LIST OF ELECTRICAL DRAWINGS

S.NO.	DRAWING TITLE	SHEET	DRAWING NO.	REVISION
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07	SINGLE LINE DIAGRAM FOR ECS PANELS	SHEET 4 OF 7	JP-TD-EL-11BC-1007	R0
08	SINGLE LINE DIAGRAM FOR ECS PANELS	SHEET 5 OF 7	JP-TD-EL-11BC-1008	R0
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10	SINGLE LINE DIAGRAM FOR ECS PANELS	SHEET 7 OF 7	JP-TD-EL-11BC-1010	R0
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17	ELECTRICAL LAYOUT PLATFORM LEVEL	SHEET 1 OF 3	JP-TD-EL-11BC-1401	R0
18	ELECTRICAL LAYOUT PLATFORM LEVEL	SHEET 2 OF 3	JP-TD-EL-11BC-1402	R0
19	ELECTRICAL LAYOUT PLATFORM LEVEL	SHEET 3 OF 3	JP-TD-EL-11BC-1403	R0
20	ELECTRICAL LAYOUT UNDERCROFT LEVEL	SHEET 1 OF 3	JP-TD-EL-11BC-1501	R0
21	ELECTRICAL LAYOUT UNDERCROFT LEVEL	SHEET 2 OF 3	JP-TD-EL-11BC-1502	R0
22	ELECTRICAL LAYOUT UNDERCROFT LEVEL	SHEET 3 OF 3	JP-TD-EL-11BC-1503	R0

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5. ALL DOOR/WINDOW CILL & LINTEL LEVELS ARE MEASURED FROM MAIN FLOOR FINISHED LEVELS.

REFERENCE DRAWINGS

Drg. No.	Description

REVISIONS

REV	PARTICULARS	DRN.	CHD.	VER.	DATE	ISSUE DATE	REV. FOR CONSTRUCTION

APPROVAL BY DMRC

DMRC APPROVAL	MGR/ARCH	DY CA (UG)-III	CA/ARCH
DY CSTE/TELECOM	CSTE-I	DY CE/DESIGN	CE/TECH
DY CSTE/AFC		ED/S&T	CSO
DY CSTE/SIGNALLING	CSTE-III	GM/O	GM/M
DY CE/PLANNING	DY CEE/E&M	DY CEE/ECS	ED/ELEC -II
DY CEE/(E)UG-TR	CGM(E) UG-TR	PM	CPM

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Authorised Signatory for DDC.
JP/EW/1B/DDC01 Project Manager

Architecture
Design In-charge/ Coordinator

Structure
Design In-charge/ Coordinator

E&M
Design In-charge/ Coordinator

DETAIL DESIGN CONSULTANT (DDC) FOR CIVIL, ARCHITECTURAL & BUILDING WORKS OF TWO UNDERGROUND STATION (CHOTI CHOUPAR & BADI CHOUPAR), SHAFT AND TUNNELS OF PHASE 1B OF JAIPUR METRO

ayesa Engineering. Information. Imagination.
56, Indo-Asia House, Institutional Area, sector-44
Gurgaon - 122002 (Haryana)

DELHI METRO RAIL CORPORATION LTD.
Metro Bhawan , Fire Brigade Lane, Barakhamba Road, New Delhi-110001

PHASE 1B JAIPUR METRO PROJECT

STATION: BADI CHOUPAR

DRAWING TITLE: LIST OF ELECTRICAL DRAWINGS

DRAWN BY:	CHECKED BY:	VERIFIED BY:
SURJEET	H.O.B	L.R.S

DATE:	REV:	GRAPHICAL SCALE:	STATUS:
31-03-2015	R0	N.T.S.	FOR TENDER

DRAWING NUMBER:	SHEET NO.	SHEET SIZE	ORDER N°
JP-TD-EL-11BC-1001	1 OF 1	UNE A1	P36-0017

JP/EW/1B/DDC01

ELECTRICAL

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Abbreviations

ACB – Air circuit breaker
ATS – Automatic transfer switch
MCCB – Moulded Case Circuit Breaker
MCB – Miniature Circuit Breaker
TM – Thermo magnetic
MPCB – Motor Protection Circuit Breaker
RCCB – RESIDUAL CURRENT CIRCUIT BREAKER

Legend (AS APPLICABLE) :–

Motorised Draw out type air Circuit Breaker
Moulded case Circuit Breaker (MCCB)
Miniature Circuit Breaker
Motor Protection Circuit Breaker(MPCB)
CF — Control Fuse (CF)
Current transformer
Thermal O/L relay
Indicating lamp
A — Ammeter
ASS — Ammeter selector switch
V — Voltmeter
Voltmeter selector switch
MFM — Multi Function Meter
W/S — Working / Stand by Selector Switch
A/L/R — Auto / Local / Remote Selector Switch
L/R — Local / Remote Selector Switch
Star Delta Starter
S.S — Soft Starter
DOL — Direct On Line Starter
P — Push Button
TNC — TNC Switch (Trip/Neutral/Close)
A/M — Auto Manual Selector Switch
T — Timer
SPPR — Single Phase prevention relay
STOP — Emergency Stop Push Button
AC-3 Contactor
H — Hooter
TCH — Trip Circuit Healthy Indication
SC — Spring Charge Indication
DV — Double volt meter
DF — Double Frequency Meter
SCS — Synchroscope
Hm — Hour Meter
AUNC — Window Annunciator
OSS — On Line Selection Switch
64 R — Restricted Earth Fault Relay
RESET P — Reset Push Button
LT P — Test Push Button
ACCEPT P — ACCEPT Push Button

LEGEND FOR ELECTRICAL

SYMBOL		
		POWER CABLE TRAY
		TELECOM DATA CABLE TRAY
		TELECOM POWER CABLE TRAY
		VAC & TVS CABLE TRAY
		SCADA CABLE TRAY
	P1	32A 3 PHASE 5PIN INDUSTRIAL SOCKET OUTLET(IP65)
	P2	16A 1 PHASE 3PIN INDUSTRIAL SOCKET OUTLET(IP54)
	P4	6/16A 1 PHASE 6PIN MODULAR TYPE SOCKET OUTLET
	P5	ADVT. POINT

LEGEND: –

S.N.	LIGHT NAME	SYMBOL	DESCRIPTION
1	A		BASIC BATTEN LUMINARIES (SIMILAR TO PHILIPS CATALOGUE NO. TMS 122 2X28 T5 OR KESELEC CATALOG NO.RAILUX 2X28 HF) FOR 'TL'D FLUORESCENT LAMP (T5 LAMP)
2	B		BASIC BATTEN LUMINARIES (SIMILAR TO PHILIPS CATALOGUE NO. TMC 122 / 1X28 OR KESELEC CATALOG NO RAILUX 1X28 HF) FOR 'TL'D FLURESCENT LAMP (T5 LAMP)
3	C		BASIC BATTEN LUMINARIES (SIMILAR TO PHILIPS CATALOGUE NO. TMS 122 / 2X28W OR KESELEC CATALOG NO. INDILUX V 228 HF WITH VITREOUS ENAMELLED REFLECTOR) FOR 'TL'D FLUORESCENT LAMP (T5 LAMP)
4	E		EFFICIENT, LOW GLARE, SURFACE MOUNTED LUMINARIES (SIMILAR TO PHILIPS CATALOGUE NO. MPF 922 / 1 X 70W) WITH INTEGRAL GEAR, ELECTROCHEMICALLY BRIGHTENED AND ANODIZED HIGH PURITY ALUMINIUM REFLECTOR OF ASYMMETRICAL TYPE.
5	H		BATTEN LUMINARIES (SIMILAR TO PHILIPS CATALOGUE.NO. TCW 450 / 1X28 OR KESELEC CATALOG NO.RAILUX 1X28 HF) FOR 'TL'D FLUORESCENT LAMP (T5 LAMP)
6	I		RECESSED CIRCULAR DOWN LIGHT LUMINARIES (SIMILAR TO PHILIPS CATALOGUE.NO FBH 145 / 218 OR KESELEC CATALOG NO.NOVA 2X18 (G))
7	J		MIRROR OPTIC, RECESSED MOUNTED LUMINARIES (SIMILAR TO PHILIPS CATALOGUE.NO TBS 255 TCS 228 OR KESELEC CATALOG NO.PHARMA 2X28 HF)
8	K		MIRROR OPTIC RECESS MOUNTED LUMINARIES (SIMILAR TO PHILIPS CATALOGUE.NO TBS 669 / 228 D6 OR KESELEC CATALOG NO.CT LUX 2X28 HF)
9	L		MIRROR OPTIC RECESS MOUNTED LUMINARIES (SIMILAR TO PHILIPS CATALOGUE.NO TBS 669 / 128 D6 OR KESELEC CATALOG NO.CT LUX DL 1X28 HF)
10	PL		PL–STREET LIGHT LUMINAIRE WITH AESTHETICALLY DESIGENED DIE CAST ALUMINIUM HOUSING POT OPTIC REFLECTOR AND TOUGHENED FLAT GLASS IP 65 (SIMILAR TO PHILIPS CATALOGUE NO.CRP330/2x150W SON–T/ CDM–TT INCLUDING LAMP AS REQUIRED ON 9 M POLE DOUBLE ARM POLE
11	SL		SL–STREET LIGHT LUMINAIRE WITH AESTHETICALLY DESIGENED DIE CAST ALUMINIUM HOUSING POT OPTIC REFLECTOR AND TOUGHENED FLAT GLASS IP 65 (SIMILAR TO PHILIPS CATALOGUE NO.CRP330/1x150W SON–T/ CDM–TT INCLUDING LAMP AS REQUIRED ON 9 M POLE SINGLE ARM POLE
12	P		BULK HEAD LUMINARIES (SIMILAR TO PHILIPS CATALOGUE NO FXC 101 OR KESELEC CATALOG NO. KBH 1X9 W) SUITABLE FOR MOUNTING ON WALL / CEILING
13	Q		2X28W FTL LAMP (T5 LAMP) PREWRED UPTO A TERMINAL BOX WITH LAMP. HAVING IP 65 (SIMILAR TO PHILIPS CATALOGUE NO. TCW 097 \ 2X28W D6 HF OR KESELEC ZUMTOBEL MAKE FZ 2X28W HF) AND SUPPLIED WITH 2 NOS 28W TUBULAR FLUORESCENT LAMP (T5 LAMP).
14	FL		COMPACT, STURDY, GENERAL PURPOSE FLOODLIGHT LUMINARIES (SIMILAR TO PHILIPS CATALOGUE. NO TEMPO3 SWF 330 SK TYPE) WITH INTEGRAL GEAR, ELECTROCHEMICALLY BRIGHTENED AND ANODIZED HIGH PURITY ALUMINIUM REFLECTOR OF SYMMETRICAL TYPE.
15	–		DISTRIBUTION BOARD

AS PER IEC

CROSS SECTIONAL AREA OF PHASE CONDUCTORS (Sq.mm)	CROSS SECTIONAL AREA OF EARTHING OR CIRCUIT PROTECTIVE CONDUCTOR (Sq.mm)
2.5	2.5
4	4
6	6
10	10
16	16
25	16
35	16
50	25
70	35
95	50
120	70
150	70
185	95
240	120
300	150

AS PER BOQ & SPECIFICATIONS

CROSS SECTIONAL AREA OF PHASE CONDUCTORS (Sq.mm)	CROSS SECTIONAL AREA OF EARTHING OR CIRCUIT PROTECTIVE CONDUCTOR (Sq.mm)
2.5	2.5
4	4
6	6
10	10
16	16
25	25
35	35
50	50
70	70
95	95
120	120
150	150
185	185
240	240
300	300

GENERAL NOTES :

1. THE ENTIRE ELECTRICAL INSTALLATION SHALL BE IN COMPLIANCE WITH THE CURRENT EDITION OF THE RELEVANT STANDARDS : CODE OF PRACTICES AND THE AUTHORITIES REQUIREMENTS.
2. UNLESS OTHERWISE INDICATED, THE MOUNTING HEIGHTS FROM FINISHED FLOOR LEVEL, FOR THE VARIOUS ITEMS OF ELECTRICAL WIRING ACCESSORIES / EQUIPMENT SHALL BE AS FOLLOWS :-

   LIGHTING SWITCHES - 1400mm AFFL (TO BOTTOM OF BOX)
   P4 TYPE SWITCH SOCKET OUTLETS - 300mm AFFL (TO BOTTOM OF BOX) IN ALL AREAS
   P1,P2 TYPE SWITCH SOCKET OUTLETS 1200mm AFFL IN ALL AREAS

   PUBLIC TELEPHONE OUTLETS - REFER TO RELEVANT DRAWINGS.

   DISTRIBUTION BOARDS - TO SUIT ROOM LAYOUTS.

   THE CONTRACTOR SHALL REFER TO ARCHITECTURAL DRAWINGS AND CO-ORDINATE AT SITE FOR EXACT SETTING OUT THE ACCESSORIES / EQUIPMENTS.
3. ALL FLUORESCENT LIGHT FITTINGS SHALL BE COMPLETE WITH LOW LOSS BALLAST, COLOUR RENDERING INDEX IN EXCESS OF 80 AND COLOUR TEMPERATURE OF 4000'K FOR TUNNEL LIGHTS AND 4000'K FOR STATION LIGHTING UNLESS OTHERWISE SPECIFIED.
4. LOCATION OF ALL LUMINAIRES, LIGHTING SWITCHES, SWITCH SOCKET OUTLETS ETC., SHOWN ON DRAWINGS ARE FOR GENERAL GUIDANCE ONLY. EXACT POSITIONS SHALL BE DETERMINED & APPROVED BY THE ARCHITECT / ENGINEER BEFORE CHANGE OF WORK.
5. FS/SWA(FIRE SURVIVAL (STEEL WIRE ARMOURED) LSZH (LOW SMOKE ZERO HALOGEN) CABLES WILL BE PROVIDED FOR CIRCUITS INDICATED BELOW FOR ALL TUNNELS :
   a) TUNNEL LIGHTING , BLUE LIGHTS, BUFFER LIGHTS AND TUNNEL SOCKETS.
   b) CROSS PASSAGE.
   FS/SWA/LSZH CABLES WILL BE PROVIDED FOR TUNNEL SUMP PUMPS.
6. ALL UNDERGROUND CABLES SHALL BE OF ARMOURED TYPE CABLE IN PIPE AS SPECIFIED AND ENCASED IN CONCRETE FOR HARD GROUND/ PAVEMENT.
7. ALL FINAL CIRCUIT WIRINGS TO BE IN CONCEALED/SURFACE GI CONDUITS. NO PVC CONDUIT SHALL BE ALLOWED FOR THE WHOLE ELECTRICAL INSTALLATION. GI CONDUIT / CONTAINMENT SHALL BE PROVIDED AT PSD 1.8M EARTH FREE ZONE AND OTHER WET AREA SUCH AS SPRINKLER TANK.
8. SPACE FACTOR OF CONDUIT, TRUNKING AND CABLE TRAY SHALL COMPLY WITH CURRENT EDITION OF RELEVANT SPECIFICATIONS & STANDARDS
9. PROVISION OF CABLES WITH ADDITIONAL LENGTH OF 5m FOR ALL EXTERNAL / LANDSCAPE LIGHTING POINTS SHALL BE INCLUDED
10. SEPARATE CABLE CONTAINMENT SHALL BE PROVIDED FOR DUAL - FEED CABLES.
11. ALL CABLE OPENINGS ON FLOOR SLABS AND WALLS TO BE SEALED WITH FIRE-STOPPING MATERIAL OF THE SAME FIRE-RATING TO RELEVANT AUTHORITY'S APPROVAL.
12. PROVISION OF LOCKING DEVICES / ACCESSORIES FOR ALL MCCB/MCB, ISOLATOR, ETC. SHALL BE PROVIDED.
13. THE ELECTRICAL CONTRACTOR SHALL SUPPLY AND INSTALL ALL LIGHT FITTINGS AS SHOWN IN THE DRAWINGS. LIGHT FITTING S SHALL HAVE THEIR OWN INDEPENDENT SUPPORT REGARDLESS OF SURFACE , RECESS OR SUSPENDED MOUNTING METHOD.
14. THE ELECTRICAL CONTRACTOR SHALL BALANCE THE LOADS AND LABEL ALL EQUIPMENT AND SWITCHGEAR THROUGHOUT THE INSTALLATION.
15. FOR DISTRIBUTION BOARDS IP 54 PROTECTION SHALL BE PROVIDED COMPLETE WITH LOCKS AND VENTILATION OPENING . ALL THE CABLES SHALL BE BOTTOM ENTRY WITH APPROVED WATER TIGHT CABLE GLAND AND SEALING.
16. THE ELECTRICAL CONTRACTOR MUST CO-ORDINATE WITH THE OTHER SERVICES FOR THE ACTUAL ELECTRICAL LOAD AND EXACT LOCATION OF THE SUPPLY BEFORE INSTALLATION.
17. INFORMATION ON CONNECTED LOAD (CL), MAXIMUM DEMAND (MD), FAULT CURRENT RATING, CABLE SIZES, SIZES OF ALL CABLE SUPPORT SYSTEM, CABLE ROUTES ETC., SHOWN ON DRAWINGS SHALL BE FOR REFERENCE AND INDICATIVE ONLY. CONTRACTOR SHALL BE RESPONSIBLE TO SUBMIT ALL DETAILS, CALCULATIONS AND DRAWINGS FOR NOTICE OF NO OBJECTION PRIOR TO COMMENCEMENT OF WORK ON SITE.
18. ALL FR AND FS CABLES FOR FINAL SUB-CIRCUIT WIRINGS WITHIN TRUNKING AND CONDUITS SHALL BE MULTI-STRAND COPPER CONDUCTORS & INSULATION COLOR OF THE CABLES SHALL COMPLY WITH THE REQUIREMENT STIPULATED IN THE LATEST SS CP5 AND AS ACCEPTED BY AUTHORITY.
19. ALPHA-NUMERIC CABLE TAGS SHALL BE PROVIDED AT 10M INTERVAL ON THE CABLE AND TERMINAL ENDS.
20. ALL UNDERGROUND CABLE SHALL BE LAID AT LEAST 1000mm BELOW GROUND AND PROTECTED WITH CABLE SLAB CABLE MARKER SHALL BE PROVIDED WHERE CABLE CHANGES DIRECTIONS AND ON STRAIGHT RUNS AT INTERVALS OF NO MORE THAN 50MTR.PIPE (150 sq.mm) CAST IN CONCRETE SHALL BE USED FOR CABLES CROSSING ROAD OR HARDSTANDING AREA.
21. THE RESISTANCE FOR THE EARTHING SYSTEM (ELECTRICAL) PER EACH EARTHING MAT SHALL BE LESS THAN 1 ohm AND IN ANY CASE SHALL COMPLY WITH IEEE-80 AND ELECTRIC SUPPLY AUTHORITY'S LATEST REQUIREMENT.
22. EACH FINAL CIRCUIT SHALL BE TESTED FOR INSULATION RESISTANCE BETWEEN LINE CONDUCTORS, LINE CONDUCTORS TO EARTH BY MEANS OF AN INSULATION RESISTANCE TESTING INSTRUMENT WHICH REQUIRES VOLTAGE OF NOT LESS THAN 500V D.C, UPON CIRCUIT UNDER TEST. TEST VOLTAGE FOR SUBMAIN CABLE SHALL NOT BE LESS THAN 1000V D.C.
23. ALL ELECTRICAL CONDUITS INSTALLED FOR PUBLIC AREA SHALL BE CONCEALED FOR THOSE AREAS WITH TILE OR OTHER ARCHITECTURAL FINISHES.
24. ALL HANDICAP TOILETS SHALL BE PROVIDED WITH LIGHT FITTINGS,SWITCH BOARDS AND SOCKETOUTLETS.
25. NOT WITHSTANDING WHATEVER SHOWING ON DRAWINGS, ALL SOCKET OUTLETS TO BE INSTALLED IN NON-PUBLIC AREAS SHALL BE METAL-CLAD. SOCKET OUTLETS AT TILE AREAS AND ROOMS WITH ARCHITECTURAL FINISHES TO BE MATT-CHROME TYPE.
26. NOT WITHSTANDING WHATEVER SHOWING ON DRAWINGS, ALL SOCKET OUTLETS TO BE INSTALLED IN PUBLIC AREAS SHALL BE MATCHED WITH ARCHITECTURAL FINISHES.
27. ALL EQUIPMENT AND INSTALLATION SHALL BE IN COMPLIANCE WITH BOQ, SPECIFICATIONS AND CONTRACT CONDITION.
28. FS/SWA(FIRE SURVIVAL)
    CABLES SHALL BE PROVIDED FOR ALL MAIN, SUBMAIN AND FINAL CIRCUITS INDICATED BELOW:
    a) BMS
    b) UPS
    c) Scada
    d) Fire Alarm
    e) TVS
    f) Fire Fighting
29. NO PVC TYPE MATERIAL SHALL BE ALLOWED UNLESS OTHERWISE SPECIFIED.
30. CONTRACTOR SHALL BE RESPONSIBLE TO DESIGN, SUPPLY AND INSTALL THE COMPLETE FLOOR STANDING STEEL FRAME WITH PROPER ANCHOR AT BOTH FLOOR AND CEILING TO PROPER SUPPORT AND FIX ALL THE WALL MOUNTED DISTRIBUTION BOARDS, CABLE CONTAINMENT, CONTROL PANELS, ETC. AT THE LOCATION , WHERE DRY WALL SYSTEM HAS BEEN USED. FOR EXAMPLE CAVITY WALL BY THE D-WALL.
31. CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE ALL THE NECESSARY CABLE CONTAINMENT, CONDUITS, TRUNKING AND ASSOCIATED ACCESSORIES, WHICH IS NOT SHOWN IN THE DRAWING BUT DEEMED NECESSARY FOR THE CONSTRUCTION AND COMPLETION OF THE INSTALLATION.

LIGHTNING PROTECTION SYSTEM

1. THE LIGHTNING PROTECTION SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH LATEST EDITION OF IS 2309
2. THE WHOLE OF THE LIGHTNING PROTECTION SYSTEM SHOULD HAVE A COMBINED RESISTANCE TO EARTH NOT EXCEEDING 10 OHMS BEFORE ANY BONDING HAS BEEN EFFECTED TO METAL IN OR ON A STRUCTURE OR TO SERVICES BELOW GROUND.
3. ALL EXPOSED METALWORK UNDER CONTRACT EXCEPT ELECTRICAL EQUIPMENT SHALL BE ELECTRICALLY BONDED TO THE LIGHTNING PROTECTION SYSTEM.
4. THE POSITIONS OF THE EARTH ELECTRODE PITS AS SHOWN ON DRAWINGS ARE APPROXIMATE ONLY. THE EXACT LOCATIONS SHALL BE DETERMINED & APPROVED BY THE ARCHITECT / ENGINEER BEFORE COMMENCEMENT OF WORK. ELECTRICAL CONTRACTOR SHALL LIASE WITH CIVIL CONTRACTOR FOR INSTALATION OF THE ENTIRE LIGHTNING PROTECTION SYSTEM.
5. ALL PENETRATIONS THROUGH ROOF TO BE MADE WATERTIGHT AFTER INSTALLATION OF DOWN CONDUCTORS, CABLE, ETC AND MUST BE VETTED / APPROVED BY THE ARCHITECT / ENGINEER
6. ALL EXPOSED METALLIC STRUCTURES, VENT PIPES, COOLING TOWER, RAILINGS, WATER TANKS & ETC ON OR ABOVE THE ROOF SHALL BE BONDED TO AND FORM PART OF THE LIGHTNING PROTECTION SYSTEM.
7. ELECTRICAL CONTRACTOR TO CO-ORDINATE WITH THE CIVIL CONTRACTOR ON THE BONDING REQUIREMENT AND ENSURE THAT IT MEETS IS. REQUIREMENTS.

ELECTRICAL BOARDS & COMPONENTS

1. ALL MCCBs INSTALLED SHALL BE COMPLETED WITH ELECTRONICS TYPE ADJUSTABLE THERMAL OVERLOAD & INSTANTANEOUS TRIP UNIT AS PER SPECIFICATIONS.
2. ALL MCBs USED FOR PROTECTION OF INDUCTION LOADS SHALL BE OF TYPE C CHARACTERISTIC AND MOTOR LOAD SHALL BE OF TYPE D CHARACTERISTIC.
3. ALL BUSBAR TRUNKINGS SHALL BE OF FULL SIZE NEUTRAL WITH CONTINUOUS INTEGRAL EARTHING BAR.
4. THERE SHALL BE A COMMON EARTH BAR IN EACH DISTRIBUTION BOARD.
5. ALL NEUTRAL LINKS AND EARTH BARS IN THE DISTRIBUTION BOARDS SHALL BE LOCATED AT AN EASILY ACCESSIBLE POSITION AND SHALL BE KEPT CLEAR OF ANY OBSTRUCTIONS.
6. NEUTRAL AND EARTH BARS SHALL HAVE SUFFICIENT NUMBER OF WAYS TO MATCH THE NUMBER OF SUB-CIRCUITS WITH SPACES.
7. ALL ELECTRICAL EQUIPMENT AND ACCESSORIES THAT ARE EXPOSED TO WEATHER SHALL BE OF WEATHERPROOF TYPE TO IP65, UNLESS OTHERWISE STATED.
8. IDMTL OVERCURRENT AND EARTH FAULT RELAYS SPECIFIED SHALL BE COMPLETE WITH HIGH SET ELEMENT.
9. MOUNTING LEVEL OF DISTRIBUTION BOARDS SHALL BE MEASURED FROM THE FINISHED FLOOR LEVEL TO THE BOTTOM OF THE BOARDS.
10. UNLESS OTHERWISE STATED, ALL CIRCUITS SERVING FIRE SAFETY EQUIPMENT AND EMERGENCY LIGHTING SHALL BE OF FS CABLES.
11. 25% SPARE BREAKER SHALL BE PROVIDED FOR ALL THE ELECTRICAL DISTRIBUTION BOARDS AND SUB-BOARDS, AS PER SPECIFICATIONS.
12. EQUIPMENT MOUNTING OF SDB/DB ARE INDICATIVE. ALL MOUNTING LOCATION AND METHOD SHALL BE COORDINATED AND DETERMINED AT SITE. ALL COST INCURRED ON THE ALTERNATIVE MOUNTING SHALL BE INCLUDED IN THE CONTRACT.

EARTHING SYSTEM

1. EARTHING RESISTIVITY WILL BE TESTED UPON COMPLETION OF EACH EARTHING POINT INSTALLATION BEFORE INTERCONNECTION OF THE EARTH POINT.
2. EARTH RESISTIVITY TEST SHALL BE CARRIED AT EACH EARTHING POINT.
3. ALL TAPE/CABLES/CLAMP CONTACT SURFACE SHALL BE HEAVILY TINNED PRIOR TO CONNECTIONS.
4. PROPRIETARY CADWELD CONNECTION SHALL BE USED FOR CONNECTING EACH CABLE TO EARTHING POINT STRICTLY IN ACCORDANCE TO THE INSTRUCTION OF THE SPECIALIST.
5. IMMEDIATELY UPON COMPLETION OF EACH GROUP OF EARTH POINT INSTALLATION, TEST SHALL BE CARRIED OUT TO ESTABLISH THE EARTH RESISTANCE. THE TEST RESULTS SHALL BE SUBMITTED TO ENGINEER / AUTHORITY FOR APPROVAL.

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REFERENCE DRAWINGS

Drg. No.	Description

REVISIONS

REV	PARTICULARS	DRN.	CHD.	VER.	DATE	ISSUE DATE	REV. FOR CONSTRUCTION

APPROVAL BY DMRC

DMRC APPROVAL	MGR/ARCH	DY CA (UG)-III	CA/ARCH
DY CSTE/TELECOM	CSTE-I	DY CE/DESIGN	CE/TECH
DY CSTE/AFC		ED/S&T	CSO
DY CSTE/SIGNALLING	CSTE-III	GM/O	GM/M
DY CE/PLANNING	DY CEE/E&M	DY CEE/ECS	ED/ELEC-II
DY CEE/(E)UG-TR	CGM(E) UG-TR	PM	CPM

Certified that this document has been designed and checked in accordance with DDC Quality Assurance Plan.

Authorised Signatory for DDC.
JP/EW/1B/DDC01 Project Manager

Architecture: Design In-charge/ Coordinator
Structure: Design In-charge/ Coordinator
E&M: Design In-charge/ Coordinator

DETAIL DESIGN CONSULTANT (DDC) FOR CIVIL, ARCHITECTURAL & BUILDING WORKS OF TWO UNDERGROUND STATION (CHOTI CHOUPAR & BADI CHOUPAR), SHAFT AND TUNNELS OF PHASE 1B OF JAIPUR METRO

ayesa Engineering. Information. Imagination.
56, Indo-Asia House, Institutional Area, sector-44
Gurgaon - 122002 (Haryana)

DELHI METRO RAIL CORPORATION LTD.
Metro Bhawan , Fire Brigade Lane, Barakhamba Road, New Delhi-110001

PHASE 1B JAIPUR METRO PROJECT

STATION: BADI CHOUPAR

DRAWING TITLE: LEGENDS, NOTES AND ABBREVIATION

DRAWN BY :	CHECKED BY:	VERIFIED BY:	
SURJEET	H.O.B	L.R.S	JP/EW/1B/DDC01
DATE: 31-03-2015	REV: R0	GRAPHICAL SCALE: N.T.S.	STATUS: FOR TENDER
DRAWING NUMBER: JP-TD-EL-11BC-1002	SHEET NO. 1 OF 1	SHEET SIZE UNE A1	ORDER N° P36-0017

ELECTRICAL

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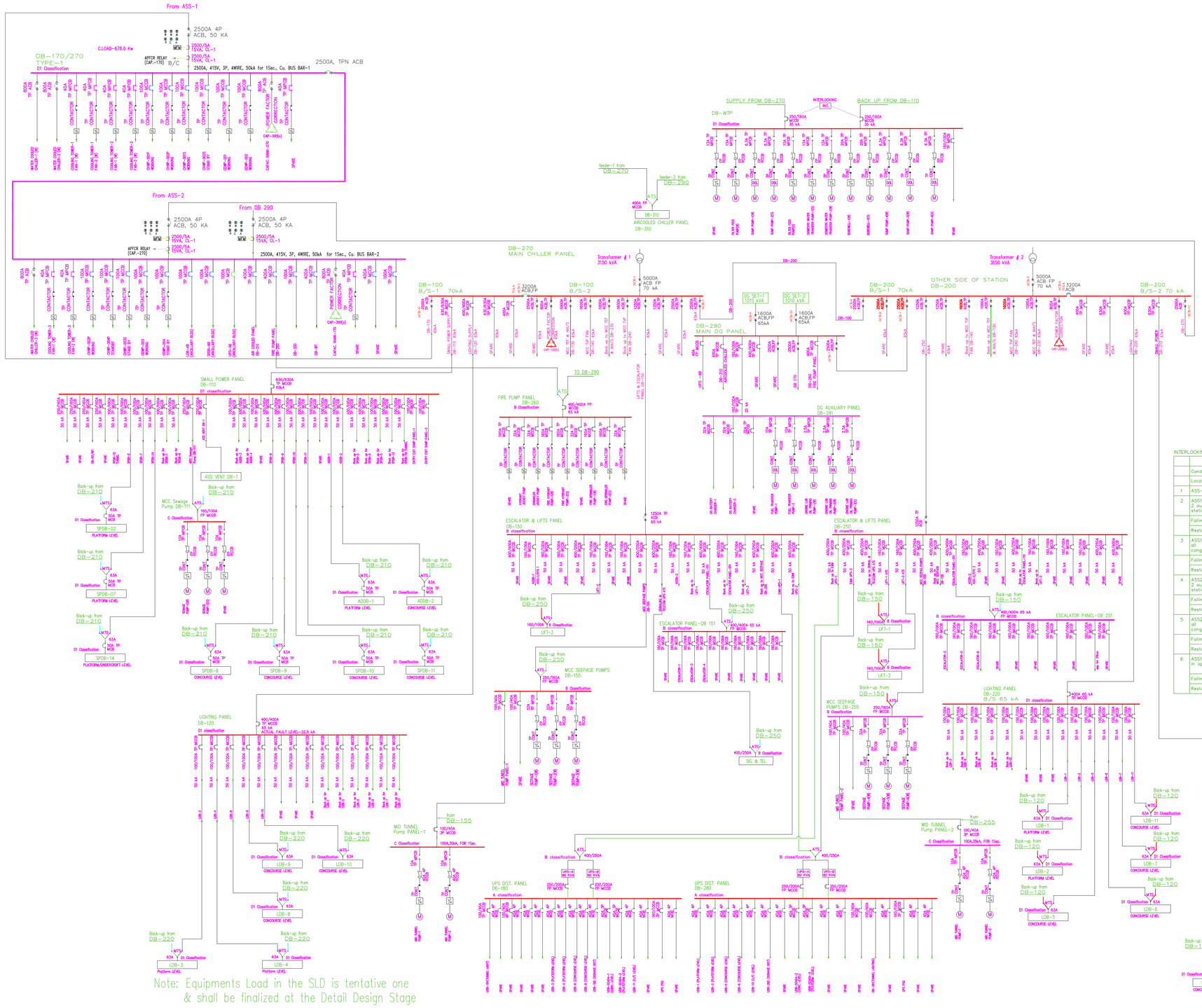

Note: Equipments Load in the SLD is tentative one & shall be finalized at the Detail Design Stage

Legend

- Motor Protection Circuit Breaker(MPCB)
- Residual Current Circuit Breaker(RCCB)
- Star Delta Starter
- Direct On Line Starter
- Withdrawable type air circuit breaker (ACB)
- Moulded case circuit breaker (MCCB)
- Miniature circuit Breaker (MCB)
- Transfer switch
- Isolator
- INT. Interlocking

Notes

1) Feeders rated less than or equal to 630A shall be fixed type MCCB'S/ Transfer switches
2) Feeders rated 800A & above shall be withdrawable type Air circuit breakers.
3) Feeder capacity selected with 25% additional load.

Abbreviations

ACB – Air circuit breaker
ATS – Automatic transfer switch
MTS – Manual transfer switch
LDB – Light distribution board
SPDB – Small power distribution board
ADDB – Advt. distribution board
C.L. – CONNECTED LOAD
M.D.L. – MAXIMUM DEMAND LOAD
WBU – WITH BACK-UP

EMERGENCY	A Classification	Loads with UPS, D.G. & ASS Back-up supply
ESSENTIAL	B Classification	Loads with D.G. & ASS Back-up supply
SEMI ESSENTIAL	C Classification	Loads with only ASS Back-up & provision for manual dg backup
NORMAL	D1 Classification	Normal Loads (Supply from both ASS)
NORMAL	D2 Classification	Normal Loads (Supply circuit from one ASS)

INTERLOCKING SCHEME

	STATUS OF CIRCUIT BREAKERS													
	Condition of Power Supply	ACB-1	ACB-2	ACB-5	ACB-6	ACB-3	ACB-4	ACB-11	ACB-12	ACB-13	ACB-14	ACB-9	ACB-10	ACB-7	ACB-8
	Location–	ASS-1	ASS-1	ASS-2	ASS-2	ASS-1	ASS-2 LINK	ASS-1 LINK TO DB-170	ASS-2 LINK TO DB-270	DB-170	DB-270	DG.-1	DG.-2	DG. ASS-1 LINK	
1	ASS-1& ASS2 in Opration	ON	ON	ON	ON	ON	OFF	ON	ON	ON	ON	OFF	OFF	ON	ON
2	ASS1 fails ASS2 in Opration with 2 out of 4 TVF operational at station congestion mode	OFF	OFF	ON	ON	ON	ON	ON	ON	ON	ON	OFF	OFF	ON	ON
	Failing Sequence	1	2	ON	ON		3	ON	ON	ON	ON	OFF	OFF	ON	ON
	Restoring Sequence	2	3				1								
3	ASS1 fails ASS2 in Opration with all TVF operational at station congestion mode	OFF	OFF	ON	ON	ON	ON	ON	ON	OFF	OFF	OFF	OFF	ON	ON
	Failing Sequence	1	2				5			3	4				
	Restoring Sequence	5	4				1			3	2				
4	ASS2 fails ASS1 in Opration with 2 out of 4 TVF operational at station congestion mode	ON	ON	OFF	OFF	ON	ON	ON	ON	ON	ON	OFF	OFF	ON	ON
	Failing Sequence			1	2		3								
	Restoring Sequence			2	3		1								
5	ASS2 fails ASS1 in Opration with all TVF operational at station congestion mode	ON	ON	OFF	OFF	ON	ON	ON	ON	OFF	OFF	OFF	OFF	ON	ON
	Failing Sequence			1	2		5			3	4				
	Restoring Sequence			1	4		1			3	2				
6	ASS1 fails ASS2 both falls– Not in operation	OFF	OFF	OFF	OFF	ON	ON	OFF	OFF	ON	ON	ON	ON	ON	ON
	Failing Sequence	1	3	2	4		5					6	7		
	Restoring Sequence	7	5	6	4		3					2	1		

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5. ALL DOORWINDOW CILL & LINTEL LEVELS ARE MEASURED FROM MAIN FLOOR FINISHED LEVELS.

REFERENCE DRAWINGS

Drg. No.	Description

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Authorised Signatory for DDC.
JP/EW/1B/DDC01 Project Manager

Architecture
Design In-charge/ Coordinator

Structure
Design In-charge/ Coordinator

E&M
Design In-charge/ Coordinator

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ayesa Engineering. Information. Imagination.
56, Indo-Asia House, Institutional Area, sector-44
Gurgaon - 122002 (Haryana)

DELHI METRO RAIL CORPORATION LCRD.
Metro Bhawan , Fire Brigade Lane, Barakhamba Road, New Delhi-110001

PHASE 1B JAIPUR METRO PROJECT

STATION: **BADI CHOUPAR**

DRAWING TITLE: MAIN SINGLE LINE DIAGRAM

DRAWN BY :	CHECKED BY:	VERIFIED BY:
SURJEET	H.O.B	LRS

DATE:	REV:	GRAPHICAL SCALE:	STATUS:
31-03-2015	R0	NTS	FOR CRD

DRAWING NUMBER:	SHEET NO.	SHEET SIZE	ORDER N°
JP-TD-EL-11BC-1003	1 OF 1	UNE A1	P36-0017

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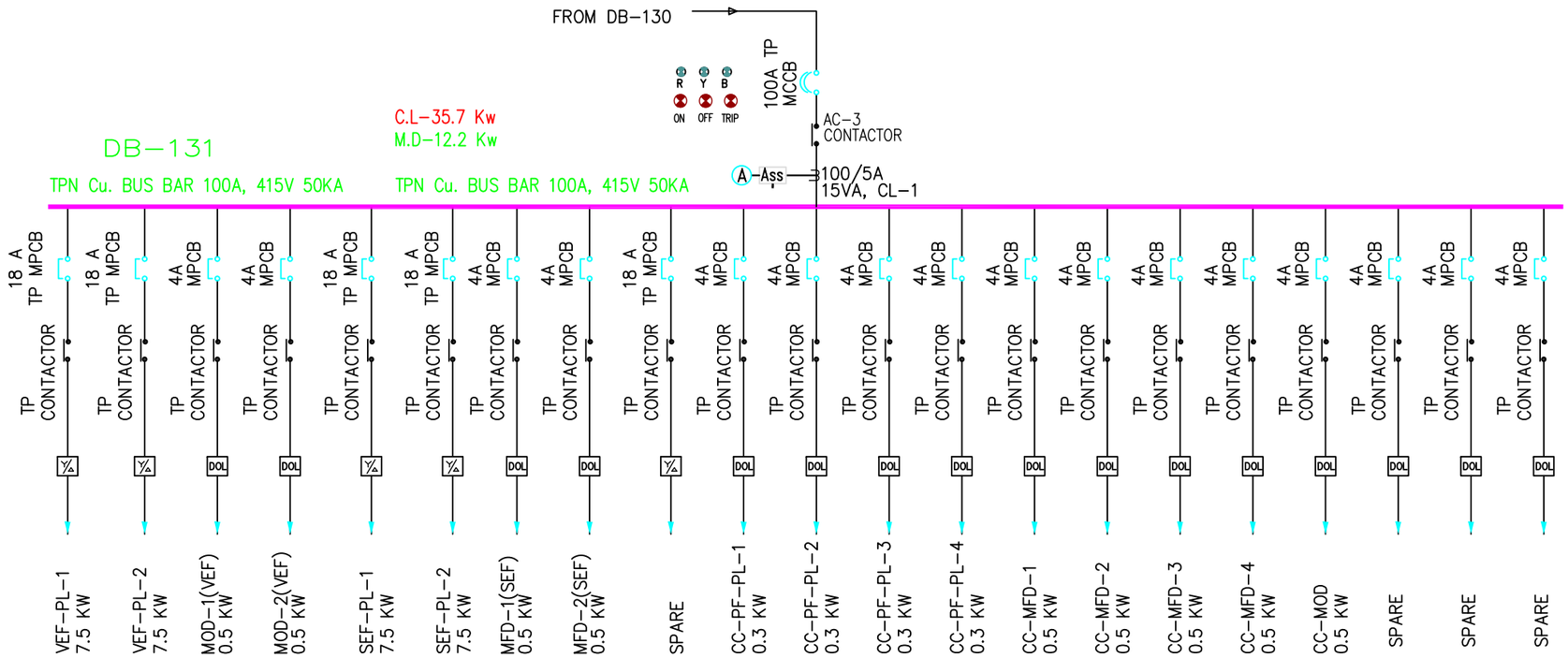

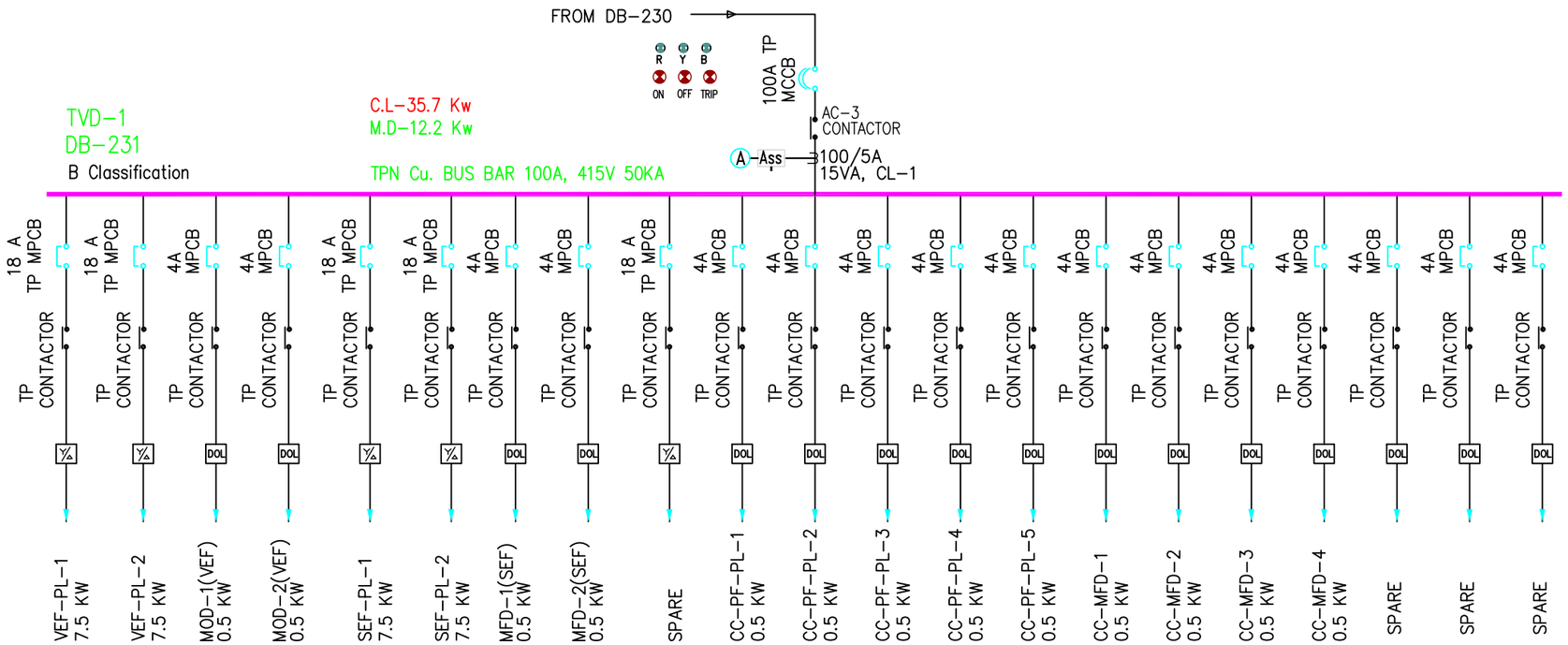

Abbreviations

- ACB – Air circuit breaker
- ATS – Automatic transfer switch
- MCCB – Molded Case Circuit Breaker
- MCB – Miniature Circuit Breaker
- TM – Thermo magnetic

Legend (AS APPLICABLE) :–

- Motorized Draw out type air circuit breaker
- Moulded case circuit breaker (MCCB)
- Miniature Circuit Breaker
- Motor Protection Circuit Breaker(MPCB)
- Control Fuse (CF)
- Current transformer
- Thermal O/L relay
- Indicating lamp
- Ammeter
- Ammeter selector switch
- Voltmeter
- Voltmeter selector switch
- MFM – Multi Functional Meter
- Draw out type air circuit breaker
- FDM – FRONT DISPLAY MODULE
- A/M – Auto / MANUAL Switch
- LR – Local / Remote Switch
- Star Delta Starter
- S.S – SOFT STARTER
- Push Button
- TNC – TNC Switch (Trip/Nutral/Close)
- TIMMER
- SPPR – SINGLE PHASE PREVENTAL RELAY
- EMERGENCY STOP
- AC-3 CONTACTOR
- TRIP CIRCUIT HEALTHY LAMP

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JP/EW/1B/DDC01 Project Manager

Architecture Design In-charge/ Coordinator | Structure Design In-charge/ Coordinator | E&M Design In-charge/ Coordinator

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ayesa Engineering. Information. Imagination.
56, Indo-Asia House, Institutional Area, sector-44
Gurgaon - 122002 (Haryana)

DELHI METRO RAIL CORPORATION LTD.
Metro Bhawan , Fire Brigade Lane, Barakhamba Road, New Delhi-110001

PHASE 1B JAIPUR METRO PROJECT

STATION: BADI CHOUPAR

DRAWING TITLE: SINGLE LINE DIAGRAM FOR ECS PANELS

DRAWN BY :	CHECKED BY:	VERIFIED BY:
SURJEET	H.O.B	LRS

DATE:	REV:	GRAPHICAL SCALE:	STATUS:
31-03-2015	R0	NTS	FOR TENDER

DRAWING NUMBER:	SHEET NO.	SHEET SIZE	ORDER N°
JP-TD-EL-11BC-1004	1 OF 7	UNE A1	P36-0017

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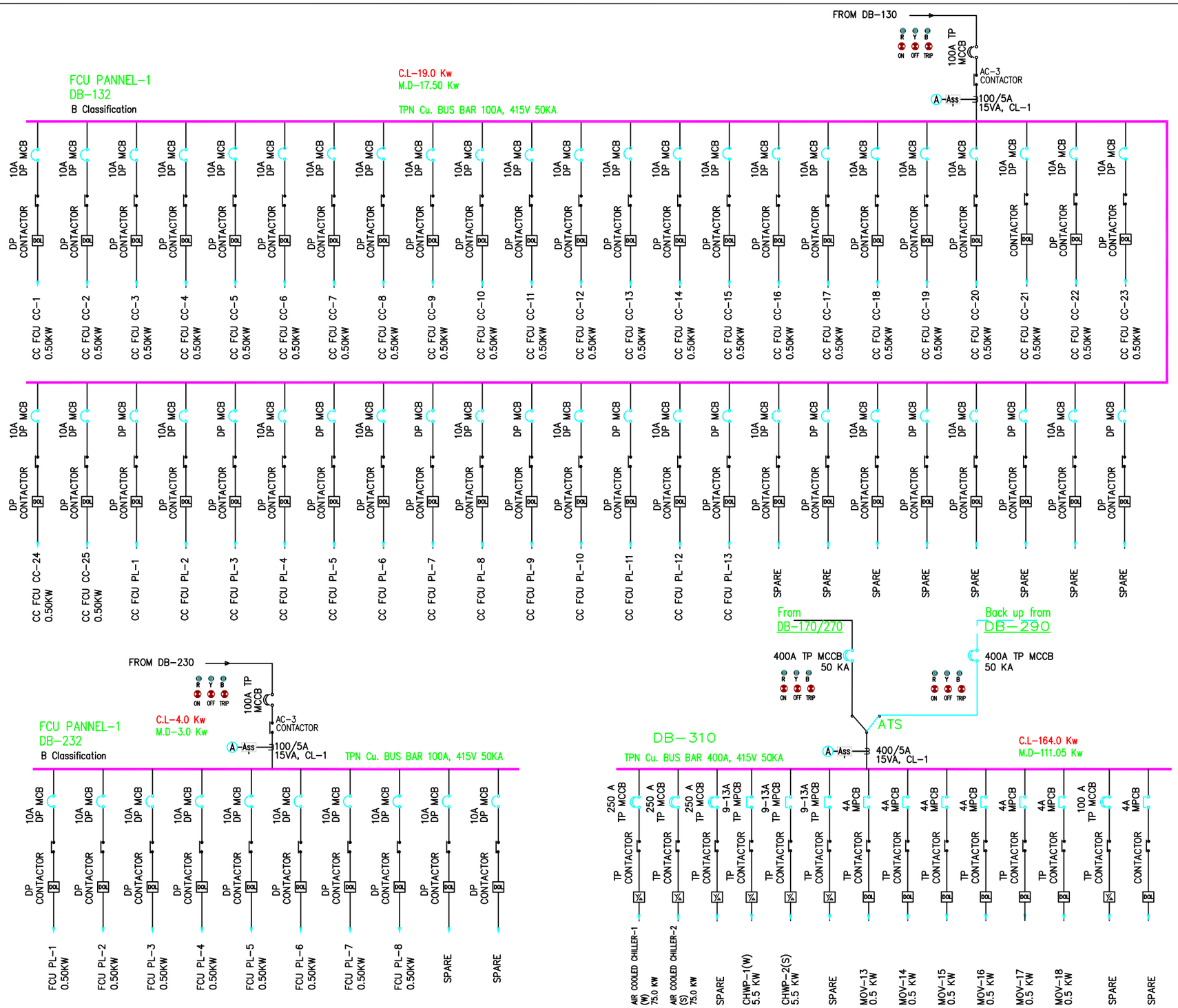

Abbreviations

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ATS – Automatic transfer switch
MCCB – Molded Case Circuit Breaker
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TM – Thermo magnetic

Legend (AS APPLICABLE) :-

- Motorized Draw out type air circuit breaker
- Moulded case circuit breaker (MCCB)
- Miniature Circuit Breaker
- Motor Protection Circuit Breaker(MPCB)
- Control Fuse (CF)
- Current transformer
- Thermal O/L relay
- Indicating lamp
- Ammeter
- Ammeter selector switch
- Voltmeter
- Voltmeter selector switch
- Multi Functional Meter
- Draw out type air circuit breaker
- FRONT DISPLAY MODULE
- Auto / MANUAL Switch
- Local / Remote Switch
- Star Delta Starter
- SOFT STARTER
- Push Button
- TNC Switch (Trip/Nutral/Close)
- TIMMER
- SINGLE PHASE PREVENTAL RELAY
- EMERGENCY STOP
- AC-3 CONTACTOR
- TRIP CIRCUIT HEALTHY LAMP

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Metro Bhawan , Fire Brigade Lane, Barakhamba Road, New Delhi-110001

PHASE 1B JAIPUR METRO PROJECT

STATION: BADI CHOUPAR

DRAWING TITLE: SINGLE LINE DIAGRAM FOR ECS PANELS

DRAWN BY :	CHECKED BY:	VERIFIED BY:
SURJEET	H.O.B	LRS

DATE:	REV:	GRAPHICAL SCALE:	STATUS:
31-03-2015	R0	NTS	FOR TENDER

DRAWING NUMBER:	SHEET NO.	SHEET SIZE	ORDER Nº
JP-TD-EL-11BC-1005	2 OF 7	UNE A1	P36-0017

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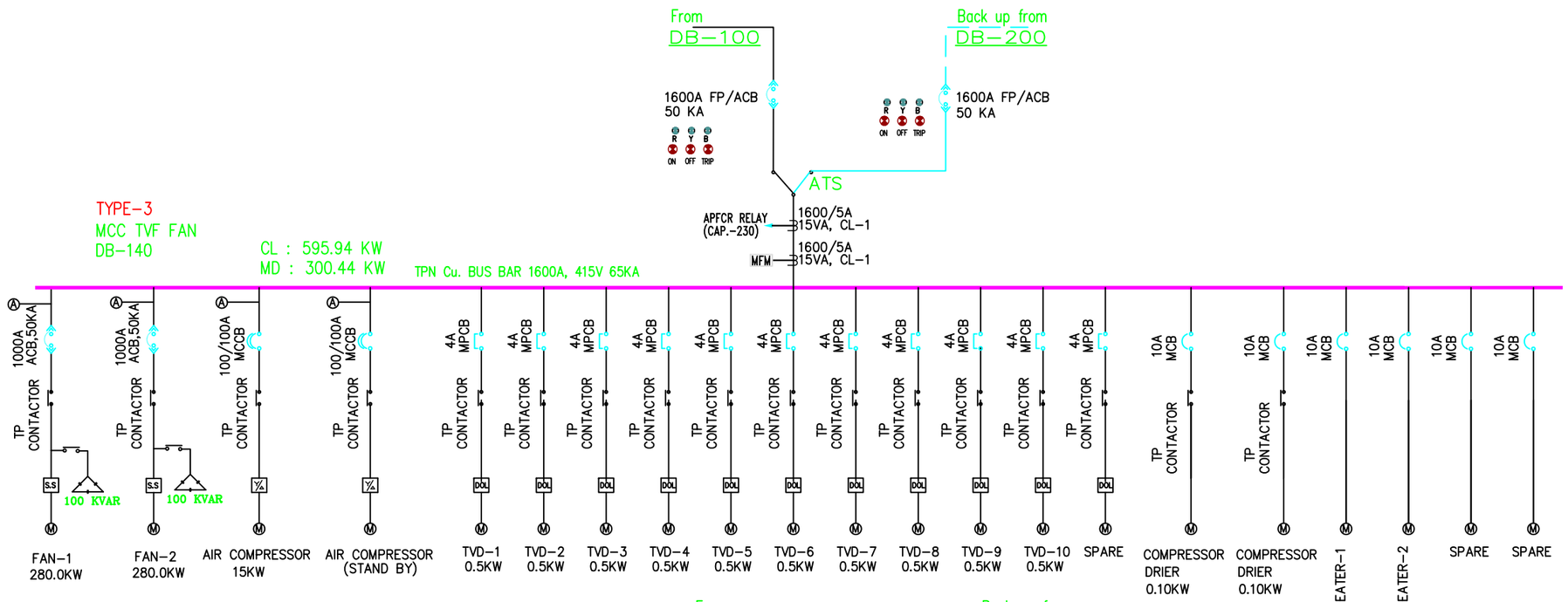

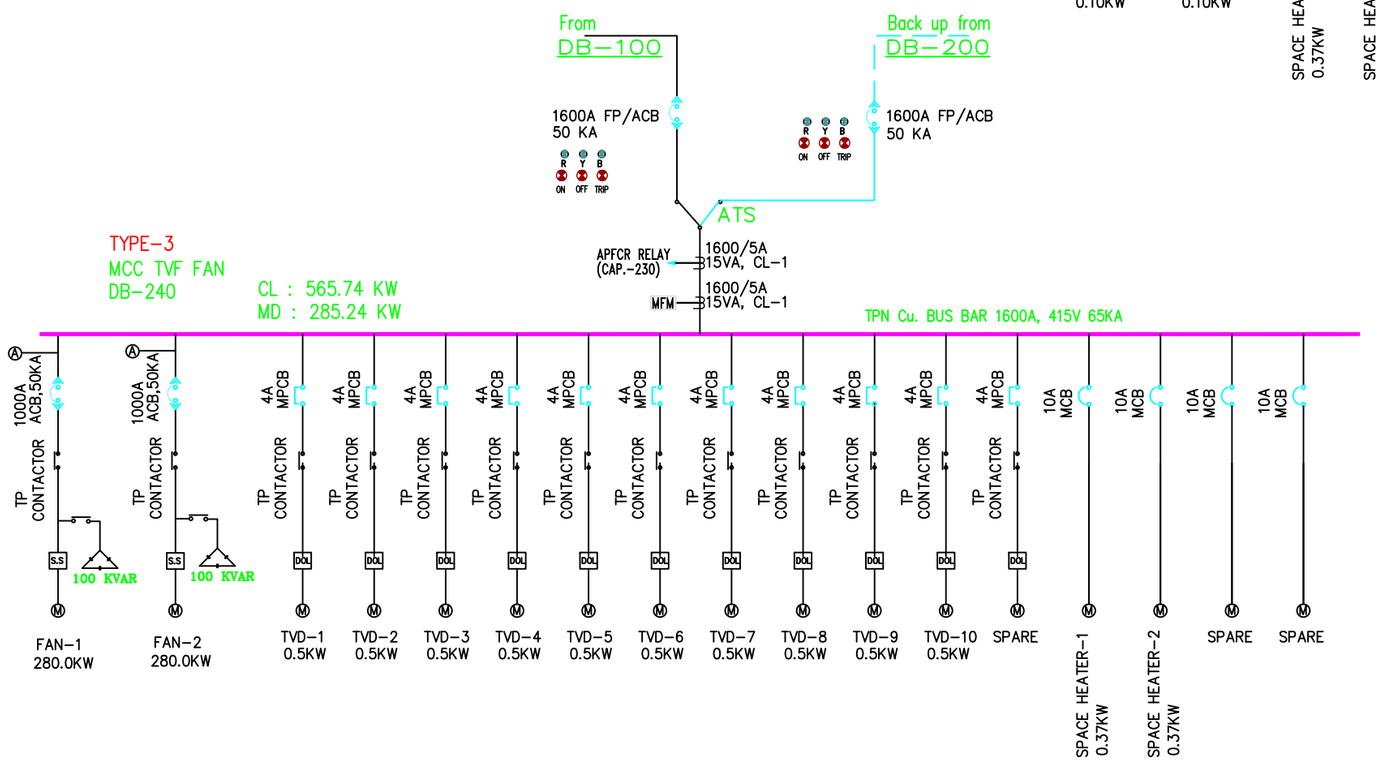

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- TIMMER
- SPPR – SINGLE PHASE PREVENTAL RELAY
- EMERGENCY STOP
- AC-3 CONTACTOR
- TRIP CIRCUIT HEALTHY LAMP

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Design In-charge/ Coordinator	Design In-charge/ Coordinator	Design In-charge/ Coordinator

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DELHI METRO RAIL CORPORATION LTD.
Metro Bhawan , Fire Brigade Lane, Barakhamba Road, New Delhi-110001

PHASE 1B JAIPUR METRO PROJECT

STATION: BADI CHOUPAR

DRAWING TITLE: SINGLE LINE DIAGRAM FOR ECS PANELS

DRAWN BY :	CHECKED BY:	VERIFIED BY:	
SURJEET	H.O.B	LRS	JP/EW/1B/DDC01
DATE: 31-03-2015	REV: R0	GRAPHICAL SCALE: NTS	STATUS: FOR TENDER
DRAWING NUMBER: JP-TD-EL-11BC-1006	SHEET NO. 3 OF 7	SHEET SIZE UNE A1	ORDER N° P36-0017

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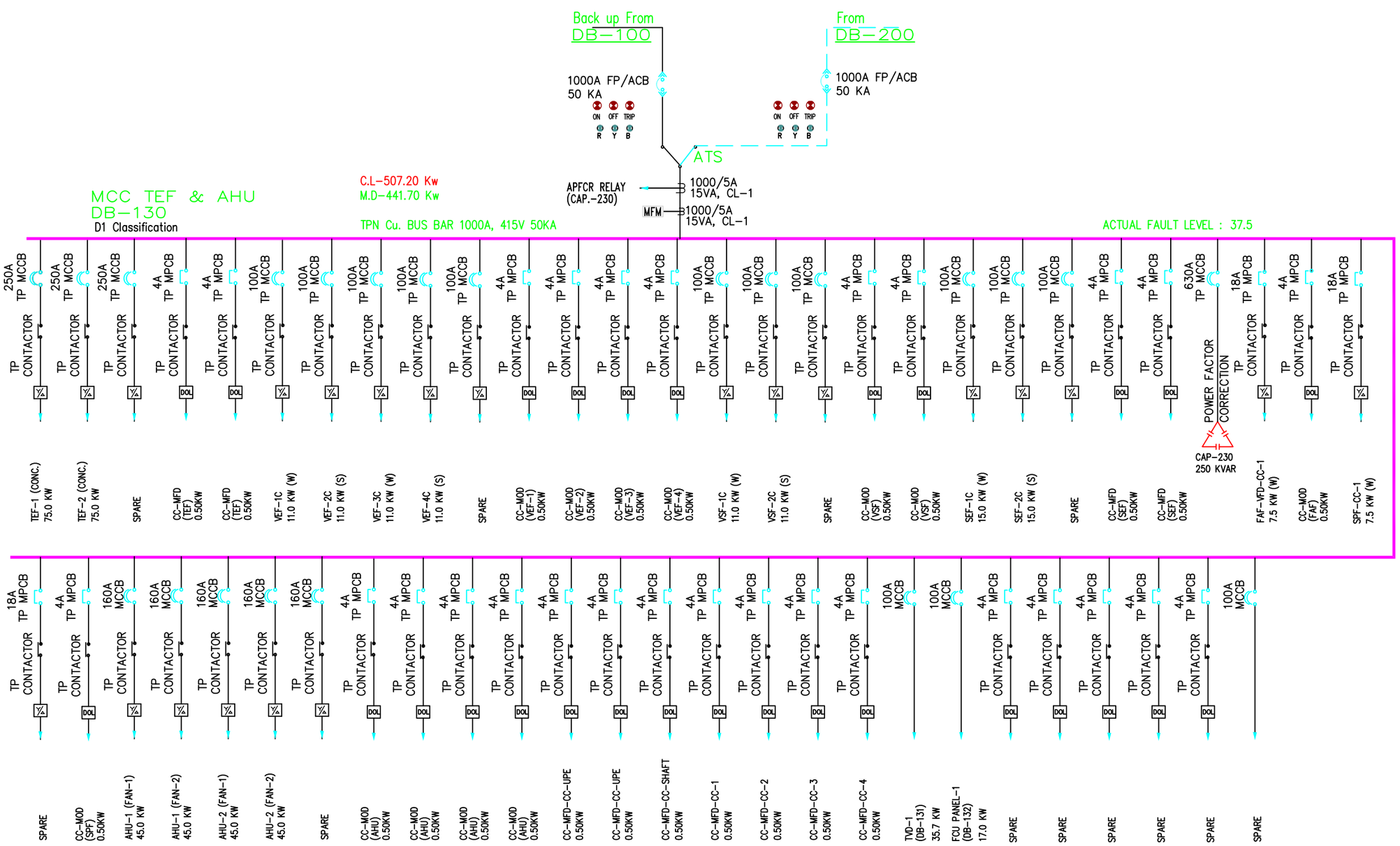

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- W TRIP CIRCUIT HEALTHY LAMP

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DELHI METRO RAIL CORPORATION LTD.
Metro Bhawan , Fire Brigade Lane, Barakhamba Road, New Delhi-110001

PHASE 1B JAIPUR METRO PROJECT

STATION: BADI CHOUPAR

DRAWING TITLE: SINGLE LINE DIAGRAM FOR ECS PANELS

DRAWN BY :	CHECKED BY:	VERIFIED BY:
SURJEET	H.O.B	LRS

DATE:	REV:	GRAPHICAL SCALE:	STATUS:
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DRAWING NUMBER:	SHEET NO.	SHEET SIZE	ORDER N°
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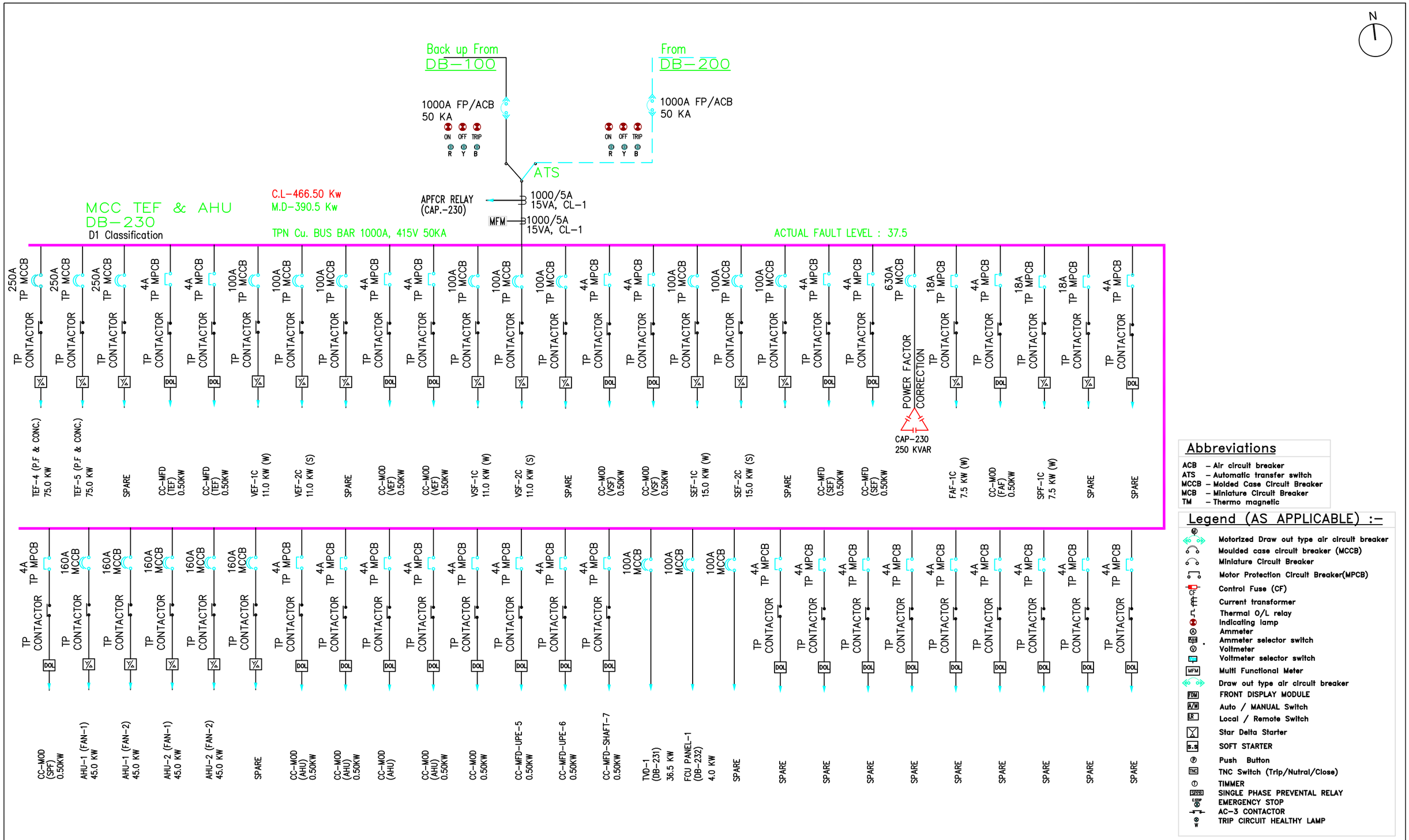
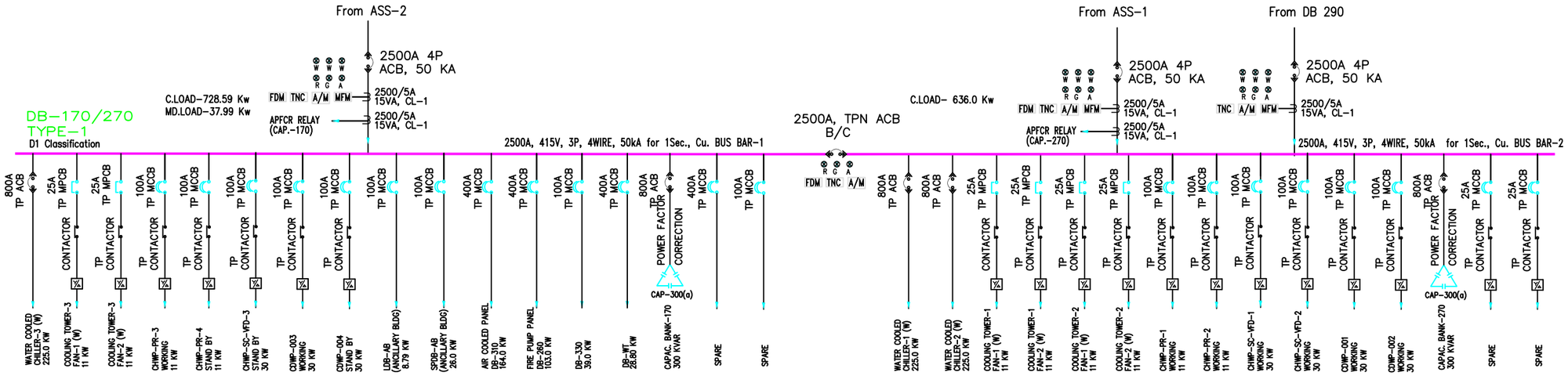
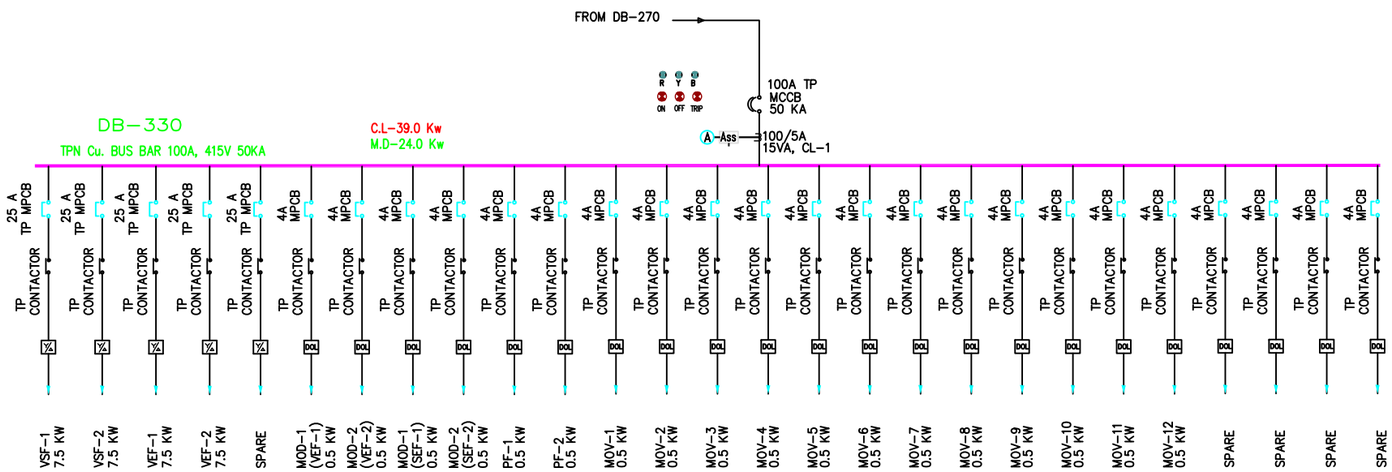

N
Back up From
DB-100
From
DB-200
1000A FP/ACB
50 KA
ON OFF TRIP
R Y B
1000A FP/ACB
50 KA
ON OFF TRIP
R Y B
ATS
APFCR RELAY
(CAP.-230)
1000/5A
15VA, CL-1
MFM
1000/5A
15VA, CL-1
MCC TEF & AHU
DB-230
D1 Classification
C.L-466.50 Kw
M.D-390.5 Kw
TPN Cu. BUS BAR 1000A, 415V 50KA
ACTUAL FAULT LEVEL : 37.5
250A TP MCCB
TP CONTACTOR
TEF-4 (P.F & CONC.) 75.0 KW
250A TP MCCB
TP CONTACTOR
TEF-5 (P.F & CONC.) 75.0 KW
250A TP MCCB
TP CONTACTOR
SPARE
4A TP MPCB
TP CONTACTOR
CC-MFD (TEF) 0.50KW
4A TP MPCB
TP CONTACTOR
CC-MFD (TEF) 0.50KW
100A TP MCCB
TP CONTACTOR
VEF-1C 11.0 KW (W)
100A TP MCCB
TP CONTACTOR
VEF-2C 11.0 KW (S)
100A TP MCCB
TP CONTACTOR
SPARE
4A TP MPCB
TP CONTACTOR
CC-MOD (VEF) 0.50KW
4A TP MPCB
TP CONTACTOR
CC-MOD (VEF) 0.50KW
100A TP MCCB
TP CONTACTOR
VSF-1C 11.0 KW (W)
100A TP MCCB
TP CONTACTOR
VSF-2C 11.0 KW (S)
100A TP MCCB
TP CONTACTOR
SPARE
4A TP MPCB
TP CONTACTOR
CC-MOD (VSF) 0.50KW
4A TP MPCB
TP CONTACTOR
CC-MOD (VSF) 0.50KW
100A TP MCCB
TP CONTACTOR
SEF-1C 15.0 KW (W)
100A TP MCCB
TP CONTACTOR
SEF-2C 15.0 KW (S)
100A TP MCCB
TP CONTACTOR
SPARE
4A TP MPCB
TP CONTACTOR
CC-MFD (SEF) 0.50KW
4A TP MPCB
TP CONTACTOR
CC-MFD (SEF) 0.50KW
630A TP MCCB
TP CONTACTOR
POWER FACTOR CORRECTION
CAP-230
250 KVAR
18A TP MPCB
TP CONTACTOR
FAF-1C 7.5 KW (W)
4A TP MPCB
TP CONTACTOR
CC-MOD (FAF) 0.50KW
18A TP MPCB
TP CONTACTOR
SPF-1C 7.5 KW (W)
18A TP MPCB
TP CONTACTOR
SPARE
4A TP MPCB
TP CONTACTOR
SPARE
4A TP MPCB
TP CONTACTOR
CC-MOD (SPF) 0.50KW
160A MCCB
TP CONTACTOR
AHU-1 (FAN-1) 45.0 KW
160A MCCB
TP CONTACTOR
AHU-1 (FAN-2) 45.0 KW
160A MCCB
TP CONTACTOR
AHU-2 (FAN-1) 45.0 KW
160A MCCB
TP CONTACTOR
AHU-2 (FAN-2) 45.0 KW
4A TP MPCB
TP CONTACTOR
SPARE
4A TP MPCB
TP CONTACTOR
CC-MOD (AHU) 0.50KW
4A TP MPCB
TP CONTACTOR
CC-MOD (AHU) 0.50KW
4A TP MPCB
TP CONTACTOR
CC-MOD (AHU)
4A TP MPCB
TP CONTACTOR
CC-MOD (AHU) 0.50KW
4A TP MPCB
TP CONTACTOR
CC-MOD 0.50KW
4A TP MPCB
TP CONTACTOR
CC-MFD-UPE-5 0.50KW
4A TP MPCB
TP CONTACTOR
CC-MFD-UPE-6 0.50KW
4A TP MPCB
TP CONTACTOR
CC-MFD-SHAFT-7 0.50KW
100A MCCB
TVD-1 (DB-231) 36.5 KW
100A MCCB
FCU PANEL-1 (DB-232) 4.0 KW
100A MCCB
SPARE
4A TP MPCB
TP CONTACTOR
SPARE
4A TP MPCB
TP CONTACTOR
SPARE
4A TP MPCB
TP CONTACTOR





Abbreviations

- ACB – Air circuit breaker
- ATS – Automatic transfer switch
- MCCB – Molded Case Circuit Breaker
- MCB – Miniature Circuit Breaker
- TM – Thermo magnetic

Legend (AS APPLICABLE) :–

- Motorized Draw out type air circuit breaker
- Moulded case circuit breaker (MCCB)
- Miniature Circuit Breaker
- Motor Protection Circuit Breaker(MPCB)
- Control Fuse (CF)
- Current transformer
- Thermal O/L relay
- Indicating lamp
- Ammeter
- Ammeter selector switch
- Voltmeter
- Voltmeter selector switch
- Multi Functional Meter
- Draw out type air circuit breaker
- FRONT DISPLAY MODULE
- Auto / MANUAL Switch
- Local / Remote Switch
- Star Delta Starter
- SOFT STARTER
- Push Button
- TNC Switch (Trip/Nutral/Close)
- TIMMER
- SINGLE PHASE PREVENTAL RELAY
- EMERGENCY STOP
- AC-3 CONTACTOR
- TRIP CIRCUIT HEALTHY LAMP

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5. ALL DOOR/WINDOW CILL & LINTEL LEVELS ARE MEASURED FROM MAIN FLOOR FINISHED LEVELS.

REFERENCE DRAWINGS

Drg. No.	Description

REVISIONS

REV	PARTICULARS	DRN.	CHD.	VER.	DATE	ISSUE DATE	REV. FOR CONSTRUCTION

APPROVAL BY DMRC

DMRC APPROVAL	MGR/ARCH	DY CA (UG)-III	CA/ARCH
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DY CSTE/AFC		ED/S&T	CSO
DY CSTE/SIGNALLING	CSTE-III	GM/O	GM/M
DY CE/PLANNING	DY CEE/E&M	DY CEE/ECS	ED/ELEC -II
DY CEE/(E)UG-TR	CGM(E) UG-TR	PM	CPM

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Authorised Signatory for DDC.
JP/EW/1B/DDC01 Project Manager

Architecture	Structure	E&M
Design In-charge/ Coordinator	Design In-charge/ Coordinator	Design In-charge/ Coordinator

DETAIL DESIGN CONSULTANT (DDC) FOR CIVIL, ARCHITECTURAL & BUILDING WORKS OF TWO UNDERGROUND STATION (CHOTI CHOUPAR & BADI CHOUPAR), SHAFT AND TUNNELS OF PHASE 1B OF JAIPUR METRO

ayesa Engineering. Information. Imagination.
56, Indo-Asia House, Institutional Area, sector-44
Gurgaon - 122002 (Haryana)

DELHI METRO RAIL CORPORATION LTD.
Metro Bhawan , Fire Brigade Lane, Barakhamba Road, New Delhi-110001

PHASE 1B JAIPUR METRO PROJECT

STATION: BADI CHOUPAR

DRAWING TITLE: SINGLE LINE DIAGRAM FOR ECS PANELS

DRAWN BY :	CHECKED BY:	VERIFIED BY:
SURJEET	H.O.B	LRS

DATE:	REV:	GRAPHICAL SCALE:	STATUS:
31-03-2015	R0	NTS	FOR TENDER

DRAWING NUMBER:	SHEET NO.	SHEET SIZE	ORDER N°
JP-TD-EL-11BC-1009	6 OF 7	UNE A1	P36-0017

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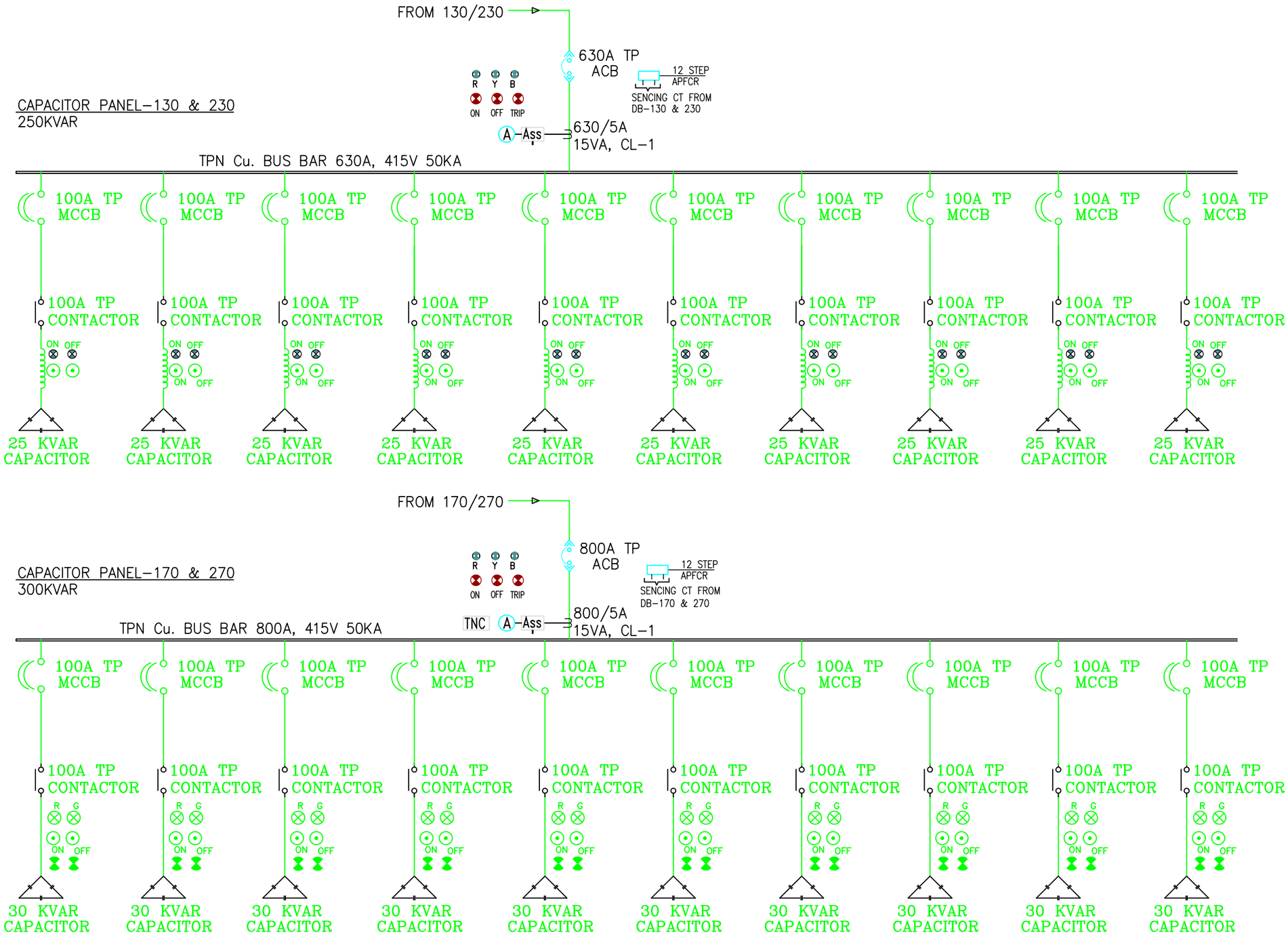

Abbreviations

ACB	– Air circuit breaker
ATS	– Automatic transfer switch
MCCB	– Molded Case Circuit Breaker
MCB	– Miniature Circuit Breaker
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Legend (AS APPLICABLE) :–

- Motorized Draw out type air circuit breaker
- Moulded case circuit breaker (MCCB)
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- Motor Protection Circuit Breaker(MPCB)
- Control Fuse (CF)
- Current transformer
- Thermal O/L relay
- Indicating lamp
- Ammeter
- Ammeter selector switch
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- Multi Functional Meter
- Draw out type air circuit breaker
- FRONT DISPLAY MODULE
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- Star Delta Starter
- SOFT STARTER
- Push Button
- TNC Switch (Trip/Nutral/Close)
- TIMMER
- SINGLE PHASE PREVENTAL RELAY
- EMERGENCY STOP
- AC-3 CONTACTOR
- TRIP CIRCUIT HEALTHY LAMP

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Drg. No.	Description

REVISIONS

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JP/EW/1B/DDC01 Project Manager

Architecture	Structure	E&M
Design In-charge/ Coordinator	Design In-charge/ Coordinator	Design In-charge/ Coordinator

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ayesa Engineering. Information. Imagination.
56, Indo-Asia House, Institutional Area, sector-44
Gurgaon - 122002 (Haryana)

DELHI METRO RAIL CORPORATION LTD.
Metro Bhawan , Fire Brigade Lane, Barakhamba Road, New Delhi-110001

PHASE 1B JAIPUR METRO PROJECT

STATION: BADI CHOUPAR

DRAWING TITLE: SINGLE LINE DIAGRAM FOR ECS PANELS

DRAWN BY :	CHECKED BY:	VERIFIED BY:
SURJEET	H.O.B	LRS

DATE:	REV:	GRAPHICAL SCALE:	STATUS:
31-03-2015	R0	NTS	FOR TENDER

DRAWING NUMBER:	SHEET NO.	SHEET SIZE	ORDER N°
JP-TD-EL-11BC-1010	7 OF 7	UNE A1	P36-0017

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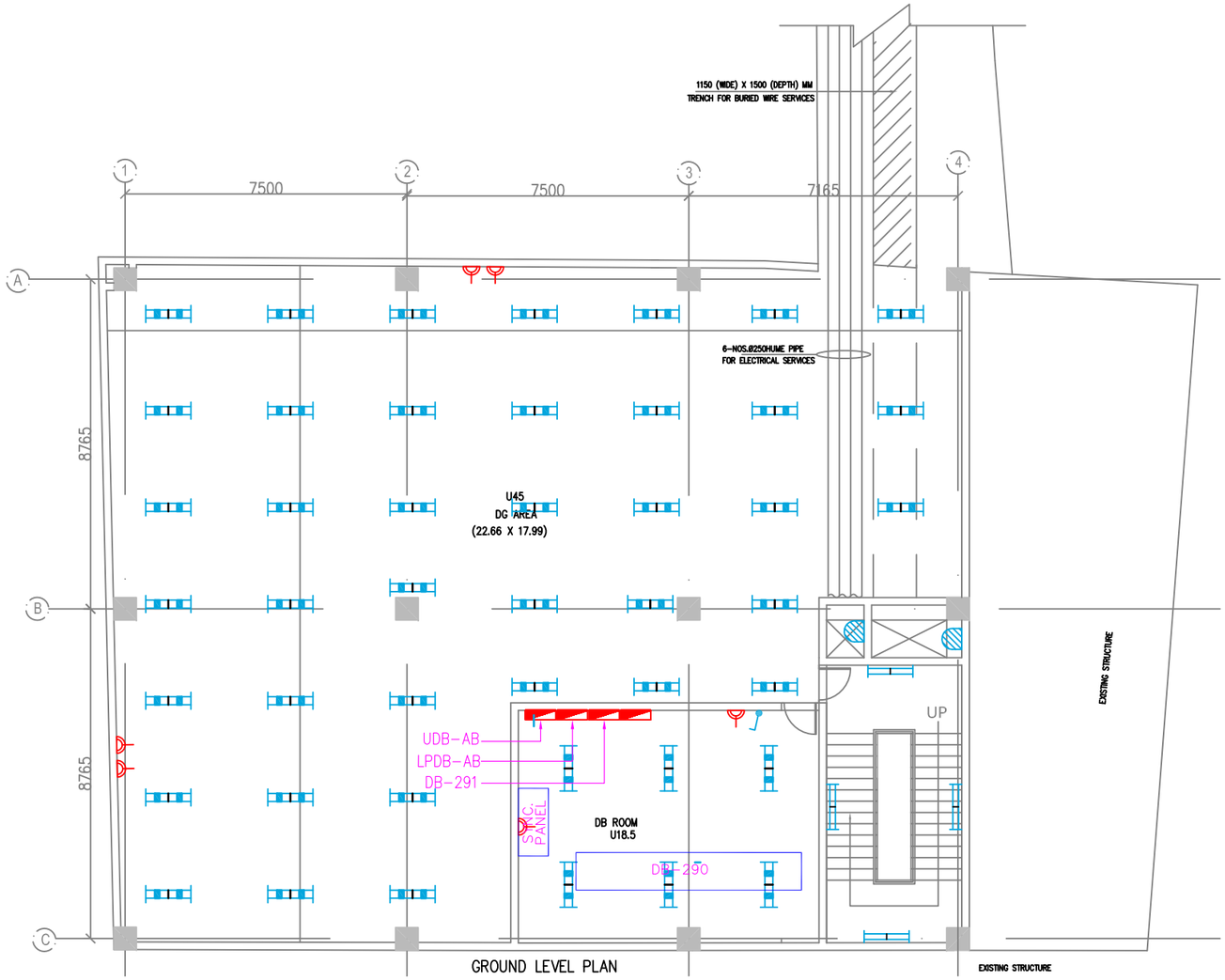


GROUND LEVEL PLAN

LEGEND: –

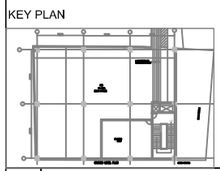
S.N.	LIGHT NAME	SYMBOL	DESCRIPTION
1	A		BASIC BATTEN LUMINARIES (SIMILAR TO PHILIPS CATALOGUE NO. TMS 122 2X28 T5 OR KESELEC CATALOG NO.RAILUX 2X28 HF) FOR 'TL'D FLUORESCENT LAMP (T5 LAMP)
2	B		BASIC BATTEN LUMINARIES (SIMILAR TO PHILIPS CATALOGUE NO. TMC 122 / 1X28 OR KESELEC CATALOG NO. RAILUX 1X28 HF) FOR 'TL'D FLUORESCENT LAMP (T5 LAMP)
3	C		BASIC BATTEN LUMINARIES (SIMILAR TO PHILIPS CATALOGUE NO. TMS 122 / 2X28W OR KESELEC CATALOG NO. INDILUX V 228 HF WITH VITREOUS ENAMELLED REFLECTOR) FOR 'TL'D FLUORESCENT LAMP (T5 LAMP)
4	E		EFFICIENT, LOW GLARE, SURELCE MOUNTED LUMINARIES (SIMILAR TO PHILIPS CATALOGUE NO. MPF 922 / 1 X 70W) WITH INTEGRAL GEAR, ELECTROCHEMICALLY BRIGHTENED AND ANODIZED HIGH PURITY ALUMINIUM REFLECTOR OF ASYMMETRICAL TYPE.
5	H	WG	BATTEN LUMINARIES (SIMILAR TO PHILIPS CATLIGUE. NO. TCW 450 /1X28 OR KESELEC CATLOG NO. RAILUX 1X28 HF) FOR 'TL'D FLUORESCENT LAMP (T5 LAMP)
6	I		RECESSED CIRCULAR DOWN LIGHT LUMINARIES (SIMILAR TO PHILIPS CATALOGUE.NO FBH 145 / 218 OR KESELEC CATALOG NO.NOVA 2X18 (G))
7	J		MIRROR OPTIC, RECESSED MOUNTED LUMINARIES (SIMILAR TO PHILIPS CATALOGUE.NO TBS 255 TCS 228 OR KESELEC CATALOG NO.PHARMA 2X28 HF)
8	K		MIRROR OPTIC RECESS MOUNTED LUMINARIES (SIMILAR TO PHILIPS CATALOGUE.NO TBS 669 / 228 D6 OR KESELEC CATALOG NO.CT LUX 2X28 HF)
9	L		MIRROR OPTIC RECESS MOUNTED LUMINARIES (SIMILAR TO PHILIPS CATALOGUE.NO TBS 669 / 128 D6 OR KESELEC CATALOG NO.CT LUX DL 1X28 HF)
10	P		BULK HEAD LUMINARIES (SIMILAR TO PHILIPS CATALOGUE NO FXC 101 OR KESELEC CATALOG NO. KBH 1X9 W) SUITABLE FOR MOUNTING ON WALL / CEILING
11	Q		2X28W FTL LAMP (T5 LAMP) PREWIRED UPTO A TERMINAL BOX WITH LAMP. HAVING IP 65 (SIMILAR TO PHILIPS CATALOGUE NO. TCW 097 \ 2X28W D6 HF OR KESELEC ZUMTOBEL MAKE FZ 2X28W HF) AND SUPPLIED WITH 2 NOS 28W TUBULAR FLUORESCENT LAMP (T5 LAMP).
11	P1		32A 3 PHASE 5PIN INDUSTRIAL SOCKET OUTLET(IP65)
12	P2		16A 1 PHASE 3PIN INDUSTRIAL SOCKET OUTLET(IP54)
13	P4		6/16A 1 PHASE 6PIN MODULAR TYPE SOCKET OUTLET
14	AD		ADVT. POINT
15	EM		6/16A 1 PHASE 6PIN MODULAR TYPE SOCKET OUTLET
16	–		DISTRIBUTION BOARD

ROOM SCHEDULE

SR. NO	ROOM SCHEDULE	ROOM NAME	DIMENSION (MT) L X B	AREA (SQM.)
1	U 45	DG AREA	22.66 X 17.99	315.40*
1	U 18.5	DB ROOM	8.00 X 6.18	49.44

*AREA AS PER PLINE

KEY PLAN



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REFERENCE DRAWINGS

Drg. No.	Description

REVISIONS

REV	PARTICULARS	DRN.	CHD.	VER.	DATE	ISSUE DATE	REV. FOR CONSTRUCTION

APPROVAL BY DMRC

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DY CSTE/SIGNALLING	CSTE-III	GM/O	GM/M
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DY CEE/(E)UG-TR	CGM(E) UG-TR	PM	CPM

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JP/EW/1B/DDC01 Project Manager

Architecture
Design In-charge/ Coordinator

Structure
Design In-charge/ Coordinator

E&M
Design In-charge/ Coordinator

DETAIL DESIGN CONSULTANT (DDC) FOR CIVIL, ARCHITECTURAL & BUILDING WORKS OF TWO UNDERGROUND STATION (CHOTI CHOUPAR & BADI CHOUPAR), SHAFT AND TUNNELS OF PHASE 1B OF JAIPUR METRO

ayesa Engineering. Information. Imagination.
56, Indo-Asia House, Institutional Area, sector-44
Gurgaon - 122002 (Haryana)

DELHI METRO RAIL CORPORATION LTD.
Metro Bhawan , Fire Brigade Lane, Barakhamba Road, New Delhi-110001

PHASE 1B JAIPUR METRO PROJECT

STATION: **BADI CHOUPAR**

DRAWING TITLE: ELECTRICA LAYOUT ANCILLARY BUILDING GROUND LEVEL

DRAWN BY:	CHECKED BY:	VERIFIED BY:
SURJEET	H.O.B	L.R.S

DATE:	REV:	GRAPHICAL SCALE:	STATUS:
31-03-2015	R0	1:75	FOR TENDER

DRAWING NUMBER:	SHEET NO.	SHEET SIZE	ORDER N°
JP-TD-EL-11BC-1201	1 OF 2	UNE A1	P36-0017

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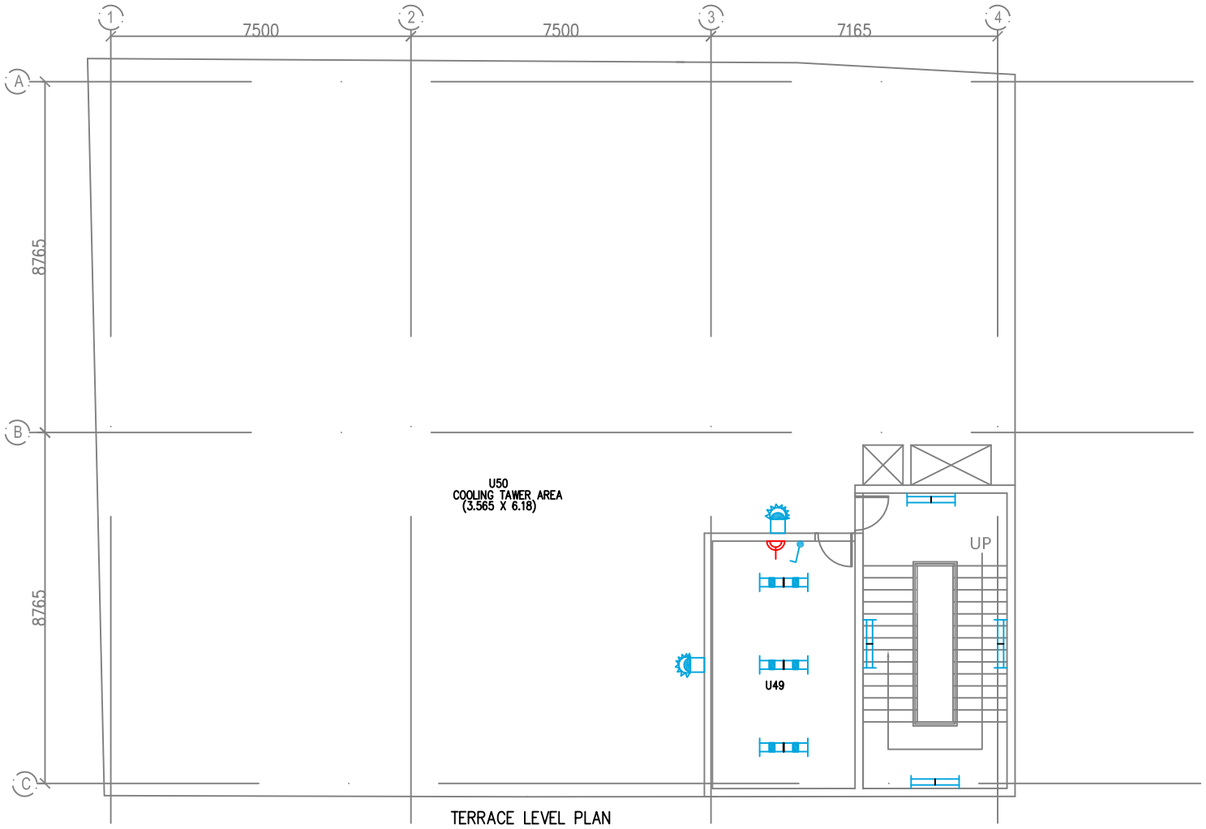

TERRACE LEVEL PLAN

LEGEND: –

S.N.	LIGHT NAME	SYMBOL	DESCRIPTION
1	A		BASIC BATTEN LUMINARIES (SIMILAR TO PHILIPS CATALOGUE NO. TMS 122 2X28 T5 OR KESELEC CATALOG NO.RAILUX 2X28 HF) FOR "TL'D FLUORESCENT LAMP (T5 LAMP)
2	B		BASIC BATTEN LUMINARIES (SIMILAR TO PHILIPS CATALOGUE NO. TMC 122 / 1X28 OR KESELEC CATALOG NO RAILUX 1X28 HF) FOR "TL'D FLUORESCENT LAMP (T5 LAMP)
3	C		BASIC BATTEN LUMINARIES (SIMILAR TO PHILIPS CATALOGUE NO. TMS 122 / 2X28W OR KESELEC CATALOG NO. INDILUX V 228 HF WITH VITREOUS ENAMELLED REFLECTOR) FOR "TL'D FLUORESCENT LAMP (T5 LAMP)
4	E		EFFICIENT, LOW GLARE, SURELCE MOUNTED LUMINARIES (SIMILAR TO PHILIPS CATALOGUE NO. MPF 922 / 1 X 70W) WITH INTEGRAL GEAR, ELECTROCHEMICALLY BRIGHTENED AND ANODIZED HIGH PURITY ALUMINIUM REFLECTOR OF ASYMMETRICAL TYPE.
5	H	WG	BATTEN LUMINARIES (SIMILAR TO PHILIPS CATLIGUE. NO. TCW 450 /1X28 OR KESELEC CATLOG NO. RAILUX 1X28 HF) FOR "TL'D FLUORESCENT LAMP (T5 LAMP)
6	I		RECESSED CIRCULAR DOWN LIGHT LUMINARIES (SIMILAR TO PHILIPS CATALOGUE.NO FBH 145 / 218 OR KESELEC CATALOG NO.NOVA 2X18 (G))
7	J		MIRROR OPTIC, RECESSED MOUNTED LUMINARIES (SIMILAR TO PHILIPS CATALOGUE.NO TBS 255 TCS 228 OR KESELEC CATALOG NO.PHARMA 2X28 HF)
8	K		MIRROR OPTIC RECESS MOUNTED LUMINARIES (SIMILAR TO PHILIPS CATALOGUE.NO TBS 669 / 228 D6 OR KESELEC CATALOG NO.CT LUX 2X28 HF)
9	L		MIRROR OPTIC RECESS MOUNTED LUMINARIES (SIMILAR TO PHILIPS CATALOGUE.NO TBS 669 / 128 D6 OR KESELEC CATALOG NO.CT LUX DL 1X28 HF)
10	P		BULK HEAD LUMINARIES (SIMILAR TO PHILIPS CATALOGUE NO FXC 101 OR KESELEC CATALOG NO. KBH 1X9 W) SUITABLE FOR MOUNTING ON WALL / CEILING
11	Q		2X28W FTL LAMP (T5 LAMP) PREWIRED UPTO A TERMINAL BOX WITH LAMP. HAVING IP 65 (SIMILAR TO PHILIPS CATALOGUE NO. TCW 097 \ 2X28W D6 HF OR KESELEC ZUMTOBEL MAKE FZ 2X28W HF) AND SUPPLIED WITH 2 NOS 28W TUBULAR FLUORESCENT LAMP (T5 LAMP).
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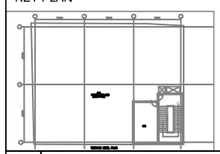
14	AD		ADVT. POINT
15	EM		6/16A 1 PHASE 6PIN MODULAR TYPE SOCKET OUTLET
16	–		DISTRIBUTION BOARD

ROOM SCHEDULE

SR. NO	ROOM SCHEDULE	ROOM NAME	DIMENSION (MT) L X B	AREA (SQM.)
1	U 49	CHEMICAL DOSING ROOM	22.66 X 17.99	315.40*
2	U 50	COOLING TOWER AREA	3.565 X 6.18	22.03

*AREA AS PER PLINE

KEY PLAN



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DY CSTE/SIGNALLING	CSTE-III	GM/O	GM/M
DY CE/PLANNING	DY CEE/E&M	DY CEE/ECS	ED/ELEC -II
DY CEE/(E)UG-TR	CGM(E) UG-TR	PM	CPM

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JP/EW/1B/DDC01 Project Manager

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Metro Bhawan , Fire Brigade Lane, Barakhamba Road, New Delhi-110001

PHASE 1B JAIPUR METRO PROJECT

STATION: **BADI CHOUPAR**

DRAWING TITLE: ELECTRICA LAYOUT ANCILLARY BUILDING TERRACE LEVEL

DRAWN BY:	CHECKED BY:	VERIFIED BY:
SURJEET	H.O.B	L.R.S

DATE:	REV:	GRAPHICAL SCALE:	STATUS:
31-03-2015	R0	1:75	FOR TENDER

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JP-TD-EL-11BC-1202	2 OF 2	UNE A1	P36-0017

JP/EW/1B/DDC01 ELECTRICAL

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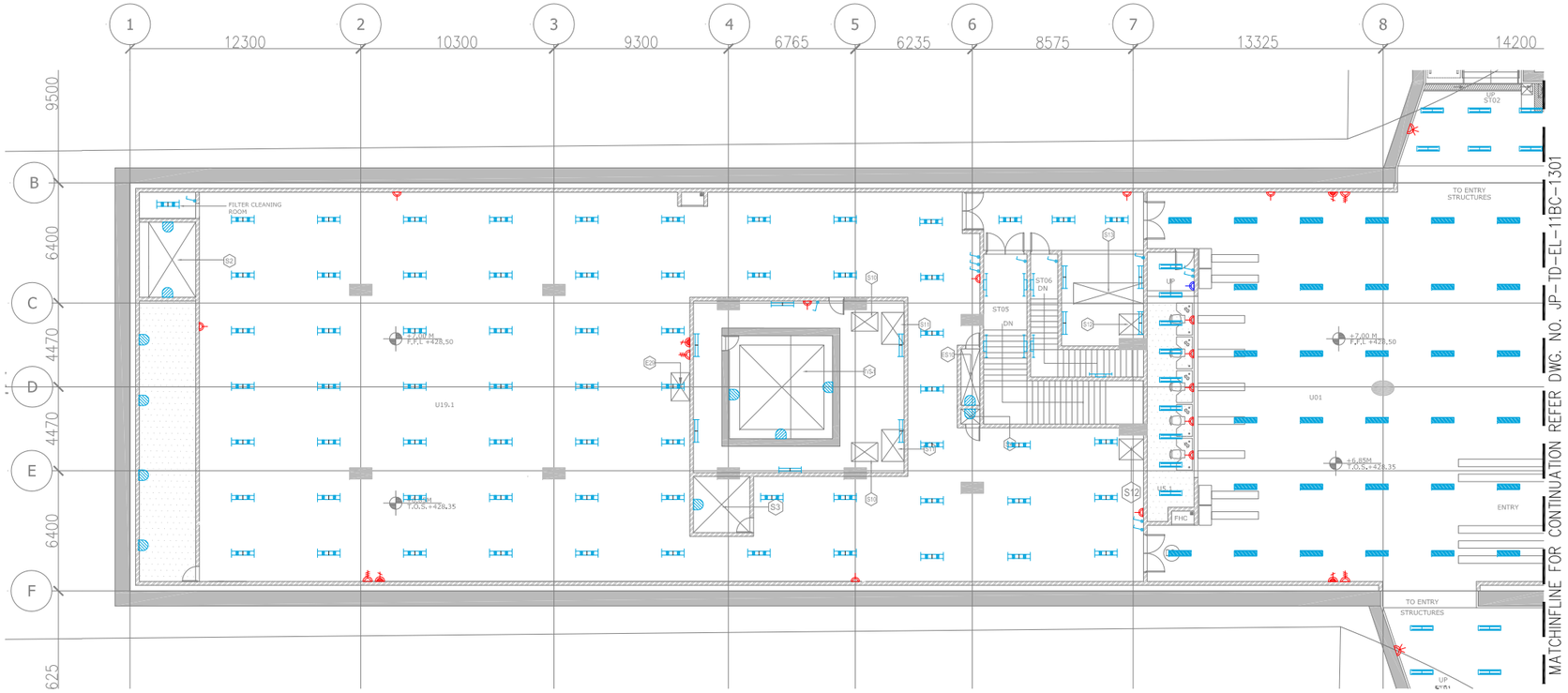

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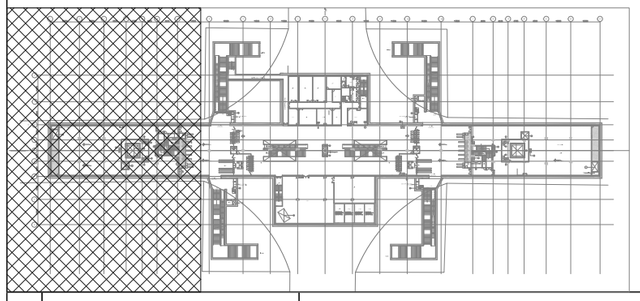
KEY PLAN



ROOM SCHEDULE				
S.NO.	ROOM SCHEDULE	ROOM NAME	DIMENSION (Mt.) (LxW)	AREA (Sqm.)
1	U01	UNPAID AREA		1230.80*
2	U02	PAID AREA		1210.73*
3	U03	STATION CONTROL ROOM (SCR)	7.200 x 7.060	50.83
4	U04	STATION MANAGER ROOM (SMR)	4.300 x 7.060	29.46*
5	U05.1	TICKET OFFICE (TOM)	2.500 x 14.35	34.76*
6	U05.2	TICKET OFFICE (TOM)	2.500 x 14.35	34.46*
7	U07.1	EXCESS FARE OFFICE (EFO)	2.500 x 3.000	7.50
8	U07.2	EXCESS FARE OFFICE (EFO)	2.500 x 3.000	7.50
9	U09	SECURITY ROOM 1	3.500 x 7.060	24.71
10	U10	STATION STORE ROOM	3.50 x 5.26	18.40
11	U12	JANITOR ROOM	1.700 x 2000	3.40
12	U14	STAFF TOILET	1.700 x 2.500	4.24
13	U15.1(M)	PUBLIC TOILETS (Male)	5.850 x 4.700	25.36
14	U15.2(F)	PUBLIC TOILETS (Female)	4.100 x 5.835	23.47
15	U16	MESS ROOM	6.100 x 5.280	32.20
16	U18.1	DB ROOM	8.100 x 7.060	53.64*
17	U18.2	DB ROOM	6.500 x 7.060	44.80*
18	U19.1	ECS PLANT ROOM (ECS)	53.525 x 20.740	930.00*
19	U19.2	ECS PLANT ROOM (ECS)	53.525 x 20.740	930.00*
20	U22	SIGNALLING EQUIPMENT ROOM (SER)	5.565 x 10.740	59.76
21	U23	TELECOM EQUIPMENT ROOM (TER)	4.335 x 10.740	46.14*
22	U24	UPS ROOM for S&T	5.500 x 10.740	59.06
23	U 42.1	TREATED WATER TANK	5.000 x 4.500	22.50
24	U 42.2	RAIN WATER TANK	5.000 x 4.500	22.50
25	U 42.3	FIRE TANKS	5.000 x 4.500	22.50
26	U 42.4	FIRE TANKS	5.000 x 4.500	22.50
27	U46	HANDICAP TOILET	1.750 x 2.250	3.95
28	U43	PUMP ROOM	8.100 x 7.060	53.64*
29	U48	CHILLER ROOM	24.45 X 19.975	446.50*

ELECTRICAL AND S&T SCHEDULE				
CUT OUT NUMBER	PURPOSE	SIZE (M)	AREA(Sq.M)	CUTOUT POSITION
ES10	ELECTRICAL SHAFT & CUTOUT- 2NOS	1.00X3.00	3.00	FLOOR
E25	ELECTRICAL SHAFT	1.00X0.50	0.50	FLOOR
E26	ELECTRICAL SHAFT	1.20X0.50	0.60	FLOOR
E28	ELECTRICAL SHAFT	1.00X0.50	0.50	FLOOR
E29	TVS ELECTRICAL CUT OUT	1.00X1.50	1.50	FLOOR
S6	S & T SHAFT & CUT OUT	1.90X0.63	1.20	FLOOR

LEGEND:-

S.N.	LIGHT NAME	SYMBOL	DESCRIPTION
1	A		BASIC BATTEN LUMINARIES (SIMILAR TO PHILIPS CATALOGUE NO. TMS 122 2X28 T5 OR KESELEC CATALOG NO:RAILUX 2X28 HF) FOR "TL'D FLUORESCENT LAMP (T5 LAMP)
2	B		BASIC BATTEN LUMINARIES (SIMILAR TO PHILIPS CATALOGUE NO. TMC 122 / 1X28 OR KESELEC CATALOG NO RAILUX 1X28 HF) FOR "TL'D FLUORESCENT LAMP (T5 LAMP)
3	C		BASIC BATTEN LUMINARIES (SIMILAR TO PHILIPS CATALOGUE NO. TMS 122 / 2X28W OR KESELEC CATALOG NO. INDILUX V 228 HF WITH VITREOUS ENAMELLED REFLECTOR) FOR "TL'D FLUORESCENT LAMP (T5 LAMP).
4	E		EFFICIENT, LOW GLARE, SURELCE MOUNTED LUMINARIES (SIMILAR TO PHILIPS CATALOGUE NO. MPF 922 / 1 X 70W) WITH INTEGRAL GEAR, ELECTROCHEMICALLY BRIGHTENED AND ANODIZED HIGH PURITY ALUMINIUM REFLECTOR OF ASYMMETRICAL TYPE.
5	H	WG	BATTEN LUMINARIES (SIMILAR TO PHILIPS CATLIGUE. NO. TCW 450 /1X28 OR KESELEC CATLOG NO. RAILUX 1X28 HF) FOR "TL'D FLUORESCENT LAMP (T5 LAMP)
6	I		RECESSED CIRCULAR DOWN LIGHT LUMINARIES (SIMILAR TO PHILIPS CATALOGUE.NO FBH 145 / 218 OR KESELEC CATALOG NO.NOVA 2X18 (G))
7	J		MIRROR OPTIC, RECESSED MOUNTED LUMINARIES (SIMILAR TO PHILIPS CATALOGUE.NO TBS 255 TCS 228 OR KESELEC CATALOG NO.PHARMA 2X28 HF)
8	K		MIRROR OPTIC RECESS MOUNTED LUMINARIES (SIMILAR TO PHILIPS CATALOGUE.NO TBS 669 / 228 D6 OR KESELEC CATALOG NO.CT LUX 2X28 HF)
9	L		MIRROR OPTIC RECESS MOUNTED LUMINARIES (SIMILAR TO PHILIPS CATALOGUE.NO TBS 669 / 128 D6 OR KESELEC CATALOG NO.CT LUX DL 1X28 HF)
10	P		BULK HEAD LUMINARIES (SIMILAR TO PHILIPS CATALOGUE NO FXC 101 OR KESELEC CATALOG NO. KBH 1X9 W) SUITABLE FOR MOUNTING ON WALL / CEILING
11	Q		2X28W FTL LAMP (T5 LAMP) PREWIRED UPTO A TERMINAL BOX WITH LAMP, HAVING IP 65 (SIMILAR TO PHILIPS CATALOGUE NO. TCW 097 \ 2X28W D6 HF OR KESELEC ZUMTOBEL MAKE FZ 2X28W HF) AND SUPPLIED WITH 2 NOS 28W TUBULAR FLUORESCENT LAMP (T5 LAMP).
11	P1		32A 3 PHASE 5PIN INDUSTRIAL SOCKET OUTLET(IP65)
12	P2		16A 1 PHASE 3PIN INDUSTRIAL SOCKET OUTLET(IP54)
13	P4		6/16A 1 PHASE 6PIN MODULAR TYPE SOCKET OUTLET
14	AD		ADVT. POINT
15	EM		6/16A 1 PHASE 6PIN MODULAR TYPE SOCKET OUTLET
16	–		DISTRIBUTION BOARD

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5. ALL DOOR/WINDOW CILL & LINTEL LEVELS ARE MEASURED FROM MAIN FLOOR FINISHED LEVELS.

REFERENCE DRAWINGS

Drg. No.	Description

REVISIONS

REV	PARTICULARS	DRN.	CHD.	VER.	DATE	ISSUE DATE	REV. FOR CONSTRUCTION

APPROVAL BY DMRC

DMRC APPROVAL	MGR/ARCH	DY CA (UG)-III	CA/ARCH
DY CSTE/TELECOM	CSTE-I	DY CE/DESIGN	CE/TECH
DY CSTE/AFC		ED/S&T	CSO
DY CSTE/SIGNALLING	CSTE-III	GM/O	GM/M
DY CE/PLANNING	DY CEE/E&M	DY CEE/ECS	ED/ELEC -II
DY CEE/(E)UG-TR	CGM(E) UG-TR	PM	CPM

Certified that this document has been designed and checked in accordance with DDC Quality Assurance Plan.

Authorised Signatory for DDC.
JP/EW/1B/DDC01 Project Manager

Architecture
Design In-charge/ Coordinator

Structure
Design In-charge/ Coordinator

E&M
Design In-charge/ Coordinator

DETAIL DESIGN CONSULTANT (DDC) FOR CIVIL, ARCHITECTURAL & BUILDING WORKS OF TWO UNDERGROUND STATION (CHOTI CHOUPAR & BADI CHOUPAR), SHAFT AND TUNNELS OF PHASE 1B OF JAIPUR METRO

ayesa Engineering. Information. Imagination.
56, Indo-Asia House, Institutional Area, sector-44
Gurgaon - 122002 (Haryana)

DELHI METRO RAIL CORPORATION LTD.
Metro Bhawan , Fire Brigade Lane, Barakhamba Road, New Delhi-110001

PHASE 1B JAIPUR METRO PROJECT

STATION: BADI CHOUPAR

DRAWING TITLE: LIGHTING LAYOUT CONCOURSE LEVEL

DRAWN BY :	CHECKED BY:	VERIFIED BY:
SURJEET	H.O.B.	LRS

DATE:	REV:	GRAPHICAL SCALE:	STATUS:
31-03-2015	R0	1:150	FOR TENDER

DRAWING NUMBER:	SHEET NO.	SHEET SIZE	ORDER N°
JP-TD-EL-11BC-1301	1 OF 4	UNE A1	P36-0017

JP/EW/1B/DDC01 ELECTRICAL

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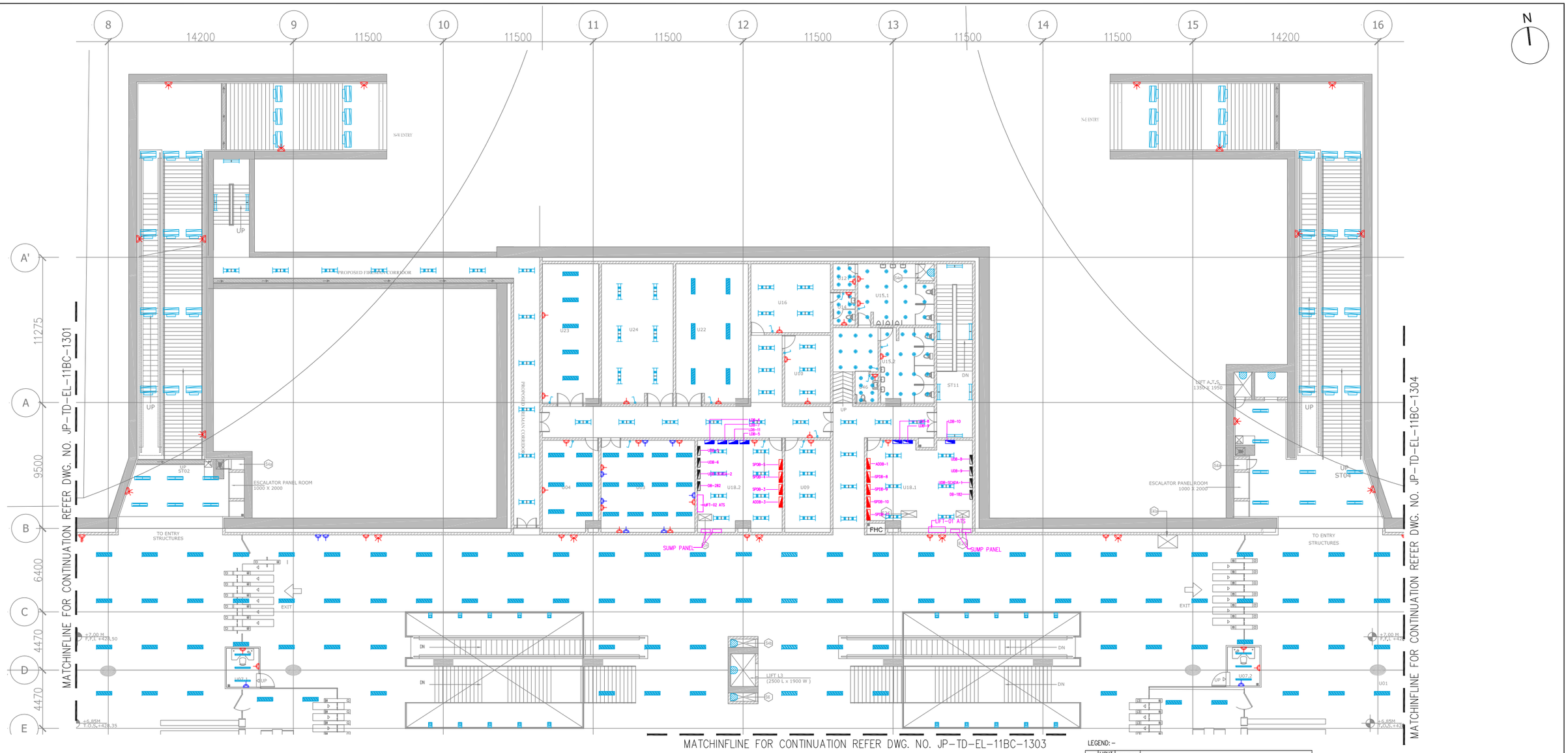
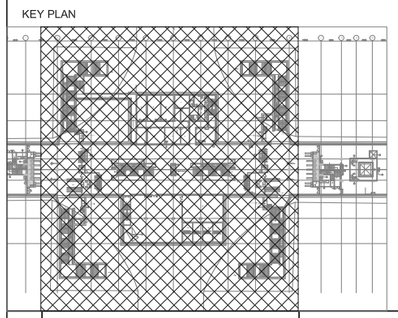


KEY PLAN



ROOM SCHEDULE				
S.NO.	ROOM SCHEDULE	ROOM NAME	DIMENSION (ML) (LxW)	AREA (Sqm.)
1	U01	UNPAID AREA		1230.80*
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8	U07.2	EXCESS FARE OFFICE (EFO)	2.500 x 3.000	7.50
9	U09	SECURITY ROOM 1	3.500 x 7.060	24.71
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22	U24	UPS ROOM for S&T	5.500 x 10.740	59.06
23	U 42.1	TREATED WATER TANK	5.000 x 4.500	22.50
24	U 42.2	RAIN WATER TANK	5.000 x 4.500	22.50
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29	U48	CHILLER ROOM	24.45 X 19.975	446.50*

ELECTRICAL AND S&T SCHEDULE				
CUT OUT NUMBER	PURPOSE	SIZE (M)	AREA(Sq.M)	CUTOUT POSITION
ES10	ELECTRICAL SHAFT & CUTOUT- 2NOS	1.00X3.00	3.00	FLOOR
E25	ELECTRICAL SHAFT	1.00X0.50	0.50	FLOOR
E26	ELECTRICAL SHAFT	1.20X0.50	0.60	FLOOR
E28	ELECTRICAL SHAFT	1.00X0.50	0.50	FLOOR
E29	TVS ELECTRICAL CUT OUT	1.00X1.50	1.50	FLOOR
S6	S & T SHAFT & CUT OUT	1.90X0.63	1.20	FLOOR

LEGEND:-

S.N.	LIGHT NAME	SYMBOL	DESCRIPTION
1	A		BASIC BATTEN LUMINARIES (SIMILAR TO PHILIPS CATALOGUE NO. TMS 122 2X28 T5 OR KESELEC CATALOG NO.RAILUX 2X28 HF) FOR "TL'D FLUORESCENT LAMP (T5 LAMP)
2	B		BASIC BATTEN LUMINARIES (SIMILAR TO PHILIPS CATALOGUE NO. TMC 122 / 1X28 OR KESELEC CATALOG NO RAILUX 1X28 HF) FOR "TL'D FLUORESCENT LAMP (T5 LAMP)
3	C		BASIC BATTEN LUMINARIES (SIMILAR TO PHILIPS CATALOGUE NO. TMS 122 / 2X28W OR KESELEC CATALOG NO. INDILUX V 228 HF WITH VITREOUS ENAMELLED REFLECTOR) FOR "TL'D FLUORESCENT LAMP (T5 LAMP)
4	E		EFFICIENT, LOW GLARE, SURELCE MOUNTED LUMINARIES (SIMILAR TO PHILIPS CATALOGUE NO. MPF 922 / 1 X 70W) WITH INTEGRAL GEAR, ELECTROCHEMICALLY BRIGHTENED AND ANODIZED HIGH PURITY ALUMINIUM REFLECTOR OF ASYMMETRICAL TYPE.
5	H	WG	BATTEN LUMINARIES (SIMILAR TO PHILIPS CATLIGUE. NO. TCW 450 /1X28 OR KESELEC CATLOG NO. RAILUX 1X28 HF) FOR "TL'D FLUORESCENT LAMP (T5 LAMP)
6	I		RECESSED CIRCULAR DOWN LIGHT LUMINARIES (SIMILAR TO PHILIPS CATALOGUE.NO FBH 145 / 218 OR KESELEC CATALOG NO.NOVA 2X18 (G))
7	J		MIRROR OPTIC, RECESSED MOUNTED LUMINARIES (SIMILAR TO PHILIPS CATALOGUE.NO TBS 255 TCS 228 OR KESELEC CATALOG NO.PHARMA 2X28 HF)
8	K		MIRROR OPTIC RECESS MOUNTED LUMINARIES (SIMILAR TO PHILIPS CATALOGUE.NO TBS 669 / 228 D6 OR KESELEC CATALOG NO.CT LUX 2X28 HF)
9	L		MIRROR OPTIC RECESS MOUNTED LUMINARIES (SIMILAR TO PHILIPS CATALOGUE.NO TBS 669 / 128 D6 OR KESELEC CATALOG NO.CT LUX DL 1X28 HF)
10	P		BULK HEAD LUMINARIES (SIMILAR TO PHILIPS CATALOGUE NO FXC 101 OR KESELEC CATALOG NO. KBH 1X9 W) SUITABLE FOR MOUNTING ON WALL / CEILING
11	Q		2X28W FTL LAMP (T5 LAMP) PREWIRED UPTO A TERMINAL BOX WITH LAMP, HAVING IP 65 (SIMILAR TO PHILIPS CATALOGUE NO. TCW 097 \ 2X28W D6 HF OR KESELEC ZUMTOBEL MAKE FZ 2X28W HF) AND SUPPLIED WITH 2 NOS 28W TUBULAR FLUORESCENT LAMP (T5 LAMP).
11	P1		32A 3 PHASE 5PIN INDUSTRIAL SOCKET OUTLET(IP65)
12	P2		16A 1 PHASE 3PIN INDUSTRIAL SOCKET OUTLET(IP54)
13	P4		6/16A 1 PHASE 6PIN MODULAR TYPE SOCKET OUTLET
14	AD		ADVT. POINT
15	EM		6/16A 1 PHASE 6PIN MODULAR TYPE SOCKET OUTLET
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REFERENCE DRAWINGS

Drg. No.	Description

REVISIONS

REV	PARTICULARS	DRN.	CHD.	VER.	DATE	ISSUE DATE	REV. FOR CONSTRUCTION

APPROVAL BY DMRC

DMRC APPROVAL	MGR/ARCH	DY CA (UG)-III	CA/ARCH
DY CSTE/TELECOM	CSTE-I	DY CE/DESIGN	CE/TECH
DY CSTE/AFC		ED/S&T	CSO
DY CSTE/SIGNALLING	CSTE-III	GM/O	GM/M
DY CE/PLANNING	DY CEE/E&M	DY CEE/ECS	ED/ELEC -II
DY CEE/(E)UG-TR	CGM(E) UG-TR	PM	CPM

Certified that this document has been designed and checked in accordance with DDC Quality Assurance Plan.

Authorised Signatory for DDC.
JP/EW/1B/DDC01 Project Manager

Architecture
Design In-charge/ Coordinator

Structure
Design In-charge/ Coordinator

E&M
Design In-charge/ Coordinator

DETAIL DESIGN CONSULTANT (DDC) FOR CIVIL, ARCHITECTURAL & BUILDING WORKS OF TWO UNDERGROUND STATION (CHOTI CHOUPAR & BADI CHOUPAR), SHAFT AND TUNNELS OF PHASE 1B OF JAIPUR METRO

ayesa Engineering. Information. Imagination.
56, Indo-Asia House, Institutional Area, sector-44
Gurgaon - 122002 (Haryana)

DELHI METRO RAIL CORPORATION LTD.
Metro Bhawan , Fire Brigade Lane, Barakhamba Road, New Delhi-110001

PHASE 1B JAIPUR METRO PROJECT

STATION: BADI CHOUPAR

DRAWING TITLE: LIGHTING LAYOUT CONCOURSE LEVEL

DRAWN BY :	CHECKED BY:	VERIFIED BY:
SURJEET	H.O.B.	LRS

DATE:	REV:	GRAPHICAL SCALE:	STATUS:
31-03-2015	R0	1:150	FOR TENDER

DRAWING NUMBER:	SHEET NO.	SHEET SIZE	ORDER Nº
JP-TD-EL-11BC-1302	2 OF 4	UNE A1	P36-0017

JP/EW/1B/DDC01 ELECTRICAL

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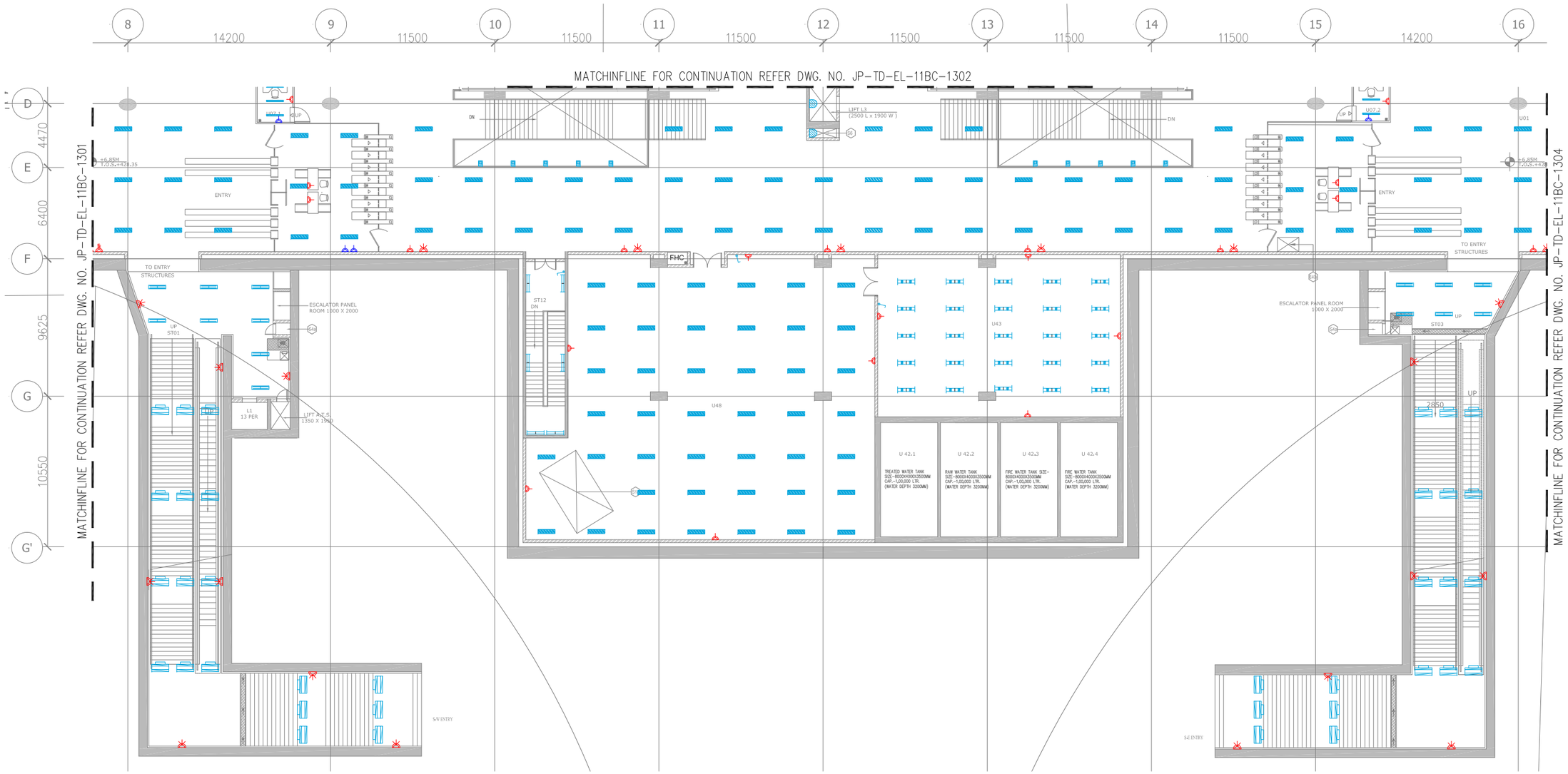

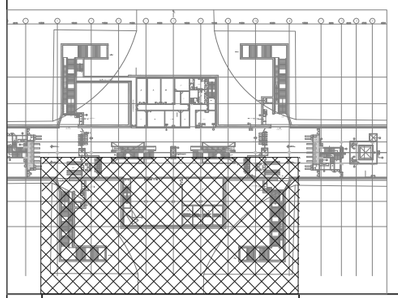

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9	U09	SECURITY ROOM 1	3.500 x 7.060	24.71
10	U10	STATION STORE ROOM	3.50 x 5.26	18.40
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22	U24	UPS ROOM for S&T	5.500 x 10.740	59.06
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24	U 42.2	RAIN WATER TANK	5.000 x 4.500	22.50
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ELECTRICAL AND S&T SCHEDULE				
CUT OUT NUMBER	PURPOSE	SIZE (M)	AREA(Sq.M)	CUTOUT POSITION
ES10	ELECTRICAL SHAFT & CUTOUT- 2NOS	1.00X3.00	3.00	FLOOR
E25	ELECTRICAL SHAFT	1.00X0.50	0.50	FLOOR
E26	ELECTRICAL SHAFT	1.20X0.50	0.60	FLOOR
E28	ELECTRICAL SHAFT	1.00X0.50	0.50	FLOOR
E29	TVS ELECTRICAL CUT OUT	1.00X1.50	1.50	FLOOR
S6	S & T SHAFT & CUT OUT	1.90X0.63	1.20	FLOOR

LEGEND: –

S.N.	LIGHT NAME	SYMBOL	DESCRIPTION
1	A		BASIC BATTEN LUMINARIES (SIMILAR TO PHILIPS CATALOGUE NO. TMS 122 2X28 T5 OR KESELEC CATALOG NO.RAILUX 2X28 HF) FOR "TL'D FLUORESCENT LAMP (T5 LAMP)
2	B		BASIC BATTEN LUMINARIES (SIMILAR TO PHILIPS CATALOGUE NO. TMC 122 / 1X28 OR KESELEC CATALOG NO RAILUX 1X28 HF) FOR "TL'D FLUORESCENT LAMP (T5 LAMP)
3	C		BASIC BATTEN LUMINARIES (SIMILAR TO PHILIPS CATALOGUE NO. TMS 122 / 2X28W OR KESELEC CATALOG NO. INDILUX V 228 HF WITH VITREOUS ENAMELLED REFLECTOR) FOR "TL'D FLUORESCENT LAMP (T5 LAMP)
4	E		EFFICIENT, LOW GLARE, SURELCE MOUNTED LUMINARIES (SIMILAR TO PHILIPS CATALOGUE NO. MPF 922 / 1 X 70W) WITH INTEGRAL GEAR, ELECTROCHEMICALLY BRIGHTENED AND ANODIZED HIGH PURITY ALUMINIUM REFLECTOR OF ASYMMETRICAL TYPE.
5	H	WG	BATTEN LUMINARIES (SIMILAR TO PHILIPS CATLIGUE. NO. TCW 450 /1X28 OR KESELEC CATLOG NO. RAILUX 1X28 HF) FOR "TL'D FLUORESCENT LAMP (T5 LAMP)
6	I		RECESSED CIRCULAR DOWN LIGHT LUMINARIES (SIMILAR TO PHILIPS CATALOGUE.NO FBH 145 / 218 OR KESELEC CATALOG NO.NOVA 2X18 (G))
7	J		MIRROR OPTIC, RECESSED MOUNTED LUMINARIES (SIMILAR TO PHILIPS CATALOGUE.NO TBS 255 TCS 228 OR KESELEC CATALOG NO.PHARMA 2X28 HF)
8	K		MIRROR OPTIC RECESS MOUNTED LUMINARIES (SIMILAR TO PHILIPS CATALOGUE.NO TBS 669 / 228 D6 OR KESELEC CATALOG NO.CT LUX 2X28 HF)
9	L		MIRROR OPTIC RECESS MOUNTED LUMINARIES (SIMILAR TO PHILIPS CATALOGUE.NO TBS 669 / 128 D6 OR KESELEC CATALOG NO.CT LUX DL 1X28 HF)
10	P		BULK HEAD LUMINARIES (SIMILAR TO PHILIPS CATALOGUE NO FXC 101 OR KESELEC CATALOG NO. KBH 1X9 W) SUITABLE FOR MOUNTING ON WALL / CEILING
11	Q		2X28W FTL LAMP (T5 LAMP) PREWIRED UPTO A TERMINAL BOX WITH LAMP. HAVING IP 65 (SIMILAR TO PHILIPS CATALOGUE NO. TCW 097 \ 2X28W D6 HF OR KESELEC ZUMTOBEL MAKE FZ 2X28W HF) AND SUPPLIED WITH 2 NOS 28W TUBULAR FLUORESCENT LAMP (T5 LAMP).
11	P1		32A 3 PHASE 5PIN INDUSTRIAL SOCKET OUTLET(IP65)
12	P2		16A 1 PHASE 3PIN INDUSTRIAL SOCKET OUTLET(IP54)
13	P4		6/16A 1 PHASE 6PIN MODULAR TYPE SOCKET OUTLET
14	AD		ADVT. POINT
15	EM		6/16A 1 PHASE 6PIN MODULAR TYPE SOCKET OUTLET
16	–		DISTRIBUTION BOARD

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5. ALL DOOR/WINDOW CILL & LINTEL LEVELS ARE MEASURED FROM MAIN FLOOR FINISHED LEVELS.

REFERENCE DRAWINGS

Drg. No.	Description

REVISIONS

REV	PARTICULARS	DRN.	CHD.	VER.	DATE	ISSUE DATE	REV. FOR CONSTRUCTION

APPROVAL BY DMRC

DMRC APPROVAL	MGR/ARCH	DY CA (UG)-III	CA/ARCH
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DY CSTE/AFC		ED/S&T	CSO
DY CSTE/SIGNALLING	CSTE-III	GM/O	GM/M
DY CE/PLANNING	DY CEE/E&M	DY CEE/ECS	ED/ELEC -II
DY CEE/(E)UG-TR	CGM(E) UG-TR	PM	CPM

Certified that this document has been designed and checked in accordance with DDC Quality Assurance Plan.

Authorised Signatory for DDC.
JP/EW/1B/DDC01 Project Manager

Architecture	Structure	E&M
Design In-charge/ Coordinator	Design In-charge/ Coordinator	Design In-charge/ Coordinator

DETAIL DESIGN CONSULTANT (DDC) FOR CIVIL, ARCHITECTURAL & BUILDING WORKS OF TWO UNDERGROUND STATION (CHOTI CHOUPAR & BADI CHOUPAR), SHAFT AND TUNNELS OF PHASE 1B OF JAIPUR METRO

ayesa Engineering. Information. Imagination.
56, Indo-Asia House, Institutional Area, sector-44
Gurgaon - 122002 (Haryana)

DELHI METRO RAIL CORPORATION LTD.
Metro Bhawan , Fire Brigade Lane, Barakhamba Road, New Delhi-110001

PHASE 1B JAIPUR METRO PROJECT

STATION: BADI CHOUPAR

DRAWING TITLE: LIGHTING LAYOUT CONCOURSE LEVEL

DRAWN BY:	CHECKED BY:	VERIFIED BY:	
SURJEET	H.O.B.	LRS	JP/EW/1B/DDC01
DATE: 31-03-2015	REV: R0	GRAPHICAL SCALE: 1:150	STATUS: FOR TENDER
DRAWING NUMBER: JP-TD-EL-11BC-1303	SHEET NO. 3 OF 4	SHEET SIZE UNE A1	ORDER N° P36-0017

ELECTRICAL

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ROOM SCHEDULE				
S.NO.	ROOM SCHEDULE	ROOM NAME	DIMENSION (Mt.) (LxW)	AREA (Sqm.)
1	U01	UNPAID AREA		1230.80*
2	U02	PAID AREA		1210.73*
3	U03	STATION CONTROL ROOM (SCR)	7.200 x 7.060	50.83
4	U04	STATION MANAGER ROOM (SMR)	4.300 x 7.060	29.46*
5	U05.1	TICKET OFFICE (TOM)	2.500 x 14.35	34.76*
6	U05.2	TICKET OFFICE (TOM)	2.500 x 14.35	34.46*
7	U07.1	EXCESS FARE OFFICE (EFO)	2.500 x 3.000	7.50
8	U07.2	EXCESS FARE OFFICE (EFO)	2.500 x 3.000	7.50
9	U09	SECURITY ROOM 1	3.500 x 7.060	24.71
10	U10	STATION STORE ROOM	3.50 x 5.26	18.40
11	U12	JANITOR ROOM	1.700 x 2000	3.40
12	U14	STAFF TOILET	1.700 x 2.500	4.24
13	U15.1(M)	PUBLIC TOILETS (Male)	5.850 x 4.700	25.36
14	U15.2(F)	PUBLIC TOILETS (Female)	4.100 x 5.835	23.47
15	U16	MESS ROOM	6.100 x 5.280	32.20
16	U18.1	DB ROOM	8.100 x 7.060	53.64*
17	U18.2	DB ROOM	6.500 x 7.060	44.80*
18	U19.1	ECS PLANT ROOM (ECS)	53.525 x 20.740	930.00*
19	U19.2	ECS PLANT ROOM (ECS)	53.525 x 20.740	930.00*
20	U22	SIGNALLING EQUIPMENT ROOM (SER)	5.565 x 10.740	59.76
21	U23	TELECOM EQUIPMENT ROOM (TER)	4.335 x 10.740	46.14*
22	U24	UPS ROOM for S&T	5.500 x 10.740	59.06
23	U 42.1	TREATED WATER TANK	5.000 x 4.500	22.50
24	U 42.2	RAIN WATER TANK	5.000 x 4.500	22.50
25	U 42.3	FIRE TANKS	5.000 x 4.500	22.50
26	U 42.4	FIRE TANKS	5.000 x 4.500	22.50
27	U46	HANDICAP TOILET	1.750 x 2.250	3.95
28	U43	PUMP ROOM	8.100 x 7.060	53.64*
29	U48	CHILLER ROOM	24.45 X 19.975	446.50*

ELECTRICAL AND S&T SCHEDULE				
CUT OUT NUMBER	PURPOSE	SIZE (M)	AREA(Sq.M)	CUTOUT POSITION
ES10	ELECTRICAL SHAFT & CUTOUT- 2NOS	1.00X3.00	3.00	FLOOR
E25	ELECTRICAL SHAFT	1.00X0.50	0.50	FLOOR
E26	ELECTRICAL SHAFT	1.20X0.50	0.60	FLOOR
E28	ELECTRICAL SHAFT	1.00X0.50	0.50	FLOOR
E29	TVS ELECTRICAL CUT OUT	1.00X1.50	1.50	FLOOR
S6	S & T SHAFT & CUT OUT	1.90X0.63	1.20	FLOOR

LEGEND: –

S.N.	LIGHT NAME	SYMBOL	DESCRIPTION
1	A		BASIC BATTEN LUMINARIES (SIMILAR TO PHILIPS CATALOGUE NO. TMS 122 2X28 T5 OR KESELEC CATALOG NO.RAILUX 2X28 HF) FOR "TL'D FLUORESCENT LAMP (T5 LAMP)
2	B		BASIC BATTEN LUMINARIES (SIMILAR TO PHILIPS CATALOGUE NO. TMC 122 / 1X28 OR KESELEC CATALOG NO RAILUX 1X28 HF) FOR "TL'D FLUORESCENT LAMP (T5 LAMP)
3	C		BASIC BATTEN LUMINARIES (SIMILAR TO PHILIPS CATALOGUE NO. TMS 122 / 2X28W OR KESELEC CATALOG NO. INDILUX V 228 HF WITH VITREOUS ENAMELLED REFLECTOR) FOR "TL'D FLUORESCENT LAMP (T5 LAMP).
4	E		EFFICIENT, LOW GLARE, SURELCE MOUNTED LUMINARIES (SIMILAR TO PHILIPS CATALOGUE NO. MPF 922 / 1 X 70W) WITH INTEGRAL GEAR, ELECTROCHEMICALLY BRIGHTENED AND ANODIZED HIGH PURITY ALUMINIUM REFLECTOR OF ASYMMETRICAL TYPE.
5	H	WG	BATTEN LUMINARIES (SIMILAR TO PHILIPS CATLIGUE. NO. TCW 450 /1X28 OR KESELEC CATLOG NO. RAILUX 1X28 HF) FOR "TL'D FLUORESCENT LAMP (T5 LAMP)
6	I		RECESSED CIRCULAR DOWN LIGHT LUMINARIES (SIMILAR TO PHILIPS CATALOGUE.NO FBH 145 / 218 OR KESELEC CATALOG NO.NOVA 2X18 (G))
7	J		MIRROR OPTIC, RECESSED MOUNTED LUMINARIES (SIMILAR TO PHILIPS CATALOGUE.NO TBS 255 TCS 228 OR KESELEC CATALOG NO.PHARMA 2X28 HF)
8	K		MIRROR OPTIC RECESS MOUNTED LUMINARIES (SIMILAR TO PHILIPS CATALOGUE.NO TBS 669 / 228 D6 OR KESELEC CATALOG NO.CT LUX 2X28 HF)
9	L		MIRROR OPTIC RECESS MOUNTED LUMINARIES (SIMILAR TO PHILIPS CATALOGUE.NO TBS 669 / 128 D6 OR KESELEC CATALOG NO.CT LUX DL 1X28 HF)
10	P		BULK HEAD LUMINARIES (SIMILAR TO PHILIPS CATALOGUE NO FXC 101 OR KESELEC CATALOG NO. KBH 1X9 W) SUITABLE FOR MOUNTING ON WALL / CEILING
11	Q		2X28W FTL LAMP (T5 LAMP) PREWIRED UPTO A TERMINAL BOX WITH LAMP. HAVING IP 65 (SIMILAR TO PHILIPS CATALOGUE NO. TCW 097 \ 2X28W D6 HF OR KESELEC ZUMTOBEL MAKE FZ 2X28W HF) AND SUPPLIED WITH 2 NOS 28W TUBULAR FLUORESCENT LAMP (T5 LAMP).
11	P1		32A 3 PHASE 5PIN INDUSTRIAL SOCKET OUTLET(IP65)
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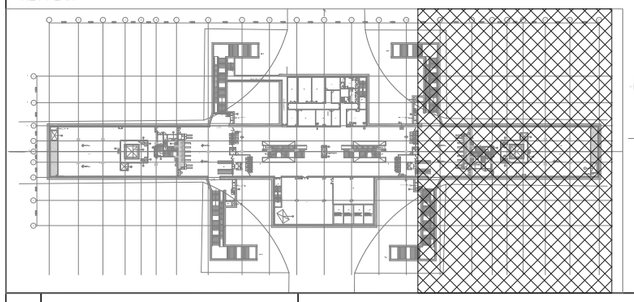
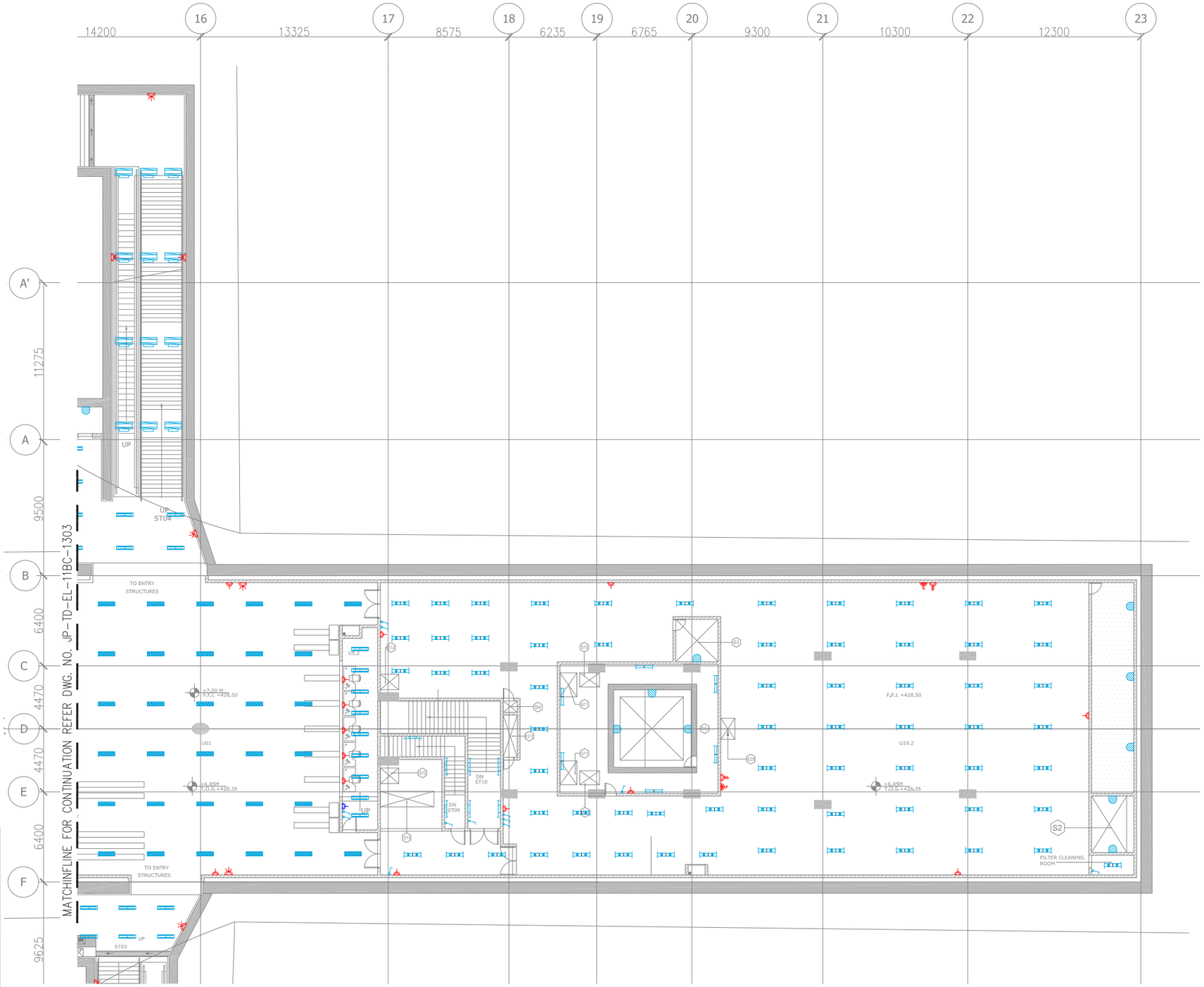
KEY PLAN





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DY CSTE/SIGNALLING	CSTE-III	GM/O	GM/M
DY CE/PLANNING	DY CEE/E&M	DY CEE/ECS	ED/ELEC -II
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Authorised Signatory for DDC.
JP/EW/1B/DDC01 Project Manager

Architecture
Design In-charge/ Coordinator

Structure
Design In-charge/ Coordinator

E&M
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DETAIL DESIGN CONSULTANT (DDC) FOR CIVIL, ARCHITECTURAL & BUILDING WORKS OF TWO UNDERGROUND STATION (CHOTI CHOUPAR & BADI CHOUPAR), SHAFT AND TUNNELS OF PHASE 1B OF JAIPUR METRO

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Metro Bhawan , Fire Brigade Lane, Barakhamba Road, New Delhi-110001

PHASE 1B JAIPUR METRO PROJECT

STATION: BADI CHOUPAR

DRAWING TITLE: LIGHTING LAYOUT CONCOURSE LEVEL

DRAWN BY :	CHECKED BY:	VERIFIED BY:
SURJEET	H.O.B.	LRS

DATE:	REV:	GRAPHICAL SCALE:	STATUS:
31-03-2015	R0	1:150	FOR TENDER

DRAWING NUMBER:	SHEET NO.	SHEET SIZE	ORDER N°
JP-TD-EL-11BC-1304	4 OF 4	UNE A1	P36-0017

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ELECTRICAL

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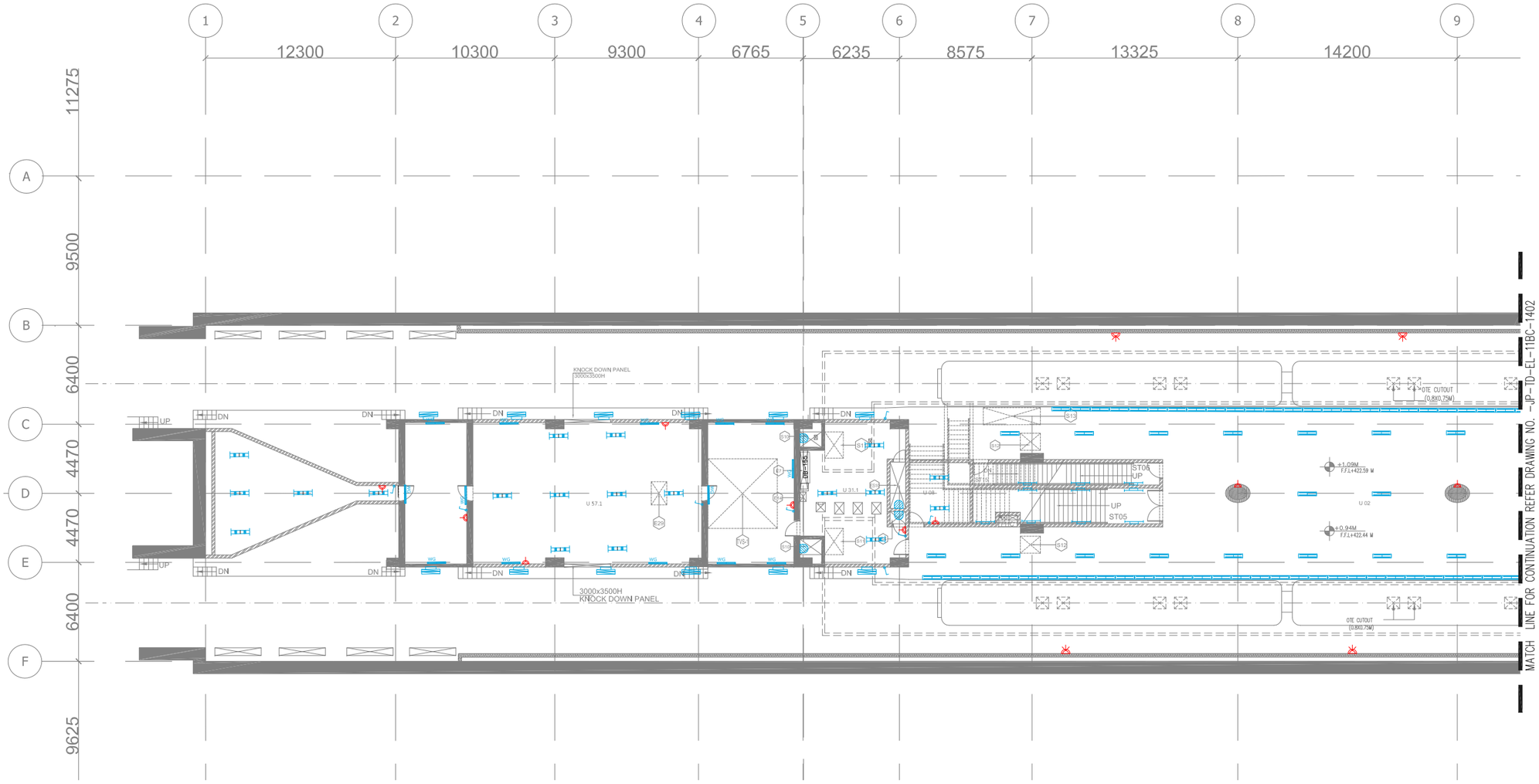
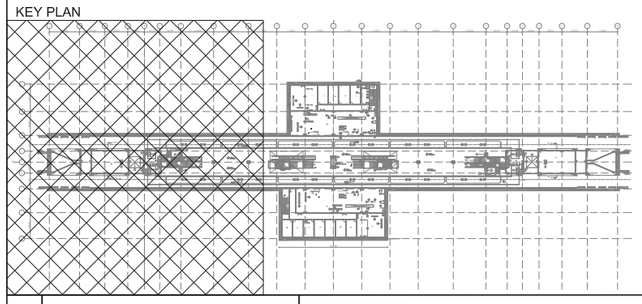


KEY PLAN



ROOM SCHEDULE				
S.NO.	ROOM SCHEDULE	ROOM NAME	DIMENSION (Mt.) (LxW)	AREA (Sqm.)
1	U02	PAID AREA		1332*
2	U08	FIRST AID SPACE	3,960 x 3,960	15.68
3	U13	REFUSE STORE 1	3,960 x 3,960	15.68
4	U18.3	DB ROOM	5,810 x 2,450	14.23
5	U18.4	DB ROOM	5,810 x 2,450	14.23
6	U25.1	AUXILLIARY SUB STATION(ASS)1	35.200 x 10.060	349.43*
7	U25.2	AUXILLIARY SUB STATION(ASS)2	36.100 x 10.025	357.21*
8	U27.1	ELECTRICAL UPS ROOM 1	11.050 x 10.340	114.21
9	U27.2	ELECTRICAL UPS ROOM 2	11.250 x 9.750	109.68
10	U28	GSM ROOM	4.105 x 7.740	31.77
11	U29	CDMA ROOM	4.000 x 7.740	30.96
12	U31.1	SEEPAGE ROOM 1	6.835 x 9.140	52.40*
13	U31.2	SEEPAGE ROOM 2	6.835 x 9.140	52.40*
14	U32	SEEWAGE ROOM	3.550 x 7.740	24.30*
15	U57.1	TUNNEL VENTILATION ROOM(TVS)1	14.800 x 9.140	133.70*
16	U57.2	TUNNEL VENTILATION ROOM(TVS)2	14.800 x 9.140	133.70*
17	PSB	PLATFORM SUPERVISOR BOOTH– 2 NO	2.500 x 2.600	6.50
18	U62.1	SPARE ROOM	4.100 x 7.075	29.00
19	U62.2	SPARE ROOM	4.100 x 7.075	29.00
20	U62.3	SPARE ROOM	4.100 x 7.075	28.31*
21	U63	E & M STAFF ROOM	4.550 x 7.740	35.22
22	U64	E & M STORE ROOM	4.000 x 7.740	30.96
23	U65	L & E STAFF	4.100 x 7.075	29.00
24	U66	L & E STORE	4.100 x 7.075	29.00
25	U67	TRACTION STAFF	4.100 x 7.075	29.00
26	U68	TRACTION STAFF-STORAGE	4.100 x 7.075	29.00

* AS PER REV-V1 PMC

ELECTRICAL CUT OUT SCHEDULE				
CUT OUT NUMBER	PURPOSE	SIZE (M)	AREA (Sq.M)	CUTOUT POSITION
E1	MAIN LT PANEL (DB–100/200)	1.00 X 11.3	11.3	FLOOR
E2	TRAF–01 FOR HT CABLE	0.75 X 0.30	0.225	FLOOR
E2A	TRAF–01 FOR CONTROL CABLE	0.20M ø SLEEVE	–	FLOOR
E3	HT PANEL INCOMING	1.80 X 1.10	1.98	FLOOR
E4	HT PANEL C&M	1.80 X 0.20	0.36	FLOOR
E5	AC DC–DB	0.30 X 0.30	0.09	FLOOR
E6	BATTERY CHARGER & BATTERY BANK	0.30 X 0.30	0.09	FLOOR
E7	DB–155/DB–255	2.50X 0.50	1.25	FLOOR
E8	ESCALATOR CONTROL PANEL	0.20M ø SLEEVE (8 Nos)	–	FLOOR
E9	DISTRIBUTION BOARD 12nos.	0.30 X 0.20	0.60	FLOOR
ES10	TVS CABLE TRAY	3.00 X 1.00	3.00	FLOOR
E11	RTU	0.30 M ø SLEEVE (2 Nos)	–	FLOOR
E12	MARSHALING BOX	0.15M ø SLEEVE (4 Nos)	–	FLOOR
E13	DB–111/DB–211	1.90 X 0.30	0.88	FLOOR
E14	PLC PANEL	0.60 X 0.40	0.24	FLOOR
E15	PLC PANEL	0.60 X 0.60	0.36	FLOOR
E16	DB–150/DB–250	5.30 X 0.60	3.18	FLOOR
E17	DB–151/DB–251	3.70 X 0.40	1.48	FLOOR
E18	DB–120/DB–220	3.70 X 0.40	1.48	FLOOR
E19	DB–110/DB–210	4.60 X 0.40	1.84	FLOOR
E20	CAPACITOR PANEL	1.00 X 0.30	0.30	FLOOR
E21	UPS–1 & UPS–2	2.50 X 0.30	0.75	FLOOR
E22	UPS ATS	1.10 X 0.30	0.33	FLOOR
E23	DB–180/280	3.70 X 0.40	1.48	FLOOR
E24	BATTERY RACK – 4NOS.	0.20 X 0.20	0.04	FLOOR
E25	ELECTRICAL SHAFT	1.00 X 0.50	0.09	FLOOR
E26	ELECTRICAL SHAFT	1.20 X 0.50	0.5	FLOOR
E27	BMS CONTROL PANEL	1.20 X 0.44	0.6	FLOOR
E28	ELECTRICAL SHAFT	1.00 X 0.50	0.528	FLOOR

LEGEND: –

S.N.	LIGHT NAME	SYMBOL	DESCRIPTION
1	A		BASIC BATTEN LUMINARIES (SIMILAR TO PHILIPS CATALOGUE NO. TMS 122 2X28 T5 OR KESELEC CATALOG NO.RAILUX 2X28 HF) FOR "TL'D FLUORESCENT LAMP (T5 LAMP)
2	B		BASIC BATTEN LUMINARIES (SIMILAR TO PHILIPS CATALOGUE NO. TMC 122 / 1X28 OR KESELEC CATALOG NO RAILUX 1X28 HF) FOR "TL'D FLUORESCENT LAMP (T5 LAMP)
3	C		BASIC BATTEN LUMINARIES (SIMILAR TO PHILIPS CATALOGUE NO. TMS 122 / 2X28W OR KESELEC CATALOG NO. INDILUX V 228 HF WITH VITREOUS ENAMELLED REFLECTOR) FOR "TL'D FLUORESCENT LAMP (T5 LAMP)
4	E		EFFICIENT, LOW GLARE, SURELCE MOUNTED LUMINARIES (SIMILAR TO PHILIPS CATALOGUE NO. MPF 922 / 1 X 70W) WITH INTEGRAL GEAR, ELECTROCHEMICALLY BRIGHTENED AND ANODIZED HIGH PURITY ALUMINIUM REFLECTOR OF ASYMMETRICAL TYPE.
5	H	WG	BATTEN LUMINARIES (SIMILAR TO PHILIPS CATLIGUE. NO. TCW 450 /1X28 OR KESELEC CATLOG NO. RAILUX 1X28 HF) FOR "TL'D FLUORESCENT LAMP (T5 LAMP)
6	I		RECESSED CIRCULAR DOWN LIGHT LUMINARIES (SIMILAR TO PHILIPS CATALOGUE.NO FBH 145 / 218 OR KESELEC CATALOG NO.NOVA 2X18 (G))
7	J		MIRROR OPTIC, RECESSED MOUNTED LUMINARIES (SIMILAR TO PHILIPS CATALOGUE.NO TBS 255 TCS 228 OR KESELEC CATALOG NO.PHARMA 2X28 HF)
8	K		MIRROR OPTIC RECESS MOUNTED LUMINARIES (SIMILAR TO PHILIPS CATALOGUE.NO TBS 669 / 228 D6 OR KESELEC CATALOG NO.CT LUX 2X28 HF)
9	L		MIRROR OPTIC RECESS MOUNTED LUMINARIES (SIMILAR TO PHILIPS CATALOGUE.NO TBS 669 / 128 D6 OR KESELEC CATALOG NO.CT LUX DL 1X28 HF)
10	P		BULK HEAD LUMINARIES (SIMILAR TO PHILIPS CATALOGUE NO FXC 101 OR KESELEC CATALOG NO. KBH 1X9 W) SUITABLE FOR MOUNTING ON WALL / CEILING
11	Q		2X28W FTL LAMP (T5 LAMP) PREWIRED UPTO A TERMINAL BOX WITH LAMP, HAVING IP 65 (SIMILAR TO PHILIPS CATALOGUE NO. TCW 097 \ 2X28W D6 HF OR KESELEC ZUMTOBEL MAKE FZ 2X28W HF) AND SUPPLIED WITH 2 NOS 28W TUBULAR FLUORESCENT LAMP (T5 LAMP).
11	P1		32A 3 PHASE 5PIN INDUSTRIAL SOCKET OUTLET(IP65)
12	P2		16A 1 PHASE 3PIN INDUSTRIAL SOCKET OUTLET(IP54)
13	P4		6/16A 1 PHASE 6PIN MODULAR TYPE SOCKET OUTLET
14	AD		ADVT. POINT
15	EM		6/16A 1 PHASE 6PIN MODULAR TYPE SOCKET OUTLET
16	–		DISTRIBUTION BOARD

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Drg. No.	Description

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REV	PARTICULARS	DRN.	CHD.	VER.	DATE	ISSUE DATE	REV. FOR CONSTRUCTION

APPROVAL BY DMRC

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DY CSTE/TELECOM	CSTE-I	DY CE/DESIGN	CE/TECH
DY CSTE/AFC		ED/S&T	CSO
DY CSTE/SIGNALLING	CSTE-III	GM/O	GM/M
DY CE/PLANNING	DY CEE/E&M	DY CEE/ECS	ED/ELEC -II
DY CEE/(E)UG-TR	CGM(E) UG-TR	PM	CPM

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Authorised Signatory for DDC.
JP/EW/1B/DDC01 Project Manager

Architecture
Design In-charge/ Coordinator

Structure
Design In-charge/ Coordinator

E&M
Design In-charge/ Coordinator

DETAIL DESIGN CONSULTANT (DDC) FOR CIVIL, ARCHITECTURAL & BUILDING WORKS OF TWO UNDERGROUND STATION (CHOTI CHOUPAR & BADI CHOUPAR), SHAFT AND TUNNELS OF PHASE 1B OF JAIPUR METRO

ayesa Engineering. Information. Imagination.

56, Indo-Asia House, Institutional Area, sector-44
Gurgaon - 122002 (Haryana)

DELHI METRO RAIL CORPORATION LTD.
Metro Bhawan , Fire Brigade Lane, Barakhamba Road, New Delhi-110001

PHASE 1B JAIPUR METRO PROJECT

STATION: BADI CHOUPAR

DRAWING TITLE: ELECTRICAL LAYOUT PLATFORM LEVEL

DRAWN BY:	CHECKED BY:	VERIFIED BY:
SURJEET	H.O.B	L.R.S

DATE:	REV:	GRAPHICAL SCALE:	STATUS:
31-03.2015	R0	1:150	FOR TENDER

DRAWING NUMBER:	SHEET NO.	SHEET SIZE	ORDER N°
JP-TD-EL-11BC-1401	1 OF 3	A1	P36-0017

JP/EW/1B/DDC01 ELECTRICAL

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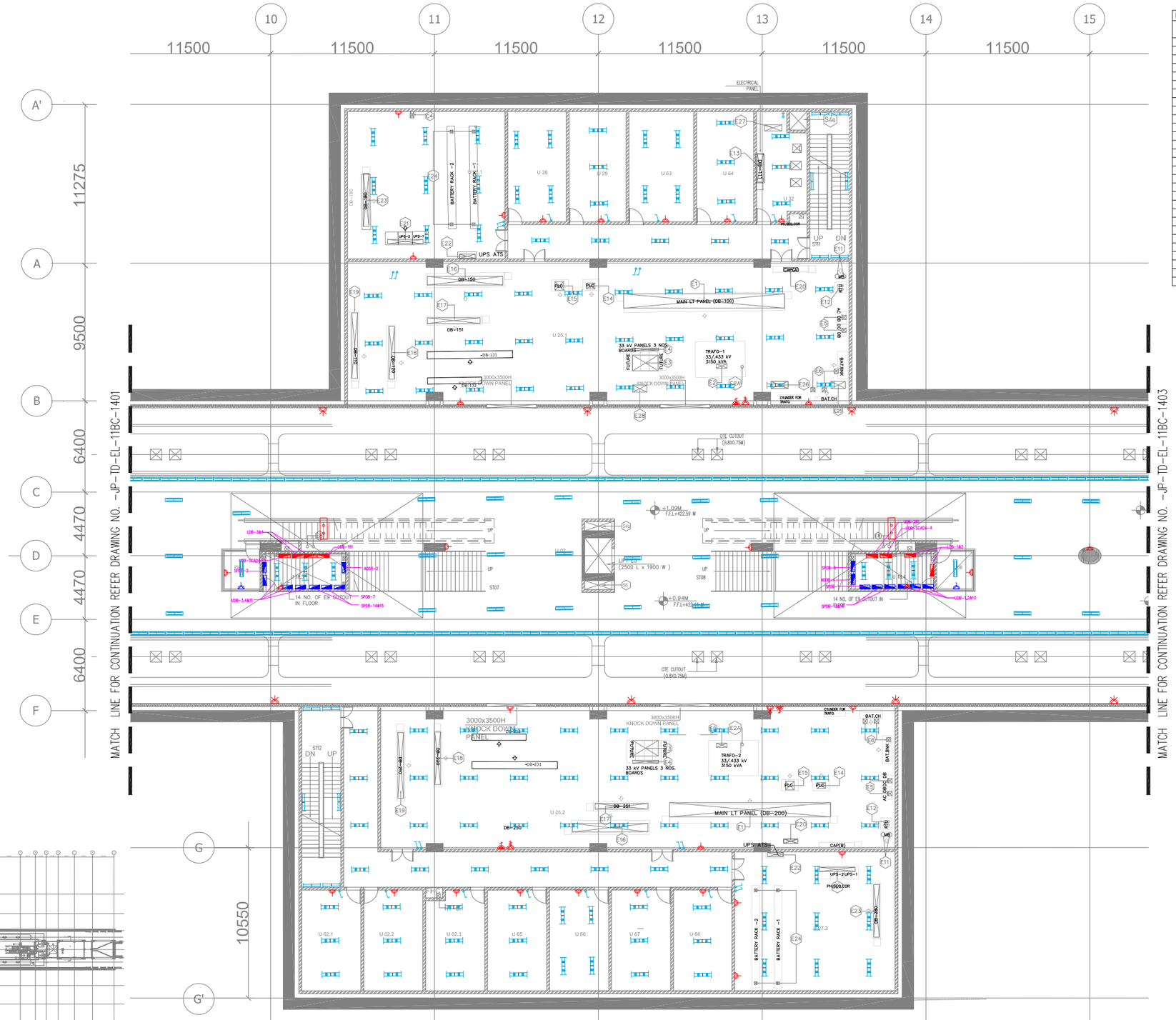


ELECTRICAL CUT OUT SCHEDULE				
CUT OUT NUMBER	PURPOSE	SIZE (M)	AREA (Sq.M)	CUTOUT POSITION
E1	MAIN LT PANEL (DB-100/200)	1.00 X 11.3	11.3	FLOOR
E2	TRAF-01 FOR HT CABLE	0.75 X 0.30	0.225	FLOOR
E2A	TRAF-01 FOR CONTROL CABLE	0.20M ø SLEEVE	–	FLOOR
E3	HT PANEL INCOMING	1.80 X 1.10	1.98	FLOOR
E4	HT PANEL C&M	1.80 X 0.20	0.36	FLOOR
E5	AC DC-DB	0.30 X 0.30	0.09	FLOOR
E6	BATTERY CHARGER & BATTERY BANK	0.30 X 0.30	0.09	FLOOR
E7	DB-155/DB-255	2.50X 0.50	1.25	FLOOR
E8	ESCALATOR CONTROL PANEL	0.20M ø SLEEVE (8 Nos)	–	FLOOR
E9	DISTRIBUTION BOARD 12nos.	0.30 X 0.20	0.60	FLOOR
ES10	TVS CABLE TRAY	3.00 X 1.00	3.00	FLOOR
E11	RTU	0.30 M ø SLEEVE (2 Nos)	–	FLOOR
E12	MARSHALING BOX	0.15M ø SLEEVE (4 Nos)	–	FLOOR
E13	DB-111/DB-211	1.90 X 0.30	0.88	FLOOR
E14	PLC PANEL	0.60 X 0.40	0.24	FLOOR
E15	PLC PANEL	0.60 X 0.60	0.36	FLOOR
E16	DB-150/DB-250	5.30 X 0.60	3.18	FLOOR
E17	DB-151/DB-251	3.70 X 0.40	1.48	FLOOR
E18	DB-120/DB-220	3.70 X 0.40	1.48	FLOOR
E19	DB-110/DB-210	4.60 X 0.40	1.84	FLOOR
E20	CAPACITOR PANEL	1.00 X 0.30	0.30	FLOOR
E21	UPS-1 & UPS-2	2.50 X 0.30	0.75	FLOOR
E22	UPS ATS	1.10 X 0.30	0.33	FLOOR
E23	DB-180/280	3.70 X 0.40	1.48	FLOOR
E24	BATTERY RACK – 4NOS.	0.20 X 0.20	0.04	FLOOR
E25	ELECTRICAL SHAFT	1.00 X 0.50	0.09	FLOOR
E26	ELECTRICAL SHAFT	1.20 X 0.50	0.5	FLOOR
E27	BMS CONTROL PANEL	1.20 X 0.44	0.6	FLOOR
E28	ELECTRICAL SHAFT	1.00 X 0.50	0.528	FLOOR

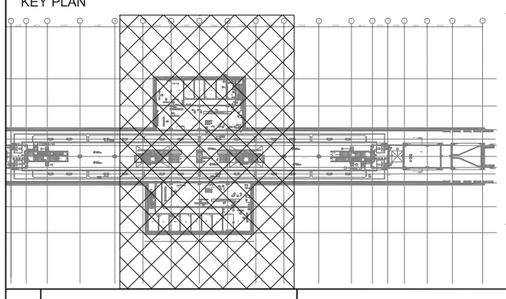
ROOM SCHEDULE				
S.NO.	ROOM SCHEDULE	ROOM NAME	DIMENSION (Mt.) (LxW)	AREA (Sqm.)
1	U02	PAID AREA		1332*
2	U08	FIRST AID SPACE	3.960 x 3.960	15.68
3	U13	REFUSE STORE 1	3.960 x 3.960	15.68
4	U18.3	DB ROOM	5.810 x 2.450	14.23
5	U18.4	DB ROOM	5.810 x 2.450	14.23
6	U25.1	AUXILLIARY SUB STATION(ASS)1	35.200 x 10.060	349.43*
7	U25.2	AUXILLIARY SUB STATION(ASS)2	36.100 x 10.025	357.21*
8	U27.1	ELECTRICAL UPS ROOM 1	11.050 x 10.340	114.21
9	U27.2	ELECTRICAL UPS ROOM 2	11.250 x 9.750	109.68
10	U28	GSM ROOM	4.105 x 7.740	31.77
11	U29	CDMA ROOM	4.000 x 7.740	30.96
12	U31.1	SEEPAGE ROOM 1	6.835 x 9.140	52.40*
13	U31.2	SEEPAGE ROOM 2	6.835 x 9.140	52.40*
14	U32	SEEPAGE ROOM	3.550 x 7.740	24.30*
15	U57.1	TUNNEL VENTILATION ROOM(TVS)1	14.800 x 9.140	133.70*
16	U57.2	TUNNEL VENTILATION ROOM(TVS)2	14.800 x 9.140	133.70*
17	PSB	PLATFORM SUPERVISOR BOOTH– 2 NO	2.500 x 2.600	6.50
18	U62.1	SPARE ROOM	4.100 x 7.075	29.00
19	U62.2	SPARE ROOM	4.100 x 7.075	29.00
20	U62.3	SPARE ROOM	4.100 x 7.075	28.31*
21	U63	E & M STAFF ROOM	4.550 x 7.740	35.22
22	U64	E & M STORE ROOM	4.000 x 7.740	30.96
23	U65	L & E STAFF	4.100 x 7.075	29.00
24	U66	L & E STORE	4.100 x 7.075	29.00
25	U67	TRACTION STAFF	4.100 x 7.075	29.00
26	U68	TRACTION STAFF-STORAGE	4.100 x 7.075	29.00

* AT PER PER M.T.

LEGEND:–

S.N.	LIGHT NAME	SYMBOL	DESCRIPTION
1	A		BASIC BATTEN LUMINARIES (SIMILAR TO PHILIPS CATALOGUE NO. TMS 122 2X28 T5 OR KESELEC CATALOG NO.RAILUX 2X28 HF) FOR "TL'D FLUORESCENT LAMP (T5 LAMP)
2	B		BASIC BATTEN LUMINARIES (SIMILAR TO PHILIPS CATALOGUE NO. TMS 122 / 1X28 OR KESELEC CATALOG NO. RAILUX 1X28 HF) FOR "TL'D FLUORESCENT LAMP (T5 LAMP)
3	C		BASIC BATTEN LUMINARIES (SIMILAR TO PHILIPS CATALOGUE NO. TMS 122 / 2X28W OR KESELEC CATALOG NO. INDILUX V 228 HF WITH VITREOUS ENAMELLED REFLECTOR) FOR "TL'D FLUORESCENT LAMP (T5 LAMP)
4	E		EFFICIENT, LOW GLARE, SURELCE MOUNTED LUMINARIES (SIMILAR TO PHILIPS CATALOGUE NO. MPF 922 / 1 X 70W) WITH INTEGRAL GEAR, ELECTROCHEMICALLY BRIGHTENED AND ANODIZED HIGH PURITY ALUMINIUM REFLECTOR OF ASYMMETRICAL TYPE.
5	H	WG	BATTEN LUMINARIES (SIMILAR TO PHILIPS CATLIGUE. NO. TCW 450 /1X28 OR KESELEC CATLOG NO. RAILUX 1X28 HF) FOR "TL'D FLUORESCENT LAMP (T5 LAMP)
6	I		RECESSED CIRCULAR DOWN LIGHT LUMINARIES (SIMILAR TO PHILIPS CATALOGUE.NO FBH 145 / 218 OR KESELEC CATALOG NO.NOVA 2X18 (G))
7	J		MIRROR OPTIC, RECESSED MOUNTED LUMINARIES (SIMILAR TO PHILIPS CATALOGUE.NO TBS 255 TCS 228 OR KESELEC CATALOG NO.PHARMA 2X28 HF)
8	K		MIRROR OPTIC RECESS MOUNTED LUMINARIES (SIMILAR TO PHILIPS CATALOGUE.NO TBS 669 / 228 D6 OR KESELEC CATALOG NO.CT LUX 2X28 HF)
9	L		MIRROR OPTIC RECESS MOUNTED LUMINARIES (SIMILAR TO PHILIPS CATALOGUE.NO TBS 669 / 128 D6 OR KESELEC CATALOG NO.CT LUX DL 1X28 HF)
10	P		BULK HEAD LUMINARIES (SIMILAR TO PHILIPS CATALOGUE NO FXC 101 OR KESELEC CATALOG NO. KBH 1X9 W) SUITABLE FOR MOUNTING ON WALL / CEILING
11	Q		2X28W FTL LAMP (T5 LAMP) PREWRED UPTO A TERMINAL BOX WITH LAMP. HAVING IP 65 (SIMILAR TO PHILIPS CATALOGUE NO. TCW 097 \ 2X28W D6 HF OR KESELEC ZUMTOBEL MAKE FZ 2X28W HF) AND SUPPLIED WITH 2 NOS 28W TUBULAR FLUORESCENT LAMP (T5 LAMP).
11	P1		32A 3 PHASE 5PIN INDUSTRIAL SOCKET OUTLET(IP65)
12	P2		16A 1 PHASE 3PIN INDUSTRIAL SOCKET OUTLET(IP54)
13	P4		6/16A 1 PHASE 6PIN MODULAR TYPE SOCKET OUTLET
14	AD		ADVT. POINT
15	EM		6/16A 1 PHASE 6PIN MODULAR TYPE SOCKET OUTLET
16	–		DISTRIBUTION BOARD

KEY PLAN



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5. ALL DOOR/WINDOW CILL & LINTEL LEVELS ARE MEASURED FROM MAIN FLOOR FINISHED LEVELS.

REFERENCE DRAWINGS

Drg. No.	Description

REVISIONS

REV	PARTICULARS	DRN.	CHD.	VER.	DATE	ISSUE DATE	REV. FOR CONSTRUCTION

APPROVAL BY DMRC

DMRC APPROVAL	MGR/ARCH	DY CA (UG)-III	CA/ARCH
DY CSTE/TELECOM	CSTE-I	DY CE/DESIGN	CE/TECH
DY CSTE/AFC		ED/S&T	CSO
DY CSTE/SIGNALLING	CSTE-III	GM/O	GM/M
DY CE/PLANNING	DY CEE/E&M	DY CEE/ECS	ED/ELEC -II
DY CEE/(E)UG-TR	CGM(E) UG-TR	PM	CPM

Certified that this document has been designed and checked in accordance with DDC Quality Assurance Plan.

Authorised Signatory for DDC.
JP/EW/1B/DDC01 Project Manager

Architecture	Structure	E&M
Design In-charge/ Coordinator	Design In-charge/ Coordinator	Design In-charge/ Coordinator

DETAIL DESIGN CONSULTANT (DDC) FOR CIVIL, ARCHITECTURAL & BUILDING WORKS OF TWO UNDERGROUND STATION (CHOTI CHOUPAR & BADI CHOUPAR), SHAFT AND TUNNELS OF PHASE 1B OF JAIPUR METRO

ayesa Engineering. Information. Imagination.

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Gurgaon - 122002 (Haryana)

DELHI METRO RAIL CORPORATION LTD.
Metro Bhawan , Fire Brigade Lane, Barakhamba Road, New Delhi-110001

PHASE 1B JAIPUR METRO PROJECT

STATION: BADI CHOUPAR

DRAWING TITLE: ELECTRICAL LAYOUT PLATFORM LEVEL

DRAWN BY:	CHECKED BY:	VERIFIED BY:
SURJEET	H.O.B	L.R.S

DATE:	REV:	GRAPHICAL SCALE:	STATUS:
31-03.2015	R0	1:150	FOR TENDER

DRAWING NUMBER:	SHEET NO.	SHEET SIZE	ORDER N°		
JP-TD-EL-11BC-1402	2 OF 3	A1	P36-0017	JP/EW/1B/DDC01	ELECTRICAL

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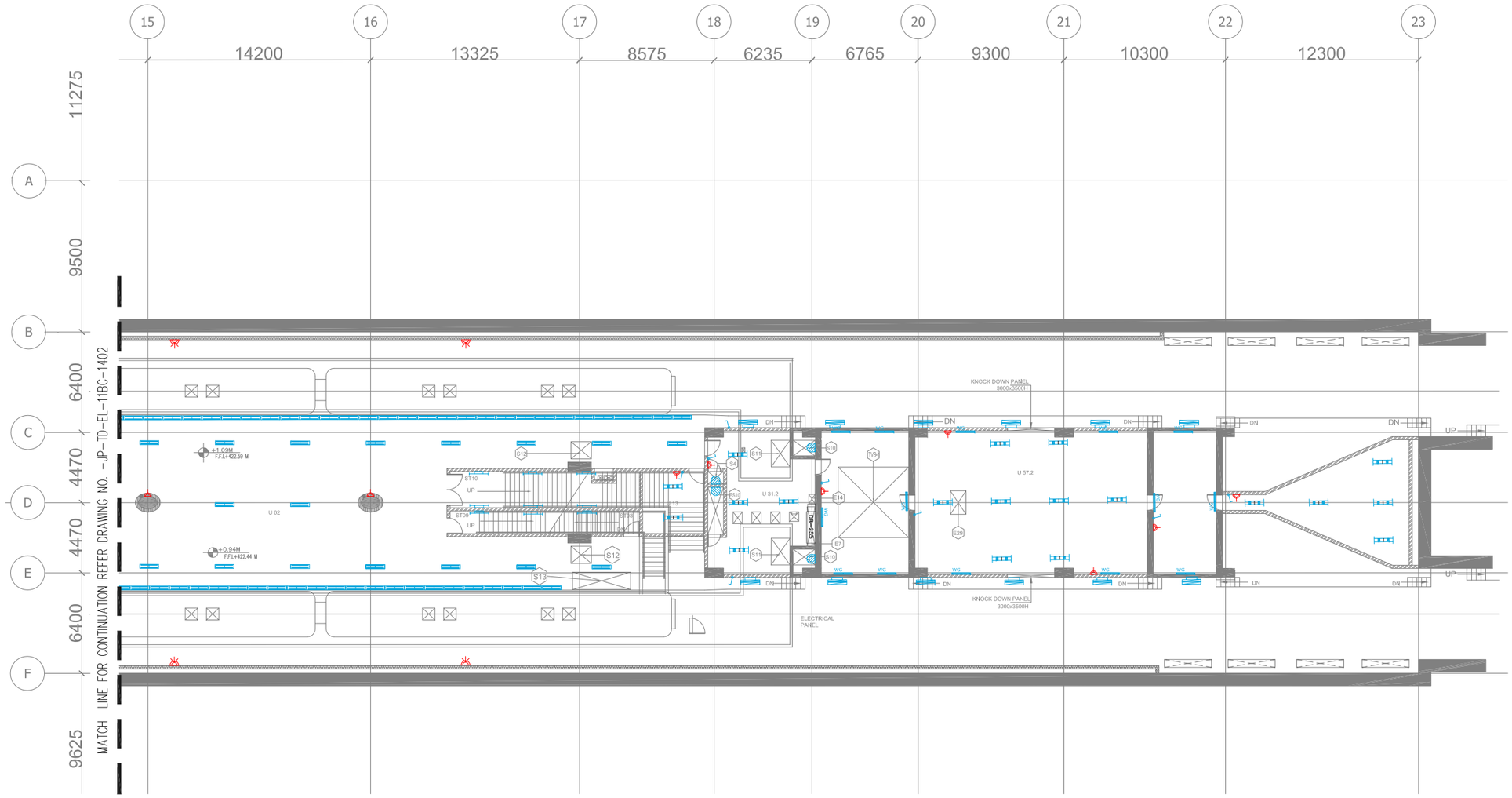
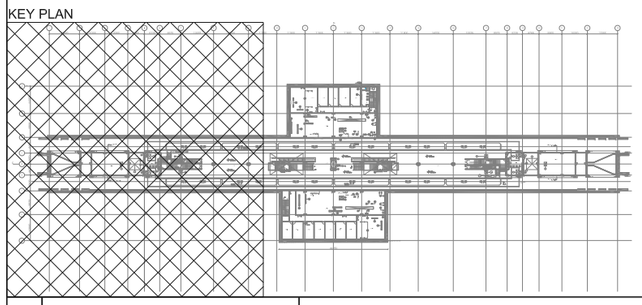


KEY PLAN



ROOM SCHEDULE				
S.NO.	ROOM SCHEDULE	ROOM NAME	DIMENSION (M.L) (LxW)	AREA (Sqm.)
1	U02	PAID AREA		1.332*
2	U08	FIRST AID SPACE	3.960 x 3.960	15.68
3	U13	REFUSE STORE 1	3.960 x 3.960	15.68
4	U18.3	DB ROOM	5.810 x 2.450	14.23
5	U18.4	DB ROOM	5.810 x 2.450	14.23
6	U25.1	AUXILLIARY SUB STATION(ASS)1	35.200 x 10.060	349.43*
7	U25.2	AUXILLIARY SUB STATION(ASS)2	36.100 x 10.025	357.21*
8	U27.1	ELECTRICAL UPS ROOM 1	11.050 x 10.340	114.21
9	U27.2	ELECTRICAL UPS ROOM 2	11.250 x 9.750	109.68
10	U28	GSM ROOM	4.105 x 7.740	31.77
11	U29	CDMA ROOM	4.000 x 7.740	30.96
12	U31.1	SEEPAGE ROOM 1	6.835 x 9.140	52.40*
13	U31.2	SEEPAGE ROOM 2	6.835 x 9.140	52.40*
14	U32	SEEWAGE ROOM	3.550 x 7.740	24.30*
15	U57.1	TUNNEL VENTILATION ROOM(TVS)1	14.800 x 9.140	133.70*
16	U57.2	TUNNEL VENTILATION ROOM(TVS)2	14.800 x 9.140	133.70*
17	P38	PLATFORM SUPERVISOR BOOTH- 2 NO	2.500 x 2.600	6.50
18	U62.1	SPARE ROOM	4.100 x 7.075	29.00
19	U62.2	SPARE ROOM	4.100 x 7.075	29.00
20	U62.3	SPARE ROOM	4.100 x 7.075	28.31*
21	U63	E & M STAFF ROOM	4.550 x 7.740	35.22
22	U64	E & M STORE ROOM	4.000 x 7.740	30.96
23	U65	L & E STAFF	4.100 x 7.075	29.00
24	U66	L & E STORE	4.100 x 7.075	29.00
25	U67	TRACTION STAFF	4.100 x 7.075	29.00
26	U68	TRACTION STAFF-STORAGE	4.100 x 7.075	29.00

ELECTRICAL CUT OUT SCHEDULE				
CUT OUT NUMBER	PURPOSE	SIZE (M)	AREA (Sq.M)	CUTOUT POSITION
E1	MAIN LT PANEL (DB-100/200)	1.00 X 11.3	11.3	FLOOR
E2	TRAF-01 FOR HT CABLE	0.75 X 0.30	0.225	FLOOR
E2A	TRAF-01 FOR CONTROL CABLE	0.20M ϕ SLEEVE	–	FLOOR
E3	HT PANEL INCOMING	1.80 X 1.10	1.98	FLOOR
E4	HT PANEL C&M	1.80 X 0.20	0.36	FLOOR
E5	AC DC-DB	0.30 X 0.30	0.09	FLOOR
E6	BATTERY CHARGER & BATTERY BANK	0.30 X 0.30	0.09	FLOOR
E7	DB-150/DB-255	2.50X 0.50	1.25	FLOOR
E8	ESCALATOR CONTROL PANEL	0.20M ϕ SLEEVE (8 Nos)	–	FLOOR
E9	DISTRIBUTION BOARD 12nos.	0.30 X 0.20	0.60	FLOOR
ES10	TVS CABLE TRAY	3.00 X 1.00	3.00	FLOOR
E11	RTU	0.30 M ϕ SLEEVE (2 Nos)	–	FLOOR
E12	MARSHALING BOX	0.15M ϕ SLEEVE (4 Nos)	–	FLOOR
E13	DB-111/DB-211	1.90 X 0.30	0.88	FLOOR
E14	PLC PANEL	0.60 X 0.40	0.24	FLOOR
E15	PLC PANEL	0.60 X 0.60	0.36	FLOOR
E16	DB-150/DB-250	5.30 X 0.60	3.18	FLOOR
E17	DB-151/DB-251	3.70 X 0.40	1.48	FLOOR
E18	DB-120/DB-220	3.70 X 0.40	1.48	FLOOR
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E21	UPS-1 & UPS-2	2.50 X 0.30	0.75	FLOOR
E22	UPS ATS	1.10 X 0.30	0.33	FLOOR
E23	DB-180/280	3.70 X 0.40	1.48	FLOOR
E24	BATTERY RACK - 4NOS.	0.20 X 0.20	0.04	FLOOR
E25	ELECTRICAL SHAFT	1.00 X 0.50	0.09	FLOOR
E26	ELECTRICAL SHAFT	1.20 X 0.50	0.5	FLOOR
E27	BMS CONTROL PANEL	1.20 X 0.44	0.6	FLOOR
E28	ELECTRICAL SHAFT	1.00 X 0.50	0.528	FLOOR

LEGEND: –

S.N.	LIGHT NAME	SYMBOL	DESCRIPTION
1	A		BASIC BATTEN LUMINARIES (SIMILAR TO PHILIPS CATALOGUE NO. TMS 122 2X28 T5 OR KESELEC CATALOG NO.RAILUX 2X28 HF) FOR "TL'D FLUORESCENT LAMP (T5 LAMP)
2	B		BASIC BATTEN LUMINARIES (SIMILAR TO PHILIPS CATALOGUE NO. TMC 122 / 1X28 OR KESELEC CATALOG NO RAILUX 1X28 HF) FOR "TL'D FLUORESCENT LAMP (T5 LAMP)
3	C		BASIC BATTEN LUMINARIES (SIMILAR TO PHILIPS CATALOGUE NO. TMS 122 / 2X28W OR KESELEC CATALOG NO. INDILUX V 228 HF WITH VITREOUS ENAMELLED REFLECTOR) FOR "TL'D FLUORESCENT LAMP (T5 LAMP)
4	E		EFFICIENT, LOW GLARE, SURELCE MOUNTED LUMINARIES (SIMILAR TO PHILIP'S CATALOGUE NO. MPF 922 / 1 X 70W) WITH INTEGRAL GEAR, ELECTROCHEMICALLY BRIGHTENED AND ANODIZED HIGH PURITY ALUMINUM REFLECTOR OF ASYMMETRICAL TYPE.
5	H	WG	BATTEN LUMINARIES (SIMILAR TO PHILIPS CATLIGUE. NO. TCW 450 /1X28 OR KESELEC CATLOG NO. RAILUX 1X28 HF) FOR "TL'D FLUORESCENT LAMP (T5 LAMP)
6	I		RECESSED CIRCULAR DOWN LIGHT LUMINARIES (SIMILAR TO PHILIPS CATALOGUE.NO FBH 145 / 218 OR KESELEC CATALOG NO.NOVA 2X18 (G))
7	J		MIRROR OPTIC, RECESSED MOUNTED LUMINARIES (SIMILAR TO PHILIPS CATALOGUE.NO TBS 255 TCS 228 OR KESELEC CATALOG NO.PHARMA 2X28 HF)
8	K		MIRROR OPTIC RECESS MOUNTED LUMINARIES (SIMILAR TO PHILIPS CATALOGUE.NO TBS 669 / 228 D6 OR KESELEC CATALOG NO.CT LUX 2X28 HF)
9	L		MIRROR OPTIC RECESS MOUNTED LUMINARIES (SIMILAR TO PHILIPS CATALOGUE.NO TBS 669 / 128 D6 OR KESELEC CATALOG NO.CT LUX DL 1X28 HF)
10	P		BULK HEAD LUMINARIES (SIMILAR TO PHILIPS CATALOGUE NO FXC 101 OR KESELEC CATALOG NO. KBH 1X9 W) SUITABLE FOR MOUNTING ON WALL / CEILING
11	Q		2X28W FTL LAMP (T5 LAMP) PREWIRED UPTO A TERMINAL BOX WITH LAMP, HAVING IP 65 (SIMILAR TO PHILIPS CATALOGUE NO. TCW 097 \ 2X28W D6 HF OR KESELEC ZUMTOBEL MAKE FZ 2X28W HF) AND SUPPLIED WITH 2 NOS 28W TUBULAR FLUORESCENT LAMP (T5 LAMP).
11	P1		32A 3 PHASE 5PIN INDUSTRIAL SOCKET OUTLET(IP65)
12	P2		16A 1 PHASE 3PIN INDUSTRIAL SOCKET OUTLET(IP54)
13	P4		6/16A 1 PHASE 6PIN MODULAR TYPE SOCKET OUTLET
14	AD		ADVT. POINT
15	EM		6/16A 1 PHASE 6PIN MODULAR TYPE SOCKET OUTLET
16	–		DISTRIBUTION BOARD

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REV	PARTICULARS	DRN.	CHD.	VER.	DATE	ISSUE DATE	REV. FOR CONSTRUCTION

APPROVAL BY DMRC

DMRC APPROVAL	MGR/ARCH	DY CA (UG)-III	CA/ARCH
DY CSTE/TELECOM	CSTE-I	DY CE/DESIGN	CE/TECH
DY CSTE/AFC		ED/S&T	CSO
DY CSTE/SIGNALLING	CSTE-III	GM/O	GM/M
DY CE/PLANNING	DY CEE/E&M	DY CEE/ECS	ED/ELEC -II
DY CEE/(E)UG-TR	CGM(E) UG-TR	PM	CPM

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Authorised Signatory for DDC.
JP/EW/1B/DDC01 Project Manager

Architecture
Design In-charge/ Coordinator

Structure
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PHASE 1B JAIPUR METRO PROJECT

STATION: BADI CHOUPAR

DRAWING TITLE: ELECTRICAL LAYOUT - PLATFORM LEVEL

DRAWN BY:	CHECKED BY:	VERIFIED BY:
SURJEET	H.O.B	L.R.S

DATE:	REV:	GRAPHICAL SCALE:	STATUS:
31-03.2015	R0	1:150	FOR TENDER

DRAWING NUMBER:	SHEET NO.	SHEET SIZE	ORDER Nº
JP-TD-EL-11BC-1403	3 OF 3	A1	P36-0017

JP/EW/1B/DDC01 ELECTRICAL

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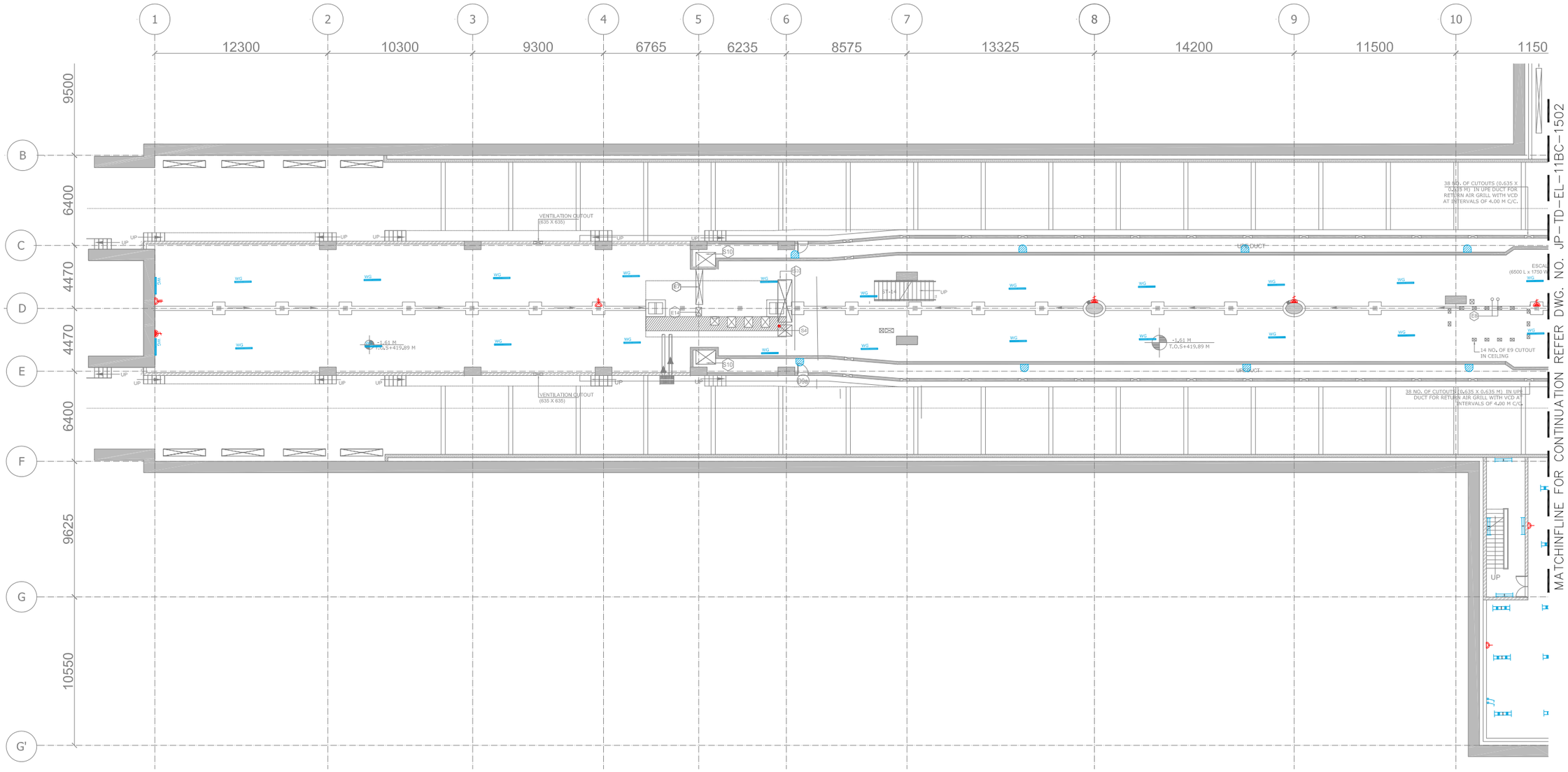
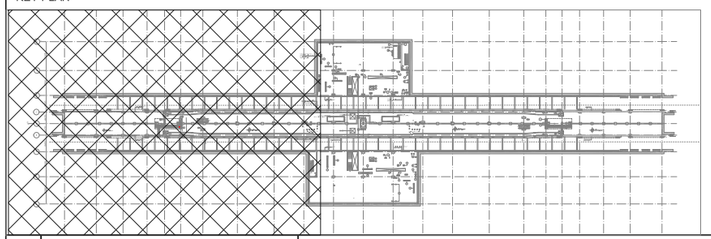


KEY PLAN



LEGEND: –

S.N.	LIGHT NAME	SYMBOL	DESCRIPTION
1	A		BASIC BATTEN LUMINARIES (SIMILAR TO PHILIPS CATALOGUE NO. TMS 122 2X28 T5 OR KESELEC CATALOG NO.RAILUX 2X28 HF) FOR "TL'D FLUORESCENT LAMP (T5 LAMP)
2	B		BASIC BATTEN LUMINARIES (SIMILAR TO PHILIPS CATALOGUE NO. TMC 122 / 1X28 OR KESELEC CATALOG NO RAILUX 1X28 HF) FOR "TL'D FLUORESCENT LAMP (T5 LAMP)
3	C		BASIC BATTEN LUMINARIES (SIMILAR TO PHILIPS CATALOGUE NO. TMS 122 / 2X28W OR KESELEC CATALOG NO. INDILUX V 228 HF WITH VITREOUS ENAMELLED REFLECTOR) FOR "TL'D FLUORESCENT LAMP (T5 LAMP)
4	E		EFFICIENT, LOW GLARE, SURELCE MOUNTED LUMINARIES (SIMILAR TO PHILIPS CATALOGUE NO. MPF 922 / 1 X 70W) WITH INTEGRAL GEAR, ELECTROCHEMICALLY BRIGHTENED AND ANODIZED HIGH PURITY ALUMINUM REFLECTOR OF ASYMMETRICAL TYPE.
5	H	WG	BATTEN LUMINARIES (SIMILAR TO PHILIPS CATLIGUE. NO. TCW 450 /1X28 OR KESELEC CATLOG NO. RAILUX 1X28 HF) FOR "TL'D FLUORESCENT LAMP (T5 LAMP)
6	I		RECESSED CIRCULAR DOWN LIGHT LUMINARIES (SIMILAR TO PHILIPS CATALOGUE.NO FBH 145 / 218 OR KESELEC CATALOG NO.NOVA 2X18 (G))
7	J		MIRROR OPTIC, RECESSED MOUNTED LUMINARIES (SIMILAR TO PHILIPS CATALOGUE.NO TBS 255 TCS 228 OR KESELEC CATALOG NO.PHARMA 2X28 HF)
8	K		MIRROR OPTIC RECESS MOUNTED LUMINARIES (SIMILAR TO PHILIPS CATALOGUE.NO TBS 669 / 228 D6 OR KESELEC CATALOG NO.CT LUX 2X28 HF)
9	L		MIRROR OPTIC RECESS MOUNTED LUMINARIES (SIMILAR TO PHILIPS CATALOGUE.NO TBS 669 / 128 D6 OR KESELEC CATALOG NO.CT LUX DL 1X28 HF)
10	P		BULK HEAD LUMINARIES (SIMILAR TO PHILIPS CATALOGUE NO FXC 101 OR KESELEC CATALOG NO. KBH 1X9 W) SUITABLE FOR MOUNTING ON WALL / CEILING
11	Q		2X28W FTL LAMP (T5 LAMP) PREWIRED UPTO A TERMINAL BOX WITH LAMP. HAVING IP 65 (SIMILAR TO PHILIPS CATALOGUE NO. TCW 097 \ 2X28W D6 HF OR KESELEC ZUMTOBEL MAKE FZ 2X28W HF) AND SUPPLIED WITH 2 NOS 28W TUBULAR FLUORESCENT LAMP (T5 LAMP).
11	P1		32A 3 PHASE 5PIN INDUSTRIAL SOCKET OUTLET(IP65)
12	P2		16A 1 PHASE 3PIN INDUSTRIAL SOCKET OUTLET(IP54)
13	P4		6/16A 1 PHASE 6PIN MODULAR TYPE SOCKET OUTLET
14	AD		ADVT. POINT
15	EM		6/16A 1 PHASE 6PIN MODULAR TYPE SOCKET OUTLET
16	–		DISTRIBUTION BOARD

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REFERENCE DRAWINGS

Drg. No.	Description

REVISIONS

REV	PARTICULARS	DRN.	CHD.	VER.	DATE	ISSUE DATE	REV. FOR CONSTRUCTION

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DY CEE/(E)UG-TR	CGM(E) UG-TR	PM	CPM

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JP/EW/1B/DDC01 Project Manager

Architecture	Structure	E&M
Design In-charge/ Coordinator	Design In-charge/ Coordinator	Design In-charge/ Coordinator

DETAIL DESIGN CONSULTANT (DDC) FOR CIVIL, ARCHITECTURAL & BUILDING WORKS OF TWO UNDERGROUND STATION (CHOTI CHOUPAR & BADI CHOUPAR), SHAFT AND TUNNELS OF PHASE 1B OF JAIPUR METRO

ayesa

56, Indo-Asia House, Institutional Area, sector-44
Gurgaon - 122002 (Haryana)

DELHI METRO RAIL CORPORATION LTD.
Metro Bhawan , Fire Brigade Lane, Barakhamba Road, New Delhi-110001

PHASE 1B JAIPUR METRO PROJECT

STATION: **BADI CHOUPAR**

DRAWING TITLE: ELECTRICAL LAYOUT UNDERCROFT LEVEL

DRAWN BY:	CHECKED BY:	VERIFIED BY:	
SURJEET	H.O.B	LRS	
DATE: 31-03.2015	REV: R0	GRAPHICAL SCALE: 1:150	STATUS: FOR TENDER

DRAWING NUMBER:	SHEET NO.	SHEET SIZE	ORDER N°	
JP-TD-EL-11BC-1501	1 OF 3	UNE A1	P36-0017	JP/EW/1B/DDC01 ELECTRICAL

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2	B		BASIC BATTEN LUMINARIES (SIMILAR TO PHILIPS CATALOGUE NO. TMC 122 / 1X28 OR KESELEC CATALOG NO RAILUX 1X28 HF) FOR "TL'D FLUORESCENT LAMP (T5 LAMP)
3	C		BASIC BATTEN LUMINARIES (SIMILAR TO PHILIPS CATALOGUE NO. TMS 122 / 2X28W OR KESELEC CATALOG NO. INDILUX V 228 HF WITH VITREOUS ENAMELLED REFLECTOR) FOR "TL'D FLUORESCENT LAMP (T5 LAMP)
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5	H	WG	BATTEN LUMINARIES (SIMILAR TO PHILIPS CATLIGUE. NO. TCW 450 /1X28 OR KESELEC CATLOG NO. RAILUX 1X28 HF) FOR "TL'D FLUORESCENT LAMP (T5 LAMP)
6	I		RECESSED CIRCULAR DOWN LIGHT LUMINARIES (SIMILAR TO PHILIPS CATALOGUE.NO FBH 145 / 218 OR KESELEC CATALOG NO.NOVA 2X18 (G))
7	J		MIRROR OPTIC, RECESSED MOUNTED LUMINARIES (SIMILAR TO PHILIPS CATALOGUE.NO TBS 255 TCS 228 OR KESELEC CATALOG NO.PHARMA 2X28 HF)
8	K		MIRROR OPTIC RECESS MOUNTED LUMINARIES (SIMILAR TO PHILIPS CATALOGUE.NO TBS 669 / 228 D6 OR KESELEC CATALOG NO.CT LUX 2X28 HF)
9	L		MIRROR OPTIC RECESS MOUNTED LUMINARIES (SIMILAR TO PHILIPS CATALOGUE.NO TBS 669 / 128 D6 OR KESELEC CATALOG NO.CT LUX DL 1X28 HF)
10	P		BULK HEAD LUMINARIES (SIMILAR TO PHILIPS CATALOGUE NO FXC 101 OR KESELEC CATALOG NO. KBH 1X9 W) SUITABLE FOR MOUNTING ON WALL / CEILING
11	Q		2X28W FTL LAMP (T5 LAMP) PREWIRED UPTO A TERMINAL BOX WITH LAMP, HAVING IP 65 (SIMILAR TO PHILIPS CATALOGUE NO. TCW 097 \ 2X28W D6 HF OR KESELEC ZUMTOBEL MAKE FZ 2X28W HF) AND SUPPLIED WITH 2 NOS 28W TUBULAR FLUORESCENT LAMP (T5 LAMP).
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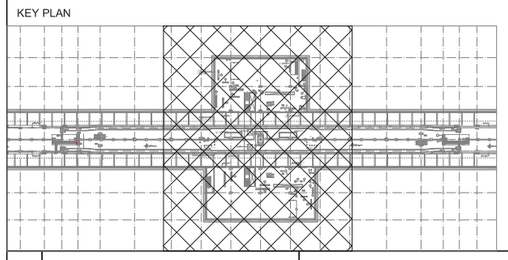
KEY PLAN



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Drg. No.	Description

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REVISIONS

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DY CSTE/SIGNALLING	CSTE-III	GM/O	GM/M
DY CE/PLANNING	DY CEE/E&M	DY CEE/ECS	ED/ELEC -II
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JP/EW/1B/DDC01 Project Manager

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ayesa

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Gurgaon - 122002 (Haryana)

DELHI METRO RAIL CORPORATION LTD.
Metro Bhawan , Fire Brigade Lane, Barakhamba Road, New Delhi-110001

PHASE 1B JAIPUR METRO PROJECT

STATION: **BADI CHOUPAR**

DRAWING TITLE: ELECTRICAL LAYOUT UNDERCROFT LEVEL

DRAWN BY:	CHECKED BY:	VERIFIED BY:	
SURJEET	H.O.B	LRS	JP/EW/1B/DDC01
DATE: 31-03.2015	REV: R0	GRAPHICAL SCALE: 1:150	STATUS: FOR TENDER
DRAWING NUMBER: JP-TD-EL-11BC-1502	SHEET NO. 1 OF 3	SHEET SIZE UNE A1	ORDER Nº P36-0017

ELECTRICAL

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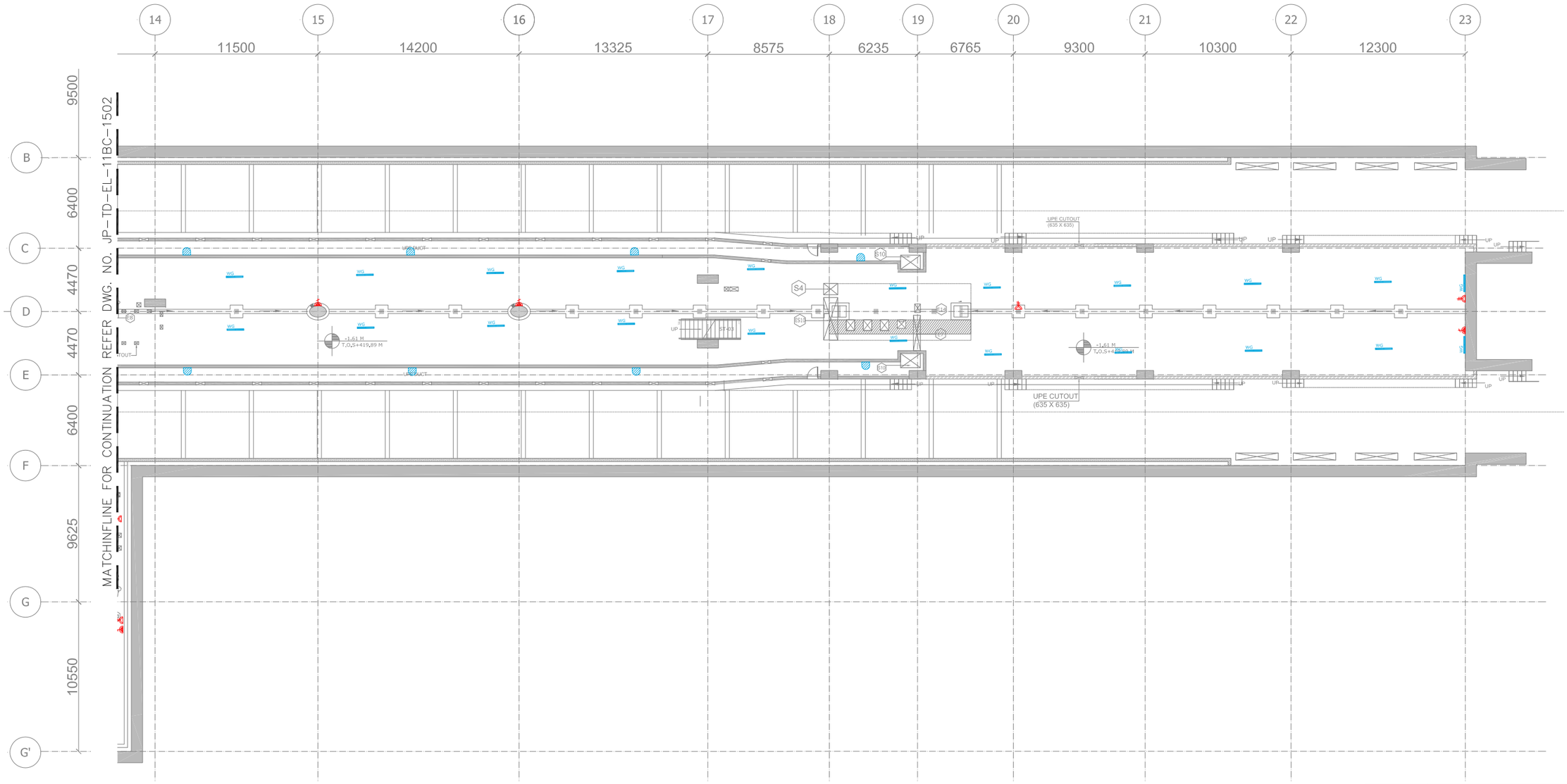
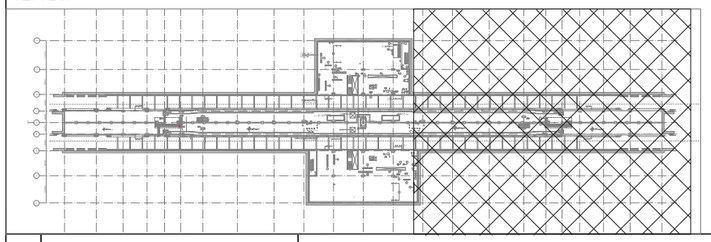


KEY PLAN



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Drg. No.	Description

REVISIONS

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Architecture
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Structure
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E&M
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ayesa

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Gurgaon - 122002 (Haryana)

DELHI METRO RAIL CORPORATION LTD.
Metro Bhawan , Fire Brigade Lane, Barakhamba Road, New Delhi-110001

PHASE 1B JAIPUR METRO PROJECT

STATION: **BADI CHOUPAR**

DRAWING TITLE: ELECTRICAL LAYOUT UNDERCROFT LEVEL

DRAWN BY:	CHECKED BY:	VERIFIED BY:
SURJEET	H.O.B	LRS

DATE:	REV:	GRAPHICAL SCALE:	STATUS:
31-03.2015	R0	1:150	FOR TENDER

DRAWING NUMBER:	SHEET NO.	SHEET SIZE	ORDER N°
JP-TD-EL-11BC-1503	1 OF 3	UNE A1	P36-0017

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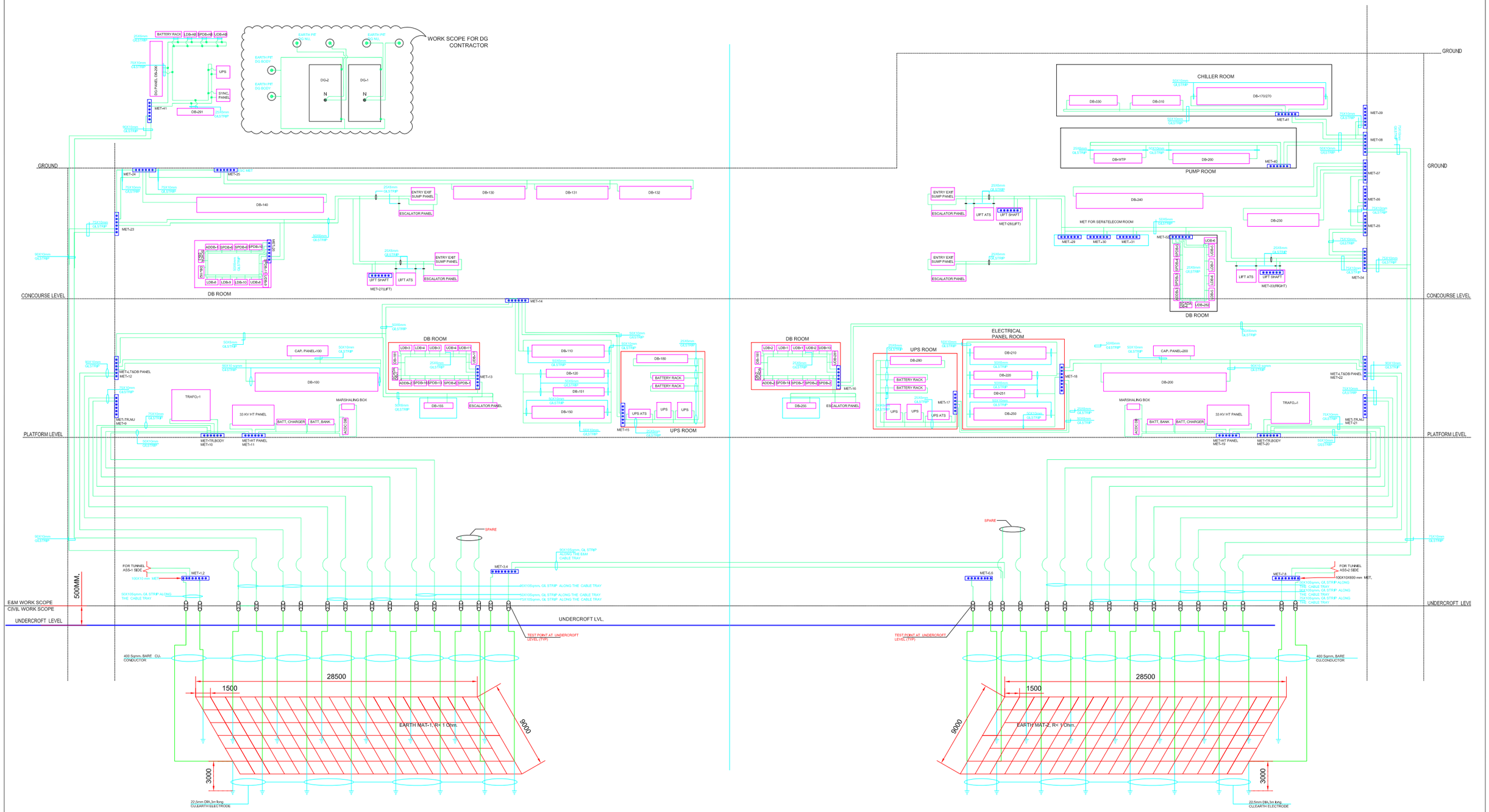

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JP/EW/1B/DDC01 Project Manager

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ayesa Engineering. Information. Imagination.
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DELHI METRO RAIL CORPORATION LTD.
Metro Bhawan , Fire Brigade Lane, Barakhamba Road, New Delhi-110001

PHASE 1B JAIPUR METRO PROJECT

STATION: BADI CHOUPAR

DRAWING TITLE: SCHEMATIC DIAGRAM FOR PROTECTIVE EARTHING SYSTEM-ASS-1 & 2

DRAWN BY :	CHECKED BY:	VERIFIED BY:
SURJEER	H.O.B	LRS

DATE:	REV:	GRAPHICAL SCALE:	STATUS:
31-03-2015	R0	1:150	FOR TENDER

DRAWING NUMBER:	SHEET NO.	SHEET SIZE	ORDER N°
JP-TD-EL-11BC-1601	1 OF 2	UNE A1	P36-0017

JP/EW/1B/DDC01 ELECTRICAL

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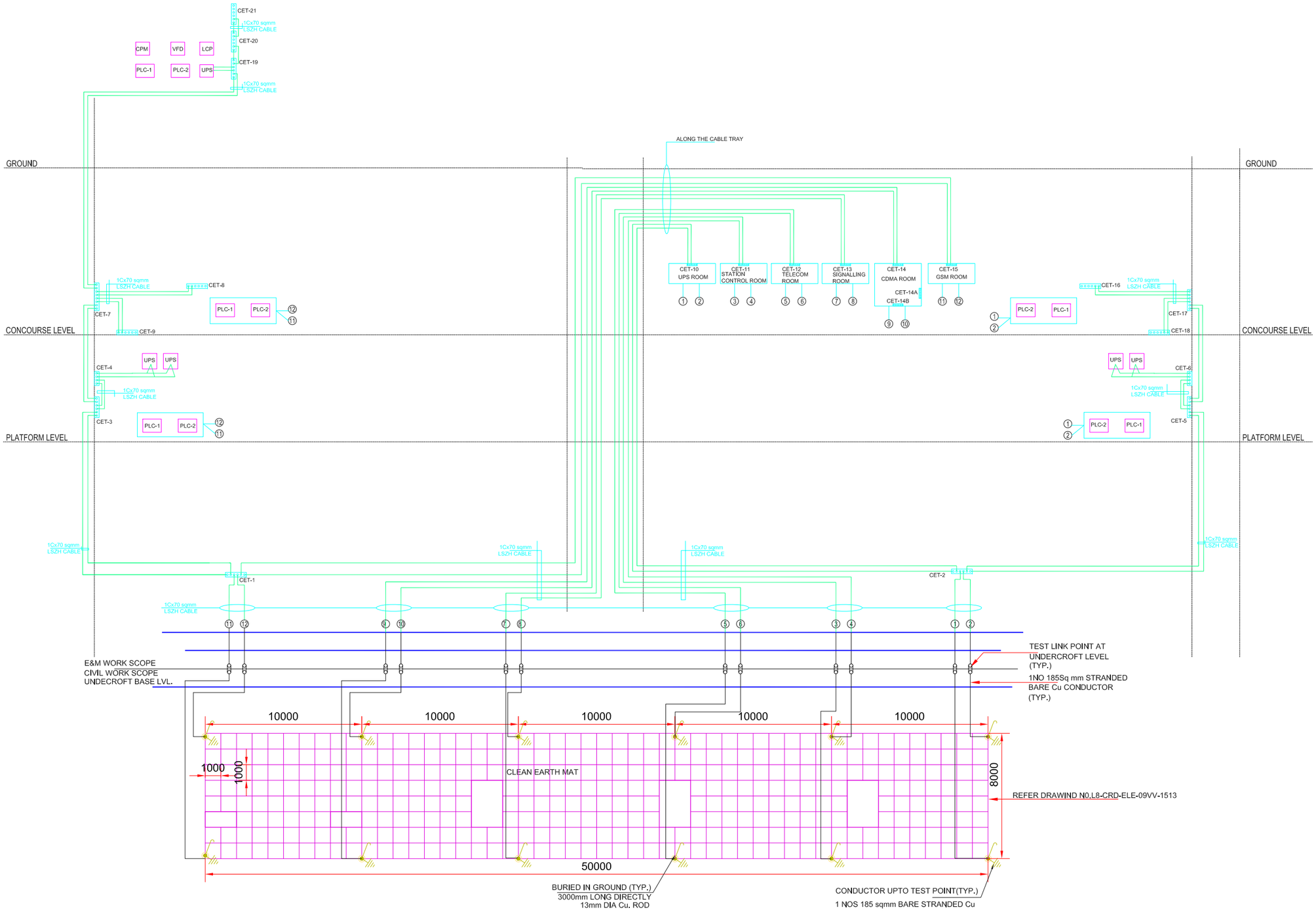

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Drg. No.	Description

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APPROVAL BY DMRC

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JP/EW/1B/DDC01 Project Manager

Architecture Design In-charge/ Coordinator

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Metro Bhawan , Fire Brigade Lane, Barakhamba Road, New Delhi-110001

PHASE 1B JAIPUR METRO PROJECT

STATION: BADI CHOUPAR

DRAWING TITLE: SCHEMATIC DIAGRAM FOR CLEAN EARTHING SYSTEM

DRAWN BY :	CHECKED BY:	VERIFIED BY:	
SURJEER	H.O.B	LRS	JP/EW/1B/DDC01 ELECTRICAL
DATE: 31-03-2015	REV: R0	GRAPHICAL SCALE: 1:150	STATUS: FOR TENDER
DRAWING NUMBER: JP-TD-EL-11BC-1602	SHEET NO. 2 OF 2	SHEET SIZE UNE A1	ORDER N° P36-0017

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