

**For information
23 September 2009**

**Legislative Council Panel on Transport
Subcommittee on Matters Relating to Railways**

**The Hong Kong Section of
Guangzhou-Shenzhen-Hong Kong Express Rail Link
Emergency Rescue Station and Stabling Sidings**

Introduction

This paper provides Members with supplementary information on the choice of location for the emergency rescue station (ERS) and stabling sidings (SSS) for the Hong Kong section of Guangzhou-Shenzhen-Hong Kong Express Rail Link (XRL).

Background

2. At the meeting of the Subcommittee held on 17 September 2009, we briefed Members on the progress of the Hong Kong section of the XRL and undertook to provide the above supplementary information.

Alignment of Hong Kong Section of XRL

3. To minimise impacts on environment and community, we have decided to construct the whole 26-km long Hong Kong section in the form of underground tunnel. The Hong Kong section will run from the terminus in West Kowloon, going north passing through Yau Tsim Mong, Sham Shui Po, Kwai Tsing, Tsuen Wan, Yuen Long and the boundary at Huanggang, where it will connect to the XRL Mainland Section.

Importance and Site Selection of ERS and SSS

4. In addition to railway tunnels and terminal facilities, we need to provide an ERS and the SSS for the Hong Kong Section of the XRL. The ERS is for the emergency stabling of incident trains to allow rescue teams to reach the tunnel speedily for emergency rescue operations and evacuation of train passengers. The use of the SSS is to accommodate trains for stabling, minor maintenance and cleaning. In designing the

New Territories section of the XRL alignment, the MTRCL had undertaken detailed investigation on all possible alignment options in the areas. The extent of areas considered covered the flat areas of the entire Kam Tin and Pat Heung (i.e. areas from west of Kam Tin to east of Shui Kan Shek). It was finally recommended that the Shek Kong area was the best place for setting up the ERS and SSS.

5. Shek Kong is located approximately in the midway of the whole XRL alignment between West Kowloon and Futian in Mainland. In addition, the area is well served by major roads, low-lying, flat and extensive, allowing rescue teams to reach the ERS conveniently and enabling evacuation of train passengers safely. Thus, it is a suitable location for the construction of the ERS.

6. Moreover, we need to set up the SSS for train stabling, carrying out minor maintenance and cleaning services so as to ensure the efficiency and quality of the railway services. Upon completion of the XRL, we estimate that over ten pairs of trains plying Hong Kong during peak hours in year 2020. As platforms in the West Kowloon Terminus would be heavily occupied, we need another place to meet the needs for train stabling, supply and basic maintenance works (such as daily inspections and spare parts replacement).

7. We propose to put the ERS and SSS together as this would reduce land resumption and minimise impact on the nearby residents and community. Under this arrangement, some common facilities and supporting infrastructure, such as roads, accesses to facilities, emergency vehicular access, office and control centre, electrical and fire services equipment and facilities, etc, could be shared.

8. The orientation of the ERS and SSS should match with the rail alignment of the Hong Kong Section as far as possible. At Shek Kong, the alignment in the Kam Tin and Pat Hueng areas runs roughly in the north-south direction. As Shek Kong is only 7 to 8 kilometres away from Huanggang (the connection point with the Mainland Section), the location and orientation of the ERS have to meet the requirements of the high-speed rail in alignment design and also to enable its connection with the section in Shenzhen otherwise the alignment of the Hong Kong section will be circuitous. This will not only increase the travelling distance and journey time but may also require ventilation buildings.

9. We propose to construct the ERS and SSS at Shek Kong. The facilities require an area of about 27 hectares, with approximately 2

kilometres long and as wide as 150 metres. Although the Shek Kong area is flat, many of the lands are occupied by houses. It is very difficult for us to identify a suitable place to accommodate the ERS and SSS that will cause minimal impact to the residents while keeping a reasonable rail alignment along the running direction of the Hong Kong Section. The proposed site location at Choi Yuen Tsuen would have the least impact (about 150 households). In addition, the site is well served by major roads (Kam Tin Road and Kam Sheung Road), satisfying rescue operation and evacuation needs. Hence, it is the best place for setting up the ERS and SSS.

Alternative Sites for the ERS and SSS

Original site in Pat Heung

10. In the Legislative Council Brief submitted to the Legislative Council in April 2008, we mentioned in the preliminary design for the alignment of the Hong Kong Section of the XRL that the ERS and SSS would be located in the Pat Heung area. After further planning and study, the MTR Corporation Limited (the MTRCL) considered that the ERS should adopt an open air design for improving rescue operations during fire incidents inside the railway tunnels. In addition, the MTRCL proposed to enlarge the SSS to increase the capacity of the train stabling for the Hong Kong Section to meet operational needs. As the original site in Pat Heung was not sufficient to cope with the design changes, more land resumption would be needed. It would affect a total of 340 households, more than the 150 households of the current scheme. Therefore, this scheme should not be adopted.

Alternative sites suggested by residents of the Choi Yeun Tsuen

11. The Administration and MTRCL met with various organizations and people including the Choi Yuen Tsuen (CYT) Concern Group (the Concern Group) on a number of occasions and explained to them about the site selection for the ERS and SSS. During our contacts, various proposals on alternative sites of the ERS and SSS were received. In brief, these proposals suggested us to utilize some other existing open space, car parks or abandoned building sites in Pat Heung area to accommodate the ERS and SSS, with a view to minimizing the extent of resumption and clearance of CYT. Altogether there are two rounds of submissions from the Concern Group. The proposals submitted by the Concern Group and our assessments are set out below.

Submissions received in March/April 2009

12. In March/April 2009, we received the first round of submissions from the Concern Group. These proposals can be grouped into four alternative options, covering seven locations of the SSS. These alternative options mainly put the ERS and SSS in separate locations with the SSS placing in an area which might affect fewer houses. The footprints of the alternative sites are shown in **Annex 1**. Options A, C, 1 and 2 utilize existing open storage sites to accommodate the SSS whereas Option B occupies less densely populated areas. In Options D and 3, the SSS are placed inside the Shek Kong Barracks (the Barracks).

Technical considerations for the alternatives

13. The alternative options proposed by the Concern Group did not take into account other technical factors and environmental impact, in particular, the need of approach tunnels for train movements between main tunnels and the SSS on groundlevel. Two approach tunnels would be constructed for connecting the northbound and southbound main tunnels to the SSS. As the rail tracks inside the main tunnels are more than 20 metres deep, the approach ramps need to climb up to the ground surface at a safe gradient of about 3 percent maximum. When the approach tunnels are close to the ground surface, there will be inadequate ground cover to the tunnels. Hence, cut and cover construction method has to be employed for the construction of these approach tunnels, requiring the resumption of such area.

14. Apart from the above, the MTRCL needed to make necessary changes to the submitted proposal by the Concern Group to make the options technically workable, such as expanding the proposed site area so that it is large enough to accommodate the railway facilities required. In addition, if proposed site is located on a slope, it is necessary to modify the slopes along the site boundary to level the land for the SSS. The site areas of the modified schemes derived from the alternative sites proposed by the Concern Group are shown in **Annex 2**.

Comparison of the Number of Households Affected

15. Due to the additional land take to construct the shallow cover tunnels, as well as the extra land required in placing the SSS and ERS at different locations which need duplication of some facilities such as access roads, electricity supply and fire fighting facilities, more land resumption will be required for the proposed alternative schemes

suggested by the CYT Concern Group. The MTRCL has estimated the number of households to be affected by all these schemes. The estimation was carried out with the aid of high-resolution aerial photos, survey information and records from the Lands Department (such as records of Small Houses under the New Territories Small House Policy and Modification of Tenancy permits) and information gathered from site visits. The land take of various options are shown in **Annexes 3 to 8**. The impacts on households of these options are set out below:

Estimate of Number of Households Affected	ERS	SSS	Shallow Cover Approach Ramps	Total
Current Scheme proposed by the MTRCL	100	50 ¹	0 ²	150
Concern Group's Option A	100	170	50	320 ³
Concern Group's Option 1	100	80	50	230
Concern Group's Option B	100	200	320	620 ⁴
Concern Group's Option C and Option 2	100	20	230	350
Concern Group's Option D and Option 3	100	0 (Inside the Barracks)	120	220

16. As can be seen from the table above, the number of households to be affected by MTRCL's current scheme is less than that by all other alternative schemes. Thus, from the angle of minimizing impact to community, the current scheme is most preferable.

17. Moreover, it is worth noting that Options D or 3 would occupy some 13 hectares of the land and clear about 50 structures within the Barracks. The Barracks are currently used by the Hong Kong

¹ As some common facilities could be shared use with the ERS, there will be less additional impacts from the SSS.

² The SSS is located adjacent to the main tracks, there is less area required for the approach ramps.

³ The impacts on households for drainage diversion works has not been taken into account.

Garrison of the People's Liberation Army (the Garrison) for defence purposes. In particular, the Barracks are the only military site in Hong Kong equipped with a runway. We understand that the affected land inside the Barracks forms an integral part of, and is essential to the efficient operation of the military airfield. The Garrison has no plan to relinquish any part of the Barracks site for non-defence use. If these options are to be adopted, pursuant to Article 13 of the Law of the People's Republic of China on the Garrisoning of the Hong Kong Special Administrative Region, we will have to consult the Garrison and then obtain the Central People's Government's approval either to provide a piece of land in the vicinity of the Barracks to re-provision the part of the military airfield resumed, or to identify a separate site in the size of the entire Barracks (including the military airfield) for relocation, and bear all the costs and expenses entailed. Both the re-provisioning and relocation option would inevitably involve clearance of a much larger number of households than those proposed by the Scheme. Hence, in practice, Options D and 3 are also not viable and should not be adopted.

18. After we received the above 7 options from the Concern Group in March/April 2009, the Administration and the MTRCL met with the affected residents and the Concern Group on over 10 occasions such as public fora for CYT residents. At the meetings, we explained to them the pros and cons of various options. Details and dates of these meetings are summarized in **Annex 9**. The above proposed options and the findings of our assessment were also elaborated in the first issue of the newsletter for CYT residents published on 24 June 2009. The newsletter was also put into the letter box of the CYT household.

Submission in September 2009

19. We explained the above findings to the Concern Group and affected CYT residents on various occasions. However, some of them did not concur with us on the findings and continued to dispute the MTRCL's assessments. As such, we extended invitation to them on many occasions to further discuss their proposals and to carry out a joint site survey to verify the findings.

20. Notwithstanding, the Concern Group submitted two modified proposals in early September 2009. In these proposals, the location of the SSS and the alignment of the connecting tunnels were adjusted in Option E and in Option F respectively (**Annex 10**). The MTRCL carried out an assessment using the same methodology mentioned in paragraph 15 and revealed that about 200 households would

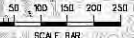
be affected by Option E. As for Option F, it would affect about 100 households and occupy some 13 hectares of the land and clear about 50 structures within the Barracks. As noted in paragraph17, Option F is not viable.

The Way Forward

21. We will maintain close communication with the affected villagers and provide suitable assistance on rehousing arrangement. The design and preparatory work of the Hong Kong Section of XRL are almost complete. We plan to submit the XRL scheme together with the unwithdrawn objections to the Chief Executive-in-Council for consideration shortly. We are fully committed to taking forward the XRL project and to striving for the early completion of this strategically important cross-boundary project.

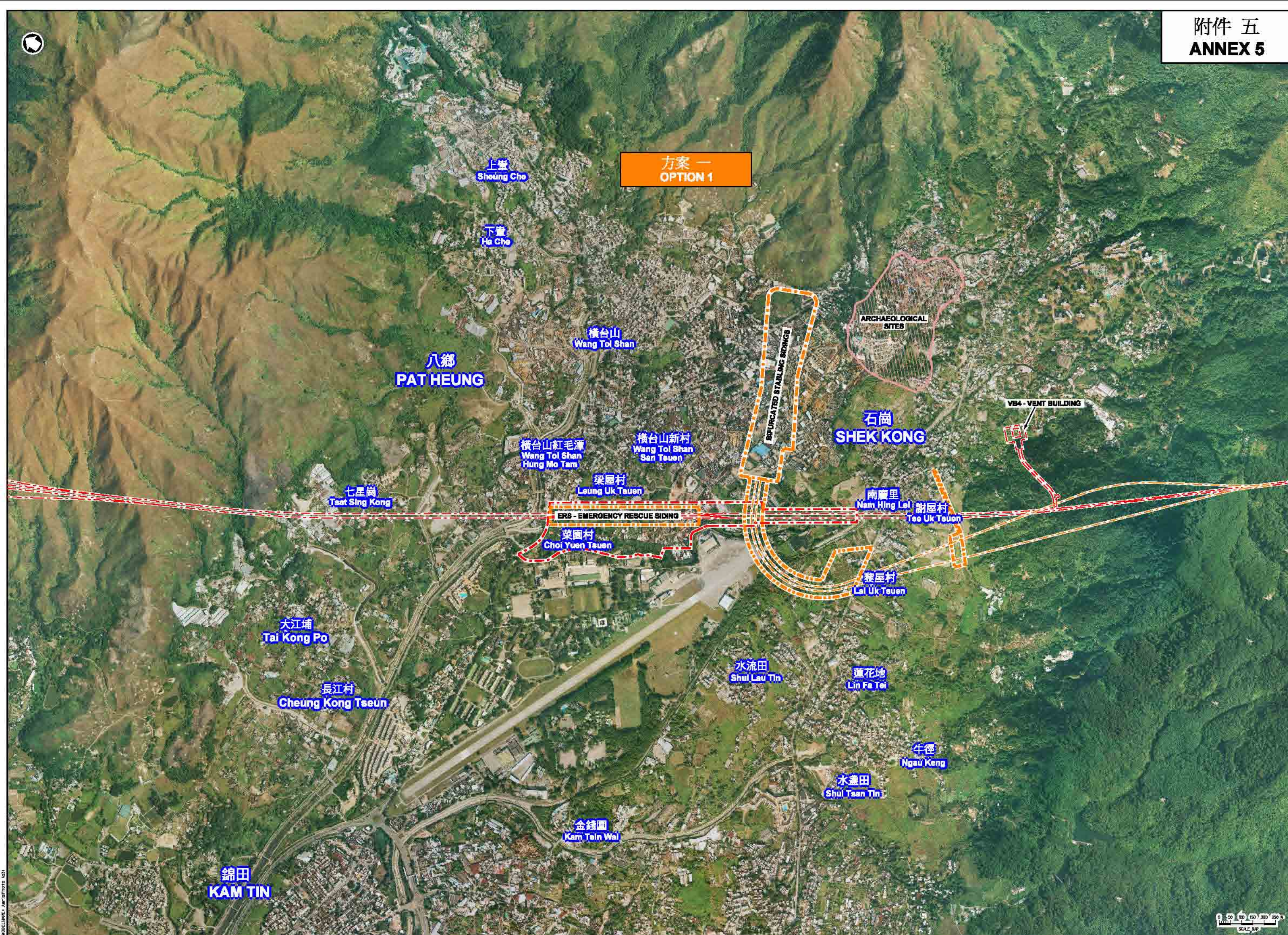
Transport and Housing Bureau
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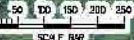
















Annex 9

Meetings with or written replies to the Concern group, Choi Yuen Tsuen residents and other organizations / persons over the alternative locations for the ERS and SSS

	Concern Group / People	Date (Year 2009)	Participants
Meeting	Yuen Long District Council	23 April	Transport and Housing Bureau, Highways Department, Lands Department, Home Affairs Department, MTRCL and relevant government departments
	Resident forum	28 April 5 June 28 June 27 July	Transport and Housing Bureau, Highways Department, Lands Department, Home Affairs Department, MTRCL and relevant government departments
	Meeting with relevant concern group / person	18 June 24 June 17 July	Transport and Housing Bureau, Highways Department, and MTRCL

	Public Forum	30 July 31 July 1 August	Highways Department, Lands Department, Home Affairs Department, MTRL and relevant government departments
	Objection Hearing	12 August	Transport and Housing Bureau, Highways Department, Lands Department, Home Affairs Department, MTRCL, and relevant government departments
Written / e-mail reply	Concern group and the relevant organization / people	24 April (3 e-mails) 27 April (one e-mail) 22 May 12 June 31 July	Issued by MTRCL
		29 May 16 September	Issued by Transport and Housing Bureau
	Choi Yuen Tsuen Newsletter	24 June	Issued by Highways Department

