

**CONSTRUCTION STANDARD  
FOR UNDERGROUND DISTRIBUTION NETWORK  
PART 1: CONCRETE FOUNDATIONS**

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**SDCS-02-01****Rev.01****CONSTRUCTION STANDARD FOR UNDERGROUND  
DISTRIBUTION NETWORK  
PART 1: CONCRETE FOUNDATIONS**

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**Revision History**

#	Date	Revision No.	Revised By	Major Revision Description
1				
2				
3				
4				
5				
6				
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## **1 INTRODUCTION**

This standard specifies the design, and installation practices to be applied in the construction of MV and LV cable of underground distribution system. It is intended to assist the engineers and field personnel to achieve standardization in construction and to ensure a satisfactory and economical level of service without operating restrictions so that the operational errors should be minimum for safety and reliability.

## **2 SERVICE CONDITIONS AND CONSTRUCTION PARAMETERS**

For construction and operation of underground cable distribution network, the service conditions and system requirements shall be as given in the latest revision of SEC General Specification No.01-SDMS-01 (latest revision).

## **3 REVISION AND ADDITIONS**

This standard is subject to revision as new materials and methods of construction are developed. The latest revision of this standard shall be applicable. Revised sheets shall be issued from time to time and should be inserted as soon as these are received. Superseded or obsolete sheets shall be removed immediately upon receipt of revised sheets. The date of the latest issue of each sheet is printed at the top corner under the standard number.

## **4 UNIT SUBSTATION FOUNDATIONS :**

DRAWING NO. 01 : 13.8 KV & 36 KV, (500 KVA, 1000 KVA & 1500 KVA),

3 WAYS / 4 WAYS RMU GENERAL LAYOUT.

DRAWING NO. 02 : 13.8 KV, 500 KVA PLAN, FRONT AND SIDE VIEWS.

DRAWING NO. 03 : 13.8 KV, 500 KVA REINFORCEMENT DETAILS.

DRAWING NO. 04 : 13.8 KV, 1000 KVA PLAN, FRONT AND SIDE VIEWS.

DRAWING NO. 05 : 13.8 KV, 1000 KVA REINFORCEMENT DETAILS.

DRAWING NO. 06 : 13.8 KV, 1500 KVA PLAN, FRONT AND SIDE VIEWS.

DRAWING NO. 07 : 13.8 KV, 1500 KVA REINFORCEMENT DETAILS.

DRAWING NO. 08 : 33 KV, 500 KVA PLAN, FRONT AND SIDE VIEWS.

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DRAWING NO. 09 : 33 kV, 500 KVA REINFORCEMENT DETAILS.

DRAWING NO. 10 : 33KV, 1000KVA PLAN, FRONT AND SIDE VIEWS.

DRAWING NO. 11 : 33kV, 1000KVA REINFORCEMENT DETAILS.

DRAWING NO. 12 : 33KV, 1500KVA PLAN, FRONT, SIDE VIEWS.

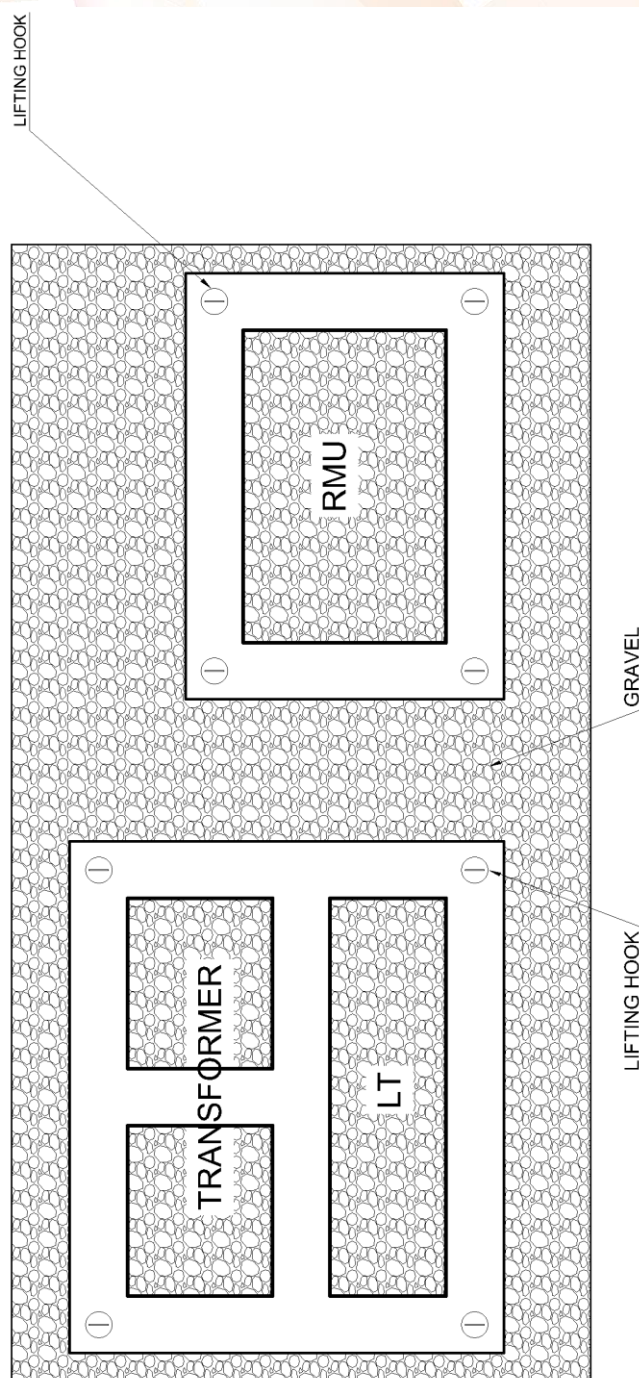
DRAWING NO. 13 : 13.8KV, 1500KVA REINFORCEMENT DETAILS

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Note:

- \* Actual dimensions of the equipment will be illustrated in another specification document.
- \* Cement 350 Kg/m<sup>3</sup>
- \* Concrete Compressive Strength 300 Kg/cm<sup>2</sup>
- \* Soil Bearing Capacity 150 kN/m<sup>2</sup>
- \* Lean Concrete = 100 mm
- \* Gravel = 20mm size (minimum)

*DRAWING NO. 01 : 13.8kV & 33kV, 3Ways – 4Ways (500KVA, 1000KVA & 1500KVA)*

*GENERAL LAYOUT*

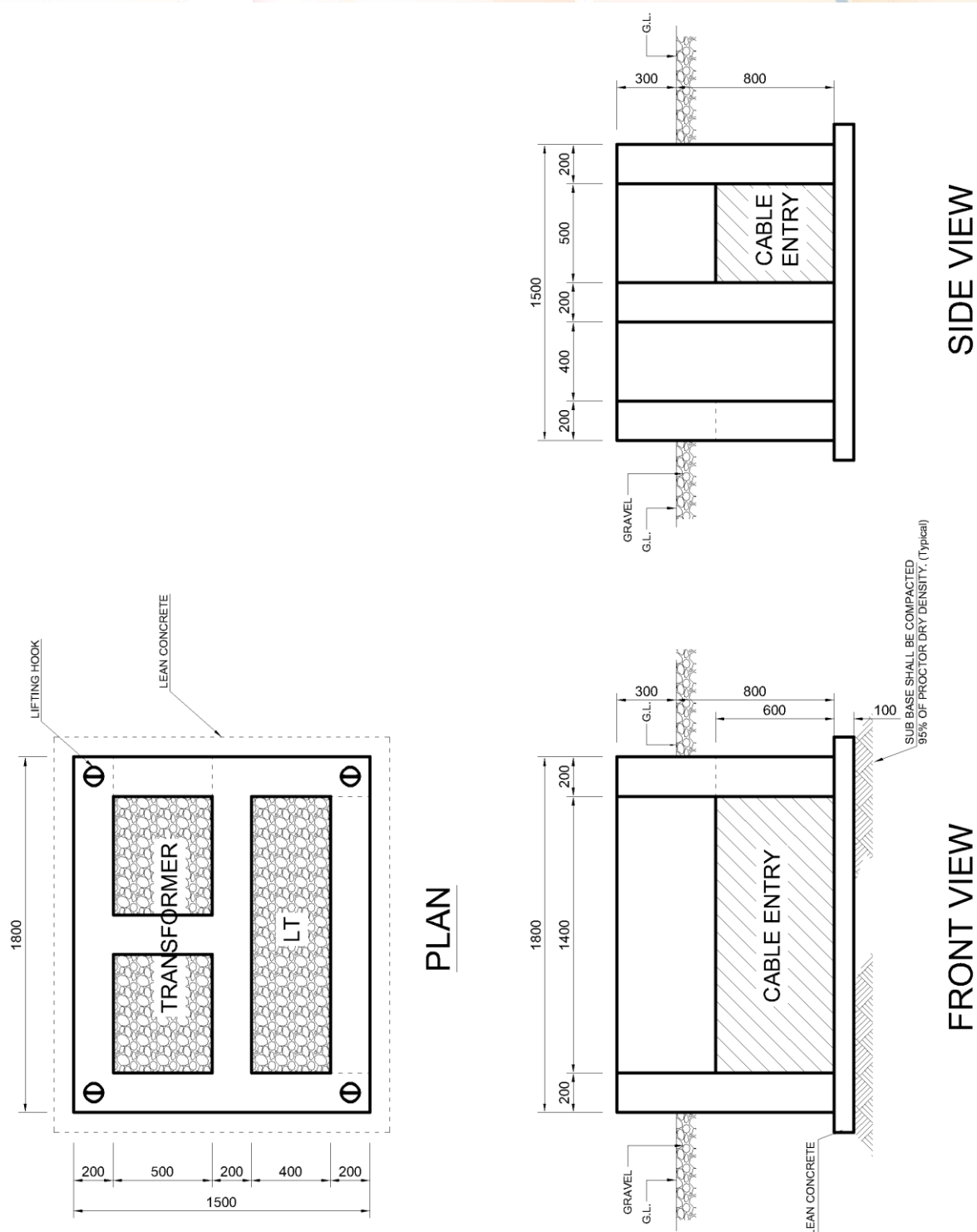


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*DRAWING NO. 02 : 13.8kV, 500KVA PLAN, FRONT & SIDE VIEWS*



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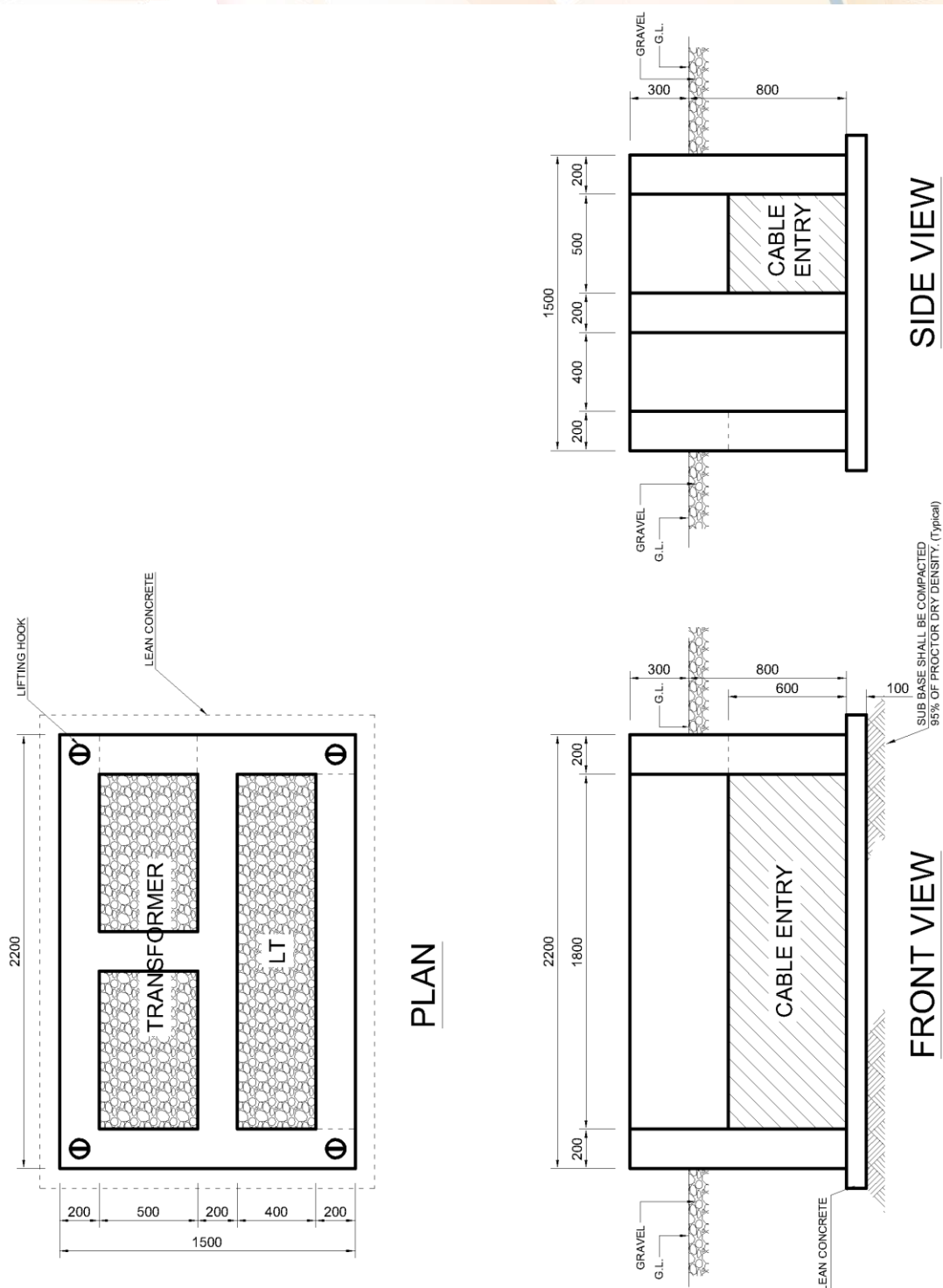


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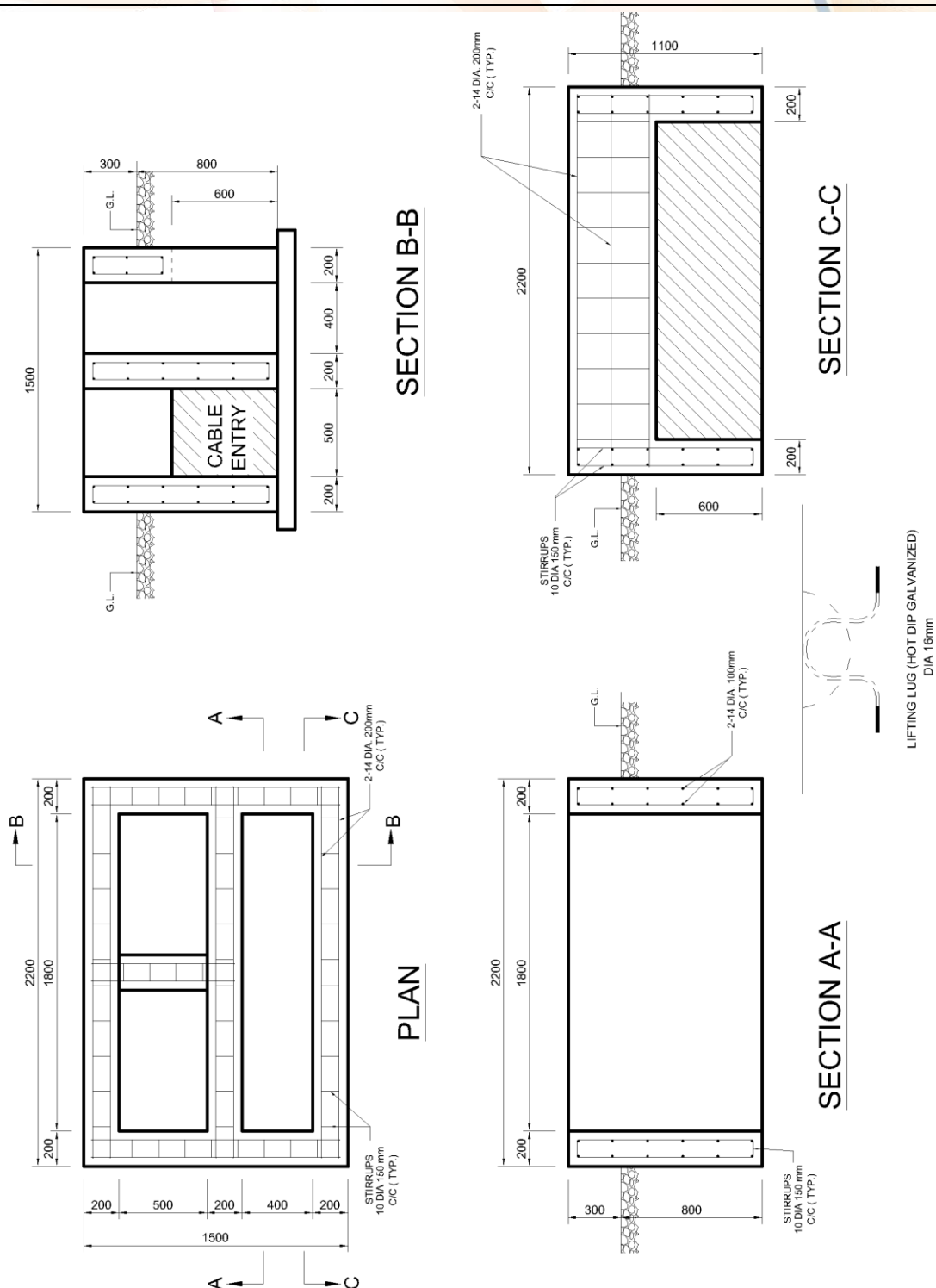
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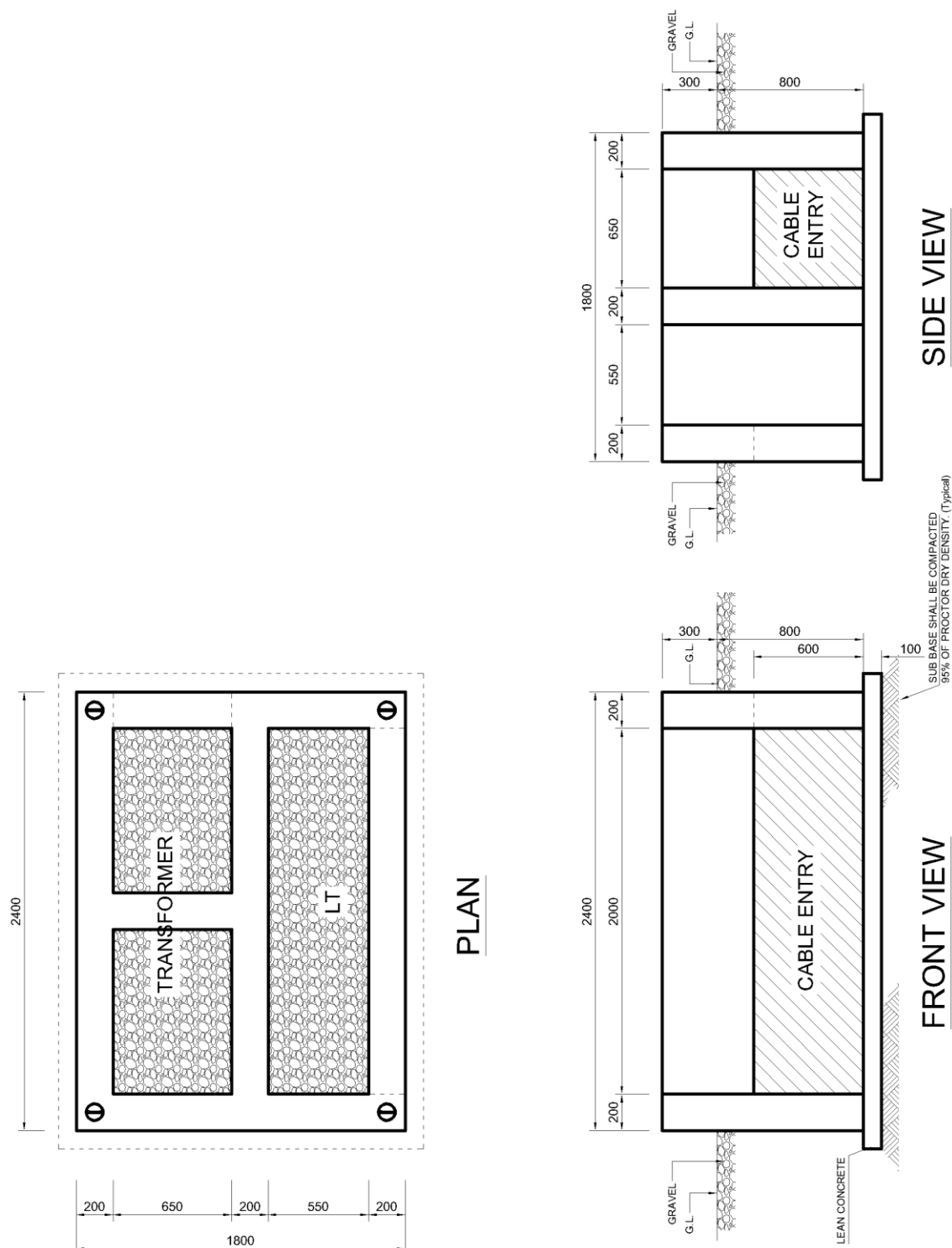
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DRAWING NO. 06 : 13.8kV, 1500KVA PLAN, FRONT & SIDE VIEWS



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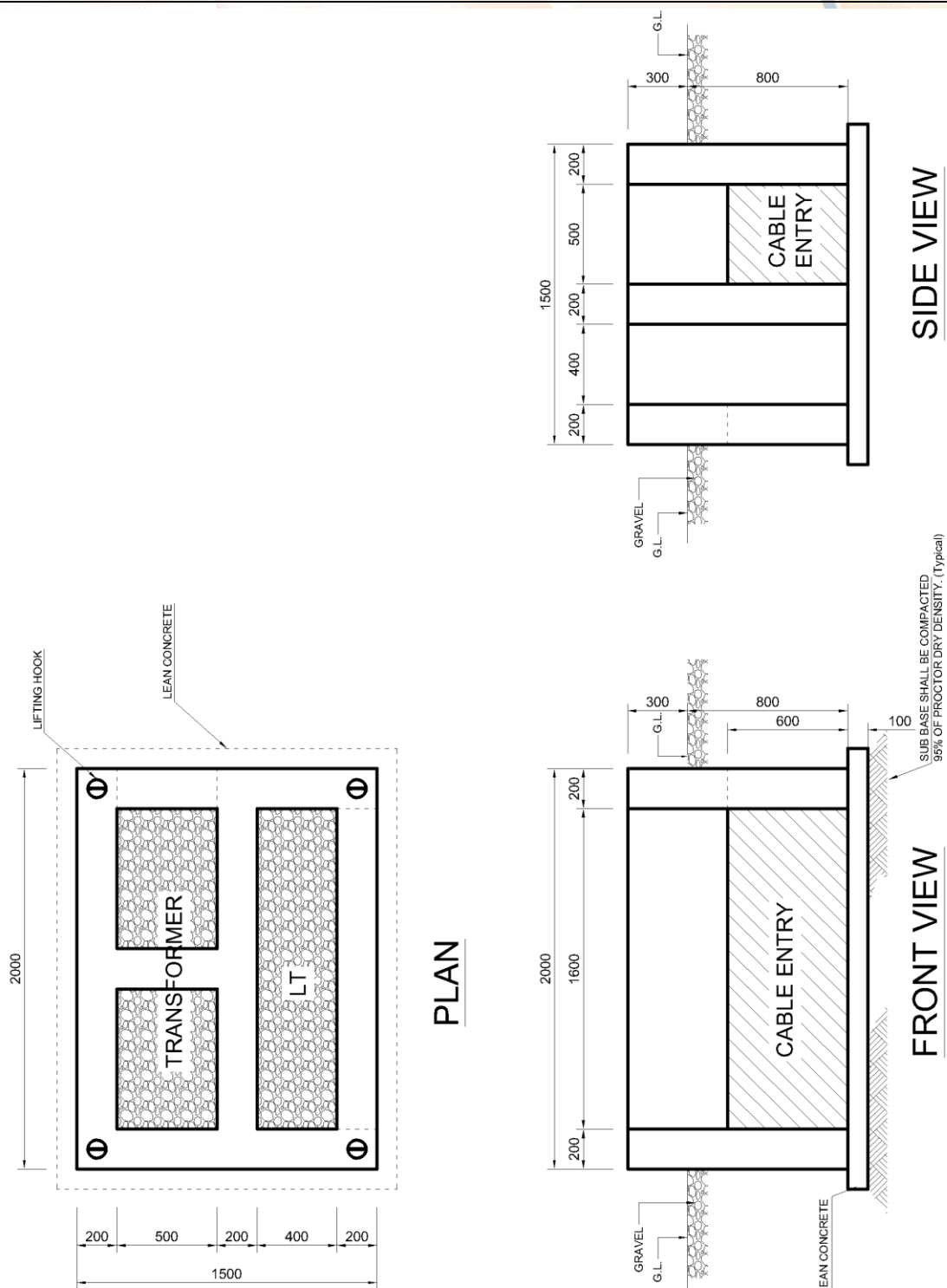


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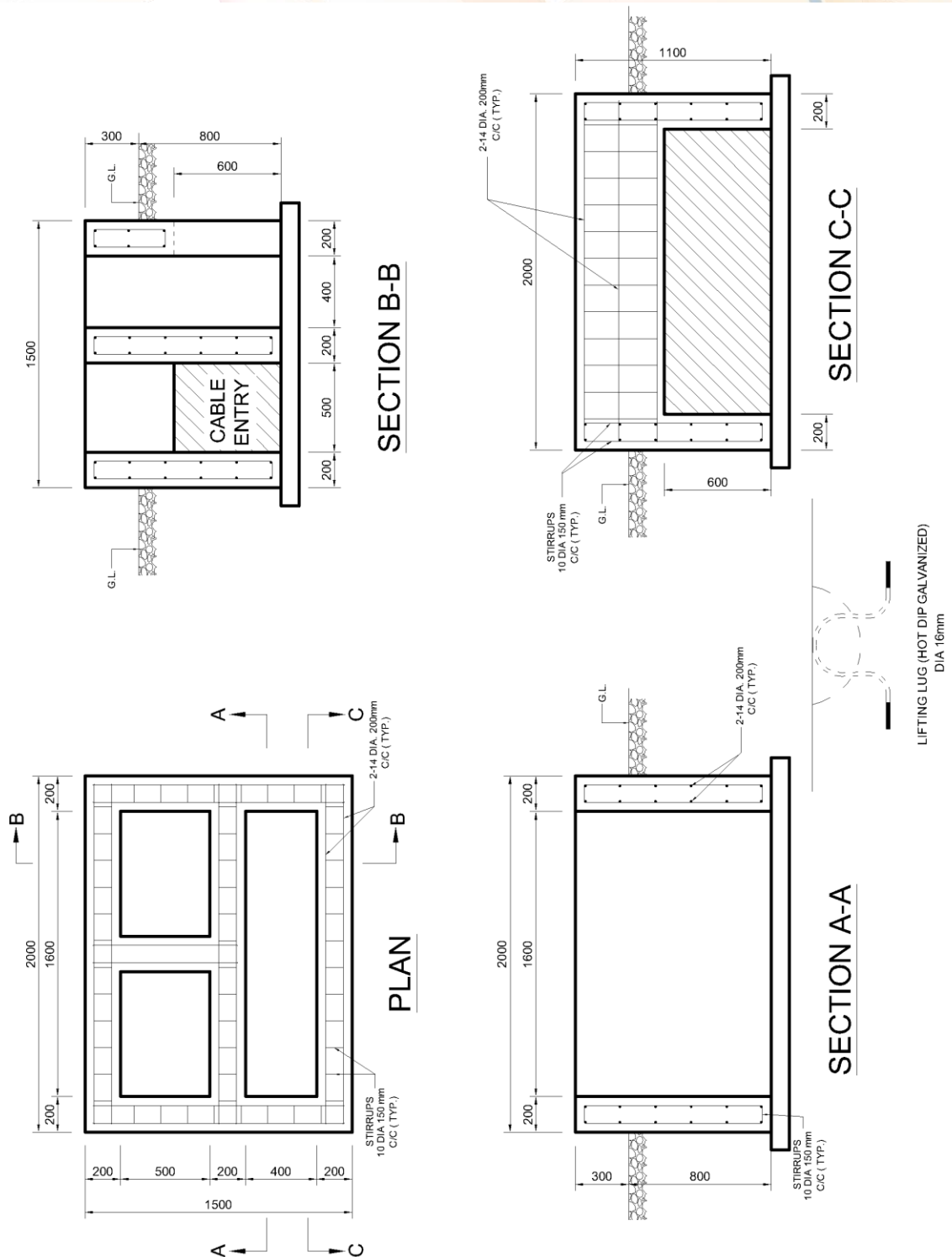
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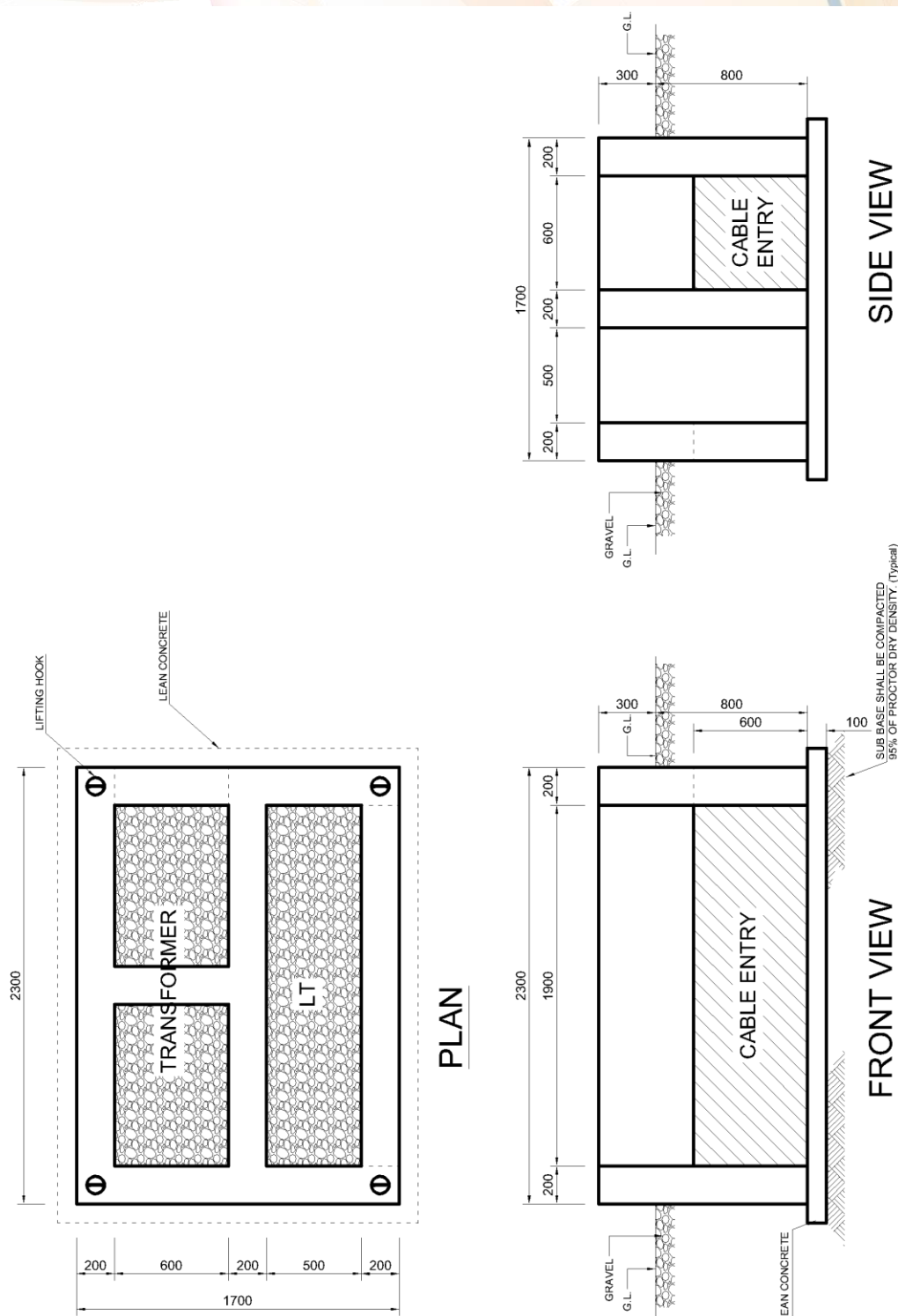
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*DRAWING NO. 10 : 33kV, 1000KVA PLAN, FRONT & SIDE VIEWS*

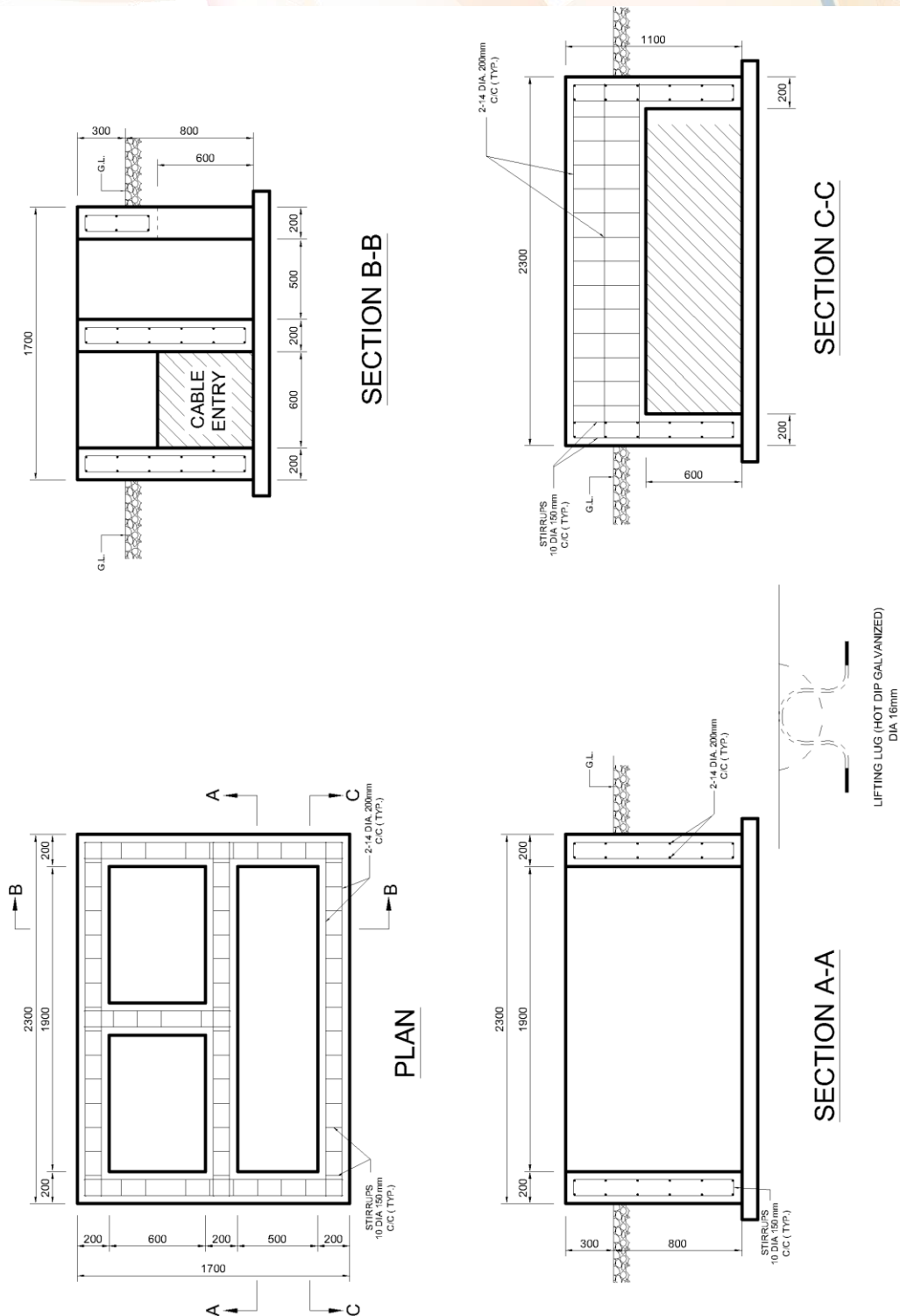


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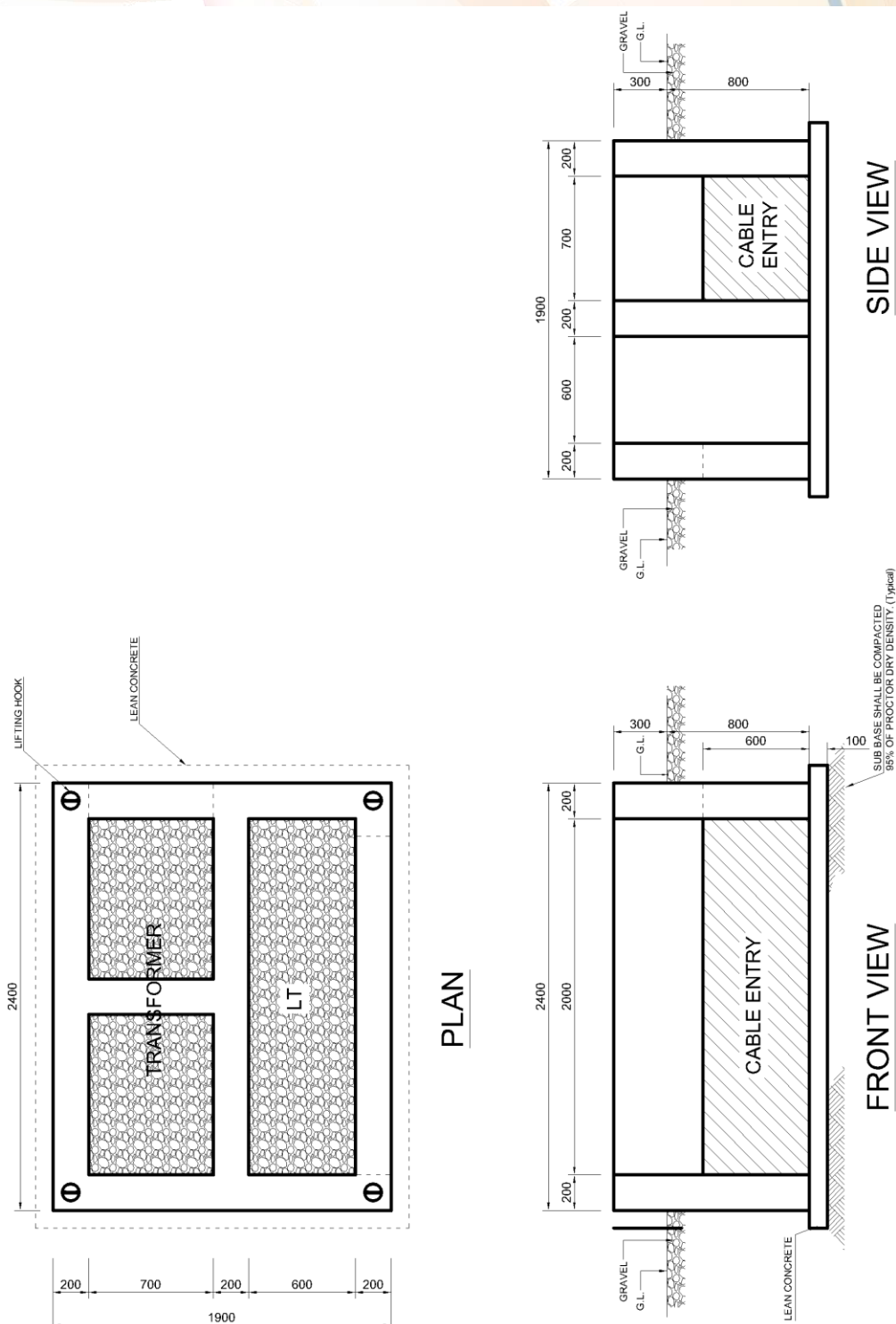
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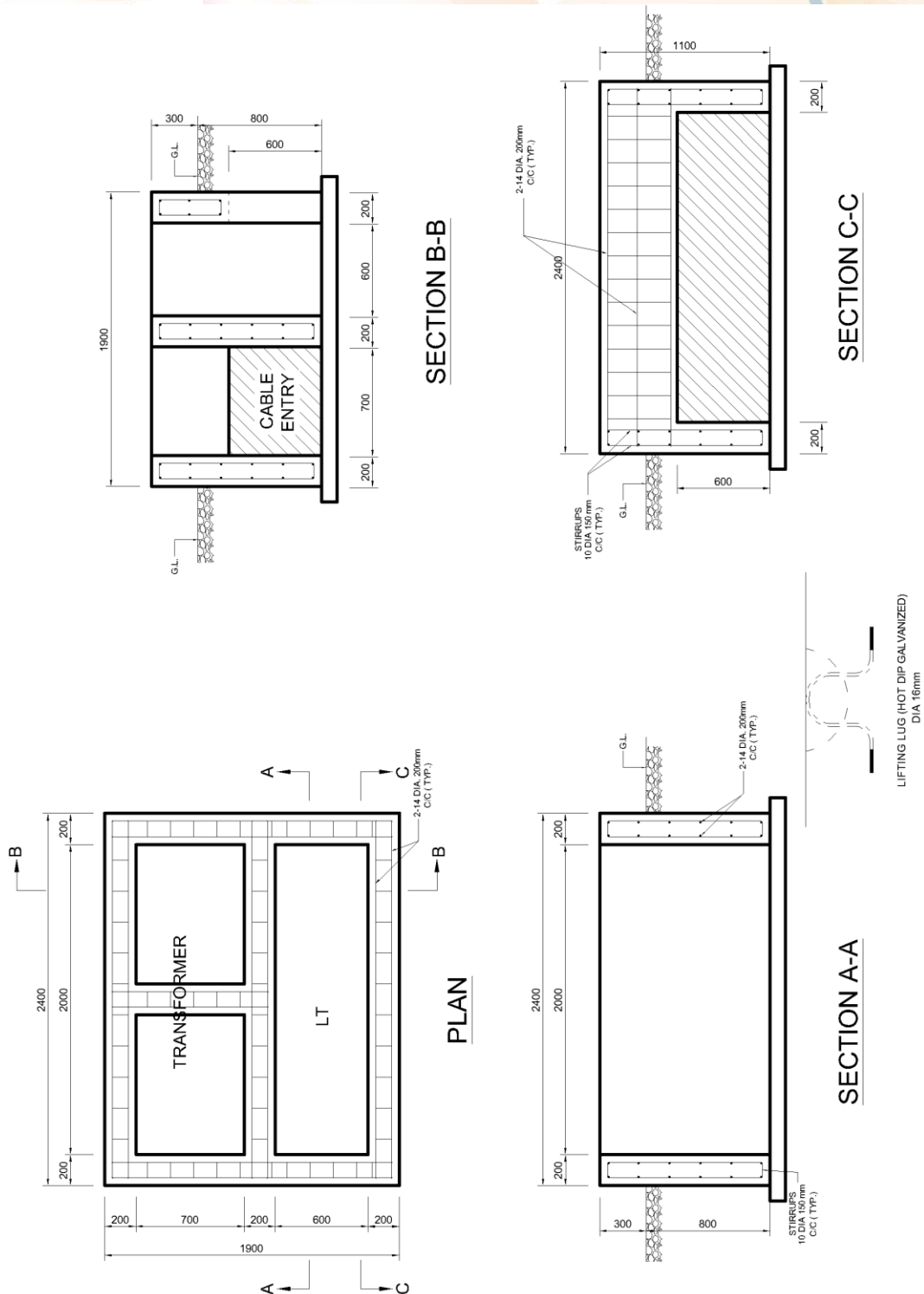
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*DRAWING NO. 13 : 33kV, 1500KVA REINFORCEMENT DETAILS*

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**5 RING MAIN UNIT:**

DRAWING NO. 14 - 13.8kV, 3 WAYS PLAN, FRONT AND SIDE VIEW

DRAWING NO. 15 - 13.8kV, 3 WAYS REINFORCEMENT DETAILS

DRAWING NO. 16 - 13.8kV, 4 WAYS PLAN, FRONT AND SIDE VIEW

DRAWING NO. 17 - 13.8kV, 4 WAYS REINFORCEMENT DETAILS

DRAWING NO. 18 - 33kV, 3 WAYS PLAN, FRONT AND SIDE VIEW

DRAWING NO. 19 - 33kV, 3 WAYS REINFORCEMENT DETAILS

DRAWING NO. 20 - 33kV, 4 WAYS PLAN, FRONT &amp; SIDE VIEWS

DRAWING NO. 21 - 33kV, 4 WAYS REINFORCEMENT DETAILS

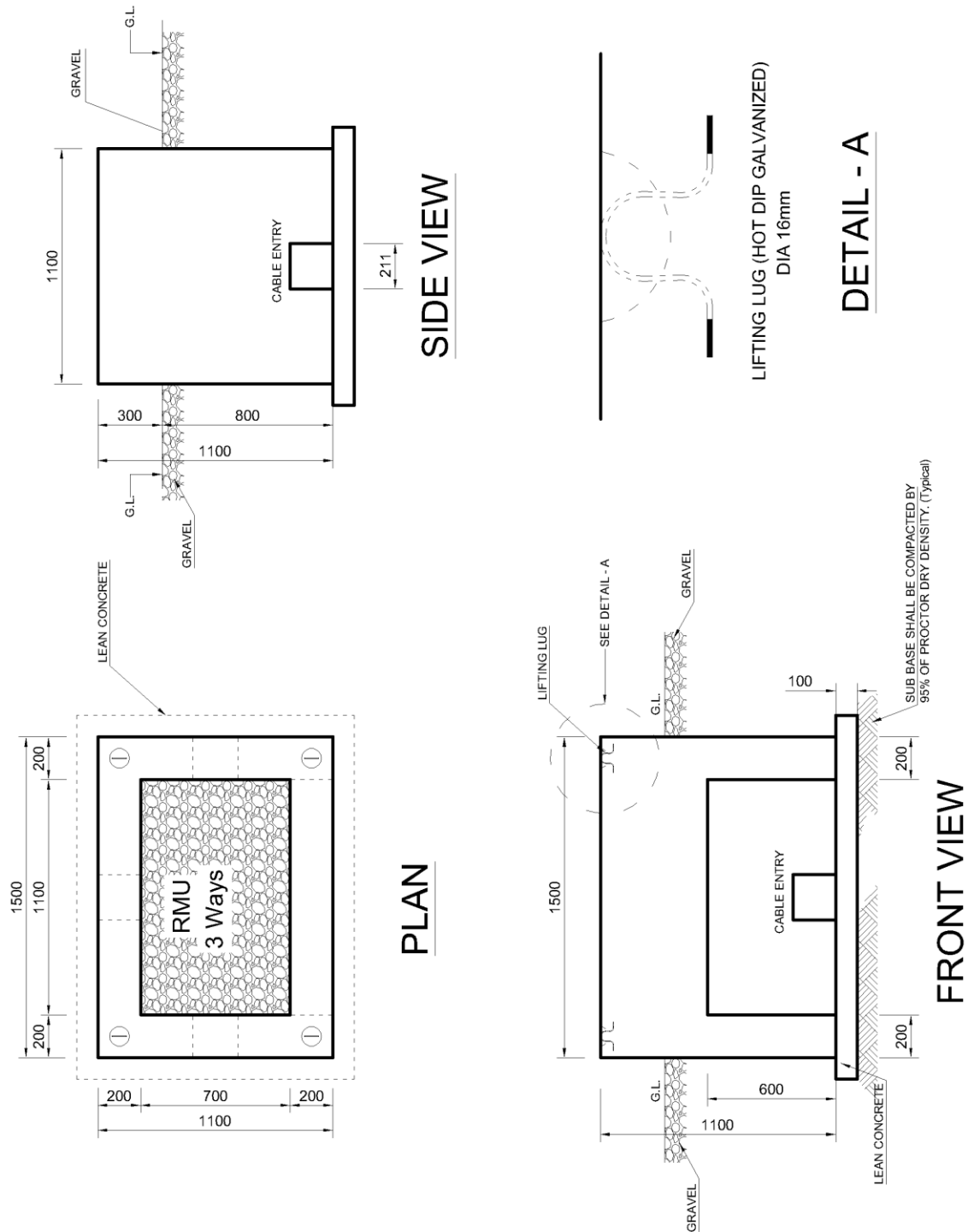


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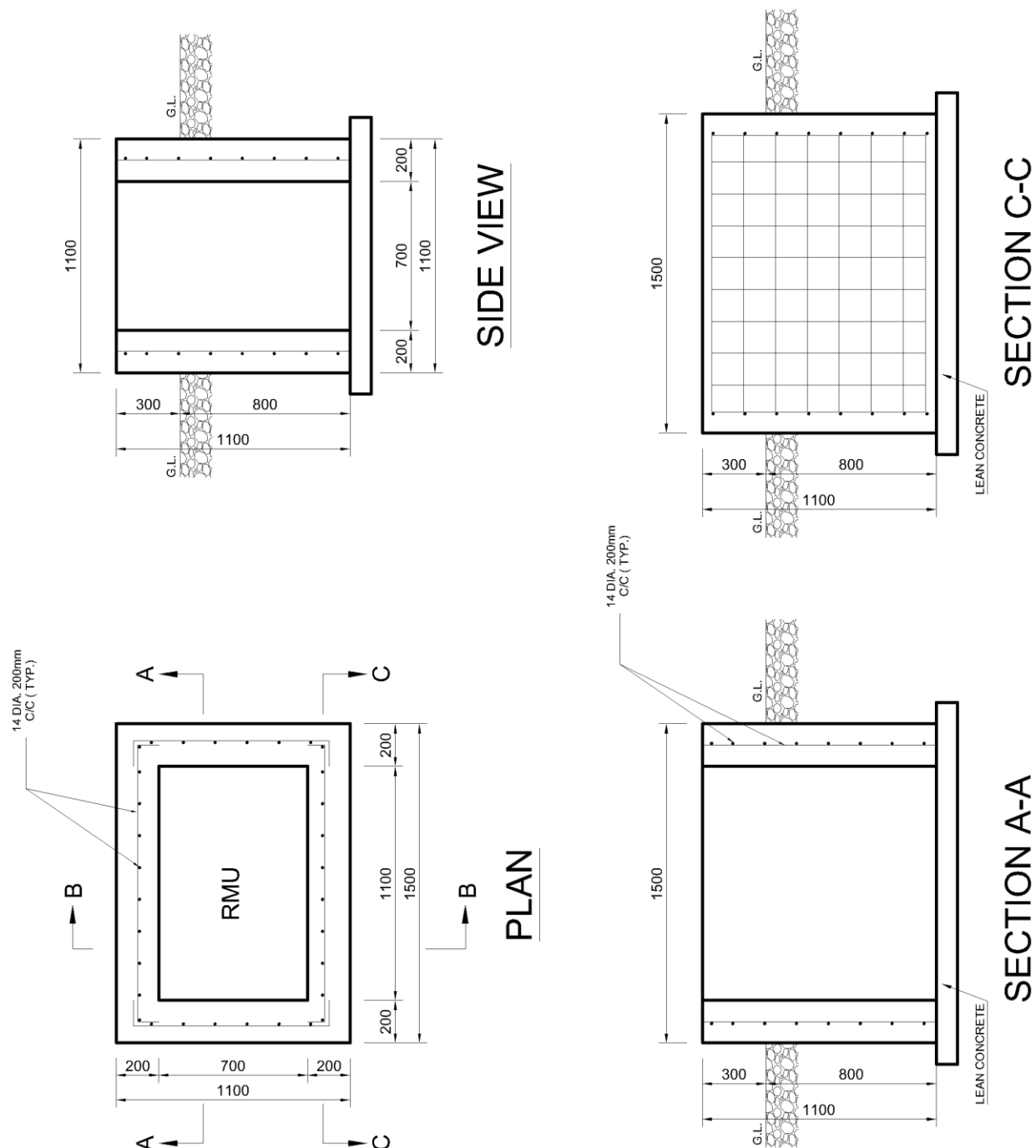
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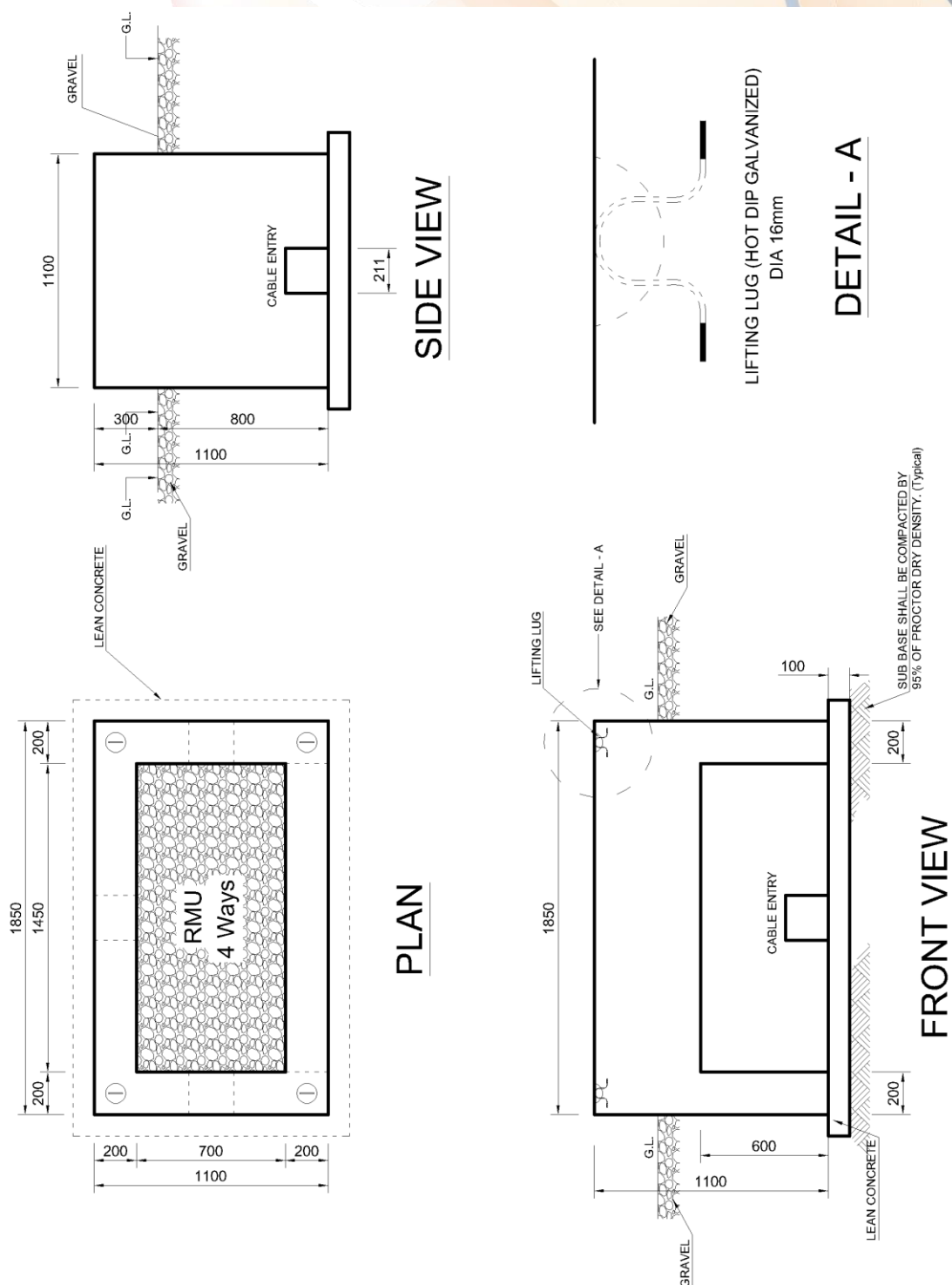
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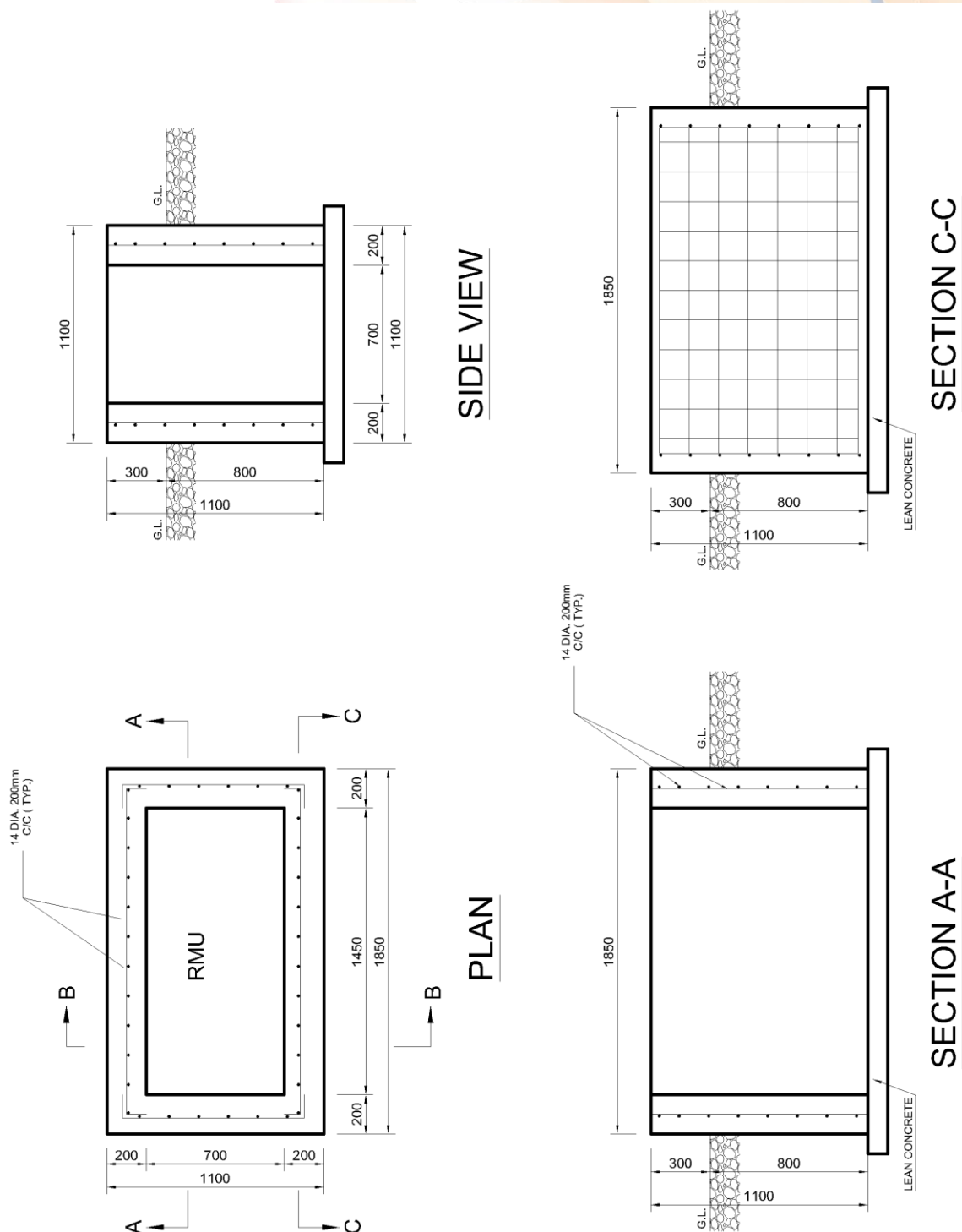
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**DRAWING NO. 17 : 13.8kV, 4 WAYS REINFORCEMENT DETAILS**

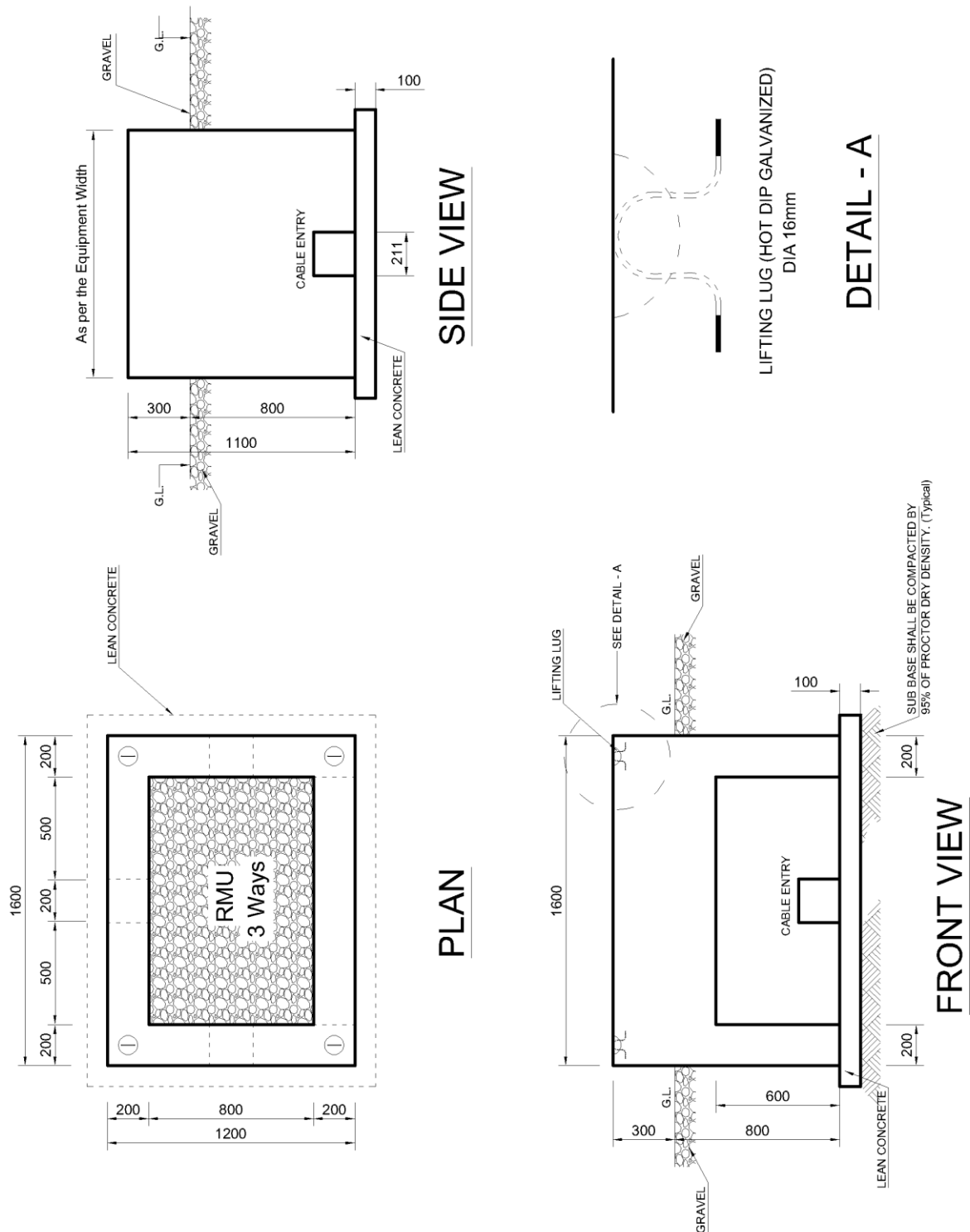


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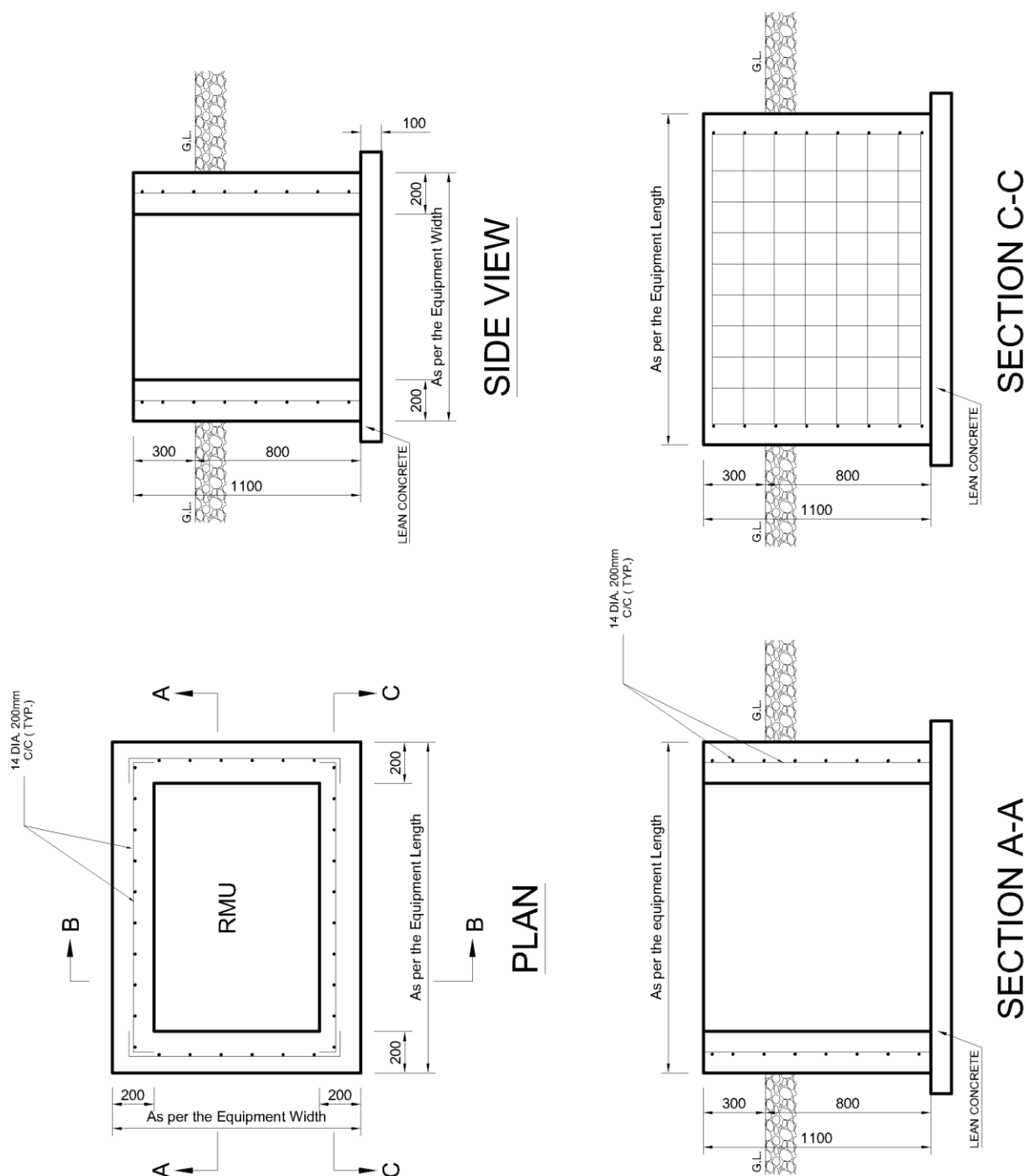
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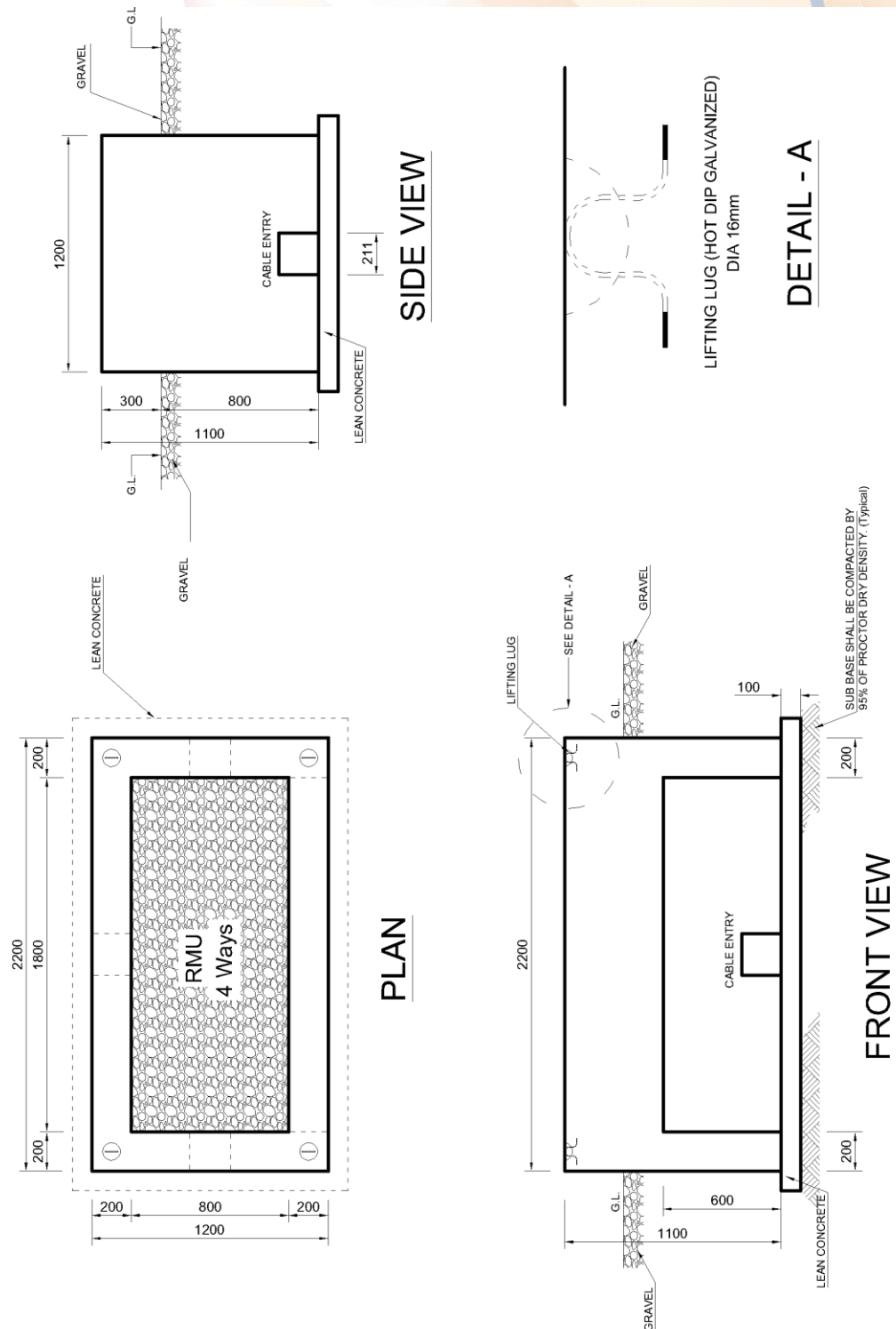
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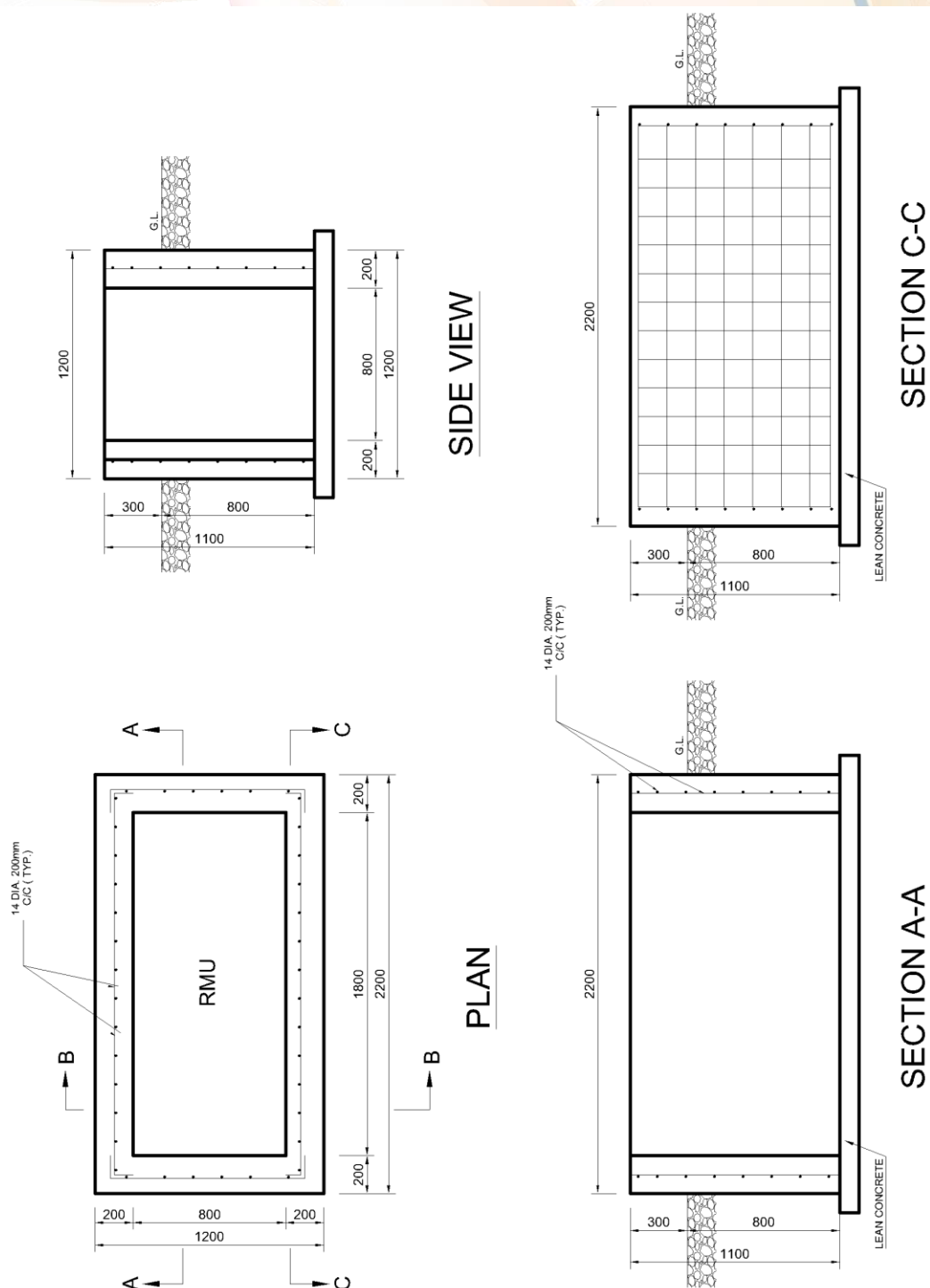
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DRAWING NO. 21 - 33kV, 4 WAYS RINFORCEMENT DETAILS