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**Panel on Transport**

**Updated background brief on  
Tseung Kwan O-Lam Tin Tunnel**

**Purpose**

This paper provides updated background information on the Tseung Kwan O-Lam Tin Tunnel ("TKO-LT Tunnel")<sup>1</sup> and summarizes views and concerns expressed by members at the meetings of the Panel on Transport ("the Panel") and the Public Works Subcommittee on the project.

**Background**

2. At present, the Tseung Kwan O ("TKO") Tunnel is the main connection between TKO and other areas in the territory. According to the Transport Department, the average daily vehicles of TKO Tunnel in 2014 already reached 86 954, far exceeding its design capacity of about 78 500 vehicles. The Feasibility Study for Further Development of Tseung Kwan O ("the TKO Study") completed in 2005 recommended a new external road network (comprising TKO-LT Tunnel and Cross Bay Link) for meeting the long-term transport needs of TKO. According to the traffic impact assessment of the TKO Study, the existing TKO Tunnel would experience serious congestion after 2016 if an alternative external road connection is not provided. According to the Administration's paper provided to the Panel in February 2013, without the TKO-LT Tunnel, the anticipated volume/capacity ("v/c") ratio of the TKO Tunnel during peak hours will reach 1.38 in 2021 due to the increasing population in the TKO district. With the TKO-LT Tunnel, the v/c ratio of the TKO Tunnel during peak hours will be reduced to 0.86 in 2021.

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<sup>1</sup> TKO-LT Tunnel was formerly known as the Western Coast Road. As the recommended alignment will not run along the coast, the Administration had renamed the Western Coast Road as the "TKO-LT Tunnel" to improve the nomenclature.

## **TKO-LT Tunnel**

3. TKO-LT Tunnel is a dual two-lane highway of approximately 4.2 kilometres ("km") long, connecting TKO in the east with the proposed Trunk Road T2 in Kai Tak Development in the west. About 2.6 km of the highway will be in the form of tunnel. The planning of TKO-LT Tunnel was based on the presumption that it will be a tolled tunnel.

4. TKO-LT Tunnel, together with the proposed Trunk Road T2<sup>2</sup> in Kai Tak Development and Central Kowloon Route<sup>3</sup>, will form Route 6 in the strategic road network. Route 6 will provide an east-west express link between Kowloon and TKO areas. Upon completion, this strategic route will also provide the necessary relief to the existing heavily trafficked road network in the central and eastern Kowloon areas, and reduce the related environmental impacts on these areas.

## **Project implementation**

5. According to the information paper submitted to the Panel by the Transport and Housing Bureau in June 2008 [LC Paper No. CB(1)1999/07-08(01)], it was the original plan for the Administration to start the construction works in 2012 for completion in 2016. In January 2009, the Finance Committee approved funding of \$198.9 million in money-of-the-day prices for investigation and preliminary design of the TKO-LT Tunnel project.

6. In response to a question raised by a Member at the Legislative Council meeting on 25 February 2015 regarding the progress of various sub-projects of the Route 6 Project (including the TKO-LT Tunnel project), the Secretary for Transport and Housing advised that in view of the uncertainties brought about by the judgment handed down by the Court of First Instance on 18 April 2011 on the judicial review ("JR") case regarding the environmental impact assessment ("EIA") reports of the Hong Kong-Zhuhai-Macao Bridge projects, the Administration had to review the comprehensiveness of the then ongoing EIA of the Route 6 projects, including the TKO-LT Tunnel project. Upon the handing down of the Court of Appeal's judgment regarding the above JR case in September 2011 which confirmed the validity of the environmental permits issued by the Director of Environmental Protection, the procedures of the Route 6 projects were resumed.

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2 The proposed Trunk Road T2 is a dual two-lane trunk road of approximately 3.6 km long, connecting Central Kowloon Route ("CKR") and TKO-LT Tunnel.

3 CKR is a major component of Route 6, comprising a 4.7 km dual three-lane trunk road, of which 3.9 km is in tunnel section. CKR will connect the West Kowloon reclamation area in the west and with the future Kai Tak Development in the east.

7. The Secretary for Transport and Housing further advised that upon the gazettal of the TKO-LT Tunnel project in May 2013, more than 1 400 submissions on the road scheme of the project and more than 300 submissions on the sewerage works of the project were received. The project was authorized by the Chief Executive-in-Council in April 2014. Detailed design of the project has commenced.

8. According to the 2016 Policy Address, the Administration would seek funding within 2015-2016 legislative session with a view to commencing the construction of the TKO-LT Tunnel in 2016 with scheduled completion in 2021.

### **Major views and concerns about the TKO-LT Tunnel project**

9. Major views and concerns expressed by members at the Panel meetings on 24 June 2005, 28 November 2008 and 22 February 2013, and the meeting of the Public Works Subcommittee are summarized below.

#### Planned completion schedule

10. Members considered that the proposed new external road network (comprising TKO-LT Tunnel) was an essential infrastructure for TKO and requested the Administration to expedite the TKO-LT Tunnel project, having regard to the need to provide an alternative external road connection to TKO Tunnel which was often saturated during peak hours.

11. The Administration estimated that the existing TKO external road network should be able to cope with the traffic demand up to 2016 based on the prevailing assessment. Given the complexity of the relevant works, the Administration advised that the relevant preparatory work and gazettal procedures of the project, including handling of objections, if any, required about three years and that the construction time was about five years. Therefore, TKO-LT Tunnel was targeted for commissioning in around 2021. At members' request, the Administration provided a supplementary information paper on the implementation schedule of the project<sup>4</sup>.

#### Mode of delivery

12. At the Panel meeting on 24 June 2005, some members pointed out that the Administration should avoid using the "Build-Operate-Transfer" ("BOT") mode to deliver TKO-LT Tunnel in view of the problems identified in other BOT tunnels, in particular the likely uneven traffic

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<sup>4</sup> The paper (LC Paper No. CB(1)668/12-13(01)) was issued to members on 4 March 2013.

distribution between the existing government-owned TKO Tunnel and TKO-LT Tunnel as a result of toll difference. Instead, the Administration was requested to consider various means of community funding, such as issuing bonds to finance the road project, or funding the project as a public works project.

13. At the Panel meeting on 28 November 2008, the Administration confirmed that it would not adopt the BOT mode to deliver TKO-LT Tunnel but would finance the project through public purse.

#### Alignment and toll charges of TKO-LT Tunnel

14. According to the Administration, the scheme of the Kowloon section of TKO-LT Tunnel originally took the form of a depressed road option<sup>5</sup>. After consultation with Kwun Tong District Council ("KTDC") and the villagers' organizations of Cha Kwo Ling Village ("CKLV") in June 2007, the Administration proposed an alternative scheme of a tunnel option at CKLV to avoid the clearance of part of CKLV and to preserve the village community.

15. KTDC welcomed this alternative scheme and supported the early implementation of the TKO-LT Tunnel project. However, when the villagers' organizations of CKLV were consulted again in May 2008, some lot owners raised concerns on the potential impact of the tunnel option on the redevelopment rights of their existing land lots. In addition, Cha Kwo Ling Villagers Fraternity Association has expressed concerns about the impact of the tunnel design on the Feng Shui of CKLV, and suggested moving the tunnel away from the sub-stratum of CKLV.

16. At the Panel meeting on 28 November 2008, some Panel members urged the Administration to actively pursue the tunnel option for the road section at CKLV to address the concerns of the villagers about preserving the village community. The Administration advised at the Panel meeting on 22 February 2013 that in response to the above suggestion, it proposed to adopt a tunnelling scheme to avoid any works which might affect the integrity of the community of CKLV and the local landmarks including Cha Kwo Ling Tin Hau Temple and the former Four Hills Public School.

17. Members noted at the Panel meeting on 22 February 2013 that the alignment of TKO-LT Tunnel had been changed to exclude the toll plaza. Under the revised alignment, reclamation would be minimized to reduce the environmental impact of the project in response to the views of the public. Members urged the Administration to use a portion of the reclaimed land for providing community facilities, such as waterfront

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<sup>5</sup> Please refer to the paper submitted by the Transport and Housing Bureau to the Public Works Subcommittee in December 2008 (LC Paper No.: PWSC(2008-09)50).

enhancement facilities. The Administration advised that while the major part of the reclamation area would be used for constructing TKO-LT Tunnel, pedestrian access facilities linking the existing Junk Bay waterfront promenade would be provided.

18. The Administration also advised that under the existing policy, the operating cost of Government tunnels and roads should be recovered through toll charges. The Administration would explore other toll collection means in the detailed design stage due to the exclusion of the toll plaza. In this connection, some members suggested that it would be better for the Administration not to charge any tolls for both the TKO Tunnel and TKO-LT Tunnel for the overall benefits of the community.

#### Environmental impact

19. Some members expressed concern about the impact of traffic noise likely to be generated from the TKO-LT Tunnel project, including the noise and light nuisances at the toll plaza area of the Eastern Harbour Crossing. They urged the Administration to introduce suitable mitigation measures including the installation of noise barriers on the main route and other existing connecting roads and suggestion to enlarge the coverage of the landscape deck above the Lam Tin Interchange to further enhance its noise mitigation function.

20. The Administration advised at the Panel meeting on 22 February 2013 that it had carried out an EIA study and had submitted the EIA report to the Director of Environmental Protection for approval under the EIA Ordinance (Cap. 499) ("EIAO"). The Administration would provide the EIA report for inspection and comment by the public and the Advisory Council on the Environment by mid-2013. In addition, the current design of TKO-LT Tunnel had fully complied with the requirements specified under EIAO. Under the current proposal, the Administration would construct the main carriageways of the Lam Tin Interchange below the adjacent ground level and cover it with a landscape deck and noise enclosures. Moreover, a variety of measures would be implemented on the slip roads of the Interchange, such as to construct roads between cut-slopes or to provide noise barriers/enclosures, so as to minimize noise and visual impact as well as light nuisance.

#### Other concerns

21. At the Panel meeting on 22 February 2013, members enquired about the handling of objections to the project by the Administration. The Administration advised that it had been carrying out various public engagement exercises to understand the public's concerns and explore different design options with a view to maximizing the benefits of the

projects while minimizing the adverse impact on the public, and that there were appropriate procedures in place to handle the objections received.

22. Members further enquired about whether the current design of TKO-LT Tunnel would cater for future expansion. The Administration advised that the design capacity of TKO-LT Tunnel had taken into account the future expansion of TKO population, which was anticipated to grow from the current figure of 380 000 to 450 000 in 2021. In addition, the anticipated volume/capacity ratios at TKO-LT Tunnel and TKO Tunnel would be around 0.9 and 0.86 respectively in 2021, representing that there would be spare capacity for both tunnels in the future.

23. At the same meeting, some members enquired about whether the project would provide bus-bus interchange facilities near the entrance of TKO-LT Tunnel to facilitate TKO residents interchanging for different destinations. The Administration advised that it would adopt an "Area Approach" in which the entire district was to be used as the basis for reviewing and rationalizing franchised bus services to relieve the pressure of traffic congestion and to ensure effective use of resources. The Administration would study this suggestion in the detailed design, having regard to the relevant cost involved and impact on the alignment of TKO-LT Tunnel.

### **Latest development**

24. The Administration plans to consult members on the funding proposal for upgrading 823TH-1 "Tseung Kwan O – Lam Tin Tunnel – construction" to Category A at the Panel meeting to be held on 23 March 2016.

### **Relevant papers**

25. A list of relevant papers is in **Appendix**.

## Tseung Kwan O-Lam Tin Tunnel

## List of relevant papers

Date of meeting	Committee	Minutes/Paper	LC Paper No.
24.6.2005	Panel on Transport	Administration's paper on Tseung Kwan O – Lam Tin Tunnel	CB(1)1830/04-05(03) <a href="http://www.legco.gov.hk/yr04-05/english/panels/tp/papers/tp0624cb1-1830-3e.pdf">http://www.legco.gov.hk/yr04-05/english/panels/tp/papers/tp0624cb1-1830-3e.pdf</a>
		Administration's supplementary paper on Tseung Kwan O – Lam Tin Tunnel	CB(1)2269/04-05(01) <a href="http://www.legco.gov.hk/yr04-05/english/panels/tp/papers/tp0624cb1-2269-1e.pdf">http://www.legco.gov.hk/yr04-05/english/panels/tp/papers/tp0624cb1-2269-1e.pdf</a>
		Minutes of the meeting	CB(1)2090/04-05 <a href="http://www.legco.gov.hk/yr04-05/english/panels/tp/minutes/tp050624.pdf">http://www.legco.gov.hk/yr04-05/english/panels/tp/minutes/tp050624.pdf</a>
28.11.2008	Panel on Transport	Administration's paper on 823TH – Tseung Kwan O-Lam Tin Tunnel and 822TH – Cross Bay Link, Tseung Kwan O	CB(1)1999/07-08(01) <a href="http://www.legco.gov.hk/yr07-08/english/panels/tp/papers/tpcb1-1999-1-e.pdf">http://www.legco.gov.hk/yr07-08/english/panels/tp/papers/tpcb1-1999-1-e.pdf</a>
		Administration's supplementary information paper on 823TH - Tseung Kwan O-Lam Tin Tunnel and 822TH - Cross Bay Link, Tseung Kwan O	CB(1)281/08-09(01) <a href="http://www.legco.gov.hk/yr08-09/english/panels/tp/papers/tp1128cb1-281-1-e.pdf">http://www.legco.gov.hk/yr08-09/english/panels/tp/papers/tp1128cb1-281-1-e.pdf</a>
		Minutes of the meeting	CB(1)632/08-09 <a href="http://www.legco.gov.hk/yr08-09/english/panels/tp/minutes/tp20081128.pdf">http://www.legco.gov.hk/yr08-09/english/panels/tp/minutes/tp20081128.pdf</a>

<b>Date of meeting</b>	<b>Committee</b>	<b>Minutes/Paper</b>	<b>LC Paper No.</b>
15.12.2008	Public Works Subcommittee	823TH Tseung Kwan O-Lam Tin Tunnel	PWSC(2008-09)50 <a href="http://www.legco.gov.hk/yr08-09/english/fc/pwsc/papers/p08-50e.pdf">http://www.legco.gov.hk/yr08-09/english/fc/pwsc/papers/p08-50e.pdf</a>
		Minutes of the meeting	PWSC32/08-09 <a href="http://www.legco.gov.hk/yr08-09/english/fc/pwsc/minutes/pwsc20081215.pdf">http://www.legco.gov.hk/yr08-09/english/fc/pwsc/minutes/pwsc20081215.pdf</a>
9.1.2009	Finance Committee	Recommendations of the Public Works Subcommittee made on 3 and 15 December 2008	FCR(2008-09)54 <a href="http://www.legco.gov.hk/yr08-09/english/fc/fc/papers/f08-54e.pdf">http://www.legco.gov.hk/yr08-09/english/fc/fc/papers/f08-54e.pdf</a>
		Minutes of the meeting	FC75/08-09 <a href="http://www.legco.gov.hk/yr08-09/english/fc/fc/minutes/fc20090109.pdf">http://www.legco.gov.hk/yr08-09/english/fc/fc/minutes/fc20090109.pdf</a>
18.10.2011	Panel on Transport	Administration's response on the progress of the Tseung Kwan O – Lam Tin Tunnel, Cross Bay Link, Trunk Road T2, and Central Kowloon Route (Follow – up paper)	CB(1)968/11-12(01) <a href="http://www.legco.gov.hk/yr11-12/english/panels/tp/papers/tp1018cb1-968-1-e.pdf">http://www.legco.gov.hk/yr11-12/english/panels/tp/papers/tp1018cb1-968-1-e.pdf</a>
26.10.2011	Panel on Transport	Appendix I of the Administration's paper (Impact of Judicial Review of Environment Impact Assessment Report of Hong Kong-Zhuhai-Macao Bridge Project on Major Transport Infrastructure Projects)	CB(1)126/11-12(01) <a href="http://www.legco.gov.hk/yr11-12/english/panels/tp/papers/tp1026cb1-126-1-e.pdf">http://www.legco.gov.hk/yr11-12/english/panels/tp/papers/tp1026cb1-126-1-e.pdf</a>

<b>Date of meeting</b>	<b>Committee</b>	<b>Minutes/Paper</b>	<b>LC Paper No.</b>
-	-	Monthly Traffic and Transport Digest November 2012 (published by Transport Department)	<a href="http://www.td.gov.hk/filemanager/en/content_4541/1211.pdf">http://www.td.gov.hk/filemanager/en/content_4541/1211.pdf</a>
22.2.2013	Panel on Transport	Administration's paper on 823TH – Tseung Kwan O - Lam Tin Tunnel Detailed Design and Site Investigation Works	CB(1)544/12-13(07) <a href="http://www.legco.gov.hk/yr12-13/english/panels/tp/papers/tp0222cb1-544-7-e.pdf">http://www.legco.gov.hk/yr12-13/english/panels/tp/papers/tp0222cb1-544-7-e.pdf</a>
		Administration's supplementary information paper on Tseung Kwan O - Lam Tin Tunnel Detailed Design and Site Investigation Works	CB(1)668/12-13(01) <a href="http://www.legco.gov.hk/yr12-13/english/panels/tp/papers/tp0222cb1-668-1-e.pdf">http://www.legco.gov.hk/yr12-13/english/panels/tp/papers/tp0222cb1-668-1-e.pdf</a>
		Minutes of the meeting	CB(1)1307/12-13 <a href="http://www.legco.gov.hk/yr12-13/english/panels/tp/minutes/tp20130222.pdf">http://www.legco.gov.hk/yr12-13/english/panels/tp/minutes/tp20130222.pdf</a>
13.3.2013	Public Works Subcommittee	823TH Tseung Kwan O-Lam Tin Tunnel	PWSC(2012-13)58 <a href="http://www.legco.gov.hk/yr12-13/english/fc/pwsc/papers/p12-58e.pdf">http://www.legco.gov.hk/yr12-13/english/fc/pwsc/papers/p12-58e.pdf</a>
		Minutes of the meeting	PWSC47/12-13 <a href="http://www.legco.gov.hk/yr12-13/english/fc/pwsc/minutes/pwsc20130313.pdf">http://www.legco.gov.hk/yr12-13/english/fc/pwsc/minutes/pwsc20130313.pdf</a>
25.2.2015	Legislative Council	Question raised by Hon WONG Kwok-kin on easing impacts of new development projects on the traffic in East Kowloon	<a href="http://www.info.gov.hk/gia/general/201502/25/P201502240622.htm">http://www.info.gov.hk/gia/general/201502/25/P201502240622.htm</a>

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