PROPOSED INSTALLATION

OF

INTEGRATED MOBILE PHONE BASE STATION

AT

TAI LONG AU

SAI KUNG EAST COUNTRY PARK

TAI PO,

NT

PROJECT PROFILE

HONG KONG CSL LIMITED

Prepared by: Prudential Surveyors Int'l Ltd

APRIL 2007

Basic Information

Project Title

1. Proposed Installation of Integrated Mobile Phone Base Station at Tai Long Au, Sai Kung East Country Park, Tai Po, NT.

Purpose and Nature of the Project

2. This project is a joint development of all the mobile phone operators 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. Hong Kong CSL Limited.

Location and Scale of the Project

4. The integrated mobile phone base station is proposed at Tai Long Au, Sai Kung East Country Park, Tai Po, N.T as shown on the location plan at **Appendix I**. The station will comprise of an equipment platform [7.9m (l) x 4.0m (w) x 1.0m (D)] with an area of 31.6 square metres. The equipment platform, consisting of seven (7) mobile phone equipment cabinets and three (3) antenna poles of 10 metres high, will be erected on the hill top at level 214mPD. The equipment platform will be constructed of ready mixed cast in-situ concrete which will be transported to the proposed area by helicopter. All the construction material, equipment and wastes, etc., will be transported to and away from the site by helicopter and not by hand. No haul road will be constructed.

5. Lands Department has agreed to the establishment of an integrated mobile phone base station at the proposed location. The relevant project leader, namely Hong Kong CSL Limited, has already accepted District Lands Office's offer of a Short Term Tenancy (STT No.1411) (A copy of the Short Term Tenancy and its Location Plan is at **Appendix II**)

Public utilities such as electricity supply and telecommunication lines will be installed for the integrated mobile phone base station.

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. Terry Yeung of Hong Kong CSL Limited, telephone number 2888 3734 and facsimile number 2962 5144.

Outline of Planning and Implementation Programme

Planning and Implementation

9. The project is planned and managed by Hong Kong CSL Limited and there will be a total of six (6) mobile phone networks to be installed at the proposed station.

10. Upon the grant of a short term tenancy and environmental permit by the District Lands Office and Environmental Protection Department respectively and consent to commence building works by the Buildings Department, CSL, will start and complete the construction work in accordance with the work schedule. The proposal had been submitted to Buildings Department (BD) for approval under the Buildings Ordinance on 2nd March 2007 and is expected to be approved by BD in early May 2007. Through BD's control processing system, no adverse comment or objection had been expressed by relevant government departments including District Planning Office (DPO), Water Supplies Department (WSD), Director of Agriculture, Fisheries and Conservation (DAFC), Drainage Services

Department (DSD), District Lands Office (DLO) and Architectural Services Department (ASD).

Work Schedule

10. The construction work including the equipment and antennas installation is proposed to commence in July 2007 and to be completed by the end of August 2007. It is proposed that the mobile phone station will be put into operation in the first quarter of September 2007. The proposed work schedule is given at **Appendix III**.

    It is anticipated the excavated material will be transported off the site immediately by helicopter. 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

11. The landscape and visual impact during construction and after completion of work is considered and addressed in paragraph 21.
12. Noise emission during the construction and on completion of the projects is considered to be minimal and addressed in paragraph 22.
13. Disposal of waste including some surplus construction material and some general refuse is considered minimal and addressed in paragraph 23.
14. Dust impact from construction activities is considered to be minimal and is addressed in paragraph 24.
15. Earthworks operation is not required as the excavation depth is less than 1000 mm and there will be no blasting operation.
16. Night-time work is not required for the construction of the project.
17. No ecological impact is anticipated during the construction and on completion of the project.

Operational Impacts

18. 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 IV** to illustrate the appearance of the Integrated Mobile Base Station.

Major Elements of the Surrounding Environment

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

Countryside setting

The proposed site comprises of an equipment platform situated on the hill of the Country Park. Bush and grass are scattered around the proposed site. To the north of the equipment platform is an existing slope. An existing Water Services Department (WSD) Fresh Water Tank is located at about 0.5m away from the southern edge of the equipment platform. To the east of the equipment platform is ICAC reserved area. To the west of the equipment platform are underground pipes belonging to WSD. No streams are found near the site. Furthermore, no radiation monitoring station, air sensitive receiver, noise sensitive receiver and 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

20. The site layout and building design will incorporate the comments of Country and Marine Park Authority. In order to further avoid the visual impact of the station, the antenna poles will be painted or coated in "Antique"(B.S. 10B25 or **Pantone 462U)** or similar subdue colour to match the surroundings and to the

satisfaction of the Country and Marine Parks Authority. As for the landscaping, all temporarily disturbed areas should 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 in daytime (9:00-19:00). Since there will be hikers enjoying their recreational activities in the Country Park at the weekend 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 material, equipment and wastes, etc., will be transported to and away from the site by helicopter and not by hand.

24 The site will be completely water 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 the area for inhabitancy. Furthermore, the location of the emitter of the station is at least 10 metres above the human head pointing away from any human activities or inhabitance. 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 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

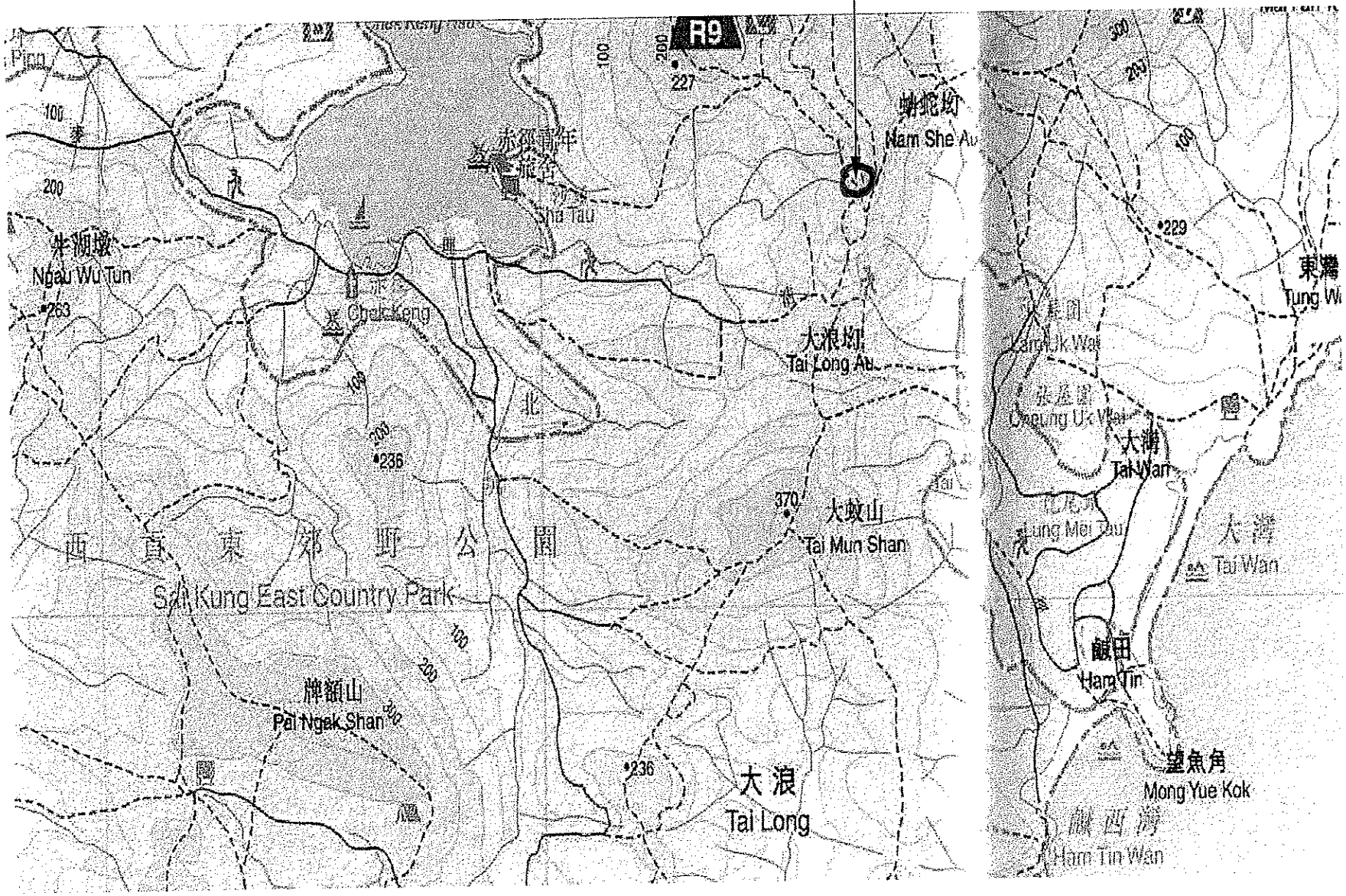
environment.

APPENDICES

Appendix I	Site Location Plan
Appendix II	Provisional Plan from District Lands Office
Appendix III	Proposed Work Schedule
Appendix IV	Site Layout Plan, Section, Typical Detail and Site Photo

Appendix I

Site Location Plan



Site Location Map

(Tai Long Au, Sai Kung East Country Park)

Not To Scale

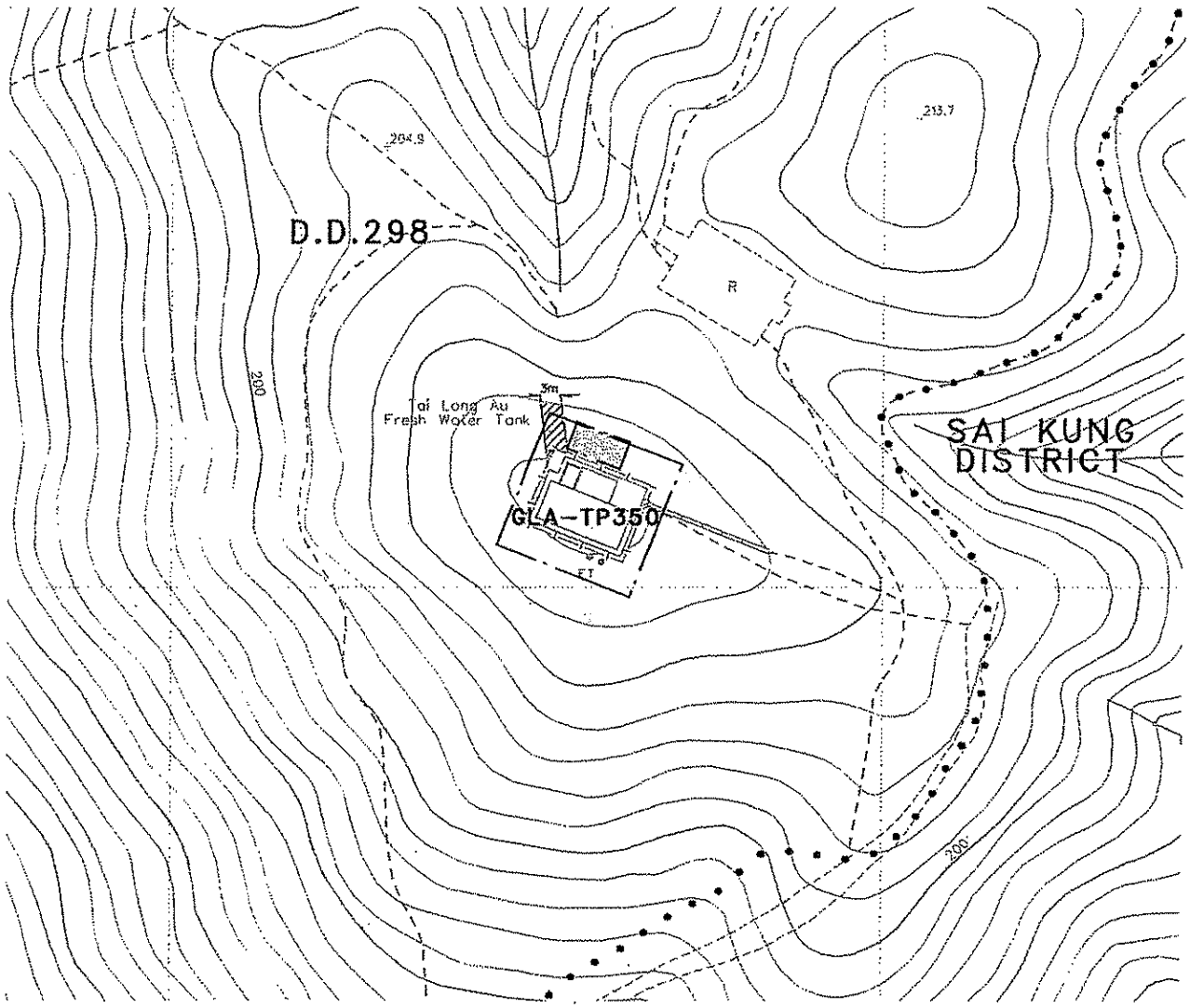
Attachment 1

Appendix II

Provisional Plan from District Lands Office

Appendix I

SHORT TERM TENANCY No.1411
TAI PO, NEW TERRITORIES

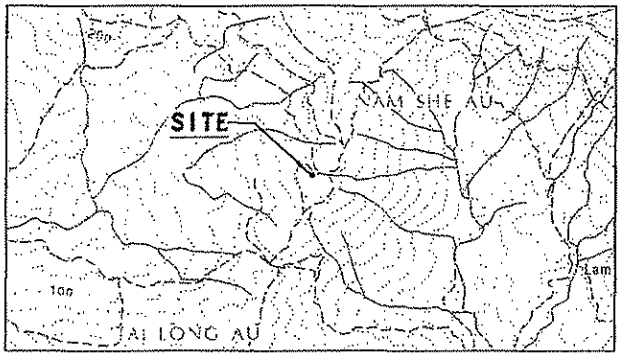


COLOURED PINK AREA 32 SQUARE METRES (ABOUT)

SCALE 1 : 1000

METRES 20 0 20 40 60 80 100 METRES

LOCATION



SCALE 1 : 20000

LEGEND

WATER WORKS RESERVES

DRAFT

FOR IDENTIFICATION PURPOSES ONLY

District Lands Office, Tai Po
Lands Department

Plan Prepared by District Survey Office, Tai Po

File No.	DLO/TP 130/TAT/66
Survey Sheet No.	8-NE-16C
Layout Plan No.	-------
Reference Plan No.	-------

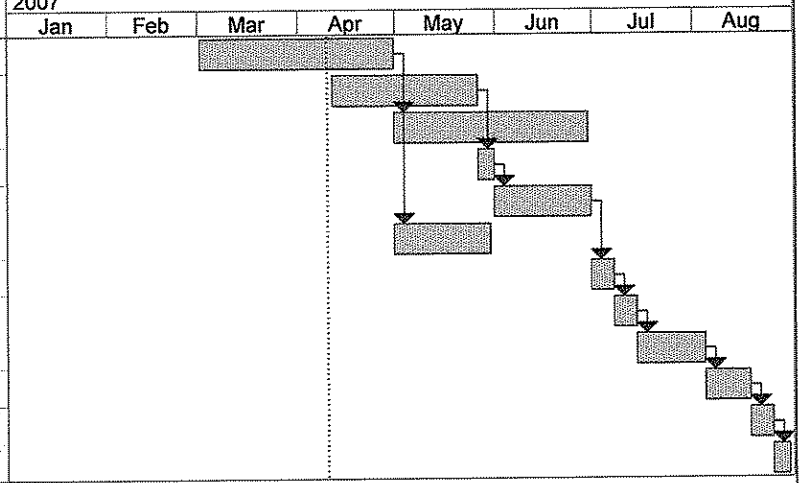
PLAN No TPM4601-C

Appendix III

Proposed Work Schedule

Proposed Installation of Integrated Mobile Phone Base Station at Tai Long Au, Tai Po, N.T.

ID	Task Name	Duration	Start	Finish
1	Submission for approval by Buildings Department (BD)	60 days	Mar 2 '07	Apr 30 '07
2	Apply for permission to apply directly for Environmental Permit (EP)	45 days	Apr 12 '07	May 26 '07
3	Apply for permission to District Lands Office (DLO)	60 days	May 1 '07	Jun 29 '07
4	Permission from EA for apply for EP directly	5 days	May 27 '07	May 31 '07
5	Apply for EP	30 days	Jun 1 '07	Jun 30 '07
6	Apply for consent and submission of SSP	30 days	May 1 '07	May 30 '07
7	Notification of commencement of work	7 days	Jul 1 '07	Jul 7 '07
8	Mobilization	7 days	Jul 8 '07	Jul 14 '07
9	Carry out excavation work	21 days	Jul 15 '07	Aug 4 '07
10	Construction of footing	14 days	Aug 5 '07	Aug 18 '07
11	Equipment and Antenna installation	7 days	Aug 19 '07	Aug 25 '07
12	Testing and Commission	5 days	Aug 26 '07	Aug 30 '07

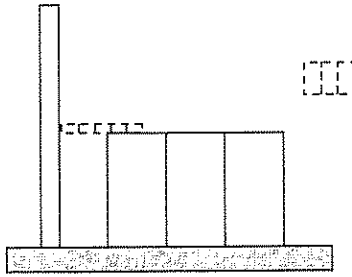


Project: works schedule_1
Date: Apr 10 '07

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

Appendix IV

Site Layout Plan, Section, Typical Detail and Site Photo



400mm cable tray

NOT TO SCALE
UNIT = mm

Photo number and direction

Operator Cabinet x 6 each
2000mm(W) x 1200mm (D) x 2200mm (H)

CLP Cabinet size refer to Standard
(150Amp x 3 phase)

Photo 1

1000 | 6000 | 900

CLP	Operator 5	Operator 3	Operator 1
	Operator 6	Operator 4	Operator 2

Pole A | Pole B | Pole C

Under ground Pipe

Entrance

3000 | 1600 | 4000

ICAC

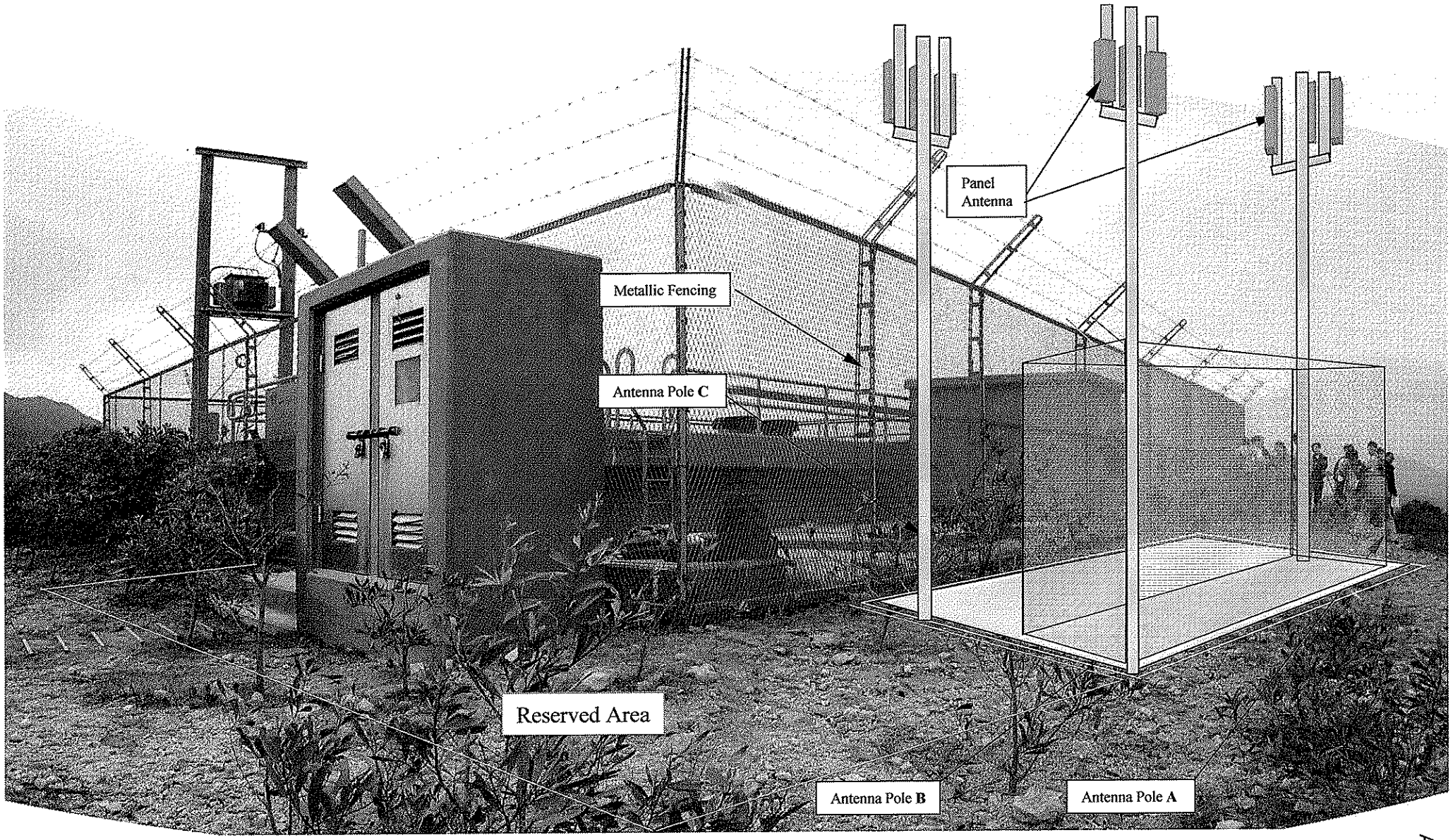
7900 | 5000

Water Supplies Dept.

ISSUE	AMENDMENT

SHT 1	SET OF 1
PROJECT	Integrated Mobile Base Station at Tai Long Au(Sai Kung East Country Park)
TITLE	Operator Equipment Cabinet
DWG. No.	
CAD FILE NAME	
SCALE	NOT TO SCALE
ALL DIMENSIONS IN mm	1 ST ANGLE
REF.	
DRN.	KC Yeung
CKD.	JOSEPH WOO
APPD.	TERRY YEUNG
DATE	15 Sep2006

Picture 1: Location of the Open Equipment Platform



Operator Equipment Cabinet and Antenna Location

Attachment 4

GENERAL NOTES:

STRUCTURAL WORKS

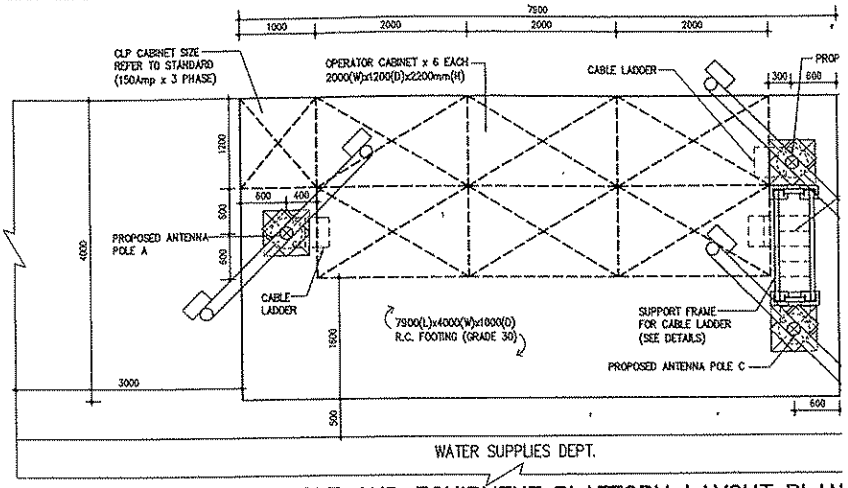
1. The design of superstructure is in accordance with "Building (Construction) Regulation 1990", "The Structural Use of Steel 1987, Hong Kong" and "The Structural Use of Concrete 1987".
2. The wind analysis to be in accordance with "Code of Practice on Wind Effects, Hong Kong -- 2004"
3. All structural steel shall be Grade 43C for hollow section, others shall be Grade 43A. All reinforced concrete works shall comply with the Hong Kong Building (Construction) 1985.
4. All structural steel to be Grade 250 and complies with BS 4360.
5. The structural steel shall be hot-dip galvanized to B.S. 729 (1986).
6. The fabrication, erection and welding of structural steel shall conform to the Hong Kong Building (Construction) Regulations 1990 and Code of Practice for Structural Use of Steel 1987.
7. All welding shall conform to B.S. 639 and B.S. 5135 (1984). All welding shall thereafter be applied with two coats of zinc rich epoxy primer.
8. All welding shall be carried out by qualified welders having satisfactorily completed the appropriate welding tests specified in B.S. 4871 (1985) prior to the commencement of structural steelwork.
9. Except where otherwise stated in the drawings, 6mm continuous fillet welds shall be used.
10. All weld shall be tested in accordance with B.S.3923 (1986).
11. 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.
12. Adequate supervision shall be carried out by the Engineer during execution of the proposed works.
13. Test reports on bolts and weldings shall be submitted to the CSL office for record purpose.
14. The Contractor shall appoint a professionally qualified and technical competent person to supervise the execution of works.
16. All bolts and nuts shall comply with the appropriate provisions of B.S. E.N. ISO 3506-1: 1998 & 3506-2:1998
17. All stainless steel bolts and nuts shall be grade A2-50 and complies with BS 6105.
18. All non-shrinkage grout shall be complied with SAA MP20 part 3.
19. SOIL BEARING CAPACITY =50.0 kPa.
20. MATERIAL: a) CONCRETE: GRADE 30
    f_{cb} = 10.0 mPa
    f_{cc} = 7.5 mPa
    f_{bb} = 1.0 mPa
    b) REINFORCEMENT: HIGH TENSILE STEEL
    f_{sy} = 230.0 mPa
    f_{wy} = 175.0 mPa

FIRE SERVICES NOTES:

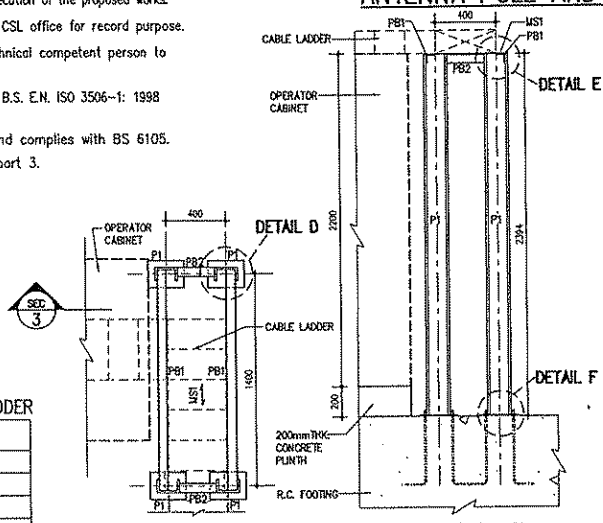
1. No F.S. equipment installation is required.

SCHEDULE OF STRUCTURAL FRAMES FOR CABLE LADDER

MARKS	SIZES
P1	152 x 89 x 23.84 kg/m STEEL CHANNEL
PB1 ~ PB2	60 x 60 x 8mmTHK. EQUAL ANGLES
MS1	6mm THK. G.M.S. PLATE
BASE PLATE	240 x 180 x 8mmTHK. G.M.S. PLATE = 4 PCS.
BOLTS	HILTI HST-R-M12 S/S ANCHOR BOLTS = 8 PCS.

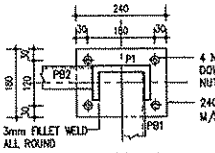


ANTENNA POLE AND EQUIPMENT PLATFORM LAYOUT PLAN
SCALE: 1:50



PLAN
SCALE 1:25

SECTION 3-3
SCALE: 1:25



DETAIL D
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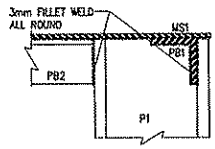
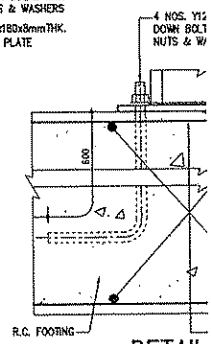
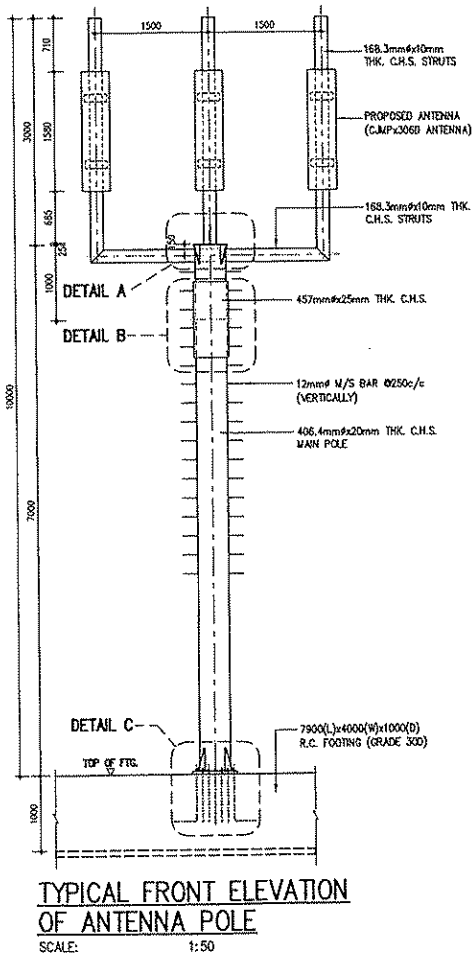


DETAIL E
SCALE: 1:5

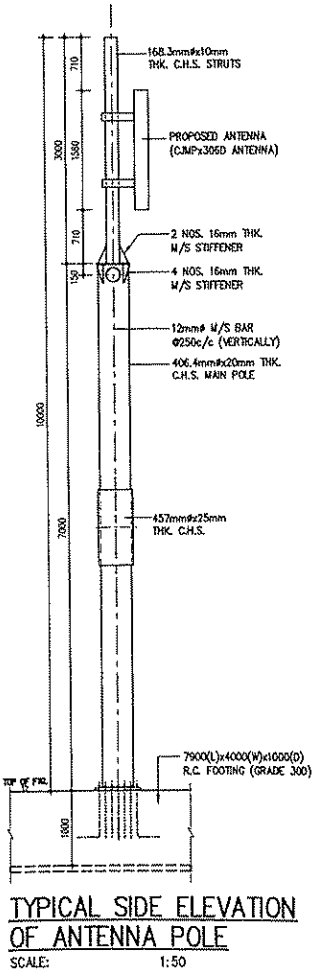


DETAIL
SCALE:

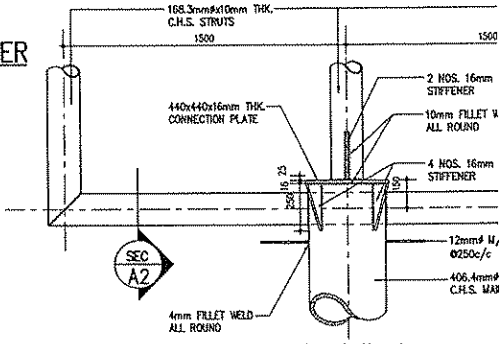
DETAILS OF SUPPORT FRAME FOR CABLE LADDER



TYPICAL FRONT ELEVATION OF ANTENNA POLE
SCALE: 1:50



TYPICAL SIDE ELEVATION OF ANTENNA POLE
SCALE: 1:50



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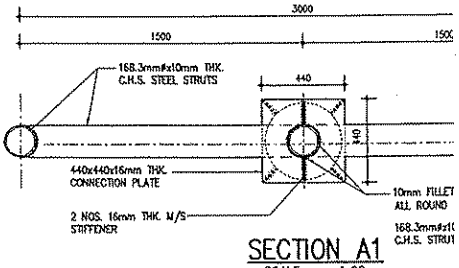
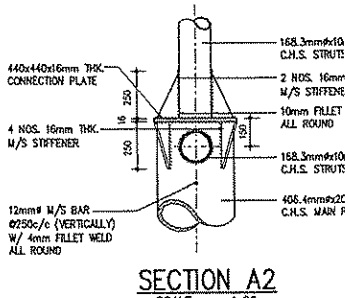


SECTION A1
SCALE: 1:20



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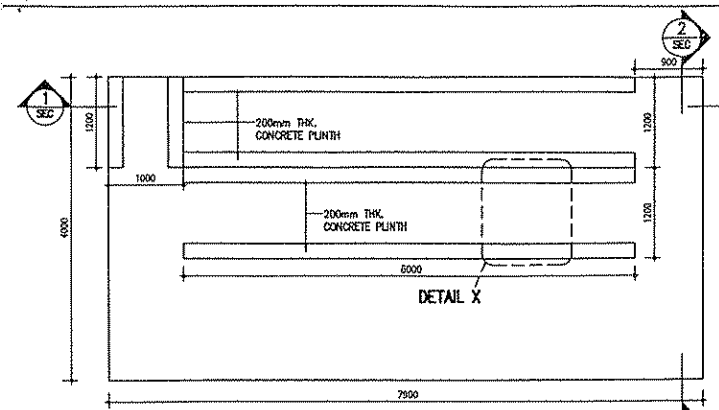
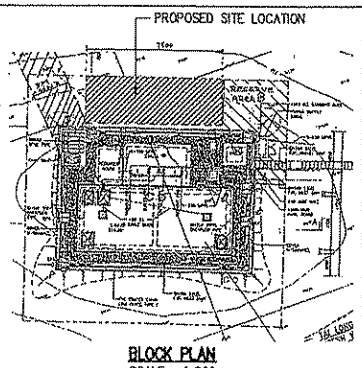
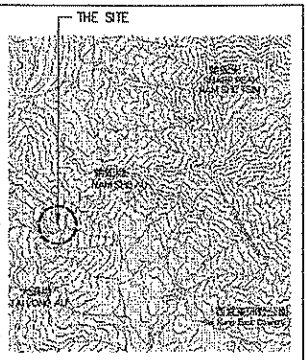




BLOCK PLAN
SCALE: 1:200



KEY PLAN
N.T.S.

FOOTING LAYOUT PLAN
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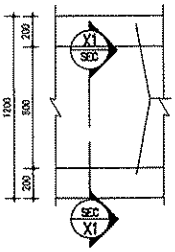

DETAIL X
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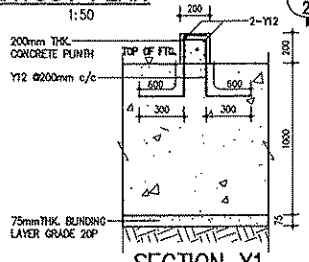
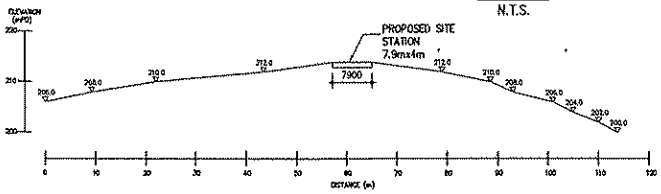
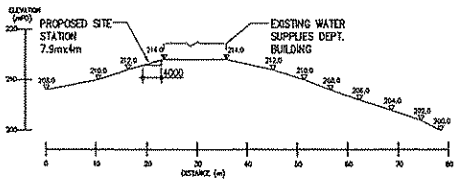


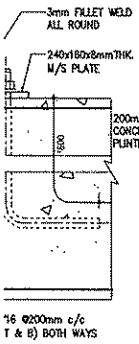
SECTION X1
SCALE: 1:25



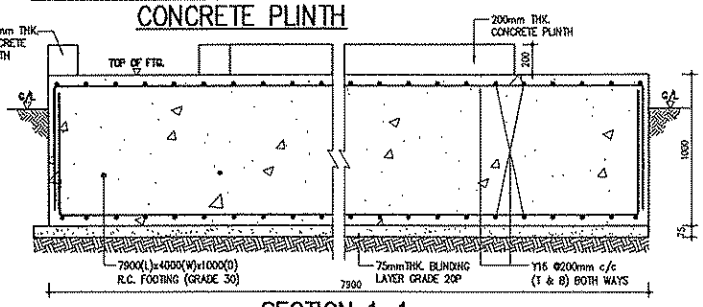
CUT-SECTION X-X SHOWING TYPICAL SITE FOUNDATION
SCALE: 1:750



CUT-SECTION Y-Y SHOWING TYPICAL SITE FOUNDATION
SCALE: 1:750



TYPICAL DETAIL OF 200mm DEPTH CONCRETE PLINTH



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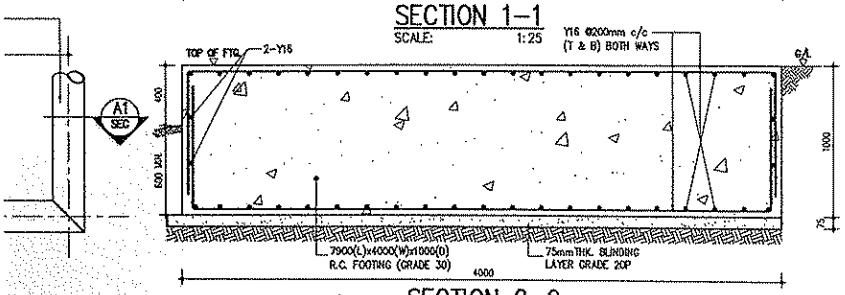

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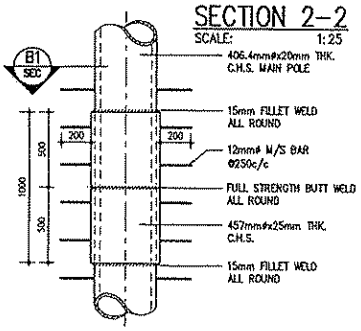

DETAIL B
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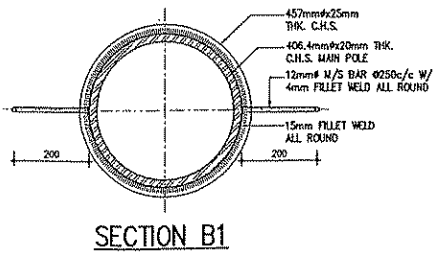

SECTION B1
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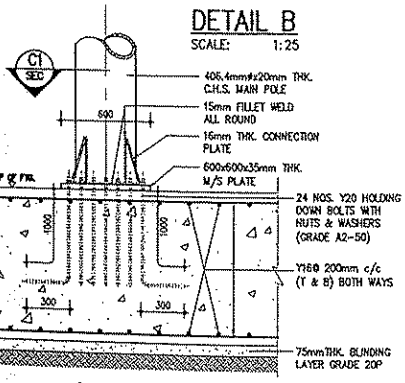

DETAIL C
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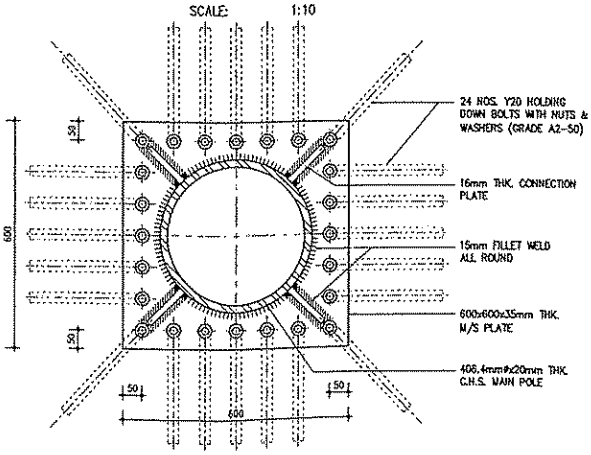

SECTION C1
SCALE: 1:10

CLIENT :

CONSULTANT :

PRUDENTIAL SURVEYORS (INTL) LTD
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PROJECT TITLE :

INTEGRATED MOBILE BASE STATION AT TAI LONG AU (SAI KUNG EAST COUNTRY PARK)

DRAWING TITLE :

GENERAL NOTES, R.C. DETAILS AND SECTION OF ANTENNAS AND EQUIPMENTS PLATFORM

DATE	DRAWN	DESIGNED	CHECKED	SCALE
06/10/06	BI	LK	DW	AS SHOWN

JOB NO. : B1762

DRAWING NO. : TLA-S1

FILING CODE: L:\B1762\DET

STATUS : 1ST SUBMISSION