

**For discussion
on 14 January 2009**

EC(2008-09)16

ITEM FOR ESTABLISHMENT SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 60 – HIGHWAYS DEPARTMENT Subhead 000 Operational expenses

Members are invited to recommend to Finance Committee the creation of the following two supernumerary posts in the Highways Department with effect from 1 April 2009 –

1 Chief Engineer
(D1) (\$103,400 - \$109,700)

for a period of five years up to 31 March 2014

1 Chief Engineer
(D1) (\$103,400 - \$109,700)

for a period of seven years up to 31 March 2016

PROBLEM

The Highways Department (HyD) needs to strengthen its directorate support for the planning and implementation of the proposed Hong Kong Boundary Crossing Facilities (HKBCF) of the Hong Kong-Zhuhai-Macao Bridge (HZMB) project and the Shatin to Central Link (SCL) railway project as well as the Kwun Tong Line Extension (KTE).

/PROPOSAL

PROPOSAL

2. We propose to create, with effect from 1 April 2009, one supernumerary Chief Engineer (CE) post in each of the Hong Kong-Zhuhai-Macao Bridge Hong Kong Project Management Office (HZMB HKPMO) and the Railway Development Office (RDO) of the HyD to plan and implement the HKBCF of the HZMB project and the SCL project cum the KTE project up to 31 March 2014 and 31 March 2016 respectively.

JUSTIFICATION

Policy Commitment

3. Both the HZMB and the SCL are among the ten major infrastructure projects highlighted in the 2007-08 Policy Address.

Need for the Supernumerary CE (D1) Posts

HKBCF of the HZMB Project

Project Description

4. The HZMB HKPMO is tasked to oversee the planning and implementation of the HZMB project, which includes the HZMB Main Bridge, the Hong Kong Link Road (HKLR), the HKBCF, the Tuen Mun-Chek Lap Kok Link (TM-CLKL) and the Tuen Mun Western Bypass (TMWB). The latter two are also among the ten major infrastructure projects mentioned in the 2007-08 Policy Address.

5. The HZMB HKPMO is headed by Project Manager/Hong Kong-Zhuhai-Macao Bridge Hong Kong (PM/HZMB), a Principal Government Engineer (PGE) (D3) who is underpinned by two divisions, each headed by a CE¹. We propose to create one additional supernumerary CE post in the HZMB HKPMO to head a new division to take charge of the HKBCF project. The existing and proposed organisation chart of the HZMB HKPMO is at Enclosure 1.

Encl. 1

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¹ With the approval of the Finance Committee, the PGE and one of the CE posts were created on a supernumerary basis for six years up to 30 June 2010 while the other CE post was re-deployed from within HyD for the same period vide EC(2004-05)4.

6. It has been agreed among the Governments of Guangdong, the Hong Kong Special Administrative Region (HKSAR) and the Macao Special Administrative Region (Macao SAR) that the respective Governments will be responsible for the construction and operation of the Boundary Crossing Facilities within their respective territories.

Encl. 2

7. Having completed a site selection study in early 2008, HyD has identified a preferred location by way of reclamation, off the northeast of the Hong Kong International Airport on Lantau Island. This is shown at Enclosure 2. The proposed TM-CLKL will land on Lantau Island via the HKBCF site.

8. Together with the HZMB Main Bridge and the HKLR as well as the TM-CLKL and TMWB, the proposed HKBCF site enables the formation of a strategic road network linking Hong Kong, Zhuhai, Macao and Shenzhen, thereby further enhancing the transportation and aviation hub status of Hong Kong.

9. With its proximity to the Hong Kong International Airport, the HKBCF site will serve as a strategic multi-modal transportation hub. The intention is to extend the existing Automated People Mover and connect the Airport Terminal with the HKBCF. It will be very convenient for passengers to switch to different modes of transport at the HKBCF.

10. The HKBCF, being a multi-modal transportation hub and the first of this kind in Hong Kong, is a highly complex project due to the following –

- (i) provision of cargo processing and passenger related facilities such as processing kiosks and examination facilities for private cars and coaches, passenger clearance building and halls, accommodation for facilities of the government departments providing services in connection with the HKBCF;
- (ii) provision of transport and miscellaneous facilities inside the HKBCF including a public transport interchange, transport drop-off and pick-up areas, vehicle holding areas, passenger queuing areas, road networks, footbridges, fencing, sewerage and drainage systems, the water supply system, utilities, various electronic systems, and the traffic control and information system, etc.;
- (iii) provision of road access for connection to the HKLR, the TM-CLKL and the Hong Kong International Airport;

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- (iv) provision of other facilities for connection with the Hong Kong International Airport such as the extension of the existing Automated People Mover; and
- (v) the adoption of a suitable design to ensure smooth operation while minimising the size of the reclamation required to provide land for the above facilities and the amount of marine mud disposal.

The Need for a CE Post

11. The very tight timeframe for completing the complicated HKBCF project requires the dedicated attention of a directorate officer at the CE level. The proposed post, to be designated as CE/HKBCF, will consolidate multi-disciplinary professional inputs and maintain close high-level liaison and coordination with the relevant parties during both the design and construction stages. He will need to resolve promptly the conflicts which will arise from time to time due to the requirements of different disciplines in the HKBCF works. He will also be responsible for supervising the detailed environmental impact assessment (EIA) study for the HKBCF and other statutory procedures such as gazetting under a number of Ordinances as well as extensive public engagement activities.

12. The investigation and the preliminary design (I&PD) study to confirm the feasibility of the HKBCF commenced only in July 2008, more than four years behind the programme of the HZMB Main Bridge. It is of utmost importance to fast-track such pre-construction works for the HKBCF and complete the statutory procedures, resolution of land matters, detailed design, funding approval etc. in order to synchronise its completion with the commissioning of the HZMB Main Bridge, the HKLR, the TM-CLKL and the TMWB. This will maximise the synergy effect of the road network and enable the corridor linking up Zhuhai, Macao, Hong Kong and Shenzhen to be completed soonest possible. Without the concomitant commissioning of the HKBCF, the functions and economic benefits to be brought about by all the other infrastructure projects will diminish considerably. It is therefore necessary to provide adequate CE support for steering the HKBCF project throughout its planning and construction stages.

13. The key milestones of the HKBCF programme is outlined as below –

Key Milestone	Date
Commencement of I&PD study	mid 2008
Submission of EIA report to Environmental Protection Department	mid 2009
Commencement of detailed design	mid 2009
Gazette under various Ordinances	3 rd quarter of 2009
Commencement of construction works	3 rd quarter of 2010
Completion of HKBCF	mid 2016

/Existing

Existing staffing in the HZMB HKPMO

14. We have critically reviewed if PM/HZMB may take on the work of the proposed CE/HKBCF. The conclusion is that it is not operationally feasible. PM/HZMB oversees all the projects mentioned in paragraph 4 above. He has to steer the resolution of the whole range of issues related to the smooth and timely implementation of these projects. He has to attend high-level meetings with government representatives of the Mainland and Macao held on a frequent basis such as those attended by representatives of the Central People's Government to provide strategic steer for the project and also those attended by leaders of the local governments to provide impetus to the project. At the same time, he is responsible for providing expert advice/technical support to the Transport and Housing Bureau. The workload of PM/HZMB has been significantly increasing in tandem with the substantive progress made in taking forward the HZMB and related projects. He has no spare capacity to give focused attention to the HKBCF project without jeopardising his overall monitoring of the progress of the other equally important projects.

15. We have also critically examined the possible redeployment of the existing two CEs within the HZMB HKPMO to take on the work of the proposed CE/HKBCF. They too are already fully occupied by the HZMB and HKLR projects as well as the TM-CLKL and TMWB projects respectively. In view of the substantial workload arising from the HKBCF and its very tight schedule, it is operationally not feasible for them to take up the related tasks without affecting the work quality and progress of the tasks which they have been handling, as detailed in the ensuing paragraphs.

16. The CE for the HZMB Main Bridge (CE1/HZMB) is responsible for overseeing all the technical, construction and environmental issues for the works of the Main Bridge and the HKLR. Other than supervising the work of the HZMB Project Office situated in Guangzhou, he has to work closely with the other two Governments and resolve the financing and institutional arrangements, and legal matters relating to the Main Bridge, an unprecedented cross-boundary project. As the HZMB Main Bridge is now to be funded by the three Governments which adopt different standards and legal requirements, the CE1/HZMB would need to be heavily involved in the Main Bridge's design, tender, construction and control. He also has to take charge of the HKLR to ensure that the road work, being one of the essential supporting facilities, would be expedited to tie in with the commissioning of the Main Bridge.

17. As for the CE for the TM-CLKL and TMWB (CE2/HZMB), these two new highways projects involve the construction of the two longest road tunnels, one undersea and another on land, in Hong Kong. There is a wide spectrum of complicated and challenging engineering issues associated with construction of these long tunnels. CE2/HZMB must work closely with all stakeholders to resolve these issues in the early stages, in particular during the pre-construction planning stage from now to 2011 so as to ensure commissioning of the two highways by 2016. CE2/HZMB is also responsible for the planning and feasibility study of other long-term Northwest New Territories (NWNT) road infrastructure projects including the Tuen Mun Eastern Bypass and the Tsing Yi Lantau Link.

18. As these two CEs have already been fully engaged in equally time-critical projects, we will have to make the difficult choice of sacrificing the timely delivery of other projects if additional manpower resources are not available. Such a situation would be untenable given the strong public aspirations for their early completion. Any delay in the TM-CLKL project, for example, will result in a failure to address the imminent congestion problem in NWNT and to provide a much-needed second land route to the Hong Kong International Airport.

19. We will review the continued need of this supernumerary CE post in 2013-14, taking into account the progress of the projects. Moreover, the existing three supernumerary directorate posts (one PGE (D3) and two CE (D1) posts) in HZMB HKPMO, which were created on a supernumerary basis or redeployed from within the department, will expire in July 2010. HyD will also review the continued need of these posts by the end of 2009.

20. In order to better reflect the responsibilities of the two existing CE posts in HZMB HKPMO, the existing two CE will be re-designated as below –

Existing Post Title	New Post Title
CE1/Hong Kong-Zhuhai-Macao Bridge (CE1/HZMB)	CE/Hong Kong-Zhuhai-Macao Bridge Hong Kong (CE/HZMB HK)
CE2/Hong Kong-Zhuhai-Macao Bridge (CE2/HZMB)	CE/Northwest New Territories (CE/NWNT)

21. The proposed supernumerary post, designated as CE/HKBCF will be responsible for assisting PM/HZMB to manage the HKBCF project, providing professional guidance and leadership to a team of multi-disciplinary professional staff to plan and implement the project and resolve difficult engineering issues and managing the day-to-day operations of the HKBCF Division. The job description of the proposed post is at Enclosure 3. The timetables for key milestones of the HZMB Main Bridge and other related projects are at Enclosure 4.

Encl. 3

Encl. 4

/SCL

*SCL Railway Project**Project Description*

22. The RDO is tasked with overseeing the planning and implementation of new railway projects. It is headed by a PGE (D3) and consists of two groups, each headed by a Government Engineer (GE) (D2). The two groups are underpinned by five divisions, each led by a CE, as well as a supporting team. We propose to create one additional supernumerary CE post in the RDO to be responsible for the planning and implementation of the East-West Line of the SCL and the KTE. The existing and proposed organisation chart of the RDO is at Encl. 5 Enclosure 5.

23. The SCL comprises two distinct lines: the North-South Line which extends the East Rail Line from Hung Hom to Admiralty, with a view to further extending to Central in future; and the East-West Line which extends the Ma On Shan Rail from Tai Wai to Hung Hom through the new development area at Kai Tak.

24. The SCL will serve 300 000 residential and 283 000 employment population and will carry about 1 000 000 passengers daily. Upon its commissioning, a strategic railway network across Hong Kong will be formed. The travelling time on rail from Lo Wu to Admiralty via the North-South Line will be reduced to 50 minutes, whereas that from Wu Kai Sha to Tuen Mun via the East-West Line will be reduced to 69 minutes. The alignment plan of the SCL is at Encl. 6 Enclosure 6.

25. The implementation of the SCL is a very important step to deliver the policy of railways as the backbone of the transportation system in Hong Kong.

26. In conjunction with the SCL, the Government has decided to go ahead with the KTE by extending the existing Kwun Tong Line to Whampoa from Yau Ma Tei. The SCL will interchange with the KTE intermediate station at Ho Man Tin. The KTE will serve about 150 000 people, and will considerably reduce the travelling time from Yau Ma Tei to Whampoa.

/The

The Need for a CE Post

27. HyD is currently pressing ahead with a great number of rail and road projects. Apart from the SCL, the RDO is in parallel planning the Hong Kong Section of the Guangzhou-Shenzhen-Hong Kong Express Rail Link (XRL), West Island Line (WIL), South Island Line (East) (SIL(E)), and the proposed Hong Kong-Shenzhen Airport Rail Link (ARL). Except for the ARL on which a preliminary study is ongoing, the other projects are under very tight schedules and the majority will have their construction commencing between 2009 and 2011 for completion in the period of 2013 to 2019. The RDO is also overseeing the construction of the Kowloon Southern Link (KSL) and Tseung Kwan O South Station, in addition to administering the railway transport model to facilitate railway planning and implementation.

28. The SCL will involve the construction of about 17 kilometre of tunnels, nine underground stations and, most likely, an above ground station at Hin Keng. Among these nine stations, six are integrated ones allowing interchange with other existing/future railway lines. It demands very meticulous and detailed planning and design with high engineering precision to avoid any adverse effect on the operating railway lines.

29. The following are the more complicated engineering issues related to the SCL –

For the East-West Line

- (i) enhancing the existing pedestrian facilities at Tsz Wan Shan for improving the connectivity with the Diamond Hill Station;
- (ii) planning study on the Diamond Hill Comprehensive Development Area site where the SCL depot will be situated;
- (iii) planning of the major road diversion at Lung Cheung Road for the construction of the SCL Diamond Hill Station;
- (iv) resolving the interface details with the Kai Tak Development; and
- (v) reprovisioning of the International Mail Centre at Hung Hom.

For the North-South Line

- (vi) construction of new East Rail Line tracks between Mongkok and Hung Hom, requiring working at close proximity to the operating East Rail Line;
- (vii) construction of the new SCL Hung Hom Station underneath the existing podium for public transport and in close proximity to the East Rail Line;

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- (viii) resolving the interface details with the Central Wan Chai Bypass and the Wan Chan Development Phase II projects;
- (ix) reprovisioning of the Police Officers' Club, Harbour Road Sports Centre and the Wan Chai Swimming Pool; and
- (x) construction of the new SCL Admiralty Station with complicated interface with the South Island Line and the existing Tsuen Wan and Island Lines.

All the above works are very challenging engineering-wise. While they are entrusted to the MTRCL for design and construction, substantive input from two dedicated CEs (see paragraph 31 below) is required to provide adequate high level steer to meet the engineering challenges involved and to oversee that the MTRCL will deliver quality engineering work with minimum disruption to the public and without adversely affecting other interfacing projects.

30. The SCL will be implemented under the concession approach, as in the case of XRL, with the Government funding the project under the Capital Works Reserve Fund. The RDO will have to support the Director of Highways as the vote controller in monitoring the project much more closely than previous railway projects under the ownership approach. In addition, as the SCL and XRL are government projects under the concession approach and the Building Ordinance (Cap. 123) does not apply, it is incumbent upon the RDO to ensure that all railway lines would be constructed to the same high standard and the same set of building submissions. Supervision from a dedicated CE on this process is indispensable in order that these projects are to be delivered up to the required standard and in a fast-track manner.

31. Currently, one CE post (CE/RD1-2) has been assigned to work on both the SCL and the KTE. However, given the urgency, scale and complexity of the SCL as described in paragraphs 28 to 30 above, it is essential to create an additional supernumerary CE post, to be designated as Chief Engineer/Railway Development 1-3 (CE/RD1-3), to share the workload in the SCL's planning and construction stages so that the East-West Line and the KTE can be completed by end 2015 and the North-South Line by 2019. The North-South Line will remain as CE/RD1-2's job, while duties relating to the East-West Line and the KTE will be transferred to the proposed CE/RD1-3. Moreover, work relating to the building submissions for projects under the concession approach, i.e. the SCL and XRL, will be assigned to CE/RD1-3. The job description of the proposed post is at

Encl. 7 Enclosure 7.

/Existing

Existing staffing in the RDO

32. We have critically examined the possible redeployment of other existing CEs within the RDO to take on the work of the proposed CE/RD1-3 post. The conclusion is that it is not operationally feasible without affecting the quality of their work as all of them are fully engaged in different projects as follows –

- (i) CE/RD1-1 is responsible for the implementation of the KSL and WIL. For the KSL, CE/RD1-1 needs to continue his efforts to ensure that this extension of the West Rail Line will be commissioned as planned in late 2009 and that it would be subject to effective testing and trials without affecting the services of the existing East Rail Line and West Rail Line. As for the WIL, it is now undergoing detailed design. We are now resolving objections to the gazetted WIL scheme and the workload under this project is expected to increase significantly. Its construction is scheduled to commence in 2009 for completion in 2013 or 2014. The WIL project will involve the construction of deep tunnels and stations underneath the highly developed and urbanised Central and Western District. There are a variety of difficult interfaces as well as land and reprovisioning issues requiring close professional and directorate attention (e.g. relocation of the David Trench Rehabilitation Centre and the Kennedy Town Swimming Pool etc.). A dedicated directorate officer is most essential to take forward the KSL and the WIL so that they will be completed as scheduled;
- (ii) CE/RD1-2 is responsible for the planning and implementation of the SCL. The workload arising from various key issues, public consultation processes and engineering challenges as described in paragraphs 28 to 30 above, will become increasingly heavy as the project has entered the design and public engagement phase. Furthermore, as the North-South Line involves the planning of a railway crossing the Victoria Harbour, intensive and constant coordination and discussion with other policy bureaux/departments are required to take forward the public engagement process in a proper manner and to ensure the compliance with the overriding public need under the Harbour Protection Ordinance. It is expected that there will be a large number of District Council meetings, public forums and consultation sessions and it will be unmanageable for this CE to take up the duties associated with the SCL (East-West Line), (North-South Line) and the KTE concurrently on his own.

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- (iii) CE/RD2-1 is responsible for the planning of the SIL(E), the construction of which will commence in 2011 for completion no later than 2015. The preliminary design is now in full swing. Gazettal under the Railways Ordinance is scheduled in the first half of 2009. CE/RD2-1 is also responsible for the planning of the Northern Link (NOL), another project to improve the rail service in NWNT. He is keeping in view of the changes in the planning parameters and project assumptions for the NOL and working with parties concerned to see how the project proposals for the NOL should be adjusted to address these changes. He is also providing input to the planning and engineering study on the New Development Areas in the Northeastern New Territories to ensure that the NOL will be properly integrated with the new developments. The duties of CE/RD2-1 also include the settlement of the final accounts for the entrustments under various railway projects already commissioned and coordinating the planning and the implementation of about 30 modification proposals of existing railway stations;
- (iv) CE/RD2-2 is responsible for administering the railway transport model, maintaining a comprehensive database of transport statistics, and collating key planning and land use information to generate forecasts on rail patronage and revenue for different railway network configuration in different future years with different socio-economic assumptions. He has to examine all public and private development proposals, including land and infrastructure projects, near the existing and planned railway lines. He is required to take part in the various planning and development studies so that the railway perspective can be fully taken into account. He is also responsible for the planning of new railway proposals such as the rail link between the Hong Kong and Shenzhen Airports; and
- (v) CE/RD2-3, occupying a supernumerary post created in July 2008 with the approval of the Finance Committee for a period of seven years, is responsible for the planning and implementation of the XRL (EC(2008-09)8). During the planning and design phase, he has to handle funding applications, statutory procedures and public consultation. He also needs to ensure the timely availability of the land required for the works and to resolve complicated interface issues including those with the West Kowloon Cultural District. On the technical side, he is required to make sure that the design meets the prevailing standards and operational requirements, and that the contract and procurement strategies are appropriate. During the construction phase, he will be responsible for the overall delivery of the project within budget, on time and with quality. He will also have to administer entrustment arrangements.

Encl. 8

33. As mentioned in paragraph 27 above, the majority of the railway projects under planning will have their construction commencing between 2009 and 2011 for completion in the period of 2013 to 2019. The indicative implementation schedule of railway projects under construction/planning is set out at Enclosure 8. We have looked carefully at the possibility of staff redeployment for the effective delivery of these projects. Our assessment is that in the coming seven years or so when the SCL is under planning and implementation, the RDO's existing directorate staff will be fully committed to the tasks as detailed in paragraph 32 above and will not have spare capacity to take up the increased workload arising from the SCL.

Non-directorate Support

HKBCF of the HZMB Project

34. Currently there is no dedicated team looking after the HKBCF project and the work is absorbed by the existing establishment within the HZMB HKPMO. With the need for expediting the HKBCF project, a dedicated team needs to be set up. Other than the temporary redeployment of one Senior Engineer (SE) and one Engineer/Assistant Engineer (E/AE) posts internally, nine new non-directorate professional posts will be created to form the dedicated team to support the proposed CE/HKBCF post. These nine additional posts comprise one SE, three E/AEs, one Senior Architect, one Architect/Assistant Architect, one Senior Electrical and Mechanical Engineer, one Electrical and Mechanical Engineer/Assistant Electrical and Mechanical Engineer, and one Geotechnical Engineer/Assistant Geotechnical Engineer.

SCL Railway Project

35. Currently, one CE, four SEs and six E/AEs within the RDO are working on the SCL of which one SE and two E/AE posts will be redeployed to work under the proposed CE/RD1-3 post. These three posts together with six more non-directorate posts comprising one SE, one E/AE, one Senior Building Surveyor, one Building Surveyor/Assistant Building Surveyor, one Senior Structural Engineer and one Structural Engineer/Assistant Structural Engineer to be created will form the team under the proposed CE/RD1-3 to take forward the planning and implementation of the East-West Line of the SCL and the KTE, and work in association with building submissions for the XRL project.

/Other

Other Alternatives Considered

36. We have also considered the possible redeployment of existing directorate officers in other offices within HyD to take on the work of the proposed posts. As all the other directorate officers are fully engaged in their respective duties, it is operationally not possible for them to take up the tasks without adversely affecting the discharge of their current duties. The portfolios of the existing CE posts and an analysis showing that there is no further scope for internal redeployment are detailed in the ensuing paragraphs.

Headquarters and Regional Offices

37. The four CEs under the Headquarters each heads one Division, namely, Works, Bridges and Structures, Lighting, and Research and Development as follows –

- (i) Chief Highway Engineer/Works heads nine sub-teams responsible for project administration of minor capital works projects in the territory, including planning and construction, dealing with technical matters, resolving interface problems, public consultation, land matters, statutory procedures, etc. In the meantime there are around 70 projects in the construction stage and 80 projects under planning or study;
- (ii) Chief Highway Engineer/Bridges and Structures is tasked with setting standards, carrying out structural designs for in-house projects and providing comments and advice for the design of highway structures by consultants and private parties and supervising the maintenance of major bridges in Hong Kong. In the meantime there are 26 on-going design projects;
- (iii) Chief Highway Engineer/Lighting provides professional support and advice on all matters relating to the planning administration, maintenance and upgrading of some 133 000 number of road lighting in the territory; and
- (iv) Chief Highway Engineer/Research and Development is responsible for conducting research for setting and upgrading highway design, construction, maintenance and material specifications and standards. The Division also provides computer supports to the department and supervises centralised audit inspection teams on road opening works under the Land (Miscellaneous) Ordinance. In the meantime there are 26 researches and studies undergoing.

38. The four other CEs in the Regional Offices (two in the Urban and two in the New Territories Regions) are responsible for district administration of infrastructure and maintenance works. Each CE leads six to seven sub-teams for district administration of infrastructure and maintenance works in their respective geographic area, namely Hong Kong Island, Kowloon, New Territories East and New Territories West. They provide comments on public and private developments affecting public roads, and supervise maintenance and upgrading works for about 2 000 km of roads, 2 400 road structures and 10 000 road side slopes. The four CEs under the Headquarters and the four CEs in the Regions are fully engaged with the responsibilities under their schedules and do not have any spare capacity to take on the responsibilities of the two CE posts proposed for creation in this paper.

Major Works Project Management Office (MWPMO)

39. There are five CEs in the MWPMO. Their responsibilities are appended below –

- (i) CE/MW1-1 is currently mainly responsible for the planning and implementation of Tolo Highway widening (TOLO), retrofitting of noise barriers for existing roads including Tseung Kwan O Road and Flyover, Kwun Tong Bypass, Hoi On Road, Tsing Tsuen Bridge and Tsuen Wan Approaches and finalisation work of Shenzhen Bay Bridge, Deep Bay Link and Yuen Long Highways. All these projects, especially the multi-billion TOLO project, are happening on heavily trafficked highways. Intensive temporary traffic management measures are required to facilitate construction. Impacts to the communities and road users are great. As such, every project demands extensive public consultation during the planning and construction stages. The Chief Engineer has to be personally familiar with all projects and formulate suitable strategies to deal with sensitive issues. Otherwise the implementation programmes could be adversely affected;
- (ii) CE/MW1-2 is responsible for the construction works of Route 8. While part of the Route 8 (Shatin to Cheung Sha Wan) has been delivered to the public, his team is required to complete the remaining and most critical stage – the Cheung Sha Wan to Tsing Yi Section. This includes the world's second largest cable-stayed bridge, i.e. Stonecutters Bridge, which is scheduled for completion in late 2009. Subsequent to the completion of the project, the team will have to carry out the contract finalisation process for the project, which

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includes resolving disputes and mediations under the contracts. Optimistically, the contract finalisation process after the completion of physical works will take at least two to three years for mega size projects. Besides, the team is responsible for the management of a preliminary design and study of an extensively elevated walkway system serving Yuen Long town centre, which was recently announced by the Chief Executive in his Policy Address. The system will have major traffic impact to the whole Yuen Long Town Centre. Comprehensive public engagement for its planning and implementation will be required. CE/MW1-2 will also have to share part of CE/MW2-1's workload on the mega Central-Wanchai Bypass (CWB) Project (over \$20 billion) when the current legal proceedings are satisfactorily resolved. It is the intention of the Government to have the project proceeded as early as possible;

- (iii) CE/MW1-3 deals with the planning of Central Kowloon Route (CKR) and retrofitting of noise barriers for existing roads including Tai Wo Road, Sha Tin Road, Wong Uk Tsuen, Tai Po Road, Yuen Wo Road, Fanling Highway, Po Shek Wu Road, Po Lam Road North, Po Ning Road, Ma Wang Road, Chai Wan Road, Tuen Mun Road, Long Tin Road and Castle Peak Road. The CKR team is now focusing on engineering investigations and environmental impact assessments, and the next stage of politically sensitive public engagement. With rising public aspirations, comprehensive public engagement involving numerous public forums has to be arranged. The conservation of the Yau Ma Tei Police Station, which has great heritage significance, and the reprovisioning of public facilities in Yau Ma Tei, are of particular interest to the public. Besides, the proposed immersed tube tunnel across the Kowloon Bay waters has implications of reclamation within Victoria Harbour. Adequate staff resources must be assigned to handle this task with great care;
- (iv) CE/MW2-1 is responsible for the planning of CWB and Island Eastern Corridor Link (over \$20 billion) and finalisation of accounts for the Castle Peak Road Improvement Project. While the progress of the CWB Project is affected by recent judicial reviews, CE/MW2-1 is fully occupied by the legal proceedings and the exploration of alternatives to progress the project as fast as possible. He will be required to exercise extreme care to protect and preserve the Victoria Harbour because of the Protection of Harbour Ordinance. The contract arrangements and requirements must reflect such legal requirements. The scale of the project will undoubtedly bring along numerous issues covering political, social and environmental aspects. So when the project implementation is in full swing, CE/MW2-1 will need assistance from CE/MW1-2 to share the extremely heavy work load; and

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- (v) CE/MW2-2 is responsible for managing the Tuen Mun Road Improvement Project (TMR), Hiram's Highway (HH) and Tung Chung Road Improvement Project. The TMR improvement project has just commenced in October and will be commissioned in 2014 the earliest. TMR is still the major traffic corridor serving NWNT. The topography is highly difficult with many artificial slopes. Keeping the traffic moving while carrying online widening is a great engineering challenge. Every step must be closely monitored to ensure public safety and full consultation and briefings have to be conducted with the concerned DCs regularly amidst the strong public urge to implement the widening project as early as possible. The HH improvement project is currently planned to commence construction works in end 2010 for completion in end 2013. Public consultation has generated quite diverging views for and against the project. CE/MW2-2 and his team have to carefully handle and address the public demand and expectation such that engineering solutions could be formulated to suit the community.

A table showing the schedule of some of the projects being handled by the MWPMO is appended below –

Project	Commencement of Construction work	Completion of Construction work
TOLO	2009	2013
CWB	2009/10 (active public engagement, planning and design underway)	2017/18
CKR	2009/10 (active public engagement, planning and design underway)	2016
TMR	Late 2008	2014/15

40. In view of the fact that the workload for all the five CEs in MWPMO are heavy and will increase significantly in the coming years, and that extensive public consultation/engagement exercises have to be conducted in taking forward the major infrastructure projects including highway proposals, there is no scope of reshuffling the duties of the concerned CEs to handle the HKBCF or the SCL projects.

41. In the light of the upcoming workload in HyD mentioned above, we consider that the proposed creation of two CE posts is the only viable arrangement to ensure the proper planning and implementation of both projects. The existing organisation charts of HyD are at Enclosure 9.

Job Creation

42. The implementation of the HKBCF, HKLR, TM-CLKL and TMWB are estimated to create about 18 000 jobs (about 3 000 for professional/technical staff and 15 000 for labour) during the construction stage.

43. The SCL is estimated to create about 11 000 jobs (2 700 for professional/technical staff and 8 300 for labour) during the construction period.

44. The KTE is estimated to create about 1 000 jobs (250 for professional/technical staff and 750 for labour) during the construction period.

FINANCIAL IMPLICATIONS

45. The proposed creation of the two supernumerary CE posts will bring about an additional notional annual salary cost at mid-point of \$2,553,600. The additional full annual average staff cost, including salaries and staff on-cost, is \$3,842,000. The proposal is covered in ECI(2008-09)7 “Update on Overall Directorate Establishment Position” and ECI(2008-09)9 “Forecast of Proposed Creation/Deletion of Directorate Posts in the 2008-09 Legislative Session”.

46. In addition, the planning and implementation of the HKBCF and SCL projects will necessitate the creation of nine and six additional non-directorate posts respectively, as set out in paragraphs 34 and 35 above, at a notional annual mid-point salary cost of \$11,276,940 and the full annual average staff cost, including salaries and staff on-cost, is \$19,439,000.

47. We will include sufficient provision in the 2009-10 draft Estimates under Head 60 – HyD to meet the cost of this proposal.

PUBLIC CONSULTATION

48. We consulted the Legislative Council Panel on Transport on 19 December 2008. Members in general supported the staffing proposals.

/BACKGROUND

BACKGROUND

HKBCF of the HZMB Project

49. In January 2003, the National Development and Reform Commission (NDRC) and the Government of Hong Kong Special Administrative Region (HKSAR) jointly commissioned the Institute of Comprehensive Transportation to conduct a study entitled “Transport Linkage between Hong Kong and Pearl River West”. The study confirmed the strategic significance of and urgent need for the construction of a land transport link between the HKSAR and the Pearl River West.

50. The NDRC formed a HZMB Task Force in 2007 to push forward the HZMB project with representatives from the Ministry of Transport, the Hong Kong and Macao Affairs Office, and the Governments of the Guangdong, the HKSAR and the Macao SAR as members. At its meeting on 7 January 2007, the Task Force recommended that the Boundary Crossing Facilities (BCF) of each Government should be set up within their own respective territories (三地三檢). Subsequent to this decision, HyD has commissioned the I&PD study for the HKBCF, and is pursuing the programme under a very tight timeframe since it is already more than four years behind the programme of the HZMB Main Bridge.

SCL Railway Project

51. The SCL is one of the strategic railway lines recommended in the “Railway Development Strategy 2000”. It is also one of the ten major infrastructure projects pledged in the 2007-08 Policy Address. In March 2008, the Executive Council decided to proceed with the planning and design of the SCL based on the concession approach. It traverses through seven districts and will involve complicated tunneling works through the very congested urban areas, like the Kai Tak and To Kwa Wan areas. In the Wan Chai North areas, there will be complicated interfaces with the Central-Wan Chai Bypass and Wan Chai Development Phase II projects. Upon completion, the new railway line will help relieve congestions at various sections of the existing East Rail Line, Kwun Tong Line and Tsuen Wan Line, and provide railway services to the old and new districts in East Kowloon.

52. In March 2008, the Executive Council also decided to proceed with the planning and design of the KTE based on the ownership approach. The KTE runs through the densely populated area from Yau Ma Tei to Whampoa, via Ho Man Tin and Hung Hom.

/ESTABLISHMENT

ESTABLISHMENT CHANGES

53. The establishment changes in HyD for the last three years are as follows –

Establishment (Note)	Number of posts			
	Existing (as at 1 December 2008)	As at 1 April 2008	As at 1 April 2007	As at 1 April 2006
A	31+(3)#	31+(2)	31+(3)	31+(6)
B	479	440	432	433
C	1 527	1 508	1 437	1 453
Total	2 037+(3)	1 979+(2)	1 900+(3)	1 917+(6)

Note :

- A - ranks in the directorate pay scale or equivalent
 B - non-directorate ranks the maximum pay point of which is above MPS Point 33 or equivalent
 C - non-directorate ranks the maximum pay point of which is at or below MPS Point 33 or equivalent
 () - number of supernumerary directorate posts
 # - as at 1 December 2008, there is no unfilled directorate post in HyD.

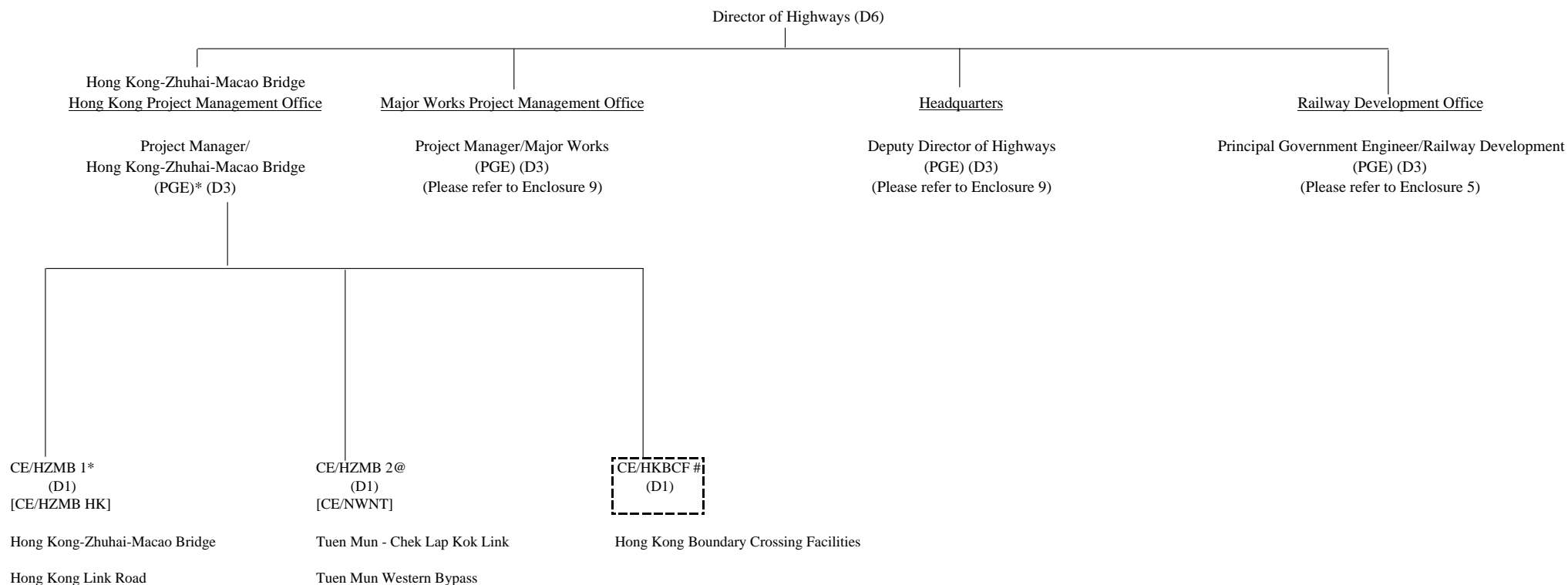
CIVIL SERVICE BUREAU COMMENTS

54. The Civil Service Bureau supports the proposed creation of two supernumerary CE posts to strengthen the directorate support in HyD to take forward the planning and implementation of the HKBCF of the HKZM project and the SCL cum the KTE project. The grading and ranking of the proposed posts are considered appropriate having regard to the level and scope of the responsibilities and the professional input required.

ADVICE OF THE STANDING COMMITTEE ON DIRECTORATE SALARIES AND CONDITIONS OF SERVICE

55. As the posts are proposed on a supernumerary basis, their creation, if approved, will be reported to the Standing Committee on Directorate Salaries and Conditions of Services in accordance with the agreed procedures.

Existing and Proposed Organisation Chart of Highways Department



Legend

- PGE - Principal Government Engineer
- CE - Chief Engineer
- HK - Hong Kong
- HZMB - Hong Kong-Zhuhai-Macao Bridge
- NWNT - North West New Territories
- HKBCF - Hong Kong Boundary Crossing Facilities

- * - Supernumerary posts of 1 PGE and 1 CE to lapse on 1 July 2010
- @ - 1 CE post redeployed from Major Works Project Management Office to Hong Kong-Zhuhai-Macao Bridge Hong Kong Project Management Office on a time-limited basis up to 30 June 2010
- [#] - Supernumerary post proposed to be created from 1 April 2009 to 31 March 2014
- [] - Post title renamed with effect from 1 April 2009

Job Description
Chief Engineer/Hong Kong Boundary Crossing Facilities

Rank : Chief Engineer (D1)

Responsible to : Project Manager/Hong Kong-Zhuhai-Macao Bridge Hong Kong Section (PM/HZMB HK)

Major Duties and Responsibilities –

1. assisting the PM/HZMB in taking forward the planning and implementation of the HZMB Hong Kong Boundary Crossing Facilities (HKBCF);
2. executing the strategies and procedures as formulated by PM/HZMB in respect of the HKBCF;
3. leading and directing his/her subordinates in the planning, design and construction of the HKBCF;
4. managing the performance of contractors engaged in all consultancy services and contract works for the site formation/ reclamation, civil and building works of HKBCF, award of construction contracts and the subsequent contract administration;
5. assuming overall responsibility for the control of project scope, cost and programme of the HKBCF;
6. consulting and coordinating with bureaux/departments, Airport Authority Hong Kong, the Mainland and Macao SAR authorities to resolve cross-boundary and interface issues for the timely implementation of the project;
7. attending the District Council and other meetings as and when required; and
8. managing the professional and technical staff in the project team.

Timetable on Programme and Progress of HZMB Related Projects**(A) HZMB: Hong Kong–Zhuhai–Macao Bridge (Main Bridge)**

Key Milestone	Date
Commencement of feasibility study	early 2004
Commencement of preliminary design	2 nd quarter of 2009
Commencement of detailed design and construction works	No later than 2010

(B) HKLR: Hong Kong Link Road

Key Milestone	Date
Commencement of I&PD study **	3 rd quarter of 2008
Submission of EIA report to EPD	mid 2009
Gazette under relevant Ordinance(s)	3 rd quarter of 2009
Commencement of detailed design and construction works	early 2011
Completion of HKLR	early 2015

** The I&PD study was commenced after the adoption of “separate location of BCF mode”.

(C) TMCLKL: Tuen Mun – Chek Lap Kok Link

Key Milestone	Date
Commencement of I&PD study	mid 2008
Submission of EIA report to EPD	mid 2009
Gazette under relevant Ordinance(s)	3 rd quarter of 2009
Commencement of detailed design and construction works	4 th quarter of 2011
Completion of TMCLKL	end 2016

(D) TMWB: Tuen Mun Western Bypass

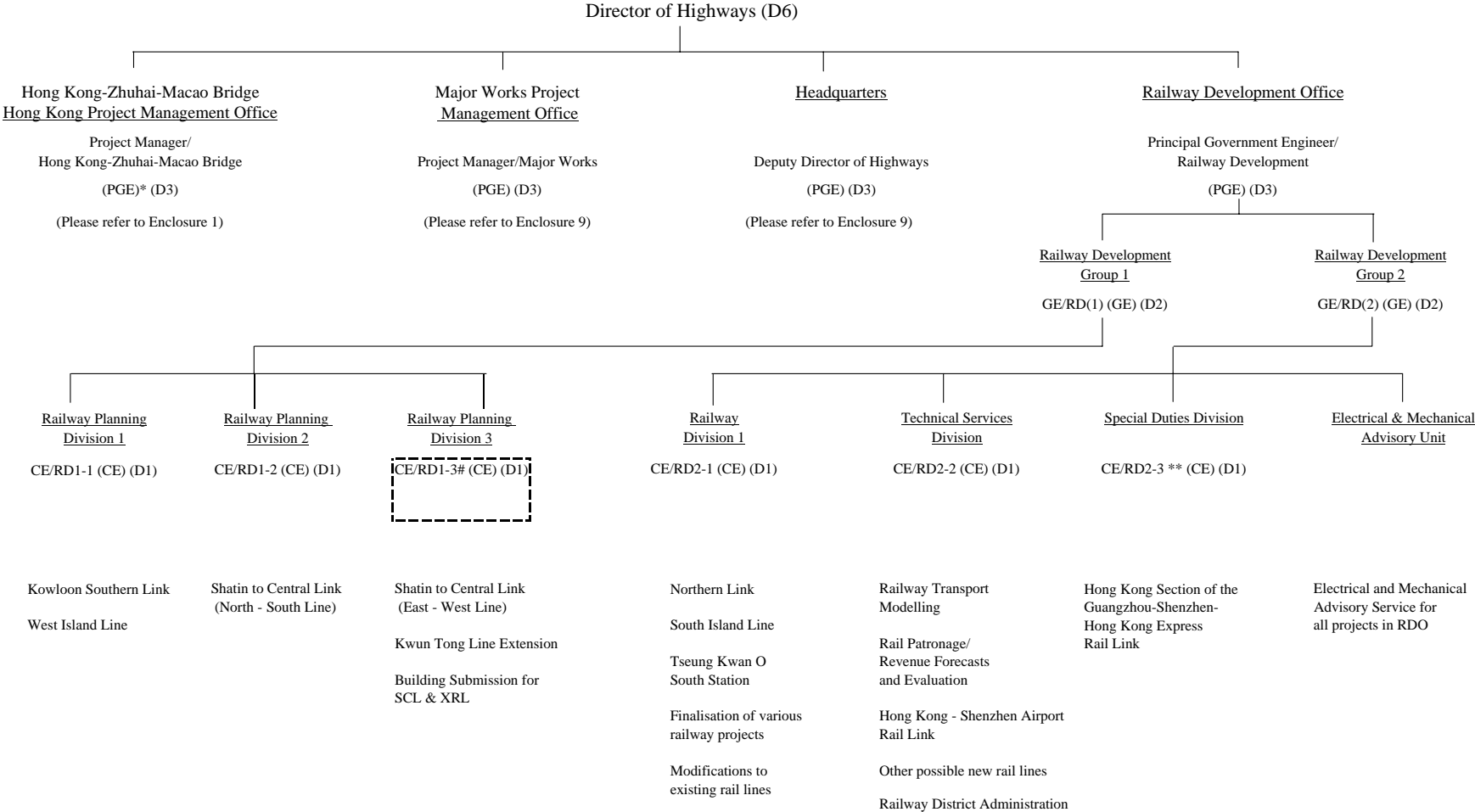
Key Milestone	Date
Commencement of I&PD study	3 rd quarter of 2008
Submission of EIA report to EPD	4 th quarter of 2009
Gazette under relevant Ordinance(s)	4 th quarter of 2009
Commencement of detailed design and construction works	4 th quarter of 2011
Completion of TMWB	2 nd quarter of 2016

/(E)

(E) HKBCF: Hong Kong Boundary Crossing Facilities

Key Milestone	Date
Commencement of I&PD study	mid 2008
Submission of EIA report to EPD	mid 2009
Commencement of detailed design	mid 2009
Gazette under relevant Ordinance(s)	3 rd quarter of 2009
Commencement of construction works	3 rd quarter of 2010
Completion of HKBCF	mid 2016

Existing and Proposed Organisation Chart of Railway Development Office of Highways Department



Legend

CE - Chief Engineer
E/AE - Engineer/Assistant Engineer
GE - Government Engineer
PGE - Principal Government Engineer
R - Railway

RD - Railway Development
RP - Railway Planning
SE - Senior Engineer
TS - Technical Services

- Supernumerary post proposed to be created from 1 April 2009 to 31 March 2016
* - Supernumerary post to lapse on 1 July 2010
** - Supernumerary post to lapse on 6 July 2015

Job Description
Chief Engineer/Railway Development 1-3

Rank : Chief Engineer (D1)

Responsible to : Government Engineer/Railway Development (1)



Main Duties and Responsibilities –

1. formulating strategies for delivering the SCL Tai Wai to Hung Hom section, Kwun Tong Line Extension and the related essential public infrastructure works (the Project);
2. leading and directing subordinates in the planning, design and implementation of the Project, including public consultation with LegCo and District Councils;
3. providing technical support and advice to the Transport and Housing Bureau to permit policy steers and prepare policy papers and ExCo submissions;
4. administering Public Works Programme items related to the Project;
5. preparing and administering the entrustment agreements and project agreement with the railway corporation, and monitoring the railway corporation on the adoption of appropriate strategy, procedures and programme on the engineering and financial aspects;
6. completing all the works under the statutory process in the gazettal of the railway schemes under the relevant ordinances;
7. managing MTRCL's consultation process and submissions in respect of the SCL and XRL project as if so required by the Building Authority for projects under the ownership approach; and
8. coordinating among other government departments/bureaux and resolving interfacing matters arising from the Project with other development projects to ensure the smooth progress of the Project.

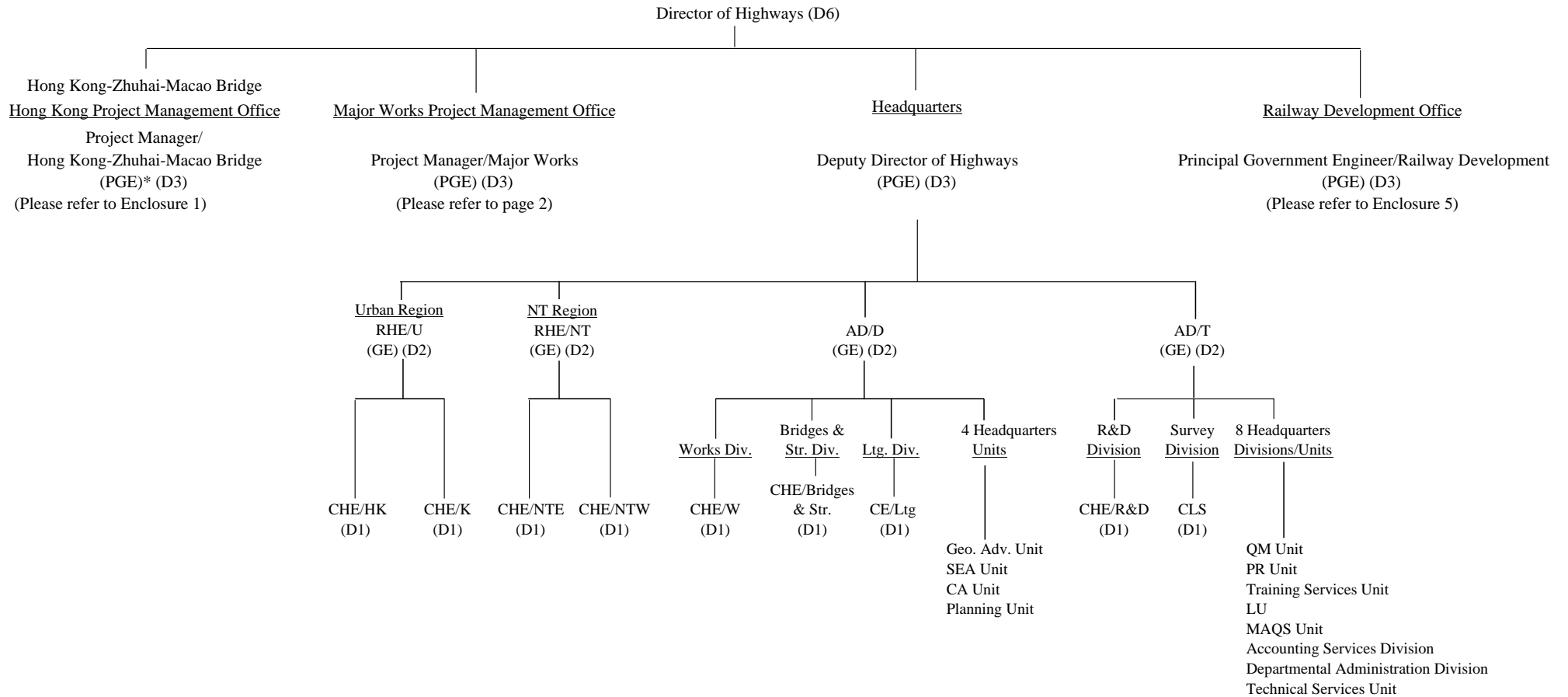
Indicative Implementation Schedule of Railway Projects under Construction/Planning

Railway Projects		Approximate Project Cost (\$billion)	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Under Construction	Kowloon Southern Link	8 (MOD)	[Construction]												
	Tseung Kwan O South Station	1 (MOD)	[Construction]												
Under Planning	Hong Kong Section of Guangzhou-Shenzhen-Hong Kong Express Rail Link	45.0 (MOD)	[Planning]		[Construction]										
	Shatin to Central Link, Shatin to Hung Hom Section	27.9 (MOD)	[Planning]			[Construction]									
	Kwun Tong Line Extension	5.0 (MOD)	[Planning]			[Construction]									
	Shatin to Central Link, Cross Harbour Section	21.4 (MOD)	[Planning]			[Construction]									
	West Island Line	9.1 (MOD)	[Planning]	[Construction]											
	South Island Line (East)	14.9 (MOD)	[Planning]			[Construction]									
	Northern Link	Under Review	Implementation Programme Under Review												
	Hong Kong-Shenzhen Airport Rail Link		Implementation Programme Under Review												

Legend:

-  Planning
-  Construction
- MOD Money-of-the-day prices

Existing Organisation Chart of Highways Department



Legend

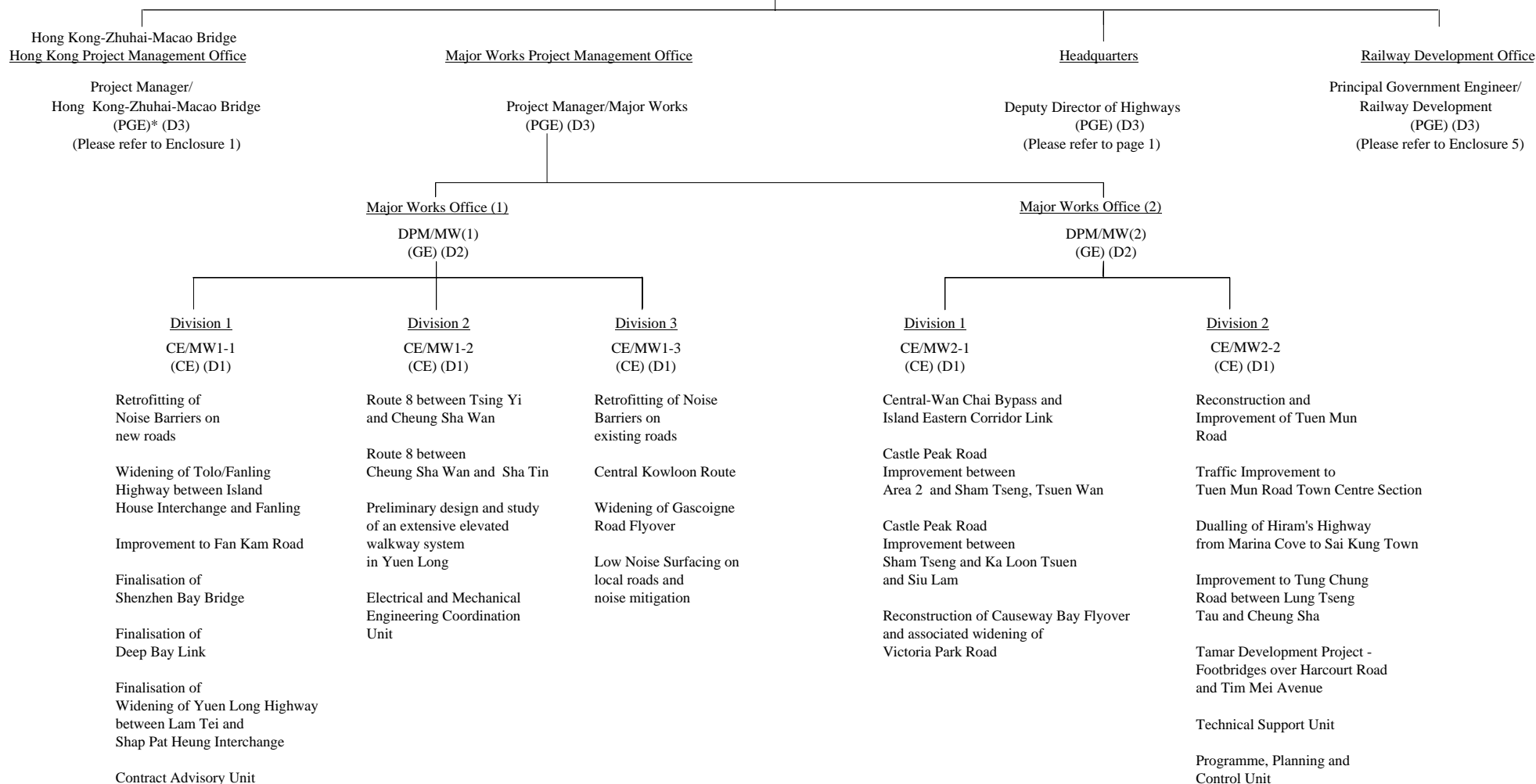
AD/D - Assistant Director/Development
AD/T - Assistant Director/Technical
CA - Contract Advisory
CE - Chief Engineer
CHE - Chief Highway Engineer
CLS - Chief Land Surveyor
Div. - Division
Geo. Adv. - Geotechnical Advisory
GE - Government Engineer
HK - Hong Kong

K - Kowloon
Ltg. - Lighting
LU - Landscape Unit
MAQS - Maintenance Accounts & Quantity Surveying
NT - New Territories
NTE - New Territories East
NTW - New Territories West
PGE - Principal Government Engineer
PR - Public Relations
QM - Quality Management
R&D - Research and Development

RHE - Regional Highway Engineer
SEA - Safety and Environmental Advisory
Str. - Structures
U - Urban
W - Works
* - Supernumerary post to lapse on 1 July 2010

Existing Organisation Chart of Highways Department

Director of Highways (D6)



Legend

- PGE - Principal Government Engineer
- CE - Chief Engineer
- DPM - Deputy Project Manager
- GE - Government Engineer
- MW - Major Works
- * - Supernumerary post to lapse on 1 July 2010