

# **BMT Asia Pacific**



EIA STUDY FOR A PROPOSED HELIPAD ON ROOFTOP OF THE PROPOSED NORTH LANTAU HOSPITAL AT YU TUNG ROAD, TUNG CHUNG, LANTAU

# **PROJECT PROFILE**

R/8309/01 Issue 2 dated March 2006

Health, Welfare and Food Bureau Hong Kong SAR Government



Report Ref.: R8309/01 Issue 2

Date: March 2006

# EIA STUDY FOR A PROPOSED HELIPAD ON ROOFTOP OF THE PROPOSED NORTH LANTAU HOSPITAL AT YU TUNG ROAD, TUNG CHUNG, LANTAU

**Project Profile** 



### **BMT Asia Pacific Limited**

# **DOCUMENT CONTROL SHEET**

Client: Health, Welfare and Food Bureau

Title: EIA Study for a Proposed Helipad on Rooftop of the Proposed North

Lantau Hospital at Yu Tung Road, Tung Chung, Lantau

**Project Profile** 

hopy.

Job No: 8309

Ref.: R/8309/01 Issue 2

Version: Final

Date: March 2006

Prepared under the Management of:

Signature:

Name Roger Leung Position Associate

Reviewed and Approved by:

Signature:

Name Ben Ridley Position Director

Filename R8309.01 - Project Profile (Issue 2).doc

Distribution: Original to Project Quality Records File Page: 1 of 1



# **CONTENTS**

1	BASIC INFORMATION			
	1.1	Project Title	1	
	1.2	Purpose and Nature of the Project	1	
	1.3	Name of Project Proponent	1	
	1.4	Location and Scale of Project, History of Site	2	
	1.5	Number and Type of Designated Project	2	
	1.6	Name and Telephone Number of Contact Persons	3	
2	OUT	LINE OF PLANNING AND IMPLEMENTATION PROGRAMME	4	
3	POSSIBLE IMPACTS ON THE ENVIRONMENT			
	3.1	Construction Stage	5	
	3.2	Operational Stage	5	
4	MAJOR ELEMENTS OF THE SURROUNDING ENVIRONMENT			
	4.1	Existing/ Planned Sensitive Receivers/Parts of the Natural Environment	7	
	4.2	Major Elements Affecting the Site	7	
5	ENVIRONMENTAL MEASURES TO BE INCORPORATED IN THE DESIGN			
	5.1	Air Quality Impact	8	
	5.2	Noise Impact	8	
	5.3	Water Quality Impact	8	
	5.4	Waste Management	8	
	5.5	Ecology	8	
	5.6	Landscape & Visual Impact	8	
	5.7	Cultural Heritage	8	
ô	USE	OF PREVIOUSLY APPROVED EIA REPORTS	9	
	6.1	EIA report for Helipad at Yung Shue Wan, Lamma Island	9	
	6.2	EIA report for Peng Chau Helipad	9	

# **LIST OF FIGURES**

Figure 1 Site Location and the Environs



# 1 BASIC INFORMATION

### 1.1 Project Title

1.1.1 "EIA Study for a Proposed Helipad on Rooftop of the Proposed North Lantau Hospital at Yu Tung Road, Tung Chung, Lantau"

# 1.2 Purpose and Nature of the Project

Purpose

1.2.1 The increasing population in North Lantau, visitors to the HK Disneyland as well as other attractions in the future have led to the demand for public hospital services. There is a need to plan a hospital, namely the North Lantau Hospital ("NLH") in Tung Chung to serve the community there and a wider network in Lantau. The NLH has been planned to provide in-patient care services, ambulatory and community care services, diagnostic and treatment facilities and support facilities, etc. The proposed helipad on the rooftop of the NLH is considered indispensable in facilitating rapid transfer of patients to receive urgent medical attention.

Nature

- 1.2.2 The helipad is intended strictly for "casevac" (casualty evacuation) operations by the Government Flying Services. No commercial flight will be allowed.
- 1.2.3 The helipad (<u>not the North Lantau Hospital</u>) constitutes a designated project under Item B.2, Schedule 2 of the Environmental Impact Assessment Ordinance ("EIAO") by virtue of its being "A helipad within 300m of existing or planned residential development".
- 1.2.4 The proposed helipad would require construction of the NLH complex first. The rooftop helipad design will meet the 'ICAO Standards for Heliport Design' and 'Government Flying Service Helicopter Landing Site Specification Guidelines'.

### 1.3 Name of Project Proponent

- 1.3.1 The Project Proponent is the Secretary for Health, Welfare and Food ("SHWF"), Hong Kong SAR Government.
- 1.3.2 The Architectural Services Department ("ArchSD") is acting as the works agent for the SHWF. The operation of the future North Lantau Hospital, including the proposed helipad will be under the management of the Hospital Authority (HA).



### 1.4 Location and Scale of Project, History of Site

Location of the Project

1.4.1 The proposed helipad is to be situated on the rooftop of the proposed North Lantau Hospital ("NLH") at Yu Tung Road, Tung Chung as shown in Figure 1.

Scale of Project

1.4.2 The helipad will be situated on the rooftop of the future NLH. According to Government Flying Service ("GFS") Helicopter Landing Site Specification Guidelines, the helipad will be about 40m in diameter subject to changes to suit the actual site constraints.

History of the Site

- 1.4.3 The site where the helipad (or the NLH) is located is in Tung Chung Areas 13, 22 and 25 in North Lantau and is vacant at present. Area 13 is zoned as "Government, Institution or Community" ("G/IC") while Areas 22 and 25 are zoned as "Residential (Group A)" ("R (A)") on the approved Tung Chung Town Centre Area Outline Zoning Plan ("OZP") no. S/I-TCTC/14.
- 1.4.4 In order to fulfil the needs of residents in Lantau and to cope with the increasing demand for hospital services as soon as possible, the hospital site, which is readily available in Tung Chung Areas 13, 22 and 25, has been identified as the only possibility that meets this imminent requirement.

Reason why a Rooftop Helipad is needed

1.4.5 The provision of a rooftop helipad at the proposed North Lantau Hospital has been the prime consideration of the Government Flying Service in ensuring that the general public can receive the best emergency service as needed. Such a provision is considered an operational necessity as it is envisaged that there will be patients, such as those suffering from head injuries or burns, required to be transferred to tertiary referral centres for emergency treatment and care. Should transfer of this nature via the only land route, i.e. the Tsing Ma Bridge, be impeded due to traffic congestion or closure of the bridge for whatever reasons, air transport will be the only means by which emergency transfer can be effected. The helipad will also play an indispensable role in facilitating prompt dispatch of medical teams to scenes of disaster when required.

### 1.5 Number and Type of Designated Project

1.5.1 This Project Profile covers one proposed rooftop helipad which is classified as a designated project under Item B.2, Schedule 2 of the Environmental Impact Assessment Ordinance (EIAO) by virtue of its being a helipad within 300m of existing or planned residential development.



# 1.6 Name and Telephone Number of Contact Persons

The Secretary for Health, Welfare and Food Assistant Secretary (Health) 5 – Mr. Patrick Wong

Tel.: 2973 8119 Fax: 2840 0467

The Chief Project Manager, Architectural Services Department – Mr. M.O. Chong

Tel.: 2867 3570 Fax: 2804 6805



#### 2 **OUTLINE OF PLANNING AND IMPLEMENTATION PROGRAMME**

- 2.1.1 The project is being planned and will be implemented by the Architectural Services Department (ArchSD).
- 2.1.2 BMT Asia Pacific Ltd. has been appointed to conduct the Environmental Impact Assessment (EIA) study for the proposed rooftop helipad under the EIA Ordinance.
- 2.1.3 Construction of the helipad would involve line painting and equipment installations in its final stage. All structural works will be integrated with the roof of the hospital under the management of ArchSD.
- 2.1.4 The tentative planning and implementation programme for the Project is as follows:

Planning / Approvals and Design Early 2006 to mid 2007 Construction (NLH) Late 2007 to Late 2010 2011

**Helipad Operation** 



### 3 POSSIBLE IMPACTS ON THE ENVIRONMENT

#### 3.1 Construction Stage

Gaseous Emission / Dust / Odour

3.1.1 There will be no significant gaseous emissions and odour impacts during the construction phase. Fugitive dust generated will be minimised by implementing suitable dust suppression measures recommended in the Air Pollution Control (Construction Dust) Regulation. Therefore, there should be no significant fugitive dust impacts during the construction phase.

*Noisy Operations / night-time Operations* 

3.1.2 Construction noise impact arising from construction of the NLH complex and the rooftop helipad will be assessed. Measures will be recommended if necessary to mitigate the impact.

Liquid Effluents, Discharges or Contaminated Runoff

3.1.3 Wastewater generated from the construction site will be intercepted and treated to comply with the criteria of the Water Pollution Control Ordinance prior to discharge. There will be no significant water quality impact envisaged during the construction phase.

Generation of Wastes or By-products

3.1.4 Good construction practices and proper waste management procedures will be implemented by the contractor. There should be no significant construction waste issue.

Manufacture, Storage, Use, Handling, Transport, or Disposal of DGs, Hazardous Materials or Wastes

3.1.5 There will be no fuelling facilities or storage of fuel or any other kinds of dangerous goods ("DGs") or generation of wastes during the construction phase.

Ecology

3.1.6 There is no vegetation or habitat within the site with high conservation value. Therefore, there should be no significant ecological impact during the construction phase.

Landscape & Visual

3.1.7 There will be no significant landscape and visual during the construction phase.

# 3.2 Operational Stage

Gaseous Emission / Dust / Odour

3.2.1 No significant gaseous emission, dust and odour impacts will be anticipated. Emissions from helicopter exhausts will be dissipated by the rotor blades efficiently and thus the impact should be minimal. Air intakes on the roof of the NLH will be strategically located to avoid direct impacts from helicopter exhausts.



3.2.2 No fuelling facility has been planned in association with the proposed helipad.

*Noisy Operations / night-time Operations* 

- 3.2.3 The proposed helipad is intended strictly for occasional 'casevac' (casualty evacuation) operations by the Government Flying Service (GFS). No commercial flight will be allowed. Operations are practically round the clock, whenever there is a demand.
- 3.2.4 Helicopter noise is bound to be intrusive and requires careful planning. Noise impact will be generated when helicopter approaches and departs from the helipad, manoeuvring on and over the helipad. The noise impact in Lmax levels the maximum instantaneous sound pressure level at the representative noise sensitive receivers (NSRs) will be assessed with measures recommended, if necessary, to mitigate the impact.

Traffic Generation

3.2.5 As the proposed rooftop helipad will be provided solely for emergency use, there will be no additional traffic generation.

Liquid Effluents, Discharges or Contaminated Runoff

3.2.6 There will be no fuelling facilities provided. No significant water quality issues including liquid effluents, discharges or contaminated runoff are anticipated.

Generation of Wastes or By-products

3.2.7 The proposed rooftop helipad will be used solely for transporting people for medical treatment in emergency situations. No waste or by-products generation is anticipated.

Manufacture, Storage, Use, Handling, Transport, or Disposal of DGs, Hazardous Materials or Wastes

3.2.8 There will be no fuelling facilities or storage of fuel or any other kinds of dangerous goods ("DGs") or generation of wastes.

**Ecology** 

3.2.9 As the proposed helipad will be located on the rooftop of the future NLH, no ecological impact is envisaged.

Landscape & Visual

3.2.10 The helipad itself is not an intrusive structure and can only be seen from a number of high-rise buildings in the neighbourhood. There will be no significant landscape and visual issues.

Cultural Heritage

3.2.11 There will be no cultural heritage issue.



### 4 MAJOR ELEMENTS OF THE SURROUNDING ENVIRONMENT

# 4.1 Existing/ Planned Sensitive Receivers/Parts of the Natural Environment

- 4.1.1 As the proposed helipad will be located on the rooftop of the NLH, no sensitive part of the natural environment (e.g. water sensitive uses, fishing ground, wildlife habitat etc.) will be affected by the construction and operation of the helipad.
- 4.1.2 As mentioned in the last section, since helicopter noise is the only major environmental issue envisaged for the proposed helipad, noise impacts will be assessed in depth in the EIA study.
- 4.1.3 The immediate noise sensitive receiver will be the North Lantau Hospital itself. However, the Hospital Authority has confirmed to adopt a centralised air conditioning system for the future NLH, no significant noise impact on the patients and staff of the NLH would be anticipated.
- 4.1.4 A preliminary review of the locality has found the following existing noise sensitive uses within 300m from the helipad (the NLH site):
  - Low-rise village houses of Wong Nai Uk;
  - Some residential buildings and educational institutes of Yat Tung Estate;
  - Some village houses of Ma Wan New Village;
  - Some village houses of Fui Yiu Ha;
  - Some village houses of Ma Wan Chung; and
  - Some residential buildings of Yu Tung Court, etc.
- 4.1.5 Major proposed noise-sensitive facilities include a planned primary school and a planned church-cum kindergarten in Area 27.
- 4.1.6 There will be some other existing and planned noise sensitive receivers affected under the flight path near the northern coast of Lantau. Details of which will be identified during the course of the EIA.

### 4.2 Major Elements Affecting the Site

4.2.1 No major element of the surroundings is considered likely to affect the proposed helipad. The flight path will be designed in conjunction with GFS to avoid high-rise buildings and terrain in the vicinity.



### 5 ENVIRONMENTAL MEASURES TO BE INCORPORATED IN THE DESIGN

#### 5.1 Air Quality Impact

- 5.1.1 <u>Construction Phase:</u> Dust suppression measures recommended in the Air Pollution Control (Construction Dust) Regulation will be implemented by the contractor as part of the contractual requirements to minimise the potential fugitive dust impacts.
- 5.1.2 Operational Phase: No significant air quality issues are anticipated.

### 5.2 Noise Impact

- 5.2.1 <u>Construction Phase</u>: Construction noise will be assessed in the EIA study with mitigation measures recommended as necessary.
- 5.2.2 Operation Phase: The helicopter noise will be assessed in the EIA study with mitigation measures recommended as necessary. Because of the noise impact, mitigation will also include optimised location of the helipad and flight paths to minimise the impact on sensitive uses.

### 5.3 Water Quality Impact

- 5.3.1 <u>Construction Phase:</u> Wastewater generated from the construction site of the NLH complex will be intercepted and treated to comply with criteria of the Water Pollution Control Ordinance prior to discharge.
- 5.3.2 <u>Operational Phase</u>: No significant water quality issue is anticipated.

### 5.4 Waste Management

- 5.4.1 <u>Construction Phase:</u> Good construction practices and proper waste management procedures shall be implemented by the contractor.
- 5.4.2 Operational Phase: No significant waste will be generated.

### 5.5 Ecology

5.5.1 <u>Construction and Operational Phase:</u> No significant ecological issue is anticipated.

#### 5.6 Landscape & Visual Impact

5.6.1 <u>Construction and Operational Phases:</u> No significant landscape/ visual impact issue is anticipated.

# 5.7 Cultural Heritage

5.7.1 <u>Construction and Operational Phases:</u> No cultural heritage issue is anticipated.



#### 6 USE OF PREVIOUSLY APPROVED EIA REPORTS

### 6.1 EIA report for Helipad at Yung Shue Wan, Lamma Island

EIAO Register Number - EIA-114/2005

Approval Date – 19 January 2006

Addressed Environmental Aspects

6.1.1 Air quality, noise impact, waste management, water quality, ecological impact and cultural heritage impact during both the construction and operational phases in EIA-114/2005.

Relevant Findings and Recommended Mitigated on Environmental Impacts

6.1.2 Findings of helicopter noise impact are considered relevant. Several mitigation measures were recommended in EIA-114/2005 including reduction of flight path angles of the helicopters, site selection for the best helipad location, realignment of the best flight routes over the least densely populated areas and avoidance of the use of noisier helicopter type (Super Puma AS332 L2) whenever practicable. There is no standard on emergency helicopter noise at night. As such, the residual helicopter noise impacts during daytime and night-time were evaluated. The findings of helicopter noise of EIA-114/2005 are relevant to this EIA study and hence will be referred to in this EIA.

### 6.2 EIA report for Peng Chau Helipad

EIAO Register Number - EIA-107/2005

*Approval Date – 25 August 2005* 

Addressed Environmental Aspects

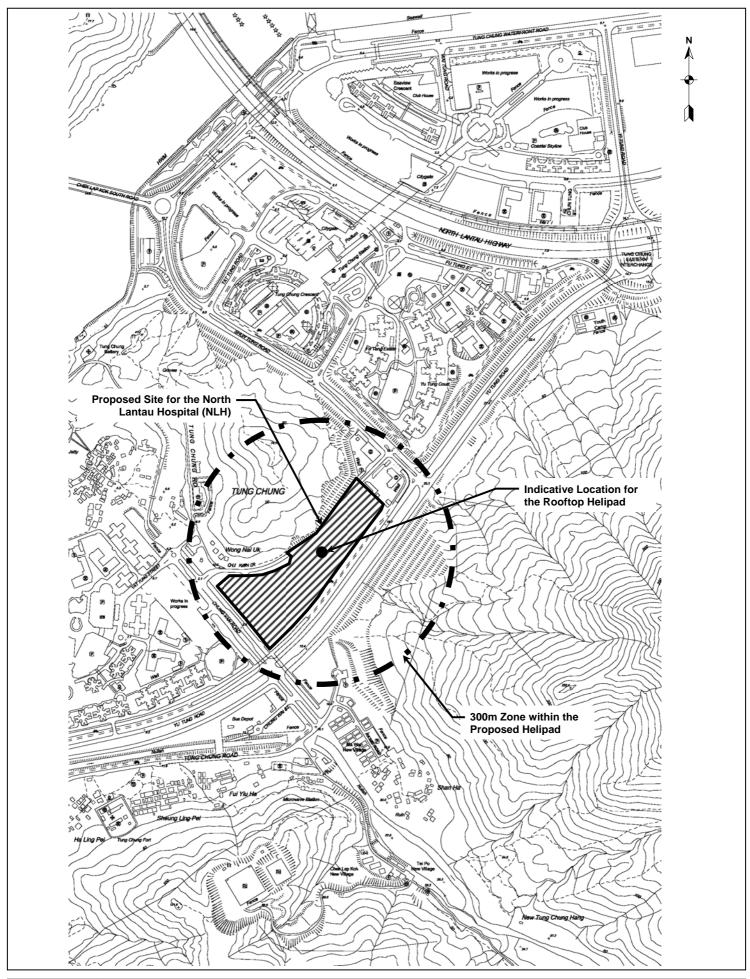
6.2.1 Air quality, noise impact, waste management, water quality, ecological impact, fisheries impact, and cultural heritage during both construction and operational stages were addressed in EIA-107/2005.

Relevant Findings and Recommended Mitigated on Environmental Impacts

6.2.2 Findings of helicopter noise impact are considered relevant. Several mitigation measures were recommended in EIA-114/2005 including reduction of flight path angles of the helicopters, site selection for the best helipad location, realignment of the best flight routes over the least densely populated areas and avoidance of the use of noisier helicopter type (Super Puma AS332 L2) whenever practicable. There is no standard on emergency helicopter noise at night. As such, the residual helicopter noise impacts during daytime and night-time were evaluated. The findings of helicopter noise of EIA-114/2005 are relevant to this EIA study and hence will be referred to in this EIA.



# **Figure**





EIA Study for a Proposed Helipad on Rooftop of the Proposed North Lantau Hospital at Yu Tung Road, Tung Chung, Lantau

Site Location and the Environs

Figure 1					
Drawn	ANW	Checked ROL			
Scale	NTS	Date March 2006			





# **BMT Asia Pacific**



大嶼山東涌裕東路北大嶼山醫院天台直升機坪環境影響評估研究

# 工程項目簡介

報告編號R/8309/01 第二版 2006年3月

香港特別行政區政府 衛生福利及食物局



報告編號: R8309C/01 第二版

日期:2006年3月

# 大嶼山東涌裕東路北大嶼山醫院 天台直升機坪環境影響評估研究

工程項目簡介



# **BMT Asia Pacific Limited**

# 文件控制表

客戶: 衛生福利及食物局

報告名稱: 大嶼山東涌裕東路北大嶼山醫院

天台直升機坪環境影響評估研究

工程項目簡介

工作編號: 8309

報告編號: R/8309/01 第二版

版本: 最終版 日期: **2006**年**3**月

作者:

簽署:

hopy.

姓名:梁偉光職位:副董事

審查及認可:

簽署:

姓名:韋拔烈職位:董事

檔案名稱: R8309C.01 - Project Profile (Issue 2).doc

BRL

分發:原稿已存於工程品質紀錄檔案 頁數:一



# 目錄

1	基本資料		
	1.1	工程項目名稱	1
	1.2	工程項目的目的和性質	1
	1.3	工程項目倡議人	1
	1.4	工地位置、工程項目的規模及選址歷史	2
	1.5	涵蓋的指定工程數目和類別	2
	1.6	聯絡人姓名及電話號碼	3
2	規劃ス	大綱及計劃的執行	4
3	對環境	竟可能造成的影響	5
	3.1	興建階段	5
	3.2	運作階段	5
4	周圍環境的主要元素		
	4.1	現有的和預計的敏感受體及部分的自然環境	7
	4.2	影響選址環境的主要元素	7
5	納入記	设計中的環 <del>保措施</del>	8
	5.1	空氣質素	8
	5.2	噪音	8
	5.3	水質	8
	5.4	廢物管理	8
	5.5	生態	8
	5.6	景觀及視覺	8
	5.7	文化遺產	8
6	使用表	之前獲批准的環境影響評估報告	9
	6.1	南丫島榕樹灣直升機升降坪環境影響評估報告	9
	6.2	坪洲直升機升降坪環境影響評估報告	9

i

# 附圖一覽表

圖 1 工程項目位置及現時周邊環境



# 1 基本資料

# 1.1 工程項目名稱

1.1.1 擬建的工程項目名爲「大嶼山東涌裕東路北大嶼山醫院天台直升機坪環境影響評估研究」(下稱「工程項目」)

# 1.2 工程項目的目的和性質

目的

1.2.1 基於北大嶼山人口增長,迪士尼樂園及未來大嶼山遊客不斷增加,以致有需要增加公共醫院服務。因此,有需要計劃於東涌興建一所名爲「北大嶼山醫院」(下稱「該院」),以應付該社區及大嶼山周邊地區的醫療需求。該院將會提供住院、流動急救、社區保健等醫療服務,以及各項診症及醫療支援設施。再者,當局認爲有必要於該院天台上興建直升機坪,以便能在最短時間內運送病人至該院接受緊急治療。

性質

- 1.2.2 擬建的直升機坪只限用作政府飛行服務隊所提供的緊急服務,並且禁止用作一切商業用途。
- 1.2.3 根據《環境影響評估條例》附表 2 第 1 部,本工程項目(<u>不包括計劃興建的「北大嶼山醫院」</u> )屬於B.2 類所指的「在現有的或計劃中的住宅發展 300 米內的直升機升降場」之指定工程項 目。
- 1.2.4 要興建擬建的直升機坪,必需先興建北大嶼山醫院的大樓。工程之設計將完全符合國際民航組織之直升飛機場標準及政府飛行服務隊直升飛機升降場指引。

# 1.3 工程項目倡議人

- 1.3.1 香港特別行政區政府衛生福利及食物局局長為是次工程項目之倡議人。
- 1.3.2 建築署將會代表工程項目倡議人興建是項工程。醫院管理局則負責該院及該院天台的直升機坪 之運作。



### 1.4 工地位置、工程項目規模及歷史

工地位置

1.4.1 擬建之直升機坪將位於東涌裕東路建議中的「北大嶼山醫院」天台(見圖1)

# 工程項目的規模

1.4.2 擬建的直升機坪位於該院的天台上。根據政府飛行服務隊直升機升降場指引,擬建直升機坪的 直徑約為 40 米,但確實的面積可能因實際場地的限制而有所改變。

### 工地歷史

- 1.4.3 擬建中的直升機坪(或「北大嶼山醫院」)位於東涌第 13、22 及 25 區,該位置至目前仍然空置。在東涌市中心地區分區計劃大綱圖-編號 S/I-TCTC/14 上,第 13 區已被法定規劃爲「政府、機構或社區」,而第 22 及 25 區則被法定規劃爲「住宅(甲類)」。
- 1.4.4 為了滿足大嶼山居民之需要及盡快解決對於醫院服務的需求不段增加,有關方面有必要另覓一個可即時使用之工地。到目前為止,東涌第 13、22 及 25 區是唯一被認定能即時提供興建該院的選址。

### 對建議中天台直升機坪之需求原因

1.4.5 為了確保公眾能得到最佳的醫療急救服務,位於北大嶼山醫院天台擬建的直升機坪成為政府飛行服務隊的一個首要關注事項。擬建的天台直升機坪被視為該院未來運作的一項必需設施,譬如協助轉送頭部受創或燒傷的傷者到其他醫院/醫療中心接受急救和治療。青馬大橋是目前可運送傷者往返大嶼山及其他地區之唯一陸上運輸途徑,倘若適逢交通擠塞或大橋關閉,空中運輸便成了唯一可行的緊急醫療運送途徑。擬建之直升機坪對於協助將緊急醫療隊伍準確無誤及迅速地運送到災難現場亦有必要的作用。

# 1.5 涵蓋的指定工程數目和類別

1.5.1 根據《環境影響評估條例》附表 2 第 1 部,是次工程項目(不包括擬建的「北大嶼山醫院」之工程)屬於 B.2 類所指的「在現有的或計劃中的住宅發展 300 米內的直升機升降場」之指定工程項目。



# 1.6 聯絡人姓名及電話號碼

衛生福利及食物局局長 衛生福利及食物局助理秘書長(衛生5)- 黃柏森先生

電話: 2973 8119 傳真: 2840 0467

建築署總項目經理-張明安先生

電話: 2867 3570 傳真: 2804 6805



# 2 規劃及實施時間表大綱

- 2.1.1 是次工程項目由建築署負責設計及執行。
- 2.1.2 環科顧問有限公司被委任爲負責根據《環境影響評估條例》對擬建之醫院天台直升機坪(工程項目)進行環境影響評估研究之顧問。
- 2.1.3 是項工程將包括最後階段之油漆工序及裝置所需的設備。所有其他結構上的工程將納入爲該院 天台之建設工程及包括在興建該院的工程之內,所有有關工程均由建築署負責。
- 2.1.4 以下是有關工程項目計劃和執行的暫定程序:

規劃/批核及設計 2006 年初至 2007 年中興建(北大嶼山醫院) 2007 年未至 2010 年未

• 直升機坪之啓用/運作 2011



# 3 對環境可能造成的影響

# 3.1 興建階段

氣體排放/灰塵/氣味

3.1.1 預料在興建階段,本工程將不會產生顯著的氣體排放及氣味。而且,承建商在施工期間將採用 在《空氣污染管制(建造工程塵埃)規例》中建議的防塵措施,以把所產生的飄逸塵埃減至最 少。因此,在興建階段將不會產生顯著的飄逸塵埃。

嘈吵運作/晚間運作

3.1.2 本環境評估研究將評估興建該院大樓及擬建天台直升機坪時所產生的噪音,必要時亦會建議措施以緩減興建階段時所造成的噪音影響。

污水、排放物或受污染的徑流

3.1.3 施工期間所產生的污水在排放前將會被攔截及處理,以符合《水污染管制條例》的排放標準。 故此,在興建階段將不會產生顯著的水質影響。

廢棄物及副產物的產生

3.1.4 在施工期間,承建商將會實施良好的建築工藝和適當的廢物管理程序,所以於施工期間將不會 構成影著的廢物問題。

危險性物品的製造、儲存、使用、操作和運輸、及危險性廢棄物的處置

3.1.5 在施工期間,工地將不設任何燃料添加或儲存設施、或產生任何其他危險性物品或廢棄物。

生態

3.1.6 由於在本工程工地範圍之內並沒存在任何具有高度保護價值的植物或棲息地,因此在本工程興 建階段將不會構成顯著的生態影響。

景觀及視覺

3.1.7 本工程在興建階段期間將不會構成任何景觀和視覺方面的影響。

### 3.2 運作階段

氣體排放/灰塵/氣味

3.2.1 預料在運作階段,擬建的直升機坪不會產生明顯的氣體排放、灰塵及氣味。至於直升機所排出的氣體亦會被旋翼有效地驅散,因此所造成的環境影響將會極少。有關方面亦會謹慎選擇位於該院天台的通風口,以避免因直升機所排放的氣體而對該院造成影響。



3.2.2 擬建的直升機坪將不會附設燃料添加設施。

嘈吵運作/晚間運作

- 3.2.3 擬建的直升機坪只供政府飛行服務隊用作緊急服務,不會容許作任何商業性飛行活動。該直升機坪將會二十四小時按需求提供服務。
- 3.2.4 由於直升機的噪音會做成某程度上的滋擾,因此在規劃上需要十分謹慎。直升機的靠近/降落、起飛、及直升機坪上或上空之的機動動作均會造成噪音。本環境評估研究將會就擬建的直升機坪之運作對鄰近噪音感強的地方所造成的即時最高聲壓水平-最高噪音水平(Lmax)作出評估,必要時亦會建議措施以緩減直升機坪運作所造成的影響。

交通

3.2.5 由於擬建的直升機坪只限作緊急用途,直升機坪的運作對交通將不會造成任何影響。

污水、排放物或受污染的徑流

3.2.6 擬建的直升機坪將沒有任何燃料添加設施,因此亦不會造成明顯的水質問題,污水、排放物或 受污染的徑流。

廢棄物及副產物的產生

3.2.7 擬建的直升機坪只限於緊急情況時用作運送傷患者接受治療,因此不會產生任何廢棄物及副產物。

危險性物品的製造、儲存、使用、操作和運輸、及危險性廢棄物的處置

3.2.8 凝建的直升機坪將不設任何燃料添加設施、危險性物品及廢棄物之儲存。

生態

3.2.9 由於擬建的直升機坪位於計劃興建的北大嶼山醫院之天台,因此不涉及任何生態方面的影響。

景觀及視覺

3.2.10 擬建的直升機坪本身不是一個干擾性的結構,並只能從附近少數的高樓大廈才能觀看得到,因此不會構成任何景觀和視覺方面的影響。

文化遺產

3.2.11 工程項目在運作期間將不會對文化遺產造成影響。



# 4 周邊環境之主要元素

# 4.1 現有的和預計的敏感受體/部分天然環境

- 4.1.1 由於擬建的直升機坪位於計劃興建的北大嶼山醫院之天台,該直升機坪的興建或運作階段對附 近敏感的自然環境(如水敏感受體、漁場、野生生物棲息地等)將不會構成影響。
- 4.1.2 如上文提及直升機所發出的噪音將會是這工程項目構成的主要環境問題。因此,這工程項目的 環境影響評估研究將會深入探討噪音敏感受體將會面對的影響。
- 4.1.3 計劃興建的北大嶼山醫院將會是最直接的噪音敏感受體。然而,醫院管理局已承諾於北大嶼山 醫院採用中央冷氣系統,因此擬建的天台直升機坪將不會對該院之病人及職員造成明顯噪音影響。
- 4.1.4 初步的地區檢視發現以下在擬建的天台直升機坪(計劃興建的北大嶼山醫院選址)附近 300 米以內噪音感應強的部份地區:
  - 黃泥屋之少層數村屋;
  - 逸東村某部份住宅大廈及學校;
  - 馬灣新村的某部份村屋;
  - 灰窰下的某部份村屋;
  - 馬灣涌的部分村屋;
  - 裕東苑的部份住宅大廈。
- 4.1.5 至於規劃中噪音感應強的設施包括計劃在第27區興建的一所小學及一所教會附屬幼稚園。
- 4.1.6 部分鄰近北大嶼山海岸地區的噪音敏感受體由於位於直升機飛行航道之下,因此有可能因直升 機飛行時發出噪音而受到影響,有關詳情將會在工程項目的環境影響評估研究中探入探討。

### 4.2 影響選址環境的主要元素

4.2.1 選址的附近環境中沒有影響工程項目(擬建的直升機坪)的主要元素。有關方面將會聯同政府 飛行服務隊去設計直升機的航道,以避免對鄰近的高樓大廈和地域造成影響。



# 5 將納入設計中之環保措施

# 5.1 空氣質素

- 5.1.1 <u>興建階段</u>: 爲了減低飄逸塵埃,承建商將會根據合約條款實施《空氣污染管制(建造工程塵埃)規例》所建議的塵埃消減措施,以把潛在的飄逸塵埃影響減至最低。
- 5.1.2 運作階段:工程項目將不會構成顯著的空氣質素問題。

# 5.2 噪音

- 5.2.1 興建階段:環評將會對建築噪音進行評估,於有需要時建議消減措施。
- 5.2.2 <u>運作階段</u>: 環評將會對直升機所發出的噪音進行評估,如有需要亦會建議緩和噪音影響的措施。由於工程項目可能造成噪音影響,有關緩和措施將會包括優化直升機坪位置及其航道,以達到將噪音影響減至最低。

# 5.3 水質

- 5.3.1 <u>興建階段:</u>在興建北大嶼山醫院大樓期間,工地所產生的污水在排放前將會被攔截和處理,以符合《水污染管制條例》的排放標準。
- 5.3.2 運作階段:工程項目將不會構成顯著的水質問題。

# 5.4 廢物管理

- 5.4.1 興建階段:承辦商將會採取良好之建築工藝及適切廢物管理措施以減低影響。
- 5.4.2 運作階段: 工程項目將不會產生顯著的廢物。
- 5.5 生態
- 5.5.1 興建及運作階段: 工程項目將不會構成顯著的生態問題。
- 5.6 景觀及視覺
- 5.6.1 興建及運作階段:工程項目將不會構成顯著的景觀及視覺問題。
- 5.7 文化遺產
- 5.7.1 興建及運作階段:工程項目對文化遺產將不會構成顯著的影響。



- 6 使用之前獲批准的環境影響評估報告
- 6.1 南丫島榕樹灣直升機升降坪環境影響評估報告

環境影響評估條例登記編號-EIA-114/2005

獲批准日期-2006年1月19日

涉及的環境方面

6.1.1 在編號 EIA-114/2005 的環評報告中曾提及有關工程在興建及運作階段時所造成的環境影響,包括空氣、噪音、廢物處理、水質、生態及文化遺產方面。

有關的調查結果及建議的緩和環境影響的措施

6.1.2 以上環評報告中有關直升機噪音的調查結果對這工程項目的環境影響評估研究是切題的。編號 EIA-114/2005 的環評報告提出了一些緩和環境影響的措施,包括減少直升機航道的角度、選擇 最理想的直升機坪位置、在最低密度地區重新將飛行航道校直、及盡可能避免使用較嘈吵的直 升機型號(如超級美洲豹 AS332 L2)。由於現時對於在緊急情況時使用的直升機噪音沒有一個特定的管制標準,因此這報告對有關直升機的噪音在日間及晚間時間所造成的影響進行了評估。這些調查結果適用於是次工程項目的環境影響評估研究,亦會被引用於是次環境影響評估報告之內。

### 6.2 坪洲直升機升降坪環境影響評估報告

環境影響評估條例登記編號-EIA107/2005

獲批准日期:2005年8月25日

涉及的環境方面

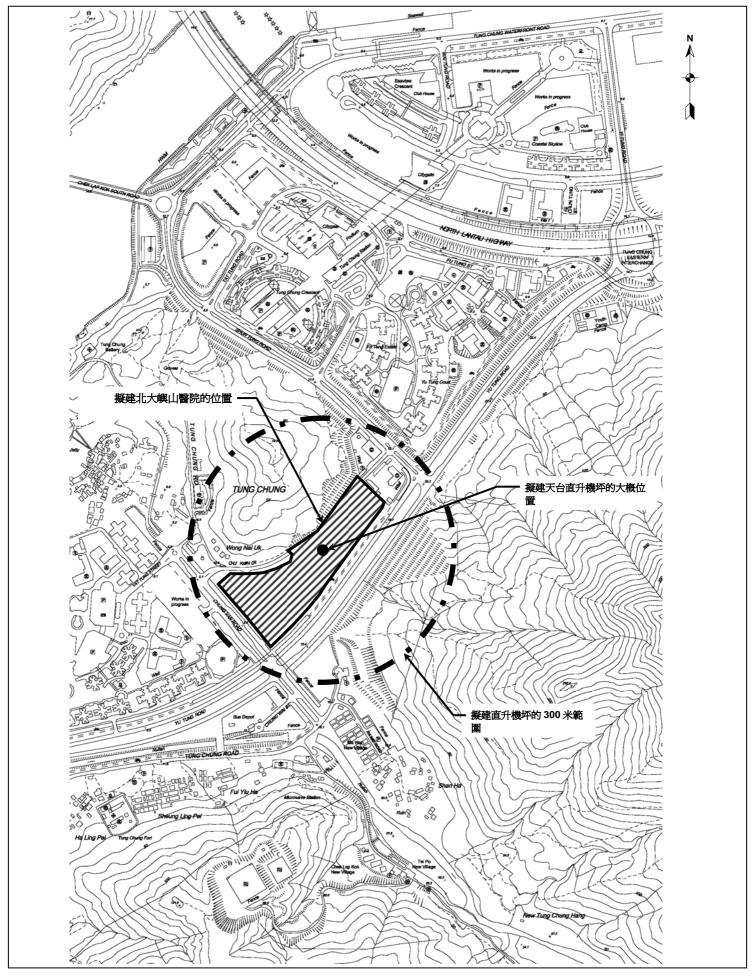
6.2.1 在編號 EIA-107/2005 的環評報告中曾提及有關工程在興建及運作階段時所造成的環境影響,包括空氣、噪音、廢物處理、水質、生態、漁業及文化遺產方面。

有關的調查結果及建議的緩和環境影響的措施

6.2.2 以上環評報告中有關直升機噪音的調查結果對這工程項目的環境影響評估研究是切題的。編號 EIA-107/2005 的環評報告提出了一些緩和環境影響的措施,包括減少直升機航道的角度、選擇 最理想的直升機坪位置、在最低密度地區重新蠻飛行航道校直、及盡可能避免條用較嘈吵的直 升機型號(如超級美洲豹 AS332 L2)。由於現時對於在緊急情況時使用的直升機噪音沒有一個特定的管制標準,因此這報告對有關直升機的噪音在日間及晚間時間所造成的影響進行了評估。這些調查結果適用於是次工程項目的環境影響評估研究,亦會被引用於是次環境影響評估報告之內。



附圖





東涌裕東路北大嶼山醫院天台直升機坪環境影響評估研究

工程項目位置及現時周邊環境

<u></u>				
繪圖	ANW	審核	ROL	
比例	NTS	日期	2006年3月	

