

## **ANNEX A**

# **ENVIRONMENTAL IMPACT ASSESSMENT STUDY BRIEF**

**Environmental Impact Assessment Ordinance (Cap. 499)**  
**Section 5 (7)**

**Environmental Impact Assessment Study Brief No. ESB-029/1999**

**Project Title : Feasibility Study for Housing Development  
at Whitehead & Lee On in Ma On Shan**

**The Name of Applicant : New Territories East Development Office,  
Territory Development Department**

**1. BACKGROUND**

- 1.1 An application (No. ESB-029/1999) for an Environmental Impact Assessment (EIA) study brief under section 5(1) of the Environmental Impact Assessment Ordinance (EIAO) was submitted by the Applicant on 5 February 1999 with a project profile (No. PP042/1999).
- 1.2 The Applicant proposes to conduct a feasibility study for housing development (the Study) in Whitehead and Lee On area in Ma On Shan. The "Study Area" is about 60 hectares covering the Whitehead peninsula, the proposed Ma On Shan railway Lee On Station and the private land in between Whitehead and Lee On, as shown in drawing no. STZ0006 (the Drawing) of Project Profile No. PP042/1999 (the Project Profile). The Study is to establish a scheme for developing the "Study Area" for public and/or private housing purposes to accommodate a total no. of 14,400 flats for a maximum population of 41,000. The developments within the "Study Area" will involve site formation works, infrastructure including building substructure and superstructure, roads and drains, and landscape areas.
- 1.3 The project falls within Schedule 3 of the EIAO and would require an environmental impact assessment report to be approved under the EIAO.
- 1.4 Pursuant to section 5(7)(a) of the EIAO, the Director of Environmental Protection (the Director) issues this EIA study brief to the Applicant to carry out an EIA study.
- 1.5 The purpose of this EIA study is to provide information on the nature and extent of environmental impacts arising from the construction and operation of the proposed designated project and related activities taking place concurrently. This information will contribute to decisions by the Director on:
  - (i) the overall acceptability of any adverse environmental consequences that are likely to arise as a result of the proposed project;
  - (ii) the conditions and requirements for the detailed design, construction and operation of the proposed project to mitigate against adverse environmental consequences wherever practicable; and

- (iii) the acceptability of residual impacts after the proposed mitigation measures are implemented.

## **2. OBJECTIVES OF THE EIA STUDY**

2.1 The objectives of the EIA study are as follows:

- (i) to describe the proposed project and associated works together with the requirements for carrying out proposed developments arising from the Study
- (ii) to identify and describe the elements of the community and environment likely to be affected by the proposed developments covered by the study and/or likely to cause adverse impacts to the proposed developments arising from the Study, including both the natural and man-made environment;
- (iii) to identify and quantify emission sources and determine the significance of impacts on sensitive receivers and potential affected uses;
- (iv) to identify and quantify any potential losses or damage to flora, fauna and natural habitats;
- (v) to identify any negative impacts on sites of cultural heritage and to propose measures to mitigate these impacts;
- (vi) to identify and quantify any potential landscape and visual impacts and to propose measures to mitigate impacts;
- (vii) to identify the negative impacts and propose the provision of infrastructure or mitigation measures so as to minimize pollution, environmental disturbance and nuisance during construction and operation of the developments arising from the Study;
- (viii) to identify, predict and evaluate the residual (i.e. after practicable mitigation) environmental impacts and the 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 environmental impacts and cumulative effects and reducing them to acceptable levels;
- (x) to investigate the extent of side-effects of proposed mitigation measures that may lead to other forms of impacts;
- (xi) to identify constraints associated with the mitigation measures recommended in the study;
- (xii) to identify, within the "Study Area", any individual projects that fall under Schedule 2 of the EIAO, to ascertain whether the findings of this EIA study have adequately addressed the environmental impacts

of those projects, and where necessary, to identify the outstanding issues that need to be assessed in a detailed EIA study; and

- (xiii) to design and specify the environmental monitoring and audit requirements necessary to ensure the implementation and the effectiveness of the environmental protection and pollution control measures adopted.

### **3. DETAILED REQUIREMENTS OF THE EIA STUDY**

- 3.1 The purpose of this EIA study brief is to scope the key issues of the EIA study. The Applicant has to demonstrate in the EIA report that the criteria in the relevant sections of the Technical Memorandum on the Environmental Impact Assessment Process of the Environmental Impact Assessment Ordinance (hereafter refer to as the TM), are fully complied with.

#### **The Scope**

- 3.2 The scope of this EIA study shall cover all developments proposed within the "Study Area" and any other works associated with these developments outside the Study Area. The EIA study shall cover the combined impacts of all these developments and the cumulative impacts of the existing, committed and planned developments in the vicinity of the Study Area, in accordance with the requirements laid down in Section 3.4 of the TM. The environmental impacts of on-site and off-site works and facilities associated with the proposed developments shall be addressed.

#### **Technical Requirements**

- 3.3 The Applicant shall conduct the EIA study to address all environmental aspects of the works and activities as described in the scope as set out above.
- 3.4 The EIA study shall take into consideration and compare clearly and objectively the environmental impacts of different development options considered in the study. In formulating the preferred development option, the Applicant shall seek to avoid adverse environmental effects to the maximum practicable extent. It is important to describe adequately in the report the part environmental factors played in the selection of the preferred option(s).
- 3.5 The EIA study shall include the following technical requirements as specific impacts:

#### **3.6 Air Quality Impact**

- 3.6.1 The Applicant shall assess the air quality impacts to the air sensitive receivers (ASRs) in the "Study Area" during operation phase.
- 3.6.1 The Applicant shall follow the criteria and guidelines for evaluating and assessing air quality impact as stated in Annexes 4 and 12 of the TM, respectively.
- 3.6.2 The "Assessment Area" for the air quality impact shall include all areas within 500m from the "Study Area" as shown in the Drawing attached to the Project Profile.

3.6.3 The air quality assessment shall include the following:

- (i) presentation of existing and background air quality for the purpose of evaluating the cumulative impacts of the proposed developments within the Study Area and the developments in the vicinity;
- (ii) description of the topographical and man-made features which may affect the dispersion characteristics of air pollutants;
- (iii) identification of representative existing, committed and planned air sensitive receivers and/or potential affected existing, committed and planned uses;
- (iv) identification of emission characteristics and provision of an emission inventory of both existing, committed and planned air pollution sources during the operational phase of the developments. The air pollution sources shall include road traffic emissions, emissions from polluting land use (based on Ma On Shan Outline Zoning Plan No. S/MOS/5), and other air pollution sources identified in the course of this EIA study;
- (v) description of the assessment method (whether it be analytical, numerical or physical) and the associated assumptions, validity of the method and limits of application;
- (vi) characterization, assessment and evaluation of the net and cumulative air quality impacts during the operational phase of the developments;
- (vii) presentation of the assessment results in the form of summary table and pollution contours, whenever practicable, for comparison with relevant air quality standards and 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 established standards.

3.6.4 The Applicant shall follow the requirements of the Air Pollution Control (Construction Dust) Regulation in dust control and shall initiate an audit and monitoring programme during the construction stage to ensure construction dust impacts are controlled within the relevant standard as stipulated in Annex 4 of the TM.

### 3.7 Noise Impact

3.7.1 The applicant shall assess the noise impacts to the noise sensitive receivers (NSRs) during the construction and operational phases.

3.7.2 The Applicant shall follow the criteria and guidelines for evaluating and assessing noise impact as stated in Annexes 5 and 13 of the TM, respectively.

3.7.3 The noise assessment shall include the following:

(i) Determination of Assessment Area

The "Assessment Area" for noise impact shall include all areas within 300m from the "Study Area" as shown in the Drawing attached to Project Profile. Subject to the agreement of the Director, the Assessment Area could be reduced accordingly if the first layer of noise sensitive receivers within 300m from the Study Area, provides acoustic shielding to those receivers at further distance behind.

(ii) Provision of Background Information and Existing Noise Levels

The Applicant shall provide all background information relevant to the proposed developments, e.g. relevant previous or current studies.

(iii) Identification of Noise Sensitive Receivers

(a) The Applicant shall refer to Annex 13 in the TM when identifying the NSRs. The NSRs shall include all existing NSRs and all planned/committed noise sensitive developments and uses earmarked on the Ma On Shan Outline Zoning Plan No S/MOS/5, the relevant ODP & LP. For planned noise sensitive land use without committed site layout, the applicant should base on relevant planning parameters to work out site layout for operational noise assessment purpose; and

(b) The Applicant shall select assessment points to represent all identified NSRs for carrying out quantitative noise assessment described below. The assessment points shall be agreed with the Director prior to the quantitative noise assessment. A map showing the location and description such as name of building, use, and floors of each and every selected assessment point shall be given.

(iv) Provision of an Emission Inventory of the Noise Sources

An inventory of noise sources (e.g. construction equipment for construction noise assessment), road traffic data, and train traffic data shall be provided in the EIA report. Confirmation of the validity of the inventory shall be obtained from the relevant government departments/authorities.

(v) Construction Noise Assessment

(a) The Applicant shall carry out assessment of noise impact from construction (excluding percussive

piling) of the project during day time, i.e. 7 a.m. to 7 p.m., on weekdays other than general holidays in accordance with the methodology stipulated in para. 5.3. and 5.4 of Annex 13 of the TM. The criteria in Table 1B of Annex 5 of the TM shall be adopted in the assessment.

- (b) To minimize the construction noise impact, alternative construction methods to replace percussive piling and blasting (if any) shall be proposed as far as practicable. Unless blasting, if any, would only be carried out during 7am to 7pm, noise mitigation measures should be recommended; and
- (c) If the unmitigated construction noise levels are found to exceed the relevant criteria, the Applicant shall propose practicable direct mitigation measures (including, but not limit to, movable barriers, enclosures, quieter alternative methods, re-scheduling and restricting hours of operation of noisy tasks) to minimize the impact. If the mitigated noise levels still exceed the relevant criteria, the duration of the noise exceedance and the likely size of the community that may be affected shall be given.

(vi) Operational Noise Assessment

**Rail Noise**

- (a) The Applicant shall assess the impacts of the operation of the Ma On Shan Railway within the Assessment Area with respect to the acceptable levels contained in Table 1A in Annex 5 in the TM. The assessment methodology including the railway/train design noise level shall be agreed with the Director prior to the commencement of the assessment.
- (b) The Applicant shall present the noise levels in Leq (30 min) and Leq(24hr), Lmax during the day and at night at the NSRs at various representative floor levels (in m P.D.) on tables and plans of suitable scale.
- (c) The Applicant shall propose direct mitigation measures in all situations where the predicted noise level exceeds the criteria set out in Table 1A of Annex 5 of the TM to protect the affected NSRs.

**Fixed Noise Sources**

- (d) The Applicant shall identify any fixed noise sources within the Assessment Area, including any pump

houses, electricity sub-station, bus depot/terminus, open car/lorry park, etc., and calculate the expected noise using standard acoustics principles. Calculations for the expected noise shall be based on assumed plant inventories and utilization schedule for the worst case scenario. The Applicant shall calculate the noise levels taking into account of correction of tonality, impulsiveness and intermittency in accordance with the Technical Memorandum for the Assessment of Noise from Places other than Domestic Premises, Public Places or Construction Sites.

- (e) The Applicant shall present the noise levels in Leq (30 min) at the NSRs at various representative floor levels (in m P.D.) on tables and plans of suitable scale.
- (f) A quantitative assessment at the NSRs for the fixed noise source(s) shall be carried out and compared against the criteria set out in Table 1A of Annex 5 of the TM.
- (g) The Applicant shall propose direct mitigation measures within the project limits in all situations where the predicted noise level exceeds the criteria set out in Table 1A of Annex 5 of the TM to protect the affected NSRs.

#### **Road Traffic Noise**

- (h) The Applicant shall analyze the scope of the existing and proposed road alignment(s) to identify appropriate existing and new road sections for the purpose of traffic noise impact assessment. When an existing road section undergoes major modification which will directly result in 25% increase in lanes or substantial changes in alignment or characters (e.g change to a high speed road) of the existing road, it shall be regarded as a new road for the purpose of this noise impact assessment.
- (i) The Applicant shall calculate the expected road traffic noise using methods described in the U.K. Department of Transport's "Calculation of Road Traffic Noise" (1988). Calculations of future road traffic noise shall be based on the peak hour traffic flow in respect of the maximum traffic projection within a 15 years period upon commencement of operation of the proposed development. The Applicant shall calculate the traffic noise levels in respect of each road section and the overall noise levels from the combined road sections (both new and existing) at the NSRs.



- (j) The Applicant shall present the prevailing and future traffic noise levels in  $L_{10}$ , (1 hr) at the NSRs at various representative floor levels (in m P.D.) on tables and plans of suitable scale.
- (k) Quantitative assessment at the NSRs for the existing and proposed road alignment(s) shall be carried out and compared against the criteria set out in Table 1A of Annex 5 in the TM. The potential noise impact of the existing and proposed road alignment(s) shall be quantified by estimating the total number of dwellings, classrooms and other noise sensitive elements that will be exposed to noise levels exceeding the criteria set in Table 1A of Annex 5 in the TM.
- (l) after rounding of the predicted noise levels according to the U.K. Department of Transport's "Calculation of Road Traffic Noise" (1988), the Applicant shall propose appropriate noise mitigation measures described in section 6 of Annex 13 in the TM in all situations where the predicted traffic noise level exceeds the criteria set in Table 1A of Annex 5 in the TM by 1 dB(A) or more.
- (m) Where any of the proposed roads under this development is considered as a Designated Project under Schedule 2 of the EIAO, sub-clauses (na) to (nc) below shall be applied for the protection of NSRs in the vicinity of the proposed development:
  - (ma) Specific reasons for not adopting certain direct technical remedies in the design to reduce the traffic noise to a level meeting the criteria in the TM or to maximize the protection for the NSRs as far as possible should be clearly quantified and laid down. The total number of dwellings, classrooms and other noise sensitive elements that will be benefited by the provision of direct technical remedies should be provided.
  - (mb) The total number of dwellings, classrooms and other noise sensitive elements that will still be exposed to noise above the criteria in the TM with the implementation of all recommended direct technical remedies shall be quantified.
  - (mc) In case where a number of the NSRs cannot all be protected by the recommended direct technical remedies, the Applicant shall identify and estimate the total number of existing dwellings, classrooms and other noise sensitive elements which may qualify for indirect technical remedies under the

ExCo directive "Equitable Redress for Persons Exposed to Increased Noise Resulting from the Use of New Roads", the associated costs and any implications for such implementation. For the purpose of determining the eligibility of the affected premises for indirect technical remedies, reference shall be made to the following three criteria:

(mc1) the predicted overall noise level from the new road together with other traffic noise in the vicinity must be above a specified noise level (e.g. 70 dB(A) for domestic premises and 65 dB(A) for education institutions, all in L<sub>10</sub>(1 hr));

(mc2) the predicted overall noise level is at least 1.0 dB(A) more than the prevailing traffic noise level, i.e. the total traffic noise level existing before the works to construct the road commence; and

(mc3) the contribution to the increase in the predicted overall noise level from the new road must be at least 1.0 dB(A).

(vii) Assessment of Side Effects and Constraints

The Applicant shall identify, assess and propose means to minimize any side effects and to resolve any potential constraints due to the inclusion of any recommended direct technical remedies.

(viii) Evaluation of Constraints on Planned Noise Sensitive Developments/Land Uses

(a) For planned noise sensitive uses which will still be affected even with all practicable direct technical remedies in place, the Applicant shall propose, evaluate and confirm the practicality of additional measures within the planned noise sensitive uses and shall make recommendations on how these planned noise sensitive uses can accommodate the additional measures to meet relevant noise criteria. Such information will be made known to other relevant parties.

(b) The Applicant shall take into account the agreed environmental requirements/constraints identified by the study to assess the development constraints on the

concerned sites which shall be made known to other relevant parties.

### 3.8 Water Pollution Impact

- 3.8.1 The Applicant shall follow the criteria and guidelines for evaluating and assessing water pollution as stated in Annexes 6 and 14 of the TM, respectively during the construction and operational phases.
- 3.8.2 The "Assessment Area" for the purpose of this water quality impact assessment shall cover the "Study Area" as shown in the Drawing attached to the Project Profile., plus any stream courses and the associated water system in the vicinity that may be affected by the developments.
- 3.8.3 All physical, chemical and biological disruptions of fresh water or ground water system(s) arising during the construction and operation of developments shall be identified and analyzed.
- 3.8.4 In the water quality impact assessment, the Applicant shall include the following:
- (i) collection and review of background information on the existing water system(s) and the respective catchment(s);
  - (ii) characterization of water quality based on existing information or site surveys/tests as appropriate;
  - (iii) identification and analysis of all existing and future activities and beneficial uses related to the water system(s) and identification of all water sensitive receivers which would be affected by the proposed development;
  - (iv) identification of pertinent water quality objectives, criteria and standards for the water system(s) and all the sensitive receivers, which identified in (iii);
  - (v) identification of any alteration of any water courses, natural streams/ponds, any wetland, changes of flow regimes, changes of ground water levels, changes of catchment types or areas;
  - (vi) identification, analysis and quantification of all existing and future water and sediment pollution sources, including point discharges and non-point sources to surface water runoff, and analysis of the provision and adequacy of future facilities to reduce such pollution. An emission inventory on the quantities and characteristics of all existing and future pollution sources in the Assessment Area shall be established, and field investigation and laboratory tests as appropriate shall be undertaken to fill in any relevant information gaps.
  - (vii) prediction and quantification of impacts on the water system(s) and the sensitive receivers due to those alterations and changes identified in (v) above and the pollution sources

identified in (vi) above. Possible impacts include changes in hydrology, flow regime, sediment erosion or deposition, water and sediment quality and the effects on the aquatic organism due to such changes. Impact of point source and non-point source discharge to the marine environment shall be assessed. The prediction shall take into account and include possible different construction stages or sequences, and different operations stages. As well as predication and quantification of cumulative impacts due to other committed and planned projects, activities or pollution sources within the Assessment Area;

- (viii) assessment and quantification of all existing and future waste water generation activities and analysis of the adequacy of existing and future sewerage infrastructure to accommodate sewage arising from the proposed developments, and to propose the provision of upgrading or mitigation measures as a result of inadequacy of the existing infrastructure.
- (ix) proposal for upgrading or providing any effective infrastructure, water pollution prevention and mitigation measures to be implemented during the construction and operational phases so as to reduce the water and sediment quality impacts to within standards;
- (x) best management practices to reduce storm water and non-point source pollution shall be investigated and proposed as appropriate; and
- (xi) quantification and evaluation of residual impacts on the water system(s) and the sensitive receivers with regard to the appropriate water quality objectives, criteria, standards or guidelines.

### 3.9 **Ecological Impact**

- 3.9.1 The Applicant shall follow the criteria and guidelines for evaluating and assessing ecological impact as stated in Annexes 8 and 16 of the TM, respectively during the construction and operational phases. The assessment shall include the ecological survey of Starfish Bay including the headland containing sandy and rocky shores. Measures should be taken to avoid impacts to the adjacent Nai Chung Coast SSSI and buffer zones should be provided to protect the individual mudflat.
- 3.9.2 The "Assessment Area" for the purpose of this ecological assessment shall include all areas within 500m distance from the "Study Area" as shown the Drawing attached to the Project Profile or the area likely to be impacted by the proposed developments.
- 3.9.3 In the ecological impact assessment, the Applicant shall examine the flora, fauna and other components of the ecological habitats within the project areas and other areas likely to be affected by the proposed developments. The aim shall be to protect, maintain or rehabilitate the natural environment. In particular, the proposed project shall avoid impacts on recognized sites of conservation importance and

other ecological sensitive areas. The assessment shall identify and quantify as far as possible the potential ecological impacts associated with the proposed development.

3.9.4 The assessment shall include the following major tasks :

- (i) review the findings of relevant studies and collate all the available information regarding the ecological characters of the Assessment Area;
- (ii) evaluate the information collected and identify any information gap relating to the assessment of potential ecological impacts to the terrestrial and aquatic environment;
- (iii) carry out necessary field surveys, the duration shall at least be four months including the wet season, and investigations to verify the information collected, fill the information gaps identified and fulfill the objectives of the EIA study;
- (iv) establish the general ecological profile and describe the characteristics of each habitat found; major information to be provided shall include :
  - (a) description of the physical environment;
  - (b) habitat maps of suitable scale (1:1000 to 1:5000) showing the types and locations of habitats in the Assessment Area;
  - (c) ecological characteristics of each habitat type such as size, vegetation type, species present, dominant species found, species diversity and abundance, community structure, inter-dependence of the habitats and species, and presence of any features of ecological importance;
  - (d) representative colour photos of each habitat type and any important ecological features identified;
  - (e) species found that are rare, endangered and/or listed under local legislation, international conventions for conservation of wildlife/habitats or red data books;
- (v) investigate and describe the existing wildlife uses of various habitats with special attention to those wildlife groups and habitats with conservation interests; including:
  - (a) woodlands;
  - (b) shrubland;
  - (c) natural coastline including rocky, and sandy shores;
  - (d) coastal bay such as Starfish Bay; and
  - (e) natural stream courses;
  - (f) mangroves.
- (vi) describe all recognized sites of conservation importance in the proposed development site and its vicinity and assess

whether these sites will be affected by the proposed development or not;

- (vii) using suitable methodology, identify and quantify as far as possible any direct, indirect, on-site, primary, secondary and cumulative ecological impacts such as destruction of habitats, reduction of species abundance/diversity, loss of feeding grounds, reduction of ecological carrying capacity and habitat fragmentation;
- (viii) evaluate the significance and acceptability of the ecological impacts identified using well-defined criteria;
- (ix) recommend all possible alternatives (such as modifications of layout and design) and practicable mitigation measures to avoid, minimize and/or compensate for the adverse ecological impacts identified;
- (x) evaluate the feasibility and effectiveness of the recommended mitigation measures and define the scope, type, location, implementation arrangement, subsequent management and maintenance of such measures;
- (xi) determine and quantify as far as possible the residual ecological impacts after implementation of the proposed mitigation measures;
- (xii) evaluate the severity and acceptability of the residual ecological impacts using well-defined criteria. If off-site mitigation measures are considered necessary to mitigate the residual impacts, the guidelines and requirements laid down in the PELB Technical Circular No. 1/97 shall be followed; and
- (xiii) review the need for and recommend any ecological monitoring programme required.

### **3.10 Heritage Impact**

3.10.1 The heritage impact assessment shall be conducted for the archaeological impact to the Wu Kwai Sha, Lok Wo Sha and whitehead areas. The historic buildings in Wu Kwai Sha Village shall also be addressed;

3.10.2 The heritage impact assessment shall focus on the evaluation of impacts on archaeological areas, historic buildings and cultural heritage and proposals for any mitigation measures with detailed elaboration on scope of work including:

- (i) heritage resources of archaeological areas and historic buildings shall be identified as far as practicable through reference to appropriate records, such as the archives of the AMO, and through consultations with relevant village representatives, appropriate academic sources and other Government sources, including the Lands Department, District Offices, etc. and

- (ii) the criteria to be adopted to assess the level of direct and indirect impacts to the heritage resources and to develop appropriate mitigation measures, shall be established in close liaison with AMO during the course of the EIA Study.

3.10.3 The Applicant shall follow the criteria and guidelines for evaluating and assessing impacts on cultural heritage as stated in Annexes 10 and 19 of the TM respectively.

### **3.11 Landscape and Visual Impact**

3.11.1 The Applicant shall follow the criteria and guidelines for evaluating and assessing landscape and visual impact as stated in Annexes 10 and 18 of the TM, respectively.

3.11.2 The landscape and visual impact assessment shall include the following:

- (i) a baseline study to provide for a comprehensive and accurate description of the baseline landscape and visual character;
- (ii) a review of the relevant planning and development control framework;
- (iii) impact studies to identify the potential landscape and visual impacts and predict their magnitude and potential significance; and
- (iv) recommendations on mitigation measures and implementation programme.

3.11.3 The Applicant shall describe and appraise and analyze the existing landscape resource and character of the Assessment Area (the "Assessment Area" for landscape impact assessment shall include all area within a 500m distance from the "Study Area" as shown in the Drawing attached to the Project Profile. It should focus particular on the sensitivity of the landscape framework and its ability to accommodate change. The Applicant shall identify the degree of compatibility of the proposed projects with the existing landscape. The landscape impact assessment should quantify the potential landscape impacts as far as possible so as to illustrate the significance of such impacts arising from the proposed development.

3.11.4 The Applicant shall assess the visual impacts of the proposed developments. The assessment shall include the following:

- (i) identification and plotting of visibility contours of the proposed project(s) within the Assessment Area (the "Assessment Area" for visual impact assessment shall be defined by the visual envelope of the proposed project);
- (ii) identification of the key groups of sensitive receivers within the visibility contours with regard to views from both ground level and elevated vantage points; and

- (iii) description of the visual compatibility of the projects with the surrounding, and its distraction and interference with the key views of the adjacent areas, and
- (iv) the severity of visual impacts in terms of distance, nature and number of sensitive receivers shall be identified. The visual impacts of the projects with and without mitigation measures shall be assessed.

3.11.5 The Applicant shall review outline zoning plans, outline development plans, layout plans, planning briefs and studies which may contain guidelines and urban design concept, building height profile, designated view corridors, specific elements such as areas of high landscape and visual value, "Site of Special Scientific Interest" and special design areas and open space network that may affect the appreciation of the project so as to gain an insight to the future outlook of the area affected and the ways the project can fit into the environment. Any conflict with the statutory town plan should be highlighted and appropriate follow-up action should be recommended.

3.11.6 The Applicant shall recommend mitigation measures to minimize the adverse effects identified in Sections 3.11.2 and 3.11.3 above, including provision of a landscape design. The mitigation measures shall also include the retention of vegetation, transplanting of mature trees, provision of screen planting, revegetation of disturbed land, reprovision of open space and amenity areas, design of structures, provision of finishes to structures, and any measures to mitigate the disturbance of the existing landuse. Parties should be identified for the on-going management and maintenance for the proposed mitigation works to ensure their effectiveness throughout the operational phase of the project. A practical programme and funding proposal for the implementation of the recommended measures shall be worked out.

3.11.7 Perspective drawings, plans and section /elevation diagrams, annotated oblique aerial photographs, photographs on scaled physical models, photo-retouching and computer-generated photo-montages where appropriate shall be adopted to illustrate the landscape and visual impacts of a project. The applicant should record the technical details in preparing the illustration, which may need to be submitted for verification of accuracy of the illustration.

#### **4. REQUIREMENTS FOR IDENTIFICATION OF PROJECTS FALLING UNDER SCHEDULE 2 (DESIGNATED PROJECTS) OF THE ENVIRONMENTAL IMPACT ASSESSMENT ORDINANCE**

4.1 The Applicant shall identify clearly in the EIA report all items within the "Study Area" that are classified as Designated Projects (DPs) under Schedule 2 of the EIAO.

4.2 For those DPs under Schedule 2, which the environmental impacts have been adequately addressed in this EIA study in accordance with the Study Brief and TM requirements, separate schedules of mitigation measures shall be provided in this EIA report.



- 4.3 Any DPs under Schedule 2 that require further detailed EIA studies to assess outstanding environmental issues shall be clearly identified and stated in this EIA study, and the scope of these detailed EIA studies shall be set out in the EIA report.

## **5. ENVIRONMENTAL MONITORING & AUDIT (EM&A) REQUIREMENTS**

- 5.1 The Applicant shall identify in the EIA study whether there is any need for EM&A activities during the construction and operation phases of the project and, if affirmative, to define the scope of the EM&A requirements for the project in the EIA study;
- 5.2 Subject to the confirmation of the EIA study findings, the Applicant shall comply with the requirements as stipulated in Annex 21 of the TM;
- 5.3 The Applicant shall prepare a project implementation schedule (in the form of a check list) containing all the EIA study recommendations and mitigation measures with reference to the implementation programme.

## **6. DURATION OF VALIDITY**

- 6.1 This EIA study brief is valid for 24 months after the date of issue. If the EIA study does not commence within this period, the Applicant shall apply to the Director for another EIA study brief afresh before commencement of the EIA study.

## **7. REPORT REQUIREMENTS**

- 7.1 In preparing the EIA report, the Applicant shall refer to Annex 11 of the TM for the contents of an EIA report. The Applicant shall also refer to Annex 20 of the TM which stipulates the guidelines for the review of an EIA report.
- 7.2 The Applicant shall supply the Director with the following number of copies of the EIA report and the executive summary :
- (i) 40 copies of the EIA report in English and 50 copies of the executive summary (each bilingual in both English and Chinese) as required under section 6(2) of the EIAO to be supplied at the time of application for approval of the EIA report.
  - (ii) when necessary, addendum to the EIA report and the executive summary submitted in (i) above as required under section 7(1) of the EIAO, to be supplied upon advice by the Director for public inspection.
  - (iii) for the purpose of the public inspection of the report and the deposition in the register, 40 copies of the EIA report and 80 copies of the executive summary (each bilingual in both English and Chinese), unless otherwise advised by the Director;
  - (iv) 20 copies of the EIA report in English and 50 copies of the executive summary (each bilingual in both English and Chinese) with or

without Addendum as required under section 7(5) of the EIAO, to be supplied upon advice by the Director for consultation with the Advisory Council on the Environment.

- (v) In addition, to facilitate the public inspection of the EIA Report via the EIAO Internet Website, the Applicant shall provide electronic copies of both the EIA Report and the Executive Summary Report prepared in HyperText Markup Language (HTML) (version 4.0 or later) and in DynaDoc Format (version 3.0 or later) [for Chinese documents] and in Portable Document Format (PDF version 3.0 or later) [for English documents], unless otherwise agreed by the Director. For the HTML version, a content page capable of providing hyperlinks to each section and sub-section of the EIA Report and the Executive Summary Report shall be included in the beginning of the document, and all graphics in the report shall be in interlaced GIF format.
- (vi) The electronic copies of the EIA Report and the Executive Summary shall be submitted to the Director at the time of application for approval of the EIA Report.
- (vii) When the EIA Report and the Executive Summary are made available for public inspection under Section 7(1) of the EIA Ordinance, the content of the electronic copies of the EIA Report and the Executive Summary must be the same as the hard copies. The Director shall be provided with updated electronic copies.
- (viii) To promote environmentally friendly and efficient dissemination of information, for future EM&A reports recommended by the EIA study, both hardcopies and electronic copies shall be required and their format shall be agreed by the Director.
- (ix) The EIA Report shall contain a summary of the key environmental outcomes arising from the EIA study, including the population and environmentally sensitive area protected, environmentally friendly design recommended, key environmental problem avoided, compensation area included and environmental benefits of environmental protection measures recommended.

## **8. OTHER PROCEDURAL REQUIREMENTS**

- 8.1 During the course of the EIA study, if there is any change to the name of the Applicant for this EIA study brief, the Applicant mentioned in this study brief must notify the Director immediately.
- 8.2 If there is any key change to the scope of the Study mentioned in section 1.2 of this EIA study brief and in Project Profile No. PP-042/1999, the Applicant must seek confirmation from the Director in writing on whether or not the scope of issues covered by this EIA study brief can still cover the key changes, and what additional issues the EIA study must also address. If the changes to the Study fundamentally alter the key nature of the project and the key scope of the EIA study brief, the Applicant shall apply to the Director for another EIA study brief afresh.

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- End -