

Task Force on Kai Tak Harbourfront Development

For discussion
on 01 November 2017

TFKT/21/2017

Proposed Establishment of Government Flying Service Kai Tak Division at Ex-Kai Tak Runway Tip

PURPOSE

This paper aims to provide responses to Members' comments on the proposed establishment of the Government Flying Service (GFS) Kai Tak Division (KTD) at the Ex-Kai Tak Runway Tip (EKTR) raised at the 28th meeting of the Task Force on Kai Tak Harbourfront Development (KTTF) on 8 September 2017.

BACKGROUND

2. At the KTTF meeting on 8 September 2017, we briefed the Members on the proposed establishment of the GFS KTD, including the operational need of GFS for a new division, the considerations of the Harbour Planning Principles in the preliminary design and the associated environmental implications. The relevant paper KTTF/16/2017 presented at the meeting is enclosed in **Annex I**.

3. At the KTTF meeting, the following key issues were raised by the Members:

- (a) Site selection process of GFS KTD;
- (b) Helicopter noise impacts;
- (c) Compatibility with the planned Kai Tak Fantasy initiatives;
- (d) Public enjoyment of harbourfront area;
- (e) Marine traffic impacts;
- (f) Major views of District Councils;
- (g) GFS' planned operations in GFS KTD; and

- (h) Cross-boundary heliport operations under co-location arrangement.

4. In response to the issues raised at the KTTF meeting on 8 September 2017, a follow-up working meeting with the Members was held on 23 October 2017 to exchange views on the issues of concern with corresponding supplementary information tabled to facilitate discussion. Some Members also paid a visit to the GFS Headquarters at Chek Lap Kok (covering the command and control centre as well as the hangar) after the working meeting and were briefed by GFS on their operations. Salient points of the discussion made and our further responses to new issues raised by the Members are summarized in the following paragraphs.

SITE SELECTION PROCESS OF GFS KAI TAK DIVISION

5. The Members were briefed on the site selection process of the GFS KTD, which is also the main objective of the technical feasibility study (FS) undertaken by the Civil Engineering and Development Department in May 2015 with a view to identifying a suitable site for establishing a division for GFS. In the FS, a longlist of 19 candidate sites was initially established based on the following technical requirements and in collaboration with the Planning Department:

- (a) Permanent site for 24/7 first wave emergency response;
- (b) Within the central part of Hong Kong in urban area for effective call-out response;
- (c) Less affected by adverse weather conditions¹;
- (d) Waterfront location for safe helicopter approach and departure;
- (e) Sufficient separation from residential area to minimize noise impact; and

¹ Any areas to the south and east of HK Island, or Junk Bay / Tung Lung Chau are subject to poor visibility and persistent low cloud in spring time due to their exposure to prevailing weather from south and east at this time of year, which would have a serious effect on operations. Moist air presence in the area will form mist and fog very quickly which could undermine the launch and recovery of any helicopter, particularly at night time. Thus, these areas would not be suitable for a division.

- (f) Near fire station and hospital for effective rescue and fire-fighting capability.

6. A two-stage site screening process was carried out through a value management (VM) workshop shortly after commencement of the FS with due consideration to various key factors, including site availability, environmental and programme implications, GFS operational requirements and planned land use. Relevant bureaux and departments had participated in this VM workshop. Upon completion of the two-stage site screening process under the VM workshop, four high potential sites were identified for further evaluation under the FS. Subsequently, option evaluation of these four high potential sites were conducted under the FS based on a set of evaluation criteria, including site availability, land use compatibility, engineering, GFS' operation, environmental and micro-climate. As mentioned at the KTTF meeting on 8 September 2017, timely commissioning of a GFS division is prerequisite to unleash the development potential of the proposed developments along the northern shoreline of the Lantau, including the Tung Chung New Town Extension (TCNTE), Siu Ho Wan and Sunny Bay. The EKTR site is identified as the most suitable site for establishing the GFS division as it is the only site that can meet all of the evaluation criteria and is of lower risk in programme delay.

7. Details of the site selection process are given in Section 1 of the powerpoint presentation in **Annex II**.

HELICOPTER NOISE IMPACTS

8. Comparing with the assessments on aircraft noise and road traffic noise, helicopter noise assessment has a different assessment criterion and therefore no cumulative impacts with other noise sources are required under the Technical Memorandum on Environmental Impact Assessment Process (EIAO-TM) and the Hong Kong Planning Standards and Guidelines (HKPSG). As there are sufficient separations between the noise sources, including the proposed take-off/landing pad of the GFS KTD and the in-flight helicopters along their designated flight paths and the adjacent residential areas identified as the noise sensitive receivers (NSRs), the calculated helicopter noise levels at these NSRs are within the noise standard specified in the EIAO-TM and the HKPSG. These notwithstanding, noise

abatement measure was proposed and discussed at the last KTTF meeting held on 8 September 2017. Relevant details of the proposed noise abatement measure are given in Paragraph 11 of **Annex I**.

COMPATIBILITY WITH THE PLANNED KAI TAK FANTASY INITIATIVES

9. The statutory Kai Tak Outline Zoning Plan (OZP) was formulated in 2007 after a three-stage Public Participation Programme before the approval was obtained from the Town Planning Board. The EKTR site was zoned as “Other Specified Uses” annotated “Heliport” under the Kai Tak OZP. While the EKTR site was intended for provision of an at-grade cross-boundary heliport, the proposed co-location arrangement of the GFS KTD with the planned cross-boundary heliport, which optimises the use of scarce land resources, is considered feasible to preserve the commercial viability of the cross-boundary helicopter services and thus the original land use planning. The synergy of the heliport with the adjacent Kai Tak Cruise Terminal and future Tourism Node can also be maintained.

10. Furthermore, the winning entry of the Kai Tak Fantasy International Ideas Competition (see Section 3 of **Annex II**) also recognized this planning intention and the use of the EKTR site as a heliport was maintained therein. In conclusion, the proposed establishment of the GFS KTD under a co-location arrangement is considered compatible with the land use planning as well as the Kai Tak Fantasy initiatives.

PUBLIC ENJOYMENT OF HARBOURFRONT AREA

11. Public enjoyment of harbourfront area is one of the Harbour Planning Principles and was duly considered in the preliminary design. The proposed GFS KTD has no intervention with the existing pedestrian accessibility condition. In addition, visual intervention to the existing sightline from the Kai Tak Cruise Terminal viewing platform and the Kai Tak Runway Park is minimized through the observation of the statutory building height restriction in the Kai Tak OZP and the provision of a transparent downwash wall at the north east boundary of the GFS KTD. Illustration of the design concept for no or minimised

intervention is given in Section 4 of the powerpoint presentation in **Annex II**.

MARINE TRAFFIC IMPACT

12. As concluded in the Marine Traffic Impact Assessment (MTIA) carried out under the FS, no significant marine traffic impact due to the proposed establishment of the GFS KTD is anticipated. To improve the marine traffic environment close to the waterfront area of the GFS KTD, promulgation of Marine Department Notice (MDN) is considered useful to advise vessels navigating and/or mooring in the vicinity to keep at a safe distance, preferably not less than 100 metres away from the shoreline. Details of such MDN will be further developed in the detailed design stage for agreement with the Marine Department.

MAJOR VIEWS OF DISTRICT COUNCILS

13. The consultation with the Kowloon City, Wong Tai Sin and Kwun Tong district councils (DCs) were carried out on 15 June, 27 June and 20 July 2017 respectively. During the consultation, the DC members generally supported the proposed establishment of the GFS KTD and recognized GFS' dedication to provide round-the-clock emergency services to the community. Major views and comments collected during the consultation and the Government's responses are summarized in **Annex III**.

GFS' PLANNED OPERATIONS IN KAI TAK DIVISION

14. The proposed GFS KTD will act as a forward base to provide first wave emergency responses while the existing GFS Headquarters at Chek Lap Kok will continue to provide emergency responses, law enforcement operations, scheduled flying services as well as training. Depending on the available resources, call-out location, weather conditions, etc., helicopters may launch from either the GFS KTD or the Headquarters at Chek Lap Kok in response to emergency call-outs.

CROSS-BOUNDARY HELIPORT OPERATIONS UNDER CO-LOCATION ARRANGEMENT

15. In respect of the planned cross-boundary heliport services at the EKTR, the Government will separately conduct a comprehensive review on the demand for cross-boundary and domestic commercial helicopter services as well as the use of different heliports in Hong Kong including the EKTR site (the Review). Given that the commercial viability of the future cross-boundary helicopter services has been preserved under the proposed co-location arrangement, the proposed establishment of the GFS KTD is independent of the Review result, which will not affect the implementation timetable of the GFS KTD.

PHASED DEVELOPMENT APPROACH

16. The proposed establishment of the GFS KTD is to maintain GFS' emergency operations at its current level under all weather conditions while preserving the development potentials of the northern shore of Lantau. The timely commissioning of the GFS KTD is crucial to ensuring that the supply of over 40,000 new housing units in Tung Chung East under the TCNTE project would be made available starting from 2023 to meet the strong demand for housing in the short to medium term. To meet this target, the construction of the KTD is planned for commencement by the second half of 2018 subject to funding approval by the Legislative Council. Any delay in the implementation of the GFS KTD will have significant adverse impact on the timely land and housing supply in Hong Kong.

17. As discussed at the KTF meeting on 8 September 2017, the proposed works at the apron area would be able to meet the operational needs of both GFS and the future cross-boundary heliport. Sufficient space on the first floor of the Kai Tak Cruise Terminal Building has been reserved for use by the future cross-boundary heliport. A schematic conceptual layout showing the overall demarcation of site areas between the two users is given in **Annex IV**. Given that the current preliminary design of the GFS KTD developed from the schematic conceptual layout has made allowance for development of a future cross-boundary heliport, the proposed phased development of the GFS KTD and the planned cross-boundary heliport at a later stage is considered technically feasible. As such, the construction of

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the GFS KTD as first phase development in the EKTR site is necessary for meeting the housing need mentioned in Para 16 above, and should not hinge on the outcome of the aforementioned Review.

WAY FORWARD

18. Members are invited to express further views on the proposed preliminary design of the GFS KTD as input to the detailed design stage.

- Annex I** Paper No. KTTF/16/2017 with Annexes
- Annex II** Powerpoint Slides for Working Meeting on 23 Oct 2017
- Annex III** Major Concerns Collected in District Council Consultation
- Annex IV** Schematic Conceptual Layout – Co-location Arrangement

**Hong Kong Island and Islands Development Office
Civil Engineering and Development Department
October 2017**

Task Force on Kai Tak Harbourfront Development

For discussion
on 08 September 2017

TFKT/16/2017

Proposed Establishment of Government Flying Service Kai Tak Division at Ex-Kai Tak Runway Tip

PURPOSE

This paper briefs Members on the preliminary design of the proposed Government Flying Service (GFS) Kai Tak Division at the Ex-Kai Tak Runway Tip (EKTR) under a co-location arrangement with the planned cross-boundary heliport.

BACKGROUND

2. The proposed developments along the northern shore of Lantau including the Tung Chung New Town Extension, Siu Ho Wan and Sunny Bay would block one of the GFS' four major helicopter flight routes for transiting to and from the Hong Kong International Airport (HKIA), i.e. the North Lantau Expressway (NLE, see **Annex A**), making it difficult for GFS to continue its emergency services under poor weather conditions¹. In order to maintain GFS' emergency operations at its current level under all weather conditions while preserving the development potentials of the northern shore of Lantau, there is a need to establish a division for GFS outside the HKIA.

3. The Civil Engineering and Development Department (CEDD) commenced a technical feasibility study in May 2015 to identify a suitable site for establishing a division for GFS. Upon completion of a thorough site selection process considering technical feasibility, land use planning, compatibility with aviation safety requirements, GFS' operational needs, optimal site utilization and compliance with statutory requirements, etc., the EKTR was identified as the most suitable location for establishing the division under a co-location arrangement with the planned

¹ GFS provides emergency services, including air ambulances, search and rescue, fire-fighting and support to law enforcement agencies, in Hong Kong and the South China Sea from its headquarters in the HKIA. Under poor weather conditions, the other primary helicopter flight routes from the HKIA (i.e. the Silvermine Pass and Tung Chung Pass) are subject to low cloud level and poor visibility conditions and are unsafe for use. If the NLE is also blocked, GFS has to consider using the western coastline of Lantau as last resort, but this route is subject to much higher risk factors such as little effective visual references, high terrain and turbulence, rendering it unsafe for use under poor weather conditions and at night time, and its long distance to the other areas in the territory will further lengthen the flight time for all emergency flights, making it impractical for GFS to meet its performance commitments and emergency response effectiveness would be undermined.

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cross-boundary heliport.

THE SITE

4. The site is located at the southern end of the EKTR, with a site area of approximately 7,400m² (See location plans in **Annex B**). The site is generally flat with an average site formation level of about +5.0mPD. It is a waterfront site facing the Victoria Harbour to the south; bounded to the northwest by the Kai Tak Cruise Terminal (KTCT) and to the northeast by the Kai Tak Runway Park (Phase 1).

5. The site has been zoned as “Other Specified Uses” annotated “Heliport” under the Kai Tak Outline Zoning Plan (OZP) S/K22/2 since 2007, primarily intended for provision of an at-grade cross-boundary heliport. The Government now proposes to co-locate the Kai Tak Division with the planned cross-boundary heliport at the EKTR. Such arrangement would maximize the use of limited land resources and preserve the synergy among the KTCT, the future Tourism Node and the commercial helicopter services.

SCOPE OF WORKS

6. With due consideration to flight safety, operational requirements for GFS’ emergency services and the need to preserve the commercial viability of future cross-boundary helicopter services as planned, the scope of works includes the following elements -

- (a) A take-off/landing helipad;
- (b) Two parking pads with associated protection areas;
- (c) A hangar to accommodate two helicopters and associated maintenance equipment;
- (d) An office building accommodating an Air Command and Control Centre and Flight Planning Centre including operation room, engineering office, mission briefing and training room, aircraft and mission equipment storage etc.; and

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- (e) Relevant infrastructures and supporting facilities including aviation aids, communication, navigation and surveillance systems, firefighting facilities, helicopter refueling facilities, car parking spaces, downwash wall, etc.
7. A preliminary layout plan is enclosed in **Annex C**.

PROPOSED PRELIMINARY DESIGN

8. A preliminary design of the Kai Tak Division is shown in **Annex D**. The Kai Tak Division is to be developed in compatibility with the overall planning and design framework of the Kai Tak Development (KTD) as well as the integrated planning, vibrancy and accessibility of the Harbour. In addition, the Harbour Planning Principles have been taken into account when drawing up the preliminary design, in particular the following areas -

(a) *Harbour Enhancement*

(i) *Design*

The Kai Tak Division is situated within the KTD, facing the Victoria Harbour and backed by the iconic KTCT. It matches the aviation design theme of the adjacent Kai Tak Runway Park and pays homage to the aviation history of the EKTR by celebrating the memory of the old Kai Tak Airport. Given such a prominent location, the design of the Kai Tak Division, in conjunction with the cross-boundary heliport, should not only meet the operational requirements of GFS but also be in harmony with the exterior aesthetics of the KTCT. The architectural and landscape design of the Kai Tak Division acknowledges and respects the architectural features that make the KTCT iconic, taking cues from the softened corners, material palette and the elegant arched feature at the end of the cruise terminal building. In gist, the Kai Tak Division can be seen as a natural extension of the KTCT. Stepping down of the massing elaborates the landscape of KTCT and enhances visual connectivity towards the water border.

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(ii) Kai Tak Public Creatives - Current of Vitality Theme

In addition to extending the features of the KTCT, the design of the Kai Tak Division/cross-boundary heliport signifies its Kai Tak identity and promotes the branding of KTD through the integration of the Kai Tak Public Creatives element into the design. Graphic motifs of the energy swirl and DNA bar of the “Current of Vitality” theme will be adopted on the downwash wall and incorporated onto the green roof of the hangar and office building respectively. The adoption of the “Current of Vitality” Theme in the design is summarized in **Annex E**.

The downwash wall of the Kai Tak Division /cross-boundary heliport is visible to the public from the Runway Park. Its transparent design would allow maximum views of the skyline and beyond.

The green roof, prominently visible from the viewing platform of KTCT Park and by the helicopter operators/passengers, aims to extend the KTCT Park landscape further towards the waterfront. The wave pattern takes reference to “air pattern” from the Kai Tak Current of Vitality DNA bar which also echoes with the future use of the site as a heliport.

(b) Public Enjoyment

The rooftop of the hangar and office building is designed at +13.0mPD which observes the building height restriction in the Kai Tak OZP. This enables the public to continue to enjoy an unobstructed view of the Harbour from the viewing platform of the KTCT Park. Besides, after the heliport is in operation, the public at the viewing platform and the adjacent Kai Tak Runway Park would be able to watch helicopters taking off and landing.

(c) Sustainable Development

The Kai Tak Division/cross-boundary heliport embraces the principle of sustainable development in the planning and design process. Passive sustainable

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design principle and technology are adopted in the design. It is designed to minimize energy consumption and promote comfort within the office space by putting major office spaces at the south-facing position and using sun shading devices at the west-facing façade, which cut off excessive glare while allowing natural sun light into the office area. Light tubes are proposed to be installed on the roof to allow natural light penetrating into corridor spaces and the hangar in order to reduce artificial lighting consumption.

The hangar space is designed to allow for natural ventilation such that air-conditioning is not required. A green roof is proposed at the hangar and the office building to maximise the greening area and reduce heat gain and thermal load on the roof slab.

Furthermore, in terms of fixture and equipment, LED lighting, high efficiency air-conditioning system and water saving sanitary fixtures will be used to enhance the sustainability of the development.

(d) Stakeholder Engagement

The prominence of the EKTR is well acknowledged. Therefore, a series of public consultation exercise has been planned in order to consult the community at this early stage on the proposed development at the site. Besides this Task Force, we consulted Kowloon City, Wong Tai Sin and Kwun Tong District Councils (DCs) in June/July 2017 and obtained their general support on the proposed establishment of the Kai Tak Division at EKTR. As part of the DC consultation, DC members had paid visits to the GFS Headquarters in Chek Lap Kok to understand GFS' duties and operation. The KTCT operator was also consulted in June 2017 to discuss potential interface issues during the operation stage. All views collected during the public consultation exercise will be taken into consideration in the detailed design stage.

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TEMPORARY WORKS AREA

9. A temporary works area at a separate location as shown in **Annex F** will be required for construction of the Kai Tak Division to provide accommodation for site staff and storage area for construction material and equipment. Provision of a temporary works area at this particular location at the former runway will be necessary to minimize construction traffic impact on existing local roads and to shorten the construction period. The requirements on temporary works area have been minimized (in both footprint of site area and height of temporary office building) with an aim to reduce possible impacts on the harbourfront and environment. Visual impacts during construction stage will be mitigated through beautification of site hoardings and provision of suitable greening.

ENVIRONMENTAL IMPLICATIONS

10. Based on an environmental assessment (EA) the Kai Tak Division will not have significant adverse impacts on all environmental aspects in both construction and operation stages. We will implement the mitigations measures recommended in the EA as and when appropriate

11. As there are sufficient separations between the proposed helicopter flight paths and the adjacent residential areas, the calculated helicopter noise levels at these residential areas are within the standard specified in the Hong Kong Planning Standards and Guidelines. For further noise abatement, GFS will issue operational guidelines specifying that GFS helicopters shall adopt flight paths further away from residential areas as far as practicable. Similar flight paths will also be adopted as far as practicable by the future operators of commercial helicopters. Although no noise barriers are considered necessary as noise mitigation measures under the EA, the proposed installation of downwash walls along the north-east boundary of the Heliport site will help cut down the helicopter noise that would be experienced by the users of the adjacent Kai Tak Runway Park.

IMPLEMENTATION PROGRAMME

12. The construction of the GFS Kai Tak Division is

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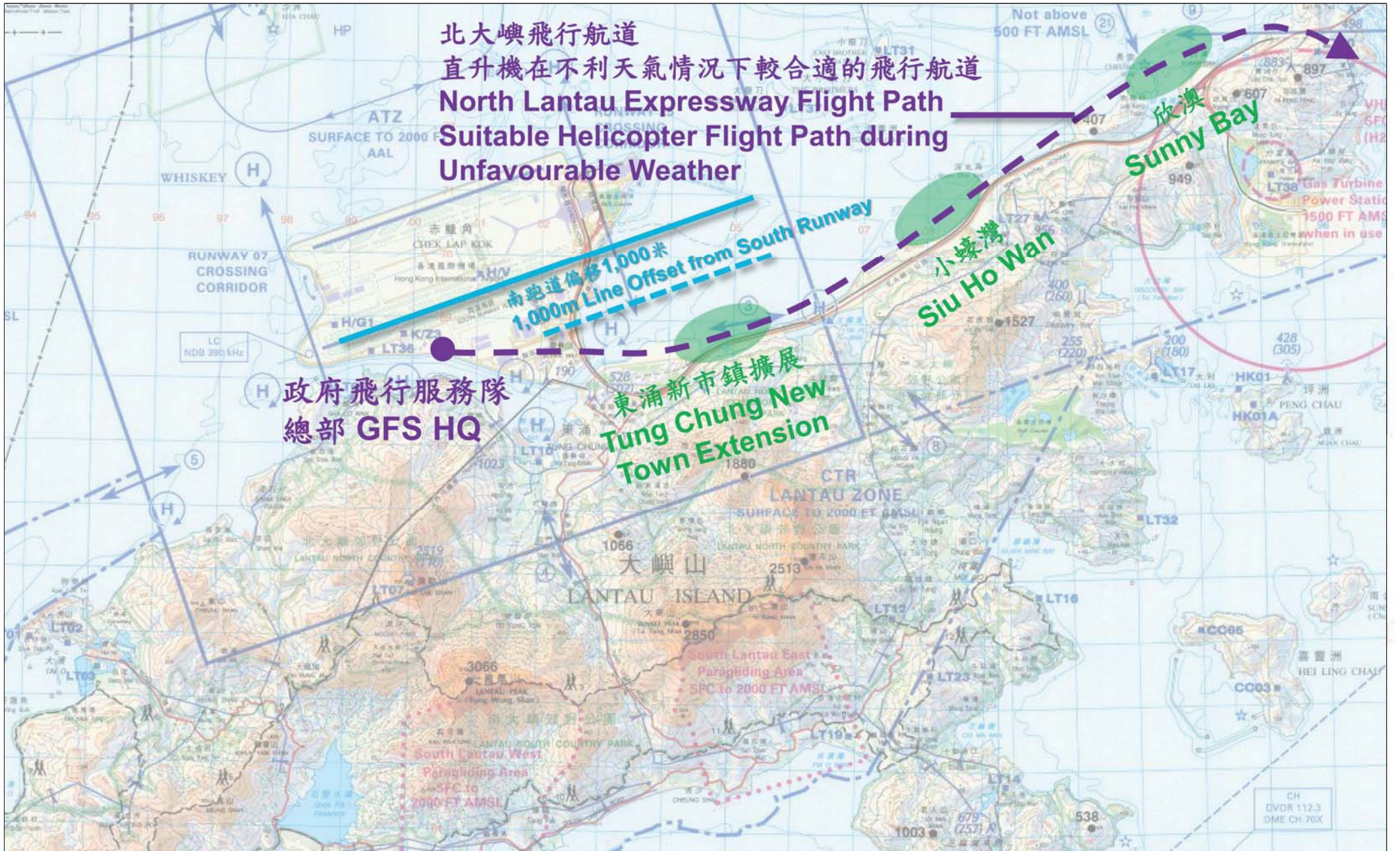
anticipated to commence in the second half of 2018.

VIEWS SOUGHT

13. Members are invited to express their views on the proposed preliminary design of the Kai Tak Division as input to the detailed design stage.

- Annex A** North Lantau Expressway Flight Path and Future North Lantau Developments
- Annex B** Location of Proposed GFS Kai Tak Division
- Annex C** Preliminary GFS Kai Tak Division Layout Plan
- Annex D** Architectural Renderings of Proposed GFS Kai Tak Division
- Annex E** Adoption of Kai Tak Current of Vitality Theme
- Annex F** Layout Plan during Construction Phase

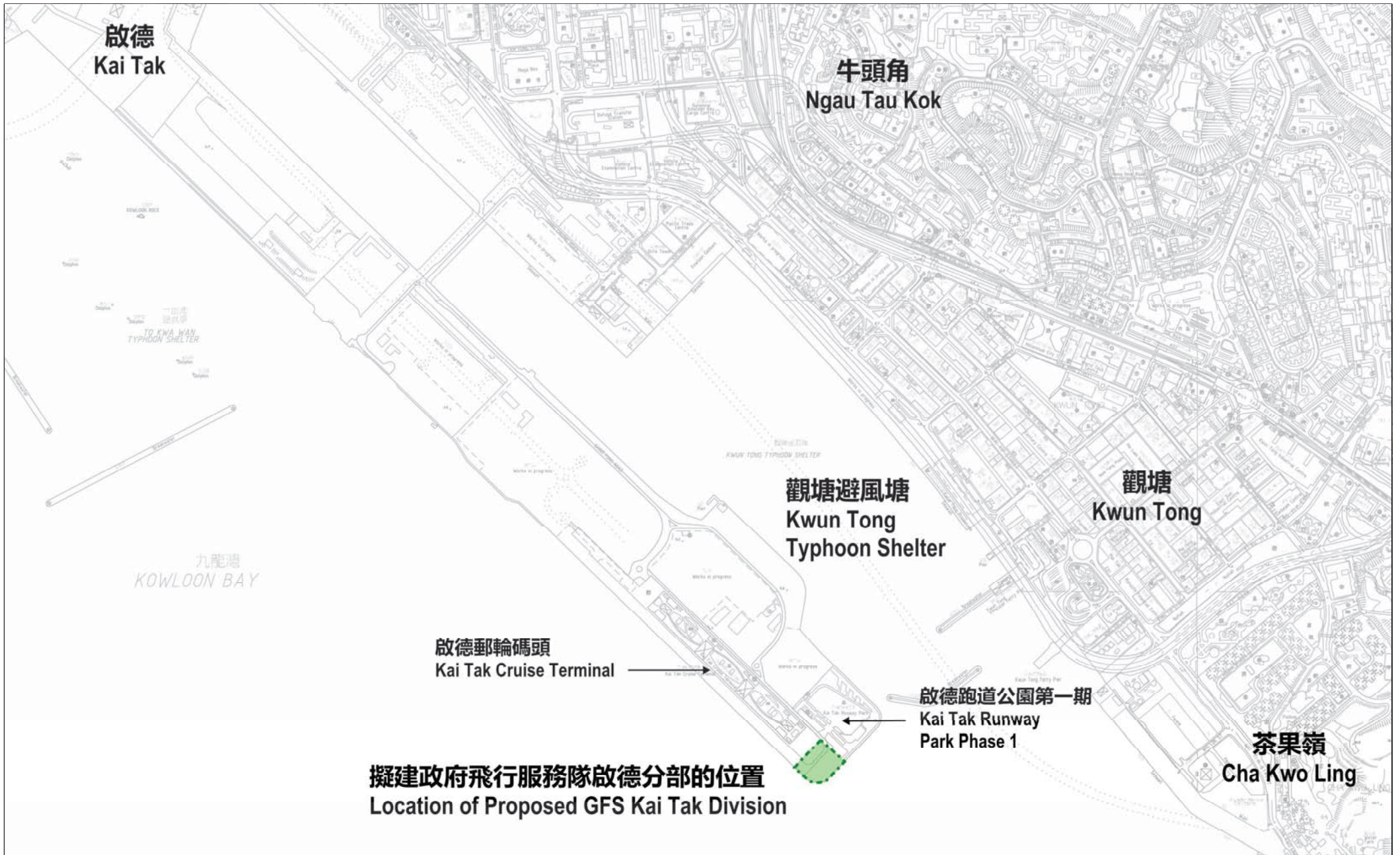
**Hong Kong Island and Islands Development Office
Civil Engineering and Development Department
September 2017**



圖則名稱 drawing title

北大嶼飛行航道與大嶼山北岸地區未來發展
NORTH LANTAU EXPRESSWAY FLIGHT PATH AND
FUTURE NORTH LANTAU DEVELOPMENTS

3/20/2017
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擬建政府飛行服務隊啟德分部的位置
Location of Proposed GFS Kai Tak Division

圖則名稱 drawing title

擬建政府飛行服務隊啟德分部的位置
LOCATION OF PROPOSED GFS KAI TAK DIVISION



圖則名稱 drawing title

政府飛行服務隊啟德分部平面圖
 PRELIMINARY GFS KAI TAK DIVISION LAYOUT PLAN



圖則名稱 drawing title

擬建政府飛行服務隊啟德分部建築效果圖 — 從高空俯瞰
ARCHITECTURAL RENDERING OF PROPOSED GFS KAI TAK DIVISION
— AERIAL VIEW



圖則名稱 drawing title

擬建政府飛行服務隊啟德分部建築效果圖 — 從維港對岸遠觀啟德分部
ARCHITECTURAL RENDERING OF PROPOSED GFS KAI TAK DIVISION
— VIEW FROM VICTORIA HARBOUR



圖則名稱 drawing title

擬建政府飛行服務隊啟德分部建築效果圖 — 正視圖
ARCHITECTURAL RENDERING OF PROPOSED GFS KAI TAK DIVISION
— FRONT VIEW



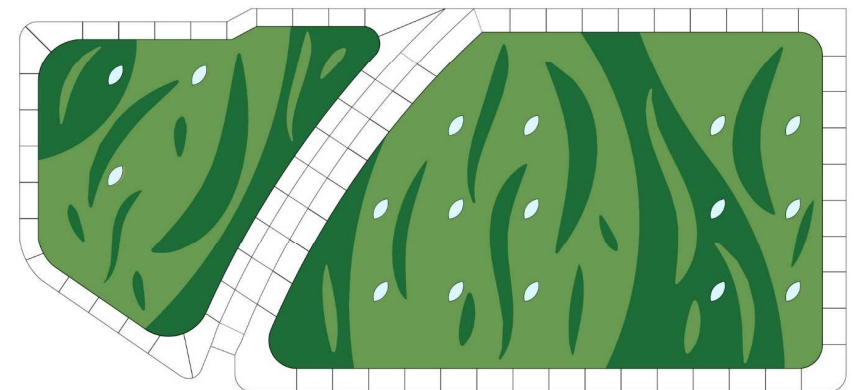
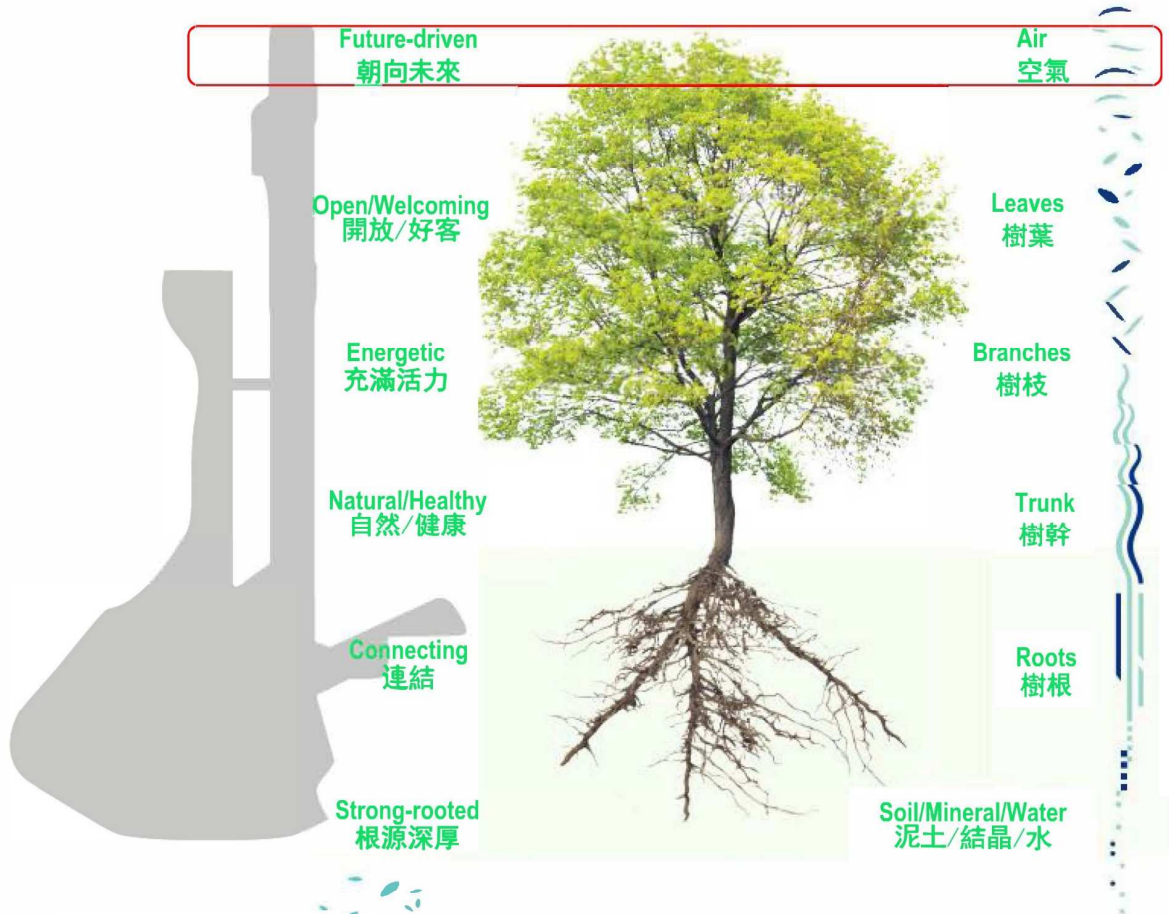
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擬建政府飛行服務隊啟德分部建築效果圖 — 從跑道公園遠觀啟德分部
ARCHITECTURAL RENDERING OF PROPOSED GFS KAI TAK DIVISION
– VIEW FROM RUNWAY PARK



圖則名稱 drawing title

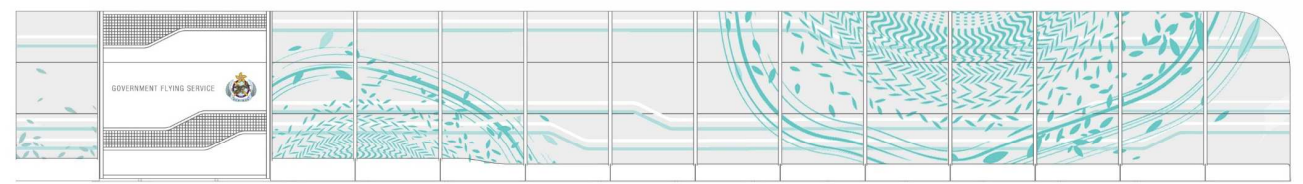
擬建政府飛行服務隊啟德分部建築效果圖 — 從啟德郵輪碼頭公園俯瞰
ARCHITECTURAL RENDERING OF PROPOSED GFS KAI TAK DIVISION
– VIEW FROM KAI TAK CRUISE TERMINAL PARK



Proposed Green Roof
擬建綠色天台



Energy Swirl
能量漩渦

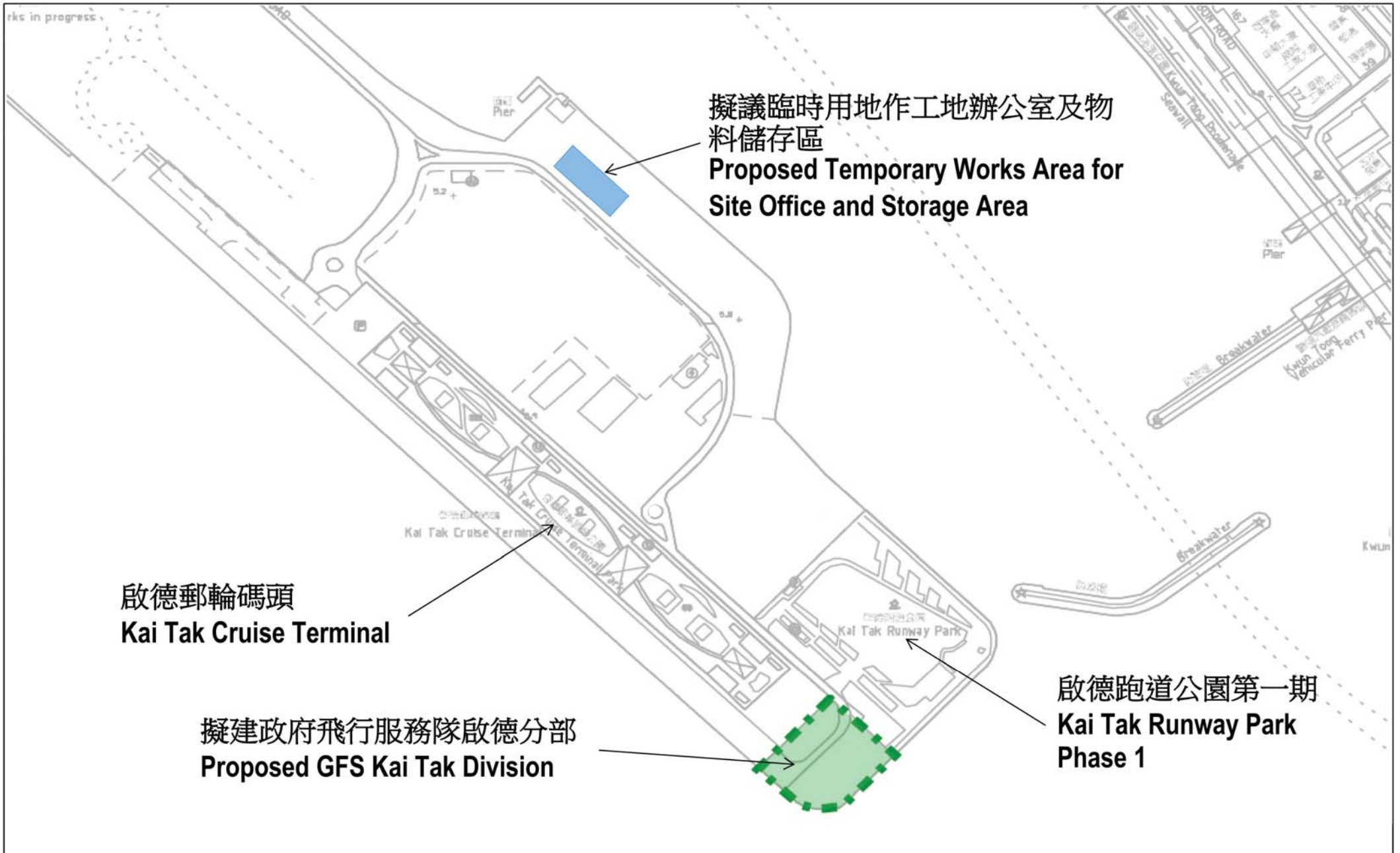


Proposed Downwash Wall
擬建下洗氣流屏障

圖則名稱 drawing title

啟德活力磁場主題的運用
ADOPTION OF KAI TAK CURRENT OF VITALITY THEME





圖則名稱 drawing title

擬議建築階段平面圖
PROPOSED LAYOUT PLAN DURING CONSTRUCTION PHASE

Working Meeting for Proposed Establishment of Government Flying Service Kai Tak Division



Purpose

GFS Kai Tak Division

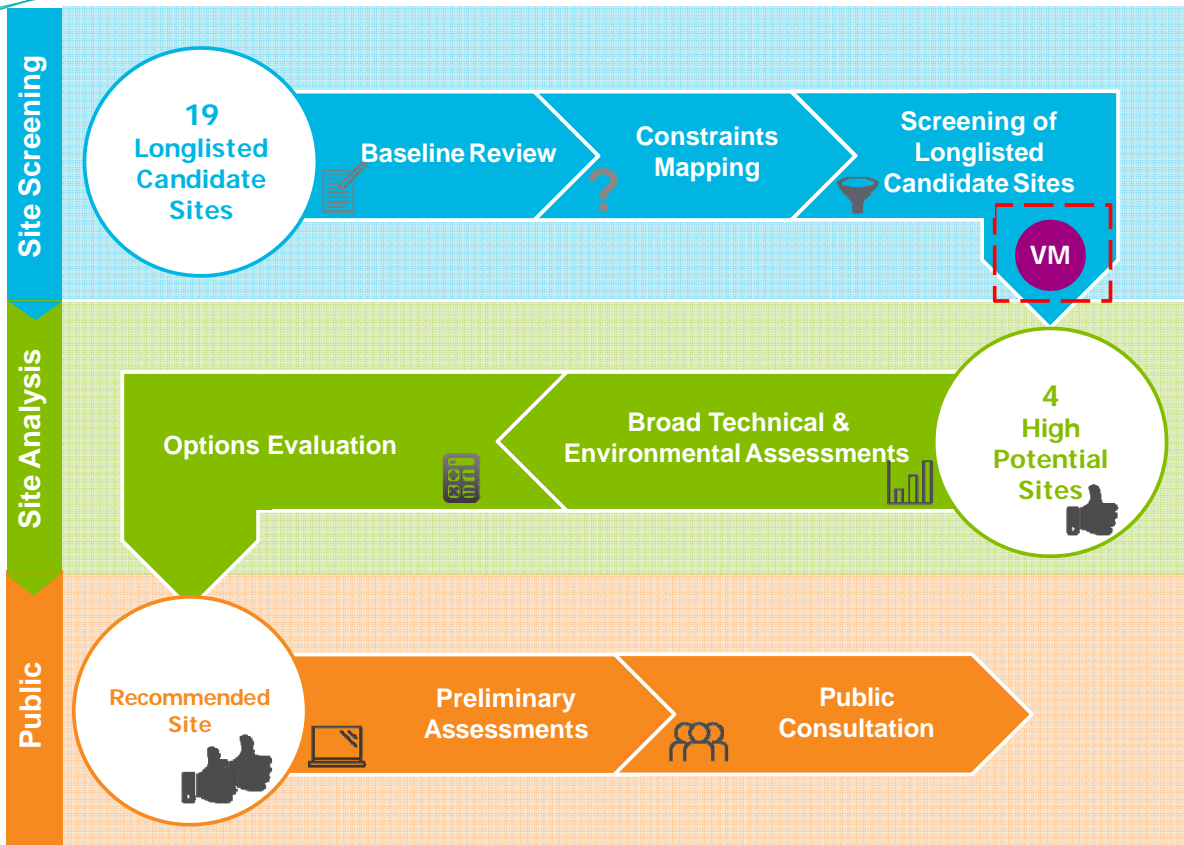
- Provide supplementary information on the proposed Kai Tak Division project in response to the comments received in the Task Force meeting on 8 Sep 2017
- Invite Members' views on the proposal as input to the detailed design stage

1. Site selection process of GFS Kai Tak Division (KTD)
2. Helicopter noise impacts
3. Compatibility with the planned Kai Tak Fantasy initiatives
4. Public enjoyment of harbourfront area
5. Marine traffic impact
6. Major views of DCs
7. GFS' planned operations in GFS KTD
8. Cross-boundary heliport operations under co-location arrangement

1. Site Selection Process

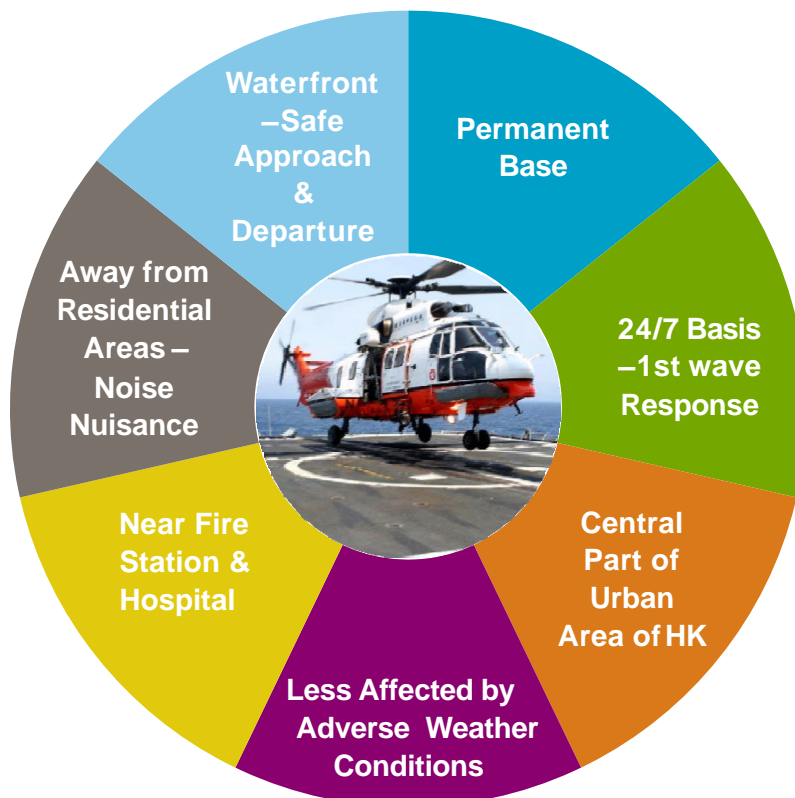
Site Selection Process

GFS Kai Tak Division



GFS' Requirements

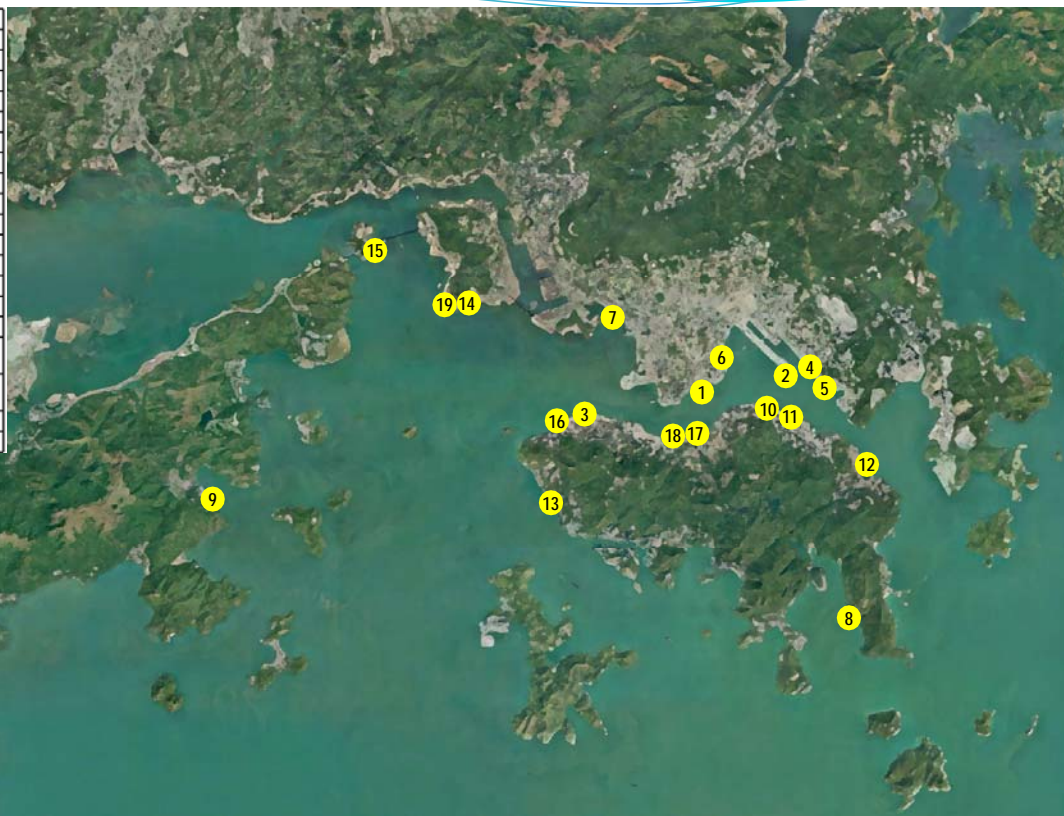
GFS Kai Tak Division



Longlisted Candidate Sites

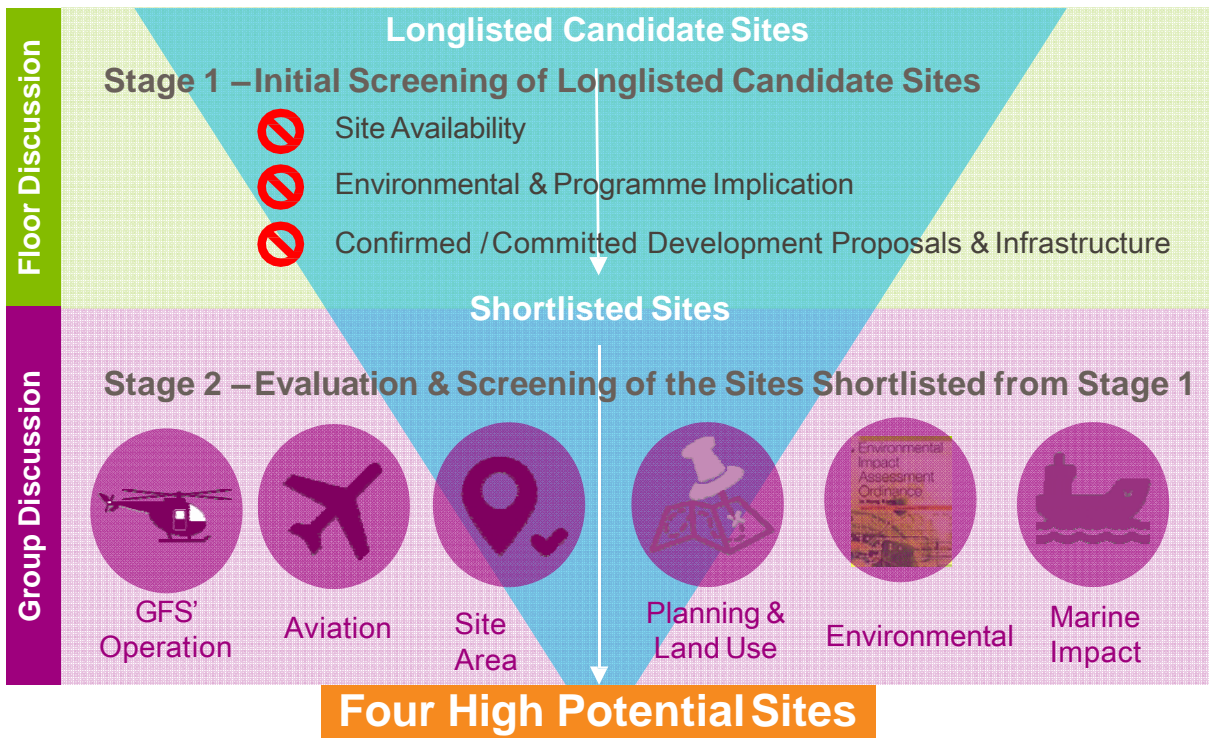
GFS Kai Tak Division

NO.	LOCATION
1	HUNG HOM
2	EX-KAI TAK RUNWAY
3	SAI YING PUN
4	KWUN TONG
5	CHA KWO LING
6	TO KWA WAN
7	CHEUNG SHA WAN
8	EX-SHEK O QUARRY
9	MUI WO
10	QUARRY BAY-SITE 1
11	QUARRY BAY-SITE 2
12	CHAI WAN
13	CYBERPORT
14	TSING YI SOUTH
15	MA WAN SOUTHEAST
16	WESTERN DISTRICT PUBLIC CARGO WORKING AREA
17	EX-WAN CHAI PUBLIC CARGO WORKING AREA
18	WAN CHAI HELIPAD
19	TSING YI SOUTHWEST



Value Management (VM) Workshop – Approach

GFS Kai Tak Division



Stage 1 – Initial Screening

GFS Kai Tak Division

Outcome of Stage 1 – Shortlisted Sites

Site	Determining Factor		
	Site Availability	Environmental and Programme Implication	Confirmed / Committed Development
1 Hung Hom	X	?	X
2 Ex-Kai Tak Runway	✓	✓	?
3 Sai Ying Pun	✓	X	?
4 Kwun Tong	✓	X	✓
5 Cha Kwo Ling	?	X	X
6 To Kwa Wan	✓	X	X
7 Cheung Sha Wan	✓	X	X
8 Ex-Shek O Quarry	X	?	✓
9 Mui Wo	✓	✓	✓
10 Quarry Bay – Site 1	✓	X	?
11 Quarry Bay – Site 2	✓	X	?
12 Chai Wan	✓	X	✓
13 Cyberport	✓	X	✓
14 Tsing Yi South	✓	✓	✓
15 Ma Wan Southwest	✓	✓	X
16 Western District PCWA	X	X	?
17 Ex-Wan Chai PCWA	?	✓	✓
18 Wan Chai Helipad	✓	✓	✓
19 Tsing Yi Southwest	?	✓	✓

Note:

X: Insurmountable problem.

✓: No issue.

?: Uncertain / to be confirmed.

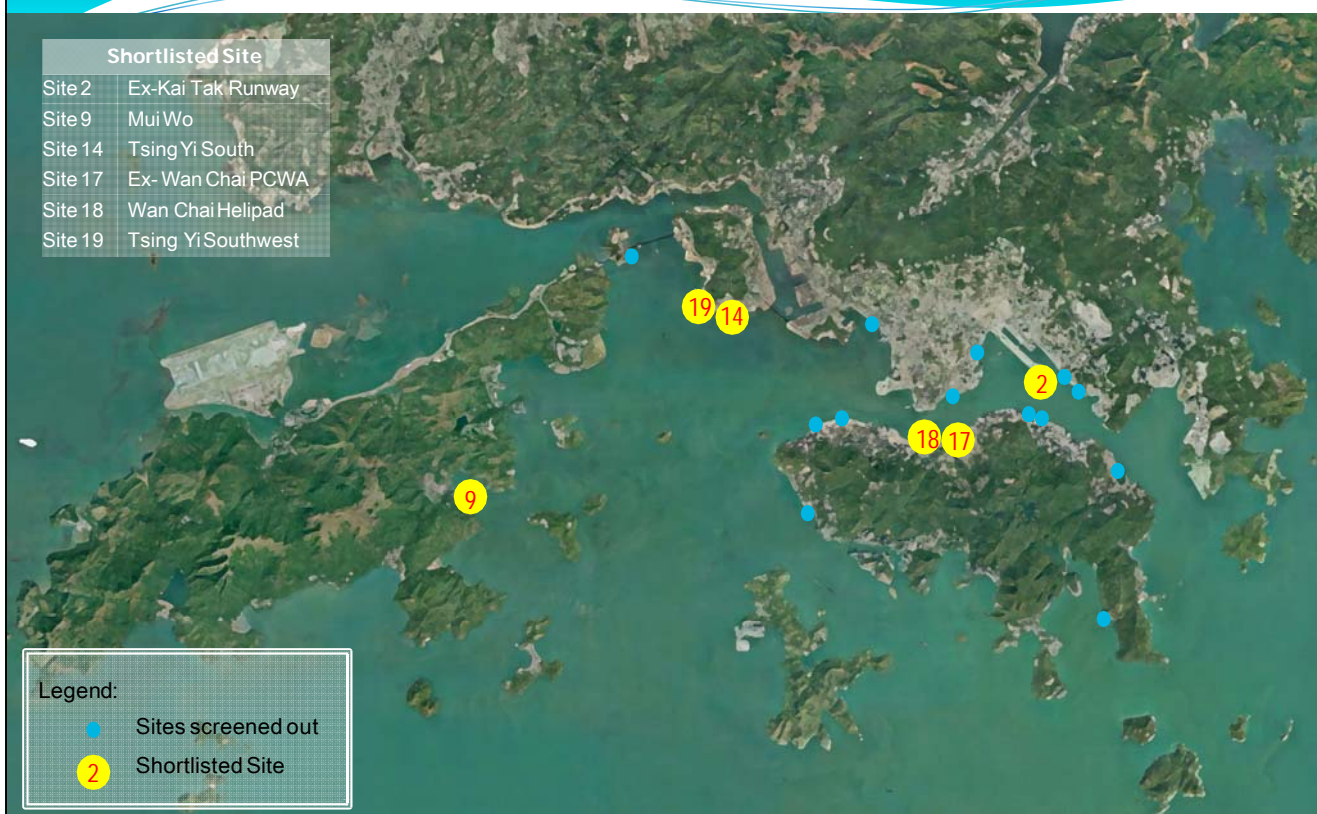
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Stage 1 Initial Screening

GFS Kai Tak Division

Shortlisted Site

Site 2	Ex-Kai Tak Runway
Site 9	Mui Wo
Site 14	Tsing Yi South
Site 17	Ex- Wan Chai PCWA
Site 18	Wan Chai Helipad
Site 19	Tsing Yi Southwest



Legend:

- Sites screened out
- 2 Shortlisted Site

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Stage 2 – Evaluation & Screening Screening Criteria

GFS Kai Tak Division

Aspect	Criteria
GFS Operation	GFS Response Time
	Accessibility to Deploy staff to provide emergency back-up support
	Interface with / Impact on Current GFS Operation
	Proximity to Fire Station
Aviation	Airspace Structure
	Air Traffic Control (ATC) Requirements
	Meteorological Conditions
Site Area	Site Area for Accommodating GFS Facilities Requirement
Planning & Land Use	Interface with Planned Development Proposals
	Land Use & Statutory Proposals
Environmental	Noise Impact
Marine Facilities / Traffic / Navigation Impact	Vessel & Navigation Constraints
	Marine Facilities & Operational Impact

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Stage 2 Screening – Outcome

GFS Kai Tak Division

Group discussion

- Based on 6 Screening Criteria
- Each group identified 2 less preferable sites
- Four high potential sites identified

Site A - Ex-Kai Tak Runway

Site B - Ex-Wan Chai PCWA

Site C - Tsing Yi South

Site D - Tsing Yi Southwest

Shortlisted Sites from Stage 1	Gp 1	Gp 2	Gp 3	Gp 4
Site 2 – Ex-Kai Tak Runway				
Site 9 – Mui Wo	X	X		X
Site 14 – Tsing Yi South		X	X	
Site 17 – Ex-Wan Chai PCWA				
Site 18 – Wan Chai Helipad	X		X	X
Site 19 – Tsing Yi Southwest				



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Evaluation of High Potential Sites

GFS Kai Tak Division

4 High Potential Sites



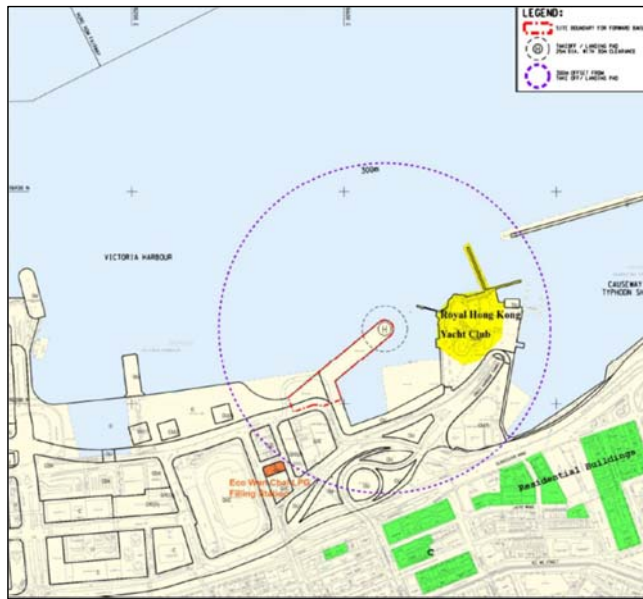
Site 1 – Ex-Kai Tak Runway

GFS Kai Tak Division



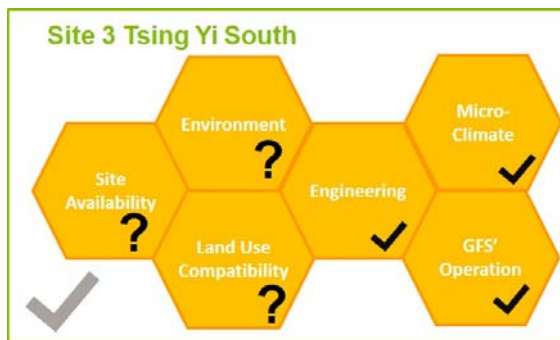
Site 2 – Ex-Wan Chai PCWA

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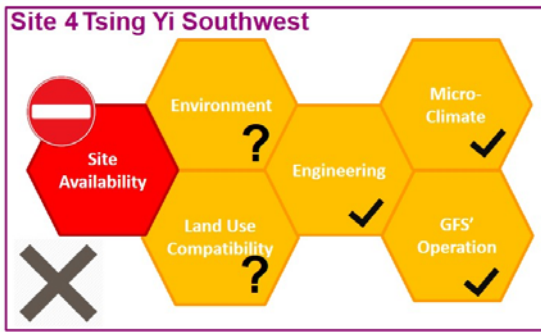
Site 3 – Tsing Yi South

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Site 4 – Tsing Yi Southwest

GFS Kai Tak Division



Initial Options Evaluation - Comparison Results

GFS Kai Tak Division

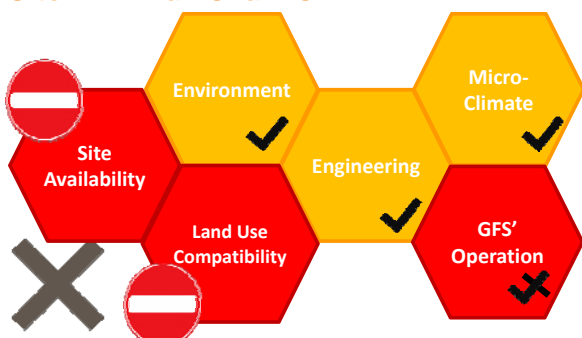
Site 1 Ex-KaiTak Runway



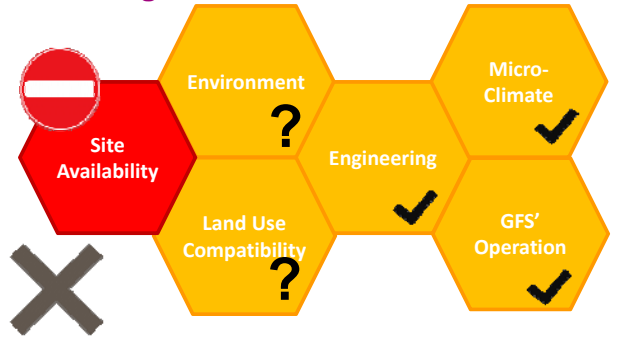
Site 3 Tsing Yi South



Site 2 Ex-Wan Chai PCWA



Site 4 Tsing Yi Southwest



Final Option Evaluation Recommended Site

GFS Kai Tak Division

Evaluation Criteria	Ex-Kai Tak Runway	Tsing Yi South
Competing Land Use	<ul style="list-style-type: none"> Preserved original planning intention Maintained synergy between C/B heliport, Cruise Terminal and Future Tourism Node Optimized use of scarce land resources under co-location arrangement 	<ul style="list-style-type: none"> Conflict with proposal to reserve the site for container and port-related use Potential Site for Land Supply – potential residential development under ELSS if CT10 not required
Programme Risk	<ul style="list-style-type: none"> Site available for KTD development No re-provision of a C/B heliport site under the proposed co-location arrangement 	<ul style="list-style-type: none"> Re-provision of the existing mid-stream cum port back-up site Consultation and legislative amendment process for MRA
Conclusion	<ul style="list-style-type: none"> Implementation programme can meet planned commissioning of KTD 	<ul style="list-style-type: none"> Implementation programme CANNOT meet planned commissioning of KTD

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2. Helicopter noise impacts

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Noise Standards for Helicopter (HKPSG)

GFS Kai Tak Division

Noise Standards		
Aircraft Noise (Noise Exposure Forecast: NEF)	Helicopter Noise L_{\max} dB(A)	Road Traffic Noise $L_{10(1hr)}$ dB(A)

Note:

[1] The above standards apply to uses which **rely on openable windows for ventilation**.



- Helicopter noise criterion has a different parameter from Aircraft Noise and Road Traffic Noise and **no cumulative impacts** with other noise sources are required under the EIAO-TM +HKPSG.

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Noise Standards for Helicopter (HKPSG)

GFS Kai Tak Division



Noise Source - Helicopter

Sufficient Separation to ensure noise level at Noise Sensitive Receiver < 85 dB(A)

Noise Sensitive Receiver
(rely on openable windows for ventilation)
Helicopter Noise Level < 85 dB(A)



Noise Standards for Helicopter (HKPSG)

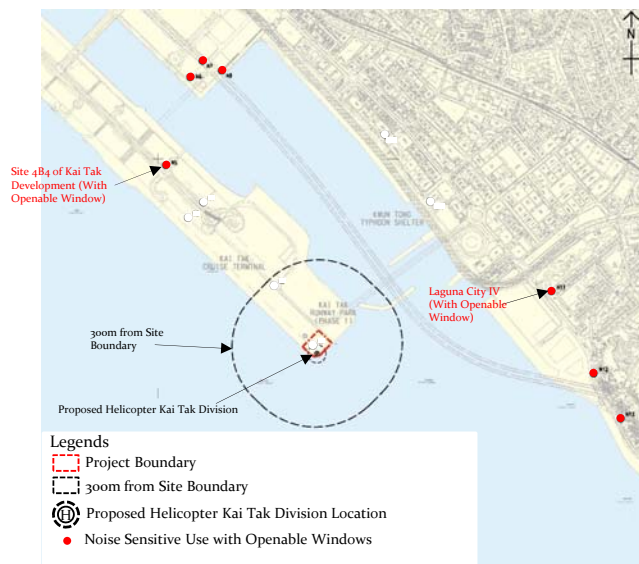
- Helicopter Noise $L_{\max} = 85$ dB(A)

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Noise Sensitive Receivers

GFS Kai Tak Division

- With reference to Appendix 4.1 of Chapter 9 of the HKPSG, **Noise Sensitive Uses** include
 1. Residential uses (all domestic premises including temporary housing);
 2. Offices;
 3. Institutional uses (educational institutions including kindergarten and nurseries);
 4. Hospitals and medical clinics;
 5. Residential care homes for the elderly;
 6. Convalescent homes;
 7. Places of public worship;
 8. Libraries;
 9. Courts of law;
 10. Performing arts centres;
 11. Auditoria;
 12. Amphitheatres; and
 13. Country Parks

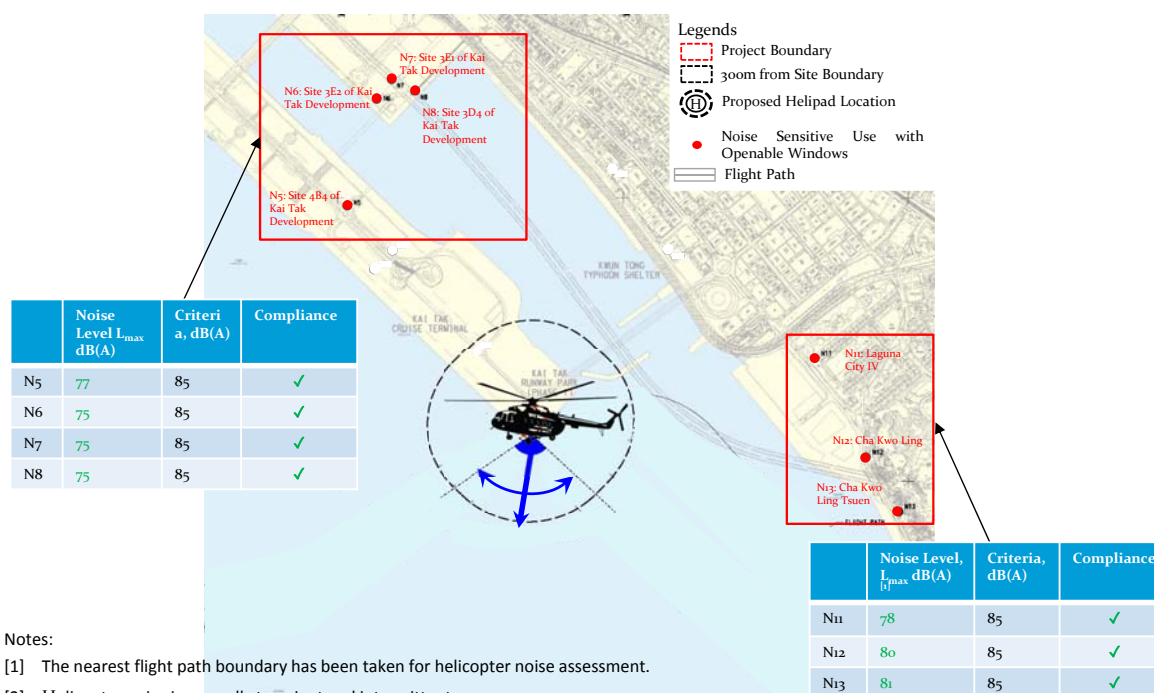


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Helicopter Noise Assessment

GFS Kai Tak Division

- Assessment Results



Notes:

- [1] The nearest flight path boundary has been taken for helicopter noise assessment.
- [2] Helicopter noise is normally transient and intermittent.
- [3] Hotel site, normally with no openable windows is not applicable to noise standard criteria under TM-EIAO.

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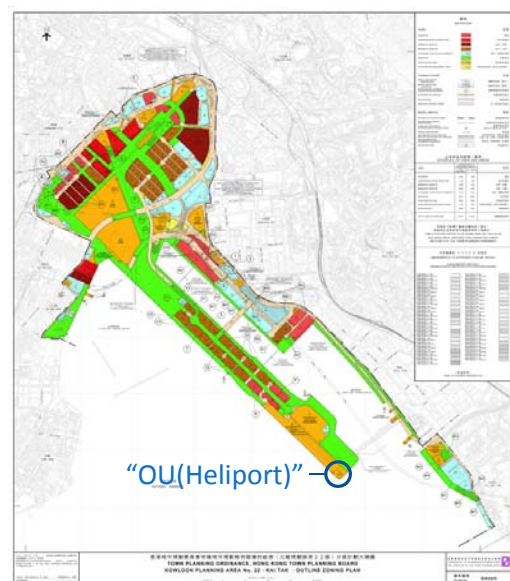
3. Compatibility with the Planned Kai Tak Fantasy initiatives

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Compatibility with Kai Tak Fantasy Initiatives

GFS Kai Tak Division

- 3-stage Public Participation in 2004 - 2006
- Zoned as “Other Specified Uses” annotated “Heliport” under the Kai Tak Outline Zoning Plan (OZP) S/K22/2 since 2007
- Proposed co-location arrangement: preserved original planning intention and maintained the synergy of the heliport with the adjacent KTCT & Future Tourism Node



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Compatibility with Kai Tak Fantasy Initiatives – Heliport

GFS Kai Tak Division



- The Use of the Site for Heliport has already included in the Winning Entry of Kai Tak Fantasy
- Two planning and engineering studies are being carried out to steer the implementation of the Kai Tak Fantasy project

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4. Public Enjoyment of Harbourfront Area

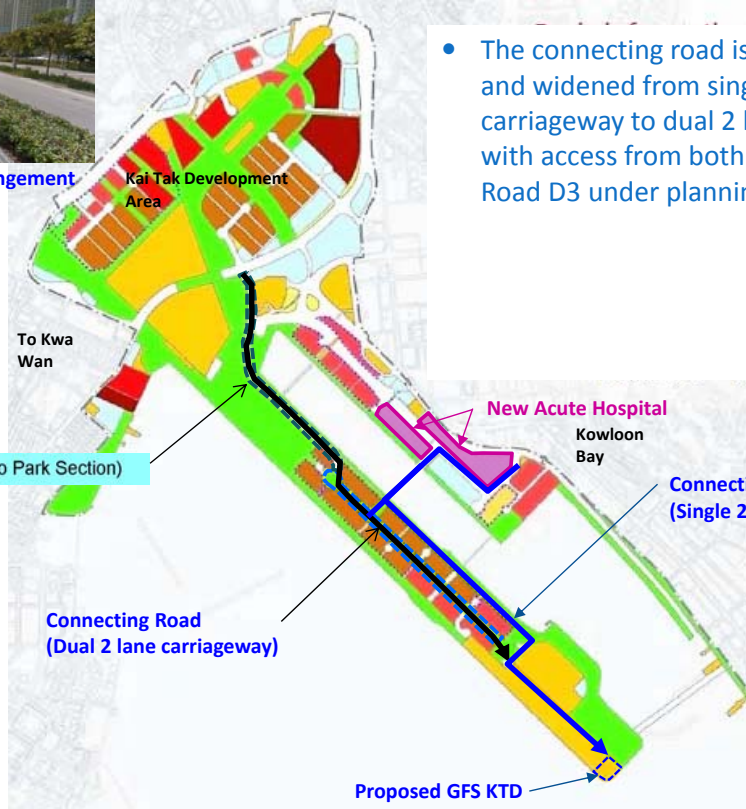
28

Connectivity to GFS KTD

GFS Kai Tak Division



Typical Dual 2 Road Arrangement



- The connecting road is being realigned and widened from single 2 lane carriageway to dual 2 lane carriageway with access from both Kowloon Bay and Road D3 under planning.

Road D3 (Metro Park Section)

Connecting Road (Dual 2 lane carriageway)

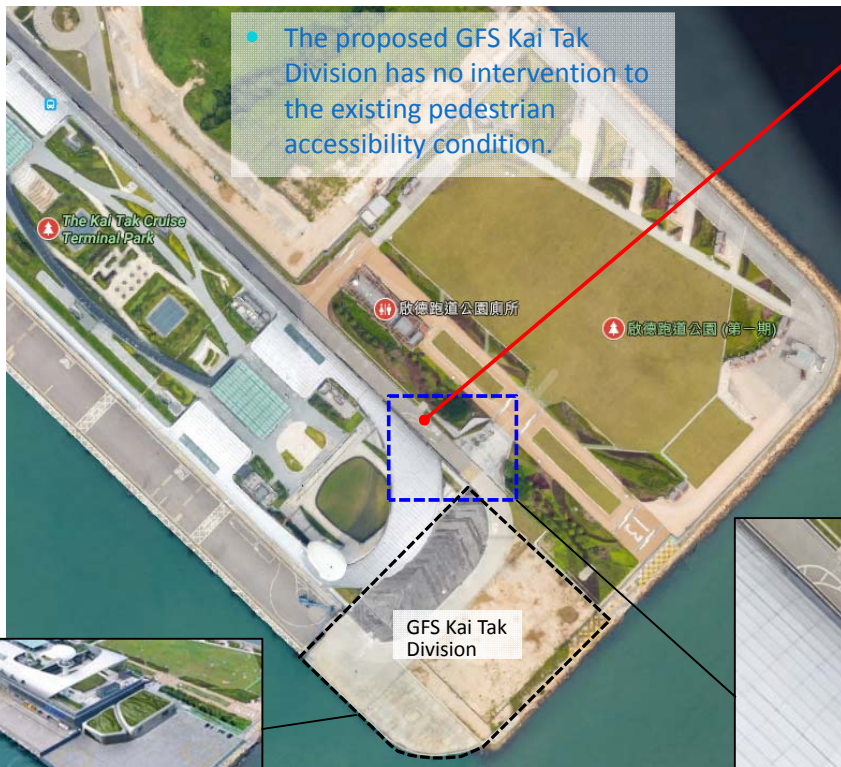
Connecting Road (Single 2 carriageway)

Proposed GFS KTD

Vibrant & Accessible Harbour

GFS Kai Tak Division

Minimal Intervention



- The proposed GFS Kai Tak Division has no intervention to the existing pedestrian accessibility condition.

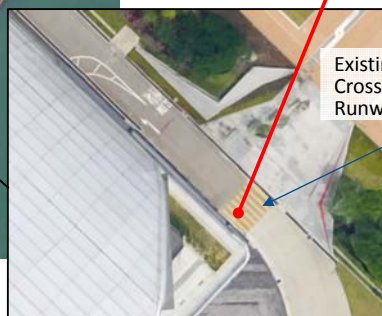
GFS Kai Tak Division



Access between KTCT and Runway Park



Existing Pedestrian Crossing from KTCT to Runway Park



Vibrant & Accessible Harbour

GFS Kai Tak Division

Minimal Intervention

- Minimized visual intervention to the existing sightline at the tip, in particular the open space of Kai Tak Cruise Terminal and Kai Tak Runway Park.



Imaginative Future Condition after GFS Division Extension



View from open space of Runway Park



View from open space of Cruise Terminal

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Public Enjoyment

GFS Kai Tak Division

- Yellow and Black Checkered Pattern from Former Airport Runway



- A section of the yellow and black checkered pattern at the tip of the former airport runway is still well protected in good condition and integrated with Kai Tak Runway Park (Phase I) for public's enjoyment and memory of the former Kai Tak Airport Runway. Due to safety and security reasons such as downwash from the helicopter landing / take-off, helicopter movement at the parking pad, the checkered pattern within the apron of the proposed KTD should not be made accessible to public.
- Guided Tours of the KTD will be arranged by GFS for public participation, provided that the delivery of emergency services is not affected.

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5. Marine Traffic Impact

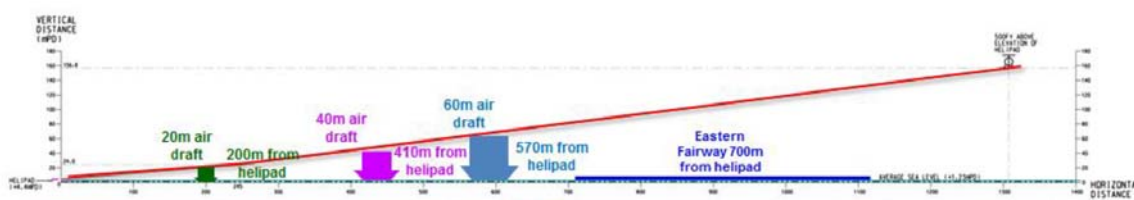
33

Marine Traffic Impact Assessment

GFS Kai Tak Division



- Heliport is sufficiently separated from the nearest fairway (i.e. about 700 m from the Eastern Fairway)
- Helicopter will be able to steer away (i.e. fly around) from the vessels encountered.
- Conclusion: no marine traffic impact is anticipated.

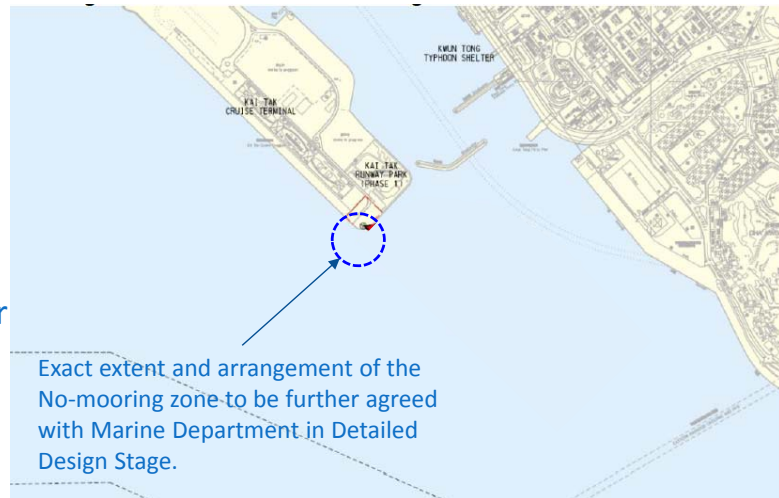


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Setup of No-mooring zone

GFS Kai Tak Division

- Recommendation under Feasibility Study:
To further improve the traffic environment close to the shore of the KTD, promulgation of **Marine Department Notice (MDN)** may be considered to advise vessels navigating and/or mooring in the vicinity to keep at a safe distance, preferably not less than 100 metres away from the shore of the KTD
- Exact extent and arrangement of the No-mooring zone to be further agreed with Marine Department in Detailed Design Stage.



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6. Major Views of DCs

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Major Views of DCs

GFS Kai Tak Division

Kowloon City
District CouncilWong Tai Sin
District CouncilKwun Tong
District Council

- Consultation with relevant DCs

DCs	Consultation	GFS Headquarters Visit
Kowloon City	15 Jun 2017	12 Jul 2017
Wong Tai Sin	27 Jun 2017	14 Aug 2017
Kwun Tong	20 Jul 2017	18 Jul 2017



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Major Views of DCs

GFS Kai Tak Division

- The GFS KTD proposal was generally supported.
- GFS' dedication to provide emergency services was well recognized.

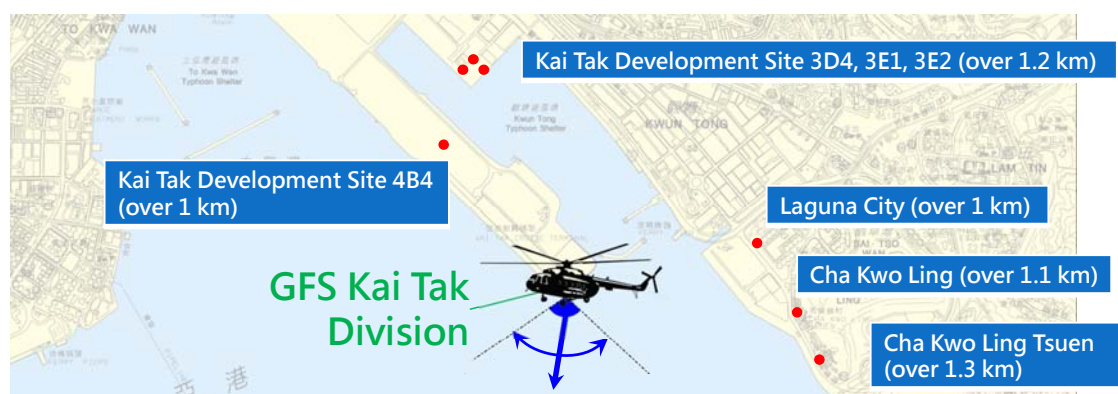


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Major Views of DCs

GFS Kai Tak Division

- Helicopter noise
 - DC members' concern:
 - Potential noise impact on residential areas
- Responses:
 - Helicopter noise is transient and intermittent, only 8 GFS emergency call-outs per day on average
 - Sufficient separation from nearby residential areas
 - Flight paths over Victoria Harbour
 - GFS's procedural guidelines to minimize noise impact



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Major Views of DCs

GFS Kai Tak Division

- Safety concerns
 - DC members' concern:
 - Potential safety issue due to helicopter operation over developed area and near the Runway Park
- Responses:
 - Take-off and landing flight paths above Victoria Harbour
 - Merge into long-established flight routes after gaining altitude
 - Helicopter needs to maintain sufficient height and separation from developed area, i.e. will not fly above buildings & the Runway Park
 - Downwash wall to further minimize any nuisance for Runway Park users

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Major Views of DCs

GFS Kai Tak Division

- Interface with Environmental Friendly Linkage System (EFLS)
 - DC members' concern:
 - Impact on EFLS project due to the proposed KTD
 - Responses:
 - The KTD project has no adverse impact on EFLS.
 - Will closely liaise with KDO on project interface issue
- Commercial helicopter service under co-location arrangement
 - DC members' concern:
 - Require more information on the commercial helicopter service
 - Responses:
 - Relevant departments will consult DCs again should the commercial helicopter service be implemented at KTD

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7. GFS's planned Operations in KTD

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GFS' Planned Operations in KTD

GFS Kai Tak Division

- Kai Tak Division will act as a forward base to provide first wave emergency response
- Existing headquarters at Chek Lap Kok will still operate
- Planned use of CLK HQ & KTD:

	Chek Lap Kok HQ	Kai Tak Division
1. Fleet	5 helicopters + fixed-wing aircrafts	2 helicopters
2. Duties	<ul style="list-style-type: none"> • Emergency call-outs • Scheduled flying services • Large scale maintenance • Training 	<ul style="list-style-type: none"> • Emergency call-outs • Simple maintenance
3. Staffing	293	20-30
4. Operating hours	24/7	24/7

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GFS' Planned Operations in KTD

GFS Kai Tak Division

- Launching of helicopter from CLK or KTD?
 - Depending on the call-out location, weather, available resources, etc.
- Previous call-outs statistics

Callout Location	SAR Operation Statistics (2010 to 2014)	
	Number of Cases	%
Hong Kong Island and Neighbouring Islands (Lamma Island Helipad)	278	11%
Sai Kung and Clear Water Bay (High Island Reservoir Helipad)	999	40%
Lantau Island and Neighbouring Islands (Cheung Chau Helipad)	420	17%
North West NT (Castle Peak)	333	13%
North East & Central NT (Plover Cove Reservoir Helipad)	421	17%
Miscellaneous	59	2%

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8. Cross-boundary Heliport Operations under Co-location Arrangement

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Cross-boundary Heliport Operations under Co-location

GFS Kai Tak Division

- Status of cross-boundary heliport operation at KTD
 - Plan to commence a comprehensive review in 2017 on the demand for cross-boundary and domestic helicopter services as well as the use of the different heliports in Hong Kong
 - Allowance made in the design of the KTD to preserve the commercial viability of the future cross-boundary helicopter services
- Additional structure on apron for C/B helicopters?
 - Sufficient office space & passenger handling areas already reserved in Kai Tak Cruise Terminal
 - No additional buildings required on apron area
- Apron control by GFS in consultation with commercial operator. Priority will be given to GFS emergency operation under co-location arrangement.

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Cross-boundary Heliport Operations under Co-location

GFS Kai Tak Division

- Shared use of existing Wan Chai Helipad



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Thank you!

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Major Views	Response
1. General support on the GFS Kai Tak Division (KTD) proposal.	➤ Noted.
2. Recognition of GFS' dedication to provide round-the-clock emergency services to the community.	➤ Noted.
3. Concerns on potential noise impact on residential areas.	<ul style="list-style-type: none"> ➤ Helicopter noise is transient and intermittent. ➤ Based on previous operation records, there are 8 GFS emergency call-outs per day on average only. ➤ As there are sufficient separations between the proposed helicopter flight paths and the adjacent residential areas, the calculated helicopter noise levels at these residential areas are within the standard specified in the Hong Kong Planning Standards and Guidelines. ➤ For further noise abatement, GFS will issue operational guidelines specifying that GFS helicopters shall adopt flight paths further away from residential areas as far as practicable.
4. Concerns on potential safety issue due to helicopter operation over developed area and near the Runway Park.	<ul style="list-style-type: none"> ➤ The proposed helicopter take-off and landing flight paths are over Victoria Harbour instead of residential areas. ➤ Helicopters will merge into long-established flight routes after gaining altitude. ➤ Helicopter needs to maintain sufficient height and separation from developed area, i.e. will not fly above buildings & the Runway Park. ➤ The proposed downwash wall can further reduce nuisance to Runway Park users
5. Concerns on potential impact on the Environmental Friendly Linkage System (EFLS) project due to the proposed KTD	<ul style="list-style-type: none"> ➤ The KTD project has no adverse impact on the EFLS project. ➤ The project office of KTD will closely liaise with the EFLS project team on interface issues.

Major Views of District Councils
on the Proposed Establishment of GFS Kai Tak Division

Annex III

Major Views	Response
6. Request for more information on the planned commercial helicopter service at the ex-Kai Tak Runway Tip site	➤ The relevant departments will consult District Councils again should commercial helicopter service be implemented at the ex-Kai Tak Runway Tip site.

Schematic Conceptual Layout – Co-location Arrangement Demarcation of Site Areas between GFS and C/B

