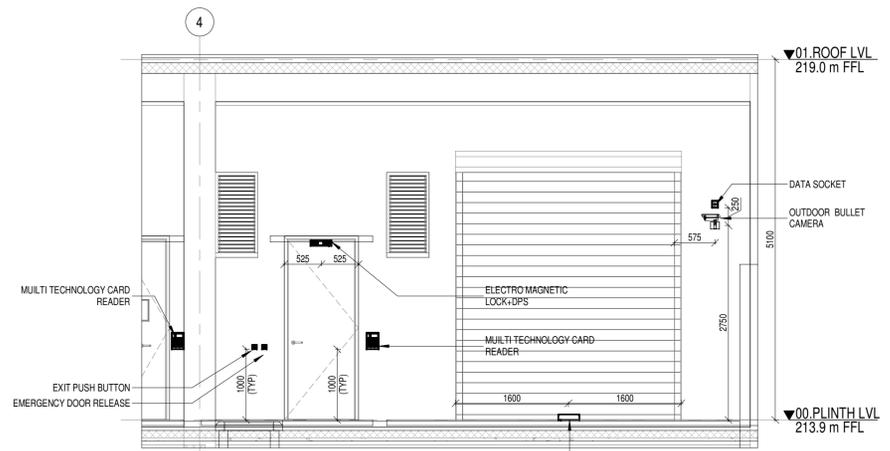
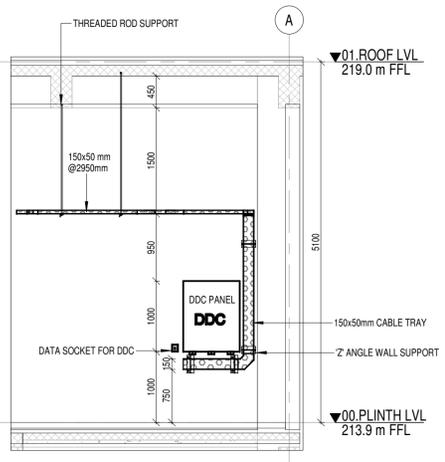


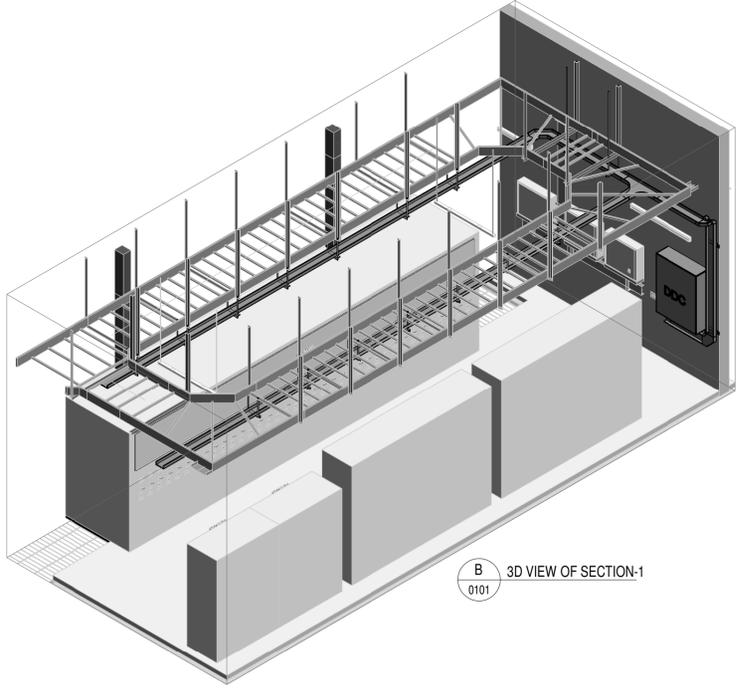
0101 EXHIBITION HALL 1 SUBSTATION ELV LAYOUT  
1 : 100



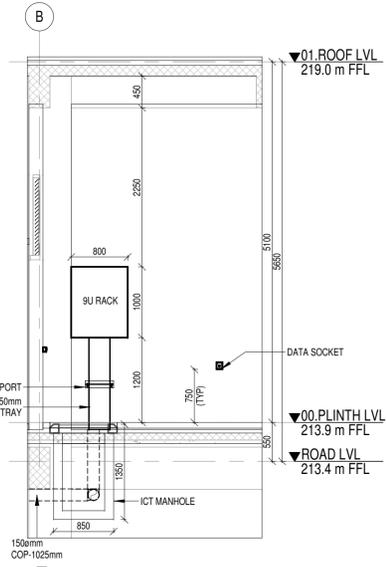
0101 Section 4  
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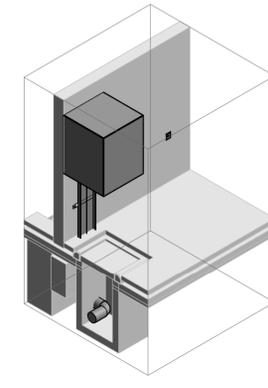
0101 Section 1  
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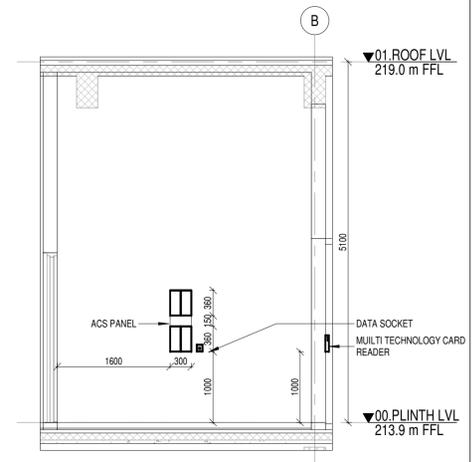
0101 3D VIEW OF SECTION-1



0101 Section 2  
1 : 50



0101 3D VIEW OF SECTION-2



0101 Section 3  
1 : 50

S.NO	SYMBOL	DESCRIPTION	MOUNTING HEIGHT	QTY
1	9U	9U IT RACK	WALL MOUNTED 1200mm FROM FFL	01 No.
2		150(W)x50mm(H) METALLIC PERFORATED TYPE CABLE TRAY(BMS)		25 mtrs.
		300(W)x50mm(H) METALLIC PERFORATED TYPE CABLE TRAY		1.5 mtrs.
3		OUTDOOR BULLET CAMERA	2750mm FROM FFL	01 No.
4		MULTI TECHNOLOGY CARD READER	1000mm FROM FFL	02 Nos.
5		EXIT PUSH BUTTON	1000mm FROM FFL	02 Nos.
6		EMERGENCY DOOR RELEASE	1000mm FROM FFL	02 Nos.
7		DATA SOCKET	750mm FROM FFL	06 Nos.
8		VOICE SOCKET	750mm FROM FFL	01 No.
9		DDC PANEL	1000mm FROM FFL	01 No.
10		MAGNETIC CONTACT VEHICULAR GATE	ON FLOOR-DOOR	04 Nos.
11		MAGNETIC CONTACT FOR DPS	ON DOOR	02 Nos.
12		ELECTRO MAGNETIC LOCK-DPS	ON DOOR	02 Nos.
13		ACCESS CONTROL PANEL	WALL MOUNTED 1000mm FROM FFL	01 No.
14		HUME PIPE		

**NOTES**

**COMMON NOTES**

- CONDUITS WHEN EXPOSED MS CONDUITS TO BE USED.
- OVER FALSE CEILING, UNDERFLOOR OR EMBEDDED PVC CONDUITS TO BE USED.
- SUSPENDED CONDUIT TO BE USED IF MORE THAN 3 CONDUITS RUN IN PARALLEL.
- SUSPENDED MS CONDUITS COULD BE USED IN FALSE CEILING BEAM AREAS AS PER REQUIREMENT.
- FOR TELEPHONE AND DATA SOCKETS, THE LEVEL SHALL BE MAINTAINED AS PER FURNITURE LAYOUT AND ARCHITECTURAL CONCURRENCE AS PER SITE CONDITION.
- 4 PAIR 23AWG CAT 6A UTP CABLE TO BE USED TO CONNECT R445 DATA OUTLET SOCKETS TO JACK PANEL.
- WHENEVER POWER AND LV CABLES ARE RUNNING IN PARALLEL, THEY SHALL BE SEPARATED BY A DISTANCE OF MINIMUM 300 MM.
- METALLIC PERFORATED TYPE HOT DIP GALVANIZED CABLE TRAY FOR ICT REFER ELECTRICAL CABLE TRAY LAYOUT FOR SUPPORT

**BMS**

THE SCADA SYSTEM CONTROL AND MONITORS THE FOLLOWING POINTS FOR MEDIUM VOLTAGE SWITCHGEARS

- SWITCH DISCONNECTOR STATUS
- EARTHING SWITCH DISCONNECTOR STATUS
- CIRCUIT BREAKER STATUS
- CIRCUIT BREAKER TRIP STATUS
- TRANSFORMER TEMPERATURE
- MEDIUM VOLTAGE METERING
- VOLTAGE PRESENCE
- MOBUS PORT THE SCADA SYSTEM FURTHER INTEGRATED WITH BMS FOR MONITORING IN OCC/MOCC OVER NETWORK.

**ACCESS CONTROL SYSTEM**

- ALL CABLES FROM CARD READER/MAGNETIC LOCK/DOOR CONTACT/PUSHBUTTON SHALL BE TERMINATED AT ACCESS CONTROL PANEL LOCATED IN NEARBY IT RACK ROOM
- ACCESS CONTROL PANELS SHALL BE CONNECTED TO SWITCH LOCATED AT NEAR BY IT RACK ROOM, BY CAT 6A UTP CABLE
- POWER POINT/SOCKET FOR ALL THE ACCESS CONTROL PANELS, REFER ELECTRICAL POWER LAYOUT.

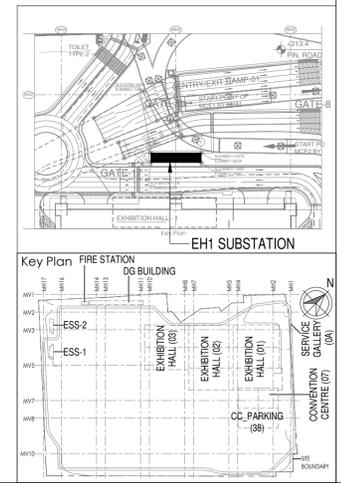
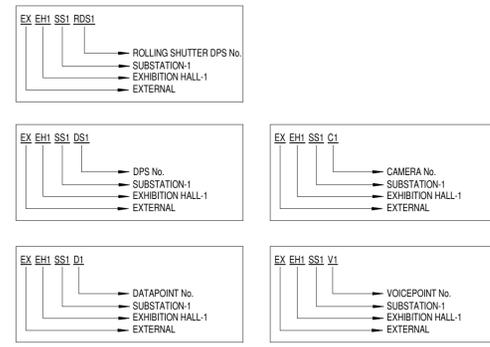
**DAS**

- THE DAS SYSTEM FOR MOBILE CARRIERS WILL BE DONE AFTER SITE SURVEY BY SPECIALIST ONCE STRUCTURE IS READY AND EPC WILL ENSURE THE DAS COVERAGE.

**REFERENCE DRAWING**

- SERVICE GALLERY OVERALL LAYOUT DRAWING NO: 017203-L-SP-0A-LV-1000.

DISCIPLINE	DWG NO	TITLE
ARCH	017203-A-SP-30-WD-0010	ELECTRICAL SUBSTATION - EHI PLAN, ELEVATION, SECTION & DETAILS
STRUCTURE	017203-C-SP-01-NU-1014	EXHIBITION HALL & FOYER - 1 LAYOUT & NUMERATION DETAIL OF EHI SUBSTATION
FPS	017203-F-SP-01-FA-0045	EHI 1 SUBSTATION LAYOUT OF INTEGRATED INTELLIGENT ADDRESSABLE FIRE DETECTION & ALARM SYSTEM, PORTABLE FIRST AID FIRE EXTINGUISHER AND PHOTOLUMINESCENT SAFETY SIGNAGES
ELECTRICAL	017203-E-SP-30-PL-0201	EXHIBITION HALL 1 SUBSTATION LIGHTING & SECTIONS LAYOUT
	017203-E-SP-30-PL-0202	EXHIBITION HALL 1 SUBSTATION POWER & SECTIONS LAYOUT
	017203-E-SP-30-CL-0203	EXHIBITION HALL 1 SUBSTATION CABLE TRAY & SECTIONS LAYOUT
	017203-E-SP-30-EG-0204	EXHIBITION HALL 1 SUBSTATION EARTH/MAT & SECTIONS LAYOUT
	017203-E-SP-30-LP-0205	EXHIBITION HALL 1 SUBSTATION LIGHTNING PROTECTION LAYOUT
HVAC	017203-V-SP-00-VS-2002	EHI-SUBSTATION VENTILATION LAYOUT
PHE	017203-U-SP-0A-ES-0027	SUBSTATION 1 RAIN WATER DOWNTAKE
	017203-U-SP-0A-ES-0028	BOILER ROOM PIPING LAYOUT



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**AECOM**  
Preliminary Engineering Architecture Consultants (PEAC)

**idom** **CPKUREJA ARCHITECTS**  
Av. Del Monasterio de El Escorial, 4, 28049 Madrid, Spain  
No.D-1, Ashwad Building, Green Park, New Delhi, Delhi 110016, India

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Mount Poonamallee Road, Manapakkam, P.O.No.979, Chennai - 600 089

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Engineering Design and Research Center (EDRC)  
L&T Construction - Buildings & Factories

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**ARCOP** Arcop Associates Pvt. Ltd.  
A-15, Pamposse Enclave, G.K-1 New Delhi, Delhi 110048, India

**Structural Proof Consultant**  
**IIT Madras**  
Indian Institute of Technology (IIT) Madras  
Sardar Patel Rd, Opposite to C. L.R.J. Adyar, Chennai, Tamil Nadu 600036

**MEP Proof Consultant**  
**egis**  
Egis India Consulting Engineers Pvt. Ltd.  
Plot No. 66, Sector 32, Institutional Area, Opp. Zenith Solutions, Gurgaon, Haryana 122001

**ICT Proof Consultant**  
**CCR**  
CCR Consulting Engineers Pvt. Ltd.  
#47/1, 3rd Floor, Narayana Arcade, Subbaramachetty Road, Heikalappa Circle, Basavanagudi, Bengaluru - 560004

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<b>Structural</b>	<b>MEP</b>	<b>ICT</b>	
<b>PEAC</b>			
<b>Issued by:</b>	<b>Employer / Employer's Engineer</b>		

REV	DESCRIPTION	DATE	DSGN	DRWN	CHKD	APPD
R0	ISSUED AS GOOD FOR CONSTRUCTION	23.11.20	SP	TSS	IV	GMR

REVISIONS	DATE	BY	CHKD
ARCHITECTURE		PFS	
STRUCTURAL		PIPING	
ELECTRICAL		PHE	
ELV SYSTEM		GIS	
HVAC		GEOTECH.	

**EPC Contractor**  
**L&T Construction**  
Buildings & Factories

JOB No : 017203

Project Name  
DESIGN AND CONSTRUCTION OF INDIA INTERNATIONAL CONVENTION & EXPO CENTRE SECTOR 25, DWARKA, NEW DELHI, INDIA

Drawing Status  
GOOD FOR CONSTRUCTION (GFC)

Drawing No  
L 00 0101 R0

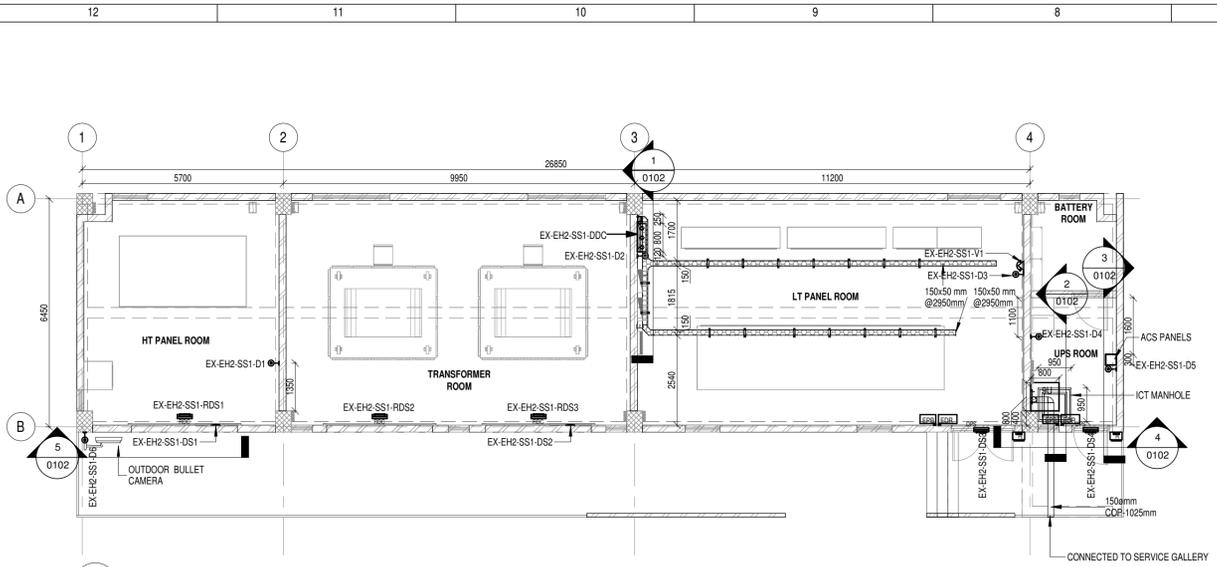
Rev. No  
R0

Title :  
EXHIBITION HALL-1 SUBSTATION ELV LAYOUT AS PER KINTEX REQUIREMENT

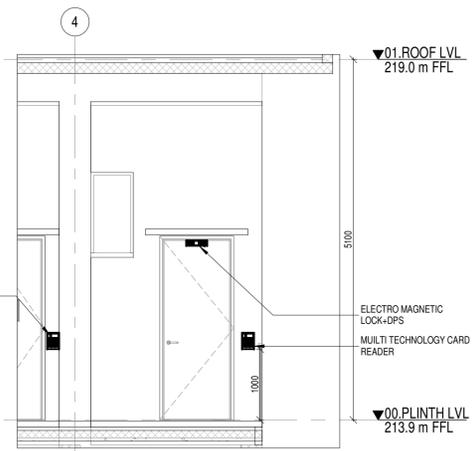
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017203 - L - SP - 00 - LV - 0101

Scale  
As indicated

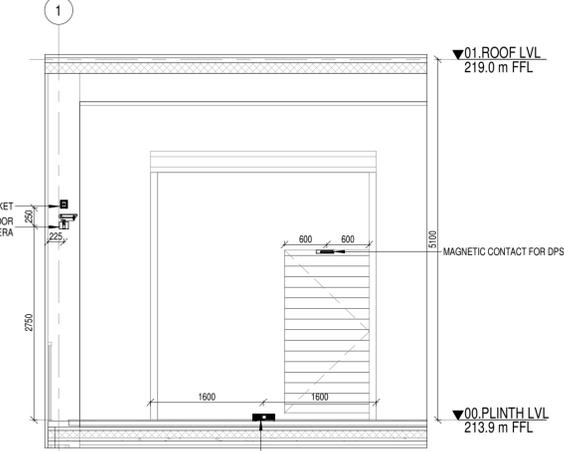
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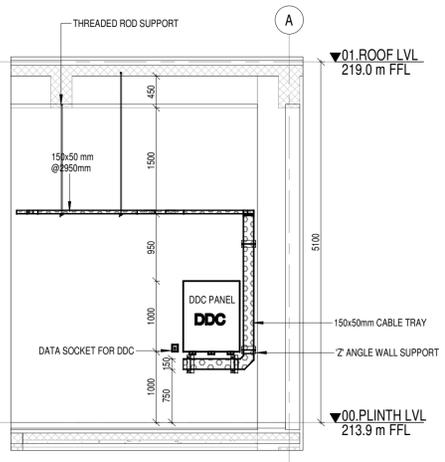
**A** EXHIBITION HALL 2 SUBSTATION ELV LAYOUT  
1 : 100



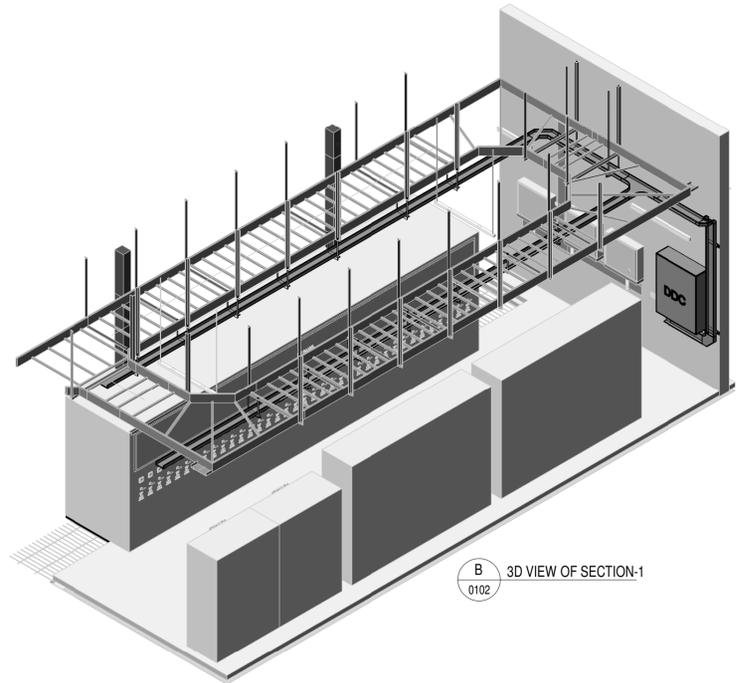
**4** Section 4  
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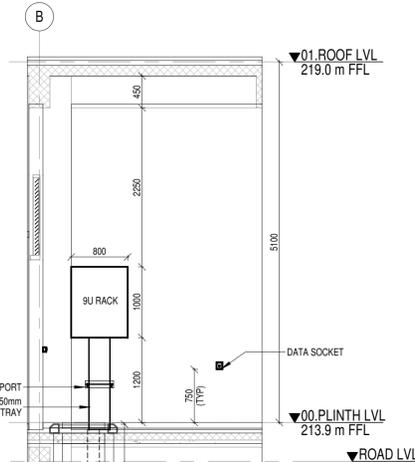
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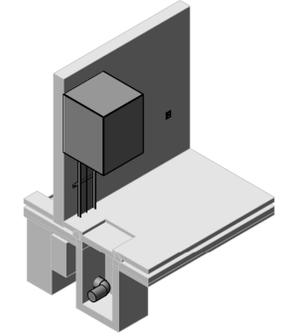
**1** Section 1  
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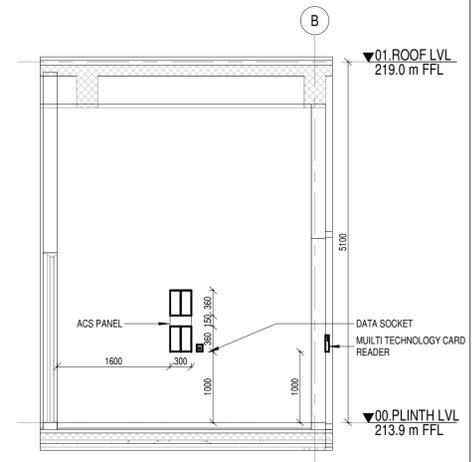
**B** 3D VIEW OF SECTION-1  
0102



**2** Section 2  
1 : 50



**C** 3D VIEW OF SECTION-2  
0102



**3** Section 3  
1 : 50

S.NO	SYMBOL	DESCRIPTION	MOUNTING HEIGHT	QTY
1	9U	9U IT RACK	WALL MOUNTED 1200mm FROM FFL	01 No.
2		150(W)x50mm(H) METALLIC PERFORATED TYPE CABLE TRAY (BMS)		25 mtrs.
		300(W)x50mm(H) METALLIC PERFORATED TYPE CABLE TRAY		1.5 mtrs.
3		OUTDOOR BULLET CAMERA	2750mm FROM FFL	01 No.
4		MULTI TECHNOLOGY CARD READER	1000mm FROM FFL	02 Nos.
5	EPB	EXIT PUSH BUTTON	1000mm FROM FFL	02 Nos.
6	EDR	EMERGENCY DOOR RELEASE	1000mm FROM FFL	02 Nos.
7		DATA SOCKET	750mm FROM FFL	06 Nos.
8		VOICE SOCKET	750mm FROM FFL	01 No.
9		DDC PANEL	1000mm FROM FFL	01 No.
10		MAGNETIC CONTACT VEHICULAR GATE	ON FLOOR-DOOR	03 Nos.
11		MAGNETIC CONTACT FOR DPS	ON DOOR	02 Nos.
12		ELECTRO MAGNETIC LOCK-DPS	ON DOOR	02 Nos.
13		ACCESS CONTROL PANEL	WALL MOUNTED 1000mm FROM FFL	01 No.
14		HUME PIPE		

**NOTES**

**COMMON NOTES**

- CONDUITS WHEN EXPOSED MS CONDUITS TO BE USED.
- OVER FALSE CEILING, UNDER-FLOOR OR EMBEDDED PVC CONDUITS TO BE USED.
- SUSPENDED CONDUIT TO BE USED IF MORE THAN 3 CONDUITS RUN IN PARALLEL.
- SUSPENDED MS CONDUITS COULD BE USED IN FALSE CEILING BEAM AREAS AS PER REQUIREMENT.
- FOR TELEPHONE AND DATA SOCKETS, THE LEVEL SHALL BE MAINTAINED AS PER FURNITURE LAYOUT AND ARCHITECTURAL CONCURRENCE AS PER SITE CONDITION.
- 4 PAIR 23AWG CAT 6A UTP CABLE TO BE USED TO CONNECT RJ45 DATA OUTLET SOCKETS TO JACK PANEL.
- WHENEVER POWER AND LV CABLES ARE RUNNING IN PARALLEL, THEY SHALL BE SEPARATED BY A DISTANCE OF MINIMUM 300 MM.
- METALLIC PERFORATED TYPE HOT DIP GALVANIZED CABLE TRAY FOR ICT REFER ELECTRICAL CABLE TRAY LAYOUT FOR SUPPORT

**BMS**  
THE SCADA SYSTEM CONTROL AND MONITORS THE FOLLOWING POINTS FOR MEDIUM VOLTAGE SWITCHGEARS

- SWITCH DISCONNECTOR STATUS
- EARTHING SWITCH DISCONNECTOR STATUS
- CIRCUIT BREAKER STATUS
- CIRCUIT BREAKER TRIP STATUS
- TRANSFORMER TEMPERATURE
- MEDIUM VOLTAGE METERING
- VOLTAGE PRESENCE
- MODBUS PORT THE SCADA SYSTEM FURTHER INTEGRATED WITH BMS FOR MONITORING IN OCC/MOCC OVER NETWORK

**ACCESS CONTROL SYSTEM**

- ALL CABLES FROM CARD READER/MAGNETIC LOCK/DOOR CONTACT/PUSHBUTTON SHALL BE TERMINATED AT ACCESS CONTROL PANEL LOCATED IN NEARBY IT RACK ROOM
- ACCESS CONTROL PANELS SHALL BE CONNECTED TO SWITCH LOCATED AT NEARBY IT RACK ROOM, BY CAT 6A UTP CABLE
- POWER POINT/SOCKET FOR ALL THE ACCESS CONTROL PANELS, REFER ELECTRICAL POWER LAYOUT.

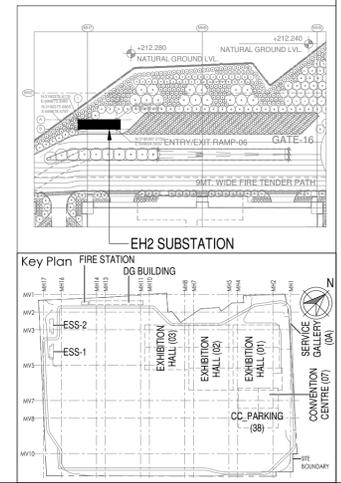
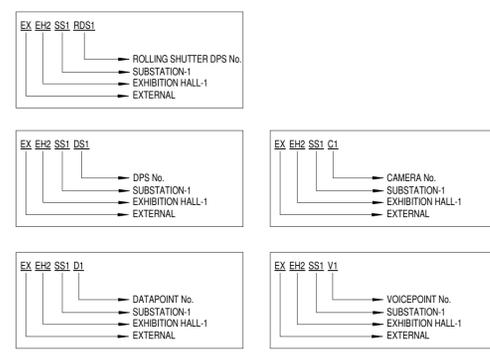
**DAS**

- THE DAS SYSTEM FOR MOBILE CARRIERS WILL BE DONE AFTER SITE SURVEY BY SPECIALIST ONCE STRUCTURE IS READY AND EPCC WILL ENSURE THE DAS COVERAGE.

**REFERENCE DRAWING**

- SERVICE GALLERY OVERALL LAYOUT DRAWING NO: 017203-L-SP-0A-LV-1000.

DISCIPLINE	DWG NO	TITLE
ARCH	017203-A-SP-30-WD-0020	ELECTRICAL SUBSTATION - EH2 PLAN, ELEVATION, SECTION & DETAILS
STRUCTURE	017203-C-SP-01-HU-1014	EXHIBITION HALL & FOYER - 1 LAYOUT & NUMERATION DETAIL OF EH2 SUBSTATION
FPS	017203-F-SP-01-FA-0030	EH 2 - SUBSTATION LAYOUT OF INTEGRATED INTELLIGENT ADDRESSABLE FIRE DETECTION & ALARM SYSTEM, PORTABLE FIRST AID FIRE EXTINGUISHER AND PHOTOLUMINESCENT SAFETY SIGNAGES
ELECTRICAL	017203-E-SP-30-LL-0206	EXHIBITION HALL 2 SUBSTATION LIGHTING & SECTIONS LAYOUT
	017203-E-SP-30-PL-0207	EXHIBITION HALL 2 SUBSTATION POWER & SECTIONS LAYOUT
	017203-E-SP-30-CL-0208	EXHIBITION HALL 2 SUBSTATION CABLE TRAY & SECTIONS LAYOUT
	017203-E-SP-30-EG-0209	EXHIBITION HALL 2 SUBSTATION EARTHMAT & SECTIONS LAYOUT
	017203-E-SP-30-LP-0210	EXHIBITION HALL 2 SUBSTATION LIGHTNING PROTECTION LAYOUT
HYAC	017203-V-SP-00-VS-2002	EH2 SUBSTATION VENTILATION LAYOUT
PHE	017203-U-SP-0A-ES-0028	SUBSTATION 2 RAIN WATER DOWNTAKE



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**AECOM**

**Preliminary Engineering Architecture Consultants (PEAC)**  
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L&T Construction Buildings & Factories  
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Engineering Design and Research Center (EDRC)  
L&T Construction - Buildings & Factories

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ARCOP Arcop Associates Pvt. Ltd.  
A-15, Pamposh Enclave, G.K-1 New Delhi, Delhi 110048, India

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Indian Institute of Technology (IIT) Madras  
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Egis India Consulting Engineers Pvt. Ltd.  
Plot No. 66, Sector 32, Institutional Area, Opp. Zenith Solutions, Gurgaon, Haryana 122001

**ICT Proof Consultant**  
CCR Consulting Engineers Pvt. Ltd.  
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**Certification**

RO	ISSUED AS GOOD FOR CONSTRUCTION	23.11.20	SP	TSS	IV	GNR
REV	DESCRIPTION	DATE	DSGN	DRWN	CHKD	APPD

**Revisions**

ARCHITECTURE	PFS		
STRUCTURE	PIPING		
ELECTRICAL	PHE		
ELV SYSTEM	GIS		
HVAC	GEOTECH.		
CHECKED BY	SIGN	DATE	CHECKED BY SIGN DATE

**EPC Contractor**  
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**JOB NO :** 017203

**Project Name**  
DESIGN AND CONSTRUCTION OF INDIA INTERNATIONAL CONVENTION & EXPO CENTRE SECTOR 25, DWARKA, NEW DELHI, INDIA

**Drawing Status**  
GOOD FOR CONSTRUCTION (GFC)

**Drawing No** L 00 0102 **Rev. No** R0

**Title :**  
EXHIBITION HALL-2 SUBSTATION ELV LAYOUT AS PER KINTEX REQUIREMENT

**EDRC DWG No :** 017203-L-SP-00-LV-0102 **Scale** As indicated **Sheet Size** A1

017203-L-SP-00-LV-0102 EXHIBITION HALL-2 SUBSTATION ELV LAYOUT AS PER KINTEX REQUIREMENT

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