

राष्ट्रीय कोशिका विज्ञान केंद्र
NATIONAL CENTRE FOR CELL SCIENCE
(जैवप्रौद्योगिकी विभाग, भारत सरकार की स्वायत्त संस्था/
An Autonomous Institution of the Department of Biotechnology, Govt. of India)
सावित्रीबाई फुले पुणे विश्वविद्यालय परिसर, गणेशखिंड, पुणे-411007
Savitribai Phule Pune University Campus, Ganeshkhind Pune -411007

भाग II/ PART II- वाणिज्यिक/मूल्य बोली/ COMMERCIAL / PRICE BID

SUPPLY, INSTALLATION, TESTING, COMMISSIONING, QUALIFICATION, AND VALIDATION OF c-GMP
COMPLIANT MAMMALIAN CELL LINE REPOSITORY ON TURNKEY BASIS AT NCCS JIDNYASA
BUILDING, KOTHRUD, PUNE-411038



प्रस्तुत करने की नियत तारीख/DUE DATE FOR SUBMISSION: 21/11/2023 @ 15 HRS

प्रेषित करने के लिए पता/ TO BE SUBMITTED TO:

निदेशक/The Director

राष्ट्रीय कोशिका विज्ञान केंद्र/National Centre For Cell Science

सावित्रीबाई फुले पुणे विश्वविद्यालय परिसर/ Savitribai Phule Pune University Campus,

गणेशखिंड/ Ganeshkhind, पुणे/Pune 411007 (महाराष्ट्र, भारत/Maharashtra, India)

बिडर का नाम एवं पता/NAME AND ADDRESS OF BIDDER:_____

SEAL & SIGN OF THE BIDDER

PART I

BILL OF QUANTITY

SEAL AND SIGN OF THE BIDDER

PART II: BILL OF QUANTITY

SITC VALIDATION OF c-GMP COMPLIANT MAMMALIAN CELL LINE REPOSITORY ON TURNKEY BASIS AT NCCS JIDNYASA BUILDING, KOTHRUD, PUNE

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
A	CIVIL WORKS				
1.1	CIVIL FOUNDATION WORKS				
1	Earth work in excavation by mechanical means (Hydraulic excavator) /manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. All kinds of soil.	20.00	Cum	338.07	6,761.41
2	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	15.00	Cum	299.30	4,489.44
3	Providing, laying, spreading and compacting graded stone aggregate (size range 53 mm to 0.075 mm) to wet mix macadam (WMM) specification including premixing the material with water at OMC in for all leads & lifts, laying in uniform layers with mechanical paverfinisher in sub- base / base course on well prepared surface and compacting with vibratory roller of 8 to 10 tonne capacity to achieve the desired density, complete as per specifications and directions of Engineer-in-Charge.	3.00	cum	3,304.27	9,912.82
4	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :				
	1:3:6 (1 Cement : 3 coarse sand (zone-III) derived from natural sources : 6 graded stone aggregate 20 mm nominal size derived from natural sources)	1.70	Cum	8,053.58	13,691.09
5	Providing and laying in position ready mixed or site batched design mix cement concrete for reinforced cement concrete work; using coarse aggregate and fine aggregate derived from natural sources, Portland Pozzolana / Ordinary Portland /Portland Slag cement, admixtures in recommended proportions as per IS: 9103 to accelerate / retard setting of concrete, to improve durability and workability without impairing strength; including pumping of concrete to site of laying, curing, carriage for all leads; but excluding the cost of centering, shuttering, finishing and reinforcement as per direction of the engineer-in-charge; for the following grades of concrete. Note: Extra cement up to 10% of the minimum specified cement content in design mix shall be payable separately. In case the cement content in design mix is more than 110% of the specified minimum cement content, the contractor shall have discretion to either re-design the mix or bear the cost of extra cement.				
	All works upto plinth level				
	Concrete of M25 grade with minimum cement content of 330 kg /cum	3.38	Cum	9,425.31	31,857.55
6	All works above plinth level upto floor V level				
	Concrete of M25 grade with minimum cement content of 330 kg /cum	1.00	Cum	11,880.08	11,880.08
7	Centering and shuttering including strutting, propping etc. and removal of form for				
	Foundations, footings, bases of columns, etc. for mass concrete	10.00	sqm	362.94	3,629.38
	Walls (any thickness) including attached pilasters, buttresses, plinth and string courses etc.	RO	sqm		
	Lintels, beams, plinth beams, girders, bressumers and cantilevers	13.00	sqm	716.98	9,320.71
	Columns, Pillars, Piers, Abutments, Posts and Struts	RO	sqm	947.86	
8	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level.				
	Thermo-Mechanically Treated bars of grade Fe-500D or more.	445.00	kg	105.66	47,017.84
9	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above plinth level.				
	Thermo-Mechanically Treated bars of grade Fe-500D or more.	200.00	kg	105.66	21,131.61
9	18 mm cement plaster in two coats under layer 12 mm thick cement plaster 1:5 (1 cement : 5 coarse sand) and a top layer 6 mm thick cement plaster 1:3 (1 cement : 3 coarse sand) finished rough with sponge.(External Wall Plaster)	RO	Sqm	544.32	
10	Finishing with Deluxe Multi surface paint system for interiors and exteriors using Primer as per manufacturers specifications :				
	Two or more coats applied on walls @ 1.25 ltr/10 sqm over and including one coat of Special primer applied @ 0.75 ltr /10 sqm	RO	Sqm	187.33	
11	Steel work welded in built up sections/ framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required.				
	In gratings, frames, guard bar, ladder, railings, brackets, gates and similar works	200.00	KGS	167.71	33,541.87

PART II: BILL OF QUANTITY

SITC VALIDATION OF c-GMP COMPLIANT MAMMALIAN CELL LINE REPOSITORY ON TURNKEY BASIS AT NCCS JIDNYASA BUILDING, KOTHRUD, PUNE

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
12	Providing and fixing G.I. chain link fabric fencing of required width in mesh size 25x25 mm made of G.I. wire of dia 3 mm including strengthening with 2 mm dia wire or nuts, bolts and washers as required complete as per the direction of Engineer-in-charge.	13.00	sqm	1,145.44	14,890.77
	Total Amount (No.1.1) in Rs : C/o to Summary :				2,08,124.58
	Note : The rate quoted shall include for conducting proctor density test and submitting report for filled up area and also for WBM.				
1.2	CIVIL WORKS-RETROFIT WORKS OF MAIN BLOCK				
1	Providing and laying 3mm thick Self Levelling Concrete for vinyl flooring neatly finished without undulations and voids with curing etc all complete.	600.00	sqm	1020.11	612066.00
2	Providing and installing approved color/shade 2mm thick Vinyl Flooring with 100mm coving in the wall inclusive of necessary adhesive and soldering - make Armstrong BR 150Rs /sqft	600.00	sqm	2589.51	1553706.00
3	Providing and laying cement coving in Wall and floor Joints with CM 1:3 neatly finished with necessary curing.	200.00	Rmt	354.68	70936.88
4	Providing and laying Vitrified tiles in different sizes (thickness to be specified by the manufacturer), with water absorption less than 0.08% and conforming to IS: 15622, of approved brand & manufacturer, in all colours and shade, in skirting, riser of steps, laid with cement based high polymer modified quick set tile adhesive (water based) conforming to IS: 15477, in average 6 mm thickness, including grouting of joints (Payment for grouting of joints to be made separately).				
	Size of Tile 600x600 mm	150.00	sqm	1,975.45	2,96,316.93
5	Providing and fixing 1st quality ceramic glazed wall tiles conforming to IS: 15622 (thickness to be specified by the manufacturer), of approved make, in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge, in skirting, risers of steps and dados, 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.	7.50	Sqm	1,253.34	9,400.06
6	Providing and fixing partition upto ceiling height consisting of G.I. frame and required board, including providing and fixing of frame work made of special section power pressed/ roll form G.I. sheet with zinc coating of 120 gms/sqm(both side inclusive), consisting of floor and ceiling channel 50mm wide having equal flanges of 32 mm and 0.50 mm thick, fixed to the floor and ceiling at the spacing of 610 mm centre to centre with dash fastener of 12.5 mm dia meter 50 mm length or suitable anchor fastener or metal screws with nylon plugs and the studs 48 mm wide having one flange of 34 mm and other flange 36 mm and 0.50 mm thick fixed vertically within flanges of floor and ceiling channel and placed at a spacing of 610 mm centre to centre by 6 mm dia bolts and nuts,				
	including fixing of studs along both ends of partition fixed flush to wall with suitable anchor fastener or metal screws with nylon plugs at spacing of 450 mm centre to centre, and fixing of boards to both side of frame work by 25 mm long dry wall screws on studs, floor and ceiling channels at the spacing of 300 mm centre to centre. The boards are to be fixed to the frame work with joints staggered to avoid through cracks, M.S. fixing channel of 99 mm width (0.9 mm thick having two flanges of 9.5 mm each) to be provided at the horizontal joints of two boards, fixed to the studs using metal to metal flat head screws, including jointing and finishing to a flush finish with recommended jointing compound, jointing tape, angle beads at corners (25 mm x 25 mm x 0.5 mm), joint finisher and two coats of primer suitable for board as per manufacture's specification and direction of engineer in charge all complete.				
	75mm overall thickness partition with 12.5 mm thick double skin tapered edged plain Gypsum plaster board conforming to IS: 2095: (part I): 2011 (Board with BIS certification marks)	150.00	Sqm	1,803.26	2,70,488.75
7	Extra rate for Providing 8mm Plywood for partitions for item 9.105.2	300.00	sqm	1,569.40	4,70,820.00
8	Float glass panes				
	5.0 mm thick glass panes (weight not less than 12.50 kg/sqm).	10.00	sqm	2,629.61	26,282.92
9	Providing and fixing ISI marked flush door shutters conforming to IS : 2202 (Part I) non-decorative type, core of block board construction with frame of 1st class hard wood and well matched commercial 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters:				
	35 mm thick including ISI marked Stainless Steel butt hinges with necessary screws	20.00	sqm	2,375.69	47,513.72

PART II: BILL OF QUANTITY

SITC VALIDATION OF c-GMP COMPLIANT MAMMALIAN CELL LINE REPOSITORY ON TURNKEY BASIS AT NCCS JIDNYASA BUILDING, KOTHRUD, PUNE

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
10	Providing and fixing false ceiling at all height including providing and fixing of frame work made of special sections, power pressed from M.S. sheets and galvanized with zinc coating of 120 gms/sqm (both side inclusive) as per IS : 277 and consisting of angle cleats of size 25 mm wide x 1.6 mm thick with flanges of 27 mm and 37mm, at 1200 mm centre to centre, one flange fixed to the ceiling with dash fastener 12.5 mm dia x 50mm long with 6mm dia bolts, other flange of cleat fixed to the angle hangers of 25x10x0.50 mm of required length with nuts & bolts of required size and other end of angle hanger fixed with intermediate G.I. channels 45x15x0.9 mm running at the spacing of 1200 mm centre to centre, to which the ceiling section 0.5 mm thick bottom wedge of 80 mm with tapered flanges of 26 mm each having lips of 10.5 mm, at 450 mm centre to centre, shall be fixed in a direction perpendicular to G.I. intermediate channel with connecting clips made out of 2.64 mm dia x 230 mm long G.I. wire at every junction, including fixing perimeter channels 0.5 mm thick 27 mm high having flanges of 20 mm and 30 mm long, the perimeter of ceiling fixed to wall/partition with the help of rawl plugs at 450 mm centre, with 25mm long dry wall screws @ 230 mm interval, including fixing of gypsum board to ceiling section and perimeter channel with the help of dry wall screws of size 3.5 x 25 mm at 230 mm c/c, including jointing and finishing to a flush finish of tapered and square edges of the board with recommended jointing compound , jointing tapes , finishing with jointing compound in 3 layers covering upto 150 mm on both sides of joint and two coats of primer suitable for board, all as per manufacturer's specification and also including the cost of making openings for light fittings, grills, diffusers, cutouts made with frame of perimeter channels suitably fixed, all complete as per drawings, specification and direction of the Engineer in Charge but excluding the cost of painting with :				
	12.5 mm thick tapered edge gypsum plain board conforming to IS: 2095-(Part I) :2011 (Board with BIS certification marks)	200.00	sqm	1,350.57	2,70,114.56
11	Providing and fixing tiled false ceiling of specified materials of size 595x595 mm in true horizontal level, suspended on inter locking metal grid of hot dipped galvanized steel sections (galvanized @ 120 grams/sqm, both side inclusive) consisting of main "T" runner with suitably spaced joints to get required length and of size 24x38 mm made from 0.30 mm thick (minimum) sheet, spaced at 1200 mm center to center and cross "T" of size 24x25 mm made of 0.30 mm thick (minimum) sheet, 1200 mm long spaced between main "T" at 600 mm center to center to form a grid of 1200x600 mm and secondary cross "T" of length 600 mm and size 24x25 mm made of 0.30 mm thick (minimum) sheet to be interlocked at middle of the 1200x600 mm panel to form grids of 600x600 mm and wall angle of size 24x24x0.3 mm and laying false ceiling tiles of approved texture in the grid including, required cutting/making, opening for services like diffusers, grills, light fittings, fixtures, smoke detectors etc. Main "T" runners to be suspended from ceiling using GI slotted cleats of size 27 x 37 x 25 x1.6 mm fixed to ceiling with 12.5 mm dia and 50 mm long dash fasteners, 4 mm GI adjustable rods with galvanised butterfly level clips of size 85 x 30 x 0.8 mm spaced at 1200 mm center to center along main T, bottom exposed width of 24 mm of all T-sections shall be pre-painted with polyester paint, all complete for all heights as per specifications, drawings and as directed by Engineer-in-charge.				
	GI Metal Ceiling Lay in plain Tegular edge Global white color tiles of size 595x595 mm, and 0.5 mm thick with 8 mm drop; made of G I sheet having galvanizing of 100 gms/sqm (both sides inclusive) and electro statically polyester powder coated of thickness 60 microns (minimum), including factory painted after bending.	75.00	sqm	1,875.92	1,40,693.75
12	Providing and laying factory made Precast concrete solid blocks of 200 mm thickness of grade M10 made of C&D waste from approved manufacturer in superstructure above plinth level up to floor V level				
	Cement mortar 1:6 (1 cement : 6 coarse sand)	44.00	cum	9,530.56	4,19,344.52
13	Providing and laying autoclaved aerated cement blocks masonry with 150mm/230mm/300 mm thick AAC blocks in super structure above plinth level up to floor V level with RCC band at sill level and lintel level with approved block laying polymer modified adhesive mortar all complete as per direction of Engineer-in-Charge. (The payment of RCC band and reinforcement shall be made for seperately).	14.00	cum	8,243.04	1,15,402.52
14	Existing Kota Stones in staircase Polishing	120.00	sqm	94.40	11,328.00
15	Kota stone slab flooring over 20 mm (average) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab, including rubbing and polishing complete with base of cement mortar 1 : 4 (1 cement : 4 coarse sand) :				

PART II: BILL OF QUANTITY

SITC VALIDATION OF c-GMP COMPLIANT MAMMALIAN CELL LINE REPOSITORY ON TURNKEY BASIS AT NCCS JIDNYASA BUILDING, KOTHRUD, PUNE

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
	25 mm thick	20.00	Sqm	2,011.33	40,226.67
16	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above plinth level.				
	Thermo-Mechanically Treated bars of grade Fe-500D or more.	1,000.00	kgs	105.66	1,05,658.06
17	Providing and fixing in position aluminium fixed window fully glazed of any size as per detailed drawing and as directed by Engineer-in-charge with all necessary aluminium sections including necessary fixtures and fastening such as 5 mm thick clear float glass etc. complete.				
	b) Powder Coated	150.00	Sqm	6,744.88	10,11,732.00
18	Providing and applying fibre reinforced elastomeric liquid water proofing membrane with resilient acrylic polymers having Sun Reflectivity Index (SRI) of 105 on top of concrete roof in three coats @10.76 litre/ 10 sqm. One coat of self-priming of elastomeric waterproofing liquid (dilution with water in the ratio of 3:1) and two coats of undiluted elastomeric waterproofing liquid (dry film thickness of complete application/system not less than 500 microns). The operation shall be carried out after scrapping and properly cleaning the surface to remove loose particles with wire brushes, complete in all respect as per the direction of Engineer-in-Charge.	222.00	sqm	558.82	1,24,056.94
19	Providing and laying integral cement based water proofing treatment including preparation of surface as required for treatment of roofs, balconies, terraces etc consisting of following operations: a) Applying a slurry coat of neat cement using 2.75 kg/sqm of cement admixed with water proofing compound conforming to IS. 2645 and approved by Engineer-in-charge over the RCC slab including adjoining walls upto 300 mm height including cleaning the surface before treatment. (b) Laying brick bats with mortar using broken bricks/brick bats 25 mm to 115 mm size with 50% of cement mortar 1:5 (1 cement : 5 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge over 20 mm thick layer of cement mortar of mix 1:5 (1 cement :5 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in- charge to required slope and treating similarly the adjoining walls upto 300 mm height including rounding of junctions of walls and slabs. (c) After two days of proper curing applying a second coat of cement slurry using 2.75 kg/ sqm of cement admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge. (d) Finishing the surface with 20 mm thick jointless cement mortar of mix 1:4 (1				
	With average thickness of 120 mm and minimum thickness at khurra as 65 mm.	222.00	sqm	1,794.89	3,98,465.71
20	Finishing walls with 100% Premium acrylic emulsion paint having VOC less than 50 gm/litre and UV resistance as per IS 15489:2004, Alkali & fungal resistance, dirt resistance exterior paint of required shade (Company Depot Tinted) with silicon additives. 13.48A.1 New work (Two or more coats applied @ 1.43 litre/ 10 sqm. Over and including priming coat of exterior primer applied @ 0.90 litre/10 sqm.	1,400.00	sqm	182.03	2,54,840.40
21	Finishing walls with water proofing cement paint of required shade :				
	New work (Two or more coats applied @ 3.84 kg/10 sqm)	1,300.00	sqm	115.03	1,49,535.91
22	Steel work welded in built up sections/ framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required.				
	In gratings, frames, guard bar, ladder, railings, brackets, gates and similar works	10,000.00	KGS	167.71	16,77,093.33
23	Providing and fixing precoated galvanised iron profile sheets (size, shape and pitch of corrugation as approved by Engineer-in-charge) 0.50 mm (+ 0.05 %) total coated thickness with zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns. Sheet should have protective guard film of 25 microns minimum to avoid scratches during transportation and should be supplied in single length upto 12 metre or as desired by Engineer-in-charge. The sheet shall be fixed using self drilling /self tapping screws of size (5.5x 55 mm) with EPDM seal, complete upto any pitch in horizontal/ vertical or curved surfaces, excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required.	380.00	sqm	791.46	3,00,755.99
	Ridges plain (500 - 600mm)	50.00	mtr	531.06	26,553.00
	Flashings/ Aprons.(Upto 600 mm)	25.00	mtr	486.57	12,164.23
	North light curves	RO	mtr	548.33	
	Barge board (Upto 300 mm)	RO	mtr	452.80	
	Crimp curve	RO	sqm	497.94	
	Gutter (600 mm over all girth)	25.00	mtr	1,308.91	32,722.77

PART II: BILL OF QUANTITY

SITC VALIDATION OF c-GMP COMPLIANT MAMMALIAN CELL LINE REPOSITORY ON TURNKEY BASIS AT NCCS JIDNYASA BUILDING, KOTHRUD, PUNE

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
24	Providing and fixing on wall face unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10 mm gap for thermal expansion, (i) Single socketed pipes.				
	110 mm diameter	52.00	Rmt	376.85	19,595.95
25	Providing and fixing double scaffolding system (cup lock type) on the exterior side of Providing and fixing double scaffolding system (cup lock type) on the exterior side of building/structure, upto 25 metre height, above ground level, including additional rows of scaffolding in stepped manner as per requirement of site, made with 40mm dia M.S. tube, placed 1.5 metre centre to centre, horizontal & vertical tubes joint with cup & lock system with M.S. Tubes, M.S. tube challis, M.S. clamps and staircase system in the scaffolding for working platform etc. and maintaining it in a serviceable condition for execution of work of cleaning and/ or pointing and/ or applying chemical and removing it thereafter. The scaffolding system shall be stiffened with bracings, runners, connecting with the building etc. wherever required, if feasible, for inspection of work at required locations with essential safety features for the workmen etc., complete as per directions and approval of Engineer-in-charge. Note:- (1) The elevational area of the scaffolding shall be measured for payment purpose. (2) The payment will be made once only for execution of all items for such works.	1,458.33	Cum	335.89	4,89,839.71
26	Supply and Installation of 19mm thick Prelam Modular Work Tables with MS powder coated legs .Price to Include all necessary cutting and finishing required for Pop up Box in the table top and necessary cable managers neatly finished with proper edge binding etc all complete.	14.00	Nos	23,541.00	3,29,574.00
27	Supply and Installation of rotating type Modular office Chairs with Height and Back rest adjustable,as per Sample Selection by Client. Make :feather lite/Godrej	14.00	Nos	8,631.70	1,20,843.80
28	Supply and Installation of visitor Chairs as per Sample Selection by Client. Make :feather lite/Godrej	7.00	Nos	6,277.60	43,943.20
29	Supply and Installation of Reception Table of 2000x600x900mm size with 19mm thk prelam as per details and approved laminates . Price to Include all necessary cutting and finishing required for Pop up Box in the table top and necessary cable managers neatly finished with proper edge binding etc all complete. as per Sample Selection by Client .	1.00	Nos	70,623.00	70,623.00
30	Supply and Installation of side storages with lock and key made up of 19mm thk prelam board of approved lamintes.Size of storages upto 1500x500x750mm. as per Sample Selection by Client	14.00	Nos	10,985.80	1,53,801.20
31	Providing & fixing factory-made Single and double leaf 2 hour fire rated door as per IS 3614 Part 2 & BS 476 Part 20 & 22, tested to UL 10 C and conforming to NFPA 80 , tested at NTL /CBRI/ARAI of Plain Steel finish type with a.) Frame of size 143x58 mm and thickness of 1.6 mm thick skin pass galvanized iron sheet (Conform to IS 277) formed to single or double rebate profile b.) Shutter of 46 mm thickness and constructed from 1.2 mm thick skin pas galvanized iron sheet (Conform to IS 277) infill Rockwool / Mineral wool/ Honey comb craft paper c.) Vision glass of 5mm thick clear/wired glass Circular or Rectangular d.) Finish : Primed with zinc phosphate stoving primer and finished with Polyurethane aliphatic grade or epoxy paint as required of thickness 60 micron e.) Accessories : Min 8 Anchor fastener of HILTI make, min 3 SS Ball Bearing Butt Hinges, Mortise sash lock with lever handle, Mortise dead bolt , Mortise latch , Door closer , Panic bar and external trim lock and Flush bolts complete.(2hr. Fire rated hollow metal doors - Painted)	40	Sqm	10,249.48	4,09,979.20
32	Cement concrete flooring 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate) finished with a floating coat of neat cement, including cement slurry, but excluding the cost of nosing of steps etc. complete. aggregate				
	40 mm thick with 20 mm nominal size stone	175	SQM	642.32	1,12,405.32
	civil works related to Building Strengthening works				
33	Earth work in excavation by mechanical means (Hydraulic excavator) /manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. All kinds of soil.	272.00	Cum	338.07	91,955.16

PART II: BILL OF QUANTITY

SITC VALIDATION OF c-GMP COMPLIANT MAMMALIAN CELL LINE REPOSITORY ON TURNKEY BASIS AT NCCS JIDNYASA BUILDING, KOTHRUD, PUNE

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
34	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	272.00	Cum	299.30	81,408.44
35	Demolishing R.C.C. work manually/ by mechanical means including stacking of steel bars and disposal of unserviceable material within 50 metres lead as per direction of Engineer - in- charge.	32.40	Cum	3,450.95	1,11,810.67
35	Providing, laying, spreading and compacting graded stone aggregate (size range 53 mm to 0.075 mm) to wet mix macadam (WMM) specification including premixing the material with water at OMC in for all leads & lifts, laying in uniform layers with mechanical paverfinisher in sub- base / base course on well prepared surface and compacting with vibratory roller of 8 to 10 tonne capacity to achieve the desired density, complete as per specifications and directions of Engineer-in-Charge.	24.60	cum	3,304.27	81,285.15
36	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :				
	1:3:6 (1 Cement : 3 coarse sand (zone-III) derived from natural sources : 6 graded stone aggregate 20 mm nominal size derived from natural sources)	15.60	Cum	8,053.58	1,25,635.91
37	Providing and laying in position ready mixed or site batched design mix cement concrete for reinforced cement concrete work; using coarse aggregate and fine aggregate derived from natural sources, Portland Pozzolana / Ordinary Portland /Portland Slag cement, admixtures in recommended proportions as per IS: 9103 to accelerate / retard setting of concrete, to improve durability and workability without impairing strength; including pumping of concrete to site of laying, curing, carriage for all leads; but excluding the cost of centering, shuttering, finishing and reinforcement as per direction of the engineer-in-charge; for the following grades of concrete. Note: Extra cement up to 10% of the minimum specified cement content in design mix shall be payable separately. In case the cement content in design mix is more than 110% of the specified minimum cement content, the contractor shall have discretion to either re-design the mix or bear the cost of extra cement.				
	All works upto plinth level				
	Concrete of M25 grade with minimum cement content of 330 kg /cum	20.00	Cum	9,425.31	1,88,506.23
38	Centering and shuttering including strutting, propping etc. and removal of form for				
	Foundations, footings, bases of columns, etc. for mass concrete	5.00	sqm	362.94	1,814.69
39	Demolishing brick work manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge.				
	In cement mortar	60.00	Cum	2,001.73	1,20,103.69
40	Providing and laying factory made Precast concrete solid blocks of 200 mm thickness of grade M10 made of C&D waste from approved manufacturer in superstructure above plinth level up to floor V level				
	Cement mortar 1:6 (1 cement : 6 coarse sand)	60.00	cum	9,530.56	5,71,833.43
41	12 mm cement plaster finished with a floating coat of neat cement of mix :				
	1:4 (1 cement: 4 fine sand)	730.00	sqm	425.81	3,10,844.48
42	18 mm cement plaster in two coats under layer 12 mm thick cement plaster 1:5 (1 cement : 5 coarse sand) and a top layer 6 mm thick cement plaster 1:3 (1 cement : 3 coarse sand) finished rough with sponge.(External Wall Plaster)	570.00	Sqm	544.32	3,10,261.68
43	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above plinth level.				
	Thermo-Mechanically Treated bars of grade Fe-500D or more.	1,000.00	kgs	105.66	1,05,658.06
	ACP Canopy				

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SITC VALIDATION OF c-GMP COMPLIANT MAMMALIAN CELL LINE REPOSITORY ON TURNKEY BASIS AT NCCS JIDNYASA BUILDING, KOTHRUD, PUNE

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
44	Supply,fixing and installation of 4mm thick Aluminium Composite Panel(ACP) of approved colour for external cladding in combination of solid and metallic colours,including all necessary Framework, support and complete weather sealing as per architectural drawing.The Aluminium Composite Panel(ACP)should be made out of thermoplastic core of low-density polyethylene LDPE(100%virginmix), sandwiched between two aluminium sheets of ALLOYGRADE-5000 series,each not less than 0.50mmthick,total thickness of aluminium compositepanels not to be less than 4mm,the exposed surface thereof shall have Sto ve lacquered finishing coat notl ess than(26+-2)micron(containingminimum70% kynar 500 based PVDF)of colour and shade as per architectural design.The inside surface(facing the building exterior surface)shall have polyster based powder coating not less than 25 Micron with protective peel of ffoil on the exterior face(peel off film will in no case leave any adhesive mark over the composite panel surface after it is peeledoff).The supporting framework shall be made out of 50mmX25mmX3mm thick Aluminium section to be spaced horizontally and vertically for fixing of panel of size 900mmX1200mm and fixed to the building structure as per design through 50mmX50mmX5mm MS angle clamps prefixed to masonry or slab,columns with Hilti make anchor fastener screws.The fixing of panel to be done with the help of VHB tapes and screws and all the sealing of joints to be done with weather sealent Silicon as directed by Engineer-in-charge.(Prior permission of S.E.is necessary before inclusion of this item in estimate)	10.00	sqm	3,949.46	39,494.60
45	Mirror polishing on marble work/Granite work/stone work where ever required to give high gloss finish complete.	200.00	SQM	492.17	98,433.47
	Total Amount (No.1.2) in Rs : C/o to Summary :				1,24,37,870.65
	Note : The rate quoted shall include for conducting proctor density test and submitting report for filled up area and also for WBM.				
	Note : Aluminium frames and sections for windows to be taken prior approval from client and consultant by making sample.				
	Note : All bought out items to be taken prior approval from client and Consultant				
1.3	CIVIL WORKS-DISMANTLING WORKS				
1	Demolishing R.C.C. work manually/ by mechanical means including stacking of steel bars and disposal of unserviceable material within 50 metres lead as per direction of Engineer - in- charge.	25.00	Cum	3,450.95	86,273.66
2	Demolishing brick work manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge.				
	In cement mortar	48.00	Cum	2,001.73	96,082.95
3	Dismantling expanded metal or I.R.C. fabrics with necessary battens and beading including stacking the serviceable material within 50 metres lead.	70.00	Sqm	73.66	5,156.21
4	Dismantling aluminium/ Gypsum partitions, doors, windows, fixed glazing and false ceiling including disposal of unserviceable material and stacking of serviceable material with in 50 meters lead as directed by Engineer-in-charge.	708.00	Sqm	54.80	38,800.61
5	Dismantling vinyl flooring	600.00	Sqm	59.00	35,400.00
6	Dismantling tile work in floors and roofs laid in cement mortar including stacking material within 50 metres lead. For thickness of tiles 10 mm to 25 mm	330.00	Sqm	71.30	23,529.95
7	Removing iron pipe raling having wooden R.C.C. or C.C. or iron post and stacking the materials as directed etc. complete.	50.00	Rmt	81.42	4,071.00
8	Dismantling doors, windows and clerestory windows (steel or wood) shutter including chowkhats, architrave, holdfasts etc. complete and stacking within 50 metres lead :				
	Of area 3 sq. metres and below	25.00	Nos	356.75	8,918.77
	Of area beyond 3 sq. metres	25.00	Nos	488.57	12,214.32
9	Removing of Existing Fans , Lights, Panels, DB's and other Electrical items. All the loose items to be handed over to NCCS and area to be fully cleaned .	1.00	Ls	59,000.00	59,000.00
10	Dismantling of flushing cistern of all types (C.I./PVC/Vitrious China) including stacking of useful materials near the site and disposal of unserviceable materials within 50 metres lead.	5.00	each	877.56	4,387.79
11	Removing doors and windows with frames and stacking the materials as directed with all leads, lifts etc. complete.	210.00	sqm	184.08	38,656.80

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SITC VALIDATION OF c-GMP COMPLIANT MAMMALIAN CELL LINE REPOSITORY ON TURNKEY BASIS AT NCCS JIDNYASA BUILDING, KOTHRUD, PUNE

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
12	Demolishing stone rubble masonry manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge :In cement mortar	RO	Cum		
13	Cutting down trees including trunks and branches with girths above 450cm and stacking the materials neatly with all lifts and lead of 1000m .as directed and earth filling in the depression/pit if any. (Removal of existing tress)	3.00	No's	3,996.66	11,989.98
14	Dismantling steel work in built up sections in angles, tees, flats and channels including all gusset plates, bolts, nuts, cutting rivets, welding etc. including dismembering and stacking within 50 metres lead.	1,000.00	Kgs	5.48	5,480.31
15	Block work holes making and finishing (size 600mm x 600mm)	20.00	No's	295.00	5,900.00
16	Demolishing mud phaska in terracing and disposal of material within 50 metres lead.	222.00	sqm	888.34	1,97,211.68
17	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means, including loading,transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all leads including all lifts involved.	100.00	Cum	258.52	25,851.75
	Total Amount (No.1.3) in Rs : C/o to Summary :				6,58,925.77
	Note: Quoted rate for all dismantling works to include carting the debris outside the premises not objected by the civic authorities, contractor to mak sure the disposing location and quote rate accordingly. To be Visit the site before Quoting no variation expected.				
1.4	CIVIL WORKS-PRE-FABRICATED SECURITY CABIN				
1	Supply and Installation of 5Lx5Wx8.5H ft. MS Fabricated Portable Security Cabin which includes. Aluminum sliding windows of size 3'x3' – 1Nos. Rigid fixed glass of size 3'x3'-2Nos. Electrical fittings:- LED Tube Light - 1Nos, Door lights-1Nos, Cabin Fan- 1Nos, Bulk Head Light- 1Nos and Linear work table and chair with power point below the sliding window on the length side. Cost to include transportation , loading , unloading .	1.00	Nos	1,00,000.00	1,00,000.00
	Total Amount (No.1.4) in Rs : C/o to Summary :				1,00,000.00
1.5	CIVIL WORKS-PLUMBING WORKS				
1	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge.				
	20 mm nominal dia Pipes	6.00	Rmt	383.15	2,298.90
	25 mm nominal dia Pipes	6.00	Rmt	481.50	2,889.01
	32 mm nominal dia Pipes	6.00	Rmt	590.40	3,542.40
	40 mm nominal dia Pipes	6.00	Rmt	794.76	4,768.58
	50 mm nominal dia Pipes	6.00	Rmt	1,092.53	6,555.16
2	BRASS FITTINGS Providing and fixing brass bib cock of approved quality :				
	15 mm nominal bore	2.00	each	358.11	716.21
	20 mm nominal bore	RO	each		
3	Providing and fixing ball valve (brass) of approved quality, High or low pressure, with plastic floats complete :				
	25 mm nominal bore	5.00	each	470.42	2,352.11
4	Providing and fixing C.P. brass bib cock of approved quality conforming to IS:8931 :				
	15 mm nominal bore	2.00	each	511.73	1,023.46
5	Providing and fixing C.P. brass angle valve for basin mixer and geyser points of approved quality conforming to IS:8931				
	15mm nominal bore	6.00	each	589.69	3,538.16
6	Providing and fixing PTMT pillar cock of approved quality and colour.				
	15 mm nominal bore, 125 mm long foam flow, weighing not less than 120 gms	2.00	each	228.82	457.64
7	Providing and fixing P.V.C. waste pipe for sink or wash basin including				
	Semi rigid pipe				
	32 mm dia	6.00	Rmt	107.19	643.14
	40 mm dia	6.00	Rmt	119.80	718.80
	Flexible pipe				
	32 mm dia	5.00	each	122.98	614.91
	40 mm dia	5.00	each	122.98	614.91

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SITC VALIDATION OF c-GMP COMPLIANT MAMMALIAN CELL LINE REPOSITORY ON TURNKEY BASIS AT NCCS JIDNYASA BUILDING, KOTHRUD, PUNE

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
8	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing :				
	Rectangular shape 453x357 mm	2.00	each	1,365.89	2,731.79
9	Providing and fixing toilet paper holder :				
	C.P. brass	2.00	each	802.36	1,604.73
10	Cutting chases in brick masonry walls for following diameter sand cast iron/centrifugally cast (spun) iron pipes and making good the same with cement concrete 1:3:6 (1 cement : 3 coarse sand :6 graded stone aggregate 12.5 mm nominal size), including necessary plaster and pointing				
	100 mm dia	6.00	Rmt	725.64	4,353.84
	75 mm dia	6.00	Rmt	521.16	3,126.96
	50 mm dia	6.00	Rmt	338.84	2,033.02
11	Providing and fixing PTMT Waste Coupling for wash basin and sink, of approved quality and colour.				
	Waste coupling 38 mm dia of 83 mm length and 77mm breadth, weighing not less than 60 gms	3.00	each	129.29	387.86
12	Providing and fixing PTMT Bottle Trap for Wash basin and sink.				
	Bottle trap 38 mm single piece moulded with height of 270 mm, effective length of tail pipe 260 mm from the centre of the waste coupling, 77 mm breadth with 25 mm minimum water seal, weighing not less than 263 gms	3.00	each	383.15	1,149.45
13	Providing and fixing PTMT liquid soap container 109 mm wide, 125 mm high and 112 mm distance from wall of standard shape with bracket of the same materials with snap fittings of approved quality and colour, weighing not less than 105 gms.	2.00	each	172.42	344.85
14	Providing and fixing PTMT towel ring trapezoidal shape 215 mm long, 200 mm wide with minimum distances of 37 mm from wall face with concealed fittings arrangement of approved quality and colour, weighing not less than 88 gms.	2.00	each	241.25	482.50
15	Providing and fixing PTMT urinal cock of approved quality and colour.				
	15 mm nominal bore, 80 mm long, 42 mm high and 30mm wide with BSP female threads weighing not less than 48 gms	1.00	each	176.73	176.73
16	Providing and fixing floor mounted, white vitreous china single piece, double traps syphonic water closet of approved brand/make, shape, size and pattern including integrated white vitreous china cistern of capacity 10 litres with dual flushing system, including all fittings and fixtures with seat cover, cistern fittings, nuts, bolts and gasket etc including making connection with the existing P/S trap, complete in all respect as per directions of Engineer-in-Charge.	2.00	sets	18,975.32	37,950.63
17	Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require:				
	White Vitreous China Wash basin size 630x450 mm with a pair of 15 mm C.P. brass pillar taps	2.00	sets	3,998.68	7,997.37
18	Providing and fixing white vitreous china flat back or wall corner type lipped front urinal basin of 430x260x350 mm and 340x410x265 mm sizes respectively with automatic flushing cistern with standard flush pipe and C.P. brass spreaders with brass unions and G.I clamps complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required :				
	One urinal basin with 5 litre white P.V.C. automatic flushing cistern	1.00	set	6,209.66	6,209.66
19	Dismantling of flushing cistern of all types (C.I./PVC/Vitrious China) including stacking of useful materials near the site and disposal of unserviceable materials within 50 metres lead.	5.00	each	877.56	4,387.79
	Total Amount (No.1.5) in Rs : C/o to Summary :				1,03,670.59
	Note: 1. Quoted rate for all dismantling works to include carting the debris outside the premises not objected by the civic authorities, contractor to make sure the disposing location and quote rate accordingly. 2. All Pipe work inclusive of Supports. 3. Toilet renovation is only replacing the existing fixtures with new fixtures without causing damages to the floor and wall tiles. Any Damages in the floor and wall tiles to be rectified by the contractor without any additional cost.				
1.6	CIVIL WORKS-LIFT SHAFT				

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SITC VALIDATION OF c-GMP COMPLIANT MAMMALIAN CELL LINE REPOSITORY ON TURNKEY BASIS AT NCCS JIDNYASA BUILDING, KOTHRUD, PUNE

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
1	Earth work in excavation by mechanical means (Hydraulic excavator) /manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. All kinds of soil.	50	cum	338.07	16903.52
2	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :				
2.1	1:3:6 (1 Cement : 3 coarse sand (zone-III) derived from natural sources : 6 graded stone aggregate 20 mm nominal size derived from natural sources)	6	cum	8053.58	48321.50
3	Providing and laying in position ready mixed or site batched design mix cement concrete for reinforced cement concrete work; using coarse aggregate and fine aggregate derived from natural sources, Portland Pozzolana / Ordinary Portland /Portland Slag cement, admixtures in recommended proportions as per IS: 9103 to accelerate / retard setting of concrete, to improve durability and workability without impairing strength; including pumping of concrete to site of laying, curing, carriage for all leads; but excluding the cost of centering, shuttering, finishing and reinforcement as per direction of the engineer-in-charge; for the following grades of concrete. Note: Extra cement up to 10% of the minimum specified cement content in design mix shall be payable separately. In case the cement content in design mix is more than 110% of the specified minimum cement content, the contractor shall have discretion to either re-design the mix or bear the cost of extra cement.				
3.1	All works upto plinth level				
3.2	Concrete of M25 grade with minimum cement content of 330 kg /cum	15	cum	10135.04	152025.62
4	Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. above plinth level up to floor five level, excluding cost of centering, shuttering, finishing and reinforcement :				
4.1	1:1.5:3 (1 cement : 1.5 coarse sand(zone-III) derived from natural sources : 3 graded stone aggregate 20 mm nominal size derived from natural sources)	6	cum	12003.71	72022.26
5	All works above plinth level upto floor V level				
5.1	Concrete of M25 grade with minimum cement content of 330 kg /cum	20	cum	11880.08	237601.58
6	Centering and shuttering including strutting, propping etc. and removal of form for				
6.1	Foundations, footings, bases of columns, etc. for mass concrete	20	sqm	362.94	7258.76
6.2	Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.	60	sqm	789.11	47346.36
6.3	Suspended floors, roofs, landings, balconies and access platform	25	sqm	903.43	22585.66
6.4	Lintels, beams, plinth beams, girders, bressumers and cantilevers	70	sqm	716.98	50188.46
6.5	Columns, Pillars, Piers, Abutments, Posts and Struts	80	sqm	947.86	75828.66
7	Providing and applying integral crystalline slurry of hydrophilic in nature for waterproofing treatment to the RCC structures like retaining walls of the basement, water tanks, roof slabs, podiums, reservoir, 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 guarantee for 10 years against any leakage.				
7.1	For vertical surface two coats @ 0.70 kg per sqm	50	sqm	478.79	23939.53
7.2	For horizontal surface one coat @1.10 kg per sqm.	10	sqm	367.12	3671.22
8	18 mm cement plaster in two coats under layer 12 mm thick cement plaster 1:5 (1 cement : 5 coarse sand) and a top layer 6 mm thick cement plaster 1:3 (1 cement : 3 coarse sand) finished rough with sponge.(External Wall Plaster)	320	sqm	544.32	174181.99
9	Finishing with Deluxe Multi surface paint system for interiors and exteriors using Primer as per manufacturers specifications :				

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SITC VALIDATION OF c-GMP COMPLIANT MAMMALIAN CELL LINE REPOSITORY ON TURNKEY BASIS AT NCCS JIDNYASA BUILDING, KOTHRUD, PUNE

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
9.1	Two or more coats applied on walls @ 1.25 ltr/10 sqm over and including one coat of Special primer applied @ 0.75 ltr /10 sqm	320	sqm	187.33	59946.36
10	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level.				
10.1	Thermo-Mechanically Treated bars of grade Fe-500D or more.	5000	kgs	105.66	528290.29
11	Providing and fixing 18 mm thick gang saw cut, mirror polished, premoulded and prepolished, machine cut for kitchen platforms, vanity counters, window sills, facias and similar locations of required size, approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 coarse sand), joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing to edges to give high gloss finish etc. complete at all levels.				
	Granite stone slab colour black, Cherry/Ruby red				
11.1	Area of slab upto 0.50 sqm	RO	sqm		
11.2	Area of slab over 0.50 sqm	25.5	sqm	5215.55	132996.48
12	Providing and laying factory made Precast concrete solid blocks of 200 mm thickness of grade M10 made of C&D waste from approved manufacturer in superstructure above plinth level up to floor V level				
12.1	Cement mortar 1:6 (1 cement : 6 coarse sand)	20.00	cum	9530.56	190611.14
13	Kota stone slab flooring over 20 mm (average) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab, including rubbing and polishing complete with base of cement mortar 1 : 4 (1 cement : 4 coarse sand) :				
13.1	25 mm thick	12.00	Sqm	2011.33	24136.00
14	Providing and fixing in position aluminium fixed window fully glazed of any size as per detailed drawing and as directed by Engineerincharge with all necessary alluminium sections including necessary fixtures and fastening such as 5 mm thick clear float glass etc. complete.				
14.1	b) Powder Coated	15.00	Sqm	6744.88	101173.20
15	Finishing walls with 100% Premium acrylic emulsion paint having VOC less than 50 gm/litre and UV resistance as per IS 15489:2004, Alkali & fungal resistance, dirt resistance exterior paint of required shade (Company Depot Tinted) with silicon additives. 13.48A.1 New work (Two or more coats applied @ 1.43 litre/ 10 sqm. Over and including priming coat of exterior primer applied @ 0.90 litre/10 sqm.	100.00	sqm	182.03	18202.89
16	Providing & fixing factory-made Single and double leaf 2 hour fire rated door as per IS 3614 Part 2 & BS 476 Part 20 & 22, tested to UL 10 C and conforming to NFPA 80 , tested at NTL /CBRI/ARAI of Plain Steel finish type with a.) Frame of size 143x58 mm and thickness of 1.6 mm thick skin pass galvanized iron sheet (Conform to IS 277) formed to single or double rebate profile b.) Shutter of 46 mm thickness and constructed from 1.2 mm thick skin pas galvanized iron sheet (Conform to IS 277) infill Rockwool / Mineral wool/ Honey comb craft paper c.) Vision glass of 5mm thick clear/wired glass Circular or Rectangular d.) Finish : Primed with zinc phosphate stoving primer and finished with Polyurethane aliphatic grade or epoxy paint as required of thickness 60 micron e.) Accessories : Min 8 Anchor fastener of HILTI make, min 3 SS Ball Bearing Butt Hinges, Mortise sash lock with lever handle, Mortise dead bolt , Mortise latch , Door closer , Panic bar and external trim lock and Flush bolts complete.(2hr. Fire rated hollow metal doors - Painted)	3.6	Sqm	10249.48	36898.13
17	12 mm cement plaster finished with a floating coat of neat cement of mix :				
17.1	1:4 (1 cement: 4 fine sand)	100.00	sqm	425.81	42581.43
18	Providing and fixing stainless steel (Grade 304) railing made of Hollow tubes, channels, plates etc., including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts and bolts complete, i/c fixing the railing with necessary accessories & stainless steel dash fasteners , stainless steel bolts etc., of required size, on the top of the floor or the side of waist slab with suitable arrangement as per approval of Engineer-incharge, (for payment purpose only weight of stainless steel members shall be considered excluding fixing accessories such as nuts, bolts, fasteners etc.).	150.00	kg	721.57	108236.16
	Total Amount (No.1.6) in Rs : C/o to Summary :				2174947.23

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SITC VALIDATION OF c-GMP COMPLIANT MAMMALIAN CELL LINE REPOSITORY ON TURNKEY BASIS AT NCCS JIDNYASA BUILDING, KOTHRUD, PUNE

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
	Note: Quoted rate for all dismantling works to include carting the debris outside the premises not objected by the civic authorities, contractor to make sure the disposing location and quote rate accordingly.				
1.7	CIVIL WORKS-WATER TANK RESTORATION				
1	Cleaning of under ground sump, Over Head R.C.C. Tank (independent staging) including disposal of slit and rubbish, all as per direction of Engineer-in-Charge. The cleaning shall consist following operations:- (i) Tank shall be emptied of water by pumping & bottom shall be cleaned of silt and other deposits. (ii) Entire surface area of the sump shall then scrubbed thoroughly with wire brush etc. and pressure washed with water. (iii) Chlorination of RCC internal surface by liquid chlorine. (iv) The treated surface shall be dried using air jetting and all loose particles shall be removal from the surface. (v) Finally the surface shall be treated with ultraviolet radiation etc. as per direction of Engineer-in-Charge.	25	SQM	84.03	2,100.79
2	Providing and applying integral crystalline slurry of hydrophilic in nature for waterproofing treatment to the RCC structures like retaining walls of the basement, water tanks, roof slabs, podiums, reservoir, 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 guarantee for 10 years against any leakage.				
	For vertical surface two coats @ 0.70 kg per sqm	25	sqm	478.79	11,969.77
	For horizontal surface one coat @1.10 kg per sqm.	40	sqm	367.12	14,684.88
	Total Amount (No.1.7) in Rs : C/o to Summary :				28755.43
	Note: Quoted rate for all dismantling works to include carting the debris outside the premises not objected by the civic authorities, contractor to mak sure the disposing location and quote rate accordingly.				
1.8	CIVIL WORKS-SLAB STRENGTHING WORKS				
1	BASIC REPAIR : Anti-corrosion treatment for affected reinforcing bars, application of polymer modified mortar, Nozzle fixing and Grouting etc.	1.00	LS	5,31,000.00	5,31,000.00
	COLUMN STRENGTHENING BY CFRP METHOD				
2	Surface Cleaning of existing concrete carefully by Grinder without damaging the existing concrete including cleaning the surfaces by Blower etc. complete.	294.00	Sqm	389.40	1,14,483.60
3	Providing and Applying 100% solvent-free, mixed density 1.1 kg/ltr Flexural Strength conforming to IS 4456 (Part 1) not less than 50 MPa R&M Low viscosity epoxy resin as a priming compound Bond strength conforming to ASTM D 4541 used for enhancing adhesion between substrate and epoxy overlay and fill in the scratches should have high moisture tolerance such that can be used even with 6% moisture in the substrate. It should also have wide range of curing temperatures. The proportions as specified by the manufacture Part A & Part B in suitable container. Mixing with help of TE -2 using a low RPM (400-500RPM) stirrer. Apply the mixture using 3" clean brush on to the surface of the substrate.	294.00	Sqm	584.10	1,71,725.40
4	Providing and Applying R&M Putty including mixing in the proportions as specified by the manufacturer. The ingredients are mixed by stirring to get uniform paste. The prepared paste is applied over the prepared concrete surface to get even profile etc. complete (upto 2 mm)	294.00	Sqm	454.30	1,33,564.20
5	Providing and Applying first coat of 100% Solvent free R&M epoxy resin, mixed density of 1.8kg/lit. Flexural Strength conforming to IS 4456 (Part 1) greater than 30 MPa,Bond strength conforming to ASTM D 4541 used for saturation of CFRP Sheets, proportions as specified by the manufacturer. (Mode of measurement: Per sq.mt of CFRP sheet consumed and not surface area of application)	370.00	Sqm	843.70	3,12,169.00

PART II: BILL OF QUANTITY

SITC VALIDATION OF c-GMP COMPLIANT MAMMALIAN CELL LINE REPOSITORY ON TURNKEY BASIS AT NCCS JIDNYASA BUILDING, KOTHRUD, PUNE

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
6	CFRP Sheets: Providing and Application of R&M CFRP Fabric having composite modulus of atleast 90Gpa and min composite thickness of 0.9mm. Weather resistance, pultruded CFRP Fiber with stress-strain ratio within the limit of elasticity confirming to ACI codes and tensile strength of fabric used at least 4000 MPa. Cutting the fabric to required size. Wrapping: Wrapping the fiber sheet to structural element at desired orientation using tamping roller to avoid any air voidsetc (Mode of measurement: Per sq.mt of Carbon fiber sheetconsumed and not surface area of application)	300.00	Sqm	3,374.80	10,12,440.00
7	CFRP Sheets: Providing and Application of R&M CFRP Fabric having composite modulus of atleast 90Gpa and min composite thickness of 1.3mm. Weather resistance, pultruded CFRP Fiber with stress-strain ratio within the limit of elasticity confirming to ACI codes and tensile strength of fabric used at least 4000 MPa. Cutting the fabric to required size. Wrapping: Wrapping the fiber sheet to structural element at desired orientation using tamping roller to avoid any air voidsetc (Mode of measurement: Per sq.mt of Carbon fiber sheetconsumed and not surface area of application)	72.00	Sqm	4,672.80	3,36,441.60
8	Providing and Applying first coat of 100% Solvent free R&M epoxy resin, mixed density of 1.8kg/lit. Flexural Strength conforming to IS 4456 (Part 1) greater than 30 MPa,Bond strength conforming to ASTM D 4541 used for saturation of CFRP Sheets, proportions as specified by the manufacturer. (Mode of measurement: Per sq.mt of CFRP sheet consumed and not surface area of application)	370.00	Sqm	843.70	3,12,169.00
9	CFRP Band Provide & applying Prestressed Band of 100 mm wide and 0.67 mm thick around the column to confine the concrete within as per the spacing suggested. Stressing the band by manual hand operable machine cost including the stressing labour material etc.	280.00	rmt	973.50	2,72,580.00
10	Anchor Plate fixing: Provide & fixing Semi-stress Anchor Plate of aluminum to hold the stressed band fixing the same.	170.00	Nos	2,141.70	3,64,089.00
11	Provide & fixing R&M Carbon Fibre Anchor using Epoxy 50X55 system and spreading the anchor fibers in star pattern including application of saturant etc. complete	845.00	Nos	292.05	2,46,782.25
12	Sprinkling of quartz sand:Providing and applying top coat layer of quartz sand sprinkling on CFRP Sheet wrapped surface	295.00	Sqm	389.40	1,14,873.00
	STRENGTHENING OF FOUNDATION BY RC JACKETING				
13	Hacking of CC flooring including cleaning for surface etc. complete as per direction of the Engineer-in-Charge.	42	Sqm	3.36	141.07
14	Providing, mixing and applying bonding coat of approved adhesive on chipped portion of RCC as per specifications and direction of Engineer-In-charge complete in all respect.				
	SBR Polymer (@10% of cement weight) modified cementitious bond coat @ 2.2 kg cement per sqm of surface area mixed with specified proportion of approved polymer	42	Sqm	138.78	5,828.58
15	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above plinth level.				
	Thermo-Mechanically Treated bars of grade Fe-500D or more.	100	Kg	105.66	10,565.81
16	Providing & Fixing 8 mm MS/TS dowel pins/staple/shear pins including drilling holes in concrete, providing labour,materials for grouting the pins.(anchoring chemical Wurth or fischer)	87	NO	211.87	18,432.60
17	Centering and shuttering including strutting, propping etc. and removal of form for				
17.1	Foundations, footings, bases of columns, etc. for mass concrete	44	Sqm	362.94	15,969.28
18	Providing and laying in position ready mixed or site batched design mix cement concrete for reinforced cement concrete work; using coarse aggregate and fine aggregate derived from natural sources, Portland Pozzolana / Ordinary Portland /Portland Slag cement, admixtures in recommended proportions as per IS: 9103 to accelerate / retard setting of concrete, to improve durability and workability without impairing strength; including pumping of concrete to site of laying, curing, carriage for all leads; but excluding the cost of centering, shuttering, finishing and reinforcement as per direction of the engineer-in-charge; for the following grades of concrete. Note: Extra cement up to 10% of the minimum specified cement content in design mix shall be payable separately. In case the cement content in design mix is more than 110% of the specified minimum cement content, the contractor shall have discretion to either re-design the mix or bear the cost of extra cement.				
	All works upto plinth level				

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SITC VALIDATION OF c-GMP COMPLIANT MAMMALIAN CELL LINE REPOSITORY ON TURNKEY BASIS AT NCCS JIDNYASA BUILDING, KOTHRUD, PUNE

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
	Concrete of M25 grade with minimum cement content of 330 kg /cum	11.00	cum	9,425.31	1,03,678.43
	SLAB STRENGTHENING BY CFRP METHOD				
19	Surface Cleaning of existing concrete carefully by Grinder without damaging the existing concrete including cleaning the surfaces by Blower etc. complete.	RO	Rmt	63.72	
20	Providing and Applying R&M Putty including mixing in the proportions as specified by the manufacturer. The ingredients are mixed by stirring to get uniform paste. The prepared paste is applied over the prepared concrete surface to get even profile etc. complete (upto 2 mm)	RO	Rmt	82.84	
21	Providing and Applying 100% solvent-free, mixed density 1.1 kg/ltr Flexural Strength conforming to IS 4456 (Part 1) not less than 50 MPa Low viscosity epoxy resin as a priming compound Bond strength conforming to ASTM D 4541 used for enhancing adhesion between substrate and epoxy overlay and fill in the scratches should have high moisture tolerance such that can be used even with 6% moisture in the substrate. It should also have wide range of curing temperatures. The proportions as specified by the manufacture Part A & Part B in suitable container. Mixing with help of TE -2 using a low RPM (400-500RPM) stirrer. Apply the mixture using 3" clean brush on to the surface of the substrate.	RO	Rmt	89.21	
22	Providing and Applying first coat of 100% Solvent free R&M epoxy resin, mixed density of 1.8kg/lit. Flexural Strength conforming to IS 4456 (Part 1) greater than 30 MPa, Bond strength conforming to ASTM D 4541 used for saturation of CFRP Sheets, proportions as specified by the manufacturer. (Mode of measurement: Per sq.mt of CFRP sheet consumed and not surface area of application)	RO	Rmt	95.58	
23	CFRP Band: Providing and Application of R&M CFRP Fabric having composite modulus of atleast 90Gpa and min composite thickness of 0.90mm. Weather resistance, pultruded CFRP Fiber with stress-strain ratio within the limit of elasticity confirming to ACI codes and tensile strength of fabric used at least 4000 MPa. Cutting the fabric to required size.	RO	Rmt	2,293.92	
24	Providing and Applying second coat of 100% Solvent free R&M epoxy resin, mixed density of 1.8kg/lit. Flexural Strength conforming to IS 4456 (Part 1) greater than 30 MPa, Bond strength conforming to ASTM D 4541 used for saturation of CFRP Sheets, proportions as specified by the manufacturer. (Mode of measurement: Per sq.mt of CFRP sheet consumed and not surface area of application)	RO	Rmt	95.58	
25	Drilling 12mm dia hole for R&M carbon anchor 50 to 60 mm depth	RO	Nos	101.95	
26	Provide & fixing R&M Carbon Fibre Anchor using Epoxy 50X55 system and spreading the anchor fibers in star pattern including application of saturant etc. complete	RO	Nos	152.93	
27	Sprinkling of quartz sand: Providing and applying top coat layer of quartz sand sprinkling on CFRP laminate	RO	Rmt	44.60	
	Total Amount (No.1.8) in Rs : C/o to Summary :				40,76,932.81
	Note-				
	Quoted rate for all dismantling works to include carting the debris outside the premises not objected by the civic authorities, contractor to make sure the disposing location and quote rate accordingly.				
	Vendor scope includes design and execution of strengthening works as per the BOQ mentioned.				
	Vendor to do design and strengthening as per the relevant IS codes IS : 1893/2016 and ailed codes for the structure to withstand 450kg/sqm live load. As per COEP Pune report.				
	Vendor need to provide design and execution report based on the NDT reports provided along with the tender.				
	All Scaffolding and tools and tackles required for completing the job to be part of the vendor scope of work.				
	Vendor Scope includes removing and carting away the debris due to strengthening works to a place not objected by civic authorities				
	Excavation for Footing strengthening and refixing the same is part of scope as per the BOQ.				
	Vendor need to provide as built drawings after execution.				
	Approved Make: refer Approved make Sheet. All materials to be taken approval from client and consultant before executing.				
	Vendor to get vetting for the design from third party from a reputed institutions COEP, Pune.				
	TOTAL CIVIL WORK A- (1.1+1.2+1.3+1.4+1.5+1.6+1.7+1.8)				1,97,89,227.07

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SITC VALIDATION OF c-GMP COMPLIANT MAMMALIAN CELL LINE REPOSITORY ON TURNKEY BASIS AT NCCS JIDNYASA BUILDING, KOTHRUD, PUNE

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
B	ELECTRICAL LT WORKS				
1	MAIN LT PANEL				
	Supply, installation at Second floor level, testing and commissioning of MAIN LT PANEL cubicle type made out of 14/16 swg (frame & front door-2mm, rear door/ enclosure/ partition- 1.6mm, gland plate- 3mm & door hinges- 2.5mm thick) MS CRCA sheet which is derusted, degreased, phosphated and passivated with angle iron skeleton or sheet folded construction. The panel to be dust and vermin proof type and powder coated paint after suitable seven tank pretreatment. The panel will have individual compartments for incoming and outgoing feeders made out of cold rolled sheet and doors fitted with Neoprene gaskets and fasteners. Internal parts of panel can be of unpainted / GI parts to ensure effective earth continuity. The switchboards are to be tested as per IS 8623-1977 specifications. Busbars are to be of high conductivity Aluminium Alloy E91E IS 5082 specification. Cable entry for incomer and for all outgoing will be from either top or bottom. The panel will have louvers with necessary cooling methodology wherever necessary. Incoming metering compartment & all cable alleys should have LED light with limit switch. All cable alleys should have Thermostat. LOTO to be provided for incomer and outgoing feeders. Following all breakers Icu shall be 100%. All breakers should be suitable for discrimination chart and vendor has to be set the rating as per discrimination chart. Refer the technical specifications and SLD for more details.				
	The scope includes Loading/Unloading of equipment from Truck and container, shifting to place of Store/erection, unpacking at site, assembly of loosely furnished accessories, busbar, etc., installation on ready foundation / floor. Any material or Hardware including Anchor Fastener supply & installation. The cost of Crane /Hydra if required to be included in this item.				
	INCOMING				
	EB INCOMER (FROM TRANSFORMER)				
	630Amp 4P 36kA Motorized MCCB with Rotary handle operating mechanism and Microprocessor based releases for Short circuit, Over current, Earth fault & Shunt trip. - 1 No				
	Instrument panel consists of Maximum demand controller (EM 7430 or Equivalent) with RS 485 port, Line voltage monitor (LVM), Emergency push button, APFC panel 3phase sensing relay with CTS, RYB & ON/OFF /Trip indicating lamps with control MCB's, Current Transformer, ELR (1-12A) with CBCT, Single phase preventer with Timer, Auxillary contactor with addition block, Auto manual switch complete - 1 set				
	DG INCOMER (FROM DG SET)				
	630Amp 4P 36kA Motorized MCCB with Rotary handle operating mechanism and Microprocessor based releases for Short circuit, Over current, Earth fault & Shunt trip. - 1 No				
	Instrument panel consists of RYB & Trip indicating lamps, with control MCB's,Current Transformer, NC on indicating lamps, DG on indicating lamps, start/stop push button, Emergency stop push button,Test, Acknowledge, Reset push button,hooter,24V DC battery charger with DP MCB, SMPs, Analogue Ammeter, 8 window annunciator, LDM, kWh Meter with RS 485 port, ELR(1-12A) with CBCT, with control MCBs, Auto manual switch, APFC panel 3phase sensing relay with CTS, Auxillary contactor with addition block, complete - 1 set				
	AMF relay,REF Relay (64R), Reverse power relay, 5P10,15VA CTs - 1 set				
	BUSBAR				
	630A TPN 36kA Aluminium busbar with heat shrinkable sleeves and extendable type with Surge protection device [SPD- CLASS1 (SPARKS GAP)] 65kA with 4P isolator- 1 lot				
	Electrical Interlock between EB Incomer and DG Incomer. Rate shall include for required necessary contactors, wiring and related accessories - 1 lot				
	Logic of Interlock : When EB (Transformer) Breaker is ON (close), DG should be OFF (Open) and when EB supply goes off, DG should ON Automatically.				
	FRP Supportings and FRP Barriers with control wiring - 1 Lot				
	OUTGOING				

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SITC VALIDATION OF c-GMP COMPLIANT MAMMALIAN CELL LINE REPOSITORY ON TURNKEY BASIS AT NCCS JIDNYASA BUILDING, KOTHRUD, PUNE

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
	320Amps TPN, 36kA MCCB with Rotary handle operating mechanism and thermal magnetic releases for short circuit, over current & ON/OFF/TRIP Indicating lamps with control MCB's - 1 Set				
	400Amps TPN, 36kA MCCB with Rotary handle operating mechanism and thermal magnetic releases for short circuit, over current & ON/OFF/TRIP Indicating lamps with control MCB's - 2 Sets				
	200Amps TPN, 36kA MCCB with Rotary handle operating mechanism and thermal magnetic releases for short circuit, over current & ON/OFF/TRIP Indicating lamps with control MCB's - 1 Set				
	160Amps TPN, 36kA MCCB with Rotary handle operating mechanism and thermal magnetic releases for short circuit, over current & ON/OFF/TRIP Indicating lamps with control MCB's - 1 Set				
1.1	COMPLETE	1	SET	9,30,244.74	9,30,244.74
2	MEDIUM VOLTAGE PANEL (MVP)-1				
	Supply, installation at Second floor level, testing and commissioning of MVP-1 cubicle type made out of 14/16 swg (frame & front door- 2mm, rear door/ enclosure/ partition- 1.6mm, gland plate- 3mm & door hinges- 2.5mm thick) MS CRCA sheet which is derusted, degreased, phosphated and passivated with angle iron skeleton or sheet folded construction. The panel to be dust and vermin proof type with powder coated paint after suitable seven tank pretreatment. The panel will have individual compartments for incoming and outgoing feeders made out of cold rolled sheet and doors fitted with Neoprene gaskets and fasteners. Internal parts of panel can be of unpainted / GI parts to ensure effective earth continuity. The switchboards are to be tested as per IS 8623-1977 specifications. Busbars are to be of high conductivity Aluminium Alloy E91E IS 5082 specification. Cable entry for incomer and for all outgoing will be from either top or bottom. The panel will have louvers with necessary cooling methodology wherever necessary. Incoming metering compartment & all cable alleys should have LED light with limit switch. All cable alleys should have Thermostat. LOTO to be provided for incomer and outgoing feeders. Following all breakers Icu shall be 100%. All breakers should be suitable for discrimination chart and vendor has to be set the rating as per discrimination chart. Refer the technical specifications and SLD for more details.				
	The scope includes Loading/Unloading of equipment from Truck and container, shifting to place of Store/erection, unpacking at site, assembly of loosely furnished accessories, busbar, etc., installation on ready foundation / floor. Any material or Hardware including Anchor Fastener supply & installation. The cost of Crane /Hydra if required to be included in this item.				
	INCOMING				
	400Amp 4P 25kA MCCB with Rotary handle operating mechanism and Microprocessor based releases for Short circuit, Over current, Earth fault & Shunt trip. With ON/OFF /Trip indicating lamps with control MCB's - 1set				
	400/5A 15VA Class 1 CT's -3No.				
	MFM (EM 6400NG or Equivalent) with RS 485 port -1set.				
	RYB indicating lamps with 6A TPN control MCB's -1set.				
	400A TPN 25kA Aluminium Busbar -1set.				
	ELR (1-8A) with CBCT -1set.				
	40kA SPD (TYPE 1+2) with indicator and 4Pole isolator - 1 Set				
	Emergency stop push button - 1 set				
	OUTGOING				
	63Amps TPN, 25kA MCCB with Rotary handle operating mechanism and thermal magnetic releases for short circuit, over current & ON/OFF/TRIP Indicating lamps with control MCB's - 7 Sets				
	40Amps TPN, 25kA MCCB with Rotary handle operating mechanism and thermal magnetic releases for short circuit, over current & ON/OFF/TRIP Indicating lamps with control MCB's - 6 Sets				
	32Amps TPN, 25kA MCCB with Rotary handle operating mechanism and thermal magnetic releases for short circuit, over current & ON/OFF/TRIP Indicating lamps with control MCB's - 6 Sets				
	20Amps TPN, 25kA MCCB with Rotary handle operating mechanism and thermal magnetic releases for short circuit, over current & ON/OFF/TRIP Indicating lamps with control MCB's - 4 Sets				
2.1	COMPLETE	1	SET	6,84,405.90	6,84,405.90
3	MEDIUM VOLTAGE PANEL (MVP)-2				

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SITC VALIDATION OF c-GMP COMPLIANT MAMMALIAN CELL LINE REPOSITORY ON TURNKEY BASIS AT NCCS JIDNYASA BUILDING, KOTHRUD, PUNE

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
	Supply, installation at Second floor level, testing and commissioning of MVP-2 cubicle type made out of 14/16 swg (frame & front door- 2mm, rear door/ enclosure/ partition- 1.6mm, gland plate- 3mm & door hinges- 2.5mm thick) MS CRCA sheet which is derusted, degreased, phosphated and passivated with angle iron skeleton or sheet folded construction. The panel to be dust and vermin proof type with powder coated paint after suitable seven tank pretreatment. The panel will have individual compartments for incoming and outgoing feeders made out of cold rolled sheet and doors fitted with Neoprene gaskets and fasteners. Internal parts of panel can be of unpainted / GI parts to ensure effective earth continuity. The switchboards are to be tested as per IS 8623-1977 specifications. Busbars are to be of high conductivity Aluminium Alloy E91E IS 5082 specification. Cable entry for incomer and for all outgoing will be from either top or bottom. The panel will have louvers with necessary cooling methodology wherever necessary. Incoming metering compartment & all cable alleys should have LED light with limit switch. All cable alleys should have Thermostat. LOTO to be provided for incomer and outgoing feeders. Following all breakers lcu shall be 100%. All breakers should be suitable for discrimination chart and vendor has to be set the rating as per discrimination chart. Refer the technical specifications and SLD for more details.				
	The scope includes Loading/Unloading of equipment from Truck and container, shifting to place of Store/erection, unpacking at site, assembly of loosely furnished accessories, busbar, etc., installation on ready foundation / floor. Any material or Hardware including Anchor Fastener supply & installation. The cost of Crane /Hydra if required to be included in this item.				
	INCOMING				
	400Amp 4P 25kA MCCB with Rotary handle operating mechanism and Microprocessor based releases for Short circuit, Over current, Earth fault & Shunt trip. With ON/OFF /Trip indicating lamps with control MCB's. - 1set				
	400/5A 15VA Class 1 CT's - 3No.				
	MFM (EM 6400NG or Equivalent) with RS 485 port -1set.				
	RYB indicating lamps with 6A TPN control MCB's -1set.				
	500A TPN 25kA Aluminium Busbar -1set.				
	ELR (1-8A) with CBCT -1set.				
	40kA SPD (TYPE 1+2) with indicator and 4Pole isolator - 1 Set				
	Emergency stop push button - 1 set				
	OUTGOING				
	125Amps TPN, 25kA MCCB with Rotary handle operating mechanism and thermal magnetic releases for short circuit, over current & ON/OFF/TRIP Indicating lamps with control MCB's - 1 Set				
	63Amps TPN, 25kA MCCB with Rotary handle operating mechanism and thermal magnetic releases for short circuit, over current & ON/OFF/TRIP Indicating lamps with control MCB's - 9 Set				
	40Amps TPN, 25kA MCCB with Rotary handle operating mechanism and thermal magnetic releases for short circuit, over current & ON/OFF/TRIP Indicating lamps with control MCB's - 2 Set				
	32Amps TPN, 25kA MCCB with Rotary handle operating mechanism and thermal magnetic releases for short circuit, over current & ON/OFF/TRIP Indicating lamps with control MCB's - 1 Set				
3.1	COMPLETE	1	SET	4,63,537.04	4,63,537.04
4	MAIN LIGHTING DB (FABRICATED DB)				
	Supply, installation at First floor level, testing and commissioning of MAIN LIGHTING DB (FABRICATED DB) cubicle type made out of 14/16 swg (frame & front door- 2mm, rear door/ enclosure/ partition- 1.6mm, gland plate- 3mm & door hinges- 2.5mm thick) MS CRCA sheet which is derusted, degreased, phosphated and passivated with angle iron skeleton or sheet folded construction. The DB to be dust and vermin proof type and powder coated paint after suitable seven tank pretreatment. The DB will have individual compartments for incoming and outgoing feeders made out of cold rolled sheet and doors fitted with Neoprene gaskets and fasteners. Internal parts of panel can be of unpainted / GI parts to ensure effective earth continuity. The switchboards are to be tested as per IS 8623-1977 specifications. Busbars are to be of high conductivity Aluminium Alloy E91E IS 5082 specification. Cable entry for incomer and for all outgoing will be from either top or bottom.				

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SITC VALIDATION OF c-GMP COMPLIANT MAMMALIAN CELL LINE REPOSITORY ON TURNKEY BASIS AT NCCS JIDNYASA BUILDING, KOTHRUD, PUNE

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
	The scope includes Loading/Unloading of equipment from Truck and container, shifting to place of Store/erection, unpacking at site, assembly of loosely furnished accessories, busbar, etc., installation on ready WALL and necessary identification and stickering/labelling as required. Any material or Hardware including Anchor Fastener supply & installation. The cost of Crane /Hydra if required to be included in this item.				
	INCOMING				
	63Amp 4P 25kA MCCB with Rotary handle operating mechanism and thermal magnetic based releases for Short circuit & Over current. With ON/OFF /Trip indicating lamps with control MCB's. - 1set				
	63/5A 15VA Class 1 CT's -3No.				
	MFM (EM 6400NG or Equivalent) with RS 485 port -1set.				
	RYB indicating lamps with 6A TPN control MCB's -1set.				
	63A TPN 25kA Aluminium Busbar -1set.				
	25kA SPD (TYPE 1+2) with indicator and 4Pole isolator - 1 Set				
	Emergency stop push button - 1 set				
	OUTGOING				
	32Amps 'C' curve 4P MCB - 1 Set				
	32Amps 'C' curve DP MCB - 4 Sets				
4.1	COMPLETE	1	SET	66,347.86	66,347.86
5	MAIN UPS OUTGOING PANEL				
	Supply, installation at Second floor level, testing and commissioning of MAIN UPS OUTGOING PANEL cubicle type made out of 14/16 swg (frame & front door- 2mm, rear door/ enclosure/ partition- 1.6mm, gland plate- 3mm & door hinges- 2.5mm thick) MS CRCA sheet which is derusted, degreased, phosphated and passivated with angle iron skeleton or sheet folded construction. The panel to be dust and vermin proof type with powder coated paint after suitable seven tank pretreatment. The panel will have individual compartments for incoming and outgoing feeders made out of cold rolled sheet and doors fitted with Neoprene gaskets and fasteners. Internal parts of panel can be of unpainted / GI parts to ensure effective earth continuity. The switchboards are to be tested as per IS 8623-1977 specifications. Busbars are to be of high conductivity Aluminium Alloy E91E IS 5082 specification. Cable entry for incomer and for all outgoing will be from either top or bottom. The panel will have louvers with necessary cooling methodology wherever necessary. Incoming metering compartment & all cable alleys should have LED light with limit switch. All cable alleys should have Thermostat. LOTO				
	The scope includes Loading/Unloading of equipment from Truck and container, shifting to place of Store/erection, unpacking at site, assembly of loosely furnished accessories, busbar, etc., installation on ready foundation / floor. Any material or Hardware including Anchor Fastener supply & installation. The cost of Crane /Hydra if required to be included in this item.				
	INCOMING				
	125Amp 4P 25kA MCCB with Rotary handle operating mechanism and Microprocessor based releases for Short circuit, Over current, Earth fault & Shunt trip. With ON/OFF /Trip indicating lamps with control MCB's. - 1set				
	125/5A 15VA Class 1 CT's -3No.				
	MFM (EM 6400NG or Equivalent) with RS 485 port -1set.				
	RYB indicating lamps with 6A TPN control MCB's -1set.				
	125A 4P 25kA Aluminium Busbar (100% NEUTRAL) -1set.				
	40kA SPD (TYPE 1+2) with indicator and 4Pole isolator - 1 Set				
	Emergency stop push button - 1 set				
	OUTGOING				
	63Amps 4P, 25kA MCCB with Rotary handle operating mechanism and thermal magnetic releases for short circuit, over current & ON/OFF/TRIP Indicating lamps with control MCB's - 4 Set				
	40Amps 4P, 25kA MCCB with Rotary handle operating mechanism and thermal magnetic releases for short circuit, over current & ON/OFF/TRIP Indicating lamps with control MCB's - 2 Set				
	32Amps 'C' curve DP MCB - 1 Set				
5.1	COMPLETE	1	SET	2,95,712.72	2,95,712.72
6	MAIN EMERGENCY LIGHTING DB- WALL MOUNTED TYPE				

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SITC VALIDATION OF c-GMP COMPLIANT MAMMALIAN CELL LINE REPOSITORY ON TURNKEY BASIS AT NCCS JIDNYASA BUILDING, KOTHRUD, PUNE

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
	Supply, installation at First floor level, testing and commissioning of MAIN EMERGENCY LIGHTING DB- WALL MOUNTED TYPE cubicle type made out of 14/16 swg (frame & front door- 2mm, rear door/ enclosure/ partition- 1.6mm, gland plate- 3mm & door hinges- 2.5mm thick) MS CRCA sheet which is derusted, degreased, phosphated and passivated with angle iron skeleton or sheet folded construction. The DB to be dust and vermin proof type and powder coated paint after suitable seven tank pretreatment. The DB will have individual compartments for incoming and outgoing feeders made out of cold rolled sheet and doors fitted with Neoprene gaskets and fasteners. Internal parts of panel can be of unpainted / GI parts to ensure effective earth continuity. The switchboards are to be tested as per IS 8623-1977 specifications. Busbars are to be of high conductivity Aluminium Alloy E91E IS 5082 specification. Cable entry for incomer and for all outgoings will be from either top or bottom.				
	The scope includes Loading/Unloading of equipment from Truck and container, shifting to place of Store/erection, unpacking at site, assembly of loosely furnished accessories, busbar, etc., installation on ready WALL and necessary identification and stickering/labelling as required. Any material or Hardware including Anchor Fastener supply & installation. The cost of Crane /Hydra if required to be included in this item.				
	INCOMING				
	32Amps 'C' curve DP MCB - 1 Set				
	12.5kA (Type 2+3) DP SPD with indicator and DP isolator - 1 Set				
	OUTGOING				
	25Amps 'C' curve DP MCB - 3 Sets				
6.1	COMPLETE	1	SET	18,793.86	18,793.86
7	APFC PANEL				
	Supply, testing , commissioning and installation of APFC panel at Second floor level, cubicle type made out of 14/16 swg (frame & front door- 2mm, rear door/ enclosure/ partition- 1.6mm, gland plate- 3mm & door hinges- 2.5mm thick) MS CRCA sheet which is derusted, degreased, phosphated and passivated with angle iron skeleton or sheet folded construction. The panel to be dust and vermin proof type and powder coated paint after suitable seven tank pretreatment. The panel will have individual compartments for incoming and outgoing feeders made out of cold rolled sheet and doors fitted with Neoprene gaskets and fasteners. Internal parts of panel can be of unpainted / GI parts to ensure effective earth continuity. The switchboards are to be tested as per IS 8623-1977 specifications. Busbars are to be of high conductivity Aluminium Alloy E91E IS 5082 specification. Cable entry for incomer and for all outgoings will be from either top or bottom. The panel will have Louvers with necessary cooling methodology wherever necessary. following all breakers Icu shall be 100%. Refer the technical specifications and SLD for more details. LOTO to be provided for incomer and outgoing feeders.				
	The scope includes loading/unloading of equipment from truck and container, shifting to place of store/erection, unpacking at site, assembly of loosely furnished accessories, busbar.etc, installation on ready foundation / floor,any material or hardware including anchor fastener supply & installation. The cost of Crane /Hydra if required has to be included in this item.				
	INCOMING				
	320Amp TP 25kA MCCB with Rotary handle operating mechanism and Microprocessor based releases for Short circuit, Over current, Earth fault & Shunt trip. With ON/OFF /Trip indicating lamps with control MCB's. - 1set				
	RYB indicating lamps with 6A control MCB's -1set.				
	320A TPN 25kA Aluminium Busbar - 1 set				
	8 Stage Dual source Automatic Power factor Correction relay with Meter of NEPTUNE - G8/G8 plus make or equivalent with required CTs - 1 Lot				
	Control Contactor - 1 set				
	Auto / Manual switch - 1 set				
	OUTGOING				
	50kVAR Super Heavy duty Capacitor with 7% detuned reactors filter & capacitor duty contactor, Ventilation Fan, ON/OFF Push Button and ON/OFF Indicating Lamps with 125A TP MCCB, 25KA - 1 Set				

PART II: BILL OF QUANTITY

SITC VALIDATION OF c-GMP COMPLIANT MAMMALIAN CELL LINE REPOSITORY ON TURNKEY BASIS AT NCCS JIDNYASA BUILDING, KOTHRUD, PUNE

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
	25kVAR Super Heavy duty Capacitor with 7% detuned reactors filter & capacitor duty contactor, Ventilation Fan, ON/OFF Push Button and ON/OFF Indicating Lamps with 63A TP MCCB, 25KA - 2 Sets				
	10kVAR Super Heavy duty Capacitor with 7% detuned reactors filter & capacitor duty contactor, Ventilation Fan, ON/OFF Push Button and ON/OFF Indicating Lamps with 32A TP MCCB, 25KA -4 Sets				
7.1	COMPLETE	1	SET	4,03,210.72	4,03,210.72
8	GROUND FLOOR AHU-1A & AHU-1B STARTER PANEL				
	Supply, installation at Third floor level, testing and commissioning of GROUND FLOOR AHU-1A & AHU-1B STARTER PANEL cubicle type made out of 14/16 swg (frame & front door- 2mm, rear door/ enclosure/ partition- 1.6mm, gland plate- 3mm & door hinges- 2.5mm thick) MS CRCA sheet which is derusted, degreased, phosphated and passivated with angle iron skeleton or sheet folded construction. The panel to be dust and vermin proof type with powder coated paint after suitable seven tank pretreatment. The panel will have individual compartments for incoming and outgoing feeders made out of cold rolled sheet and doors fitted with Neoprene gaskets and fasteners. Internal parts of panel can be of unpainted / GI parts to ensure effective earth continuity. The switchboards are to be tested as per IS 8623-1977 specifications. Busbars are to be of high conductivity Aluminium Alloy E91E IS 5082 specification. Cable entry for incomer and for all outgoings will be from either top or bottom. The panel will have louvers with necessary cooling methodology wherever necessary. LOTO to be provided for incomer and outgoing feeders. Following all breakers lcu shall be 100%. All breakers should be suitable for discrimination chart and vendor has to be set the rating as per discrimination chart. Refer the technical specifications and SLD for more details. NOTE:- ALL STARTER PANELS SHOULD BE FLOOR MOUNTED, BOTTOM ENTRY PROVISION FOR CABLES AND WITH MS STAND MINIMUM 300MM HEIGHT.				
	The outgoing feeders shall be interlocked in auto / manual mode as per logic of interlocking mentioned in the SLD. The outgoing feeders shall have Auto/ Manual switch with 2 Poles, Illuminated push button for start/stop for manual mode and trip indications must be provided. Sufficient potential free NO/NC contacts must be provided. Necessary wiring has to be done upto cable alley for all interlocks. a) Necessary wiring has to be done up to cable alley for interlock of AHU door, AHU motor and AHU lighting, in case if the AHU door is opened while running, lighting should be ON, AHU motor should be OFF. b) Necessary wiring has to be done up to cable alley for interlock from Fire damper micro switch to AHU motor and for interlocking between panel Push button and remote push button near the units. c) Interlocking of the respective AHU to be included. d) whenever fire or smoke is detected in AHU , respective AHU breaker should be tripped.				
	The scope includes Loading/Unloading of equipment from Truck and container, shifting to place of Store/erection, unpacking at site, assembly of loosely furnished accessories, busbar, etc., installation on ready foundation / floor. Any material or Hardware including Anchor Fastener supply & installation. The cost of Crane /Hydra if required to be included in this item.				
	INCOMING				
	32Amp 4P 25kA MCCB with Rotary handle operating mechanism and thermal magnetic based releases for Short circuit & Over current. With ON/OFF /Trip indicating lamps with control MCB's & Emergency stop push button - 1set				
	RYB indicating lamps with 6A TPN control MCB's -1set.				
	32A TPN 25kA Aluminium Busbar -1set.				
	OUTGOING				
	2.2kW VFD & 4.5-5.5A TP MPCB with RHOM, Timer, single phase preventer, 2 pole 2 way rotary selector switch for automanual , ON-OFF illuminated push buttons & "Trip" indicating lamp with control MCB. 2sets Potential free contactors for BMS feedback. VFD shall have Output choke, Patch card, 8 inch Ventilation fan and internal wiring with display & door cutout.- 1 Set				

PART II: BILL OF QUANTITY

SITC VALIDATION OF c-GMP COMPLIANT MAMMALIAN CELL LINE REPOSITORY ON TURNKEY BASIS AT NCCS JIDNYASA BUILDING, KOTHRUD, PUNE

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
	1.1kW VFD & 2.2-2.8A TP MPCB with RHOM, single phase preventer, 2 pole 2 way rotary selector switch for automanual , ON-OFF illuminated push buttons & "Trip" indicating lamp with control MCB. 2sets Potential free contactors for BMS feedback. VFD shall have Output choke, Patch card, 8 inchVentilation fan and internal wiring with display & door cutout. - 1 Set				
8.1	COMPLETE	1	SET	1,89,483.22	1,89,483.22
9	GROUND FLOOR AHU-2 & GROUND FLOOR EAU-1				
	Supply, installation at Third floor level, testing and commissioning of GROUND FLOOR AHU-2 & GROUND FLOOR EAU-1 cubicle type made out of 14/16 swg (frame & front door- 2mm, rear door/ enclosure/ partition- 1.6mm, gland plate- 3mm & door hinges- 2.5mm thick) MS CRCA sheet which is derusted, degreased, phosphated and passivated with angle iron skeleton or sheet folded construction. The panel to be dust and vermin proof type with powder coated paint after suitable seven tank pretreatment. The panel will have individual compartments for incoming and outgoing feeders made out of cold rolled sheet and doors fitted with Neoprene gaskets and fasteners. Internal parts of panel can be of unpainted / GI parts to ensure effective earth continuity. The switchboards are to be tested as per IS 8623-1977 specifications. Busbars are to be of high conductivity Aluminium Alloy E91E IS 5082 specification. Cable entry for incomer and for all outgoing will be from either top or bottom. The panel will have louvers with necessary cooling methodology wherever necessary. LOTO to be provided for incomer and outgoing feeders. Following all breakers lcu shall be 100%. All breakers should be suitable for discrimination chart and vendor has to be set the rating as per discrimination chart. Refer the technical specifications and SLD for more details. NOTE:- ALL STARTER PANELS SHOULD BE FLOOR MOUNTED, BOTTOM ENTRY PROVISION FOR CABLES AND WITH MS STAND MINIMUM 300MM HEIGHT.				
	The outgoing feeders shall be interlocked in auto / manual mode as per logic of interlocking mentioned in the SLD. The outgoing feeders shall have Auto/ Manual switch with 2 Poles, Illuminated push button for start/stop for manual mode and trip indications must be provided. Sufficient potential free NO/NC contacts must be provided. Necessary wiring has to be done upto cable alley for all interlocks. a)Necessary wiring has to be done up to cable alley for interlock of AHU door, AHU motor and AHU lighting, in case if the AHU door is opened while running,lighting should be ON, AHU motor should be OFF. b) Necessary wiring has to be done up to cable alley for interlock from Fire damper micro switch to AHU motor and for interlocking between panel Push button and remote push button near the units. c) Interlocking of the respective AHU to be included. d) whenever fire or smoke is detected in AHU , respective AHU breaker should be tripped.				
	The scope includes Loading/Unloading of equipment from Truck and container, shifting to place of Store/erection, unpacking at site, assembly of loosely furnished accessories, busbar, etc., installation on ready foundation / floor. Any material or Hardware including Anchor Fastener supply & installation. The cost of Crane /Hydra if required to be included in this item.				
	INCOMING				
	40Amp 4P 25kA MCCB with Rotary handle operating mechanism and thermal magnetic based releases for Short circuit & Over current. With ON/OFF /Trip indicating lamps with control MCB's & Emergency stop push button - 1set				
	RYB indicating lamps with 6A TPN control MCB's -1set.				
	40A TPN 25kA Aluminium Busbar -1set.				
	OUTGOING				
	11kW VFD & 11-16A TP MPCB with RHOM, Timer, single phase preventer, 2 pole 2 way rotary selector switch for automanual , ON-OFF illuminated push buttons & "Trip" indicating lamp with control MCB. 2sets Potential free contactors for BMS feedback. VFD shall have Output choke, Patch card, 8 inchVentilation fan and internal wiring with display & door cutout.- 1 Set				

PART II: BILL OF QUANTITY

SITC VALIDATION OF c-GMP COMPLIANT MAMMALIAN CELL LINE REPOSITORY ON TURNKEY BASIS AT NCCS JIDNYASA BUILDING, KOTHRUD, PUNE

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
	1.1kW VFD & 2.2-2.8A TP MPCB with RHOM, single phase preventer, 2 pole 2 way rotary selector switch for automanual , ON-OFF illuminated push buttons & "Trip" indicating lamp with control MCB. 2sets Potential free contactors for BMS feedback. VFD shall have Output choke, Patch card, 8 inchVentilation fan and internal wiring with display & door cutout. - 1 Set				
9.1	COMPLETE	1	SET	2,44,946.76	2,44,946.76
10	GROUND FLOOR AHU-3 STARTER PANEL				
	Supply, installation at Third floor level, testing and commissioning of GROUND FLOOR AHU-3 STARTER PANEL cubicle type made out of 14/16 swg (frame & front door- 2mm, rear door/ enclosure/ partition- 1.6mm, gland plate- 3mm & door hinges- 2.5mm thick) MS CRCA sheet which is derusted, degreased, phosphated and passivated with angle iron skeleton or sheet folded construction. The panel to be dust and vermin proof type with powder coated paint after suitable seven tank pretreatment. The panel will have individual compartments for incoming and outgoing feeders made out of cold rolled sheet and doors fitted with Neoprene gaskets and fasteners. Internal parts of panel can be of unpainted / GI parts to ensure effective earth continuity. The switchboards are to be tested as per IS 8623-1977 specifications. Busbars are to be of high conductivity Aluminium Alloy E91E IS 5082 specification. Cable entry for incomer and for all outgoing will be from either top or bottom. The panel will have louvers with necessary cooling methodology wherever necessary. LOTO to be provided for incomer and outgoing feeders. Following all breakers lcu shall be 100%. All breakers should be suitable for discrimination chart and vendor has to be set the rating as per discrimination chart. Refer the technical specifications and SLD for more details. NOTE:- ALL STARTER PANELS SHOULD BE FLOOR MOUNTED, BOTTOM ENTRY PROVISION FOR CABLES AND WITH MS STAND MINIMUM 300MM HEIGHT.				
	The outgoing feeders shall be interlocked in auto / manual mode as per logic of interlocking mentioned in the SLD. The outgoing feeders shall have Auto/ Manual switch with 2 Poles, Illuminated push button for start/stop for manual mode and trip indications must be provided. Sufficient potential free NO/NC contacts must be provided. Necessary wiring has to be done upto cable alley for all interlocks. a)Necessary wiring has to be done up to cable alley for interlock of AHU door, AHU motor and AHU lighting, in case if the AHU door is opened while running,lighting should be ON, AHU motor should be OFF. b) Necessary wiring has to be done up to cable alley for interlock from Fire damper micro switch to AHU motor and for interlocking between panel Push button and remote push button near the units. c) Interlocking of the respective AHU to be included. d) whenever fire or smoke is detected in AHU , respective AHU breaker should be tripped.				
	The scope includes Loading/Unloading of equipment from Truck and container, shifting to place of Store/erection, unpacking at site, assembly of loosely furnished accessories, busbar, etc., installation on ready foundation / floor. Any material or Hardware including Anchor Fastener supply & installation. The cost of Crane /Hydra if required to be included in this item.				
	INCOMING cum OUTGOING				
	3.7kW VFD & 5.5-7A TP MPCB with RHOM, single phase preventer, 2 pole 2 way rotary selector switch for automanual , ON-OFF illuminated push buttons & "Trip" indicating lamp with control MCB. 2sets Potential free contactors for BMS feedback. VFD shall have Output choke, Patch card, 8 inchVentilation fan and internal wiring with display & door cutout. - 1 Set				
10.1	COMPLETE	1	SET	70,620.64	70,620.64
11	GROUND FLOOR AHU-4 STARTER PANEL				

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SITC VALIDATION OF c-GMP COMPLIANT MAMMALIAN CELL LINE REPOSITORY ON TURNKEY BASIS AT NCCS JIDNYASA BUILDING, KOTHRUD, PUNE

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
	<p>Supply, installation at Third floor level, testing and commissioning of GROUND FLOOR AHU-4 STARTER PANEL cubicle type made out of 14/16 swg (frame & front door- 2mm, rear door/ enclosure/ partition- 1.6mm, gland plate- 3mm & door hinges- 2.5mm thick) MS CRCA sheet which is derusted, degreased, phosphated and passivated with angle iron skeleton or sheet folded construction. The panel to be dust and vermin proof type with powder coated paint after suitable seven tank pretreatment. The panel will have individual compartments for incoming and outgoing feeders made out of cold rolled sheet and doors fitted with Neoprene gaskets and fasteners. Internal parts of panel can be of unpainted / GI parts to ensure effective earth continuity. The switchboards are to be tested as per IS 8623-1977 specifications. Busbars are to be of high conductivity Aluminium Alloy E91E IS 5082 specification. Cable entry for incomer and for all outgoing will be from either top or bottom. The panel will have louvers with necessary cooling methodology wherever necessary. LOTO to be provided for incomer and outgoing feeders. Following all breakers Icu shall be 100%. All breakers should be suitable for discrimination chart and vendor has to be set the rating as per discrimination chart. Refer the technical specifications and SLD for more details.</p> <p>NOTE:- ALL STARTER PANELS SHOULD BE FLOOR MOUNTED.</p>				
	<p>The outgoing feeders shall be interlocked in auto / manual mode as per logic of interlocking mentioned in the SLD. The outgoing feeders shall have Auto/ Manual switch with 2 Poles, Illuminated push button for start/stop for manual mode and trip indications must be provided. Sufficient potential free NO/NC contacts must be provided. Necessary wiring has to be done upto cable alley for all interlocks. a) Necessary wiring has to be done up to cable alley for interlock of AHU door, AHU motor and AHU lighting, in case if the AHU door is opened while running, lighting should be ON, AHU motor should be OFF. b) Necessary wiring has to be done up to cable alley for interlock from Fire damper micro switch to AHU motor and for interlocking between panel Push button and remote push button near the units. c) Interlocking of the respective AHU to be included. d) whenever fire or smoke is detected in AHU , respective AHU breaker should be tripped.</p>				
	<p>The scope includes Loading/Unloading of equipment from Truck and container, shifting to place of Store/erection, unpacking at site, assembly of loosely furnished accessories, busbar, etc., installation on ready foundation / floor. Any material or Hardware including Anchor Fastener supply & installation. The cost of Crane /Hydra if required to be included in this item.</p>				
	INCOMING cum OUTGOING				
	<p>2.2kW VFD & 4.5-5.5A TP MPCB with RHOM, single phase preventer, 2 pole 2 way rotary selector switch for automanual , ON-OFF illuminated push buttons & "Trip" indicating lamp with control MCB. 2sets Potential free contactors for BMS feedback. VFD shall have Output choke, Patch card, 8 inch Ventilation fan and internal wiring with display & door cutout. - 1 Set</p>				
11.1	COMPLETE	1	SET	66,999.22	66,999.22
12	GROUND FLOOR AHU-5 STARTER PANEL				

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SITC VALIDATION OF c-GMP COMPLIANT MAMMALIAN CELL LINE REPOSITORY ON TURNKEY BASIS AT NCCS JIDNYASA BUILDING, KOTHRUD, PUNE

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
	<p>Supply, installation at Third floor level, testing and commissioning of GROUND FLOOR AHU-5 STARTER PANEL cubicle type made out of 14/16 swg (frame & front door- 2mm, rear door/ enclosure/ partition- 1.6mm, gland plate- 3mm & door hinges- 2.5mm thick) MS CRCA sheet which is derusted, degreased, phosphated and passivated with angle iron skeleton or sheet folded construction. The panel to be dust and vermin proof type with powder coated paint after suitable seven tank pretreatment. The panel will have individual compartments for incoming and outgoing feeders made out of cold rolled sheet and doors fitted with Neoprene gaskets and fasteners. Internal parts of panel can be of unpainted / GI parts to ensure effective earth continuity. The switchboards are to be tested as per IS 8623-1977 specifications. Busbars are to be of high conductivity Aluminium Alloy E91E IS 5082 specification. Cable entry for incomer and for all outgoing will be from either top or bottom. The panel will have louvers with necessary cooling methodology wherever necessary. LOTO to be provided for incomer and outgoing feeders. Following all breakers Icu shall be 100%. All breakers should be suitable for discrimination chart and vendor has to be set the rating as per discrimination chart. Refer the technical specifications and SLD for more details.</p> <p>NOTE:- ALL STARTER PANELS SHOULD BE FLOOR MOUNTED, BOTTOM ENTRY PROVISION FOR CABLES AND WITH MS STAND MINIMUM 300MM HEIGHT.</p>				
	<p>The outgoing feeders shall be interlocked in auto / manual mode as per logic of interlocking mentioned in the SLD. The outgoing feeders shall have Auto/ Manual switch with 2 Poles, Illuminated push button for start/stop for manual mode and trip indications must be provided. Sufficient potential free NO/NC contacts must be provided. Necessary wiring has to be done upto cable alley for all interlocks. a) Necessary wiring has to be done up to cable alley for interlock of AHU door, AHU motor and AHU lighting, in case if the AHU door is opened while running, lighting should be ON, AHU motor should be OFF. b) Necessary wiring has to be done up to cable alley for interlock from Fire damper micro switch to AHU motor and for interlocking between panel Push button and remote push button near the units. c) Interlocking of the respective AHU to be included. d) whenever fire or smoke is detected in AHU , respective AHU breaker should be tripped.</p>				
	<p>The scope includes Loading/Unloading of equipment from Truck and container, shifting to place of Store/erection, unpacking at site, assembly of loosely furnished accessories, busbar, etc., installation on ready foundation / floor. Any material or Hardware including Anchor Fastener supply & installation. The cost of Crane /Hydra if required to be included in this item.</p>				
12.1	INCOMING cum OUTGOING				
12.1.1	<p>2.2kW VFD & 4.5-5.5A TP MPCB single phase preventer, 2 pole 2 way rotary selector switch for automanual , ON-OFF illuminated push buttons & "Trip" indicating lamp with control MCB. 2sets Potential free contactors for BMS feedback. VFD shall have Output choke, Patch card, 8 inch Ventilation fan and internal wiring with display & door cutout. - 1 Set</p>				
	COMPLETE	1	SET	66,999.22	66,999.22
13	FIRST FLOOR AHU-1				

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SITC VALIDATION OF c-GMP COMPLIANT MAMMALIAN CELL LINE REPOSITORY ON TURNKEY BASIS AT NCCS JIDNYASA BUILDING, KOTHRUD, PUNE

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
	Supply, installation at Second floor level, testing and commissioning of FIRST FLOOR AHU-1 cubicle type made out of 14/16 swg (frame & front door- 2mm, rear door/ enclosure/ partition- 1.6mm, gland plate- 3mm & door hinges- 2.5mm thick) MS CRCA sheet which is derusted, degreased, phosphated and passivated with angle iron skeleton or sheet folded construction. The panel to be dust and vermin proof type with powder coated paint after suitable seven tank pretreatment. The panel will have individual compartments for incoming and outgoing feeders made out of cold rolled sheet and doors fitted with Neoprene gaskets and fasteners. Internal parts of panel can be of unpainted / GI parts to ensure effective earth continuity. The switchboards are to be tested as per IS 8623-1977 specifications. Busbars are to be of high conductivity Aluminium Alloy E91E IS 5082 specification. Cable entry for incomer and for all outgoing will be from either top or bottom. The panel will have louvers with necessary cooling methodology wherever necessary. LOTO to be provided for incomer and outgoing feeders. Following all breakers Icu shall be 100%. All breakers should be suitable for discrimination chart and vendor has to be set the rating as per discrimination chart. Refer the technical specifications and SLD for more details. NOTE:- ALL STARTER PANELS SHOULD BE FLOOR MOUNTED, BOTTOM ENTRY PROVISION FOR CABLES AND WITH MS STAND MINIMUM 300MM HEIGHT.				
	The outgoing feeders shall be interlocked in auto / manual mode as per logic of interlocking mentioned in the SLD. The outgoing feeders shall have Auto/ Manual switch with 2 Poles, Illuminated push button for start/stop for manual mode and trip indications must be provided. Sufficient potential free NO/NC contacts must be provided. Necessary wiring has to be done upto cable alley for all interlocks. a) Necessary wiring has to be done up to cable alley for interlock of AHU door, AHU motor and AHU lighting, in case if the AHU door is opened while running, lighting should be ON, AHU motor should be OFF. b) Necessary wiring has to be done up to cable alley for interlock from Fire damper micro switch to AHU motor and for interlocking between panel Push button and remote push button near the units. c) Interlocking of the respective AHU to be included. d) whenever fire or smoke is detected in AHU , respective AHU breaker should be tripped.				
	The scope includes Loading/Unloading of equipment from Truck and container, shifting to place of Store/erection, unpacking at site, assembly of loosely furnished accessories, busbar, etc., installation on ready foundation / floor. Any material or Hardware including Anchor Fastener supply & installation. The cost of Crane /Hydra if required to be included in this item.				
	INCOMING cum OUTGOING				
	3.7kW VFD & 5.5-7A TP MPCB with RHOM, single phase preventer, 2 pole 2 way rotary selector switch for automanual , ON-OFF illuminated push buttons & "Trip" indicating lamp with control MCB. 2sets Potential free contactors for BMS feedback. VFD shall have Output choke, Patch card, 8 inch Ventilation fan and internal wiring with display & door cutout. - 1 Set				
13.1	COMPLETE	1	SET	70,620.64	70,620.64
14	FIRST FLOOR AHU-2 & EAU-1 STARTER PANEL				

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SITC VALIDATION OF c-GMP COMPLIANT MAMMALIAN CELL LINE REPOSITORY ON TURNKEY BASIS AT NCCS JIDNYASA BUILDING, KOTHRUD, PUNE

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
	Supply, installation at Second floor level, testing and commissioning of FIRST FLOOR AHU-2 & EAU-1 STARTER PANEL cubicle type made out of 14/16 swg (frame & front door- 2mm, rear door/ enclosure/ partition- 1.6mm, gland plate- 3mm & door hinges- 2.5mm thick) MS CRCA sheet which is derusted, degreased, phosphated and passivated with angle iron skeleton or sheet folded construction. The panel to be dust and vermin proof type with powder coated paint after suitable seven tank pretreatment. The panel will have individual compartments for incoming and outgoing feeders made out of cold rolled sheet and doors fitted with Neoprene gaskets and fasteners. Internal parts of panel can be of unpainted / GI parts to ensure effective earth continuity. The switchboards are to be tested as per IS 8623-1977 specifications. Busbars are to be of high conductivity Aluminium Alloy E91E IS 5082 specification. Cable entry for incomer and for all outgoing will be from either top or bottom. The panel will have louvers with necessary cooling methodology wherever necessary. LOTO to be provided for incomer and outgoing feeders. Following all breakers Icu shall be 100%. All breakers should be suitable for discrimination chart and vendor has to be set the rating as per discrimination chart. Refer the technical specifications and SLD for more details. NOTE:- ALL STARTER PANELS SHOULD BE FLOOR MOUNTED, BOTTOM ENTRY PROVISION FOR CABLES AND WITH MS STAND MINIMUM 300MM HEIGHT.				
	The outgoing feeders shall be interlocked in auto / manual mode as per logic of interlocking mentioned in the SLD. The outgoing feeders shall have Auto/ Manual switch with 2 Poles, Illuminated push button for start/stop for manual mode and trip indications must be provided. Sufficient potential free NO/NC contacts must be provided. Necessary wiring has to be done upto cable alley for all interlocks. a) Necessary wiring has to be done up to cable alley for interlock of AHU door, AHU motor and AHU lighting, in case if the AHU door is opened while running, lighting should be ON, AHU motor should be OFF. b) Necessary wiring has to be done up to cable alley for interlock from Fire damper micro switch to AHU motor and for interlocking between panel Push button and remote push button near the units. c) Interlocking of the respective AHU to be included. d) whenever fire or smoke is detected in AHU , respective AHU breaker should be tripped.				
	The scope includes Loading/Unloading of equipment from Truck and container, shifting to place of Store/erection, unpacking at site, assembly of loosely furnished accessories, busbar, etc., installation on ready foundation / floor. Any material or Hardware including Anchor Fastener supply & installation. The cost of Crane /Hydra if required to be included in this item.				
	INCOMING cum OUTGOING				
	40Amp 4P 25kA MCCB with Rotary handle operating mechanism and thermal magnetic based releases for Short circuit & Over current. With ON/OFF /Trip indicating lamps with control MCB's & Emergency stop push button - 1set				
	RYB indicating lamps with 6A TPN control MCB's -1set.				
	40A TPN 25kA Aluminium Busbar -1set.				
	OUTGOING				
	7.5kW VFD & 7-10A TP MPCB with RHOM, Timer, single phase preventer, 2 pole 2 way rotary selector switch for automanual , ON-OFF illuminated push buttons & "Trip" indicating lamp with control MCB. 2sets Potential free contactors for BMS feedback. VFD shall have Output choke, Patch card, 8 inch Ventilation fan and internal wiring with display & door cutout.- 1 Set				
	0.55kW VFD & 1.1-1.4A TP MPCB with RHOM, single phase preventer, 2 pole 2 way rotary selector switch for automanual , ON-OFF illuminated push buttons & "Trip" indicating lamp with control MCB. 2sets Potential free contactors for BMS feedback. VFD shall have Output choke, Patch card, 8 inch Ventilation fan and internal wiring with display & door cutout. - 1 Set				
14.1	COMPLETE	1	SET	2,12,326.84	2,12,326.84
15	FIRST FLOOR AHU-3 STARTER PANEL				

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SITC VALIDATION OF c-GMP COMPLIANT MAMMALIAN CELL LINE REPOSITORY ON TURNKEY BASIS AT NCCS JIDNYASA BUILDING, KOTHRUD, PUNE

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
	<p>Supply, installation at Second floor level, testing and commissioning of FIRST FLOOR AHU-3 STARTER PANEL cubicle type made out of 14/16 swg (frame & front door- 2mm, rear door/ enclosure/ partition- 1.6mm, gland plate- 3mm & door hinges- 2.5mm thick) MS CRCA sheet which is derusted, degreased, phosphated and passivated with angle iron skeleton or sheet folded construction. The panel to be dust and vermin proof type with powder coated paint after suitable seven tank pretreatment. The panel will have individual compartments for incoming and outgoing feeders made out of cold rolled sheet and doors fitted with Neoprene gaskets and fasteners. Internal parts of panel can be of unpainted / GI parts to ensure effective earth continuity. The switchboards are to be tested as per IS 8623-1977 specifications. Busbars are to be of high conductivity Aluminium Alloy E91E IS 5082 specification. Cable entry for incomer and for all outgoing will be from either top or bottom. The panel will have louvers with necessary cooling methodology wherever necessary. LOTO to be provided for incomer and outgoing feeders. Following all breakers lcu shall be 100%. All breakers should be suitable for discrimination chart and vendor has to be set the rating as per discrimination chart. Refer the technical specifications and SLD for more details.</p> <p>NOTE:- ALL STARTER PANELS SHOULD BE FLOOR MOUNTED, BOTTOM ENTRY PROVISION FOR CABLES AND WITH MS STAND MINIMUM 300MM HEIGHT.</p>				
	<p>The outgoing feeders shall be interlocked in auto / manual mode as per logic of interlocking mentioned in the SLD. The outgoing feeders shall have Auto/ Manual switch with 2 Poles, Illuminated push button for start/stop for manual mode and trip indications must be provided. Sufficient potential free NO/NC contacts must be provided. Necessary wiring has to be done upto cable alley for all interlocks. a) Necessary wiring has to be done up to cable alley for interlock of AHU door, AHU motor and AHU lighting, in case if the AHU door is opened while running, lighting should be ON, AHU motor should be OFF. b) Necessary wiring has to be done up to cable alley for interlock from Fire damper micro switch to AHU motor and for interlocking between panel Push button and remote push button near the units. c) Interlocking of the respective AHU to be included. d) whenever fire or smoke is detected in AHU , respective AHU breaker should be tripped.</p>				
	<p>The scope includes Loading/Unloading of equipment from Truck and container, shifting to place of Store/erection, unpacking at site, assembly of loosely furnished accessories, busbar, etc., installation on ready foundation / floor. Any material or Hardware including Anchor Fastener supply & installation. The cost of Crane /Hydra if required to be included in this item.</p>				
15.1	INCOMING cum OUTGOING				
15.1.1	<p>3.7kW VFD & 5.5-7A TP MPCB with RHOM, single phase preventer, 2 pole 2 way rotary selector switch for automanual , ON-OFF illuminated push buttons & "Trip" indicating lamp with control MCB. 2sets Potential free contactors for BMS feedback. VFD shall have Output choke, Patch card, 8 inch Ventilation fan and internal wiring with display & door cutout. - 1 Set</p>				
	COMPLETE	1	SET	70,620.64	70,620.64
16	FIRST FLOOR AHU-4 STARTER PANEL & SCRUBBER STARTER PANEL				

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SITC VALIDATION OF c-GMP COMPLIANT MAMMALIAN CELL LINE REPOSITORY ON TURNKEY BASIS AT NCCS JIDNYASA BUILDING, KOTHRUD, PUNE

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
	<p>Supply, installation at Second floor level, testing and commissioning of FIRST FLOOR AHU-4 & SCRUBBER STARTER PANEL cubicle type made out of 14/16 swg (frame & front door- 2mm, rear door/ enclosure/ partition- 1.6mm, gland plate- 3mm & door hinges- 2.5mm thick) MS CRCA sheet which is derusted, degreased, phosphated and passivated with angle iron skeleton or sheet folded construction. The panel to be dust and vermin proof type with powder coated paint after suitable seven tank pretreatment. The panel will have individual compartments for incoming and outgoing feeders made out of cold rolled sheet and doors fitted with Neoprene gaskets and fasteners. Internal parts of panel can be of unpainted / GI parts to ensure effective earth continuity. The switchboards are to be tested as per IS 8623-1977 specifications. Busbars are to be of high conductivity Aluminium Alloy E91E IS 5082 specification. Cable entry for incomer and for all outgoing will be from either top or bottom. The panel will have louvers with necessary cooling methodology wherever necessary. LOTO to be provided for incomer and outgoing feeders. Following all breakers Icu shall be 100%. All breakers should be suitable for discrimination chart and vendor has to be set the rating as per discrimination chart. Refer the technical specifications and SLD for more details.</p> <p>NOTE:- ALL STARTER PANELS SHOULD BE FLOOR MOUNTED, BOTTOM ENTRY PROVISION FOR CABLES AND WITH MS STAND MINIMUM 300MM HEIGHT.</p>				
	The outgoing feeders shall be interlocked in auto / manual mode as per logic of interlocking mentioned in the SLD. The outgoing feeders shall have Auto/ Manual switch with 2 Poles, Illuminated push button for start/stop for manual mode and trip indications must be provided. Sufficient potential free NO/NC contacts must be provided. Necessary wiring has to be done upto cable alley for all interlocks. a) Necessary wiring has to be done up to cable alley for interlock of AHU door, AHU motor and AHU lighting, in case if the AHU door is opened while running, lighting should be ON, AHU motor should be OFF. b) Necessary wiring has to be done up to cable alley for interlock from Fire damper micro switch to AHU motor and for interlocking between panel Push button and remote push button near the units. c) Interlocking of the respective AHU to be included. d) whenever fire or smoke is detected in AHU , respective AHU breaker should be tripped.				
	The scope includes Loading/Unloading of equipment from Truck and container, shifting to place of Store/erection, unpacking at site, assembly of loosely furnished accessories, busbar, etc., installation on ready foundation / floor. Any material or Hardware including Anchor Fastener supply & installation. The cost of Crane /Hydra if required to be included in this item.				
	INCOMING				
	32Amp 4P 25kA MCCB with Rotary handle operating mechanism and thermal magnetic based releases for Short circuit & Over current. With ON/OFF /Trip indicating lamps with control MCB's & Emergency stop push button - 1set				
	RYB indicating lamps with 6A TPN control MCB's -1set.				
	32A TPN 25kA Aluminium Busbar -1set.				
	OUTGOING				
	3.7kW VFD & 5.5-7A TP MPCB with RHOM, Timer, single phase preventer, 2 pole 2 way rotary selector switch for automanual , ON-OFF illuminated push buttons & "Trip" indicating lamp with control MCB. 2sets Potential free contactors for BMS feedback. VFD shall have Output choke, Patch card, 8 inch Ventilation fan and internal wiring with display & door cutout.- 1 Set				
	0.75kW VFD & 1.8-2.2A TP MPCB with RHOM, single phase preventer, 2 pole 2 way rotary selector switch for automanual , ON-OFF illuminated push buttons & "Trip" indicating lamp with control MCB. 2sets Potential free contactors for BMS feedback. VFD shall have Output choke, Patch card, 8 inch Ventilation fan and internal wiring with display & door cutout. - 1 Set				
16.1	COMPLETE	1	SET	1,93,437.40	1,93,437.40
17	FIRE HYDRANT PUMP STARTER PANEL				

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SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
	<p>Supply, installation at Terrace floor level, testing and commissioning of FIRE HYDRANT PUMP STARTER PANEL cubicle type made out of 14/16 swg (frame & front door- 2mm, rear door/ enclosure/ partition- 1.6mm, gland plate- 3mm & door hinges- 2.5mm thick) MS CRCA sheet which is derusted, degreased, phosphated and passivated with angle iron skeleton or sheet folded construction. The panel to be dust and vermin proof type with powder coated paint after suitable seven tank pretreatment. The panel will have individual compartments for incoming and outgoing feeders made out of cold rolled sheet and doors fitted with Neoprene gaskets and fasteners. Internal parts of panel can be of unpainted / GI parts to ensure effective earth continuity. The switchboards are to be tested as per IS 8623-1977 specifications. Busbars are to be of high conductivity Aluminium Alloy E91E IS 5082 specification. Cable entry for incomer and for all outgoings will be from either top or bottom. The panel will have louvers with necessary cooling methodology wherever necessary. LOTO to be provided for incomer and outgoing feeders. Following all breakers Icu shall be 100%. All breakers should be suitable for discrimination chart and vendor has to be set the rating as per discrimination chart. Refer the technical specifications and SLD for more details.</p> <p>NOTE:- ALL STARTER PANELS SHOULD BE FLOOR MOUNTED, BOTTOM ENTRY PROVISION FOR CABLES AND WITH MS STAND MINIMUM 300MM HEIGHT.</p>				
	The outgoing feeders shall be interlocked in auto / manual mode as per logic of interlocking mentioned in the SLD. The outgoing feeders shall have Auto/ Manual switch with 2 Poles, Illuminated push button for start/stop for manual mode and trip indications must be provided. Sufficient potential free NO/NC contacts must be provided. Necessary wiring has to be done upto cable alley for all interlocks.				
	The scope includes Loading/Unloading of equipment from Truck and container, shifting to place of Store/erection, unpacking at site, assembly of loosely furnished accessories, busbar, etc., installation on ready foundation / floor. Any material or Hardware including Anchor Fastener supply & installation. The cost of Crane /Hydra if required to be included in this item.				
17.1	INCOMING cum OUTGOING				
17.1.1	9-10A TP MPCB with RHOM, DOL starting type contactor for motor, single phase preventer, 2 pole 2 way rotary selector switch for automanual , ON-OFF illuminated push buttons & "Trip" indicating lamp with control MCB. 2sets Potential free contactors for BMS feedback. - 1 set				
	COMPLETE	1	SET	76,268.12	76,268.12
18	POINT WIRING				
18.1.	Supply, Installation, Testing & commissioning of Wiring for light point / fan point / exhaust fan point / call bell point with 1100 volts grade 1.5 sq. mm FRLS PVC insulated copper conductor single core cable in surface / recessed 2mm thick 25mm dia medium class FRLS PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable etc., as required. Rate shall include wiring accessories like flexible pipes, junction boxes, collars, tees, bends, elbows, GI pull wires, clamps (Every 500mm distance), spacers, screws, ferruls etc., PVC glands, ceiling rose, fan hooks wherever required & terminations using tinned copper lugs of crimping type, metal boxes with tapped holes and screws for light switches with front plates with brass screws. The switch boxes shall be flush mounted on brick wall, and required chipping along the wall fixing chicken mesh and making good surface of wall as required at site. The point wiring shall be as per tender technical specification.				
18.1.1	Group C	112	No	1,559.86	1,74,704.44

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SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
18.2	Supply, Installation, Testing & commissioning Wiring for twin control light point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed 2mm thick 25mm dia medium class PVC conduit, 2 way modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq. mm FRLS PVC insulated copper conductor single core cable etc. as required. Rate shall include wiring accessories like flexible pipes, junction boxes, collars, tees, bends, elbows, GI pull wires, clamps (Every 500mm distance), spacers, screws, ferruls etc., PVC glands, ceiling rose wherever required & terminations using tinned copper lugs of crimping type, metal boxes with tapped holes and screws for light switches with front plates with brass screws. The switch boxes shall be flush mounted on brick wall, and required chipping along the wall fixing chicken mesh and making good surface of wall as required at site. The point wiring shall be as per tender technical specification.	8	No	1,660.87	13,287.00
19	CIRCUIT MAINS				
19.1	Supplying and drawing, testing and commissioning of following sizes of 1100V grade FRLS PVC insulated copper conductor, multi strand single core cable in the existing surface / recessed steel / pvc conduit, as required, as per tender technical specification.				
19.1.1	3 x 2.5 Sq. mm	750	Mtrs	145.67	1,09,254.08
19.1.2	3 x 4 Sq. mm	3200	Mtrs	219.04	7,00,927.36
19.1.3	5 x 4 Sq. mm	300	Mtrs	358.33	1,07,499.63
20	PVC CONDUIT				
20.1	Supplying and fixing of following sizes of 2mm thick medium class FRLS PVC conduit along with accessories like flexible pipes, junction boxes, collars, tees, bends, elbows, GI pull wires, clamps (Every 500mm distance), spacers, screws etc in surface/recess including cutting the wall and making good the same in case of recessed conduit as required, as per tender technical specification.				
20.1.1	25mm	1300	Mtrs	154.18	2,00,432.05
20.1.2	32mm	160	Mtrs	195.65	31,303.55
21	POWER SOCKETS				
21.1	Supplying, fixing, testing and commissioning of following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc., As required. Rate shall include the internal wiring, terminations, tinned copper lugs, brass screws, ferruls etc. as per tender technical specification.				
21.1.1	5/6 A Switch	105	No	109.52	11,499.59
21.1.2	2 Way 5/6 A Switch	4	No	157.37	629.47
21.1.3	15/16 A Switch	390	No	165.87	64,691.17
21.1.4	3 pin 5/6 A socket outlet	30	No	129.72	3,891.68
21.1.5	Supplying, erecting, testing & commissioning of modular 3pin 6/16 A multi socket with safety shutter, duly erected on provided plate and box with wiring connections complete.	360	each	188.80	67,968.00
21.2	Supplying, fixing, testing and commissioning of following size/ modules, GI box along with modular base & cover plate for modular switches in recess etc. As required. GI boxes with tapped holes and screws, cover plates with brass screws. The switch boxes shall be flush mounted on brick wall, and required chipping along the wall fixing chicken mesh and making good surface of wall as required at site, as per tender technical specification.				
21.2.1	1 or 2 Module (75mmX75mm)	100	No	316.86	31,686.34
21.2.2	3 Module (100mmX75mm)	86	No	347.70	29,902.12
21.2.3	6 Module (200mmX75mm)	76	No	427.45	32,485.94
21.2.4	8 Module (125mmX125mm)	1	No	482.74	482.74
21.3	Supplying, fixing, testing and commissioning of following Modular base & cover plate with brass screws on existing modular metal boxes etc. as required.				
21.3.2	3 Module	RO	No	160.56	
21.3.4	6 Module	55	No	193.52	10,643.63
21.3.5	8 Module	14	No	224.36	3,140.99

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SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
21.4	Supplying, fixing, testing and commissioning of 20 A, 240 V, SPN Industrial type socket outlet, with 2 pole and earth, metal enclosed plug top along with 20 A "C" curve, SP, MCB, in sheet steel enclosure, on surface or in recess, with chained metal cover for the socket out let and complete with connections etc. as required. Rate shall include the internal wiring, terminations, tinned copper lugs, brass screws, ferruls etc. as per tender technical specification.	25	No	1,723.61	43,090.23
21.5	Supplying, fixing, testing and commissioning of 30 A, 415 V, TPN Industrial type socket outlet, with 4 pole and earth, metal enclosed plug top along with 30 A "C" curve, TP MCB, in sheet steel enclosure, on surface or in recess, with chained metal cover for the socket out let and complete with connections, etc., as required. Rate shall include the internal wiring, terminations, tinned copper lugs, brass screws, ferruls etc. as per tender technical specification.	10	No	4,366.97	43,669.73
21.6	Supplying, fixing, testing and commissioning of 32 Amps 1 phase 3 pin industrial plug and socket controlled by 32 Amps DP MCB with Metal back box housed in powder coated enclosure with front plate of approved make.	15	No	3,186.00	47,790.00
21.7	Supplying, fixing, testing and commissioning of 63Amps 4P SFU (HRC fuse) with 25KA and On/Off/Trip Indicating lamps and Metal enclosure with all its accessories of approved make (Air Compressor)	1	No	6,549.00	6,549.00
21.8	Supplying, fixing, testing and commissioning of ON & OFF remote push button station with potential free contactors, related wirings, enclosure & SS front plate fixed on wall or on required MS angle support with all its accessories of approved make.	1	No	3,268.60	3,268.60
21.9	Supplying, fixing, testing and commissioning of ON & OFF remote push button station weather proof enclosure & SS front plate fixed on wall or on required MS angle support with all its accessories of approved make.	1	No	4,661.00	4,661.00
21.10	Supplying, fixing, testing and commissioning of 32Amps DP MCB with Metal enclosure with all its accessories of approved make (3kVA UPS)	2	No	2,407.20	4,814.40
21.11	Supplying, fixing, testing and commissioning of 125Amps 4P MCCB with 25kA,ON/OFF/TRIP indicating lamps and control MCBs with Metal enclosure with all its accessories of approved make (UPS)	2	No	30,208.00	60,416.00
21.12	Supplying, fixing, testing and commissioning of Incomer of 2No 32Amps DP MCB and 1No of 32A motorised change over switch (outgoing), 230V AC aux supply, auxiliary contactors, NO, NC, Indicating lamps, control MCB with Metal enclosure. Fixed on wall or on required MS angle support with all its accessories of approved make(Emergency LDB)	1	set	18,408.00	18,408.00
22	DISTRIBUTION BOARDS				
22.1	Supplying, fixing, testing and commissioning of following way, single pole and neutral, standard DBs 1.2mm thickness & fabricated DBs 1.6mm thickness sheet steel, MCB distribution board, 240 V, on surface / recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. Rate shall include termination of incoming and outgoing cables, drilling of gland plate, brass cable glands, name plate, lugs and shall be completely wired up to incoming and outgoing terminals by PVC insulated FRLS copper cable/wire of adequate rating. The DBs shall be flush mounted on brick wall, and required chipping along the wall fixing chicken mesh and making good surface of wall as required at site. The DB's shall be as per tender technical specification. (But without MCB / RCCB / Isolator)				
22.1.1	6 way, Double door	RO	EACH	2,345.64	
22.1.2	8 way, Double door	4	EACH	2,735.87	10,943.48
22.2	Supplying, fixing, testing and commissioning of following ways surface / recess mounting, vertical type, 415 V, TPN MCB Standard Distribution Boards 1.2mm thickness & fabricated DBs 1.6mm thickness sheet steel, dust protected, duly powder painted, inclusive of 200 A tinned copper bus bar, common neutral link, earth bar, din bar for mounting MCBs (but without MCBs and incomer) as required. Rate shall include termination of incoming and outgoing cables, drilling of gland plate, brass cable glands, name plate, lugs and shall be completely wired up to incoming and outgoing terminals by PVC insulated FRLS copper cable of adequate rating. The DBs shall be flush mounted on brick wall, and required chipping along the wall fixing chicken mesh and making good surface of wall as required at site. The DB's shall be as per tender technical specification. (Note: Vertical type MCB TPDB is normally used where 3 phase outlets are required).				

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SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
22.2.1	4 way (4 + 12), Double door	2	EACH	7,987.51	15,975.02
22.2.2	8 way (4 + 24), Double door	6	EACH	10,808.44	64,850.67
22.2.3	12 way (4 + 36), Double door	3	EACH	13,645.33	40,935.99
22.3	Supplying, fixing, testing and commissioning of 5A to 32 A rating, 240 / 415 V, 10 kA, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, etc. as required. Rate shall include termination like tinned copper lugs, brass screws, name plate, ferruls etc.				
22.3.1	Single pole	217	EACH	272.20	59,068.44
22.3.2	Double pole	RO	EACH	697.52	
22.3.3	Triple pole	10	EACH	1,070.74	10,707.43
22.4	Supplying and fixing single pole blanking plate in the existing MCB DB complete etc. as required.	60	EACH	13.82	829.37
22.5	Supplying, fixing, testing and commissioning of following rating, double pole, (single phase and neutral), 240 volts, residual current circuit breaker (RCCB), having a sensitivity current 30 mA in the existing MCB DB complete with connections, etc. as required. Rate shall include termination like tinned copper lugs, brass screws, name plate, ferruls etc.				
22.5.1	25 A	2	EACH	2,156.37	4,312.74
22.5.2	40 A	2	EACH	2,809.24	5,618.48
22.6	Supplying, fixing, testing and commissioning of following rating, four pole, (three phase and neutral), 415 volts, residual current circuit breaker (RCCB), having a sensitivity current 30 mA in the existing MCB DB complete with connections, etc. as required. Rate shall include termination like tinned copper lugs, brass screws, name plate, ferruls etc.				
22.6.1	25 A	RO	EACH	2,749.69	
22.6.2	40 A	1	EACH	3,389.80	3,389.80
22.6.3	63 A	RO	EACH	3,053.80	
22.7	Supplying, erecting & commissioning 4 pole RCCB 40A, electromagnetic type with 30/100/300 mA sensitivity with earth leakage trip indication complete as per specification no. SW-RCCB/ RCCB	3	EACH	3,148.24	9,444.72
22.8	Supplying, erecting & commissioning 4 pole RCCB 63A, electromagnetic type with 30/100/300 mA sensitivity with earth leakage trip indication complete as per specification no. SW-RCCB/ RCCB	8	EACH	3,450.32	27,602.56
22.9	Supplying, fixing, testing, commissioning & marking FP MCB 6A to 32A, with rated short - circuit breaking capacity (Icn) 10kA in provided distribution board as per specification no. SW-SWR/MCB, Rate shall include termination like tinned copper lugs, brass screws, name plate, ferruls etc.	1	EACH	1,249.62	1,249.62
22.10	Supplying, fixing, testing, commissioning & marking FP MCB 40A to 63A, with rated short - circuit breaking capacity (Icn) 10kA in provided distribution board as per specification no. SW-SWR/MCB, Rate shall include termination like tinned copper lugs, brass screws, name plate, ferruls etc.	10	EACH	1,568.22	15,682.20
22.11	Supplying, fixing, testing and commissioning of 4P SPD with 12.5kA rating in existing Distribution Board. Rate shall include termination like tinned copper lugs, brass screws, name plate, ferruls etc.	12	EACH	21,830.00	2,61,960.00
22.12	Supplying, fixing, testing and commissioning of DP SPD with 12.5kA rating in existing Distribution Board. Rate shall include termination like tinned copper lugs, brass screws, name plate, ferruls etc.	3	EACH	15,340.00	46,020.00
22.13	Supplying, fixing, testing and commissioning of 0-24Hours in existing Distribution Board. Rate shall include termination like tinned copper lugs, brass screws, name plate, ferruls etc.	1	EACH	3,245.00	3,245.00
23	CABLE TRAYS				
23.1	Supplying and installing of following size of perforated painted with powder coating M.S. cable trays with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with M.S. suspenders at every 1.2 mtr including bolts & nuts, painting suspenders etc as required. cable tray shall be different widths and delivered in standard lengths along with Coupler plates and requisite number of hardwires, at different levels along pipe rack/open area/ ready made cable trenches/civil wall, etc , Gas cutting of cable trays at site is not permitted. Cable tray shall be as per tender technical specifications.				

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SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
23.1.1	100 mm width X 50 mm depth X 1.6 mm thickness	55	Mtrs	577.37	31,755.45
23.1.2	150 mm width X 50 mm depth X 1.6 mm thickness	20	Mtrs	642.23	12,844.66
23.1.3	200 mm width X 50 mm depth X 1.6 mm thickness	60	Mtrs	732.61	43,956.82
23.1.4	300 mm width X 50 mm depth X 1.6 mm thickness	50	Mtrs	826.18	41,309.21
23.1.5	450 mm width X 50 mm depth X 2.0 mm thickness	10	Mtrs	1,208.97	12,089.72
23.1.6	600 mm width X 75 mm depth X 2.0 mm thickness	30	Mtrs	1,591.76	47,752.80
23.1.7	750 mm width X 75 mm depth X 2.0 mm thickness	45	Mtrs	1,806.55	81,294.60
23.1.8	50 mm width X 35 mm depth X 1.6 mm thickness	100	Mtrs	548.70	54,870.00
23.2	Supplying and installing following size of perforated painted with powder coating M.S. cable trays Bends with perforation not more than 17.5%, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc as required. Cable tray Bends shall be different widths and delivered in standard size and requisite number of hardwires, at different levels along pipe rack/open area/ ready made cable trenches/civil wall, etc , Gas cutting is not permitted at site. Cable tray Bends shall be as per tender technical specifications.				
23.2.1	100 mm width X 50 mm depth X 1.6 mm thickness	4	Each	922.94	3,691.78
23.2.2	150 mm width X 50 mm depth X 1.6 mm thickness	RO	Each	1,082.44	
23.2.3	200 mm width X 50 mm depth X 1.6 mm thickness	4	Each	1,304.67	5,218.68
23.2.4	300 mm width X 50 mm depth X 1.6 mm thickness	4	Each	1,529.03	6,116.10
23.2.5	450 mm width X 50 mm depth X 2.0 mm thickness	RO	Each	2,438.15	
23.2.6	600 mm width X 75 mm depth X 2.0 mm thickness	3	Each	3,323.88	9,971.63
23.2.7	750 mm width X 75 mm depth X 2.0 mm thickness	4	Each	3,896.99	15,587.98
23.2.8	50 mm width X 35 mm depth X 1.6 mm thickness	4	Each	548.70	2,194.80
23.3	Supplying and installing following size of perforated painted with powder coating M.S. cable trays Tee with perforation not more than 17.5%, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc as required. Cable tray Tees shall be different widths and delivered in standard size and requisite number of hardwires, at different levels along pipe rack/open area/ ready made cable trenches/civil wall, etc , Gas cutting is not permitted at site. Cable tray Tees shall be as per tender technical specifications.				
23.3.1	100 mm width X 50 mm depth X 1.6 mm thickness	6	Each	1,066.49	6,398.94
23.3.2	150 mm width X 50 mm depth X 1.6 mm thickness	4	Each	1,261.07	5,044.30
23.3.3	225 mm width X 50 mm depth X 1.6 mm thickness	2	Each	1,537.53	3,075.06
23.3.4	300 mm width X 50 mm depth X 1.6 mm thickness	11	Each	1,816.12	19,977.28
23.3.5	450 mm width X 50 mm depth X 2.0 mm thickness	RO	Each	2,932.58	
23.3.6	600 mm width X 75 mm depth X 2.0 mm thickness	2	Each	3,998.01	7,996.02
23.3.7	750 mm width X 75 mm depth X 2.0 mm thickness	9	Each	4,706.17	42,355.49
23.4	Supplying and installing following size of perforated painted with powder coating M.S. cable trays Cross Member with perforation not more than 17.5%, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc as required. Cable tray Cross Member shall be different widths and delivered in standard size and requisite number of hardwires, at different levels along pipe rack/open area/ ready made cable trenches/civil wall, etc , Gas cutting is not permitted at site. Cable tray Cross Members shall be as per tender technical specifications.				
23.4.1	100 mm width X 50 mm depth X 1.6 mm thickness	RO	Each	1,211.10	
23.4.2	150 mm width X 50 mm depth X 1.6 mm thickness	1	Each	1,441.83	1,441.83
23.4.3	225 mm width X 50 mm depth X 1.6 mm thickness	RO	Each	1,772.52	
23.4.4	300 mm width X 50 mm depth X 1.6 mm thickness	1	Each	2,104.27	2,104.27
23.4.5	450 mm width X 50 mm depth X 2.0 mm thickness	1	Each	3,428.08	3,428.08
23.4.6	600 mm width X 75 mm depth X 2.0 mm thickness	1	Each	4,673.20	4,673.20
23.4.7	750 mm width X 75 mm depth X 2.0 mm thickness	RO	Each	5,516.40	

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SITC VALIDATION OF c-GMP COMPLIANT MAMMALIAN CELL LINE REPOSITORY ON TURNKEY BASIS AT NCCS JIDNYASA BUILDING, KOTHRUD, PUNE

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
23.5	Supplying and installing following size of perforated painted with powder coating M.S. cable trays Reducer with perforation not more than 17.5%, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc as required. Cable tray Reducer shall be different widths and delivered in standard size and requisite number of hardwires, at different levels along pipe rack/open area/ ready made cable trenches/civil wall, etc , Gas cutting is not permitted at site. Cable tray Reducer shall be as per tender technical specifications.				
23.5.1	100 mm width X 50 mm depth X 1.6 mm thickness	5	Each	1,066.49	5,332.45
23.5.2	150 mm width X 50 mm depth X 1.6 mm thickness	3	Each	1,261.07	3,783.22
23.5.3	225 mm width X 50 mm depth X 1.6 mm thickness	3	Each	1,548.16	4,644.49
23.5.4	300 mm width X 50 mm depth X 1.6 mm thickness	4	Each	1,826.75	7,307.00
23.5.5	450 mm width X 50 mm depth X 2.0 mm thickness	RO	Each	2,943.21	
23.5.6	600 mm width X 75 mm depth X 2.0 mm thickness	2	Each	3,998.01	7,996.02
23.5.7	750 mm width X 75 mm depth X 2.0 mm thickness	RO	Each	4,706.17	
23.5.8	50 mm width X 35 mm depth X 1.6 mm thickness	20	Each	607.70	12,154.00
23.6	Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray (Galvanisation thickness not less than 50 microns) with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with G.I. suspenders at every 1.2 mtr including bolts & nuts, etc as required. Cable tray shall be different widths and delivered in standard lengths along with Coupler plates and requisite number of hardwires, at different levels along pipe rack/open area/ ready made cable trenches/civil wall, etc , Gas cutting of cable trays at site is not permitted. Cable tray shall be as per tender technical specifications.				
23.6.1	100 mm width X 50 mm depth X 1.6 mm thickness	10	Mtrs	711.35	7,113.48
23.6.2	225 mm width X 50 mm depth X 1.6 mm thickness	25	Mtrs	951.65	23,791.34
23.6.3	450 mm width X 50 mm depth X 2.0 mm thickness	50	Mtrs	1,408.87	70,443.63
23.6.4	600 mm width X 75 mm depth X 2.0 mm thickness	RO	Mtrs	2,078.75	
23.6.5	750 mm width X 75 mm depth X 2.0 mm thickness	20	Mtrs	2,413.69	48,273.82
23.7	Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray "bends"(Galvanisation not less than 50 microns) with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with G.I. suspenders including G.I. bolts & nuts, etc as required. Cable tray Bends shall be different widths and delivered in standard size and requisite number of hardwires, at different levels along pipe rack/open area/ ready made cable trenches/civil wall, etc , Gas cutting is not permitted at site. Cable tray Bends shall be as per tender technical specifications.				
23.7.1	450 mm width X 50 mm depth X 2.0 mm thickness	2	Each	2,852.83	5,705.67
23.7.2	600 mm width X 75 mm depth X 2.0 mm thickness	RO	Each	4,392.49	
23.7.3	750 mm width X 75 mm depth X 2.0 mm thickness	2	Each	5,179.33	10,358.67
23.8	Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray "Tee"(Galvanisation not less than 50 microns) with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with G.I. suspenders including G.I. bolts & nuts, etc as required. Cable tray Tees shall be different widths and delivered in standard size and requisite number of hardwires, at different levels along pipe rack/open area/ ready made cable trenches/civil wall, etc , Gas cutting is not permitted at site. Cable tray Tees shall be as per tender technical specifications.				
23.8.1	450 mm width X 50 mm depth X 2.0 mm thickness	1	Each	3,339.83	3,339.83
23.8.2	600 mm width X 75 mm depth X 2.0 mm thickness	RO	Each	5,160.19	
23.8.3	750 mm width X 75 mm depth X 2.0 mm thickness	1	Each	6,099.09	6,099.09

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SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
23.9	Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray "Cross member"(Galvanisation not less than 50 microns) with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with G.I. suspenders including G.I. bolts & nuts, etc as required. Cable tray Cross Member shall be different widths and delivered in standard size and requisite number of hardwires, at different levels along pipe rack/open area/ ready made cable trenches/civil wall, etc , Gas cutting is not permitted at site. Cable tray Cross Members shall be as per tender technical specifications.				
23.9.1	450 mm width X 50 mm depth X 2.0 mm thickness	RO	Each	3,794.92	
23.9.2	600 mm width X 75 mm depth X 2.0 mm thickness	RO	Each	5,163.38	
23.9.3	750 mm width X 75 mm depth X 2.0 mm thickness	RO	Each	4,516.90	
23.10	Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray "Reducer"(Galvanisation not less than 50 microns) with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with G.I. suspenders including G.I. bolts & nuts, etc as required. Cable tray Reducer shall be different widths and delivered in standard size and requisite number of hardwires, at different levels along pipe rack/open area/ ready made cable trenches/civil wall, etc , Gas cutting is not permitted at site. Cable tray Reducer shall be as per tender technical specifications.				
23.10.1	450 mm width X 50 mm depth X 2.0 mm thickness	RO	Each	3,956.54	
23.10.2	600 mm width X 75 mm depth X 2.0 mm thickness	RO	Each	5,597.21	
23.10.3	750 mm width X 75 mm depth X 2.0 mm thickness	RO	Each	6,894.44	
23.11	Supplying and installing of 200mm width x 100mm depth x 1.6 mm thickness powder coated Race way with cover Including its Accessories size.(FOR DBs DROPS)	61	Mtrs	1,746.40	1,06,530.40
23.12	Supplying and installing of 150mm width x 50mm depth PVC Race way with cover Including its Accessories size.	20	Mtrs	1,545.80	30,916.00
23.13	Supplying and installing of 150mm width x 75mm depth x 1.6 mm thickness powder coated raceway with partition for power & lan cables, Rate shall be included for fixing accessories such as end cap, flat angle, junctions, joints, etc.	10	Mtrs	1,416.00	14,160.00
24	EARTHING				
24.1	GI Plate Earthing				
24.1.1	Supply, Installation & Testing of Earthing with G.I earth plate 600 mm X 600 mm X 6 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal / code and salt as required as per IS 3043.	4	No.	7,944.98	31,779.91
24.1.2	Supply and Laying of following earthing strips / earth wire of the following sizes with required accessories like clamps, bolts & nuts, painting. Two numbers of earth strips should run along with cable tray/civil wall with proper using bolt and nuts for strips connectivity and two earth points shall be end terminated for all equipments, motors, all Electrical and ELV panels, DB etc., refer the earthing schematic for considering the earth strips.				
24.1.2.1	Supplying and laying 50 mm X 6 mm G.I strip at 0.50 metre below ground as strip earth electrode, including connection / terminating with G.I nut, bolt, spring, washer etc. as required. (Jointing shall be done by overlapping and with 2 sets of G.I nut bolt & spring washer spaced at 50mm).	430	Mtrs	265.50	1,14,165.00
24.1.2.2	Supplying and laying 25 mm X 5 mm G.I strip at 0.50 metre below ground as strip earth electrode, including connection / terminating with G.I nut, bolt, spring, washer etc. as required. (Jointing shall be done by overlapping and with 2 sets of G.I nut bolt & spring washer spaced at 50mm).	700	Mtrs	153.12	1,07,180.64
24.1.2.3	Providing & fixing 25mm x 5mm GI strip on surface or in recess for connections etc., as required.	RO	Mtrs	259.45	
24.1.3	Providing & fixing 6 SWG dia GI wire on surface or in recess for looping earthing as required.	85	Mtrs	74.43	6,326.64
24.1.4	1R 6 sqmm Multistrand FR-LS CU wire with copper lugs crimped on both the ends. Rate shall include necessary bolts & nuts with supports.	165	Mtrs	70.80	11,682.00
24.1.5	1R 10 sqmm Multistrand FR-LS CU wire with copper lugs crimped on both the ends. Rate shall include necessary bolts & nuts with supports.	50	Mtrs	113.28	5,664.00

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SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
24.1.6	300(D)x100(W)mm Digging & refilling of underground trenches(soft & hard soil) for earthing strips.	15	RMtrs	236.00	3,540.00
24.2	CU Plate Earthing for UPS Isolation Transformer Neutral point				
24.2.1	Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal / coke and salt as required as per IS 3043.	2	No	14,713.95	29,427.89
24.2.2	Supplying and laying 25 mm X 5 mm copper strip at 0.50 metre below ground as strip earth electrode, including connection / terminating with nut, bolt, spring, washer etc. as required. (Jointing shall be done by overlapping and with 2 sets of brass nut bolt and spring washer spaced at 50mm)	120	Mtrs	1,033.53	1,24,023.31
24.2.3	Providing & fixing 25mm x 5mmCopper strip on surface or in recess for connections etc., as required.	RO	Mtrs	1,235.55	
24.2.4	1R 25sqmm Multistrand FR-LS CU wire with copper lugs crimped on both the ends and bolts & nuts. Rate shall include necessary cable ties to tie it to the supports.	50	Mtrs	354.00	17,700.00
24.2.5	1R 10 sqmm Multistrand FR-LS CU wire with copper lugs crimped on both the ends. Rate shall include necessary bolts & nuts with supports.	20	Mtrs	113.28	2,265.60
24.2.6	300(D)x100(W)mm Digging & refilling of underground trenches for earthing strips.	10	RMtr	236.00	2,360.00
25	L.T. CABLES & LT CABLE END TERMINATIONS				
25.1	L.T. CABLES				
	Supplying, erecting , terminating & commissioning FR XLPE insulated galvanised steelformed wire of 1100V grade, armoured / unarmoured Aluminium / Copper conductor cable as per tender technical specifications. Upto 6sqmm, cable shall of round strips and 10sqmm and above, cables of flat strips shall be considered. Laying of cable shall be on cable tray / existing trenches as required with rate include of cable route markers, name plate, the cable shall be clamped at regular intervals to the supports in trench or on cable trays or civil wall using MS clamps, cable ties and fasteners, meggering values & submitting reports of tests as per tender technical specifications. Cable end termination shall be done with brass compression gland and aluminium lugs, heat shrinkable sleeves on long ends, tapping, crimping for following size of Armoured / UnArmoured PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.				
	CABLE SUPPLY				
25.1.1	Supplying, erecting & terminating FR XLPE insulated, galvanised steelformed wire armoured (strip) cable 1100 V, 3½ core 300 sq. mm. aluminium conductor complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe as per specification no. CB-LT/AL	350	Mtrs	1,930.48	6,75,668.00
25.1.2	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 3½core 240 sq. mm. aluminium conductor complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe as per specification no. CB-LT/AL	RO	Mtrs	1,615.42	
25.1.3	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 3½core 150 sq. mm. aluminium conductor complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe as per specification no. CB-LT/AL	60	Mtrs	1,053.74	63,224.40
25.1.4	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 3½ core 120 sq. mm. aluminium conductor complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe as per specification no. CB-LT/AL	RO	Mtrs		
25.1.5	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 3½ core 95 sq. mm. aluminium conductor complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe as per specification no. CB-LT/AL	30	Mtrs	715.08	21,452.40
25.1.6	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 3½ core 70 sq. mm. aluminium conductor complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe as per specification no. CB-LT/AL	25	Mtrs	582.92	14,573.00

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SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
25.1.7	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 3½ core 50 sq. mm. aluminium conductor complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe as per specification no. CB-LT/AL	RO	Mtrs	449.58	
25.1.8	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 3½ core 35 sq. mm. aluminium conductor complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe as per specification no. CB-LT/AL	RO	Mtrs	345.74	
25.1.9	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 3½ core 25 sq. mm. aluminium conductor complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe as per specification no. CB-LT/AL	340	Mtrs	285.56	97,090.40
25.1.10	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 4 core 70 sq. mm. aluminium conductor complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe as per specification no. CB-LT/AL	25	Mtrs	633.66	15,841.50
25.1.11	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 4 core 50 sq. mm. aluminium conductor complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe as per specification no. CB-LT/AL	RO	Mtrs	482.62	
25.1.12	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 4 core 25 sq. mm. aluminium conductor complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe as per specification no. CB-LT/AL	100	Mtrs	307.98	30,798.00
25.1.13	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 4 core 16 sq. mm. aluminium conductor complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe as per specification no. CB-LT/AL	100	Mtrs	248.98	24,898.00
25.1.14	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 4 core 10 sq. mm. copper conductor complete erected with glands & lugs, on wall/ trusses/ pole or laid in provided trench/ pipe as per specification no. CB-LT/CU	RO	Mtrs	711.54	
25.1.15	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (round) cable 1100 V, 4 core 6 sq. mm. copper conductor complete erected with glands & lugs, on wall/ trusses/ pole or laid in provided trench/ pipe as per specification no. CB-LT/CU	30	Mtrs	593.54	17,806.20
25.1.16	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (round) cable 1100 V, 4 core 4 sq. mm. copper conductor complete erected with glands & lugs, on wall/ trusses/ pole or laid in provided trench/ pipe as per specification no. CB-LT/CU	260	Mtrs	446.04	1,15,970.40
25.1.17	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (round) cable 1100 V, 4 core 2.5 sq. mm. copper conductor complete erected with glands & lugs, on wall/ trusses/ pole or laid in provided trench/ pipe as per specification no. CB-LT/CU	60	Mtrs	466.10	27,966.00
25.1.18	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 3 core 10 sq. mm. copper conductor complete erected with glands & lugs, on wall/ trusses/ pole or laid in provided trench/ pipe as per specification no. CB-LT/CU	RO	Mtrs	1,224.84	
25.1.19	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (round) cable 1100 V, 3 core 6 sq. mm. copper conductor complete erected with glands & lugs, on wall/ trusses/ pole or laid in provided trench/ pipe as per specification no. CB-LT/CU	130	Mtrs	474.36	61,666.80
25.1.20	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (round) cable 1100 V, 3 core 4 sq. mm. copper conductor complete erected with glands & lugs, on wall/ trusses/ pole or laid in provided trench/ pipe as per specification no. CB-LT/CU	170	Mtrs	363.44	61,784.80
25.1.21	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (round) cable 1100 V, 3 core 2.5 sq. mm. copper conductor complete erected with glands & lugs, on wall/ trusses/ pole or laid in provided trench/ pipe as per specification no. CB-LT/CU	120	Mtrs	259.60	31,152.00

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SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
25.1.22	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (round) cable 1100 V, 3 core 2.5 sq. mm. copper conductor complete erected with glands & lugs, on wall/ trusses/ pole or laid in provided trench/ pipe as per specification no. CB-LT/CU for (OUTDOOR LIGHTING)	380	Mtrs	259.60	98,648.00
25.1.23	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (round) cable 1100 V, 3 core 1.5 sq. mm. copper conductor complete erected with glands & lugs, on wall/ trusses/ pole or laid in provided trench/ pipe as per specification no. CB-LT/CU for (OUTDOOR LIGHTING)	135	Mtrs	253.70	34,249.50
25.1.24	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (round) cable 1100 V, 5 core 1.5 sq. mm. copper conductor complete erected with glands & lugs, on wall/ trusses/ pole or laid in provided trench/ pipe as per specification no. CB-LT/CU for (OUTDOOR LIGHTING)	RO	Mtrs	413.00	
25.1.25	Supplying, erecting & terminating XLPE insulated unarmoured cable 1100 V. 1 core 35 sq. mm. copper conductor complete erected with provided lugs, laid in provided control panel /distribution boards / pipe as per specification no. CBLT/ CU	45	Mtrs	718.62	32,337.90
25.1.26	Supplying, erecting & terminating XLPE insulated unarmoured cable 1100 V. 1 core 6 sq. mm. copper conductor complete erected with provided lugs, laid in provided control panel /distribution boards / pipe as per specification no. CBLT/ CU	35	Mtrs	188.80	6,608.00
26	LIGHT FIXTURES				
	Supply, Installation, Testing & commissioning of following LED light fittings and 5years warranty to be provided for lighting fixture with accessories and LED chip. The Luminaire shall be with CRCA housing and Luminaire should have Life of 50000hrs@L70B50 Lumen maintenance, CCT up to 5700K, CRI >81, PF >0.95, THD<10% and an operating Voltage Range of 120 - 277V, Internal Surge Protection 2.5KV. The fixture should comply with the parameters as per IS 10322. The LED driver should comply to IEC61000-3-2 ed.3.2, 2009 for Harmonics, IEC61347 -2 -13, 2006 in Conjunction with IEC61347-1 ed.2.0, 2007 for Electrical Safety, IEC62384 ed.1.1, 2011 for performance and IEC61547 ed.2.0, 2009, CISPR-15 for EMI. Manufacturer shall have inhouse lab approved by NABL or ministry of science of govt of India. LM 79 and LM80 reports need to be submitted from a NABL/UL accredited lab to verify above parameters. BIS approved with R-Code.				
	The scope shall include own lifting & transporting arrangement,unpacking assembly of luminaries, providing of SS Gripple with accessories for lighting supports, nuts, anchor fasteners, bolts, screws for light fitting. The scope of work also includes any modifications required to be carried out on the mounting bracket to suit mounting of light fixtures & any modification inside control gear box/fixture for proper commissioning of fixture. All Light fixture shall be complied with as per tender technical specifications. (Scaffolding or scissors lift rental cost shall be in Vendor scope)				
26.1	25W 1'X1' clean room recess mounted type LED luminaire of approved make System output 2500 lumens to be considered.	20	No	3,068.00	61,360.00
26.2	36W 2'X2' clean room recess mounted type LED luminaire of approved make System output 3600 lumens to be considered.	72	No	5,015.00	3,61,080.00
26.3	40W 2'X2' clean room recess mounted type LED luminaire of approved make System output 4000 lumens to be considered.	RO	No	6,372.00	
26.4	36W 2'X2' Non-clean room recess mounted Bottom openable type LED luminaire of approved make System output 3600 lumens to be considered.	25	No	4,130.00	1,03,250.00
26.5	40W LED (IP66) Surface or pendant mounted totally enclosed LED light fixture of approved make System output 4000 lumens to be considered.	40	No	3,068.00	1,22,720.00
26.6	10W LED bulk head surface mounted luminaire of Approved make.	4	No.	1,593.00	6,372.00
26.7	Supplying and erecting integrated LED street light fitting 40 to 50W IP65 & IK08 class having single piece pressure die-cast aluminium housing, having system lumens output of Min. 4400 Lumens, min. efficacy of 110 lumen/W, CRI>70, CCT upto 6500K,THD<10%, p.f. >0.95, operating range of 140-270V, inbuilt surge protection of 10 kV, Life class of 50,000 Hrs. at L70B50, including driver complete with 3 Years warranty as per specification No FG-ODF/FLS2. Rate shall include for neccessary fixing accessories, clamps, pipe ect	9	No	4,858.06	43,722.54
26.8	Supplying and erecting Energy saving ceiling fan 230 V A.C. 50 cycles 12001200mm dia of Ceiling fan. Rate shall include for necessary fixing accessories,connecting rods, hooks, ceiling rose etc.	1	No	2,828.46	2,828.46

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SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
26.9	Supplying and erecting integrated LED street light fitting 70-75W IP65 & IK08 class having single piece pressure die-cast aluminium housing, having system lumens output of Min. 7700 Lumens, min. efficacy of 110 lumen/W, CRI>70, CCT upto 6500K, THD<10%, p.f. >0.95, operating range of 140-270V, inbuilt surge protection of 10 kV, Life class of 50,000 Hrs. at L70B50, including driver complete with 3 Years warranty as per specification No FG-ODF/FLS2.	8	No	7,015.10	56,120.80
26.10	Providing & erecting 7 m high (clear height) galvanised octagonal pole with foundation bolts having bottom of 200 mm A/F, top 100 mm A/F on provided foundation as per specification no. OH-PL/OPL. Rate shall include civil foundation as per technical specification & foundation drawings.	7	No	27,956.56	1,95,695.92
26.11	Providing and erecting galvanised 1000mm single arm sword type bracket with FRP dome and ball as per specification no. OH-PL/PBKT	6	No	3,207.24	19,243.44
26.12	Providing and erecting galvanised 1000mm double arm sword type bracket with FRP dome and ball as per specification no. OH-PL/PBKT	1	No	5,272.24	5,272.24
27	LIGHTING ARRESTOR- EARLY STREAMER SYSTEM				
27.1	Supply, Installation, Testing and Commissioning of Early Streamer Emission lightning protection system or equivalent make				
	The system should be complete with the following principal components				
	Down conductor 70 Sqmm Copper flat with necessary mounting accessories				
	Lightning strike counter				
	GI Mounting mast or Pole, 5mtr				
	Testing joint, bends				
	earth termination				
	Air termination ESE system @ Level-I Protection with radius of protection, Rp=79mts				
	The lightning conductor should be purpose made for the size of the strip to take care of expansion. All fixing should be securely attached to the structures on porcelain clamps mortar joints should not be used. Proper care shall be taken to avoid bi-metallic corrosion. Electrically conductive, non soluble ABB or equivalent make TEREK Powder should be used to achieve low ground resistance. Provided the materials are mixed and installed strictly in accordance with the manufacturer's instructions.				
	Complete set	1	Set	1,88,800.00	1,88,800.00
27.2	Supply & laying of 25mmx3mm Copper Strip with PVC sleeves, mounting clamps and necessary bolts and nuts	20	Mtrs	826.00	16,520.00
27.3	Supply & laying of 1C 70Sqmm Armoured Copper cable from earth pit to lightning arrestor. Rate shall include required mounting clamps.	50	Mtrs	849.60	42,480.00
27.4	300(D)x100(W)mm Digging & refilling of underground trenches.	10	RMtr	236.00	2,360.00
27.5	Maintenance-free Earthing material				
27.5.1	Maintainance free earth Pit for lightning protection system with "GRIC" compound, copper bounded rods & connecting clamps. Rate shall include excavation, concrete breaking & backfilling charges. The identification number shall be provided both inside and outside of equipment. (For Each Lightning arrestor: Rods - 3 No, GRIC - 3 set, Clamps - 3 No)	1	sets	15,340.00	15,340.00
28	MISCELLANEOUS				
28.1	Supply, Fabrication & Installation of structural steel in form of MS angles, channels, flats etc. for supporting various items of equipments such as various panels, cable trays, push button station, junction boxes, Plug sockets, DB's etc. including drilling, welding, grouting, chipping, bolting with supply of required hardware. Fabricated and installed structural steel shall be suitably painted with 2 coats of enamel paint after applying 2 coats of red oxide primer. Colour shade of supports shall be same as that of main shade of support structure or will be as per the site engineer approval.	750	Kgs	153.40	1,15,050.00
28.2	Supply & Installation of structural GI threaded rod with slotted angle, nuts, bolts etc.	250	Mtr	177.00	44,250.00
28.3	Supply and laying of Rubber mat of size 1000mmx2000mmx2.5mm thick of 11K V grade as per IS 15652.	RO	No	3,038.50	
28.4	Supply and fixing of 4.5 Kg capacity CO2 fire extinguisher	1	No	8,732.00	8,732.00
28.5	Supply & Erection of 3 sets of 3 No fire buckets with floor stand and necessary painting filled with sand etc complete.	1	Set	3,068.00	3,068.00

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SITC VALIDATION OF c-GMP COMPLIANT MAMMALIAN CELL LINE REPOSITORY ON TURNKEY BASIS AT NCCS JIDNYASA BUILDING, KOTHRUD, PUNE

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
28.6	Supply and Installation of Electrical Shock Treatment chart as approved by the electrical Inspectorate mounted in a teak wood frame and suitable for hanging on wall	1	No	613.60	613.60
28.7	Supply and Installation of 11kV Handgloves as approved by the electrical Inspectorate.	RO	No	590.00	
28.8	Supply and fixing first aid box of standard type suitable for minimum 10 workers	RO	No	708.00	
28.9	Supply and laying of 450mm dia RCC NP-2 class Concrete hume pipe with accessories like collar, packing material etc. Rate shall include for excavation and backfilling of 600mmX1000mm (widthXdepth) underground cable trenches.	55	Mtr	1,593.00	87,615.00
28.10	Digging & refilling of 1000mmx1000mmx1000mm (widthXdepthXlength) of inspection chamber for cables.rate shall include necessary civil works and checker plate.	4	No	9,440.00	37,760.00
29	UPS WORKS				
29.1	Supply, installation, testing and commissioning of 1 x 40 kVA ONLINE UPS with 15 Min battery backup, with static & manual bypass and Isolation transformer , Input Voltage: 3 Ph 415 Volts, ±10% Output : 3 - Phase-415Volts 50 Hz ±2%, Input & Output side IGBT, SNMP card. The scope also includes supply, Installation, Testing and Commissioning of Sealed Maintenance Free Batteries (SMF) complete with intercell connectors & copper cables, battery stand made out of Powder Coated MS Angles with adequate supports to carry the load of the batteries, Fabricated and installed structural steel shall be suitably painted with 2 coats of enamel paint after applying 2 coats of red oxide primer rate shall be for battery rack and 3 years warranty period to be considered for battery & UPS. (Process equipment, Server, Workstations) BATTERY MAKE :- AMARAJA / EXIDE / QUANTA Note: Technical data sheets are attached separately.Vendor should fill the technical data sheets and submit.	1.00	SET	7,72,900.00	7,72,900.00
29.2	Supply, installation, testing and commissioning of conventional type 1 x 3 kVA ONLINE UPS , 90 Min battery backup, with static & manual bypass, Input Voltage: 1 Ph 230 Volts, ±10% Output : 1 -Phase-230Volts 50 Hz ±2%, Input & Output side IGBT, The scope also includes supply, installation, testing and commissioning of Sealed Maintenance Free Batteries(SMF) complete with intercell connectors & copper cables, battery stand made out of Powder Coated MS Angles with adequate supports to carry the load of the batteries & rate shall be included for battery rack with 3 years warranty period has to be considered. Kindly refer the technical specifications. (EMERGENCY LIGHTING) BATTERY MAKE :- AMARAJA / EXIDE / QUANTA Note: Technical data sheets are attached separately.Vendor should fill the technical data sheets and submit.	1.00	SET	94,400.00	94,400.00
	TOTAL B- ELECTRICAL WORKS				11662010
	NOTE-				
	All the supply item installation including proper supports, wall chipping, boaring, all the false ceiling cutting, supporting from ceiling is Electrical vender scope as per site condition with co-ordination with respective vendor.				
	Any deposits charges, development charges and fixed charges are not included in this BOQ.				
	The Technical Submittal, GA Drawing & layout has to be submitted for review and approval before placing of order to OEM vendor / Manufacturer.				
	Preparation of execution drawings with section details and as built drawings in Vendor scope only. Consultant will provide the basic Electrical drawings. Electrical contractor has to develop drawing further up to the equipment termination with sizing, support structure & submit the same for approval.				
	As built drawings and handover documents, training to the client shall be provided by Electrical contractor on completion of project for certification by consultant.				
C	HVAC WORKS				
1	AIR HANDLING UNITS				

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SITC VALIDATION OF c-GMP COMPLIANT MAMMALIAN CELL LINE REPOSITORY ON TURNKEY BASIS AT NCCS JIDNYASA BUILDING, KOTHRUD, PUNE

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
	Design, Supply, Installation, Testing and Commissioning of air conditioning, double skin air handling units of GSS powder coated sheet metal, cabinet type, modular construction. Unit frame work shall have internally coved aluminum extrusion finish with thermal break profile. The panels shall be of double-skinned construction with outer skin being of pre coated GI Sheet & inner skin being of plain GI Sheet. They shall incorporate 50 mm thick Rock wool insulation material of 96-98 Kg/M3 density , sandwiched between the external and internal sheets. Insulation shall be spread equal across the panel to avoid any air pocket. The unit panels skin thickness should be not less than 0.6 mm for outer skin and 0.6 mm for inner skin. All panels shall be sealed (anti fungicide sealant material) against the framework. The Panel shall be mounted flush with the frame members to create smooth surface inside and outside.				
	DOUBLE DECKER RECIRCULATION /ONCE THROUGH TYPE AIR HANDLING UNIT (CONTROLLED UNCLASSIFIED)				
	LOWER DECK				
	Air Handling unit shall be complete with mixing box with • 10% Fresh air low leakage aluminum volume control damper with nylon mesh. • Return air low leakage aluminium volume control damper from upper decker with extended stem for mounting the actuator. • Exhaust air low leakage aluminium volume control damper with extended stem for mounting the actuator. (All Damper Actuators in BMS Scope)				
	Filter section with G4 and F7 Combo Flange type filters with necessary fixing frames shall be provided. (G4 Washable & F7 Bag type Disposable Filter)				
	DX (VRF type) cooling coil section (Min. 6 rows) comprising of Copper tubes with aluminium fins and Copper header (The coil shall be Interlaced Design as per design of VRF requirement). Coil inlet & outlet connections shall be suitable for connecting DX copper pipes & associated sensors. Coil face velocity shall be Max 450 FPM. Necessary clamping points for Eva IN & Eva OUT shall be provided on the coil header.				
	20 Swg SS 304 drain tray with 13 mm thick insulation. Floating ball (Ping Pong) type drain trap shall be provided along with the unit. SS temperature Probes before and after the Cooling coil section to be provided on the AHU casing. (coil face area shall have anti corrosion paint applied at factory).				
	Fan Section complete with Backward curved Centrifugal DIDW fans (NLT 65% efficiency) mounted on common base frame, belt driven by IE-2 motor suitable for Industrial type VFD operation (VFD supply & installation along with power cabling in Electrical scope) , slide rail & belt guard. Blower protection perforated GI screen (Full door size). Anti Vibration Spring type isolators for mounting Blower shall be considered.				
	Cable entry gland (1 No for DOL / VFD and 2 Nos for Star Delta) shall be provided on the AHU Panel.				
	The Fan Section to be provided with Marine type light fixtures, Limit switch which shall be internally wired (running in conduit and neatly dressed) terminating in a switch & Junction box on the AHU casing. (Electrical Contractor shall terminate the power supply to Junction box). Fire proof double canvas connections (Fungal Resistant and Lint free) to be used to connect the fan to the AHU Casing.				
	Double Flanged Bleed-off Damper with module for supply & fixing F7 filter along with SS perforated grille shall be provided.				
	Supply air Section with Low leakage Aluminium volume control outlet damper for Supply Air.				
	UPPER DECK				
	The upper decker shall be complete with exhaust air section with low leakage aluminium volume control outlet damper for exhaust air with coloured graduation & locking arrangement with extended stem for mounting the Actuator.(Actuator is in BMS Scope)				
	Filter section with G4 Flange type filters with necessary fixing frames shall be provided. (G4 Washable type Filter)				

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SITC VALIDATION OF c-GMP COMPLIANT MAMMALIAN CELL LINE REPOSITORY ON TURNKEY BASIS AT NCCS JIDNYASA BUILDING, KOTHRUD, PUNE

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
	Fan Section complete with Backward curved Centrifugal DIDW fans (NLT 65% efficiency) mounted on common base frame, belt driven by IE-2 motor suitable for Industrial type VFD operation (VFD supply & installation along with power cabling in Electrical scope) , slide rail & belt guard. Blower protection perforated GI screen (Full door size). Anti Vibration Spring type isolators for mounting Blower shall be considered.				
	Cable entry gland (1 No for DOL / VFD and 2 Nos for Star Delta) shall be provided on the AHU Panel.				
	The Fan Section to be provided with Marine type light fixtures, Limit switch which shall be internally wired (running in conduit and neatly dressed) terminating in a switch & Junction box on the AHU casing. (Electrical Contractor shall terminate the power supply to Junction box), Fire proof double canvas connections (Fungal Resistant and Lint free) to be used to connect the fan to the AHU Casing.				
	Exhaust air Section with Low leakage Aluminium volume control inlet damper for Exhaust Air.				
	Magnahelic gauge mounted on AHU with GI Powder coated mounting box and other accessories shall be provided across all filters & only provision for fixing Magnahelic gauge across Bleed Module.				
	Complete Units shall be mounted on a continuous common base frame of Minimum 2 MM Thickness & with suitably rated anti vibration serrated rubber pads shall be considered (Costed & provided along with the unit from Factory).				
	All Dampers shall be of Low leakage type aluminium volume control dampers with, Coloured graduation & Tamper proof locking arrangement.				
	Maximum Velocity to be considered for designing the Cross Section of Volume Control Damper (Guidance vaule as mentioned below). Supply air Damper - Max 1450 FPM Return air Damper - Max 1250 FPM Fresh air Damper - Max 1000 FPM Bleed air Damper - Max 500 FPM				
	The filter and coils shall be designed for an Face Velocity of 450 FPM Only.				
	A panel matching the color of AHU panel shall be provided to mount AHU kit & communication kits (Approx. 1 M x 1 M).				
	Blower, Motor, Filter & Tonnage capacity shall be selected (Costed) with a safety of at-least 10 % over and above the rated capacity mentioned below.				
	For Details / Capacities of Supply air, Return air, Fresh air & Bleed air refer Airflow diagrams & HVAC Room Data sheet in the Tender document.				
1.1	AREA NAME: CHANGE ROOM - 1, CELL BANK REPOSITORY & CELL FREEZING AREA 2 ISOLATION UNIT NO: GF-AHU-1A BLOWER CAPACITY: 2300 CFM DEHUMIDIFIED CAPACITY: 2300 CFM COOLING CAPACITY: 8.0 TR STATIC PRESSURE: 100 MM WG MOTOR CAPACITY: 2.2 KW	1	No	3,36,775.54	3,36,775.54
	UNIT NO: GF-AHU-1B BLOWER CAPACITY: 2300 CFM STATIC PRESSURE: 50 MM WG MOTOR CAPACITY: 1.1 KW				
2	DOUBLE DECKER RECIRCULATION TYPE AIR HANDLING UNIT (CLASSIFIED AREA)				
	LOWER DECK				
	Air Handling unit shall be complete with mixing box with fresh air low leakage aluminum volume control damper with nylon mesh & return air connection with low leakage aluminium volume control damper.				
	Filter section with G4 and F7 Combo Flange type filters with necessary fixing frames shall be provided. (G4 Washable & F7 Bag type Disposable Filter)				

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SITC VALIDATION OF c-GMP COMPLIANT MAMMALIAN CELL LINE REPOSITORY ON TURNKEY BASIS AT NCCS JIDNYASA BUILDING, KOTHRUD, PUNE

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
	DX (VRF type) Cooling coil section (Min. 6 rows) comprising of Copper tubes with aluminium fins and Copper header (The coil shall be Interlaced Design as per design VRF requirement). Coil inlet & outlet connections shall be suitable for connecting DX copper pipes & associated sensors. Coil face velocity shall be Max 450 FPM. Necessary clamping points for Eva IN & Eva OUT shall be provided on the coil header.				
	DX (VRF type) Heating coil section (Min. 4 rows) comprising of Copper tubes with aluminium fins and Copper header (The coil shall be Interlaced Design as per design VRF requirement). Coil inlet & outlet connections shall be suitable for connecting DX copper pipes & associated sensors. Coil face velocity shall be Max 450 FPM. Necessary clamping points for Eva IN & Eva OUT shall be provided on the coil header.				
	20 Swg SS 304 drain tray with 13 mm thick insulation. Floating ball type drain trap (Ping Pong) shall be provided along with the unit. SS temperature Probes before and after the Cooling coil section to be provided on the AHU casing. (coil face area shall have anti corrosion paint applied at factory).				
	Fan Section complete with Backward curved Centrifugal DIDW fans (NLT 65% efficiency) mounted on common base frame, belt driven by IE-2 motor suitable for Industrial type VFD operation (VFD supply & installation along with power cabling in Electrical scope in Electrical scope) , slide rail & belt guard. Blower protection perforated GI screen (Full door size). Anti Vibration Spring type isolators for mounting Blower shall be considered.				
	Cable entry gland (1 No for DOL / VFD and 2 Nos for Star Delta) shall be provided on the AHU Panel.				
	The Fan Section to be provided with Marine type light fixtures, Limit switch which shall be internally wired (running in conduit and neatly dressed) terminating in a switch & Junction box on the AHU casing. (Electrical Contractor shall terminate the power supply to Junction box). Fire proof double canvas connections (Fungal Resistant and Lint free) to be used to connect the fan to the AHU Casing.				
	UPPER DECKER				
	Upper decker shall be complete with supply air section with opening for supply air from lower decker with SS safety grating shall be provided.				
	Double flanged Bleed-off Damper with module for supply & fixing H13 HEPA filter along with SS perforated grille shall be provided.				
	Filter section with F9 Fine Filter with fixing frames. (F9 Disposable Filter)				
	Supply air section with low leakage aluminium volume control outlet damper for supply Air.				
	Magnahelic gauge mounted on with GI Powder coated mounting box and other accessories shall be provided across all filters & only provision for fixing Magnahelic gauge across Bleed Module.				
	Complete Units shall be mounted on a continuous common base frame of Minimum 2 MM Thickness & with suitably rated anti vibration serrated rubber pads shall be considered (Costed & provided along with the unit from Factory).				
	All Dampers shall be of Low leakage type aluminium volume control dampers with, Coloured graduation & Tamper proof locking arrangement.				
	Maximum Velocity to be considered for designing the Cross Section of Volume Control Damper (Guidance vaule as mentioned below). Supply air Damper - Max 1450 FPM Return air Damper - Max 1250 FPM Fresh air Damper - Max 1000 FPM Bleed air Damper - Max 500 FPM				
	The filter and coils shall be designed for an Face Velocity of 450 FPM Only.				
	A panel matching the color of AHU panel shall be provided to mount AHU kit & communication kits (Approx. 1 M x 1 M).				
	Blower, Motor, Filter & Tonnage capacity shall be selected (Costed) with a safety of at-least 10 % over and above the rated capacity mentioned below.				

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SITC VALIDATION OF c-GMP COMPLIANT MAMMALIAN CELL LINE REPOSITORY ON TURNKEY BASIS AT NCCS JIDNYASA BUILDING, KOTHRUD, PUNE

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
	For Details / Capacities of Supply air, Return air, Fresh air & Bleed air refer Airflow diagrams & HVAC Room Data sheet in the Tender document.				
2.1	AREA NAME: MEDIA PREPARATION AREA, AUTOCLAVE ROOM, COOL ZONE & MEDIA STORAGE, WASHING AREA UNIT NO: GF-AHU-2 BLOWER CAPACITY: 7700 CFM DEHUMIDIFIED CAPACITY: 7700 CFM COOLING CAPACITY: 26.0 TR HEATER CAPACITY: 29.0 KW STATIC PRESSURE: 150 MM WG MOTOR CAPACITY: 11.0 KW	1	No	5,83,076.94	5,83,076.94
2.2	AREA NAME: STERILITY TESTING UNIT NO: GF-AHU-3 BLOWER CAPACITY: 2200 CFM DEHUMIDIFIED CAPACITY: 2200 CFM COOLING CAPACITY: 9.0 TR HEATER CAPACITY: 11.0 KW STATIC PRESSURE: 150 MM WG MOTOR CAPACITY: 3.7 KW	1	No	4,61,207.43	4,61,207.43
2.3	AREA NAME: CELL CULTURE 1 UNIT NO: GF-AHU-4 BLOWER CAPACITY: 1400 CFM DEHUMIDIFIED CAPACITY: 1400 CFM COOLING CAPACITY: 7.0 TR HEATER CAPACITY: 9.0 KW STATIC PRESSURE: 150 MM WG MOTOR CAPACITY: 2.2 KW	1	No	4,10,286.00	4,10,286.00
2.4	AREA NAME: CELL CULTURE 2 UNIT NO: GF-AHU-5 BLOWER CAPACITY: 1500 CFM DEHUMIDIFIED CAPACITY: 1500 CFM COOLING CAPACITY: 8.0 TR HEATER CAPACITY: 9.0 KW STATIC PRESSURE: 150 MM WG MOTOR CAPACITY: 2.2 KW	1	No	4,38,311.00	4,38,311.00
2.5	AREA NAME: MALE CHANGE , FEMALE CHANGE & UNISEX CHANGE ROOM UNIT NO: FF-AHU-1 BLOWER CAPACITY: 2400 CFM DEHUMIDIFIED CAPACITY: 2400 CFM COOLING CAPACITY: 8.0 TR HEATER CAPACITY: 13.0 KW STATIC PRESSURE: 150 MM WG MOTOR CAPACITY: 3.7 KW	1	No	4,61,207.43	4,61,207.43
2.6	AREA NAME: MICROBIOLOGY LAB WITH INCUBATOR, QC LAB - 1, QC LAB - 2, QC LAB - 3 UNIT NO: FF-AHU-2 BLOWER CAPACITY: 5700 CFM DEHUMIDIFIED CAPACITY: 5700 CFM COOLING CAPACITY: 25.0 TR HEATER CAPACITY: 28.0 KW STATIC PRESSURE: 150 MM WG MOTOR CAPACITY: 9.3 KW	1	No	8,41,871.00	8,41,871.00
2.7	AREA NAME: CELL CULTURE WITH INCUBATOR UNIT NO: FF-AHU-3 BLOWER CAPACITY: 2200 CFM DEHUMIDIFIED CAPACITY: 2200 CFM COOLING CAPACITY: 7.0 TR HEATER CAPACITY: 11.0 KW STATIC PRESSURE: 150 MM WG MOTOR CAPACITY: 3.7 KW	1	No	4,47,839.50	4,47,839.50

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SITC VALIDATION OF c-GMP COMPLIANT MAMMALIAN CELL LINE REPOSITORY ON TURNKEY BASIS AT NCCS JIDNYASA BUILDING, KOTHRUD, PUNE

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
2.8	<p>AREA NAME: VIROLOGY LAB WITH INCUBATOR UNIT NO: FF-AHU-4 BLOWER CAPACITY: 2000 CFM DEHUMIDIFIED CAPACITY: 2000 CFM COOLING CAPACITY: 6.0 TR HEATER CAPACITY: 9.0 KW STATIC PRESSURE: 150 MM WG MOTOR CAPACITY: 3.7 KW</p>	1	No	4,15,891.00	4,15,891.00
3	ONCE THROUGH EXHAUST UNIT				
	Design, Supply, Installation, Testing and Commissioning of double skin air handling units of GSS powder coated sheet metal, cabinet type, modular construction. Unit frame work shall have internally coved aluminum extrusion finish with Non thermal break profile. The panels shall be of double-skinned construction with outer skin being of pre coated GI Sheet & inner skin being of plain GI Sheet. They shall incorporate 25 mm thick Rock wool insulation material of 96-98 Kg/M3 density , sandwiched between the external and internal sheets. Insulation shall be spread equal across the panel to avoid any air pocket. The unit panels skin thickness should be not less than 0.6 mm for outer skin and 0.6 mm for inner skin. All panels shall be sealed (anti fungicide sealant material) against the framework. The Panel shall be mounted flush with the frame members to create smooth surface inside and outside.				
	The Unit shall be complete exhaust air section with low leakage aluminium volume control inlet damper.				
	Filter section with G4 Flange type filters with necessary fixing frames shall be provided. (G4 Washable type Filter)				
	Fan Section complete with Backward curved Centrifugal DIDW fans (NLT 65% efficiency) mounted on common base frame, belt driven by IE-2 motor suitable for Industrial type VFD operation (VFD supply & installation along with power cabling in Electrical scope in Electrical scope) , slide rail & belt guard. Blower protection perforated GI screen (Full door size). Anti Vibration Spring type isolators for mounting Blower shall be considered.				
	Cable entry gland (1 No for DOL / VFD and 2 Nos for Star Delta) shall be provided on the Unit Panel.				
	The Fan Section to be provided with Marine type light fixtures, Limit switch which shall be internally wired (running in conduit and neatly dressed) terminating in a switch & Junction box on the AHU casing. (Electrical Contractor shall terminate the power supply to junction box). Fire proof double canvas connections (Fungal Resistant and Lint free) to be used to connect the fan to the Unit Casing.				
	Exhaust air Section with Low leakage Aluminium volume control outlet damper for Exhaust Air.				
	Magnahelic gauge mounted on ahu with GI Powder coated mounting box and other accessories shall be provided across all filters.				
	Complete Units shall be mounted on a continuous common base frame of Minimum 2 MM Thickness & with suitably rated anti vibration serrated rubber pads shall be considered (Costed & provided along with the unit from Factory).				
	All Dampers shall be of Low leakage type aluminium volume control dampers with, Coloured graduation & Tamper proof locking arrangement.				
	The filter shall be designed for an Face Velocity of 450 FPM Only.				
	Blower, Filter & Motor capacity shall be selected (Costed) with a safety of at-least 10 % over and above the rated capacity mentioned below.				
	For Details / Capacities of Exhaust air refer Airflow diagrams & HVAC Room Data sheet in the Tender document.				
3.1	<p>AREA NAME: WASHING AREA, DECONTAMINATION & WASTE OUT UNIT NO: GF-EAU-1 BLOWER CAPACITY: 1700 CFM STATIC PRESSURE: 50 MM WG MOTOR CAPACITY: 1.1 KW</p>	1	No	156043	1,56,043.20

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SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
3.2	<p>AREA NAME: WASTE OUT, WASH + CLEANING + DECONTAMINATION</p> <p>UNIT NO: FF-EAU-1</p> <p>BLOWER CAPACITY: 800 CFM</p> <p>STATIC PRESSURE: 50 MM WG</p> <p>MOTOR CAPACITY: 0.55 KW</p>	1	No	135081	1,35,080.50
	Note:				
	<p>The static pressure mentioned is indicative only, during project execution the HVAC vendor / GC contractor shall provide the duct pressure drop calculations for selecting the blower operation curve & motor capacity accordingly.</p> <p>Unloading, Shifting, Lifting & Positioning of the AHU & EAU etc., in the respective position at Technical Area as per location shown in the Tender Drawings, Coordination with other vendors for Electrical works, HVAC Control works, Drain piping. HVAC vendor shall coordinate with AHU vendor & Civil vendor for getting details of Masonry pedestals required for mounting Air Handling unit. Masonry pedestals shall be a part of civil tender package.</p> <p>Refer the Tender drawings & Specification for further details.</p>				
4	DUCTING				
4.1	GI DUCTING WITH 'G' CLAMP				
	<p>Supply, Installation, Testing and Commissioning of Factory Fabricated, Non-Soldered Ducting using GSS sheet with supply & return outlets, All transverse connectors / flanges shall be with 6mm thk neoprene gaskets (Food Grade) and with 'G' clamps. The 'G' Clamps to be tightened using electric torque wrench to provide uniform tightening. Vertical Duct Support rods of Minimum upto 2 Mtrs Length with horizontal angle support to be included. The duct shall be Longitudinal sealed with silicon sealant from factory & Duct Flange Sealing with Silicon Sealant shall be considered. The supply / delivery to be at NCCS, PUNE. Duct Construction to be As per SMACNA 3" W.G with 20x6 mm thick gasket. All necessary accessories like Flanges, Gaskets, Bolt, Nut, Washers, Duct supports, anchor Bolts etc. shall be considered.</p>				
4.1.1	18 swg	RO	Sq Mts	1928	
4.1.2	20 swg	200	Sq Mts	1614	3,22,848.00
4.1.3	22 swg	500	Sq Mts	1502	7,51,070.00
4.1.4	24 swg	700	Sq Mts	1418	9,92,645.50
4.2	GI DUCTING WITH TDF FLANGE				
	<p>Supply, Installation, Testing and Commissioning of Factory Fabricated, Non-Soldered Ducting using GSS sheet with supply & return outlets, All transverse connectors / flanges shall be with 6mm thk neoprene gaskets (Food Grade) and with TDF Flanges. Vertical Duct Support rods of Minimum upto 2 Mtrs Length with horizontal angle support to be included. The duct shall be Longitudinal sealed with silicon sealant from factory & Duct Flange Sealing with Silicon Sealant shall be considered. The supply / delivery to be at NCCS, PUNE. Duct Construction to be As per SMACNA 1" W.G with 20x6 mm thick gasket. All necessary accessories like Flanges, Gaskets, Bolt, Nut, Washers, Duct supports, anchor Bolts etc. shall be considered.</p>				
4.2.1	18 swg	RO	Sq Mts	1928	
4.2.2	20 swg	RO	Sq Mts	1614	
4.2.3	22 swg	RO	Sq Mts	1502	
4.2.4	24 swg	150	Sq Mts	1418	2,12,709.75
	NOTE-				
	<p>Refer Sheet Metal Works / Duct Insulation Specification in the tender document. Leak testing of ducts shall be carried out as per SMACNA Standards & necessary sign off from NCCS Engineer to be taken after installation. The Duct signage on ducts should be included.</p>				
	<p>The HVAC vendor shall prepare Ducting shop drawing with sections, typical fixing details & submit for consultant approval. The shop drawings shall be vetted & signed by vendors design team & site execution team before sending for approval.</p>				
	Method statement for duct design & erection shall be provided.				
	Technical data sheet / submittal shall be provided for all tools & tackles used for erection of ducts.				
	All ductwork shall be sealant filled in type and sealant on all joints and seams, including flanged joints to be considered.				

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SITC VALIDATION OF c-GMP COMPLIANT MAMMALIAN CELL LINE REPOSITORY ON TURNKEY BASIS AT NCCS JIDNYASA BUILDING, KOTHRUD, PUNE

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
	Radium arrow stickers indicating supply, return & exhaust air flow direction over & above duct insulation shall be provided & Included in Basic duct costing.				
	All ductwork Gaskets shall be of Food Grade type only.				
4.3	INSULATED FLEXIBLE DUCT WITH NECESSARY FIXING CLAMPS ON BOTH SIDE FOR TERMINAL HEPA MODULE				
	Supply, Installation, Testing and Commissioning of The insulated flexible duct of class 1 air duct, light weight, strong, fully flexible & made of double lamination of films permanently bonded to a coated spring tough steel wire helix. The thermal efficiency is ensured with a blanket of fiberglass wool insulation in between. Necessary Fixing Clamp on both side shall be considered. (With Spigot Connection & Rigid GI Round Duct). Note: Rigid GI Round Duct area shall be part of GI Ducting. Each Flexible connection shall not be more than 1 Mtr.				
4.3.1	175 mm Dia	5	Sq Mts	342	1,709.53
4.3.2	250 mm Dia	45	Sq Mts	426	19,169.10
4.3.3	325 mm Dia	15	Sq Mts	544	8,155.28
5	DUCT INSULATION				
5.1	THERMAL INSULATION				
	Supply, installation, testing & commissioning of Thermal insulation for ducting using non-fibrous, CFC free, closed cell, Elastomeric Nitrile Rubber foamed Self-adhesive insulation in pre-formed sheets with thermal conductivity of not more than 0.036 W/(m.k) at 10°C. Factory applied reinforced aluminum foil facing on one side. The material should have high resistance to fire (Melting Class "0"). The material used shall be in rolls. The insulation sheet joints shall be sealed using self adhesive aluminium tapes of 75 mm width.				
5.1.1	19 mm thick - Supply Air Duct	810	Sq Mts	1043	8,44,449.30
5.1.2	13 mm thick - Return Air Duct	810	Sq Mts	813	6,58,307.25
5.2	ACOUSTIC INSULATION				
	Supply, installation, testing & commissioning of Acoustic insulation for ducting using Class 1, non-fibrous, CFC free, open cell, Elastomeric Nitrile Rubber foamed Self-adhesive insulation in pre-formed sheets with thermal conductivity of not more than 0.042 W/(m.k) at 10°C. The material should have high resistance to fire (Melting Class "1"). The material used shall be in rolls.				
5.2.1	25 mm thick	100	Sq Mts	2306	2,30,589.70
	NOTE-				
	Refer Duct Insulation Specification & Installation details refer the tender specification.				
	The Insulation thickness shall be selected suitable to PUNE ambient condition / Minimum Thickness Specified in tender & No cost increase shall be paid for thickness addition.				
	Duct insulation shall be measured on the basis of surface area of Duct only, no additional area shall be considered for insulation thickness. No special measurement / extra allowance is to be made for tapers, transformations, dampers, elbows, branches & box type insulation for flanges, etc.				
	Insulation for duct flange joint shall be double layered, box type as shown in the tender specification. Insulation tape make shall be of same make as of Insulation. (Fabrication, Installation & Material wastage shall be included in the Basic costing).				
6	AIR TERMINAL DEVICES				
6.1	Supply & installation of Powder Coated Aluminium Supply Air 4 way diffuser with Module, GI volume control damper suitable for fixing to duct drops & align with false ceiling.	2	Sq Mts	20,346.15	40,692.30
6.2	Supply & installation of Powder Coated Aluminium Return Air 4 way diffuser with Module, GI volume control damper suitable for fixing to duct drops & align with false ceiling.	2	Sq Mts	20,346.15	40,692.30
6.3	Supply & installation of Fresh Air & Exhaust Air Louvers with bird cowl made of MS powder coated strips with proper stiffeners complete with G2 filter and insect mesh fixed in a removable frame.	4	Sq Mts	20,346.15	81,384.60
6.4	Supply & installation of G2 filter with insect mesh fixed in a removable filter frame. (To match on the Existing Louvers in Outer Civil wall provided by the builder).	RO	Sq Mts	20,346.15	
6.5	Supply & Installation of Fire proof Flexible Canvas Connections for Diffuser modules & Air Handling Units	10	Sq Mts	3,699.30	36,993.00

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SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
	NOTE-				
	Approval for the Diffuser / Modules has to be obtained before fabrication and installation.				
	In BOQ area for ADP is considered / measured based on Neck size (Area) of Diffuser only, The rate quoted shall be inclusive of module box with support. No separate area / cost shall be paid for module box & support.				
	The coloured identification / marking / Grille no shall be provided for both supply & return air Diffusers.				
7	TERMINAL HEPA FILTER WITH MODULES				
	Supply, Installation, Testing and Commissioning of H14 HEPA Filter with Housing & Damper (Bottom Discharge Module Type with SS304 perforated grille of 16 SWG sheet along with SS chain link) . Complete Housing (Sides + Top) made of extruded aluminium anodized material and low leakage aluminum collar damper with operating bevel gear arrangement, Diffuser Plate, Housing shall be suitable for fixing the Gel Seal type (Polyurethane gel) terminal HEPA filter (H-14 as per EN1882 Class) with Protective Expanded Metal Screen . The Filter Housing shall have provision for smoke aerosol test point and differential pressure measuring point. The filter mounting box shall have a provision to replace filter & control the airflow from inside conditioned space. The HEPA filter modules are of the following sizes:				
7.1	Plenum box size of 335x335x220H (405x405mm Flange to Flange) inlet collar with Diffuser plate & TOP entry 200 Sq / Dia Collar with necessary clamps complete with gel seal filter minipleat H-14 of Size: 305X305X150mm (4" Media Pack) with DOP port and bevel gear arrangement room side operation damper.	7	Nos	32195	2,25,365.84
7.2	Plenum box size of 485x485x220H (530X530mm Flange to Flange) inlet collar with Diffuser plate & TOP entry 250 Sq / Dia Collar with necessary clamps complete with gel seal filter minipleat H-14 of Size: 450X450X150mm (4" Media Pack) with DOP port and bevel gear arrangement room side operation damper.	42	Nos	33843	14,21,405.58
7.3	Plenum box size of 635x635x220H (685X685mm Flange to Flange) inlet collar with Diffuser plate & TOP entry 305 Sq / Dia Collar with necessary clamps complete with gel seal filter minipleat H-14 of Size: 605X605X150mm (4" Media Pack) with DOP port and bevel gear arrangement room side operation damper.	15	Nos	47643	7,14,637.50
	Note :				
	The HVAC vendor shall provide Technical data sheets / Submittal with drawings showing necessary fixing details & drawings of supporting for consultant approval.				
	Approval for the HEPA filter mountings & Modules has to be obtained before fabrication and installation.				
	SS Chain link is provided to hold the perforated plate in vertical position during filter replacement.				
8	VOLUME CONTROL DAMPER & FIRE DAMPER				
8.1	Supply, Installation, Testing and Commissioning of Low Leakage GI Duct Volume Control Dampers (for duct system) with coloured graduation & locking arrangement	5	Sq Mts	14526	72,629.59
8.2	Supply, Installation, Testing and Commissioning of Fire & Smoke Damper & shall be at least of 90 minutes fire rating. (Damper shall have one limit switch with two NC contactors).	5	Sq Mts	20593	1,02,963.85
	NOTE:				
	All the internal wiring from the Fan section door limit switch & Internal wiring for AHU light & switch shall be carried by AHU vendor and left near the push button station which is placed at 1 Mtr distance from AHU. HVAC Vendor to coordinate with AHU vendor for Installation.				
	Please refer the technical details for further details				
9	PRESSURE MONITORING SYSTEM				
9.1	Supply, Installation, Testing and Commissioning of Compound Magnahelic gauges housed in a SS304 front cover (30-0-30 Pa) complete with PVC tubing and SS perforated nozzle (For Installation in Clean Room Panel for Classified Areas)	RO	Nos.	8777	
9.2	Supply, Installation and Commissioning of 1" PVC air tight pressure ports with dummy end cap for inserting pitot tube & measuring air flow.	25	Nos.	814	20,346.15
	NOTE:				

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SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
	The Grouping & Location of Magnahelic Gauges shall be as per the client final requirement.				
	Magnahelic Gauge for AHU is a part of AHU BOQ				
10	DX-SPLIT AIR CONDITIONERS (HI WALL UNIT)				
	<p>Supply, installation, testing and commissioning of INVERTER Type split type A/C units, each of nominal capacity as indicated below suitable for operation on 230 V + or 400 V +/-10%, 50 HZ, AC supply with R410A OR R32 refrigerant and shall be min Star 3 rated as per B.E.E.</p> <p>Each Split type A/C unit shall comprise of outdoor unit suitable for ambient weather conditions at PUNE, and high wall mounted Indoor unit with sleek outer cabinet or ceiling concealed ducted split unit as specified below. Both units shall be interconnected through refrigerant(copper) tubing encased in PVC pipes for mechanical protection where refrigerant pipes are run on ground or on suitable sized cable tray and complete with electrical wiring for satisfactory operation and complete as required.</p> <p>Outdoor (condensing) unit shall be finished with powder coating & should include hermetically sealed suction gas cooled compressors, overload protection, air cooled condenser coil of sufficient rows deep and of large face area, fitted with a propeller type fan and suitable motor, service valves arrangements, refrigerant filter etc., all housed in sheet metal cabinet.</p> <p>Hi Wall Indoor unit should include evaporator coil of sufficient rows deep with slide out washable nylon wire mesh/HDPE filters with dirt trap and aluminium frame work, statically and dynamically balanced blower unit mounted on the shaft of the motor and housed in a scroll etc...,Selector control unit with push button, selector switch for multispeed fan operation shall be provided for all units. Supply air grilles made out of non corrosive material with adjustable air flow direction arrangement with deflection louvers with throw of at least 6 mtrs and complete as required. The Hi wall split units to have a cordless remote control.</p> <p>The split units shall have following features: (i) Auto mode operation, (ii) Sleep mode operation, (iii) Auto setting with memory backup, (iv) Time delay feature</p> <p>Each unit shall include suitable controls like thermostat and complete as required. These units shall be installed at appropriate locations as shown in the equipment layout drawing or as per site condition.</p> <p>Stand alone Drain Pump shall be considered. The drain pipes from indoor unit will be terminated at agreed drain point. The refrigerant piping shall be provided with no joints in between and suction lines shall be insulated with Nitrile rubber insulation with factory applied reinforced aluminium foil facing on oneside, material having class "O" for fire properties. The quoted cost shall include: Cost of refrigerant piping with insulation and cabling along with refrigerant piping accessories like drier, sight glass and isolating valves, adequately supported on cable tray & MS support for mounting the Out Door Unit and necessary drain piping to the nearest drain.</p> <p>Supply, installation, Testing & commissioning of Copper refrigerant piping duly insulated along with accessories like drier, sight glass, isolating valves and Refrigerant gas R410A OR R32. Copper refrigerant pipes shall run on perforated cable tray with adequately supported & covered with MS powder coated cable tray. The sizing of Refrigerant pipeline has to be carried out by the contractor based on site conditions and approved prior to procurement & installation.</p> <p>Liquid line approximate distance :- 15 RMT Suction line approximate distance :- 15 RMT Drain Piping approximate distance :- 15 RMT</p> <p>Low noise level of unit inside the AC areas is required (around 45 db). Manufacturers shall indicate average noise level in db at 1 metre from indoor unit.</p>				
10.1	<p>AREA NAME: BMS ROOM UNIT NO: SF-DX HWU-1 CAPACITY: 1.0 TR</p>	1	No	66812	66,811.60
10.2	<p>AREA NAME: UPS ROOM UNIT NO: SF-DX HWU-2 CAPACITY: 2.0 TR</p>	1	No	80847	80,846.52

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SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
10.3	AREA NAME: BATTERY ROOM UNIT NO: SF-DX HWU-3 CAPACITY: 2.0 TR	1	No	80847	80,846.52
11	PROPELLER EXHAUST FAN				
	Supply, Installation, Testing and Commissioning of Wall mounting propeller exhaust fan made of Mild Steel with polymer coating, Suitable for wall mounted outdoor application. The Fan shall be fixed on to the wall with mounting plate. The fan shall be equipped with single phase motor with outer rotor & impeller with backward curved blades. Motor are supplied with thermal protection, Motor Terminal Block is to be provided on fan for power termination. The unit support cost shall be considered. The unit shall be with connecting GI short piece & aluminium gravity louver. The entire unit shall be suitable for wall mounting type with necessary brackets.				
	Blower & Motor capacity shall be selected with a safety of at-least 10 % higher than rated capacity.				
	The details to be read as Unit No, Air volume.				
11.1	SF-PF EA-1 : 2100 CFM (ELECTRICAL ROOM)	1	No	253043	2,53,043.33
11.2	SF-PF EA-2 : 800 CFM (EXISTING TOILET)	1	No	172432	1,72,432.22
12	MS SUPPORT STRUCTURES				
12.1	Supply, Fabrication & installation of MS supports structure with one coat of epoxy paint over & above two coats of anti-corrosive red oxide paint.	1000	Kgs	186	1,86,086.00
13	COMMISSIONING & VALIDATION AT REST & IN OPERATION OF HVAC SYSTEM				
	Commissioning of Classified Areas with validation reports comprising of : AHU & Duct leakage testing with pressurization (As per SMACNA air duct leakage standards). This process to be documented. HVAC testing adjusting and balancing as per ASHRAE / Equivalent Clean Room standard. Checking and Recording of all the parameters in TAB format for the equipment's like: Air Handling units, This to includes Electrical measures (Frequency, Power factor & Kw.), Hydronic flow measures, Pressures across heat exchangers (Water & Air), Airflow measures, Motor RPM measures & Thermal measure. Clean room performance testing, Adjusting, Balancing and Recording, As per DQ confirming ISO-14644. Air balancing with flow hood meter Room Temperature & Humidity mapping and monitoring for 3 days. Room pressure balancing (monitoring after adustment or balancing if required) HEPA Filter Integrity Test. Particle count test Room Recovery test Airflow visualization test Providing all documentation of DQ, IQ, OQ & PQ in approved formats.				
	Commissioning of UnClassified Areas with validation reports comprising of : AHU & Duct leakage testing with pressurization (As per SMACNA air duct leakage standards). This process to be documented. HVAC testing adjusting and balancing as per ASHRAE / Equivalent standard. Checking and Recording of all the parameters in TAB format for the equipment's like:Air Handling units, This to includes Electrical measures (Frequency, Power factor & Kw.), Hydronic flow measures, Pressures across heat exchangers (Water & Air), Airflow measures, Motor RPM measures & Thermal measure. Air balancing with flow hood meter Room Temperature monitoring for 3 days. Providing all documentation of DQ, IQ, OQ & PQ in approved formats.	1	Lot	2,80,250.00	280250
	Commissioning of Exhaust Units with validation reports comprising of : Unit & Duct leakage testing with pressurization (As per SMACNA air duct leakage standards). This process to be documented. HVAC testing adjusting and balancing as per ASHRAE / Equivalent standard.				

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SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
	Checking and Recording of all the parameters in TAB format for the equipment's like: Air Handling units, This to includes Electrical measures (Frequency, Power factor & Kw.), Hydronic flow measures, Airflow measures, Motor RPM measures & Thermal measure. Providing all documentation of DQ, IQ, OQ & PQ in approved formats.				
	NOTE-				
	Please refer the Tender Specification, Room data sheet, Zoning Diagrams & Air Flow Diagrams for further details. The units proposed has to be from one of the approved makes. Submittal Approval for the AHU's is required before proceeding with manufacturing. Unloading and Shifting of AHU/EAU to the installation area has to be carried out by the HVAC contractor only. AHU/EAU leak Test after assembly has to be carried out at site as per SMACNA and approved by the Client /Consultant.				
	This BOQ is to be read in conjunction with Tender Drawings for Further Details. Compliance to specification is a must and any deviation shall be brought to notice specifically during tendering and sought approval from Client / Consultant.				
	AHU Configuration shall be either Single tier / Double tier construction based on the site condition. No Cost variation shall be entertained.				
	Fan should be selected for operating Frequency below 50 Hz, so that in bypass mode also should be able to run without affecting the performance.				
	Size & type of unit shall be submitted with technical data sheet for approval before ordering the equipment.				
	AHU Vendor to coordinate with HVAC Contractor for the Timely execution of the Project Upholding the design intent and finish of this tender.				
	Civil Pedestal for AHU, EAU shall be in the scope of civil vender.				
	Civil wall opening, closing,making it leak proof & painting shall be in the scope of civil vendor.				
	The Technical Submittal and GA Drawing has to be submitted for review and approval before placing of order.				
	No Penetration in the AHU Panel at site is permitted.				
	HVAC Contractor has to co-ordinate with Clean room panel vendor for installation.				
	The HVAC contractor has to coordinate with BMS Vendor for the Timely execution of the Project Upholding the design intent and finish of this tender.				
	The Validation has to be carried out for minimum 3 working days continuously for Air flow, Temperature and Humidity. For Room Pressure Differential continuously for 3 working days. In case of any non compliance the system has to be set right and the Validation has to be carried out once again as per the above schedule.				
	TOTAL C- HVAC WORKS				12606670
D	VRF WORKS				
1	VRF INDOOR FOUR WAY CASSETTE UNITS				
	Supply, Installation, Testing and Commissioning of DX (VRF Type) Cassette Units 4 -WAY diffuser , turbo fan with whisper quietness Motor, 3 or 4 row Cooling coil of Copper tubes and Aluminum fins, electronic expansion valve, suction air grille, Fresh air Provision, Cleanable woven type filter, Insulated drain pan with built in auto drain pump , decorative Panel & remote sensor, wire less remote to connect to the VRF indoor unit. Necessary power cable with plug for Indoor unit, Wooden/Aluminium frame for fixing cassette unit WRT false ceiling & vertical supports for mounting cassette unit shall be included.				
	The details to be read as Cassette unit No, Cooling TR Capacity & Room Name.				
1.1	B-CU-1, 0.8 TR	1	No	39375.125	39,375.13
1.2	B-CU-2 , 0.8 TR	1	No	39375.125	39,375.13
1.3	B-CU-3 , 0.8 TR	2	Nos	39375.125	78,750.25
1.4	B-CU-4 , 0.8 TR	2	Nos	39375.125	78,750.25
1.5	B-CU-5 , 1.03 TR	2	Nos	42068.888	84,137.78
1.6	B-CU-6 , 1.3 TR	2	Nos	42140.632	84,281.26
1.7	B-CU-7 , 1.3 TR	1	No	42140.632	42,140.63
2	VRF INDOOR HIWALL UNITS				

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SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
	Supply, Installation Testing and Commissioning of DX (VRF Type) High wall Indoor Unit with multi speed fan, 2 or 3 row Cooling coil of Copper tubes and Aluminum fins, electronic expansion valve, Cleanable filter, suction air grille, Fresh air Provision, Insulated drain pan with built in auto drain pump & suitable inter lock between Indoor & the drain pump, remote sensor, mounting stands / support and cord less remote controller of the following capacity. Necessary power cable with plug for Indoor unit shall be included.				
	The details to be read as Hiwall unit No, Cooling TR Capacity & Room Name.				
2.1	B-HW-1, 2.03TR	1	No	24073.475	24,073.48
3	VRF OUTDOOR UNIT				
	Design, Supply, Installation, Testing and Commissioning of the following VRF Condensing Units (Heat Recovery & Cooling only) of capacities rated at 40 deg C ambient DBT & 23 deg C indoor DBT. conditions with necessary interlocks & with R410A Refrigerant. The capacity calculation along with performance and power consumption curves, deration / correction factor curves / charts for indoor temperature and piping derations must be submitted. Condensing units equipped with highly efficient DC Inverter type variable speed compressors (ALL compressors) with acoustic enclosure for low noise, condenser coil & fins provided with anti-corrosive treatment, necessary accessories for oil separation, moisture removal, flow control, interconnecting piping, low noise condenser air fan, electrical and microprocessor based panel, interconnecting cabling and any other related items as per the manufacturers standards to be included, all housed inside a weather-proof cabinet suitable for exposed installation on terrace. The control panel must be 100% compatible with BMS. The units must also be provided with self addressable control system for control of indoor & other outdoor machines. The quoted price shall be inclusive of full charge of additional refrigerant gas. Condensor coil guard shall be provided.				
	VRV / VRF condensing units for the below stated machines shall be as per the specifications. This shall include the nitrogen leak testing, oil charging, vacuumisation, MS base platform for condensing unit complete with epoxy painting, vibration isolation pads, support hangers, railing, brackets etc and other accessories as per the specs & Tender drawings along with lifting & shifting to respective position.				
3.1	B-VRF ODU-1 - 16 HP (COOLING ONLY OUTDOOR UNIT FOR BASEMENT AREA)	1	Set	438815.45	4,38,815.45
3.2	GF-VRF ODU-1 - 78 HP (HEAT RECOVERY OUTDOOR UNIT FOR GROUND FLOOR AHU'S)	1	Set	2281010.8	22,81,010.80
3.3	FF-VRF ODU-1 - 60 HP (HEAT RECOVERY OUTDOOR UNIT FOR FIRST FLOOR AHU'S)	1	Set	2122445.35	21,22,445.35
4	AHU KIT /CONTROL KIT				
	The Vendor to include appropriately sized AHU kit meeting the AHU schedule, VRF schedule & refrigerant pipe schematic. The Installation of the AHU kit near the AHU to be coordinated with the AHU Vendor , so as not to damage the AHU panel & to meet the aesthetic requirement.				
4.1	Supply, Installation, Testing and Commissioning of Expansion Kit (EEV) including wiring as required for AHU (each set shall match the individual AHU capacity)	9	Sets	30260.27	2,72,342.47
4.2	Supply, Installation, Testing and Commissioning of the Control Kit including wiring as required for AHU	9	Sets	30260.27	2,72,342.47
4.3	Supply, Installation, Testing and Commissioning of Corded Remote controllers.	18	Nos	4546.78	81,841.97
4.4	Supply, Installation, Testing and Commissioning of Cord less Remote controllers.	11	Nos	4546.78	50,014.54
4.5	Supply, Installation, Testing and Commissioning of BACNET / IP Gateway to integrate with BMS including ethernet cable to connect to the PC.	1	No	73184.49	73,184.49
4.6	Supply, Installation, Testing and Commissioning of Refrigerant "Y" / "T" joints with insulation, as recommended by manufacturer, suitable for the combination of indoor and outdoor machines based on Tender BOQ, Specification & Drawings.	40	Sets	5050.11	2,02,004.20
4.7	Supply, Installation, Testing and Commissioning of Mode Control unit for HR indoor unit connection	8	Nos	116698.34	9,33,586.74

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SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
4.8	Supply, Installation, Testing and Commissioning of Suction & Liquid line Isolation valve for ODU's (1 Set per Outdoor unit).	RO	Sets	2281.24	
4.9	Supply, installation, testing and commissioning of refrigerant piping using eddy current free Copper pipes and fittings like elbows, couplers, tee joints, brass fittings, "U" loops, expansion loops etc. Insulation of pipes using 13 mm thick upto 19 mm Cu Pipe & 19 mm thick above 19 mm Cu pipe Nitrile rubber insulation with factory applied reinforced aluminium foil facing on oneside, material having class "O" for fire properties, structural clamps with hard PVC pipe sleeves under the clamps to protect insulation at supports, tagging to enable tracing connectivity to respective units as per shop drawings to be generated by contractor and approved by Client. (The Vertical copper pipe droppings shall be covered with additional protection by slit PVC tube or pipe). Supports consisting of Open GI Perforated cable tray & female anchor fasteners with full threaded GI rods, all external piping insulation shall have plyshield wrapping & run in 16g GI powder coated covered cable tray. Submission of test reports in approved format forms a part of this item scope. Making up of any leakages occurring during testing (600 PSI)/ commissioning / first calender year from handing over, including supply, labour, consumables, refrigerant, top up, oil top up and incidental expenses also forms a part of the scope covered under this item.				
4.9.1	6.35 with 13 mm thick insulation	40	Rmt	937.16	37,486.24
4.9.2	9.52 with 13 mm thick insulation	150	Rmt	1085.13	1,62,769.20
4.9.3	12.7 with 13 mm thick insulation	60	Rmt	1233.10	73,986.00
4.9.4	15.88 with 13 mm thick insulation	70	Rmt	1395.65	97,695.15
4.9.5	19.05 with 19 mm thick insulation	35	Rmt	1529.04	53,516.54
4.9.6	22.23 with 19 mm thick insulation	150	Rmt	1824.99	2,73,748.20
4.9.7	25.4 with 19 mm thick insulation	10	Rmt	2032.37	20,323.73
4.9.8	28.58 with 19 mm thick insulation	90	Rmt	2120.93	1,90,883.88
4.9.9	34.92 with 19 mm thick insulation	50	Rmt	2328.32	1,16,415.85
4.9.10	41.28 with 19 mm thick insulation	60	Rmt	2535.70	1,52,142.12
4.9.11	53.98 with 19 mm thick insulation	50	Rmt	2683.67	1,34,183.70
4.10	Powder coated Covered cable tray of necessary size made of 16G GI sheet with support to protect refrigerant piping with insulation at terrace, wherever exposed and in AHU Room.	150	Rmt	1196.11	1,79,416.05
4.11	Open GI Perforated cable tray of necessary size with supports for Internal copper piping located above false ceiling / in shafts	175	Rmt	1196.11	2,09,318.73
5	CONTROL CABLING				
	Supply, Installation, Testing and Commissioning of Communication Cabling with necessary PVC Conduit, (Suitably layed & tighed with PVC ties on copper piping cable trays to connect outdoor units with respective indoor units, AHU Control Kit & Communication cable between VRF ODU to BACNET Module).				
5.1	(2 Core x 1.5 sqmm Shielded)	800	Rmt	464.09	3,71,275.20
6	POWER CABLING				
	Supply, laying, testing and commissioning of 1100V grade, XLPE insulated FRLS outer sheathed unarmoured Aluminium / Copper conductor cable as per specifications. with end termination of heavy duty double end compression brass cable gland,tapping, crimping, etc. from VRF isolator panel (MCCB) to VRF unit. The cabling shall be layed and tightened with PVC ties on suitable supports, well supported at specific intervals.				
6.1	4 Core x 10 sqmm Copper	RO	Rmt		
6.2	4 Core x 16 sqmm Copper	50	Rmt	2068.25	1,03,412.25
6.3	4 Core x 25 sqmm Copper	20	Rmt	2295.81	45,916.16
7	100 Amps 4P MCCB, 16KA, ON / OFF / Trip indication lamp with weather proof (IP65) Metal enclosure. Fixed on wall or on required MS angle support with all its accessories as per specifications.	RO	Sets	64681.70	
8	63 Amps 4P MCCB, 16KA, ON / OFF / Trip indication lamp with weather proof (IP65) Metal enclosure. Fixed on wall or on required MS angle support with all its accessories as per specifications.	7	Sets	30233.37	2,11,633.59
9	40 Amps 4P MCCB, 16KA, ON / OFF / Trip indication lamp with weather proof (IP65) Metal enclosure. Fixed on wall or on required MS angle support with all its accessories as per specifications.	RO	Sets	23619.47	
10	EARTHING				
10.1	Supplying, laying and connecting of 1Run 6 Sq mm copper cable with required accessories like clamps, PVC insulators, PVC sleeves and bolts & nuts.	200	Rmt.	256.71	51,341.80

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SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
11	MS SUPPORT STRUCTURES				
11.1	Supply, Fabrication & installation of MS supports structure with one coat of epoxy paint over & above two coats of anti-corrosive red oxide paint.	500	Kgs	186.09	93,043.00
12	COMMISSIONING & VALIDATION OF VRF SYSTEM				
	Refrigerant Pipe Pressure Test (600 PSI) Report to be submitted				
	The Refrigerant pipe sizes & Qty have to be validated by the vendor to meet his Equipment specifications before quoting.				
	The pricing shall include for required cable trays, refrigerant Gas, Gas Charging, MS Stands for Indoor & Outdoor Units (Duly Painted) etc.				
	Checking and Recording of all the parameters as mentioned in technical specification. This to includes Electrical measures (Frequency, Power factor & Kw.), Hydronic flow measures, Pressures across heat exchangers (Air), Airflow measures, Motor RPM measures & Thermal measure.	1	Lot	1,40,125.00	140125
	Programming, Documentation, Simulation & Commissioning of VRF system .				
	100 / 63 Amps Isolator shall be provided for Each ODU any additional appropriate sizes MCCB required shall be in the scope of manufacturer / Vendor				
	Providing all documentation of DQ, IQ, OQ & PQ in approved formats.				
	NOTE-				
	Please refer the Tender Specification, VRF Schematic, VRF Copper piping routing drawing, Room data sheet, Zoning Diagrams & Air Flow Diagrams for further details. The units proposed has to be from one of the approved makes. Submittal Approval for the VRF & other BOQ is required before proceeding with manufacturing. Transportation, loading-Unloading and Shifting of VRF to the installation area by using crane/ manpower, any incidental charges has to be carried out by the HVAC contractor only.				
	This BOQ is to be read in conjunction with Tender Drawings for Further Details. Compliance to specification is a must and any deviation shall be brought to notice specifically during tendering and sought approval from Client / Consultant.				
	Size & type of unit shall be submitted with technical data sheet for approval before ordering the equipment.				
	VRF Vendor to coordinate with HVAC Contractor & HVAC Controls Contractor for the Timely execution of the Project Upholding the design intent and finish of this tender.				
	The Technical Submittal and GA Drawing has to be submitted for review and approval before placing of order.				
	TOTAL D- VRF WORKS				9917105
E	SCRUBBER WORK				
1	DRY SCRUBBER WITH ACTIVATED CARBON FILTER / CHEMICAL FILTER				
	Supply, Installation, Testing and Commissioning of Dry scrubber unit with EU-4 grade Primary Pre Filter & Secondary Activated Carbon / Chemical Filters housed in an Single skin Scrubber unit made of MOC 5 mm Thick Acid Proof PP, cabinet type & modular construction. Unit frame work shall have internally coved finish. The panels shall be of Single-skinned construction. All panels shall be sealed (anti fungicide sealant material) against the framework. The Panel shall be mounted flush with the frame members to create smooth surface inside and outside. Wheather Cowl / Rain Cowl to be considered for the Entire units length (The Unit shall be Located at the Terrace Floor).				

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SITC VALIDATION OF c-GMP COMPLIANT MAMMALIAN CELL LINE REPOSITORY ON TURNKEY BASIS AT NCCS JIDNYASA BUILDING, KOTHRUD, PUNE

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
	Dry Scrubber unit housing shall be complete with Inlet cutout with flange to mounting Volume control damper, Empty chamber with filter section for mounting Pre Filter & Secondary Activated Carbon Filters, The filter frame shall be of fully welded construction to avoid / eliminate any risk of leakage between filter mounting frame and unit casing. Empty Section on cleaner side shall be with Flanged air outlet for duct connection. Magnahelic gauge & accessories across Pre filter & Activated Carbon filter shall be Provided. Leak Proof Access door 'D' type / 'C' type shall be provided with Handle, Gasket & fastening arrangement. Complete Units shall be mounted on a supporting structure of height to suite blower centerline, suitably rated neoprene pads shall be provided along with the dry scrubber. Quoted Rate shall include for design & providing MS support as per requirement.				
	Details to be read as Scrubber No & Scrubber Capacity CFM.				
1.1	SCRUBBER TAG NO : SCB-1, CAPACITY : 400 to 600 CFM	1	No	2,59,600.00	2,59,600.00
2	CENTRIFUGAL EXHAUST BLOWER & ACCESSORIES				
	Supply, Installation, Testing & Commissioning of Single Inlet Single Width (SISW) PP Exhaust Blowers direct driven by IE 3 Motor with the following capacity. Drive Motor shall be suitably rated & VFD compatible (VFD in Electrical Tender), TEFC Foot mounted, 3 phase, 50 Hz, 415 Volts, IP 55, Protection Class F & Class B Temperature rise. The blower & motor assembly shall be suitable for outdoor application with necessary anti vibration cushy foot mounting, shall also include Inlet & outlet transparent flexible hose with fixing clamps on both ends, suitable clamp adapter, Radium Sticker for blower tag number, Electro galvanized pedestal motor stand and fasteners like bolts, nuts and washers, base frame, motor protection guard & accessories. Blower & Motor capacity shall be selected (Costed) with a safety of at least 10 % higher than rated capacity. Blower outlet velocity Not to Exceed 10 m/s. Please note the blower drive motor capacity has to be arrived on bases of actual SP loss calculation after the ducting layout is approved. The data provided is indicative & for the purpose of tender only.				
2.1	BLOWER TAG NO : EAB - 1 BLOWER CAPACITY : 400 CFM STATIC PRESSURE : 150 MM WG DRIVE MOTOR CAPACITY : 0.75 kW.	1	No	1,17,410.00	1,17,410.00
3	PP-FRP DUCTING WITH ACCESSORIES				
	Supply, Installation, Testing & Commissioning of PP-FRP / ducting with glass lined (GL) finish & PPH Pipes. FRP lining shall be of fire resistant Isophthalic resin. Duct pricing shall be inclusive of all necessary accessories like - Flanges, bends, entry branches, tapers, inspection door, 5mm thk Neoprene gasket shall be used in between each flange joints, GI bolt & nuts, washers, Duct Supports, hanger threaded rods with anchor bolts for fixing in roof / wall. Rate shall be inclusive of 2 coats of enamel painting for duct surface. Mode of measurement shall be in sq mtr, measured as circumference of duct outer surface x running length. Extra will not be paid for accessories such as flanges, bends, elbows, Y piece, branch off, reducer, entry doors, inspection doors, gaskets, Radium Sticker showing blower number, scrubber number, airflow directions & future provision on the duct surface etc. Maximum Length of Duct not to Exceed 2500 mm.				
2.1	Ducting Below 200 mm Dia - PPH Pipes	15	Sq Mts	3,894.00	58410
2.2	Ducting upto 500 mm Dia - wall thickness shall be 3 mm PP and 3 mm FRP	RO	Sq Mts	3,764.20	
	NOTE-				
	DUCT / PIPE sizes OF 180mm OD (166mm ID) & Below are of PN 4 / SDR 26 PP / PPH PIPES (FACTORY FABRICATED)				
	DUCT / PIPE sizes above 200mm OD (188mm ID) ARE OF PP MATERIAL WITH FRP (FABRICATED DUCTS)				
	Thickness of PP Flange for Duct shall be 2 times of the specified Duct Thickness with FRP coating over & above				
	Maximum Duct Velocity Not to Exceed 3000 FPM / 10 m/s.				
3	PP VOLUME CONTROL DAMPER				

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SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
3.1	Supply, Installation, Testing & Commissioning of PP Circular Volume control damper shall be as follows outer casing 3mm PP + 3mm FRP, flanges with 6mm PP + 3mm FRP, Disc of 8 mm PP, center shaft of 20 mm Dia PP with brass bush, lock & graduation arrangement with SS wing nut & blots for circular ducts. (Mode of Measurement = Cross sectional Area OR Internal face area of the damper).	1	Sq Mts	21,417.00	21417
	NOTE-Please refer the technical details for further details				
4	CONSTANT AIR VOLUME DAMPERS - CAV FOR EXHAUST AIR				
	Supply, Installation, Testing & Commissioning of Circular Constant Air Volume Dampers to control Exhaust Air volume. CAV shall be made out of Chlorine - Plastic body (M1 fire resistance classification) housing the silicone regulating membrane with Rotative ring for calibrated air passage with Stainless Steel regulation spring. Elastomer double lip-seal for airtight connection with duct. The details to be read as CAV No & Capacity. All CAV quoted shall be suitable for 20% Variation in Airflow.				
4.1	AIR VOLUME : 400 CFM (Range 100 to 500 CFM)	1	No	15,045.00	15045
5	DUCT SILENCER & INSULATION				
5.1	Supply, Installation, Testing & Commissioning of PP-FRP Duct Silencer with glass lined (GL) finish. FRP lining shall be of fire resistant Isophthalic resin. The silencer shall be made out of outer & inner layer PP FRP ducting the space between them shall be filled with Rock wool insulation. Internal duct of the silencer shall be perforated with suitable size holes (minimum 16 mm dia & pitch of 30 mm) the silencer shall be with both ends flanged. Duct pricing shall be inclusive of all necessary accessories like - Matching Flanges, inspection port & 2 coats of enamel painting for duct surface. Mode of measurement shall be in sq mtr, measured as circumference of duct outer surface x running length.	1	Sqmtr	33,099.00	33099
5.2	Design, Supply, Installation, Filling & Testing of Min 100 mm thick Rock wool insulation material of 96 Kg/M3 density , sandwiched between the external Plain PP sheet & internal Perforated PP sheets. Insulation shall be spread equal across the silencer to avoid any air pocket. RP Tissue Paper over & above Mineral Wool Insulation shall be considered.	1	Sqmtr	11,033.00	11033
	NOTE-				
	Refer Specification in the tender document for further details.				
	The blower outlet duct shall have a silencer to reduce the air noise.				
	The above mentioned details in the drawing is the minimum requirement for silencer, the vendor shall design the duct silencer to reduce the noise level & achieve 75 dB @ 1 mtr from the blower assembly.				
	The vendor shall provide Technical data sheets / Submittal with drawings showing necessary fixing details & drawings of supporting for consultant approval.				
5	COMMISSIONING & VALIDATION OF EXHAUST SYSTEM				
	Duct Smoke Test	1	Lot	1,59,300.00	159300
	Duct Leak Test				
	Velocity check with flow hood meter				
	Air Balancing readings to be taken for 72 Hours				
	Please refer the Tender Specification, Exhaust Summary Sheet & Tender Diagrams for further details. The units proposed has to be from one of the approved makes. Submittal Approval for the SCRUBBER / BLOWER is required before proceeding with manufacturing. Unloading and Shifting of WET SCRUBBER/EXHAUST BLOWER to the installation area has to be carried out by the Exhaust Vendor only.				
	This BOQ is to be read in conjunction with Tender Drawings for Further Details. Compliance to specification is a must and any deviation shall be brought to notice specifically during tendering and sought approval from Client / Consultant.				
	The Technical Submittal and GA Drawing has to be submitted for review and approval before placing of order.				

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SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
	Exhaust Vendor has to co-ordinate with HVAC Vendor, BMS Vendor & Other Vendor for the Timely execution of the Project Upholding the design intent and finish of this tender.				
	TOTAL E- SCRUBBER WORKS				675314
F	BMS & EMS WORKS				
1	SYSTEM SOFTWARE INTEGRATION				
1.1	Supply, Installation, Testing, Commissioning of Client Work Station : Operates on Microsoft Windows latest version, 16GB RAM, I7 Processor, min 2.8GHz, 500GB HDD, 24" LED monitor, Mouse, keyboard, DVD / CD writer, A3 B/W laser printers, Ethernet card & complete set.	1	Set	1,81,625.60	181626
1.2	BMS System Software : SOFTWARE: Web Based Graphical interface software based on MS Windows <u>10</u> 64 bit Enterprise / Professional version .The system should be accessible from anywhere on LAN or WAN or Ethernet without additional licenses supporting HTML5 technology. Software shall be capable of providing, alarm popups, trends, logs, slide scale demand limiting feature, event logs, Audit Trail, strong password implementation, 128bit SSL security & multi graph capability etc. The Communication protocol shall be one of the Industry Standard Open Protocols such as BACNet, LON etc. The software shall support unlimited users over remote access. Graphical User interface software based on MS Windows built upon the Niagara platform.	1	Set	4,98,892.20	498892
2	DDC CONTROLLERS				
2.1	Supply, Installation, Testing, Commissioning of DDC Controller : IP Based DDC Controller with IO module, the controller shall be NATIVE BACNET/IP based Building Controller (B-BC certified) complying to BACnet standard ISO 16484-5 protocol version 1.14 or latest. The controller shall be with 32 bit microprocessor, working in standalone or networkable mode, with real time clock and historical database & Peer to Peer Communication. The DDC's shall store programs and program parameters in non-volatile memory. DDC controller shall be housed in a suitable enclosure made out of 14/16 Swg MS CRCA sheet which is derusted, degreased, phosphated and passivated with angle iron skeleton or sheet folded construction. The panel to be dust and vermin proof type(IP-54) and with powder coated paint. The panel will have suitable mounting arrangement including mounting plate, power supply unit like stepdown/control transformer/SMPS, MCB & power socket, LED lamp with limit switch arrangement etc., Note: The controller shall be selected to cater to the I/O requirement given in the I/O list and control flow diagram.				
2.1.1	DDC PANEL-1 (GF-AHU-01,GF-EAU-1 & GF-AHU-02) :- AI-17, DI-22, AO-08, DO-19	1	Set	3,57,292.20	357292
2.1.2	DDC PANEL-2 (GF-AHU-03, GF-AHU-04 & GF-AHU-05) :- AI-24, DI-22, AO-05, DO-36	1	Set	3,99,017.00	399017
2.1.3	DDC PANEL-3 (FF-AHU-01,FF-EAU-1, FF-AHU-02, FF-AHU-03, FF-AHU-04 with SCB-01) :- AI-37, DI-36, AO-12, DO-50	1	Set	5,44,310.40	544310
3	FIELD DEVICES				
3.1	Supply, Installation, Testing, Commissioning of Duct Type Temperature Sensor with all duct mounting accessories. Range: 0 °C to 100 °C Sensing element: PT1000 Output: 0 - 10V / 4-20mA Accuracy: +/- 0.3°C full scale	9	Nos	10,171.60	91544
3.2	Supply, Installation, Testing, Commissioning of Duct Type Rh Transmitter with all duct mounting accessories. Range: 0% to 95% Rh Sensing element: capacitive sensor Output: 0 - 10V / 4-20mA Accuracy: For Rh: +/- 2% full scale	R.O	Nos	11,516.80	
3.3	Supply, Installation, Testing, Commissioning of Duct Type Temperature & Rh combo transmitter with all duct mounting accessories. (For AHU's Return air duct) Range: 0% to 95% Rh Sensing element: capacitive sensor Range: 0 °C to 100 °C Temp sensing element: PT1000 Output: 0 - 10V / 4-20mA Accuracy: For Temp: +/- 0.2°C For Rh: +/- 3% full scale	8	Nos	11,044.80	88358

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SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
3.4	Supply, Installation, Testing, Commissioning of Ambient temperature sensor with all duct mounting accessories. (For AHU's Fresh air side)	2	Nos	21,358.00	42716
3.5	Supply, Installation, Testing, Commissioning of Differential Pressure Switch with SS nozzles and all mounting accessories. Range: 0 -1000Pa Output: 0-10V / 4-20mA Accuracy: +/- 10Pa	12	Nos	6,513.60	78163
3.6	Supply, Installation, Testing, Commissioning of Duct type Static Pressure Transmitter with enclouser and including all the Fixing accessories. (For AHU's Supply air duct) Range: Field selectable ranges, 250, 500, 750, 1250 Pa Output: 0-10V / 4-20mA Accuracy: ±1%	8	Nos	16,071.60	128573
3.7	Actuators for ON/OFF Damper Supply, Installation, Testing, Commissioning of Fast actuator for ON/OFF Damper with Enclouser with 3sec for 90Degree operation. degree of protection IP54, Operating Voltage: AC 24 V, 50 Hz / DC 24 V.	2	Nos	20,744.40	41489
3.8	Actuators for Motorised Damper Supply, Installation, Testing, Commissioning of Motorised Modulating actuator and enclouser with with minimum torque of 8 Nm max. 95Deg Celcius (Adjustable from 33% in 5.5% steps with a supplied limit stop), degree of protection IP54, Humidity test to EN 60730-1, Ambient temp. range -30 to +50 deg celius. Operating Voltage: AC 24 V, 50 Hz / DC 24 V.	6	Nos	33,830.60	202984
4	CABLES & CONDUITS				
4.1	Supply, laying, end termination, Testing, Commissioning of following FRLS armoured Copper cables & conduits including end termination for below listed FRLS armoured ATC cable with copper lugs, compression Brass cable glands, tapping, crimping, ferruling etc., complete. The cable shall be laid in existing cable trays / existing pipe bridge. The cable shall be clamped at regular intervals to the supports on cable trays or brick wall using MS clamps, cable ties and fasteners etc.,				
4.1.1	2C X 1sqmm, ATC FRLS Armoured, twisted shielded multistrand Copper cable with end terminations using tinned copper lugs of crimping type.	2500	Mts	115.64	289100
4.1.2	4C X 1sqmm, ATC FRLS Armoured, twisted shielded multistrand Copper cable with end terminations using tinned copper lugs of crimping type.	1200	Mts	156.94	188328
4.1.3	2C X 1.5sqmm, ATC FRLS Armoured, twisted shielded multistrand Copper cable with end terminations using tinned copper lugs of crimping type.	RO	Mts	132.16	
4.1.4	Supplying and fixing of following sizes of 2mm thick medium class FRLS PVC conduit along with accessories like flexible pipes, junction boxes, collars, tees, bends, elbows, GI pull wires, clamps (Every 500mm distance), spacers, screws etc in surface/recess including cutting the wall and making good the same in case of recessed conduit as required, as per tender technical specification.				
4.1.4.1	25mm	300	Mts	154.18	46254
5	CABLE TRAY & SUPPORTS				
5.1	Supplying and installing of following size of perforated painted with powder coating M.S. cable trays with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with M.S. suspenders at every 1.2 mtr including bolts & nuts, painting suspenders etc as required. cable tray shall be different widths and delivered in standard lengths along with Coupler plates and requisite number of hardwires, at different levels along pipe rack/open area/ ready made cable trenches/civil wall, etc , Gas cutting of cable trays at site is not permitted. Cable tray shall be as per tender technical specifications.				
5.1.1	100 mm width X 50 mm depth X 1.6 mm thickness	20	Mtrs	577.37	11547
5.1.2	150 mm width X 50 mm depth X 1.6 mm thickness	20	Mtrs	642.23	12845
5.1.3	300 mm width X 50 mm depth X 1.6 mm thickness	45	Mtrs	826.18	37178

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SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
5.2	Supplying and installing following size of perforated painted with powder coating M.S. cable trays Bends with perforation not more than 17.5%, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc as required. Cable tray Bends shall be different widths and delivered in standard size and requisite number of hardwires, at different levels along pipe rack/open area/ ready made cable trenches/civil wall, etc , Gas cutting is not permitted at site. Cable tray Bends shall be as per tender technical specifications.				
5.2.1	100 mm width X 50 mm depth X 1.6 mm thickness	RO	Each	922.94	
5.2.2	150 mm width X 50 mm depth X 1.6 mm thickness	2	Each	1,082.44	2165
5.2.3	300 mm width X 50 mm depth X 1.6 mm thickness	RO	Each	1,529.03	
5.3	Supplying and installing following size of perforated painted with powder coating M.S. cable trays Tee with perforation not more than 17.5%, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc as required. Cable tray Tees shall be different widths and delivered in standard size and requisite number of hardwires, at different levels along pipe rack/open area/ ready made cable trenches/civil wall, etc , Gas cutting is not permitted at site. Cable tray Tees shall be as per tender technical specifications.				
5.3.1	100 mm width X 50 mm depth X 1.6 mm thickness	RO	Each	1,066.49	
5.3.2	150 mm width X 50 mm depth X 1.6 mm thickness	4	Each	1,261.07	5044
5.3.3	300 mm width X 50 mm depth X 1.6 mm thickness	9	Each	1,816.12	16345
5.4	Supplying and installing following size of perforated painted with powder coating M.S. cable trays Cross Member with perforation not more than 17.5%, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc as required. Cable tray Cross Member shall be different widths and delivered in standard size and requisite number of hardwires, at different levels along pipe rack/open area/ ready made cable trenches/civil wall, etc , Gas cutting is not permitted at site. Cable tray Cross Members shall be as per tender technical specifications.				
5.4.1	100 mm width X 50 mm depth X 1.6 mm thickness	RO	Each	1,211.10	
5.4.2	150 mm width X 50 mm depth X 1.6 mm thickness	RO	Each	1,441.83	
5.4.3	300 mm width X 50 mm depth X 1.6 mm thickness	RO	Each	2,104.27	
5.5	Supplying and installing following size of perforated painted with powder coating M.S. cable trays Reducer with perforation not more than 17.5%, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc as required. Cable tray Reducer shall be different widths and delivered in standard size and requisite number of hardwires, at different levels along pipe rack/open area/ ready made cable trenches/civil wall, etc , Gas cutting is not permitted at site. Cable tray Reducer shall be as per tender technical specifications.				
5.5.1	100 mm width X 50 mm depth X 1.6 mm thickness	16	Each	1,066.49	17064
5.5.2	150 mm width X 50 mm depth X 1.6 mm thickness	4	Each	1,261.07	5044
5.5.3	300 mm width X 50 mm depth X 1.6 mm thickness	RO	Each	1,826.75	
5.1.4	Supply, Installation of Support structural steel in form of MS angle with 1 coat of red oxide & 2 coat of brush paint, channels & flats etc.	100	Kgs	206.50	20650
6	LOCAL DISPLAY UNIT:				
6.1	Supply, Installation, Testing, Commissioning of Standalone type 2-Row Bright LED Display unit and shall display the room Temperature & Rh sensor. The display unit shall have inbuilt controller to accept the signal. The Display unit shall have inbuilt local alarm with Acknowledgement button, in case room parameter goes beyond its set point should give alarm signal. The Display unit shall have SS Front cover & all required accessories to fix it on Clean room panel(Metal panel) with cancelled box. Display : 7 Segment 0.8" (20.3mm) Red LED display Supply voltage : 24VDC or 85 - 265 VAC SMPS supply Power consumption : 4 watts maximum Set point : %RH 0-100%, Temperature -40°C - 90°C. Accuracy for Integral sensor : %RH ± 2%RH, Temperature ± 0.3°C	18	Nos	18,998.00	341964

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SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
6.2	Supply, Installation, Testing, Commissioning of Standalone type 1-Row Bright LED Display unit shall display the room Differential pressure sensor. The display unit shall have inbuilt controller to accept the signal. The Display unit shall have inbuilt local alarm with Acknowledgement button, in case room parameter goes beyond its set point should give alarm signal. The Display unit shall have SS Front cover & all required accessories to fix it on Clean room panel(Metal panel). Display : 7 Segment 0.8" (20.3mm) Red LED display Supply voltage : 24VDC or 85 - 265 VAC SMPS supply Power consumption : 4 watts maximum Set point : Temperature -40°C - 90°C,Differential pressure 0-1000Pa. Accuracy for Integral sensor : %RH ± 2%RH, Temperature ± 0.3°C	18	Nos	18,998.00	341964
6.3	Supply, Installation, Testing, Commissioning of powder coated encloser with Power distribution unit with SMPS for local display unit with all necessary mounting accessories (Single PDU shall be of 20 channel to connect local display unit in one loop). Supply voltage : 240V AC Output voltage : 24V DC	2	Nos	19,080.60	38161
7	FIELD DEVICES (FOR LOCAL DISPLAY UNIT)				
7.1	Supply, Installation, Testing, Commissioning of Room Type Temperature & Rh combo Transmitter with all mounting accessories to fix it. Sensor enclosure shall be made of SS only. Range: 0% to 95% Rh Sensing element: capacitive sensor Temp sensing element: PT1000 Accuracy: For Temp:±/ 0.3°C For Rh:±/ 2% full scale	18	Nos	7,882.40	141883
7.2	Supply, Installation, Testing, Commissioning of Room Type Temperature with all mounting accessories to fix it. Sensor enclosure shall be made of SS only. Range: 0% to 95% Rh Sensing element: capacitive sensor Temp sensing element: PT1000 Accuracy: For Temp:±/ 0.3°C For Rh:±/ 2% full scale	R.O	Nos	9,735.00	
7.3	Supply, Installation, Testing, Commissioning of Room type Differential pressure Transmitter with powder coated enclosure, SS Nozzle which shall fix on the false ceiling with all mounting accessories to fix it.	18	Nos	6,832.20	122980
7.4	Supply, laying, Testing, Commissioning of Festo Pressure Tubing and PVC flexible conduit for Differential Pressure, The rate shall including the all fixing accessories to fix it.	250	Mts	507.40	126850
8	CABLES & CONDUIT (FOR LOCAL DISPLAY UNIT)				
8.1	Supply, laying, end termination, Testing, Commissioning of following FRLS armoured Copper cables & conduits including end termination for below listed FRLS armoured ATC cable with copper lugs, compression Brass cable glands, tapping, crimping,ferruling etc., complete. The cable shall be laid in existing cable trays / existing pipe bridge. The cable shall be clamped at regular intervals to the supports on cable trays or brick wall using MS clamps, cable ties and fasteners etc.,				
8.1.1	2C X 1sqmm, ATC FRLS Armoured,twisted sheilded multistrand Copper cable with end terminations using tinned copper lugs of crimping type. (From DP to Display)	150	Mts	115.64	17346
8.1.2	4C X 1sqmm, ATC FRLS Armoured,twisted sheilded multistrand Copper cable with end terminations using tinned copper lugs of crimping type. (From Rh, Temp to Display)	150	Mts	156.94	23541
8.1.3	3C X 1.5sqmm, ATC FRLS Armoured,twisted sheilded multistrand Copper cable with end terminations using tinned copper lugs of crimping type.(From PDU to Display)	200	Mts	165.20	33040
8.1.4	25mm dia, 2mm thick medium class FRLS PVC conduit along with accessories like flexible pipes, junction boxes, collars, tees, bends, elbows, GI pull wires, clamps (Every 500mm distance), spacers, screws etc in surface/recess including cutting the wall and making good the same in case of recessed conduit as required.	300	Mts	89.68	26904
	TOTAL E- BMS WORKS				4521161.89
	NOTE-				

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SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
	Services shall include the following, 1. Engineering and Documentation shall includes the developing shop drawings,IO summary list, Technical submittal for approval, DQ, IQ, OQ, As built drawing And Handing over documents with test certificates. 2. Site Calibration certificate of all above sensors.				
	This BOQ is to be read in conjunction with HVAC Controls Specification for Further Details. Compliance to specification is a must and any deviation shall be brought to notice specifically during tendering and sought approval from Client.				
	The Technical Submittal and GA Drawing has to be submitted for review and approval before placing of order.				
	The BMS contractor has to coordinate with AHU/FAS / Utility rquipment / Electrical Vendor for Commissioning of the HVAC Controls system .				
	LAN points for DDC panels shall be in Networking vendor scope.				
	VFD for AHU's shall be Electrical vendor scope.				
	The BMS Contractor has to coordinate with Electrical Panel Maufacture/Electrical Contractor for VFD integration.				
	While estimating rates W.R.T makes ensure that the prices for alternatives are correctly considered.				
	We reserve the right to insist on any make in the alternatives mentioned. It is deemed that rates quoted are for any of the alternatives mentioned for each item.				
	Any other makes not mentioned in the accepted make may be considered with prior technical discussion.				
	Proper material submittal should be made for all items & approvals sought before ordering the material.				
	Preparation of Shop drawings/ Execution drawings with section details is in vendor scope only. Consultant will provide the basic drawings. Contractor has to develop drawing for execution with sizing, support structure & submit the same for approval.				
	As built drawings, training to the client and handover documents like technical submittals, operating and maintenance manual, Training to clients shall be provided by Contractor on completion of project for certification by consultant.				
	Transportation, loading-Unloading and Shifting of VRF to the installation area by using crane/ manpower has to be carried out by the contractor only.				
G	FIRE ALARM SYSTEM				
1	Supplying, installation, testing and commissioning of micro processor based intelligent addressable main fire alarm panel, central processing unit with the following loop modules and capable of supporting not less than 240 devices (including detectors) and minimum 120 detectors per loop and loop length up to 2 km, network communication card, minimum 320 character graphics / LCD display with touch screen or other keypad and minimum 4000 events history log in the non volatile memory (EPROM), power supply unit (230 ± 5 % V, 50 hz), 48 hrs back – up with 24 volt sealed maintenance free batteries with automatic charger. The panel shall have facility to connect printer to printout log and facility to have seamless integration with analog/digital voice evacuation system and shall be complete with all accessories. The panel shall be compatible for IBMS system with open protocol BAC net / Modbus over IP complete as per specifications. Rate shall include integration with other services like Access control system, Door interlocking system,BMS. etc., FACP and detectors shall be UL listed & FM approved. The quoted rate shall include supply of necessary software and hardware for programming the panel with all necessary license.				
2	Two Loop Panel.	1	No	484369.30	484369.30
3	Supplying, installation, testing and commissioning of intelligent analog addressable photothermal smoke detector complete with mounting base complete as required. Rate shall include the detector with standard base and RED MS painted junction box and single compression brass gland. The detector shall be with LEDs for viewing and shall blink every time the detector is addressed, and illuminate steady red on alarm with labelling.	79	Nos	3038.91	240074.00

PART II: BILL OF QUANTITY

SITC VALIDATION OF c-GMP COMPLIANT MAMMALIAN CELL LINE REPOSITORY ON TURNKEY BASIS AT NCCS JIDNYASA BUILDING, KOTHRUD, PUNE

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
4	Supplying, installation, testing and commissioning of response indicator on surface / recessed MS Box having two LED, metallic cover complete with all connections etc as required.	28	Nos	293.47	8217.18
5	Supply, Installation, Testing & Commissioning of Fault isolator module capable of monitoring shorted loop circuit and automatically restore communications when shorted conditions are corrected with standard base and RED MS painted junction box and single compression brass gland.	10	Nos	3476.99	34769.91
6	Supplying, installation, testing & commissioning of intelligent addressable thermal detector with rate of rise cum fixed temperature thermistor complete with base as required. Rate shall include the detector with standard base and RED MS painted junction box and single compression brass gland. The detector shall be with LEDs for viewing and shall blink every time the detector is addressed, and illuminate steady red on alarm with labelling.	5	Nos	2898.56	14492.78
7	Supply installation Testing & commissioning of Addressable fire Control Modules in suitable box . If required Shall be complete with Relay for Tripping of Third Party Equipments like dampers AHU's etc.,	14	Nos	3473.80	48633.22
8	Supplying, installation, testing & commissioning of intelligent addressable duct detector including suitable Photo detector complete with base as required. with sampling tube of design and dimensions as recommended by the manufacturer for the specific duct size and installation conditions where applied. Duct housing shall include relay or relay driver. This auxiliary relay output shall be fully programmable independent of the sensor head for activation by other alarm initiating devices within the fire alarm system with labelling.	11	Nos	8308.63	91394.89
9	Supply,Installation,Testing & Commissioning of Intelligent Addressable Manual Pull Stations / Manual Call Points suitable for wall/column/clean room wall panel mounting. MCP shall have red coloured housing with moulded, raised-letter operating instructions of contrast colour. The MCP shall latch mechanically upon operation and shall remain so until manually reset with its key by an authorized operator with labelling.	11	Nos	4116.03	45276.38
10	Supply,Installation,Testing & Commissioning of Addressable horn cum strobe with control module. Hooter with Strobe unit shall sit directly on addressable NAC (Notification Appliance Circuit) of FACP, fully supervised and powered from FACP. The hooter cum Strobe unit shall deliver output up to 94 dB at 3m from its installed location. No external 3rd party power supply shall be permitted.	8	Nos	3727.93	29823.44
11	Supplying & laying of 2 x 1.5 sqmm fire alarm armoured cable, 600 / 1000V rated with RED color annealed copper conductor having XLPE insulation, steel wire armouring & FRLS outer sheath complete as required for Fire Alarm Loop, Power, Signalling cable.Rate shall include end terminations using tinned copper lugs of crimping type.	1000	Rmt	183.95	183950.90
12	Supplying and fixing of following sizes of 2mm thick medium class FRLS PVC conduit along with accessories like flexible pipes, junction boxes, collars, tees, bends, elbows, GI pull wires, clamps (Every 500mm distance), spacers, screws etc in surface/recess including cutting the wall and making good the same in case of recessed conduit as required, as per tender technical specification.				
12.1	25mm dia.	150	Rmt	154.18	23126.78
13	Supply, Installation, Testing & Commissioning of Intelligent Addressable Multi-Sensor (Optical Smoke + Heat) detector with base. Fixed temp detection element shall also have atleast two selectable settings. Multi-sensor detector shall have a configuration mode that gives separate alarms for smoke detection and heat detection and also combined one evaluated alarm. low-profile detector with standard base and MS painted (RED) junction box and brass gland. The detector shall be with Visible LEDs for viewing and shall blink every time the detector is addressed, and illuminate steady red on alarm.	12	Nos	4535.92	54431.04
14	Supply, Installation, Testing & Commissioning of Addressable Monitor module with MS Powder coated Housing and mounting accessories for monitoring the field devices like door status or Status/Position information from the 3rd party devices etc.	20	Nos	3430.26	68605.20
15	Supply, Installation, Testing & Commissioning of Battery operated door controller (Scare alarm) shall have local buzzer, acknowledgment button, door position sensor for Emergency doors. The rate shall including the battery charger and mounting accessories.	3	Nos	6608.00	19824.00

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SITC VALIDATION OF c-GMP COMPLIANT MAMMALIAN CELL LINE REPOSITORY ON TURNKEY BASIS AT NCCS JIDNYASA BUILDING, KOTHRUD, PUNE

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
	TOTAL G- FIRE ALARM SYSTEM				1346989
	NOTE:				
	All the supply item installation including proper supports, wall chipping, all the false ceiling cutting, supporting from ceiling is ELV vendor scope as per site condition.				
	Preparation of Shop drawings/ Execution drawings with section details is in vendor scope only. Consultant will provide the basic drawings. Contractor has to develop drawing for execution with sizing, support structure & submit the same for approval.				
	Main UPS power supply for all the panels wherever it is required will be in electrical vendor scope.				
	All supply item & installation works should comply local & international fire standards.				
	The Technical Submittal, GA Drawing & loop Zoning layout has to be submitted for review and approval before placing of order.				
	As built drawings and handover documents shall be provided by LV system contractor on completion of project for certification by consultant & training to the client				
	Transportation, loading-Unloading and Shifting of VRF to the installation area by using crane/ manpower has to be carried out by the contractor only.				
H	ACCESS CONTROL READER PANELS & ACCESSORIES:				
1.1	Supply, Installation, Testing & Commissioning of IP Based Access door Controller, can read 8 reader door controller, housed inside the powder coated panel(key lockable type).The access controller shall integrate with the door interlocking system, Fire alarm System Power supply unit, and required all necessary mounting accessories to fix it on civil wall, gypsum partition, labeling work Etc.	2	Nos	60,770.00	121540
1.2	Supply, Installation, Testing & Commissioning of Proximity Card Reader with indicating LED, mounting base and all other mounting accessories complete as required, labeling work.	11	Nos	3,162.40	34786
1.3	Supply, Installation, Testing & Commissioning of single Leaf 600lbs Electro magnetic locks with required mounting accessories like ZL Bracket of suitable size for mounting on door frame and any other accessories to make the system complete.	10	Nos	6,560.80	65608
1.4	Supply, Installation, Testing & Commissioning of Heavy duty Magnetic contacts (Door position sensor) , with required mounting accessories to fix it permanently.	10	Nos	873.20	8732
1.5	Supply, Installation, Testing & Commissioning of Resettable Emergency door release push button with SS front plate& indicate to the access controller when it is operated	10	Nos	1,274.40	12744
1.6	Supply, Installation, Testing & Commissioning of Exit Pushbutton with SS front plate, The rate shall including the mounting accessories in the clean room panel, civil wall, Gypsum partion etc.	9	Nos	885.00	7965
2	CABLE TRAY & SUPPORTS:				
2.1	Supplying and installing of following size of perforated painted with powder coating M.S. cable trays with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with M.S. suspenders at every 1.2 mtr including bolts & nuts, painting suspenders etc as required. cable tray shall be different widths and delivered in standard lengths along with Coupler plates and requisite number of hardwires, at different levels along pipe rack/open area/ ready made cable trenches/civil wall, etc , Gas cutting of cable trays at site is not permitted. Cable tray shall be as per tender technical specifications.				
2.1.1	100 mm width X 50 mm depth X 1.6 mm thickness	25	Mtrs	577.37	14434
2.1.2	150 mm width X 50 mm depth X 1.6 mm thickness	10	Mtrs	642.23	6422
2.1.3	200 mm width X 50 mm depth X 1.6 mm thickness	10	Mtrs	732.61	7326
2.1.4	300 mm width X 50 mm depth X 1.6 mm thickness	10	Mtrs	826.18	8262
2.1.5	50 mm width X 35 mm depth X 1.6 mm thickness	33	Mtrs	548.70	18107

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SITC VALIDATION OF c-GMP COMPLIANT MAMMALIAN CELL LINE REPOSITORY ON TURNKEY BASIS AT NCCS JIDNYASA BUILDING, KOTHRUD, PUNE

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
2.2	Supplying and installing following size of perforated painted with powder coating M.S. cable trays Bends with perforation not more than 17.5%, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc as required. Cable tray Bends shall be different widths and delivered in standard size and requisite number of hardwires, at different levels along pipe rack/open area/ ready made cable trenches/civil wall, etc , Gas cutting is not permitted at site. Cable tray Bends shall be as per tender technical specifications.				
2.2.1	100 mm width X 50 mm depth X 1.6 mm thickness	1	Each	922.94	923
2.2.2	150 mm width X 50 mm depth X 1.6 mm thickness	RO	Each	1,082.44	
2.2.3	200 mm width X 50 mm depth X 1.6 mm thickness	1	Each	1,304.67	1305
2.2.4	300 mm width X 50 mm depth X 1.6 mm thickness	RO	Each	1,529.03	
2.2.5	50 mm width X 35 mm depth X 1.6 mm thickness	3	Each	548.70	1646
2.3	Supplying and installing following size of perforated painted with powder coating M.S. cable trays Tee with perforation not more than 17.5%, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc as required. Cable tray Tees shall be different widths and delivered in standard size and requisite number of hardwires, at different levels along pipe rack/open area/ ready made cable trenches/civil wall, etc , Gas cutting is not permitted at site. Cable tray Tees shall be as per tender technical specifications.				
2.3.1	100 mm width X 50 mm depth X 1.6 mm thickness	1	Each	1,066.49	1066
2.3.2	150 mm width X 50 mm depth X 1.6 mm thickness	RO	Each	1,261.07	
2.3.3	225 mm width X 50 mm depth X 1.6 mm thickness	3	Each	1,537.53	4613
2.3.4	300 mm width X 50 mm depth X 1.6 mm thickness	RO	Each	1,816.12	
2.4	Supplying and installing following size of perforated painted with powder coating M.S. cable trays Reducer with perforation not more than 17.5%, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc as required. Cable tray Reducer shall be different widths and delivered in standard size and requisite number of hardwires, at different levels along pipe rack/open area/ ready made cable trenches/civil wall, etc , Gas cutting is not permitted at site. Cable tray Reducer shall be as per tender technical specifications.				
2.4.1	100 mm width X 50 mm depth X 1.6 mm thickness	2	Each	1,066.49	2133
2.4.2	150 mm width X 50 mm depth X 1.6 mm thickness	1	Each	1,261.07	1261
2.4.3	225 mm width X 50 mm depth X 1.6 mm thickness	1	Each	1,548.16	1548
2.4.4	300 mm width X 50 mm depth X 1.6 mm thickness	RO	Each	1,826.75	
2.4.5	50 mm width X 35 mm depth X 1.6 mm thickness	6	Each	607.70	3646
2.5	Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray (Galvanisation thickness not less than 50 microns) with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with G.I. suspenders at every 1.2 mtr including bolts & nuts, etc as required. Cable tray shall be different widths and delivered in standard lengths along with Coupler plates and requisite number of hardwires, at different levels along pipe rack/open area/ ready made cable trenches/civil wall, etc , Gas cutting of cable trays at site is not permitted. Cable tray shall be as per tender technical specifications.				
2.5.1	225 mm width X 50 mm depth X 1.6 mm thickness	10	Mtrs	951.65	9517
2.6	Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray "bends"(Galvanisation not less than 50 microns) with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with G.I. suspenders including G.I. bolts & nuts, etc as required. Cable tray Bends shall be different widths and delivered in standard size and requisite number of hardwires, at different levels along pipe rack/open area/ ready made cable trenches/civil wall, etc , Gas cutting is not permitted at site. Cable tray Bends shall be as per tender technical specifications.				
2.6.1	225 mm width X 50 mm depth X 1.6 mm thickness	2	Each	1,801.23	3602
2.7	Supply, Installation of Support structural steel in form of MS angle with 1 coat of red oxide & 2 coat of brush paint, channels & flats etc.	30	Kgs	188.80	5664
3	CABLES & CONDUITS:				

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SITC VALIDATION OF c-GMP COMPLIANT MAMMALIAN CELL LINE REPOSITORY ON TURNKEY BASIS AT NCCS JIDNYASA BUILDING, KOTHRUD, PUNE

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
	Supply, laying,end termination, Testing, Commissioning of following FRLS armoured Copper cables & conduits including end termination for below listed FRLS armoured ATC cable with copper lugs, compression Brass cable glands, tapping, crimping,ferruling etc. complete, The cable shall be laid in existing cable trays / existing pipe bridge. The cable shall be clamped at regular intervals to the supports on cable trays or brick wall using MS clamps, cable ties and fasteners etc.				
3.1	8C X 1sqmm, ATC FRLS Armoured,twisted sheilded multistrand Copper cable with end terminations using tinned copper lugs of crimping type.(For card readers & emergency door release)	220	Mtrs	252.52	55554
3.2	4C X 1sqmm ATC FRLS Armoured,twisted sheilded multistrand Copper cable with end terminations using tinned copper lugs of crimping type.(For EM Locks)	650	Mtrs	158.12	102778
3.3	Supplying and fixing of following sizes of 2mm thick medium class FRLS PVC conduit along with accessories like flexible pipes, junction boxes, collars, tees, bends, elbows, GI pull wires, clamps (Every 500mm distance), spacers, screws etc in surface/recess including cutting the wall and making good the same in case of recessed conduit as required, as per tender technical specification.				
3.3.1	25mm dia.	450	Rmt	154.18	69380
	TOTAL H- ACCESS CONTROL				570564
	NOTE-				
	All the supply item installation including proper supports, wall chipping, boaring, all the false ceiling cutting, supporting from ceiling is ELV vender scope as per site condition.				
	Preparation of Shop drawings/ Execution drawings with section details is in vendor scope only. Consultant will provide the basic drawings. Contractor has to develop drawing for execution with sizing, support structure & submit the same for approval.				
	Main UPS power supply for all the panels wherever it is required will be in electrical vendor scope.				
	LAN point & CAT-6 cable for ACS panel, computer port switch shall be provided by Networking vendor scope.				
	The Technical Submittal, GA Drawing layout has to be submitted for review and approval before placing of order.				
	As built drawings, handover documents like technical submittals, operating and maintenance manual, Training to clients shall be provided by Contractor on completion of project for certification by				
	Transportation, loading-Unloading and Shifting of EQUIPMENT/ MATERIALS to the installation area by using crane/ manpower has to be carried out by the contractor only.				
I	DOOR INTERLOCKING SYSTEM ACCESSORIES:				
1.1	Supply, Installation, Testing & Commissioning of Microprocessor based 2 door interlock system housed inside the powder coated panel. Microprocessor based Controller with 12 V DC, Suitable Amps SMPS Power Supply unit and shall recieve the signal from fire module to deactivate the door during emegency & The rate shall including the mounting accessories to fix it on the civil wall, gypsum partition, rate shall include integration with Fire alarm system and Access control system, labelling work etc.	7	Sets	16,014.96	112105
1.2	Supply, Installation, Testing & Commissioning of Microprocessor based 3 door interlock system housed inside the powder coated panel. Microprocessor based Controller with 12 V DC, Suitable Amps SMPS Power Supply unit and shall recieve the signal from fire module to deactivate the door during emegency & The rate shall including the mounting accessories to fix it on the civil wall, gypsum partition, rate shall include integration with Fire alarm system and Access control system, labelling work etc.	4	Sets	22,185.18	88741
1.3	Supply, Installation, Testing & Commissioning of single Leaf 600lbs Electro magnetic locks and Door Position Sensor with required mounting accessories like ZL Bracket of suitable size for mounting on door frame and any other accessories to make the system complete.	29	Nos	6,033.34	174967
1.4	Supply, Installation, Testing & Commissioning of Heavy duty Magnetic contacts, with required mounting accessories to fix it permanently.	29	Nos	1,557.60	45170
1.5	Supply, Installation, Testing & Commissioning of No touch Egress switch with SS front plate to Entry/exit with GI backbox & all mounting accessories required.	56	Nos	2,351.74	131697

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SITC VALIDATION OF c-GMP COMPLIANT MAMMALIAN CELL LINE REPOSITORY ON TURNKEY BASIS AT NCCS JIDNYASA BUILDING, KOTHRUD, PUNE

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
1.6	Supply, Installation, Testing & Commissioning of Resettable Emergency door release push button with SS front plate& indicate to the access controller when it is operated	27	Nos	1,298.00	35046
1.7	Supply, Installation, Testing & Commissioning of Control module for Integrating the DIS with ACS	1	Sets	4,211.42	4211
2	CABLES & CONDUITS:				
2.1	Supply, laying,end termination, Testing, Commissioning of following FRLS armoured Copper cables & conduits including end termination for below listed FRLS armoured ATC cable with copper lugs, compression Brass cable glands, tapping, crimping,ferruling etc. complete, The cable shall be laid in existing cable trays / existing pipe bridge. The cable shall be clamped at regular intervals to the supports on cable trays or brick wall using MS clamps, cable ties and fasteners etc.				
2.1.1	8C X 1sqmm ATC FRLS Armoured,twisted sheilded multistrand Copper cable with end terminations using tinned copper lugs of crimping type for Egress switches	550	Mtr	254.88	140184
2.1.2	4C x 1 Sq.mm ATC FRLS Armoured,twisted sheilded multistrand Copper cable with end terminations using tinned copper lugs of crimping type for EM-lock.	1100	Mtr	155.76	171336
	TOTAL DOOR INTERLOCK (I)				903458
J	CCTV SYSTEM SOFTWARE INTEGRATION:				
1.1	Supply, Installation, Testing & Commissioning of, 32" LED monitor with Full HD 1080p resolution.	1	Set	36875	36875
1.2	Supply, Installation, Testing & Commissioning of 16 channel DVR with 30days storage capacity hard disk, SMPS (suitable DVR & CCTV, 230V AC to 12/24V DC/AC) etc. Note:- Hard disk calculation sheet to be submitted before procurement	1	Sets	63,165.40	63165
1.3	Supply,installation, testing & commisioning of UL certified cabinet 6U Closed Rack(for DVR placement) floor mounting type and Racks configuration will be welded frame with vented top cover with fan mounting provision, Associated Front Glass with Lock & Key, 1phase 230V, Rack mount Power Distribution Unit with 4nos of 6/13A universal power socket with plug controlled by 20A DP MCB horizontal type.The rate includes the complete set like cooling fans, cable manager etc. (HUB room)	1	Nos	12,390.00	12390
2	CCTV CAMERAS:				
2.1	Supply, Installation, Testing & Commissioning of Network based 2MP IR Indoor Dome type Fixed Camera 1/2.7 inch Progressive Scan CMOS, 2592 × 1944 at 25fps, 2.8 mm Fixed lens, 0.003 Lux at F1.4, 0 Lux with IR on, ICR, ONVIF (PROFILE S, PROFILE G, PROFILE T), support H.265, H.264, MJPEG, 120db WDR (Wide Dynamic Range), 3D Digital Noise Reduction, BLC (Backlight Compensation), HLC (Highlight Compensation), Three individually configurable stream, 12 VDC & PoE, IR range: 20m, Support on-board storage up to 256 GB, IP67, IK10, UL, CE, FCC certified. Rate shall include SD card and camera mounting accessories on civil wall.	12	Nos	10,407.60	124891
2.2	Supply, Installation, Testing & Commissioning of Network based 2MP 360deg Vari-Focal Indoor Fish eye type camera , Camera Image sensor 1/3.2" progressive scan RGB CMOS Lens M12 mount, F2.8, Fixed iris, Megapixel resolution 1.3 mm Horizontal angle of view: 187° Vertical angle of view: 168° Light sensitivity 0.6-200000 lux, F2.8 Shutter time 1/24000 s to 2 s.	RO	Nos	70,115.60	
2.3	Supply, Installation, Testing & Commissioning of Network based 2 MP Vari-Focal outdoor Box type Bullet camera with 1/2.8 Progressive scan cmos, 3mp real time, upto 25 fps frame area , slow shutter wdr, 3D Digital Noise Reduction, support 64G on board storage, DC12V/POE, lens : 2.8~12mm, video compression : H.264, video bit rate : 32kbps-8mbps, audio bit rate : 64 kbps , max resolution : 1920 x 1080, frame rate : 50Hz:25fps & 60Hz:30fps, image enhancement:BLC/3D Digital Noise Reduction, image setting : rotate mode, saturation, brightness, contrast, sharpness, Video output : 1vp-p composite output, on board storage : built in micro SD / Sdhc / Sdxc slot, upto 64 GB.	2	Nos	26,845.00	53690
	TOTAL J- CCTV SYSTEM				291012
1	OXYGEN DEPLETION GAS DETECTORS				

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SITC VALIDATION OF c-GMP COMPLIANT MAMMALIAN CELL LINE REPOSITORY ON TURNKEY BASIS AT NCCS JIDNYASA BUILDING, KOTHRUD, PUNE

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
1.1	Supply, Testing, Commissioning of Standalone Electro chemical based OXYGEN DEPLETION GAS DETECTOR with Display & inbuilt hooter. Gas Detectors For 0-25% of volume, Alarm set point will be, Falling - 19.5%, Raising - 23.5% as per the industry stand 4-20mA output. ATEX/IECEX approved Material : Housing Epoxy painted Aluminum alloy LM25 Certification : ATEX/IECEX/CSA IP Rating : IP66 Power supply : 24VDC Output signal : RS485 / 4-20mA Operating power : 18~31 VDC (24V DC normal) Operating Temperature : -20°C to +60°C Humidity : 0% to 99% Rh Accuracy : ±3% / Full scale	2	Nos	48,179.40	96359
	TOTAL K-GAS DETECTOR SYSTEM				96359
	NOTE:				
	Required Power socket shall be provided by electrical contractor (Vendor has to co ordinate with electrical vendor at site.				
	Main UPS power supply for all the panels wherever it is required will be in electrical vendor scope.				
	The Technical Submittal, GA Drawing & layout has to be submitted for review and approval before placing of order to OEM vendor / Manufacturer.				
	Preparation of Shop drawings/ Execution drawings with section details is in GDS vendor scope only. Consultant will provide the basic drawings. GDS contractor has to develop drawing for execution with sizing, support structure (From wall or ceiling) & submit the same for approval.				
	As built drawings and handover documents shall be provided by GDS contractor on completion of project for certification by consultant.				
	Transportation, loading-Unloading and Shifting of equipment to the installation area by using crane/ manpower has to be carried out by the contractor only.				
L	GAS BANK CHANGEOVER SYSTEM				
1.1	Supply, installation GAS BANK CHANGEOVER PANEL at ground floor level, Testing, Commissioning of Networkable Controller (IP based) with I/O configurator to monitor 2 gas banks and have a display/sounder annunciation panel on the Ground floor. These 2 gas banks are of 1 gases. The controller have inbuilt Real time clock ,Historical database & capable of standalone operations, upto 10numbers 4-20mA relay outputs, terminal blocks, 5A SMPS AC 240V to 32/12V DC conversion with all wiring & accessories. The Panel and cubicle type made out of 14/16 SWG MS CRCA sheet which is derusted, degreased, phosphated and passivated with angle iron skeleton or sheet folded construction. The panel to be dust and vermin proof, water proof type (IP66) with powder coated paint after suitable seven tank pretreatment. The panel made out of cold rolled sheet and doors fitted with Neoprene gaskets and fasteners. This panel shall have provision for BMS integration.	RO	SET	2,77,300	
1.2	Supply, installation, Testing, Commissioning of Annunciator Display Panel with hooter should be complete with Visual Display (LED) for bank changeover and status of each bank, Acknowledgement Switch, Power Supply for visual and audio equipment and Programming and Testing of logic for annunciator functions. The Display panel shall have controller capable of standalone operations, Accepting upto 10 numbers 4-20mA relay input/outputs, terminal blocks, 5A SMPS AC 240V to 24/12V DC conversion with all wiring & accessories. Panel shall be with metal enclosure.	1	SET	1,79,950	1,79,950.00
1.3	Supply, Installation, Testing, Commissioning of Pressure Transmitter suitable for proposed Gas line and including all the Fixing accessories. Output: 0-10V / 4-20mA Accuracy: ±1%	2	Nos	30,975	61,950.00
2	CABLES & CONDUITS				

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SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
	Supply, laying, testing and commissioning of 1100V grade, XLPE insulated armoured Copper conductor cable as per specifications. The cable shall be laid on ceiling / wall / hume pipe with necessary support using MS clamps, saddles, ferruls, cable ties and fasteners.				
2.1	6C 1.5 sqmm XLPE insulated shielded Armoured FRLS outer sheathed copper cable - (from controller panel and Display panel)	RO	Mtrs	378	
2.2	4C 1.5 sqmm XLPE insulated shielded Armoured FRLS outer sheathed copper cable - (from contact pressure gauge at gas bank (for 4-20mA) and controller panel)	100	Mtrs	240	23,954.00
2.3	32mm 1.6 mm thick MS conduits with necessary accessories flexible pipe, bends, collars, junction boxes, clamps, spacing bars/ saddle as specified. The scope of the work is including of fixing necessary flexible conduits, pipe, bends, collars, junction boxes, clamps, spacing bars/saddle as specified, tying of the conduit with reinforced rods, chipping along the wall fixing chicken mesh and making good surface of wall as required at site. The detailed conduit layout preparation for Asthetic look will be in contractor scope.	100	Mtrs	342	34,220.00
3	SERVICE CHARGES				
3.1	Commissioning of above Gas detectors with PLC control panel, Gas bank changeover panel with commissioning report, all test shall be witnessed by client/client representative and test report to be submitted. The rate shall including handing over the system to the client with proper documentation and training etc.	RO	Lot	88,500	
	TOTAL L- GAS BANK CHANGEOVER SYSTEM				300074
	NOTE:				
	Required Power socket shall be provided by electrical contractor (Vendor has to co ordinate with electrical vendor at site.				
	Main UPS power supply for all the panels wherever it is required will be in electrical vendor scope.				
	The Technical Submittal, GA Drawing & layout has to be submitted for review and approval before placing of order to OEM vendor / Manufacturer.				
	Preparation of Shop drawings/ Execution drawings with section details is in GDS vendor scope only. Consultant will provide the basic drawings. GDS contractor has to develop drawing for execution with sizing, support structure (From wall or ceiling) & submit the same for approval.				
	As built drawings and handover documents shall be provided by GDS contractor on completion of project for certification by consultant.				
	Transportation, loading-Unloading and Shifting of VRF to the installation area by using crane/ manpower has to be carried out by the contractor only.				
	Commissioning of above Gas detectors with PLC control panel, Gas bank changeover panel with commissioning report, all test shall be witnessed by client/client representative and test report to be submitted. The rate shall including handing over the system to the client with proper documentation and training etc.				
M	NETWORKING WORKS				
1	DATA PORTS (FOR WORK STATION, PRINTER)				
1.1	Supply, installation, testing & commissioning of Series Modular Jack, category 6, 4 Pair, without dust cover, blue or As per client requirement, Transmission Standards: ANSI/TIA-568-C.2, Fully supports : IEEE 802.3bt (Type 4), Contact Plating Material: Gold, Plug Insertion Life, minimum: 750 times, Flammability Rating: UL 94 V-0	17	Nos	295.00	5015
1.2	Supply, installation, testing & commissioning of Series Modular Jack category 6, 4 Pair, without dust cover, blue or As per client requirement, Transmission Standards: ANSI/TIA-568-C.2, Fully supports : IEEE 802.3bt (Type 4), Contact Plating Material: Gold, Plug Insertion Life, minimum: 750 times, Flammability Rating: UL 94 V-0	17	Nos	295.00	5015
1.3	Supply, installation, testing & commissioning of Discrete Distribution Module Panel, SL, STP, 1U, 24 port, Angled unloaded , Flammability Rating: UL 94 V-0	1	Nos	1,770.00	1770

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SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
1.4	Supply,installation, testing & commisioning of RJ45 Patch Cord, category 6, LSZH, 2 m, Blue or As per client requirement, Transmission Standards: IEEE 802.3bt Type 4, Plug Insertion Life, minimum: 750 times, Safety Standard: UL 1863	17	Nos	295.00	5015
1.5	Supply,installation, testing & commisioning of RJ45 Patch Cord, category 6, LSZH, 3 m, Blue or As per client requirement, Transmission Standards: IEEE 802.3bt Type 4, Plug Insertion Life, minimum: 750 times, Safety Standard: UL 1863	17	Nos	295.00	5015
2	DATA PORTS (FOR INTERCOM)				
2.1	Supply,installation, testing & commisioning of Series Modular Jack, category 6, 4 Pair, without dust cover, blue or As per client requirement, Transmission Standards: ANSI/TIA-568-C.2, Fully supports : IEEE 802.3bt (Type 4), Contact Plating Material: Gold, Plug Insertion Life, minimum: 750 times, Flammability Rating: UL 94 V-0	24	Nos	295.00	7080
2.2	Supply,installation, testing & commisioning of Series Modular Jack category 6, 4 Pair, without dust cover, blue or As per client requirement, Transmission Standards: ANSI/TIA-568-C.2, Fully supports : IEEE 802.3bt (Type 4), Contact Plating Material: Gold, Plug Insertion Life, minimum: 750 times, Flammability Rating: UL 94 V-0	24	Nos	295.00	7080
2.3	Supply,installation, testing & commisioning of Discrete Distribution Module Panel, SL, STP, 1U, 24 port, Angled unloaded , Flammability Rating: UL 94 V-0	1	Nos	1,770.00	1770
2.4	Supply,installation, testing & commisioning of RJ45 Patch Cord, category 6, LSZH, 2 m, Blue or As per client requirement, Transmission Standards: IEEE 802.3bt Type 4, Plug Insertion Life, minimum: 750 times, Safety Standard: UL 1863	24	Nos	295.00	7080
2.5	Supply,installation, testing & commisioning of RJ45 Patch Cord, category 6, LSZH, 3 m, Blue or As per client requirement, Transmission Standards: IEEE 802.3bt Type 4, Plug Insertion Life, minimum: 750 times, Safety Standard: UL 1863	24	Nos	295.00	7080
3	DATA PORTS (FOR LAB EQUIPMENTS)				
3.1	Supply,installation, testing & commisioning of Series Modular Jack, category 6, 4 Pair, without dust cover, blue or As per client requirement, Transmission Standards: ANSI/TIA-568-C.2, Fully supports : IEEE 802.3bt (Type 4), Contact Plating Material: Gold, Plug Insertion Life, minimum: 750 times, Flammability Rating: UL 94 V-0	48	Nos	295.00	14160
3.2	Supply,installation, testing & commisioning of Series Modular Jack category 6, 4 Pair, without dust cover, blue or As per client requirement, Transmission Standards: ANSI/TIA-568-C.2, Fully supports : IEEE 802.3bt (Type 4), Contact Plating Material: Gold, Plug Insertion Life, minimum: 750 times, Flammability Rating: UL 94 V-0	48	Nos	295.00	14160
3.3	Supply,installation, testing & commisioning of Discrete Distribution Module Panel, SL, STP, 1U, 24 port, Angled unloaded , Flammability Rating: UL 94 V-0	2	Nos	1,770.00	3540
3.4	Supply,installation, testing & commisioning of RJ45 Patch Cord, category 6, LSZH, 2 m, Blue or As per client requirement, Transmission Standards: IEEE 802.3bt Type 4, Plug Insertion Life, minimum: 750 times, Safety Standard: UL 1863	48	Nos	295.00	14160
3.5	Supply,installation, testing & commisioning of RJ45 Patch Cord, category 6, LSZH, 3 m, Blue or As per client requirement, Transmission Standards: IEEE 802.3bt Type 4, Plug Insertion Life, minimum: 750 times, Safety Standard: UL 1863	48	Nos	295.00	14160
4	DATA PORTS (FOR BMS WHICH INCLUDES ACCESS, DDC PANEL & CCTV)				
4.1	Supply,installation, testing & commisioning of Series Modular Jack , category 6,4 Pair, without dust cover, Grey or As per client requirement, Transmission Standards: ANSI/TIA-568-C.2, Fully supports : IEEE 802.3bt (Type 4), Contact Plating Material: Gold, Plug Insertion Life, minimum: 750 times, Flammability Rating: UL 94 V-0	17	Nos	295.00	5015
4.2	Supply,installation, testing & commisioning of Series Modular Jack, category 6,4 Pair, without dust cover, Grey or As per client requirement, Transmission Standards: ANSI/TIA-568-C.2, Fully supports : IEEE 802.3bt (Type 4), Contact Plating Material: Gold, Plug Insertion Life, minimum: 750 times, Flammability Rating: UL 94 V-0	17	Nos	295.00	5015

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SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
4.3	Supply,installation, testing & commisioning of Discrete Distribution Module Panel, SL, STP, 1U, 24 port, Angled unloaded , Flammability Rating: UL 94 V-0	1	Nos	1,770.00	1770
4.4	Supply,installation, testing & commisioning of RJ45 Patch Cord, category 6, , LSZH, 2 m, Grey or As per client requirement, Transmission Standards: IEEE 802.3bt Type 4, Plug Insertion Life, minimum: 750 times, Safety Standard: UL 1863	17	Nos	295.00	5015
4.5	Supply,installation, testing & commisioning of RJ45 Patch Cord, category 6,LSZH, 3 m, Grey or As per client requirement, Transmission Standards: IEEE 802.3bt Type 4, Plug Insertion Life, minimum: 750 times, Safety Standard: UL 1863	17	Nos	295.00	5015
5	COPPER CABLING SYSTEM (CONNECTIVITY COMPONENTS FROM USER END TO HUB RACK)				
5.1	Supply,laying, testing & commisioning of Category 6, Cable (Twisted Pair cable), low smoke zero halogen, white jacket, 4 pair count, 1000 ft (305 m) length reel, Transmission Standards: ANSI/TIA-568.2-D ,Tested upto 500 MHz,Characteristic impedance : 100ohms, Complies with IEEE 802.3bt (Type 4), Flame Test Method: IEC 60332-1, rate shall include cable ties, termination, ferrulling etc.	14	BOX/REEL	15,340.00	214760
5.2	Supply,installation, testing & commisioning of 1-port Standard face plate of size 2.5x4, Material should be ABS /UL94 V-0. Holder Jack of ABS UL 94V-0, Cover label of Acrylic UL94V-0 , Color White	50	Nos	94.40	4720
5.3	Supply,installation, testing & commisioning of 2-port Standard face plate of size 2.5x4, Material should be ABS /UL94 V-0. Holder Jack of ABS UL 94V-0, Cover label of Acrylic UL94V-0 , Color White	30	Nos	106.20	3186
5.4	Supply,installation, testing & commisioning of 1-2 Module GI BackBox. Rate shall include chipping, alignment and good surface on wall.	60	Nos	141.60	8496
6	FIBER CABLING SYSTEM (FROM ISP RACK to SERVER RACK)				
6.1	Supply,laying, testing & commisioning of 12-core Cable - Corrugated Steel tape Armored, Loose-tube, Gel-filled, 50/125 micron OM3 Multimode, Cable Qualification Standards Compliance: ANSI/TIA-568.C.3, Attenuation, maximum: 0.27 dB/km @ 850 nm 0.7 dB/km @ 1,300 nm, rate shall include cable ties, termination, ferrulling etc.	20	Mtrs	354.00	7080
6.2	Supply,installation, testing & commisioning of LC-LC Multimode OM3, 50/125 micron Duplex Patch Cord,3 Meter	2	set	590.00	1180
6.3	Supply,installation, testing & commisioning of 12F, 1U, LC MM OM3, Loaded with Fiber Pigtails, Splice tray, adapter & splice protectors.(@ server rack side)	1	set	20,768.00	20768
6.4	Supply,installation, testing & commisioning of 12F, 1U, LC MM OM3, Loaded with FiberPigtails, Splice tray, adapter & splice protectors.(@Hub rack side)	1	set	36,816.00	36816
7	RACKS & CABLE MANAGERS				
7.1	Supply,installation, testing & commisioning of UL certified cabinet 45U Closed Rack floor mounting type and Racks configuration will be welded frame with vented top cover with fan mounting provision, Associated Front Glass with Lock & Key, 1phase 230V, Rack mount Power Distribution Unit with 6nos of 6/13A universal power socket with plug controlled by 32A DP MCB horizontal type.The rate includes the complete set like cooling fans, cable manager etc.	2	Nos	67,850.00	135700
7.2	Supply,installation, testing & commisioning of 1U Single-sided horizontal Cable manager, finger-duct style.	10	Nos	1,770.00	17700
8	CABLE RACEWAYS & SUPPORTS				
8.1	Supplying and installing of following size of powder coating M.S. cable raceway with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with M.S. suspenders / GI threaded rod with slotted angle, nuts, bolts at every 1.2 mtr including bolts & nuts, painting suspenders etc as required. cable raceway shall be different widths and delivered in standard lengths along with Coupler plates and requisite number of hardwires, at different levels along pipe rack/open area/ ready made cable trenches/civil wall, etc , Gas cutting of cable trays at site is not permitted. If any welding is to be done on cable raceway applying of two coats of zinc rich primer and one coat of Silver paint at the modified/ repaired area/ portions and erection of the same. The running rate shall include bends , T section and couplers. Cable raceway shall be as per tender technical specifications.				

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SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
8.2	300 mm width X 50 mm depth X 1.6 mm thickness raceway with cover. (Hot Dipped Galvanised Iron)	25	Mtrs	2,312.80	57820
8.3	300 mm width X 50 mm depth X 1.6 mm thickness raceway with cover.	5	Mtrs	2,312.80	11564
8.4	150 mm width X 50 mm depth X 1.6 mm thickness raceway with cover.	20	Mtrs	1,309.80	26196
8.5	100 mm width X 50 mm depth X 1.6 mm thickness raceway with cover.	50	Mtrs	1,062.00	53100
8.6	50 mm width X 50 mm depth X 1.6 mm thickness raceway with cover.	150	Mtrs	737.50	110625
8.7	Supply, Installation of Support structural steel in form of MS angle with 1 coat of red oxide & 2 coat of brush paint, channels & flats etc.	100	Kgs	165.20	16520
8.8	Supplying and fixing of 25mm dia, 2mm thick medium class FRLS PVC conduit along with accessories like flexible pipes, junction boxes, collars, tees, bends, elbows, GI pull wires, clamps (Every 500mm distance), spacers, screws etc in surface/recess including cutting the wall and making good the same in case of recessed conduit as required, as per tender technical specification.	150	Mtrs	100.30	15045
ACTIVE PART					
9	Supply, installation, testing & commissioning of D-Link DGS-1210-28P, 24 x 10/100/1000BASE-T PoE ports, 4 x Gigabit RJ45/SFP Combo ports, Advanced L2 switching and security features L2+ Static Routing 193 W PoE budget.	6	Nos	57,494.32	344966
10	Firewall Hardware with 10 x GE 2 x 2.5G (2 x PoE), 2 x SFP fixed ethernet ports, 8GB memory, 64Gb Storage, wall/Rack/Din rail mounting with features of Xtreme Protection Bundle for 12 months, Network Protection-Intrusion Prevention, ATP and Security Heartbeat, SD-RED Device Management, Clientless VPN, Web Protection-Synchronized Application Control, Web Protection, Application Protection and Control, Cloud Application Visibility, Cloud Application Visibility, Zero-Day Protection, Threat Intelligence Analysis (Subscription has to be renewed every year)	1	Nos	53,100.00	53100
11	Supply, installation, testing & commissioning of SFP Module Multi mode NetGear AGM731F.	6	Nos	7,729.00	46374
12	Supply, installation, testing & commissioning of Storage Server PC Assembled I5 12th Gen Processor, Intel Gigabyte Motherboard, 250 Gb SSD, 16Gb DDR4 RAM, with 4 SATA, Cooler Master Cabin, 450W SMPS, 4 TB NAS HDD 2nos, With 19" Monitor and keyboard and mouse	1	Nos	1,17,410.00	117410
13	Supply, installation, testing & commissioning of ARP-4SPF4X32-2W1, Syntel Neos 32Port and 4 trunk line digital EPBX and necessary fixing accessories.	1	Nos	79,650.00	79650
14	Supply, installation, testing & commissioning of 50 Port MDFX Box with Krone Module and necessary fixing accessories.	1	Nos	12,980.00	12980
15	Supply, installation, testing & commissioning of Beetel Telephone With Display M71N	20	Nos	1,911.60	38232
TOTAL M- NETWORKING WORKS					1567918
N	PROVIDING DESIGN & SUPPLY ,ERECTION OF CLEAN ROOM PANEL				
1	CLEAN ROOM FALSE CEILING				
	False ceiling panels are designed to fit within each other and suspended by threaded tension bars with adjustable turnbuckles fastened to the overhead support at fixed intervals , Standard Ceiling Panels have a composite construction of two skins of powder coated GI over an GI frame work with a sealed and insulated interior. 150-200 Kg per sq. mtr load bearing(*vendor to mention maximum load bearing capacity of panel).				

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SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
1.1	50mm double Skin Walkable False Ceiling made of 0.8 mm both Top & Bottom Epoxy based powder coated (60-80 microns) GI Sheets (Hot dipped with Zinc Coating of 120 gsm) with mounting accessories Rockwool as in fill (96 +/-2 kg./m3). Designed to comply with min 90 mins Fire Rating. False ceiling support rods length suit to site condition. Do refer to the technical specification provided in the tender. Note: 1.All ceiling joints and gaps between panel to panel, ceiling elements (such as HEPA module, diffusers, pipe & electrical drops etc.) etc. to be sealed using FDA approved food grade silicon sealant of same or nearest colour as panel. The gap above panel to civil wall shall be properly closed with aluminium 'L' - angle secured properly between civil wall and panels. All the gaps between panel to panel shall be closed with aluminium sheets. All the gaps between ceiling elements and ceiling panel shall be sealed used FDA approved food grade silicon sealant of the same colour as the panel 2.Colour of the ceiling panel as decided by client 3.Joint width between panels shall be 3-4 mm only.	465	Sqmtr	4,295.20	1997268
2	CLEAN ROOM PANELS				
	Standard wall partitions are a composite construction of two skins over an GI frame work with a sealed and insulated interior. Standard panel dimensions are ----mm. Standard panels have an overall thickness of ----mm. The self supporting internal walls are constructed with an interior GI frame work. The Partition seams are sealed by silicone(Food grade) with a perfectly flush finishing. infill insulation material is sandwiched between the two skin layers and sealed from the exterior by the GI frame work.				
2.1	50mm thick double skin wall panel made of 0.8mm thickness epoxy based Powder coated (60-80 microns) G I sheet (Hot dipped with Zinc Coating of 120 gsm) on both sides with mounting accessories Rockwool as in fill (96 +/-2 kg./m3), Designed to comply with min 60 mins Fire rating. Do refer to the technical specification provided in the tender. Note: 1.All ceiling joints and gaps between panel to panel, ceiling elements (such as HEPA module, diffusers, pipe & electrical drops etc.) etc. to be sealed using FDA approved food grade silicon sealant of same or nearest colour as panel. The gap above panel to civil wall shall be properly closed with aluminium 'L' - angle secured properly between civil wall and panels. All the gaps between panel to panel shall be closed with aluminium sheets. All the gaps between ceiling elements and ceiling panel shall be sealed used FDA approved food grade silicon sealant of the same colour as the panel 2.Colour of the ceiling panel as decided by client 3.Joint width between panels shall be 3-4 mm only.	25	Sqmtr	4,097	1,02,424
2.2	100mm thick double skin wall panel made of 0.8mm thickness epoxy based Powder coated (60-80 microns) G I sheet (Hot dipped with Zinc Coating of 120 gsm) on both sides with mounting accessories, Rockwool as in fill (96 +/-2 kg./m3), Designed to comply with min 60 mins Fire rating. Do refer to the technical specification provided in the tender. Note: 1.All ceiling joints and gaps between panel to panel, ceiling elements (such as HEPA module, diffusers, pipe & electrical drops etc.) etc. to be sealed using FDA approved food grade silicon sealant of same or nearest colour as panel. The gap above panel to civil wall shall be properly closed with aluminium 'L' angle secured properly between civil wall and panels. All the gaps between panel to panel shall be closed with aluminium sheets. All the gaps between ceiling elements and ceiling panel shall be sealed used FDA approved food grade silicon sealant of the same colour as the panel 2.Colour of the ceiling panel as decided by client 3.Joint width between panels shall be 3-4 mm only.	680	Sqmtr	4,823.84	3280211
3	CLEAN ROOM COVINGS				
	Extruded Aluminium Powder Coated /Anodized clip on type covings of 75mm radius for Panel to Panel and Panel to Ceiling.				
3.1	Horizontal & Vertical Coving	980	Rmtrs	495.60	485688
3.2	C-Channel powder coated	98	Rmtrs	330.40	32379
3.3	90 Corners powder coated	45	Rmtrs	462.56	20815
3.4	1/4th Spheres Powder Coated	20	Nos	1,136.58	22732
3.5	1/8th Spheres Powder Coated	180	Nos	1,268.74	228372
4	CLEAN ROOM DOORS				

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SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
	Doors are designed to fit flush into the wall panel / civil walls system on both sides and are supplied in different dimensions. Doors are fabricated from galvanized iron sheets duly epoxy powder coated (60-80 microns) & Rockwool as infill (96 +/-2 kg./m3). Shutter has sheet thickness of 1mm and the frame of 1.2mm. jam depth of door shutter inline with adjacent panel thickness and shutter width of 44mm. Doors are available in various sizes as per the requirement. The following accessories are a part of the door: Note: 1.All joints between view panel and door panel to be sealed using FDA approved food grade silicon sealant of the same or nearest colour as the panel. 2.Colour of the door panel: Vendor to provide options. 3.Double face VHB tapes of required thickness or silicon sealant to be provided on the periphery of the view panel frame to avoid any play between view panel frame and the slot in the door leaf. Frost film to be provided for the view panels wherever requested.				
	Shutter Thickness: 44 mm thick				
	Stainless steel hinges (to be dorma make)				
	Door shutter should be with minimum leakage (*vendor to specify the gap all around the shutter)				
	Stainless Steel 'D' type of handles on pull side				
	Stainless steel push plates on push side with 0.8mm thick or elbow operated 'L' handle				
	Dorma make heavy duty Concealed door closure (ITS-96)				
	Concealed double glazed Vaccumized View panel along with self adhesive tape and silicon sealant (500mmWx750mmH) with toughened glass with 6mm thick and black border				
	Mortice dead lock (ML100D) with both Side Key Operation Cylinder-Dorset				
	Concealed Flush Bolt Body with rod				
	Guillote Gasket at bottom for Single Door				
	Guillote Gasket at bottom for Double Door				
	Stainless Steel kick plates on both sides of Door of 1.2mm thick with 300mm height for material transfer doors for Single Door				
	Stainless Steel kick plates of 1.2mm thick with 300mm height for material transfer doors for Double Door				
	DOOR SIZE				
	100mm Modular Partition				
4.1	750 X 2100 mm Single door with window	11	Nos	29,075.20	319827
4.2	1000 X 2100 mm Single door with window	15	Nos	33,040.00	495600
4.3	750 X 2100 mm Single door without window	10	Nos	28,414.40	284144
4.4	900 X 2100 mm Single door without window	5	Nos	30,444.00	152220
4.5	1000 X 2100 mm Single door without window	2	Nos	31,388.00	62776
5	VIEW PANELS ON MODULAR PARTITION				
5.1	DOUBLE GLAZED				
	All View panel units are Double glazed and fit flush with both surfaces of the Epoxy based powder coated GI wall panel system. Each unit is constructed of two panels of 6 mm Toughened glass. The window system is completely FDA approved food grade Silicone sealed of and includes a micro-perforation profile with an integral silica gel moisture (Vacuum Sealed) adsorption system to eliminate fogging. View Panels shall be coated of approved colour to prevent entry of Ultraviolet light with factory fitted aluminium frame/housing. Rounded corners add to the strength of the window unit and enhance. All view panels to have black border. All the VP height shall be matched with Door heights. View Panel sizes may vary 600 mm to 3000mm with sill ht of 1000 mm FFL				
5.1.1	View Panel on 100mm wall panel	40	Sqmtr	8,260.00	330400
6	FALSE CEILING CUTOUTS FOR ELECTRICAL & HVAC GRILSS,LIGHT FIXTURES ETC.				
6.1	Frame Work for Wall Panel Cut-outs	440	Nos	859.04	377978
6.2	Back Boxes for Electrical Sockets includes 3M, 2M, 6M, 8M, Single Phase, Three Phase industrials sockets respectively of approved makes like Anchor, MK, North West & Legrand.	90	Nos	660.80	59472
6.3	Frame work for False Ceiling Cut-outs for Electrical & HVAC	180	Nos	859.04	154627
6.4	PVC Conduit for Electrical Cables / Data Cables 24mm dia / 40 mm dia respectively	120	Rmtrs	198.24	23789
7	PASS BOX - DYNAMIC				

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SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
	Supply, Installation, Testing, Commissioning & Validation of Stainless Steel (1.2mm) Dynamic Pass box cill mounted designed to protect against the cross contamination that may occur during passing process. Internal & External walls shall be SS 304 with Dull Buff finish. All joints are to be welded to ensure an airtight Atmosphere. All doors are to be provided with a gasket to avoid sloping When doors are opened or closed. Pass box to be provided with permanently lubricated blower with aluminium frame. Passbox shall be provided with pre-filter(G-4 filter) and final filter (Minipleat H-14) sections to maintain ISO Class 5 environment. Fully flushed/Fully protected and glass cased CFL and UV lights to be provided within the pass box and interlocked with the doors. Separate switches for UV(also Hour meter) and CFL lights to be provided on both sides of the front panels. SS 304 perforated /linear grills for air suction shall be provided in the cleaner side. Passbox to be provided with emergency push buttons for door opening ,alarm for blower failure, alarm for alerting the personnel's of an open/unattended door, magnehelic gauges across H-14 filters section, DOP port etc. Pass boxes to be provided with timer controlled door opening. The timer to be provided on the both sides of pass box with display. The timer shall be user programmable ,display of the same to be in minutes and seconds. Do refer to the technical specification in the tender.as per below sizes				
	Note:				
	1. All wall mounted pass boxes to be properly supported from the floor with SS 304 leg and base plate and properly fastened to the floor with SS304 bolts/any suitable method approved by client or NPI. For floor mounted pass box vendor to provide the size of sunken slab required to place the pass box in level with finished floor level . Pass box openings in the wall panels to be suitably covered and anodised aluminium covings to be provided between pass box and wall panels.				
	2.The power cable from the pass box to be suitably drawn through the MS conduits in the wall panels. No separate sockets shall be provided within the room.				
	3.Vendor to provide the Technical Data sheet of the filters with all necessary test certificates for each filter.				
7.1	DPB - 600 W X 600 D X 900 H mm Internal Sizes - 2WAY - Floor mounted	5	Nos	1,78,416.00	892080
7.2	DPB - 600 W X 600 D X 900 H mm Internal Sizes - 3WAY - Floor mounted	2	Nos	1,85,024.00	370048
7.3	DPB - 600 W X 600 D X 600 H mm Internal Sizes - 2WAY - Sill mounted	RO	Nos	1,58,592.00	
7.4	DPB - 600 W X 600 D X 600 H mm Internal Sizes - 3WAY - Sill mounted	1	Nos	1,65,200.00	165200
8	INBUILT RAISER				
	Supply and Installation of wall panel inbuilt Return Air Risers of 0.8 mm thick GI sheet (hot dipped with zinc coating of 120 gsm), complete with four side bevelled SS 304 Perforated Grille with high power magnet for holding in position, low leakage Aluminium Volume control damper & Provision for Filter mounting in aluminium frame work with proper fixing arrangement & fastening using SS 304 Dome nuts. Four side 13 mm thick Aluminium foil faced physically crosslinked closed cell XLPE thermally insulated duct connector piece with a flange & a counter flange (of 30mm width, 3mm thick 2 coats epoxy painted MS) to be provided above the top of the false ceiling for HVAC duct connection. Do refer to the technical specification in the tender.				
	Note:				
	1.Return air risers of 80mm width to be provided with a minimum of 15mm PIR board insulation in the rear side of riser, within the wall panel.				
	2.Risers with adjacent ceiling heights to extend minimum 200mm high above the top of the false ceiling with minimum 40mm flanges (MS painted with 2 coats of 3mm thick epoxy paint). Risers with adjacent civil wall to extend to minimum 400mm and blinded, a right angled connector piece of minimum 200mm length with minimum 40mm flange to be provided. All the extensions and exposed parts to be properly insulated.				
	3.Vendor to provide the Technical Data sheet of the filters with all necessary test certificates for each filter.				

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SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
	4.Price shall include the cost for the cut-out in the riser panels for fixing the grill and the filter ,wall to wall covings, wall to ceiling coving and wall to floor coving.				
	5.Refer Tender drawing & Tender Specification				
8.1	Raiser - 400mm (W) x 100mm (D)	24	Nos	11,233.60	269606
8.2	Raiser - 600mm (W) x 100mm (D)	39	Nos	12,555.20	489653
8.3	Raiser - 800mm (W) x 100mm (D)	8	Nos	13,876.80	111014
	Note:				
	All the Technical Submittals & As built drawings DQ, IQ shall be submitted.				
	The scope of the vendor shall be and not limited to supply, installation, loading, unloading, shifting and storage of the clean room panels.				
	Vendor shall provide all elevation drawings for approval.				
	Vendors to submit the makes, samples, catalogues & specifications for all items for approval. The vendor shall also supply 6 sets of hard and soft copies of as built drawings before handover.				
	Co-ordination with all agencies for electrical, utility, HVAC and Equipment's				
	TOTAL N- CLEAN ROOM PANELING WORKS				10728324
O	LAB FURNITURE & OTHER WORK				
1	GRANITE WORK TOP				
	Providing, Design & Supply, Testing, Commissioning of best quality factory made ready built modular CRCA epoxy powder coated to 60 to 80 microns thickness laboratory furniture with working height 750 mm to 900mm high as per enclosed drawings, all surfaces zinc phosphated/degreased and epoxy powder coated to 60 to 80 microns thickness to pass the required ASTM/ IS Codes, complete as per technical specifications given in the tender document. Rate shall be inclusive of cost of all materials and operations described in the item, drilling holes, necessary welding, required nuts and bolts for joining with the supporting members, rivets, pins including all part items complete as per approved shop drawings and directions of Clinet in charge. Laboratory furniture in general shall consists of Pedstal mounted and under bench , sink units, Laboratory bench designed for carrying a loading of 300 Kg/sqm, regent shelves, wall rails, storage cabinets etc. consisting of the following:				
1.1	30 mm thk Jet black Granite Work Top of size, (*L X 750 D X 900mm H)	45	Rmts	7,372.64	331769
	SS WORK TOP				
	Providing, Design & Supply, Testing, Commissioning of best quality factory made ready built modular SS304 laboratory furniture with working height 750 mm to 900mm high as per enclosed drawings, complete as per technical specifications given in the tender document. Rate shall be inclusive of cost of all materials and operations described in the item, drilling holes, necessary welding, required nuts and bolts for joining with the supporting members, rivets, pins including all part items complete as per approved shop drawings and directions of Client in charge. Laboratory furniture in general shall consists of Pedestal mounted and under bench , sink units, Laboratory bench designed for carrying a loading of 300 Kg/sqm, reagent shelves, wall rails, storage cabinets etc. consisting of the following:				
1.2	Stainless Steel Work Top of size, (*L X 750 D X 750mm H)	4	Rmts	10,779.30	43117
2	BASE CABINETS				
2.1	Base Unit 2 door 2 drawer of size (900WX750DX900H) with Lock & Key	7	Nos	28,757.78	201304
2.2	Base Unit 1 Door 1 drawer of size (500Wx750Dx900H) with Lock & Key	21	Nos	19,966.78	419302
2.3	Knee space with work top support frame, apron railing of size, (750Lx900H)	23	Nos	7,496.54	172420
2.4	150x75mm size Metal Race way with cable divider for power line & data line seperation	50	rmtrs	3,407.84	170392
3	FIXTURES				
3.1	Cutout provisions for Raw power and UPS power sockets on Lab furniture	65	Nos	272.58	17718
3.2	Cutout provisions for Telephone socket, Data & Networking	35	Nos	272.58	9540
3.3	90 degree valves for Compressed air.	1	Nos	8,859.44	8859

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SITC VALIDATION OF c-GMP COMPLIANT MAMMALIAN CELL LINE REPOSITORY ON TURNKEY BASIS AT NCCS JIDNYASA BUILDING, KOTHRUD, PUNE

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
3.4	90 degree valves for Carbon dioxide.	1	Nos	11,585.24	11585
4	SERVICE ENCLOSURES				
4.1	Service enclosure for wall bench(200x120x2200)mm	18	Nos	10,222.34	184002
5	SINK				
5.1	PP sink, Internal size: 600Lx450Dx400Hmm	5	Nos	7,496.54	37483
5.2	SS 304 Brust steel finish 750 x 750 mm peg board with 33 pegs & SS drain tray	5	Nos	19,762.64	98813
5.3	Single way Goose neck Facuet	5	Nos	8,859.44	44297
5.4	Waste, 1 1/2" bsp x 76mm.	5	Nos	1,021.88	5109
5.5	Anti siphon bottle trap.	5	Nos	3,066.82	15334
5.6	Deck mounted double head eye wash/drench	3	Nos	32,028.74	96086
5.7	Reducing coupler in PP 51 X 31MM + PP Pipe lengths - one feet length - DIA. 38MM	5	Nos	613.60	3068
5.8	Base unit sink 2 door of size (900Lx750Dx900H)	5	Nos	20,443.50	102218
6	AVT				
6.1	Metal Anti Vibration Table with Granite Work Top at Center (1500Lx750Dx900Ht)	1	Nos	79,060.00	79060
6.2	Metal Anti Vibration Table with Granite Work Top at Center (900Lx600Dx900Ht)	2	Nos	41,506.50	83013
7	SS CROSS OVER BENCH				
	Supply of 1.2 MM S.S.304 construction cross over benches "S"type construction with horizontal partition for clean & dirty shoes duly matt finish buffed as per the drawings				
7.1	SS COB - 1275 L X 300 W X 450 H mm	2	Nos	71,980.00	143960
7.2	SS COB - 1400 L X 300 W X 450 H mm	2	Nos	71,980.00	143960
7.3	SS COB - 1500 L X 300 W X 450 H mm	1	Nos	71,980.00	71980
7.4	SS COB - 1750 L X 300 W X 450 H mm	1	Nos	89,680.00	89680
7.5	SS COB - 1800 L X 300 W X 450 H mm	2	Nos	89,680.00	179360
8	APRON STORAGE CABINET				
	Supply of 18 G S.S.304 construction apron / overcoat cabinet with mirror finish buffed as per the drawings. Bottom legs will be provided with nylon Bush.				
8.1	APRON STORAGE CABINET - 600 W X 500 D X 2100 H mm	6	Nos	55,755.00	334530
8.2	APRON STORAGE CABINET - 900 W X 500 D X 2100 H mm	10	Nos	74,340.00	743400
9	OPAQUE STORAGE CABINET				
	Supply and Installation Opaque / Tall storage cabinet with Manual closing door, Equipped with a lockable, latching mechanism, CRCA Epoxy Powder coated with doors, approved quality hinge and operating hardware. Cabinet shall also have Adjustable leveling screws, 5 Nos adjustable shelves complete as per the detailed specification. Sizes as below				
9.1	OPAQUE STORAGE CABINET - 900 W X 500 D X 2100 H mm	4	Nos	45,223.50	180894
10.0	SS OPAQUE STORAGE CABINET				
	Supply and Installation Opaque / Tall storage cabinet with Manual closing door, Equipped with a lockable, latching mechanism, with SS doors, approved quality hinge and operating hardware. Cabinet shall also have Adjustable leveling screws, 5 Nos adjustable shelves complete as per the detailed specification. Sizes as below				
10.1	SS OPAQUE STORAGE CABINET - 900 W X 500 D X 2100 H mm	1	Nos	74,340.00	74340
11.0	ACID STORAGE CABINET				
	Safety Cabinet for Acid Base Cabinets 60 Gal (Self Close) connected to exhaust				
11.1	ACID STORAGE CABINET - 900 W X 500 D X 2100 H mm	1	Nos	68,145.00	68145
12.0	SOLVENT STORAGE CABINET				
	Safety Cabinet for Solvent Storage Cabinets 60 Gal (90min Fire Rating FM Approved) (Self Close) connected to exhaust				
12.1	SOLVENT STORAGE CABINET - 900 W X 500 D X 2100 H mm	1	Nos	4,80,850.00	480850
13.0	SLOTTED ANGLE RACKS				
	Supply and Installation Slotted angle Racks CRCA Epoxy Powder coated shall also have Adjustable leveling screws, 5 Nos adjustable shelves with Lipping complete as per the detailed specification. Load bearing capacity of each shelves to be 80-100kg. Sizes as below				
13.1	SLOTTED ANGLE RACKS - 900 W X 500 D X 2100 H mm	19	Nos	17,965.50	341345
14.0	SS RACK				

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SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
	Supply and Installation SS 304 Slotted angle Racks shall also have Adjustable leveling screws, 5 Nos adjustable shelves with Lipping complete as per the detailed specification. Load bearing capacity of each shelves to be 80-100kg. Sizes as below				
14.1	SLOTTED ANGLE RACKS - 900 W X 500 D X 2100 H mm	5	Nos	31,653.50	158268
15	SS CHAIRS				
15.1	SS Revolving Lab Chairs with adjustable height arrangement	27	Nos	9,292.50	250898
16	EMERGENCY SAFETY SHOWER				
16.1	Providing and fixing of Floor mounted emergency safety showers with integrated eyewash including ABS plastic shower head, operated by a rigid pull rod and easy grip handle	2	Nos	31,860.00	63720
	Note: 1) Above Price Shall be inclusive of granite floor supports rare & end scribe panel as required may require as per Final drawing should be included in the cost				
	2) All general arrangement of the Lab Furniture shall be as per the enclosed drawings & detailed Technical specifications				
	3) Rate is inclusive of all materials and operations described above and in general specifications. Lab Furniture shall be manufactured in best asthetic design All items required to be provided in the Lab Furniture needs to be integrated in the design, tested and commissioned.				
	TOTAL O- LAB FURNITURE WORKS				5459820
P	COLD ROOM (HERMETIC COMPRESSOR) OF INTERNAL DIMENSION OF (3.4W X 2.4D X 2.44 HT) MTRS INCLUDING BUT NOT LIMITED TO THE FOLLOWING ITEMS DESCRIBED BELOW				
1	Design, Supply, Installation, Testing & Commissioning of Condensing units with SS 304 casing material for Evaporators as per cold room URS & drawings attached. The Unit shall be complete with necessary MS steel support duly painted Frame to be painted with two coats of primer & two coats of synthetic enamel paint for mounting the indoor units and outdoor units along with support rods , nuts and bolts etc. to make the unit complete. Approximate refrigeration capacity is 5 Kw (2 TR) having 1 Working 1 standby	1	set	185850	185850
	NOTE-The vendor has to submit the heat load calculation for demonstrating the capacities of evaporator & condensing units considered.The Condensing Unit has to be selected considering the Refrigerant pipe length between indoor and outdoor units and also considering ambient temperature of 40°C. (Pune weather condition).				
2	Design, Supply & Installation of 0.6 mm thick PPGI Plain (Non Corrugated) sheet on both sides PIR metallic panel of 60mm thick and 40kg/m ³ , manufactured of CFC & HCFC free closed cell PIR foam for walls, ceiling. The floor preparation shall be with 1 mm vapor barrier sheet, 2mm Tarfelt on which 60 mm thick PCGI floor panel complete with side flashing is to be layed along with VDF flooring with 2 mm thick Vinyl flooring to be provided cold room dimension. (The floor panels thickness shall vary based on the depth of the sunken slab provided). Please refer details in the tender drawing. URS (Ref:MJ437-BL-2000 – Basement Layout) & drawings attached. Size of Cold Room :- 3.5 L x 2.5 W x 2.6 H (Mtrs)	1	Lot	362260	362260
3	Supply & Installation of Extruded Aluminium Powder Coated clip on type covings of 80mm radius for Panel to Panel, Panel to floor and Panel to Ceiling. (Coving Colour should be matched with Panel Colour)	1	Lot	54280	54280
4	Supply & Installation of Cold room doors shall be 0.5 mm thick PCGI sheet on both sides 60 mm thick PIR insulated of hinged type with (1000 X 2100) with clear opening. Type, thickness & lamination shall be same as wall panel. Accessories like pad lock system, human safety release knob, Posi seal Concealed door closer, Sweep gasket, Electrical safety hooter switch with illumination near the door,anti condensation door heater & vacuumised view panel, Auto Air Defrost and any other accessories required.	1	No	51330	51330
5	Supply and Installation of PVC strip Curtain at door entry of 1500mm Wide, for cold room. PVC strip curtains shall be 50 % Overlapping with Door , Transpent Anti Static and shall have SS Frame works for fixing of PVC Strip Curtains.	1	Lot	11800	11800

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SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
6	Supply, Installation, Testing & Commissioning of PLC based programmable Temperature Indicator with Temperature/Controller with over shoot & alarm. Two Numbers dual display temperature sensors have to be considered . One of the Temperature sensors provided to be installed at the Hot spot identified during mapping .One Output from the temperature sensor is to be connected to the Temperature indicator connected outside the Cold room and the other outlet to be terminated outside in a junction box form where the output will be taken to the Central EMS station.The PLC controller should be compatible with BMS & having both hard & RS485 capability to connect to the Central station directly also.	1	Set	82600	82600
7	Supply, Installation, Testing & Commissioning of of Audio Visual alarms(Emergency hooters) .- One on the external wall panel of cold room and one at the Engineering maintenance room. Necessary Cables for integrating should be part of costing (Approximate distance between the cold room and Engineering maintenance room is approx., 100 Rmts.	1	Lot	38940	38940
8	Supply & Installation of Support Structure upto 2.5mtrs for ODU to be provided. ODU's Shall be stacked one above the other if needed. Frame to be painted with two coats of primer & two coats of synthetic enamel paint. Safety guard rails and Ladder for access to be included .Serrated rubber pads to be provided between ODU base & the MS stand. Refer the ODU location layout drawing attached. (Ref: MJ437-BL-2000 – Basement Layout.)	1	Lot	43660	43660
9	LIGHT FIXTURES				
9.1	Supply, Installation, Testing and Commissioning of Light Fitting Luminaries complete with fixture, lamps, ballast, starter, comprises of polycarbonate housing, prewired with accessories & transparent cover of polycarbonate to be used under negative 20deg temperature to meet 300 lux @ 1.2 meter level from FFL. Standard down rod, connecting chord etc. The rate shall include all necessary fixing accessories like MS hooks, MS supports, chain to hang the light fixture, anchor fasteners etc. 300 Lux level achieved at site to be demonstrated.	1	Set	16520	16520
10	REFRIGERANT PIPING				
	Design, Supply & Installation Refrigeration piping with close cell elastomeric insulation pipe section for suction & discharge line, with necessary fitting & accessories like sight glass & filter drier, accumulator, oil separator & liquid line solenoid valve & TEXV for the evaporator units to be provided. All exposed refrigerant piping in side the building & in the shaft should be enclosed in PVC piping for protection. Upon the Armaflex insulation all exposed insulations shall be glass cloth & UV Protected paint finish. Suitable clamps/supports for holding the copper pipes to be provided. The required quantity of refrigerant gas to make the system complete should be included.				
10.1	Supply of Gas line with insulation thickness of 19 mm for all the cold rooms	15	Rmt	2324.6	34869
10.2	Supply of Liquid line with insulation thickness of 9 mm. for all the cold rooms	15	Rmt	2324.6	34869
	Note: The vendor has to submit the refrigerant pipeline sizing calculation considering the distance between the indoor, outdoor & oil return.The location of the Outdoor unit and the tentative routing of refrigerant piping is provided. The sizing of refrigerant piping has to be confirmed. In case of different sizing required , unit rate has to be mentioned separately.				
10.3	Supply & Installation of GI powder coated perforated trays for laying of copper refrigerant pipes with in the building The tray shall be complete with necessary MS structural/angle support along with support rods , nuts and bolts etc. with supports at one meter interval. The copper pipes to be fixed to a support frame with neoprene sheets & clamps for holding the copper pipes. Please refer details in the tender drawing. Refrigerant tray 300 mm wide	10	Rmt	855.5	8555

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SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
10.4	GI powder coated trays with 18 gauge powder coated GI top cover for laying of copper refrigerant pipes where ever exposed to ambient The tray shall be complete with necessary MS structural support along with support rods , nuts and bolts etc. with supports at one meter interval. The copper pipes to be fixed to a support frame with neoprene sheets & clamps for holding the copper pipes. Please refer details in the tender drawing. Refrigerant tray 300 mm wide	10	Rmt	855.5	8555
11	CONDENSATE DRAIN				
	Supply & installation of CPVC condensate drain pipe with necessary fittings, supports & accessories from the Evaporator coil to the Nearest Drain point at Basement floor Level. The drain pipes shall be insulated with closed cell insulation. Suitable clamps/supports for holding the drain pipes to be provided. Please refer details in the tender drawing.				
11.1	50 mm	10	Rmt	460.2	4602
	ELECTRICAL				
12	CONTROL PANEL				
12.1	Supply, erection, testing, and commissioning of control panel cubicle type made out of 16 Swg CRCA sheet which is derusted, degreased, phosphated and passivated. The panel to be dust and vermin proof type and with powder coated paint after suitable seven tank pretreatment(IP43). Double Door weather covel with Canopy since control panel is located outside. The panel will have individual compartments for incoming and outgoing feeders with shrouding made out of cold rolled sheets and doors fitted with neoprene gaskets and fasteners. The switchboards are to be tested as per IS 8623 -1977 specifications. The bus bars are of high conductivity AL alloy E91E as per IS 5082 specification and cable entries will be from the top. The panel shall have RYB & Trip indicating lamps with control MCB's, Ammeter & Voltmeter, Incomer MCCB of suitable rating, Suitable rated starter with contactor, overload relay, single phase preventer, 2 pole 2 way rotary selector switch, with one working & one standby feeder having auto change over system for outgoing feeders, ON-OFF indicating push buttons for each feeders, "Trip" indicating lamp for indoor & out door units. and Electrical components required to complete the system	1	Lot	55460	55460
	NOTE:				
	1. The vendor has to submit the GA, SLD & Control schematic shall be submitted by the vendor before ordering.				
	2. From Main Electrical panel to Cold room Electrical/Control panel Raw power and UPS power required will be provided by Client at one point in front of the cold room				
13	POWER & CONTROL CABLING WITH TERMINATIONS.				
	Supply & Installation of Necessary power & control cables with end termination, earthing, cable trays from the electrical control panel to the respective units, data logger, light fixture along with armoured cables, Hooters, Temperature controllers etc. along with necessary PVC heavy duty conduits to be included to make the system complete & working.	RO	Lot	0	
	NOTE:				
	Vendor to confirm the Wall Panel, Flooring thickness considered is sufficient / not as per the Design temperature (2°C to 8°C).				
	From cold room control panel to General lighting & Emergency lighting ,Indoor & Out door Units power & control cabling including starters, Electrics, Hooter and shall be in cold room vendor scope.				
	The cost of transportation from factory to site, Unloading & loading to site, lifting & positioning on to the civil foundations to be included by Vendor				
	The Vendor shall submit the separate lists with budgetary offer for Mandatory spares, commissioning spares and recommended spares for 2 years operation.				
	Vendor shall provided detailed Project Schedule of Completion after release of LOI				

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SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
14	Supply, Installation, Testing and Commissioning of 4 Channel Data Logger, HMI to be enclosed in SS304 Casing , With Internal memory for 1 Lakh Data Storage and USB port for Data retrieval and With RS485 Output provision (Communication from RS485 port to BMS system is in BMS vendor scope) and With SMS Alert for Temperature escalations (GSM SIM Card with required tariff plan to be arranged by customer).	1	LOT	129800	129800
	COMMISSIONING & VALIDATION				
15	Temperature distribution study for each Cold Room for a period of 72 hr (as per protocol to be provided by the client) for the below specified conditions with 12 to 17 probes, cool down time study & hold over time study to be included along with submission of reports for all the above studies. 1.at Empty, half and full load mapping (24 hour mapping for each load condition) for 72hrs 2.Door opening study 3. Power failure and recovery studies	1	LOT	35400	35400
	Submission of As built drawing, O&M manuals, Calibration certificates, all the validation documents(DQ, IQ, OQ & PQ)				
	TOTAL P- COLD ROOM WORKS				1159350
Q	GAS DISTRIBUTION, UTILITY PIPING & ETP DRAIN WORKS				
Q1	GAS DISTRIBUTION				
1	Supply, Installation,Testing & Commissioning of following Cylinder Arrangement, Gas Bank, Lab Piping & Accessories -SS 316	CO2			
1.1	Gas cylinder holding Structure for 2+2 cylinder (Refer cylinder holding structure drawing for dimensions) MOC - MS Powder coated (RAL:7001-silver grey)	1	Set	25606	25606
1.2	Cylinder holding bracket MOC-1	4	Nos.	1451.4	5805.6
1.3	Nut Bull nose with Gas Filter Particle MOC- SS316, Size - Inlet 5/8", Outlet 1/4", End connection Inlet BSPM, Outlet MNPT, Specification 0-225 Bar	8	Nos.	1486.8	11894.4
1.4	Check Valve MOC- SS316, Size - Inlet 1/4", Outlet 1/4", End connection Inlet FNPT, Outlet OD CF, Specification 0-225 Bar	4	Nos.	2985.4	11941.6
1.5	SS316 Plain Hose Pipe With Outside SS316 Double Wire Braiding of length 1Mtrs, SS316 End Fitting & additional Safety wire Protections with spring for Holding end Connectors & working pressure 0-200 Bar & Factory Tested Pressure -0 to 300 Bar. MOC- SS316, Size - Inlet 1/4", Outlet 1/4", End connection Inlet OD CF, Outlet OD CF, Specification 0-225 Bar	6	Nos.	3422	20532
1.6	MOC- SS316, Size - Inlet 1/4", Outlet 1/4", End connection Inlet OD CF, Outlet OD CF, Specification 0-225 Bar	4	Nos.	6844	27376
1.7	Panel Inlet Connector MOC- SS316, Size - Inlet 1/4", Outlet 1/4", End connection Inlet OD CF, Outlet OD CF, Specification 0-225 Bar	2	Nos.	826	1652
1.8	Semi Auto Change Over Panel Single Stage, Gas Purity 99.9999% Grade, MOC : SS316 O rings: Hastelloy Diaphragm: Hastelloy ,SS316 & Seat PTFE Max Inlet=300 Bar Outlet Control Range: 0-10 bar Nominal Flow -30Nm3/h – (500 LPM) Regulation done by 2 x SC cartridge regu0.5micron Filter at Outlet, With 2 numbers of Inlet Shut-Off Diaphragm Valves, With 2 numbers of Internal Diaphragm Purge Valves With 1 number of Pressure relief valve in panel Outlet Normal Gauges,50 mm dial size, 0-25 bar range Pressure gauges safety according to EN 837 With Inlet & Outlet Ports=1/4"FNPT. All mounted on a stainless steel back plate, Easy mounting manifold to ground plate and fix with one screw only, Size - Inlet 1/4", Outlet 1/4", End connection Inlet FNPT, Outlet FNPT, Specification 0-225 Bar	1	Nos.	85373	85373
1.9	Manifold block with isolation valve (Required tube for manifold block to block connections), Inlet-SS316, Specification-O-225	4	Nos.	5546	22184
1.10	Panel Outlet Connector, Size-Inlet-SS316,Outlet-1/4", End connection-MNPT inlet & ODCF outlet, Specification-O225	1	Nos.	1191.8	1191.8
1.11	Purge Gas Outlet Connector MOC- SS316, Size - Inlet 1/4", Outlet 1/4", End connection Inlet MNPT, Outlet OD CF, Specification 0-225 Bar	2	Nos.	755.2	1510.4

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SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
1.12	Safety Relief Valves —Proportional Relief Valves ¼" OD Moc SS316 AT SET PREESURE 16.5 bar MOC- SS316, Size - Inlet 1/4", Outlet 1/4", End connection Inlet OD CF, Outlet OD CF, Specification 0-150 Bar	1	Nos.	11894.4	11894.4
1.13	CO2 heater With connector MOC- BRASS, Size - Inlet 1/4", Outlet 3/8, End connection Inlet FNPT RH, Outlet MNPT RH, Specification 0-150 Bar	4	Nos.	18030.4	72121.6
1.14	Non Return Valve (NRV) MOC- SS316, Size - Inlet 1/4", Outlet 1/4", End connection Inlet OD CF, Outlet OD CF, Specification 0-150 Bar	4	Nos.	2572.4	10289.6
1.15	Equal Tee MOC- SS316, Size - Inlet 1/4", Outlet 1/4", End connection Inlet OD OW, Outlet OD OW, Specification 0-150 Bar	4	Nos.	979.4	3917.6
1.16	Unequal Tee MOC- SS316, Size - Inlet 1/4", Outlet 3/4", End connection Inlet OD OW, Outlet OD OW, Specification 0-150 Bar	1	Nos.	1498.6	1498.6
1.17	Seamless Tube MOC- SS316, Size - Inlet 1/4", End connection Inlet OD CF, Specification 0-150 Bar	6	Mtr.	660.8	3964.8
1.18	Shut off valve 3/4" OD As ASTM A -276/ ASME A269: Standard Specification for Pressure Rating.Max Temperature Pressure Rating300°F @ 2500 PSIG /148°C @ 172 BAR, Room Temperature Pressure Rating3000 PSIG @ 100°F /206 BAR @ 37°C ,Flow Pattern 2-Way, Shutoff, StraightTube Fitting & Nut & ferrule . MOC- SS316, Size - Inlet 3/4", End connection Inlet OD CF, Specification 0-150 Bar	1	Nos.	6053.4	6053.4
1.19	Ball valve 1/4" OD As ASTM A -276/ ASME A269: Standard Specification for Pressure Rating.Max Temperature Pressure Rating300°F @ 2500 PSIG /148°C @ 172 BAR, Room Temperature Pressure Rating3000 PSIG @ 100°F /206 BAR @ 37°C ,Flow Pattern 2-Way, Shutoff, StraightTube Fitting & Nut & ferrule . MOC- SS316, Size - Inlet 1/4", End connection Inlet OD CF, Specification 0-10 Bar	7	Nos.	3457.4	24201.8
1.20	Needle valve 1/4" OD As ASTM A -276/ ASME A269: Standard Specification for Pressure Rating.Max Temperature Pressure Rating300°F @ 2500 PSIG /148°C @ 172 BAR, Room Temperature Pressure Rating3000 PSIG @ 100°F /206 BAR @ 37°C ,Flow Pattern 2-Way, Shutoff, StraightTube Fitting & Nut & ferrule . MOC- SS316, Size - Inlet 1/4", End connection Inlet OD CF, Specification 0-10 Bar	12	Nos.	3894	46728
1.21	Elbow 90 deg MOC- SS316, Size - Inlet 1/4", End connection Inlet OD CF, Specification 0-10 Bar	8	Nos.	1333.4	10667.2
1.22	Line Regulator with mounting bracket & Accessories Specification- Gas Purity: 99.9999% MOC: SS316 Diaphragm: Hastelloy & Seat PTCFE Inlet & Outlet Pressure gauge Mounted on 304 Stainless Steel Back plate Max Inlet Pressure: 0-50 bar Outelt Pressure: 1 to 10 bar & Flow: 150 LPM Inlet: 1/2" OD Back side (Rear Inlet ¼ FNPT). MOC- SS316, Size - Inlet 1/4", Outlet 1/4", End connection Inlet FNPT, Outlet FNPT, Specification 0-10 Bar	7	Nos.	10360.4	72522.8
1.23	Connector for regulator MOC- SS316, Size - Inlet 1/4", Outlet 1/4", End connection Inlet OD CF, Outlet MNPT, Specification 0-10 Bar	14	Nos.	660.8	9251.2
1.24	Equipment Connector MOC- SS316, Size - Inlet 1/4", Outlet 1/2", End connection Inlet OD CF, Outlet BDPF, Specification 0-10 Bar	12	Nos.	778.8	9345.6
1.25	Pressure Gauge Bourdon type (Liquid Filled) along With Syphon & Cock with Dial Size - 4" (Ø100 mm); Contact parts: SS316, Movement: SS 316, Block: SS 316, Range 0 to 16 kg/cm², Accuracy : ±1% of range span, Over range protection: 125%, Case & Bezel: SS 304 with screwed Bezel of ABS plastic,Mounting: Direct with bottom entry, Standard Fitments: Micro adjustable pointer (internal) blow out disc.The Scale displayed shall be of 0-16bar).The Pressure gauge supplied shal compile to EN873-1 standards. The rate quoted shall include for supply of providing necessary Barrel Nipples, isolation valve & jointing material like Teflon tape, etc.MOC- SS316, Size - Inlet 1/4", End connection Inlet MNPT, Specification 0-10 Bar	1	Nos.	9357.4	9357.4
1.26	Connector for Pressure gauage MOC- SS316, Size - Inlet 1/4", Outlet 1/2", End connection Inlet OD CF, Outlet FNPT, Specification 0-10 Bar	1	Nos.	1038.4	1038.4

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SITC VALIDATION OF c-GMP COMPLIANT MAMMALIAN CELL LINE REPOSITORY ON TURNKEY BASIS AT NCCS JIDNYASA BUILDING, KOTHRUD, PUNE

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
1.27	Equal Tee MOC- SS316, Size - Inlet 3/4", End connection Inlet OD OW, Outlet OD OW, Specification 0-10 Bar	1	Nos.	1569.4	1569.4
1.28	Equal Tee MOC- SS316, Size - Inlet 1/4", End connection Inlet OD OW, Outlet OD OW, Specification 0-10 Bar	4	Nos.	1038.4	4153.6
1.29	Reducing Tee MOC- SS316, Size - Inlet 1/2", Outlet 1/4", End connection Inlet OD OW, Outlet OD OW, Specification 0-10 Bar	4	Nos.	1250.8	5003.2
1.30	Reducing Tee MOC- SS316, Size - Inlet 3/4", Outlet 1/2", End connection Inlet OD OW, Outlet OD OW, Specification 0-10 Bar	1	Nos.	1569.4	1569.4
1.31	Reducing Tee MOC- SS316, Size - Inlet 3/4", Outlet 1/4", End connection Inlet OD OW, Outlet OD OW, Specification 0-10 Bar	1	Nos.	1569.4	1569.4
1.32	Reducing Union MOC- SS316, Size - Inlet 3/4", Outlet 1/2", End connection Inlet OD OW, Outlet OD OW, Specification 0-10 Bar	1	Nos.	1050.2	1050.2
1.33	Reducing Union MOC- SS316, Size - Inlet 3/4", Outlet 1/4", End connection Inlet OD OW, Outlet OD OW, Specification 0-10 Bar	1	Nos.	1050.2	1050.2
1.34	Reducing Union MOC- SS316, Size - Inlet 1/2", Outlet 1/4", End connection Inlet OD OW, Outlet OD OW, Specification 0-10 Bar	2	Nos.	826	1652
1.35	S. S. SEAMLESS TUBES ASTM A269 TP 316 , as per attached specification with necessary cutting,bending , welding(Orbital welding with 99.999% UHP Argon Purging to be considered for joining tubes & fittings) etc. The rate quoted to be inclusive of necessary wall bores, cutting through walls as per dwg. Mode of measurement shall be in running Meters as described below. MOC- SS316, Size - Inlet 1/4", Specification 0-10 Bar				
1.35.1	Seamless Tube MOC- SS316, Size - Inlet 3/4", End connection Inlet OD OW, Specification 0-150 Bar	12	Mtr.	1121	13452
1.35.2	Seamless Tube MOC- SS316, Size - Inlet 1/2", End connection Inlet OD OW, Specification 0-150 Bar	24	Mtr.	896.8	21523.2
1.35.3	Seamless Tube MOC- SS316, Size - Inlet 1/4", End connection Inlet OD OW, Specification 0-150 Bar	108	Mtr.	660.8	71366.4
1.36	Clamp & Rail Nuts (for Tube) MOC- PP+SS304, Size - Inlet 3/4", End connection Inlet OD	12	Nos.	171.1	2053.2
1.37	Clamp & Rail Nuts (for Tube) MOC- PP+SS304, Size - Inlet 1/2", End connection Inlet OD	24	Nos.	153.4	3681.6
1.38	Clamp & Rail Nuts (for Tube) MOC- PP+SS304, Size - Inlet 1/4", End connection Inlet OD	108	Nos.	153.4	16567.2
1.39	Tagging MOC-Acryliy	100	Nos.	49.56	4956
1.40	Providing Unistrut Rail,w ith Rail Nut(For all size of tubes as per BOQ), STAUFF Clamp Rail Channel PP End Caps, M10 GI Threaded Rod, M10 GI Plane Washer & nut, M10 GI Anchor Bolt For Threaded Rod, Channel GI ,MS ISA , Anchored Plate MS(IS 2062 steel), M12 Bolts, Nuts & Expansion Bolts (High tension HILTI) including drilling, wall bores, cutting through walls, fixing support, welding, cutting etc. The rate quoted shall include for all above mentioned items & accessories. Note: Mode of measurement will be centerline measurement Unistrut rail without any additional measurement for mentioned items) MOC- GI, Size - Inlet 1/4"	1	Lot.	83674.98	83674.98
Total for Gas Distrubution System -Q1					742811.18
Q2	Supply, Installation,Testing & Commissioning of following Lab Piping and Accessories-SS 304-Compressed air	CA			
2.1	Ball valve 3/4" OD As ASTM A -276/ ASME A269: Standard Specification for Pressure Rating.Max Temperature Pressure Rating300°F @ 2500 PSIG /148°C @ 172 BAR, Room Temperature Pressure Rating3000 PSIG @ 100°F /206 BAR @ 37°C ,Flow Pattern 2-Way, Shutoff, StraightTube Fitting & Nut & ferrule . MOC- SS304, Size - Inlet 3/4", End connection Inlet OD CF, Specification 0-10 Bar	4	Nos.	6053.4	24213.6
2.2	Ball valve 1/2" OD As ASTM A -276/ ASME A269: Standard Specification for Pressure Rating.Max Temperature Pressure Rating300°F @ 2500 PSIG /148°C @ 172 BAR, Room Temperature Pressure Rating3000 PSIG @ 100°F /206 BAR @ 37°C ,Flow Pattern 2-Way, Shutoff, StraightTube Fitting & Nut & ferrule. MOC- SS304, Size - Inlet 1/2", End connection Inlet OD CF, Specification 0-10 Bar	RO	Nos.	4165	
2.3	Ball valve 1/4" OD As ASTM A -276/ ASME A269: Standard Specification for Pressure Rating.Max Temperature Pressure Rating300°F @ 2500 PSIG /148°C @ 172 BAR, Room Temperature Pressure Rating3000 PSIG @ 100°F /206 BAR @ 37°C ,Flow Pattern 2-Way, Shutoff, StraightTube Fitting & Nut & ferrule . MOC- SS304, Size - Inlet 1/4", End connection Inlet OD CF, Specification 0-10 Bar	16	Nos.	3457.4	55318.4

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SITC VALIDATION OF c-GMP COMPLIANT MAMMALIAN CELL LINE REPOSITORY ON TURNKEY BASIS AT NCCS JIDNYASA BUILDING, KOTHRUD, PUNE

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
2.4	Needle valve 1/4" OD As ASTM A -276/ ASME A269: Standard Specification for Pressure Rating.Max Temperature Pressure Rating300°F @ 2500 PSIG /148°C @ 172 BAR, Room Temperature Pressure Rating3000 PSIG @ 100°F /206 BAR @ 37°C ,Flow Pattern 2-Way, Shutoff, StraightTube Fitting & Nut & ferrule. MOC- SS304, Size - Inlet 1/4", End connection Inlet OD CF, Specification 0-10 Bar	21	Nos.	3929.4	82517.4
2.5	Elbow 90 deg MOC- SS304, Size - Inlet 3/4", End connection Inlet OD CF, Specification 0-10 Bar	10	Nos.	4908.8	49088
2.6	Line Pressure Regulator for Compressed Air, Inlet Pressure= Upto 10 Bar, Outlet Pressure=0 to 8 Bar and Coloured Identification, MOC of the Body : Aluminium,With Inlet and Outlet Pressure Gauge (of suitable range) . With Inlet/Outlet Ports connector . MOC- Alluminum/ Brass, Size - Inlet 3/4", Outlete 3/4", Specification 0-10 Bar	RO	Nos.	10714.4	
2.7	Line Pressure Regulator for Compressed Air, Inlet Pressure= Upto 10 Bar, Outlet Pressure=0 to 8 Bar and Coloured Identification, MOC of the Body : SS304/SS316,With Inlet and Outlet Pressure Gauge (of suitable range) . With Inlet/Outlet Ports connector. MOC- SS304/SS316, Size - Inlet 1/4", Outlet 1/4", Specification 0-10 Bar	16	Nos.	10714.4	171430.4
2.8	Connector for regulator MOC- SS304, Size - Inlet 1/4", Outlet 1/4", End connection Inlet OD CF, Outlet MNPT, Specification 0-10 Bar	32	Nos.	673	21523.2
2.9	Equipment Connector MOC- SS304, Size - Inlet 1/4", Outlet 1/2", End connection Inlet OD CF, Outlet BSPF Specification 0-10 Bar	21	Nos.	790.6	16602.6
2.10	AUTO MOISTURE TRAP (automatic condensate drain with float). The rate quoted shall include for supply of providing necessary Isolation valves, Barrel Nipples, fittings, valves & jointing material like Teflon tape,Connectors etc. MOC- SS304, Size - Inlet 3/4", End connection Inlet MNPT, Specification 0-10 Bar	2	Nos.	18030.4	36060.8
2.11	Pressure Gauge Bourdon type (Liquid Filled) along With Syphon & Cock with Dial Size - 4" (Ø100 mm); Contact parts: SS304, Movement: SS 304, Block: SS 304, Range 0 to 16 kg/cm², Accuracy : ±1% of range span, Over range protection: 125%, Case & Bezel: SS 304 with screwed Bezel of ABS plastic,Mounting: Direct with bottom entry, Standard Fitments: Micro adjustable pointer (internal) blow out disc.The Scale displayed shall be of 0-16bar).The Pressure gauge supplied shal compile to EN873-1 standards. The rate quoted shall include for supply of providing necessary Barrel Nipples, isolation valve & jointing material like Teflon tape, etc. MOC-SS304, Size - Inlet 1/2", End connection Outlet MNPT, Specification 0-10 Bar	1	Nos.	9121.4	9121.4
2.12	Equal Tee MOC- SS304, Size - Inlet 1/4", Outlet 1/4", End connection Inlet OD OW, Outlet OD OW Specification 0-10 Bar	5	Nos.	967.6	4838
2.13	Equal Tee MOC- SS304, Size - Inlet 3/4", Outlet 3/4", End connection Inlet OD OW, Outlet OD OW Specification 0-10 Bar	2	Nos.	1569.4	3138.8
2.14	Reducing Tee MOC- SS304, Size - Inlet 3/4", Outlet 1/2", End connection Inlet OD OW, Outlet OD OW Specification 0-10 Bar	3	Nos.	1368.8	4106.4
2.15	Reducing Tee MOC- SS304, Size - Inlet 3/4", Outlet 1/4", End connection Inlet OD OW, Outlet OD OW Specification 0-10 Bar	12	Nos.	1368.8	16425.6
2.16	Reducing Tee MOC- SS304, Size - Inlet 1/2", Outlet 1/4", End connection Inlet OD OW, Outlet OD OW Specification 0-10 Bar	2	Nos.	967.6	1935.2
2.17	Reducing Union MOC- SS304, Size - Inlet 3/4", Outlet 1/2", End connection Inlet OD OW, Outlet OD OW Specification 0-10 Bar	1	Nos.	1262.6	1262.6
2.18	Reducing Union MOC- SS304, Size - Inlet 1/2", Outlet 1/4", End connection Inlet OD OW, Outlet OD OW Specification 0-10 Bar	1	Nos.	967.6	967.6
2.19	S. S. SEAMLESS TUBES ASTM A269 TP 304 , as per attached specification with necessary cutting,bending , welding(Orbital welding with 99.999% UHP Argon Purging to be considered for joining tubes & fittings) etc. The rate quoted to be inclusive of necessary wall bores, cutting through walls as per dwg. Mode of measurement shall be in running Meters as described below. Specification 0-10 Bar				
2.19.1	Seamless Tube MOC- SS304, Size - Inlet 1", End connection Inlet OD OW, Specification 0-150 Bar	0	Mtr.	1250.8	
2.19.2	Seamless Tube MOC- SS304, Size - Inlet 3/4", End connection Inlet OD OW, Specification 0-150 Bar	54	Mtr.	979.4	52887.6
2.19.3	Seamless Tube MOC- SS304, Size - Inlet 1/2", End connection Inlet OD OW, Specification 0-150 Bar	12	Mtr.	778.8	9345.6

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SITC VALIDATION OF c-GMP COMPLIANT MAMMALIAN CELL LINE REPOSITORY ON TURNKEY BASIS AT NCCS JIDNYASA BUILDING, KOTHRUD, PUNE

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
2.19.4	Seamless Tube MOC- SS304, Size - Inlet 1/4", End connection Inlet OD OW, Specification 0-150 Bar	150	Mtr.	613.6	92040
2.20	Clamp & Rail Nuts (for Tube) MOC- PP+SS304, Size - Inlet 1", End connection Inlet OD	0	Nos.	182.9	
2.21	Clamp & Rail Nuts (for Tube) MOC- PP+SS304, Size - Inlet 3/4", End connection Inlet OD	54	Nos.	159.3	8602.2
2.22	Clamp & Rail Nuts (for Tube) MOC- PP+SS304, Size - Inlet 1/2", End connection Inlet OD	12	Nos.	153.4	1840.8
2.23	Clamp & Rail Nuts (for Tube) MOC- PP+SS304, Size - Inlet 1/4", End connection Inlet OD	150	Nos.	153.4	23010
2.24	Tagging MOC- Acrylic	150	Nos.	49.56	7434
2.25	Providing Unistrut Rail,w ith Rail Nut(For all size of tubes as per BOQ), STAUFF Clamp Rail Channel PP End Caps, M10 GI Threaded Rod, M10 GI Plane Washer & nut, M10 GI Anchor Bolt For Threaded Rod, Channel GI ,MS ISA , Anchored Plate MS(IS 2062 steel), M12 Bolts, Nuts & Expansion Bolts (High tension HILTl) including drilling, wall bores, cutting through walls, fixing support, welding, cutting etc. The rate quoted shall include for all above mentioned items & accessories. Note: Mode of measurement will be centerline measurement Unistrut rail without any additional measurement for mentioned items) MOC- GI	1	Lot.	115168	115168
Total for Compressed Air SS304 -Q2					808878.2
Q3	Supply, Installation,Testing & Commissioning of following Potable Water Distribution System & Accessories	POW			
3.1	CPVC 4120 SDR 11/SCH40 plastic pipe as per ASTM D-2846/ASTM F 441 pipeline with necessary slope. The rate quoted shall include for (All fittings shall be SCH40 as per ASTM F439)necessary Unions,Reducer,Coupling,Tee, Reducer tee, Elbow, Male adapter, Female adapter, End cap, Brass couplings, Flange, Gaskets, clamps Male/Female Adapter brass threaded coupling, Adhesives solution(ASTM F-493), Wall bores cutting through walls, U clamps etc. as per dwg to be considered for all sizes of every 1.5 mts distance. Note: Mode of Pipe measurement will be centreline measurement without any additional measurement for bends, Tee, reducers and fittings, supports etc.				
3.1.1	40 mm dia MOC- CPVC, Specification 0-2 Bar	95	RMts.	1257.88	119498.6
3.1.2	25 mm dia MOC- CPVC, Specification 0-2 Bar	80	RMts.	549.88	43990.4
3.1.3	20 mm dia MOC- CPVC, Specification 0-2 Bar	70	RMts.	430.7	30149
3.2	CPVC ball valves with end connections of approved make as per detailed specification with bolts, nuts, gaskets, washers, etc.(as per attached specification).				
3.2.1	40 mm dia MOC- CPVC, Specification 0-2 Bar	8	Nos	1853.78	14830.24
3.2.2	25 mm dia MOC- CPVC, Specification 0-2 Bar	6	Nos	767	4602
3.23	20 mm dia MOC- CPVC, Specification 0-2 Bar	16	Nos	342.2	5475.2
3.3	Packing, Transporting, leading, lifting, installation, Erection, alignment and commissioning of Hydropneumatic booster pumping set of capacity - 2m³/hr and 50m head (1working + 0standby) - Suitable for potable water, on a common base frame, , (flooded suction) pressure vessel, SS304 pipe - MOC, common suction / delivery manifolds, isolation Ball valves, NRV, Common Strainer , Power Control panel with VFD starter, Pressure switches, DRY RUN PROTECTION SENSOR, Flow Switch for no flow, cutoff, low level indication and pressure gauge, Auto Run time equalization, Auto duty change over,matching flanges and foundation bolts etc Note : Common power feeder shall be provided for both the pumps.	1	Set	908692.04	908692.04
3.4	STAUFF Clamp Engineering, Procurements of materials, Packing, Loading, Transportation from Vendors Works to Site, Delivery & Unloading at site of Supports for tubes and pipes. The Package shall consist of the following:				
3.4.1	40 mm dia MOC- PP+SS304	95	Nos	224.2	21299
3.4.2	25 mm dia MOC- PP+SS304	80	Nos	188.8	15104
3.4.3	20 mm dia MOC- PP+SS304	70	Nos	165.2	11564
3.5	Y strainer with connector 40mm MOC- Brass, Specification 0-2 Bar	1	No.	9510.8	9510.8
3.6	Equipment connector, Specification 0-2 Bar	17	No.	1215.4	20661.8
3.7	Pressure gauges as per specification for mounting on the Portable water line (Range: 0 - 10kg/cm2)	1	No.	7929.6	7929.6
3.8	CPVC to SS304 Connector MOC- CPVC/SS304,	7	No.	979.4	6855.8

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SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
3.9	Ball Valve-1/2"OD MOC- SS304	7	No.	5227.4	36591.8
3.10	Seamless Tube- 1/2"OD MOC- SS304	18	RMts.	967.6	17416.8
3.11	Clamp & Rail Nuts (for Tube)-1/2"OD MOC- PP	10	No.	306.8	3068
	Total for Potable Water Distribution System & accessories -Q3				1277239.08
Q4	Supply, Installation,Testing & Commissioning of following Capital Equipments (Compressor system)				
4.1	Screw Compressor with inbuilt Refrigerent dryer , Flow 20 CFM @7.5 bar g,7.5HP mounted With Reciver Tank	1	Sets	583297.6	583297.6
4.2	AIR FILTERS:				
	Procurements of materials & bought out components, Manufacturing, Assembly at shop, Inspection & Testing at Manufacturer's Works, Painting, packing, Loading, Transportation from Vendors Works to Site, Delivery & Unloading at site of Air Filter units capacity . . (As per ISO: 12500 Series) and as per manufacturer's standard. The vendor has to furnish all the performace test reports along with package. For more details refer Technical datasheet enclosed as part of Technical Specification document and end connectors				
4.2.1	Pre Filter Air Filters : External Pre-Filter Particle Removal Rating-Micron (ISO:8573-1:2010 (E) Class 1),Pre- Filter Oil Removal Rating-0.01 mg/m3 (ISO:8573-1:2010 (E) Class 1),Filtering Media-Borosilicate Microfiber Glass &Efficiency-99.9%	2	Nos.	36108	72216
4.2.2	External Post- Filter Particle Removal Rating-1 micron (ISO:8573-1:2010 (E) Class 2)	RO	Nos.	0	
	Total for Capital Equipments-Compressor unit-Q4				655514
Q5	Supply, Installation,Testing & Commissioning of following Drain System- SS304				
5.1	Stainless Steel ERW pipes , material to SS304(ASTM A 312 TP 304), dimensions to ANSI B 36.19 pipes with necessary slopes and specials items like flanges, gaskets, bolts, nuts, washers, U-clamps, Tagging(Acrylic), elbows, tees, unions, reducers, threading, welding(Tig), cutting etc. Complete Every two lengths of pipe shall be with flanged ends. The rate quoted shall include for necessary wall bores, cutting through walls, column, Metal supports (ISMC, ISA) etc., Painting with two coats of enamel paint as per relevant IS codes etc., Note: Mode of Pipe measurement will be centreline measurement without any additional measurement for bends, Tee, reducers and fittings, supports etc.				
5.1.1	100 mm Sch 10S MOC- SS304, Specification 0-4 Bar	24	Mtr	5144.8	123475.2
5.1.2	80 mm Sch 10S MOC- SS304, Specification 0-4 Bar	54	Mtr	3634.4	196257.6
5.1.3	50 mm Sch 10S MOC- SS304, Specification 0-4 Bar	72	Mtr	2383.6	171619.2
5.2	Sink Connector MOC- HDPE, Specification 0-4 Bar	5	No.	1616.6	8083
5.3	SS304 Drain Sterile Trap size 250x250mm with 80mm outlet MOC-SS304, Specification 0-4 Bar	19	No.	9534.4	181153.6
5.4	PN6/10 HDPE pipes confirming to IS:4989 complete with necessary slope and fittings specials like flanges, P-Trap, end cap, bends, collar, Equal Tee, Reducing Tee, Y-type Tee, gaskets, bolts, nuts, washers, unions, heat welding,etc.The rate quoted shall include for necessary wall bores cutting through walls, column,SS cover for HDPE pipes of suitable heights and width (thickness to be minimum., 4mm), pipe clamps & MS supports(including required size of anchor fasteners type, Channels, Threaded Rods, " U " Clamp & Universal GI clamps with necessary bolts, washer and nuts, suspended in ceiling and Roof slabs etc.) to be considered for all sizes of every 1 mts distance, etc. All the HDPE pipes to be covered with Stainless Steel casing in all the lab areas, the SS case shall be leak proof. Note:vendor should include cost for all the fittings , accessories etc				
5.4.1	50 mm (internal connection for sink) MOC- HDPE, Specification 0-4 Bar	18	Mtr	861.4	15505.2
5.5	PP Clamp Unistrut Channel, PP Clamp With Tee Nut(For all size of tubes as per BOQ), Aluminium Profile , PP End Caps, M10 GI Threaded Rod, M10 GI Plane Washer & nut, M10 GI Anchor Bolt For Threaded Rod, Channel GI , M12 Bolts, Nuts , all above mentioned items & accessories with Acrylic Tagging. MOC- GI (Power coated & PP)	1	lot	39648	39648

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SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
5.6	CPVC 4120 SDR 11/SCH40 plastic pipe as per ASTM D-2846/ASTM F 441 pipeline with necessary slope. The rate quoted shall include for (All fittings shall be SCH40 as per ASTM F439)necessary Unions,Reducer,Coupling,Tee, Reducer tee, Elbow, Male adapter, Female adapter, End cap, Brass couplings, Flange, Gaskets, clamps Male/Female Adapter brass threaded coupling, Adhesives solution(ASTM F-493), Wall bores cutting through walls, U clamps etc. as per dwg to be considered for all sizes of every 1.5 mts distance. Note: Mode of Pipe measurement will be centreline measurement without any additional measurement for bends, Tee, reducers and fittings, supports etc.				
5.6.1	40 mm dia MOC- CPVC, Specification 0-2 Bar	100	RMts.	1257.88	125788
5.6.2	25 mm dia MOC- CPVC, Specification 0-2 Bar	80	RMts.	549.88	43990.4
5.6.3	20 mm dia MOC- CPVC, Specification 0-2 Bar	70	RMts.	430.7	30149
5.7	EMERGENCY STORM WATER PUMP Supply, Instalation testing and commissioning of Emergency strom water pump (01 No working+ 00 No standby) with mechanical seal arrangement. Consider 20 Rmtr rigid pipe with flexible hose, ball valves and necessary accessories Flow rate : 2m3/hr, Head : 10 mtrs .	1	No	41300	41300
	Total for Drain System (SS304) -Q5				976969
Q6	Supply, Installation,Testing & Commissioning of following Liquid Nitrogen				
6.1	Vacuum Insulated Pipes SS304 Seamless Pipes with electro polished with as per ASTM A 312 TP 304, dimensions ANSI B 36.19, with super insulation and evacuation of annular space vacuuming to level of 1x10-3 mbar. Helium Leak Tested. Leak Test by using Snoop Solution. Cold Stretch Test to be done. Pipe to pipe joints are Bayonet joints, with necessary slopes and specials items like flanges, PTFE gaskets, U-clamps, Tagging(Acrylic), elbows, tees, unions, reducers, threading, Tig welding should be done with Argon purging, cutting & mechanically buffed for good finishing , cutting & mechanically buffed for good finishing etc. The rate quoted shall include for necessary wall bores, cutting through walls, column, Metal supports (ISMC, ISA) etc., Note: Mode of Pipe measurement will be centreline measurement without any additional measurement for bends, Tee, reducers and fittings, supports etc. The test certificates of SS pipes to be Submitted.				
6.1.1	25 mm dia Internal Pipe with Sch 40s & Outer insulation pipe of 80 mm dia mm with Sch 10s MOC-SS304	RO	RMts.	0	
6.1.2	15 mm dia Internal Pipe with Sch 40s & Outer insulation pipe of 50 mm dia mm with Sch 10s MOC-SS304	30	RMts.	24732.8	741984
6.2	Supply, installation, testing & commissioning of Cyrogenic Bronze Manual Globe Valve (Extended Stem) with Screwed ends Body : Gun Metal BS EN 1982 CC491K, Cover : SS BN EN 10088-3 1.4301, Bonnet Flange : SS ASTM A351 CF8M, Disc : HT Brass BS EN 12164 CW 721R, Stem : SS BN EN 10088-3 1.4401, Gasket Bonnet : Sigma 511, Gland Packing : Virgin PTFE, Fasteners : SS BS6105 A2/A4 Gr. 70, Seal : Virgin PTFE, Tube : SS ASTM A 312 TP304L				
6.2.1	25 mm dia MOC-SS304	RO	Nos.	0	
6.2.2	15 mm dia MOC-SS304	5	Nos.	54870	274350
6.3	Drain Valve with Screwed ends Body : Gun Metal BS EN 1982 CC491K, Cover : SS BN EN 10088-3 1.4301, Bonnet Flange : SS ASTM A351 CF8M, Disc : HT Brass BS EN 12164 CW 721R, Stem : SS BN EN 10088-3 1.4401, Gasket Bonnet : Sigma 511, Gland Packing : Virgin PTFE, Fasteners : SS BS6105 A2/A4 Gr. 70, Seal : Virgin PTFE, Tube : SS ASTM A 312 TP304L MOC-SS304				
6.3.1	25 mm dia	RO	Nos.	0	
6.3.2	15 mm dia	1	Nos.	54870	54870
6.4	Cyrogenic Brass Thermal Relief Valve Body : Naval Brass BS EN 12163 CW712R, Disc : Hostafion Electro Carbon Filled, Stem : SS BN EN 10088-3 1.4401, Spring : SS 302, Adjuster : Naval Brass BS EN 12163 CW712R MOC- Brass				
6.4.1	15 mm dia	1	No.	23187	23187

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SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
6.5	Cryogenic Safety Relief Valve Body : Gun Metal BS EN 1982 CC491K, Seat : HT Brass BS EN 12164 CW 721R, Adjusting cap : Gun Metal BS EN 1982 CC491K, Disc : Phosphor Bronze BS EN 12163 CW451R, Seal : PTFE TF7196, Blowdown Ring: Gun Metal BS EN 1982 CC491K, Spring : SS 302 S26 BS2056, Weather Proof Cap : HT Brass BS EN 12164 CW721R MOC-Brass				
6.5.1	15 mm dia	1	Nos.	34987	34987
6.6	Pressure Gauge Cryogenic Application Bourdon type along With Syphon & Cock with Dial Size - 4" (Ø100 mm); Contact parts: SS304, Movement: SS 304, Block: SS 304, Range 0 to 10 kg/cm ² , Accuracy : ±1% of range span, Over range protection: 125%, Case & Bezel: SS 304 with screwed Bezel of ABS plastic, Mounting: Direct with bottom entry, Standard Fitments: Micro adjustable pointer (internal) blow out disc. The Scale displayed shall be of dual type (kg/cm ² and Psi). The Pressure gauge supplied shall comply to EN873-1 standards. The rate quoted shall include for supply of providing necessary Barrel Nipples, isolation valve (Ball Valve) & jointing material like Teflon tape, etc. MOC- SS304				
6.6.1	Pressure Rating 0 - 7 Bar	RO	Nos.	-	
6.6.2	Pressure Rating 0 - 14 Bar	2	Nos.	17794	35588.8
6.7	Vacuum insulated SS Braided Flexible Hose of 2 m length with end connection of Bayonet joints. The flexible hose shall be provided with Epoxy reinforced glass fibre Spacers and Multi layer insulation using glass paper and aluminum foil and shall meet the standards of Pressure Equipment Directive (PED) and designed according to EN 13480 or ASME B13.3. The following standard testing has to be carried out Dimensional check; Pressure testing; NDE by X-ray or PT; Helium leak test (<1x10 ⁻⁹ mbarL/sec); Vacuum retention test after 24h at ambient temp (acceptance level <2x10 ⁻⁴ mbar) MOC-SS304				
6.7.1	Size & MOC of Inner Hose: 15NB SS304 Sch10S, Seamless	3	No.	84075	252225
6.8	Cryogenic Vacuum insulated Vapour vent for boil off gases in pipeline. MOC : SS304; Size 1/2" tube style bayonet end connection , mechanical float and 1/2" NPT check valve at the outlet with vapour vent heater of suitable ratings of approved make with mating flanges, bolts, nuts, gaskets, washers etc., MOC-SS304	1	No.	39235	39235
6.9	Bayonet Joints - Male and Female with required O rings and SS304 Bolts and Nuts MOC-SS304	10	Sets	19647	196470
6.10	Pressure Regulator, 0.5" Size, with Bronze Body and SS304 Diaphragm, For Cryogenic Liquid Nitrogen Service, With required End Fittings, CASH VALVE Make, MOC-SS304	1	Sets	139594	139594
6.11	Regulator Spool, With required Piping and fittings, Structural supports. Puf insulated with aluminium/SS Cladding. MOC- SS/BRASS	1	Sets	128148	128148
6.12	3/4" OD SS304 Seamless Tubing with required fittings MOC-SS304	6	Rmts	7463.5	44781
6.13	MS Supports MOC-MS	200	Kgs	181.72	36344
	Total for Liquid Nitrogen (SS304) -Q6				20,01,764
	TOTAL Q-GAS DISTRIBUTION & UTILITY WORKS (Q1+Q2+Q3+Q4+Q5+Q6)				64,63,175
	NOTE :				
	1) All above Works should be as per Good engineering practices.				
	2) All Material supplied should comply to technical specifications.				
	3) All Mechanical works installation should comply to technical specifications.				
	4) All test certificates & As built drawing should be submitted at the end of the project.				
	5) Quantity for final billing shall be considered based on installed quantity, not as per supply.				
	6) Contractor to provide Unit Prices (R. O - Rate Only) for all the items mentioned above.				
	7) If Makes of any item/material is not specified, approval is to be obtained before procurement.				
	8) All the fittings are to be as per standards specified				

PART II: BILL OF QUANTITY

SITC VALIDATION OF c-GMP COMPLIANT MAMMALIAN CELL LINE REPOSITORY ON TURNKEY BASIS AT NCCS JIDNYASA BUILDING, KOTHRUD, PUNE

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
	9) Refer to P&ID & Tender layout drawings.				
R	CONTAMINATED DRAIN SYSTEM- SS304				
	Supply, Installation, Testing & Commissioning of Drain System				
1	Supply, Instalation, testing and commissioning of 2000 ltrs SS 304 cylindrical tank for Effluent storage and Recirculation. Tank is constructed of 2mm thick shell and dish end with inlet, outlet, Drain and 2 nozzles at top.	2	Nos.	2,91,696	5,83,392
2	Supply, Instalation, testing and commissioning of Effluent feed pump as per below specification. Type of pump : Centrifugal, Mano black. MOC : All wetted parts are SS 304 , with mechanical seal arrangement, Flow : 2m3/hr, Head : 10 mtrs	1	No.	77,644	77,644
3	Supply, Instalation testing and commissioning of Effluent re circulation pump as per below specification. Type of pump : Centrifugal, Mano black. MOC : All wetted parts are SS 304 , with mechanical seal arrangement, Flow :2m3/hr, Head : 20 mtrs	1	No.	79,768	79,768
4	Supply, Instalation, testing and commissioning of Electronic dosing pump to dose Sodium hypo chlorite / Sodium hydroxide as per below specification. Type of pump : Electronic Dosing, MOC : PP, Flow : 6LPH, Pr : 3 bar	1	No.	1,22,484	1,22,484
5	Supply, Instalation, testing and commissioning of Chemical dosing tank , suitable to hold Sodium hypo chlorite / Sodium hydroxide. Capacity : 60 ltrs, MOC-PP	1	No.	75,874	75,874
6	Supply, Instalation, Testing and commissioning of Inter connect piping along necessary fittings to connect, transfer and re circulate the effluent as per the drawing. MOC-SS304	1	No.	82,128	82,128
7	Supply Instalation, Testing, Commissioning of Electrical control panel with Main in coming MCCB , 2 no of feeders for Effluent transfer and Re circulation pump, 1 feeder for Dosing pump along with necessary switch gear mechanisum	1	No.	1,21,304	1,21,304
8	Supply, instalation, testing and commissioning of Drain hose to drain the de contaminated effluent. Type : Double braided.MOC-SS304	10	Mtrs	5,640	56,404
9	Supply,installation, testing and commissioning of Stainless Steel ERW pipes , material to SS304(ASTM A 312 TP 304), dimensions to ANSI B 36.19 pipes with necessary slopes and specials items like flanges, gaskets, bolts, nuts, washers, U-clamps, Tagging(Acrylic), elbows, tees, unions, reducers, threading, welding(Tig), cutting etc. Complete Every two lengths of pipe shall be with flanged ends. The rate quoted shall include for necessary wall bores, cutting through walls, column, Metal supports (ISMC, ISA) etc., Painting with two coats of enamel paint as per relevant IS codes etc., Note: Mode of Pipe measurement will be centreline measurement without any additional measurement for bends, Tee, reducers and fittings, supports etc. MOC-SS304 Size:- 50 mm Sch 10S	30	Mtrs	3,847	1,15,404
10	Necessary cable, Instruments, hardware componets and accessories	1	Lot	53,454	53,454
	TOTAL DRAIN SYSTEM- R				13,67,856
	NOTE-				
	1) All above Works should be as per Good engineering practices.				
	2) All Material supplied should comply to technical specifications.				
	3) All Mechanical works installation should comply to technical specifications.				
	4) All test certificates & As built drawing should be submitted at the end of the project.				
	5) Quantity for final billing shall be considered based on installed quantity, not as per supply.				
	6) Contractor to provide Unit Prices (R. O - Rate Only) for all the items mentioned above.				
	7) If Makes of any item/material is not specified, approval is to be obtained before procurement.				
	8) All the fittings are to be as per standards speicified				
	9) Refer to P&ID & Tender layout drawings.				
S	FIRE PUMP & HYDRANT SYSTEM				
	Terrace Floor Pressure Pump with Control Panel				

PART II: BILL OF QUANTITY

SITC VALIDATION OF c-GMP COMPLIANT MAMMALIAN CELL LINE REPOSITORY ON TURNKEY BASIS AT NCCS JIDNYASA BUILDING, KOTHRUD, PUNE

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
1	Supply & Erection, testing & commissioning of Electrical motor driven main pump of Horizontal centrifugal end suction back pull out type with Mechanical seal ,Brass impeller etc (confirming to TAC Norms & IS Standards) and capable to deliver 450 LPM at 40 MWC .The pump shall be coupled to TEFC motor of suitable HP with speed of 2900 RPM and complete set shall mounted on common base frame. The quoted rate shall includes providing & fixing of coupling, coupling guard, and Foundation bolts & nuts, Rubber Bellows in suction & discharge line etc. As per attached specification, vendor to supervise & co -ordinate with civil agency for pump foundation .Pump to be equipped with Base frame & Cushy foot . Pump on/off is controlled through pressure sensor as per set points. Power Control panel for Above pump for Operating at set pressure including control cabling to Pressure Switch to be Considered. Electrical control (Out Door Condition IP55 protection with Double Door)with MCCB ,Automatic Star delta starter with Push Button switch, Indication Lamp, Digital Voltmeter, Digital Ammeter with CT, Auto/Manual Switch, Power /Control wiring from Panel to Motor Earthing from Panel to motor etc.	1	SET	94400	94400
2.0	Supply & Installing, testing and commissioning of Water Pressure Switch (0 to 10 kg/cm2) in Fire hydrant line- including necessary joining, Fixing fitting, accessories. With isolation ball Valve.	1	Nos	5605	5605
3.0	Supply & Installing, testing and commissioning of C.I. Butterfly valve 200 PSI Rating with matching flanges, nuts, bolts etc. complete. As per Specifications.				
3.1	150 mm nominal dia Gear operated	2	Nos.	18762	37524
3.2	100 mm nominal dia Lever Operated	2	Nos.	15458	30916
3.3	80 mm nominal dia Lever Operated	3	Nos.	11741	35223
4.0	Supply & Installing, testing and commissioning of C.I. NRV 200 PSI Rating with matching flanges, nuts, bolts etc. complete. As per Specifications.				
4.1	150 mm nominal dia	1	Nos.	21712	21712
4.2	100 mm nominal dia	1	Nos.	16933	16933
5.0	Supply, laying, joining, testing and commissioning of following sizes of Above Ground pipes conforming to GI ERW "C" Class conforming to IS-1239 class (heavy/C class) up to 150mmdia & conforming to IS 3589 for sizes greater than 150mmdia with all accessories like all fittings including tees, elbows, reducers, union, ANSI flanges, rubber gaskets,Marking,Structural supports along with painting pipes with one coat of bison wash primer & two coats of fire red enamel paint complete with all accessories. Note :- 200 mm NB Above Size 6.3 mm Thickness.				
5.1	150mm nominal dia	120	Rmt	3,599	431880
5.2	100mm nominal dia	6	Rmt	2,419	14514
5.3	80mm nominal dia	6	Rmt	1,682	10089
5.4	50mm nominal dia	6	Rmt	1,682	10089
5.5	40mm nominal dia	3	Rmt	1,003	3009
5.6	32mm nominal dia	12	Rmt	708	8496
5.7	25mm nominal dia	100	Rmt	472	47200
6.0	Supply,Construction of Civil Pedestal PCC 1:3:6 bed, The pedestal shall be provided with 8 mm thick M.S.top plate,ISMC Channel with anchor bolts & nuts with Anti corrosion Painting .				
6.1	300 x 250 x 450 mm in Height	RO	Nos	6490	
7.0	Supply & Erecting and commissioning of Yard/Internal Hydrants comprising of the following				
7.1	Single headed hydrant valve as per IS 5290, made of SS304 with 63 mm dia instantaneous out let & 80 mm dia flanged inlet ,PVC Blank cap , chain and hand wheel etc. complete.	6	Nos.	6195	37170
7.2	15 M long, 63mm dia Reinforced Rubber Line hose as per IS:636 Type-A with SS304 male, female instantaneous couplings and Hoses shall be stored in side the hose cabinet.	12	Nos.	5487	65844

PART II: BILL OF QUANTITY

SITC VALIDATION OF c-GMP COMPLIANT MAMMALIAN CELL LINE REPOSITORY ON TURNKEY BASIS AT NCCS JIDNYASA BUILDING, KOTHRUD, PUNE

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
7.3	M.S. Hose cabinet stand mounted type(out door conditions) fabricated out of CRCA sheet of 18 swg. Suitable for storing 2 no's 15 m hose & 1 no Gun metal branch pipe with nozzle of 63 mm dia Sie. Boxes will be duly painted with two coats each of red oxide primer & finish enamel fire red colour outside & ivory white inside with locking arrangement for double leaf front glass doors having 4 mm thick glass & rubber beading complete as per specifications & standard's. cabinet shall be minimum size of 750mm x 600 mm x 250 mm.Quoted rate shall be includes suitable stand,canopy for mounting, Earth trust block ,all fasteners etc.,	6	Nos.	7375	44250
7.4	SS304 Short branch pipe with nozzle of 63 mm dia size for matching hose reel mating connections. To be stored inside hose cabinet. As per IS:903	6	Nos.	2478	14868
7.5	First aid Hose reel drum of swinging type with 20mm dia Rubber braided hose of 36M. length with Gate valve (upstream) and Shut off nozzle, complete as per specifications & standards	3	Nos.	10620	31860
8.0	Supplying, Installing ,testing and commissioning of water foam monitor 63 NB,,carbon steel waterway, bronze swivel joint, lever operated, With Hydro foam Nozzle for Monitor Bronze, jet & fog, 2.1/2" BSP, with 3.0 Mts. Long pick up tube Flowrate:2850 LPM @ 7 Kg/cm2.	1	Nos.	68735	68735
9	Supply and Installation of Intermediate Bulk Container (IBC) with Metal Pallet For Foam Storage on 150mm PCC Platform.				
9.1	Capacity - 200 Litres	1	Nos.	57820	57820
10	Supply of Alcohol Resistant Aqueous Film-Forming Foam Concentrates (AR-AFFF) ,	200	Litres	206.5	41300
11	Installing and commissioning of existing fire brigade inlet connection of 4 way with 4 nos. 63 mm dia. built - in SS304 Non- return valves instantaneous coupling type arranged on 150 mm dia. Pipe manifold and connected to Fire water tank. Quoted rate shall be included with C.I. Butterfly valve, C.I. Non-return valve and M.S. cabinet of suitable size with mounting supports, etc. complete.	1	Nos.	31270	31270
12	Supply & Installation of Following Pressure gauges of suitable range with 1/2"Ball valves, siphon, Fittings like unions / colours / reducers etc.				
12.1	6"dia X 1 to 10 kg/cm2	1	Set	5605	5605
13	Supply & Installing Auto Air release valve with spring actuated air release valve, suitable for pressure 1.5 times the working pressure of system				
13.1	25 NB	2	Nos.	2360	4720
14	Supply & Installing, testing and commissioning of Carbon Steel Ball valve , 3 Piece, Full bore, confirming to BS 5351/API 6d with fittings of screwed end type with proper seal / Flanged end with matching flanges nuts & bolts				
14.1	40 mm dia	2	Nos.	4,307	8614
14.2	25 mm dia	4	Nos.	4,307	17228
15	Supply & Erection, testing and commissioning of MS Structural steel (IS 2062 STEEL) fabricated out of ISMB,ISMC,ISA / flats of required size for supporting Works, The work shall also include making hole grouting the same in walls with cement concrete and making good the same. Necessary U clamp, Standard anchor bolts & nuts etc. ,welding, cutting, with red oxide painting one coat & 2 coat epoxy painting as per approved colour etc.	300	Kgs.	141.6	42480
16	Supply & Erection, testing & commissioning of Cast iron Submersible Raw Water Under ground Sump Pump (1 Working+1 Stand by) Capacity:3 m3/hr,25m Head. The quoted rate shall includes providing & fixing of Pressure Gauge, with inbuilt float switch on a three phase, 50 cycles, 400/440 Volts with ball valve, non-return valve, foundation bolts, PCC pedestal in 1:2:4, Control Panel, Pump Sleeves Foundation bolts & nut. Pump on/off is controlled through Automatic Water Level Controller as per OHT tank full level off/ Mid level-on) & UG Tank low level(Dry Run Protection) including Necessary Float valve . Power Control panel for Above pump for Operating at level including control cabling to Level Switch to be Considered. Electrical control (Out Door Condition IP55 protection with Double Door)with MCCB ,Automatic Star delta starter with Push Button switch, Indication Lamp, Digital Voltmeter, Digital Ammeter with CT, Auto/Manual Switch, Power /Control wiring from Panel to Motor Earthing from Panel to motor etc.	1	SET	155170	155170

PART II: BILL OF QUANTITY

SITC VALIDATION OF c-GMP COMPLIANT MAMMALIAN CELL LINE REPOSITORY ON TURNKEY BASIS AT NCCS JIDNYASA BUILDING, KOTHRUD, PUNE

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
FIRE EXTINGUISHER & SAFETY ALLIED ITEAMS					
1	Supplying, installing and commissioning Fire extinguishers of following Portable & trolley type As per capacity. Quoted rate includes proper supports & Installations, Fire extinguisher confirming latest IS norms as per new IS norms, IS 15683:Latest				
	Carbon-di- oxide type fire extinguisher of Following Capacity, CO2 gas filled in brand new seamless cylinder, squeeze grip type extinguisher with powder coated finish, made out of Manganese steel, with wheel type valve, discharge nozzle, bend & horn, wall mounting bracket type/self supported stand type etc. complete, confirming to IS: 2878./ IS 15683:Latest				
0.1	2 kg	1	Nos.	4248	4248
0.2	4.5 kgs.	1	Nos.	5428	5428
2	ABC DCP Type(Mono Ammonium Phosphate/ MAP) fire extinguisher of following Capacity, with initial filling in brand new cylinder with powder coated finish, fitted with Gun metal union, stored pressure / Squeeze grip type discharge hose, wall mounting bracket/self supported MS powdered quoted stand type etc. complete,				
2.1	2 Kgs.	1	Nos.	1357	1357
2.2	6Kgs.	10	Nos.	2478	24780
3	Dry chemical powder type (TEC/Metal fire) fire extinguisher of 4 Kgs. Capacity, squeeze grip type with initial filling in brand new cylinder with powder coated finish, fitted with Gun metal union, high pressure CO2 gas cartridge, discharge hose, wall mounting bracket type/self supported stand type etc. complete, confirming to IS:2171. as per new IS norms - IS 15683	1	Nos.	3245	3245
4	Mechanical Foam type ,N2 Stored pressure, mechanical foam 9 lts stored pressure type control discharge mechanism applicable on class A & B fire rating2 A & 21 b	1	Nos.	2891	2891
5	Clean agent HFC227ea Clean Agent Based Portable (Stored Pressure Type) Fire Extinguishers fire extinguisher of following Capacity, with initial filling in brand new cylinder with powder coated finish, fitted with Gun metal union, stored pressure / Squeeze grip type discharge hose, wall mounting bracket/self supported MS powdered quoted stand type etc. complete,				
5.1	4 kgs.	2	Nos.	27140	54280
6	Supply & Erection of 1 sets of 4 no's fire buckets with floor stand and necessary painting, filled with sand etc. complete.	1	Nos.	4897	4897
SAFETY SIGNAGES & ALLIED ITEAMS					
7	Supply & installation, fixing of fire & safety signage different range 2 mm-thick photo luminescent sign As per International Standards Organization (ISO), for ISO 6309: Fire Protection - Safety Signs.				
7.1	"FIRE EXIT " signage – single sided (150 x 300 mm)	20	Nos.	295	5900
7.2	"FIRE EXIT " signage – Double sided (150 x 300 mm)	12	Nos.	548.7	6584.4
7.3	"EXIT" signage – single sided (150 x 300 mm)	6	Nos.	295	1770
7.4	Fire safety & fire extinguisher identification signage -100 x100mm Size	14	Nos.	129.8	1817.2
7.5	Floor & Room Evacuation plan with Opaque acrylic glass board. 450 X 350 mm consider night glow and fibre board .	4	Nos.	4100.5	16402
III	WATER TANK				
	Supply & installation, fixing of HDPE Circular tank including Cover, out let GI Nozzle-150 dia for Fire tank & 50 dia for Potable water tank, Inlet Nozzle 50 dia for Both tanks. Tank to lifted & postioned to terrace floor.				
	5000 Liters	2	Nos.	30090	60180
TOTAL S-FIRE PROTECTION SYSTEM					15,88,304
SI. NO.	DESCRIPTION				AMOUNT
A	CIVIL WORKS				19789227
B	ELECTRICAL LT WORKS				11662010
C	HVAC WORKS				12606670
D	VRF WORKS				9917105
E	SCRUBBER WORKS				675314
F	BMS & EMS WORKS				4521162
G	FIRE ALARM SYSTEM				1346989
H	ACCESS CONTROL SYSTEM				570564
I	DOOR INTERLOCKING SYSTEM				903458
J	CCTV SYSTEM				291012
K	GAS DETECTOR SYSTEM				96359

PART II: BILL OF QUANTITY

SITC VALIDATION OF c-GMP COMPLIANT MAMMALIAN CELL LINE REPOSITORY ON TURNKEY BASIS AT NCCS JIDNYASA BUILDING, KOTHRUD, PUNE

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE INCLUDING TAX	TOTAL AMOUNT INCLUDING TAX
L	GAS CHANGEOVER SYSTEM				300074
M	NETWORKING WORKS				1567918
N	CLEAN ROOM PANEL WORKS				10728324
O	LAB FURNITURE WORKS				5459820
P	COLD ROOM WORKS				1159350
Q	UTILITY PIPING & ETP DRAIN WORKS				6463175
R	CONTAMINATED DRAIN SYSTEM				1367856
S	FIRE PROTECTION SYSTEM				1588304
	TOTAL PROJECT COST				91014689

**राष्ट्रीय कोशिका विज्ञान केंद्र
NATIONAL CENTRE FOR CELL SCIENCE**

NIT No. NCCS/MAINT/GMP/454C/2023-24

Name of Work: - SUPPLY, INSTALLATION, TESTING, COMMISSIONING, QUALIFICATION AND VALIDATION OF C-GMP COMPLIANT MAMMALIAN CELL LINE REPOSITORY ON TURNKEY BASIS AT NCCS JIDNYASA BUILDING, KOTHRUD, PUNE-411038

PRICE BID

Name of the Contractor: M/s. _____

SNo	Name of component	Total Project Cost	Percentage above or below the Total Project Cost	% in Figure	Total Amount
1	SITC, QUALIFICATION AND VALIDATION OF C-GMP COMPLIANT MAMMALIAN CELL LINE REPOSITORY ON TURNKEY BASIS AT NCCS JIDNYASA BUILDING, KOTHRUD, PUNE-411038	Rs.9,10,14,689/-			
PART I: TOTAL AMOUNT IN WORDS					

SEAL & SIGN OF THE BIDDER

PART II

CAMC / AMC

PART II-A

ANNEXURE “A”: Comprehensive Annual Maintenance Contract (CAMC) Charges for above c-GMP Compliant Mammalian Cell Line Repository with yearly validation after completion of one year Defect Liability Period.

SR. NO.	YEAR	CAMC CHARGES		
		AMOUNT (RS.)	GST	TOTAL AMOUNT (RS.)
1	1 st Year			
2	2 nd Year			
3	3 rd Year			
4	4 th Year			
5	5 th Year			
TOTAL CAMC CHARGES RS				

(TOTAL CAMC CHARGES RUPEES)

NOTE: THE TOTAL CAMC CHARGES WILL BE TAKEN INTO ACCOUNT WHILE EVALUATING THE BID.

TERMS AND CONDITIONS OF THE SERVICE CONTRACT (CAMC):

1. During the service contract period (CAMC), the contractor shall provide four preventive maintenance visits per year, Validation for Grade “B” twice in a year & other areas once in year and submit reports accordingly. Attend all emergent and break-down calls as and when required.
2. The service contract charges should be quoted for services, parts, spares, accessories, software or its updates etc considered in the BOQ all equipments/items excluding civil work, which shall be arranged by the Contractor at its own cost.
3. Response time should be 4 Hrs from the time of complaint given to your firm for all days and rectify the problems on the same day. In case of major breakdown, it should be rectify within 24 hrs. In case of delay in attending and rectifying the fault within 2 days the contract period will be extended by one week for the delay of each day proportionally.
4. The firm shall try to repair the equipment at NCCS. However, the equipment/accessories/parts may be taken to their workshop, on their own expenses if in case it is not possible to repair the same at NCCS, the firm shall take the entire responsibility for the safe custody and transportation of the equipment taken out for repairs till this is handed over to NCCS after repair. Any loss of equipment or its accessories on account of theft, fire or any such reasons shall be the sole risk and responsibility of the firm who will compensate the NCCS for such losses at landing cost (at the time of purchase)/ present landing cost of the damaged/lost equipment/part including accessories whichever is higher.
5. All service contract charges will be invoiced on every quarter on satisfactory completion of period of maintenance. The payment of the invoice will be made after verification of service invoice satisfactorily by user within 30 days of the date of submission of the invoice.
6. No price revision will be accepted by the NCCS during the entire tenure of the service contract agreement.

SEAL & SIGN OF THE BIDDER

PART II- B (OPTIONAL)

ANNEXURE “B”: Non-Comprehensive Annual Maintenance Contract (AMC) Charges for above c-GMP Compliant Mammalian Cell Line Repository with yearly validation after completion of one year Defect Liability Period.

SR. NO.	YEAR	AMC CHARGES		
		AMOUNT (RS.)	GST	TOTAL AMOUNT (RS.)
1	1 st Year			
2	2 nd Year			
3	3 rd Year			
4	4 th Year			
5	5 th Year			
TOTAL AMC CHARGES (1+2+3+4+5) RS.				

(TOTAL AMC CHARGES RUPEES

)

TERMS AND CONDITIONS OF THE SERVICE CONTRACT (AMC):

1. During the service contract period (AMC), the contractor shall provide four preventive maintenance visits per year and submit reports accordingly, Validation for Grade “B” twice in a year & other areas once in year and submit validation reports accordingly. Attend all emergent and break-down calls as and when required and submit reports accordingly. The service contract charges should be quoted only for services, considered in the BOQ all equipments/items excluding civil work, and should not include the cost of any parts/components which shall be arranged by the NCCS.
2. Response time should be 4 Hrs from the time of complaint given to your firm for all days and rectify the problems on the same day. In case of major breakdown, it should be rectify within 24 hrs. In case of delay in attending and rectifying the fault within 2 days inspite of required spares are made available by NCCS, the contract period will be extended by one week for the delay of each day proportionally.
3. The replaced parts shall remain the property of the NCCS.
4. The firm shall try to repair the equipment at NCCS. However, the equipment/accessories/parts may be taken to their workshop, on their own expenses if in case it is not possible to repair the same at NCCS, the firm shall take the entire responsibility for the safe custody and transportation of the equipment taken out for repairs till this is handed over to NCCS after repair. Any loss of equipment or its accessories on account of theft, fire or any such reasons shall be the sole risk and responsibility of the firm who will compensate the NCCS for such losses at landing cost (at the time of purchase)/ present landing cost of the damaged/lost equipment/part including accessories whichever is higher.
5. During the service contract period the parts/components that may be required for replacement shall made available by the NCCS. However, the contractor shall provide list of spares /parts well in advance to enable NCCS to procure and keep these spares in stock.
6. All service contract charges will be invoiced on every quarter on satisfactory completion of period of maintenance. The payment of the invoice will be made after verification of service invoice satisfactorily by user within 30 days of the date of submission of the invoice.
7. No price revision will be accepted by the Institute during the entire tenure of the service contract agreement.

SEAL AND SIGN OF THE BIDDER

ABSTRACT

SR. NO.	PARTICULAR OF ITEMS	AMOUNT
1	PART I- BILL OF QUANTITY FOR SITC OF QUALIFICATION AND VALIDATION OF C-GMP COMPLIANT MAMMALIAN CELL LINE REPOSITORY ON TURNKEY BASIS AT NCCS JIDNYASA BUILDING, KOTHRUD, PUNE-411038	
2	PAPT II A- COMPREHENSIVE ANNUAL MAINTENANCE (CAMC) CHARGES FOR ABOVE c-GMP COMPLIANT MAMMALIAN CELL LINE REPOSITORY WITH YEARLY VALIDATION AFTER COMPLETION OF ONE YEAR DEFECT LIABILITY PERIOD	
TOTAL AMOUNT (1+2) RS.		

(TOTAL AMOUNT IN RUPEES)

SEAL & SIGN OF THE BIDDER