

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 707 – NEW TOWNS AND URBAN AREA DEVELOPMENT

Transport - Roads

785TH – Trunk Road T2 and Cha Kwo Ling Tunnel – Construction

Members are invited to recommend to the Finance Committee the upgrading of **785TH** to Category A at an estimate cost of \$16,017.0 million in money-of-the-day prices.

PROBLEM

We need to build the Trunk Road T2 and Cha Kwo Ling (CKL) Tunnel connecting with the Central Kowloon Route (CKR) and Tseung Kwan O-Lam Tin Tunnel (TKO-LTT) to form Route 6 as an east-west express link between West Kowloon and Tseung Kwan O.

PROPOSAL

2. The Director of Civil Engineering and Development proposes, with the support of the Secretary for Transport and Housing, to upgrade **785TH** (the Project) to Category A at an estimated cost of \$16,017.0 million in money-of-the-day (MOD) prices.

/PROJECT.....

PROJECT SCOPE AND NATURE

3. The proposed scope of works under the Project comprises –
- (a) construction of a dual two-lane trunk road of approximately 3.4 km long¹, with about 3.1 km in the form of a tunnel;
 - (b) construction of two ventilation buildings;
 - (c) associated traffic control and surveillance system, buildings, civil, structural, landscaping, electrical and mechanical works; and
 - (d) ancillary works, including implementation of environmental mitigation measures and environmental monitoring and audit (EM&A) programmes for the works mentioned in paragraphs 3(a) to (c) above.

— The layout plan and artistic impression of the Project are at Enclosure 1. The scope of works incorporates part of the remainder of **823TH** “Tseung Kwan O-Lam Tin Tunnel – main tunnel and associated works”, namely the CKL Tunnel, which connects the Lam Tin Interchange and the Trunk Road T2. In terms of function and structure, the Trunk Road T2 and the CKL Tunnel will form part and parcel of each other and indispensable to each other. Thus, we need to expand the scope of **785TH** to include the CKL Tunnel and associated works by transferring them from the remainder of **823TH** to **785TH** so as to ensure that the Trunk Road T2 and the CKL Tunnel will be commissioned concurrently.

4. Subject to funding approval of the Finance Committee (FC), we plan to commence the construction works in the second half of 2019 for completion in around 2025, in tandem with the CKR. To meet the programme, the Civil Engineering and Development Department (CEDD) has commenced parallel tendering for pre-qualification² of the main contract in August 2018, and invited the pre-qualified tenderers to tender in January 2019 in order to start the construction works as soon as possible. The construction contract will only be awarded after obtaining funding approval from the FC.

/JUSTIFICATION.....

¹ The dual two-lane trunk road of approximately 3.4 km long comprises of the Trunk Road T2 of approximately 3.0 km long (with about 2.7 km in the form of a tunnel) and the CKL Tunnel of approximately 0.4 km long.

² As it is a mega-sized contract, pre-qualification would help identify those contractors who are interested and capable of undertaking the contract and keep tendering cost to the minimum.

JUSTIFICATION

Route 6

5. The Trunk Road T2 and the CKL Tunnel form the middle section of Route 6 (see Enclosure 2 for the alignment). They connect the CKR to the west and the main tunnel of the TKO-LTT to the east³. The Route 6 forms part of Hong Kong's strategic road network and provides an important road link from West Kowloon to Tseung Kwan O (TKO) New Town with intermediate interchanges at Kai Tak and Lam Tin. The Route 6 plays a strategic transport role by providing the essential highway infrastructure to support new development projects, including the West Kowloon Cultural District and the West Kowloon Station of the Hong Kong Section of the Guangzhou – Shenzhen – Hong Kong Express Rail Link; the Cruise Terminal, the Kai Tak Development (KTD) and the Kowloon East Central Business District; and the residential / industrial developments in TKO. Upon commissioning of the Route 6, the public can have a more convenient express access between Kowloon East and West and amongst the developments along the route.

Traffic condition of Kowloon East

6. According to the traffic impact assessment completed in 2018, with the Project completed, it is estimated that the journey time during the peak hours between the western entrance/exit of the TKO-LTT, i.e. Lam Tin Interchange, and the eastern entrance/exit of the CKR, i.e. Kai Tak Interchange would be reduced from about 15 minutes to about 3 minutes. The usage of the TKO-LTT and the CKR would be increased by 30% and 20% respectively, after the completion of the whole Route 6. It would provide relief to the traffic demand on the existing key road links including TKO Tunnel, Kwun Tong Bypass and Kwun Tong Road. The projected volume to capacity (v/c)⁴ ratios of the relevant road links during the peak hours will be improved as follows –

/Road.....

³ Currently both the CKR and TKO-LTT are under construction for completion in 2025 and 2021 respectively.

⁴ A volume to capacity (v/c) ratio is used to reflect the traffic situation during peak hours. A v/c ratio less than 1.0 means the situation is acceptable. A v/c ratio above 1.0 indicates the onset of slight congestion and a v/c ratio between 1.0 and 1.2 indicates a manageable degree of congestion. A v/c ratio higher than 1.2 means the congestion is getting serious.

Road Link	v/c ratio during peak hours in 2026	
	Without the Project	With the Project Completed
Tseung Kwan O Tunnel	1.3	1.0
Kwun Tong Bypass (near Sheung Yee Road)	1.3	1.0
Kwun Tong Bypass (near Hoi Bun Road)	1.1	0.9

7. Concurrently, the reserve capacity⁵ (RC) of key junctions in Kowloon Bay and Kwun Tong during peak hours would also be improved as follows –

Key Junctions	RC of key junctions during peak hours in 2026	
	Without the Project	With the Project Completed
Cheung Yip Street / Hoi Bun Road	-1%	10%
Wai Yip Street / Hoi Yuen Road	9%	14%
Cha Kwo Ling Road / Wai Yip Street	5%	14%
Lei Yue Mun Road / Tseung Kwan O Road / Wai Fat Road	8%	23%

/8.

⁵ The performance of a traffic signalised junction is indicated by its reserve capacity (RC). A positive RC indicates that the junction is operating with spare capacity and smooth traffic flow. A negative RC indicates that the junction is overloaded; resulting in traffic queues and longer travel time.

8. If the Project cannot be commissioned together with the CKR, the eastbound traffic from the CKR gaining access to Kwun Tong Bypass will have to route through Kai Fuk Road and weave with traffic coming from the Kai Tak Tunnel and Kai Cheung Road. This may result in area-wide traffic gridlock in Kowloon Bay area during peak hours.

Impacts on New Acute Hospital during Construction

9. Furthermore, the alignment of the Trunk Road T2 is running parallel with the New Acute Hospital (NAH) in the KTD which is under construction and aiming to be completed in 2024. The CEDD will complete the works with high noise and vibration levels as early as possible to minimise the impacts to the sensitive medical equipment and the normal operation of the NAH arising from the construction works. If the construction of the Project cannot commence as planned and thus the above construction arrangement cannot be implemented, additional mitigation measures will need to be adopted which will increase the level of difficulty and cost of the works.

FINANCIAL IMPLICATIONS

10. We estimate the capital cost of the Project to be \$16,017.0 million in money-of-the-day (MOD) prices, broken down as follows –

	\$ million (in MOD prices)
(a) Tunnel construction works	9,987.1
(i) Underwater tunnel	7,528.2
(ii) Underground tunnel	2,458.9
(b) Tunnel electrical and mechanical (E&M) Works	1,578.1
(i) Associated E&M systems	1,329.6
(ii) Air purification system	248.5
(c) Road works	558.3
(d) Two ventilation buildings	698.4
(e) Traffic control and surveillance system	403.3

/ \$ million

		\$ million (in MOD prices)
(f)	Consultants' fees	110.4
(i)	Contract administration	33.6
(ii)	Management of resident site staff (RSS)	46.0
(iii)	EM&A	30.8
(g)	Remuneration of RSS	1,202.0
(h)	Electrical and Mechanical Services Trading Fund (EMSTF) ⁶	29.4
(i)	Contingencies	1,450.0
Total		<u>16,017.0</u>

_____ A breakdown of the estimates for the consultants' fees and RSS costs by man-month is at Enclosure 3.

11. Subject to funding approval, we plan to phase the expenditure as follows –

/Year

⁶ Upon its establishment on 1 August 1996 under the Trading Funds Ordinance (Cap. 430), the EMSTF charges government departments for design and technical consultancy services for E&M installation. The services rendered for this Project include checking consultants' submissions on all E&M installations and providing technical advice on all E&M works and their impacts on the Project.

Year	\$ million (MOD)
2019-2020	717.8
2020-2021	755.3
2021-2022	817.6
2022-2023	1,165.3
2023-2024	2,575.8
2024-2025	2,883.7
2025-2026	1,979.1
2026-2027	1,835.7
2027-2028	1,768.2
2028-2029	1,518.5
	<hr/> 16,017.0 <hr/>

12. We have derived the MOD estimates on the basis of the Government's latest set of assumptions on the trend rate of change in the prices of public sector building and construction output for the period from 2019 to 2029. Subject to funding approval, we will implement the works through a number of contracts with provision for price adjustment.

13. We estimate that the annual recurrent expenditure arising from the proposed works to be about \$92.0 million.

PUBLIC CONSULTATION

14. For the Trunk Road T2, the CEDD consulted the Housing and Infrastructure Committee of the Kowloon City District Council on 7 November 2013, the Traffic and Transport Committee of the Wong Tai Sin District Council on 26 November 2013, and the Traffic and Transport Committee of the Kwun Tong District Council (KTDC) on 28 November 2013. The three DCs in general supported the implementation of the Trunk Road T2 project. The CEDD consulted the Task Force on Kai Tak Harbourfront Development of the Harbourfront Commission (Task Force) on 8 October 2013. The Task Force had no objection to the Trunk Road T2 project.

15. We gazetted the proposed road scheme of the Trunk Road T2 project under the Roads (Works, Use and Compensation) Ordinance (Cap. 370) on 5 September 2014 and 12 September 2014. During the statutory period, no objection was received. The road scheme of the Trunk Road T2 project was authorised and the authorisation was gazetted on 21 November 2014 and 28 November 2014.

16. For the CKL Tunnel and associated works, which were originally parts of **823TH** – TKO-LTT project, the CEDD consulted the Sai Kung District Council (SKDC) and the KTDC on 8 January 2013 about the TKO-LTT project (including the CKL Tunnel and associated works). The CEDD further briefed the SKDC and the Traffic and Transport Committee of the KTDC on 5 May 2015 and 28 May 2015 respectively on the updates of the Project. The two DCs in general supported the implementation of the TKO-LTT project.

17. The CEDD consulted the Task Force on 18 August 2015 about the TKO-LTT project (including the CKL Tunnel and associated works). The Task Force advised the CEDD to take the opportunity to implement landscape proposals at Lam Tin Interchange to improve landscaping and minimising the environmental impact on the harbourfront during the construction phase. The CEDD has incorporated the views of the Task Force in the TKO-LTT project.

18. We gazetted the proposed road scheme of the TKO-LTT project (including the CKL Tunnel and associated works) under the Roads (Works, Use and Compensation) Ordinance (Cap. 370) on 10 May 2013 and 16 May 2013. In response to the gazettal of the road scheme, we received 1 429 objections. Two objectors agreed to withdraw two duplicated objections. Among the remaining 1 427 objections, 597 objections were concerning the impacts to the CKL Village arising from the construction of the CKL Tunnel. Eight objectors subsequently withdrew the objections unconditionally after receiving responses from the CEDD. Detailed descriptions of the objections against the proposed road scheme of the TKO-LTT and the responses of the Government are detailed in Enclosure 4.

19. The Director of Environmental Protection gazetted the proposed sewerage scheme of the TKO-LTT project (including the CKL Tunnel and associated works) under the Roads (Works, Use and Compensation) Ordinance (Cap. 370) as applied by section 26 of the Water Pollution Control (Sewerage) Regulation (Cap. 358AL) on 10 May 2013 and 16 May 2013. In response to the gazettal of the sewerage scheme, the Director of Environmental Protection received 346 objections. Six objectors subsequently withdrew the objections unconditionally after receiving responses from the CEDD. Detailed descriptions of the objections and the responses of the Government are detailed in Enclosure 5.

20. The Transport and Housing Bureau and the Environmental Protection Department submitted the road and sewerage schemes as well as the unwithdrawn objections to the TKO-LTT project (in Enclosures 4 and 5) to the Chief Executive in Council for deliberation. The Chief Executive in Council authorised the road and sewerage schemes of the TKO-LTT project on 29 April 2014 without modification. Subsequently, the Transport and Housing Bureau and the Environmental Protection Department informed the objectors of the above-mentioned authorisations. The authorisation of the TKO-LTT project (including the CKL Tunnel and associated works) was gazetted on 30 May 2014 and 6 June 2014.

21. We consulted the Panel on Transport on 15 June 2018. Members in general supported the implementation of the Project and urged for early commencement of the works.

ENVIRONMENTAL IMPLICATIONS

22. The Trunk Road T2 is a designated project under Schedule 2 of the Environmental Impact Assessment (EIA) Ordinance (Cap. 499) and an Environmental Permit (EP) is required for its construction and operation. The Director of Environmental Protection approved the EIA Report for the Trunk Road T2 project and issued the EP on 19 September 2013. The CKL Tunnel and associated works were parts of the TKO-LTT which is also a designated project under Schedule 2 of the EIA Ordinance (Cap. 499) and an EP is required for its construction and operation. The Director of Environmental Protection approved the EIA Report for the TKO-LTT project under the EIA Ordinance on 11 July 2013 and issued the EP on 15 August 2013.

23. The EIA Reports of the Trunk Road T2 project and the TKO-LTT project concluded that the environmental impacts of both projects can be controlled to within the criteria under the EIA Ordinance and the Technical Memorandum on EIA Process. The CEDD will implement the environmental mitigation measures and the EM&A programmes recommended in the approved EIA Reports, and comply with relevant conditions under the EPs and other statutory requirements for environmental protection. The mitigation measures recommended for the construction phase mainly include the adoption of quiet powered mechanical equipment and temporary noise barriers to minimise the construction noise impact, regular watering of the works sites and provision of wheel-washing facilities for dust control, use of temporary drains to discharge the surface run-off of sites, as well as setting up of community liaison groups. The CEDD has included the cost for the provision of necessary environmental mitigation measures and implementation of the EM&A programmes in the Project estimate.

24. At the planning and design stages, the CEDD has considered adopting measures in the proposed works and construction sequence to reduce the generation of construction waste where possible. In addition, the CEDD will require the contractors to reuse inert construction waste (e.g. materials excavated within the site area for backfilling use) on site or in other suitable construction sites as far as possible, in order to minimise the disposal of inert construction waste to public fill reception facilities⁷. The CEDD will encourage the contractors to maximise the use of recycled or recyclable inert construction waste, and the use of non-timber formwork to further reduce the generation of construction waste.

25. At the construction stage, the CEDD will require the contractors to submit for approval a plan setting out the waste management measures, which will include appropriate mitigation means to avoid, reduce, reuse and recycle inert construction waste. The CEDD will ensure that the day-to-day operations on site comply with the approved plan and will require the contractors to separate the inert portion from non-inert construction waste on site for disposal at appropriate facilities. The CEDD will control the disposal of inert construction waste and non-inert construction waste to public fill reception facilities and landfills respectively through a trip-ticket system.

/26.

⁷ Public fill reception facilities are specified in Schedule 4 of the Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N). Disposal of inert construction waste in public fill reception facilities requires a licence issued by the Director of Civil Engineering and Development.

26. The CEDD estimates that the Project will generate in total about 2 215 000 tonnes of construction waste. Of these, about 350 000 tonnes (15.8%) of the inert construction waste on site will be reused and about 1 850 000 tonnes (83.5%) of inert construction waste will be delivered to public fill reception facilities for subsequent reuse. The CEDD will dispose of the remaining 15 000 tonnes (0.7%) of non-inert construction waste at landfills. The total cost for disposal of construction waste at public fill reception facilities and landfill sites is estimated to be about \$134.4 million for the Project (based on a unit charge rate of \$71 per tonne for disposal at public fill reception facilities and \$200 per tonne at landfills as stipulated in the Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N)).

HERITAGE IMPLICATIONS

27. Two Grade 3 Historic Buildings⁸, namely CKL Tin Hau Temple and Law Mansion in the CKL Village, are located within 300 m from the Project boundary. The CEDD will implement and monitor the necessary mitigation measures as stated in the approved EIA Reports during construction. Other than the two Grade 3 Historic Buildings, the Project will not affect any other heritage sites.

LAND ACQUISITION

28. The proposed works do not require any resumption and clearance of private land. The proposed works will require creation of easements and other permanent rights in the underground strata of about 392.9 m² of private land.

BACKGROUND INFORMATION

29. We upgraded **785TH** to Category B in September 2008.

30. On 5 June 2009, the FC approved upgrading of part of **785TH** to Category A as **841TH** “Trunk Road T2 – investigation and design” at an approved project estimate of \$133.6 million in MOD prices for engaging consultants to undertake the design and associated site investigation works of the Trunk Road T2. The design and site investigation works have been substantially completed.

/31.

⁸ Grade 3 Historic Buildings are defined as buildings of some merits; preservation in some forms would be desirable and alternative means could be considered if preservation is not practicable.

31. We upgraded **823TH** to Category B in April 2007. On 10 May 2013, the FC approved the upgrading of part of **823TH** to Category A as **862TH** “Tseung Kwan O – Lam Tin Tunnel – detailed design and site investigation” at an approved project estimate of \$196.0 million in MOD prices for carrying out the detailed design and site investigation for the TKO-LTT and associated works (including the CKL Tunnel and associated works). The detailed design and site investigation works have been substantially completed.

32. On 17 June 2016, the FC approved the upgrading of part of **823TH** to Category A as **872TH** “Tseung Kwan O – Lam Tin Tunnel – main tunnel and associated works” at an approved project estimate of \$15,093.5 million in MOD prices and retention of the remainder of **823TH** (including the CKL Tunnel and associated works) in Category B.

33. The proposed works will require felling of 36 trees. All trees to be felled are not important trees⁹. We will incorporate planting proposals as part of the Project, including planting of around 40 trees.

34. The CEDD estimated that the proposed works will create about 3 000 jobs (2 400 for labourers and another 600 for professional or technical staff) providing a total employment of 130 000 man-months.

Transport and Housing Bureau
March 2019

⁹ “Important trees” refer to trees in the Register of Old and Valuable Trees, or any other trees that meet one or more of the following criteria –

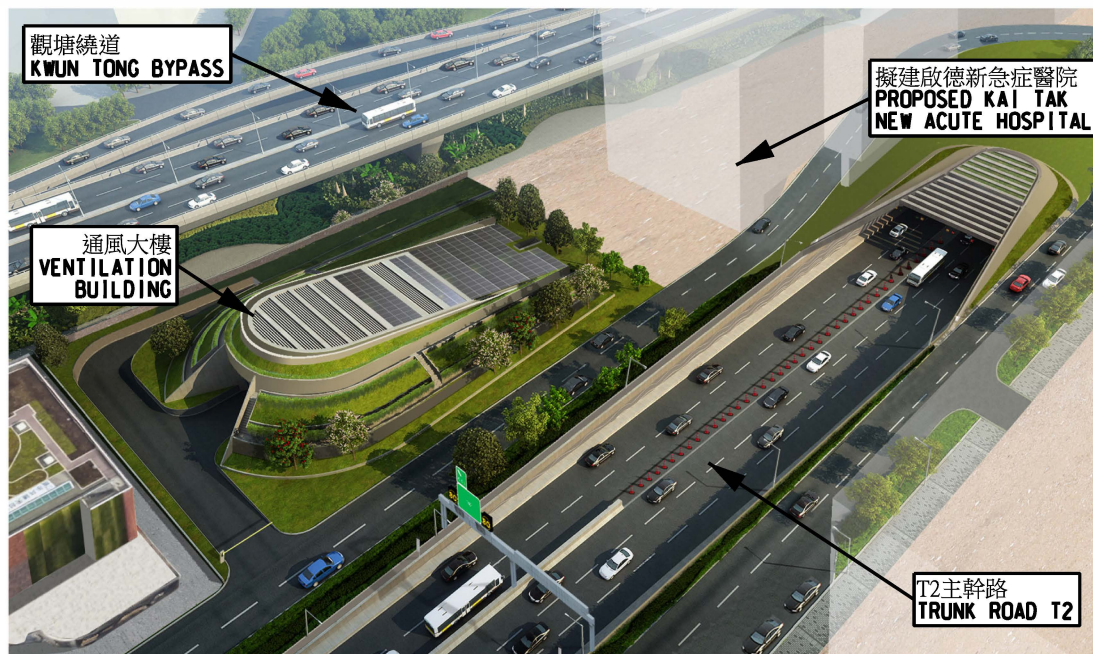
- (a) trees of 100 years old or above;
- (b) trees of cultural, historical or memorable significance e.g. Fung Shui tree, trees as landmark of monastery or heritage monument, and trees in memory of an important person or event;
- (c) trees of precious or rare species;
- (d) trees of outstanding form (taking account of overall tree sizes, shape and any special features) e.g. trees with curtain like aerial roots, trees growing in unusual habitat; or
- (e) trees with trunk diameter equal to or exceeding 1.0 m (measured at 1.3 m above ground level), or with height/canopy spread equal to or exceeding 25 m.



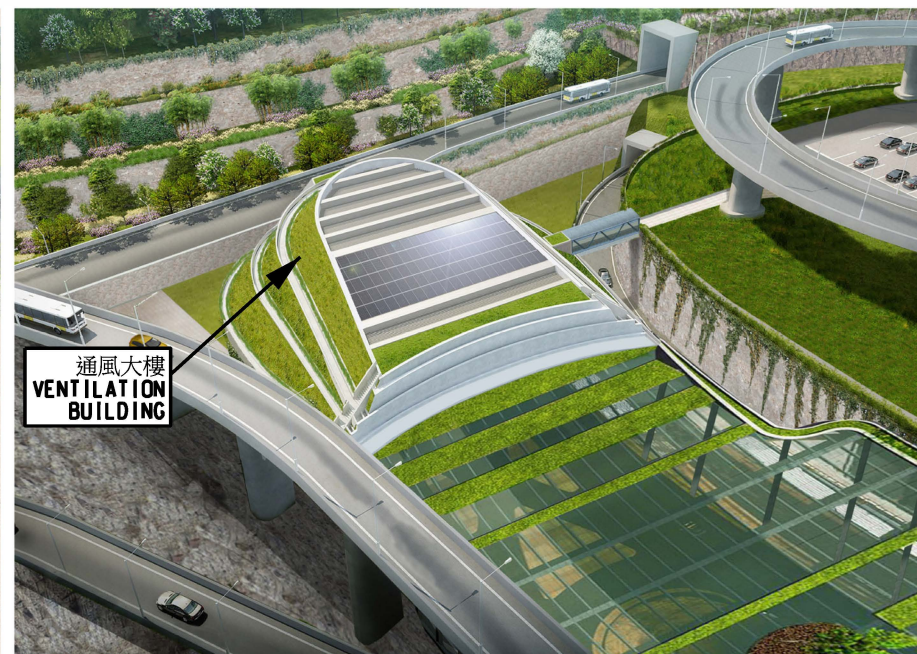
圖則名稱 drawing title

工務計劃第785TH號 - T2主幹路及茶果嶺隧道 - 位置圖

PWP ITEM NO. 785TH -
TRUNK ROAD T2 AND CHA KWO LING TUNNEL - LAYOUT PLAN



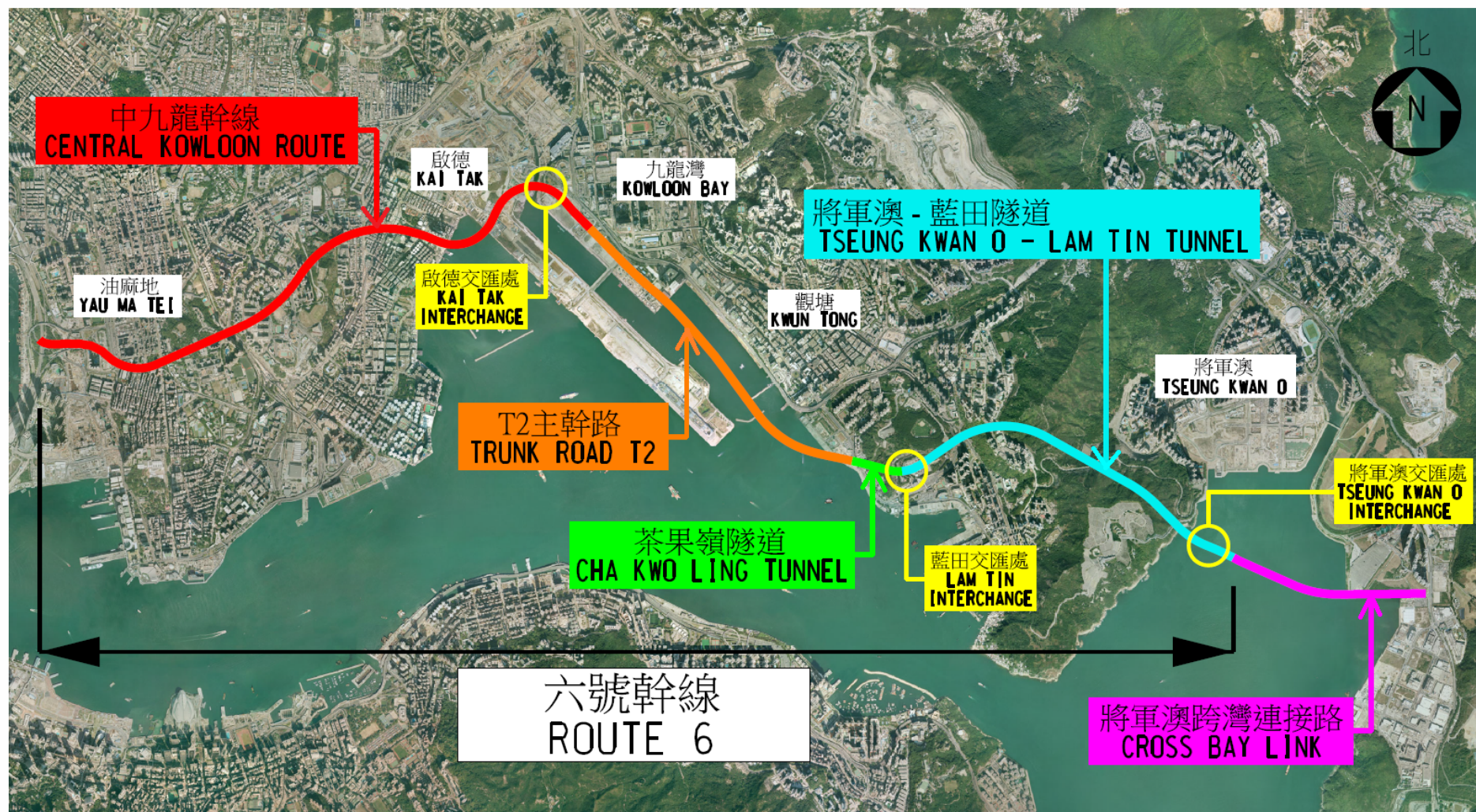
西面隧道出入口（啟德）
WESTERN SIDE TUNNEL ENTRY/EXIT (KAI TAK)



東面隧道出入口（藍田交匯處）
EASTERN SIDE TUNNEL ENTRY/EXIT (LAM TIN INTERCHANGE)

圖則名稱 drawing title

工務計劃第785TH號 -
T2主幹路及茶果嶺隧道 - 隧道出入口構思圖
PWP ITEM NO. 785TH -
TRUNK ROAD T2 AND CHA KWO LING TUNNEL - ARTISTIC IMPRESSION OF TUNNEL ENTRY/EXIT



圖則名稱 drawing title

工務計劃第785TH號 - T2主幹路及茶果嶺隧道 - 六號幹線的走線
 PWP ITEM NO. 785TH -
 TRUNK ROAD T2 AND CHA KWO LING TUNNEL SECTION - ALIGNMENT OF ROUTE 6

785TH – Trunk Road T2 and Cha Kwo Ling Tunnel – construction

**Breakdown of the estimates for consultants' fee and resident site staff costs
(in September 2018 prices)**

			Estimated man-months	Average MPS* salary point	Multiplier(Note 1)	Estimated fees (\$ million)		
(a) Consultants' fees for								
(i)	contract administration	(Note 2)	Professional	—	—	—	22.6	} 25.3#
			Technical	—	—	—	2.7	
(ii)	environmental monitoring audit	and (Note 3)	Professional	85	38	2.0	13.9	} 23.2#
			Technical	118	14	2.0	6.8	
(iii)	independent environmental checker	(Note 3)	Professional	10	38	2.0	1.6	
			Technical	16	14	2.0	0.9	
Sub-total						48.5		
(b)	Resident site staff (RSS) costs	(Note 4)	Professional	4 535	38	1.6	594.8	
			Technical	7 476	14	1.6	343.6	
Sub-total						938.4		
Comprising –								
(i)	consultants' fees for management of RSS					34.6 #		
(ii)	remuneration of RSS					903.8#		
Total						986.9		

*MPS = Master Pay Scale

Notes

1. A multiplier of 1.6 is applied to the average MPS salary point to estimate the cost of RSS supplied by the consultants. A multiplier of 2.0 is applied to the average MPS salary point to estimate the full staff cost for the staff employed in the consultants' offices (including the consultants' overheads and profit) (as at now, MPS salary point 38 = \$81,975 per month and MPS salary point 14 = \$28,725 per month).

2. The consultants' staff cost for contract administration is calculated in accordance with the existing consultancy agreement for **785TH**. The construction phase of the assignment will only be executed subject to the Finance Committee's approval to upgrade **785TH** to Category A.
3. The actual man-months and actual costs will only be known after selection of the consultants.
4. The actual man-months and actual costs will only be known after completion of the construction works.

Remarks

The figures in this Enclosure are shown in constant prices to correlate with the MPS salary point of the same year. The figures marked with # are shown in money-of-the-day prices in paragraph 10 of the main paper.

Details of Objections to the Road Scheme of the Tseung Kwan O – Lam Tin Tunnel (TKO-LTT) Project under the Roads (Works, Use and Compensation) Ordinance (Cap 370) Gazetted on 10 and 16 May 2013

After gazettal of the road scheme, 1,429 objections were received before the expiry of the statutory objection period. Two objections were duplicated objections, which were cancelled as agreed by the objectors. Among the remaining 1,427 objections, 70 objections were subsequently withdrawn unconditionally after receiving responses from the Civil Engineering and Development Department (CEDD) at that time. Of the remaining 1,357 unresolved objections, 267 objectors did not provide valid contact information.

2. The gist of objections is set out below.

Group A: A total of 826 objections (one from a concern group from Yau Lai Estate (YLE) and 823 proforma objection letters collected by the concern group, the other two were from a Kwun Tong District Council member and a resident of YLE)

3. The main concerns and requests of the concern group and the objectors who submitted the proforma objection letters, and the responses from CEDD at that time are summarised as follows –

- (a) The objectors expressed concerns about the noise and air quality impact of Eastern Harbour Crossing (EHC) and the proposed Lam Tin Interchange on YLE. They suggested that all elevated carriageways of the Lam Tin Interchange should be fully enclosed with noise barriers. Also, double-glazed windows and subsidy for electricity expenses should be provided to residents affected. In response, the CEDD pointed out that the environmental impact assessment (EIA) report had been approved by the Director of Environmental Protection (DEP) with conditions. Upon meeting the conditions and implementing the mitigating measures recommended in the EIA report, the TKO-LTT project would fulfill the statutory requirements. The report has taken into account the possible environmental impact of the EHC, the TKO-LTT project as well as other relevant projects. The CEDD also mentioned that a number of mitigation measures had been proposed, including constructing the main carriageways of the Lam Tin Interchange at around 20m below adjacent ground level,

which would be partly covered by a landscape deck, and placing the vents of the ventilation building such that they would not face YLE.

- (b) The objectors requested covering the proposed Lam Tin Interchange and the approach road to EHC and constructing a 'central park' on the cover with connection to YLE. The CEDD responded that part of the Lam Tin Interchange would be covered by a landscape deck, and that the feasibility of constructing a park at the concerned locations with connection to YLE would be investigated at the detailed design stage.
- (c) The objectors expressed dissatisfaction with the lack of notice about the gazettal on the internet. In response, the CEDD explained that the Gazette notice of the TKO-LTT project had been published on the websites of the Gazette and the Transport and Housing Bureau (THB), as well as displayed at prominent positions within the works area.

4. In addition to the concerns on environmental impact to which the CEDD's responses were similar to those in paragraph 3(a) above, other concerns and requests raised by the other objectors in Group A, as well as responses from the CEDD at that time, are summarised as follows –

- (a) An objector requested the Government to repurchase EHC so that noise mitigation measures could be implemented and thus could reduce the noise impact on YLE. He also requested enhancing the transportation link between East and West Kowloon by bus and other transport means, as well as providing leisure facilities. In addition, he requested that the Government should continue to publish leaflets to report on the progress of the works, to introduce the latest design recommendations and to respond to queries of the residents. In response, the CEDD explained that the ownership of EHC would be reverted to the Government in 2016 and the benefit of purchasing EHC prior to 2016 would not be significant. As regards enhancement of public transport services, the CEDD responded that, in formulating the Bus Route Development Programme, the Transport Department (TD) would make reference to the view of the objector. The CEDD also advised the objector that there were existing leisure facilities near YLE which are accessible within about 5 to 10 minutes walking

distance. Also, the CEDD would publish leaflets at appropriate times to provide updated information to the residents.

- (b) An objector mentioned that as there were three primary schools along Yau Tong Road, additional traffic should not be attracted to YLE for road safety reason. The CEDD explained that a traffic impact assessment had been conducted, and the traffic impact on Yau Tong Road would be insignificant.

5. Some objectors attended the objection resolving meetings organised by the CEDD on 7 and 27 September 2013. In addition to reiterating their concerns about the environmental impact of the TKO-LTT project on YLE and seeking clarification on the coverage of the works of the TKO-LTT project, some objectors requested for provision of a slip road from Yau Tong Road to EHC. The CEDD advised that adding the proposed slip road would attract more traffic to Yau Tong and Cha Kwo Ling (CKL), which might raise additional environmental concerns. Some objectors were of the view that traffic from West Kowloon and TKO to EHC would be attracted to use Yau Tong Road, causing safety concerns to YLE residents. The CEDD responded that the most direct route from West Kowloon to EHC would be the existing Kwun Tong Bypass rather than the route through Yau Tong Road. Also, there would be a direct slip tunnel from TKO to EHC without passing through Yau Tong Road. Through the written responses and meetings for resolving objections, 62 objections were withdrawn unconditionally. For the 764 unresolved objections, 10 were conditionally withdrawn, 115 were maintained, 471 did not respond to the CEDD and 168 did not provide valid contact information.

Group B: One objection (from the project manager of the beneficial owner of some lots at Yau Tong)

6. The objector was concerned that the proposed roundabout at CKL Road would impose constraints on the proposed access points of some lots of their development. In response, the CEDD replied at that time that TD had no adverse comments on the access points, provided that the following three conditions could be fulfilled: (i) the access point to one of the lots would be maintained at its present position where a traffic island would be provided under the scheme of the project to avoid traffic conflict between the access point and the roundabout; (ii) the access points to two of the towers of the development would be maintained at more than 45m from the roundabout; and (iii) a 'left-in-left-out' access arrangement would be imposed.

7. The objector withdrew his objection subject to the conditions that the proposed roundabout would be located at more than 45m from the access points to the two towers of the development, and that a traffic island would be provided at the roundabout to avoid conflict with the access point to one of the lots. In response, the CEDD explained at that time that in case the development is modified in future, the roundabout and associated traffic island could not be modified to suit the development as the proposed design of the concerned roundabout and traffic island was the outcome of an extensive 3-stage public engagement exercise and was under serious site constraint. The objection remains unresolved as the objector did not respond further to the CEDD.

Group C: A total of 320 objections (from three organisations and individuals)

8. Most objectors in this group were concerned that the TKO-LTT project would damage the integrity of the CKL Village and the structures of the huts in the village during construction, posing serious risks to their properties and lives. In response, the CEDD explained at that time that the CKL section of the tunnel would be constructed using non-blasting methods, and precautionary safety measures would be implemented, including pre-condition surveys of the existing buildings and regular monitoring of the vibration and settlement caused by the works. If situation warrants, the construction method would be adjusted or temporarily suspended. Furthermore, the TKO-LTT would pass through the underground strata of the CKL Village in the form of tunnel and would not involve land resumption and clearance of CKL Village.

9. Other concerns and requests of the objectors, as well as the CEDD's responses at that time are as follows –

- (a) some objectors were concerned about construction nuisances. The CEDD responded that the EIA report of the TKO-LTT project had been approved by DEP with conditions. Upon meeting the conditions and implementing the mitigating measures recommended in the EIA report, the TKO-LTT project would fulfill the statutory requirements. Also, the traffic impact assessment of the TKO-LTT project indicated that the traffic flow on CKL Road during construction and after commissioning would not exceed its capacity.

- (b) some objectors were concerned about the impact of the TKO-LTT project on an existing stormwater drain in CKL Village. The CEDD clarified that the TKO-LTT project would not affect the drainage facilities of the village.
- (c) some objectors concerned that their houses would be cleared and the unity of the residents would be destroyed. The CEDD explained that the TKO-LTT would pass through the underground strata of the CKL Village in the form of tunnel and would not involve land resumption and clearance of CKL Village. Thus, the whole CKL Village would be left intact.

10. The CEDD held an objection resolving meeting on 30 August 2013. The meeting focused on the measures to ensure the structural safety of the buildings in the CKL Village during tunnel construction and the measures to avoid construction nuisances. At the meeting, the CEDD elaborated on the safety measures and advised the objectors that construction wastes would be disposed of through a vertical shaft in the ex-CKL Public Cargo Working Area but not through CKL Village. The CEDD would also minimise the entrances/exits to and from the construction site next to CKL Road. Finally, eight objections were unconditionally withdrawn after receiving the CEDD's responses. For the 312 unresolved objections, 13 were conditionally withdrawn, 55 were maintained, 145 did not respond to the CEDD and 99 did not provide valid contact information.

Group D: A total of 277 objections (from three organizations, a Kwun Tong District Council member and 273 individuals/companies)

11. The objectors' main concerns and requests, as well as responses from the CEDD at that time, are summarised as follows –

- (a) most objectors considered that an alternative scheme called H2b¹ presented during the TKO-LTT project's public engagement exercise would have less disturbance to the CKL Village and hence would be more acceptable. The CEDD responded that the H2b scheme would require demolishing the former Four Hills Public School and cause more disturbances to the Tin Hau Temple during construction. In addition, the H2b scheme was about 230 m longer, generating more construction waste and involving higher cost and risk, compared with the scheme of the project.
- (b) as the proposed CKL tunnel would pass through the underground strata of CKL Village, most objectors raised objections on ground of Fung Shui, the impact on redevelopment potential and value, or the impact on the integrity of the village. On the Fung Shui issue, the CEDD responded that the tunnel was located far away from Tin Hau Temple and works on the ground surface of CKL Village would be avoided, which would minimise the impact on the surrounding environment. As for the impact on redevelopment potential or value, the CEDD responded that for redevelopment of the private land concerned in the form of low-rise buildings similar to the existing structures, the tunnel would not affect the redevelopment potential or value as the relevant loading had already been taken into account in the tunnel design. If the whole CKL Village was to be redeveloped, the tunnel would not constitute a significant constraint as it would only occupy a small part of the CKL Village and the redevelopment could cater for the tunnel through proper design and arrangement of the redevelopment layout. Regarding the integrity of CKL Village, the CEDD responded that the TKO-LTT would pass through the underground strata of the CKL Village and would not involve land resumption and clearance of the CKL Village. Thus, the whole village would be left intact.

¹ Four schemes (H1a, H1b, H2a and H2b) have been considered in the TKO-LTT project. The Scheme gazetted is the H1b scheme which passes through the underground strata of the CKL Village. H1a takes the form of a depressed road while H1b is a tunnel. Both H1a and H1b share the same horizontal alignment. The horizontal alignment of H2a and H2b passes through the former Four Hills Public School at the south-eastern edge of CKL Village. Similarly, H2a and H2b share the same horizontal alignment, with H2a adopting the form of a depressed road while H2b is a tunnel.

- (c) many objectors criticised that the CEDD had distorted public opinions. The CEDD responded that a 3-stage public engagement exercise had been conducted. The proposed scheme of the project was the optimum scheme, taking into account factors such as traffic needs, engineering and technical considerations and the impact on the residents along the alignment.
- (d) some objectors raised concerns on the risk to life and properties due to the tunnelling works. The CEDD's responses were similar to those in paragraph 8 above.
- (e) some objectors were concerned about compensation. The CEDD responded that concerned persons could follow statutory procedures to claim for compensation under the Roads (Works, Use and Compensation) Ordinance.
- (f) one objector said that affixing Gazette notices to lamp post was furtive. The CEDD responded that the Gazette notice of the TKO-LTT project had been published on the websites of the Gazette and the THB, as well as displayed at prominent positions within the works area.
- (g) one objector said that the traditional rights and interests of CKL Village should be protected under the Base Law Article 40. The CEDD responded that CKL Village was not a recognised indigenous village of the New Territories and Basic Law Article 40 was not applicable.

12. Subsequent to the CEDD's written responses, some objectors made further submissions and attended an objection resolving meeting on 30 October 2013. In addition to reiterating their concerns about Fung Shui and safety of houses in CKL Village, for which the CEDD's responses were similar to those in paragraphs 11(b) and 8 above, some objectors mentioned that the loss to CKL Village arising from adopting the scheme and the alternative H2b scheme would be \$2 billion and \$0.5 billion respectively, and that the Government should compensate the residents accordingly. Some objectors suggested that the Government should resume the private land for the scheme through land exchange or offer a special ex-gratia package to compensate the residents. Some objectors also said that the dominant preference of CKL Village residents was the alternative H2b scheme. The CEDD responded that concerned persons could serve written claims for compensation under the Roads (Works, Use and Compensation) Ordinance. The CEDD also explained that the alternative scheme H2b would require demolition of the former Four Hills Public

School and cause more disturbances to the Tin Hau Temple during construction. Also, the H2b scheme would generate more construction wastes and involve higher cost and risk, compared with the current scheme. Finally, 162 objections were conditionally withdrawn and 17 were maintained while the objectors for 98 objections did not respond. All 277 objections are considered as unresolved.

Group E: A total of three objections (two from an individual as the chairman of an owners' committee of an estate and as a Sai Kung District Council member, and one from the chairman of an owners' committee of another estate)

13. The objectors' concerns and requests, as well as the CEDD's responses at that time, are summarised as follows –

- (a) the objectors said that the proposed Road P2 under the scheme should be extended in the form of tunnel to bypass the junction of Po Shun Road and Po Yap Road to avoid impact on nearby estates. The CEDD responded that the EIA report of the TKO-LTT project had been approved by DEP with conditions. Upon meeting the conditions and implementing the mitigating measures recommended in the EIA report, the TKO-LTT project would fulfill the statutory requirements. The CEDD also advised that an existing culvert at the relevant section of Po Shun Road would obstruct the construction of the requested tunnel. In addition, if Road P2 was to be extended in the form of a tunnel, traffic in Chui Ling Road and Po Yap Road could not access the TKO-LTT directly and had to detour, which would have an impact on the neighbouring environment.
- (b) one of the objectors suggested that restrictions on working days and hours and machinery should be imposed on construction works, and that construction waste and dust should be properly handled. He also suggested that environmental monitoring data should be published. In response, the CEDD advised that the works would be executed according to the requirements of labour legislation, the EIA Ordinance (Chapter 499) and government works contracts. The mitigation measures stated in the EIA report would also be implemented. The CEDD also advised that the environmental monitoring data would be published on the websites of the TKO-LTT project and the Environmental Protection Department.

- (c) one of the objectors considered that one of the proposed slip roads would dissect the future Tiu Keng Leng Park and cause danger to students of nearby schools. He requested that cycle track should be constructed in the Lam Tin tunnel to enhance the cycle track networks for connection with other areas. In response, the CEDD explained that, without the slip road, the traffic had to use the junction of Road P2 and Po Yap Road, which would cause additional traffic noise to nearby estates. The CEDD also advised that the facilities and arrangements for pedestrians across the slip road would be considered at the detailed design stage. As for the cycle track, the CEDD responded that as there is no cycle track network in Kwun Tong, it is not necessary to construct a cycle tunnel to connect TKO and Kwun Tong.

14. The objectors attended an objection resolving meeting on 3 September 2013. They reiterated their request to modify the design of Road P2 of the TKO-LTT project such that it would bypass the junction of Po Shun Road and Po Yap Road in order to reduce the environmental impact on a nearby estate and to reduce traffic accidents. One of the objectors even proposed not to construct Road P2 because the benefit of the road to residents of the nearby estate would be insignificant. The road would also cause environmental and noise impacts, dissect the future Tiu Keng Leng Park and affect the safety of park users. The CEDD explained that if Road P2 was not constructed, traffic from TKO town centre would have to detour. The CEDD also reiterated that the EIA report of the TKO-LTT project had been approved by DEP with conditions. Upon meeting the conditions and implementing the mitigating measures recommended in the EIA report, the TKO-LTT project would fulfill the statutory requirements. The junction of Po Shun Road and Po Yap Road would be turned into a signal controlled junction, which would improve traffic safety. The northern and southern parts of the park would be designed to serve different users in order to minimise the need for road crossing. The facilities and arrangements for pedestrians across the slip road would be considered at the detailed design stage. Despite the written responses and objection resolving meeting, the objectors maintained their objections. Hence, the objections remain unresolved.

Details of Objections to the Sewerage Scheme of the Tseung Kwan O – Lam Tin Tunnel (TKO-LTT) Project under the Roads (Works, Use and Compensation) Ordinance (Cap 370) as applied by Section 26 of the Water Pollution Control (Sewerage) Regulation (Cap 358AL) Gazetted on 10 and 16 May 2013

After gazettal of the sewerage scheme, 346 objections were received before the expiry of the statutory objection period. After receiving the responses from the Civil Engineering and Development Department (CEDD) at that time, 6 objections have subsequently been withdrawn unconditionally.

2. The gist of objections is set out below.

Group A: A total of 340 objections (from 340 individuals)

3. One objection was submitted by a resident of the Cha Kwo Ling (CKL) Village and the rest of the objection letters in Group A were proforma objection letters collected by the resident. The proforma objection letters provided spaces for individual objectors to add their comments. The printed contents of the objection letters expressed dissatisfaction with the lack of consultation on the proposed sewerage works. The CEDD explained to the objectors that the purpose of the proposed sewerage works was to convey wastewater generated in the proposed administration building of the TKO-LTT project to an existing public sewer in CKL Road. As the proposed sewerage works would be located in public footpaths and carriageways and at a longer distance from the CKL Village and the Tin Hau Temple than some existing sewers, the CEDD had not expressly mentioned the proposed sewerage works in the consultation with the Kwun Tong District Council on the TKO-LTT project. The CEDD also supplemented that the most effective and reliable way to dispose of wastewater was by connecting to public sewers leading to government sewage treatment works in accordance with the guidelines issued by the Environmental Protection Department.

4. Other main concerns and requests of the objectors, as well as the CEDD's responses at that time are as follows –

- (a) some objectors were concerned that Fung Shui of the CKL Village would be affected by the construction of the proposed sewers and the TKO-LTT. The CEDD responded that the proposed sewers would be located at a distance further away from the Tin Hau Temple than some existing sewers. All sewerage facilities would be located within public pedestrian walkways and

vehicular roads outside the CKL Village and the Tin Hau Temple. The tunnel would be located far away from the Tin Hau Temple and works on the ground surface of the CKL Village would be avoided, minimizing the impact on the surrounding environment.

- (b) some objectors were concerned about the environmental impact of the proposed sewerage works. The CEDD explained to the objectors that the environmental impact assessment (EIA) report of the TKO-LTT project had been approved by the Director of Environmental Protection (DEP) with conditions and the environmental impact of the TKO-LTT project would meet the statutory requirements.

5. The CEDD met the objectors in two objection resolving meetings on 30 August 2013 and 30 October 2013 respectively to discuss both the road scheme and the sewerage scheme of the project. They raised concerns on construction nuisances, the impact on Fung Shui and safety of the buildings in the CKL Village during the construction of the TKO-LTT, and requested for compensation from the Government. For details, please refer to paragraphs 10 and 12 of Enclosure 4.

6. Through the written responses and after the objection resolving meetings, four objections were unconditionally withdrawn, 15 objections were conditionally withdrawn and 39 objections were maintained while the objectors for 159 objections did not respond and 123 objections did not have valid contact information. Except for the four objections unconditionally withdrawn, all other 336 objections are considered as unresolved.

Group B: One objection (from a Kwun Tong District Council member)

7. The objector's concerns and the CEDD's responses at that time are summarised as follows –

- (a) The objector expressed dissatisfaction with the lack of consultation on the proposed sewerage works and considered that the works would bring adverse effect on the Tin Hau Temple, to which the CEDD's responses were similar to those mentioned in paragraph 3 above.

- (b) The objector considered that the proposed sewerage works would bring serious adverse effect on the roads of the CKL Village and cause visual impact to the village. The CEDD advised the objector that no works would be carried out on the ground surface of the CKL Village and suitable temporary traffic arrangement measures would be in place to ensure that CKL Road could cope with the traffic demand during construction. In addition, the CEDD responded that all proposed sewers would be laid underground and the associated sewage pumping station would be separated from the CKL Village by a hill. Hence, there would not be any visual impact to the CKL Village.

8. Subsequent to the CEDD's written responses, the objector made a further submission questioning why a noise barrier under the road scheme of the TKO-LTT project would be constructed at the footpath in front of the Tin Hau Temple which would seriously obstruct the yearly celebration activities of the temple. He also queried whether the CEDD had sufficiently explained the proposed sewerage works to the residents of the CKL Village. The CEDD responded that the noise barrier was proposed to meet the requirements of the EIA Ordinance (Chapter 499). In carrying out the detailed design of the noise barrier, the CEDD would avoid obstructing the yearly celebration activities of the Tin Hau Temple. The CEDD also mentioned that all objectors to the proposed sewerage works had been provided with a location plan and other related information about the proposed sewerage works. The objector did not respond to the CEDD's last reply and hence the objection remains unresolved.

Group C: One objection (from an organization)

9. The objector relayed to the CEDD that an organization of CKL Village objected to any sewerage works inside the CKL Village. In addition, the objector quoted Basic Law Article 40 for protection of the CKL Villagers' traditional rights and interests. The CEDD's responses to the objection to the sewerage works inside the CKL Village were similar to those mentioned in paragraph 4(a) above. The CEDD also pointed out that the CKL Village was not a recognised indigenous village of the New Territories and therefore Basic Law Article 40 was not applicable. Despite the CEDD's written responses, the objector maintained its objection and therefore the objection remains unresolved.

Group D: Two objections (from an individual as a Sai Kung District Council member and as the chairman of the owners' committee of an estate)

10. Upon clarification that the proposed sewerage works of the project would be located at Kwun Tong with no impact on the environment of TKO and after the discussion in an objection resolving meeting held on 3 September 2013, the objector withdrew his two objections unconditionally.

Group E: One objection (from one group of individuals)

11. The objection letter did not mention the proposed sewerage works but raised concern about the impact of the TKO-LTT project on an existing stormwater drain in the CKL Village. The CEDD clarified at that time that the TKO-LTT project would not affect the drainage facilities of the CKL Village. The CEDD would also ensure that the design of the TKO-LTT project would not increase the stormwater flow in the existing drainage facilities of the village. Despite the CEDD's written responses and after the discussion in the objection resolving meeting held on 30 August 2013 as mentioned in paragraph 5 above, the objector maintained their objection, and hence the objection remains unresolved.

Group F: One objection (from three organisations)

12. The three organisations were concerned that the proposed tunnelling works of the TKO-LTT project underneath the CKL Village would cause serious damage to the houses in the village, which were old and could tolerate much less vibration than other private residential properties. They also condemned the lack of consultation for the proposed sewerage works. The CEDD responded at that time as follows –

- (a) The CEDD would construct the CKL section of the tunnel using non-blasting methods, and precautionary safety measures would be implemented, including pre-condition surveys of the existing buildings and regular monitoring of the vibration and settlement caused by the works. If situation warrants, the construction method would be adjusted or temporarily suspended.

- (b) On the accusation of lack of consultation for the proposed sewerage works, the CEDD's responses at that time were similar to those mentioned in paragraph 3 above.

13. Despite the CEDD's written responses and the discussion in the objection resolving meeting held on 30 August 2013 as mentioned in paragraph 5 above, the objectors maintained their objection, and hence the objection remains unresolved.