1 September 2022

SPgroup
Empowering the Future of Energy

Topic 4b
Site/Substation Requirements
- With Pictorial Samples for Reference

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Ong Meng Teck, SPE

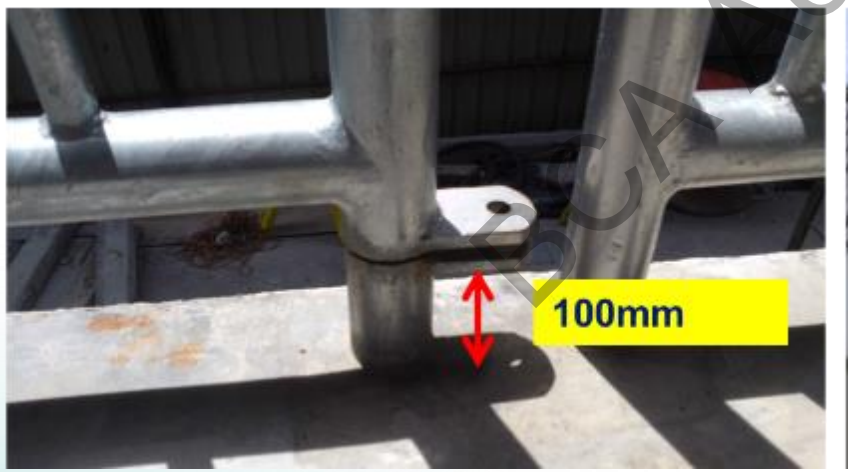
Site/Substation Requirements

- Requirements for Substation
- Requirements for Meter Compartment at Gate-Pillar
- Caution Notice Sticker for Wiring Colours

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Requirements for Substation







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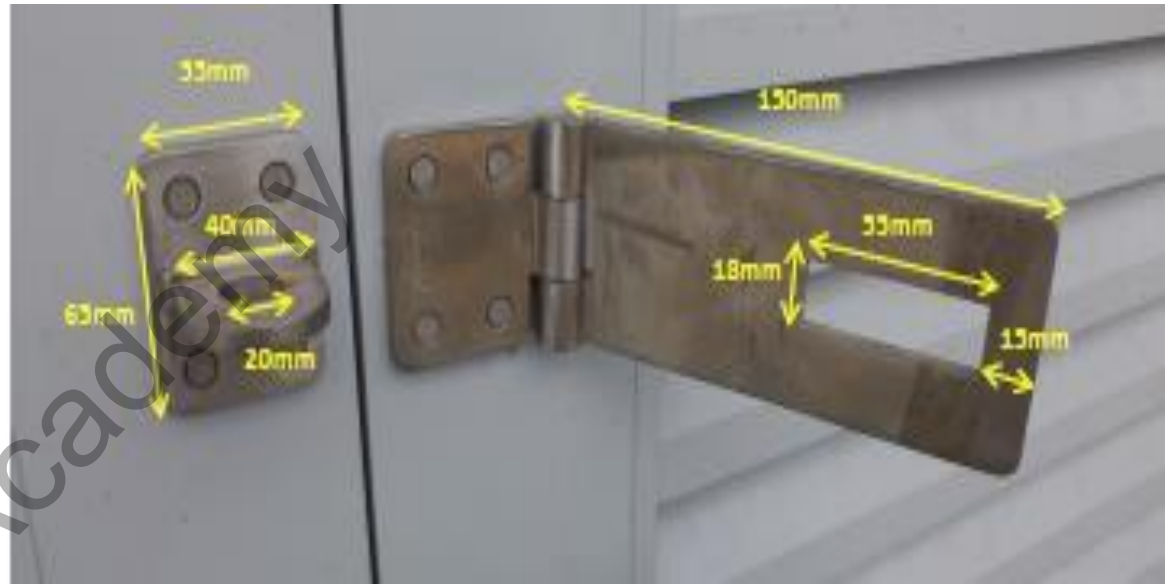
Common Deviation:

- Removable railings and through hole not according to endorsed drawings

Requirements for Substation

Common Deviation:

- Hasp and staple and base plate not installed according to endorsed drawings

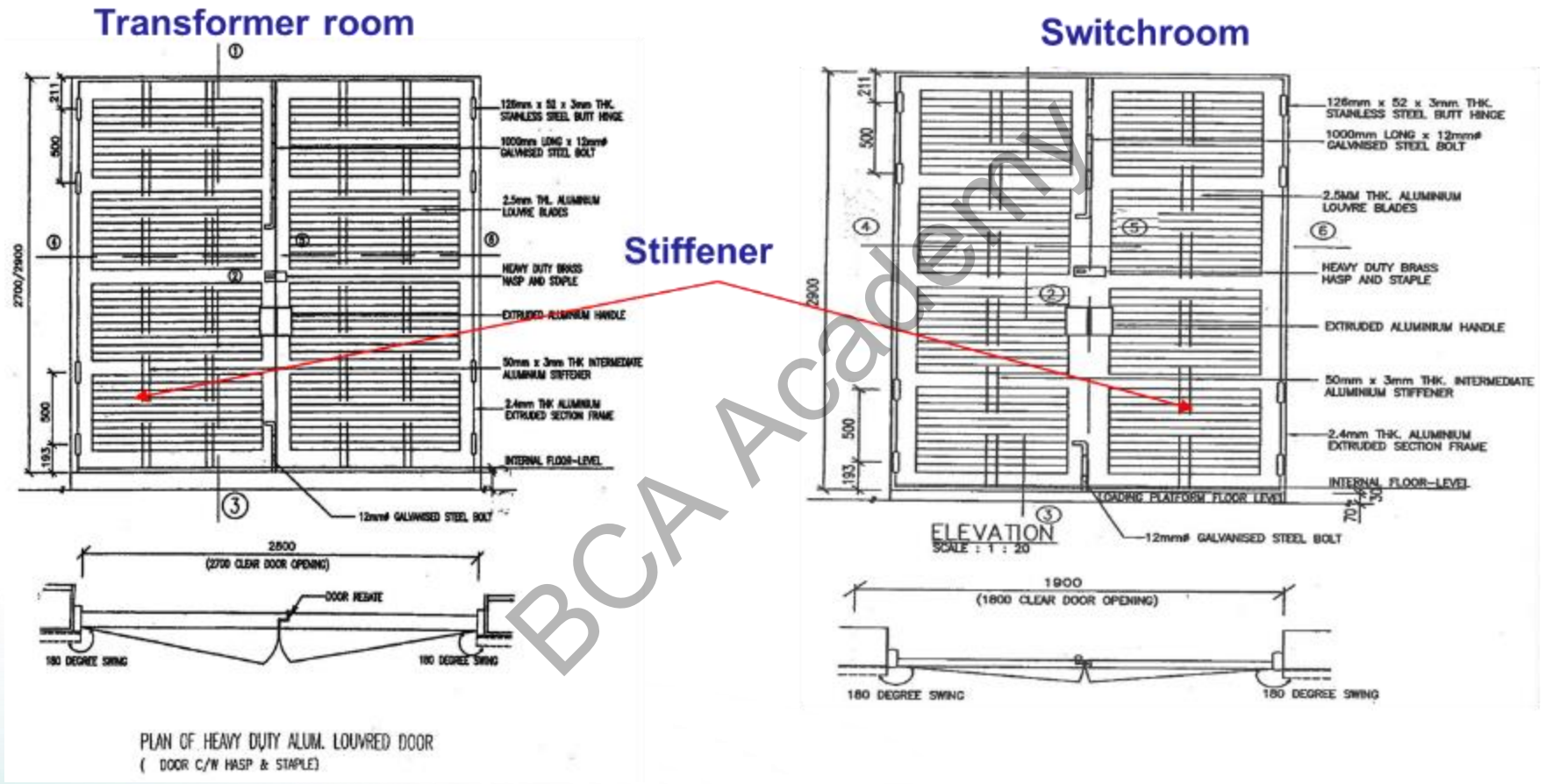






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Requirements for Substation



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Common Deviation:

- Door stiffeners not provided according to endorsed drawings

Requirements for Substation

Common Deviation:

- Shoot bolts and 2-step drop at substation doors not provided







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Requirements for Substation

Common Deviation:

- Shoot bolts, hasp and staple not provided according to endorsed drawings



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Requirements for Substation

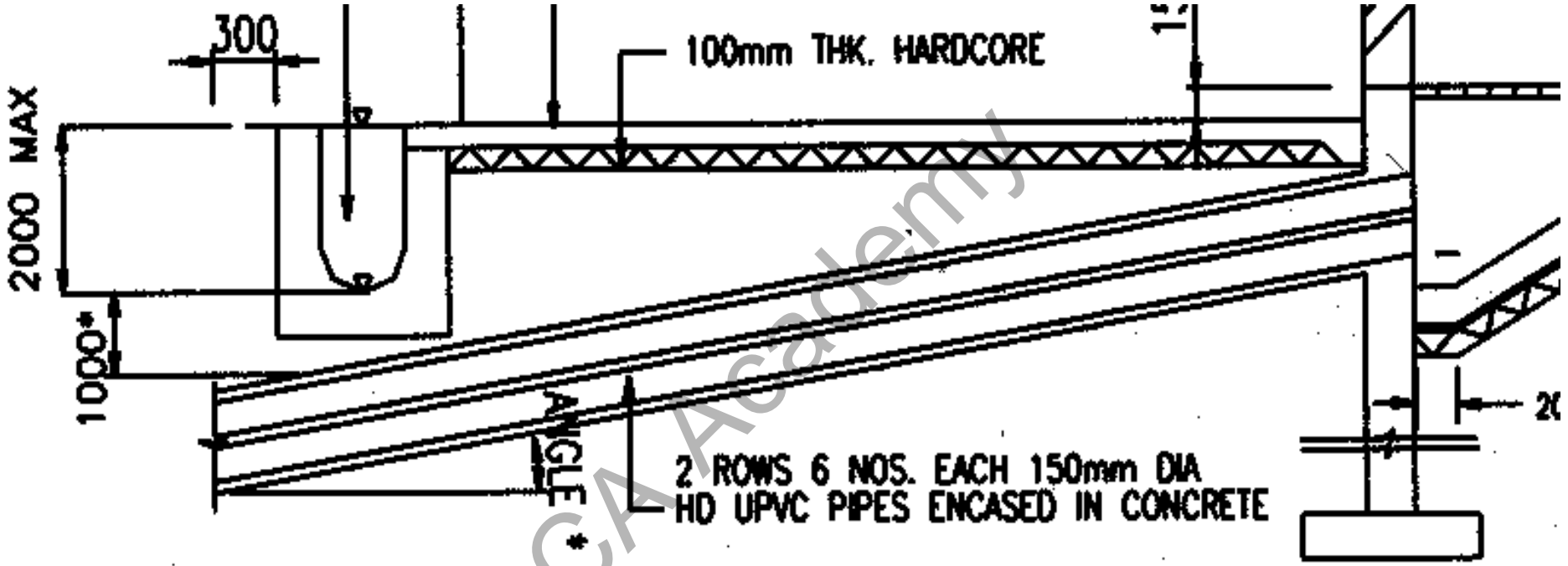
Common Deviation:

- Door catch not installed according to endorsed drawings



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Requirements for Substation



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Common Deviation:

- UPVC pipes not terminated beyond roadside drain

Requirements for Substation

Common Deviations:

- Lead-in pipes not flush with wall
- Cable entry ramps have sharp edges



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Requirements for Substation

Common Deviation:

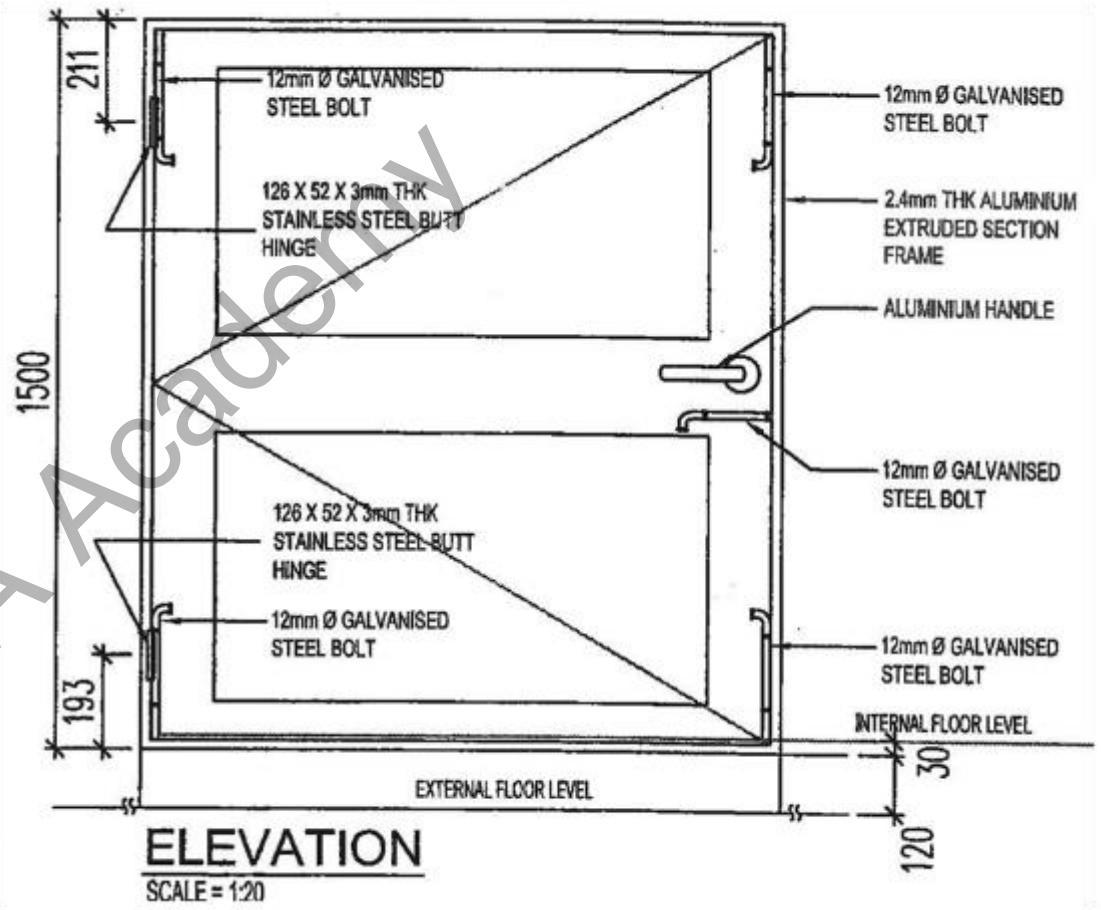
- Lead-in pipes not covered with water and gas-tight plugs



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Requirements for Substation





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Common Deviation:

- Steel bolts not provided according to endorsed drawings

Requirements for Substation

Common Deviation:
- No hard hat and no smoking signs provided





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Requirements for Substation

Common Deviation:

- 50mm red luminous paint not painted on the front and back of all beams at the cable chamber





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Requirements for Substation





Non-skid type

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Common Deviation:

- Guard rail, grab bars and cat ladder not provided according to endorsed drawings

Requirements for Substation





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Common Deviation:

- Trap door, door catch and not provided according to endorsed drawings

Requirements for Substation

Common Deviations:

- SLD not endorsed by LEW
- MCB not labelled with permanent stencil
- SLD not followed for isolators to bypass RCCB



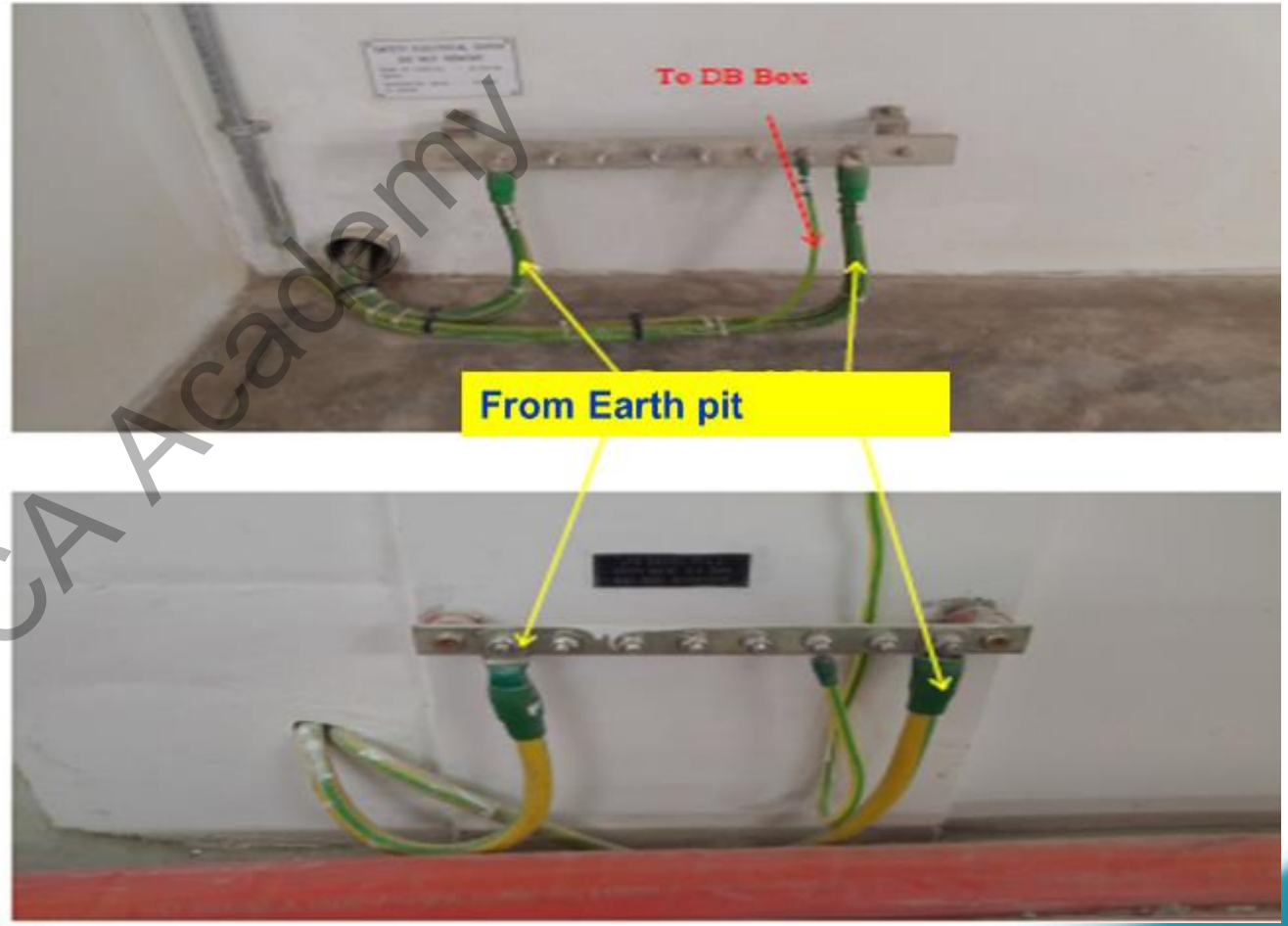


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Requirements for Substation

Common Deviation:

- Earthing for the substation not provided at cable chamber



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Requirements for Substation

Common Deviation:

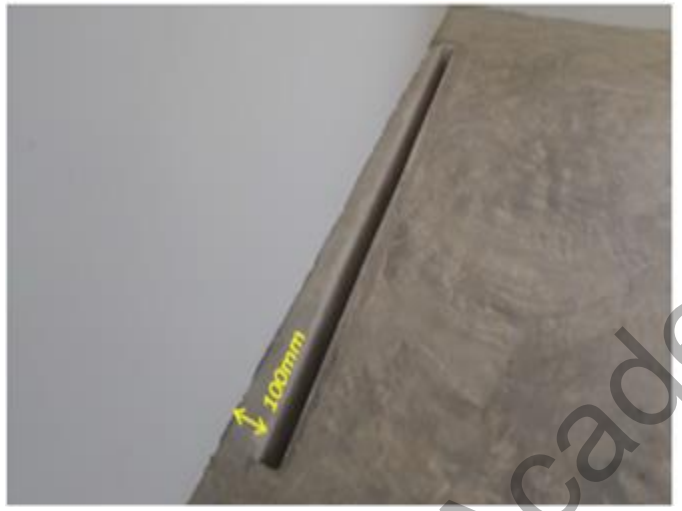
- Opening of LV board not constructed according to endorsed drawings
- 2x25mm2 + 16mm2 cables with 1m of flexible conduit and hot gland not provided





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Requirements for Substation







Common Deviations:

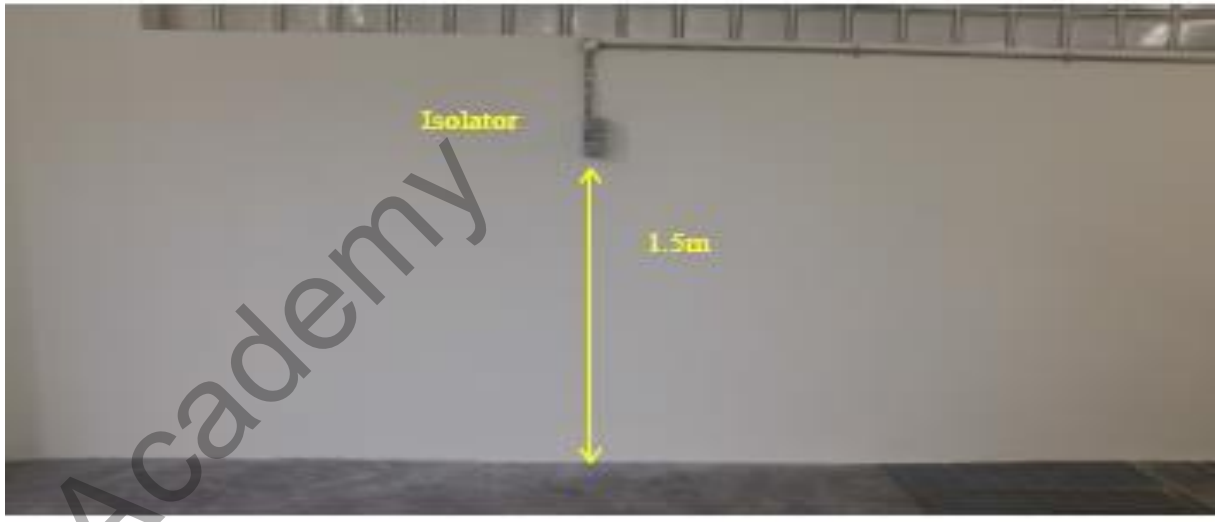
- Opening for marshalling box, pilot box and battery charger not constructed according to endorsed drawings
- Floor openings obstructed

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Requirements for Substation

Common Deviation:

- Isolators installed less than 1.5m from the floor





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Requirements for Substation

Common Deviation:

- Grove at transformer plinth not provided



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Requirements for Substation

Common Deviation:

- Hot-dipped galvanised mild steel grating for trenches inside substation not installed

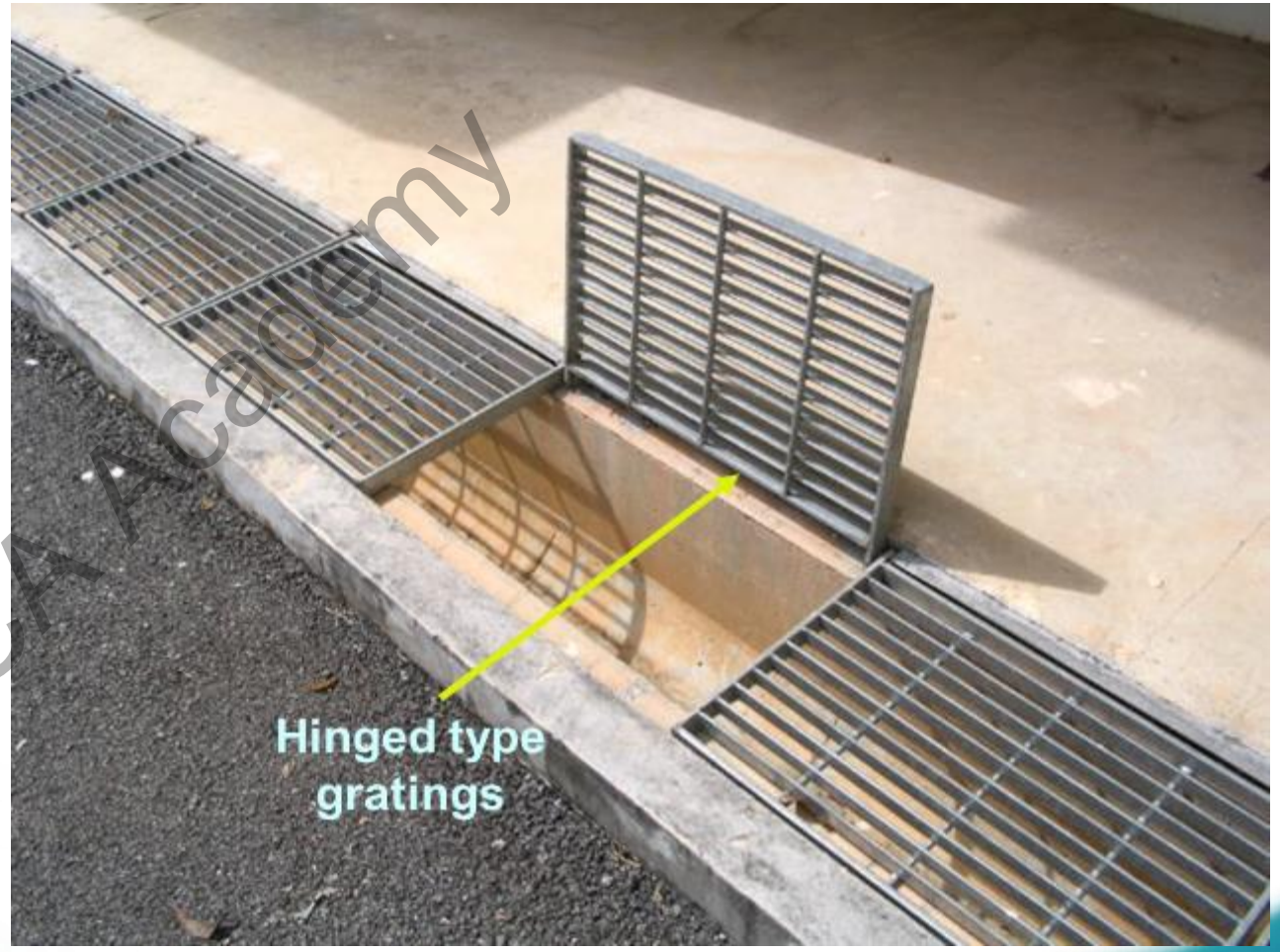


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Requirements for Substation

Common Deviation:

- Hinged hot-dipped galvanised mild steel grating for drain around substation not installed

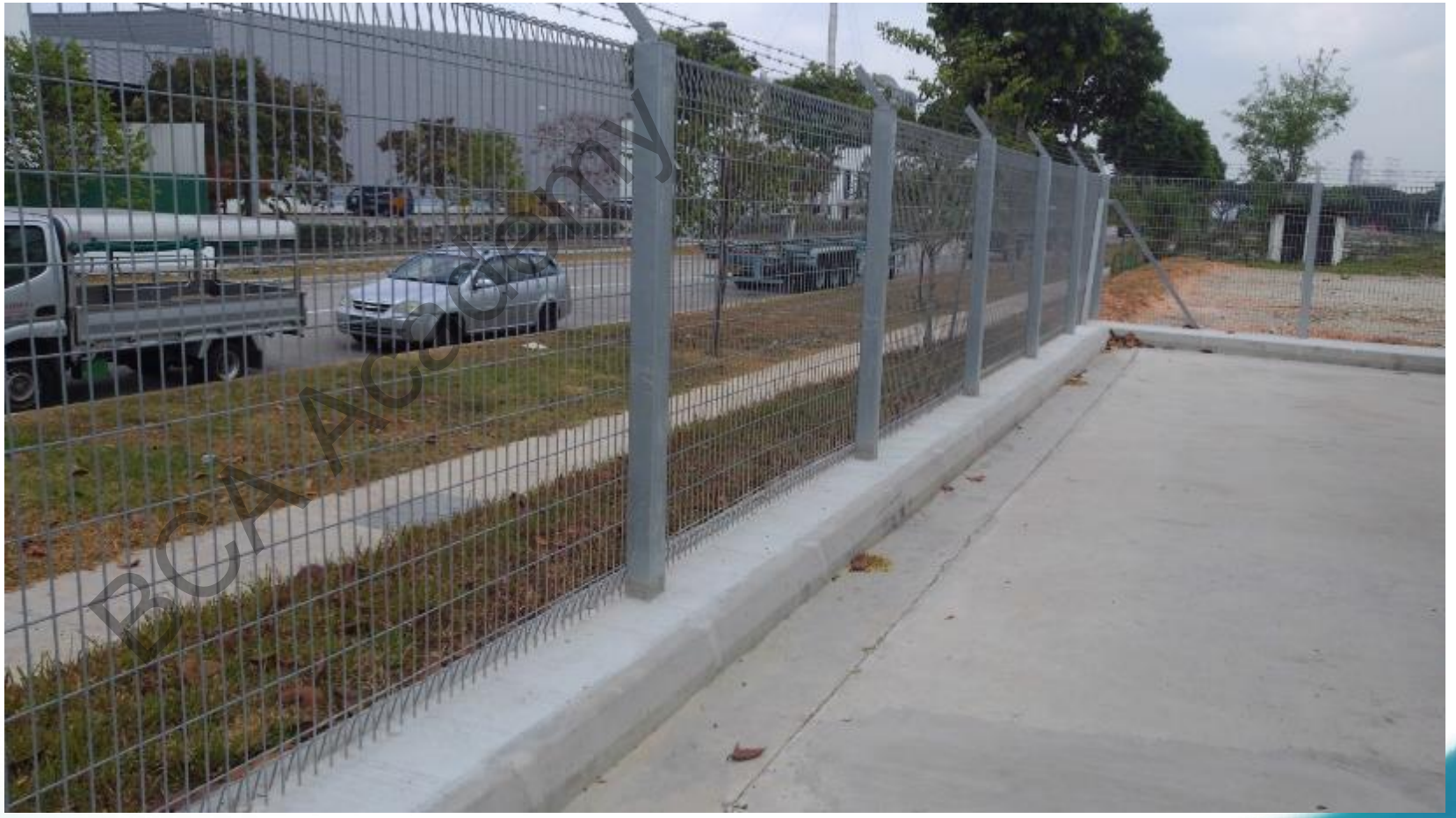


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Requirements for Substation

Common Deviation:

- Embedded concrete base for substation fencing not installed



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Requirements for Meter Compartment at Gate-Pillar

Common Deviations:

- Entry pipes not correctly aligned with meter board
- Incorrect size entry pipe installed
- Entry pipes not flushed with meter compartment concrete base



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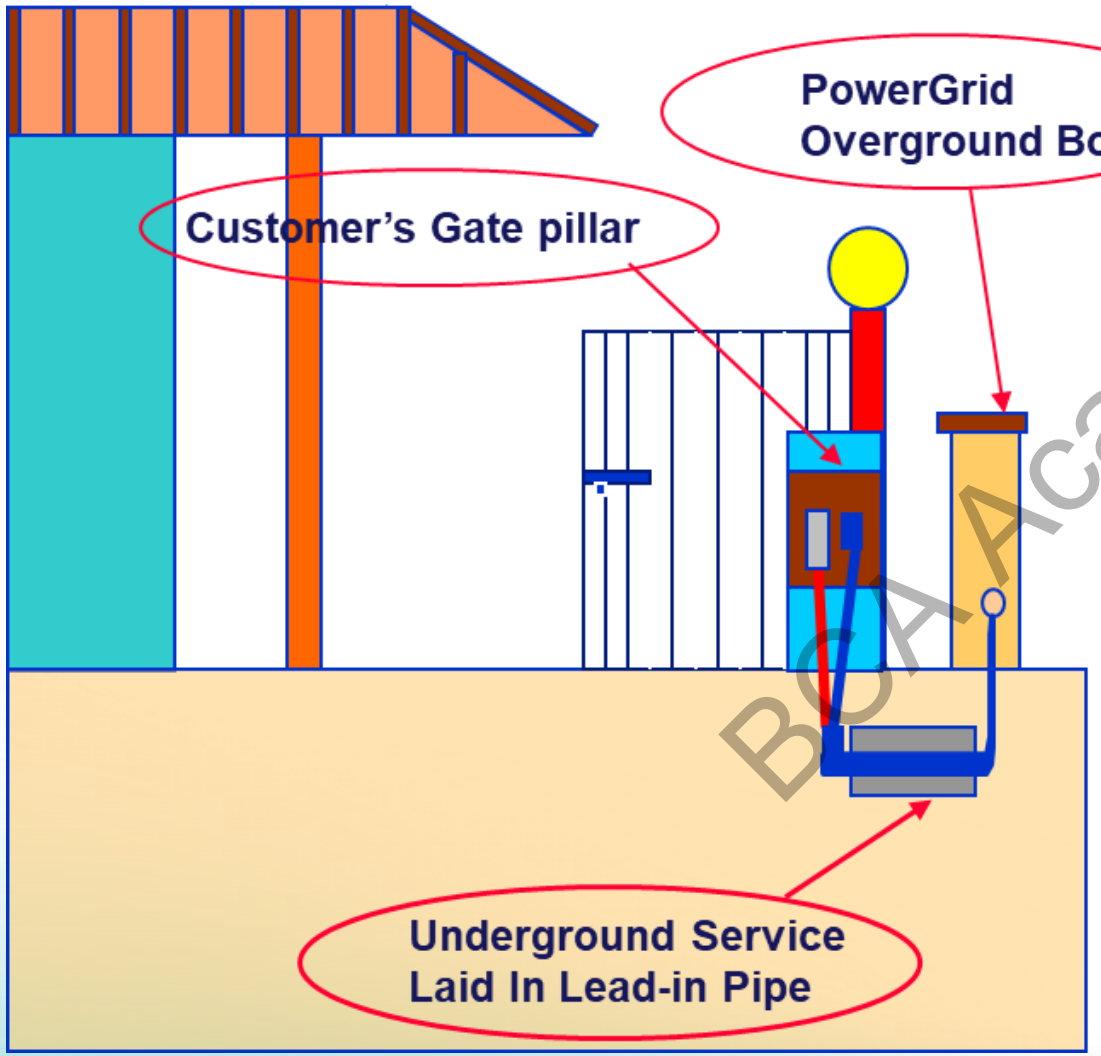
Requirements for Meter Compartment at Gate-Pillar

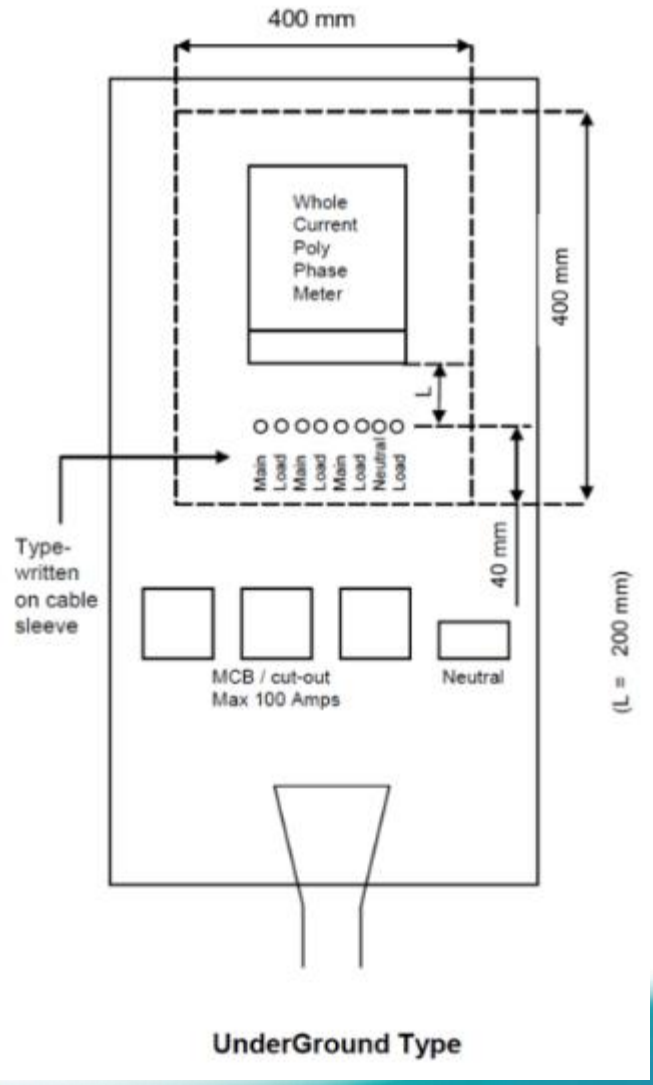
Common Deviation:

- Proper meter compartment door not provided



Requirements for Meter Compartment at Gate-Pillar

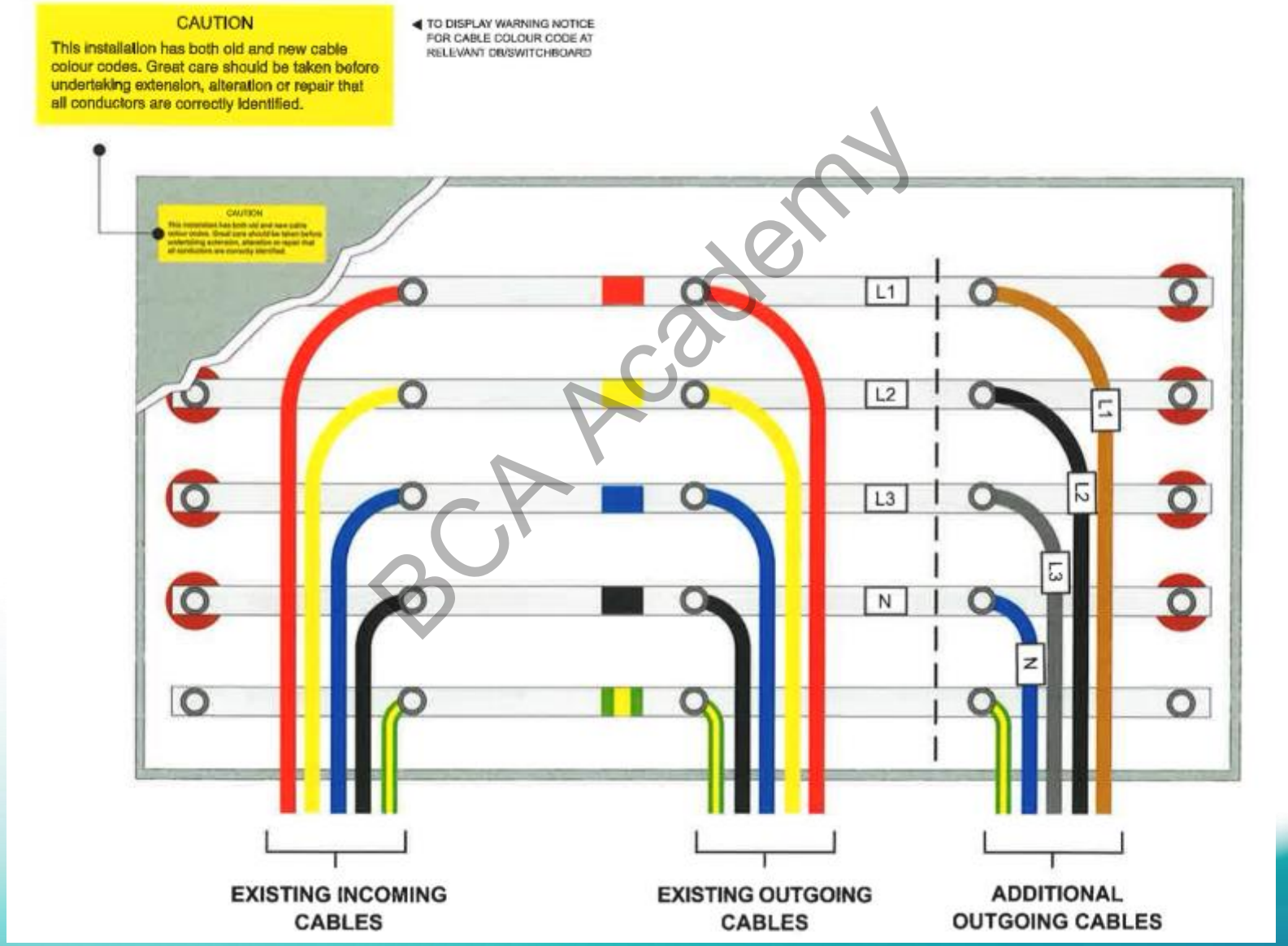




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Note: To provide sufficient space for the termination of service cable and ensure correct positioning of wires

Caution Notice Sticker Required for Wiring Colours to Two Versions of SS638



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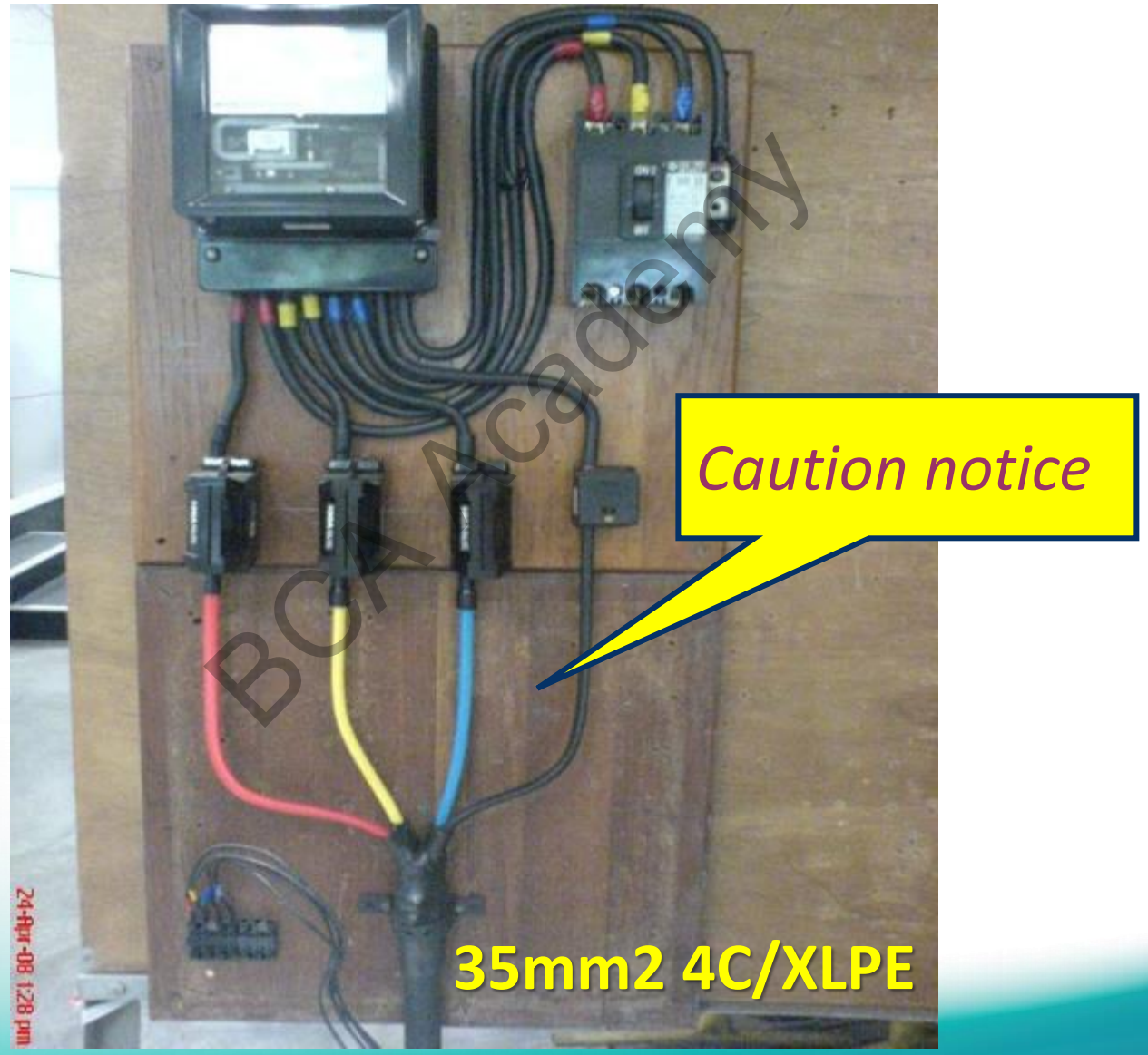
Caution Notice Sticker



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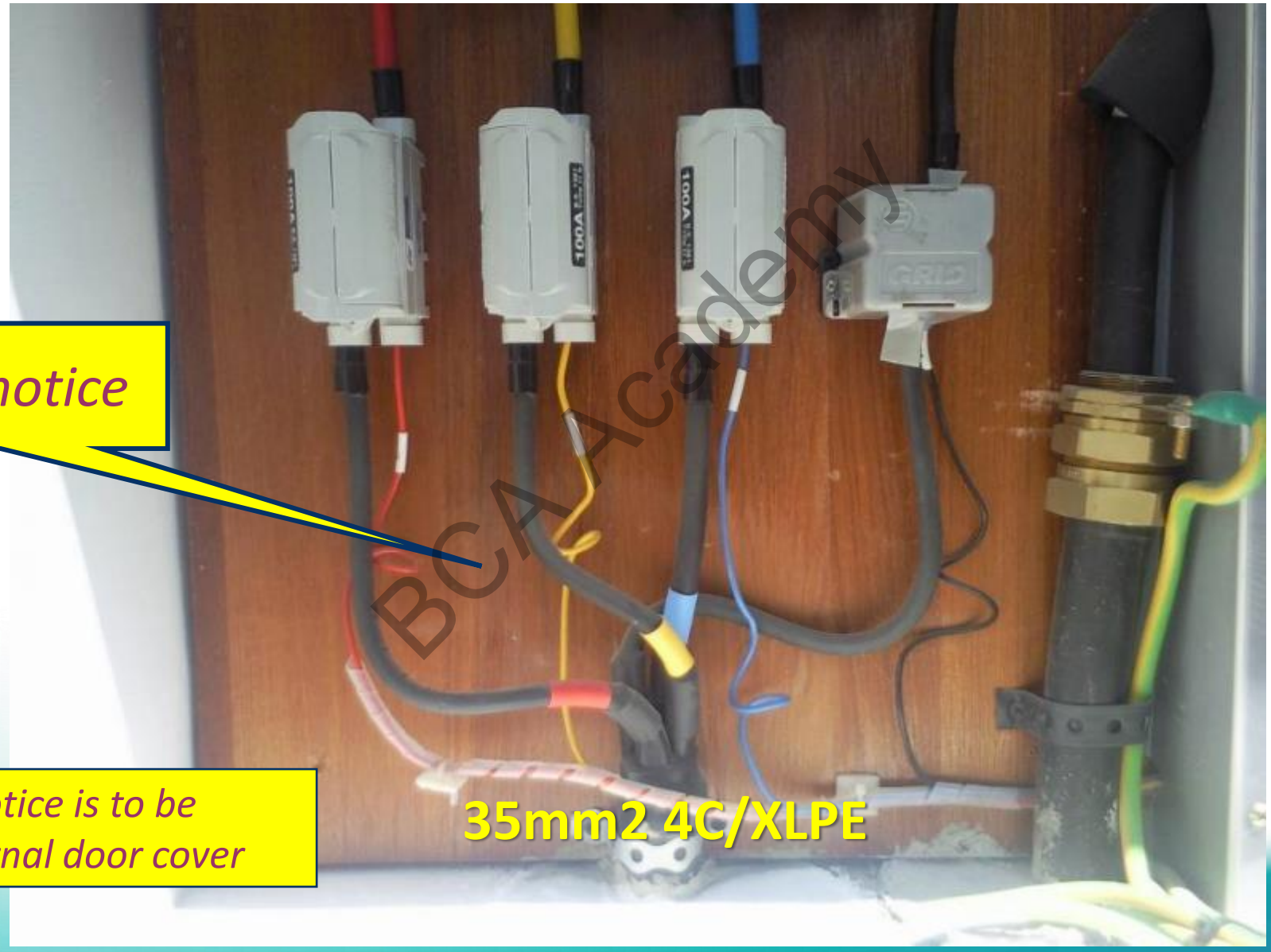
NOTE: Warning Notice shall have words in black against a yellow background and shall be durably marked in legible type not smaller than that illustrated here. (150mm x 55mm)

Caution Notice Sticker



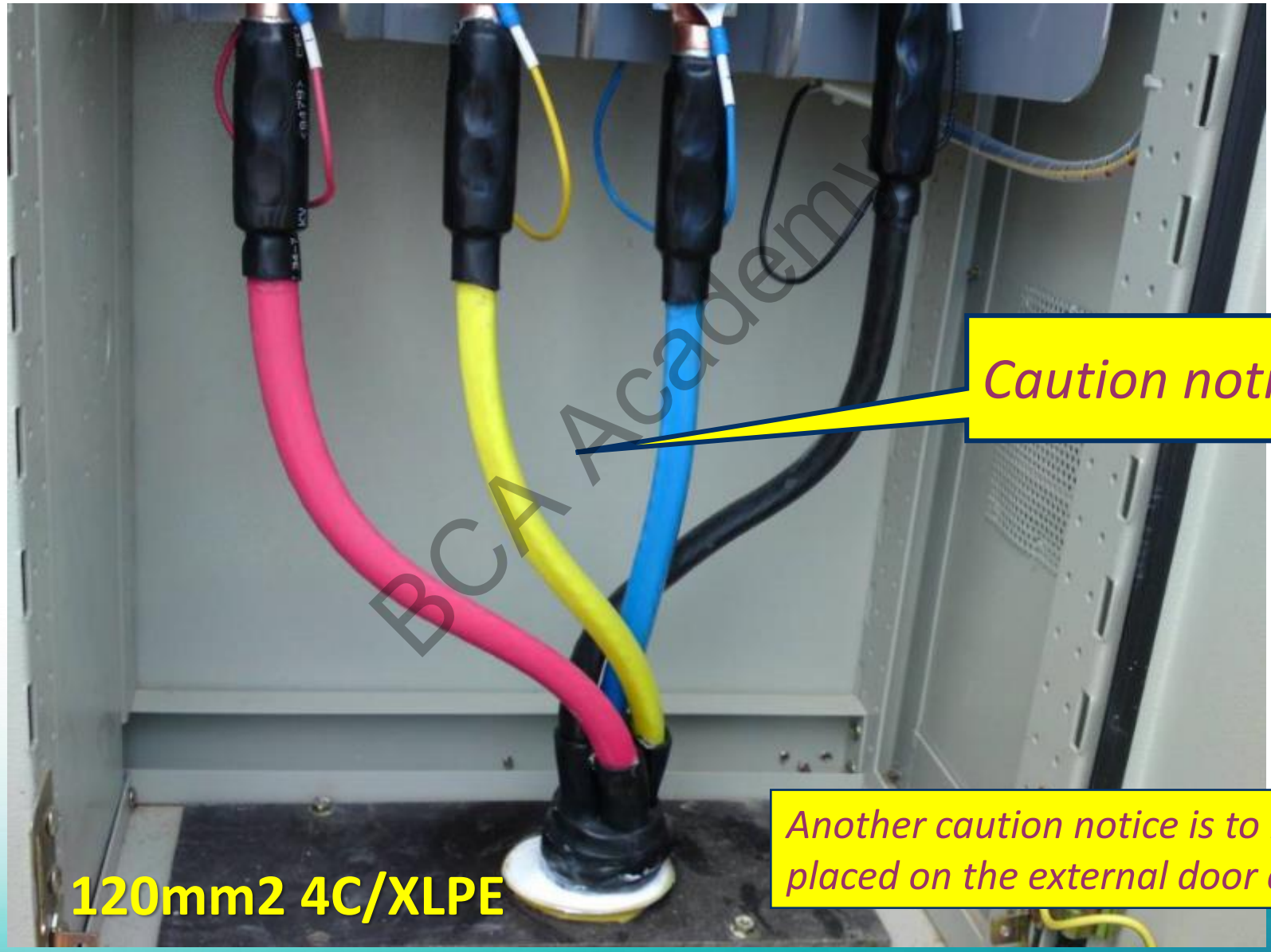
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Caution Notice Sticker



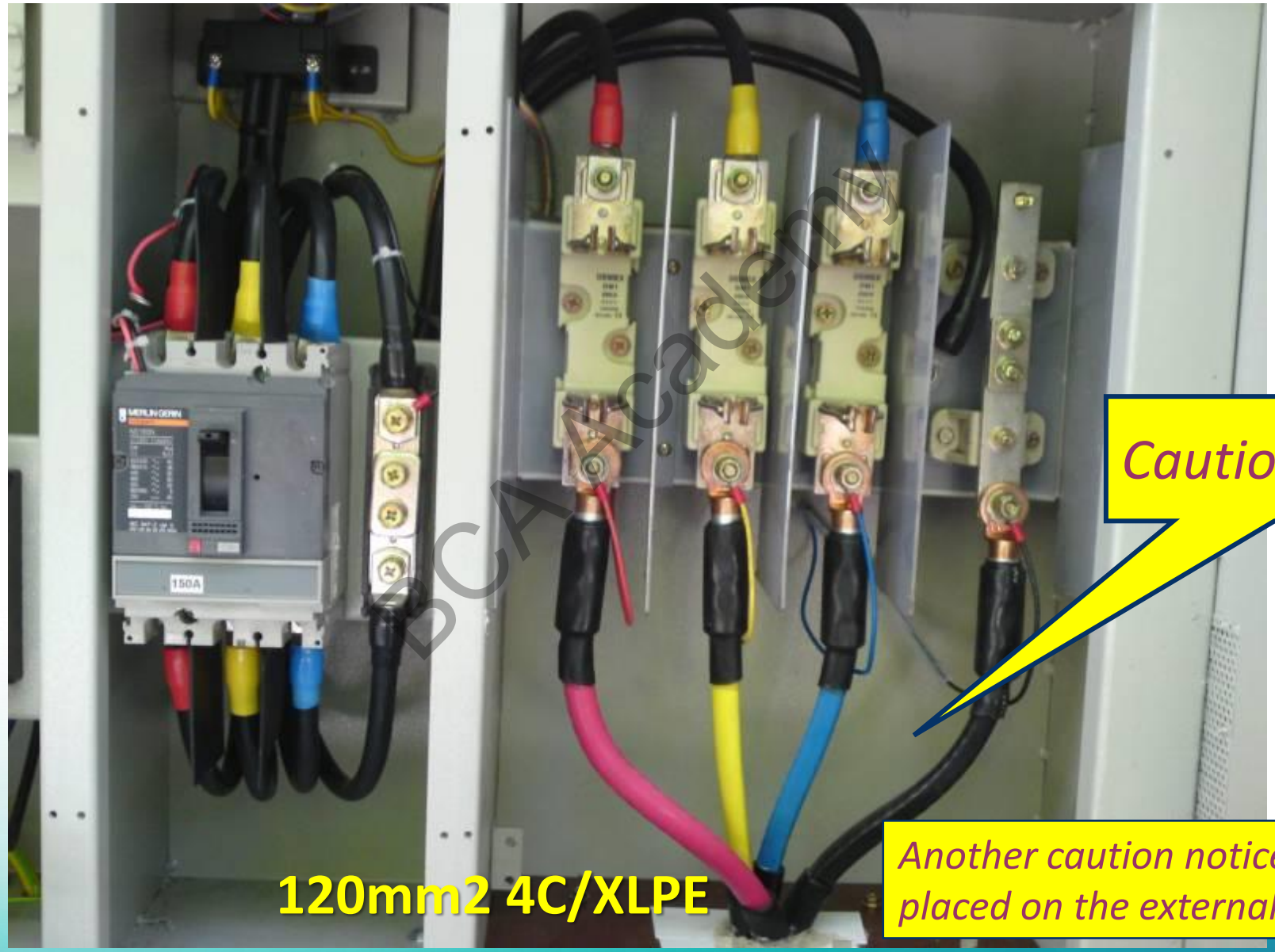
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Caution Notice Sticker



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Caution Notice Sticker

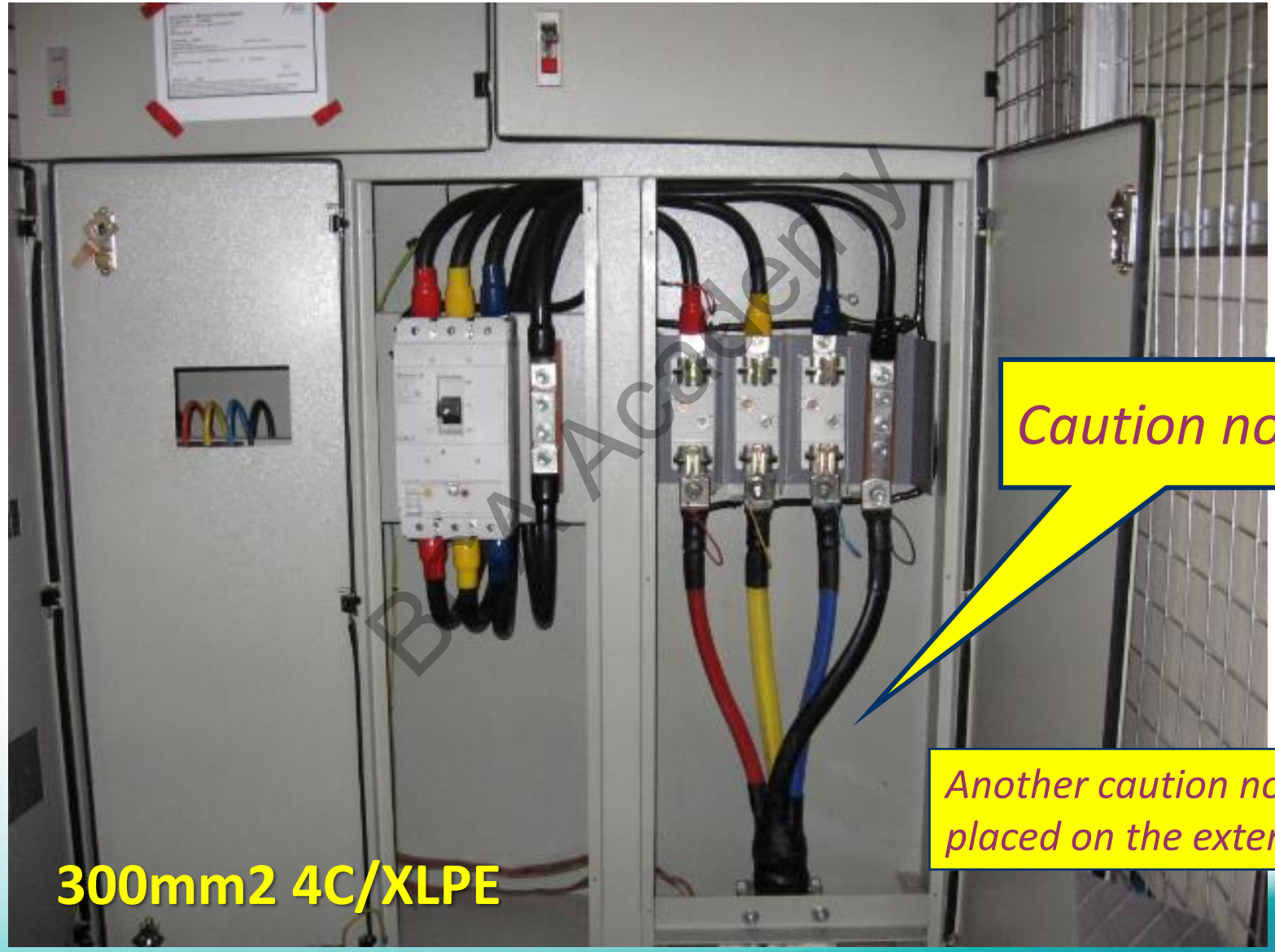


Caution notice

Another caution notice is to be placed on the external door cover

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Caution Notice Sticker



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Caution Notice Sticker



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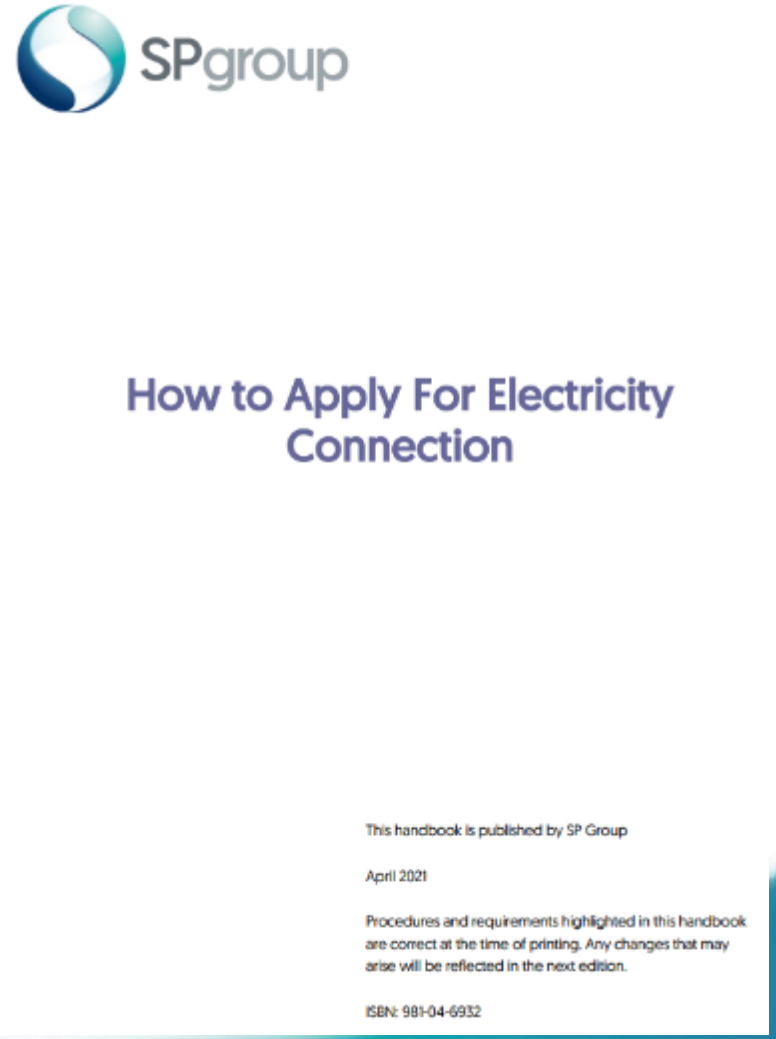
Caution Notice Sticker



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Handbook on Site Requirements

- https://www.spgroup.com.sg/wcm/connect/spgrp/a6da2da5-ff92-4e9d-9a0a-d3de57e1c3b5/Guide+How+to+Apply+for+Electricity+Connection_Apr+2021.pdf



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Note: Consult SPPG in advance for technical specifications

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