



**ISLAMIC REPUBLIC OF AFGHANISTAN**  
**Ministry of Agriculture, Irrigation and Livestock**

Horticulture Value Chain Development Sector(HVCDSP)

**Grant Number: 0621**

CONTRACT No:

**On-Form Projects, Potato zero-energy Storage**

**PLAN , SECTIONS AND STRUCTURES**

**Date Feb 22-2020**

KEY PLAN:-



ISLAMIC REPUBLIC OF AFGHANISTAN  
MINISTRY OF AGRICULTURE, IRRIGATION  
AND LIVE STOCK

CENTRAL PROGRAM MANAGEMENT OFFICE  
(CPMO) ESTABLISHED UNDER MINISTRY OF  
AGRICULTURE IRRIGATION AND  
LIVESTOCK(MAIL)



**PROJECT: -**

HORTICULTURE VALUE CHAIN DEVELOPMENT  
SECTOR PROJECT (HVCDSP)  
GRANT NUMBER: 0621



**SUB-PROJECT: -**

**DRAWING:**

STRUCTURE DRAWING OF Potato Zero-energy Storage

**SURVEY DESIGN & CHECKED BY**

SURVEYED BY	
DRAWN BY	Shmsuddin Shams
DESIGN BY	Zakirullah Afghan
CHECKED BY	Naseebullah Rasooli

**Design Check & Review**

Checked By	M. Ibrahim Kanmi
Verified By	Ahmad Farid Raad
Approved By	Eng.Ehsanullah "Monib"

SCALE	DWG NO	REVISION
A3		FINALSUBMITTAL
DATE	TOTAL SHEETS	PAGE NO
July 14 2019	9	1



### Key Notes:-

1. All dimensions are in CM , Unless Otherwise Noted.
2. Complete Detail Survey and Shop Drawing Should be Prepare before implementation.
3. Reinforcement steel should comply with A 615 Grade 60 deformed bars ( $F_y = 4218 \text{ kg/cm}^2$ )
4. Structural steel should comply with A 36 ( $f_y = 2530 \text{ Kg/cm}^2$ )
5. All dimensions, elevations and level should be confirmed on the site by the engineers.
6. Location of Structures, Setting out to be confirm by the engineer before of construction.
7. All Structures should be rest on firm and virgin Soil, pocket of loose Soil Should be removed and replaced with granular material(Satisfactory or Select material if required).
8. Use concrete M20, for Concrete post construction and M15 for foundation of start and end posts with Specified Strength of  $20 \text{ N/mm}^2$ ,  $15 \text{ N/mm}^2$ .
9. Mix Design Should be done as per ACI 211 and Verified before Casting and approved by engineers.
10. Fresh Placed Concrete Shall be protected from rain, dust and Sun rays.
11. Exposed concrete surfaces to be steel trowel or fair faced.
12. Clean Sand and Gravel should be used and water Should be potable.
13. All Compaction and Earthen Works Shall be refer to technical Specification attached as annex.
14. while deviation from design drawings, please take approval of Contracting authority.
15. All Structures work should be cured minimum for 7 days consequently.

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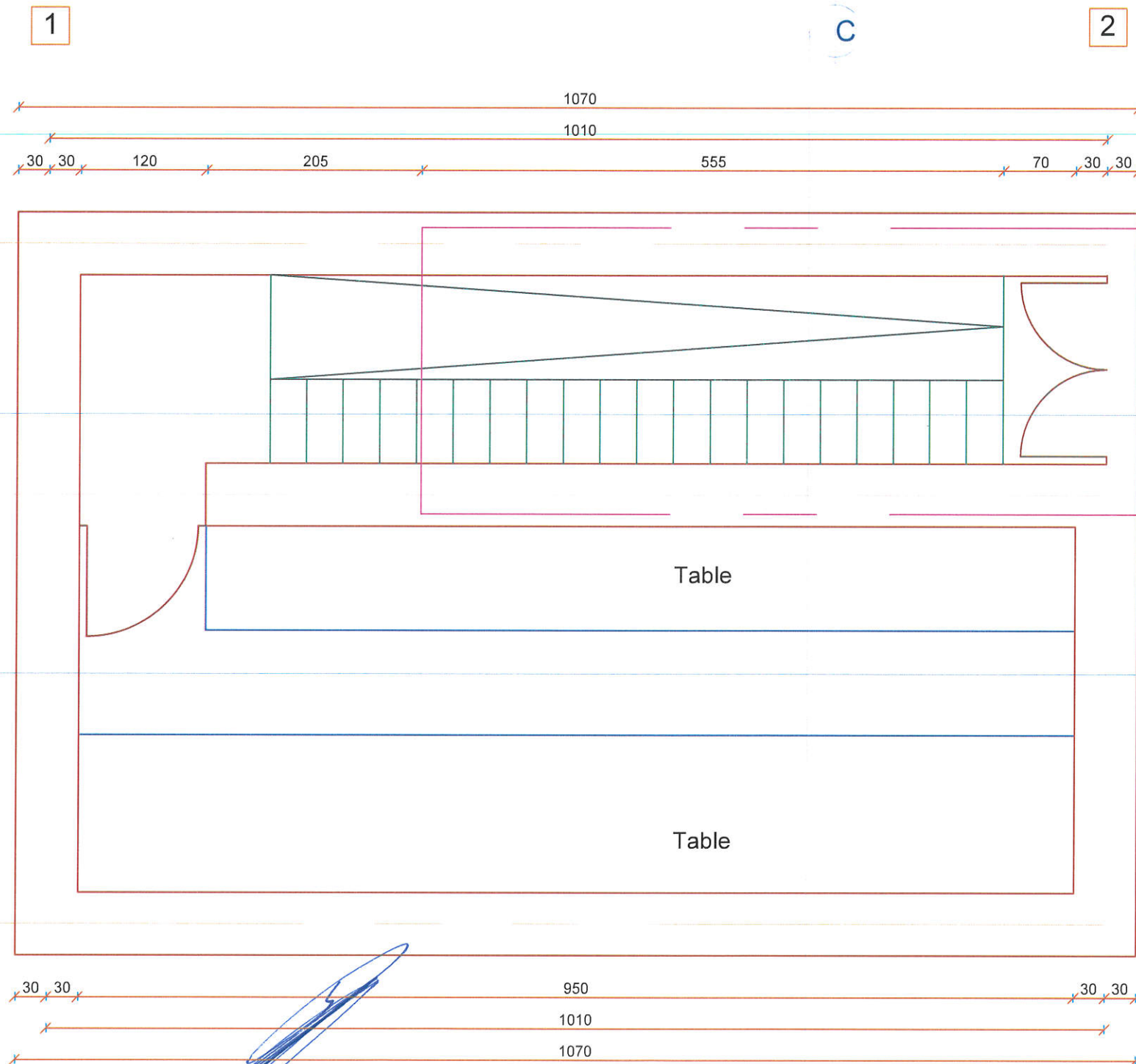
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July 14 2019	9	2






**Note:**  
 1- All dimensions are in centimeters unless otherwise specified.  
 2- Provide minimum 30cm of bearing for I-Beams each end.  
 3- Reinforcement steel should be A615 Grade 60 (Fy=4218 kg/cm2 yield strength)  
 4- Structural steel should be A36 (Fy=2530kg/cm2)


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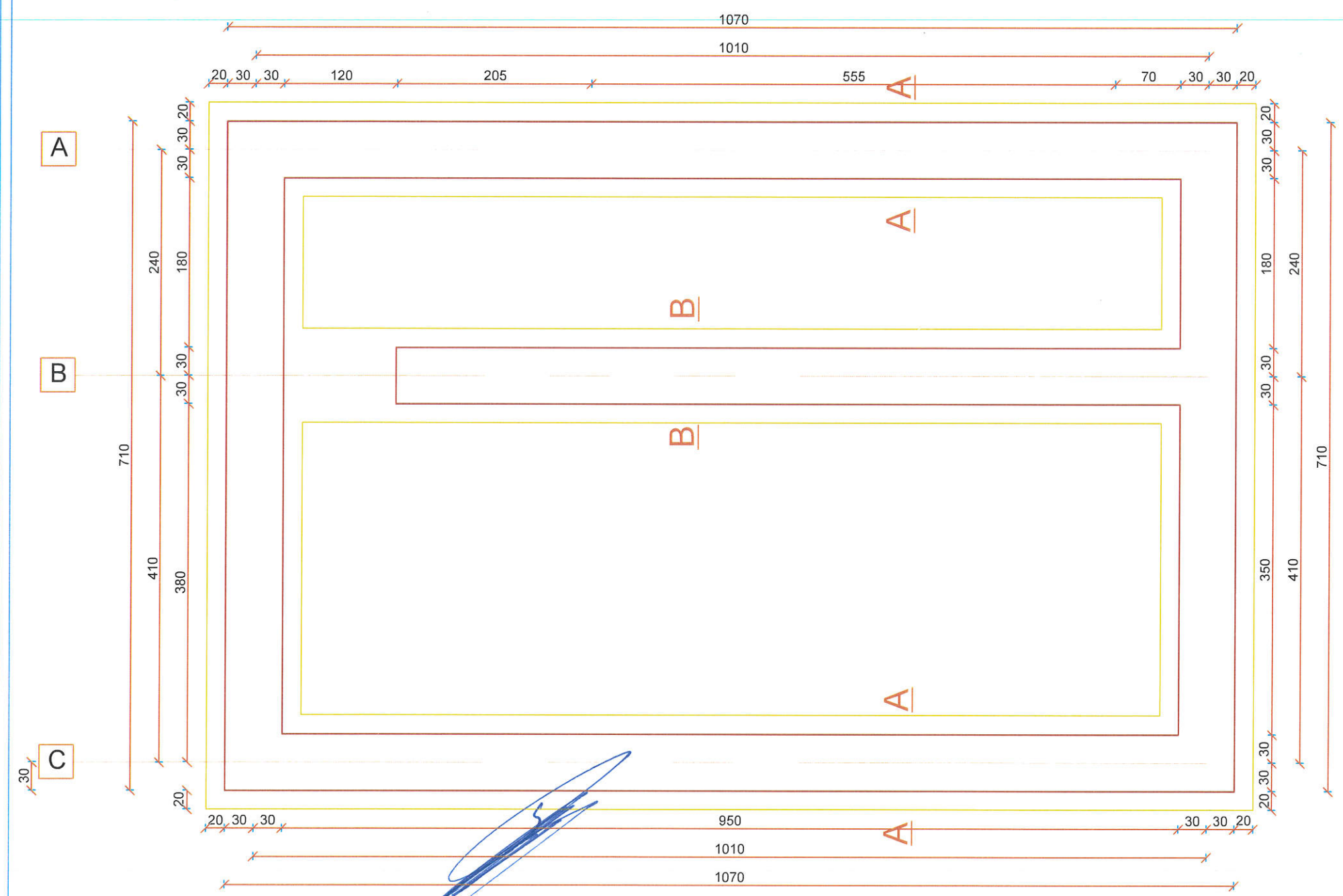
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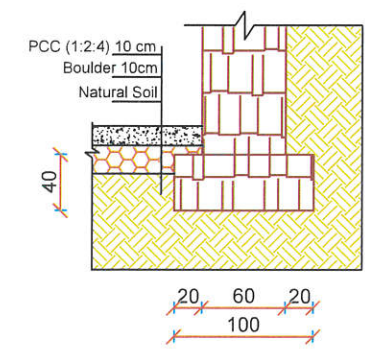
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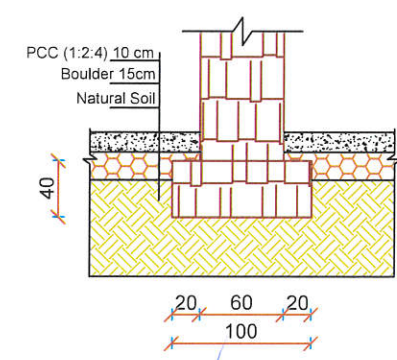


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Section A-A



Section B-B



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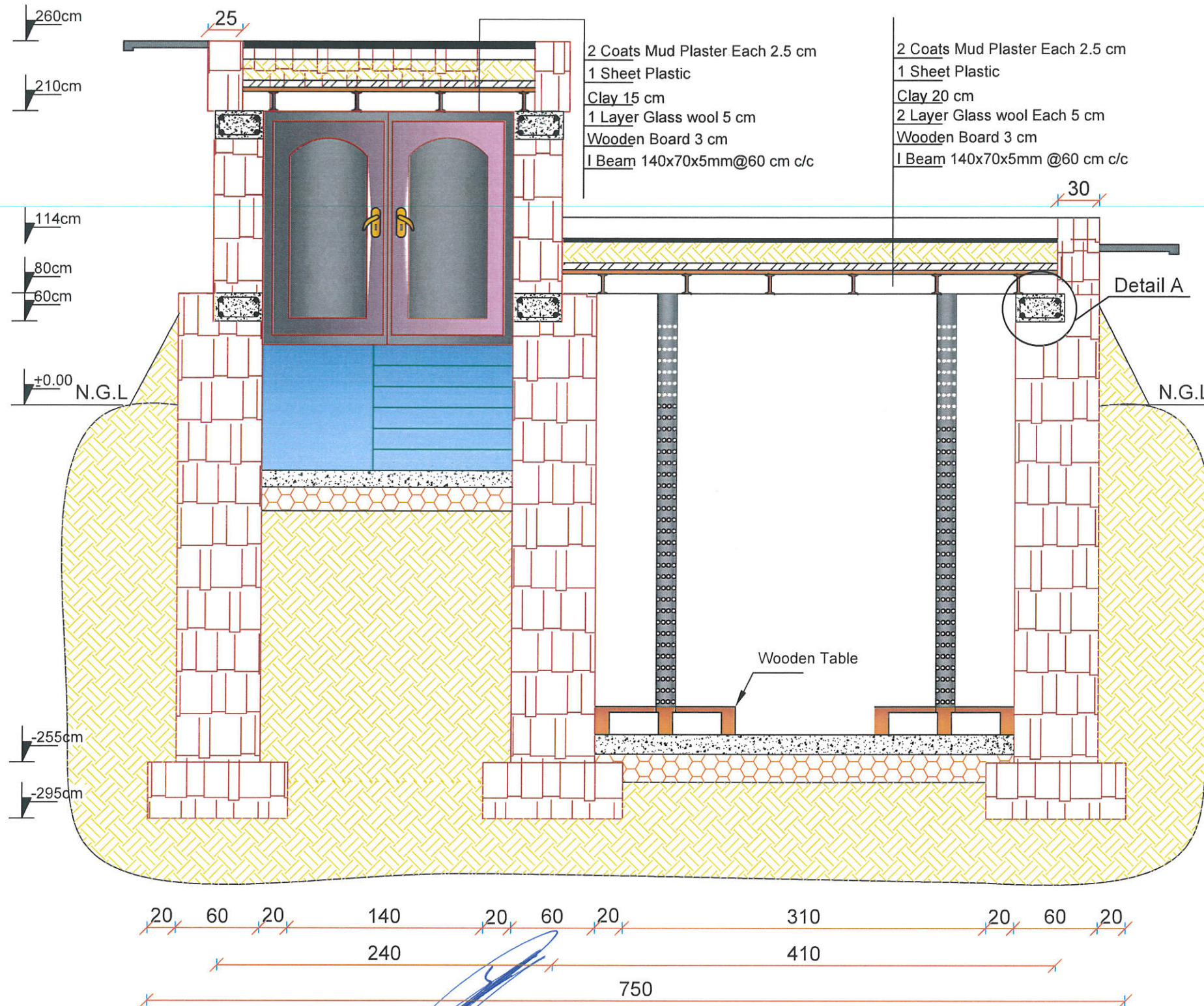
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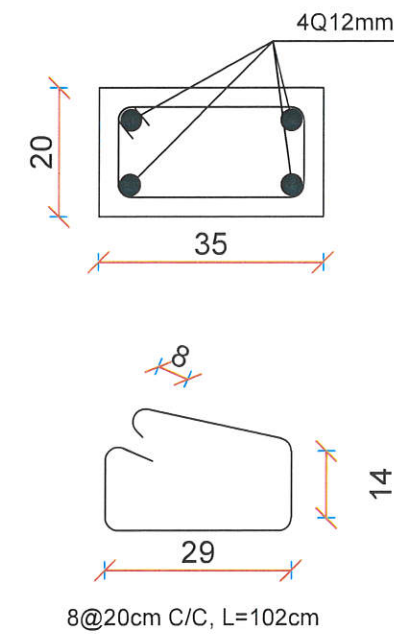
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Detail A



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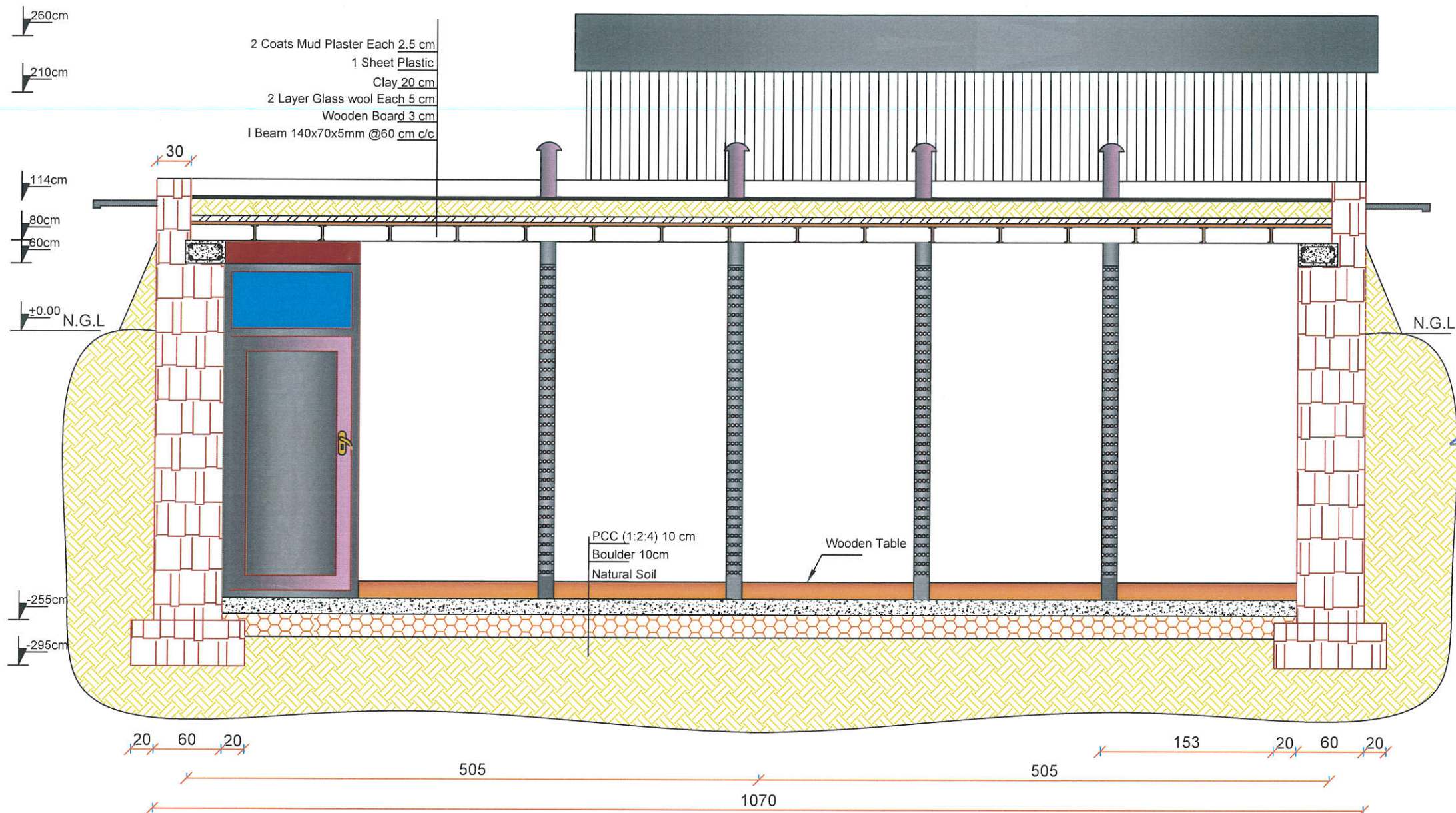
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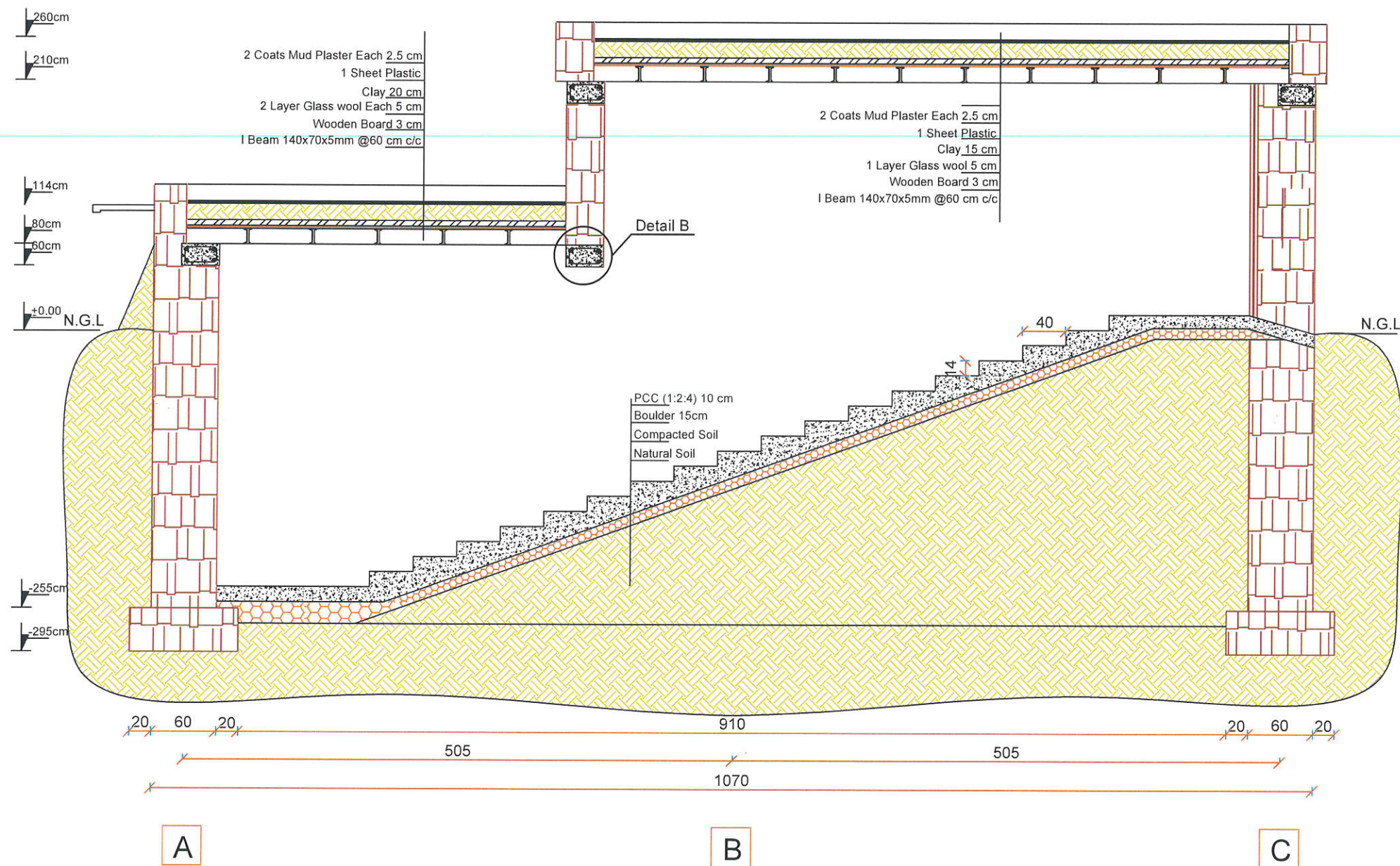
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