

## Appendix 7.4.2 Type of Area Containing and Influencing Factors of Representative Noise Sensitive Receivers

Section 2.3.2 of the IND-TM requires that the Authority shall have regard to an area of adequate size when determining the type of area within which the NSR is located in accordance with the descriptions in Table 1 of IND-TM. Typically, in urban areas an area of 100 m radius around the NSR should be adequate, whereas in sparsely developed areas, such as rural districts, an area of 500 m radius or even more should be considered, depending upon the circumstances. Accordingly, the types of areas containing the representative NSRs have been reviewed as follows:

For the representative existing NSRs TC-1, TC-2 and TC-16 (see relevant photos in Drawing No. **MCL/P132/EIA/7-5-002**), they are high-rise developments located in high density and diverse development area but excluding industrial activities, major trade or commercial activities (outside 100 m of the Citygate). Therefore, the type of area containing the NSRs is considered as “Area other than those above” as defined in the IND-TM.

For the representative existing NSRs TC-3 (see relevant photo in Drawing No. **MCL/P132/EIA/7-5-002**), they are high-rise developments located in high density and diverse development area including industrial activities, major trade or commercial activities (within 100 m of the Citygate). Therefore, the type of area containing the NSRs is considered as “Urban area” as defined in the IND-TM.

For the representative planned NSRs TC-5 and TC-6, they are mainly low- and high-density residential developments with domestic plot ratios ranging from 3 to 5 as per the Annex 2 (i.e. The latest layout plan showing the proposed land uses and the planning parameters based on the initial land use options as shown in **Annex 2**) of CEDD’s Letter Ref.: HKIS 2/13/60IM dated 2 September, 2013. Therefore, the type of area containing the NSRs is considered as “Area other than those above” as defined in the IND-TM.

For the representative planned NSR TC-7 and TC-11, they are mainly low- and high-density residential developments with domestic plot ratios ranging from 3 to 5 / 3 to 6 as per the Annex 2 (i.e. The latest layout plan showing the proposed land uses and the planning parameters based on the initial land use options as shown in **Annex 2**) of CEDD’s Letter Ref.: HKIS 2/13/60IM dated 2 September, 2013. Therefore, the type of area containing the NSRs is considered as “Area other than those above” as defined in the IND-TM.

For the representative existing NSRs SLW-1, SLW-2 and TS-1 (see relevant photos in **Drawing No. MCL/P132/EIA/7-5-002**), they are isolated houses / temple in non-rural area (adjacent to the airport island by virtue of its size plays a major role in determining the type of area containing NSRs). Therefore, the type of area containing the NSRs is considered as “Area other than those above” as defined in the IND-TM.

For the representative existing NSR TC-4 and TC-46 (see relevant photos in **Drawing No. MCL/P132/EIA/7-5-002**), they are isolated houses in non-rural area (within 500 m of the Yau Tung Estate). Therefore, the type of area containing the NSRs is considered as “Area other than those above” as defined in the IND-TM.

For the representative existing NSR TS-2 (see relevant photos in **Drawing No. MCL/P132/EIA/7-5-002**), they are isolated houses in non-rural area (adjacent to the airport island by virtue of its size plays a major role in determining the type of area containing NSRs). Therefore, the type of area containing the NSRs is considered as “Area other than those above” as defined in the IND-TM.

For the representative existing NSR SLW-3 (see relevant photo in **Drawing No. MCL/P132/EIA/7-5-002**), they are low-density residential houses in non-rural area (adjacent to the airport island by virtue of its size plays a major role in determining the type of area containing NSRs). Therefore, the type of area containing the NSRs is considered as “Area other than those above” as defined in the IND-TM.

# Expansion of Hong Kong International Airport into a Three-Runway System

## Environmental Impact Assessment Report



Site surveys were carried out in May, June and July of 2013 to identify the existing environment. All the existing / planned NSRs are located on the southern side of airport island which mainly comprise of residential developments. Key sources of noise impact to the existing / planned NSRs are summarised in **Table 1** below.

Table 1: Key Noise Sources (or Influencing Factors) to the Existing / Planned NSRs

| Location   | Key Noise Sources (or Influencing Factors)                    | Observations during Site Surveys   |
|--|---|--|
| Tung Chung Town Centre near Seaview Crescent                       | Aircraft Noise  | Noticeable but not with Dominant Feature of the Noise Climate<br>(or Indirectly Affected by IFs) |
| Tung Chung East Development  | Aircraft Noise  | Noticeable but not with Dominant Feature of the Noise Climate<br>(or Indirectly Affected by IFs) |
| Tung Chung Town Centre near Tung Chung Crescent                    | Road Traffic Noise from Heavy Trafficked North Lantau Highway | Noticeable but not with Dominant Feature of the Noise Climate<br>(or Indirectly Affected by IFs) |
| Tung Chung West Development (within 500 m of the airport island)   | Aircraft Noise  | Noticeable but not with Dominant Feature of the Noise Climate<br>(or Indirectly Affected by IFs) |
| Tung Chung West Development (outside 500 m of the airport island)  | Aircraft Noise  | Noticeable but not with Dominant Feature of the Noise Climate<br>(or Indirectly Affected by IFs) |
| Ma Wan Chung (with direct line of sight to the airport island)     | Aircraft Noise  | Noticeable but not with Dominant Feature of the Noise Climate<br>(or Indirectly Affected by IFs) |
| Ma Wan Chung (line of sight to the airport island blocked by hill) | Aircraft Noise  | Noticeable but not with Dominant Feature of the Noise Climate<br>(or Indirectly Affected by IFs) |
| Tin Sum  | Aircraft Noise  | Noticeable with Dominant Feature of the Noise Climate<br>(or Directly Affected by IFs)           |
| Kau Liu / San Tau  | Aircraft Noise  | Noticeable but not with Dominant Feature of the Noise Climate<br>(or Indirectly Affected by IFs) |
| Sha Lo Wan / Sha Lo Wan Chung Hau                                  | Aircraft Noise  | Noticeable with Dominant Feature of the Noise Climate<br>(or Directly Affected by IFs)           |
| Sha Lo Wan San Tsuen   | Aircraft Noise  | Noticeable with Dominant Feature of the Noise Climate<br>(or Directly Affected by IFs)           |

In accordance with the IND-TM, HKIA / North Lantau Highway with annual average daily traffic flow in excess of 30,000 should be considered as the IF, which is in the vicinity of the identified representative NSRs of fixed noise impact. With reference to the site surveys conducted in May, June and July of 2013, the perceived noises from HKIA (i.e. aircraft noise) and North Lantau Highway (i.e. heavy trafficked noise) are observed to be noticeable at the existing NSRs (i.e. Tung Chung Town, Ma Wan Chung, Tin Sum, Kau Liu, San Tau, Sha Lo Wan, Sha Lo Wan Chung Hau and Sha Lo Wan San Tsuen) and the planned NSRs (i.e. Tung Chung East and West Development) with different features (i.e. dominant or not dominant) for the noise climates of the NSRs as shown in **Table 1**. Therefore, the ASR of the representative NSRs SLW-1 to 3, TS-1 and TC-3 is classified as "C" while the ASR of the rest representative NSRs is classified as "B".

### **Tung Chung New Town Extension Study – Initial Land Use Options**

With regard to the various planning principles, the site context and public aspirations received during Stage 1 Public Engagement (PE) activities, it is recommended for a maximum reclamation of 120ha in Tung Chung East and a maximum reclamation of about 14ha in Tung Chung West.

#### **Estimated Flat and Population in Initial Land Use Options**

|                   | TCE Theme 1 | TCE Theme 2 | TCW    | TCE (Theme 1) + TCW | TCE (Theme 2) + TCW |
|-------------------|-------------|-------------|--------|---------------------|---------------------|
| <b>Flat No.</b>   | 38,000      | 33,000      | 15,000 | 53,000              | 48,000              |
| <b>Population</b> | 110,000     | 95,000      | 43,000 | 153,000             | 138,000             |

### **1.1 Tung Chung East**

Approximately 120 hectares of reclamation are proposed in Tung Chung East having taken into consideration the noise impact of future Tuen Mun - Chek Lap Kok Link, the high ecological value of Tai Ho Wan, and the Tung Chung Navigation Channel. Two themes of land use are proposed with different focuses on housing and economic development respectively. Please refer to the attached plan for the broad land use for TCE under Theme 1 & Theme 2.

#### ***Theme 1: Livable Town***

The theme of Livable Town is formulated based on the need of housing supply. A maximum domestic plot ratio 6 is adopted at certain focal areas to the southern part near the proposed new MTR station where accessibility is relatively high.

This theme will provide about 38,000 flats in the future TCE reclamation. The estimated population of 110,000 would be acceptable in terms of infrastructural capacity, having taken into account the existing developments and all the committed projects. Some additional infrastructure or upgrading works will be required to accommodate the increased population. To cope with the planned population, adequate land will be reserved for community facilities.

#### **Land Use Budget for Tung Chung East Theme 1: Livable Town**

| <b>Major Land Use</b>                           | <b>Approx. Area (in hectares)</b> |
|---|-----------------------------------|
| Residential                                     | 75                                |
| Government, Institution or Community Facilities | 14                                |
| <b>Open Space</b>                               | <b>19</b>                         |
| • Waterfront Promenade                          | • 8                               |
| • Parks   | • 11                              |
| Commercial                                      | 7                                 |
| Road and other uses                             | 5                                 |
| <b>Total</b>                                    | <b>120</b>                        |

### **Theme 2: Economic Vibrancy**

Tung Chung is located in a strategic location in proximity to the Hong Kong International Airport, with major infrastructures going to be completed in the years ahead. Capitalizing on Tung Chung's locational advantage, this theme is to create a regional commercial hub in TCE alongside housing supply. This theme help create more employment opportunities for Hong Kong residents, particularly those living in Tung Chung. This is also in line with the public aspiration for creating more job and employment opportunities as received during PE1.

Apart from provision of local commercial space, lands are reserved for regional office and retail use, including waterfront retail and dining areas, hotels, shopping malls and a marina, with will amount to about 500,000m<sup>2</sup> floor area. Together with the existing and potential economic/tourism developments in North Lantau, and taking account of the strategic location in the region, TCE would readily become a commercial hub in the region. A 350-berth marina with related land for commercial uses is also proposed at the south-eastern edge of TCE and another parcel of land for waterfront dining and retail will be at the northern side of the proposed reclamation, thus adding interests and vibrancy to the waterfront. The total flat production for this theme will be about 33,000 (i.e. about 95,000 population).

#### **Land Use Budget for Tung Chung East Theme 2: Economic Vibrancy**

| Major Land Use  | Approx. Area (in hectares)                                      |
|---|---|
| Residential   | 70  |
| Government, Institution or Community Facilities                                       | 13  |
| <b>Open Space</b>   | <b>17</b>   |
| <ul style="list-style-type: none"> <li>Waterfront Promenade</li> <li>Parks</li> </ul> | <ul style="list-style-type: none"> <li>7</li> <li>10</li> </ul> |
| Commercial  | 15  |
| Road and other uses   | 5   |
| <b>Total</b>  | <b>120</b>  |

### **1.2 Tung Chung West**

TCW is relatively rural and has a number of indigenous villages and eco-sensitive areas such as Tung Chung River and its estuary. The overall development intensity of TCW will be lower than that of TCE to avoid undesirable building height differences between existing villages and new development, and to enhance integration with TCW's natural environment and topography. Conservation related zonings will be provided at coastline, flank of Tung Chung River, and woodlands extended from the Country Park etc. Existing rural village clusters in TCW will be respected so as to maintain their village character. A waterfront promenade in TCW would link up various points of interest including Ma Wan Chung Village, Town Park and the conservation areas.

Having considered the ecological value of the natural environment nearby, a "Development and Conservation – A Balance" approach is adopted, and the proposed reclamation is limited to the north eastern part of the Tung Chung Bay with lower ecological value. The extent of the proposed reclamation will be limited to 14 hectares, which will not significantly change sea-water flows within the Bay based on the preliminary assessment. The reclamation scale has

been largely reduced to balance development needs and public aspiration for environmental conservation.

Domestic Plot Ratio 0.75 is proposed near the Tung Chung River estuary and domestic Plot Ratio 1.5 is proposed near the village clusters. Domestic Plot Ratio 3 will be applicable to the areas adjoining Yat Tung Estate to provide a stepped height profile towards Tung Chung Bay. To capitalize on the improved accessibility due to the proposed TCW Station and having regard to the committed public housing development at Area 39, higher density developments up to domestic PR 5 and 6 are proposed in the southern part of TCW along Tung Chung Road where mountain backdrop is visually dominant and closer to existing Tung Chung Road.

The total flat production for TCW, which comprises of development on both existing land and the 14ha reclamation will be about 15,000 (i.e. about 43,000 population). Please refer to the attached plan for the broad land use for TCW.

#### Land Use Budget for Tung Chung West

| Major Land Use                                  | Approx. Area (in hectares) |
|---|----------------------------|
| Residential                                     | 41                         |
| Government, Institution or Community Facilities | 4                          |
| <b>Open Space</b>                               | <b>22</b>                  |
| • Waterfront Promenade                          | • 4                        |
| • Town Park                                     | • 18                       |
| Commercial                                      | 2                          |
| Conservation Related Use                        | 40                         |
| Villages and Other Use                          | 24                         |
| <b>Total</b>                                    | <b>133*</b>                |

\* including the 14ha reclamation





## 東涌東的初步土地用途方案 Initial Land Use Options in Tung Chung East

### 主題一：宜居城市 Theme 1: Livable Town



會充分利用新港離站附近地帶的發展潛力  
The development potential of the focal areas  
near the MTR station will be optimised



會提供更多設施以配合規劃人口  
More facilities will be provided to cope with the  
planned population



會充分利用新港離站附近地帶的發展潛力  
The development potential of the focal areas  
near the MTR station will be optimised

凝聚力量 共建東涌

### 主題二：經濟活力 Theme 2: Economic Vibrancy



會充分利用新港離站附近地帶的發展潛力  
The development potential of the focal areas  
near the MTR station will be optimised



一個擁有350個泊位的短期停泊處，為海濱面貌增添趣味  
A 350-b berth Marina to create interesting  
frontage for the waterfront



會充分利用新港離站附近地帶的發展潛力  
The development potential of the focal areas  
near the MTR station will be optimised



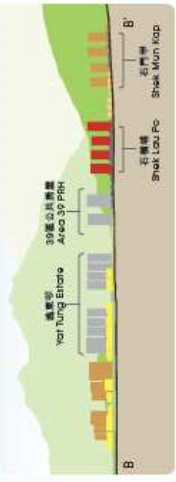
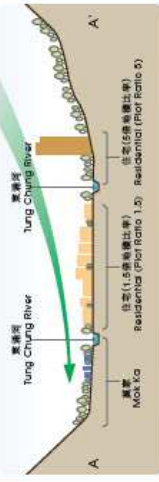
## 5 東涌西的初步土地用途方案 Initial Land Use Option in Tung Chung West



建議把高生態價值地區包括東涌灣及東涌河沿岸一帶劃為保育相關用途，以保護生態。  
Areas of high ecological importance including coastal areas of Tung Chung Bay and along the Tung Chung River are proposed as conservation related uses to preserve the ecology.

利用建議的東涌西鐵路站所帶來的流動性，接近東涌路一帶的住宅用地會採用較高的發展密度至5及6倍的地積比率，該範圍有優美的山景作為樓宇背景。  
At Tung Chung River, higher density developments up to domestic Plot Ratios 5 and 6 are proposed close to the existing Tung Chung Road where the mountainous backdrop is visually dominant.

Adapt domestic Plot Ratio 0.75 near the Tung Chung River estuary and domestic Plot Ratio 1.5 near the villages clusters. Domestic Plot Ratio 3 will be applicable to the area adjoining Yai Tung Estate to provide a stepped height profile towards Tung Chung Bay.



建議於東涌灣附近集約14公頃用作住宅發展，採用3及5倍的用地積比率，同時會提供地區商業用地，海濱長廊和政府、機構或社區設施。  
Propose a reclamation of 14 hectares of land near Ma Wan Chung for residential development with domestic Plot Ratios 3 and 5, together with local commercial area, waterfront promenade and Government, Institution or Community facilities.

利用現有的景觀，建議在市鎮公園以提供更多休憩用地給公眾享用，並把東涌東及西連接起來。  
Make use of the existing landscape to create a town park to provide more open space for public enjoyment and to provide a linkage between Tung Chung East and West.



建議該長堤路線至東涌西，方便居民及帶動經濟活動。  
Propose extending the rail line to Tung Chung West to benefit the residents and boost economic activity.

- 住宅 (6倍地積比率)  
Residential (Plot Ratio 6)
- 住宅 (5倍地積比率)  
Residential (Plot Ratio 5)
- 住宅 (3倍地積比率)  
Residential (Plot Ratio 3)
- 住宅 (1.5倍地積比率)  
Residential (Plot Ratio 1.5)
- 郊區住宅 (0.75倍地積比率)  
Rural Residential (Plot Ratio 0.75)
- 政府、機構或社區  
Government, Institution or Community
- 商業  
Commercial
- 海濱長廊  
Waterfront Promenade
- 休憩用地  
Open spaces
- 自然保護區  
Conservation Area
- 綠化地帶  
Green Belt
- 農地  
Agriculture
- 文化遺產  
Cultural Heritage
- 現狀村屋  
Existing Villages