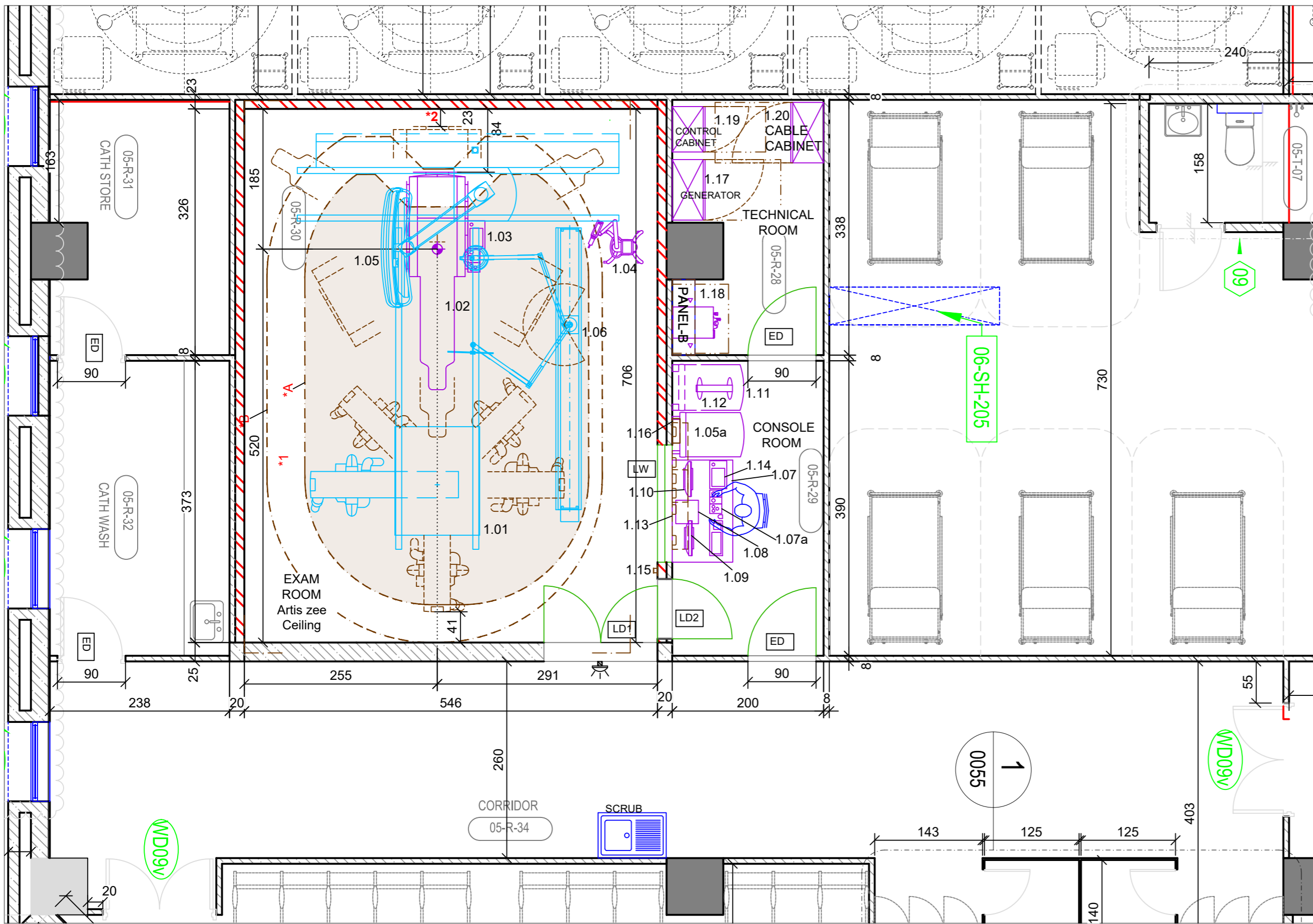


SCALE:1:50



- Notes**
- Transportation route to be identified and checked during site feasibility check.
  - It is Customer's responsibility to ensure the floor strength is sufficient for equipment installation and rigging of the equipment. Structural stability test to be done and Customer's Structural Engineer must be consulted prior to execution.
  - This drawing is being issued based on inputs received from site/layout from customer. Actual dimensions & location of beams, columns, shafts and walls at the site to be verified and informed in case of any deviations from the issued drawings.
  - Separate dust free and airconditioned space required for UPS and Battery room.
  - The location of air-conditioning diffusers, sprinklers should not be planned vertically above any of the Siemens Healthineers product. A designated Siemens Healthineers representative to verify the same in the reflected ceiling plan and at site.

- Notes**
- \*2 Reduced safety distance on the foot side: if the distance to wall falls below 500 mm, the table brake is applied briefly. Then the basic table can be moved manually again.

**Artis zee ceiling – Equipment Legend**

Pos.	Description	Weight (kg). Heat dissipation to the air (W)		Remark
		kg	W	
1.01	Ceiling stand	904	200	
1.02	Basic table narrow	452	200	
1.03	Control console and ECC I on patient table	4		
1.04	Bayer Injector Pedestal	97		
1.05	DCS large work area Large Display (55" Display)	186	500	#7
1.05a	LDC (Large Display Container)	115	450	
1.06	Upper body radiation shield with Examination light LED, moveable	85		
1.07	Console for control elements and monitors	60		
1.07a	Control module			
1.08	Control room distributor	29	100	
1.09	Workplace Display with keyboard	10	75	
1.10	Reference Display	10	75	
1.11	AXIS image system	150	1270	
1.12	UPS for AXIS image system	51	100	optional
1.13	Archive Console Extension (ACE)	6		
1.14	Control console ECC II	3		
1.15	Wireless Footswitch (footswitch and charging station)	1	10	optional, #3
1.16	Injector-wall connection box	5		optional
1.17	Generator POLYDOROS A100	300	1000	
1.18	Cooling unit - SMC one4all	28	2400	#23

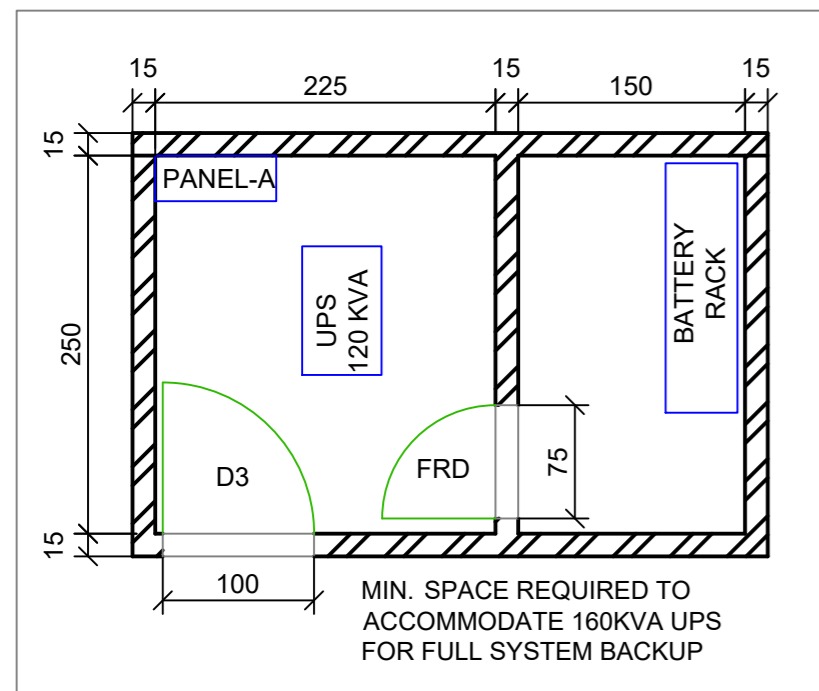
**LEGEND - DOORS AND WINDOWS**

Code	Description	Dimensions
LD1	DOUBLE paneled LEAD LINED DOOR	150 X 215 CM
LD2	SINGLE paneled LEAD LINED DOOR	AS PER SITE
LW	LEAD GLASS 2mm LEAD EQUIVALENT	155 X 105 CM WALL OPENING FOR 150 X 100 CM LEAD GLASS
D1	SINGLE paneled DOOR	100 X 215 CM
FRD	FIRE RATED DOOR	80 X 215 CM
ED	EXISTING DOOR	AS PER SITE
XRAY	X-RAY ON LAMP ABOVE DOOR LINTEL LEVEL	

**LEGEND - PARTITIONS**

	EXISTING WALLS
	PROPOSED BRICK WALLS
	RCC SLABS, COLUMNS & BEAMS

SCALE:1:50



**List of Documents**

No.	Document No.	Document
01	128639-1884201-01A	Unit Arrangement
02	128639-1884201-02A	Technical Details- Artis zee Ceiling
03	128639-1884201-03A	Civil Work Details
04	128639-1884201-04A	Floor Trench Details
05	128639-1884201-05A	Cable Tray Details
06	128639-1884201-06A	Ceiling Fabrication Details
07	128639-1884201-07A	Electrical Points Details
08	128639-1884201-08A	Electrical Scheme

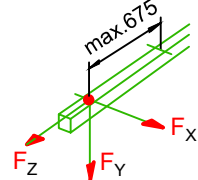
**ALL DIMENSIONS ARE IN CENTIMETRES UNLESS OTHERWISE SPECIFIED**

**ROOM HEIGHT FROM FINISHED FLOOR LEVEL**

Level	Description	Height (cm)
1	Finished floor level to Bare Ceiling	424
2	Finished floor level to Beam Bottom	380

**Unit Arrangement-Artis Zee Ceiling**

Bhattacharyya W. 9/5/2025		Checked	Released
		<b>Siemens Healthcare Pvt Ltd.</b> Project and Planning department North Wing, Godrej One, Pirojshanagar Vikhroli (East), Mumbai 400 079	
Assam Cancer Care Foundation, State Cancer Institute Phase II, Opposite GMCH, Bhangagarh, Guwahati, Kamrup, Metropolitan, Assam, 781007 Cardiology			
5th Floor ANGIOGRAPHY Artis zee ceiling			
Project 128639	File 1884201	Revision A	Page 01 of 08
Size A2	Scale 1:50	© Siemens Healthineers AG created by Sales CAD	

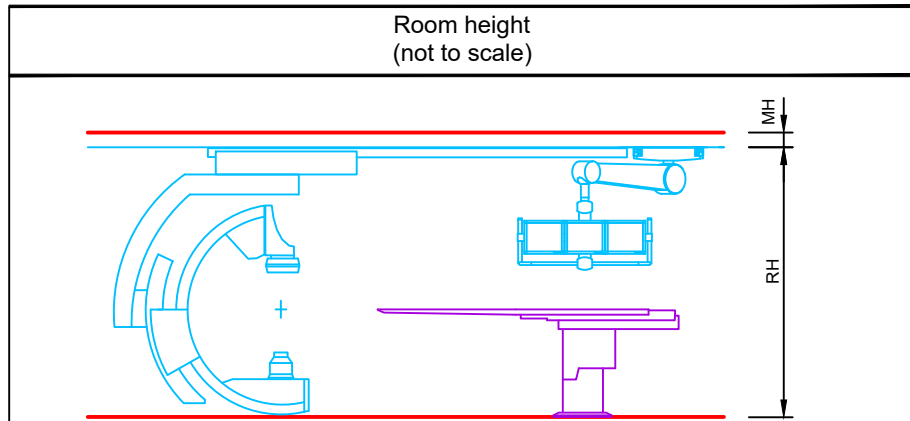
Statics	
All specified load values are without safety loading.	
The on-site threaded plate / screw nut of the ceiling substructure for the M10 mounting screws of the longitudinal rails MUST be able to hold 4 times of the maximum load!	
Do not use Unistrut nuts. PM17 profile nuts are included in the shipment for rail mounting. These profile nuts are designed for 4 times the load. PM17 nuts are suitable for the MSR TP1 ceiling profile, MSR BR 75/125, Unistrut P1000/1001 series and 1 5/8" series, Halfen HM 52/34 and Halfen 50/30.	
<b>Ceiling stand</b>	
$F_{X \max}$ = 2.0 kN	Maximum transverse force, exerted on the rail.
$F_{Y \max}$ = 8.0 kN	Vertical ceiling load, dynamic load per mounting point (floating single load) (2 screws, 6.4 kN per screw)
$F_{Z \max}$ = 4.0 kN	Maximum longitudinal force, exerted on the rail.
	
<b>Ceiling stand with DCS extended:</b>	
For the mounting of a DCS extended on the ceiling stand in the longitudinal rails:	
Vertical ceiling load $F_y$ max: 12.4 kN per mounting point (= 2 screws; load of the single screws is differently; max. 9.9 kN). The dynamic load appears on each mounting point, because each load is a floating single load.	
The on-site threaded plate / screw nut of the ceiling substructure for the M10 mounting screws of the longitudinal rails MUST be able to hold the specific pull-off force!	
<b>DCS-Stand</b>	
ceiling mounted for Displays (DCS, DCS PRO, DCS Large Display)	
$F_{Y \max}$ = 3.6 kN	vertical ceiling load, floating single load dynamic load per mounting point (2 screws; the screws are subject to different loads, max. 2.9 kN per screw)
<b>Display Booms from non-Siemens Manufacturers</b>	
In case of the use of Display Booms from non-Siemens Manufacturers the static information must be requested from the manufacturer.	
<b>Patient Table</b>	
Load on each mounting point at the table foot-end: max. tensile force equaling 4.5 kN	

Siemens Remote Service (SRS)	
Siemens Remote Service (SRS) is used for remote diagnostics as well as remote service to provide highest system availability.	
Requirements:	
- Broadband connection (min 2 Mb/s download, 512 kb/s upload) without time or volume limitations	
- Router (for exclusive use with SRS, a router can be obtained by Siemens for free)	
Data protection and security is defined in the Siemens Remote Service security concept.	

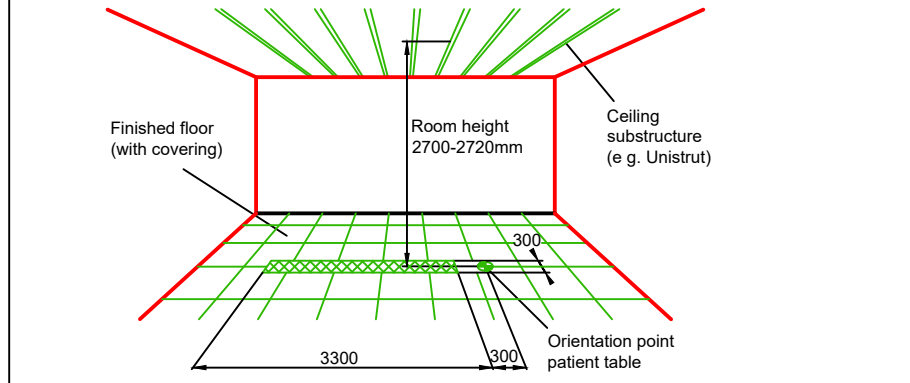
Network Integration	
The Siemens components are using TCP/IP Protocol, a 100/1000 Mbit/s switched Ethernet network and static IP addresses.	
The required network cabling (min. CAT 5 TP) has to be provided on site.	
Media converters, which are needed for using fibre optic cabling, are not in the scope of Siemens delivery.	
To prepare the implementation of the new system into the existing network environment, the availability of the needed network data at least two weeks before starting the installation is mandatory.	
This is the only way to ensure a seamless integration of the new system into the workflow of the department.	

NOTES	
1	The false ceiling level in the technical / console room must have a minimum height of 250 cm to ensure the min. clear space above cabinets for hot air exhaust.
2	Components not listed in the equipment legend are for visualization only and not a part of the unit or delivery.
3	Consider the notes for positioning of the cooling unit. Because of the noise and heat dissipation, do not place the cooling unit in the procedure room. The cooling unit has to be positioned in such a way that it can be easily accessible in case of service. The maximum installation height of the cooling unit recommended is 1.5m. Maximum possible vertical height to the radiator is +/- 10m. The cooling water hoses can only be installed in frost free rooms.
4	If there is a split or any supply source mounted above the electronic cabinets / any part of the system, a drip tray should be positioned / fixed by the client to avoid the unwanted damage to the system due to falling water drops.
5	Collision area of the non system components is marked in the layout. All non system components must be installed outside this area.
6	All walls of the procedure room should be constructed with conventional bricks with density 1.6gm/cc. The wall thickness should be maintained as marked in the layout. Refer to table no. 01 for AERB guideline.
7	All doors opening in the procedure room should be lined with 2mm lead sheet.
8	In case of any query, please contact our project manager.

Transport	
The transport route (doors and hallway) needs sufficient dimensions for the following parts:	
Largest single part with transp. carriage (min. door opening)	247 x 100 x 190 cm ( W x D x H ) Weight 910 kg
Largest crate with packaging	263 x 118 x 207 cm ( W x D x H ) Weight 1175 kg
The door must have a final clearance of 125 cm if bed entrance is requested.	
Shocks: max. 10 g / 16 ms	Vibration: max. 2 g / 58 to 150 Hz



**Room height (RH) 2700 to 2720 mm**  
 Measured from the highest point of the finished floor (incl. floor covering) to the lowest point of the ceiling substructure. Here, the area of the ceiling substructure in which the longitudinal rails for the ceiling stand are installed is the determining factor.  
 Recommended room height 2710 mm.  
 Required minimum height (MH) 150 mm in suspended ceiling for corrugated hose holder and cable routing.  
 The cross-hatched area is determined by the movement range of the ceiling stand.  
 Maximum admissible floor unevenness in the shaded area: 8 mm



**Notes**

All components that do not belong to the Siemens system are labeled as external system components.

\*1 - Collision Area for "non-system Components"

Zone \*A - No external system components may be installed.

Zone \*B - Represents the safety distance of 500 mm between motor-driven parts and personnel as defined by EN 60601. No external system components may be installed whose fixed part (e.g. support arm column) is less than the clear minimum height of 2000 mm to the finished floor. Moving parts (e.g. support arm) of the components that are below the minimum height of 2000 mm must be able to perform evasion to outside of the safety area if there is a collision with the floor stand.


If this information is not observed, there is a risk of crushing for personnel or a risk of property damage.

**Safety distances**

Distances from moving parts of the medical device to walls, furniture and other equipment have to be kept to avoid injuries by crushing in compliance with local regulations, e.g. a minimum distance of 50 cm according to EN 349.

It is the customer's responsibility to ensure the above requirements are followed.  
 This is to avoid the risk of injury.

SHIELDING THICKNESS TABLE (Table No. 01)					
Sr. No.	Shielding Material	Distance from the Patient Table			
		1.5m	2.0m	2.5m	3.0m
1	Brickwall (cm)	25	23	20	18
2	Concrete Wall (cm)	18	15	12	11
3	Steel (cm)	2.5	2	1.5	1.3
4	Lead (cm)	0.2	0.18	0.16	0.15

Dimensioning	
All installation measurements apply to finished wall/floor/ceiling and are to be checked prior to assembling the unit.	
	
Orientation point = reference point of the Siemens unit for planning and installation	

**Room dimensioning**

The indicated room dimensions have to be checked on site. The planning department has to be informed about possible deviations. Otherwise we cannot assume any accurate implementation of the dimensions indicated in the planning documents.

Power Requirement			
1	Power Consumption	Stand By	8KVA
		In Operation	125KVA
2	Power Line	3/N/PE, AC 400 V ± 10 %, 50 Hz ± 1 Hz	
3	Copper Earthing	3 Nos. Dedicated CU earthing	
4	Cable Cross Section	4 core X 1 R 70sqmm & 16 sqmm Flexible Cu Cable	

# The electrical feeder to Siemens medical equipment must feed only the imaging system and be kept separate from electrical feeders to HV-AC. Motors, Pumps, Compressors, elevators and other potential sources of electrical interference.  
 # The supply of electrical panel dedicated for the medical equipment and power cabling from the panel to the medical equipment is a part of customers scope of supply.  
 # The provision of adequate nos. of dedicated copper earthings is in to the account of customer.  
 # The provision of dedicated broad band connection is mandatory requirement for the Siemens Remote Service and shall be provided by the customer at the time of system switch on and commissioning.

UPS AND BATTERY RACK PLACEMENT					
SR. NO.	DESCRIPTION	RATING	SIZE (L X H X W)	WEIGHT	HEAT LOAD
1	UPS (Fuji)	120 KVA	600 X 1400 X 900 MM	550 KG	9.6 kW
2	Battery	15 min. back up	1650 x 600 x 2230 MM	1598 KG	0.21 kW

# Referring to the EHS guideline, we strongly recommend that the battery rack room should be separate from the ups room and cabinet room to avoid the potential fire hazards.  
 # The door leading to the battery room should be fire retardant door.  
 # If air conditioning system is of the duct-able type then, only supply air diffuser should open in battery room. There should be no return air diffusers, as any fire can easily spread from the return air duct to other room.


Environmental Conditions for System off / stand by or In Operation				
Designation	Procedure Room	Console Room	Technical Room	UPS Room
Heat Dissipation	1.00 kW	1.62 kW	5.0 kW	9.81 kW
Temperature	22°C +/- 2°C	22°C +/- 2°C	22°C +/- 2°C	AS PER VENDOR
RH (Non Condensing)	40-60%	40-60%	40-60%	

# The above heat loads are for system only. The heat load due to room volume, personnel and lighting etc. has to be considered extra at actual, to design the HVAC system.  
 # The air conditioning system will be functional 24 x 7, irrespective of the system is on, off or at standby mode. This is to maintain the environmental parameters within permissible range and to prevent the condensation of the moisture on electronic parts.  
 # When supplying air from the outside (fresh air), we recommend the on-site use of coarse filters, Filter class EU3 to EU4 for filtering dust particles up to > 10 µm.

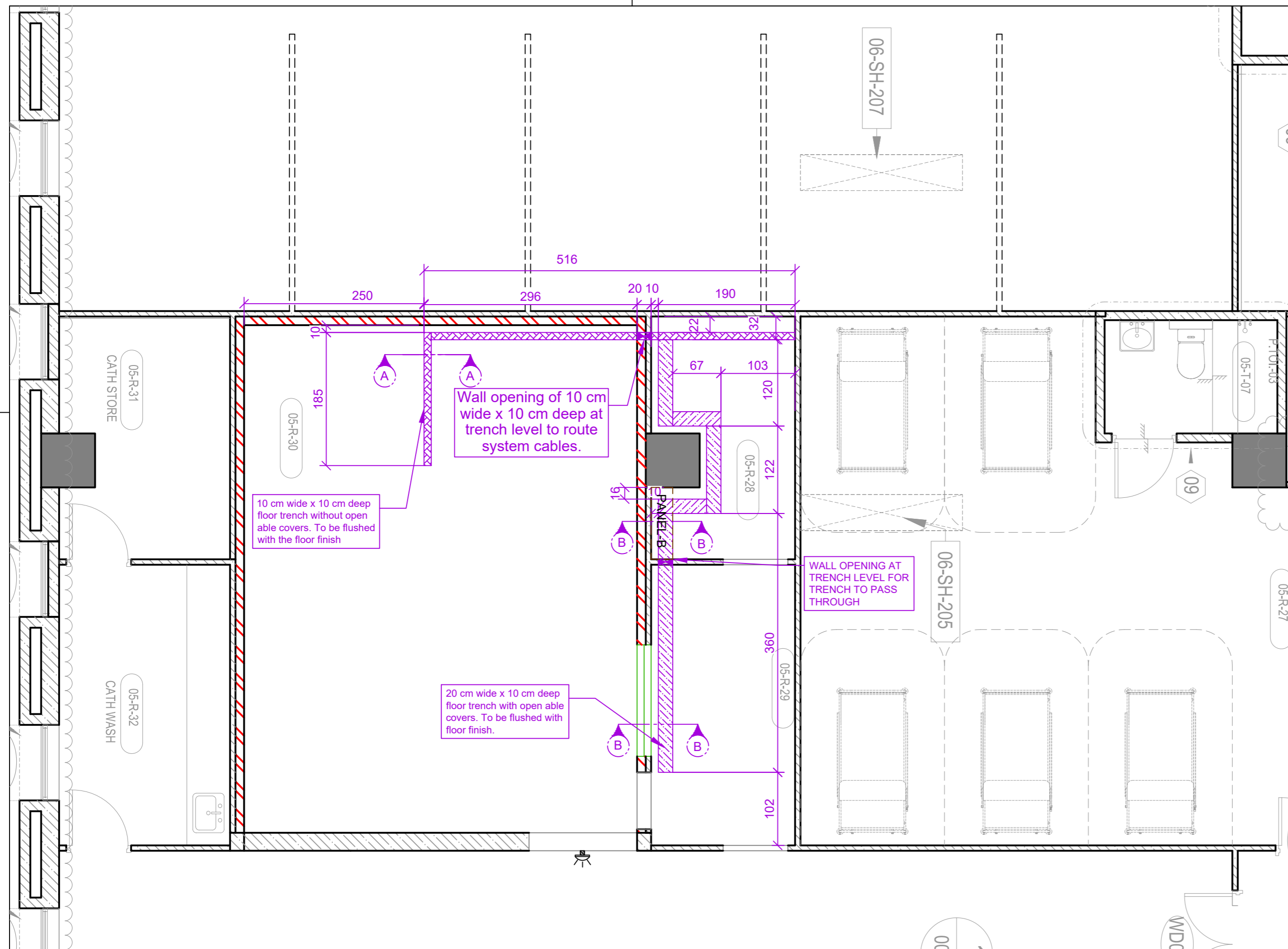
**NOTES:**

# Temperature & Humidity conditions are very critical for proper functioning of equipments. The continuous deviations beyond the specified limits or fluctuations are critical. This can increase risk of component failure and enhance ageing of electronic components in your medical equipment.  
 # We recommend to provide the ductable air conditioning system with built in mechanism i.e. heaters with auto sensors or inbuilt dehumidifier in air supply ducts to control the humidity automatically throughout the year.  
 # If not ductable air conditioning system, you can provide the hi-wall split ac units in respective rooms with stand by hi-wall split unit and high capacity de-humidifiers, to ensure the environmental parameters within permissible range.

## Technical Details - Aeris Zee Ceiling

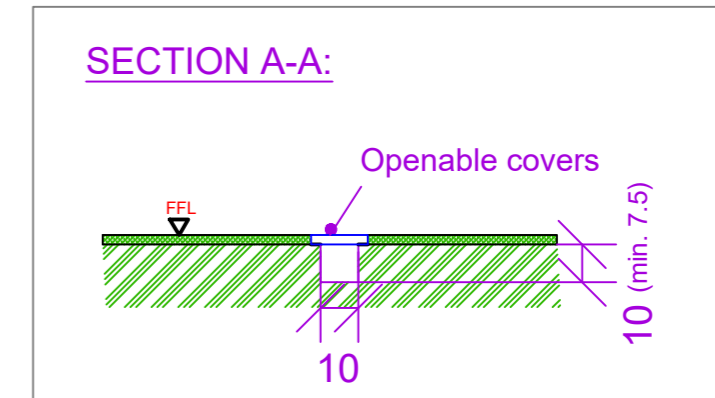
		ANGIOGRAPHY <b>Artis zee ceiling</b>		Size	Scale
Cardiology   5th Floor				A3	1:50
Assam Cancer Care Foundation,		Project	File	Revision	Page
State Cancer Institute Phase II, Opposite GMCH,		Bhangagarh, Guwahati, Kamrup, Metropolitan, Assam, 781007	128639	1884201	A 02 of 08



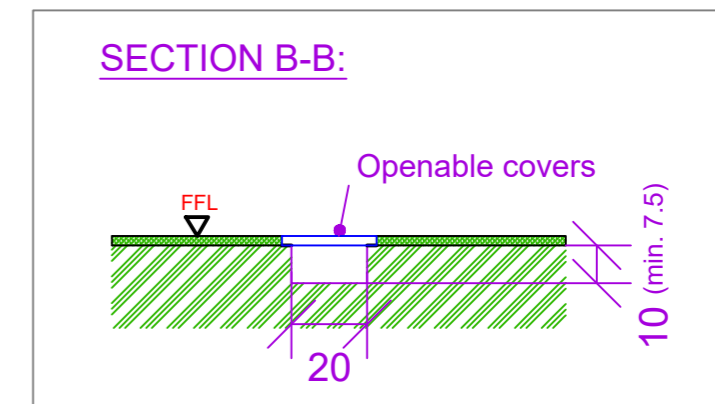


LEGEND	
	10 CM WIDE FLOOR TRENCH.
	20 CM WIDE FLOOR TRENCH.

SCALE - 1:20



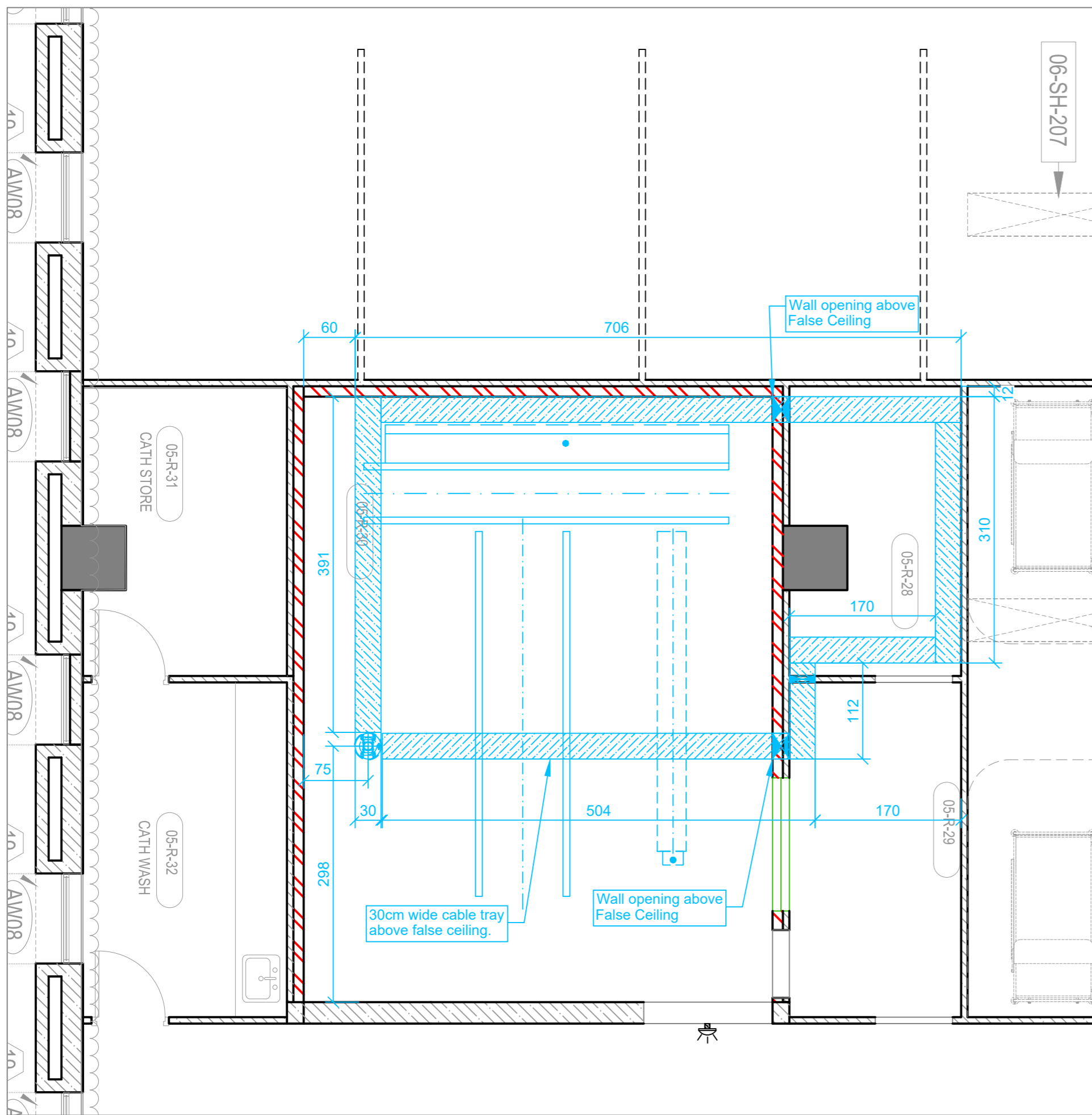
SCALE - 1:20






FLOOR TRENCH IN THE UPS & BATTERY ROOM TO BE PREPARED AT SITE AFTER DISCUSSION WITH SHPL PROJECT MANAGER.


Site Preparation-Floor trench details

SCALE - 1:50

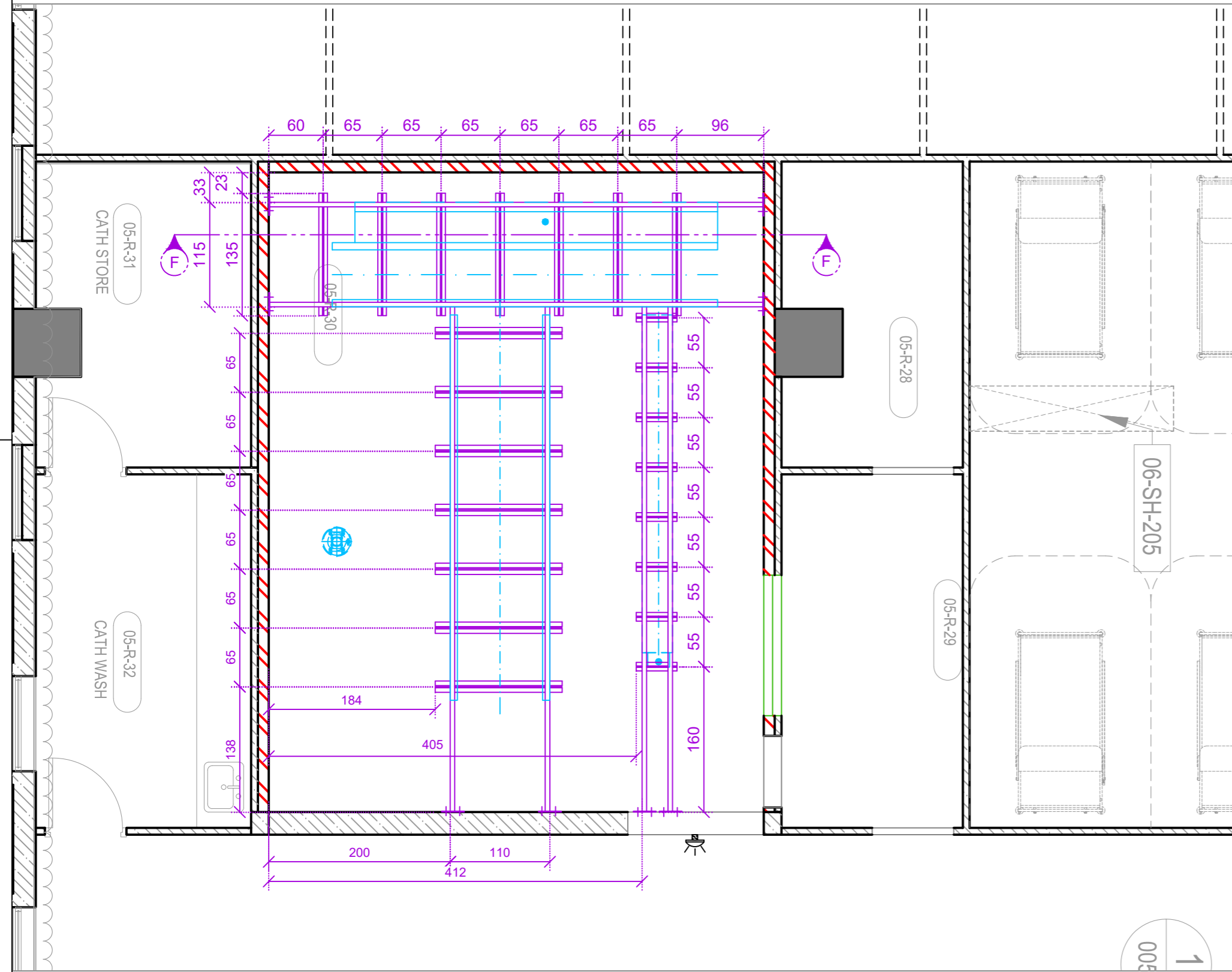


LEGEND	
	30 CM WIDE LADDER TYPE CABLE TRAY.
	10 CM WIDE LADDER TYPE CABLE TRAY.
	WALL OPENING ABOVE FALSE CEILING

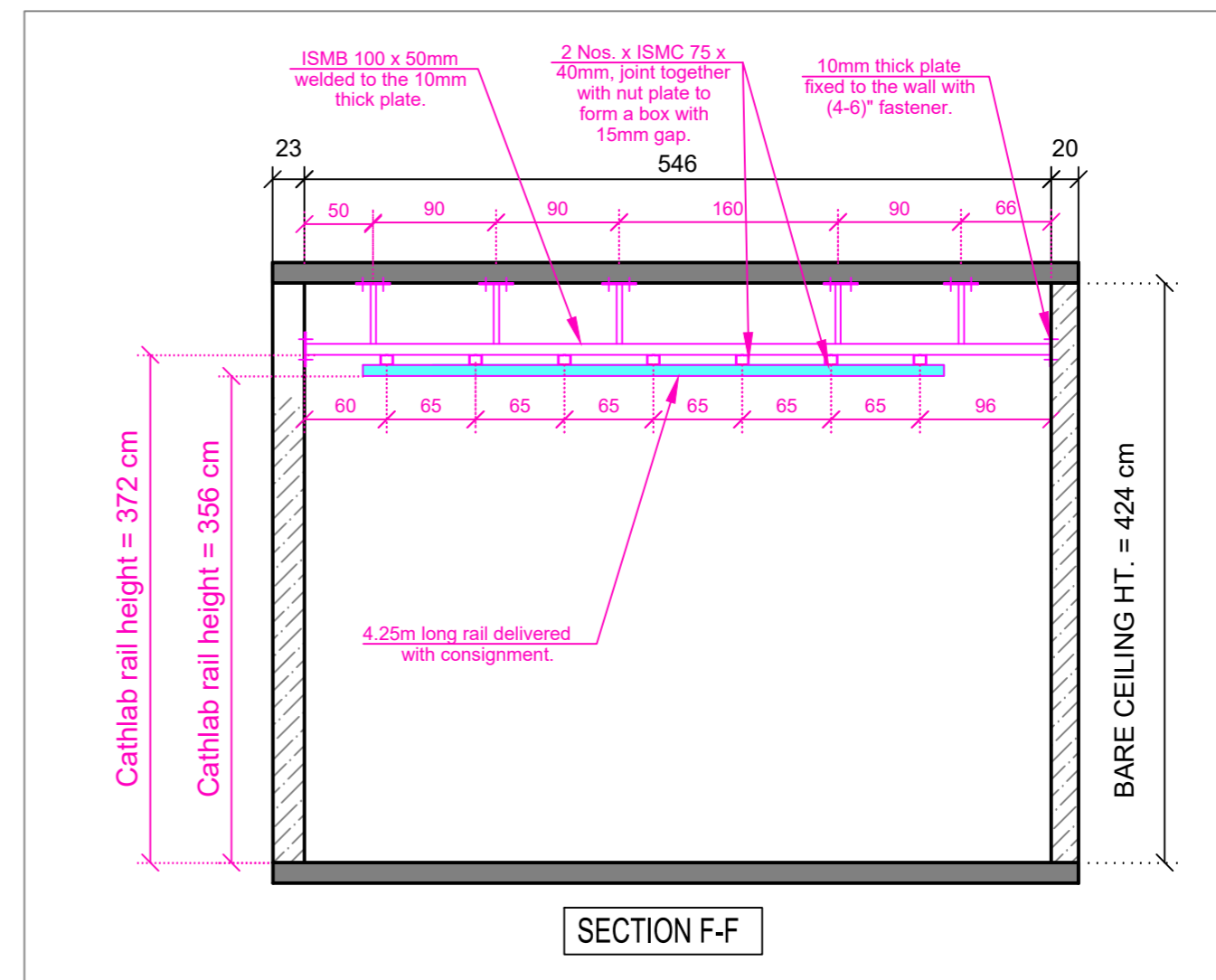
Site Preparation-Ceiling Cabling

		ANGIOGRAPHY Artis zee ceiling		Size	Scale
Cardiology   5th Floor Assam Cancer Care Foundation, State Cancer Institute Phase II, Opposite GMCH, Bhangagarh, Guwahati, Kamrup, Metropolitan, Assam, 781007		Project	File	Revision	Page
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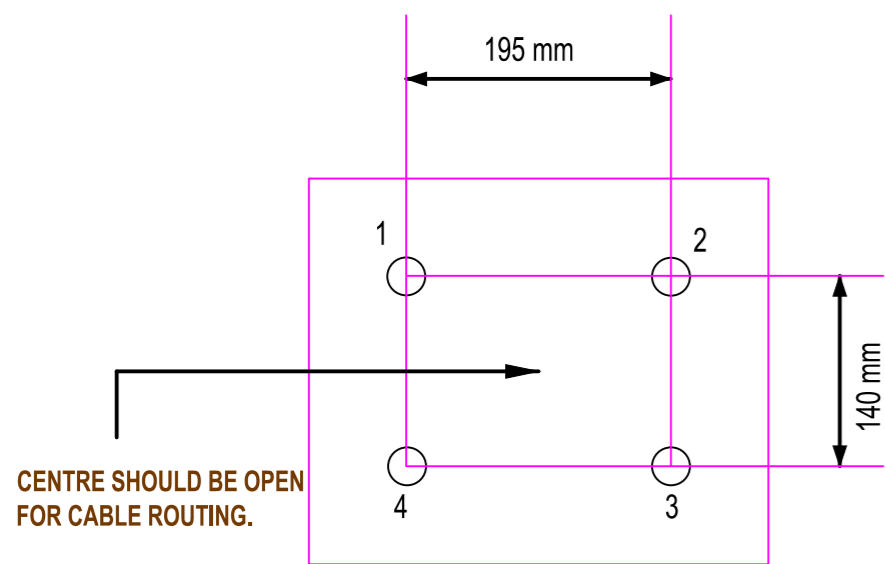


SCALE - 1:50



SCALE - 1:50

**BOTTOM VIEW OF CEILING STRUCTURE FOR SYSTEM CABLE SUPPORT:**



NOTE: ALL HOLES (1-4) - 12MM DIA.  
Bottom of the support structure must be 10cm above false ceiling level.



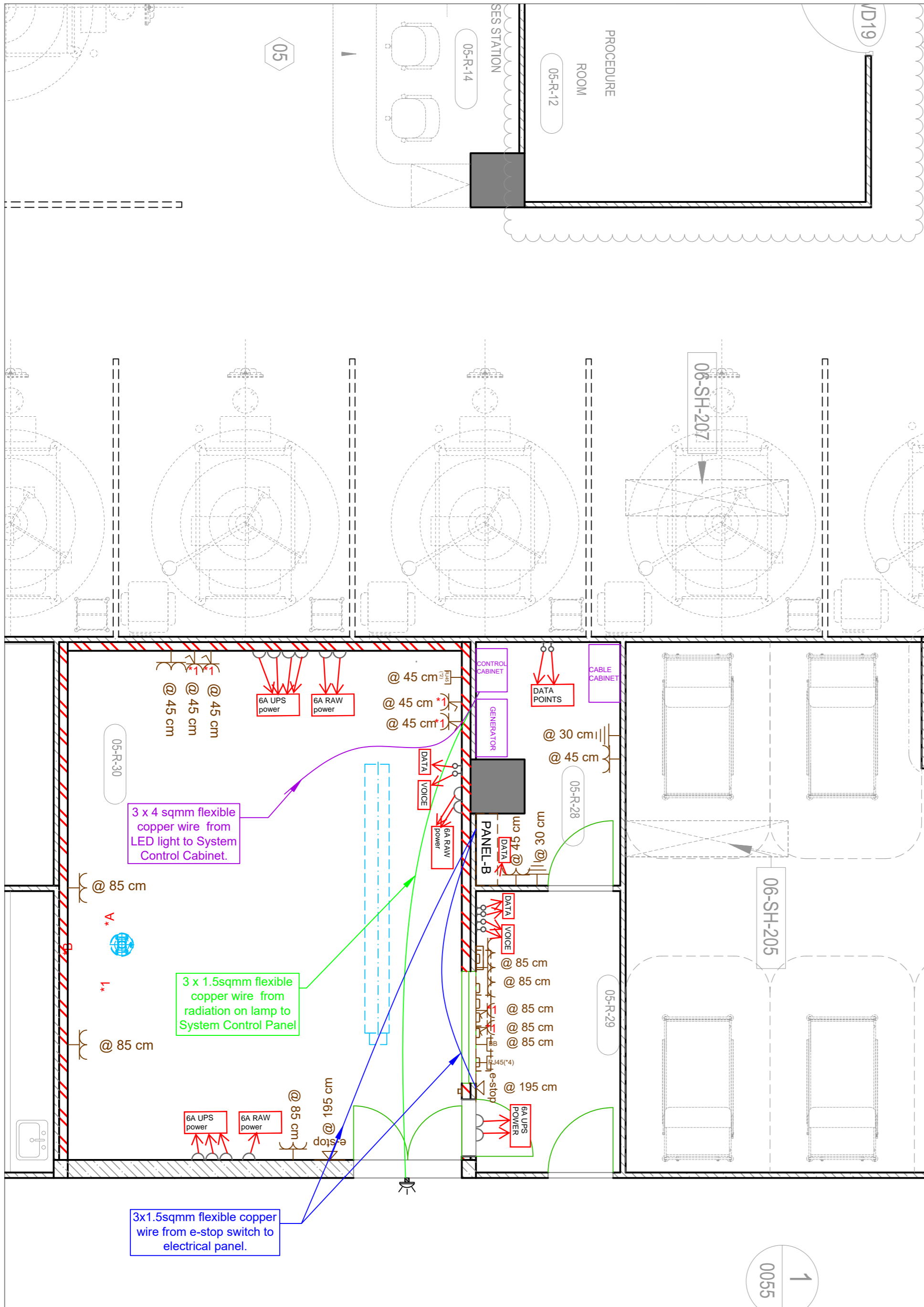
**CABLE SUPPORT STRUCTURE**



**REFERENCE IMAGE - CEILING GRID STRUCTURE**

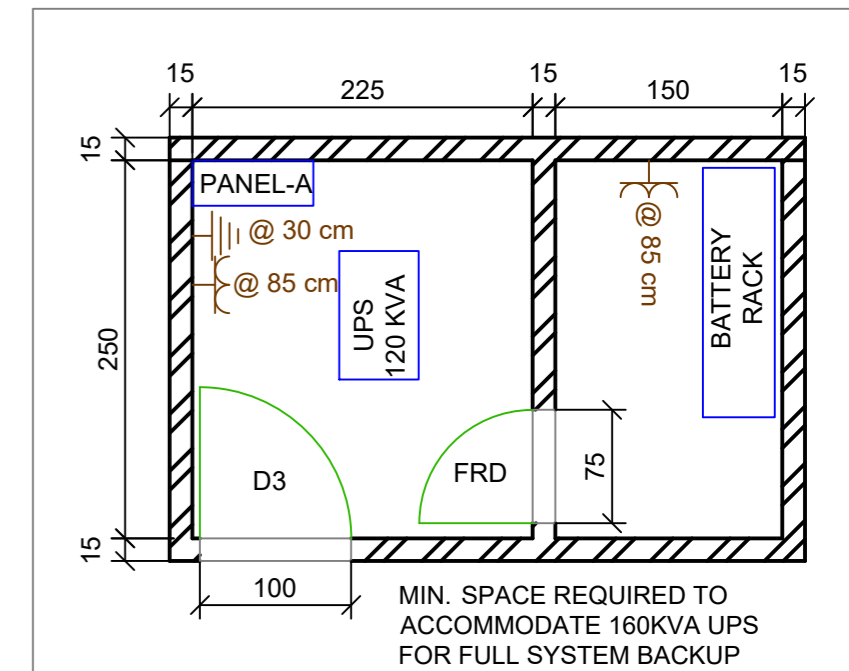
Site Preparation-Fabrication details

SCALE - 1:50



ELECTRICAL LEGEND :-		
SR NO	DESCRIPTION	SYMBOL IN PLAN
1	e-stop, installation with national guideline.	
2	Radiation on lamp, installation with national guideline.	
3	5/15A grounded 'ups' power socket with switch.	
4	Network Point (no. in bracket indicated no. of points)	
5	Dedicated broad band connection.	
6	5/15A grounded 'raw' power socket with switch.	
7	Dedicated Cu earthing	

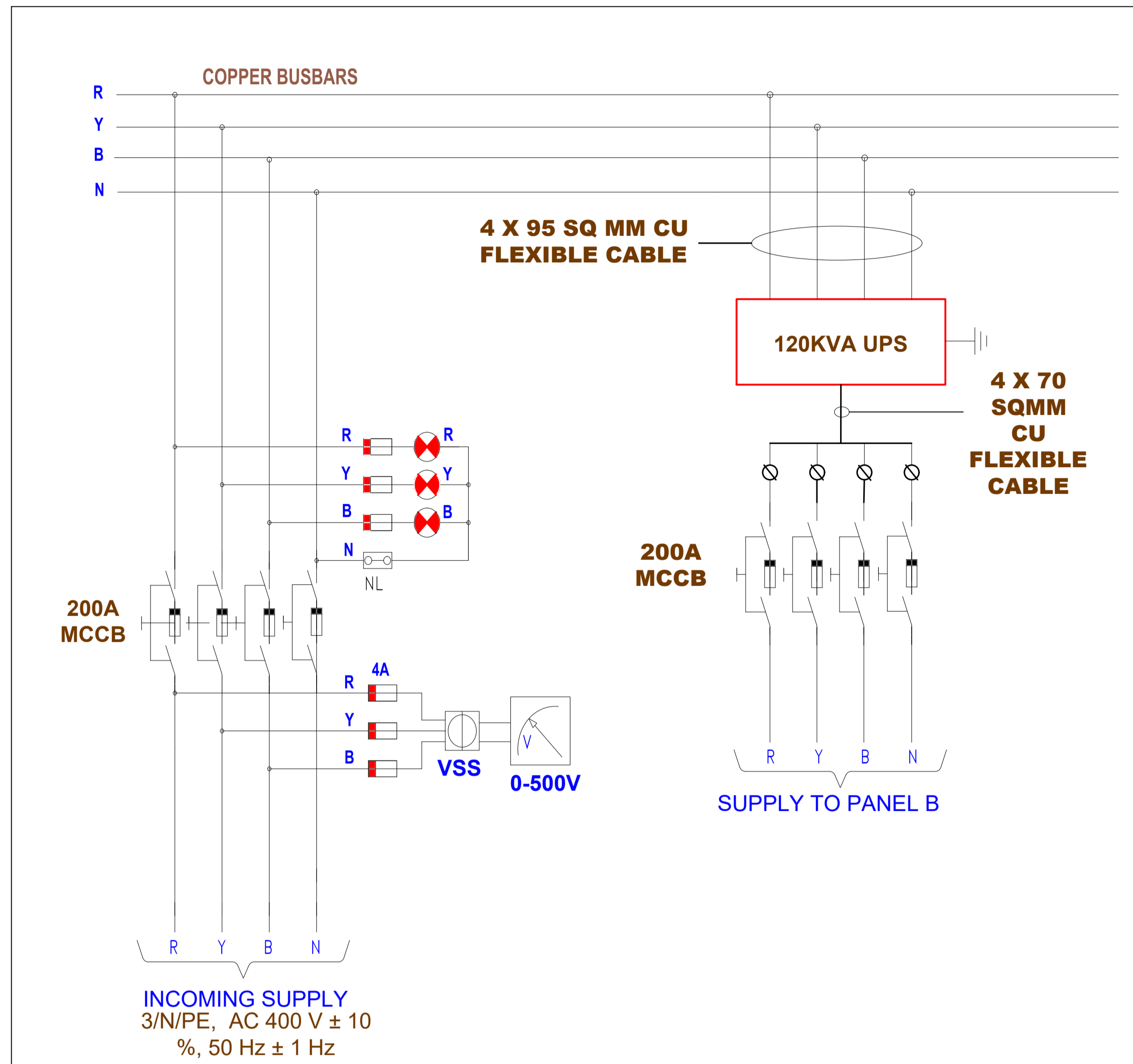
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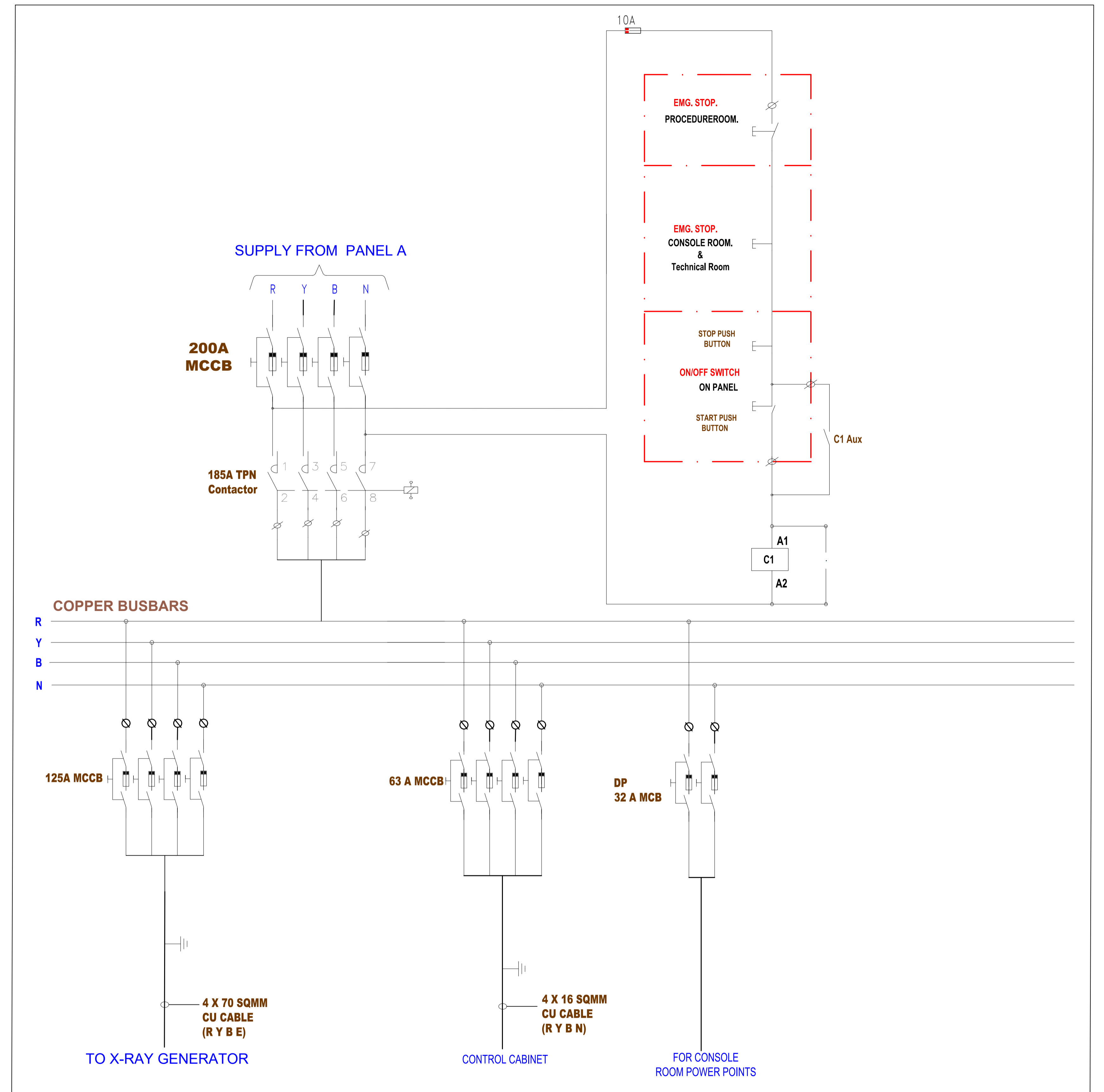
UPS & BATTERY ROOM

Site Preparation-Electrical point details

		ANGIOGRAPHY Artis zee ceiling		Size	Scale
Cardiology   5th Floor Assam Cancer Care Foundation, State Cancer Institute Phase II, Opposite GMCH, Bhangagarh, Guwahati, Kamrup, Metropolitan, Assam, 781007		Project	File	Revision	Page
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**PANEL A**  
(LOCATED IN UPS ROOM)



**PANEL B**  
(LOCATED IN CONSOLE ROOM)

Electrical Scheme