

SECTION -VI
LIST OF APPROVED MAKES

DOCUMENT TITLE: ELECTRICAL SYSTEM WORKS APPROVED MAKE LIST		
S NO	DESCRIPTION	APPROVED MAKES
1	HT RMG PANEL / HT VCB PANELS	1. SIEMENS 2. ABB 3. SCHNEIDER 4. LAURITZ KNUDSEN (FORMERLY L&T) (Ti) <u>(OEM AUTHORISED / OEM PREFERRED PANELS VENDOR ONLY)</u>
2	DISTRIBUTION TRANSFORMER DRY TYPE	1. SGB 2. ABB-HITACHI 3. CG 4. HAMMOND 5. RAYCHEM
3	LT PANELS IEC 61439 (TTA)	1. SIEMENS (SIEPAN PANELS) 2. SCHNEIDER (BLOCKSET) 3. ABB (ARTUK PANEL) 4. LEGRAND (XL3) 5. RITTAL 6. LAURITZ KNUDSEN (FORMERLY L&T) (Ti) <u>(OEM AUTHORISED / OEM PREFERRED PANELS VENDOR ONLY)</u>
4	LT PANELS IEC 60439 (PTTA)	1. SIEMENS (SIEPAN PANELS) 2. SCHNEIDER (BLOCKSET) 3. ABB (ARTUK PANEL) 4. LEGRAND (XL3) 5. RITTAL 6. LAURITZ KNUDSEN (FORMERLY L&T) (Ti) <u>(OEM AUTHORISED / PREFERRED PANELS VENDOR ONLY)</u>
5	AIR CIRCUIT BREAKERS (ACB)	1. SCHNEIDER 2. SIEMENS 3. ABB 4. LEGRAND 5. LAURITZ KNUDSEN (FORMERLY L&T)

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S NO	DESCRIPTION	APPROVED MAKES
6	MCCB	1. SCHNEIDER 2. SIEMENS 3. ABB 4. LEGRAND 5. LAURITZ KNUDSEN (FORMERLY L&T)
7	LV VFD	1. SIEMENS 2. SCHNEIDER 3. DANFOSS 4. ABB 5. ALLENBRADLEY 6. LAURITZ KNUDSEN (FORMERLY L&T)
8	LV CAPACITORS/AHF	1. EPCOS 2. SCHNEIDER 3. POWER MATRIX 4. NEPTUNE 5. DUCATI 6. LAURITZ KNUDSEN (FORMERLY L&T)
9	CTS (EPOXY RESIN CAST TYPE)	1. PRAGATI 2. ABB 3. KALPA 4. KAPPA 5. ECS 6. SCHNEIDER
10	VTS (EPOXY RESIN CAST TYPE)	1. PRAGATI 2. ABB 3. KALPA 4. KAPPA 5. ECS 6. SCHNEIDER
11	APFC RELAY / CONTROLLER	1. BELUK 2. CONZERV 3. EPCOS 4. POWERMATRIX

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S NO	DESCRIPTION	APPROVED MAKES
		5. LAURITZ KNUDSEN (FORMERLY L&T) 6. NEPTUNE
12	INDICATING METERS DIGITAL & ANALOGUE	1. CONZERV 2. SIEMENS 3. RISHABH 4. SECURE 5. AE 6. SELEC
13	MULTI FUNCTION METER	1. CONZERV 2. SIEMENS 3. RISHABH 4. SECURE 5. AE 6. SELEC
14	INDICATING LAMPS (CLUSTERED/CHIP LED TYPE)	1.SIEMENS 2. TEKNIC 3. BCH 4. SCHNEIDER 5. LAURITZ KNUDSEN (FORMERLY L&T)
15	PUSHBUTTONS	1. SIEMENS 2. TELEMECANIQUE 3. TEKNIC 4. LAURITZ KNUDSEN (FORMERLY L&T) 5. BCH
16	CABLES	HT CABLES- 1. RPG 2. UNIVERSAL 3. NICCO 4. KEI 5. POLYCAB
17		LT POWER CABLES 1. UNIVERSAL 2. RPG 3. POLYCAB

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S NO	DESCRIPTION	APPROVED MAKES
		4. KEI 5. RR KABLE 6. BONTON
18		LT CONTROL CABLES 1. UNIVERSAL 2. RPG 3. POLYCAB 4. KEI 5. RR KABLE 6. BONTON
19		WIRE PVC COPPER WIRES- 1. KEI 2. FINOLEX 3. LAPP 4. ANCHOR 5. POLYCAB 6. GREATWHITE 7. ASMON
20	ANNUNCIATORS	1. MINILEC 2. ALSTOM 3. ALAN
21	HRC FUSE	1. SIEMENS 2. COOPER BUSSMAN 3. SCHNEIDER 4. LAURITZ KNUDSEN (FORMERLY L&T) 5. ABB
22	CONTACTORS	AC POWER CONTACTOR 1. SIEMENS 2. ABB 3. SCHNEIDER 4. LAURITZ KNUDSEN (FORMERLY L&T) 5. ABB
23		DC POWER CONTACTOR

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		1. BCH 2. BHEL 3. SIEMENS
24		AUXILIARY CONTACTORS 1. SIEMENS 2. LAURITZ KNUDSEN (FORMERLY L&T) 3. TELEMECANIQUE 4. ABB 5. SCHNEIDER ELECTRIC
25	TIME SWITCH	1. GIC 2. THEBEN 3. SIEMENS 4. SCHNEIDER
26	TIMERS	1. GIC 2. THEBEN 3. SIEMENS 4. MINILEC 5. LAURITZ KNUDSEN (FORMERLY L&T) 6. SCHNEIDER
27	TIME DELAY RELAY	1. AREVA 2. ABB 3. SIEMENS 4. OMRON 5. PLA
28	OVERLOAD RELAY	ELECTRONIC MICROPROCESSOR BASED OVERLOAD RELAY 1. SIEMENS 2. ABB 3. SCHNEIDER 4. LAURITZ KNUDSEN (FORMERLY L&T)
29		BI-METAL RELAYS 1. SIEMENS 2. ABB

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		3. SCHNEIDER 4. LAURITZ KNUDSEN (FORMERLY L&T)
30	CABLE GLANDS	1. COMET 2. BRACO 3. BALIGA 4. DOWELLS 5. 3M 6. STOKES
31	CABLE LUGS	1. DOWELLS 2. COMET 3. SMI 4. 3M 5. STOKES
32	CONNECTOR	1. PHOENIX 2. WAGO CONTROLS 3. ESSEN 4. CONNECTWELL
33	MCB / RCCB / RCBO / MPCB	1. SIEMENS 2. SCHNEIDER 3. ABB 4. LEGRAND 5. LAURITZ KNUDSEN (FORMERLY L&T) 6. PANASONIC 7. ASMON
34	DISTRIBUTION BOARD	1. SIEMENS 2. SCHNEIDER 3. ABB 4. LEGRAND 5. LAURITZ KNUDSEN (FORMERLY L&T) 6. PANASONIC 7. ASMON
35	MODULAR - SWITCHES & SOCKETS	1. WIPRO (ARTISA) 2. LEGRAND (ARTEOR) 3. PANASONIC (VISION)

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		4. SCHNEIDER (ZENCELO) 5. ABB (IVIE) 6. GREATWHITE (ARCUS)
36	METAL CLAD PLUG & SOCKETS & IP-65 PLUG & SOCKETS	1. LEGRAND 2. SCHNEIDER 3. SCAME 4. CAPE ELECTRIC 5. HENSEL
37	PROTECTIVE RELAYS (NUMERICAL TYPE) & AUXILIARY RELAY	1. SIEMENS 2. ALSTOM 3. ABB 4. SCHNEIDER
39	CONTROL / SELECTOR SWITCH	1. KAYCEE 2. SIEMENS 3. ABB 4. SCHNEIDER 5. LAURITZ KNUDSEN (FORMERLY L&T)
40	TERMINALS	1. PHOENIX 2. WAGO CONTROLS 3. CONNECTWELL
41	CABLE JOINTING KIT/ TERMINATION KITS	1. RAYCHEM 2. BIRLA-3M 3. M-SEAL
42	CABLE TRAYS	1. INDIANA 2. PROFAB 3. PATNY 4. CLASSIC 5. TECHNOFAB 6. PUSHPAK
43	WALL / FLOOR RACEWAYS	1. INDIANA 2. PROFAB 3. OBO 4. PUSHPAK 5. LEGRAND

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44	VOLTAGE / POWER / CURRENT / FREQUENCY / ENERGY TRANSDUCER	1. ABB 2. SIEMENS 3. AREVA
45	GI CONDUIT / PIPES/ FRLS PVC CONDUIT/MS CONDUIT	1. SAIL 2. TATA STEEL 3. BEC 4. AKG 5. VIP 6. AVON PLAST 7. GREATWHITE
46	INSULATING MATS	1. NATIONAL 2. JYOTI 3. DL MILLER & COMPANY 4. PREMIER POLY FILM LTD 5. RMG POLYVINYL INDIA LTD.
47	WINDING AND OIL TEMPERATURE INDICATOR	1. PRECI MEASURE 2. PERFECT CONTROL 3. PRAYOG
48	SINGLE PHASE PREVENTER	1. LAURITZ KNUDSEN (FORMERLY L&T) 2. MINILEC 3. SIEMENS
49	SMF/VRLA BATTERY	1. EXIDE 2. AMARAN 3. PANASONIC
50	BATTERY CHARGER & DCDB	1. CHHABI 2. MASS-TECH CONTROLS 3. UNIVERSAL 4. HBL
51	LIGHTNING PROTECTION	1.OBO 2. DEHN 3. CAPE

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S NO	DESCRIPTION	APPROVED MAKES
52	LIGHT FIXTURES	OUTDOOR LIGHT FIXTURES 1. PHILIPS 2. WIPRO 3. NERI 4. KESSLEC 5. PANASONIC 6. BAJAJ
53		INDOOR / FACADE LIGHTS 1. WIPRO 2. PHILIPS 3. LIGHTNING TECHNOLOGIES 4. PANASONIC 5. REGENT 6. EVOLITE
54		FLAME PROOF LIGHT FIXTURE 1. BAJAJ ELECTRICALS LTD 2. BALIGA
55	POWER PACK	1. MAHAMAI (MM MAX POWER) 2. ALAN 3. NUTEK
56	BUS DUCTS / RISING MAINS	1. SCHNEIDER 2. LEGRAND 3. C&S 4. GODREJ 5. LAURITZ KNUDSEN (FORMERLY L&T)
57	CHANGE OVER SWITCH	1. ABB 2. SCHNEIDER ELECTRIC 3. SIEMENS 4. HPL
58	AUTOMATIC TRANSFER SWITCH (ATS)	1. ASCO 2. SOCOMEC 3. SCHNEIDER 4. ABB

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S NO	DESCRIPTION	APPROVED MAKES
60	OCCUPANCY SENSORS / DAYLIGHT SENSOR	1. WIPRO 2. PANASONIC 3. HAGER 4. PHILIPS 5. REGENT
61	LIGHTING POLES	1. WIPRO 2. BAJAJ ELECTRICALS 3. KESELEC 4. K-LITE 5. PHILIPS 6. NERI
62	PLC	1. ALLEN BRADLEY 2. SIEMENS 3. ABB 4. SCHNEIDER
63	EARTH LEAKAGE RELAY	1. PROK DEVICES 2. ALSTOM 3. SIEMENS
64	MOTORS	1. SIEMENS 2. ABB 3. KIRLOSKAR
65	SURGE ARRESTORS, SPD	1. CAPE 2. SIEMENS 3. ABB 4. SCHNEIDER 5. LEGRAND
66	PANEL VENTILATION FANS	1. RITTAL 2. EBM NADI
67	EXTERNAL DB ENCLOSURES / POLYCARBONATE BOXES	1. HENSEL 2. OBO 3. LEGRAND 4. CAPE

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S NO	DESCRIPTION	APPROVED MAKES
68	CEILING FANS (BLDC FANS)	1. ATOMBERG 2. HAVELLS 3. ORIENT 4. CROMPTON 5. PANASONIC
69	PANEL LIGHTNING ARRESTORS	1. WSI 2. OBLUM 3. ELPRO 4. CAPE
70	EARTHING	1. ASHLOK 2. GALAXY 3. SAFE EARTH 4. CAPE 5. JEF
71	UPS	1. VERTIV 2. EATON 3. ABB 4. RIELLO 5. TMEIC
72	UPS BATTERY	1. EXIDE 2. AMARA RAJA 3. PANASONIC 4. HITACHI
73	SOLAR PV PANEL	1. PANASONIC 2. TATA PV SOLAR 3. VIKRAM SOLAR 4. WAAREE 5. RENEWSYS 6. EMMVEE
74	SOLAR INVERTER PANEL	1. SUNGROW 2. BOSCH 3. SIEMENS 4. FIMER(ABB) 5. HAVELLS

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S NO	DESCRIPTION	APPROVED MAKES
75	DG -ENGINE	1. CUMMINS 2. MTU 3. CATERPILLAR 4. BAUDOIN
76	DG - ALTERNATOR	1. STAMFORD 2. LEROY SOMER 3. AVKC
77	BALL VALVES	1. LEADER 2. AUDCO 3. BDK 4. INTERVALVE
78	CS/GI PIPES	1. JINDAL 2. SAIL 3. TATA STEEL
79	SEAMLESS CS PIPES	1. TATA STEEL 2. MAHARASHTRA SEAMLESS 3. KALYANI STEEL 4. IMPORTED
80	CS/GI FITTINGS AND FLANGES	1. ALLIANCE FORGE 2. TUBE PRODUCTS INCORPORATE 3. SIVANANDA 4. EBY INDUSTRIES 5. TEEKAY TUBES, MUMBAI
81	STEEL PLATES	1. JINDAL 2. TATA STEEL 3. SAIL
82	GASKETS	1. GASKETS INDIA PVT. LTD 2. IGP ENGG. LTD 3. MECHANICAL PACKING INDUSTRIES
83	PAINTS	1. BERGER 2. NEROLAC 3. ASIAN PAINTS

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S NO	DESCRIPTION	APPROVED MAKES
84	LEVEL SWITCH	1. PUNE TECHTROL 2. CHEMTROLS ENGG. LTD. 3. LEVCON 4. SBEM
85	LEVEL GAUGE	1. PUNE TECHTROL 2. CHEMTROLS ENGG. LTD. 3. LEVCON 4. SBEM
86	SIMPLEX FILTERS	1. MAHLE 2. HONEYWELL
87	VIBRATION ISOLATION	1. CUSHY FOOT MOUNTS 2. DUNLOP 3. GERB
88	STRUCTURAL STEEL	1. SAIL 2. TATA STEEL 3. JINTAL STEEL
89	PANEL SUPPRESSION SYSTEM	1. FIRE TRACE 2. ROTAREX 3. CEASEFIRE 4. KANEX
NOTE: CONTRACTOR TO PROCEED FOR PROCUREMENT WITH PREFERRED MAKE, ONLY UPON APPROVAL FROM EMPLOYER/PMC. WITHOUT WRITTEN CONSENT FROM EMPLOYER/PMC, NO PROCUREMENT SHOULD BE AFFECTED EVEN IF IT IS FROM THE LIST OF APPROVED MAKES.		

DOCUMENT TITLE: HVAC SYSTEM WORKS APPROVED MAKE LIST		
S NO	DESCRIPTION	APPROVED MAKES
1	Air/ Water Cooled Chillers	1. Trane 2. York 3. Daikin
2	Chilled water pumps	1. ITT Industries 2. Grundfos 3. Armstrong
3	Cooling tower	1.Advance 2.Marley 3.Bell 4.Paharpur
4	Air Handling Units	1.Zeco 2.System air 3.Caryaire Edgetech 4.Citizen 5.VTS
5	Fan Coil Units	1.Caryaire 2.Zeco 3.Edgetech 4.System air 5.Waves
6	Chilled water cassette Units	1.Trane 2.York 3.Samsung 4.Sinko
7	AHU Fans	1. Kruger 2. Nicotra 3. Greenheck 4. Dynair 5. Comefri 6. System air
8	Filters	1.AAF 2.Thermodyne 3.Spectrum

DOCUMENT TITLE: HVAC SYSTEM WORKS APPROVED MAKE LIST		
S NO	DESCRIPTION	APPROVED MAKES
9	Ventilation Fans	1.Kruger 2.Greenheck 3.Nicotra 4.System air 5.comefri 6. Dynair
10	Ventilation Fans – Wall Mounted	1.Kruger 2.Greenheck 3. Ostberg 4.Dynair 5.comefri
11	Ventilation Fans – Ceiling Mounted	1.Kruger 2.Greenheck 3.Dynair 4.System air 5.comefri
12	Variable Frequency Drives	1.Danfoss 2.ABB 3.Siemens 4. Schnieder
13	MS Pipes	1.Jindal 2.Tata 3.SAIL
14	Copper pipes	1.Totalline 2.Nisson 3. Cuprite 4.Hindustan 5.Rajco
15	Butterfly Valves	1.Audco 2.Oventrop 3. Socla 4.L&T

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S NO	DESCRIPTION	APPROVED MAKES
16	Ball Valve	1.Audco 2.Socla 3.ITAP 4.Hattersley 5.Kitz 6.Leader 7. Zoloto 8.NVR
17	Check valve	1.Normax 2.Socla 3.Advance 4.Intervalve 5.Audco 6.leader 7. Zoloto
18	Flow Control Valves (Pressure Independent type)	1.Danfoss 2.T&A Hydronics 3.Honeywell 4. Belimo 5.JCI
19	2-Way Modulating & On / Off Valves	1.Danfoss 2.T&A Hydronics 3.Johnson Controls 4.Honeywell 5. Belimo
20	Balancing Valves	1.Socla 2.T&A Hydronics 3.Belimo 4.Advance 5.Honeywell
21	Strainer	1.Socla 2.Sant 3.Advance 4.Emerald

DOCUMENT TITLE: HVAC SYSTEM WORKS APPROVED MAKE LIST		
S NO	DESCRIPTION	APPROVED MAKES
22	Suction Guide & Flo-Trex valve	1. Emerald 2. Anergy 3. Amstrong
23	Pressure & Temperature Gauges	1. Wika 2. Fiebig 3. Warea 4. H-guru
24	Pipe Insulation – Nitrile Rubber	1. Armaflex 2. K Flex 3. Aero flex
25	Pipe Insulation – EPS	1. Beardsell 2. Coolite 3. Llyods
26	Auto Air vent Valve	1. Amtrol 2. Flamco 3. Anergy 4. Socla
27	Temperature Sensors / Transmitters	1. Trane 2. Honeywell 3. Johnson Controls 4. Siemens
28	Differential Pressure Sensors / Transmitters / Switch	1. Trane 2. Honeywell 3. Johnson Controls 4. Siemens
29	Pressurized Expansion Tank	1. Anergy 2. Hydronics
30	Air separator	1. Anergy 2. Hydronics
31	VAV Box	1. JCI 2. Honeywell 3. Siemens 4. Belimo

DOCUMENT TITLE: HVAC SYSTEM WORKS APPROVED MAKE LIST		
S NO	DESCRIPTION	APPROVED MAKES
32	Dry scrubber	1.Trion 2. Rydair
33	Galvanized Steel Sheet	1.TATA 2.Jindal 3. ASAWA
34	Aluminium Sheet	1.Nalco 2. Balco 3.Hindalco
35	Duct/ Double Skin Plenum – Factory Fabricated	1.Seven Star 2. Shree Venus 3.Westerair duct
36	Duct Insulation – Nitrile Rubber	1.Armaflex 2.K Flex 3.Aeroflex
37	Fibre glass	1.UP Twiga 2. Owens's corning
38	Air Terminal / Distribution Devices - Grilles, Diffusers, Dampers & Louvers	1.Caryaire 2.Air Master 3.Systemair 4.Cosmic 5.titus
39	Insulated Flexible Ducting	1.Caryaire 2.Atco 3.UP Twiga
40	Motorized Smoke & Fire damper	1.Greenheck 2.Ruskin 3.Trox 4.System air
41	Welding Electrodes	1.Advani 2.Esab 3.Sun arc 4.Sechron Universal

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S NO	DESCRIPTION	APPROVED MAKES
42	Actuators	1.Belimo 2.Siemens 3.Switzer
43	Pipe supports	1.Hitech supports 2.Hilti 3.Kanwal Industries
44	Drainpipe	1.Ashirvad 2.Supreme 3.Astral 4.Prince
45	Btu Meter	1.Km-strub 2.Landysgyr 3.Krohne Marshal
46	Paint	1.Asian 2.Nerolec 3.Berger 4.Shalimar
47	Fire Sealant	1.3 M 2. Hilti
48	Vibration Isolator / Flexible Bellow	1.Kanwal Industries 2.Resistoflex 3.Polyhose
49	HVLS Fan	1.Bladetec 2.Kelleys 3.Rite-Hite
50	Wire Support	1.Hilti 2.3M
51	Air Curtain	1.Systemaire 2.VTS 3.Euronics
52	Pre insulated pipe	1.Sevenstar 2.Shree Venus

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S NO	DESCRIPTION	APPROVED MAKES
Note- For cable & cable tray specification and approved make refer Electrical part. For BMS related Items refer IBMS Specification and approved make list.		

LIFT APPROVED MAKES		
SI. No	DESCRIPTION	APPROVED MAKES
1	LIFT	1. KONE ELEVATORS 2. OTIS ELEVATORS 3. TK ELEVATORS 4. JOHNSON LIFTS 5. MITSUBISHI 6. SCHINDLER

DOCUMENT TITLE: IBMS & ELV SYSTEM MAKE OF MATERIALS		
SI. No	DESCRIPTION	APPROVED MAKES
A	INTEGRATED BUILDING MANAGEMENT SYSTEM	
1	BMS SERVER	1. DELL 2. HP 3. IBM
2	OPERATION WORKSTATION	1. DELL 2. HP 3. IBM
3	OPERATION WORKSTATION SOFTWARE	1. HONEYWELL - TREND IQ VISION 2. HONEYWELL - EBI 3. JOHNSON CONTROLS - METASYS 4. SIEMENS - DESIGO CC 5. SCHNEIDER - ECOSTRUCTURE 6. DELTA CONTROLS - ENTELIWEB

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Sl. No	DESCRIPTION	APPROVED MAKES
4	DDC CONTROLLERS (IP BASED)	1. HONEYWELL – TREND IQ4E 2. HONEYWELL - COMFORT POINT 3. JOHNSON CONTROLS - METASYS 4. SIEMENS - DESIGO 5. SCHNEIDER - ECOSTRUCTURE 6. DELTA CONTROLS - ENTELIWEB
5	SYSTEM INTEGRATION UNITS	1. HONEYWELL - TREND 2. HONEYWELL - COMFORT POINT 3. JOHNSON CONTROLS - METASYS 4. SIEMENS - DESIGO 5. SCHNEIDER - ECOSTRUCTURE 6. DELTA CONTROLS - ENTELIWEB
6	TEMPERATURE SENSOR	1. DYWER 2. GREYSTONE 3. HONEYWELL 4. JOHNSON CONTROLS 5. SIEMENS 6. SCHNEIDER
7	ROOM TYPE THERMOSTAT	1. DYWER 2. GREYSTONE 3. HONEYWELL 4. JOHNSON CONTROLS 5. SIEMENS 6. SCHNEIDER
8	IMMERSION TEMPERATURE WITH THERMOWELL	1. DYWER 2. GREYSTONE 3. HONEYWELL 4. JOHNSON CONTROLS 5. SIEMENS 6. SCHNEIDER
9	PRESSURE SENSOR	1. DYWER 2. GREYSTONE 3. HONEYWELL 4. JOHNSON CONTROLS

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Sl. No	DESCRIPTION	APPROVED MAKES
		5. SIEMENS 6. SCHNEIDER
10	DIFFERENTIAL PRESSURE SWITCHES	1. DYWER 2. GREYSTONE 3. HONEYWELL 4. JOHNSON CONTROLS 5. SIEMENS 6. SCHNEIDER
11	ULTRASONIC TYPE BTU METER WITH MATCH PAIR SENSORS	1. LANDIS & GAYER 2. KAMSTRUP 3. OMICRON 4. FORBES MARSHAL 5. KROHNE MARSHAL
12	AIR TYPE & ROOM TYPE TEMP + RH SENSORS (COMBO SENSOR)	1. DYWER 2. GREYSTONE 3. HONEYWELL 4. JOHNSON CONTROLS 5. SIEMENS 6. SCHNEIDER
13	INDOOR AIR QUALITY SENSORS	1. DYWER 2. GREYSTONE 3. HONEYWELL 4. JOHNSON CONTROLS 5. SIEMENS 6. SCHNEIDER
14	DIFFERENTIAL PRESSURE TRANSMITTERS	1. DYWER 2. GREYSTONE 3. HONEYWELL 4. JOHNSON CONTROLS 5. SIEMENS 6. SCHNEIDER

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15	OUTSIDE TEMPERATURE + HUMIDITY SENSOR	1. DYWER 2. GREYSTONE 3. HONEYWELL 4. JOHNSON CONTROLS 5. SIEMENS 6. SCHNEIDER
16	LEVEL SWITCHES & LEVEL TRANSMITTER	1. FILPRO 2. TECHTROL 3. KELE 4. LEVECON 5. SONTAY 6. DYWER
17	DDC CONTROLLER ENCLOSURE (INDOOR-IP55, OUTDOOR-IP66)	1. ARROW ENGINEERS 2. POWER CONTROL ENGINEERING 3. RITTAL 4. SHRINATH ENTERPRISES 5. ZENITH ENGINEERING
18	HYDROGEN SENSOR & SO2 SENSOR	1. AMBETRONICS 2. DYWER 3. GREYSTONE 4. HONEYWELL 5. KELE
19	AIR VELOCITY SENSOR (MULTI PROBE MULTI POINT)	1. GREYSTONE 2. KELE 3. SONTAY 4. TSI - USA
20	WATER HARDNESS ANALYZER	1. FORBES MARSHALL 2. HACH 3. LUMEX 4. POLYMETRON 5. THERMO

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21	P.H./ CHLORINE ANALYZER	1. FORBES MARSHALL 2. HACH 3. LUMEX 4. POLYMETRON 5. THERMO
22	TDS & DO SENSOR	1. FORBES MARSHALL 2. HACH 3. LUMEX 4. POLYMETRON 5. THERMO
23	CO2 DUCT MOUNTED & WALL MOUNTED	1. DYWER 2. GREYSTONE 4. HONEYWELL 5. JOHNSON CONTROLS 6. SIEMENS 7. SCHNEIDER
24	COMMUNICATION CABLES/ SIGNAL CABLE/ CONTROL/ POWER CABLE (INDIGNONS)	1. LAPP CABLES 2. FINOLEX 3. BELDEN 4. KEI INTERNATIONAL 5. HAVELLS 6. TECHNOFLEX
25	NETWORKABLE LESERJET COLORPRINTER	1. CANNON 2. EPSON 3. HEWLETT PACKARD
B	ANALOGUE ADDRESSABLE FIRE DETECTION & ALARM SYSTEM	
1	FIRE ALARM PANEL / REPEATER PANEL / BACNET OR MODBUS MODULE	1. HONEYWELL - NOTIFIER 2. HONEYWELL - XLS3000 3. UTC - EDWARDS 4. TYCO - SIMPLEX 5. SIEMENS - CERBERUS (UL)

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2	SMOKE DETECTOR / MULTI-CRITERIA DETECTOR / HEAT DETECTOR / DUCT DETECTOR / BEAM DETECTOR / MCP / SOUNDAR / HOOTER CUM FLASHERS	1. HONEYWELL - NOTIFIER 2. HONEYWELL - XLS3000 3. UTC - EDWARDS 4. TYCO - SIMPLEX 5. SIEMENS - CERBERUS (UL)
3	INPUT MONITOR MODULE / OUTPUT RELAY MODULE / ISOLATOR MODULE / FIREFIGHTER TELEPHONE MODULE / FIREFIGHTER TELEPHONE JACK / FIREFIGHTER TELEPHONE HANDSET	1. HONEYWELL - NOTIFIER 2. HONEYWELL - XLS3000 3. UTC - EDWARDS 4. TYCO - SIMPLEX 5. SIEMENS - CERBERUS (UL)
4	RESPONSE INDICATOR	1. HONEYWELL 2. EDWARDS 3. SIMPLEX 4. SIEMENS
5	BATTERY	1. EXIDE 2. AMARON 3. PANASONIC
6	POWER SUPPLY UNITS WITH BATTERY CHARGER AND ENCLOSURE	1. SANSTAR 2. C-SYSTEM 3. BRIOTRONIX
7	COMPUTER BASED GRAPHICAL USER INTERFACE (GUI) SOFTWARE	1. HONEYWELL - NOTIFIER 2. HONEYWELL - XLS3000 3. UTC - EDWARDS 4. TYCO - SIMPLEX 5. SIEMENS - CERBERUS (UL)
C	FIRE SIGNAGES	
1	BATTERY BACK UP SIGNAGES / SELF GLOW SIGNAGES / EVACUATION MAP	1. PROLITE 2. BRIOTRONIX 3. TECHNOWARE 4. HEINRICH

DOCUMENT TITLE: IBMS & ELV SYSTEM MAKE OF MATERIALS		
SI. No	DESCRIPTION	APPROVED MAKES
D	RODENT REPELLENT SYSTEM	
1	RODENT PANEL / TRANSDUCER & CABLES	1. C-SYSTEM 2. STAR ELECTRONICS 3. MASER 4. BRIOTRONIX
E	WATER LEAK DETECTION SYSTEM	
1	WATER LEAK SENSOR CABLE	1. C-SYSTEM 2. STAR ELECTRONICS 3. SONTAY 4. BRIOTRONIX
2	WATER LEAK DETECTION PANEL / WATER LEAK DETECTION MODULE	1. C-SYSTEM 2. STAR ELECTRONICS 3. SONTAY 4. BRIOTRONIX
3	CONVENTIONAL SOUNDER	AS PER THE FIRE ALARM SYSTEM PRODUCTS
F	ASPIRATION SMOKE DETECTION SYSTEM (ASD)	
1	ASD PANEL AND ITS POWER SUPPLY UNIT AND ACCESSORIES	1. HONEYWELL - XTRALIS 2. HONEYWELL - FFAST 3. SECURITON 4. BOSCH 5. EDWARDS - UTC
2	CPVC CONDUITS & ACCESSORIES	AS PER THE ASD OEM RECOMENDATIONS
G	GAS SUPPRESSION SYSTEM/NOZZLE / VALVES / ACCESSORIES	
1	GAS SUPPRESSION SYSTEM / NOZZLE / VALVES / ACCESSORIES	1. TYCO 2. UTC 3. HONEYWELL 4. SIEMENS
2	GAS RELEASE CUM CONVENTIONAL FIRE ALARM PANEL/DETECTOR - UL APPROVED	1. RAVEL 2. SECUTRON 3. GST

DOCUMENT TITLE: IBMS & ELV SYSTEM MAKE OF MATERIALS		
Sl. No	DESCRIPTION	APPROVED MAKES
3	SEAMLESS PIPES	1. TATA 2. JINDAL - HISSAR 3. SAIL
4	CONVENTIONAL SOUNDER	AS PER THE FIRE ALARM SYSTEM PRODUCTS
H	IP BASED PUBLIC ADDRESS SYSTEM	
1	EN54 - SPEAKERS	1. TSG - OPTIMUS 2. BOSCH - PRAESENSA 3. HONEYWELL - VARIODYN 4. ATLAS - IED
2	IP ZONE CONTROLLER	1. TSG - OPTIMUS 2. BOSCH - PRAESENSA 3. HONEYWELL - VARIODYN 4. ATLAS - IED
3	IP AMPLIFIER	1. TSG - OPTIMUS 2. BOSCH - PRAESENSA 3. HONEYWELL - VARIODYN 4. ATLAS - IED
4	DVD PLAYER / MEDIA PLAYER	1. PHILIPS 2. SONY 3. LG 4. SAMSUNG 5. TSG
I	SECURITY ACCESS CONTROL & PHYSICAL SECURITY SYSTEM	
1	ACCESS DOOR CONTROLLER & READER MODULE (OSDP PROTOCOL)	1. HONEYWELL - PROWATCH 2. HONEYWELL - LENEL 3. TYCO - SOFTWARE HOUSE 4. HID - MERCURY 5. GALLAGHAR
1	1. ACCESS CONTROL SOFTWARE 2. VISITOR MANAGEMENT SYSTEM MODULE	1. HONEYWELL - PROWATCH 2. HONEYWELL - LENEL 3. TYCO - SOFTWARE HOUSE 4. HID - IDCUBE

DOCUMENT TITLE: IBMS & ELV SYSTEM MAKE OF MATERIALS		
SI. No	DESCRIPTION	APPROVED MAKES
	3. ATTENDANCE MONITORING MODULE 4. ELEVATOR DESTINATION CONTROL MODULE NOTE: ALL MODULES SHALL BE IN ONE OEM SOFTWARE. DIFFERENT OEM SOFTWARE SHALL NOT BE ACCEPTED.	
2	CARD READER	1. HID 2. HONEYWELL 3. LENEL 4. GALLAGHER
3	BIOMETRIC READER	1. HID 2. MORPHO 3. SUPREMA 4. VIRDI
4	QR CODE READER	1. IDCUBE 2. SECURITY SHELLS INFOTECH 3. ELECTRON 4. MAGTECH
5	SMART ACCESS CARDS - iCLASS & MIFARE	1. HID 2. GALLAGHAR
6	LONG RANGE READER	1. HID 2. ROSSALARE 3. HONEYWELL
7	EM LOCK	1. BEL 2. TRIMEC 3. EBELCO 4. ASSA ABLOY
8	DOOR CONTACTS / DOOR POSITION SENSOR	1. SENTROL 2. SECOALARM 3. AEMCO

DOCUMENT TITLE: IBMS & ELV SYSTEM MAKE OF MATERIALS		
Sl. No	DESCRIPTION	APPROVED MAKES
		4. HONEYWELL 5. SECURICO
9	LOCAL SCARE ALARM	1. INSYIN 2. CSYSTEM 3. BRIOTRONIX
10	BUZZER	1. VAISHNO 2. GE
11	EMEREGENCY DOOR RELEASE	1. KAC 2. SYSTEM SENSOR 3. EUROPLEX 4. SENTROL 5. GE
12	2 CORE / 4 CORE / 8 CORE CABLE	1. LAPP CABLES 2. FINOLEX 3. BELDEN 4. KEI INTERNATIONAL 5. HAVELLS 6. TECHNOFLEX
13	PANIC BAR	1. DORMA 2. YALE 3. GODREJ
14	CAR PARKING GUIDANCE SYSTEM	1. NEPTUNE AUTOMATIC 2. HONEYWELL 3. SKIDATA 4. PARK ASSIST
15	BOOM BARRIER / SWING BARRIER / TURNSTILES	1. MAGNETIC AUTOCONTROL 2. SKIDATA 3. DORMA-KABA 4. MAGTECH 5. GUNNEBO
16	X-RAY BAGGAGE SCANNER / DFMD	1. VEHANT 2. RAPIDSCAN

DOCUMENT TITLE: IBMS & ELV SYSTEM MAKE OF MATERIALS		
Sl. No	DESCRIPTION	APPROVED MAKES
		3. SMITH DETECTION 4. GODREJ 5. MAGTECH
J	IP CCTV SURVEILLANCE SYSTEM	
1	IP CAMERAS / JOYSTICK	1. PELCO 2. HANWHA 3. AXIS 4. BOSCH 5. VIVOTEK 6. AVIGILON
2	VIDEO MANAGEMENT SYSTEM SOFTWARE	1. MILESTONE 2. GENETEC 3. DIGIFORT 4. HEXAGON 5. AVIGILON
3	VIDEO MANAGEMENT SYSTEM SERVER / RECORDING SERVER / ANALYTIC SERVER	1. DELL 2. HP 3. IBM NOTE: VIDEO ANALYTICS SERVER SPECIFICATION SHALL BE PROVIDED AS PER THE RECOMMENDATIONS WILL BE GIVEN BY VIDEO ANALYTICS OEM.
4	NAS STORAGE BOX	1. DELL 2. HP 3. IBM NOTE: AS PER THE RECOMMENDATIONS WILL BE GIVEN BY CCTV OEM
5	HARD DISK	1. SEAGATE 2. WESTERN DIGITAL 3. TOSHIBA
6	ANALYTIC SOFTWARE	1. AVIGILON 2. IPSOTEK 3. OOSTO 4. AGENT VI

DOCUMENT TITLE: IBMS & ELV SYSTEM MAKE OF MATERIALS		
Sl. No	DESCRIPTION	APPROVED MAKES
		5. INTELLIVISION NOTE: VIDEO ANALYTICS SERVER SPEFICATION SHALL BE PROVIDED AS PER THE RECOMMENDATIONS WILL BE GIVEN BY VIDEO ANALYTICS OEM
K	DATA NETWORKING & TELECOM SYSTEM	
1	CAT6A CABLE & COMPONENTS	1. COMMSCOPE 2. MOLEX 3. LEGRAND 4. PANDUIT 5. R & M
2	OPTICAL FIBER CABLE & COMPONENTS	1. COMMSCOPE 2. MOLEX 3. LEGRAND 4. PANDUIT 5. R & M
3	ALL ETHERNET SWITCHES (ROUTER / L-3 CORE SWITCHES / L2 - EDGE & AGGREGATION SWITCHES AND SFP MODULES / WI-FI ACCESS POINT / SDN CONTROLLER / WAN ROUTER)	1. HP - ARUBA 2. ARISTA NETWORKS 3. EXTREME NETWORKS 4. ALLIED TELESIS NOTE: COMPLIANCE SHALL BE FUNISHED BY OEM AS PER THE TENDER SPECIFICATIONS. NO DEVIATION SHALL BE ACCEPTED.
4	FIREWALL / ENTERPRISES NETWORK MANAGEMENT SYSTEM	1. PALO-ALTO 2. ARISTA NETWORKS 3. FORTI-GATE 4. CHECK POINT 5. SOPHOS NOTE: COMPLIANCE SHALL BE FUNISHED BY OEM AS PER THE TENDER SPECIFICATIONS. NO DEVIATION SHALL BE ACCEPTED.
5	EPABX (VOIP/IPABX)	1. SYNTEL 2. MATRIX 3. SIEMENS

DOCUMENT TITLE: IBMS & ELV SYSTEM MAKE OF MATERIALS		
SI. No	DESCRIPTION	APPROVED MAKES
		4. AVAYA 5. NEC 6. ZENITEL
6	IP PHONES & EXTENSION SOFT CONSOLE	1. SYNTEL 2. MATRIX 3. SIEMENS 4. AVAYA 5. NEC 6. ZENITEL
7	ANALOG PHONES	1. BEETEL 2. PANASONIC 3. SYNTEL 4. MATRIX
L	GENERAL (COMMON ITEMS)	
1	NETWORK RACK	1. NETRACK 2. VALRACK 3. PRESIDENT 4. RITTAL 5. R & M
2	WORKSTATION MONITOR	1. DELL 2. HP 3. IBM
3	CCTV DISPLAY MONITOR	1. LG 2. SAMSUNG 3. SONY 4. SHARP
4	CABLE TRAY	1. PATNY 2. INDIANA 3. PROFAB 4. PUSHBAK 5. MEM

DOCUMENT TITLE: IBMS & ELV SYSTEM MAKE OF MATERIALS		
Sl. No	DESCRIPTION	APPROVED MAKES
5	FRLS PVC CONDUITS	1. VIP 2. PRECISION 3. GREAT WHITE 4. ANCHOR 5. FINOLEX
6	2C 1.5SQMM ARMORED FRLS CABLES - FAPA / GSS / ASD / WLD	1. POLYCAB 2. VARSHA 3. TECHNOFLEX 4. DEEPANCHAN 5. HAVELLS
7	MS / GI CONDUITS	1. BHARAT 2. GUPTA 3. SUPREME
L	INTEGRATED COMMAND & CONTROL SYSTEM	
1	LED VIDEO DISPLAY PANEL & ITS SOFTWARE	1. SAMSUNG 2. LG 3. SONY 4. SHARP NOTE: COMPLIANCE SHALL BE FUNISHED BY OEM AS PER THE TENDER SPECIFICATIONS
2	LED VIDEO DISPLAY PANEL CONTROLLER NOTE: CONTROLLER SHALL HAVE A FEATURES TO PROVIDE THE MULTIFUNCTIONS OF SCREEN DIVISION, MULTI-BROADCAST DISPLAY OPTIONS ETC.	LED VIDEO DISPLAY PANEL CONTROLLER 1. DEXON 2. VUWALL 3. DATAPATH 4. DHRITA LED VIDEO DISPLAY PANEL OEM TO MAKE THE SYSTEM 100% EFFICIENT AS PER THE TENDER TECHNICAL REQUIREMENT.
3	INTEGRATED COMMAND & CONTROL SOFTWARE	1. VERACITY 2. HONEYWELL 3. INTELLVE 4. MOTOROLA NOTE: COMPLIANCE SHALL BE FUNISHED AS PER THE TENDER SPECIFICATIONS

DOCUMENT TITLE: IBMS & ELV SYSTEM MAKE OF MATERIALS		
Sl. No	DESCRIPTION	APPROVED MAKES
4	INTEGRATED COMMAND & CONTROL SERVER	1. DELL 2. HP 3. IBM
<p>Note: China Country of Origin (COO - Make / Made in China) material shall not be accepted. The materials shall be rejected without any reasons, if Consultant / Client shall be found the supplied materials are from China by any chance. However, the contractor shall replace the materials complying with above subjected conditions.</p>		