

The overall earth resistance of the substation earth electrodes system shall be 10Ω or less.

Notes:

Earth
Either 600mm minimum tails shall be left above plinth level or an earth connection point provided to enable the reinforcement to be connected to the earth bar/ equipment.

All connections to the reinforcement shall use a minimum of 70mm² stranded Copper cable.

Earth Electrode
The rods shall be Copper clad with appropriate fittings, driven to a minimum depth of 1.2m.

70mm² bare stranded copper cable shall be used for this installation.

Rebar
2No. 10mm x 1400mm rebar to BS 8666 Shape Code 11 (L shaped) with dimension 'A' = 200mm & dimension 'B' = 1200mm.

Rebar to be located 250mm in from the corners of the cable pit.

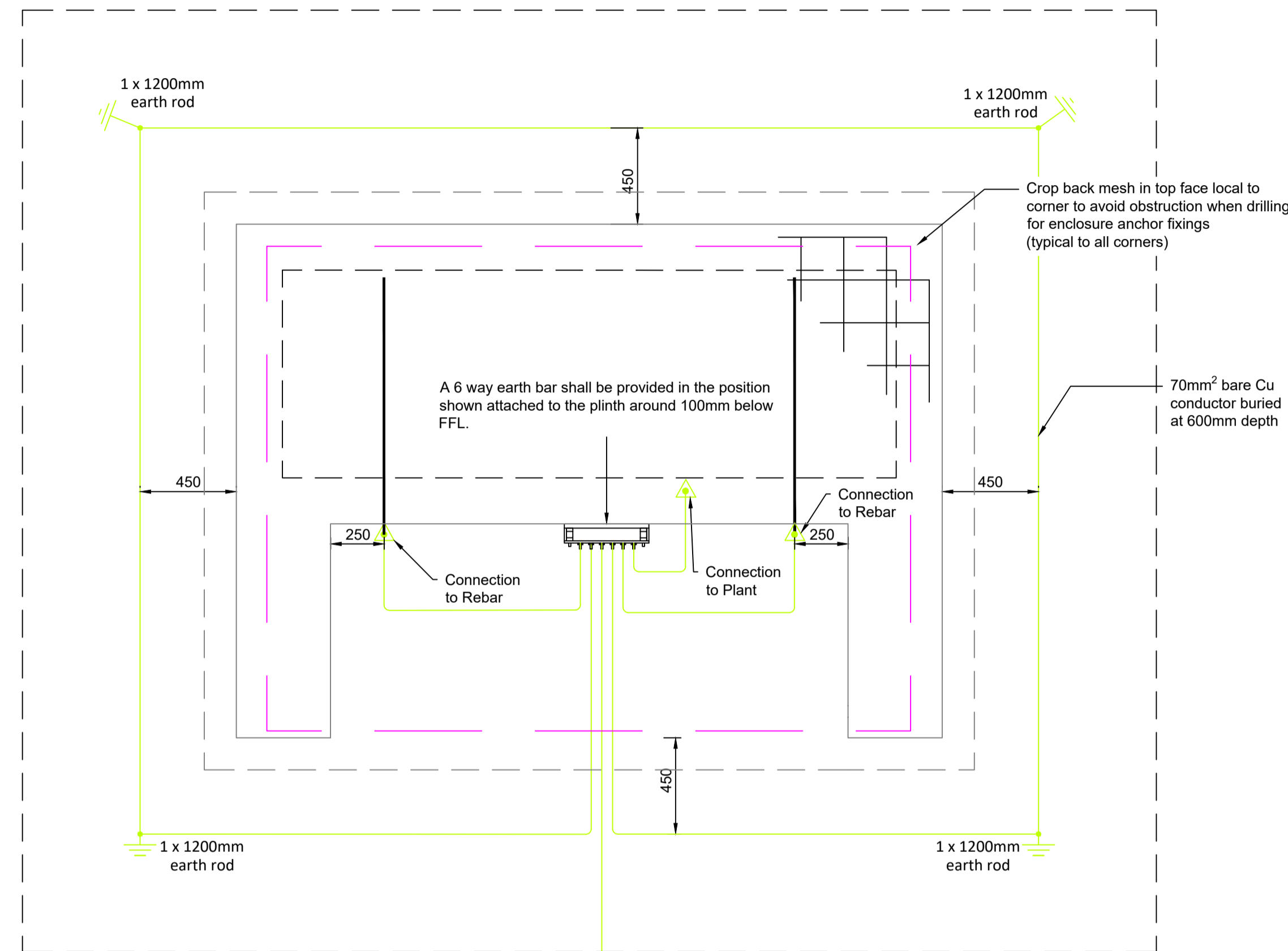
Rebar to protrude 50mm into cable pit to allow connection to earthing system to be made.

Rebar to be wire tied in not less than four places to the underside of the top layer of reinforcement mesh.

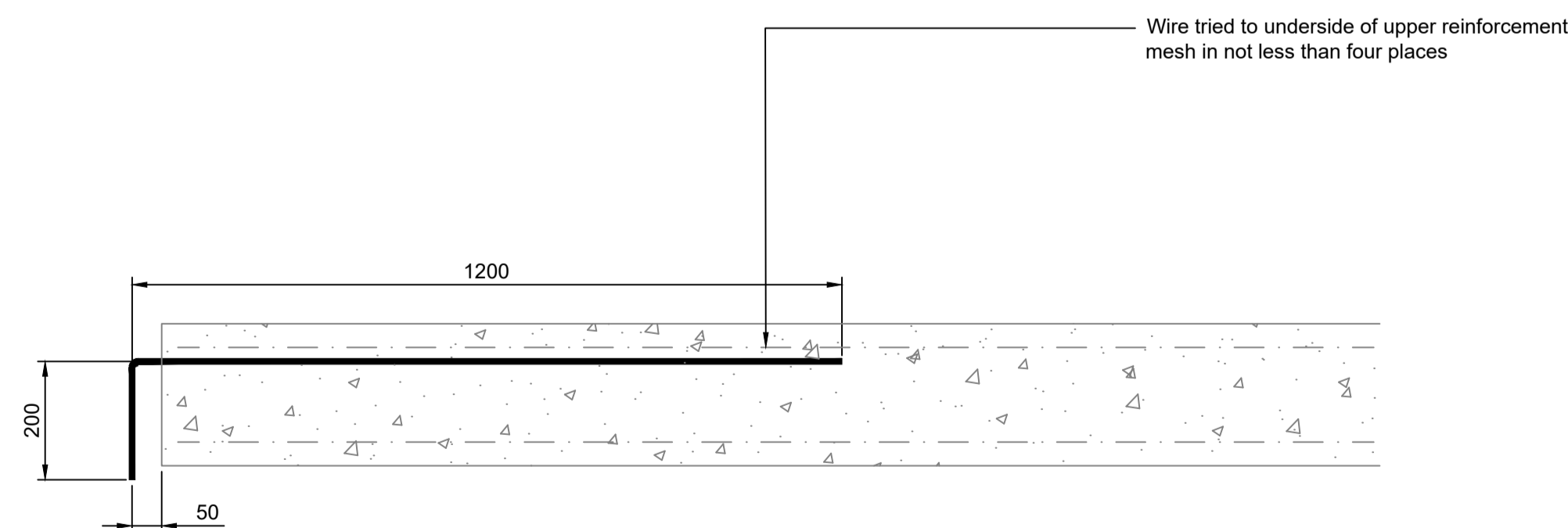
Earth Resistance
The maximum Ohmic value for the HV earthing system shall be 20Ohms. The maximum Ohmic value of the LV Earthing system shall be 20 Ohms.

This site is deemed cold so the HV/LV earth link shall be left in and earth systems combined. A figure of 10Ω is to be achieved when HV / LV earth system are combined.

Where the earthing system is installed by a developer or contractor certification confirming the resistance of the earthing system shall be provided to UKPS prior to equipment installation.

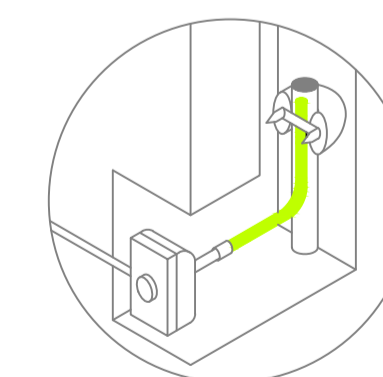


20m x 70mm² bare Cu conductor buried beneath HV cable



Rebar Detail
Scale 1:10

Earth point connected to rebar or reinforcement mesh with clamps or exothermic welding



Rebar/Earth Connection Method Detail

Earthing Key		
	Earth rod	
	Earth electrode	
	Connection	

1	Approved for Construction	07/03/2022	MS
0	Preliminary Issue	13/01/22	MS
REV	AMENDMENT	DATE	BY

UKPS
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Client
St. Modwen Developments Limited

Project
Locking Parklands - Secondary School (PAR01389)

Title
Construction Details - Earthing Arrangement

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Drawn By
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Checked By
NM

Date
13/01/22

Scale
As Shown

Sheet No.
1/1

Original Size
A1

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Rev
1

Client Ref.
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Drawing Status
Approved for Construction