

SUMMARY OF ESTIMATE _V1
"Interior Works for additional premises of NABINS HO."
 at 1st floor, No. 3073, 14th cross, BSK 2nd stage, Bengaluru 560070

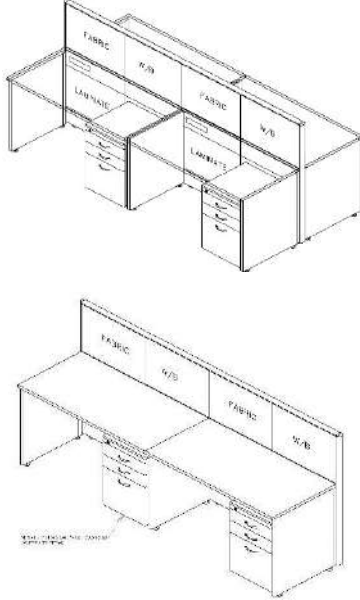

S. No.	DESCRIPTION	AMOUNT
	<u>INTERIOR WORKS</u>	
A	MODULAR FURNITURE	
B	STORAGES	
C	CHAIRS, TABLES AND SOFA	
D	GLASS PARTITIONS AND GLASS DOORS	
E	WALL PANELLING, PAINTING AND FALSE CEILING	
F	CARPET FLOOR TILES	
	TOTAL AMOUNT FOR INTERIOR WORKS	
	<u>ELECTRICAL WORKS</u>	
G	L.T. PANELS AND DISTRIBUTION BOARDS.	
H	EXTERNAL AND INTERNAL CABLES	
I	SUBMAINS CIRCUIT MAINS	
J	TELEPHONE AND NETWORK SYSTEM	
K	EARTHING SYSTEM	
L	MISCELLANOUS ITEMS	
M	LIGHTS AND FAN FIXTURES	
N	UPS and INVETER	
	TOTAL AMOUNT FOR ELECTRICAL WORKS	
	<u>HVAC WORKS</u>	
O	EQUIPMENTS(VRV)	
P	CASSET AND HI WALL UNITS	
Q	REFRIGERANT PIPING	
R	ELECTRICAL CABLES	
S	MISCELLANEOUS ITEMS	
	TOTAL AMOUNT FOR HVAC WORKS	
	<u>SECURITY SYSTEM WORKS</u>	
T	PUBLIC ADDRESS SYTEM	
U	FIRE DETECTION AND ALARM SYSTEM	
V	CCTV SYSTEM	
W	ACCESS CONTROL SYSTEM	
	TOTAL AMOUNT FOR SECURITY SYSTEM WORKS	
	TOTAL AMOUNT	
	GST @18%	
	GRAND TOTAL	


Note: Removing of existing partition and shutter at the entrance not considered in this estimate.


ESTIMATE FOR WORK STATION, GLASS ALUMINIUM PARTITION, FALSE CEILING, FLOORING, ETC.**"Interior Works for additional premises of NABINS HO."
at 1st floor, No. 3073, 14th cross, BSK 2nd stage, Bengaluru 560070**




SL. No.	IMAGE	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		General Conditions for TABLES / FURNITURES / STORAGEES				
i		The given layout to be marked with tape on the site before commencement of production. Production to commence only after approval of marking on site, final shop drawings and sample board of all colours / materials etc. Final approval on quantity, finishes etc. by NABfins / Architect before execution.				
ii		Modifications due to special site conditions to be brought to the notice of NABfins / Architect before manufacturing / installations. NABfins / Architect may modify (add or delete) scope of work before execution.				
iii		The project is spread across Third and Fourth Floors. Bidder to visit the site before submission of bids.				
iv		All specifications as per general specifications. The plans and views attached are only schematic / indicative and may be modified. Each unit will consist of standard modules and each module will be as per general specifications.				
v		Prices should be inclusive of transportation, installation and all applicable taxes (percentage of tax to be specified). Price should be inclusive of the mock-up cost.				
vi		Cabin Partitions, Pedestal Units, key boards, CPU trays indicated in the drawings to be quoted separately and not as part of tables /workstations.				
vii		Cost to include complete installation, cleaning & housekeeping (Pre packed covering etc., complete) upto handover.				
viii		Final colour scheme will be decided at the time of final approval before manufacturing. All Fabrics, Laminates, Powder coating colors and finishes will be of standard quality and specifications. Fabric shade & finishes to be strictly as per NABfins / Architect.				
ix		All powder coated materials, fabric and glass to be prepacked independently and removable on site after installation.				
x		Pre-approved template / cut-outs for electrical and other provisions. For a single unit with multiple locks, keys provided for each unit to be single key to open multiple locks on the same unit. Key sets to be 3nos each.				
xi		Powder coating to be Epoxy Polyester for Interior Grade, Powder Coat Colours are Standard. Fixing of one member to other members only through clamps, brackets and no direct screwing				
xii		Cost should be inclusive of Shop drawing preparation / getting approval from NABfins / Architect. Mock-ups, handing over documents (3 sets) that includes of as built drawings, Manufacturer's warranty and Guarantee certificate for 3 years, user manuals, products catalogues, contact details etc.				
xiii		Vendor to quote for the product matching to the above specifications in the BOQ and if there is any variation, same to be informed to NABfins / Architect.				



SL. No.	IMAGE	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
A		MODULAR FURNITURE				
1		<p>OFFICERS WORK TABLE</p> <p>Supply and installation of table consisting of MAIN TABLE 1500W X 750D X 750HT and SIDE CREDENZA 900W X 450D X 750HT.</p> <p>MAIN TABLE completely made up of Pre Laminated particle board conforming to IS: 12823 Interior Grade with post formed finish. Top are with 25mm thk Pre Laminated particle board with post formation on 2 sides and 2mm PVC edge banding with enhanced scratch resistance supported on 25mm thk. Gable ends and 18mm thk Modesty panels. Exposed edges are in 2mm thk PVC edge banding and sealed edges are in 0.8mm thk PVC edge banding. Wire Management: Raceway and Skirting shall be provided on main and side table as specified and both shall have corner frame for power and data management with 450mm Aluminium Flip Up with soft closure and provision to mount switches and sockets on PVC Cable Dump. Cover shall be retractable for easy maintenance.</p> <p>SIDE CREDENZA completely made up of Pre Laminated particle board conforming to IS: 12823 Interior Grade with PVC edge banding. Top is in 25mm thk board with 2mm post formation on 2 sides and 2mm PVC edge banding supported on 25mm thk. Gable ends and 18mm thk. Modesty panel. Exposed edges are in 2mm thk PVC edge banding & sealed edges are in 0.8mm thk PVC edge banding. Side return unit shall be attached with the Partitions as per approved layout.</p>				
		<p>Each table shall be provided with Metal Keyboard Tray with powder coated finish.</p> <p>Each table shall be provided with metal CPU Trolley with powder coated finish. CPU Trolley shall be made of M.S. Sheet with powder coated finish and 4 Nos. of best quality caster.</p> <p>Note: 1. Images are for information purpose only, bidders are advised to visit the site and also inspect the existing furniture design and layout in Nabfins HO, Bangalore before submitting the Bids. Supply and installation shall be of uniform design as in the existing office with similar colour scheme.</p> <p>2. Partitions shall be measured and paid separately.</p>	Nos	2		

SL. No.	IMAGE	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
2		<p>LINEAR WORK STATION</p> <p>Supply and installation of 4 Seater / 2 Seater linear work station of size 1200L X 600D X 1200HT consisting of table top 600mm depth and 750mm height, main spine minimum 1200mm \pm 10 mm height and minimum 60 mm \pm 10 mm thick- two tile system and framework of proprietary design with suitable provision for tile cladding on both sides. Every work station shall have Soft pin up tile and Whiteboard marker tiles each. Table top made with 25mm thk Pre Laminated particle board with post formation on 2 sides and 2mm PVC edge banding with enhanced scratch resistance supported on 25mm thk. Gable ends and 18mm thk Modesty panels. Exposed edges are in 2mm thk PVC edge banding and sealed edges are in 0.8mm thk PVC edge banding.</p> <p>Main Spine thickness shall be of 60mm \pm 10 mm for stability and with the inside gap between two tiles is approximately 50mm \pm 10 mm for higher wire carrying capacity. Frame Horizontals shall be made of 1mm thick CRCA sheets and the verticals are made of Aluminium Extrusions of 1.5mm thick, All the frames will be duly powder coated upto 50-60 dft., which will be in line with the Top trims and end trims, All the Caps viz end, inline, universal and raceway caps shall be made out of Die-cast Aluminium profiles of proprietary design clipped onto the main frame. Necessary packing/lining shall be provided for alignment and sturdiness.</p> <p>Wire Management: The main spine must have two integrated raceway of upto 100mm height one at skirting level and another at below the table, thus ensuring separation of power and networking cables, both shall have corner frame for power and data management with 450mm Aluminium Flip up with soft closure and provision to mount switches and sockets on PVC Cable Dump. Cover shall be retractable for easy maintenance. The free space available within raceway shall accommodate power, data and communication cables. Prior to powder coating the raceway covers shall be provided with cut outs of pre-approved sizes (specific to the brand and make of electrical and network plates) located as per architect's instructions.</p>				
		<p>Bottom Tile: Bottom row of frame shall be of Pre laminated particle board, from both sides, made of 6 mm thick Pre laminated particle board with approved colour.</p> <p>Top tile: Metal Fabric tile: Constructed out of CRCA, and covered with fabric of approved colour.</p> <p>Soft pin up tile: made out of 0.8 mm thick galvanized iron sheet with 8mm thick cross linked foam and covered with fabric of approved colour.</p> <p>Whiteboard Marker tiles: Made out of 6mm MDF with 0.8mm glossy highly wear resistant face laminate with a balancing laminate of 0.5mm thick on the back.</p> <p>Each workstation shall be provided with Metal Keyboard Tray with powder coated finish.</p> <p>Each workstation shall be provided with metal CPU Trolley with powder coated finish. CPU Trolley shall be made of M.S. Sheet with powder coated finish and 4 Nos. of best quality caster.</p> <p>Note: 1. Images are for information purpose only, bidders are advised to visit the site and also inspect the existing furniture design and layout in Nabfins Head Office, Bangalore before submitting the Bids. 2. Supply and installation shall be of uniform design as in the existing office with similar colour scheme.</p>	Nos	36		

SL. No.	IMAGE	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
3		<p>PARTITION</p> <p>Supply and installation of partitions consisting of minimum 1200mm ± 10 mm height and minimum 60 mm ± 10 mm thick two tile system, framework of proprietary design with suitable provision for tile cladding on both sides. Tiles to be either inserted into the edge of the frame "slide in" or fixed from the front with a "clip on" mechanism. Finished with fire retardant fabric of approved colour and laminate tile below.</p> <p>Frames: Partition thickness shall be of 60mm ± 10 mm for stability and with the inside gap between two tiles is approximately 50mm ± 10 mm for higher wire carrying capacity. Frame Horizontals shall be made of 1mm thick CRCA sheets and the verticals are made of Aluminium Extrusions of 1.5mm thick, All the frames will be duly powder coated upto 50-60 dft., which will be in line with the Top trims and end trims, All the Caps viz end, inline, universal and raceway caps shall be made out of Die-cast Aluminium profiles of proprietary design clipped onto the main frame. Necessary packing/lining shall be provided for alignment and sturdiness.</p> <p>Wire Management: The partition must have two integrated raceway of upto 100mm height one at skirting level and another at below the work surface level as specified, thus ensuring separation of power and networking cables. The free space available within raceway accommodates power, data and communication cables. Prior to powder coating the raceway covers shall be provided with cut outs of pre-approved sizes (specific to the brand and make of electrical and network plates) located as per architect's instructions.</p>				
		<p>Bottom Tile: Bottom row of frame shall be of Pre laminated particle board, from both internal and external sides, made of 6 mm thick Pre laminated particle board with approved colour.</p> <p>Top tile: Metal Fabric tile: Constructed out of CRCA, and covered with fabric of approved colour.</p> <p>Note: 1. Images are for information purpose only, bidders are advised to visit the site and also inspect the existing furniture design and layout in Nabfins Head Office, Bangalore before submitting the Bids. Supply and installation shall be of uniform design as in the existing office with similar colour scheme.</p> <p>2. Openings in Partitions shall not be measured for payment.</p>	Rmt	5		
4		<p>MEETING TABLE</p> <p>Supply and installation of 4 Pax meeting table of size 1800L X 900D X 750H consisting of table top with 25mm thk Pre Laminated particle board with post formation on 2 sides and 2mm PVC edge banding.</p> <p>Frames: MS powder coated legs and cable riser/Intermediate legs.</p> <p>Wire Management: MS raceways provisioned to accommodate power and data sockets. cables and switches access through Flip lid. Prior to powder coating the raceway covers shall be provided with cut outs of pre-approved sizes (specific to the brand and make of electrical and network plates) located as per architect's instructions.</p>	Nos	1		
		TOTAL OF MODULAR FURNITURE				
B		STORAGES				

SL. No.	IMAGE	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		Supply and installation of storage Units of the following sizes. The structure shall be made of 18mm thick pre-laminated boards (PLB). The shelves are made out of 18mm PLB, which are adjustable in height. The shutters are made out of 18mm(PLB), and fitted by hinges. FINGER GROOVE HANDLES, locking unit and levelers are considered.				
5		SIZE: 1200L X 450D X 1200HT	Nos	1		
6		SIZE: 1500L X 450D X 1200HT	Nos	3		
7		SIZE: 900L X 450D X 2100HT	Nos	13		

SL. No.	IMAGE	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
8		MOBILE PEDESTAL 2 DRAWER + 1 FILLING WITH CASTORS Supply and installation Mobile Pedestal Unit of size 400W x 470D x 675mm H made with 18mm thick Pre laminated particle board conforming to IS: 12823 Interior Grade. All the exposed edges shall be sealed with 2mm thick PVC edge banding on sides and bottom. The top and drawer facia shall be sealed with 2mm thick PVC edge. The drawer unit shall consists of 2 box drawer and 1 file drawer. The inner sides of drawer box shall be of Pre laminated particle board. The drawer box shall be fitted with roller slide for free movement. The drawer unit shall be provided with central locking system, where in the three drawer are locked with one key. PVC recessed handles shall be provided for easy opening and closing of drawers. The drawer unit shall be is fitted on castors for easy mobility. The pedestal shall be fitted with additional (5th) castor to avoid toppling of pedestal in case of opening of any / all of the 3 drawers.	Nos	45		
		TOTAL OF STORAGES				
C	CHAIRS, TABLES AND SOFA Supply and installation of the following.					
9		OFFICERS WORK TABLE CHAIRS FEATHERLITE (Liberate HB) head rest, Dual back rest, back rest will be Dynaflex mechanism, Arms height adjustable, Arm Pad standard, fabric upto 350GSM fire rated fabric, form injection moulded 54 micron, multi-lock mechanism, phumatic gas lift, made of nylon / polypreplene base 26" dia, 50mm nylon castors 5 Nos.	Nos	2		
10		WORK STATION AND VISITORS CHAIRS FEATHERLITE (Anatom Medium Back) back rest with adjustable lumber support, height adjustable Arms synchro mechanism, fabric upto 350GSM fire rated fabric, form injection moulded 54 micron, multi-lock synchro mechanism, phumatic gas lift, made of nylon / polypreplene base 26" dia, 50mm nylon castors 5 Nos.	Nos	80		

SL. No.	IMAGE	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
11		3 seater sofa. FEATHERLITE PEARL 1800 (w) x 725 (D) x 700 (H) Polyurethere injection moulded foam supported with chromo plated legs white leatherite.	Nos	1		
12		1 seater sofa. FEATHERLITE PEARL 800 (w) x 725 (D) x 700 (H)	Nos	2		
13		Side table (Verve Glass 610FS) 600W x 600D x 505H Top with clear glass, supported on chromo plated legs 4 nos and polyurether bush.	Nos	1		


SL. No.	IMAGE	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		TOTAL OF CHAIRS, TABLES AND SOFA				
D		GLASS PARTITIONS AND GLASS DOORS				
14		Supply and fixing Modular Aluminium single glazed partition upto 2750mm height, system and framework of proprietary design KUBIK / DORMA make of 45 X 25 sections with I sections and L Sections, 10mm thick toughened glass full height glazed partitions, providing and fixing frosted film of 3M make of sparkle / crystal range upto 750mm width along the glass partition as per design including cost of all materials, installation, complete as per drawing, manufacture's specifications.	Sqm	33		
15		Supply and fixing Modular Aluminium single leaf glass hinged Door , using 10mm thick toughened glass with DORMA hardware clariat hinges, Studio Gala locks adjustable, preared for profile cylinder, lever handles, angled strike plate, EPC both side Key, Door closer with slide arm and hold open unit, door stop half dome type, etc. including cost of all materials, installation, complete as per drawing, manufacture's specifications. Dimensions Width 1000mm x Height 2400mm	Sqm	7.2		
		TOTAL OF GLASS PARTITIONS AND GLASS DOORS				

SL. No.	IMAGE	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
E		WALL PANELLING, PAINTING AND FALSE CEILING				
16		<p>Supplying, making and installation of Veneer Finished Wooden Wall Panelling with boxing in portals and grooves as per Architectural drawings.</p> <p>But in general with 4mm thick approved veneer 'AFRICAN SAPELI HORIZONTAL' shade of EURO or equivalent make, fixed over 8mm water proof ply of approved make finished in melamine polish along with polyurethane clear coat (Matt finish) and over necessary wood filler/sealer and sanding, etc. in design and pattern as per drawings. The panels are fixed over of GI steel metal stud frame of size confirming to GS-MSP 102 S 1.4, 48mm thick using floor and ceiling channels of 48 x 38 x 1mm thick placed at every 600mm c/c in vertical direction upto ceiling and the ends should be crimped / screwed rigidly at top and bottom, additional members at skirting, top portion and false ceiling and for fixing of electrical boxes / fittings as per design. The frame to be coated all over with 2 or more coats of viper fire retard/ anti termite paint. Inside air gap / voids between the plaster boards is lined with 24 kg /cum density of 50mm thick approved fibre glass wool rapped with 40GSM fibre glass tissue (UP Twiga).</p> <p>Bare Panelling skin on one side of the GI channel frame work with 8mm Ply as indicated in the drawing fixed to line and level and plumb . Anti-termite treatment to be applied to the wall surface before doing the frame work, etc., complete.</p>				
		<p>The job shall be complete in all respect including cutting and making good the openings including additional framework where necessary for stability, electric fixtures and AC grills including making cutouts, for electrical cable trays / data, and other service outlets and requirements with necessary hardware's, etc complete.</p> <p>Anti-termite treatment to be applied to the wall surface before doing the frame work, etc., complete.</p> <p>Consider Basic cost of Veneer Rs. 1600 / Sqm (excluding tax, transportation, wastage, loading & unloading etc. should be assumed to arrive at the tender rate. No extra claims towards the wastage shall be allowed).</p> <p>Mode of measurement: shall be measured in Sqm for payment.</p>	Sqm	18		

SL. No.	IMAGE	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
17		<p>Providing and fixing of GYPSUM BOARD False ceiling as per Architectural drawings. One step false ceiling suspending system and frame work shall match layout of AC Ducts / grills/ electrical/ fire protection wiring/ fixtures, return air grills etc. Rate should include provision of extra frame work needed due to layout referred above, fixtures, etc.</p> <p>Suspended false ceiling as per approved design and drawing in plain, vertical, inclined, trapezoidal surfaces which includes providing and fixing GI perimeter channel of size 27mm x 0.55mm thick having one flange of 20mm another flange of 30mm fixed with the help of rawl plugs and screws at 450mm center to center on perimeter with 25mm long drive all screws at 230mm interval. Suspending GI intermediate channels of size 45mm x 0.9mm thick with two flanges of 15mm each from the soffit at 900mm centres with GI ceiling angle of width 25mm x 10mm x 0.55mm fixed to soffit with GI cleat & steel expansion fasteners. Ceiling section of 0.55mm thickness having knurled web of 51.5mm and two flanges of 26mm each with lips of 10.5mm fixed to the intermediate channel with the help of connecting clips and in direction perpendicular to the intermediate channel 450mm centres.</p>				
		<p>With 12.5mm thick tapered edge glass fibre reinforced gyp board (conforming to BIS2095/ 1982 is then screw fixed to the ceiling section with 25mm drywall screws at 230mm centres. Keeping Band length perpendicular to ceiling section screw driven or drilling machine with suitable attachment. The tapered & square edges of the boards are jointed and finished to a flush finish with requisite filler, paper tapes, finisher and primer. (As per recommendation of manufacturer of India Gypsum). Painting with two or more coats of Plastic emulsion of approved shade and colour.</p>				
		<p>The job shall be complete in all respect including cutting and making good the openings including additional framework where necessary for stability, electric fixtures and AC grills including making cutouts, for electrical cable trays / data, and other service outlets and requirements. Clear from undulations, fixed to line and level etc complete. Mode of measurement: Plain area shall be measured in length and width for payment.</p>	Sqm	60		

SL. No.	IMAGE	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
18		Supply and installation of Mineral Fibre suspended grid ceiling system of Armstrong make Classic lite RH 99 global white with Silhouette (B/R) steel angle which includes providing and fixing of the hot dipped galvanized polyester paint baked wall moulding of size 0.457mm thick having equal flange of 22mm along the perimeter of ceiling screw fixed to brick/wall/partition with the help of nylon selves and screws. Then suspending Armstrong main runner of size of 0.33mm thick having a flange of 24mm and web of 38mm at every center using suitable suspension from the soffit. Then clipping rotary double attached Armstrong 1200mm cross tee of size 0.254mm thick having a flange of 24mm and web 30mm onto the main runner at every 600mm Armstrong cross tees of every 600mm center to form a grid of 600x600mm. Finally laying Armstrong mineral fiber acoustical ceiling tiles of PRIME of size 600x600x16mm onto the formed grid, etc complete.				
		The main "T" consists of size: 24mm width x 38mm height, this main "T" is been made of galvanized Iron sheet of 0.3mm thick, this are formed in the shape of a main "T" Bar on a fully automatic advance computer machine, the galvanized iron sheet are later on capped with pre-coated aluminium capping will have the colour, same as the panels colour or any other colour of choice. The grade of Galvanized iron sheet in as per BIS and the grade of aluminium chapping is (Al-Mn) 3003 of H-46 to 48. The cross "T" bars are of 1200mm in length and this "T"s are of size 24mmx38mm in height, another "T" bar consist 600mm in length and this "T"bar are of size 24mm width x 38mm in height, this "T" bar is fixed on to the main "T" of 24mmx38mm height and cross tees of 24mmx38mm height forms a pattern of 600mmx600mm grid and further this grid work is supported by G.I.Rod of 4mm and height adjustable "J" bolts system. The "T" grid system consists of special steel is as per BIS, and the thickness of the steel is 0.3mm thick. This "T" frame work is capped with coil coated aluminum sheet and the grade of the Aluminum sheet is (Al-Mn) 3003 of H-46 to H-48.				
		The job shall be complete in all respect including cutting and making good the openings including additional framework where necessary for stability, electric fixtures and AC grills including making cutouts, for electrical cable trays / data, and other service outlets and requirements. Clear from undulations, fixed to line and level etc complete. The work shall be executed by approved Armstrong vendor / franchisee. Mode of measurement: Plain area shall be measured in length and width for payment. Note: Deduction will be made on the area measurements for light fitting openings.	Sqm	75.00		

SL. No.	IMAGE	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
19		Providing & Fixing Gypboard metal stud partition confirming to GS-MSP 102 S 1.4, 102mm thick as per General specifications of the tender. The rate should include the following:				
		Providing J&N sp. Effect or Royal emulsion Asian paint (multi colour) with necessary primer, putty & two coats of paint as per manufacturers specifications.				
		Providing and fixing finest quality anodised extruded aluminium skirting profiles of stain / matt finish, high corrosion resistance and heights of 100mm and approved shapes to proper line and level, fixed on masonry, columns, partitions and other locations at junction of floor without leaving any gap in the floor. The profile shall have concealed screw slot and cover, cover tape, capping, etc. of approved colour. Suitable PVC corner stakes shall be provided at every corner, junction and termination points as per drawings. The installed skirting shall be provided with approved matching colour PVC capping, screws, etc. complete as per manufacturer's specification, installation guidelines and instructions of the EIC.				
		Measurements will be taken on actual measurements upto false ceiling height only and rate should inclusive of vertical member upto ceiling height.				
		The partition frame to be screw fixed to the floor and the RCC slab for strength. The rate shall include additional members at skirting and false ceiling & for fixing of electrical boxes as per design. The frame to be coated all over with 2 or more coats of viper fire retard/ anti termite paint. Inside voids to be filled with 50mm thick panels of glass wool/ rock wool of density 32 KG/ CUM of specified make. Make: GYP ROC (Samples and method statement to be approved by Architect before procurement)	Sqm	30		
20		Wooden Pelmet Providing and fixing, 150 mm wide pelmet of 18mm BWR and 4mm veneer, all complete.	Rmt	12		

SL. No.	IMAGE	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
21		Providing and fixing PRINTED FILM of 3M make of sparkle / crystal range with NABfins LOGO printed on the film as per design & installed as per required pattern and shape fixed to over the glass / panelling as per manufacturer's specification, installation guidelines. Rate shall be include of wastage and should be of 10 years warranty as per manufacturer's guidelines. Warranty certificates shall be submitted from the manufacture. Consider Basic cost of film with LOGO printed at Rs.1620 / Sqm. Mode of measurement: Installed film shall be measured in length & height for payment.	Nos	2		
22		Printing, supplying and installation of SPECIAL EFFECTS INTERIOR FINISH OF shade and design on masonry / gypsum partition walls with Asian Royale Play Metallic's special effect acrylic emulsion paint or approved equivalent, shade and make as per the manufacturers specifications, including necessary double scaffolding & surface preparation, sanding, deco prime cement primer, acrylic wall putty, base coats, top coat metallic's with special effects tools. Rate to be applicable for all heights and levels. Mode of measurement: Actual seen surface area of Special Effect finishes shall be measured for payment.	Sqm	5		
23		Fiber cement board to cover / close windows Providing and fixing internal wall panels on Light gauge steel frame work with 12.5mm thick gypsum plaster board conforming IS 2095:2011 fixed on 8mm thick fiber cement board conforming to IS 14862:2000 of category III type B (High pressure steam cured) as per standard sizes fixed with self-drilling / taping screws / fasteners at 60cm c/c of approved make, Screws shall be of counter sunk rib head of 1.60mm to 4 mm thick of 8 to 10 gauge of length varying from 25 to 45 mm. Proper taping and jointing to be done using fiber mesh tape and epoxy and acrylic based jointing compound for seamless finish including cost of frame work, etc. complete.	Sqm	6		

SL. No.	IMAGE	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
24		<p>Providing and applying painting on Internal wall surface with plastic emulsion paint of approved brand to give an even shade of two coats over one coat of plasto fix primer and two coats of putty (of approved make), surface preparation before application of plastic emulsion paint on walls any unevenness shall be made good by applying putty on the entire surface at all levels.</p> <p>Rate should include erecting scaffolding, preparing the surface by rubbing the surface by sand paper of different grade, removing all dirt, smoke, grease, loose plaster etc., if any, from the existing surface cleaning the surface thoroughly, including scrapping and leveling the surface using steel blade and preparing the surface even and smooth including cost of all materials, labour etc. complete and instructions of EIC</p>	Sqm	156		
25		<p>Providing and fixing in position Vertical Blinds of approved shade and make with Manual roller Operation. Consisting of Head rail 25mm x 50mm extruded high strength anodized aluminium alloy section with wall thickness 1.2mm, Demountable type. End Control Unit : Shall have planetary reduction gear box with reduction ratio 3.5:1 Tilter Chain : 4.5mm plastic beads moulded on 2.2mm thick polyester cord with 6mm pitch. Tilt Rod Extruded aluminium having 3 keyways, average diameter is 5.8mm and shall rotate louvers by 180 degrees. Carrier (Runner) of moulded plastic having anti friction additive. Bottom weight Powder coated galvanized steel sheet 1.7mm thick. Installation bracket Galvanized steel 'L' bracket of 3mm thickness fitted with pressure clip made of spring stainless steel to hold the head rail. Cord weight Appx. 110gms and 110mm length made out of ABS material hollow casing with a steel weight inside. Cord shall be with nearest matching shade of blind, 2.2mm dia, braided high strength fibre cord and have resistance to abrasion and elongation.</p>				
		<p>Fabric 100% Polyester fabric with scotch guard coating. Width 100mm. weight: +/- 105g/Sqm. and thickness: 0.25 +/- 0.05mm. Flame Resistance: DM26/6/84 Class1 DIN 4102B1; BS 5867 Part 2 (1980) Fabric dimensional stability (6h, 80 Deg. c): Weft < 1, Warp < 1. Approved Makes: Hunter Douglas/Window fashions or equivalent. At All levels.</p> <p>Consider the Basic Cost @ Rs 800/Sqm (excluding tax, transportation, wastage, loading & unloading etc, should be assumed to arrive at the tender rate)</p> <p>Make: window fashion or equivalent.</p>	Sqm	20		

SL. No.	IMAGE	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
26		Providing and fixing printed frosting film of 3M make of crystal range with approved image printed on the film as per design & installed over the glass partition as per manufacturer's specification & installation guidelines. Vendor shall include wastage while quoting. Vendor shall provide 10 year warranty as per manufacturer's guidelines. Consider the Basic cost of film at Rs 1000/sqm Mode of measurement: Installed film shall be measured in length & height for payment.	Sqm	15		
27		Providing and fixing finest quality anodised extruded aluminium skirting 50mm height profiles of stain / matt finish, high corrosion resistance, at all levels and heights, of specified size and shapes, to proper line and level, fixed on masonry, columns, partitions and other locations at junction of floor without leaving any gap in the floor. The profile shall have concealed screw slot and cover, cover tape, capping, etc. of approved colour. Suitable PVC corner stakes shall be provided at every corner, junction and termination points as per drawings. The installed skirting shall be provided with approved matching colour PVC capping, screws, etc. complete as per manufacturer's specification, installation guidelines.	Rmt	57		
28		Providing and fixing laminated storages to conceal Elec DB's or equipments at various locations made with 19mm thk waterproof plywood. Rate to include providing Aluminium frame all round and at 450mm C/C vertically to avoid bend in shutter, concealed type hinges and dead lock and recessed handles and concealed tower bolts. Typical shutter width not to exceed 450 mm.	Sqm	8		
		TOTAL OF WALL PANELLING, PAINTING AND FALSE CEILING				
F		CARPET FLOOR TILES				
29		Providing and fixing carpet tiles of 500x500mm size Tufted level loop made up of advanced BCF, PVC backing with glass fibre. The carpet tile should have as per EN-1307, class-33, suitable for any of heavy contract application in its category. The carpet tiles must meet the following technical specifications.	Sqm	125		
		TOTAL OF CARPET FLOOR TILES				
		TOTAL AMOUNT				

SUMMARY OF MEP ESTIMATE
"Interior Works for additional premises of NABINS HO."
 at 1st floor, No. 3073, 14th cross, BSK 2nd stage, Bengaluru 560070

S. No.	DESCRIPTION	AMOUNT
	<u>ELECTRICAL</u>	Supply and Installation
G	L.T.PANELS AND DISTRIBUTION BOARDS.	
H	EXTERNAL AND INTERNAL CABLES	
I	SUBMAINS CIRCUIT MAINS	
J	TELEPHONE AND NETWORK SYSTEM	
K	EARTHING SYSTEM	
L	MISCELLANOUS ITEMS	
M	LIGHTS AND FAN FIXTURES	
N	UPS and INVETER	
	TOTAL FOR L.T INTERNAL ELECTRICAL AND NETWORKING SYSTEM	
	TOTAL AMOUNT BEFORE GST	
	<u>HVAC</u>	
O	EQUIPMENTS(VRV)	
P	CASSET UNITS	
Q	REFRIGERANT PIPING	
R	ELECTRICAL CABLES	
S	MISCELLANEOUS ITEMS	
	TOTAL FOR HVAC WORKS	
	TOTAL AMOUNT BEFORE GST	
	<u>PUBLIC ADDRESS SYTEM, FIRE DETECTION AND ALARM CCTV, ACCESS CONTROL SYSTEM</u>	
T	PUBLIC ADDRESS SYTEM	
U	FIRE DETECTION AND ALARM SYSTEM	
V	CCTV SYSTEM	
W	ACCESS CONTROL SYSTEM	
	TOTAL FOR SECURITY SYSTEM WORKS	
	TOTAL AMOUNT BEFORE GST	
	TOTAL AMOUNT	
	GST @18%	
	GRAND TOTAL	

ESTIMATE FOR ELECTRICAL WORKS					
"Interior Works for additional premises of NABINS HO."					
at 1st floor, No. 3073, 14th cross, BSK 2nd stage, Bengaluru 560070					
SI.No	Description	Unit	Quantity	Rate	Amount
G	L.T. PANELS AND DISTRIBUTION BOARDS.				
	Supply, erection, testing and commissioning of wall mounting, compartmentalised, dust and vermin proof, fabricated from CRCA sheet steel metal not less than 2mm for all members including door, (duly treated by 7 tank process) also with continuous earth bars with 2nos.earth terminals necessary lifting hooks, all necessary gland plates & glands complete,.The switchboards & associated other equipments shall be as per the IEC 61439-1 & as per detail technical specification. The panel shall be finished in Siemens light grey (Shade RAL-7032 of IS-5) with 2 coats of synthetic enamel paint (or approved colour as per site requirement) and as per the following specification, enclosed SLD and all complete as required. The panel design shall be as per the standards IEC 61439-1				
1.0	MAIN LT PANEL				
	Supply and installation testing and commissionng of IP55 protection Main LT panel with 1No. of ELR, 1 set of R Y B indicators, 1no. of analog voltmeter, 1No. of 63A FP MCCB 25KA as INCOMER, MDM (displaying KW, KVA, KVAR, PF, I, V, THD) and 100Amps 4x30x6mm Aluminium strip-5 meters. OUTGOING: 1No. 63A FP MCB , 4Nos. 40A FP/TPN MCB, 1No. 32A TPN MCB, 2Nos. 25A DP MCB, 1No 25A FP/TPN MCB The rate should be inclusive of 2 Nos. of glands for 3.5C x 10Sq.mm CU. XLPE unarmoured cable termination and crimping and engraved name plate for incomings and outgoing.				
2.0	DISTRIBUTION BOARDS				
	Supply, installation, testing and commissioning of 500V distribution Boards (double door type) as per the following specification.				
2.1	Supply and installation of LIGHTING DB, 8 Way SPN DB (1st Floor LDB) Incomer: 1No.25A,DP RCCB 'C' Curve 100ma Outgoing: 6Nos. 10A SP MCB 10 KA 'C' Curve. Make: LEGRAND/SCHNEIDER				
2.2	Supply and installation of 4Way TPN DB (1st Floor Power DB/HVAC) Incomer:1No.40A,TPN RCCB 100ma Outgoing: 18 Nos. 20A SP MCB 10 KA 'C' Curve. Make: LEGRAND/SCHNEIDER				

SI.No	Description	Unit	Quantity	Rate	Amount
2.3	Supply and installation of 6Way TPN DB (1st Floor UPS DB) Incomer:1No.40A,DP RCCB 100ma Outgoing:18 Nos. 20A SP MCB 10 KA 'D' Curve. Make: LEGRAND/SCHNEIDER	Nos	1.00		
2.4	Supply, installation of metal enclosure with 63A DP MCB for UPS I/C and O/G breakers Make: LEGRAND/SCHNEIDER	Nos	4.00		
2.5	Supply and installation of weather proof IP65 enclosure box with 63A FP RCBO for AC ODU machines. Make: ABB/LEGRAND	Set	1.00		
Total cost of L.T Panels & Distribution boards					
H	EXTERNAL AND INTERNAL CABLES				
3.0	CABLES, CABLE END TERMINATION AND CABLE TRAYS				
3.1	Supply, laying, testing and commissioning of 4Cx10sq.mm heavy duty copper power cable of 1100V grade xlpe insulated sheathed & Unarmoured FRLS cables indoor or outdoor. The rate shall include 32mm dia PVC pipe and below mentioned items. a.Cable clamps on walls,columns,beams, etc. for indoor cables. b.Earthing the glands etc.,as required as per site conditions. c. The cable to be laid from ground floor to third floor, fourth floor. AC ODU, MAIN INCOMER FOR PANEL MAKE: POLYCAB/KEI	Mtrs	70.00		
3.2	Supply, laying, testing and commissioning of 4Cx6sq.mm heavy duty copper power cable of 1100V grade xlpe insulated sheathed & Unarmoured FRLS cables. a.Cable clamps on walls,columns,beams, etc. for indoor cables. b.Earthing the glands etc.,as required as per site conditions. c. The cable to be laid from ground floor to third floor, fourth floor. MAIN INCOMER FROM FOURTH FLOOR UPS PANEL TO UPS, UPS DB MAKE: POLYCAB/KEI	Mtrs	50.00		
CABLE TERMINATIONS					
3.3	Supply, and Providing of 4Cx10sq.mm XLPE Cable end termination with copper cable lugs, double compression brass cable glands, tapping crimping etc., all complete as required. MAKE: COMET	Nos	4.00		

SI.No	Description	Unit	Quantity	Rate	Amount
3.4	Supply, and Providing of 4Cx6sq.mm XLPE Cable end termination with copper cable lugs, double compression brass cable glands, tapping crimping etc., all complete as required. MAKE: COMET	Nos	5.00		
	Raceways				
3.5	Supply and installation of multi compartment extruded 200mm x 40mm G.I (16SWG) raceway for power & data complete with following. a.Raceway including cover plate etc. b.All bends,T-joints,junction boxes etc. c.Raceway to be suspended from true ceiling with hitech rod support arrangement and Hitech rods should be suspended at every 1.5M interval.	Mtrs	30.00		
3.6	Supply and installation of 210 x 210 x 50mm JUNCTION BOXES FOR DATA CABLING	Nos	5.00		
3.7	Supply and installation of 75x50mm white color PVC raceway with cover. MAKE: LEGRAND	Mtrs	25.00		
3.8	Supply and installation of Pop-Up Box with floor adaptor including 1data with 1No.s of 1meter patch chord and 2Nos. of 6A switched socket and with 1No. of 6A plug connected to table points complete as required.	Nos	1.00		
	Total cost of Cables and cable end terminations				
I	SUBMAINS CIRCUIT MAINS				
4.0	SUB MAINS / CIRCUIT MAINS / POINT WIRING Supply and laying of 2mm thick PVC FRLS conduit and FRLS copper wire. Conduit to be laid in wall by chasing, chipping walls and plastering the damaged portion with mesh. Conduit laid on ceiling should be with bar saddles at every 60mm interval. The rate shall be included for all accessories like bends, collars, junctions boxes, clamps, wire terminations in panel and switch boards etc., all complete as required. MAKE : VIP/MACOPLAST/UNIVERSAL MAKE: POLYCAB/RR KABEL				
4.1	2 Runs of 4Sqmm FRLS copper wire along with 1 run of 2.5Sqmm FRLS copper wire for earthing, run in a 25mm dia FRLS PVC conduit.	Mtrs	900.00		

SI.No	Description	Unit	Quantity	Rate	Amount
4.2	4 Runs of 6Sqmm FRLS copper wire along with 1 run of 4Sqmm FRLS copper wire for earthing, run in a 25mm dia FRLS PVC conduit.	Mtrs	15.00		
4.3	2 Runs of 2.5Sqmm FRLS copper wire along with 1 run of 1.5Sqmm FRLS copper wire for earthing, run in a 25mm dia FRLS PVC conduit.	Mtrs	150.00		
4.4	1 Runs of 6Sqmm FRLS copper wire for earthing, run in a 19mm dia FRLS PVC conduit.	Mtrs	50.00		
4.5	POINT WIRING: Supply and laying of 2 runs of 1.5 PVC insulated FRLS copper wire along with 1 run of 1Sqmm PVC insulated FRLS copper wire of 1100V grade in 2mm thick FRLS PVC /conduits of min, size 19mm dia. A separate neutral shall be run for each circuit. The rate shall be included for all accessories like bends, collars, junctions boxes, clamps, ceiling rose, holder switches, sockets switches, mounting MS/PVC boxes etc., of approved make, all complete as required. MAKE FOR CONDUITS: VIP/MACOPLAST MAKE FOR WIRES: POLYCAB/RR KABEL MAKE FOR SWITCHES/SOCKETS: ABB OVAL/LEGRAND				
a	Single light point controlled by a 6A modular type switch(Wire from 0-5mtrs).	Nos	2.00		
b	Single light point controlled by a 6A modular type switch(Wire from 5-15mtrs).	Nos	9.00		
c	Two light points controlled by a 6A modular type switch (combined rate for two light points)(5-18mtrs).	Nos	8.00		
d	Three/four light points controlled by a 6A modular type switch (combined rate for three light points) (5-18mtrs).	Nos	1.00		
e	2 Runs of 1.5Sqmm PVC insulated FRLS copper wire along with 1 run of 1.0Sqmm PVC insulated copper wire for earthing, run in a 19mm dia PVC conduit.	Mtrs	150.00		
f	Supply and installation of 6A switch for above item	Nos	7.00		
g	Single light point controlled by 2 Nos. 6A two way modular type switch.	Nos	2.00		
h	1No 6A, 5 pin shuttered type socket located along with other switches (Dependent socket) inclusive of a 6A modular type switch and connecting wire.	Nos	5.00		
i	1No. 6A, 5 pin shuttered type socket and a 6A modular type switch located Independently inclusive of wiring.	Nos	5.00		
j	1No. 6A, 3 pin shuttered type socket outlet located near exhaust fan and controlled by 6A modular type switch located with other switches, inclusive of wiring.	Nos	1.00		
4.6	POWER WIRING				

SI.No	Description	Unit	Quantity	Rate	Amount
	Supply, erection, testing and commissioning of switches/sockets of approved make using necessary fixing accessories like GI boxes etc., complete as required. Rate shall also be inclusive of plastering the chased portion with mesh. MAKE FOR CONDUITS: VIP MAKE FOR WIRES: POLYCAB/KEI				
a	6/16A, 5 Pin switched socket outlet with shutter mounted independently.	Nos	11.00		
b	3Nos. 6A, 5 pin shuttered type socket controlled by 16A sp modular type switch located Independently inclusive of wiring.	Nos	39.00		
	Total cost of Submains Circuit mains/power wiring				
J	LOW VOLTAGE SYSTEM WORKS				
5.0	TELEPHONE AND NETWORK SYSTEM				
5.1	Supply and laying of 2mm thick 25mm dia PVC FRLS conduit with all necessary accessories like bends, collars, junction boxes,pull boxes,fish wire concealed /Surface mounting complete as required. Rate shall also be inclusive of plastering the chased portion with mesh. MAKE FOR CONDUITS: VIP/MACOPLAST	Mtrs	50.00		
5.2	Supply and laying of 2mm thick 32mm dia PVC FRLS conduit with all necessary accessories like bends, collars, junction boxes,pull boxes,fish wire concealed /Surface mounting complete as required. Rate shall also be inclusive of plastering the chased portion of wall with mesh. MAKE: VIP/MACOPLAST	Mtrs	50.00		
5.3	Supply and Installation of data socket outlet points (RJ45 jack) with MS/PVC box, face plate concealed etc., all complete as required. MAKE: COMMSCOPE	Nos	82.00		
5.4	Supply and installation of 4 PAIR CAT 6 cable in existing conduits, raceways. MAKE: COMMSCOPE	Mtrs	3,280.00		
5.5	Supply, installation, testing and commissioning of 24port patch panel loaded. MAKE: COMMSCOPE/Dlink	Nos	4.00		
5.6	Supply, installation of LIU 12 port with fully loaded with pigtails 1.5mts. MAKE: COMMSCOPE/Dlink	Nos	4.00		
5.7	Supply, installation of closed type cable manager.	Nos	4.00		

SI.No	Description	Unit	Quantity	Rate	Amount
5.8	Supply, installation of suitable rack able to mount patch panels and swiches with front glass door, fans 90CFM, PDU horizontal 5AMP with 6sockets, shelf cantilever1U/255, cable manager. MAKE: NETRACK	Nos	1.00		
5.10	Supply, installation and configuration of cisco catalyst 2960-x 48 GigE,4x1G SFP, LAN base switch, MAKE: CISCO	Nos	2.00		
5.11	Supply, installation and configuration of cisco 1000BASE-SX SFP transreceiver module MMF 850nm DOM. MAKE: CISCO	Nos	2.00		
5.12	Supply, installation and configuration of cisco 802.11ac wave 1810w. 2x2:2. 3GBE; D domain access point (WIFI). MAKE: CISCO	Nos	2.00		
5.13	Supply, installation of 12C OFC cable. MAKE: COMMSCOPE	Mtrs	50.00		
5.14	Supply, installation of 1mtr cat6 patch cord in LAN rack. MAKE: COMMSCOPE	Nos	78.00		
5.15	Supply, installation of 2mtr cat6 patch cord near user end. MAKE: COMMSCOPE	Nos	78.00		
5.16	Supply, installation of raiser cable 25pair. MAKE: COMMSCOPE	Mtrs	50.00		
5.17	Supply, installation of MDF with krone 50pair. MAKE: COMMSCOPE	Nos	1.00		
	Total cost of Telephone and Network system				
K	EARTHING SYSTEM				
6.0	EARTHING AND STRIPS				

SI.No	Description	Unit	Quantity	Rate	Amount
6.1	Supply fixing of earthing electrode for grounding using 40mm dia 2.90mm thick GI pipe 2.5mtr long with 50*6mm GI strips buried in a pit. The pit should be filled with equal proportion of salt , charcoal 150mm all round the pipe to complete depth. The connection from the pipe to panel shall be by GI strip with sleeves etc., The pipe should have 12mm dia bolts, nuts, washers and check nuts etc., the pipe shall have holes of 12mm dia as per standard practices and specifications. The rate shall be inclusive of excavation, refilling, removing of surplus earth and construction of 450x450x450mm chamber with hollow blocks and plastering on inner & outer sides with suitable CI cover. CI cover removal should be easy for maintenance and testing of insulation resistance of earthing electrode to be carried out in presence of Site project manager.	Nos	2.00		
	Earthing Strips/wires				
6.2	Supply and laying of 25x6mm GI Strip earth strips/wires on wall with insulators complete. The erection rate shall be for both indoor and outdoor inclusive of earth excavation work.	Mtrs	50.00		
6.3	Supply and laying of 25x3mm GI Strip earth strips/wires on wall with insulators complete. The erection rate shall be for both indoor and outdoor inclusive of earth excavation work.	Mtrs	30.00		
6.4	Supply and laying of 8 SWG GI wire on wall with insulators complete. The erection rate shall be for both indoor and outdoor.	Mtrs	50.00		
	Total cost of Earthing System				
L	MISCELLANEOUS ITEMS				
7	RUBBER MATS, SIGNAGES				
7.1	2mm thick Rubber mats of 1.1kV grade 1800mmx900mm ISI approved.	Nos	1.00		
7.2	Shock treatment chart with teak wood frame and glass covered as approved by Electrical Inspectorate and suitable for wall mounting.	Nos	1.00		
7.3	Preparation and submission of 3 sets of asbuilt drawings (colour) in A2 size hard copy (triplicate) & compact disc-soft copy along with handing over document	Nos	1.00		
7.4	First Aid Box	Nos	1.00		
	SIGNAGES				
	Providing and fixing in position the following type of sign boards made out of 3mm thick "Opaque" PVC foam board with computer cut, PVC non-reflective self adhesive vinyl painted foam board, complete with mirror fasteners.				

SI.No	Description	Unit	Quantity	Rate	Amount
7.5	Signage with the following text "IN CASE OF FIRE, USE STAIRS UNLESS INSTRUCTED OTHERWISE" of 1.25cm height letters in red with white back ground. The size of the board shall be 25cm x 30 cm and shall be fixed at the height of 2 mts. from finished floor near Manual call points.	Nos	1.00		
7.6	Supply & Installation of Photoluminescent Auto Glow Signage (Man, Door with Arrow Dual Side 6" X 12")	Nos	3.00		
7.7	Supply & Installation of Photoluminescent Auto Glow Signage (Man, Door with Arrow single Side 6" X 12")	Nos	1.00		
7.8	Supply & Installation of Photoluminescent Auto Glow Signage (Fire Exit Single Side 6" X 12")	Nos	1.00		
7.9	Carbon-di- oxide type fire extinguisher of 2 kgs capacity, CO2 gas filled in brand new seamless cylinder with powder coated finish, made out of Manganese steel, with wheel type valve, discharge nozzle, bend & horn, wall mounting bracket etc. complete, confirming to IS: 2878.	Nos	1.00		
7.10	ABC type Dry chemical powder fire extinguisher of 6 Kgs capacity, with initial filling in brand new cylinder with powder coated finish, fitted with Gun metal union, discharge hose, wall mounting bracket etc. complete, confirming to IS:14609	Nos	5.00		
7.11	Supply and installation of fire evacuation plan in A2 color size.	Nos	1.00		
	Total cost of Miscellaneous items				
M	LIGHTS AND FAN FIXTURES				
8.0	LIGHT AND FAN FIXTURES.				
	Supply and Installation ,testing & commissioning of all type of light Fixtures with gripple rope complete with fixing accessories and mounting bracket,earthing for the fittings all complete as required.(connection from the ceiling rose or junction box to light fixture with terminations).				
	Note : All light fixture with Electronic Ballast with THD <10%				
8.1	Supply and installation of recess mounted 2'x2' 36W LED1 light , The cost shall include required driver and 4Nos of gripple rope to install the lights PHILIPS RC380B LED36S 6500G6 L60W60 PSU OD All samples of makes and models mentioned in Make of materials should be delivered to site by contractor, On approval of Architect/consultant/client approval the LED fixtures has to be ordered to OEM/dealer	Nos	6.00		

SI.No	Description	Unit	Quantity	Rate	Amount
8.2	Supply and installation of recess mounted 18w circular LED2 light, The cost shall include required driver and fixing accessories PHILIPS DURA SLIM LED DOWNLIGHT All samples of makes and models mentioned in Make of materials should be delivered to site by contractor. On approval of Architect/consultant/client approval the LED fixtures has to ordered to OEM/dealer	Nos	14.00		
8.3	Supply and installation of linear 40W 8feet LED3 light, The cost shall include required driver and fixing of pendant strings and end caps. SP780 H LED50S 6500 PSU W5L224 OD WH All samples of makes and models mentioned in Make of materials should be delivered to site by contractor. On approval of Architect/consultant/client approval the LED fixtures has to ordered to OEM/dealer	Nos	9.00		
8.4	Supply and installation of surface mounted 12W LED4 light, The cost shall include required driver and fixing accessories. SURFACE 12W ROUND LED DOWNLIGHTER WHITE All samples of makes and models mentioned in Make of materials should be delivered to site by contractor. On approval of Architect/consultant/client approval the LED fixtures has to ordered to OEM/dealer	Nos	4.00		
8.5	Supply of LED-5 type Light Fixtures of IP65 6W/mtr with 72 LEDs/mtr (outdoor cove lighting). Each strip light should be provided with 50mtr roll- with 9Nos drivers. All samples of makes and models mentioned in Make of materials should be delivered to site by contractor, On approval of Architect/consultant/client approval the LED fixtures has to ordered to OEM/dealer	Rmt	70.00		
8.6	Supply installation testing and commissioning of BV 150mm Sweep Size Exhaust Fan. The fan should have Automatic front shutter which protects against foreign objects, Light weight exhaust ideal for mounting on glass window or wall. Powerful 100% copper motor ensures robust performance Corrosion protection with rust proof body and blades, Volt : 50 HzV, Watt : 21W, Air Delivery : 210CMH , Speed:1350 rpm Dimensions , Ideal for 6 Inch duct size. The rate should include installing the fan at higher level as per the sit conditions.	Nos	1.00		
TOTAL COST OF LIGHT FIXTURES AND FANS					
N	ALTERNATIVE POWER				
9.0	UPS and INVETER				

SI.No	Description	Unit	Quantity	Rate	Amount
9.1	Supply,installation,testing and commissioning of following UPS system (1ph in and 1ph out) with 1phase, 230V, 50HZ, 4 wire input and 1phase ,415V , 50Hz output system with built in static switch IGBT version online UPS with battery backup to give 20 mins back up (20Nos of 26AH SMF battery) 10 KVA UPS at 0.80 Pf and with standard fittings,accessories,protection, equipments,indications and controls including but not restricted to rectifier, inverter, SMF battery with float cum boost battery charger, static bypass switch,maintenance By-pass,inter-connections etc. including warranty and fee all inclusive comprehensive maintenance services for 1 yrs after the date of handing over complete as per specification and as required.The quoted price shall include suitable cables from battery to UPS and battery interconnection.UPS manufacturing should be compatible for redundancy in the event of failure or maintainence of 1No. of UPS. The UPS should be provided with 300mm stand to mount the UPS Make: APC SRC10KUXI	Nos	1.00		
	TOTAL COST OF UPS AND INVETER				
	TOTAL COST				
	TOTAL AMOUNT BEFORE GST				

ESTIMATE FOR HVAC WORKS					
"Interior Works for additional premises of NABINS HO." at 1st floor, No. 3073, 14th cross, BSK 2nd stage, Bengaluru 560070					
SI.No	Description	Unit	Quantity	Rate	Amount
HIGH SIDE WORKS					
O	EQUIPMENTS (VRV)				
1.0	Supply, installation, testing & commissioning of 14 HP EER>11 cooling with 1 compressors Modular type outdoor unit equipped with highly efficient scroll/rotary compressors with inverter type compressor (s), special acryl precoated, error auto address setting, with outdoor units of capacities and quantities as mentioned below .Cost shall include pressure testing,vacuumizing,gas charging(R-410A ,Polycarbonate stand, pedestal of 1.3Mx0.8M to mount ODU & lifting, shifting & positioning ODU from ground floor to terrace floor manually or by hydrlic machine (As per the client requirement).The unit to be BMS compatible. Rate shall be inclusive of Stickers on ODU. MAKE: TOSHIBA/DAIKIN	Nos	1.00		
TOTAL OF EQUIPMENTS (VRV)					
P	CASSET UNITS				
2.0	Supply, installing, testing and commissioning of four way 2TR VRV cassette (865X865MM size) type unit with filter, fan & dx cooling coil with necessary supporting arrangement, controls, electronic expansion valve, decorative panel, chordremote, complete with bottom openable service hatch with return air grill and remote control, consisting of evaporator fan capable of developing min 15mm WG of static pressure, insulated drain pan with pump, includes necessary accessories for fixing and mounting etc all complete as required. The installation shall include chasing the walls, chipping and plastering the walls with mesh, laying refrigerant pipes with supporting arrangement as per site condition.Rate shall be inclusive of Stickers on IDU. MAKE: TOSHIBA/DAIKIN FXFSQ63ARV16	Nos	4.00		
3.0	Supply, installing, testing and commissioning of four way compact 1TR VRV casse (600X600MM size) type unit with filter, fan & dx cooling coil with necessary supporting arrangement, controls, electronic expansion valve, decorative panel, chordremote, complete with bottom openable service hatch with return air grill and remote control, consisting of evaporator fan capable of developing min 15mm WG of static pressure, insulated drain pan with pump, includes necessary accessories for fixing and mounting etc all complete as required. The installation shall include chasing the walls, chipping and plastering the walls with mesh, laying refrigerant pipes with supporting arrangement as per site condition.Rate shall be inclusive of Stickers on IDU. MAKE: TOSHIBA/DAIKIN FXZQ32AVM	Nos	2.00		

SI.No	Description	Unit	Quantity	Rate	Amount
4.0	Supply, installing, testing and commissioning of four way compact 1.6TR VRV casset (600X600MM size) type unit with filter, fan & dx cooling coil with necessary supporting arrangement, controls, electronic expansion valve, decorative panel, chordremote, complete with bottom openable service hatch with return air grill and remote control, consisting of evaporator fan capable of developing min 15mm WG of static pressure, insulated drain pan with pump, includes necessary accessories for fixing and mounting etc all complete as required. The installation shall include chasing the walls, chipping and plastering the walls with mesh, laying refrigerant pipes with supporting arrangement as per site condition. Rate shall be inclusive of Stickers on IDU. MAKE: TOSHIBA/DAIKIN FXZQ50AVM	Nos	1.00		
5.0	Supply, installation, testing and commissioning of RAS-13U2KCVSG-IN, White 1TR 4/5STAR Split AC with inverter compressor: Variable speed compressor which adjusts power depending on heat load. Convertible / adjustable with 4 cooling modes through remote control to operate in different cooling needs (20% to 120% capacity) Energy Rating of the AC should be 4/5 Star and Annual Energy Consumption to be approximate 5300 units. ISEER Value: 4.51 Warranty : 1 Year Comprehensive Warranty on the Product and 10 Years on Compressor The AC should be provided with Copper Condenser Coil for Better cooling and requires low maintenance The AC should have be Anti Dust, Anti-Rust Coating, LED Display, Self Diagnosis, Sleep Mode, Turbo Mode, Auto Swing, Adjustable Cooling, Glow Buttons R32 Refrigerant to be made us for the Air conditioning Item Dimensions & Weight : IDU - 29.3 cm x 79.8 cm x 23 cm (H x W x D), Outdoor : 55 cm x 78 cm x 29 cm (H x W x D), IDU : 10 Kg, Outdoor : 26 Kg 1 Interconnecting Cable of 3m (Indoor to Outdoor), 1 Set(2nos) Interconnecting Pipe(Copper) of 3m for Indoor to Outdoor Connection, 4 Outdoor Vibration Pad, 1 cordless Remote, 2 AAA Remote Battery, 1 Indoor Mounting Plate, Plastic Sleeve+Screw for Indoor Mounting Plate should be provided for 1 unit. a) Costs should include 8mm dia Hi tech rods support for copper piping. b) Where ever the copper piping is running in the shafts, consider plastic wire wrapping. (Approximate 1m)	Nos	1.00		
6.0	Supply and installation of Outdoor stand for the above units, The cost should include fixing of ODU with 8mm thick Hilti Make Anchor fastners behind the ODU	Nos	1.00		
TOTAL OF CASSET AND HI WALL UNITS					

SI.No	Description	Unit	Quantity	Rate	Amount
	LOW-SIDE WORKS				
Q	REFRIGERANT PIPING				
7.0	<p>Supply, installation, testing & commissioning of 28.6 mm with 19/15mm thick insulation Refrigerant piping between indoor & outdoor units with Nitrile Rubber Tubular insulation of Refrigerant piping insulation shall be at least R 0.35 sqm.degC/W / Branch Distributors for Indoor & Outdoor units Note: No extra claim is allowed.</p> <p>a) Costs should include MS support for copper piping. b) Where ever the copper piping is running in the shafts, consider plastic wire wrapping. (Approximate piping required 5mts) c) Where ever the copper piping is running exposed to atmosphere , consider PVC pipes for protection. (Approximate piping required 8mts) d) Rate shall include wall openings and filling of wall openings using expandable foam. e) Wall openings to take the copper pipe inside the building is included in this item and finishing the wall with block work, plastering, expandable foam also to be considered. MAKE:MEXFLOW/RAJCO</p>	Rmt	10.00		
8.0	<p>Supply, installation, testing & commissioning of 22.8 mm with 19/15mm thick insulation Refrigerant piping between indoor & outdoor units with Nitrile Rubber Tubular insulation of Refrigerant piping insulation shall be at least R 0.35 sqm.degC/W / Branch Distributors for Indoor & Outdoor units Note: No extra claim is allowed.</p> <p>a) Costs should include MS support for copper piping. b) Where ever the copper piping is running in the shafts, consider plastic wire wrapping. c) Where ever the copper piping is running exposed to atmosphere , consider PVC pipes for protection. (Approximate piping required 4mts) d) Rate shall include wall openings and filling of wall openings using expandable foam. e) Wall openings to take the copper pipe inside the building is included in this item and finishing the wall with block work, plastering, expandable foam also to be considered. MAKE:MEXFLOW/RAJCO</p>	Rmt	10.00		
9.0	<p>Supply, installation, testing & commissioning of 15.9 mm with 19/15mm thick insulation Refrigerant piping between indoor & outdoor units with Nitrile Rubber Tubular insulation of Refrigerant piping insulation shall be at least R 0.35 sqm.degC/W / Branch Distributors for Indoor & Outdoor units Note: No extra claim is allowed.</p> <p>a) Costs should include 8mm dia Hi tech rods support for copper piping. MAKE:MEXFLOW/RAJCO</p>	Rmt	35.00		

SI.No	Description	Unit	Quantity	Rate	Amount
10.0	Supply, installation, testing & commissioning of 12.7 mm with 19/15mm thick insulation Refrigerant piping between indoor & outdoor units with Nitrile Rubber Tubular insulation of Refrigerant piping insulation shall be at least R 0.35 sqm.degC/W / Branch Distributors for Indoor & Outdoor units Note: No extra claim is allowed. a) Costs should include 8mm dia Hi tech rods support for copper piping. MAKE:MEXFLOW/RAJCO	Rmt	35.00		
11.0	Supply, installation, testing & commissioning of 9.5 mm with 19/15mm thick insulation Refrigerant piping between indoor & outdoor units with Nitrile Rubber Tubular insulation of Refrigerant piping insulation shall be at least R 0.35 sqm.degC/W / Branch Distributors for Indoor & Outdoor units Note: No extra claim is allowed. a) Costs should include 8mm dia Hi tech rods support for copper piping. MAKE:MEXFLOW/RAJCO	Rmt	35.00		
12.0	Supply, installation, testing & commissioning of 6.4 mm with 19/15mm thick insulation Refrigerant piping between indoor & outdoor units with Nitrile Rubber Tubular insulation of Refrigerant piping insulation shall be at least R 0.35 sqm.degC/W / Branch Distributors for Indoor & Outdoor units Note: No extra claim is allowed. a) Costs should include 8mm dia Hi tech rods support for copper piping. MAKE:MEXFLOW/RAJCO	Rmt	35.00		
13.0	Supply, installation, testing & commissioning of required size CU refnet joints as indicated in drawings with all required accessories to complete installation. Set comprises of gas line and liquid line refnets. MAKE:MEXFLOW/RAJCO	Set	8.00		
TOTAL OF REFRIGERANT PIPING					
R	ELECTRICAL CABLES				
14.0	Supply, installation, testing & commissioning of 2C X 1Sq.mm communication cable from outdoor unit with indoor units (VRV units). The rate shall be inclusive of heavy guage 20mm PVC FRLS conduit pipe with suitable bends, junction boxes, adhesive paste and bar saddles for fixing the conduit on the RCC ceiling. Note: The plug points and electrical cabling for energising Cassete units and HI wall units is excluded in your scope. MAKE:POLYCAB	Rmt	80.00		
TOTAL OF ELECTRICAL CABLES					

SI.No	Description	Unit	Quantity	Rate	Amount
S	MISCELLANEOUS ITEMS				
15.0	CONDENSING DRAIN PIPES: Providing and fixing 20mm dia pipe (NB) (CPVC quality) pipes with necessary elbows, tees, reducers. U trap and other accessories required to complete installation. The rate shall be inclusive of laying drain pipes with supporting arrangement as per site condition. MAKE:ASTRAL	Rmt	20.00		
16.0	CONDENSING DRAIN PIPES: Providing and fixing 25mm dia pipe (NB) (CPVC quality) pipes with necessary elbows, tees, reducers. U trap and other accessories required to complete installation. The rate shall be inclusive of laying drain pipes with supporting arrangement as per site condition. MAKE:ASTRAL	Rmt	30.00		
	TOTAL OF MISCELLANEOUS				
	TOTAL COST				
	TOTAL AMOUNT BEFORE GST				

ESTIMATE FOR PUBLIC ADDRESS SYSTEM, FIRE DETECTION AND ALARM, CCTV, ACCESS CONTROL SYSTEM WORKS

"Interior Works for additional premises of NABINS HO."
at 1st floor, No. 3073, 14th cross, BSK 2nd stage, Bengaluru 560070

SI.No	Description	Unit	Qty	Rate	Amount
	PUBLIC ADDRESS & FIRE DETECTION AND ALARM				
T	PUBLIC ADDRESS SYSTEM (TWO WAY COMMUNICATION TYPE)				
1.0	Supplying, fixing, testing and commissioning approved make 6W wall /ceiling mounted loud speakers in stove enamelled M.S. sheet steel housing etc., all complete as required. Make: INNOVATIVE	Nos	6.00		
2.0	Supplying and fixing approved make armoured twin Core 2Core X 1.5 sq. mm Fire retardant sheathed copper conductor wire conforming to IS standards and specifications. Make: POLYCAB	Rmt	150.00		
	Total Amount for Public address system				
U	FIRE DETECTION AND ALARM SYSTEM				
3.0	Supply, fixing and commissioning multisensor smoke detector with LED indication, history log, dust and dirt resistant , with compatible mounting bases, junction box and other accessories as required and working on 19 - 24 V DC supply all complete as required. MAKE:SYSTEM SENSOR	Nos	22.00		
4.0	Supply, fixing and commissioning Response indicator with LED display for all detectors located above false ceiling. MAKE:AGNI, SYSTEM SENSOR	Nos	11.00		
5.0	Supply, fixing and commissioning conventional Heat detector with operating temperature of 58 Deg C, with Bi-colour LED indication, compatible mounting bases, junction box and other accessories as required and working on 19 - 24 V DC supply all complete as required. MAKE:SYSTEM SENSOR	Nos	1.00		
6.0	Supply, fixing and commissioning 3 in 1 (MCP, Hooter, Speaker with call back switch) having an integrally mounted addressable module that monitors and reports contact status. MAKE: SYSTEM SENSOR	Nos	1.00		

SI.No	Description	Unit	Qty	Rate	Amount
7.0	Supplying and fixing approved make armoured twin 2Core x 1.5 sq. mm Fire retardant sheathed copper conductor wire conforming to IS standards and specifications. MAKE: VARSHA/POLYCAB	Rmt	150.00		
8.0	Supplying and fixing approved make 20 mm dia MS flexible conduits on ceiling / wall / floor etc. complete with accessories like, Junction boxes, etc. MAKE: MACOPLAST/VIP	Rmt	30.00		
Total Amount for fire detection & alarm system					0.00
GRAND TOTAL OF PUBLIC ADDRESS, FIRE DETECTION AND ALARM SYSTEM					0.00
CCTV SYSTEM					
V	CCTV SYSTEM				
1.0	Supply, Installation, Testing and Commissioning of 4 MP ColorVu Fixed Bullet Network Camera High quality imaging with 4 MP resolution Efficient H.265+ compression technology Clear imaging against strong backlight due to 130 dB WDR technology Focus on human and vehicle targets classification based on deep learning 24/7 colorful imaging Water and dust resistant (IP67) Make:HIKVISION-DS-2CD2T47G2-L	Nos	4.00		
2.0	Supply, Installation, testing & commissioning of CAT 6-E cable. MAKE :COMMSCOPE	Rmt	100.00		
3.0	Supply, Installation, testing & commissioning 25 mm dia PVC FRLS Conduit. MAKE :VIP/MACOPLAST	Rmt	200.00		
4.0	Supply,Installation,Testing and Commissioning of 4TB HDD inclusive of all accessories for installation and commissioning and should be complete. MAKE :SEAGATE	Nos	1.00		
5.0	Supply and Installation of 6c OFC cable in 32mm MS conduit. MAKE :VIP/MACOPLAST	Rmt	100.00		

SI.No	Description	Unit	Qty	Rate	Amount
	Total Amount for CCTV system				0.00
ACCESS CONTROL SYSTEM					
W	ACCESS CONTROL SYSTEM				
1.0	Supply, installation, testing and commissioning of 2 Reader/ two door controller and provision to record the data and other standard softwares, with battery backup with SMPS power supply of uninterrupted operations, facility to interlock with fire alarm. MAKE: HID VERTX V100 +V1000 KANTEC KT-300/128	Set	1.00		
2.0	Supply & Commissioning of iClass Access cards.	No	50.00		
3.0	Supply, installation, testing and commissioning of Single door Electromagnetic lock with all accessories required to complete the installation. MAKE: Insyin / Algatec	No	1.00		
4.0	Supply, installation, testing and commissioning of power supply unit for EML.(12/24 VDC, 10A). MAKE: Reputed	No	1.00		
5.0	Supply, installation, testing and commissioning of Magnetic door contact with all accessories required to complete the installation. MAKE: Reputed	No.	1.00		
6.0	Supply, installation, testing and commissioning of Buzzer with all accessories required to complete the installation. MAKE: Reputed	No.	1.00		
7.0	Supply, installation, testing and commissioning of iClass Card reader with all accessories required to complete the installation. MAKE: HID R10	No.	2.00		
8.0	Supply, installation, testing and commissioning of Emergency Break Glass with all accessories required to complete the installation. MAKE: Reputed	No.	1.00		
9.0	Supply, installation, testing and commissioning of 8Cx.75 sqmm FRLS copper conductor cable with all accessories required to complete the installation. MAKE: VARSHA/POLYCAB	Rm	20.00		
10.0	Supply & installation of 25mm dia heavy gauge rigid PVC FRLS conduit. MAKE: MACOPLAST/VIP	Rm	20.00		

SI.No	Description	Unit	Qty	Rate	Amount
11.0	Supply, Installation, testing & commissioning of Push button switch with all accessories required to complete the installation. MAKE: REPUTED	No	2.00		
Total Amount for Access Control System					

**Make of Materials for Electrical / Fire Hydrant / Fire Alarm / CCTV
and AC Works**

"Interior Works for additional premises of NABINS HO."

at 1st floor, No. 3073, 14th cross, BSK 2nd stage, Bengaluru 560070

SI No.	Item	Make
	Electrical Works	
1	MCCB	Legrand Schneider.
2	Indicators	C&S Vaishnov
3	Busbars	Jindal Hindelco
4	VAF meter	Elmeasure Trinity
5	KWH meter	Elmeasure Trinity
6	MDM	Elmeasure Trinity
7	ELR	Kapco Elmeasure
8	CT's	Kapco Kalpa
9	Change Over Switches	Indoasian COS
10	UV release relay	Legrand Schneider.
11	Auto/manual switch	Vaishnov Sazler
12	Wires	Polycab KEI Havells
13	Cables	Polycab KEI Havells
14	Glands	Comet Brass Products Cosmos Comet Dowells
15	Cable trays/ Raceways/ Junction boxes	Cable tech Classic Engineering solutions Madhu and Engineers
16	Hume Pipe	Indian hume pipe
17	GI Pipes	TATA Jindal
18	Distribution Boards	Legrand Schneider
19	MCB/ELCB/RCBO	Legrand Schneider

SI No.	Item	Make
20	PIR Sensors	Legrand Schneider
21	Industrial Sockets	Legrand Neptune
22	Telephone Cables	Delton/FInolex
23	Cat6 Cables	Commoscope D-Link
24	Data Sockets/ Telephone Sockets	Commoscope D-Link
25	Modular type Switches, Sockets Outlets, Fan regulators, Calling Bell, Buzzer, Front Plate, Mounting Plates, MS box	Schneider Legrand Crabtree
26	Body Earthing/ Copper Earthing	Ashlok, Galaxy Earthing Electrodes Pvt . Ltd, Alfredkim systems & solutions Pvt. Ltd,Aeron Industries.
27	GI/copper Strips	Ashlok
28	Lightning Protection system	Ashlok, Indelac
29	PVC Pipe	Universal VIP Macoplast
30	Fire Extinguishers	Safex Supreme Excellent
31	Rubber Matts	Santosh Rubber Industry Jyothi Rubber Udyog
32	Shock treatment chart	Jaincolab Jlab
33	LED Lights	Philips Havells Regent
34	Timer	L&T ABB
35	IP66 Protection Boxes	Legrand Hensel
36	PVC Raceway	Legrand
37	Port patch panel	DLink Commscope
38	LAN switch	Cisco
39	Acces point (Wifi)	Cisco
40	Rack	Cisco
41	GI Raceways and junction boxes	Classic Engineering Rackman

SI No.	Item	Make
42	Pop up box	Connect, Cable cubby
43	Exhaust fan	Usha, Crompton
	UPS	
1	UPS	APC
2	Battery	Exide Quanta
	Fire Hydrant Works	
1	Monoblock/Centrifugal Pumps	Kirloskar Brothers
2	Air cushion tank	Local
3	GI/MS Pipes	Jindal TATA
4	Ball Valves	Zoloto/Saunders / Advance / Intervalve
5	Butterfly Valve	Zoloto/Saunders / Advance / Intervalve
6	Non return Valve	Zoloto/Saunders / Advance / Intervalve
7	Brass, gun metal & CI easy clean strainer/ Basket strainer	Zoloto/Intervalve/Sant
8	CI flanged sluice valve	Zoloto
9	Pressure relief valve	Newage
10	Sprinkler control valv	Tyco Viking
11	Motorized butterfly valves	Honeywell
12	Automatic air release valve	Elims
13	Single headed hydrant valve	Newage / Winco/Minimax
14	Fire brigade inlet	Newage / Winco/Minimax
15	M.S. Hose cabinet	Local
16	Sprinklers	Tyco Viking HDFire Newage
17	Flexible droppers	Tyco Viking HDFire Newage

SI No.	Item	Make
18	Pressure Gauges	Hguru
19	Pressure switches	Indfos
20	Wrapping	IWL
21	Fire Extinguishers	Ceasefire Safex Supreme Excellent
22	Fire bucket stand	Excellent Safex
23	Signages	Reputed
24	Triple Layer Polyethylene water storage tank	Sintex Industries Limited/ Ashirwad
	Fire Alarm Works	
1	Analogue addressable microprocessor Fire Alarm Panel	Innovative technologies
2	Repeater panel	Innovative technologies
3	Analog Addressable Photo-electric type detector	Innovative technologies
4	Analog Addressable Heat detector	Innovative technologies
5	3 in 1 (MCP, Hooter, Speaker	Agni, Innovative technologies
6	Addressable Strobe cum sounders	Agni, Innovative technologies
7	Addressable Fault isolator module	Innovative technologies
8	Addressable Control module	Innovative technologies
9	Addressable Monitor module	Innovative technologies
10	2Core x 1.5 sq. mm Copper Cable	Varsha Polycab
11	25 mm dia. MS flexible conduits	Local
12	25 mm dia. MS conduits	Bharath Gupta
	CCTV Works	
1	Network Video Recorder	Hikivision
2	4 MP ColorVu Fixed Bullet Network Camera	Hikivision
3	MS Pole	Local

SI No.	Item	Make
4	42" TFT LED Color, SMART Monitor	LG/Samsung
5	CAT 6-E	Commoscope D-Link
6	CAT 6 armoured cable for PTZ cameras.	Varsha Polycab
7	25 mm dia PVC FRLS	Universal VIP Macoplast
8	32 mm dia HDPE pipe	Ruparal
9	Workstation	Dell HP
10	8TB HDD	Seagate
11	Port Switch	Cisco
12	Port Jack Panel	Cisco
13	Minimum 9U Switch rack	Netrack
14	1.5 meter Cat6 patch cord	Commscope
	AC Works	
1	Air conditioning Machine VRV outdoor and indoor units	Toshiba/Daikin
2	DX units	Toshiba/Daikin
2	Copper Pipe/ Refnet	Maxflow/Rajco
3	CPVC Pipe	Astral/Ashirwad
4	Electrical cable	Polycab/KEI/Havells