

Annex A

Study Brief

**Sha Tin Sewage Treatment Works - Stage III Extension
Environmental Impact Assessment Study**

BRIEF

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**Sha Tin Sewage Treatment Works - Stage III Extension
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BRIEF

1. Introduction

This Brief is to be read in conjunction with the Memorandum of Agreement, the General Conditions of Employment, Special Conditions of Employment and Schedule of Fees.

2. Description of the Project

2.1 The Sha Tin Sewage Treatment Works, Stage III Extension (hereinafter called the Project) is to extend the treatment capacity of the Sha Tin Sewage Treatment Works to cater for the increasing wastewater flow while complying with the new effluent standards. The treated effluent from both the Sha Tin Sewage Treatment Works and the Tai Po Sewage Treatment Works is now conveyed, via pumps and a sewer tunnel, to Kai Tak Nullah for disposal into the Victoria Harbour. This disposal arrangement will remain upon completion of the Project. The works of the Project comprise the construction of primary sedimentation tanks, activated sludge aeration tanks, final sedimentation tanks, anaerobic sludge digestion tanks, sludge dewatering facilities and ultra-violet disinfection facilities. The works also involve the installation of E&M equipment for the above new facilities and the replacement of some E&M equipment in the existing treatment units. Location plan of the Project is enclosed in Appendix B to this Brief.

2.2 The design and construction supervision of the Project are being undertaken by the staff of Drainage Services Department (DSD). The Chief Engineer/Sewerage Projects, DSD, is responsible for the civil engineering works, including the process design, while the Chief Engineer/Electrical and Mechanical Projects, DSD, is responsible for the electrical and mechanical works. The design of the Project is in progress and it is scheduled to commence the construction works in September 2000 for completion in late 2003.

2.3 The Director of Environmental Protection conducted an Environmental Review for the Project in August 1997 and concluded that an environmental impact assessment study (hereinafter called the Study) was required.

3. Description of the Assignment

3.1 This Assignment consists of carrying out the Study in order to determine the nature and extent of environmental impacts arising from the construction and operation of the works under the Project and all related activities taking place concurrently; to propose any conditions, requirements and measures that might be necessary to mitigate any unacceptable impacts for the detailed design, construction and operation of the Project; and to ensure that any residual impacts are within the established standards and guidelines.

3.2 The study area is generally defined by a distance of 500m from the boundary of the Project. However, all sensitive receivers regarding the visual impact assessment shall be assessed within the visual envelope from which there is a view of any part of the works of the Project.

- 3.3. As the final effluent from the Sha Tin Sewage Treatment Works will be exported away under the Tolo Effluent Export Scheme into Victoria Harbour via the Kai Tak Nullah, the study area of water quality assessment shall also cover the off-site impact at the Kai Tak Nullah and Victoria Harbour.
- 3.4. The services to be provided by the Consultants for this Assignment are detailed in Clause 6 of this Brief.
- 3.5. The preliminary design, detailed design, construction supervision and commissioning of the Project is not part of this Assignment.

4. Objectives of the Study

4.1 The objectives of the Study are as follows :

- i) to describe the Project and associated works together with the requirements and environmental benefits for carrying out the Project;
- ii) to identify and describe the elements of the community and environment likely to be affected by the Project, and/or likely to cause adverse impacts upon the Project, including both the natural and man-made environment and the associated environmental constraints;
- iii) to identify and quantify emission sources and determine the significance of impacts on sensitive receivers and potential affected uses;
- iv) to identify existing landscape & visual quality in the "study area" and evaluate the landscape & visual impact of the Project;
- v) to identify any negative impacts on sites of cultural heritage and to propose measures to mitigate these impacts;
- vi) to propose the provision of infrastructure or mitigation measures so as to minimize pollution, environmental disturbance and nuisance during construction and operation of the Project;
- vii) to investigate the feasibility, effectiveness and implications of the proposed mitigation measures;
- viii) to identify, predict and evaluate the residual (i.e. after practicable mitigation) environmental impacts and cumulative effects expected to arise during the construction and operation phases of the Project in relation to the sensitive receivers and potential affected uses;
- ix) to identify, assess and specify methods, measures and standards, to be included in the detailed design, construction and operation of the Project which are necessary to mitigate these residual environmental impacts and cumulative effects and reduce them to acceptable levels; and
- x) to design and specify the environmental monitoring and audit requirements.

5. **Deliverables**

5.1 The Consultants shall provide the following for the agreement of the Director's Representative -

- i) certificate of insurance policy (1 copy) described in Clause 47 of the General Conditions of Employment;
- ii) records of the individual community consultations;
- iii) report of the community consultations;
- iv) monthly progress report (5 copies each time) referred to in Clause 8 of this Brief within the first seven working days of the month in which the report is due;
- v) bi-monthly financial report (5 copies each time) referred to in Clause 9 of this Brief within the first seven working days of the month in which the report is due;
- vi) up-to-date estimates and expenditure forecasts and detailed programmes of the Study on request by the Director's Representative or as specified in this Brief;
- vii) records of each meeting (2 copies) convened by the Consultants on matters relating to, affecting, or being affected by this Assignment;
- viii) field notes, data (including digitised data) and plans (3 copies) arising from any investigations and surveys carried out by the Consultants in connection with the Assignment; and
- ix) all correspondence (2 copies) the Consultants have had with Government departments, offices and other non-Government parties in relation to the Assignment.

5.2 The following deliverables are to be supplied by the Consultants for the Study -

- i) **an Inception Report** which shall include the following :
 - a) the Consultants' understanding and appreciation of the objectives of the Study;
 - b) the approach and methodology for the various parts of the Study;
 - c) a work programme, with major work tasks and key decision points identified and briefly described;
 - d) a schedule detailing the submission of reports and Study Management Group meetings (where necessary); and
 - e) organisation and staffing of the environmental study team and the curricula vitae of the key study team members;

- ii) **an Environmental Impact Assessment Report which**
 - a) fully satisfies the requirements of this Brief in respect to the prediction and assessment of impacts, the identification of environmental impact mitigation measures and the associated residual impacts;
 - b) provides a detailed assessment and evaluation of the environmental impacts and cumulative effects arising from the Project sufficient to identify, evaluate and mitigate those issues of key concern during the construction and operation of the Project which are likely to influence decisions on the Project;
 - c) defines measurable environmental parameters and environmental features likely to be affected by the proposed project and identifies the environmental monitoring programmes which are required both to provide a baseline profile of existing environmental conditions and to monitor impacts and compliance during construction, commissioning, operation of the Project;
 - d) defines the environmental audit requirements for compliance and post-project audit, which will include a review of the monitoring data both to identify compliance with regulatory requirements, policies and standards and to define any remedial works required to redress unanticipated or adverse consequential environmental impacts;
 - e) proposes a detailed programme of investigation, monitoring and reporting able to meet all other objectives of the assessment;
 - f) prescribes the specification for detailed design, construction and operation requirements of the proposed project; and
 - g) provides with the impacts summary, the study findings, conclusions, recommendations and a mechanism for implementation;
- iii) **an Executive Summary in both English and Chinese of the study, highlighting the issues of concern to the community, the levels of residual environmental impacts and cumulative effects, requirements for implementation of the Project, and the basis for and implications of those requirements. It is intended that the information contained therein will assist the Government in undertaking ACE, DB and other public consultation(s);**
- iv) **all reports/working papers should be prepared and submitted in draft to the Director of Environmental Protection for comment; and**
- vi) **any revisions or supplements to the above as may be required by the Director of Environmental Protection.**

5.3 The Consultants shall produce the following reports with diskette copies to the Director of Environmental Protection during the course of the Study:

- i) a draft Inception Report (30 copies)
- ii) a final Inception Report (30 copies)
- iii) a draft Environmental Impact Assessment Report (30 copies)

- iv) a Final Environmental Impact Assessment Report (50 copies)
 - v) a draft Executive Summary (30 copies)
 - vi) an Executive Summary Report* (100 copies)
 - vii) a draft Environmental Monitoring & Audit Manual (10 copies)
 - viii) an Environmental Monitoring & Audit Manual..... (20 copies)
- * in both Chinese and English versions.

10 soft copies of both the Final Environmental Impact Assessment Report and the Executive Summary Report in CD-ROM (Compact Disc - Read Only Memory). The soft copies shall be prepared either by "WordPerfect for Windows, Version 6.0" or "Microsoft Word, Version 6.0", or an equivalent software to the satisfaction of Environmental Protection Department, with all texts, tables, graphics, illustrations and other contents be presented in the same layout and appearance as the hard copy of the Final Environmental Impact Assessment Report and the Executive Summary Report.

- 5.4 The Consultants shall also supply the government with appropriate copies of such reports, technical notes, briefs, supporting documents and other relevant inputs as may be required during the Study or for any public consultation exercise.
- 5.5 The requirements in the PELB's General Circular 2/94 on the Public Access to Environmental Impact Assessment (EIA) Reports shall be complied with. The Final Environmental Impact Assessment Report and the Executive Summary will be made available to the public according to the provisions in the circular. The findings of the Study may be presented to the Advisory Council on the Environment, EIA sub-committee and its full council.
- 5.6 The Consultants shall draw to the Employer's attention any deliverables that are under licence and any pre-existing copyright or patent on any deliverables and any other restriction whatsoever affecting the Employer's use of the same and, if required by the Director's Representative, to establish the existence of any licence, copyright, patent or restriction.
- 5.7 Green Measures for Reporting Documents

The recommended environmentally-friendly measures for the Consultants to minimise the use of papers in preparing documents include:

- i) all Tender Documents, Tender Submissions, Reports, Technical Notes and Working Papers are to be printed on both sides;
- ii) Final Assessment Report and the Executive Summary have to be printed on recycled paper. The use of recycled paper with not less than 50% recycled materials and not exceeding 80 gsm shall be used as a general rule. The logo of recycled paper is preferably be printed in prominent area of the report;
- iii) documents other than Final Assessment Report and Executive Summary shall preferably be printed on recycled paper. Otherwise, the paper used shall not be excessively bleached; and
- iv) page numbers can be reduced by reducing the size of typeface (font). For example, "Time Roman" or "C.G. Times" foot size not exceeding 10 characters per inch (cpi) or equivalent to point 12 can be used in balancing, legibility and clarity against our waste reduction objective.

6. Services to be provided by the Consultants

6.1 The Consultants shall meet the objectives listed in Clause 4 above by:

- i) carrying out the necessary background studies to identify, collect and analyze existing information relevant to the Study;**
- ii) carrying out any necessary environmental surveys, investigations and baseline monitoring work to achieve the objectives;**
- iii) quantifying, by use of models or other predictive methods, the residual and cumulative environmental impacts (specifying whether these are transient, long term and/or irreversible) arising from the construction and operation of the Project;**
- iv) proposing practicable, effective and enforceable methods, measures and standards to effectively mitigate any significant environmental impacts in the short and long term; and**
- v) outlining a programme by which the environmental impacts of the Project can be assessed, monitored and audited.**

In defining the scope of the Study, consideration should be given to beneficial and adverse effects, short and long term effects, secondary and induced effects, cumulative effects, synergistic effects and transboundary effects.

6.2 The Consultants shall also undertake the following -

- i) liaise closely with the Chief Engineer/Sewerage Projects, DSD regarding the design of the Project. The Consultants shall review and provide necessary advice to the Director's Representative on the environmental impacts arising from the adoption of alternative design approaches and parameters (not exceeding 3 alternatives and the Consultants will be reimbursed on time charge basis if more than 3 alternatives are required) proposed by the Chief Engineer/Sewerage Projects, DSD in connection with the Project;**
- ii) direct and control all approved investigations, surveys and monitoring as required for the Study which require the inputs from the external specialists (the Consultants shall be reimbursed by the Employer out-of-pocket expenses actually and properly incurred by them in respect of (a) the cost of approved investigations, surveys and monitoring as required for the Study; and (b) the approved fees and expenses of specialists and staff employed with the approval of the Director's Representative for the site supervision of those investigations, surveys and monitoring at (a) above);**
- iii) prepare all necessary drawings, plans, specifications and documents in connection with all investigations required for the Study and call for or assist the Employer in calling for tenders or otherwise placing orders for carrying out these works;**
- iv) prepare and submit reports to the Director's Representative on the results, findings and conclusions of the investigations, surveys and monitoring as required for the Study;**

- v) liaise with the makers or suppliers of plant, if any, and take all necessary steps to obtain information required for the timely completion of the Assignment;
 - vi) consult all authorities having rights or powers in connection with the Assignment, the works or the site and the investigation matters relating to the location of services, including consultation with public utility companies and other authorities, bodies, or representative bodies affected by the Project;
 - vii) identify and resolve any project interfaces in respect of the environmental matters with other public works projects being undertaken by various Government Department concurrently with the Assignment;
 - viii) consult Agricultural & Fisheries Department and Environmental Protection Department on aspects which will require environmental protection and pollution measures;
 - ix) prepare draft Information Papers and associated layout plans, in both English and Chinese versions, prior to community consultations. Prepare papers, briefing notes, drawings, slides, photographs and transparencies on the Assignment which will be required to consult and obtain the views of the public and the appropriate authorities. Both English and Chinese versions will normally be required;
 - x) attend meetings with the Advisory Council on the Environment, District Boards and their sub-committees, and other relevant groups (not exceeding 8 meetings and the Consultants will be reimbursed on time charge basis if further attendance in these meetings is required);
 - xi) submit updated cost estimates and forecast annual funding/expenditure patterns, and agree with the Director's Representative programs for the Study and the monitoring works taking into consideration the milestones target dates stated in Clause 7 of this Brief; and
 - xii) draw the attention of the Director's Representative the need to consider any legal implications and consequences arising out of or in relation to the Assignment.
- 6.3 The Consultants shall comply with all reasonable instructions of the Director's Representative and with all relevant circulars, standing instructions and technical memoranda as directed by the Director's Representative.
- 6.4 The Consultants shall take into account, where available, the findings of all previous and current environmental impact assessment studies relevant to the Study.
- 6.5 The Consultants shall take cognizance of the following studies and projects during the Assignment:
- i) Feasibility Study for South East Kowloon Development (TDD);
 - ii) Preliminary Project Feasibility Study for Tai Po Sewage Treatment Works, Stage V (EPD); and
 - iii) PWP Item 4278DS - Sludge De-watering Facilities for Sha Tin STW (E&MP, DSD)

6.6 The Consultants shall consider all aspects of the activities arising from the Project in any stage/phase of implementation, and, observe the guide-lines stipulated in sub-clauses 6.6.1 to 6.6.8 inclusive in addition to the Hong Kong Planning Standards and Guide-lines as well as other statutory requirements during the Study. Due consideration should be given to existing and future land-uses and sensitive receivers in the study area must be identified.

6.6.1 Air Quality Impact

The air quality impact assessment shall address the following:

- i) existing and background air quality in the study area for the purpose of evaluating the cumulative air quality impacts of the Project;
- ii) identification of representative sensitive receptors and/or potential affected uses;
- iii) provision of an emission inventory of the air pollution sources;
- iv) analysis of operational activities (after commissioning), its related air quality impact and characterization;
- v) assessment and evaluation of the net and cumulative air quality impacts of the air emissions at the receptors;
- vii) presentation of the predicted residual air quality impacts in the form of pollution contours, whenever practicable, for the examination of the land use implications of these impacts; and
- viii) proposals of effective mitigation measures to reduce the cumulative air pollution impacts to allowable levels of established standards/ guide-lines.

For odour prediction, an odour level of 5 units or above over an averaging time of 5 seconds at a receptor shall be considered as an odour nuisance to the receptor.

6.6.2 Water Quality Impact (Marine, fresh and ground water)

- i) The Consultants shall either develop a mathematical model or propose for the agreement of the Director's Representative the use of an existing proven mathematical model for carrying out the water quality assessment at Victoria Harbour including the sensitivity tests as required under sub-paragraph ii) of this sub-clause. If an existing model is to be adopted, the Consultants shall make necessary arrangement to obtain and modify the model to suit the requirements of this Assignment, where appropriate. The Consultants shall provide to the satisfaction of the Director's Representative with evidence proving the validity of the mathematical model to be employed for the water quality analyses (The cost arising from the development, acquisition, modification, and verification of the mathematical model shall be included in the Lump Sum stipulated in Clause 2 of the Schedule of Fees).
- ii) The Consultants shall propose a set of assumed effluent standards based on the data adopted in the preliminary design of the Project for the prior agreement of the Director's Representative before carrying out the water quality assessment. The

Consultants shall also recommend for the agreement of the Director's Representative ranges of flow rates and effluent standards for checking the sensitivity of these parameters (not exceeding ten sets and the Consultants will be reimbursed on time charge basis if further tests are required) against the water quality at Victoria Harbour and carry out such sensitivity tests accordingly.

- iii) Impacts to the water bodies include short term and long term physical, chemical and biological disruption of either marine water, and/or fresh water, and/or ground water system(s). The water quality impact assessment shall address the following aspects during construction and operational phases.
 - a) background information for the existing water systems and their water quality;
 - b) analysis of activities related to the use of water;
 - c) identification of any alteration of water courses, natural streams/ponds, wetland, change of shoreline, change of flow regimes, change of ground water levels and catchment areas;
 - d) provision of an emission inventory of the water pollution source;
 - e) analysis of the generation of wastewater;
 - f) assessment of any marine dredging activity, plume study, and the extent of water quality impacts;
 - g) characterization of water quality, its dispersion and fate; and
 - h) evaluation of impacts and proposals for water pollution control measures with regard to the beneficial uses of the water body.
- iv) As the effluent from the Sha Tin Sewage Treatment Works will be exported away under the Tolo Harbour Effluent Export Scheme (THEES), the assessment shall include a review of the EIA study completed under the THEES in order to evaluate the water quality impacts.

6.6.3 Solid Waste Pollution

Solid waste assessment shall focus on:

- i) identification of the sources of solid waste with details of the waste generation, waste characterization and waste separation;
- ii) investigation on any secondary impacts such as, odour, gas emission, noxious leachate;
- iii) evaluation of the proposed waste management strategy, and, waste handling, treatment and disposal methods; and
- iv) incorporation of waste reduction/reuse/recycling by any practical means.

6.6.4 Plant Involving Major Processing Facilities

The assessment should examine the proposed processes and/or alternative processes to ensure no adverse environmental impacts, such as, hazardous substance, toxic by-products to be formed in an unacceptable manner and/or quantity, or to minimize it to an acceptable level; the assessment shall include the following:

- i) description of the detailed processes (and/or alternatives), the scale or capacity, the demand of raw resources against the levels of the production of final product(s);
- ii) evaluation of relevant impacts as stated above;
- iii) identification of the sources of impacts and best practical means for impact minimization;
- iv) formulation of waste interception and management strategy;
- v) projection of design life, waste generation and the application of the corresponding integrated pollution control engineering; and
- vi) determination of social acceptability of such plant.

6.6.5 Visual Impact

A complete "Visual Impact Assessment Report" shall consist of the following major elements :

- i) identification of visual envelope and sensitive receivers (or "potential receptors") or viewpoints;
- ii) illustrations of the proposed project by photomontage and/or scale models (N.B. The directions in which various views are being taken should be incorporated into a map for illustration);
- iii) assessment of the visual impacts of the proposed structures/projects to individual receptors & identification of the most affected views; and
- iv) proposals of mitigation measures required for the affected views.

6.6.6 Land Use Impact

- i) The Consultants shall assess the implications on land uses in the vicinity of the proposed project (including works areas). Both the long and short term implications have to be assessed.
- ii) The Consultants shall recommend appropriate cost effective mitigation measures to minimise the adverse effects identified above. Special attention shall be paid to minimise restraints on the development potential of the areas in the vicinity. The method of assessing the development potential of the area shall be agreed with the Director of Planning.

6.6.7 Use of EIA models/Survey Techniques/Analytical Methods

The use of models, survey protocols and analytical methods (includes laboratory techniques) proposed in the Inception Report shall be agreed and approved by the Director of Environmental Protection prior to commencing with detailed studies. This shall include the following:

- i) elaboration of background assumptions;
- ii) confirmation with data validation;
- iii) calibration of model;
- iv) prescription of tool application (such as, questionnaire, numerical/stochastic algorithm); and
- v) presentation of scenario projection and interpretation of results.

6.6.8 Impacts Summary

It is important to present the findings in simple terms to sum up all environmental impacts and select the appropriate alternative for the Project. The Study shall address the following:-

- i) elaboration of alternatives, including where appropriate the 'do nothing' scenario (i.e. without the proposed project);
- ii) discussion of the extent of impacts and the proposed ranking system;
- iii) presentation of the recommendations on overall adequacy of mitigation measures;
- iv) justification of the proposed methodology to be adopted for an impacts summary and be agreed with the Director of Environmental Protection;
- v) application of impacts summary; and
- vi) summary of breakdown costs of recommended mitigation measures.

6.7 Environmental Monitoring & Audit [EM&A] Requirements

The Consultants shall identify and define the scope of the EM&A requirements for implementation and operation phases of the Project. The EM&A programme shall comprise the following:-

- i) The Consultants shall prepare, during the course of the Study, an Environmental Monitoring and Audit Manual which covers the requirements and recommendations in (ii), (iii) and (iv), below. This Manual shall be used as a guide-line for environmental monitoring and audit during the construction, post-project and operational phases. This Manual shall be a stand-alone document and form part of the Final Environmental Impact Assessment Report.
- ii) Environmental Monitoring

The Consultants shall identify and recommend environmental monitoring requirements for all construction, post-project and operational phases of the

proposed project. These requirements shall include but not be limited to the identification of sensitive receivers, monitoring locations, monitoring parameters and frequencies, monitoring equipment to be used, and any other necessary programmes for baseline monitoring, impact and compliance monitoring, and data management of monitoring results.

The Consultants shall carry out baseline monitoring to establish the existing environmental quality within the study area. The results of the environmental baseline monitoring shall be included in the Final Assessment Report.

iii) Environmental Audit

The Consultants shall identify and recommend environmental audit requirements for all construction, post-project and operational phases of the Project which shall include, where appropriate, the audit of design submissions during the construction stage. These requirements shall include but not be limited to :

- a) organisation and management structure, and procedures for auditing of the design submissions and implementation of environmental mitigation measures recommended for the detailed design, contract document preparation, construction, post-project and operation stages of the Project;
 - b) environmental quality performance limits for compliance auditing of each of the recommended monitoring parameters to ensure compliance with relevant environmental quality objectives, statutory or planning standards, or established criteria recommended by the Study. These limits shall give an indication of any deteriorating environmental quality and shall allow proactive responses to be taken. (The usual approach is a set of action and limit levels);
 - c) organisation and management structure, and procedures for reviewing the design submissions, monitoring results and auditing the compliance of the monitoring data with the environmental quality performance limits ((b) above), contractual and regulatory requirements, and environmental policies and standards;
 - d) Event and Action plans for impact and compliance monitoring;
 - e) complaint handling, liaison and consultation procedures; and
 - f) interim notification of exceedances, reporting procedures, report formats and reporting frequency including periodical quarterly summary reports and annual reviews to cover all construction, post-project and operational phases of the Project.
- iv) The Consultants shall prepare a project implementation schedule (check list) containing all the Study recommendations and mitigation measures with reference to the implementation programme.

6.8 **Compliance with Environmental Law**

6.8.1 The Study is a tool to identify potential environmental impacts arising from the Project and to provide a basis for decisions for the implementation of the Project, but it does not automatically exempt the proposal from licensing requirements and the approvals from relevant authorities.

6.8.2 The Consultants shall comply with and observe all Ordinances, by-laws, regulations and rules for the time being in force in Hong Kong governing the control of any form of pollution for environmental protection.

7. Programme of Implementation

7.1 The date of commencement of the Agreement is on 25 May 1998.

7.2 Pursuant to Clause 26(B) of the General Conditions of Employment, the Consultants shall submit the draft programme and revised draft programmes and the Director's Representative shall agree, or instruct, within the following periods -

Submission of the draft programme: Within 4 weeks of the due date for commencement of the Agreement

Agreement of the draft programme: Within 4 weeks from receipt of the draft programme or instruction for submission of the revised draft programme

Submission of revised draft programme: Within 2 weeks from the instruction of the Director's Representative

The draft programme and revised draft programmes shall detail the activities to be carried out, target key dates for particular tasks and any decision dates that may be required for the uninterrupted progress of the Assignment. The Consultants shall discuss with the Director's Representative during the above periods to agree the timing of provision of reports, other documents and plans for each of the main elements of the Assignment, for inclusion in the draft programme and revised draft programme.

7.3 The key dates referred to in sub-clause 7.2 of this Brief shall include but not be limited to:

<u>Activity</u>	<u>Number of months after commencement of the Agreement</u>
Submission of the Inception Report	1
Submission of draft Environmental Impact Assessment Report	5
Submission of Final Environmental Impact Assessment Report and Executive Summary	8
Submission of Final Environmental Monitoring & Audit Report of the Study	8

8. Progress Reports

The Consultants shall submit to the Director's Representative progress reports at monthly intervals on all aspects of their work relating it to the Programme referred to in Clause 7 of this Brief. The reports shall include a list of those parts of the Assignment the execution of which are behind the Programme together with proposals to expedite progress, so as to complete the Assignment on time. The reports shall also include updated expenditure forecasts in accordance with Clause 9 of this Brief.

9. Financial Management

At bi-monthly intervals or at such other intervals as the Director's Representative may require, the Consultants shall submit a report on the current and the forecast expenditure on the various elements of the Assignment and the fees due to the Consultants, in a form to be agreed by the Director's Representative. Updated estimate of the costs of the various elements of work of this Assignment shall be submitted as and when required by the Director's Representative.

10. Standards and Specifications

The Consultants shall adopt such technical and design standards and specifications as are in current use by the Works Group of Departments or, if non-existent, British Standard Codes of Practice and Specifications. Should instances arise for which suitable standards or specifications do not exist or for which the current standards or specifications appear to require modifications, or if by the adoption of current standards the Consultants would incur additional expenses not within reasonable contemplation, the Consultants shall submit recommendations on appropriate alternatives to the Director's Representative for agreement.

11. Director's Representative

The Director's Representative as defined in the General Conditions of Employment shall be the Assistant Director of Projects and Development Branch of Drainage Services Department or such other person as may be authorized by the Director in writing and notified to the Consultants. The Director's Representative may delegate any of the powers and functions vested in him to other officers. If the Consultants are dissatisfied with a decision or instruction of any such officer the matter shall be referred to the Director's Representative for a ruling.

12. Control of the Project and Assignment

- 12.1 During the course of the Agreement, the Consultants shall report directly to the Director's Representative and all documentation shall be submitted to him for his initial approval.
- 12.2 The Director's Representative has delegated the management of the Study to a Study Management Group (SMG) chaired by a representative of the Director of Environmental Protection. This shall be the forum for liaison with Government departments and agencies, providing guidance to the Consultants, and for comment and review on the work and outputs of Study.

- 12.3 The Consultants shall make themselves available to be present in the Advisory Council on the Environment (ACE), EIA sub-committee and its full council, District Board(s) (DB) and/or any public consultation meeting(s) (if necessary) to brief members.
- 12.4 The Consultants shall liaise with relevant Government departments and agencies, and all other parties involved in this and any other projects or developments likely to be affected by this Project. Any correspondence, notes or minutes arising from this liaison shall be copied to the Director's Representative and the Director of Environmental Protection.
- 12.5 In accordance with PELB T/C 2/92, if there is any disagreement on the finding of the Study or on the necessary environmental protection and pollution control measures, the issue will be referred to the Secretary for Planning, Environment and Lands who shall resolve the differences in consultation with the Advisory Council on the Environment, appropriate Bureaus and Departments.
- 12.6 List of Bodies, Departments, Organizations and Public Utilities to be Consulted

i) Consultation with Government Departments

Sewerage Projects Division, Drainage Services Department (DSD)	on matter relating to the design of the Project
Mainland South Division, Drainage Services Department (DSD)	on matters affecting the public sewerage and drainage in the Sha Tin area
Electrical and Mechanical Branch, Drainage Services Department (DSD)	on matters affecting the sewage treatment facilities, and relating to the works/requirements of E&M equipment of the Project at various stages of the Services
Agricultural and Fisheries Department (AFD)	on preservation of trees and ecological matters
Architectural Services Department (ArchSD)	on the aesthetics, design and specification of above ground structures
Buildings Department (BD)	on matters relating to the control of buildings and building works in the private sector and building matters for Government departments
Commissioner of Mines, Civil Engineering Department (CED)	on the use of explosives
Home Affairs Department (HAD)	on matters affecting the public interest at large including those relating to traffic,

	noise and other environmental impacts, resumption and surrender of private land, Government land allocations and grants, and road (opening) works
Electrical and Mechanical Services Department (EMSD)	on matters affecting their Workshops, if any, in the Sha Tin area
Environmental Protection Department (EPD)	on matters relating to environment and pollution
Fire Services Department (FSD)	on fire service installations and dangerous goods licence
Chief Engineer/Port Development, Civil Engineering Department (CED) and Marine Department	on matters affecting navigation channels and port development
Chief Geotechnical Engineer/ Materials, Geotechnical Engineering Office (GEO)	on matters relating to site investigation and material testing
Geotechnical Engineering Office (GEO), Civil Engineering Department (CED)	in accordance with Lands and Works Branch Technical Circular No. 3/88 and subsequent revisions
Chief Highway Engineer (New Territories Region) and Regional Highways Engineer (New Territories Region) of Highways Department (HyD)	on matters relating to the roadworks in the area affected by the Project
Highways Department (HyD)	on work, including site investigations, to be carried out within public road reserves
Lighting Division, Highways Department (HyD)	on matters affecting the street lightings of public roads
Senior Landscape Architect, Highways Department (HyD)	on landscaping matters affecting public roads
Lands Department (LD)	on matters relating to land administration, land survey and mapping, and Government conveyancing functions
Planning Department (PD)	on matters relating to the development of the areas affected by the Project in particular on site reservation, planning procedures and land use, conservation of natural landscape, aesthetic/visual impacts of the development

Property Vetting Committee on Schedule of Accommodation	for proposed buildings of this Project
Security Bureau, Government Secretariat	on military land/properties and security measures of Government installations
Traffic Wing of Hong Kong Police (HKP), and Traffic Engineering (NTE) Division of Transport Department (TD)	on matters relating to the traffic of the areas affected by the Project
Project Managers (NTE), Territory Development Department (TDD)	on projects interface in the area of this Project
Regional Services Department (RSD)	on matters affecting amenity, community, recreational facilities, land and the provision of services of Regional Council
Water Supplies Department (WSD)	on matters related to the supply of water
ii) <u>Consultation with Others</u>	
Advisory Council on the Environment (ACE) and its sub-committees	on matters relating to environment and pollution
Regional Council (RC)	if amenity, community, recreational facilities, land and the provision of services of Regional Council are affected
Utility undertakers	on all matters affecting the supply of their services within the area affected by the Project
Bus Companies	if bus routes and bus stops are affected
Heung Yee Kuk	on matters affecting the public interest at large
District Board and its sub-committees and Rural Committees	on matters affecting the public interest at large
Village Representatives and villagers	on matters affecting the villages at large and each individual villager including those relating to traffic, noise, construction, environmental and Fung Shui impacts
Mass Transit Railway Corporation	on all matters affecting their railway

(MTRC)	operation and protection
Kowloon-Canton Railway Corporation (KCRC)	on all matters affecting their railway operation and protection

13. Information and Facilities Provided by the Employer

13.1 The following documents will be provided to the Consultants.

- i) Sha Tin Sewage Treatment Works, Stage 3 : Project Review, Final Report - by Montgomery Watson / TDD, April 1996
- ii) Sha Tin Sewage Treatment Works, Stage III Extension : Adoptive Review Report - by Sewerage Projects Division, DSD, June 1997
- iii) Sha Tin Sewage Treatment Works, Stage III Extension, Preliminary Design Report - by Sewerage Projects Division, DSD (to be available in March 1998)
- iv) Shatin to Kai Tak Effluent Export Scheme - Final Report - Environmental Protection Department, July 1988
- v) Relevant outline zoning and development plans as prepared by Planning Department affecting the Project area.

The Consultants shall indicate for guidance those they currently hold and those of which a copy may be needed, should the Assignment be awarded to them. A copy of each of the documents indicated as needed will be supplied free of charge by the Director's Representative on request from the Consultants, except those currently available from the Sales section of the Information Services Department. In the case of plans and drawings, two prints of each plan or drawing shall be provided free of charge if requested by the Consultants.

13.2 The Study shall be carried out with due regard to the information, policies, regulations and procedures contained in :-

- i) all anti-pollution Ordinances, Technical Memoranda, advisory booklets etc;
- ii) PEL Bureau/Works Bureau, April 1992 : 'EIA of major development projects' (Technical Circular No. 2/92, 14/92);
- iii) PEL Bureau, May 1994 : 'Public access to EIA reports' (General Circular No. 2/94);
- iv) EPD and Planning Department, April 1991 : 'Environmental Guide-lines for Planning in Hong Kong' (Chapter 9 of 'HKPSG');
- v) EPD : 'Environment Hong Kong' (Annual Review);
- vi) PEL Bureau, November 1993 : 'The Hong Kong Environment : A green Challenge for the Community';
- vii) EPD, February 1994 : Consultancy Documents Submitted to EPD - Working Greener' DTC No. 15.2.94;
- viii) EPD, Practice Note for Professional Persons - ProPECC Note, 1994 : Construction Site Drainage (PN1/94); and

14. **Consultants' Office and Staffing**

The Consultants shall maintain for the duration of this Assignment an office in Hong Kong under the control of the Project Director of the Consultants who shall be responsible for the Project. He shall have adequate authority and sufficient professional, technical and administrative support staff in all relevant disciplines to ensure progress to the satisfaction of the Director's Representative.

15. **Special and Sub-consultant Services**

The Consultants shall provide all specialist and sub-consultant services, required for the satisfactory completion of the Assignment. No additional fees and expenses for provision of such services rendered locally or overseas shall be payable by the Employer except as otherwise provided in the Schedule of Fees.

16. **Surveys**

16.1 One transparency, two prints of topographical mapping at 1:20000, 1:5000 and 1:1000 scales and digital map data (if any) prepared by the Survey and Mapping Office of the Lands Department, where available for the area covered by the Study for which the Assignment forms a part, can be purchased on application to the Director's Representative. However, the expenses of the above supplies should be included in the consultants fees as part of their investigation and survey works.

16.2 All field survey work required for the proper execution of the Assignment shall unless otherwise provided for in the Agreement, be the duty of the Consultants. A copy of field notes, field data and resultant plans arising from these surveys shall be handed over to the Director's Representative upon completion of the Assignment. The accuracy as well as presentation of these surveys shall be of a standard agreed by the Director's Representative.

16.3 Appendix A specifies the division of responsibility for other surveying between the Consultants, the Lands Administration Office and Survey and Mapping Office as well as the relevant sub-offices at district level of the Lands Department.

17. **Response to Queries**

17.1 The Consultants shall respond to queries on the findings and conclusions in connection with this Assignment raised during the 12 months period following the final submission of the Deliverables required under this Assignment, for such queries by the Director's Representative or any person who may be appointed by the Employer or nominated by the Director's Representative. The 12 months period shall be confirmed in writing to the Consultants by the Director's Representative.

17.2 The Consultants shall use their best endeavours to respond to queries on the findings and conclusions in connection with the Assignment raised after the 12 months period as defined in sub-clause 17.1 for such queries by the Director's Representative of any person who may be appointed by the Employer or nominated by the Director's Representative.

18. Insurance

The amount of insurance cover to be maintained in accordance with sub-clause (A) of Clause 47 of the General Conditions of Employment shall be HONG KONG DOLLAR TWO MILLION TWO HUNDRED AND FIFTY THOUSAND ONLY.

Responsibility for Survey Work

The division of responsibility among the Consultants, the Lands Administration Office, and the Survey and Mapping Office of the Lands Department for surveying required in connection with the Assignment shall be as follows:-

	<u>Task</u>	<u>Responsibility of</u>
1.	(a) Provision of basic horizontal and vertical survey control	Survey and Mapping Office
	(b) Checking of given control point values and establishment of survey control net-work(s) based on survey control given vide (a).	Consultants
2.	(a) Provision of basic mapping (at 1/1000 or other standard mapping relevant to the Assignment)	Survey and Mapping Office (excluding those specified as to be provided by the Consultants in the Assignment)
	(b) Up-dating and verification of accuracy of information shown on plans supplied vide (a) as necessary in relation to the Assignment	Consultants
	(c) Carrying out detailed surveys for site investigation and for preparation of design and contract documents as necessary in relation to the Assignment	Consultants
3.	Supply of existing cadastral plans and records and coordinate data	District Survey Office
4.	Computation of detailed dimensioned layouts of roads, drainage and WSD reserves, platforms, etc.	Consultants (checked and accepted by District Survey Office)
5.	Determination of site/lot boundaries, calculation of areas, etc. in connection with the agreed dimensioned layouts	District Survey Office (in liaison with District Lands Office)
6.	(a) Processing of resumption and surrender for privately owned land in Development Area.	District Lands Office (in liaison with District Survey Office and Consultants)
	(b) Resumption and surrender plans	District Survey Office

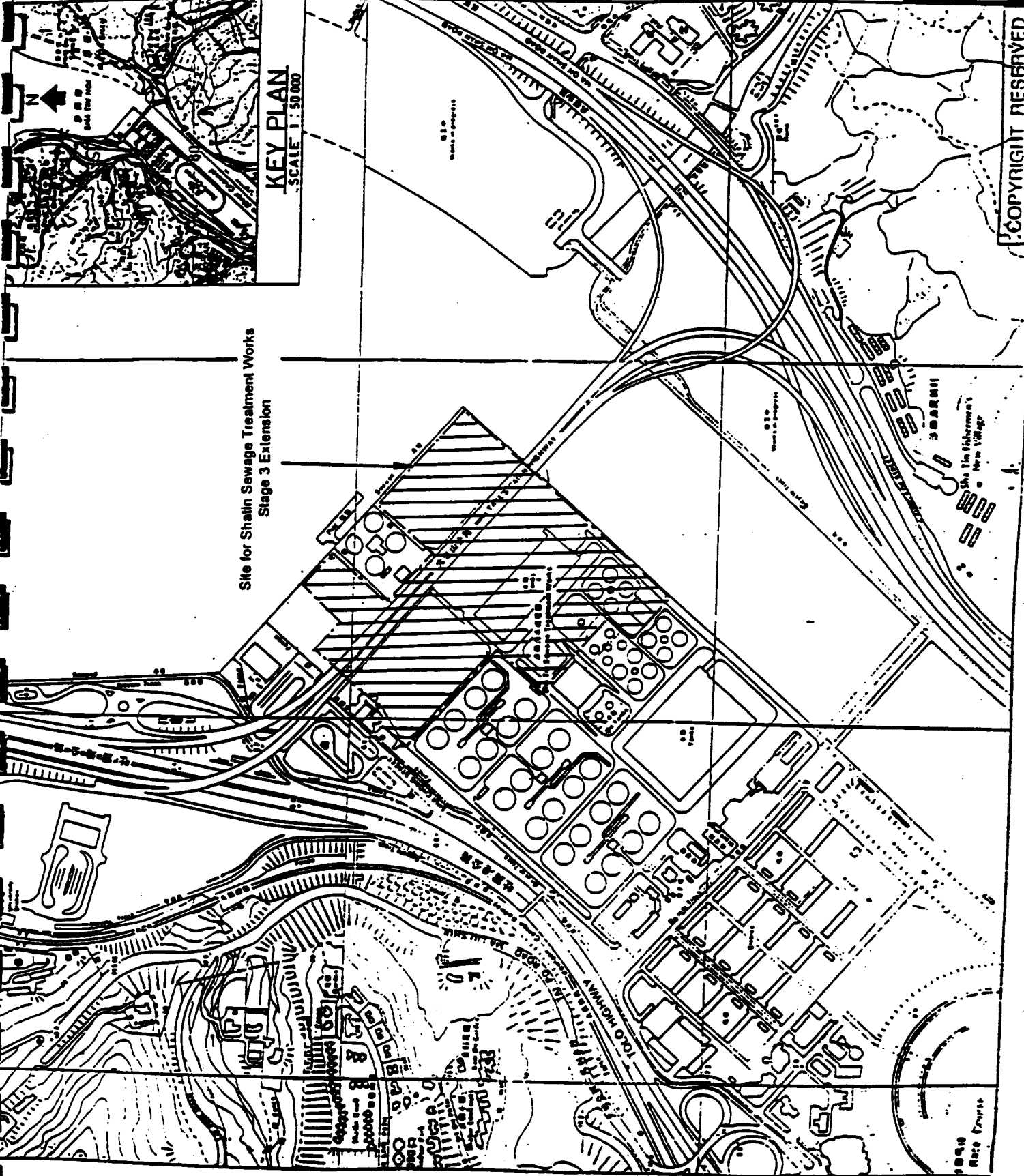
- and demarcation of lands to be resumed.
7. (a) Setting-out of roads, drainage works, formation areas, etc. (in liaison with District Lands Office and Consultants)
- (b) Initial site survey, and interim and final payment surveys Contractors (checked and accepted by Consultants, usually by resident site staff under their supervision)
8. Preparation of proposal plans for Government land allocations, and grants. Consultants, usually by resident site staff under their supervision (joint survey with contractors or agreed survey with contractors)
9. Preparation of dimensioned plans and setting out of boundaries of sites and lots for Government land allocation and for grant to architects (Government and Housing Authority) District Survey Office (in liaison with District Lands Office)
10. As-constructed surveys (including records of levels on all underground pipelines, etc.) District Survey Office
- Consultants, usually by resident site staff under their supervision.

NOTES



KEY PLAN
SCALE 1:50 000

Site for Shatin Sewage Treatment Works
Stage 3 Extension



no.	date	description
REVISION		
drawn	Y. W. YIP	19.11.11
checked	M. L. WONG	21.11.11
approved		
contract no.		
file no.		
project no.		
contract	SHATIN SEWERAGE TREATMENT WORKS — STAGE 3	
drawing title	SITE LOCATION PLAN	
drawing no.	DCN/276DS/1804	
scale		
office	SEWERAGE PROJECTS DIVISION	
DRAINAGE SERVICES DEPARTMENT HONG KONG		

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