



香港電燈有限公司
THE HONGKONG ELECTRIC CO., LTD.

GENERAL PRACTICE ON EXECUTION OF EXCAVATION AND CONSTRUCTION
WORK NEAR UNDERGROUND ELECTRICITY CABLES

This General Practice is intended for guidance only. Contractors are reminded that in addition to following this General Practice, they should take all necessary precautionary measures to protect underground services as stipulated in the latest version of Code of Practice on Working near Electricity Supply Lines in accordance with the provisions of the Electricity Supply Lines (Protection) Regulation under the Electricity Ordinance (Cap. 406) issued by Electrical and Mechanical Services Department, the latest version of Conditions of Excavation Permit or Conditions of Emergency Excavation Permit issued by Highways Department and other relevant legislative requirements. Moreover, the contractors must exercise due diligence and all reasonable care in carrying out their work in conformity with sound technical and engineering practice. The Hongkong Electric Co., Ltd. (hereinafter referred to as 'HK Electric') shall not be liable for any losses and/or damages suffered by any contractors arising out of or in consequence of their work taken or from reliance upon the whole or any part of the contents of this General Practice.

1. Special Marks and Legends on The Cable Plan

Should any of the signs  or  be found on the underground electricity cable plan provided in the vicinity of the work area, the contractor responsible for such work must contact HK Electric for site inspection before commencement of any work.

2. Proper Protection and Support of Underground Electricity Cables and Cable Joints

In order to avoid damage of any cables or cable joints during the work, adequate support must be provided to the cables as shown in the drawing attached (Title - Method To Support Cables). Sand bags shall be placed around the cable joints for protection as shown in the drawing attached (Title - Support & Protection of Cable Joint). No flammable material shall be placed near any HK Electric's cable.

Should any cable or cable joint be damaged in the course of a contractor's work, the work shall be stopped immediately and all personnel shall immediately be cleared from the spot. Guard the site and report to HK Electric at once. Under no circumstances shall any unauthorised repairs be made to an underground electricity cable.

3. Excavation or Construction Work Near HK Electric's Transmission Cables of 132kV and above

For excavation or construction work that is undertaken in close proximity to HK Electric's transmission cables of 132kV and above, the contractor responsible for such work is required to contact HK Electric before commencement of work. Weekly meetings between HK Electric and the contractor regarding the site work should be set up before the work commencement. The following requirements should also be strictly observed by the contractor:

- 3.1 Only hand digging method is allowed within 3 metres from the transmission cables of 132kV and above. Method statement of each individual excavation or construction work within 3 metres' range to the transmission cables of 132kV and above shall be submitted to HK Electric for written approval at least 1 week prior to the commencement of the work.
- 3.2 The transmission cable joints of 132kV and above should not be disturbed at all times and the contractor must contact HK Electric to work out proper protective measures. The work can only be commenced after the agreed protective measures have been completed to HK Electric's satisfaction.
- 3.3 Overhanging HK Electric's transmission cables or cable joints of 132kV and above is not allowed and the contractor shall revise the design/routing of the work to avoid any overhanging.
- 3.4 HK Electric's cable protection slabs shall not be removed and no excavation or construction work underneath the slabs shall be carried out unless prior written approval has been obtained from HK Electric.
- 3.5 The contractor's new installation shall not be placed right above HK Electric's transmission cables and cable joints of 132kV and above as to obstruct HK Electric's future maintenance work. The minimum clearance between new installation and HK Electric's transmission cables of 132kV and above is 1 metre.

4. Minimum Depth of Underground Electricity Cable and Cable Joint

To comply with the requirements of Highways Department, cables of 22kV and below should have a minimum depth of 900mm underneath carriageway and a minimum depth of 450mm under footway. Transmission cables of 132kV and above should have a minimum depth of 1000mm underneath carriageway and footway.

HK Electric's cables have been originally laid at the depths required by the then prevailing requirements of the Conditions of Excavation Permit issued by the Highways Department or such other depth as approved in writing by the authority. HK Electric cannot however guarantee that the cables have remained at such depths since they were laid.

The underground electricity cable plan may indicate locations of cables which are more prone to shallow depth, however cables may be located in different alignment and depths depending on such factors as the voltage of the cable, the time it was laid, obstructions in the area, the location of other utilities, changes due to continuous alteration, improvement and extension of HK Electric's network and changes due to continuous road and property developments etc. Cables may also have been moved by excavation, construction or reinstatement work by third parties. Contractors are put on notice that the cover over cables and the alignment of cables may, without the knowledge or fault of HK Electric, be significantly less than provided for in the Conditions of Excavation Permit, and/or different from those indicated on the underground electricity cable plan. The contractor must take responsibility and great care in identifying the exact alignment and depth of the cables.

As explained above, HK Electric cannot guarantee that the cables have remained at such depths since they were laid. If you discover during your work any cable not complying with the above minimum depth requirement, you should inform HK Electric to arrange a site inspection.

The contractor is not allowed to change the burial depth or alignment of any cables or cable joints in the course of any excavation or construction work without obtaining prior written approval from HK Electric. Cables or cable joints should be reinstated, if having been disturbed, back to their original depth by the contractor. The trench should then be inspected by HK Electric's representative before backfilling. The contractor should call HK Electric at telephone No. 2814 3443 for arrangement. HK Electric will hold the contractor liable for any damage to its cables or cable joints, and any loss or damage arising from the alteration of the location of the cables or cable joints by the contractor.

5. Proper Backfilling to Underground Electricity Cables and Cable Joints

Wooden material or other unwanted substance should be removed before backfilling. Under exceptional circumstances and with prior written approval from HK Electric, the backfilling materials around cables underneath cable protection slabs may be removed. In reinstating the removed materials, the contractor should call and inform HK Electric at telephone No. 2814 3443 of the schedule of the backfilling. The cable trench should be backfilled with original backfilling materials surrounding cables which should be completely free from any wooden materials, as follows:

5.1 Backfilling Materials Around Underground Electricity Cables Underneath HK Electric's Cable Protection Slabs

5.1.1 Sieved soil shall be used as bedding and covering materials for cable trench of cables of 22kV and below. The thickness of the bedding layer shall be 75mm. After the cables are placed on bedding, they shall be covered by another layer of sieved soil, with a thickness of 75mm before the cable protection slabs are placed.

5.1.2 Sieved soil is defined as suitable filling materials passing through a 12mm x 12mm mesh.

5.1.3 Backfilling materials around transmission cables of 132kV and above shall follow special requirements and shall be included in the agenda of the weekly meeting as mentioned in item 3 above.

5.1.4 Cable protection slabs and cable warning tapes having been removed shall be reinstated by the contractor in accordance with HK Electric's requirements as shown in the drawing attached (Title - Typical Positions of Cables, Cable Protection Slabs and Warning Tapes). If the protection slabs and warning tapes remaining from previous removal are found to be insufficient for the protection of the cables, the contractor must contact HK Electric for the provision of adequate quantity of protection slabs and/or warning tapes.

5.2 Backfilling Materials Above HK Electric's Cable Protection Slabs

Backfilling materials above HK Electric's cable protection slabs shall comply with the requirements of Highways Department with particle size not exceeding 75mm, free from

peat, timber, perishable materials, rock, broken concrete or spontaneous combustion materials and capable of being compacted to form a stable fill.

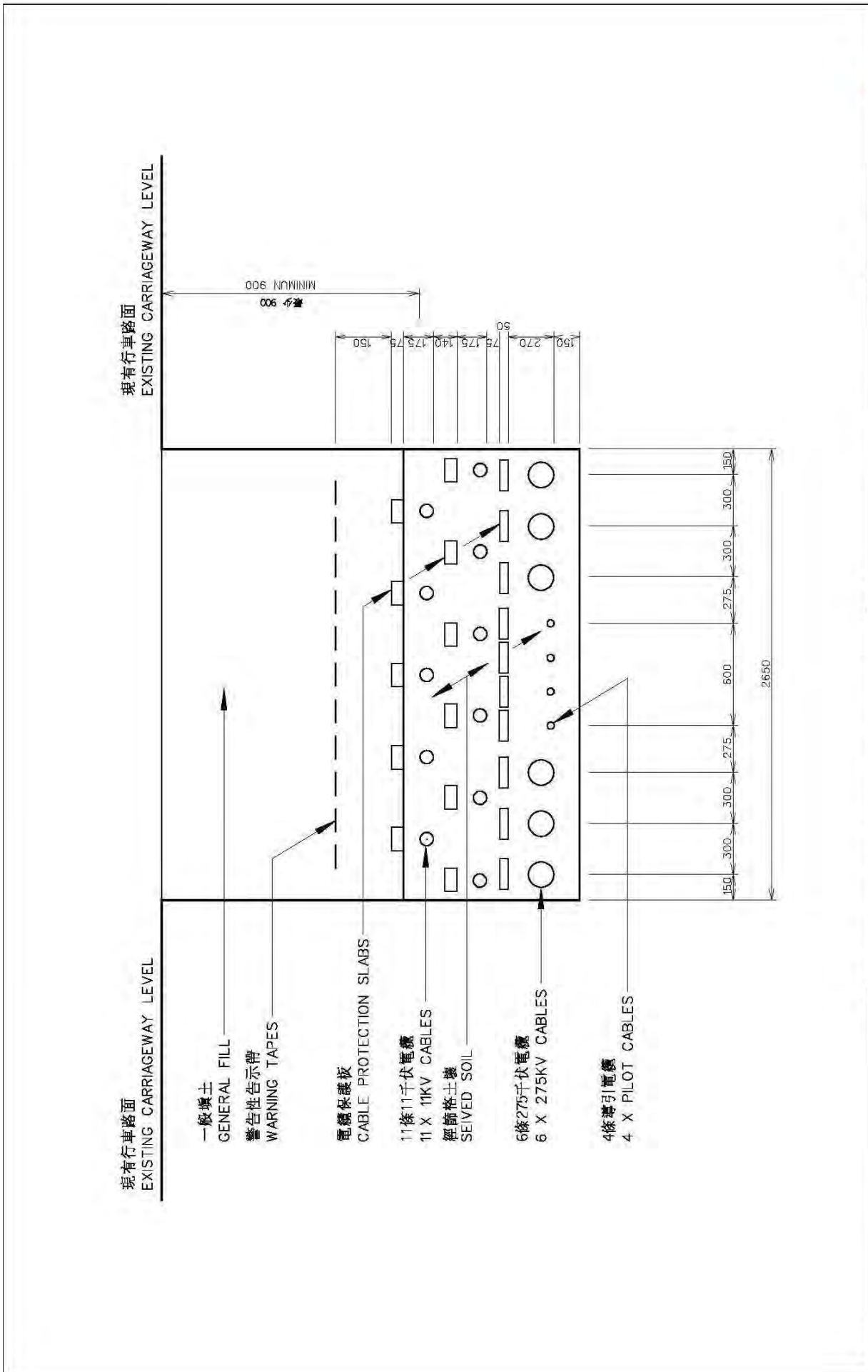
5.3 If the contractor has any difficulty in complying with any of the above, the contractor should call HK Electric at telephone No. 2814 3443 for site inspection.

6. HK Electric's Contact Telephone No.

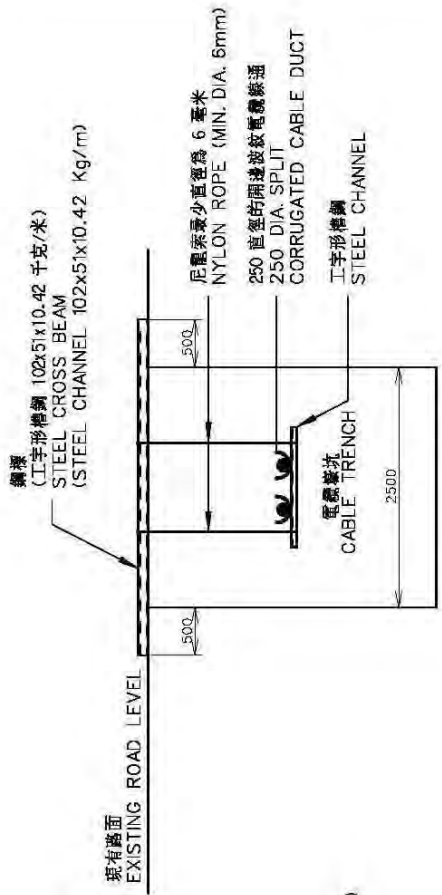
Special factors and circumstances other than those described above may require specific directions from HK Electric. Contractors shall, in case of doubt, make use of the following telephone contacts:

6.1 For general enquiries and site inspection - 2814 3443 (24-hr hotline)

6.2 For reporting cable damage - 2555 4999 (Chinese 24-hr hotline) or
2555 4000 (English 24-hr hotline)



單位為毫米 DIMENSIONS IN mm	17th 44 20 x 297	電纜，電纜保護板及警告性告示帶的標準位置圖 TYPICAL POSITIONS OF CABLES, CABLE PROTECTION SLABS AND WARNING TAPES		Drawing No. P 306/95	Date 24-6-1996
		Drawn By C.C.L.J	Scale N.T.S.		
香港電燈有限公司 The Hongkong Electric Co., Ltd. Transmission and Distribution Division Distribution Planning Department		HK Electric			



鋼梁 (工字形槽鋼 102x51x10.42 千克/米)
STEEL CROSS BEAM
(STEEL CHANNEL 102x51x10.42 Kg/m)

尼龍索最少直徑為 6 毫米
NYLON ROPE (MIN. DIA. 6mm)

250 直徑的開邊波紋電纜線通
CORRUGATED CABLE DUCT

工字形槽鋼
STEEL CHANNEL

電纜線溝
CABLE TRENCH

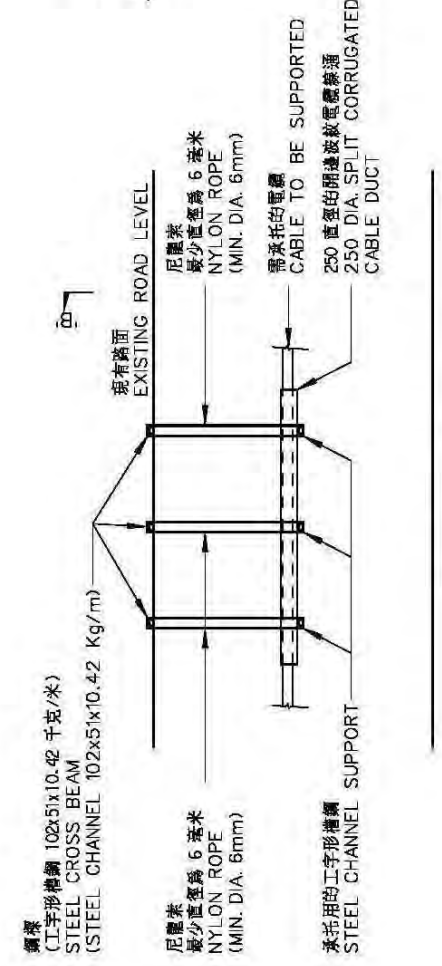
2500

500

500

現有路面
EXISTING ROAD LEVEL

'B-B' 切面圖
SECTION 'B-B'



鋼梁 (工字形槽鋼 102x51x10.42 千克/米)
STEEL CROSS BEAM
(STEEL CHANNEL 102x51x10.42 Kg/m)

尼龍索最少直徑為 6 毫米
NYLON ROPE (MIN. DIA. 6mm)

需承托的電纜
CABLE TO BE SUPPORTED

250 直徑的開邊波紋電纜線通
CABLE DUCT

2500 毫米寬的電纜線溝
2500mm CABLE TRENCH

MAX 1000mm
C/C

最大距離為 1000 毫米
中心距

現有路面
EXISTING ROAD LEVEL

鋼索承托電纜
STEEL CHANNEL SUPPORT
CABLE TO BE SUPPORTED

尼龍索最少直徑為 6 毫米
NYLON ROPE (MIN. DIA. 6mm)

250 直徑的開邊波紋電纜線通
CABLE DUCT

'A-A' 切面圖
SECTION 'A-A'

註 :

NOTES :

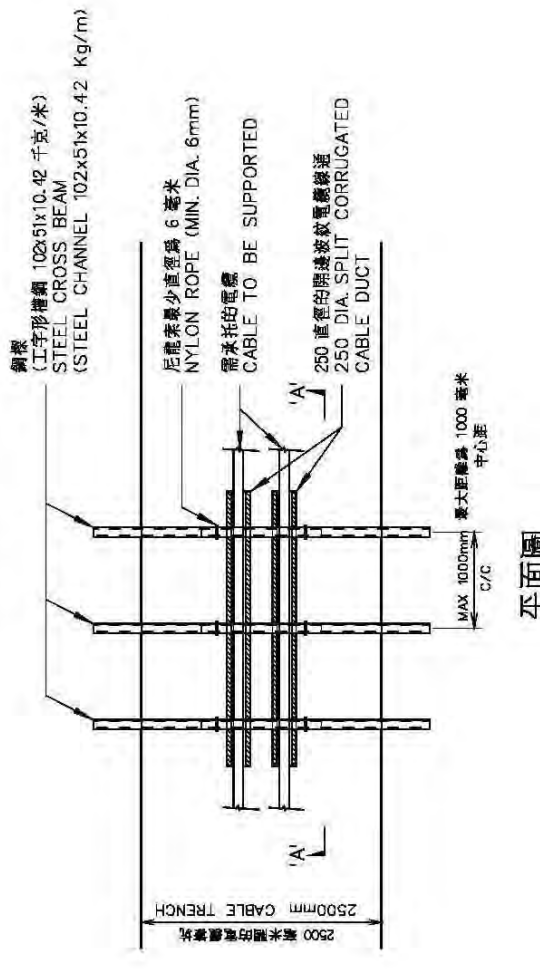
將開邊波紋電纜線通裝在電纜線溝內現有電纜的底部
INSTALL SPLIT CORRUGATED CABLE DUCT UNDERNEATH
THE EXISTING CABLE INSIDE CABLE TRENCH

在電纜線通下裝設承托的工字形槽鋼
INSTALL STEEL CHANNEL SUPPORT UNDER THE CABLE DUCT

將鋼梁橫放在電纜線溝坑上
INSTALL STEEL CROSS BEAM ACROSS THE CABLE TRENCH

使用足夠強度的尼龍索將電纜承托架牢固在鋼梁上
FIXED NYLON ROPE OF SUFFICIENT STRENGTH TO SECURE
THE CABLE SUPPORT TO THE CROSS BEAM

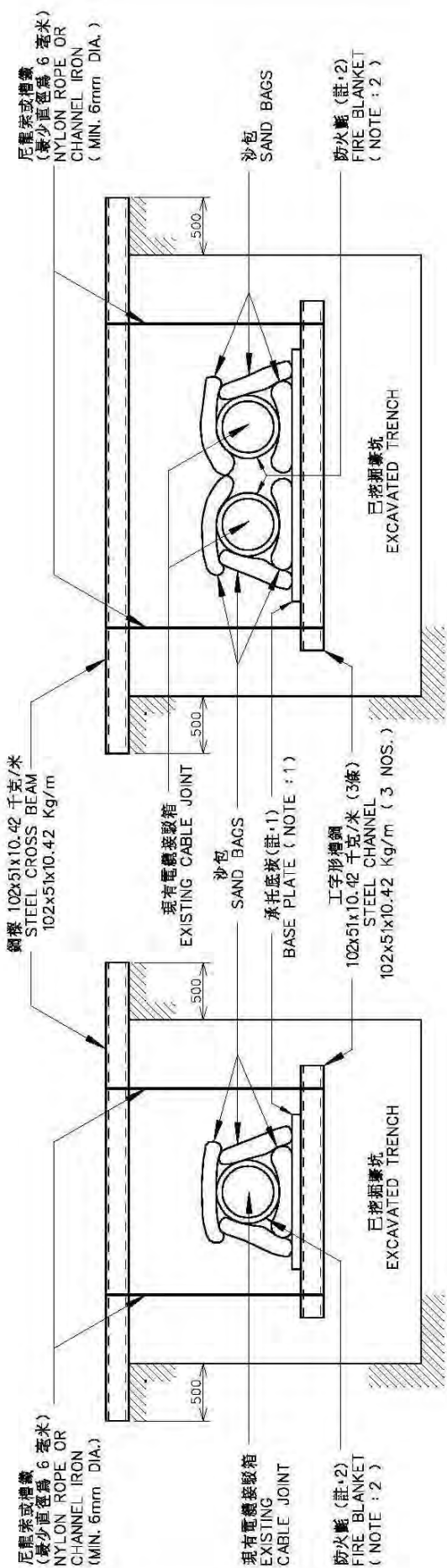
鋼梁的最大距離為 1000 毫米中心距
THE MAX. SPACING OF STEEL BEAM IS 1000mm C/C



平面圖
PLAN

單位為毫米 DIMENSIONS IN mm	電纜承托之方法 METHOD TO SUPPORT CABLES	Drawing No. P307/95	Date 24-6-1996
		Drawn By C.C.LI	
AA 210 x 297	46-8/07/95	香港電燈有限公司 The Hongkong Electric Co., Ltd. Transmission and Distribution Division Distribution Planning Department	





註：
NOTES：

- 1 輸電電纜壕坑內要使用非木料物質之承托底板
BASE PLATE SHOULD BE WOODLESS FOR TRANSMISSION CABLE TRENCH.
- 2 電纜接駁箱最少要有二層防火氈包裹及伸延至接駁箱末端 300 毫米外
MINIMUM 2 LAYERS OF FIRE BLANKET SHOULD BE WRAPPED OVER CABLE JOINT,
AND THE BLANKET SHOULD EXTEND OVER THE END OF THE JOINT BY 300mm MINIMUM.
- 3 單位為毫米
DIMENSIONS IN mm

尼龍索或繩纜 (最少直徑為 6 毫米) NYLON ROPE OR CHANNEL IRON (MIN. 6mm DIA.)	鋼樑 102x51x10.42 千克/米 STEEL CROSS BEAM 102x51x10.42 Kg/m	現有電纜接駁箱 EXISTING CABLE JOINT	沙包 SAND BAGS	承托底板 (註:1) BASE PLATE (NOTE : 1)	工字形槽鋼 102x51x10.42 千克/米 (3條) STEEL CHANNEL 102x51x10.42 Kg/m (3 NOS.)	已挖開壕坑 EXCAVATED TRENCH	沙包 SAND BAGS	防火氈 (註:2) FIRE BLANKET (NOTE : 2)	尼龍索或繩纜 (最少直徑為 6 毫米) NYLON ROPE OR CHANNEL IRON (MIN. 6mm DIA.)	鋼樑 102x51x10.42 千克/米 STEEL CROSS BEAM 102x51x10.42 Kg/m	現有電纜接駁箱 EXISTING CABLE JOINT	沙包 SAND BAGS	承托底板 (註:1) BASE PLATE (NOTE : 1)	工字形槽鋼 102x51x10.42 千克/米 (3條) STEEL CHANNEL 102x51x10.42 Kg/m (3 NOS.)	已挖開壕坑 EXCAVATED TRENCH	沙包 SAND BAGS	防火氈 (註:2) FIRE BLANKET (NOTE : 2)	香港電燈有限公司 The Hongkong Electric Co., Ltd. Transmission and Distribution Division Construction & Maintenance Dept.	17th	P097/00	18-8-2000
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承托及保護電纜接駁箱 SUPPORT & PROTECTION OF CABLE JOINT										Drawing No.	P097/00	18-8-2000									
承托及保護電纜接駁箱 SUPPORT & PROTECTION OF CABLE JOINT										Drawn By C.C.Li	Checked By C.W.Fung	Approved By K.W.KWON	Date 18-8-2000	Status N.T.S.							