

**For discussion
on 18 April 2023**

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

**Proposed Creation of Three Supernumerary Directorate Posts and
Redeployment of One Permanent Directorate Post in the
Highways Department for Establishing the
Northern Metropolis Railways Office to Assist in
Taking Forward Relevant Railway Projects in Northern Metropolis**

Purpose

As mentioned by the Chief Executive in the 2022 Policy Address, the Northern Metropolis is the foothold for Hong Kong’s strategic development as well as the new engine for Hong Kong to scale new heights. We are implementing a number of new railway projects in a proactive manner, with a view to driving the consolidation and expansion in terms of development capacity of the Northern Metropolis by a transportation system with railways as its backbone, under the “infrastructure-led” and “capacity-creating” planning principles. This paper aims at seeking Members’ views on the proposal for creation of one supernumerary Principal Government Engineer (PGE) (D3) post and two supernumerary Chief Engineer (CE) (D1) posts, as well as redeployment of one permanent CE (D1) post in the Highways Department (HyD) for establishing the Northern Metropolis Railways Office (NMRO), so as to assist in taking forward railway projects relevant to the Northern Metropolis. The supernumerary posts are proposed for a period of about seven years with immediate effect upon the approval of the Finance Committee (FC) up to 31 March 2030.

Background

2. The current-term Government will take forward the development of the Northern Metropolis in full steam, and has already established the Steering Committee on the Northern Metropolis and the Advisory Committee on the Northern Metropolis. The former is led by

the Chief Executive to provide high-level policy steer and supervision and overseeing collaboration with relevant Mainland authorities, to strengthen the governance system for the development of the area, and to further enhance the speed, efficiency and quantity for the development of the Northern Metropolis. The latter is chaired by the Financial Secretary and comprising experts and stakeholders in the community to tender strategic advice and insightful suggestions. The Hong Kong Special Administrative Region (HKSAR) Government is also collaborating closely with the Guangdong Provincial Government, and has set up the Task Force for Collaboration on the Northern Metropolis Development Strategy under the Guangdong-Hong Kong and Hong Kong-Shenzhen co-operation mechanism to strengthen liaison and co-ordination between Hong Kong and the Mainland on matters related to the Northern Metropolis, with a view to enabling the Northern Metropolis to radiate beyond its geographical boundary and creating synergy with the Guangdong Province, the Shenzhen Municipality and the Guangdong-Hong Kong-Macao Greater Bay Area (GBA).

3. Having taken full account of our country's support for Hong Kong as underlined in the 14th Five-Year Plan¹, its aspirations for Hong Kong in the development of the GBA, and the enormous opportunities brought about by the Qianhai Plan² for Hong Kong, the Northern Metropolis Development Strategy (NMDS), proposed a series of new railway projects to drive the consolidation and expansion in terms of development capacity of the Northern Metropolis by a transportation system with railways as its backbone. Under the "infrastructure-led" and "capacity-creating" planning principles, taking forward these railway projects can unleash the development potential of the surrounding areas, and meet the long-term transport and logistics demand in a forward-looking manner, while also foster better integration with other cities in the GBA.

4. One of the planning principles under the NMDS is to optimise, strengthen and provide more cross-boundary transport infrastructure and

¹ Outline of the 14th Five-Year Plan for National Economic and Social Development of the People's Republic of China and the Long Range Objectives Through the Year 2035

² Plan for Comprehensive Deepening Reform and Opening Up of the Qianhai Shenzhen-Hong Kong Modern Service Industry Co-operation Zone

customs clearance services, with a view to creating the Hong Kong-Shenzhen One-hour Cross-boundary Commuting Network for expanding the connectivity and for the convenience of the residents of both sides travelling between Hong Kong and Shenzhen for a variety of choices with respect to doing business, working, living, studying, travelling and enjoying daily-life services. With improved cross-boundary facilities and seamless connectivity with transport networks, the time for cross-boundary commuting can be further shortened and the Hong Kong-Shenzhen One-hour Cross-boundary Commuting Network can also be dynamically expanded.

5. In order to further promote the connectivity of infrastructures in the GBA, the HKSAR Government and the Shenzhen Municipal People's Government jointly established the "Task Force for Hong Kong-Shenzhen Co-operation on Cross-Boundary Railway Infrastructure" (the Task Force) in August 2021 to actively take forward the cross-boundary railway projects proposed in the NMDS including the Hong Kong-Shenzhen Western Rail Link (Hung Shui Kiu – Qianhai) (HSWRL) and the Northern Link Spur Line (NOL Spur Line), with a view to jointly developing the "GBA on the Rail". On the other hand, the HKSAR Government is conducting the "Strategic Studies on Railways and Major Roads beyond 2030" (the Strategic Studies) to explore the future layout of Hong Kong's railway and major road infrastructure to ensure that the planning of strategic railway and major road infrastructure can drive development or even reserve capacity for new development areas for the long-term development need (including the Northern Metropolis) of Hong Kong.

Railway Projects related to the Northern Metropolis

HSWRL

6. The proposed HSWRL is about 18 km in length (with a length of about 8 km for the Hong Kong section) and its alignment starts from the location adjoining the Hung Shui Kiu Station of the Tuen Ma Line (TML), passing through Ha Tsuen and Lau Fau Shan, crossing the Deep Bay and connecting to Qianhai via Shenzhen Bay Port. The project will connect the Hung Shui Kiu/Ha Tsuen (HSK/HT) New Development Area (NDA) with the Qianhai Cooperation Zone with a view to strengthening the connection between the Northern Metropolis and the Guangzhou-

Shenzhen innovation and technology corridor. Moreover, with the support of road networks, the two areas will be developed into a strategic hub of transport corridor on the east bank of the Pearl River to promote integrated development and connectivity between Hong Kong and the GBA. The HKSAR Government and the Shenzhen Municipal People's Government have been pursuing the HSWRL project through the Task Force and its Technical Group. The First Stage Study, which established the strategic value and necessity of the project and formulated a preliminarily feasible scheme, has been completed. The Second Stage Study commenced in early 2023 to study the planning, preliminary engineering feasibility, benefits, environmental impact as well as construction and operation arrangements of the proposed HSWRL, and is expected to be completed in mid-2024.

Northern Link (NOL) and Kwu Tung (KTU) Station

7. The proposed NOL project comprises the construction of KTU Station on the existing Lok Ma Chau Spur Line of East Rail Line, and the construction of a 10.7-kilometre long main line between the existing TML Kam Sheung Road Station and KTU Station with three intermediate stations at Au Tau, Ngau Tam Mei and San Tin. The completed NOL together with the existing ERL and TML will form a railway loop linking up the New Territories and Kowloon, which will not only improve the railway connection between the New Territories East and the New Territories West, serving the Kwu Tung North (KTN) NDA and the San Tin/Lok Ma Chau Development Node, but also unleash the potential of land around Au Tau, Ngau Tam Mei and San Tin, driving the developments in these areas. Taking into account the development pace along NOL, the project will be implemented in two phases with the construction of KTU Station at the Lok Ma Chau Spur Line of ERL as Phase 1 and NOL Main Line connection rail as Phase 2. The detailed design of KTU Station has been substantially completed. Construction works are expected to commence in 2023 for completion in 2027 to support the major new population intake of KTN NDA. The detailed planning and design and relevant environmental impact assessments of NOL Main Line are underway. The construction works are anticipated to commence in 2025 for completion in 2034 to support the developments around the San Tin/Lok Ma Chau Development Node, Ngau Tam Mei and Au Tau.

NOL Spur Line

8. The proposed NOL Spur Line is about 5.8 km in length and its alignment starts from the San Tin Station on the proposed NOL Main Line, passing through the San Tin/ Lok Ma Chau Development Node and the Hong Kong-Shenzhen Innovation and Technology Park in the Lok Ma Chau Loop, and connects to the new Huanggang Port in Shenzhen. The project will help strengthen the cross-boundary transport link as well as the connection between the Lok Ma Chau Loop and the urban area, and will provide another option for residents and tourists travelling to and from the GBA. We are actively following up on the relevant work with Mainland authorities and the MTR Corporation Limited (MTRCL), with a view to reaching consensus with the Mainland authorities on the implementation arrangement of the Shenzhen section of NOL Spur Line and commencing detailed planning and design of the project in 2024.

Hung Shui Kiu (HSK) Station

9. The proposed HSK Station will be built between the existing Tin Shui Wai Station and Siu Hong Station of TML, serving residents of the HSK/HT NDA and the adjacent area by providing a direct railway connection for HSK/HT NDA for supporting the sustainable growth in population and employment opportunities in the NDA. The detailed planning and design for HSK Station is underway. The construction works are anticipated to commence in 2024 for completion in 2030 to support the major new population intake of HSK/HT NDA.

Establishing the dedicated Northern Metropolis Railways Office (NRMO)

The need for establishing NMRO

10. The proposed railway projects related to the Northern Metropolis can unleash the development potential of the surrounding NDAs upon commissioning, and meet the transport demand brought by the growth in population in the NDAs, and are therefore of utmost importance to the development of the Northern Metropolis. To co-ordinate and implement the railway projects in relation to the Northern Metropolis, we propose to

set up the dedicated NMRO in HyD. As the railway projects proposed under the NMDS were still in initial preliminary study, HyD had not increased manpower for the implementation of these railway projects, but rather redeployed its existing manpower to handle the relevant initial work. As HSWRL and NOL Spur Line progress into critical planning and design stage, while the construction works of KTU Station, HSK Station and NOL main line commence progressively, the tremendous additional workload will exceed the handling capacity of the current manpower. Therefore, HyD has an urgent need to establish a dedicated NMRO equipped with additional manpower to co-ordinate and take forward the relevant railway projects.

11. One of the main priorities of the proposed NMRO is to prepare for the introduction of other implementation and operation approach for railway projects. As mentioned by the Government earlier, we would take into account the construction and operation details of each railway project (e.g. connection to existing railway, interchange arrangements for passengers, etc.), and review the implementation strategy of each railway project. For new independent railway projects such as the HSWRL connecting Hung Shui Kiu to Qianhai, the Government would have room for considering the feasibility of introducing other implementation and operation approach, which involves new procurement process and implementation strategy.

12. For cross-boundary railway projects, the Government needs to conduct in-depth study and discussion with Mainland authorities about the implementation approach, legal matters, funding arrangement, technical standards, construction arrangement, operation model, etc. of the cross-boundary railway projects, taking into consideration the impacts of different implementation approaches on factors including construction cost, construction period, connection to existing railway, and the resilience to the railway network with respect to facilities and railway services, and availability of participants capable of undertaking the projects in the market.

13. Besides, establishing the dedicated NMRO can better co-ordinate various railway projects related to the Northern Metropolis, thereby supporting the planning of the Northern Metropolis and the

connectivity with the GBA and connecting with the local and Mainland railway network in an option most convenient to the passengers, while also strengthen the communication with stakeholders including the Legislative Council (LegCo), District Councils and general public, with a view to taking forward the railway projects related to the Northern Metropolis in a timely manner.

14. The aforementioned tasks will bring unique and unprecedented challenges in planning, procurement as well as supervision of construction stages of the new railway projects. In order for the proposed NMRO to effectively discharge its duties, we need to create new posts to provide adequate manpower support. The existing and proposed organisation charts of HyD and the proposed organisation chart of the proposed NMRO are at **Annexes 1 to 3** respectively.

Creation of one supernumerary PGE (D3) post

15. To cope with the challenges and tremendous workload brought about by the railway projects related to the Northern Metropolis mentioned in paragraphs 6 to 9 above, we need adequate directorate support dedicated to matters relevant to the NMRO. We propose to create one supernumerary PGE (D3) post (proposed to be designated as the Commissioner for Northern Metropolis Railways) for a period of about seven years with immediate effect upon the approval of the FC up to 31 March 2030, responsible for leading the NMRO with the support by two proposed supernumerary posts of CE (D1), redeployment of one permanent CE (D1) post from the Railway Development Office (RDO) of HyD, and 41 non-directorate posts (comprising of 20 newly established posts and 21 existing posts redeployed from RDO of HyD).

16. The Commissioner for Northern Metropolis Railways will lead the NMRO in taking forward the aforementioned railway projects related to the Northern Metropolis. Specifically, he will be responsible for providing high level steer on the strategic planning and implementation of the railway projects in different project stages (including planning, design, public consultation, procurement and construction stages, etc.) with a view to supporting the long-term development of the Northern Metropolis; co-chairing the Technical Group established under the Task Force with the Mainland authorities and deliberating on the implementation approach, legal matters, funding arrangement, technical standards, construction

arrangement, operation model, etc. of the cross-boundary railway projects³; steering MTRCL and/or other railway developer(s) to implement the cross-boundary and local railway projects, and discussing with the Mainland authorities and MTRCL and/or other railway developer(s) on behalf of the HKSAR Government; and providing inputs for high-level meetings for the development of the Northern Metropolis and resolving project interfaces between the railway projects and other development projects, etc.

17. As the Government would consider the feasibility of introducing other implementation and operation approaches for new independent railway projects, the Commissioner for Northern Metropolis Railways will lead the NMRO in the preparation process, including recommending new standards and procurement approach applicable to cross-boundary projects. In the process, the Commissioner for Northern Metropolis Railways will need to conduct in-depth analysis and discussion with the Mainland authorities on the implementation approach, legal matters, funding arrangement, technical standards, construction arrangement, operation model, etc. of the cross-boundary railway projects. In parallel, the Commissioner for Northern Metropolis Railways will strengthen the communication with stakeholders including the LegCo, the District Councils and general public, with a view to ensuring smooth implementation of the railway projects related to the Northern Metropolis. These complicated and important duties warrant the leadership and oversight from a seasoned professional engineer with strong expertise and extensive experience in project planning and implementation.

18. Currently, Principal Government Engineer/Railway Development (PGE/RD) has been leading the RDO in taking forward the railway projects under RDS-2014⁴ and the initial preliminary study of new railway projects proposed under the NMDS, as well as conducting the Strategic Studies and recommending new railway projects to cope with the long-term development of Hong Kong. PGE/RD also has to oversee the implementation of monitoring and control strategies for railway projects so as to improve project delivery performance. Since PGE/RD has already been fully engaged in his duties, and in view of the tremendous additional workload arising from the various railway projects related to the

³ After the Technical Group deliberates and reaches consensus on the relevant issues, the recommendation would be submitted to the Task Force co-chaired by the Secretary for Transport and Logistics and Vice-Mayor of Shenzhen for consideration and seeking policy steer.

⁴ The Government promulgated RDS-2014 in September 2014 and recommended seven railway projects, including Tung Chung Line Extension, Tuen Mun South Extension, NOL and KTU Station, HSK Station, South Island Line (West), East Kowloon Line and North Island Line. Amongst these railway projects, NOL (and KTU Station) as well as HSK Station in the Northern Metropolis will be taken forward by the proposed Commissioner for Northern Metropolis Railways.

Northern Metropolis progressing into critical planning and design stages, it would not be operationally feasible for PGE/RD to take up the duties mentioned in paragraphs 16 and 17, and it is only viable to create one supernumerary post of PGE (D3) to take forward the railway projects related to the Northern Metropolis. The job description of the proposed Commissioner for Northern Metropolis Railways is at [Annex 4](#).

Creation of one supernumerary CE (D1) post for HSWRL

19. We propose to create one supernumerary post of CE (D1) (proposed to be designated as Chief Engineer/Northern Metropolis Railways(1) (CE/NMR(1))) for a period of about seven years with immediate effect upon the approval of the FC up to 31 March 2030 to take forward HSWRL. CE/NMR(1) will be responsible for steering and implementing the Second Stage Study of HSWRL; handling statutory procedures including preparation for the gazettal of railway scheme under the Railways Ordinance and resolving objections and seeking authorisation of the scheme, land matters, traffic and environmental impact assessments, etc.; leading the project team in overcoming multi-disciplinary engineering, planning and design issues involving fire, geotechnical, marine, traffic, electrical and mechanical aspects, and analysing and comparing the technical aspects of feasible schemes; carrying out in-depth discussion with Mainland authorities and bureaux/departments about the implementation approach, legal matters, funding arrangement, technical standards, construction arrangement, operation model, etc. of the railway project to map out practical approaches agreeable to both Hong Kong and Shenzhen; and co-ordinating with railway developer(s) to handle issues related to the project implementation.

20. Besides, as the design and construction of the Hong Kong section of HSWRL has to cater for on-going and planned development projects in the vicinity, including the TML HSK Station, the HSK/HT NDA, study on Lau Fau Shan and associated green transit system, etc., CE/NMR(1) will need to lead the project team in resolving the project interface issues with relevant bureaux/departments.

21. HSWRL is under a very tight implementation timeframe, with the Second Stage Study underway and detailed planning and design to commence subsequently, the associated workload in co-ordinating and steering will continue to increase. In view of the above, we are in urgent need to create one supernumerary post of CE (D1) dedicated to taking forward HSWRL which is a railway project of significant strategic value

to ensure the smooth implementation of the project. The job description of the proposed CE/NMR(1) is at **Annex 5**.

Creation of one supernumerary CE (D1) post for NOL Spur Line

22. We propose to create one supernumerary post of CE (D1) (proposed to be designated as Chief Engineer/Northern Metropolis Railways(2) (CE/NMR(2))) underpinning the proposed Commissioner for Northern Metropolis Railways for a period of about seven years with immediate effect upon the approval of the FC up to 31 March 2030 to take forward NOL Spur Line. CE/NMR(2) will be responsible for handling statutory procedures including preparation for the gazettal of railway scheme under the Railways Ordinance and resolving objections and seeking authorisation of the scheme, land matters, traffic and environmental impact assessments, etc; leading the project team in overcoming multi-disciplinary engineering planning and design issues involving fire, geotechnical, traffic, electrical and mechanical aspects, and analyse and compare the technical aspects of feasible schemes; carrying out in-depth discussion with Mainland authorities and bureaux/departments about the implementation approach, legal matters, funding arrangement, technical standards, construction arrangement, operation model, etc. of the railway project to map out practical approaches agreeable to both Hong Kong and Shenzhen; and co-ordinating with MTRCL to handle issues related to the project implementation. In parallel, CE/NMR(2) will also devise new procurement process and implementation strategy for introducing other implementation and operation approach for cross-boundary railway projects, and support the operation of the Task Force and its Technical Group.

23. Besides, as the design and construction of the Hong Kong section of NOL Spur Line has to cater for planned development projects in the vicinity including the Hong Kong - Shenzhen Innovation and Technology Park and the San Tin / Lok Ma Chau Development Node, etc., CE/NMR(2) will lead the project team in resolving the project interface issues with relevant bureaux/departments.

24. As NOL Spur Line is under a very tight implementation timeframe, with rapid expansion of the planning, co-ordination and liaison works involved in forthcoming years anticipated, we have an urgent need to create one supernumerary post of CE (D1) dedicated to taking forward NOL Spur Line to ensure the smooth implementation of the project. The job description of the proposed CE/NMR(2) is at **Annex 6**.

Redeployment of one permanent CE (D1) post for NOL Main Line

25. We propose to redeploy one permanent post of CE (D1) (currently designated as Chief Engineer/Railway Development 1-2 (CE/RD1-2)) from RDO of HyD to NMRO (proposed to be designated as Chief Engineer/Northern Metropolis Railways(3) (CE/NMR(3))). 21 existing non-directorate posts currently underpinning CE/RD1-2 will also be redeployed to NMRO. CE/RD1-2 is currently mainly responsible for leading the team in overseeing the implementation of NOL Main Line, including liaising with MTRCL to take forward matters of NOL Main Line project including the implementation timeframe, funding arrangement, progress, technical detail, etc.; co-ordinating and resolving project interface issues between NOL Main Line and on-going and planned development projects along the alignment (such as the San Tin / Lok Ma Chau Development Node); preparing for the gazettal of the railway scheme; overseeing matters including progress of works, quality of the works, etc. during construction stage. The job description of CE/NMR(3) proposed to be redeployed is at [Annex 7](#).

Proposed period and key performance indicators

26. The proposed NMRO is dedicated to co-ordinating and taking forward the planning and design of the railway projects related to the Northern Metropolis, involving extensive study and deliberation on the implementation approach, technical standards, procurement procedures of infrastructure projects, construction arrangement, operation model, etc. of the projects, demanding directorate staff with ample professional engineering knowledge and experience to provide leadership in a professional engineering context. In considering the staffing requirement of NMRO, we have holistically taken into account the implementation timeframes of railway projects under planning and implementation, the existing manpower in RDO, and the additional workload and manpower demand brought about by relevant railway projects, in formulating the period of the proposed supernumerary posts. We propose to create three supernumerary posts in NMRO for a period of about seven years up to 31 March 2030.

27. We have set key performance indicators for the proposed NMRO for the next seven years. The Second Stage Study of HSWRL is expected to be completed in mid-2024, and NMRO expects to recommend new procurement process and implementation strategy for introduction of other

implementation and operation approach in 2025. Regarding NOL Spur Line, we expect to reach consensus with the Mainland authorities on the implementation arrangement of the Shenzhen section of NOL Spur Line and commence detailed planning and design of the project in 2024. For projects under the Railway Development Strategy 2014, the construction works of KTU Station will commence within this year, while that of HSK Station and NOL Main Line are anticipated to commence in 2024 and 2025 respectively. Between 2026 and 2030, we expect to commence the gazettal of railway scheme under the Railways Ordinance (Cap. 519) and construction of NOL Spur Line, and the detailed planning and design as well as gazettal of railway scheme for HSWRL.

28. While the railway projects related to the Northern Metropolis are yet to be commissioned by the end of the seven-year period proposed for the supernumerary posts, other railway projects under implementation (including the Tung Chung Line Extension, the Oyster Bay Station, the Tuen Mun South Extension and HSK Station) will gradually commission in 2029 and 2030. Taking into account the progress of the various railway projects taken forward by RDO and NMRO near the end of the seven-year period and the prevailing operational need by then, we will in due course review the workload and manpower demand of NMRO and the continued need for the proposed directorate supernumerary posts. On the other hand, in view of the additional workload brought about by other railway projects recommended by the Strategic Studies progressing into critical planning and design stages, we will continue to review the need for directorate and non-directorate posts in RDO and NMRO and redeploy manpower or seek additional resources through established procedures as and when necessary to cope with the implementation of the relevant projects.

Non-directorate support

29. Apart from the above-mentioned proposed directorate posts, HyD will also create 20 time-limited non-directorate posts (including 18 professional grade posts and two general grade posts) in NMRO for a period of about seven years up to 31 March 2030. As mentioned in paragraph 25 above, 21 existing non-directorate posts (including 16 professional grade posts, four technical grade posts and one general grade post) will be internally redeployed from RDO to NMRO in HyD to actively take forward the railway projects related to the Northern Metropolis.

Alternatives Considered

30. We have critically considered possible internal redeployment of other existing directorate officers within HyD to take up the works of the proposed posts. As the railway projects related to the Northern Metropolis were in initial preliminary study, relevant initial work has been temporarily taken up by the staff of RDO of HyD on a short-term part-time basis under overloaded working conditions. As the projects progress into critical planning and design stages, the arising tremendous additional workload will exceed the handling capacity of the current manpower, adversely affecting the discharge of their original duties. All other divisions of HyD are also heavily preoccupied with various major highway infrastructure projects, highway maintenance and district road administration, etc.. Officers of the same ranks are already overloaded with their division's onerous tasks/studies/projects and do not have any spare capacity to take up the additional tasks stemming from the railway projects related to the Northern Metropolis. The key portfolio of the existing PGE and CE posts and our assessment of the possibility for them to take up additional responsibilities are detailed at **Annex 8**.

31. In light of the upcoming workload in different divisions of HyD, we consider that the proposed creation of three supernumerary directorate posts and redeployment of one permanent directorate post is the only viable arrangement to ensure adequate dedicated staffing support in HyD to take forward the railway projects under the Northern Metropolis, unleashing the development potential of the surrounding areas, meeting the transport and logistics demand in a forward-looking manner while fostering better cross-boundary integration.

Financial Implications

32. The proposed redeployment of one permanent CE (D1) post from RDO of HyD is cost-neutral. The remaining staffing proposals in relation to the creation of three supernumerary directorate posts will bring about an additional notional annual salary cost at mid-point of \$6,660,000 with details as follows –

Rank	Notional annual salary cost at mid- point (\$)	No. of Posts
PGE (D3)	2,716,800	1
CE (D1)	3,943,200	2
Total	6,660,000	3

33. The full annual average staff cost, including salaries and staff on-cost, is about \$9,207,000.

34. The proposed redeployment of 21 non-directorate posts from RDO of HyD is cost-neutral. Meanwhile, the creation of 20 non-directorate posts in NMRO will bring about an additional notional annual salary cost at mid-point of \$20,159,280, whilst the additional cost expressed in terms of full annual average staff cost, including salaries and staff on-costs, is about \$31,181,000.

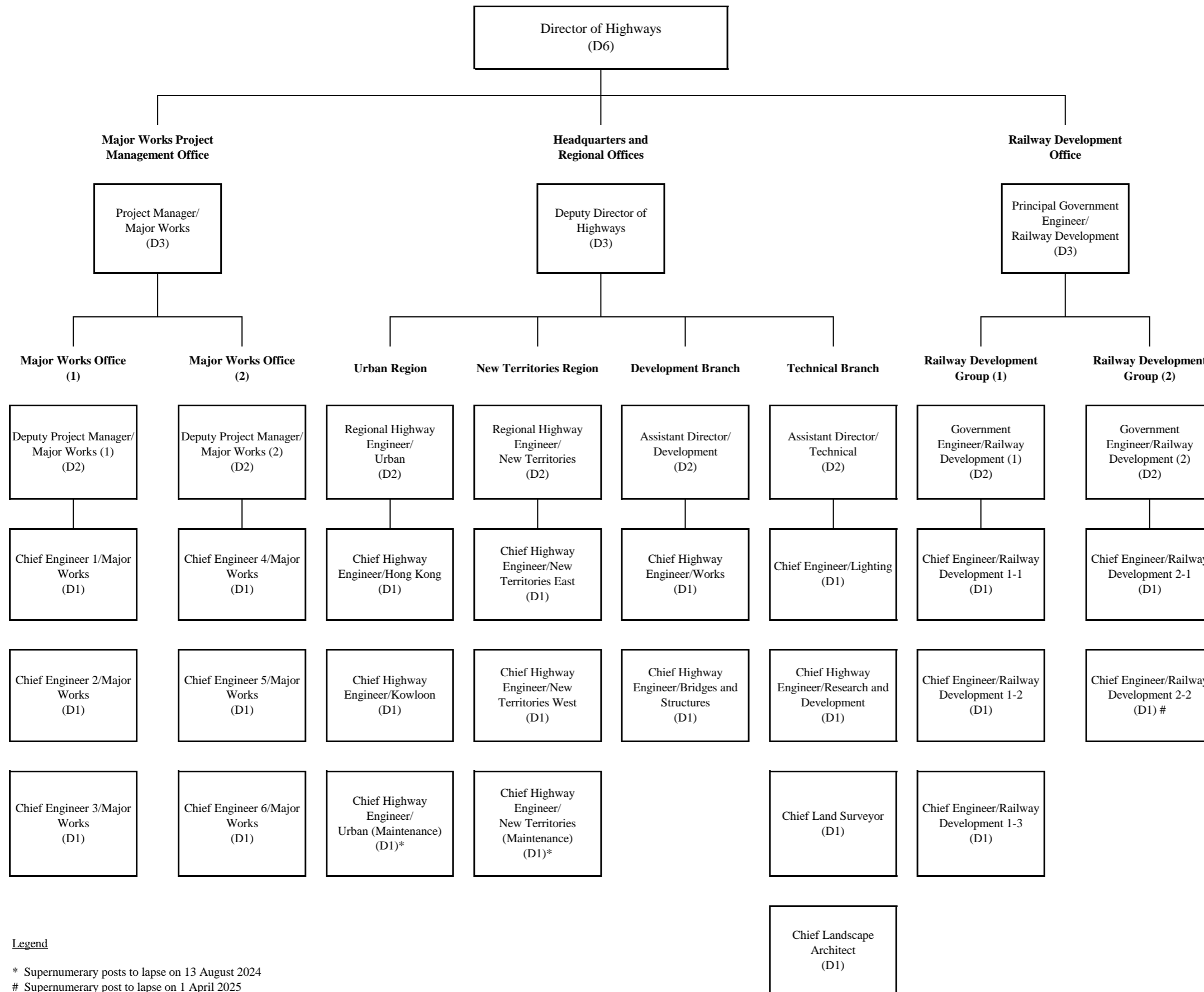
35. We have included sufficient provision in the 2023-24 Draft Estimates of HyD to meet the required staff cost of the proposal and will reflect the required resources in the Estimates of subsequent years.

Advice Sought

36. Members are invited to offer views on the above proposal. Subject to Members' views, we will submit the staffing proposal to the Establishment Subcommittee for consideration and seek approval from FC.

Transport and Logistics Bureau
Highways Department
April 2023

**Highways Department
Existing Organisation Chart of Directorate Officers**



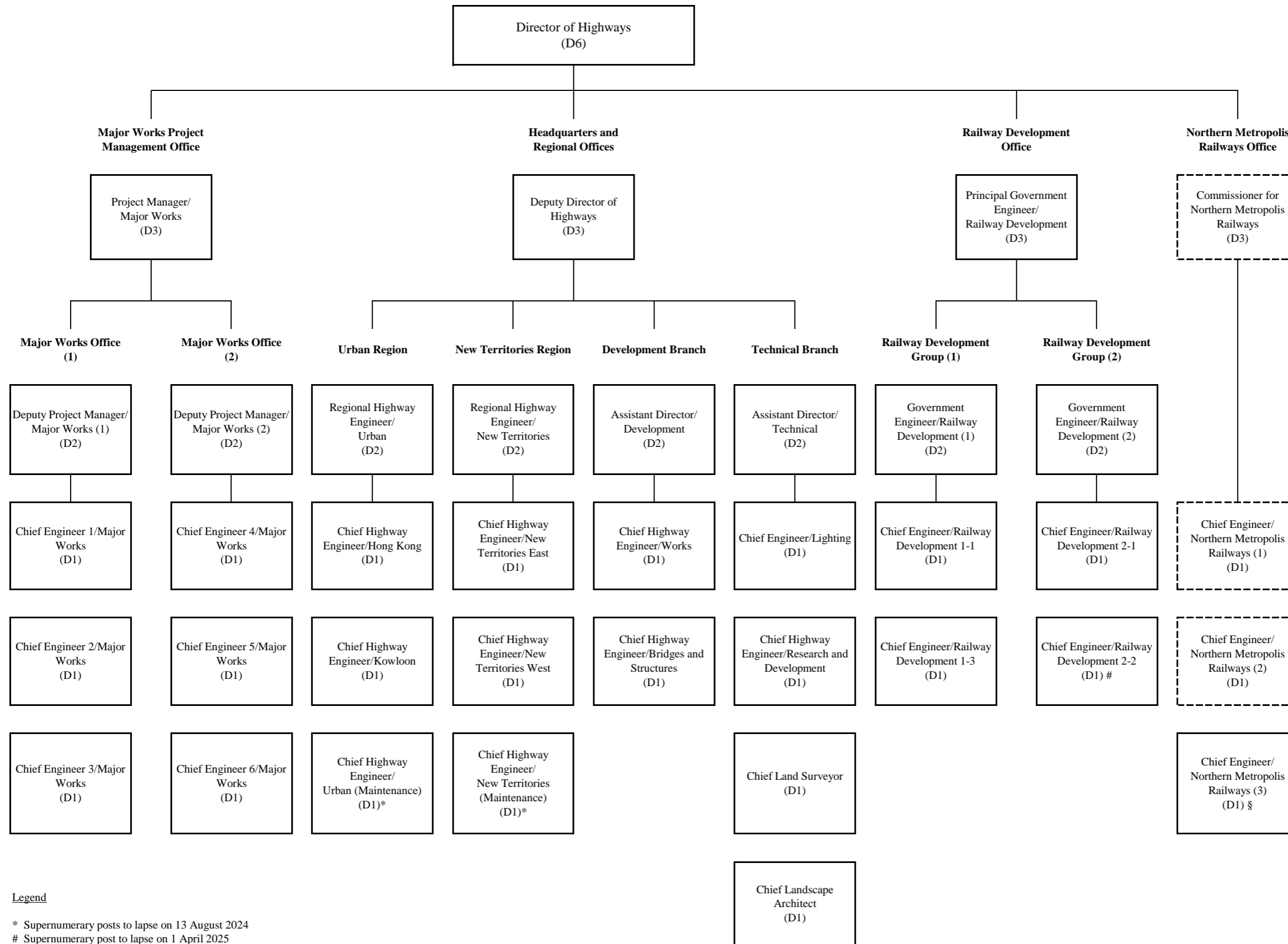
Legend

* Supernumerary posts to lapse on 13 August 2024

Supernumerary post to lapse on 1 April 2025

Highways Department
Organisation Chart of Directorate Officers
 (after the proposed creation of supernumerary directorate posts)

Annex 2



Legend

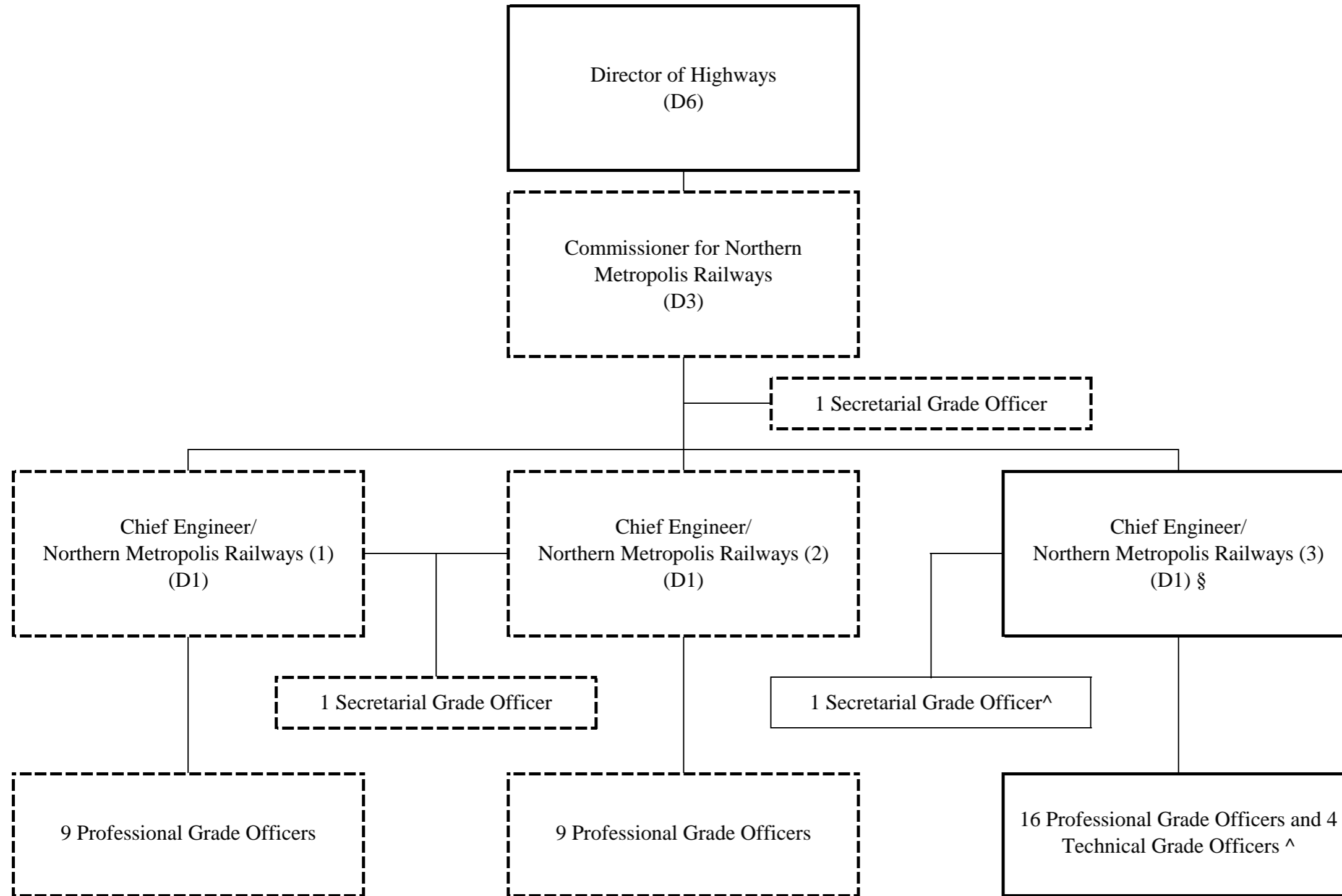
* Supernumerary posts to lapse on 13 August 2024

Supernumerary post to lapse on 1 April 2025

§ Proposed redeployment of Chief Engineer/Railway Development 1-2 post from Railway Development Office of the Highways Department

Proposed supernumerary posts for a period of about seven years with immediate effect upon the approval of the FC up to 31 March 2030

Proposed Organisation Chart of the Northern Metropolis Railways Office



§ Proposed redeployment of Chief Engineer/Railway Development 1-2 post from Railway Development Office of the Highways Department

^ Posts to be redeployed from Railway Development Division 1-2 in Railway Development Office of the Highways Department

Proposed supernumerary posts for a period of about seven years with immediate effect upon the approval of the FC up to 31 March 2030

**Proposed Job Description of
Commissioner for Northern Metropolis Railways**

Rank : Principal Government Engineer

Report to : Director of Highways

Major Duties and Responsibilities –

1. To lead the Northern Metropolis Railways Office in co-ordinating and taking forward local and cross-boundary railway projects related to the Northern Metropolis, including the Hong Kong-Shenzhen Western Rail Link (Hung Shui Kiu - Qianhai) (HSWRL), the Northern Link (NOL) Main Line, Kwu Tung (KTU) Station, the Northern Link Spur Line (NOL Spur Line) and Hung Shui Kiu (HSK) Station etc.;
2. To engage in high-level liaison and co-ordination with senior management of relevant bureaux/ departments to resolve different strategic issues from planning to detailed design stages of the railway projects;
3. To recommend technical standards and new procurement approach applicable to cross-boundary projects;
4. To co-chair the Technical Group with Mainland authorities, and lead the team in liaison and co-ordination with Mainland authorities on the implementation approach, funding arrangement, technical standards, construction arrangement, operation model, etc. of HSWRL and NOL Spur Line, taking into account such considerations as detailed alignment, proposed stations, depot, ventilation and emergency facilities, implementation timeframe, cost estimate, connection to existing railway, and the resilience of the railway network with respect to facilities and railway services, etc.;

5. To lead the project team and devise the implementation approach, funding arrangement and operation model of local railway projects related to the Northern Metropolis, and to liaise with MTR Corporation Limited/ other railway developer(s) on the matters;
6. To formulate and oversee the implementation of enhanced monitoring and control measures for the proposed railway projects;
7. To provide high-level steer on devising public relations and engagement plan related to railway projects; and
8. To provide high level steer on the strategic planning and implementation of works and other matters associated with the railway projects such that the cross-boundary and local railway projects could be implemented in a timely manner, and formulate performance indicators for monitoring purpose.

**Proposed Job Description of
Chief Engineer/ Northern Metropolis Railways (1)**

Rank : Chief Engineer (D1)

Report to : Commissioner for Northern Metropolis Railways

Major Duties and Responsibilities –

1. To lead and supervise the Northern Metropolis Railways Division (1) under the Northern Metropolis Railways Office of the Highways Department;
2. To lead, oversee and take forward the planning, design and implementation of the cross-boundary railway project Hong Kong-Shenzhen Western Rail Link (Hung Shui Kiu-Qianhai) (HSWRL) and to formulate the implementation timeframe;
3. To oversee and manage the Second Stage Study of HSWRL jointly conducted with Mainland authorities, including overseeing the progress and design of the consultant's studies, provision of guidance to consultants, assessment and reporting of consultants' recommendations and resolution of important issues, and liaise with Mainland authorities and government bureaux/departments with a view to formulating the implementation approach, legal matters, funding arrangement, technical standards, construction arrangement, operation model, etc. of the HSWRL;
4. To oversee and take forward the statutory and administrative procedures for HSWRL, including the administrative route protection, procedures under Environmental Impact Assessment Ordinance, gazettals under the relevant ordinances, public consultation, financial management, commissioning of consultancies, tendering of works contracts, contract administration, etc.;

5. To negotiate with MTR Corporation Limited/ other railway developer(s) in devising the implementation approach for HSWRL taking into account such considerations as proposed stations on the alignment, depot, ventilation and emergency facilities, implementation timeframe, cost estimate, connection to existing railway, and the resilience of the railway network with respect to facilities and railway services, etc.;
6. To implement enhanced monitoring and control measures for HSWRL;
7. To resolve project interface issues with development projects in the vicinity, such as the Tuen Ma Line Hung Shui Kiu Station, the Hung Shui Kiu/Ha Tsuen New Development Area, review study for Lau Fau Shan and associated green transit system, etc.; and
8. To prepare the project agreement for implementation of HSWRL.

**Proposed Job Description of
Chief Engineer/ Northern Metropolis Railways (2)**

Rank : Chief Engineer (D1)

Report to : Commissioner for Northern Metropolis Railways

Major Duties and Responsibilities –

1. To lead and supervise the Northern Metropolis Railways Division (2) under the Northern Metropolis Railways Office of the Highways Department;
2. To lead, oversee and take forward the planning, design and implementation of the Northern Link Spur Line (NOL Spur Line) and to formulate the implementation timeframe;
3. To co-ordinate and liaise with the relevant Mainland authorities and government bureaux/departments in formulating the implementation approach, legal matters, funding arrangement, technical standards, construction arrangement, operation model, etc. of NOL Spur Line;
4. To oversee and take forward the statutory and administrative procedures for NOL Spur Line, including the administrative route protection, procedures under Environmental Impact Assessment Ordinance, gazettals under the relevant ordinances, public consultation, financial management, commissioning of consultancies, etc.;
5. To review the technical and financial proposals of NOL Spur Line submitted by MTR Corporation Limited (MTRCL), and liaise with MTRCL on the railway alignment, proposed stations and related railway facilities, implementation timeframe, cost estimate and operating arrangement, etc. of NOL Spur Line;

6. To implement enhanced monitoring and control measures for NOL Spur Line;
7. To resolve project interface issues with development projects in the vicinity, such as the Hong Kong - Shenzhen Innovation and Technology Park and the San Tin/ Lok Ma Chau Development Node;
8. To recommend new procurement process and implementation strategy for introducing other implementation and operation approach for cross-boundary railway projects;
9. To support the operation of the “Task Force for Hong Kong-Shenzhen Co-operation on Cross-Boundary Railway Infrastructure” and its Technical Group; and
10. To prepare the project agreement for implementation of NOL Spur Line.

**Proposed Job Description of
Chief Engineer/ Northern Metropolis Railways (3)**

Rank : Chief Engineer (D1)

Report to : Commissioner for Northern Metropolis Railways

Major Duties and Responsibilities –

1. To lead and supervise the Northern Metropolis Railways Division (3) under the Northern Metropolis Railways Office of the Highways Department;
2. To lead, oversee and take forward the planning, design and implementation of the Northern Link (NOL) Main Line and to formulate the implementation timeframe;
3. To co-ordinate and liaise with relevant government bureaux/departments for formulating the implementation approach, funding arrangement, construction arrangement, operation model, etc. of NOL Main Line;
4. To oversee and take forward the statutory and administrative procedures for NOL Main Line, including the administrative route protection, procedures under Environmental Impact Assessment Ordinance, gazettals under the relevant ordinances, public consultation, financial management, commissioning of consultancies, etc.;
5. To review the technical and financial proposals of NOL Main Line submitted by MTR Corporation Limited (MTRCL), and liaise with MTRCL on the railway alignment, proposed stations and related railway facilities, implementation timeframe, cost estimate and operating arrangement, etc. of NOL Main Line;

6. To implement enhanced monitoring and control measures for NOL Main Line
7. To resolve project interface issues with development projects in the vicinity, such as the San Tin/ Lok Ma Chau Development Node, Ngau Tam Mei Land Use Review Study, and Sha Po Public Housing Development; and
8. To prepare the project agreement for implementation of NOL Main Line.

Key portfolios of existing Principal Government Engineer and Chief Engineer posts in the Highways Department and assessment of the possibility for them to take up additional responsibilities

As the railway projects related to the Northern Metropolis were in initial preliminary study, relevant initial work has been temporarily taken up by the staff of Railway Development Office of the Highways Department (HyD) on a short-term part-time basis under overloaded working conditions. As the projects progress into critical planning and design stages, the arising tremendous additional workload will exceed the handling capacity of the current manpower, adversely affecting the discharge of their original duties. All other divisions of the HyD are also heavily preoccupied with various major highways infrastructure projects, highway maintenance and district road administration, etc.. Officers of the same ranks are already overloaded with their division's onerous tasks/studies/projects and do not have any spare capacity to take up the additional tasks stemming from the railway projects related to the Northern Metropolis. The distribution and major duties of each Principal Government Engineer (PGE) and Chief Engineer (CE) are as follows –

Railway Development Office (RDO)

2. RDO is led by **Principal Government Engineer/Railway Development (PGE/RD)(PGE)(D3)**. PGE/RD is responsible for overseeing the planning, design and implementation of railway projects, including the related re-provisioning and enabling works, public infrastructure works and station improvement works, and overseeing the MTR Corporation Limited (MTRCL) on these aspects. PGE/RD is supported by two Government Engineers (GEs) (D2) (designated as Government Engineer/Railway Development (1) and Government Engineer/Railway Development (2)) and underpinned by five CEs (D1) in performing relevant duties.

3. PGE/RD and the five CEs are fully engaged in the following tasks –

- (a) **PGE/RD** oversees the planning and implementation of new railway projects including the Tung Chung Line Extension, the Airport Railway Extended Overrun Tunnel, the Tuen Mun South Extension, the Oyster Bay Station, the Pak Shek Kok Station, the elevated trackless rapid transit system in Kowloon East, the South Island Line (West) and the North Island Line, implementation of the enhanced monitoring and control measures, providing high level steer on the strategic and critical issues of the new railway projects; considering the technical feasibility and analysing the benefits and impacts to the society of different railway schemes under "Strategic Studies on Railways and Major Roads beyond 2030" and the studies related to the artificial islands in the Central Waters with respect to recommendations and assessments of planning and development studies to formulate a balanced railway scheme; resolving critical project interface issues between the railway projects and other development projects, conducting high-level communication and co-ordination with relevant bureaux/departments to ensure the smooth implementation of railway projects; liaising with senior management of MTRCL on project agreement, construction, operation model and funding arrangement to finalise corresponding implementation approach and agreement, and make relevant submissions to the Legislative Council (LegCo). PGE/RD has to be heavily involved in the liaison work at managerial level and the decision making on relevant implementation issues, etc.
- (b) **Chief Engineer/Railway Development 1-1 (CE/RD1-1)** is responsible for overseeing the detailed planning and design of the Kwu Tung (KTU) Station¹, including handling technical issues, land acquisition and gazetting work, as well as chairing meetings with MTRCL to discuss the funding arrangement and the Project Agreement for

¹ The proposed Commissioner for Northern Metropolis Railways will take forward the KTU Station. CE/RD1-1 needs to support the Commissioner for Northern Metropolis Railways' work in this aspect.

KTU Station; co-ordinating and resolving project interface issues between KTU Station and the Kwu Tung North New Development Area, and assisting the railway developer in applying for the necessary statutory approvals from relevant authorities; overseeing the project management during the construction stage of KTU Station, including progress, safety, and quality of works; co-ordinating MTRCL and relevant government departments for the testing and commissioning of KTU Station as well as relevant statutory inspections; co-ordinating the implementation and project interfaces amongst KTU Station, Northern Link (NOL) Main Line, and NOL Spur Line; overseeing the implementation of remaining works under the Shatin to Central Link (SCL) project including the pedestrian link connecting Pak Tai Street and Sung Wong Toi Station, the reprovisioning of Ma Chai Hang Recreation Ground and Wong Tai Sin Public Transport Terminus; overseeing the remaining works of the North South Corridor of the SCL project (such as the installation of automatic platform doors along the East Rail Line) and liaising with MTRCL on site progress and project expenditure; reviewing the finalisation of project accounts of the Hong Kong Section of Guangzhou-Shenzhen-Hong Kong Express Rail Link, South Island Line (East) and Kwun Tong Line extension projects, as well as overseeing station improvement projects related to railway operations proposed by MTRCL, such as installing additional pedestrian walkways, lifts, and escalators, etc.

- (c) **Chief Engineer/Railway Development 1-2 (CE/RD1-2)**² is responsible for overseeing the implementation of the NOL Main Line; chairing meetings with MTRCL to take forward matters of the NOL Main Line project, including

² We propose to redeploy CE/RD1-2 to the proposed Northern Metropolis Railways Office (proposed to be designated as Chief Engineer/Northern Metropolis Railways (3)) to support the Commissioner for Northern Metropolis Railways in taking forward the NOL Main Line.

the implementation timeframe, progress, technical details and funding arrangement; co-ordinating and resolving project interface issues between the NOL Main Line and on-going and planned development projects (such as the San Tin / Lok Ma Chau Development Node) in the detailed planning and design stage; preparing for the gazettal of the railway scheme and assisting the railway developer in applying for the necessary statutory approvals from relevant authorities; inspecting construction sites, overseeing the construction stage on matters including progress of works, quality of the works, etc., reviewing and authorising temporary traffic management schemes, and co-ordinating with MTRCL and relevant government departments for the testing and commissioning of the NOL Main Line project.

- (d) **Chief Engineer/Railway Development 1-3 (CE/RD1-3)** is responsible for overseeing the implementation of Tuen Mun South Extension project, co-ordinating project interface issues with other development projects in the vicinity, including traffic and environmental matters and site usage in interfacing areas, overseeing the implementation of the enhanced monitoring and control measures; overseeing the implementation of re-provisioning of facilities before demolition, including Tuen Mun Swimming Pool, Hoi Wong Road Garden, Pet Garden and GREEN@Tuen Mun Recycling Station; leading the project team to oversee the progress and quality of works, including site inspection, co-chairing site liaison group with MTRCL to minimise disturbance from construction works in the construction stage; co-ordinating with MTRCL and relevant government departments for the testing and commissioning of Tuen Mun South Extension project as well as relevant statutory inspections; overseeing the implementation of the Airport Railway Extended Overrun Tunnel project, preparing for the gazettal of the railway scheme under relevant legislation and resolving objections; and co-ordinating and

implementing temporary traffic management schemes on Lung Wo Road and diversion works for underground utilities; and reviewing the finalisation of project accounts of the East-West Corridor of the SCL project.

- (e) **Chief Engineer/Railway Development 2-1 (CE/RD2-1)** is responsible for overseeing the implementation of the “Strategic Studies on Railways and Major Roads beyond 2030” in order to formulate Hong Kong's future Major Transport Infrastructure Development Blueprint regarding railway network; overseeing the planning and design of the Hung Shui Kiu Station³, discussing various technical details and funding arrangement with MTRCL and preparing the Project Agreement; preparing for the gazettal of the railway scheme under relevant legislation and resolving objections; co-ordinating project interface issues between the Hung Shui Kiu Station and other planned development projects and facilities in the vicinity; leading the project team to oversee the progress and quality of works, and reviewing and authorising temporary traffic management schemes; overseeing the planning, design and implementation of North Island Line, Pak Shek Kok Station, South Island Line (West), discussing the proposals and submissions for the new railway projects with MTRCL, analysing different financial arrangements and co-ordinating the matter with the railway company and relevant bureaux/departments; and preparing relevant documents for the new railway projects to enter the detailed planning and design stage as well as the construction stage, and consulting the LegCo, district councils and stakeholders. CE/RD2-1 is also responsible for overseeing the consultant’s technical feasibility study on the elevated trackless rapid transit system in Kowloon

³ The proposed Commissioner for Northern Metropolis Railways will take forward the Hung Shui Kiu Station. CE/RD2-1 needs to support the Commissioner for Northern Metropolis Railways’ work in this aspect.

East⁴.

- (f) **Chief Engineer/Railway Development 2-2 (CE/RD2-2)** is responsible for overseeing the planning and implementation of the Tung Chung Line Extension and the Oyster Bay Station, co-ordinating project interface issues with other development projects in the vicinity to resolve conflicts, assisting the railway developer in applying for the necessary statutory approvals from relevant authorities; leading the project team to oversee the progress and quality of works, including site inspection, co-chairing site liaison group with MTRCL, to minimise disturbance from construction works, and reviewing and authorising temporary traffic management schemes in the construction stage; co-ordinating with MTRCL and relevant government departments for the testing and commissioning of the Tung Chung Line Extension and the Oyster Bay Station as well as relevant statutory inspections; overseeing the provision of technical support in the planning and implementation of the proposed Hong Kong Island West – Hung Shui Kiu Rail Link and the possible rail links for the longer term under the studies related to the artificial islands in the Central Waters being undertaken by the Civil Engineering and Development Department (CEDD) and the Planning Department (PlanD), including reviewing the analysis of railway network performance, the proposed schemes, the assessments of economic and financial performance and the implementation approach suggested, and actively discussing with CEDD and PlanD to provide expertise advice to support the planning of the artificial islands to

⁴ CE/RD2-1 is also responsible for overseeing the consultant's technical feasibility study on the elevated trackless rapid transit system in Kowloon East, preparing relevant documents for the project to enter the detailed planning and design stage as well as the construction stage, and consulting the LegCo, district councils and stakeholders; preparing for the gazettal of the railway scheme under relevant legislation; co-ordinating with relevant bureaux/departments on various technical details, financial arrangement, the necessary legal frameworks and operating requirements for the elevated trackless rapid transit system, and liaising with operators to authorised scheme.

enhance the railway schemes.

Major Works Project Management Office (MWPMO)

4. There are nine directorate officers in MWPMO, including one PGE (designated as Project Manager/Major Works (PM/MW))(D3), two GEs (designated as Deputy Project Manager/Major Works (1) and Deputy Project Manager/Major Works (2)) (D2) and six CEs (D1).

5. PM/MW and the six CEs are fully engaged in the following tasks

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- (a) **PM/MW** heads MWPMO and is responsible for the planning, design and implementation of major highways infrastructure projects, including liaison work and making decisions for public engagement, technical, statutory and funding issues.
- (b) **Chief Engineer 1/Major Works (CE1/MW)** is mainly responsible for taking forward four of the contracts under the Central Kowloon Route (CKR) project, including (1) Kai Tak West contract; (2) Kai Tak East contract; (3) Yau Ma Tei (YMT) East contract; and (2) YMT West contract. The works have to be taken in densely populated urban areas involving implementation of substantial traffic diversion schemes on major roads. With the tight construction programme, he is required to maintain close liaison with other government departments and handle substantial public consultation work to ensure smooth implementation of the construction works. CE1/MW is also responsible for taking forward the Noise Enclosures at Gascoigne Road Flyover.
- (c) **Chief Engineer 2/Major Works (CE2/MW)** is mainly responsible for taking forward the other three construction contracts under the CKR project. The two CKR construction contracts responsible by CE2/MW include (1) Central Tunnel contract; and (2) Buildings, Electrical and

Mechanical Works contract. For (3) Remaining Works Contract, preparation works of tendering is underway. It is anticipated the tendering will be conducted in 2023. The ongoing works contracts mentioned above have adopted the New Engineering Contract (NEC)⁵ form, CE2/MW is therefore heavily engaged in contract management. CE2/MW is also heavily involved in handling the interfacing works amongst various CKR contracts so as to meet the target commissioning of CKR in end 2025. Besides, he is also responsible for overseeing the “Universal Access Programme”, which comprises over 200 project items under planning, design and construction stages.

- (d) **Chief Engineer 3/Major Works (CE3/MW)** is mainly responsible for managing and taking forward the Improvement of Lion Rock Tunnel, which requires examination of various viable tunnel rehabilitation and improvement schemes, assessment on the impacts on transport, environment, country park, water supply, drainage and public utilities, conducting public consultation and co-ordinating with other government departments. CE3/MW is also responsible for various noise barrier retrofitting projects for existing roads as well as managing the Tuen Mun Bypass project. Besides, he is responsible for account finalisation of the Widening of the Fanling Highway contract, implementation of Road Improvement Schemes in Kowloon East and various pedestrian environmental improvement schemes in Fanling, Lam Tin, Mong Kok, Yuen Long and Causeway Bay which requires heavy involvement in handling issues of public concern.

⁵ Unlike conventional contract, the NEC form emphasises mutual trust and cooperation between the contracting parties, and collaboration in risk management. It enhances the efficiency in contract management. The contract form is applicable to different types of engineering contracts, including construction contracts, maintenance contracts and consultancy contracts. It also provides various payment options that suit different needs, such as priced contracts and target contracts etc.

- (e) **Chief Engineer 4/Major Works (CE4/MW)** is mainly responsible for taking forward the Widening of Castle Peak Road – Castle Peak Bay. As the location of the works site is in close proximity to schools and residential estates, road closures associated with the construction works have to be carried out in stages so as to maintain normal traffic as far as practicable. Retaining walls and noise barriers are also needed to be constructed in stages for residential estates along the road. Besides, CE4/MW is responsible for taking forward a number of medium-scale projects, such as the Widening of the Western Section of Lin Ma Hang Road, Extension Works to Major Roads in Tuen Mun, and Upgrading of Nim Wan Road and Deep Bay Road, etc.. He is also responsible for the remaining tasks of Central–Wan Chai Bypass (CWB) project as well as account finalisation after the commissioning of the CWB.
- (f) **Chief Engineer 5/Major Works (CE5/MW)** is mainly responsible for taking forward the Hiram’s Highway Improvement projects, including the account finalisation of the Stage 1 project and implementation of detailed design and tendering for the Stage 2 project. Moreover, he is also heavily involved in the planning, design and implementation of the Widening of Tsuen Wan Road and the Improvement Works at Tsuen Tsing Interchange. In view that the road sections associated with this project are in close proximity to numerous residential developments, the project will be a complicated one and requires heavy involvement in handling issues of public concern. In addition, CE5/MW is also responsible for administering the Widening of T6 Bridge across Shing Mun River and the Widening of Yuen Long Highway (Section between Lam Tei Quarry and Tong Yan San Tsuen Interchange). The relevant workload will be inevitably heavy given the mega-scale, high complexities as well as tight schedule of the project.

- (g) **Chief Engineer 6/Major Works (CE6/MW)** is mainly responsible for the Route 11 (between North Lantau and Yuen Long) project under investigation phase, including the review of the findings of the feasibility study, various impact assessments and the optimisation of the alignment. Moreover, CE6/MW is responsible for taking forward the works related to the Route 11 project, such as seeking funding from the LegCo for the investigation stage for the Tsing Yi-Lantau Link project, formulating the investigation details and tendering. The relevant workload will be inevitably heavy given the mega-scale, high complexities as well as tight schedule of the project. In addition, CE6/MW is responsible for the account finalisation works of the Hong Kong - Zhuhai-Macao Bridge (HZMB) Hong Kong Section (i.e. Hong Kong Port and Hong Kong Link Road) and Tuen Mun - Chek Lap Kok Link following the commissioning of the HZMB.

Headquarters (HQs) and Regional Offices

6. Deputy Director of Highways (DDHy) (PGE) (D3) currently oversees the HQs and two Regional Offices (i.e. Urban and the New Territories). At the HQs, DDHy is assisted by two GEs (D2) (i.e. Assistant Director/Technical (AD/T) and Assistant Director/Development (AD/D)) and four CEs (D1) to manage eight divisions and 11 units. As regards the Regional Offices, each office is led by one GE and supported by three⁶ CEs.

7. The PGE and four CEs at the HQs are fully engaged in the following tasks –

- (a) **DDHy** assists DHy in the overall management of HyD, including formulation of departmental policies, overseeing staff matters of professional and technical grades and monitoring departmental expenditures.

⁶ Out of the six CE posts in the Regional Offices, two of them are time-limited posts up to August 2024.

Apart from being the internal departmental administrative head, DDHy also oversees the work of the HQs and the two Regional Offices.

- (b) **Chief Highway Engineer/Works (CHE/Works)** is responsible for overseeing the implementation of small to medium-sized highway capital works projects in the territory, including the construction of footbridges and installation of walkway covers for 18 Districts, etc., which require CHE/Works's attention in determining the project scope, steering public consultation process, approving documents for the relevant statutory procedures, administering the tendering process and approving tender documents as well as managing and administering contracts. Furthermore, CHE/Works is also responsible for overseeing the implementation work of several large-scale projects, including the flyover from Kwai Tsing Interchange upramp to Kwai Chung Road, upgrading of remaining sections of Kam Tin Road and Lam Kam Road, improvement works for Fan Kam Road, improvement works for Kam Sheung Road, etc. At present, CHE/Works is managing about 47 projects under planning, design or construction.

- (c) **Chief Highway Engineer/Bridges and Structures (CHE/B&S)** is responsible for setting out the design standards and construction specifications for highway structures, formulating practice notes and guidelines in relation to the design and construction of highway structures, overseeing researches and studies for improving the design, construction and maintenance of highway structures, supervising the work for providing comments and technical advice on public and private developments/projects involving highway structures and road tunnels, supervising structural design for in-house highway projects, and providing technical support on the management of specialist contractors for categories in relation to the construction of highway structures.

Furthermore, CHE/B&S supervises the maintenance of highway facilities within Tsing Ma Control Area and Tsing Sha Control Area⁷.

- (d) **Chief Engineer/Lighting** provides professional services and advice on all matters relating to the policies, design, planning and construction of public lighting provision as well as the maintenance and administration of 240 000 units of road lighting in the territory. Besides, he studies and reviews the standard and latest technologies for road lighting, including the implementation of the Light Emission Diode (LED) Public Lighting Replacement Programme to reduce energy consumption and greenhouse gas emission. He takes forward the provision and implementation of Smart Lighting Management System for road lights in Hong Kong to enhance their efficiency and service to lead the public lighting of Hong Kong into the smart era, and works in collaboration with District Offices to plan for the installation works of road lights in village areas. He also takes the lead to install Photovoltaic system at highway structures including footbridges and subways to achieve Green Energy Target to reduce electricity consumption and to promote the use of renewable energy system.

- (e) **Chief Highway Engineer/Research and Development** is responsible for conducting researches and formulating specifications and standards for improving highway design, construction, maintenance and material, and timely updating the relevant parameters and making use of technology to enhance safety of road works. He also

⁷ Highway facilities within the two Control Areas comprise four long span cable-supported bridges, four dual three-lane tunnels, one dual two-lane tunnel, viaducts, roads and roadside slopes all lying along strategic routes linking to the Airport. Due to the special structural designs of the long span cable-supported bridges within the two Control Areas, close attention to their wear and tear is required. Apart from the regular repairs of the bridge deck surfacing, the essential structural elements require frequent inspection and maintenance.

oversees the work of Research and Development Division in formulating and reviewing the departmental information technology strategies, overseeing the co-ordination and operation of the control mechanisms for road excavation works, supervising the work of the audit inspection team on inspection of road opening works, supervising the management of all asphalt suppliers for public works, and promoting the incorporation of innovative technology in highway engineering specifications and standards.

8. As for the two Regional Offices (each led by one GE and supported by three CEs), they are responsible for the highway maintenance and district road administration in their respective geographic area. Urban Regional Office is supported by **Chief Highway Engineer/Hong Kong**, **Chief Highway Engineer/Kowloon** and **Chief Highway Engineer/Urban (Maintenance)** responsible for highway maintenance, district road administration work, steering and formulation of maintenance strategy, inspection and rehabilitation of public highway structures, and planning and implementation of connecting public road works associated with new housing and/or commercial sites in the district. The New Territories Regional Office is supported by **Chief Highway Engineer/New Territories East**, **Chief Highway Engineer/New Territories West** and **Chief Highway Engineer/New Territories (Maintenance)** responsible for highway maintenance, district road administration work, steering and formulation of maintenance strategy, inspection and rehabilitation of public highway structures, and planning and implementation of connecting public road works associated with new Housing and/or commercial sites in the district. For highway maintenance, duties mainly include maintenance of public roads, bridges, tunnels, road furniture, exclusive road drainage and roadside slopes; co-ordination and control of road excavation works; and handling maintenance works arising from emergencies affecting the operation of roads. The two Regional Offices are responsible for the maintenance of about 6 000 kilometres of road lanes, 5 000 highway structures and 13 000 roadside slopes as well as other pedestrian and cycling facilities. Following the successive completion and commissioning of a number of large-scale local and cross-boundary transport infrastructures in recent years, including the Hong

Kong Section of the HZMB, Tuen Mun - Chek Lap Kok Link, Liantang/Heung Yuen Wai Boundary Control Point, Tseung Kwan O-Lam Tin Tunnel and Cross Bay Link, Tseung Kwan O, public infrastructures associated with the Hong Kong Section of the Guangzhou-Shenzhen-Hong Kong Express Rail Link, road improvement works for West Kowloon Reclamation Development and the Central – Wanchai Bypass and Island Eastern Corridor Link, there has been a significant increase in the workload of the Regional Offices in relation to highway maintenance and district road administration. In addition, after the completion of upcoming highway infrastructures, the Regional Offices will also be responsible for their maintenance and district road administration works. Regarding district road administration, they offer advice on town plans, land allocations and leases, public and private sector development proposals from the perspective of planning and administration of highway infrastructures.