

ENVIRONMENTAL IMPACT ASSESSMENT ORDINANCE  
(CHAPTER 499)

## Section 10

## 環境影響評估條例

## (第499章)

## 第10條

## ENVIRONMENTAL PERMIT TO CONSTRUCT AND OPERATE A DESIGNATED PROJECT

## 建造及營辦指定工程項目的環境許可證

## PART A (MAIN PERMIT)

## A部 (許可證主要部分)

Pursuant to Section 10 of the Environmental Impact Assessment Ordinance, the Director of Environmental Protection (the Director) grants this environmental permit to the MASS TRANSIT RAILWAY CORPORATION (the "Permit Holder") to construct and operate the designated project described in Part B subject to the conditions described in or attached to Part C. The issue of this environmental permit is based on the documents, approvals or permissions described below:

根據環境影響評估條例第10條的規定，環境保護署署長(署長)將本環境許可證批予香港地下鐵路公司(許可證持有人)以建造及營辦B部所說明的指定工程項目，但須遵守C部所說明或附載的條件。本環境許可證的發出，乃以下表所列的文件、批准或許可作為根據：-

Application No. 申請書編號:	AEP 006/1998 AEP 006/1998
Document in the Register : 登記冊上的文件 :	(1) Feasibility Study and Preliminary Design for Tseung Kwan O Extension Quarry Bay Congestion Relief Works Detailed Environmental Impact Assessment Report R9T, Volumes I to III (Register No. EIA-120/BC). [Hereinafter referred to as the Phase I EIA Report] (1) 地鐵將軍澳支線詳細環境影響評估報告R9T，第一至三冊(登記編號EIA-120/BC)[下稱第一期環評報告] (2) Tseung Kwan O Extension Phase II: Environmental Impact Assessment (Register No. EIA-132/BC). [Hereinafter referred to as the Phase II EIA Report] (2) 將軍澳支線第二期：環境影響評估(登記編號：EIA-132/BC)[下稱第二期環評報告]

25/9/98

Date  
日期

(Robert J.S. LAW)

Director of Environmental  
Protection

環境保護署署長羅樂乘

**PART B (DESCRIPTIONS OF DESIGNATED PROJECT)****B部 (指定工程項目的說明)**

Hereunder is the description of the designated project mentioned in Part A of this environmental permit :

下列為本環境許可證A部所提及的指定工程項目的說明:

<p>Title of Designated Project 指定工程項目的名稱</p>	<p>MTR Tseung Kwan O Extension – Phases I &amp; II. [This designated project is hereinafter referred to as “the Project”] 地鐵將軍澳支線 — 第一及二期 [本指定工程項目下稱「工程項目」]</p>
<p>Nature of Designated Project 指定工程項目的性質</p>	<p>A railway, its associated stations and a railway depot. 鐵路、其相聯車站及鐵路車廠。</p>
<p>Location of Designated Project 指定工程項目的地點</p>	<p>Figures TKE/K/00/CIP/P02/001 – 003 as submitted by the Application and attached to this permit show the locations of the railway alignment, its six associated stations, ancillary buildings, the railway depot and construction sites (including temporary work sites) 申請所提交及本許可證附載的圖TKE/K/00/CIP/P02/001-003，顯示鐵路路線及其6個相聯車站、附屬建造物、鐵路車廠和建造工地(包括臨時工地)的位置。</p>
<p>Scale and Scope of Designated Project 指定工程項目的規模和範圍</p>	<p>MTRC Tseung Kwan O Extension – Phases I &amp; II include the construction and operation of: 地鐵將軍澳支線 — 第一及二期包括下列各項的建造和營辦：</p> <p>(a) A new Tseung Kwan O Line by means of a junction east of Tseung Kwan O Station providing two services; one from Po Lam Station and one from Area 86 Station in the south of Tseung Kwan O New Town (Area 86), to Tseung Kwan O Station. The Tseung Kwan O Line will run in tunnel, westward through Tiu Keng Leng and Yau Tong Stations to connect with the existing Eastern Harbour Crossing. (a) 在將軍澳站東面交界處建設一條新將軍澳線以提供兩行列車服務，一行由寶林站開出，另一行由將軍澳新市鎮南面的86區車站開出，前往將軍澳站。將軍澳線會在隧道內行駛，向西經過調景嶺站和油塘站，連接現時的東區海底隧道。</p> <p>(b) A diversion of the existing Kwun Tong Line from the existing Lam Tin Station, to the Yau Tong and Tiu Keng Leng Stations, where cross platform interchanges will be provided with the Tseung Kwan O Line services. (b) 由現時的藍田站把現時的觀塘線改道，伸延至油塘站及調景嶺站，而這兩個車站將會設置前往將軍澳線各班列車的橫過月台轉車處。</p>

	<p>(c) Interchange facilities between the Tseung Kwan O Line and the diverted Kwun Tong Line at Yau Tong and Tiu Keng Leng Stations, with appropriate tunnel configurations in the Black Hill Tunnels.</p> <p>(c) 將軍澳線與改道的觀塘線之間在油塘站及調景嶺站的轉車設施，並於五鬼山隧道內設合適的隧道配置。</p> <p>(d) Six new stations along the railway alignment, ie. Yau Tong Station, Tiu Keng Leng Station, Tseung Kwan O Station, Hang Hau Station, Po Lam Station and the Station in Area 86.</p> <p>(d) 鐵路沿線設有6個新車站，即油塘站、調景嶺站、將軍澳站、坑口站、寶林站和於86區的車站。</p> <p>(e) A railway depot, to be provided in Area 86, for stabling trains and maintenance required for the operation of the Tseung Kwan O Line.</p> <p>(e) 將於86區興建鐵路車廠，供列車停放及將軍澳線運作維修之用。</p> <p>(f) Ancillary buildings including traction substations and ventilation buildings.</p> <p>(f) 附屬建築物包括牽引分站和通風建築物。</p> <p>(Other descriptions of the scale and scope of the Project are given in section 1.2.2 of the Phase I EIA Report, Volume II and section 1.2.2 of the Phase II EIA Report mentioned in Part A of this permit.) (工程項目的規模和範圍的其他說明，載列於本許可證A部所提述的第一期環評報告第二冊第1.2.2條，以及第二期環評報告第1.2.2條。)</p>
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**PART C (PERMIT CONDITIONS)**

**1 General Conditions**

- 1.1 The Permit Holder shall ensure full compliance with all conditions of this permit. Any non-compliance with this permit may constitute a contravention of the Environmental Impact Assessment Ordinance (Cap. 499) and shall be definite ground for enforcement action or permit cancellation where applicable.
- 1.2 This permit shall not remove the responsibility of the Permit Holder to comply with any legislation currently in force such as Noise Control Ordinance (Cap.400), Air Pollution Control Ordinance (Cap.311), Water Pollution Control Ordinance (Cap.358), Dumping at Sea Ordinance (Cap.466), Waste Disposal Ordinance (Cap.354) and others.
- 1.3 The Permit Holder shall make copies of this permit available at all times for inspection by the Director at all sites covered by this permit.
- 1.4 The Permit Holder shall give a copy of this permit to the person(s) in charge of the site(s).
- 1.5 The Permit Holder shall display a copy of this permit on the construction site(s) at all vehicular site entrances/exits or at a convenient location for public information at all times. The Permit Holder shall ensure that the most updated information about the environmental permit, including any amended permit, is displayed at such locations. If the Permit Holder surrenders a part or the whole of the permit, the notice he sends to the Director shall also be displayed at the same locations as the original permit.
- 1.6 The Permit Holder shall construct and operate the Project in accordance with the project descriptions in Part B of this permit.
- 1.7 The Permit Holder shall ensure that the Project are designed, constructed and operated in accordance with the information and recommendations contained in the Phases I & II EIA reports mentioned in Part A of this permit.
- 1.8 All finalised submissions, as required under this part of the permit, shall be released to the public if requested by the Director, by depositing copies in the Environmental Impact Assessment Ordinance Register Office or any other places or by any other means as specified by the Director for public inspection. For this purpose, the permit Holder shall provide sufficient copies of submissions.

## **2. Submissions or Measures before Commencement of Construction**

- 2.1 The Permit Holder shall employ an Environmental Manager with at least 7 years of experience in environmental monitoring and auditing (EM&A) or environmental management. The Environmental Manager shall verify the overall environmental performance of the Project, including implementation of all environmental mitigation measures, submissions relating to environmental monitoring and auditing, and any other submissions required under this permit.
- 2.2 Before commencement of construction of the Project, an Environmental Team shall be established. The Environmental Team shall be headed by the Environmental Manager and shall be responsible for the overall implementation and management of the EM&A programme in accordance with the EM&A requirements as contained in the EM&A Manual (ie. Phase I EIA Report, Volume III) and section 8 of the Phase II EIA Report.
- 2.3 The Permit Holder shall deposit with the Director 3 copies of noise management plan consisting of 1 to 1000 scale layout plan(s) and/or explanatory statement(s) showing the noise mitigation measures to be adopted during construction of the corresponding sections of the Project. The layout plan(s) and/or explanatory statement(s) shall be verified by the Environmental Manager as conforming to the information and recommendations contained in sections 3.4.49 to 3.4.67 of Phase I EIA Report, Volume II and sections 3.7.1 to 3.9.9 of the Phase II EIA Report before deposit. Measures covered by other pollution control Ordinances shall not be included in the noise management plan. Additional copies may be required by the Director.
- 2.4 Before commencement of construction works in Hang Hau Section, noise insulation and air-conditioning shall be provided for the NTWJWA Leung Sing Tak Primary School (NHAH9) as highlighted in Figure A.
- 2.5 Before commencement of construction works in Po Lam Section, noise insulation and air-conditioning shall be provided for King Lam Catholic Primary School (NPOL2), STFA Leung Kit Wah Primary School (NPOL6) and STFA Cheng Yu Tung Secondary School (NPOL9) as highlighted in Figure B.
- 2.6 The Permit Holder shall deposit with the Director 3 copies of waste management plan for all construction sites before commencement of construction of the Project. The waste management plan shall follow the waste management hierarchy and shall include mitigation measures as detailed in sections 5.3.27, 5.3.44 to 5.3.49 of the Phase I EIA Report, Volume II and sections 5.7.2, 5.7.20 to 5.7.24 of the Phase II EIA Report and shall be verified by the Environmental Manager before deposit. Measures covered by other pollution control Ordinances shall not be included in the waste management plan. Additional copies may be required by the Director.
- 2.7 A survey of all construction sites (including the access routes to the sites) shall be conducted to determine and map the distribution and abundance of vegetation types; and to locate trees and other vegetation which shall be retained or replanted. The Permit Holder shall submit for the approval of the Director 3 copies of survey report(s) together with layout drawings at 1:1000 scale for any construction site(s) showing all vegetation to be retained or replanted before commencement of construction works at

the construction site(s). The survey report(s) and the layout drawings shall be verified by the Environmental Manager before submission. Additional copies may be required by the Director.

- 2.8 The Permit Holder shall submit for the approval of the Director 3 copies of compensatory replanting plan for all construction sites before commencement of compensatory replanting works of the Project. The compensatory replanting plan shall include native species and shall be verified by Environmental Manager before submission as conforming to the findings and recommendations of the survey report(s) and layout drawings as approved under Condition 2.7 above. Additional copies may be required by the Director.
- 2.9 Before commencement of construction works at any construction site(s), fences shall be erected along the boundaries of the construction site(s) to avoid any adverse impact to the surrounding environment due to uncontrolled construction activities.
- 2.10 The Permit Holder shall submit for the approval of the Director 3 copies of visual and landscape drawings at 1:1000 scale showing that all aboveground structures are designed to visually integrate into the surrounding areas and the potential visual impacts are reduced by the planting of vegetation in the spaces around these structures before commencement of construction of the structures. The visual and landscape drawings shall be verified by the Environmental Manager before submission. Additional copies may be required by the Director.
- 2.11 Before commencement of construction of the tunnel sections adjacent to Sai Tso Wan Landfill and Tseung Kwan O Stage I Landfill, the Permit Holder shall deposit with the Director 3 sets of landfill gas safety plan containing a brief description of the construction method and the corresponding monitoring procedures, precautionary measures and emergency procedures for landfill gas potentially arising from the construction works of the concerned tunnel sections. The landfill gas safety plan shall show that the hazards associated with landfill gas during construction have been adequately addressed and the requirements of BS 6164:1990 in relation to landfill hazards have been complied with. The landfill gas safety plan shall be verified by the Environmental Manager before deposit. Measures covered by other pollution control Ordinances shall not be included in the landfill gas safety plan. Additional copies may be required by the Director.
- 2.12 Before commencement of construction of the tunnel sections adjacent to Sai Tso Wan Landfill and Tseung Kwan O Stage I Landfill, the Permit Holder shall deposit with the Director 3 sets of design drawings at 1:1000 scale and/or design report(s) showing:
  - (a) gas resistant membrane enclosures have been incorporated into the design of the concerned tunnel sections to prevent landfill gas and leachate from entering the tunnels;
  - (b) Ventilation systems of the concerned tunnel sections, including any passenger platform or the like where passenger may have access to, have been designed such that under no circumstances during operation, the methane and/or carbon dioxide concentrations shall exceed 0.5% by volume.

- (c) permanent landfill gas monitoring and alarm systems have been incorporated into the design to monitor the presence of methane and carbon dioxide inside the concerned tunnel sections. The landfill gas monitoring and alarm systems shall link to a control system for central control and instantaneous identification of problematic locations and shall be used to automatically activate different levels of actions such that:
  - (i) in the event of either methane or carbon dioxide reaching concentrations of 0.5% by volume anywhere within the tunnel, actions shall be taken to restore the air quality to normal conditions;
  - (ii) in the event of methane reaching 1% by volume or carbon dioxide reaching 1.5% by volume, an alarm system shall be activated, operation shall be suspended and tunnel shall be evacuated.

The design drawings and/or design report(s) shall be verified by the Environmental Manager before deposit. Additional copies may be required by the Director.

2.13 Before commencement of construction of the railway station and depot in Area 86, the Permit Holder shall deposit with the Director 3 sets of design drawings at 1:1000 scale and/or design report(s) showing :

- (a) the building compartments of the railway station/ depot in Area 86, that are enclosed or below grade, have been designed to prevent the accumulation of landfill gas;
- (b) the conduits entering building compartments, voids, enclosed areas or the like in the railway station/depot in Area 86 have been designed to prevent the ingress of landfill gas through junctions; and
- (c) air quality within building compartments shall be maintained in a safe and healthy condition and, under no circumstances, the methane and carbon dioxide concentrations shall exceed 0.5% by volume.

The design drawings and/or design report(s) shall be verified by the Environmental Manager before deposit. Additional copies may be required by the Director.

2.14 The Permit Holder shall submit for the approval of the Director 3 copies of construction phase leachate monitoring programme and contingency plan for treatment and/or disposal of leachate contaminated drainage water potentially arising from construction stage before commencement of construction for the tunnel sections adjacent to the Sai Tso Wan Landfill and the Tseung Kwan O Stage I Landfill. The construction phase leachate monitoring programme and contingency plan shall be verified by the Environmental Manager before submission. Additional copies may be required by the Director.

2.15 All deposited submissions as arising from Conditions 2.3, 2.6, 2.11, 2.12 & 2.13 above shall be rectified in accordance with the comments, if any, made by the Director within one month of the receipt of the Director's comments or otherwise

specified by the Director.

### **3. Measures during the Construction Period**

- 3.1 All design and/or construction measures described in the submissions approved or deposited under section 2 above shall be implemented during construction of the Project.
- 3.2 Noise insulation and air-conditioning shall be provided for the proposed schools at southern part of Area 55 (N1) and at eastern part of Area 56 (N2), and the proposed clinic in Area 56 (N3) as highlighted in Figure C before they are in use if they are in use before completion of construction works in Tseung Kwan O Section.
- 3.3 In accordance with the information and recommendations contained in the Phase I & II EIA Reports and with reference to Annex A, measures to mitigate water quality impacts from site run-off and drainage during construction shall be implemented.
- 3.4 For excavation of seriously contaminated sediment as defined under EPD's Technical Circular No. 1-1-92 for the Project, closed grabs shall be used.
- 3.5 Plywood containing tropical hardwoods shall not be used for hoarding or formwork at all construction sites.
- 3.6 The areas where the two protected species, namely *Lilium brownii* and *Pecteilis susannae*, are located as highlighted in Figure D shall not be disturbed.
- 3.7 Soil erosion shall be reduced by minimising vegetation disturbance on site; and by providing 95% vegetation cover, established by hydroseeding and/or planting over any exposed ground lying at all construction sites within six months of the last construction activity on that construction site or part of that construction site where the exposed ground lies.
- 3.8 The following specific mitigation measures shall be implemented for the construction sites in:
  - (a) Yau Tong Section -
    - (i) The station box shall be integrated into the rock-cut slopes adjacent to Cha Kwo Ling Road to minimise the visual impact of any new cut slopes. Soil-cut slopes in the existing amenity open space shall be minimised to reduce the visual impact and then planted-up to re-establish the vegetation cover that have been removed.
    - (ii) Amenity open space shall be provided on the podium deck above the station box to replace that which have been lost at Ko Chiu Road/Cha Kwo Ling Road junction.



(b) Tiu Keng Leng Section -

- (i) Soil-cut slopes on hillside shall be minimised to reduce the visual impact and then planted up to re-establish the vegetation cover that was removed.

- 3.9 During construction of the tunnel sections adjacent to Sai Tso Wan Landfill and Tseung Kwan O Stage I Landfill, the landfill gas monitoring procedures, precautionary measures and emergency procedures shall be implemented in accordance with the landfill gas safety plan deposited under Condition 2.11 above. The monitoring results shall be verified by the Environmental Manager and reported to the Director on monthly basis. Any changes to the procedures and/or measures shall be verified by the Environmental Manager before implementation. The verified changes shall be documented in the immediate monthly EM&A report.
- 3.10 During construction of the railway station and depot in Area 86, the precautionary and safety measures shall comply with Chapter 8 of the "Guidance Notes for Landfill Gas Hazards Assessment" published by EPD.
- 3.11 During construction of the tunnel sections adjacent to Sai Tso Wan Landfill and Tseung Kwan O Stage I Landfill, the monitoring programme and contingency plan for leachate contaminated drainage water during construction stage as approved under Condition 2.14 above shall be implemented. The monitoring results shall be verified by the Environmental Manager and reported to the Director on monthly basis. Any changes to the monitoring programme and contingency plan shall be verified by the Environmental Manager and approved by the Director before implementation.
- 3.12 During construction of the Project, the noise, waste and visual design and/or mitigation measures contained in the submissions under Conditions 2.3, 2.6 & 2.10 above shall be implemented. Any changes to the measures shall be verified by the Environmental Manager as complying with the environmental performance requirements contained in the Phases I & II EIA Reports before implementation. The verified changes shall be documented in the immediate monthly EM&A report.

**4. Environmental Monitoring & Audit (EM&A) before and during Construction**

- 4.1 The EM&A programme shall be implemented as set out in the EM&A requirements detailed in the EM&A Manual (ie. Phase I EIA Report, Volume III) and Section 8 of the Phase II EIA Report. Any changes to the EM&A programme shall be justified by the Environmental Manager as conforming to the EM&A requirements before submission to the Director for approval.
- 4.2 Samples and measurements for noise and air quality monitoring shall be taken in accordance with the EM&A requirements by :
- a) conducting baseline noise and air quality monitoring at the specified locations and frequencies;
  - b) conducting impact monitoring on noise and air quality at the specified

locations and frequencies;

- c) in cases where specified criteria in the EM&A Manual are exceeded, carrying out remedial actions in accordance with the Event Contingency Plans, as set out in the EM&A Manual; and
  - d) logging and keeping records of the details of (a) to (c) above, within 3 working days of the collection of data or completion of remedial action, for the purposes of preparing and submitting the EM&A Reports and to make available the information for inspection on site.
- 4.3 5 copies of Baseline Monitoring Report verified by the Environmental Manager shall be submitted to the Director before the commencement of any major construction works that would affect the monitoring results. Additional copies may be required by the Director.
- 4.4 5 copies of monthly EM&A Reports verified by the Environmental Manager shall be submitted to the Director within 10 working days from the end of the reporting month. Additional copies may be required by the Director.
- 4.5 The submitted reports as required in Conditions 4.3 and 4.4 above shall be rectified in accordance with the comments made by the Director within one month of receipt of the Director's comments, or otherwise specified by the Director.
- 4.6 The actions described in the Event Contingency Action Plans of the EM&A Manual shall be properly carried out, in accordance with the time frame set out in the Event Contingency Plans, or as agreed by the Director.
- 4.7 All finalised submissions, as required under this section of the permit shall be released to the public by depositing copies in the Environmental Impact Assessment Ordinance Register Office or any other places or by any other means as specified by the Director for public inspection. For this purpose, the Permit Holder shall provide sufficient copies of submissions.

## **5. Submissions or Measures before Commencement of Operation**

- 5.1 Before commencement of operation of the Project, the entire railway depot shall be provided with a continuous concrete podium cover and concrete side wall(s), without openings other than vent outlets, separating the railway depot and any adjacent existing and planned nearby noise sensitive uses outside the railway depot.
- 5.2 Prior to the operation of the ventilation systems, the Permit Holder shall deposit with the Director 3 copies of audit report verified by the Environmental Manager certifying the satisfactory completion of the recommended noise mitigation measures for the ventilation systems contained in section 3.5.10 of the Phase I EIA Report, Volume II and sections 3.3.7 and 3.10.7 of the Phase II EIA Report. Additional copies may be required by the Director.
- 5.3 The Permit Holder shall submit for approval of the Director 3 sets of emergency

spillage action plan for the railway depot in Area 86 before commencement of operation of the railway depot. The emergency spillage action plan should ensure that any accidental spillage will be dealt with immediately and will not impact on any water bodies and shall be verified by the Environmental Manager before submission. Measures covered by other pollution control Ordinances shall not be included in the emergency spillage action plan.

- 5.4 Before commencement of operation of the Project, the Permit Holder shall deposit with the Director an audit report verified by the Environmental Manager certifying that the satisfactory completion of all design measures in relation to landfill hazards as described in Conditions 2.12 and 2.13 above.
- 5.5 Before commencement of operation of the Project, an operation manual, maintenance manual and emergency plan shall be developed. The operation Manual and/or maintenance Plan shall include the following:
- (a) requirements for the periodic calibration and maintenance of the gas monitoring and alarm systems;
  - (b) daily monitoring to ensure the landfill gas, during inoperative period, will not accumulated to such a concentration to render the ignition a fire or explosion by the first train of the day;
  - (c) periodic condition surveys for the occurrence of cracks and the measurement of gas ingress from the cracks, if any.

The Emergency Plan shall contain actions to be taken including any evacuation procedures when the action limits under Condition 2.12(c)(ii) above have been exceeded. The Environmental Manager shall certify that the operation manual, maintenance plan and emergency plan have incorporated the consideration of hazards associated with landfill gas and the above requirements.

- 5.6 Before commencement of operation of the Project, the Permit Holder shall submit for the approval of the Director 3 copies of operational phase leachate monitoring programme and contingency plan for treatment and/or disposal of leachate contaminated drainage water potentially arising from operational stage of the Project. The operational phase leachate monitoring programme and contingency plan shall be verified by the Environmental Manager before submission. Additional copies may be required by the Director.

## **6. Measures during the Operation Period**

- 6.1 All design and/or operational mitigation measures described in the submissions approved or deposited under section 5 above shall be implemented during operation of the Project.
- 6.2 Non ozone-depleting refrigerants, in compliance with the Montreal Protocol, shall be used for all air-conditioning systems of the Project.

- 6.3 Within six months after commencement of operation of the Project, all compensatory replanting for all construction sites shall be completed according to the compensatory replanting plan approved under Condition 2.8 above.
- 6.4 Where the areas around the stations remain the responsibility of the Permit Holder, the Permit Holder shall maintain the planted areas to remove climbers and ensure the survival of the trees for the first two years after completion of planting works.
- 6.5 Within six months after commencement of operation of the Project, any advance planting of vegetation that have been disturbed adjacent to Sheung Ning Road, Pui Shing Road, and Roads D1, P1, P2 in Tseung Kwan O as well as in Town Park shall have been reinstated and all landscape works shall be completed according to the visual & landscape drawings approved under Condition 2.10 above.
- 6.6 Where the areas around the stations remain the responsibility of the Permit Holder, the Permit Holder shall monitor and maintain the success of landscape restoration measures for the first two years after completion of the landscape restoration works.
- 6.7 The following mitigation measures shall be implemented to control oil spills and leaks during operation of the railway depot in Area 86:
- (a) all plant maintenance areas containing significant quantities of oil shall be bunded and constructed on a hard standing, and provided with sediment traps and oil interceptors;
  - (b) traps and interceptors shall be regularly cleaned and maintained, and especially after accidental spillage; and
  - (c) layers of sawdust, sand or equivalent material shall be provided at any plant and equipment that may possibly leak oil.
- 6.8 The following mitigation measures shall be implemented to minimise impacts from waste water discharge during operation of the railway depot in Area 86:
- (a) effective neutralisation of acid shall be done at the acid washing facilities prior to discharge;
  - (b) prudent management practice shall be used to minimise the amount of acid used;
  - (c) opportunities for recycling of water within the automatic washing facilities shall be sought;
  - (d) the use of biodegradable detergents shall be adopted as a preferred option.
- 6.9 Tunnel seepage shall be treated by oil/grease interceptors prior to be discharged to stormwater drains.
- 6.10 A clear segregation of drainage systems between unpolluted water and effluent contaminated with hydrocarbons, heavy metals or other potentially hazardous

chemicals arising from the railway depot shall be provided.

- 6.11 The emergency spillage action plan for the railway depot deposited under Condition 5.3 shall be implemented. Any changes to the emergency spillage plan shall be verified by the Environmental Manager and approved by the Director before implementation.
- 6.12 A gas monitoring programme for methane, carbon dioxide and oxygen shall be conducted in the following locations for a minimum period of six months:
- (a) manholes, sump-pits and similar below ground voids of the railway station/depot in Area 86 shall be monitored on monthly basis;
  - (b) building compartments, including the station, plant rooms and beneath the platform void of the railway station and depot in Area 86, shall be monitored on a fortnightly basis;
  - (c) monitoring wells installed along the northern site boundary of the railway depot in Area 86 shall be monitored on a monthly basis;
  - (d) methane concentration within the tunnel sections adjacent to Sai Tso Wan Landfill and Tseung Kwan O Stage I Landfill shall be checked daily prior to the operation of the first train of the day to ensure that methane concentration shall not exceed 0.5% by volume.

The Permit Holder shall submit 3 copies of monthly report to the Director presenting the results of monitoring in (a) to (d) above and shall recommend if additional protection measures and/or monitoring are required to be implemented during and after the six months monitoring period. The monthly report shall be verified by the Environmental Manager before submission. Additional copies may be required by the Director.

- 6.13 The monitoring programme and contingency plan for leachate contaminated drainage water during operational stage as approved under Condition 5.6 above shall be implemented. Any changes to the monitoring programme and contingency plan shall be verified by the Environmental Manager and approved by the Director before implementation.

Notes:

1. This permit consists of three parts, namely, PART A (Main Permit), PART B (Descriptions of Designated Project) and PART C (Permit Conditions).
2. The Permit Holder may apply under section 13 of the Ordinance to the Director for a variation of the conditions of this permit. The Permit Holder shall replace the original permit displayed on the construction site, by the amended permit.
3. A person who assumes the responsibility for the whole or a part of the designated project may, before he assumes responsibility of the designated project, apply under section 12 of the Ordinance to the Director for a further environmental permit.
4. Under section 14 of the Ordinance, the Director with the consent of the Secretary for Planning, Environment and Lands, may suspend, vary or cancel this permit. This permit shall then be removed from the display on the construction site.
5. If this permit is cancelled or surrendered during the construction or operation, an environmental permit must be obtained under the Ordinance before the construction or operation of the project could continue. It is an offence under section 26(1) of the Ordinance to conduct or operate a designated project without an environmental permit.
6. It is the entire responsibility and liability of the Permit Holder to employ the appropriate specialist to assess the risks associated with landfill gas migration and provide the appropriate protection measures for the Project. Compliance of the Conditions of this permit shall not imply that the protection measures as provided are sufficient, nor shall it have relieved the Permit Holder from any other statutory requirements.

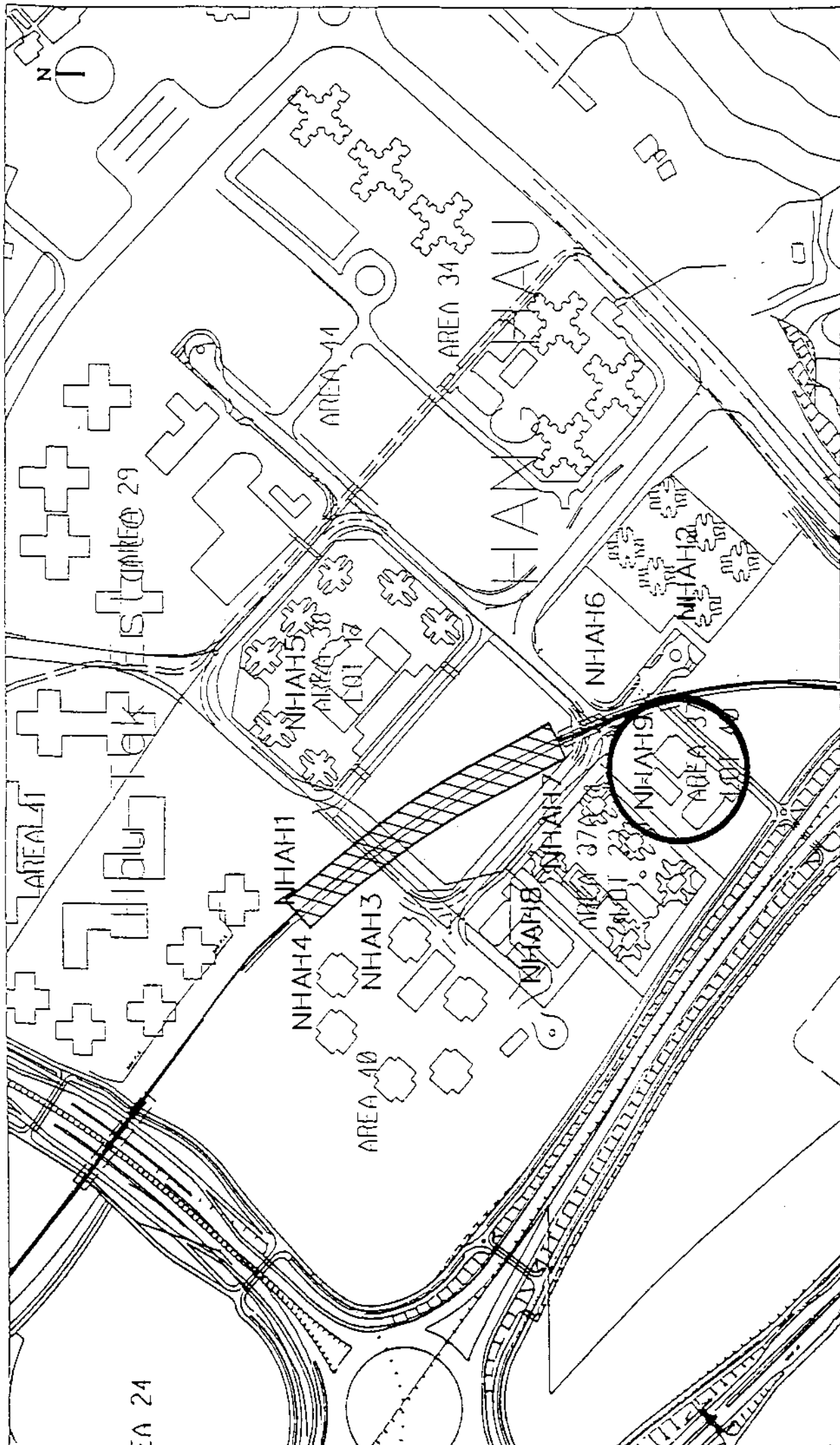
### Measures to Mitigate Water Quality Impacts from Site Run-off and Drainage During Construction

To mitigate the water quality impacts from site run-off and drainage during construction, the following shall be implemented:

- (a) Open stockpiles of construction materials (e.g. aggregates, sand and fill material) of more than 50 cu.m. shall be covered with tarpaulin or similar fabric during rainstorms. Measures shall be taken to prevent the washing away of construction materials, soil, silt or debris into any drainage system.
- (b) Manholes, including newly constructed ones, shall always be covered and sealed so as to prevent silt, construction materials or debris being washed into the drainage system and storm runoff being directed into foul sewers during the construction period. Discharge of surface runoff into foul sewers shall be prevented to avoid overloading the foul sewerage system.
- (c) Precautions/actions relating to rainstorms as follows:
  - (I) Precautions to be taken at any time of year when rainstorms are likely
    - (i) Silt removal facilities, channels and manholes should be maintained and the deposited silt and grit should be removed regularly.
    - (ii) Temporarily exposed slope surfaces should be covered. eg. by tarpaulin.
    - (iii) Temporary access roads should be protected by crushed stone or gravel.
    - (iv) Intercepting channels should be provided (eg. along the crest/edge of excavation) to prevent storm runoff from washing across exposed soil surfaces.
    - (v) Trenches should be dug and backfilled in short sections. Measures should be taken to minimise the ingress of rainwater into trenches.
  - (II) Actions to be taken when a rainstorm is imminent or forecast
    - (i) Silt removal facilities, channels and manholes should be checked to ensure that they can function properly.
    - (ii) Open stockpiles of construction materials (eg. aggregates, sand and fill materials) on site should be covered with tarpaulin or similar fabric.
    - (iii) All temporary covers to slopes and stockpiles should be secured.
  - (III) Actions to be taken during or after rainstorms
    - (i) Silt removal facilities, channels and manholes should be checked and maintained to ensure satisfactory working conditions.

- (d) All vehicles and plant shall be cleaned before leaving a construction site to ensure no earth, mud, debris and the like is deposited by them on roads during the construction period. Wash-water arising from wheel washing bay provided at every site exit shall have sand and silt settled out and removed at least on a weekly basis to ensure the continued efficiency of the process.
- (e) If construction associated with the Project impinges upon any of the small watercourses between Yau Tong and Tiu Keng Leng, the water body shall be protected from site activities through screening or covering/culverting, and waste management procedures and drainage facilities.
- (f) At the start of site establishment, perimeter cut-off drains around the site and internal drainage works shall be constructed. All stormwater should be directed to silt removal facilities complying with the guidelines in Appendix A1 of the ProPECC PN 1/94 issued by the Director.
- (g) Construction works shall be programmed to minimize surface excavation works during the rainy season (April to September). All exposed earth shall be stabilized as soon as practicable after earthworks have been completed.
- (h) The overall slope of the site shall be kept to a minimum to reduce the erosive potential of surface water flows and all trafficked areas and access roads protected by coarse stone ballast.
- (i) Sediment tanks of sufficient capacity constructed from pre-formed individual cells of approximately 6 to 8 cubic metre capacity shall be used for settling wastewater prior to disposal during the construction period. Physical and chemical filters shall be added if refinement of the sedimentation process is required.
- (j) Silt contained in ground water and drilling water collected from tunneling operations shall be removed with properly designed silt removal facilities, such as the specified portable sedimentation tanks, prior to the discharge of waters into storm drains.
- (k) All drainage facilities and erosion and sediment control structures shall be regularly inspected and maintained to ensure proper and efficient operation at all times and particularly following rainstorms.
- (l) Measures shall be taken to minimise the ingress of site drainage into excavations. If the excavation of trenches in wet periods is necessary, they should be dug and backfilled in short sections. Water pumped out from trenches or foundation excavations shall be discharged into storm drains via silt removal facilities.
- (m) All fuel tanks and storage areas shall be provided with locks and sited on sealed areas within bunds of a capacity equal to 110% of the storage capacity of the largest tank.
- (n) Sewage shall be controlled by the use of portable chemical toilets or sewage holding tanks and regularly collected by reputable sewage collector for disposal.






 Proposed Alignment & Station  
 NHAH1 Noise Sensitive Receiver

FIGURE A - IANG JIAU : NOISE SENSITIVE RECEIVERS

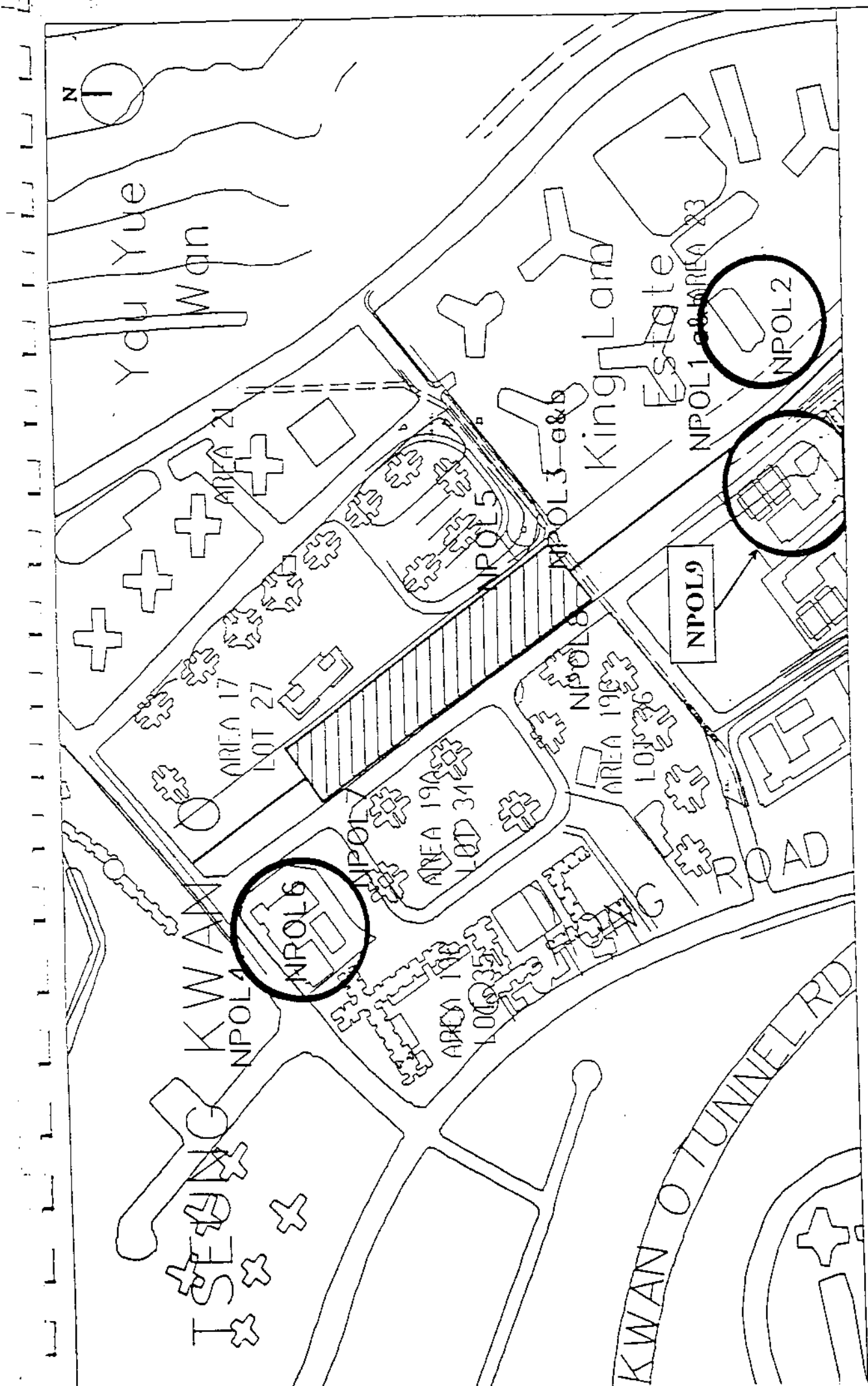
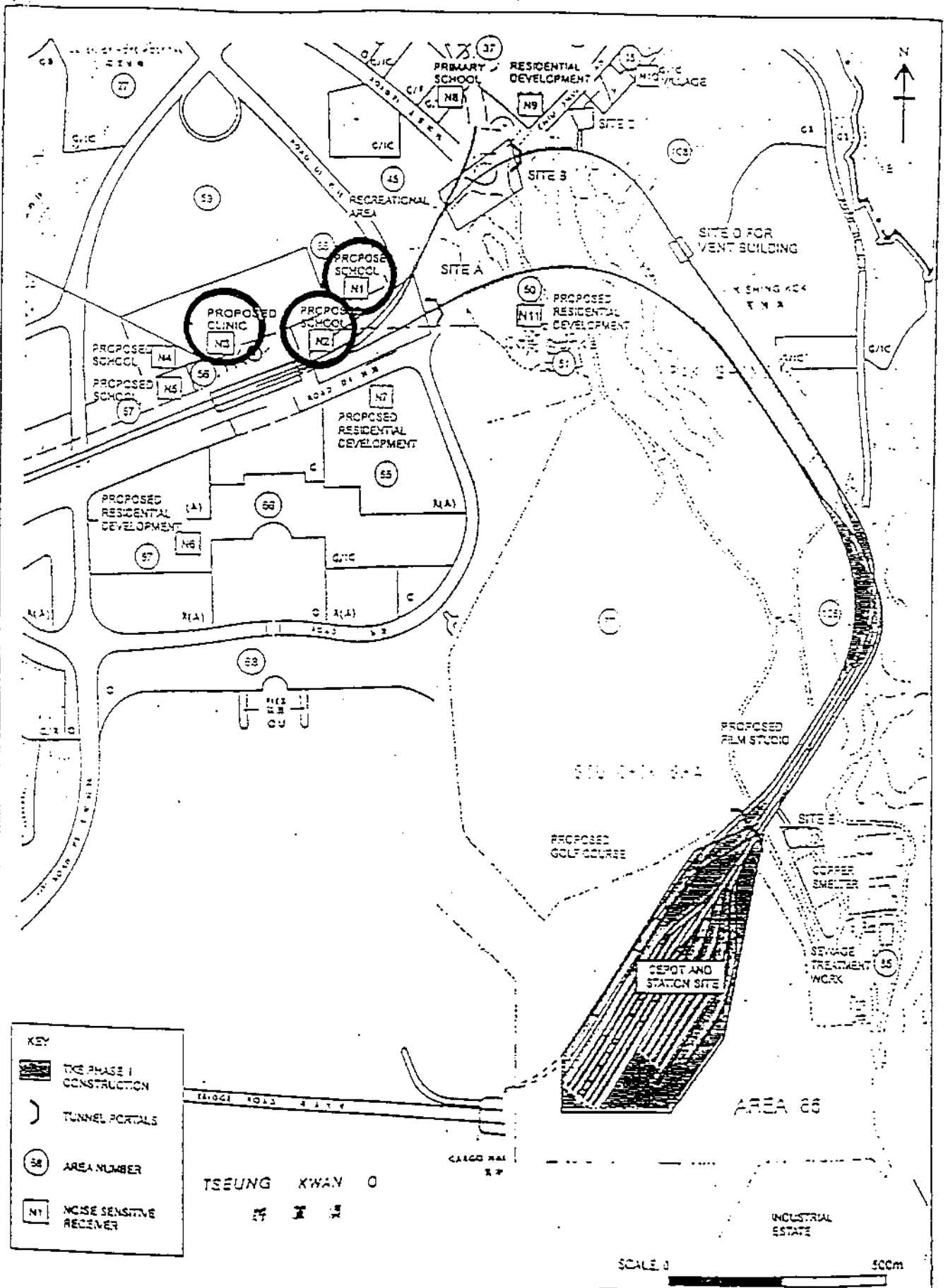


FIGURE B - PO LAM: NOISE SENSITIVE RECEIVERS


Proposed Alignment & Station

NPOL1 Noise Sensitive Receiver



**FIGURE C - TSUENG KWAN O EXTENSION PHASE II NOISE SENSITIVE RECEIVERS**

Environmental Resources Management  
 6th Floor  
 Heay Tower  
 9 Clatham Road  
 Tsimshuqui, Kowloon  
 Hong Kong



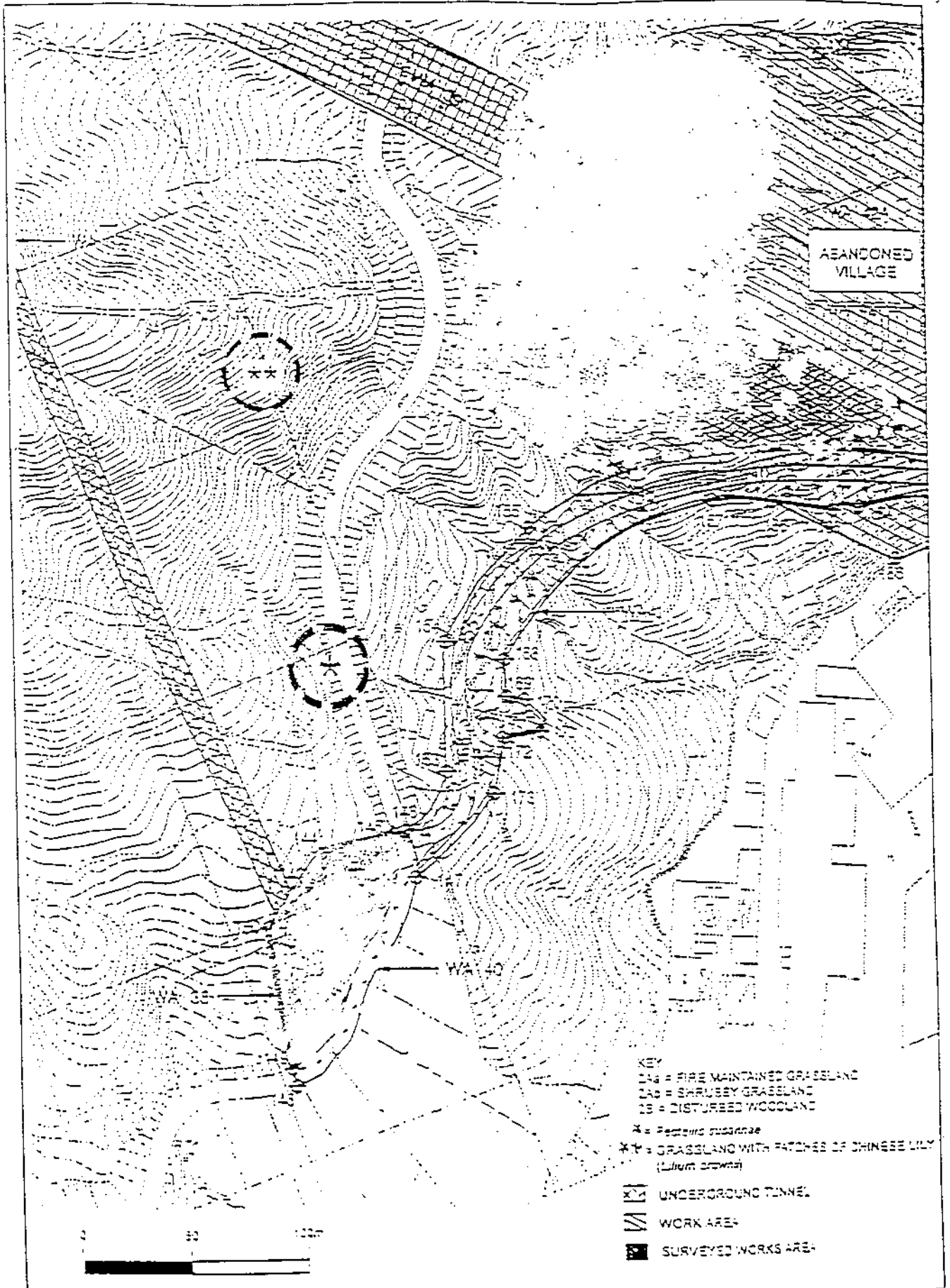


FIGURE D - HABITAT MAP OF SURVEYED AREA AT SITE 2 (RENNIE'S MILL)