

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

Special meeting on 20 May 2011

**Information note on matters relating to
underground strata resumption**

The Subcommittee has not specifically discussed underground strata resumption before but it has received information on relevant matters during its past discussion on railway projects (e.g. the West Island Line, the Shatin to Central Link and the Hong Kong section of the Guangzhou-Shenzhen-Hong Kong Express Rail Link). The following extracts from information papers provided by the Administration with relevant details on strata resumption are attached for members' reference -

- (a) paragraphs 24-26 of the Administration's paper (LC Paper No. CB(1)1018/09-10(03)) entitled "Progress report of the West Island Line";
- (b) part (III) on "Matters related to underground stratum resumption in Kowloon City" of a supplementary information paper provided by the Administration on "Funding application for Shatin to Central Link - advance works" (LC Paper No. CB(1)1105/10-11(01)); and
- (c) paragraphs 8-23 of the Administration's supplementary information paper (LC Paper No. CB(1)356/09-10(02)) on "The Hong Kong section of the Guangzhou-Shenzhen-Hong Kong Express Rail Link".

立法會 *Legislative Council*

Extract

LC Paper No. CB(1)1018/09-10(03)

9 February 2010
Information Paper

Legislative Council Panel on Transport Subcommittee on Matters Relating to Railways

Progress Report of the West Island Line

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(C) Resumption of Land and Underground Stratum

24. To facilitate tunnel construction works and to construct entrances to the station, two private buildings at 2-4 Tsz Mi Alley and 203-209 Queen's Road West have been resumed and reverted to Government on 18 October 2009. Lands Department issued compensation offers to the affected owners and occupiers in November 2009. As at mid-January 2010, about 23 % of the affected owners/occupiers have accepted the offers and Lands Department is processing the remaining cases in accordance with the Railways Ordinance. In parallel, Housing Department is also processing the rehousing of eligible owners or occupiers affected by the resumption.

25. Underground strata of land required for the WIL will be resumed in 8 phases. Resumption notices for Phases 1 and 2 in the Sai Ying Pun area were gazetted in December 2009 and January 2010 respectively. The remaining 6 phases from Sheung Wan to Kennedy Town will be resumed in stages from February to July 2010 to suit the construction programme.

26. Regarding the residents' concerns on compensation and rehousing arrangement for land resumption, and the effect of existing building structures and compensation due to strata resumption, we have clearly explained the relevant details to the affected residents, in twelve district council meetings and resident meetings, and if requested, in individual meetings or in writing. We will continue to maintain contact with the affected residents to address their concerns.

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Extract

LC Paper No. CB(1)1105/10-11(01)

**Legislative Council Panel on Transport
Subcommittee on Matters Relating to Railways
Supplementary Information for Funding Application for
the Shatin to Central Link – Advance Works**

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**(III) Matters Related to Underground Stratum Resumption in
Kowloon City**

Public Consultation

Since the Chief Executive in Council approved the planning and design of the SCL to proceed in March 2008, the Government and the MTR Corporation Co. Ltd. (MTRCL) had launched various public consultation activities, such as attending District Council (DC) meetings, organising roving exhibitions and holding public forums, etc. In the DC consultation papers and project briefs published under these activities, it was mentioned that underground stratum resumption might be required for the construction of SCL in developed urban areas. In relation to the underground stratum resumption in Kowloon City/To Kwa Wan areas, the proposed railway alignment was presented in the consultation papers to Kowloon City DC in May 2009 and published in the Digest for the SCL Kowloon City Section in June 2009. These documents were also distributed to the local communities in mid-2009 and uploaded to the SCL website for public's view.

2. The proposed SCL alignment will pass underneath seven residential buildings at Ko Shan Road and Shansi Street. To inform the

affected building owners and follow up with their concerns, the Government issued letters to the Incorporated Owners of the affected buildings and posted the letters on the notice boards of each building on 26 November 2010, the date of first gazette of the SCL project. Since then, the Government and the MTRCL has attended more than 40 meetings with residents, District Councils, Incorporated Owners and other relevant parties, 10 of which are related to stratum resumption in Kowloon City. We will continue to arrange similar meetings in the forthcoming future and explain the details of underground stratum resumption to the public.

Claim for Compensation Arising from Underground Stratum Resumption or Temporary Occupation of Land

3. It is inevitable that underground stratum resumption or temporary occupation of land will be required to facilitate the construction of a railway within the well-developed urban areas. Under the Railways Ordinance (Cap. 519), any person who has a legitimate compensatable interest arising from such underground stratum resumption or temporary occupation of land can claim compensation under the provisions of the Ordinance. A person who claims to be entitled to compensation under this Ordinance may serve a notice to the Secretary for Transport and Housing a written claim before the expiration of one year from the date on which easement or right is created.

Claim Procedures

4. We understand that affected residents may have concern that the claim procedures under the Railway Ordinance might be complicated and might involve legal proceedings. However, we will explain to the affected residents that the claims could be settled through negotiation and agreement instead of through legal proceedings. Given that a claimant could furnish the Administration with sufficient information such as the name of the claimant, description of the land, nature and particulars of claim etc., the Administration would consider and settle the claim in accordance with the Railway Ordinance. In case a claimant is entitled to such compensation, the costs involved in preparing for the claim such as professional fees, could also be reimbursed. For a claim which is not served on the Secretary before the expiry of the specified period, the Secretary may, if she is satisfied circumstances exist that she considers

reasonable, accept service of a claim after the specified period in accordance with Sections 33(1) and (5)(b) of the Ordinance.

Compensation for Loss of Re-development Potential

5. If any person who claims to be entitled to compensation as a result of his redevelopment works carried out within the future railway protection zone, then in accordance with item (9) in Annex II of the Ordinance, he shall serve on the Secretary a written claim before the expiration of one year from the date on which the redevelopment of his building is completed. The matters for which compensation may be claimed shall be an amendment required or a condition imposed, under the Ordinance to avoid incompatibility with the works for the construction of a railway.

6. However, it should be noted that whether the re-development potential of a building is being affected have to be examined case by case. Factors shall include the existing ground conditions, design of the re-development, area of land, levels and location of the SCL tunnels etc. If the existing building was constructed at the maximum allowable plot ratio, higher plot ratio will not be allowed for the concerned re-development. In addition, the re-development potential is also governed by the terms specified on the Land Lease, Outline Zoning Plans and Building (Planning) Regulations, the distribution of the ownerships of the building and other economic reasons etc.

7. In fact, the situation of the Ma Tau Wai Road at Kowloon City is not unique. A number of buildings in Hong Kong have been successfully re-developed above railway protection zone. For example, the re-development of a 25-storey building on Wing Lok Street at Sheung Wan is above the tunnel of the Island Line which is 23 m below ground and within soil stratum. Another example is the re-development of a 32-storey building on King's Road where the tunnel of Island Line is 22 m below ground and within the rock stratum. Currently, a project involving re-development of a 34-storey building above the Island Line on Des Voeux Road West is also in progress.

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the alignment will be required for the construction of the railway tunnel.

Alignment of the Hong Kong section of the XRL in the urban area

9. The entire West Kowloon has been fully developed, and hence the major consideration in alignment selection for the urban section is to minimize impacts of the construction and operation on the local communities, traffic, and existing infrastructure and buildings, as well as to minimize the extent of private land and strata resumption. In this connection, the tunnel alignment of the Hong Kong section of the XRL tunnel alignment will pass through the underground space of two sections of existing roads (Sham Mong Road and Hong Wang Road) to reduce the disturbance to the local communities during construction. To link up these two sections of tunnels, the Hong Kong section of the XRL has to pass through the rock strata deep below the ex-coastline of Tai Kok Tsui.

10. At the feasibility stage of the Hong Kong section of the XRL project, the Administration has investigated an alternative tunnel alignment which passes through Sham Shui Po district. However, detailed site investigation reveals that there are underground faults in Sham Shui Po. The geological condition is complicated with fractured rocks and loose soil. Construction of tunnel in such ground condition will therefore be very difficult. Such alignment will also affect more private lots. As such, we consider that the alignment running through Sham Shui Po is not technically advisable.

11. Subsequently, the Administration has reviewed the alignment options of running the Hong Kong section of the XRL tunnel west of the Hoi Wan Road near the waterfront and running underneath the Lin Chueng Road. However, the alignment options were found to be incompatible with existing infrastructure (including the Tung Chung Line, the Airport Express, the West Rail, the West Kowloon Highway, approach to the Western Harbour Crossing and drainage channel in West Kowloon, etc.). Adopting these options would require demolition and reprovisioning of the affected infrastructures, of which the impact posed on West Kowloon and the cross-district traffic would be immense, causing greater disturbance to the local communities and environment. As such, the Administration has adopted the current alignment running

through Tai Kok Tsui district

Tai Kok Tsui

No impact to the structural safety of buildings nearby

12. The Hong Kong section of the XRL tunnel will run through the rock layer deep underground along the original coastline in the Tai Kok Tsui district, with the tunnel crown at around 30 meters below ground (Please refer to the **Annex**); and the strata to be resumed will be around 25 – 50 meters below ground. According to the design of the Hong Kong section of the XRL, vast majority of the Hong Kong section of the XRL tunnel will run through the hard rock strata and the buildings along the tunnel alignment are around seven to fifteen storey high. The MTR Corporation Limited (MTRCL) is experienced in constructing tunnels in urban districts. The tunnel will be constructed by underground boring methods, and adequate clearance between the tunnel boring machine and the building foundations will be maintained. As such, the construction of the Hong Kong section of the XRL will not pose any adverse impact on the structural safety of the buildings along the alignment.

Examination before construction

13. To safeguard public safety and the structural integrity of the buildings, the MTRCL has, at the design stage, appointed qualified and experienced professionals to prepare the relevant drawings, carrying out the geological risk assessment and develop the monitoring plans before submitting the relevant design and drawings to Highways Department and other relevant Government departments for vetting. Relevant departments, including Highways Department and Geotechnical Engineering Office of the Civil Engineering and Development Department will, according to technical requirements under relevant ordinances, scrutinize the plans in accordance with their purview (such as construction, structural and geotechnical works), to ensure all the design comply with relevant statutory standards and other safety requirements.

14. In addition, the MTRCL is conducting building impact assessments of the buildings above or adjacent to the Hong Kong section

of the XRL tunnel, so as to formulate the most effective construction method and appropriate protective procedures during the construction period. The MTRCL has employed a separate group of experts to review the assessments. The review has concluded that the proposed construction method of the Hong Kong section of the XRL is similarly adopted in the usual international practice. These assessments will be submitted to Highways Department and other departments for approval.

Protection during construction

15. Prior to commencement of construction, the MTRCL will undertake pre-construction condition surveys for the buildings and structures along the tunnel alignment. Settlement monitoring points will be installed at the buildings and road surface nearby, such that any settlement of buildings or roads if occurs during the construction stage, remedial measures could be taken immediately.

16. During the construction period, together with relevant Government departments, the Highways Department as the co-ordinating department of the Hong Kong Section of the XRL project, will conduct site monitoring and inspections from time to time. This is to ensure that the registered contractors will implement the project in accordance with the approved plans, as well as deploying suitable professionals and technical staff to be the site safety and quality control supervisors, so as to safeguard public safety and structural integrity of the nearby buildings.

17. To strengthen the protection for the buildings and structures nearby, before the commencement of tunnel boring, the MTRCL will, according to ground conditions and engineering needs, consider undertaking additional ground strengthening works for strata apart from rock strata. Real-time monitoring system will also be implemented throughout the tunnel boring operation.

No impact to the environment and buildings nearby where XRL operates underground

18. The XRL trains, serving as an environmentally friendly mode of transport, will be powered by electricity. Similar to other underground

railway system, the trains running deep underground will have minimal impact to the households and nearby buildings.

Claims arising strata resumption or temporary occupation

19. Resumption or temporary occupation of some underground strata of private land along the alignment is unavoidable for the construction of the Hong Kong section of the XRL. The Railways Ordinance (Cap 519) allows any person, who has a compensatable interest in the land/strata to be resumed or temporarily occupied, to claim for damage arising from such resumption or temporary occupation. He may serve written claims on the Secretary of Transport and Housing before the expiration of one year from the date of such resumption or temporary occupation.

Claims regarding redevelopment potential

20. Any property owner, claiming that he has suffered loss in property redevelopment as a result of the subject land being included into the railway protection zone, may in accordance with Item 9 in Part II of the Schedule to the Railways Ordinance, serve written claim on the Secretary of Transport and Housing within one year from the completion of the redevelopment work concerned. The grounds for the claims will be the fact that the Building Authority, in order to avoid incompatibility between the works for the construction of the Hong Kong section of the XRL and the future redevelopment of lots affected by railway protection zone, requires the amendment of the plans relating to the redevelopment works or imposes conditions on the giving of approval to plans relating to the redevelopment works or on the giving of consent to commence the works.

21. Nonetheless, whether or not the redevelopment potential will be affected cannot be easily generalized and should be considered based on the circumstances of individual cases. The considerations include ground condition, the redevelopment schemes and design and area of the subject land, as well as the position and depth of the railway tunnel on the subject land. If the gross floor area of the property concerned has already been developed to the maximum plot ratio allowable for the subject lot, redevelopment will not increase its plot ratio. In addition,

the redevelopment potential may also be affected by land grant conditions imposed by the Government, town planning considerations, Building (Planning) Regulations, distribution of property ownership and other economic factors, etc

Public Consultation

22. On 26 June and 28 August 2008, the Administration briefed the Yau Tsim Mong District Council (YTMD) on the construction of the Hong Kong section of the XRL. The Traffic and Transport Committee of the YTMD was also briefed on 9 October 2008. The District Council has been regularly updated on the latest development. Two public fora were held in the West Kowloon area on 16 and 20 January 2009. Residents in Tai Kok Tsui were informed of these fora through letters distributed to their respective management offices on 14 January 2009.

23. Further discussions with the residents took place on 28 and 29 October 2009 and 10 and 11 November 2009. An Information Centre at West Kowloon has been set up starting from 11 November to provide advice and information to residents and building owners on the project and the possible impacts. Consultation with affected persons will be continued to ensure that residents and building owners fully understand the process and their rights under the various legal and administrative arrangements.

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