos.	12,750.00	1,78,500.00
19	Supply,Fixing & commissioning of 1" Solenoid globe Valves PGV with fabric reinforced diaphragm and rugged PVC construction, compatible with and slow closing to prevent water hammer, pressure rating upto 10 bar with 24AC solenoid, with provision to attach Pressure Regulator	14.00	Nos.	7,330.00	1,02,620.00
20	Supply,Fixing & commissioning of Direct bury -on wire connector with strain relief , with waterproof silicon sealant.	56.00	Nos.	395.00	22,120.00
21	Supply,Fixing & commissioning of copper grounding rod, clamps, charcoal and all requisite accessories complete	1.00	Nos.	11,850.00	11,850.00
22	Supply,Fixing & commissioning of SOLAR SYNC SENSOR	1.00	Nos.	18,950.00	18,950.00

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
23	Misting Machine : Imported , 3 axial SS pistons with tempered, pump head in Brass, with Single phase induction motor,Out put 12 TO 15LPM. (3W)	3.00	Set	1,21,800.00	3,65,400.00
24	Nozzle connector with require fittings For Sheeting Area	260.00	Nos.	425.00	1,10,500.00
25	Pipeline: Imported high pressure SS pipeline 10mm OD	900.00	RM	1,450.00	13,05,000.00
26	Imported Nozzles: Ruby orifice nozzle / Stainless steel (with filter & anti drip features) size 15 to 20 micron	260.00	Nos.	1,140.00	2,96,400.00
27	Ball Valve and Vave Box Accessories	3.00	Nos.	3,650.00	10,950.00
28	Control Panel: Switch gear, rely & Omron timer auto ON-OFF with dry run protection	1.00	Nos.	46,875.00	46,875.00
29	Suction Water Filter : With Housing and Spun Filter& additional online water filter. If required. ---10"	1.00	Nos.	7,565.00	7,565.00
30	Installation of the System with Mobilization of material, manpower and Commissioning the system	1.00	Job	4,75,900.00	4,75,900.00
TOTAL AMOUNT OF IRRIGATION WORKS_A					47,83,935.00
HORTICULTURE WORKS_B					

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
1	General Notes for Horticulture work: 1.All plants shall be of the size specified in the Plant Schedule & Planting Palette at the time of delivery to the site and shall be obtained from an approved source. 2.All plants shall be supplied as specified in tender documents and the Contractor is expected to import stock if it is Not available locally. 3.Consultant shall inspect and approve all imported and locally sourced plant material at place of origin. 4.All plants shall be container grown, except for field grown palm species. Container grown nursery stock shall be vigorous, healthy, and have a well established root system spread throughout the growing medium container to maintain a firm ball when the container is removed. 5.The Tender must be based, without exception, upon plants that are specified. If plants are subsequently found to be unobtainable, alternatives may be submitted, stating how they differ from the Specification. Such substitutions may not be acceptable and submission of further alternatives may be required. Approval in writing shall be obtained for any substitution. Garden Soil Filling The good quality garden soil shall be obtained from outside which can be useful for all plants. Laying of soil shall be done in proper slope as mentioned in drawing including watering, compacting and dressing etc. complete, as directed in specifications and by engineer in charge.	491.00	M3	891.00	4,37,481.00

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
2	tree plantation Supplying, transporting, hoisting and planting well grown species for trees of required height and species as per selection given by Architect. Tree shall be planted in ready excavated pit/ tree pit with hume pipe of required size without damaging any primary roots. Rate shall be inclusive of supplying of tree, loading, transporting, unloading, planting by any means (manual/ mechanical), watering, pesticides, fertilizers, anti termite treatment, maintaining, replanting (if plant will be died) up till maintenance period, pesticides etc. Pesticides (Neem cake or similar as specified and approved by Engineer-in-charge) shall be used in recommended proportion. Rate shall be also inclusive of tripod type tree guard be made out of 3 No. 50mm dia and approximate 1.5 mt long Eucalyptus/ Cedar stakes and tied to stem of planted tree with rubber tie/ patta of size 30mm x 10mm in twisted pattern as per drawing. Tree guard shall be installed vertically out side the root ball properly so tree grown in upright position. Tree guard shall be maintained up to the tree become well set and as directed by architect and Engineer-in-charge. After completion of maintenance period, tree guard shall be property of Contractor. Rates of mortality up to maintenance period to be inclusive, in that condition contractor has to replace the plant of same specification with out any extra cost. Cost of excavation or tree pit shall be paid in relevant tender item. Tree varieties shall be as per proposed planting palette. Rate are inclusive of maintenance for period of 365 days from date of substantial handover. 1. At the time of procurement, approximate 3.0 Mts minimum height Tree stock shall be container grown, or bur lapped with geo fabric and grown in sandy beds. 2. Trees shall have a minimum girth of 150mm unless otherwise specified in the planting schedule (girth/ trunk circumference shall be measured at 1.0m above the soil level, excluding container height). 3. The tree trunk shall be free of any damage caused by insect, fungal or viral infestation and free from any physical damage or scarring. 4. The tree trunk shall be straight and vertical. There should Not be any abrupt changes in girth of the trunk.	631.00	Nos.	5,435.02	34,29,500.00
3	Category 2 - Island of Orchids (As per proposed planting palette in technical specification)	892.00	Nos.	496.19	4,42,600.00
4	Category 3 - Island Of Nector (As per proposed planting palette in technical specification)	1,340.00	Nos.	189.81	2,54,350.00
5	Category 4 - Islands of Heliconia (As per proposed planting palette in technical specification)	415.00	Nos.	274.10	1,13,750.00

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
6	Category 5 - Lily Pool (As per proposed planting palette in technical specification)	130.00	Nos.	650.00	84,500.00
7	Category 6 - Evergreen Plaza (As per proposed planting palette in technical specification)	176.00	Nos.	1,208.81	2,12,750.00
8	Category 7 - Forest Canopy - Trees (As per proposed planting palette in technical specification)	91.00	Nos.	6,390.11	5,81,500.00
9	Category 8 - Forest Canopy - Palms (As per proposed planting palette in technical specification)	248.00	Nos.	7,879.03	19,54,000.00
10	Category 9 - Forest Floor - Ground covers (As per proposed planting palette in technical specification)	3,589.00	Nos.	181.43	6,51,160.00
11	Category 10 - Epiphytes (As per proposed planting palette in technical specification)	27.00	Nos.	10,055.56	2,71,500.00
12	Category 11 - Island Of Fern (As per proposed planting palette in technical specification)	264.00	Nos.	765.91	2,02,200.00
13	Category 12 - Tropical Conservatory Plants (As per proposed planting palette in technical specification)	972.00	Nos.	530.66	5,15,800.00
14	Category 13 - External plantation - Medium Shrubs (As per proposed planting palette in technical specification)	4,812.00	Nos.	136.55	6,57,057.00
15	Category 14 - External plantation - Ground Covers (As per proposed planting palette in technical specification)	14,218.00	Nos.	22.93	3,25,985.00
16	Category 15 - External plantation - Trees (As per proposed planting palette in technical specification)	30.00	Nos.	6,116.67	1,83,500.00
17	Category 16 - External plantation - Palm (As per proposed planting palette in technical specification)	17.00	Nos.	7,500.00	1,27,500.00

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI

ABSTRACT SHEET_TROPICAL GARDEN

Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
18	Supplying, transporting, hoisting and planting Palms (P1) of specified species and height as per proposed planting pallette in specification. Palm shall be planted in ready excavated pit/ tree pit with hume pipe of required size without damaging any primary roots. Rate shall be inclusive of supplying of palm, loading, transporting, unloading, planting by any means (manual/ mechanical), watering, pesticides, fertilizers, anti termite treatment, maintaining, replanting (if plant will be died) up till maintenance period, pesticides etc. Pesticides (Neem cake or similar as specified and approved by Engineer-in-charge) shall be used in recommended proportion. Rate shall be also inclusive of tripod type tree guard be made out of 3 No. 50mm dia and approximate 1.5 mt long Eucalyptus/ Cedar stakes and tied to steam of planted tree with rubber tie/ patta of size 30mm x 10mm in twisted pattern as per drawing wherever required. Tree guard shall be installed vertically out side the root ball properly so tree grown in upright position. Tree guard shall be maintained up to the tree become well set and as directed by architect and Engineer-in-charge. After completion of maintenance period, tree guard shall be property of Contractor. Rates of mortality up to maintenance period to be inclusive, in that condition contractor has to replace the plant of same Palm varieties shall be as per proposed planting pallette. Rate are inclusive of maintenance for period of 365 days from date of substantial handover. The Contractor shall take whatever steps he deems necessary and to the approval of the Engineer-in charge to ensure the verticality of all palms. No. additional payments shall be made for providing guys, stakes or any other necessary anchorages. Verticality shall be maintained within a tolerance of 1:25 unless otherwise instructed by the Engineer-	1.00	Job	12,98,726.00	12,98,726.00
	TOTAL AMOUNT_ HORTICULTURE WORKS_B				1,17,43,859.00
	TOTAL AMOUNT OF HORTICULTURE WORKS_III=A+B				1,65,27,794.00
	SECTION IV - O&M WORKS				
1	Technical Staff (Electrician 1+1 for HVAC work) - 2 Persons 8 Hour Shift	168.00	per person per shift	15,000.00	25,20,000.00
2	Helper - 2 Persons 8 Hour Shift	168.00	per person per shift	13,500.00	22,68,000.00
3	Civil Supervisor - 1 Persons 8 Hour Shift	84.00	per person per shift	15,000.00	12,60,000.00
4	Sanitation Workers (House - keepers / Venue Cleaners) - 2 Persons 8 Hour Shift x 2 shifts	336.00	per person per shift	13,013.00	43,72,368.00

NAME OF WORK:- CONSTRUCTION OF TROPICAL GARDEN IN USMANPURA PARK INCLUDING CIVIL, GLASS DOME, PLUMBING, ELECTRICAL, , ELV, HVAC, FIRE FIGHTING, HORTICULTURE WORK ON WEST BANK OF RIVER SABARMATI					
ABSTRACT SHEET_TROPICAL GARDEN					
Item No.	Item of Work	Quantity estimated but may be more or less (Total)	Unit	Estimated Rate (In figures) (In Rs.)	Total amount according to estimated quantities (In Rs.)
0	1	2	3	4	5
5	Gardeners - 2 Persons 8 Hour Shift x 1 shifts	168.00	per person per shift	13,013.00	21,86,184.00
6	Security - 2 Persons 8 Hour Shift x 3 shifts	504.00	per person per shift	12,727.00	64,14,408.00
7	Maintenance for Civil works Providing maintenance service for civil works for 7 years after handing over of the work including replacement of existing damaged flooring, plaster, paint, concrete works etc. and all the other civil works as per the BOQ. The rate for item shall be as per the negotiated final rate of each item in the BOQ and it shall be payable as per the actual quantity executed during the maintenance period.	AS AND WHEN REQUIRED AS PER BOQ RATE			15,00,000.00
8	Maintenance for Electrical works : Providing maintenance service for electrical work for 7 years after handing over of the work for replacement of existing damaged / theft of electrical items excluding luminaire. The rate for item shall be as per the negotiated final rate of each item in the BOQ and it shall be payable as per the actual quantity executed during the maintenance period.	AS AND WHEN REQUIRED AS PER BOQ RATE			11,75,000.00
9	Maintenance for HVAC DX and Ventilation works : Providing comprehensive maintenance service for HVAC, DX and Ventilation work for 7 years after handing over of the work for replacement of existing damaged / theft of items including all labour and materials and periodic inspection at every month	7.00	per year	5,48,875.00	38,42,125.00
10	Maintenance for water fall works : Providing comprehensive maintenance service for waterfall work for 7 years after handing over of the work for replacement of existing damaged / theft of items including all labour and materials and periodic inspection at every month	7.00	per year	2,70,090.00	18,90,630.00
11	Maintenance for Lift works : Providing comprehensive maintenance service for Lift work for 7 years after handing over of the work for replacement of existing damaged / theft of items including all labour and materials and periodic inspection at every month	7.00	per year	39,313.00	2,75,191.00
	TOTAL AMOUNT OF O&M WORKS_IV				2,77,03,906.00
	TOTAL AMOUNT SECTION I, II, III, IV				45,98,91,107.00