

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 706 – HIGHWAYS

Transport – Railways

69TR – Hong Kong Section of Hong Kong – Shenzhen Western Rail Link (Hung Shui Kiu – Qianhai)

Members are invited to recommend to Finance Committee the upgrading of part of **69TR** to Category A as **70TR** “Hong Kong Section of Hong Kong – Shenzhen Western Rail Link (Hung Shui Kiu – Qianhai) – Investigation and Design” at an estimated cost of \$303.8 million in money-of-the-day prices.

PROBLEM

In order to take forward the Hong Kong – Shenzhen Western Rail Link (Hung Shui Kiu – Qianhai) (HSWRL), thereby enhancing infrastructure connectivity in the Greater Bay Area (GBA) and complementing the Northern Metropolis Development Strategy, we need to conduct the investigation and design for the Hong Kong section of the HSWRL.

PROPOSAL

2. The Director of Highways proposes to upgrade part of **69TR** to Category A as **70TR** to conduct investigation and design, and carry out the associated site investigation works for the Hong Kong section of the HSWRL at an estimated cost of \$303.8 million. The proposal is supported by the Secretary for Transport and Logistics.

/PROJECT

PROJECT SCOPE AND NATURE

3. The scope of works of the Hong Kong section of HSWRL (i.e. **69TR**) (the Proposed Project) mainly comprises –

- (a) construction of an approximately 7.3-km long underground railway line (the alignment starts from the new station adjacent to the Hung Shui Kiu Station on the Tuen Ma Line (TML), passing through the 2 intermediate stations in Ha Tsuen and Lau Fau Shan, crossing the Deep Bay to the boundary of Hong Kong and connecting with the Shenzhen section of the HSWRL) and a depot;
- (b) procurement of rolling stock and the associated railway facilities, including trackwork, train control system, communication facilities, electrical and mechanical facilities and signaling system, etc.;
- (c) enabling works for property developments atop the proposed depot and stations; and
- (d) implementation of other associated works including road and drainage, ancillary buildings, electrical and mechanical installations, demolition and reprovisioning of facilities affected by the Proposed Project, landscaping works and environmental mitigation measures, etc.

4. We propose to upgrade part of **69TR** to Category A as **70TR** (the Item), the scope of which comprises –

- (a) invitation for expression of interest (EOI) for the Proposed Project from relevant contractors and operators in the market;
- (b) carrying out financial assessment and formulation of financing arrangements for the Proposed Project;
- (c) formulation of contract procurement arrangements, including preparing contract terms as well as assisting in conducting relevant tendering exercises;
- (d) review of the alignment and station locations of the Proposed Project;

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- (e) formulation of design standards and carrying out preliminary design¹ for the Proposed Project, as well as entrusting to the Shenzhen Municipal People's Government (SZMPG) the conduct of detailed design for the sub-sea railway tunnel crossing the Deep Bay of the Hong Kong section;
- (f) conducting assessments of the impacts on environment, traffic, heritage, land acquisition and other aspects of the Proposed Project, as well as formulating the corresponding mitigation measures;
- (g) gazettal of the Proposed Project;
- (h) formulation of technical details for the operation, management and maintenance to support the preparation of the relevant regulatory framework;
- (i) handling of legal matters associated with procurement, tendering, construction and implementation mode, etc.; and
- (j) carrying out site investigation and the associated supervision works.

5. In order to expedite the implementation of the Proposed Project, we have invited tenders for the investigation and design works earlier, and have completed the evaluation of tender submissions. We have updated the estimated cost of the Item to reflect the relevant outcome. We plan to award the contract and commence the investigation and design works immediately upon obtaining funding approval from the Finance Committee (FC) of the Legislative Council (LegCo).

JUSTIFICATION

Strategic Value and Necessity of the HSWRL

6. The construction of cross-boundary railway projects is a crucial initiative in support of the thorough implementation of the “Outline Development Plan for the Guangdong-Hong Kong-Macao Greater Bay Area”, enhancing the

/infrastructure

¹ To fully utilise the technical expertise and construction equipment of the contractors, the detailed design of the main works will be carried out by the contractors in the next stage.

infrastructure connectivity in the GBA and facilitating Hong Kong's better integration into the national development. Coupled with the "co-location" arrangement, new cross-boundary railway projects would significantly enhance the convenience and experience of cross-boundary travel for people between the two places, and lead to the comprehensive integration of the metro networks of Hong Kong and Shenzhen. In accordance with the vision of developing the "Greater Bay Area on the Rail", the Hong Kong Special Administrative Region Government (HKSARG) and the SZMPG established the "Task Force for Hong Kong-Shenzhen Co-operation on Cross-Boundary Railway Infrastructure" (the Task Force) in 2021 to jointly plan and take forward the cross-boundary railway projects, so as to promote the development of an infrastructure network with sensible layout, full functionality, smooth connection, and high efficiency, and facilitate the long term economic development of the cities in the GBA by reaping the fruits of complementarity of edges and integrated development.

7. The Government's "Strategic Studies on Railways and Major Roads beyond 2030" (the Strategic Studies) pointed out that, the Hung Shui Kiu / Ha Tsuen New Development Area (HSK/HT NDA) and the Qianhai Cooperation Zone in Shenzhen just across the bay each have its own favourable development potential. Leveraging the "Plan for Comprehensive Deepening Reform and Opening Up of the Qianhai Shenzhen - Hong Kong Modern Service Industry Cooperation Zone" (the Qianhai Plan)² promulgated by the Central Government, Hong Kong could upgrade the HSK/HT NDA into a central business district in the New Territories North, with a view to promoting high-end economic cooperation and development in financial and professional services, modern logistics and technology services. In the "Northern Metropolis Action Agenda" promulgated in October 2023, the HKSARG also proposed developing the HSK/HT NDA into a "High-end Professional Services and Logistics Hub", as one of the four major zones of the Northern Metropolis. This zone can promote and deepen high-end economic co-operation with the Qianhai Cooperation Zone and the Nanshan District in the areas of financial, professional and logistics services, etc., developing into a centre of modern service industries which radiate to the entire GBA and act as the focal point for service talents travelling frequently between the two places.

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² In September 2021, the Central Government promulgated the Qianhai Plan, which expands the total area of the Qianhai Shenzhen-Hong Kong Modern Service Industry Cooperation Zone (Qianhai Cooperation Zone) from approximately 15 square kilometres to approximately 120 square kilometres. It emphasises the promotion of high level opening-up of the Qianhai Cooperation Zone, the promotion of innovative development of modern service industries, and the expedited establishment of a system for modern services compatible with Hong Kong and international standards. The Qianhai Plan could not only enhance the functions of the Qianhai Cooperation Zone, but also foster the long-term development of different professional services sectors in Hong Kong.

8. At present, the connections between railway networks of Hong Kong and Shenzhen are concentrated around the Luohu and Futian areas in Shenzhen, while the connections to Qianhai Cooperation Zone and the western part of Shenzhen mainly rely on the Shenzhen Bay Bridge and the Shenzhen Bay Port. The HSWRL, jointly planned and taken forward by Hong Kong and Shenzhen, will provide direct railway connection from the HSK/HT NDA in Hong Kong to Qianhai in Shenzhen, complementing the road network and strengthening the connectivity between the Hong Kong Northern Metropolis and the Guangzhou-Shenzhen innovation and technology corridor, enhancing the regional advantages of the two regions. The two regions together will become a strategic hub for the transport corridor on the eastern bank of the Pearl River, with “Hong Kong - Shenzhen” leading the development of GBA and enhancing the overall strength as well as global influence. As a high capacity railway infrastructure, together with the corresponding ancillary boundary control facilities, the HSWRL will significantly enhance the capability and capacity of the cross-boundary passenger service along the western development corridor between Hong Kong and Shenzhen and contribute to a diverse set of travel options for cross-boundary travellers, further facilitating passengers’ travel between the two places using the metro networks of Hong Kong and Shenzhen. Besides, the HSWRL serves the dual functions of cross-boundary travel and local commuting within Hong Kong. Apart from serving the cross-boundary passenger flow in the western part of the Hong Kong-Shenzhen metropolitan region, it will also become an important transport infrastructure used in the daily travelling of more than 220 000 residents of the Hung Shui Kiu / Ha Tsuen / Lau Fau Shan NDAs in Hong Kong, making it crucial to supporting the development of the Northern Metropolis.

Planning Progress of the HSWRL

9. The Task Force has comprehensively considered the overall layout of the GBA and the development needs of the two places, including the development plan and implementation programme of the HSK/HT NDA and the Qianhai Cooperation Zone in Shenzhen, established the strategic value and necessity of the HSWRL, and also completed initial assessments of the planning, engineering feasibility, benefits, environmental impact, as well as construction and operation arrangements, etc. in relation to the railway scheme. The findings of the study were deliberated and endorsed by the two governments through the Task Force in November 2024 and the highlights are as follows –

/ (a)

- (a) **Preliminary layout:** The HSWRL is approximately 18.1 km long (with about 7.3 km and 10.8 km for the Hong Kong section and Shenzhen section respectively). The alignment will start from the west of Hung Shui Kiu Station under construction on the TML, passing through Ha Tsuen and Lau Fau Shan, crossing the Deep Bay and connecting to Qianhai via Shenzhen Bay Port. It is an underground railway line comprising a total of 5 stations, with 3 stations in Hong Kong (located in Hung Shui Kiu, Ha Tsuen and Lau Fau Shan) and 2 stations in Shenzhen (located in Shenzhen Bay Port and Qianhai). Taking into account the land planning and development of the two places along the alignment, the depot will be located at Ha Tsuen. Please refer to **Enclosure 1** for the preliminary alignment of the proposed HSWRL.
- (b) **Provision of boundary control facilities:** The HSWRL will provide not only cross-boundary services but also local commuting functions within Hong Kong, meeting the domestic travelling demand within the Northern Metropolis. To enhance convenience of border crossing and travel experience, and fully leverage the attractiveness and efficiency of the cross-boundary railway, the two governments have agreed to establish co-location of the immigration and customs facilities in Shenzhen, with no immigration and custom facilities in Hong Kong. The two governments will further discuss the co-location arrangements and the demarcation of Hong Kong and the Mainland Port Areas having regard to actual operational needs, and conduct relevant consultations and legislative work in due course.
- (c) **Construction and operation arrangements:** To expedite the commencement of construction of the HSWRL, the two governments agreed to take forward the next stage of work according to the “parallel construction, unified operation” approach, under which Hong Kong and Shenzhen will simultaneously carry out the design and construction of Hong Kong section and Shenzhen section respectively first, and subsequently engage a single operator for unified operation and procurement of railway systems for the entire line, so as to enhance the cost effectiveness as well as operational efficiency and flexibility of the HSWRL.

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- (d) **Target commissioning:** Having considered various relevant factors including the project scale, the complexity of the works, the pace of developments along the railway alignment, and transport demand, the two governments aim to commission the Hong Kong and Shenzhen sections of the HSWRL simultaneously in 2035.
- (e) **Benefits:** Upon the commissioning of the proposed HSWRL, it will only take approximately 15 minutes to reach Qianhai from Hung Shui Kiu. As a strategic railway project that supports Hong Kong's deep integration into the development of the GBA, the HSWRL will connect the metro networks in the western regions of Hong Kong and Shenzhen, helping to foster a quality living circle between Hong Kong and Shenzhen and facilitating convenient cross-boundary commerce, work, living, study and travelling activities of the residents of the two places. The HSWRL is also an important transport infrastructure promoting the development of the Northern Metropolis, catering to the local travelling demand in the HSK/HT NDA as well as the Lau Fau Shan, Tsim Bei Tsui and Pak Nai areas. Based on preliminary estimates, after commissioning the HSWRL, the total daily patronage (including cross-boundary and local) may reach about 290 000 and 380 000 in the short term and long term respectively, bringing about social and economic benefits. We will conduct detailed cost estimation in the next stage and the economic benefits will be further assessed by then.

10. To strengthen the coordination between the two places, the two governments have established the 2 dedicated groups under the framework of the Task Force to take forward the next stage of work for the cross-boundary railway projects in close collaboration –

- (a) “Office for Implementing Cross-Boundary Railway Projects” which is responsible for taking forward the feasibility study, investigation, design, construction, and operation of the railway projects; and

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- (b) “Legal Group” which is responsible for the discussion and clarification of laws and regulations of the two places regarding investment, construction and operating arrangement, and the specific arrangements for Hong Kong to exercise jurisdiction in the Mainland, etc.

Challenges and Opportunities of Cross-boundary Railway Projects

11. Given the cross-boundary nature of this railway project, we need to closely communicate and coordinate with the relevant Mainland authorities on different aspects of the HSWRL, including the financial arrangements, design standards, cross-boundary patronage forecast, technical details, operation and maintenance requirements of the two places, design of the boundary control facilities in Shenzhen, temporary arrangements for the cross-boundary traffic during the station construction in Shenzhen Bay Port, and a series of cross-boundary legal matters, such as contract procurement and design entrustment arrangements. Throughout the process, we also need to ensure that the Proposed Project will synergise with the future development of the Hung Shui Kiu / Ha Tsuen / Lau Fau Shan NDAs in the Northern Metropolis.

12. In taking forward the cross-boundary railway projects, it is necessary to carefully address the differences in the design standards as well as construction practices between the two places. These differences bring about challenges as well as new opportunities. As projects jointly implemented by Hong Kong and Shenzhen, the construction of cross-boundary railways provide opportunities for both parties to draw on each other’s strengths and experiences in taking forward railway projects, so as to further enhance the efficiency and quality of railway development and strive for excellence. We will endeavour to explore ways to combine Hong Kong’s flexibility and versatility with the Mainland’s strengths in infrastructure development. Through “dual innovation” in policy and technology, we would explore different implementation approaches with the goal to reduce construction cost and compress construction time, including flexibly leveraging market resources, introducing new materials and innovative construction technologies, as well as drawing reference from the Mainland and overseas practices and experience. Taking into account the local circumstances and legal framework, we are actively exploring ways to utilise Mainland approaches and capabilities in the construction of cross-boundary railway projects, including the adoption of Mainland design standards and construction specifications³ where appropriate in addition to Hong Kong standards and specifications, as well as facilitating Mainland contractors and sub-contractors to register as contractors and

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³ The Building Authority may, in accordance with relevant legislation, approve exemption of railway projects from the provisions of the Buildings Ordinance on conditions as he may specify, and the relevant conditions so specified may include standards and specifications that shall be complied with.

obtain certification for construction plant and materials according to statutory requirements⁴ in Hong Kong.

13. As HSWRL is a new independent railway line, the Government plans to implement it through open tender. Given the large scale and complex nature of the Proposed Project, we consider it necessary to invite relevant contractors and operators in the market to express their views on the matters relating to the scheme, procurement and financial arrangements, etc. of the Proposed Project, with a view to ascertaining the market's interest and capability in the construction and operation of the HSWRL, as well as enabling the formulation of more appropriate details and terms of the tender. Subject to the funding approval of FC, we plan to invite relevant contractors and operators to submit EOI in the second half of 2025 and carry out various related tasks in parallel, including financial assessments, preparation of contract terms, review of alignment and station locations, preliminary design, site investigation, conducting environmental impact assessment (EIA) under the Environmental Impact Assessment Ordinance (EIAO) (Cap. 499), gazettal under the Railways Ordinance (Cap. 519), and the formulation of regulatory framework to govern future operations. Based on the outcome of the financial assessment and analysis of the EOI submissions, the Government will consider the financial arrangements and formulate appropriate financial plan⁵ for the Proposed Project, and discuss the suitable procurement arrangements with the Shenzhen side.

14. The alignment of the HSWRL crosses the Deep Bay, involving the construction of an approximately 5.4 km-long subsea railway tunnel, amongst which the Hong Kong and Shenzhen sections are about 2.8 km and 2.6 km long respectively. Taking into account the engineering feasibility and cost-effectiveness, both Hong Kong and Shenzhen have agreed to construct the sub-sea railway tunnel by excavation from one direction, and that the HKSARG will first entrust the design of the sub-sea railway tunnel of the Hong Kong section to SZMPG, so as to ensure the design compatibility of the two sections of the subsea railway tunnel. Both sides will further discuss the construction arrangements in the next stage. In this connection, we need to carry out the associated marine site investigations in the Deep Bay, including vertical boreholes, in-situ testing and laboratory testing to obtain the relevant geotechnical and geological information for the design of the Hong Kong section of the sub-sea railway tunnel.

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⁴ Under the existing regime, Mainland contractors and subcontractors meeting the registration requirements in terms of relevant past project experiences, technical capabilities, financial conditions, etc., are eligible to apply for registration in Hong Kong and participate in the construction projects in Hong Kong after approval.

⁵ Including examination of the necessity and appropriate approach in providing financial support by the government, and the land valuation of the relevant property development sites in case the "Rail-plus-Property" model is to be adopted.

15. Taking into account the scale and complexity of the HSWRL, which involves several professional disciplines including financial and legal matters, cross-boundary railway operation, impact assessments related to railway works, etc., we need to form a team with relevant professional expertise and experience to implement the Item and supervise the associated site investigation works of the Hong Kong section, so as to complete the investigation and design smoothly and expeditiously, including properly handling the technical, financial and operational issues related to the HSWRL.

16. Upon the commencement of the Item, we will carry out the series of investigation work mentioned above simultaneously including advancing and completing the statutory processes such as the EIA and gazettal as soon as practical, with a view to finalising the engineering scope and implementation mode of the Proposed Project within 25 months. Subject to the eventual financial arrangement, we aim to have the Proposed Project ready for tendering in 2027, so that the detailed design and construction works can commence promptly for realising the common goal of the two governments to commission the HSWRL in 2035.

FINANCIAL IMPLICATIONS

17. We estimate the cost of the Item to be \$303.8 million, which includes the expenditure on the associated site investigation works. A breakdown is as follows –

		\$ million (in MOD prices)
(a)	Fees for investigation and design works	136.1
(i)	invitation for EOI for the Proposed Project from relevant contractors and operators in the market	5.7
(ii)	conducting financial assessment and formulation of financing arrangements for the Proposed Project	20.4

/(iii)

		\$ million (in MOD prices)
(iii)	formulation of contract procurement arrangements, including preparation of contract terms, as well as assisting in conducting the relevant tendering exercises	33.2
(iv)	review of the alignment and station locations, as well as formulation of the associated design standards and carrying out preliminary design for the Proposed Project	40.5
(v)	carrying out assessments of the impacts on environment, traffic, heritage, land acquisition and other aspects of the Proposed Project and formulating associated mitigation measures, as well as gazettal for the Proposed Project	28.6
(vi)	formulation of technical details for the operation, management and maintenance to support the preparation of the relevant regulatory framework	7.7
(b)	Fees for handling of legal matters	24.5
(c)	Fee for entrusting SZMPG to conduct detailed design for the sub-sea railway tunnel of Hong Kong section crossing the Deep Bay	25.3
(d)	Site investigation works	82.1

/(e)

\$ million
(in MOD prices)

(e)	Relevant supervision fees for site investigation works	8.2
(f)	Contingencies	<u>27.6</u>
	Total	<u>303.8</u>

18. The breakdown of the estimate of the fees for investigation and design works and relevant supervision fees for site investigation works is at **Enclosure 2**.

19. With reference to the fee for Smart and Green Mass Transit System in East Kowloon – investigation and design, and with due consideration to the coordination works associated with the design and operation arrangement of cross-boundary railway involved in the Item, the fee for the Item is considered reasonable. Relevant details are set out in the table below –

Project	Hong Kong Section of Hong Kong – Shenzhen Western Rail Link (Hung Shui Kiu – Qianhai)	Smart and Green Mass Transit System in East Kowloon
Fee for investigation and preliminary design (\$ million) (in September 2024 prices)	127	139
Estimated man-month		
Professional	442	500
Technical	670	746

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20. Subject to funding approval, we estimate that the expenditure will be incurred by phases as follows –

Year	\$ million (in MOD prices)
2025 – 26	52.0
2026 – 27	154.2
2027 – 28	75.8
2028 – 29	21.8
	<hr/>
	303.8
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21. We have derived the MOD estimate 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 between 2025 and 2029. Subject to funding approval, we will engage a team of professionals to undertake the investigation and design works under the Item on a lump sum basis. As for the site investigation works, it will be tendered under a standard re-measurement contract because the actual quantity of works involved may vary depending on actual ground conditions. The Item will be delivered under New Engineering Contract which will enhance project management and cost-effectiveness through promoting cooperation, mutual trust and collaborative risk management between contract parties. The contract will provide for price adjustments.

22. The Item will not give rise to any recurrent expenditure.

PUBLIC CONSULTATION

23. The Government conducted public consultations on the preliminary proposals of “the Strategic Studies” (including the HSWRL) between December 2022 and March 2023, including consultations with the LegCo, the Transport Advisory Committee, the Heung Yee Kuk, and the District Councils. Focus group meetings were held with professional bodies, academia, think tanks, and green groups, while 2 public forums were also organised to collect views from different sectors of the community. The public generally supported the Government to implement the proposed HSWRL.

/24.

24. On 15 December 2023, the Government briefed the LegCo Panel on Transport on the “Hong Kong Major Transport Infrastructure Development Blueprint” (the Blueprint), which included the HSWRL. Members generally supported the Government to implement the proposed HSWRL.

25. On 31 March 2025, the Government consulted the Subcommittee on Matters Relating to Railways of the LegCo on the Item, and members generally supported the Government to expedite the implementation of the HSWRL.

26. The Government consulted the Ha Tsuen Rural Committee and Ping Shan Heung Rural Committee on the Item on 3 and 23 April 2025 respectively and consulted the Traffic and Transport Committee of the Yuen Long District Council on 29 April 2025. Members of the relevant Rural Committees and the Yuen Long District Council expressed support for the Proposed Project, and provided their views in respect of potential environmental and local traffic impacts of the Proposed Project. We will follow up with the comments under the Item.

ENVIRONMENTAL IMPLICATIONS

27. The Proposed Project is a designated project under Schedule 2 of the EIAO, which requires an environmental permit for its construction and operation. The Highways Department will conduct an EIA study in accordance with the requirements of the EIAO and make recommendations on the implementation of suitable mitigation measures. Nevertheless, the Item (including the associated site investigation works) is not a designated project and will not cause long-term adverse impact on the environment. We have included in the project estimates the cost of implementing suitable pollution control measures to mitigate short-term environmental impact arising from the site investigation works under the Item.

28. The Item (including the associated site investigation works) will only generate minimal construction waste. We will fully consider measures to minimise the generation of construction waste and to reuse or recycle construction waste as much as possible in the future implementation of the construction works.

/HERITAGE

HERITAGE IMPLICATIONS

29. The Item (including the associated site investigation works) will not affect any heritage site, i.e. all declared monuments, proposed monuments, graded historic sites / historical buildings / structures, sites of archaeological interest, all sites / buildings / structures in the new list of proposed grading items, and government historic sites identified by the Antiquities and Monuments Office. We will conduct heritage impact assessment for the implementation of the Proposed Project in the EIA study to be carried out under the Item.

LAND ACQUISITION

30. The Item (including the associated site investigation works) will not require any land acquisition. The Item will examine the extent of land acquisition and/or clearance required for the implementation of the Proposed Project.

TREE IMPLICATIONS

31. The Item (including the associated site investigation works) will not directly involve any tree removal or planting. The need for tree preservation will be taken into consideration during the planning and design stages of the Proposed Project and tree planting proposals, wherever possible, will also be incorporated during the construction phase in the future.

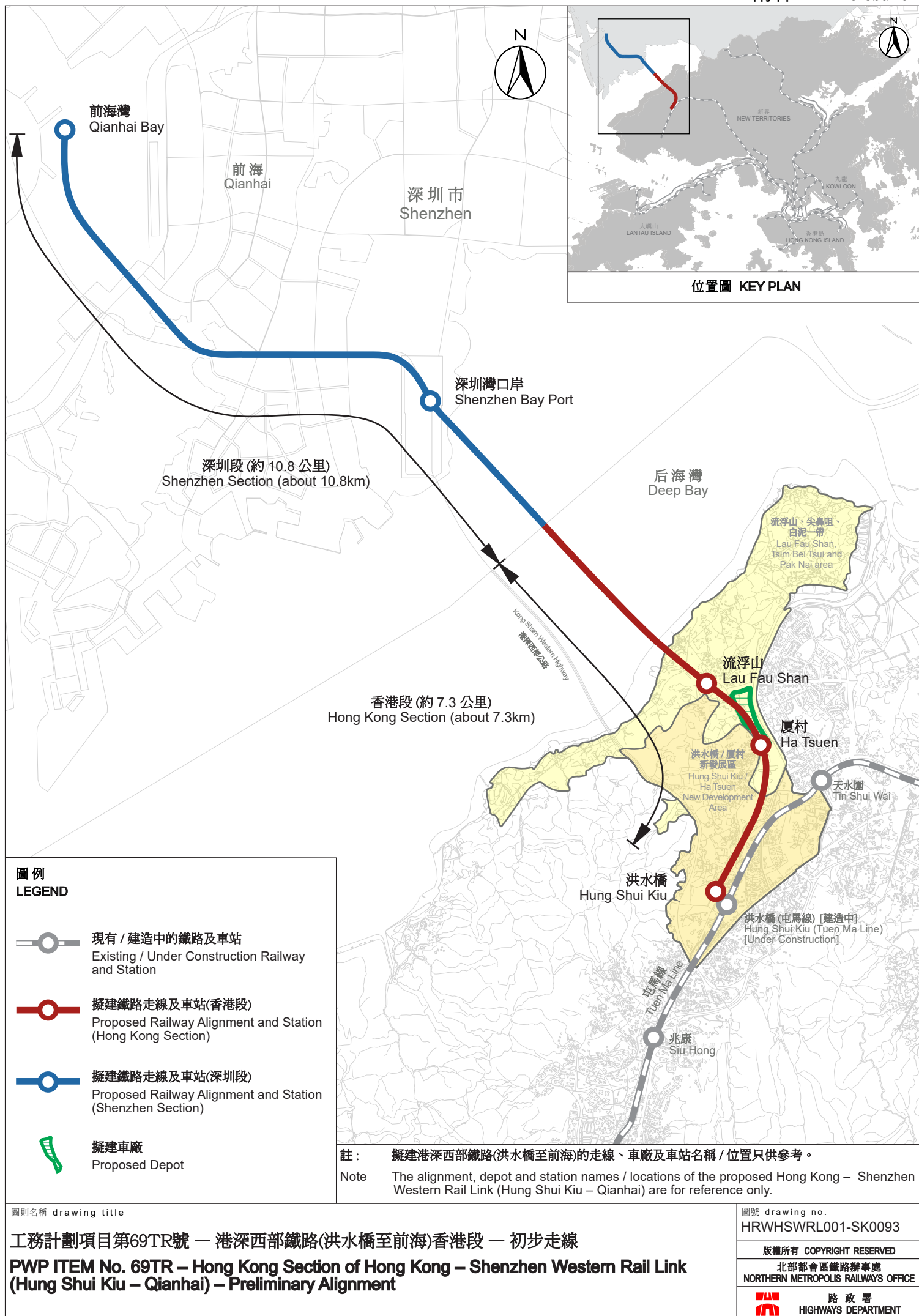
BACKGROUND INFORMATION

32. In planning for the long-term social and economic development needs of Hong Kong, the Government commenced the Strategic Studies in end 2020 to conduct a comprehensive and objective analysis on the supply and demand of major transport infrastructure in Hong Kong. The analysis reveals that, in the long-term, there would be a significant transport demand for cross-boundary connection of the Northern Metropolis. Therefore, at the end of 2022, the Government preliminarily recommended taking forward the HSWRL project. Subsequently, the Government promulgated the Blueprint in December 2023, in which the target completion date of the HSWRL was recommended to be between 2034 and 2038.

33. We estimate that the Item will create about 70 jobs (30 for labourers and 40 for professional or technical staff)⁶ providing a total employment of 1 230 man-months.

Transport and Logistics Bureau
May 2025

⁶ The jobs for labourers to be created will mainly be responsible for carrying out site investigation works and the jobs for professional/technical staff to be created will mainly be responsible for carrying out the proposed investigation and design works and supervising the associated site investigation works.



**69TR(Part) – Hong Kong Section of Hong Kong – Shenzhen Western Rail Link
(Hung Shui Kiu – Qianhai) – Investigation and Design**

Breakdown of the estimates for fees for investigation and design, and fees related to supervision of site investigation works (in September 2024 prices)

		Estimated man- months	Average MPS* salary point	Multiplier (Note 2)	Estimated fees (\$ million)	
(a) Fees for investigation and design works (Note 1)						
(i) invitation for EOI for the Proposed Project from relevant contractors and operators in the market	Professional	19	38	2.0	3.5	
	Technical	27	14	2.0	1.8	
Sub-total					5.3	#
(ii) carrying out financial assessment and formulation of financing arrangements for the Proposed Project	Professional	66	38	2.0	12.3	
	Technical	102	14	2.0	6.8	
Sub-total					19.1	#
(iii) formulation of contract procurement arrangements, including preparation of contract terms, as well as providing assistance in conducting the tendering work	Professional	108	38	2.0	20.1	
	Technical	163	14	2.0	10.9	
Sub-total					31.0	#
(iv) review of the alignment and station locations, as well as formulation of project-related design standards and carrying out preliminary design for the Proposed Project	Professional	131	38	2.0	24.4	
	Technical	200	14	2.0	13.4	
Sub-total					37.8	#
(v) conducting assessments of the impacts on environment, traffic, heritage, land acquisition and other aspects of the Proposed Project, formulation of associated mitigation measures as well as gazettal	Professional	93	38	2.0	17.3	
	Technical	140	14	2.0	9.4	
Sub-total					26.7	#

		Estimated man- months	Average MPS* salary point	Multiplier (Note 2)	Estimated fees (\$ million)	
(vi) formulation of technical details for the operation, management and maintenance to support the preparation of the relevant regulatory framework	Professional	25	38	2.0	4.7	
	Technical	38	14	2.0	2.5	
Sub-total					<u>7.2</u>	#
(b) Fee associated with the supervision of site investigation works (Note 3)	Professional	28	38	1.6	4.2	
	Technical	62	14	1.6	3.3	
Sub-total					<u>7.5</u>	#
Total					<u>134.6</u>	#

* MPS = Master Pay Scale

Notes

1. The actual man-months and fees will only be known after selection of the consultants.
2. A multiplier of 2.0 is applied to the average MPS salary point to estimate the full staff costs of consultants' staff. A multiplier of 1.6 is applied to the average MPS salary point in the case of resident site staff supplied by the consultants. (As at today, MPS salary point 38 = \$93,255 per month and MPS salary point 14 = \$33,405 per month.)
3. The actual man-months and costs will only be known after completion of the site investigation 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 17.