

**NOTE:**

1. EHV CABLE, 220kV BUS DUCT IS NOT SHOWN, SAME AS PER TECHNICAL SPECIFICATIONS
2. CONNECTION OF 220kV SIDE OF 400/220kV TRANS. TO EXISTING 220kV LINE BAYS (WHICH SHALL BE USED AS 220kV ICT BAYS) HAS NOT BEEN SHOWN, SAME SHALL BE AS PER PSR AND SPECIFICATIONS
3. DRAWING IS NOT IN SCALE

FOR TENDER PURPOSE ONLY
NEPAL ELECTRICITY AUTHORITY
ELECTRICAL LAYOUT PLAN OF 400kV NEW KHMITI SUBSTATION

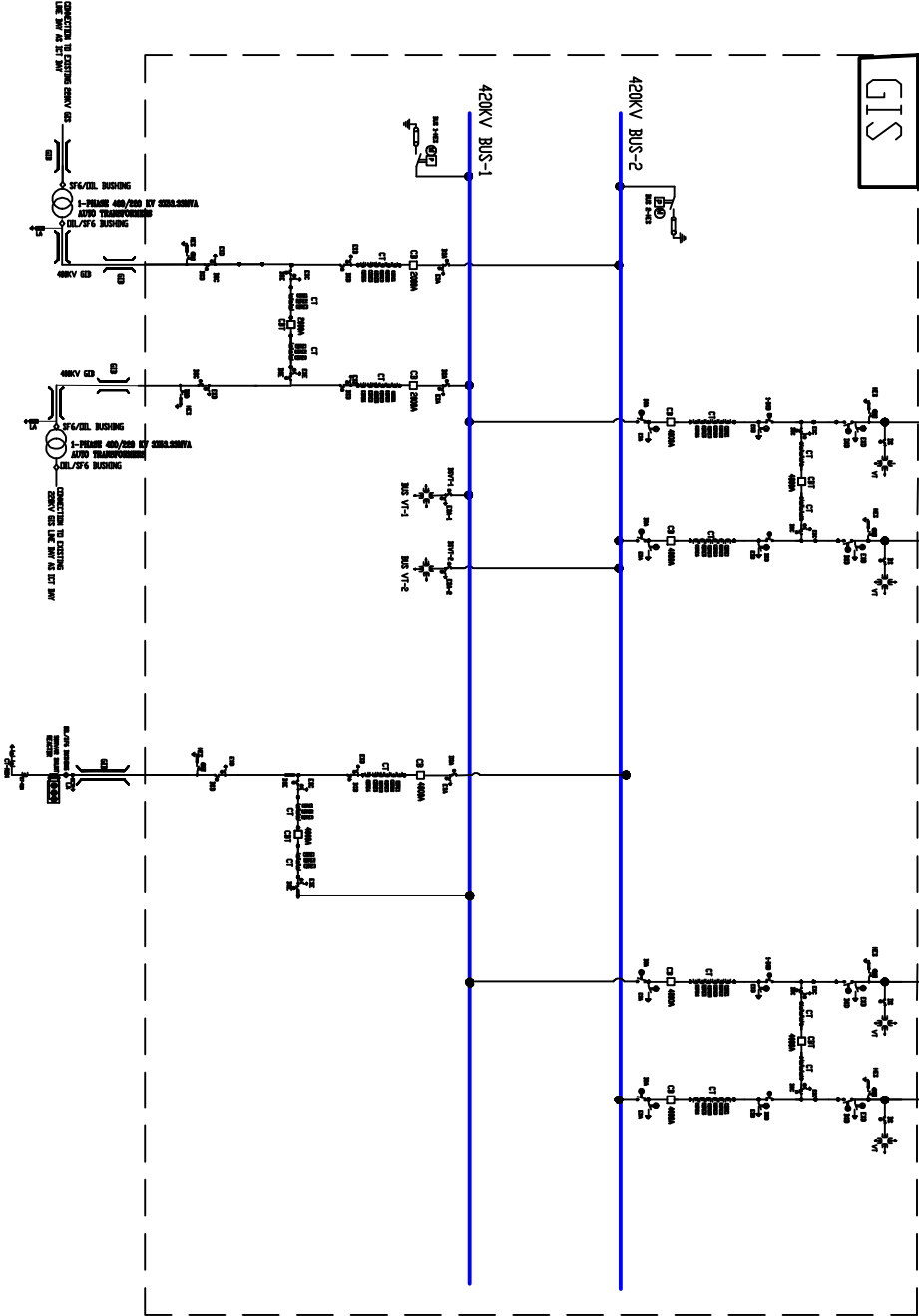
DRAWING NO. NEW KHMITI-GIS-LAYOUT-02(B) Rev 01

LEGEND:-

	GAS INSULATED BUS (GIB)
	HIGH SPEED GROUNDING SWITCH
	LIGHTNING ARRESTOR (LA)
	BUSDUCTS/AB/ST/OIL AND TL/AB
	EARTHING SWITCH
	GROUNDING SWITCH
	DISCONNECTER
	AUTO TRANSFORMER
	CURRENT TRANSFORMER
	CIRCUIT BREAKER
	CAPACITIVE VOLTAGE TRANSFORMER
	SHUNT REACTOR
	VT

GENERAL NOTES

1. THIS DRAWING INDICATES A SINGLE LINE DIAGRAM FOR 420 KV GAS INSULATED SUBSTATION.
2. THIS DRAWING IS INDICATIVE ONLY. THE BIDDER SHALL SUBMIT DETAILED DRAWING INDICATING LOCATION OF CIRCUIT BREAKERS, CVT, LA, CTS, HIGH SPEED GROUNDING SWITCHES, DISCONNECTORS ETC. ALONGWITH THEIR TECHNICAL PARTICULARS.
3. CT PARAMETERS ARE GIVEN IN THE TECHNICAL SPECIFICATION ARE MINIMUM REQUIREMENTS HOWEVER, THE CT PARAMETERS WILL BE REVIEWED DURING DETAILED ENGINEERING.



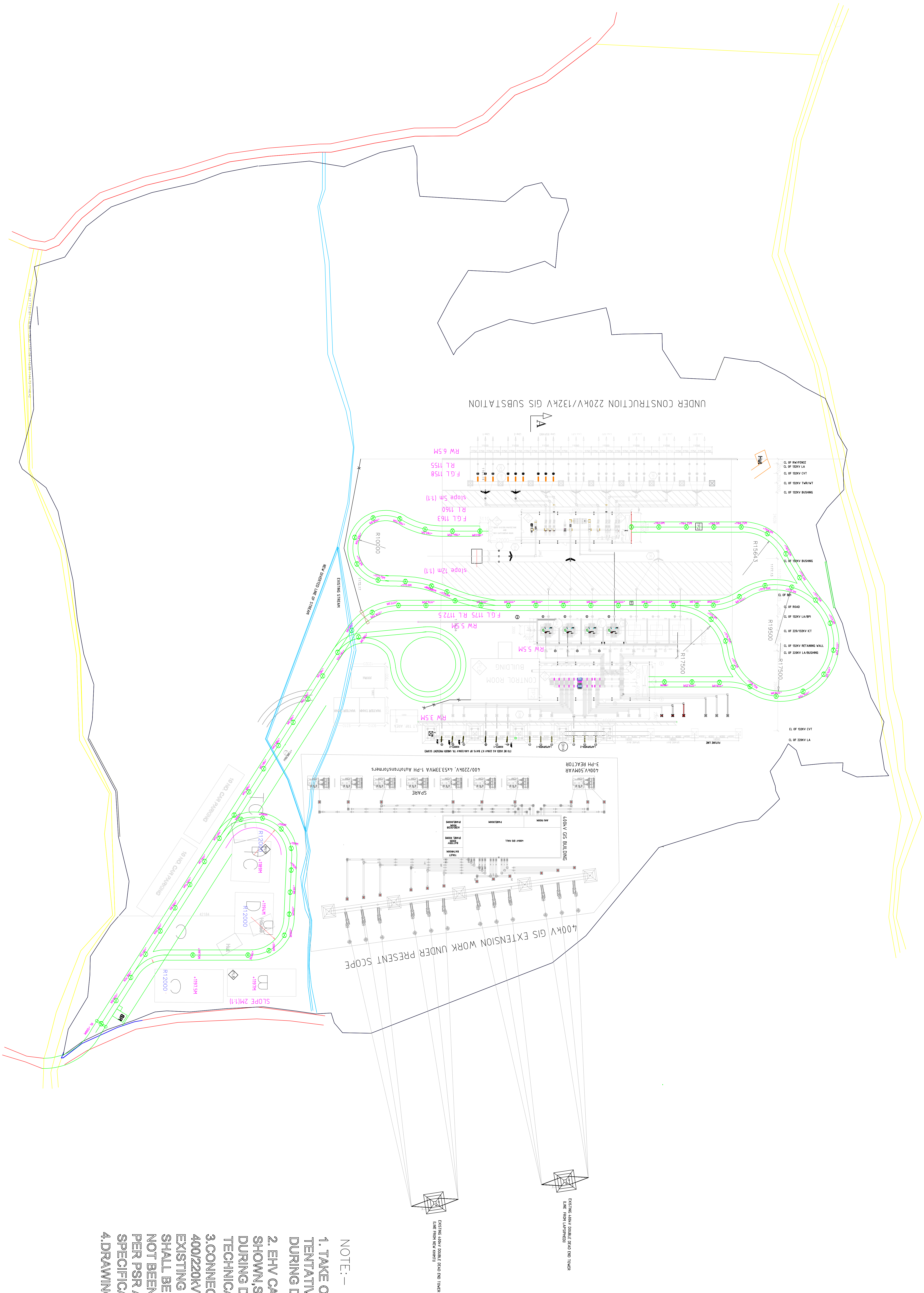
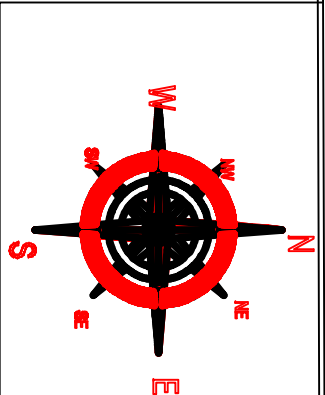
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REV	DATE	MODIFICATION
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420 KV GAS NEW BARHABASE SUBSTATION  
SINGLE LINE DIAGRAM



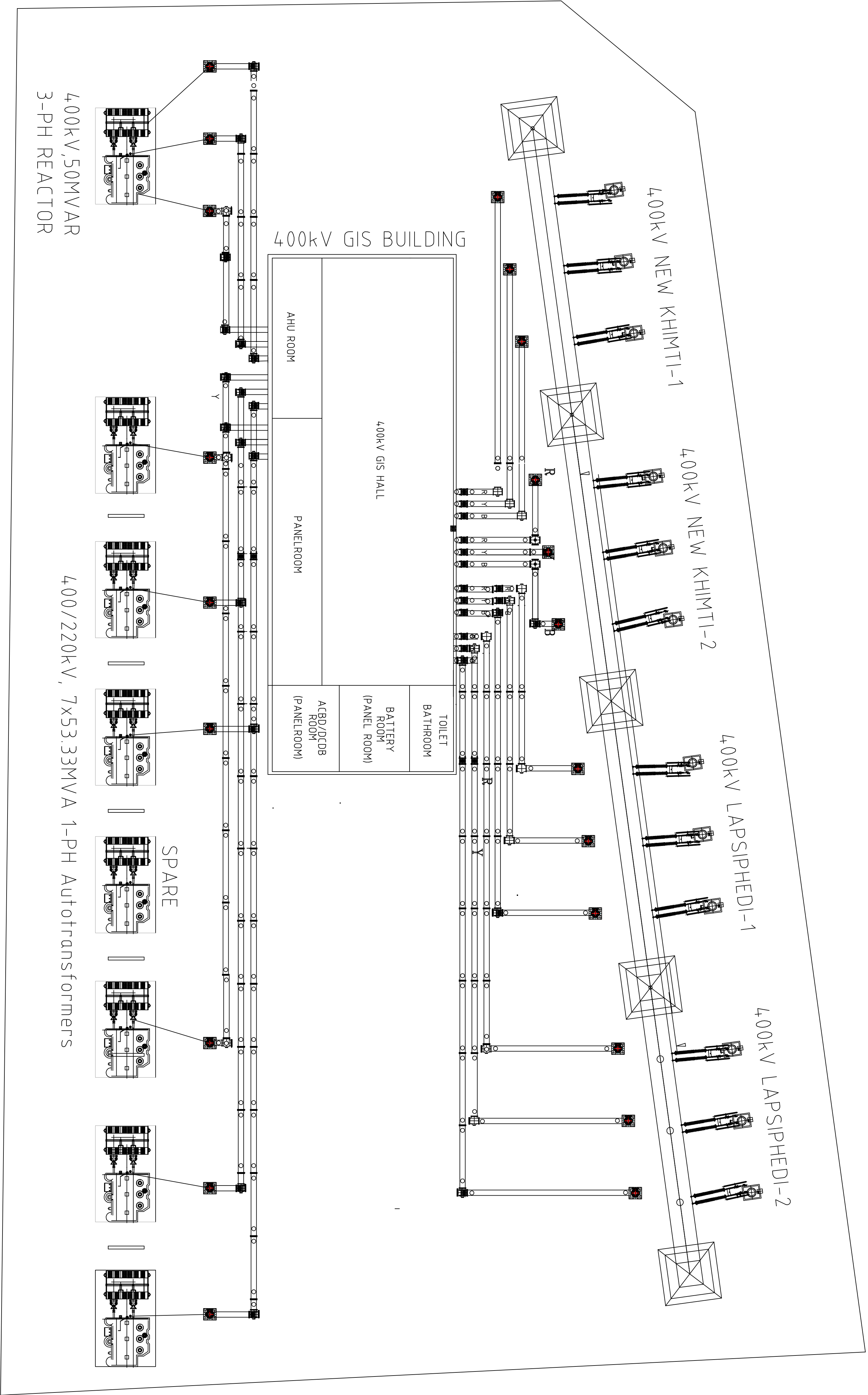


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NEPAL ELECTRICITY AUTHORITY

ELECTRICAL LAYOUT PLAN OF 400kV  
BARHAISE SUBSTATION





NOTE:—

- 1. EH/V CABLE, 220kV BUS DUCT IS NOT SHOWN, SAME SHALL BE FINALIZED DURING DETAIL ENGINEERING AS PER TECHNICAL SPECIFICATIONS
- 2. CONNECTION OF 220kV SIDE OF 400/220kV TRANSFORMER TO EXISTING 220kV LINE BAYS (WHICH SHALL BE USED AS ICT BAYS) HAS NOT BEEN SHOWN, SAME SHALL BE AS PER PSR AND TECHNICAL SPECIFICATIONS
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DRAWING

NO.: BARHABISE—GIS—LAYOUT—2(B) Rev 01

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NEPAL ELECTRICITY AUTHORITY

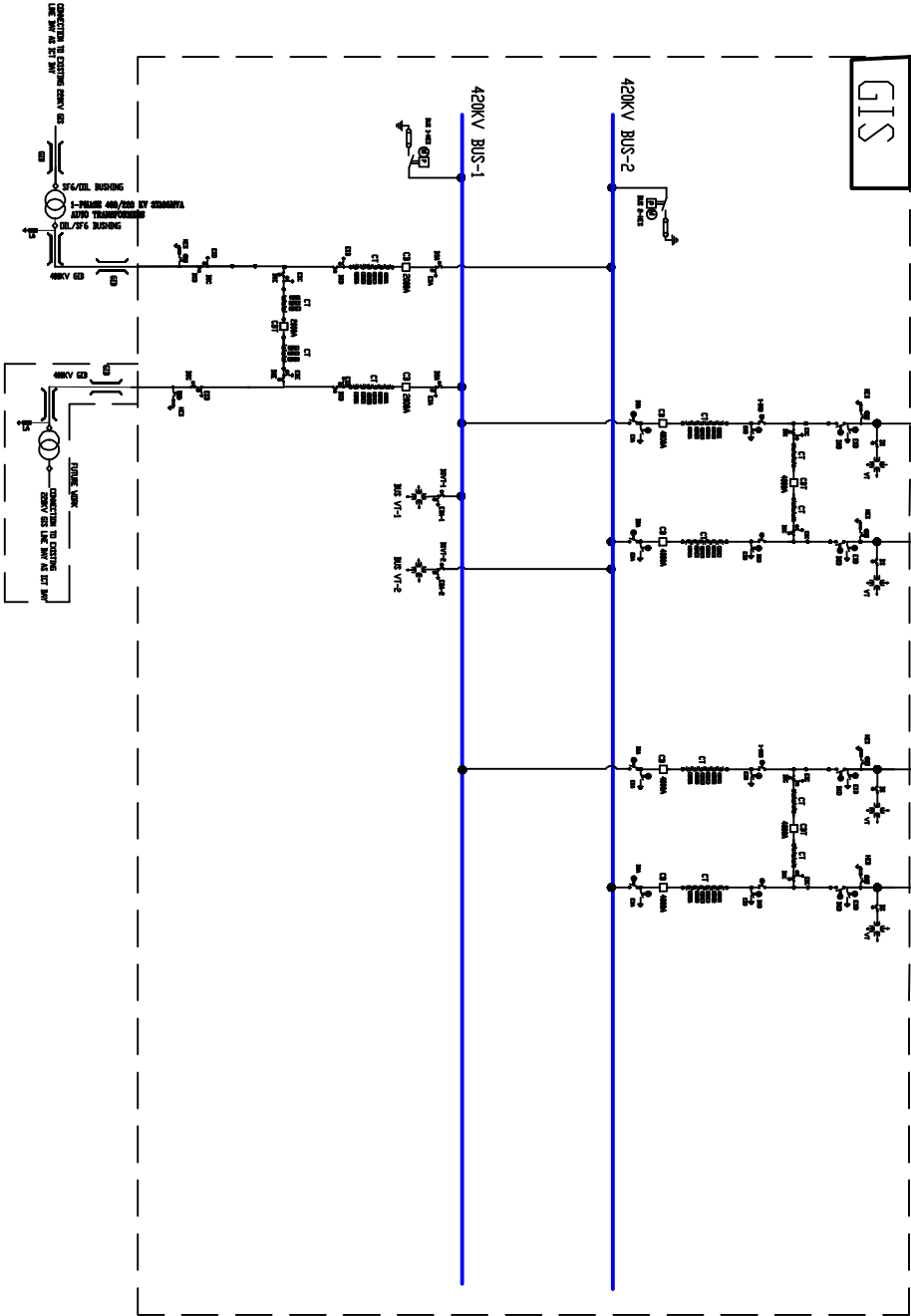
ELECTRICAL LAYOUT PLAN OF 400kV  
BARHABISE SUBSTATION

LEGEND:-

	GAS INSULATED BUS (GIB)
	HIGH SPEED GROUNDING SWITCH
	LIGHTNING ARRESTOR (LA)
	BUSDUCTS/AB/ST/OIL AND TL/AB
	EARTHING SWITCH
	GROUNDING SWITCH
	DISCONNECTER
	AUTO TRANSFORMER
	CURRENT TRANSFORMER
	CIRCUIT BREAKER
	CAPACITIVE VOLTAGE TRANSFORMER
	SHUNT REACTOR
	VT

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FOR TENDER PURPOSE ONLY

REV	DATE	MODIFICATION
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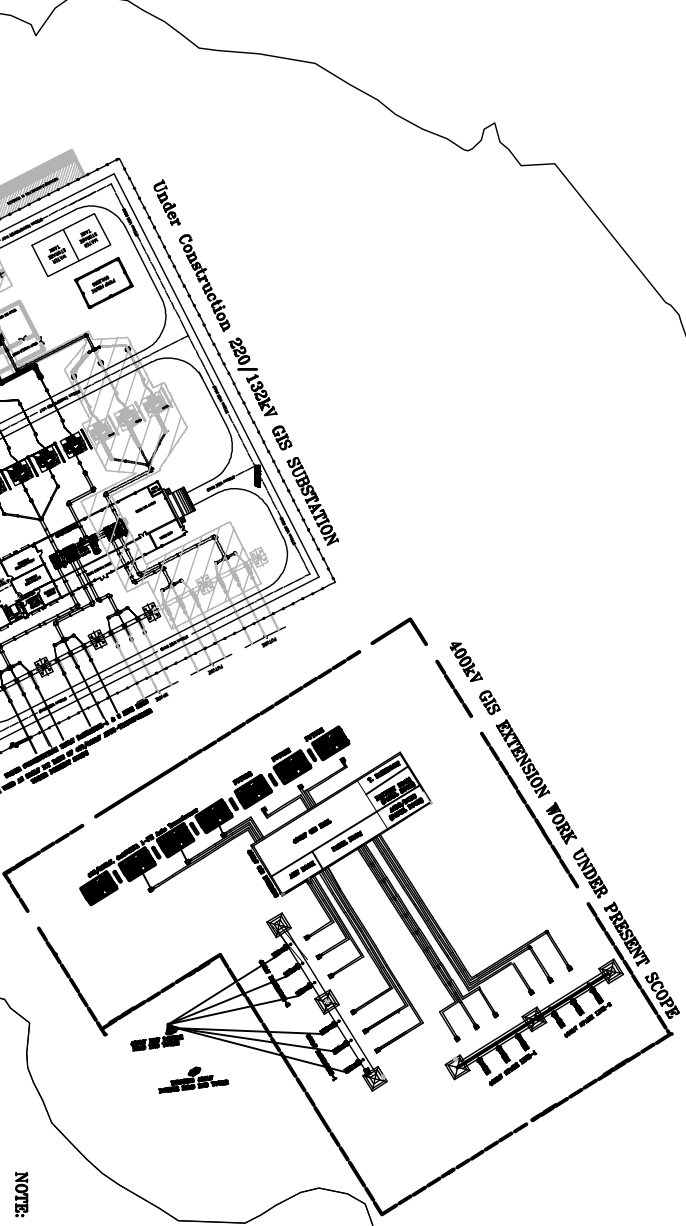
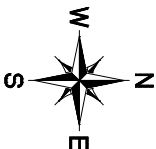


NEPAL ELECTRICITY AUTHORITY

420 KV GIB NEW LAPSEPHED SUBSTATION

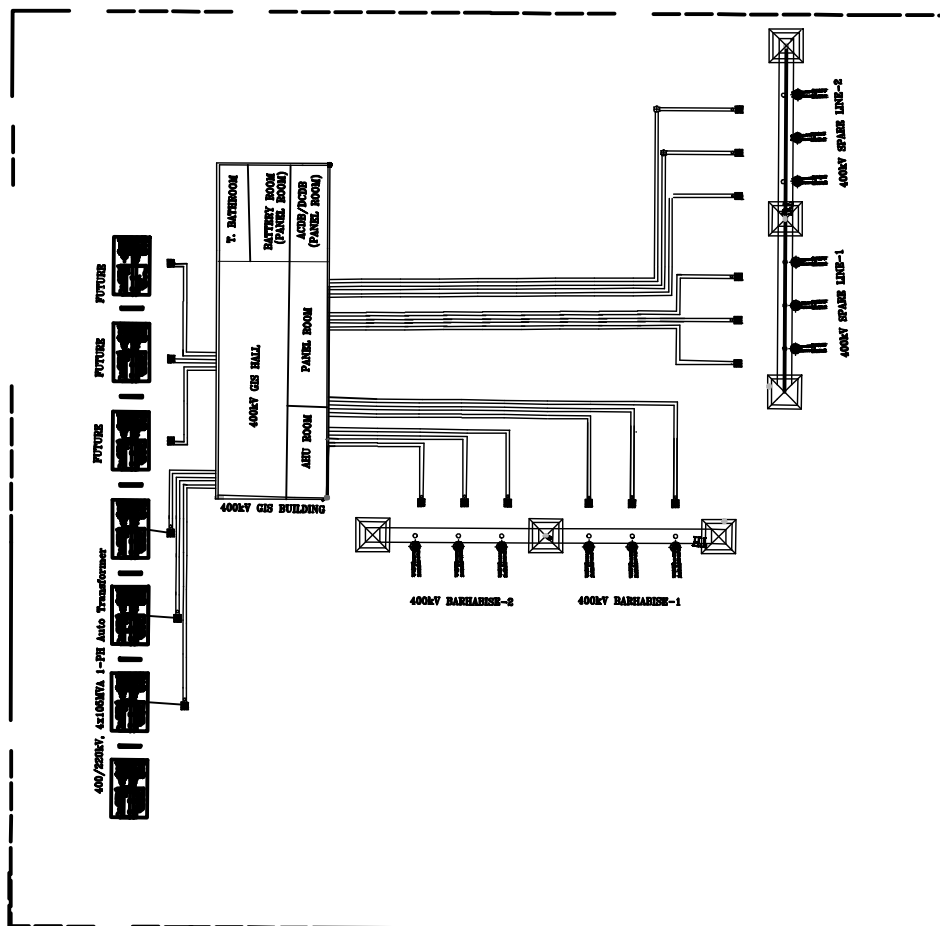
SINGLE LINE DIAGRAM

DRAWING NO. LAPSEPHED-GIB-2024-1 Rev 01



**NOTE:**

1. TAKE OFF OF 400kV LINE IS TENTATIVE.SAME SHALL BE FINALISED DURING DETAIL ENGINEERING
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4. DRAWING IS NOT IN SCALE



**NOTE:**

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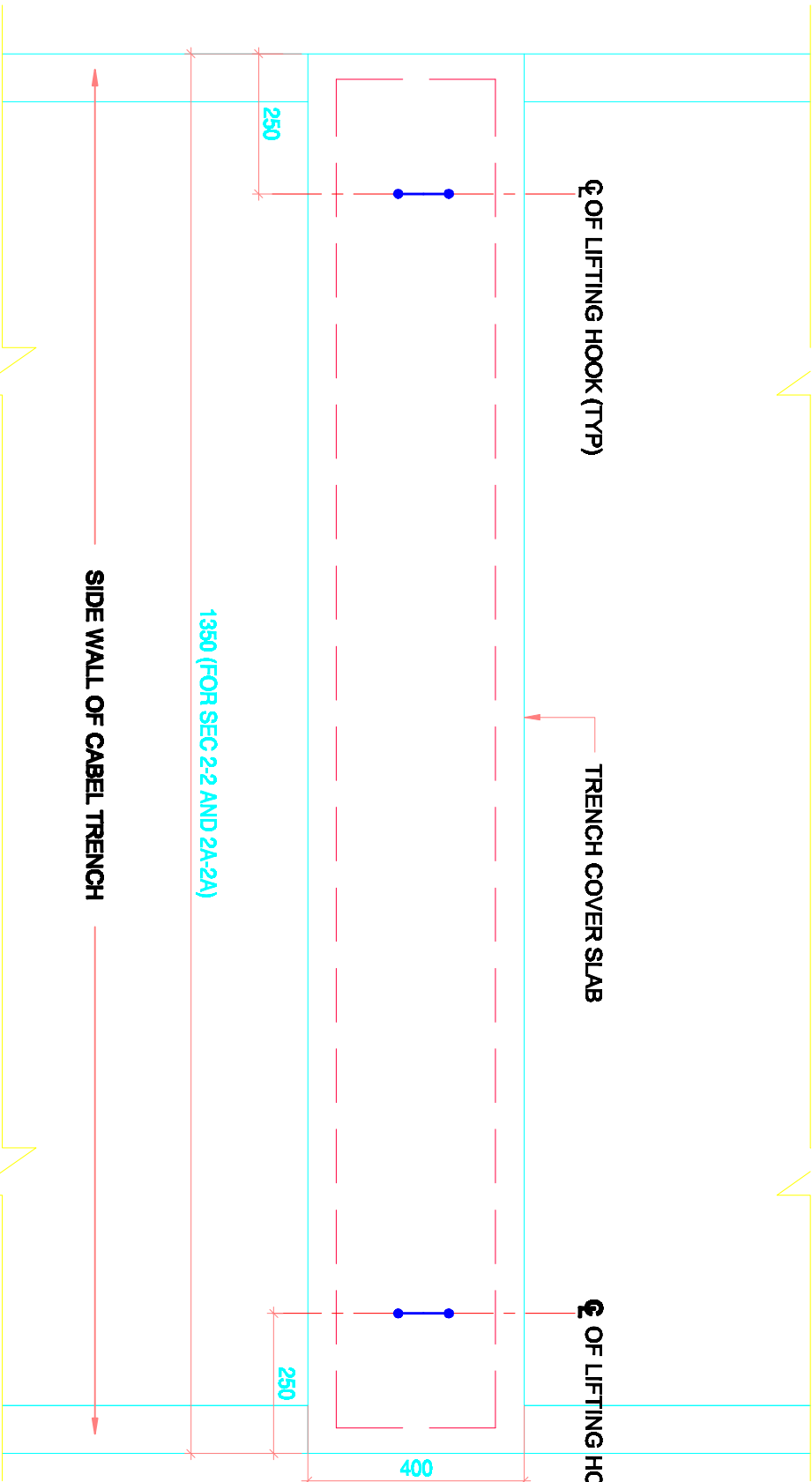
NEPAL ELECTRICITY AUTHORITY

ELECTRICAL LAYOUT PLAN OF  
400kV LAPSIPHEDI SUBSTATION

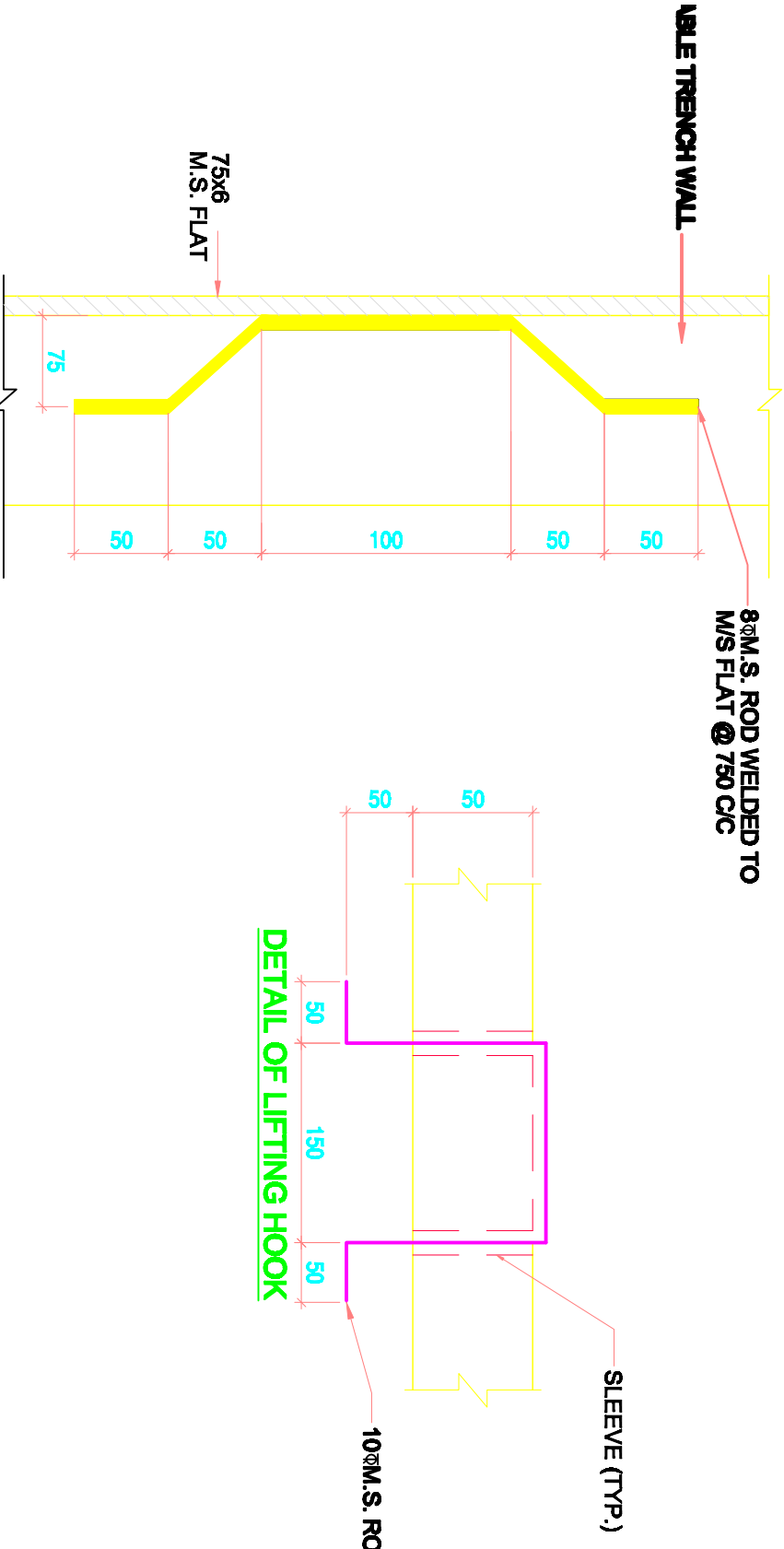
DRAWING NO.: LAPSIPHEDI-GIS-LAYOUT-02(B) Rev 01



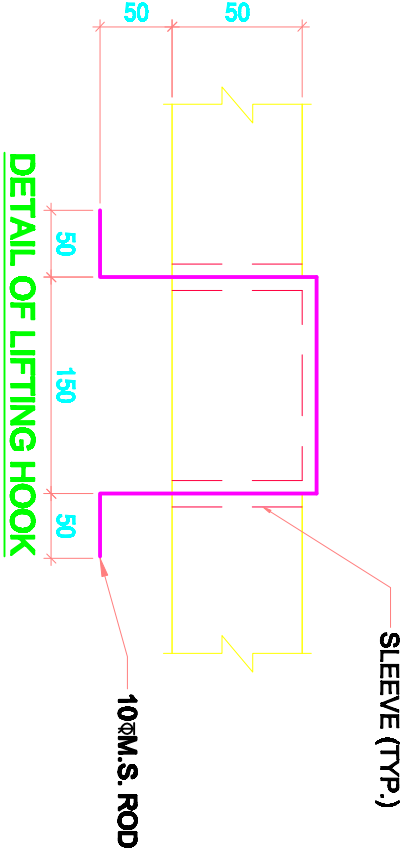




DETAIL OF TRENCH COVER SLAB  
FOR SECTION (2-2,2A-2A)

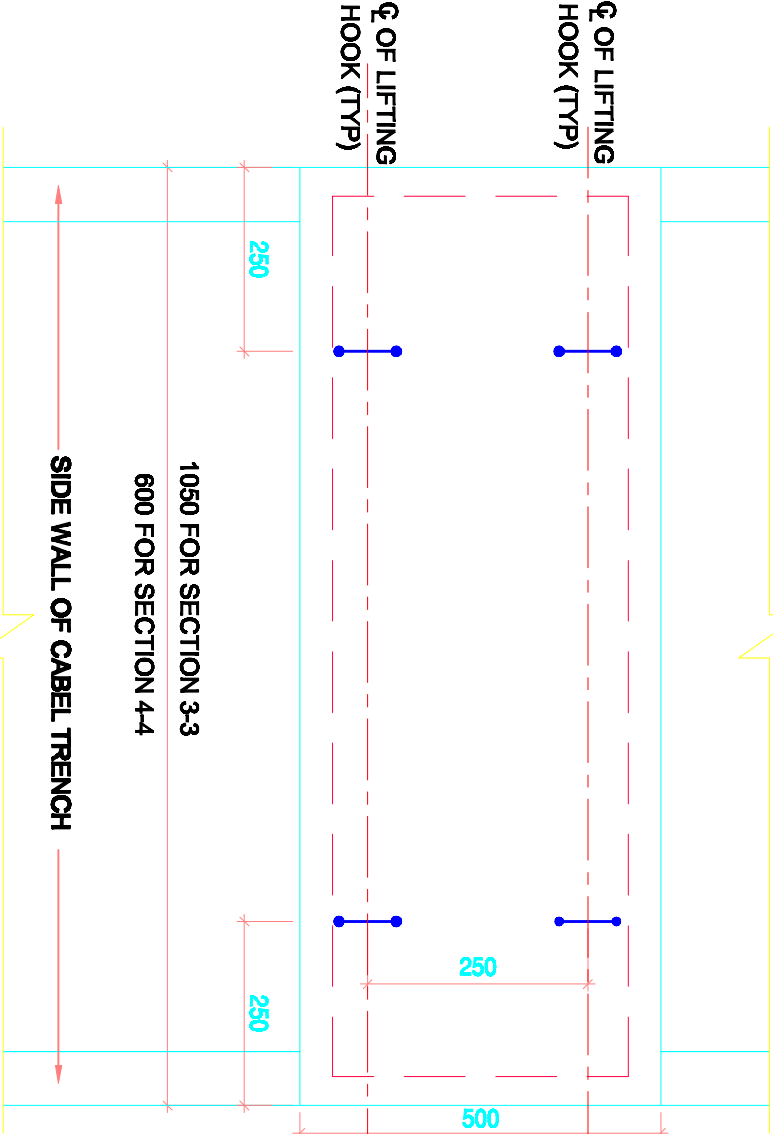


TYPICAL DETAIL OF ANCHORING  
75X6 M.S.FLAT



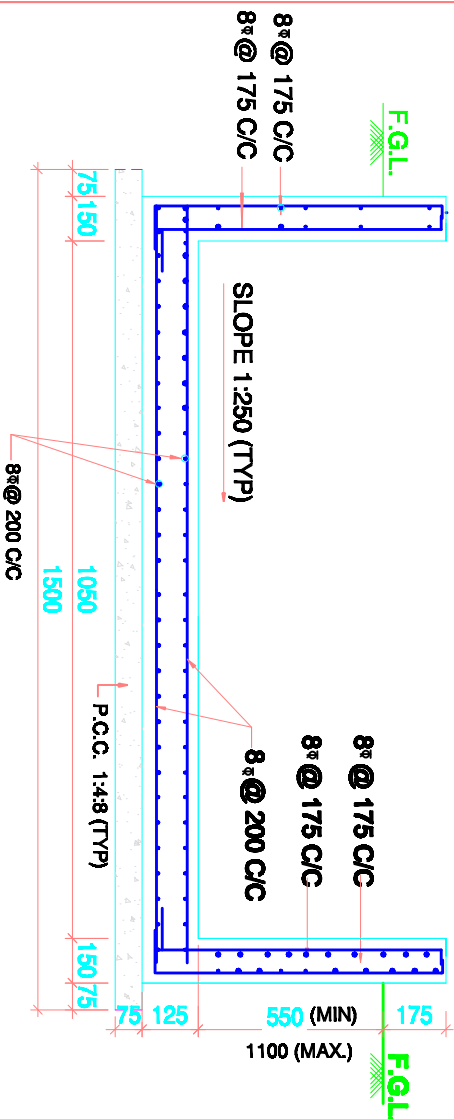
DETAIL OF LIFTING HOOK

1. ALL DIMENSIONS ARE IN MM. UNLESS NOTED OTHERWISE.
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3. LAP LENGTH SHALL BE 47 TIMES DIA OF BAR.
4. PROVIDE CLEAR COVER TO REINF. AS UNDER. \*25mm FOR TOP SIDE OF BOTTOM SLAB. \*50mm FOR OUTER SIDE OF WALL.
5. ALL R.C.C SHALL BE OF GRADE AS PER BPS ITEM.
6. LIFTING HOOK SHALL BE PROVIDED IN EVERY TENTH COVER SLAB.
7. NECESSARY OPENINGS SHALL BE PROVIDED AT APPROPRIATE LOCATIONS TO TAKE OUT CABLES.
8. FOR ACTUAL DEPTH OF TRENCHES REFER APPROVED CABLE TRENCH LAYOUT.
9. F.G.L. DENOTES FINISHED GROUND LEVEL.
10. ALL CABLE TRENCHES SHALL HAVE A SLOPE OF 1:1000 IN THE DIRECTION OF MAIN RUN AWAY FROM THE BUILDING.
11. EARTHING CONDUCTOR 'E' 50x6 M.S. FLAT SHALL BE WELDED TO THE CABLE SUPPORTING STRUCTURE BEFORE INSTALLATION OF CABLE. EARTHING CONDUCTOR SHALL BE PROVIDED ON TOP TIER.
12. ALL STEEL STRUCTURES PLATES SHALL BE PAINTED WITH ANTI-CORROSIVE PAINT OVER A COAT OF SUITABLE PRIMER BEFORE INSTALLATION OF CABLES, EARTHING CONDUCTOR SHALL BE PAINTED RED.
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14. ALL SUPPORT ANGLES SHALL BE 50x50x6.
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16. EARTHING CONDUCTOR 'E' SHALL BE PROVIDED ON THE TOP TIER OF EACH CABLE TRENCH SECTION.
17. ALL REINFORCEMENT STEEL BARS (  $\phi$  ) SHALL CONFORM TO IS:1786-1985 OF GRADE Fe500.

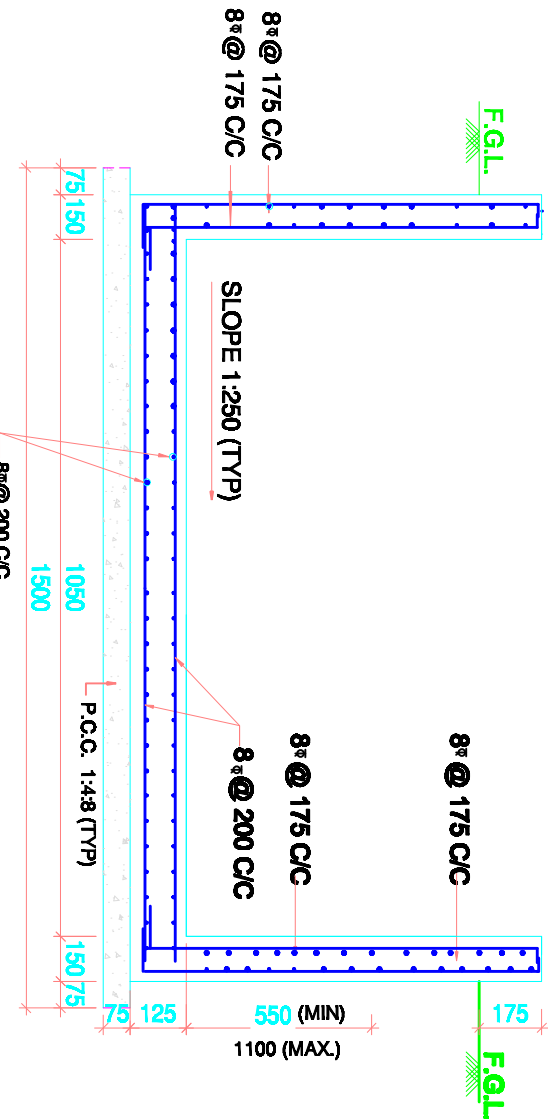


DETAIL OF TRENCH COVER SLAB  
FOR SECTION (3-3),(4-4)

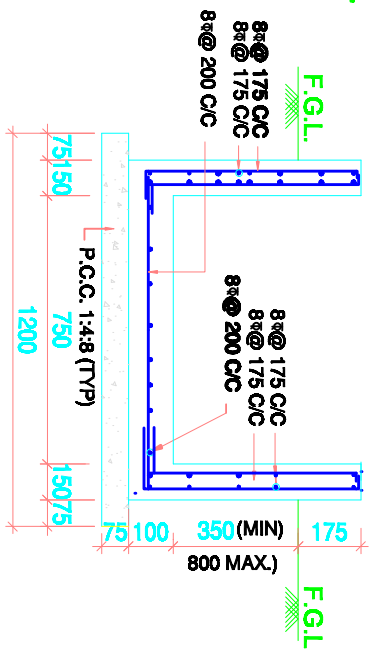
FOR TENDER PURPOSE ONLY		
NEPAL ELECTRICITY AUTHORITY		
NIETTPW/ICB-2/ISS		
CABLE TRENCHES		
DETAIL OF CABLE TRENCH SECTIONS		
NEA-KBL-CTS-02	DF	05



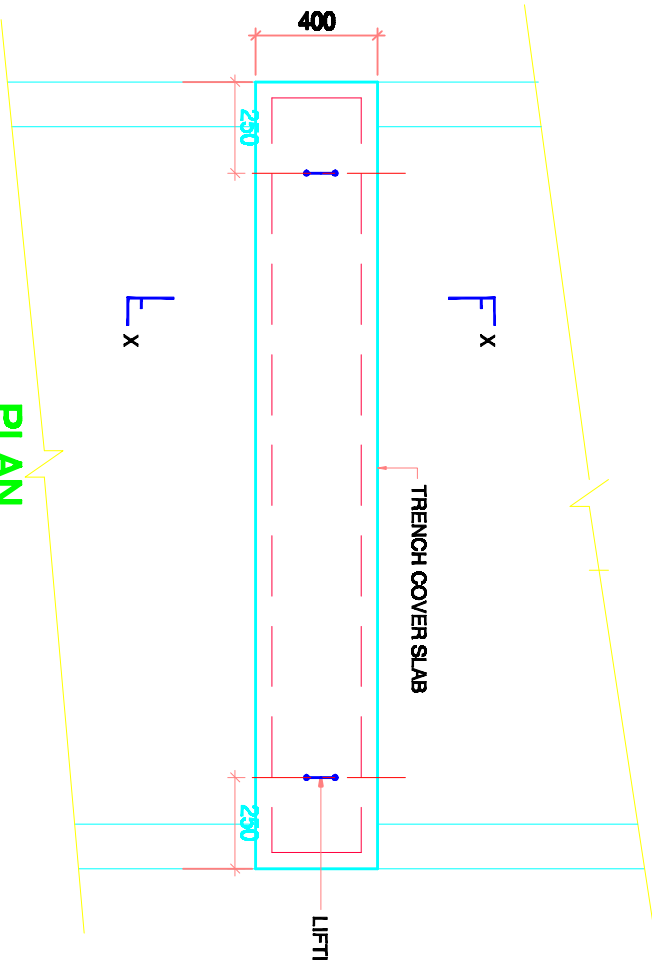
SECTION 2-2



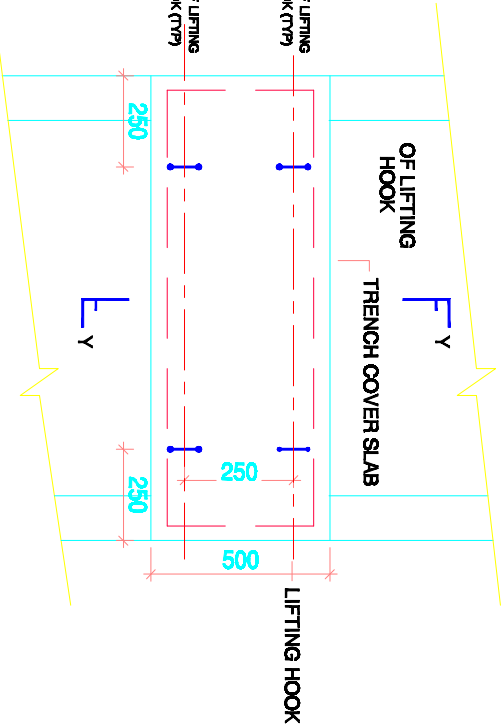
SECTION 2A-2A



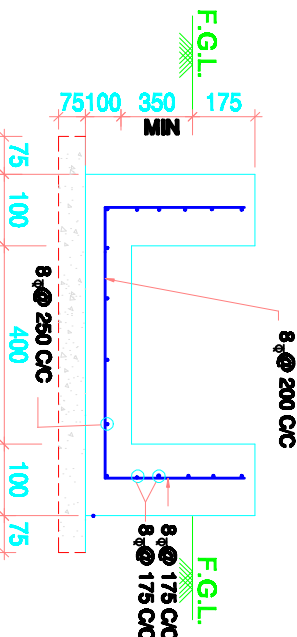
SECTION 3-3



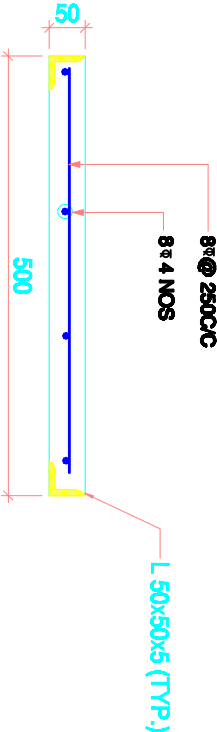
PLAN  
(DETAIL OF TRENCH COVER  
FOR SECTION A-A)



(DETAIL OF TRENCH COVER  
FOR SECTION B-B, C-C & D-D)



SECTION X-X



SECTION Y-Y

## General Notes

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17. ALL REINFORCEMENT STEEL BARS (Ø) SHALL CONFORM TO IS:1786-1985 OF GRADE Fe500.
18. COVER TO REINFORCEMENT SHALL BE 40 MM FROM OUT SIDE AND 25MM FROM INSIDE OF CABLE TRENCH.
19. BAR BENDING SCHEDULE SUBMITTED FOR APPROVAL OF SITE IN CHARGE PRIOR TO INSTALLATION.

FOR TENDER PURPOSE ONLY



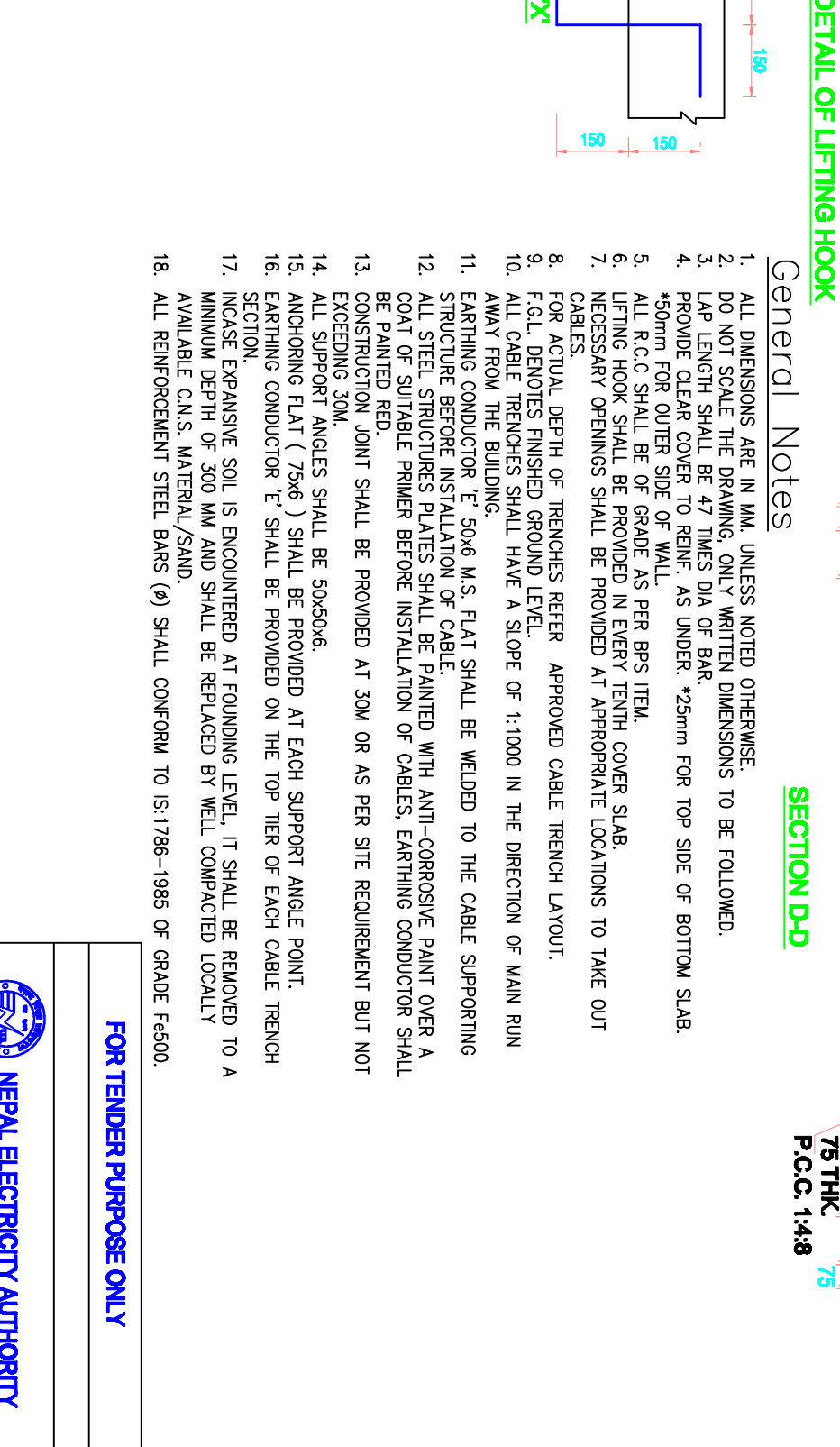
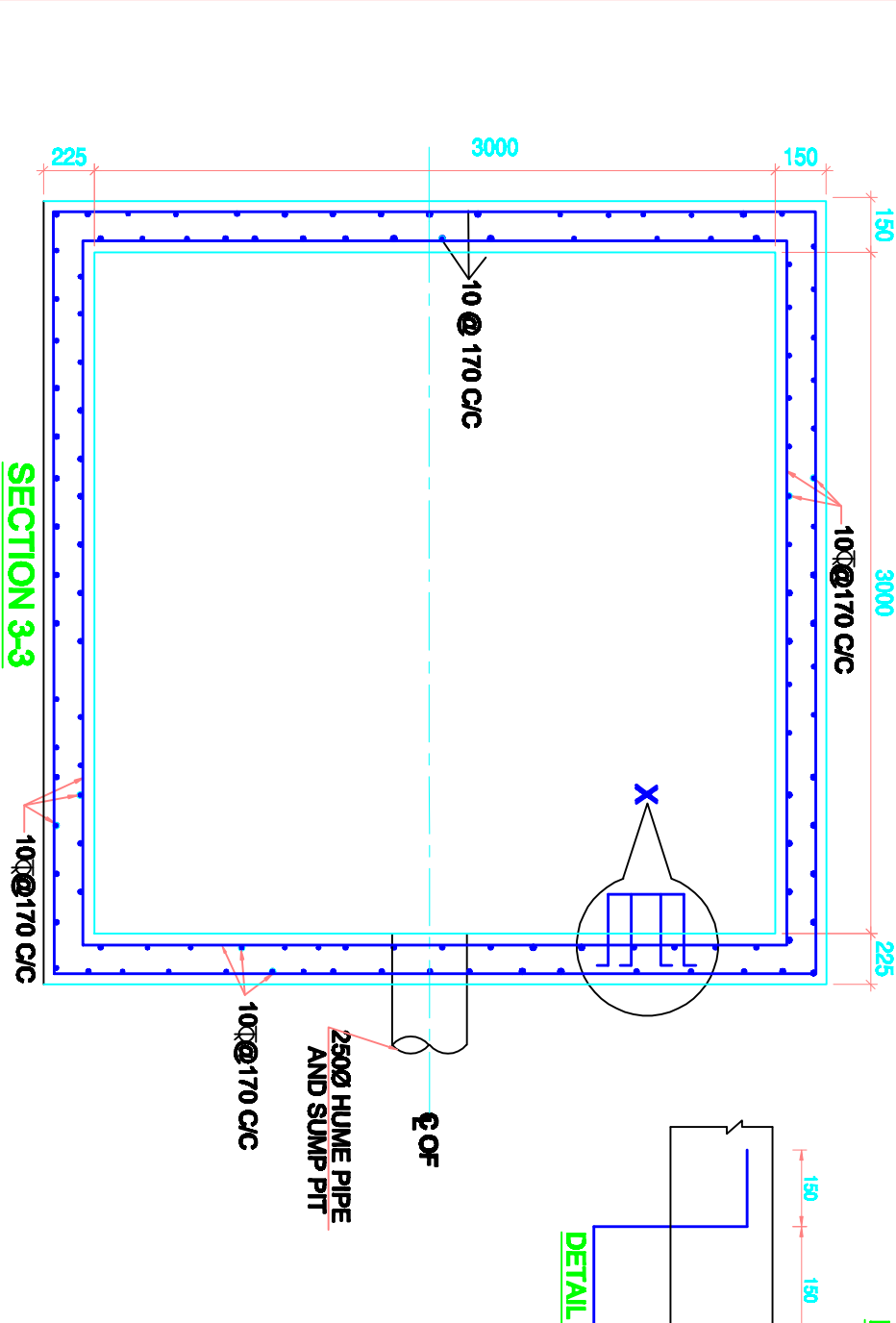
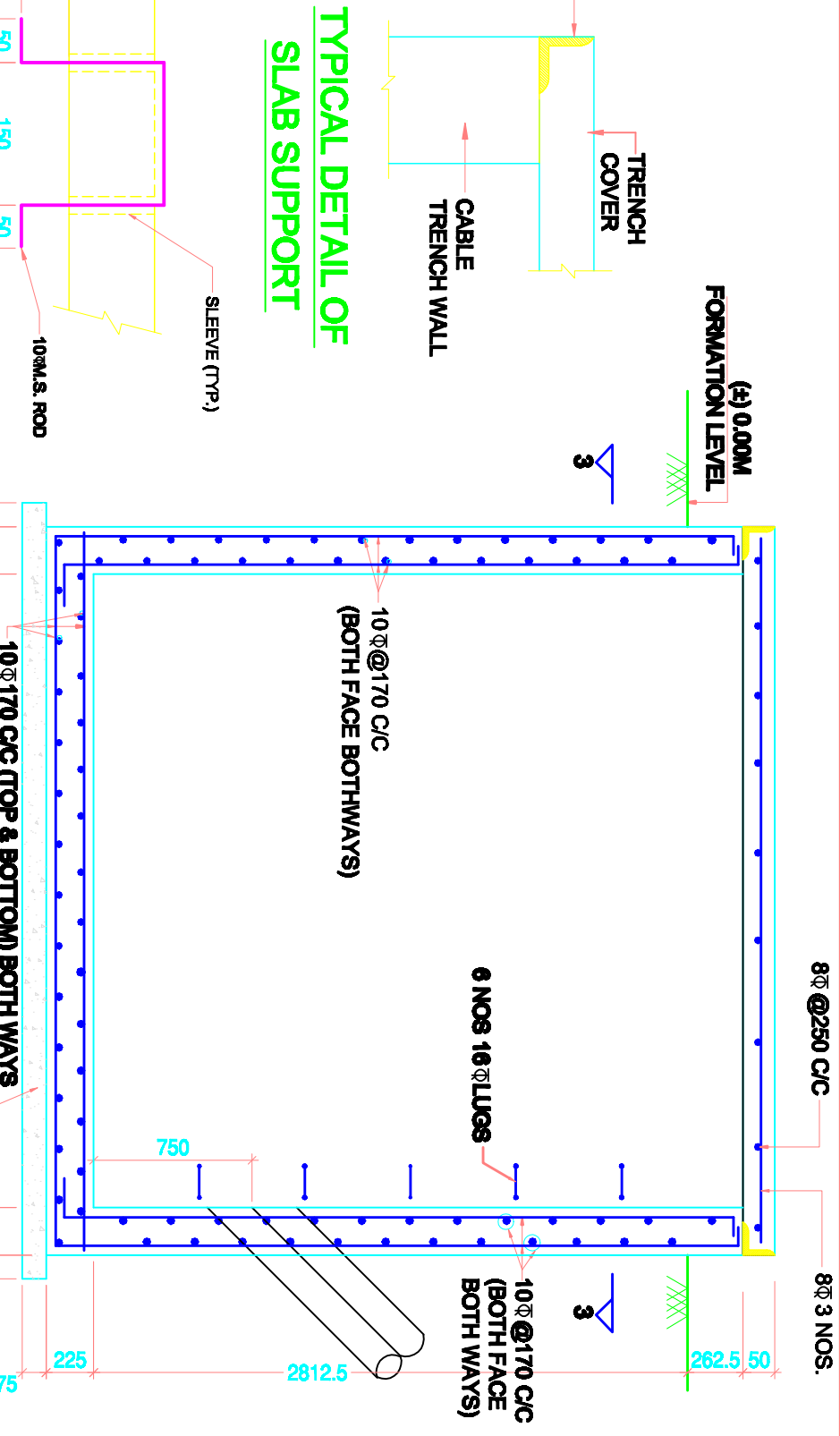
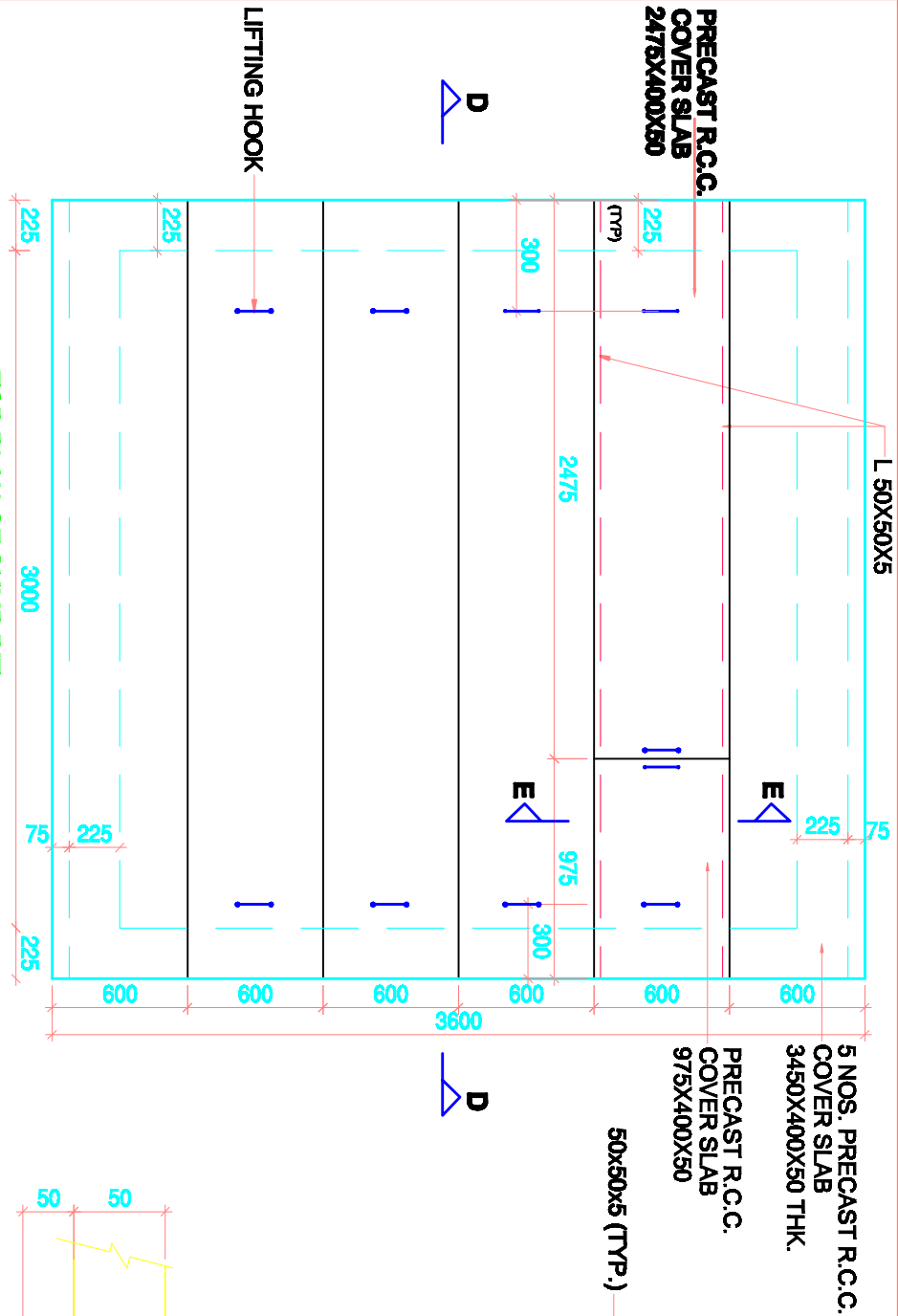
NEPAL ELECTRICITY AUTHORITY

NIETTPW/NCB-2/188

CABLE TRENCHES  
RCC DETAIL OF CABLE TRENCH SECTION

NEA-KBL-CTS-03 DF 05

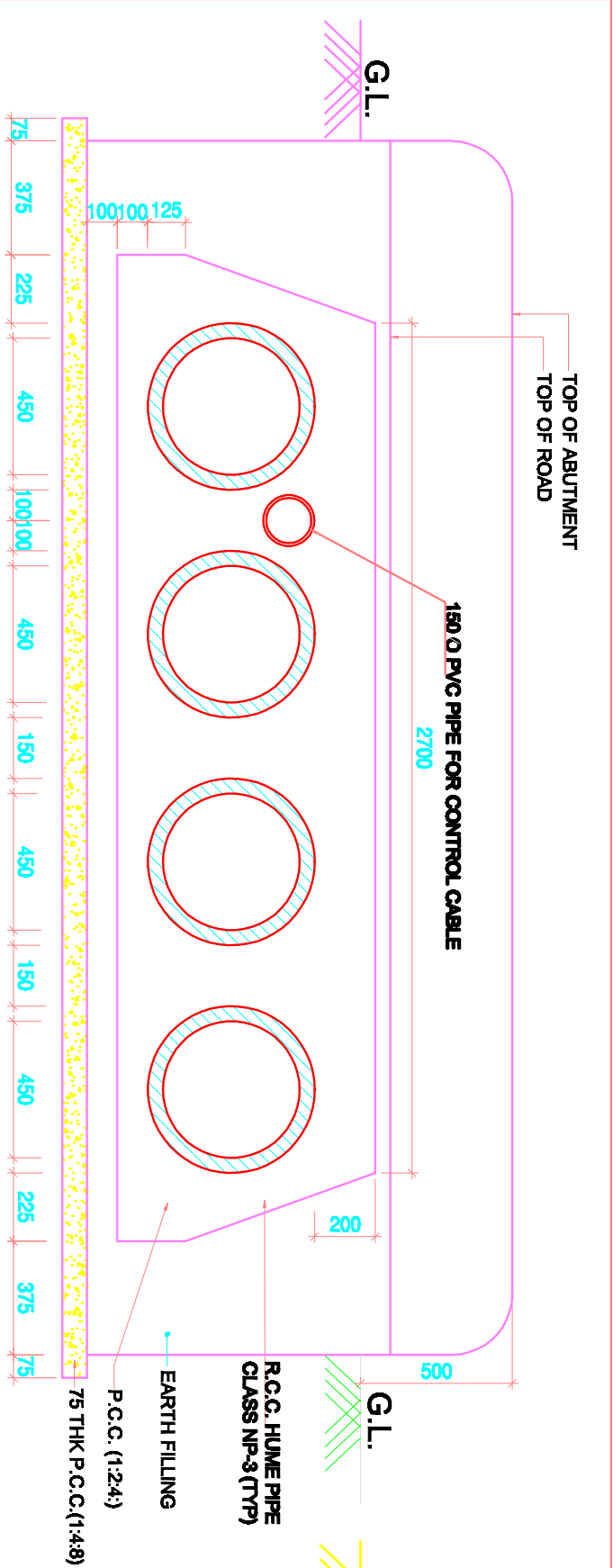




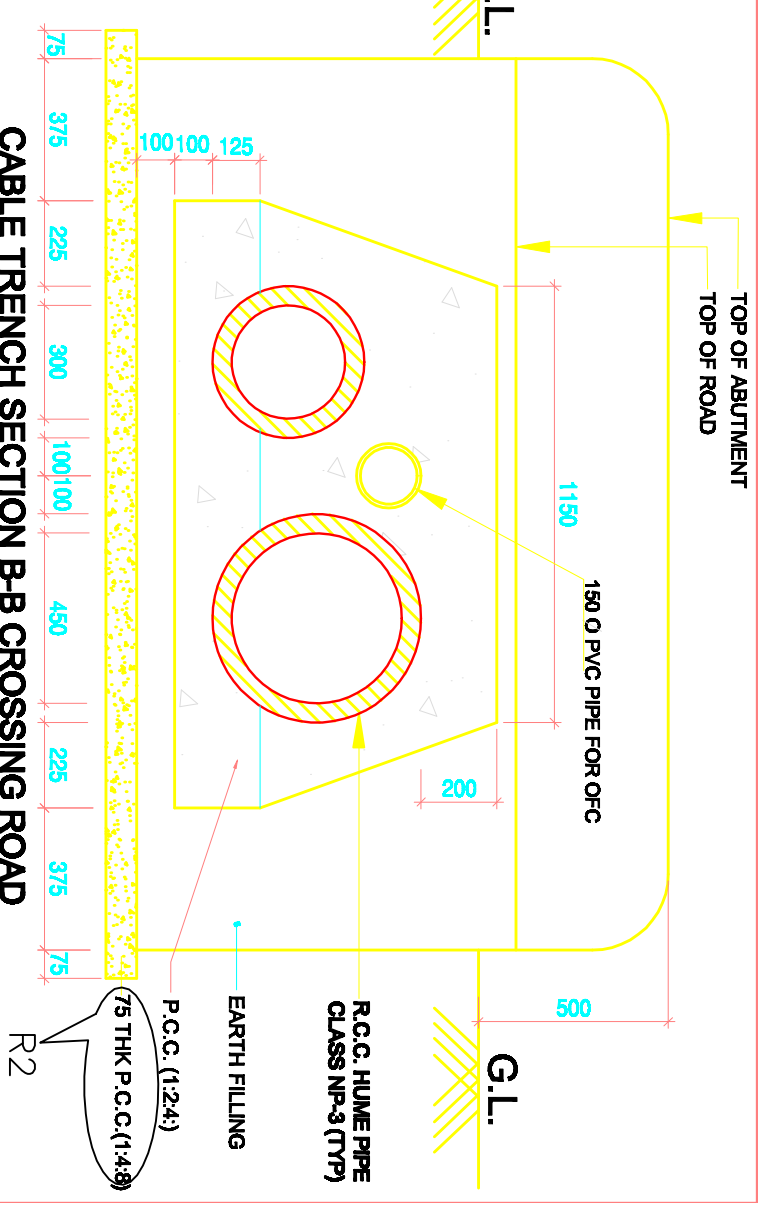
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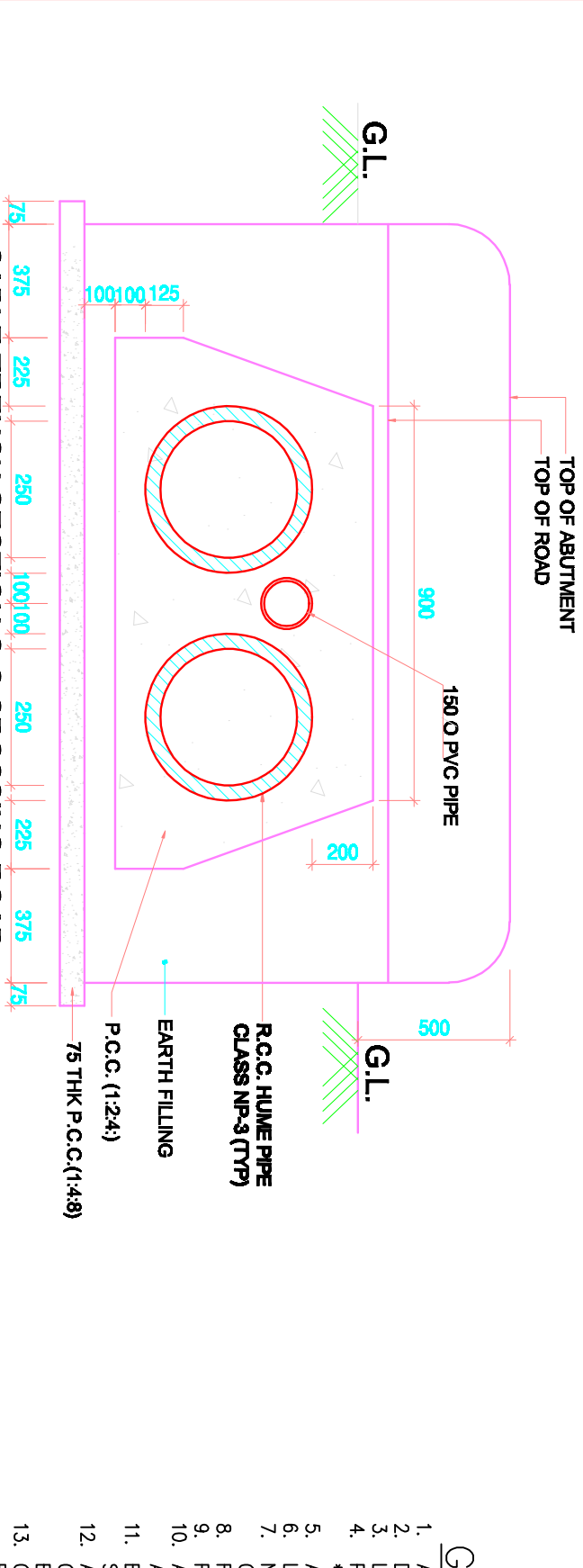
FOR TENDER PURPOSE ONLY



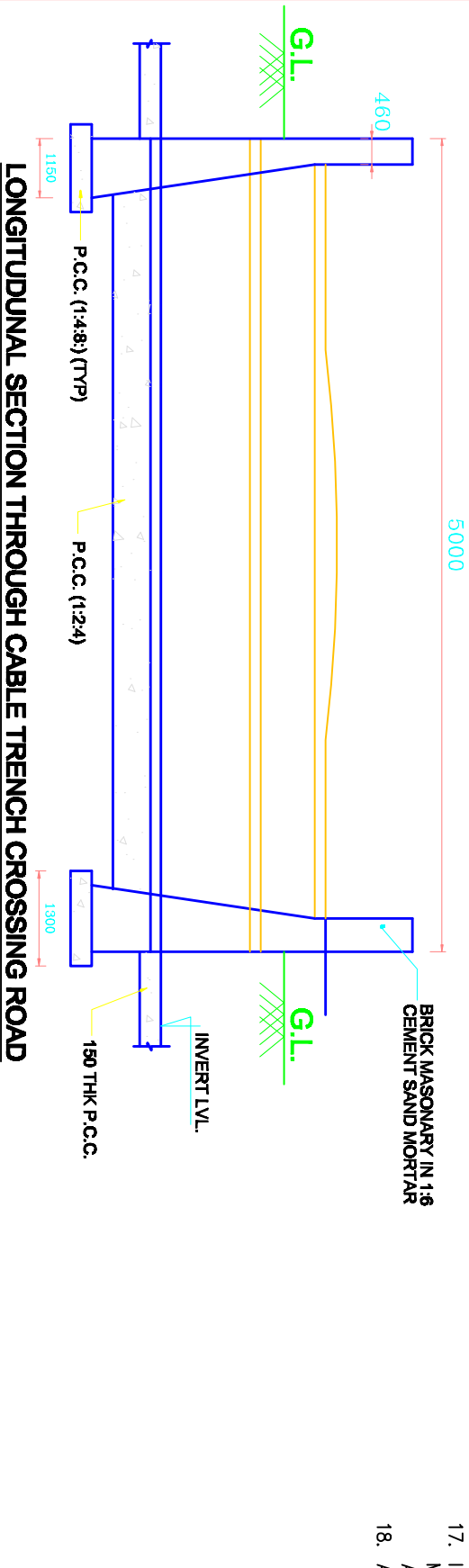
Cable Trench Section A-A Crossing Road



Cable Trench Section B-B Crossing Road



Cable Trench Section C-C Crossing Road



Longitudinal Section Through Cable Trench Crossing Road

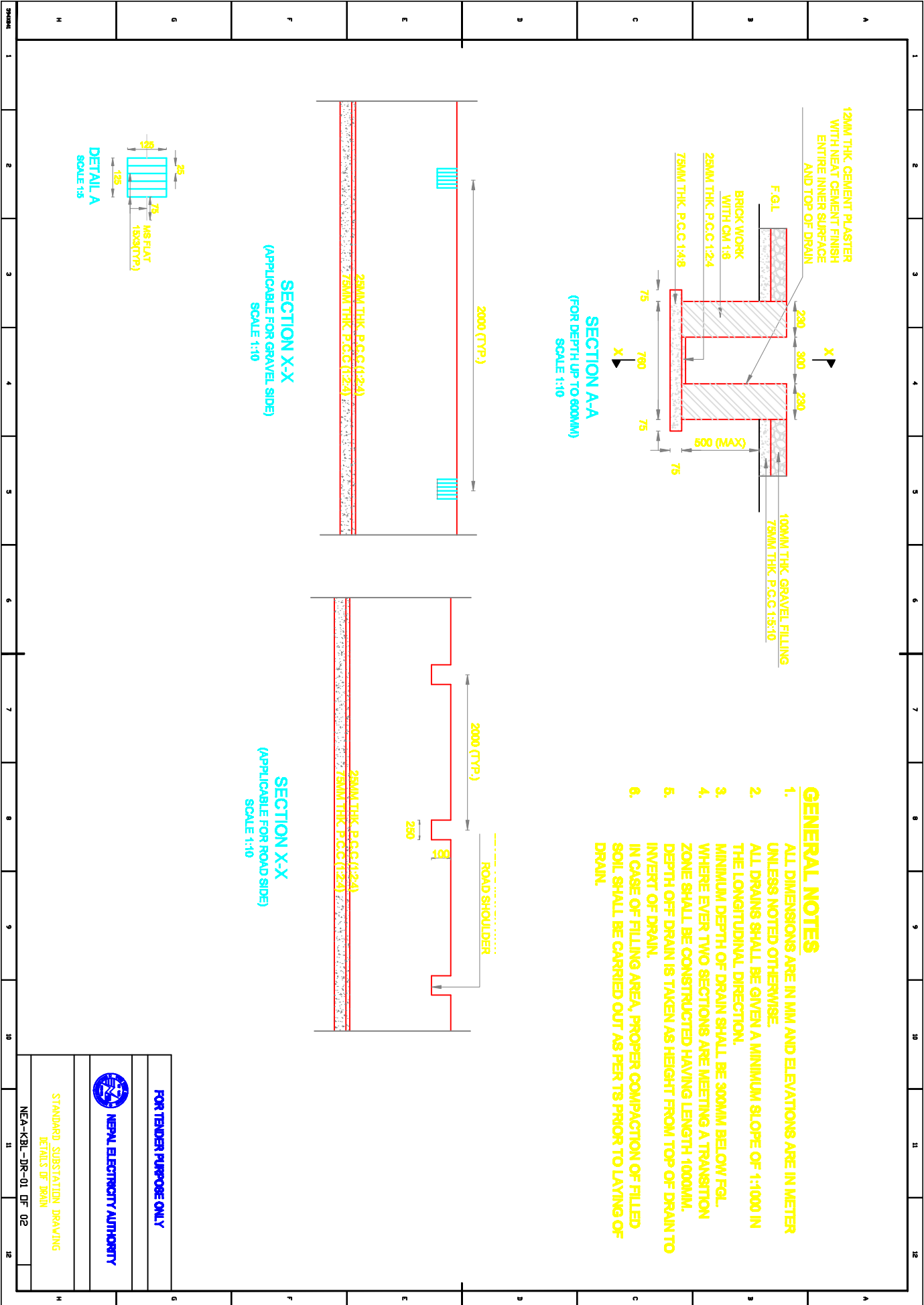
General Notes

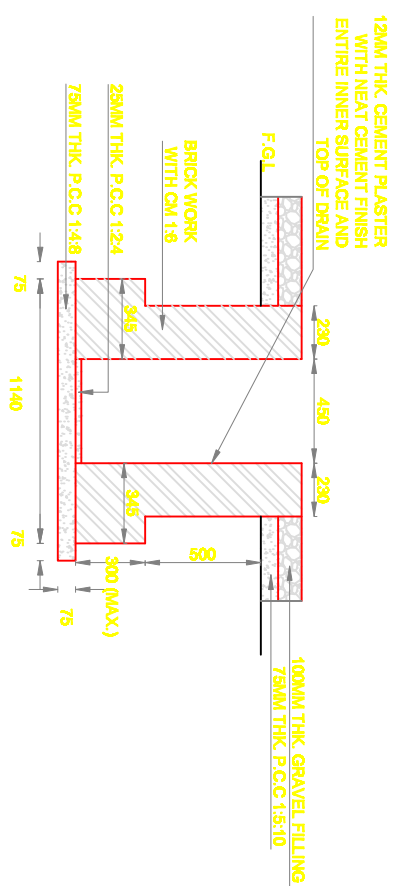
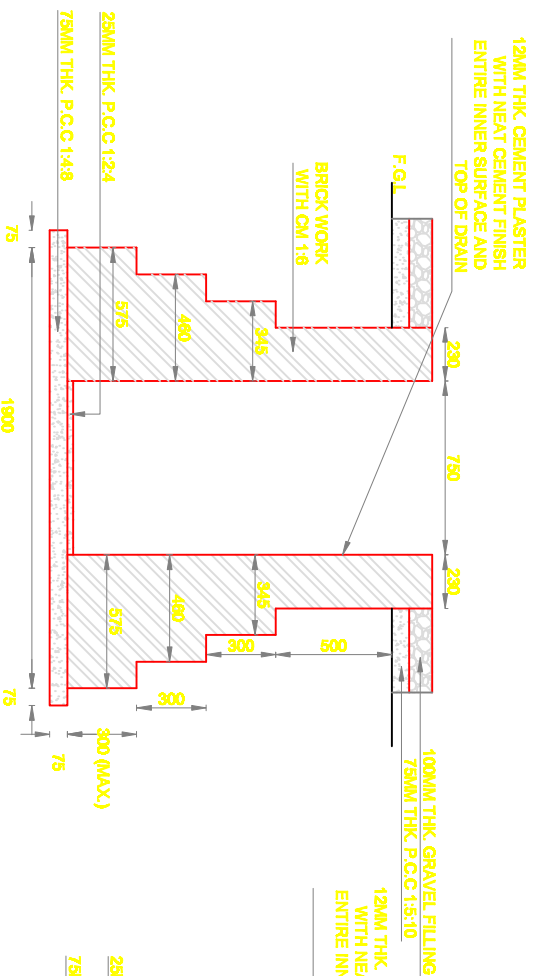
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FOR TENDER PURPOSE ONLY



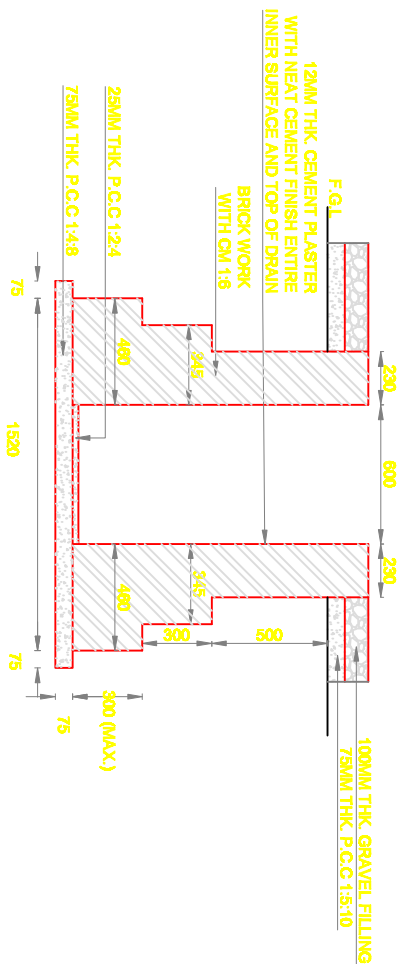
CABLE TRENCHES  
DETAIL OF CABLE TRENCH CROSSINGS





**SECTION D-D**  
(FOR DEPTH FROM 1200 TO 1500MM)  
SCALE 1:10

**SECTION B-B**  
(FOR DEPTH FROM 600 TO 800MM)  
SCALE 1:10



**SECTION C-C**  
(FOR DEPTH FROM 800 TO 1200MM)  
SCALE 1:10

## GENERAL NOTES

1. ALL DIMENSIONS ARE IN MM AND ELEVATIONS ARE IN METER UNLESS NOTED OTHERWISE.
2. ALL DRAINS SHALL BE GIVEN A MINIMUM SLOPE OF 1:1000 IN THE LONGITUDINAL DIRECTION.
3. MINIMUM DEPTH OF DRAIN SHALL BE 300MM BELOW FGL.
4. WHERE EVER TWO SECTIONS ARE MEETING A TRANSITION ZONE SHALL BE CONSTRUCTED HAVING LENGTH 1000MM.
5. DEPTH OFF DRAIN IS TAKEN AS HEIGHT FROM TOP OF DRAIN TO INVERT OF DRAIN
6. IN CASE OF FILLING AREA, PROPER COMPACTION OF FILLED SOIL SHALL BE CARRIED OUT AS PER TS PRIOR TO LAYING OF DRAIN.

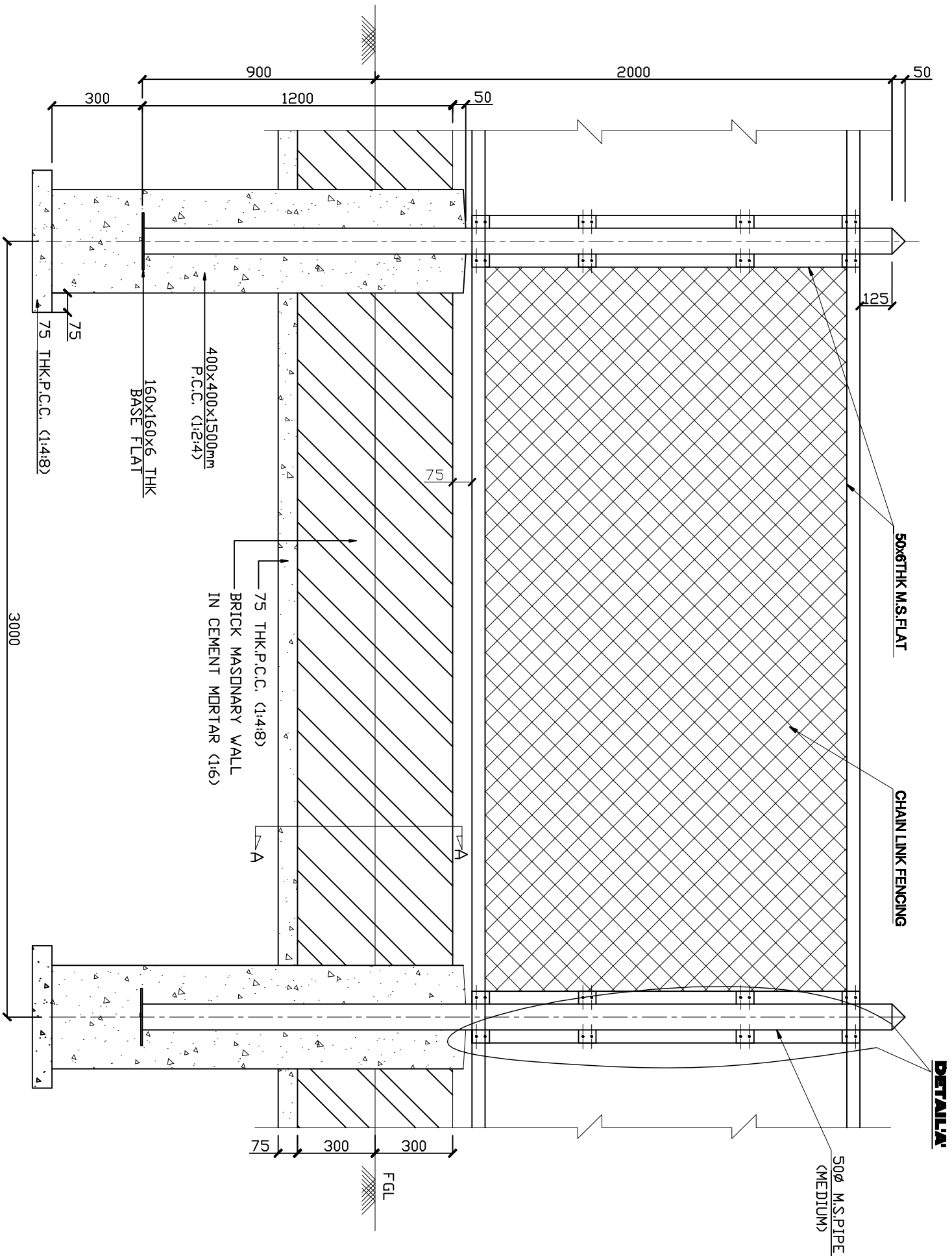
FOR TENDER PURPOSE ONLY



NEPAL ELECTRICITY AUTHORITY

STANDARD SUBSTATION DRAWING  
DETAILS OF DRAIN

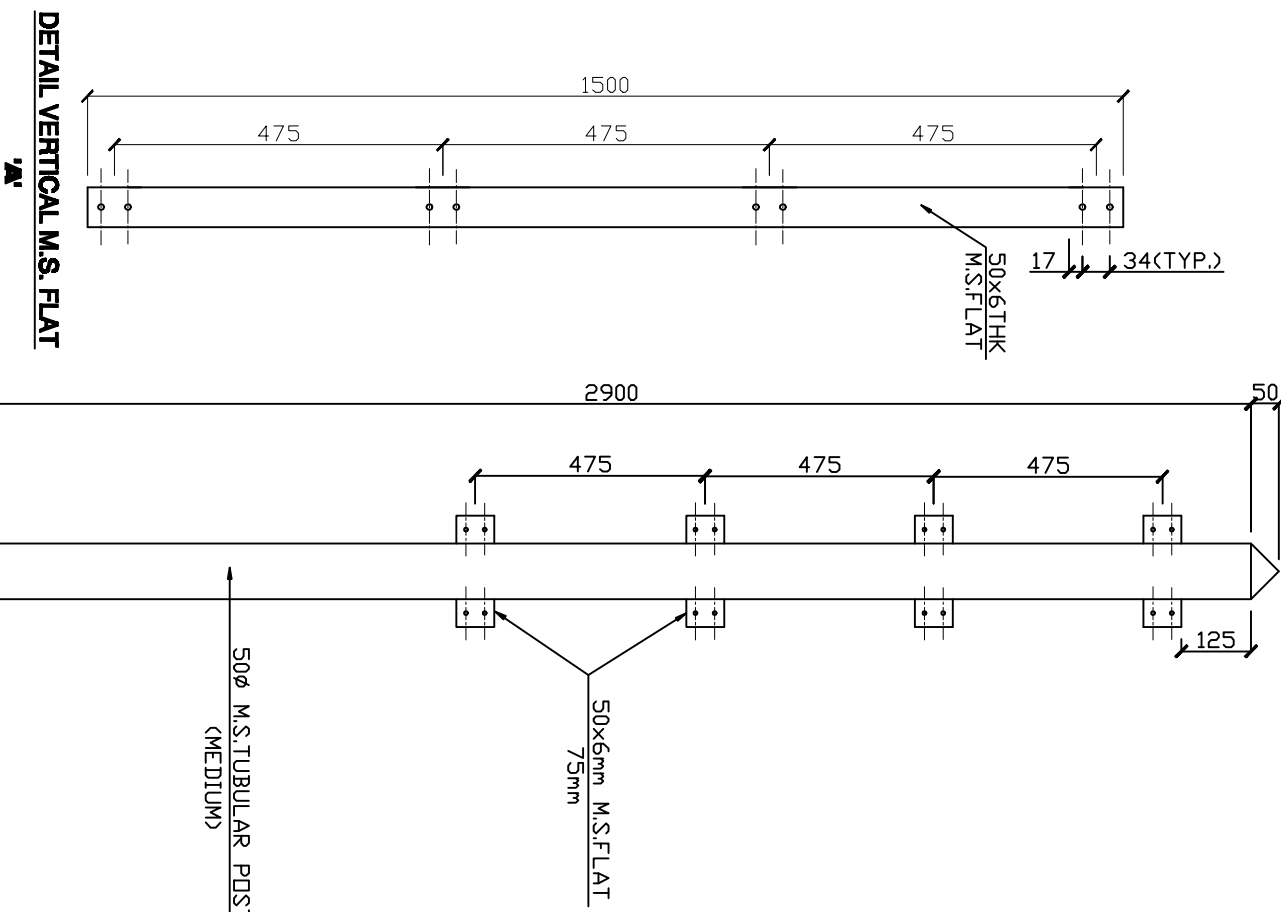
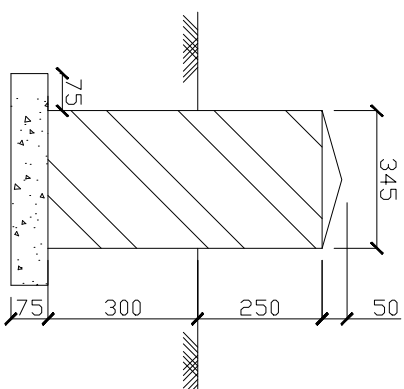
NEA-KBL-DR-02 OF 02



**TYPICAL ELEVATION OF SWITCHYARD FENCING**

**NOTES:**

1. ±0.00 SHALL DENOTE SWITCHYARD FINISHED GROUND LEVEL
2. CHAIN LINK FENCING SHALL HAVE 3.15 mm DIAMETER WIRE AS PER IS 2721 WITH 75x75 mm MESH SIZE AND PAINTED
3. TUBULAR POST SHALL BE PLACED @ 3.0m CENTRE TO CENTRE.
4. CORNER TUBULAR POST SHALL BE PROVIDED CLEATS IN FOUR SIDES SUITING TO REQUIREMENT.
5. TUBES/PIPES OF POST SHALL BE GALVANIZED
6. CONCRETE PEDESTAL SHALL BE CAST IN VIRGIN SOIL/WELL
7. EXPOSED SURFACE OF BRICK MASONRY/CONCRETE PEDESTAL SHALL BE PLASTERED WITH 12MM THICK CEMENT PLASTER 1:6 AND PAINTED WITH CEMENT PAINT OF REQUIRED SHADE.



**DETAIL OF TUBULAR POST**

**FOR TENDER PURPOSE ONLY**



**NEPAL ELECTRICITY AUTHORITY**

SWITCHYARD FENCING

NEA-KBL-SF-01 DF 01