



Application No.: VEP - 541/2018
Reference No.:
(For official use)

FORM 5
ENVIRONMENTAL IMPACT ASSESSMENT ORDINANCE
(CHAPTER 499)
SECTION 13(1)

Application for Variation of an Environmental Permit

PART A PREVIOUS APPLICATIONS

No previous application for variation of an environmental permit.
 The environmental permit was previously amended.
Application No. :

PART B DETAILS OF APPLICANT

B1. Name : (person or company)
CLP Power Hong Kong Limited
[Note : In accordance with section 13(1) of the Ordinance, the person holding an environmental permit or a person who assumes responsibility for the designated project may apply for variation of the environmental permit.]
B2. Business Registration No. : [REDACTED]
(if applicable)
B3. Correspondence Address : [REDACTED]
B4. Name of Contact Person : [REDACTED] B5. Position of Contact Person : [REDACTED]
B6. Telephone No. : [REDACTED] B7. Fax No. : [REDACTED]
B8. E-mail Address : (if any) [REDACTED]

PART C DETAILS OF CURRENT ENVIRONMENTAL PERMIT

C1. Name of the Current Environmental Permit Holder :
CLP Power Hong Kong Limited
C2. Application No. of the Current Environmental Permit : AEP-406/2010
C3. The Current Environmental Permit was Issued in : month / year
11 2010

Important Notes : Please submit the application together with
(a) 3 copies of this completed form; and
(b) appropriate fee as stipulated in the Environmental Impact Assessment (Fees) Regulation
to the Environmental Protection Department at the following address :
The EIA Ordinance Register Office,
27th floor, Southorn Centre, 130 Hennessy Road,
Wan Chai, Hong Kong.

Tick (✓) the appropriate box




PART D PROPOSED VARIATIONS TO THE CONDITIONS IN CURRENT ENVIRONMENTAL PERMIT


D1. Condition(s) in the Current Environmental Permit :	D2. Proposed Variation(s) :	D3. Reason for Variation(s) :	D4. Describe the environmental changes arising from the proposed variation(s) :	D5. Describe how the environment and the community might be affected by the proposed variation(s) :	D6. Describe how and to what extent the environmental performance requirements set out in the EIA report previously approved or project profile previously submitted for this project may be affected :	D7. Describe any additional measures proposed to eliminate, reduce or control any adverse environmental impact arising from the proposed variation(s) and to meet the requirements in the Technical Memorandum on Environmental Impact Assessment Process :
<p><i>Figure 2</i></p>	<p>Replace Figure 2 of the current EP with reference to <i>Figure 1.2</i> of supporting document.</p>	<p>In order to enhance the existing TETRA radio coverage, amendment of the layout plan as indicated in Figure 2 of the current EP will be required.</p> <p>Also see Section 2.3 of supporting document</p>	<p>The proposed variation mainly involves changes of project layout including installation of new steel post, antenna and battery rack within the existing station which does not anticipate causing potential environmental changes.</p> <p>Also see Section 3 of supporting document</p>	<p>Potential changes to noise, waste management and ecological impacts have been assessed and are not considered significant. No other impacts to the environment or community are anticipated.</p> <p>Also see Section 3 of supporting document</p>	<p>No changes to the environmental performance requirements set out in the approved Project Profile are anticipated.</p> <p>Also see Section 4 of supporting document</p>	<p>No additional mitigation measures are considered necessary.</p> <p>Also see Sections 3.2 and 4.2 of supporting document</p>

PART E DECLARATION BY APPLICANT

E1. I hereby certify that the particulars given above are correct and true to the best of my knowledge and belief. I understand the environmental permit may be suspended, varied or cancelled if any information given above is false, misleading, wrong or incomplete.


Signature of Applicant


Full Name in Block Letters


Position

on behalf of CLP Power Hong Kong Limited
Company Name and Chop (as appropriate)

20 FEB 2018

Date

NOTES :

1. A person who constructs or operates a designated project in Part I of Schedule 2 of the Ordinance or decommissions a designated project listed in Part II of Schedule 2 of the Ordinance without an environmental permit or contrary to the permit conditions commits an offence under the Ordinance and is liable to a maximum fine of \$5,000,000 and to a maximum imprisonment for 2 years.
2. A person for whom a designated project is constructed, operated or decommissioned and who permits the carrying out of the designated project in contravention of the Ordinance commits an offence and is liable to a maximum fine of \$5,000,000 and to a maximum imprisonment for 2 years.

Form 5

Environmental Impact
Assessment Ordinance (Chapter
499), Section 13 (1)

Application for Variation of an
Environmental Permit (EP)

(EP-406/2010, *granted to
CLP Power Hong Kong Limited
on 30 November 2010*)

**SUPPORTING
INFORMATION**

1	INTRODUCTION	1
1.1	BACKGROUND	1
1.2	PURPOSE OF THIS DOCUMENT	1
1.3	DOCUMENT STRUCTURE	1
2	PROPOSED VARIATION & ASSOCIATED ENVIRONMENTAL ISSUES (RELATED TO PART D1, D2 AND D3 OF FORM 5)	3
2.1	RELEVANT CONDITION IN THE CURRENT ENVIRONMENTAL PERMIT (RELATED TO PART D1 OF FORM 5)	3
2.2	PROPOSED VARIATION (RELATED TO PART D2 OF FORM 5)	3
2.3	REASON FOR VARIATION (RELATED TO PART D3 OF FORM 5)	4
3	ENVIRONMENTAL REVIEW (RELATED TO PART D4, D5, D6 AND D7 OF FORM 5)	5
3.1	ENVIRONMENTAL CHANGES ARISING FROM THE PROPOSED VARIATIONS (RELATED TO PART D4 OF FORM 5)	5
3.1.1	Noise	5
3.1.2	Impact on Waste Management	6
3.1.3	Ecology	6
3.2	MITIGATION MEASURES (RELATED TO PART D7 OF FORM 5)	7
3.3	SUMMARY	7
4	CONCLUSION	8
4.1	COMPLIANCE WITH WITH ENVIRONMENTAL PERFORMANCE REQUIREMENTS SET OUT IN THE APPROVED PROJECT PROFILE	8
4.2	ADDITIONAL MEASURES PROPOSED TO ELIMINATE, REDUCE OR CONTROL ANY ADVERSE ENVIRONMENTAL IMPACT ARISING FROM THE PROPOSED VARIATIONS AND TO MEET THE REQUIREMENTS IN THE TECHNICAL MEMORANDUM ON ENVIRONMENTAL IMPACT ASSESSMENT PROCESS	9

1 INTRODUCTION

1.1 BACKGROUND

Further to the operation of the TETRA radio base station at Kai Kung Leng within Lam Tsuen Country Park (LTCP) in Yuen Long, which obtained Environmental Permit (EP) on 30 Nov 2010 (EP No.: EP-406/2010) based on the approved Project Profile for application for permission to apply directly for Environmental Permit (PP-423/2010), CLP is proposing to enhance the existing TETRA radio coverage by installation of additional antenna within the existing radio base station to meet the anticipated demand. The further enhancement of radio coverage is essential to ensure the continued operational safety of CLP staff and also facilitates remote monitoring and control of the power system such that power supply reliability in the area can be enhanced.

The proposed antenna installation works will slightly alter the layout plan as presented in *Figure 2* of the current EP. *Figure 1.1* of this document shows the layout of the Project presented in the current EP and the proposed changed in the layout is indicated in *Figure 1.2*.

These proposed changes therefore require a variation to the following condition of the current EP (EP-406/2010), as presented below:

Figure 2 of the current Permit (EP-406/2010).

The proposed antenna installation works and construction methodology are outlined in *Section 2.2*.

1.2 PURPOSE OF THIS DOCUMENT

This document provides information to describe the potential impacts on the environment due to the proposed antenna installation works and provides an evaluation of the potential impacts. The information presented herein will form part of the submission to the Environmental Protection Department (EPD) for an Application for Variation of an Environmental Permit (VEP). The purpose of this document is to demonstrate that no unacceptable impacts will arise from the proposed antenna installation works and seek EPD's initial views on the potential VEP process.

1.3 DOCUMENT STRUCTURE

The remainder of this document is set out as follows:

- *Section 2* describes the relevant condition(s) in the current EP, the proposed variations and reason for the variations (**related to Part D1, D2 and D3 of Form 5 – Application for VEP**);

- *Section 3* describes the environmental changes associated with the proposed variation(s) and their potential impacts. It provides the results of the environmental review (related to Part D4, D5, D6 and D7 of Form 5 – **Application for VEP**); and
- *Section 4* provides the conclusion.

2 **PROPOSED VARIATION & ASSOCIATED ENVIRONMENTAL ISSUES**
(RELATED TO PART D1, D2 AND D3 OF FORM 5)

2.1 **RELEVANT CONDITION IN THE CURRENT ENVIRONMENTAL PERMIT (RELATED TO PART D1 OF FORM 5)**

Layout plan of the Project as shown in Figure 2 of the current EP.

2.2 **PROPOSED VARIATION (RELATED TO PART D2 OF FORM 5)**

In order to enhance the existing TETRA radio coverage, installation of additional antenna within the existing radio base station and amendment of the layout plan will be required. It is therefore proposed to amend the layout plan as indicated in Figure 2 of the current EP (see Figure 1.1). The changes in the layout plan are indicated in Figure 1.2.

Details of Variation(s)

The proposed antenna installation works will remain within the existing TETRA radio base station and the overall height of the facilities also has no change, but their layout plan will alter slightly, as indicated by comparing Figure 1.1 (current layout defined in EP) and Figure 1.2 (proposed new layout plan). The major changes in the revised layout are installing new 1 no. of new steel post, 2 nos. of new antenna (to be installed on the new steel post), and 1 no. of new battery rack.

All of the proposed antenna installation works are located within the existing radio base station, and the associated construction works will remain the same as presented in the approved Project Profile (PP-423/2010) which require the use of only small powered mechanical equipment (PME) and hand tools, and no haul road will be constructed. All necessary equipments and materials will be delivered by helicopter to the existing TETRA radio base station with the assistance of construction workers on the ground. The equipment and material will be stored within the existing TETRA radio base station during the proposed antenna installation works. Additional temporary storage area outside the existing TETRA radio base station is not required. Only small amount of construction & demolition (C&D) materials such as general refuse, steel pieces may be generated during the proposed antenna installation works. Disposal of such C&D materials will be removed to disposal point by site worker after working hour of each working day. No excavation works will be carried out and therefore no excavated soils/ materials will be generated.

An indicative programme showing the key milestones for the proposed antenna installation works as currently envisaged is provided in Table 2.1.

Table 2.1 *Indicative Project Programme*

Key Stage of the Project	Tentative Schedule	Duration
Material & equipment delivery	Q2 2018	2 weeks
Construction of the steel post	Q2 2018	4 weeks
Installation of antenna	Q2 2018	2 week
System testing & commissioning	Q2 2018	2 weeks
Site cleaning	Q2 2018	1 week

All construction works will be carried out during normal working hours only and exclude all public holidays.

2.3

REASON FOR VARIATION (RELATED TO PART D3 OF FORM 5)

CLP is proposing to enhance the existing TETRA radio coverage by installation of additional antenna within the existing radio base station to meet the anticipated demand. The further enhancement of radio coverage is essential to ensure the continued operational safety of CLP staff and also facilitates remote monitoring and control of the power system such that power supply reliability in the area can be enhanced.

3 ENVIRONMENTAL REVIEW (RELATED TO PART D4, D5, D6 AND D7 OF FORM 5)

3.1 ENVIRONMENTAL CHANGES ARISING FROM THE PROPOSED VARIATIONS (RELATED TO PART D4 OF FORM 5)

The checklist presented in Table 3.1 identifies the potential sources of impacts associated with the proposed variations.

Table 3.1 Potential Environmental Issues Associated with the Proposed Antenna Installation Works

Potential Impact	Construction	Operation
• Gaseous Emission	-	-
• Dust	-	-
• Odour	-	-
• Noise	✓	-
• Night-Time Operations	-	-
• Traffic (Land)	-	-
• Liquid Effluents, Discharge or Contaminated Runoff	-	-
• Generation of Waste or By-products	✓	-
• Manufacturing, Storage, Use, Handling, Transport, or Disposal of Dangerous Goods	-	-
• Hazard to life	-	-
• Disposal of Spoil Material	-	-
• Unsightly visual Appearance	-	-
• Cultural and Heritage	-	-
• Terrestrial Ecology	✓	-
• Cumulative Impacts	-	-

Note:

'✓' = Possible; '-' = Not Expected

A description and evaluation, where appropriate, of these potential impacts associated with the proposed antenna installation works during construction are provided in the following sections. Potential operational phase impact will not expect to be anticipated due to the proposed antenna installation works.

3.1.1 Noise

Key information from the Approved EIA study

The approved Project Profile (PP) concludes that with the implementation of standard construction site management measures for noise control, such as the use of well-maintained construction plant and planning of the construction plant team, will be sufficient to ensure compliance with the construction noise limits.

Baseline Condition

Overall the conditions described in the approved PP are still relevant.

Evaluation of Impact (Related to Part D5& D6 of Form 5)

Similar to the construction method and assessment in the approved PP, it is anticipated that the proposed antenna installation works will not cause adverse noise impact.

In summary, the changes to the Project are not considered to affect the noise impact assessment conclusion in the approved PP.

3.1.2 *Impact on Waste Management*

Key information from the Approved EIA study

As stated in the approved PP, the potential impacts associated with the handling and disposal of construction and demolition (C&D) materials during the construction phase are considered negligible, and with proper housekeeping measures and refuse collection in place, minimal or no impact is expected to result from refuse generated during the construction phase of the Project

Baseline Condition

Overall the conditions described in the approved PP are still relevant.

Evaluation of Impact (Related to Part D5& D6 of Form 5)

Similar to the construction method and assessment in the approved PP, it is anticipated that the proposed antenna installation works will not cause waste management issue.

In summary, the changes to the Project are not considered to affect the waste management impact assessment conclusion in the approved EIA Report.

3.1.3 *Ecology*

Key Information from the Approved EIA Report

The approved PP concludes that given the anticipated small scale of construction activities and limited area of grassland to be disturbed on the Project Site, and assuming good construction practices are followed, the ecological impact during the construction phase is expected to be low.

Baseline Condition

The existing habitats and the identified species of conservation interest are generally similar to the conditions as described in the approved PP. Overall the conditions described in the approved PP are still relevant.

Evaluation of Impact (Related to Part D5& D6 of Form 5)

There have been no changes to the Project footprint and all of the works will be conducted within the existing radio base station, therefore the ecological impact will likely less or at least remains the same as in the approved PP.

In summary, the ecological impact during the proposed antenna installation works is considered to remain low or with no impact, as per the assessment in the approved PP.

3.2 *MITIGATION MEASURES (RELATED TO PART D7 OF FORM 5)*

Potential impacts associated with the proposed antenna installation works during the construction phase will be similar to the approved PP both in terms of impact nature and magnitude. Mitigation measures suggested in the approved PP are therefore considered to remain relevant and to be adequate. In addition, Condition 2.2 of the current EP will also be followed:

- The equipment shelter and all antenna poles shall be painted in subdue and non-reflective colour. The colour scheme and finishing shall match the country park environment and complement that of the existing structures of the immediate surrounding area.

3.3 *SUMMARY*

This assessment has critically reviewed the overall acceptability of the environmental impacts likely to arise from the proposed variations to the Project. Overall, no unacceptable environmental impacts are anticipated to arise from the proposed variation.

4.1 COMPLIANCE WITH WITH ENVIRONMENTAL PERFORMANCE REQUIREMENTS SET OUT IN THE APPROVED PROJECT PROFILE

The same environmental performance requirements set out in the approved Project Profile, will apply i.e. during construction:

Noise

- Implementation of standard construction site management measures for noise control, such as the use of well-maintained construction plant and planning of the construction plant team, will be sufficient to ensure compliance with the construction noise limits.

Waste Management

- Owing to the small scale of the Project and no excavated soils to be generated, a minimal amount of construction waste is expected to arise from the proposed antenna installation works. To minimise the amount of construction waste, careful design, comprehensive planning and good site management practice will be adopted by the contractors of the Project and waste on-site will be properly segregated to increase the potential for reuse and recycling. The quantity of general refuse generated on-site will be minimal owing to the small number of workers involved and will be taken away from the Project Site (existing radio base station) by the workers for proper disposal on a daily basis.

Ecology

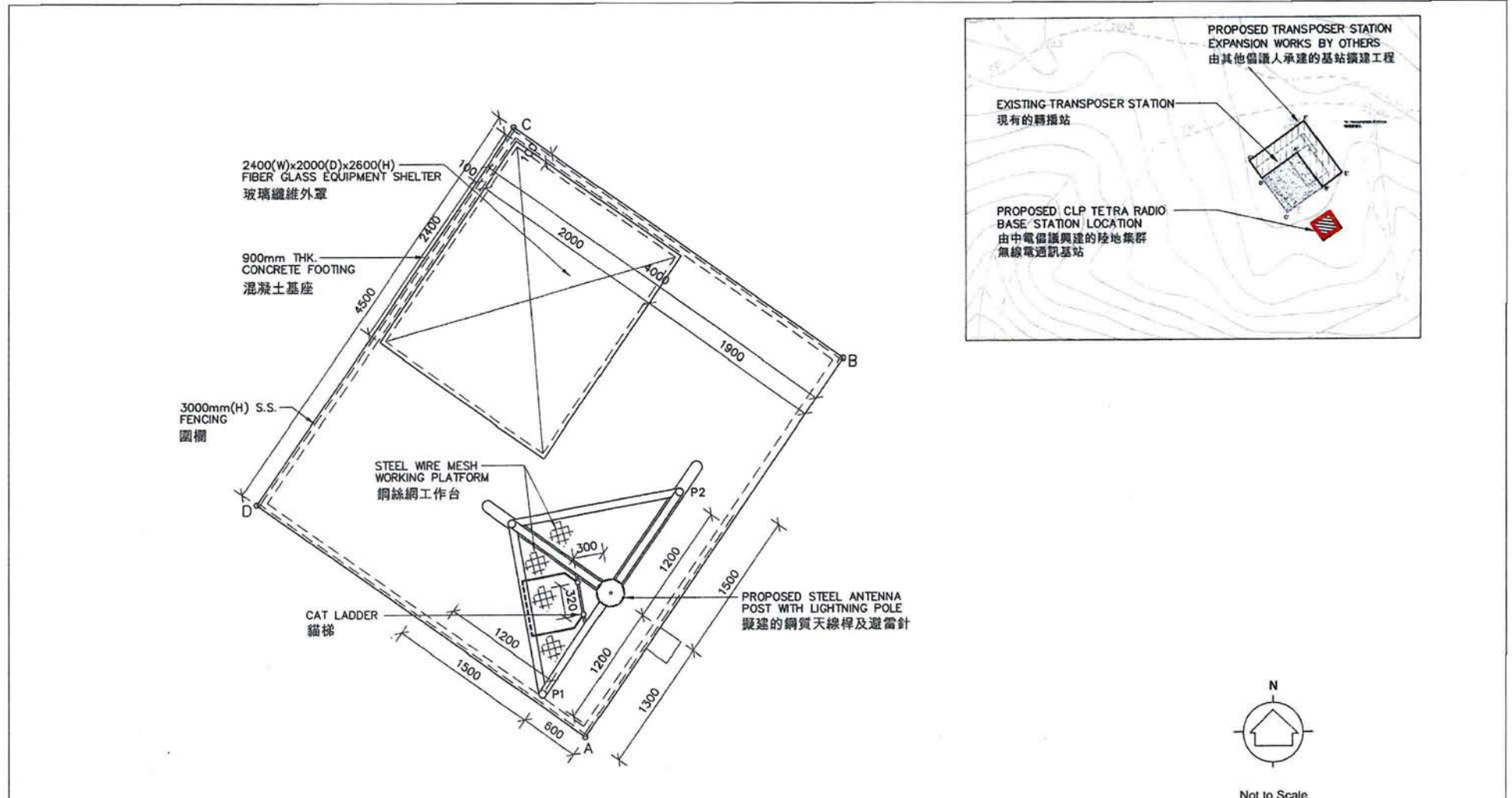
Potential ecological impacts associated with the proposed antenna installation works will likely be potential disturbance of birds and general wildlife in the vicinity. With the low ecological value of the grassland habitat (as identified in the approved PP) and all of the works to be carried out within the existing TETRA radio base station, potential ecological disturbance caused by the Project is anticipated to be low. Further ecological disturbance could be minimised by implementation of good construction practices which are listed as follow:

- Avoid any damage and disturbance, particularly temporary storage and waste disposal, to the surrounding natural grassland habitat;
- Ensure all of the works to be carried out within the existing radio base station and that no damage occurs to surrounding areas; and
- Prohibit and prevent open fires within the site boundary during the proposed antenna installation works.

ADDITIONAL MEASURES PROPOSED TO ELIMINATE, REDUCE OR CONTROL ANY ADVERSE ENVIRONMENTAL IMPACT ARISING FROM THE PROPOSED VARIATIONS AND TO MEET THE REQUIREMENTS IN THE TECHNICAL MEMORANDUM ON ENVIRONMENTAL IMPACT ASSESSMENT PROCESS

No additional mitigation measures are considered necessary for the proposed variation.

Considering the information presented in this document, it is considered that the variation in the layout plan will not alter the environmental impact as outlined in the approved PP, assuming all mitigation measures presented in the PP are properly implemented.



Project Title - TETRA Radio Base Station at Kai Kung Leng, Lam Tsuen Country Park, Yuen Long, N.T.

工程名稱 - 元朗林村郊野公園雞公嶺陸地集群無線通訊基站

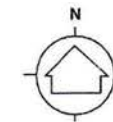
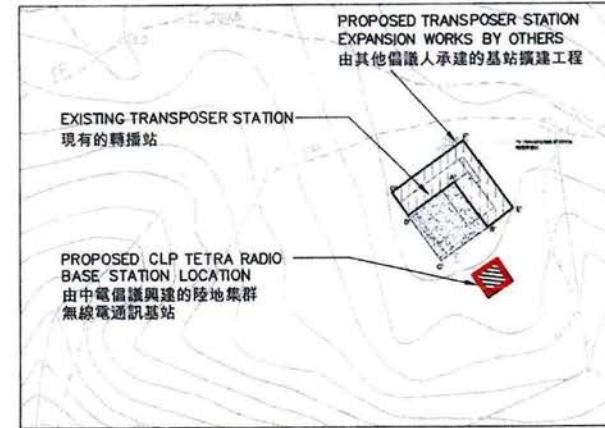
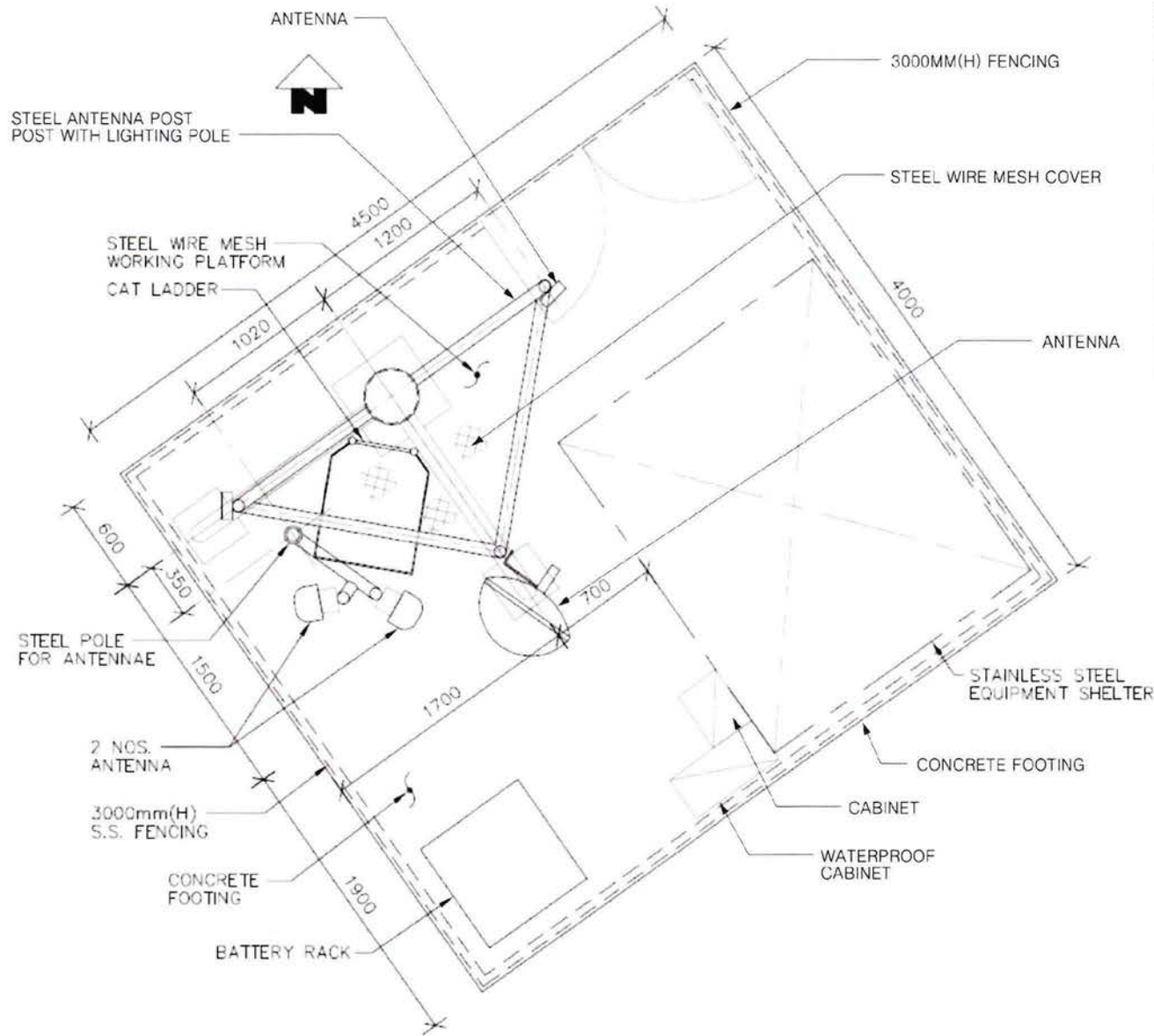
Figure 2 - Layout Plan [Modified from the Project Profile (Register No. PP-423/2010)]

圖 2 - 佈局圖 [修改自工程項目簡介(登記冊編號: PP-423/2010)]

Environmental Permit No. : EP-406/2010

環境許可證編號 : EP-406/2010





Not to Scale