

**PROPOSED INSTALLATION
OF
INTEGRATED MOBILE PHONE BASE STATION
AT
TAI FUNG AU
LANTAU ISLAND
NT**

PROJECT PROFILE

**CHINA MOBILE PEOPLES TELEPHONE COMPANY
LIMITED**

Prepared by: Prudential Surveyors Int'l Ltd

AUGUST 2008

Basic Information

Project Title

1. Proposed Installation of Integrated Mobile Phone Base Station at Tai Fung Au, Lantau Island.

Purpose and Nature of the Project

2. This project is a development of China Mobile Peoples Telephone Company Limited to improve the mobile phone coverage for visitors of the country park and to ensure that tele-communications for the general public is maintained in case of emergency.

Name of Project Proponent

3. China Mobile Peoples Telephone Company Limited.

Location and Scale of the Project

4. The integrated mobile phone base station is proposed at Tai Fung Au as shown on the location plan at **Appendix I**. The station will comprise of an equipment platform [5.0m (l) x 3.0m (w) x 0.55m (D)] with an area of 15 square metres. The equipment platform, consisting of one (1) fiber glass shelter, one (1) power cabinet, two (2) AC condensers enclosed by fiberglass louver cover and one (1) antenna poles of 12 metres in height, will be erected on the hill top at level 346.0 mPD. The equipment platform will be constructed of ready mixed cast in-situ concrete, which will be transported to the proposed area by hand. All the construction materials, equipment and wastes, etc., will be transported to and away from the site by hand. No haul road will be constructed. Public utilities such as electricity supply and telecommunication lines will be installed for the integrated mobile phone base station.
5. Lands Department had not issued us a formal letter of Short Term Tenancy (STT), but had verbally agreed to the establishment of an integrated mobile phone base station at the proposed location and had given us a STT number (STT No.CX1885). The formal letter of STT from Lands Department is

expected in September.

6. The radio coverage and the impact on the environment are the salient factors in the site selection process. The proposed site is considered to provide significant radio coverage to the surroundings. Other alternatives have also been considered but were found unsuitable.

Number and Types of Designated Projects to be Covered

- 7 The project involves an integrated mobile phone base station to be installed at the proposed location as shown in **Appendix I**. According to EIAO Schedule 2, PART I, Section Q.1, the proposed project is a designated project as it involves building works in an existing country park and it is not under exceptional cases in Section Q1 (a) to (j).

Name and Telephone Number of Contact Person

- 8 The contact person for this project is Mr. Dennis Chao of China Mobile Peoples Telephone Company Limited, telephone number 2945 8414 and facsimile number 3104 1053.

Outline of Planning and Implementation Programme

Planning and Implementation

- 9 The project is planned and managed by China Mobile Peoples Telephone Company Limited and they will install their own mobile phone network at the proposed station.
- 10 Upon the grant of a Short Term Tenancy and Environmental Permit by the District Lands Office (DLO) and Environmental Protection Department (EPD) respectively and consent to commence building works by the Buildings Department (BD), China Mobile Peoples Telephone Company Limited will start and complete the construction work in accordance with the work schedule. The structural drawings are under preparation and will be submitted to BD for approval under the Buildings Ordinance in mid August 2008 with approval anticipates two months thereafter.

Work Schedule

11. The construction work including the equipment and antennas installation is proposed to commence in early December 2008 and to be completed by the end of January 2009. It is proposed that the mobile phone station will be put into operation in the beginning of February 2009. The proposed work schedule is given at **Appendix II**.

It is anticipated the excavated material will be transported off the site immediately by hand. Also, the exposed excavated surface will be immediately screeded with cement/sand or binding layer to make the surface impervious. Furthermore, the excavated area will be covered completely prior to concreting to minimize the possibility of surface run-off from the site.

Possible Impact on the Environment

Construction Impacts

12. The landscape and visual impact during construction and after completion of work is considered and addressed in paragraph 21.
13. Noise emission during the construction and on completion of the projects is considered to be minimal and addressed in paragraph 22.
14. Disposal of waste including some surplus construction material and some general refuse is considered minimal and addressed in paragraph 23.
15. Dust impact from construction activities is considered to be minimal and is addressed in paragraph 24.
16. Earthworks operation is not required as the excavation depth is less than 625 mm and there will be no blasting operation.
17. Night-time work is not required for the construction of the project.
18. No ecological impact is anticipated during the construction and on completion of the project.

Operational Impacts

19. Completion of the Integrated Mobile Phone Base Station will not cause any significant change to the environment. The site layout plan, section and typical detail of the proposed integrated mobile phone station and photographs are shown

in **Appendix III** to illustrate the appearance of the Integrated Mobile Base Station.

Major Elements of the Surrounding Environment

20. The major elements of the surrounding environment are as follows:-

Countryside setting

The proposed site comprises of an equipment platform situated on level ground on the hill top of the Country Park. The proposed site is surrounded by slopes and the ground of the hill top is covered with grass. To the south of the equipment platform is the main road, Ngong Ping Road. To the southeast of the equipment platform is an existing satellite positioning reference station. No streams are found near the site. Furthermore, no radiation monitoring station, ecological sensitive receiver or heritage sensitive receiver is located in the surrounding environment. Therefore, the installation will not affect the present setting of the Countrypark.

The site is surrounded by bushes and grass, which is commonly found in Hong Kong. No tree is required to be felled to provide the necessary area for the installation of the proposed base station.

Environmental Protection Measures to be Incorporated in the Design and any Further Environmental Implications

21. The site layout and building design will incorporate the comments of Country and Marine Park Authority. In order to further minimise the visual impact of the station, the antenna poles will be painted or coated in "Antique"(B.S. 10B25 or **Pantone 462U**) or similar subdued colour to match the existing surroundings and to the satisfaction of the Country and Marine Parks Authority. As for the landscaping, all temporarily disturbed areas will be reinstated to their original states with hydroseeding of grasses and/ or vegetated planting.

22. Only hand held equipment will be used for construction. Heavy equipment will not be used. Also, noise sensitive receiver is more than 600m away from the site. Therefore, noise impact is anticipated to be minimal during the construction. Nevertheless, construction activities will be carried out only in daytime (9:00-19:00). Since there will be hikers enjoying their recreational activities in

the Country Park at the weekends and public holidays, no construction work will be scheduled on Saturday, Sunday and public holidays in order to minimize the impact on the hikers.

- 23 All the construction materials, equipment and wastes, etc., will be transported to and away from the site by hand.
- 24 The site will be completely watered down to minimize any dust that may be generated during the construction stage.
- 25 The Standard Pollution Mitigation Measures will be incorporated in relevant works contracts during the construction phase of the works. The operation of the proposed sites is unmanned and will not generate noise nor have any effect on air quality and water quality.
- 26 The operation of the proposed Integrated Mobile Phone Base Station will strictly comply with the "Code of Practice for the Protection of Workers and Members of Public Against Non-Ionizing Radiation Hazards from Radio Transmitting Equipment" issued by OFTA. The proposed location of the station is quite remote from any area for inhabitancy. Furthermore, the location of the emitter of the station is at least 12 metres from the ground and pointing away from any human activities or inhabitation. In this case, the non-ionizing radiation has no significant impact on the public.
- 27 The Integrated Mobile Base Station will be cleaned and painted every year if necessary to maintain the good condition of the site. Except in case of any troubleshooting and emergency repair, the periodic inspection will only be carried out once every three months in the first year and once a year afterwards. The low inspection frequency will therefore not give any significant impact on the environment.

APPENDICES

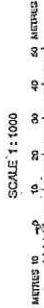
Appendix I	Site Location Plan
Appendix II	Proposed Work Schedule
Appendix III	Structural Plan and Site Photos

Appendix I
Site Location Plan

SITE LOCATION PLAN

This plan is a copy of the lot index plan showing the approximate location of lot boundaries, including the temporary occupation of land under Government Land Allocations, Temporary Government Land Allocations, Short Term Tenancies and Government Land Licenses. The temporary occupation of land may be created or terminated at short notice and should be confirmed with the District Lands Officer. The information shown on this plan MUST be verified by field survey. This lot index plan may be revised without prior notification as better or more boundary evidence becomes available.

本圖為地塊索引圖的副本，顯示地塊的近似位置，包括地塊的暫時佔用，包括政府土地撥款、臨時政府土地撥款、短期租約和政府土地執照。地塊的暫時佔用可能會隨時被取消或終止，應與地塊辦事處人員核實。本圖可能會在不另行通知的情況下進行修改，以便更好地或提供更多邊界證據。



Locality :
Lot Index Plan No. : 9-SW-25D
District Survey Office : Islands
Date : 01 Nov 07
Reference No. :



812400N

812300N

812200N

FP

Cul

289.0

+319.0

+320.6

+319.2

+295.2

+298.8

+306.6

+305.5

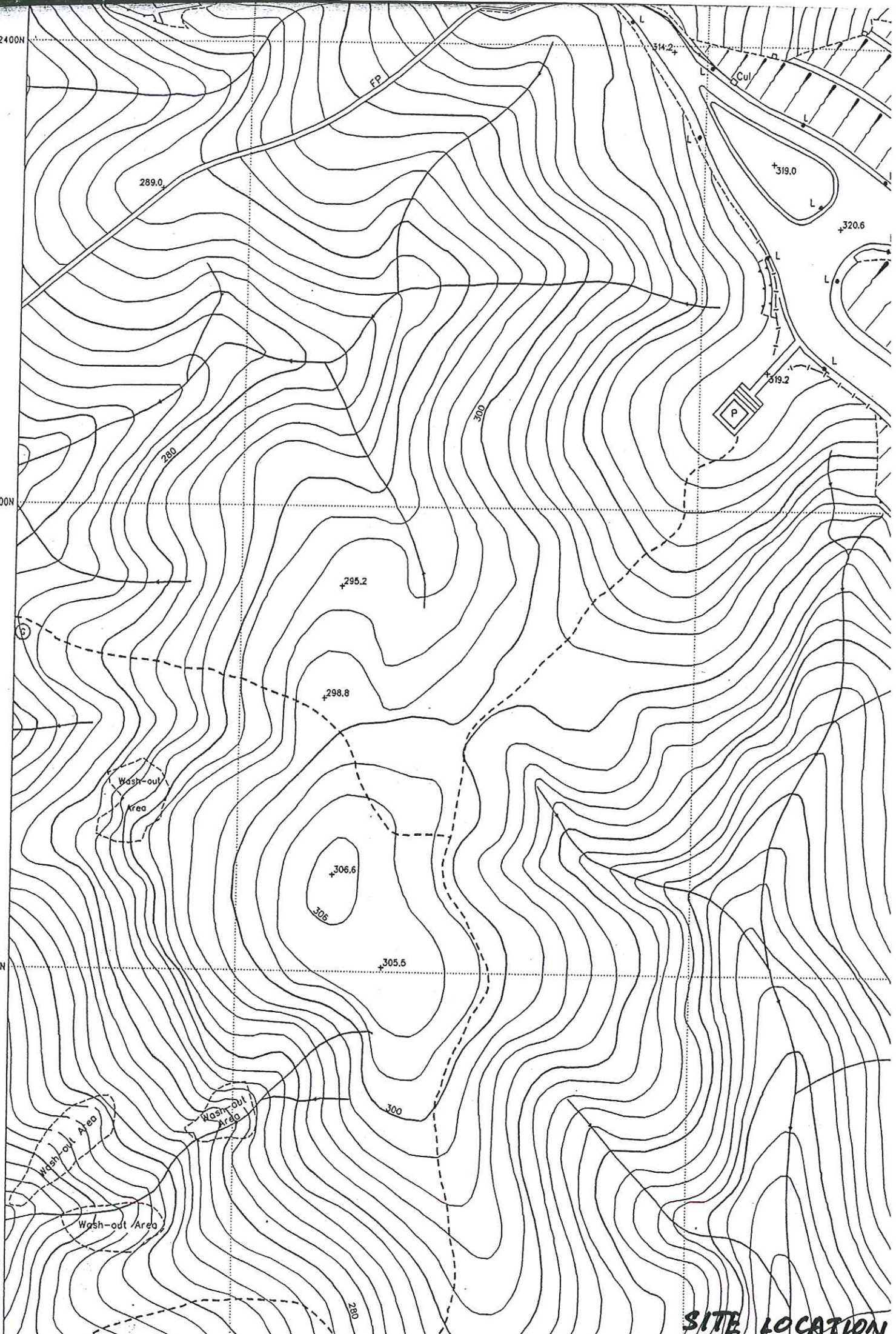
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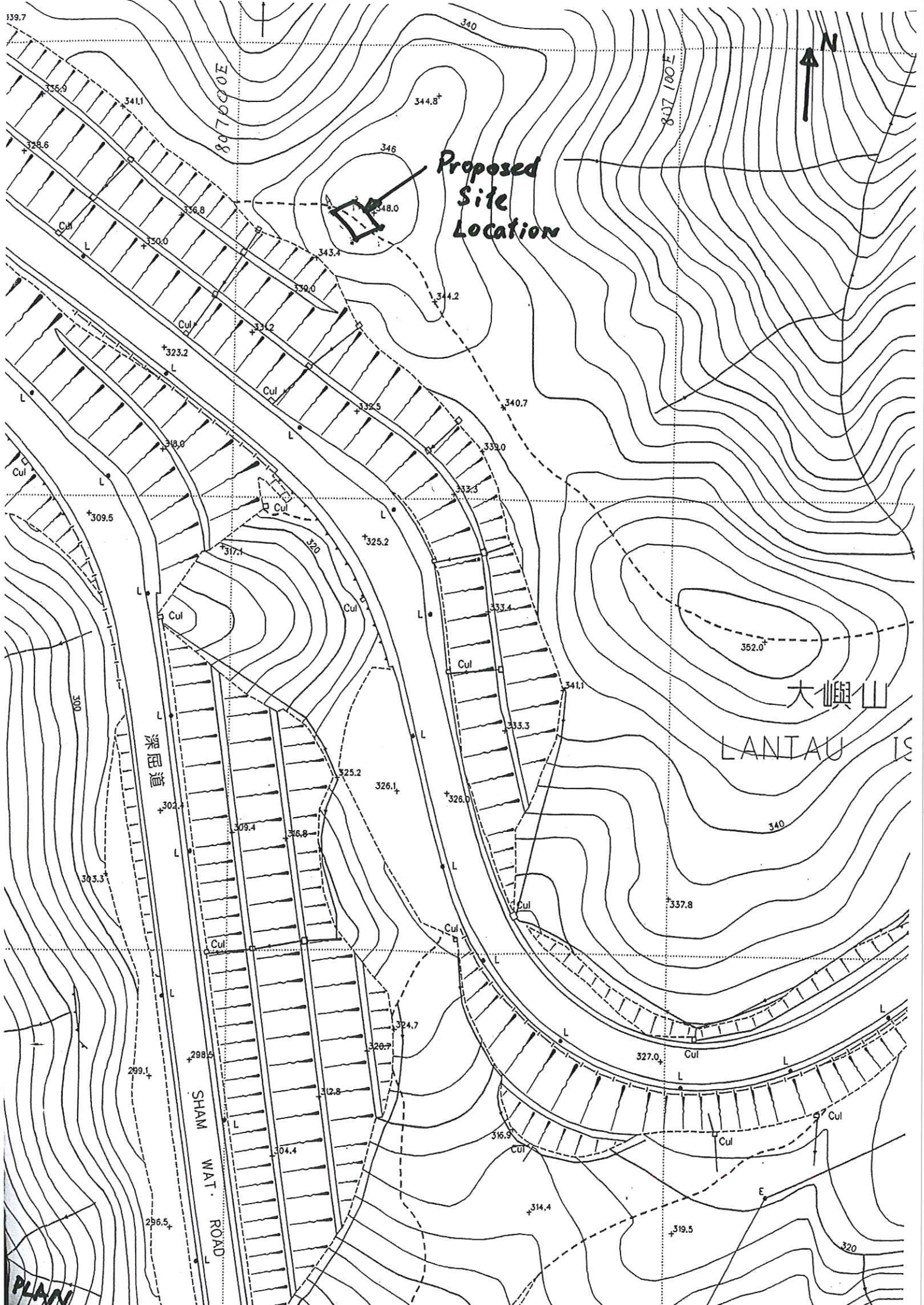
Wash-out Area

Wash-out Area

Wash-out Area

SITE LOCATION





Proposed Site Location



大嶼山
LANTAU IS

梁屈道

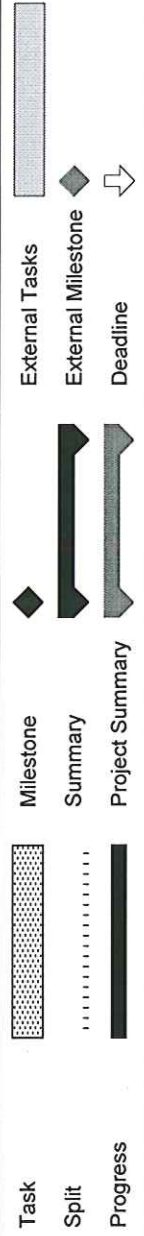
SHAM WAT ROAD

PLAN

Appendix II
Proposed Work Schedule

Proposed Installation of Integrated Mobile Phone Base Station at Tal Fung Au, Lantau Island, N.T.

ID	Task Name	Duration	Start	Finish	2009							
					Aug	Sep	Oct	Nov	Dec	Jan	Feb	
1	Submission for approval by Buildings Department (BD)	60 days	Fri 8/29/08	Mon 10/27/08								
2	Submission of Project Profile (PP) / Apply for permission to apply directly for Environmental Permit (EP)	45 days	Mon 9/8/08	Wed 10/22/08								
3	Permission from EPD for apply for EP directly	5 days	Thu 10/23/08	Mon 10/27/08								
4	Apply for EP	30 days	Tue 10/28/08	Wed 11/26/08								
5	Apply for consent and submission of SSP	30 days	Tue 10/28/08	Wed 11/26/08								
6	Notification of commencement of work	7 days	Thu 11/27/08	Wed 12/3/08								
7	Mobilization	7 days	Thu 12/4/08	Wed 12/10/08								
8	Carry out excavation work	21 days	Thu 12/11/08	Wed 12/31/08								
9	Construction of footing	14 days	Thu 1/1/09	Wed 1/14/09								
10	Equipment and Antenna installation	7 days	Thu 1/15/09	Wed 1/21/09								
11	Testing and Commission	5 days	Thu 1/22/09	Mon 1/26/09								



Project: works schedule_1
Date: Mon 9/8/08

- Task
- Split
- Progress
- Milestone
- Summary
- Project Summary
- External Tasks
- External Milestone
- Deadline

Appendix III
Structural Plan and Site Photos

GENERAL NOTES:

STRUCTURAL WORKS:

- The design of superstructure is in accordance with "Building (Construction) Regulation 1997", "The Structural Use of Steel 2005, Hong Kong" and "The Structural Use of Concrete 2004".
- The wind analysis to be in accordance with "Code of Practice on Wind Effects, Hong Kong-2004".
- All structural steel shall be Grade 430 for hollow section, others shall be Grade 43A.
- All reinforced concrete works shall comply with the Hong Kong Building (Construction) 1985.
- All structural steel to be Grade S275 and comply with B.S. EN 10210-1:1999, 80mm thickness.
- The structural steel shall be hot-dip galvanized to B.S. EN 10141:1999, 80mm thickness.
- All welding shall conform to B.S. 5155 and B.S. EN 1993:1995. All welding shall be applied with two coats of zinc rich epoxy primer.
- All welding shall be carried out by qualified welders having satisfactorily completed the appropriate welding tests specified in B.S. 4871 (1963) prior to the commencement of structural fabrication.
- Except where otherwise stated in the drawings, 6mm continuous fillet welds shall be used.
- All weld shall be tested in accordance with B.S.3921 (1984).
- Certificate of origin and chemical composition of the structural steel to be used shall be submitted to the Engineer prior to the commencement of fabrication work.
- Adequate supervision shall be carried out by the Engineer during execution of the proposed works.
- The Contractor shall appoint a professionally qualified and technical competent person to supervise the execution of works.
- All bolts and nuts shall comply with the appropriate provisions of B.S. EN ISO 3506-1: 1998 & 3506-2:1998, BS 6105 (Grade A2-55).
- All non-shrinkage grout shall be complied with SAA MP20 part 3.
- Soil bearing capacity = 50 kPa.
- Concrete mix shall comply with CS2:1995.
- All steel bars shall comply with CS2:1995.
- Structural concrete to be grade 300/20 to CSI. Binding concrete to be grade 150/20.
- Concrete cover for R.C. structure to be 50mm Thk.
- Surface Water flowing into the site from adjacent ground shall be intercepted and conducted from the site to an indicated safe discharge point.
- All earthwork shall be graded and sealed to ensure run off and to avoid ponding.
- A method of working shall be adopted to minimize the exposed bare soil at anytime.
- Where temporary bare earth slope surfaces are unavoidable they shall be protected with sheet piling well-secured against the wind. Where slope are to be temporarily exposed for more than two weeks temporary hard surface shall be provided and temporary shall be installed.
- All dimensions are measured in millimetres.
- All fibre glass materials to be complied with SS245
Tensile Strength = 250 N/mm², Interlaminar Shear Strength = 19.6 N/mm
- Soil Bearing Capacity = 50 kN/m²
- Material: a) Concrete : Grade 300/20 to CSI
b) Reinforcement : High Tensile Steel to CS2:1995
fy = 450NPa
fv = 175NPa
- All holding down bolts shall be high tensile rebar to CS2:1995 with high yield strength
fy = 450N/mm²

FIRE SERVICES NOTES:

- No F.S. equipment installation is required.

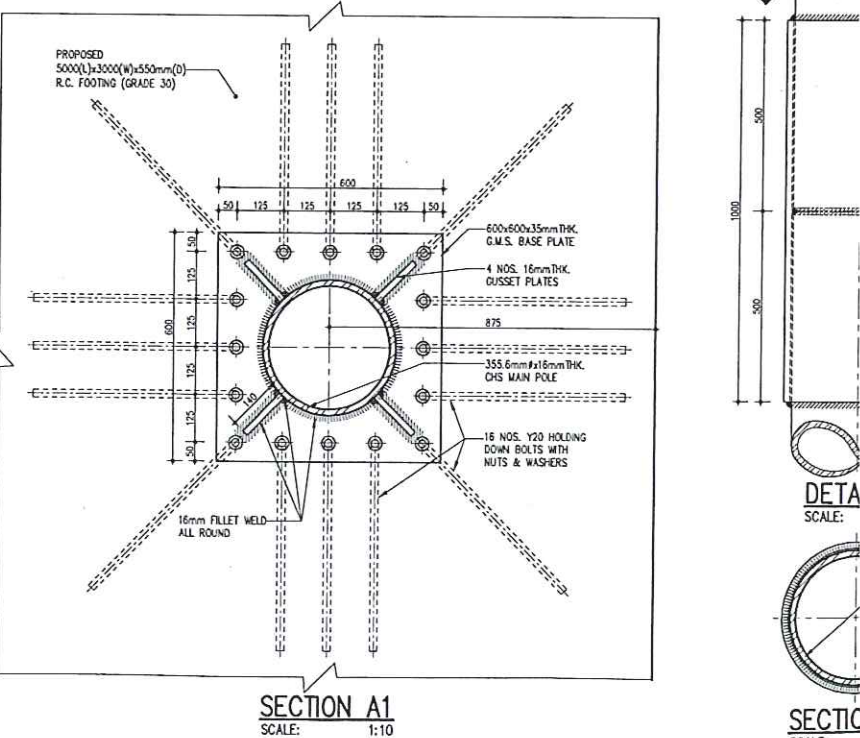
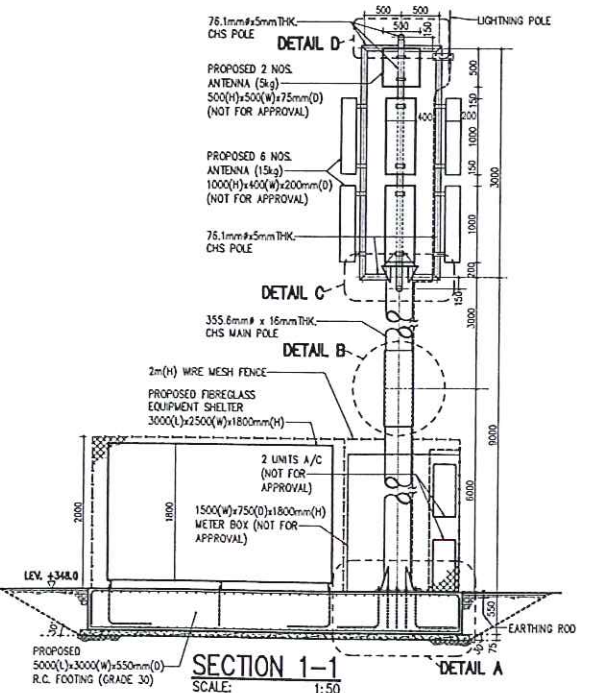
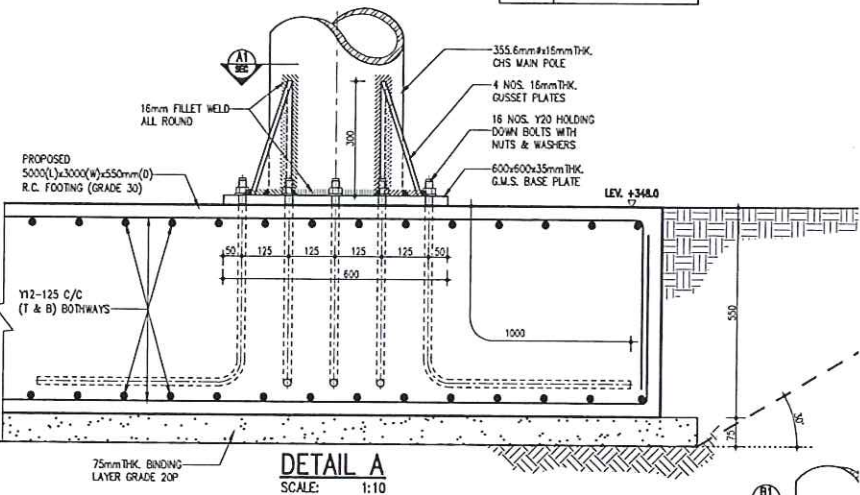
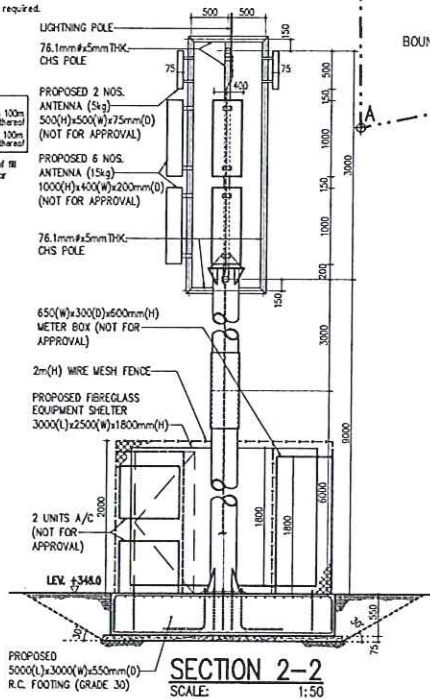
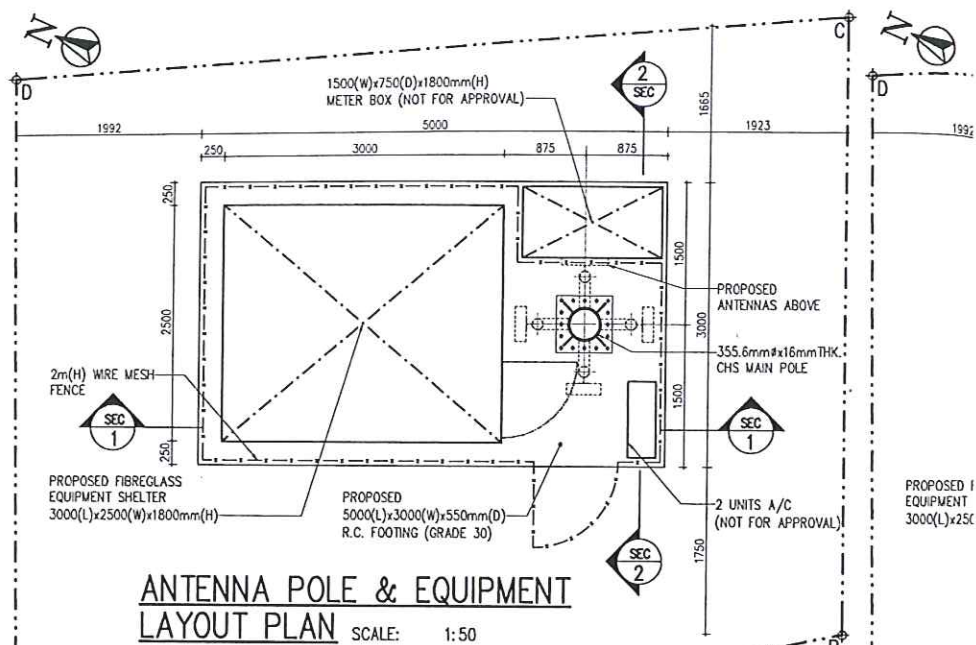
COMPACTION :

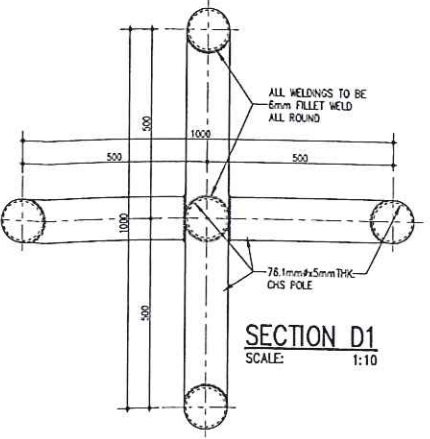
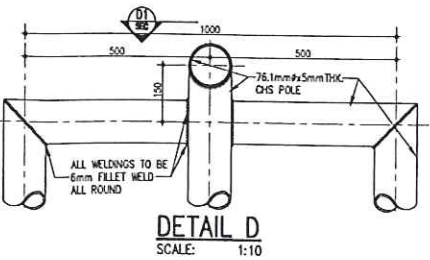
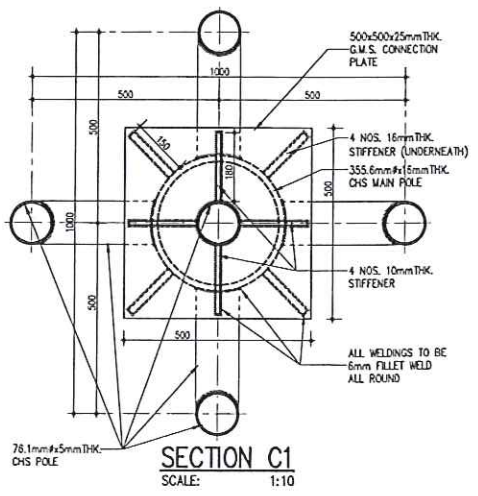
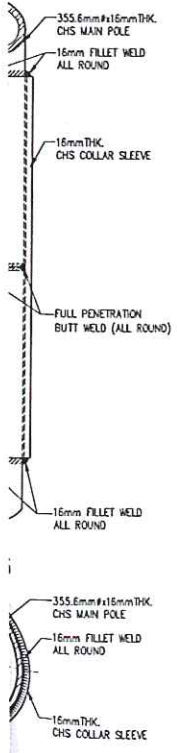
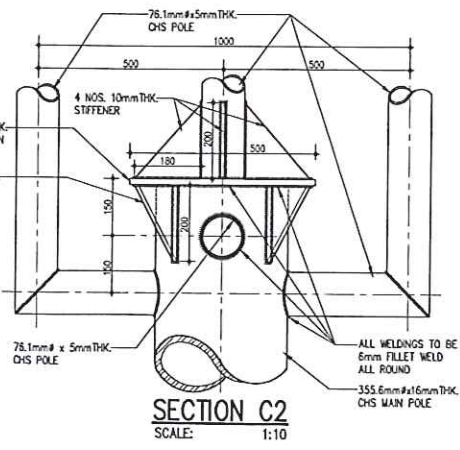
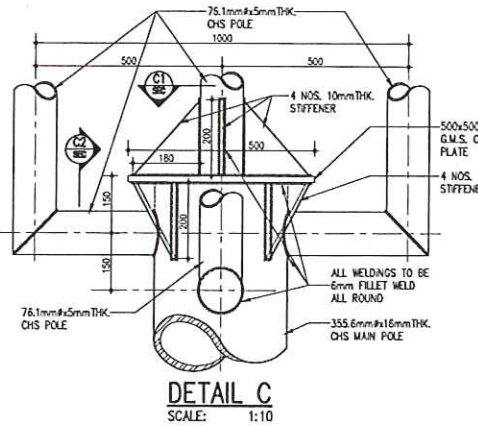
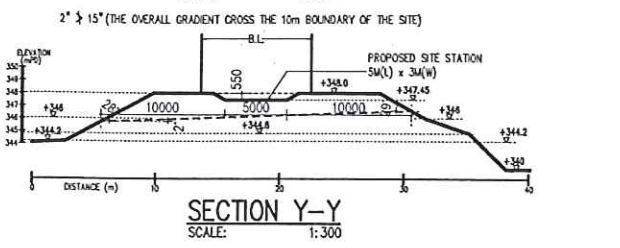
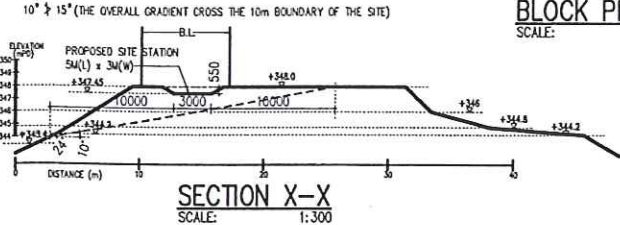
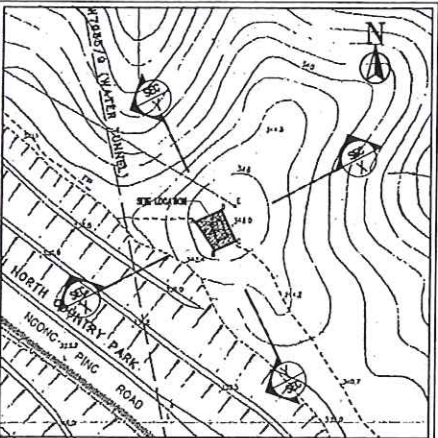
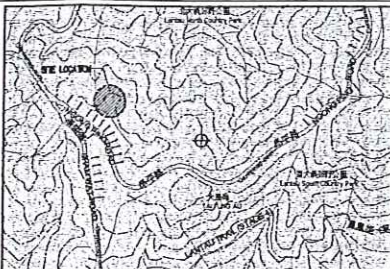
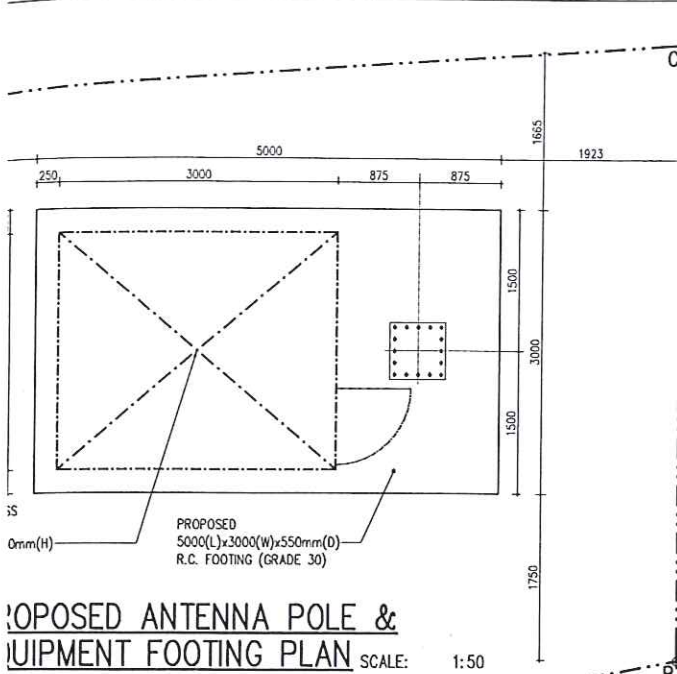
The in-situ field dry densities of compacted materials shall not be less than 95% of the maximum dry density described

FILL IN EXCAVATIONS	TABLE 1 :	
	0-100m ²	100-500m ²
	2 For each 100m ² or part thereof	1 For each 100m ² or part thereof

* A batch of fill material is any quantity of fill material of the same type and has similar properties throughout.

- Tenancy Area = 4.2m² (Tenancy No. STT 01/18A3)
- Proposed Site Coverage = 1.2 x 2.4 x 100% = 11.5%
- Height of Antenna Pole is 12m, height of cabinet is 6m.





CLIENT:
CHINA MOBILE PEOPLES TELEPHONE COMPANY LIMITED

CONSULTANT:
湖建行
PRUDENTIAL SURVEYORS (INTL) LTD
TEL. 25078333 FAX. 25986576

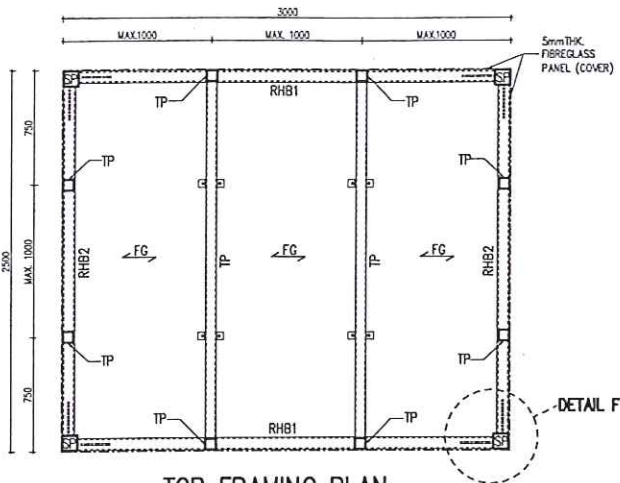
AUTHORIZED PERSON:
Dennis W.C. Wong
BSc (Hons), MSc (Struct), MPhil, MACE, MInstC, RPS, RPE, Authorized Person, Registered Structural Engineer

REGISTERED STRUCTURAL ENGINEER:
Lee Chi-Pui
MSc (Eng), MSc (Struct), MPhil, MACE, MInstC, RPS, RPE, Authorized Person, Registered Structural Engineer

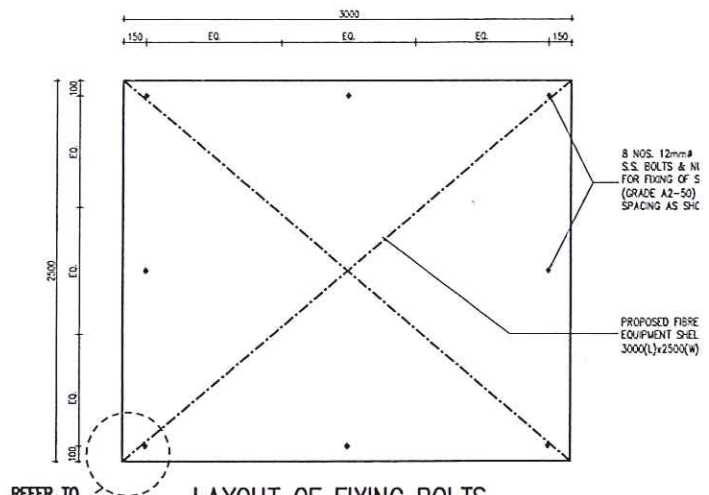
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MOBILE COMMUNICATIONS RADIO BASE STATION AT TAI FUNG AU, N.T.

DRAWING TITLE:
LAYOUT PLAN, SECTIONS & DETAILS OF ANTENNA POLE AND EQUIPMENT PLATFORM

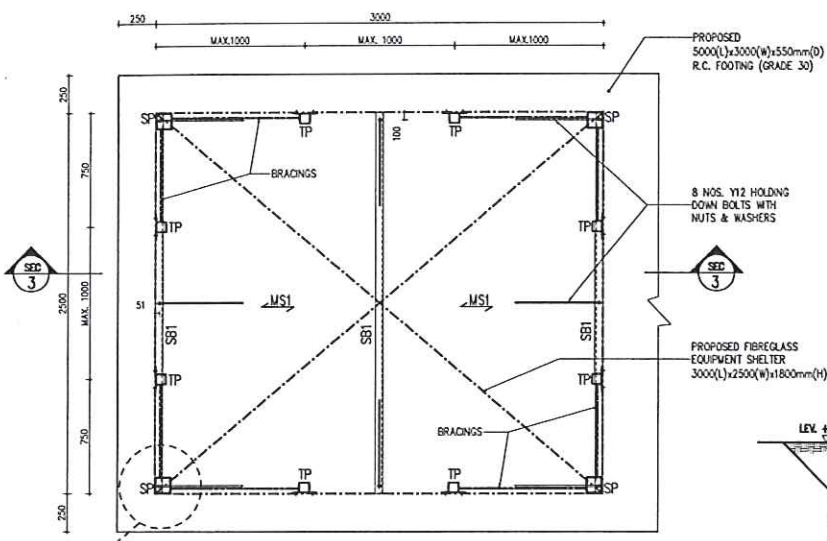
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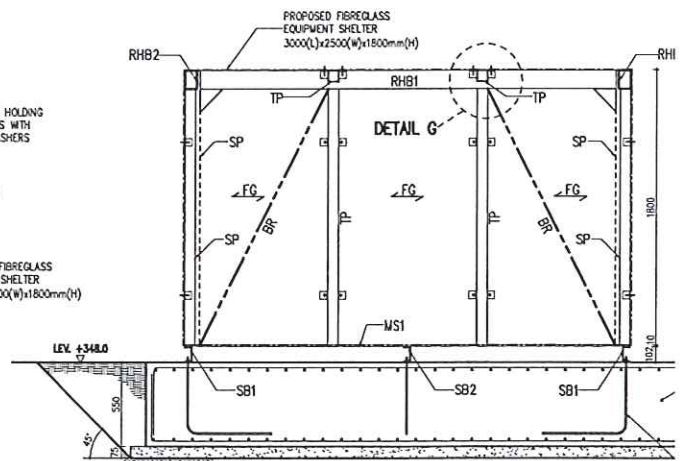
TOP FRAMING PLAN
SCALE: 1:25



LAYOUT OF FIXING BOLTS & NUTS FOR SHELTER
SCALE: 1:25



BOTTOM FRAMING PLAN
SCALE: 1:25
EQUIPMENT SHELTER MOUNTING DETAILS



SECTION 3-3
SCALE: 1:25

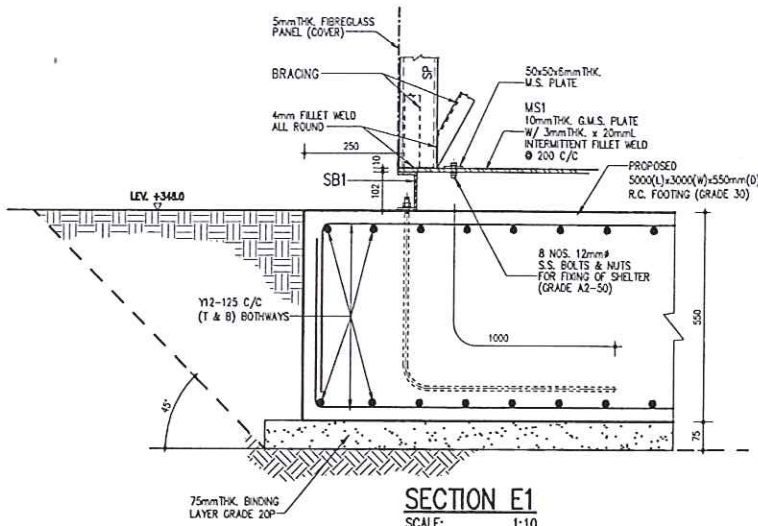
SCHEDULE OF STRUCTURAL FRAMES

MARKS	SIZES
SB1, SB2	102 x 51 x 10.42kg/m STEEL CHANNELS
MS1	10mm THK. G.M.S. PLATE
HOLDING DOWN BOLTS	Y12 HOLDING DOWN BOLTS WITH NUTS & WASHERS = 8 NOS.
FIXING BOLTS & NUTS	12mm# S.S. FIXING BOLTS & NUTS = (8 NOS.)

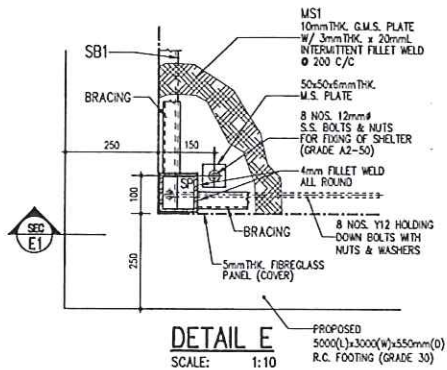
SCHEDULE OF STEEL MEMBERS FOR SHELTER

MARKS	SIZES
SP	100 x 100 x 8mm THK. RHS (POST)
TP	70 x 70 x 8mm THK. RHS (VERT. MEMBERS)
RHB1 & RHB2	100 x 60 x 8mm THK. RHS
BR	45 x 45 x 6mm THK. STEEL ANGLE (BRACINGS)
FG	5mm THK. FIBREGLASS PANEL

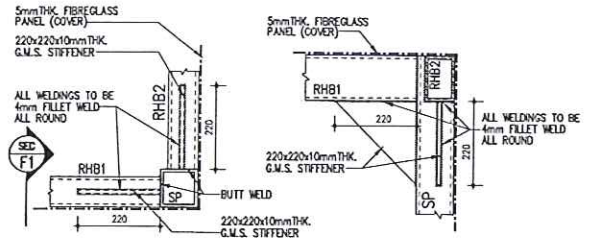
* WELDING TO BE 4mm FILLET WELD UNLESS OTHERWISE STATED.



SECTION E1
SCALE: 1:10

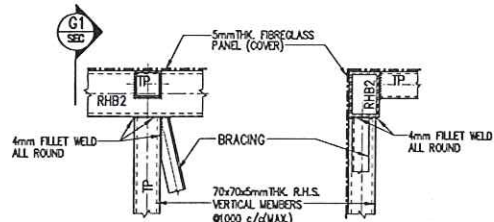


DETAIL E
SCALE: 1:10



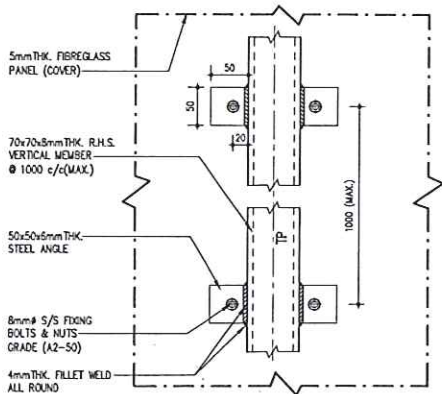
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SECTION F1
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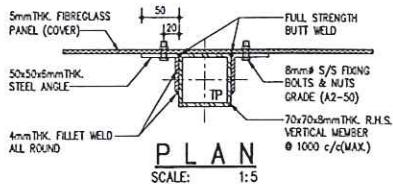


DETAIL G
SCALE: 1:10

SECTION G1
SCALE: 1:10



ELEVATION
SCALE: 1:5




PLAN
SCALE: 1:5

**TYP. FIXING DETAIL OF
5mm THK. FIBREGLASS PANEL**

PROPOSED
5000(L)x3000(W)x550mm(D)
R.C. FOOTING (GRADE 30)

8 NOS. Y12 HOLDING
DOWN BOLTS WITH
NUTS & WASHERS

CLIENT :				
CHINA MOBILE PEOPLES TELEPHONE COMPANY LIMITED				
CONSULTANT :				
 PRUDENTIAL SURVEYORS (INTL) LTD TEL. 25078333 FAX. 25986576				
AUTHORIZED PERSON :				
Dennis W.C. Wong <small>BS (Hong Kong), MS (Structural), MACE, MICE, MINS, MIPR, IPIC, Authorized Person, Registered Structural Engineer</small>				
REGISTERED STRUCTURAL ENGINEER :				
Lee Chi-Pui <small>BS (Hong Kong), MS (Structural), MACE, MICE, MINS, MIPR, IPIC, Authorized Person, Registered Structural Engineer</small>				
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MOBILE COMMUNICATIONS RADIO BASE STATION AT TAI FUNG AU, N.T.				
DRAWING TITLE :				
EQUIPMENT SHELTER MOUNTING DETAILS				
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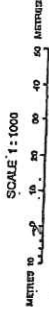
SITE LOCATION PLAN

This plan is a copy of the lot index plan showing the approximate location of lot boundaries, including the temporary occupation of land under Government Land Allocation, Temporary Government Land Allocation, Short Term Temporary and Government Land Licenses. The temporary occupation of land may be created or terminated at short notice and should be confirmed with the District Lands Officer. The information shown on this plan MUST be verified by field survey. This lot index plan may be revised without prior notification as better or new boundary evidence becomes available.

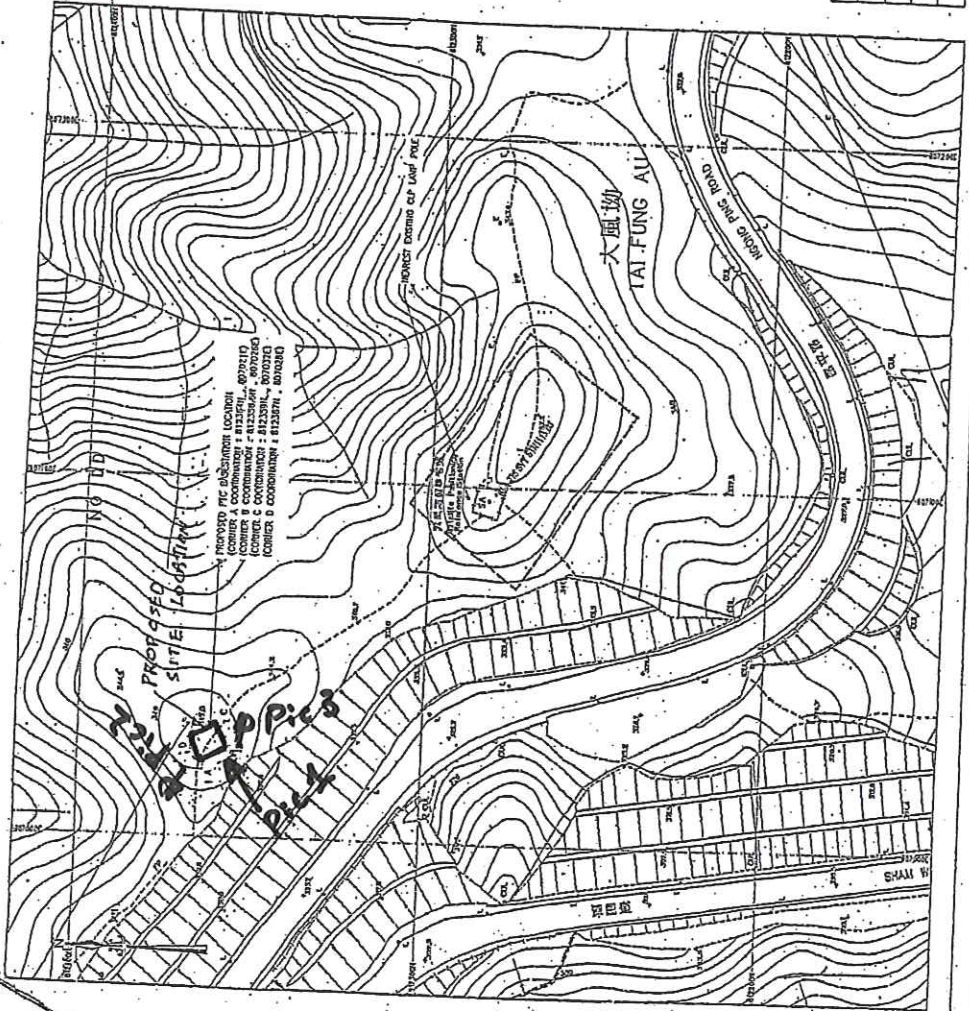
本圖乃地籍索引圖的副本，顯示地籍索引圖的大概位置，包括臨時政府土地撥款、短期臨時政府土地撥款、短期臨時政府土地撥款及政府土地執照。臨時政府土地佔用可隨時終止或終止，應與地籍主任核實。本圖所顯示的資料必須經過實地核實。本圖可能會在不另行通知的情況下，根據更佳或新的界址證據進行修訂。

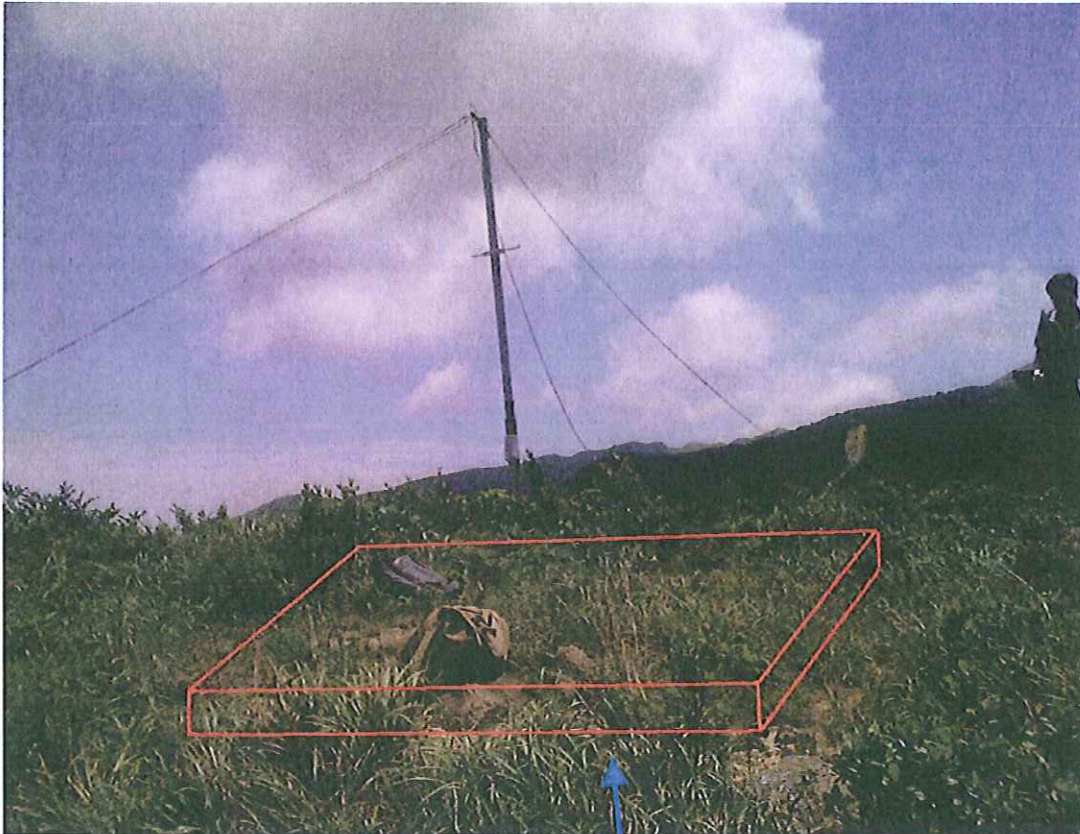
Legend

Photo no + taken direction



Locality:
L&I Index Plan No.: 9-SW-25D
District Survey Office: Islands
Date: 04 Nov 07
Reference No.:





PROPOSED SITE AREA

Picture 1: Location of the Integrated Mobile Phone Base Station



Picture 2: General view of surrounding area to the northwest of the Integrated Mobile Phone Base Station



Picture 3: General view of surrounding area to the northeast of the Integrated Mobile Phone Base Station