

ITEM FOR ESTABLISHMENT SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 60 - HIGHWAYS DEPARTMENT Subhead 001 Salaries

Members are invited to recommend to Finance Committee the creation of the following supernumerary posts -

- (a) 1 Principal Government Engineer (D3) (\$127,900 - \$135,550) for a period of two years; and
- (b) 2 Chief Engineers (D1) (\$98,250 - \$104,250) for a period of six years.

PROBLEM

The Director of Highways (D of Hy) requires additional dedicated directorate support for the planning and implementation of new railway projects and for the planning of future railway development to support the continued population growth and economic development within Hong Kong and our growing links with the Mainland.

PROPOSAL

2. We propose to create -

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- (a) one supernumerary post of Principal Government Engineer (PGE) (D3) for a period of two years to head the Railway Development Office (RDO) of the Highways Department (HyD); and
- (b) two supernumerary posts of Chief Engineer (CE) (D1) for a period of six years, each to head a new division in the RDO, namely the Railway Division (2) and the Technical Services Division.

JUSTIFICATION

3. The Chief Executive announced in the 1998 Policy Address that the Administration is committed to expanding the rail network to cater for the existing and projected increase in traffic arising from the economic and land developments in the territory and the growth in cross-boundary passenger and freight traffic. At present, there are five committed railway projects under planning or construction. Their progress is as follows -

- (a) West Rail (WR) Phase I - construction of this \$64 billion project commenced in October 1998 for completion in 2003;
- (b) Mass Transit Railway Tseung Kwan O Extension (TKE) - construction of this \$30.5 billion project commenced in November 1998 for completion in 2002;
- (c) Ma On Shan to Tai Wai Rail Link (MOS Rail) - gazettement of this \$13.6 billion project is scheduled for mid-1999, to be followed by construction in early 2000 for completion in 2004;
- (d) Kowloon-Canton Railway Extension to Tsim Sha Tsui (TST Extension) - gazettement of this \$5.1 billion project is scheduled for mid-1999, to be followed by construction in 2000 for completion in 2004; and
- (e) Sheung Shui to Lok Ma Chau Rail Spur Line - the Kowloon-Canton Railway Corporation (KCRC) will submit implementation proposals for this \$14 billion project in the first half of 1999 with target completion in 2004.

The five new railways together will cost over \$120 billion in money-of-the-day prices. Their scope, scale and complexity are comparable to those of the Airport Core Programme project.

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4. Along with the planning and implementation of the five committed

railway projects, we are undertaking the Second Railway Development Study (RDS-2). The study will provide an update of the 1994 Railway Development Strategy and map out the next phase of new rail projects that Hong Kong needs in order to cater for future demand. The study is targeted for completion by the end of 1999, when an updated strategy will be formulated and followed up by extensive project feasibility studies. A map showing the alignment of the existing and committed railways is at Enclosure 1. A programme chart of the five committed railway projects and the RDS-2 is at Enclosure 2.

Encl. 1
Encl. 2

5. HyD, in conjunction with the Transport Bureau and the Railway Corporations, is closely involved in the planning, development and implementation of new railway projects in the territory. Its main duties include -

- (a) Project definition and detailed planning - to define project scope, identify the key implementation issues and administer route protection to ensure the proposed railway routes are not affected by other developments;
- (b) Project initiation, funding and authorization - to gazette railway schemes under the Railways Ordinance, conducting public consultation, handle objections, seek funds, prepare project agreements, and assist in making submissions to the Executive Council for authorization of the railway schemes;
- (c) Project design, construction and commissioning - to coordinate the development of the detailed design and associated infrastructure works essential for railway opening, monitor the progress of works, resolve interfacing conflicts and take part in site liaison;
- (d) Railway operation, management, maintenance and development - to monitor the performance and effectiveness of the completed railway system as part of the ongoing review and planning for the future development of the railway network in the territory; and
- (e) Railway studies and future planning - to carry out railway development studies to develop network expansion plans, determine the preferred route alignment, set priorities and recommend implementation timing for future railway development.

/Railway

Railway Development Office

6. Headed by a Government Engineer/Railway Development (GE/RD) (D2), the RDO is responsible for performing the above duties. It comprises four divisions -

- (a) Airport Railway Division, headed by Chief Engineer/Airport Railway (CE/AR), is currently overseeing the finalisation of outstanding works related to the Airport Railway project. We will dissolve the Division and the CE/AR post will lapse on 1 April 1999;
- (b) West Rail Division, headed by Chief Engineer/West Rail (CE/WR) whose post will lapse in December 2001, is responsible for the WR Phase I project and will continue to oversee the implementation of the project;
- (c) Railway Division, headed by Chief Engineer/Railway (CE/R), supervises the implementation of the TKE, the MOS Rail and the TST Extension projects, the duties of which will remain unchanged; and
- (d) Railway Planning Division, headed by Chief Engineer/Railway Planning (CE/RP), is responsible for planning future railway development and managing the RDS-2 and its future updating.

Encl. 3 The existing organisation chart of the RDO is at Enclosure 3.

7. With the five new railway projects proceeding to the detailed design and construction phases and the completion of the RDS-2 in sight, we expect a sharp increase in senior directorate input. The increase will require management expertise and professional knowledge beyond the level of the existing GE and an experienced directorate officer is necessary to take charge of the comprehensive planning and coordination of projects and initiating legislative changes. To cope with this significant increase in responsibility, it is now necessary for the RDO to be headed by a PGE, who will oversee all railway projects from conception through to completion to ensure effective budget control and on time project delivery. The officer will also be required to give high level input on steering and guiding the RDS-2 study, and on re-shaping the railway development strategy and advising on the way forward. In addition, it is necessary to have two additional professional officers at the directorate level to plan and coordinate the implementation of railway projects, and develop and support a computerization

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scheme for planning data and modelling for future railway development. To this end, we propose to create one PGE (D3) post and two CE (D1) posts. Upon the creation of the proposed directorate posts, the RDO will be re-structured into two core groups, one for railway development planning and strategic review and the other for project administration. The proposed organisation chart of the RDO is at Enclosure 4.

Encl. 4

Project Manager/Railway Development

8. The proposed PGE post, to be designated as Project Manager/Railway Development (PM/RD), will head the RDO with an estimated staff establishment of about 80 officers in different grades and ranks. Apart from the planning for the next phase of railway development, he will take charge of the planning and supervise the implementation of the five committed railway projects mentioned in paragraph 3 above. The scope and level of his responsibilities are comparable to those of the Project Manager/Major Works (also ranked at PGE).

9. PM/RD will directly oversee the strategic planning group comprising the Railway Planning Division and the proposed Technical Services Division. On the project side, PM/RD will be assisted by GE/RD to head a project group comprising the West Rail Division, Railway Division (1) and a new Railway Division (2), to oversee and manage the implementation of railway projects. After the creation of the proposed PM/RD post and rationalisation of responsibilities, GE/RD will assume the duties of the deputy head of the RDO. The proposed and revised job descriptions for the PM/RD and GE/RD posts are at

Encls.5&6 Enclosures 5 and 6 respectively.

10. We propose to create the PM/RD post on a supernumerary basis for a period of two years for the incumbent to follow up on the findings of RDS-2 and to draw up an updated strategy for railway development. We will review the longer term need of the post after we have determined the future railway development strategy following the completion of the RDS-2.

Chief Engineer/Railway (2)

11. The existing CEs in the RDO are fully occupied and have no spare capacity to take up the implementation of the Spur Line connecting Sheung Shui and Lok Ma Chau. We therefore propose to create an additional CE post, to be designated as Chief Engineer/Railway (2) (CE/R(2)), to head a new Railway Division (2) to oversee the planning and implementation of this project.

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12. To be assisted by two Senior Engineers and two Engineers, the

proposed CE/R(2) will also be responsible for liaising with the KCRC and government departments to develop a number of sections of the WR including the Kam Tin to Lok Ma Chau section and the extension of the WR from Yen Chow Street to West Kowloon. Since the Spur Line is targeted for completion in 2004, we propose that the post of CE/R(2) be created on a supernumerary basis for a period of six years. We will review the need of this CE post, taking into account the outcome of RDS-2 and the progress of the above sections of the WR. Upon the setting up of the new Railway Division (2), the existing Railway Division will be re-named as Railway Division (1). The existing CE(R), to be retitled as Chief Engineer/Railway (1) (CE/R(1)), will continue to supervise the implementation of the TKE, MOS Rail and TST Extension projects. The proposed job description for the CE/R(2) post is at Enclosure 7.

Encl. 7

Chief Engineer/Technical Services

13. To facilitate the RDS-2 and future railway development planning, HyD will establish a sophisticated computerized railway planning system in the RDO. The railway planning system will encompass a huge database of socio-economic and land-use data and a fully computerized transport model and is designed to produce patronage forecasts. The comprehensive planning system is of paramount importance to the timely initiation of longer term railway projects and the identification of new railway routes for the territory. With the help of the system, the Government is expected to reduce its reliance and expenditure (by up to 25%) on the services of consultants for railway studies after the RDO has commissioned its own computerized transport model.

14. We propose to create another CE post, to be designated as Chief Engineer/Technical Services (CE/TS), to head a new engineering office - Technical Services Division, to be dedicated to the setting up and management of the computer model. CE/TS, to be assisted by two Senior Engineers and two Engineers, will be responsible for compiling and analysing data on railway ridership, collating key planning and land-use information for railway transport planning, setting up a four-stage transport demand model for the forecast of railway demand, and the day-to-day management, on-going review and enhancement of the new database. In view of the ongoing nature of the planning work, we see a long term need for the CE/TS post. However, we propose to create the post on a supernumerary basis for a period of six years in the first instance and will explore other options including redeployment following the completion of the new railway projects. With the creation of the CE/TS post, the existing CE/RP can be relieved of the data processing duties and can focus on the strategic planning of railway development. The proposed and revised job descriptions for the CE/TS and CE/RP posts are at Enclosures 8 and 9 respectively.

Encls.8&9

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FINANCIAL IMPLICATIONS

15. The additional notional annual salary cost at mid-point and full annual average staff cost, including salaries and staff on-costs, of the proposal are -

	<i>Notional Annual Salary Cost at Mid-point \$</i>	<i>Full Annual Average Staff Cost \$</i>	<i>No. of Posts</i>
Principal Government Engineer	1,580,400	2,389,344	1
Chief Engineer	2,426,400	4,321,152	2
Additional cost	<u>4,006,800</u>	<u>6,710,496</u>	<u>3</u>

16. To support the expanded RDO, D of Hy will create 18 non-directorate posts comprising seven Senior Engineers/Senior Electrical and Mechanical Engineers, ten Engineers/Electrical and Mechanical Engineers and one Personal Secretary I posts, at a total notional annual salary cost at mid-point of \$12,564,060 and full annual average staff cost of \$21,222,636. We have included sufficient provision in the 1999-2000 draft Estimates to meet the cost of the proposal.

ALTERNATIVE

17. D of Hy has considered the alternative of assigning the duties of the proposed posts to the Major Works Project Management Office but concluded that it is impracticable to do so. The workload of the latter office has also increased sharply due to the planning and implementation of major highway projects and we are proposing additional staff for that office vide a separate Establishment Subcommittee paper.

BACKGROUND INFORMATION

18. The Government's transport policy is to provide a safe, efficient and reliable transport system which meets the economic, social and recreational needs of the community, and which is capable of supporting the future development of Hong Kong. We aim at increasing the rail share in the overall public transport

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system such that railways will continue to form the backbone of the public transport network. The implementation of the five railway projects as identified in the 1994 Railway Development Strategy, namely the WR, TKE, MOS Rail, TST Extension and Sheung Shui to Lok Ma Chau Rail Spur Line, has been accorded high priority and is proceeding on a fast track.

19. The Government is in the process of formulating the next phase of railway development. In the context of the RDS-2, we will examine the longer term projects and their timing and priority to ensure that the development of our railways continues to meet the transport demand in Hong Kong.

CIVIL SERVICE BUREAU COMMENTS

20. The Administration has considered carefully other alternatives including redeployment bearing in mind the need for greater efficiency and productivity under the Enhanced Productivity Programme and the present economic climate. We consider the proposal justified. Civil Service Bureau considers the grading, ranking and duration of the proposed posts to be appropriate, having regard to the scope and level of responsibility and professional input required.

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

21. 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 Service in accordance with the agreed procedure.

Transport Bureau
February 1999

(LU0280/WIN13)

Highways Department
Proposed Job Descriptions of Project Manager/Railway Development

Post title : Project Manager/Railway Development
Rank : Principal Government Engineer (D3)
Responsible to : Director of Highways

Overall Role and Objectives

The Project Manager/Railway Development will head the expanded Railway Development Office and be responsible for providing professional, administrative and policy guidance, support and leadership to his subordinates who are responsible for the planning and implementation of the mega-scale railway projects.

Major Duties and Responsibilities -

1. Developing the railway system in Hong Kong in accordance with Government's overall transport policy by -

- (a) overseeing the Railway Development Strategy (RDS) including planning and initiating further studies to meet changing needs;
- (b) providing expert advice and professional support to Policy Bureau on the formulation of RDS;
- (c) liaising with the Mainland Authorities on issues related to cross boundary railway and infrastructural development;
- (d) liaising with the railway operators to develop new railway schemes and to ensure the timely delivery of railway projects; and
- (e) identifying new railway routes in the overall development context and initiating actions on railway route protection.

2. Controlling and monitoring the delivery of approved new railway projects by -

- (a) directing the preparation of project briefs, inviting and assessing proposals for the construction and operation of the railway projects;

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- (b) directing gazettal procedures and necessary amendments to legislation and town plans related to the new railway projects and associated property developments;
 - (c) chairing project coordination committees or working groups, and liaising within and outside Government to facilitate the implementation of the railway projects;
 - (d) monitoring the progress and standard of railway construction and works under the Public Works Programme; and
 - (e) providing expert advice on matters arising from or related to the implementation of the railway projects.
3. Serving on the following committees -
- (a) Director of Highways' Project Control Committees for the high priority railway projects (Alternate Chairman);
 - (b) Secretary for Transport' s Project Steering Committees for the high priority railway projects (Alternate Member);
 - (c) Hong Kong and the Mainland Major Infrastructure Co-ordinating Committee - Railway Panel (Member);
 - (d) Hong Kong and the Mainland Major Infrastructure Co-ordinating Committee - Lok Ma Chau/Huanggang Passenger Crossing Expert Group (Member); and
 - (e) Secretary for Transport' s Second Railway Development Study Steering Committee (Member).

Highways Department
Revised Job Descriptions for Government Engineer/Railway Development

Post title : Government Engineer/Railway Development
Rank : Government Engineer (D2)
Responsible to : Project Manager/Railway Development

Overall Role and Objectives

The Government Engineer/Railway Development will head the project group of the Railway Development Office and will direct, coordinate, control and monitor the planning and implementation of the priority railway projects.

Major Duties and Responsibilities -

1. Planning the implementation of the approved priority railway projects by -
 - (a) initiating actions in drawing up project briefs, inviting proposals for the construction and operation of the railway projects and assisting in assessing proposals;
 - (b) serving as a member of the Government negotiating team for the various railway projects;
 - (c) coordinating land matters, gazetting the railway schemes, handling objections, resolving interfacing issues arising from other town planning and associated property developments;
 - (d) co-ordinating and liaising within and outside Government to develop the detailed railway schemes and implementation plans for the railway projects;
 - (e) monitoring the progress and standard of railway construction and works under the Public Works Programme essential for the commissioning of new railways;
 - (f) assisting in liaising with the Mainland Authorities on issues related to cross boundary and infrastructural development;
 - (g) administering any consultancies commissioned for the planning and implementation of new railway projects; and

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- (h) providing professional advice on matters arising from or related to the implementation of the railway projects.

2. Serving on the following committees -

- (a) Station and Transport Integration Committee (Chairman);
- (b) Traffic Management Committee (Chairman);
- (c) Project Liaison Committees with the railway corporations (Chairman);
- (d) Secretary for Transport's Project Steering Committees for the high priority railway projects (Alternate Member);
- (e) Secretary for Transport's Infrastructure Co-ordinating Committee - Railway Panel (Alternate Member);
- (f) Secretary for Transport's Infrastructure Co-ordinating Committee - Lok Ma Chau/Huanggang Passenger Crossing Expert Group (Alternate Member); and
- (g) Steering Committees for other Government strategic studies (as required).

Highways Department
Proposed Job Descriptions of Chief Engineer/Railway (2)

Post title : Chief Engineer/Railway (2)
Rank : Chief Engineer (D1)
Responsible to : Government Engineer/Railway Development

Overall Role and Objectives

The Chief Engineer/Railway (2) will head the Railway Division (2) and be responsible for overseeing the planning and implementation of the Lok Ma Chau Spur Line and Phase II of West Rail.

Major Duties and Responsibilities -

1. vetting KCRC' s technical proposals for the Lok Ma Chau Spur Line, and assisting in negotiation with the operator on the railway scheme;
2. liaising with KCRC to ensure the adoption of appropriate strategy, procedures and programme in consultancies and contract management for the Lok Ma Chau Spur Line;
3. providing technical input to the financial and legal aspects of the Lok Ma Chau Spur line;
4. gazetting the railway scheme under the Railways Ordinance, handling of objections and submission for authorisation of the scheme;
5. assisting in drawing up the technical parts of the project agreement of the Lok Ma Chau Spur line;
6. monitoring the programme and progress of the Lok Ma Chau Spur line;
7. coordinating with other government departments including the Shenzhen Authorities to ensure the smooth progress of the Lok Ma Chau Spur Line and the new Lok Ma Chau/Huanggang Rail Passenger Crossing;
8. resolving interfacing matters between Lok Ma Chau Spur Line and other development projects;
9. planning and initiating projects for Phase II of West Rail including confirming detailed railway alignments and railway area plans to identify land requirements and necessary amendments to statutory town plans;

10. administering route protection of Phase II of West Rail and resolving conflicts with other development projects;
11. providing professional advice on railway matters related to Phase II of West Rail, including cross boundary infrastructure co-ordination; and
12. Serving on the following committees -
 - (a) Station and Transport Integration Committee (Member);
 - (b) Safety and Security Co-ordinating Committee (Member);
 - (c) Site Liaison Group (Chairman); and
 - (d) Cross-boundary Liaison Committee (Member).

Highways Department
Proposed Job Descriptions of Chief Engineer/Technical Services

Post title : Chief Engineer/Technical Services
Rank : Chief Engineer (D1)
Responsible to : Project Manager/Railway Development

Overall Role and Objectives

The Chief Engineer/Technical Services will head the Technical Services Division and be responsible for establishing a computerized railway planning tool and the necessary data base for the continuous planning and updating of the territory's rail network development.

Major Duties and Responsibilities -

1. coordinating the compilation of statistical data on railway riderships covering line flows, station to station passenger movements and interchange flows;
2. managing and compiling key planning data for use in various transportation studies on railway development;
3. analyzing land-use and socio-economic data and converting information into the format of the railway model;
4. maintaining and updating the databank for railway planning;
5. setting up a four-stage (trip generation, distribution, model split and assignment) transport demand model for rail based mode of transport;
6. maintaining, reviewing and refining the model elements to produce a reliable, efficient and responsive forecasting tool;
7. reviewing and updating computer applications for railway development;
8. producing forecasts for different network and land-use development scenarios;
9. ensuring compatibility of planning assumptions and data input with other strategic transport studies;
10. providing training on the model application and reviewing the hardware and software requirements; and

11. Serving on the following committees -

- (a) Joint Department Meeting on Transport Data and Modelling (Chairman);
- (b) Working Group on computer applications for railway development (Chairman);
- (c) Working Group on Population Distribution (Member); and
- (d) Steering Group on Strategic Transport Studies (Member).

Highways Department
Revised Job Descriptions of Chief Engineer/Railway Planning

Post : Chief Engineer/Railway Planning
Rank : Chief Engineer (D1)
Responsible to : Project Manager/Railway Development

Overall Role and Objectives:

The Chief Engineer/Railway Planning will head the Railway Planning Division and be responsible for carrying out planning studies to update the First Railway Development Strategy (RDS) in 1994, identifying new railway routes in the overall development context, participating in other strategic transport studies and handling all interfacing issues arising from these studies.

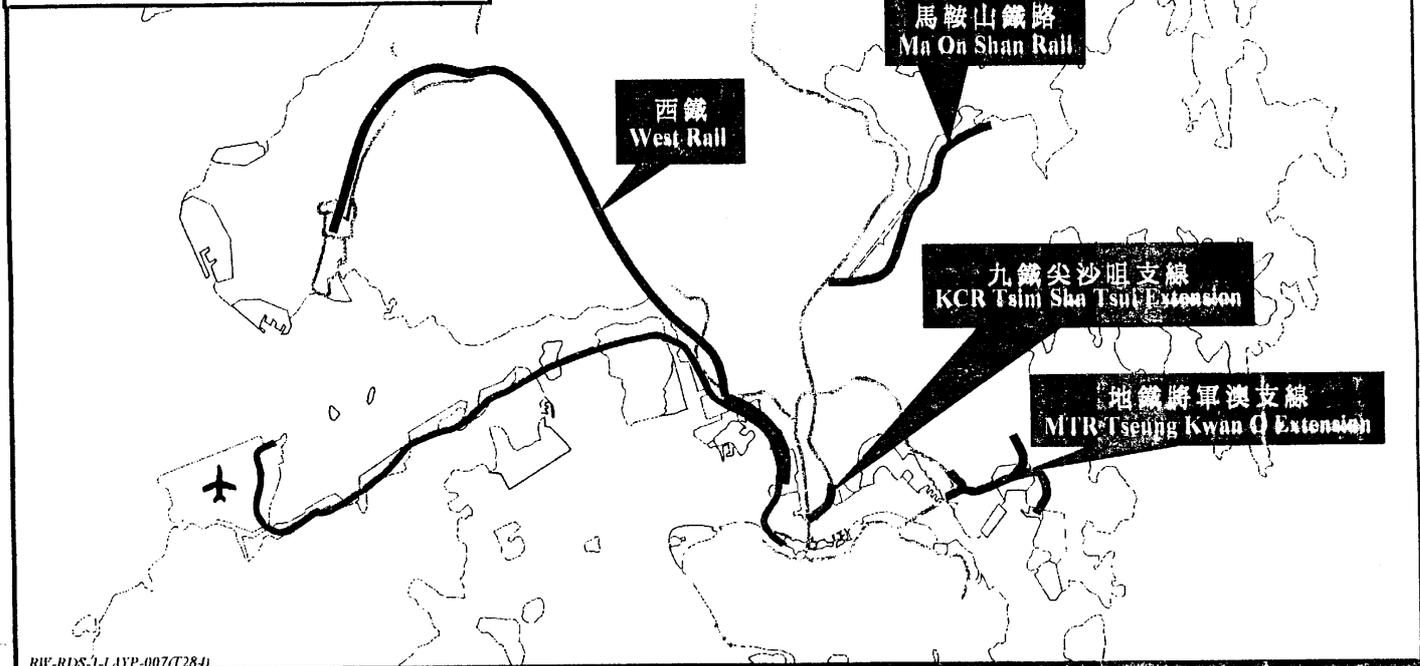
Main Duties and Responsibilities -

1. assisting Project Manager/Railway Development on duties assigned in the development of the territory' s railway system in accordance with the Government' s overall transport policy;
2. monitoring the Government' s Railway Development Strategy including initiating actions to commission further studies;
3. managing the consultants for the Second Railway Development Study (RDS-2);
4. coordinating inputs from Highways Department and other Government departments to the planning of the railway systems;
5. identifying new railway routes in the overall development context, handling all interfacing issues arising from these new routes with other strategic planning and transport proposals including initiating necessary actions on route protection;
6. analyzing the institutional aspects of railway development such as the funding of new railway projects, unified standards for railway and the fare structures;
7. liaising with the two Railway Corporations on new ideas on railway network expansion including the necessary coordination between Government and the corporations to develop a coherent network expansion strategy;

8. participating in other strategic studies to ensure that railway development is properly coordinated; and
9. Serving on the following Committees -
 - (a) RDS-2 Working Group (Chairman);
 - (b) RDS-2 Steering Group (Member);
 - (c) Working Groups for Government Strategic Studies (Member); and
 - (d) Steering Groups for Government Regional Planning Studies (Member)

Legend 圖例 :

- 現有鐵路
Existing Railway
- 機場鐵路
Airport Railway
- 承諾興建的新鐵路
Committed New Railways



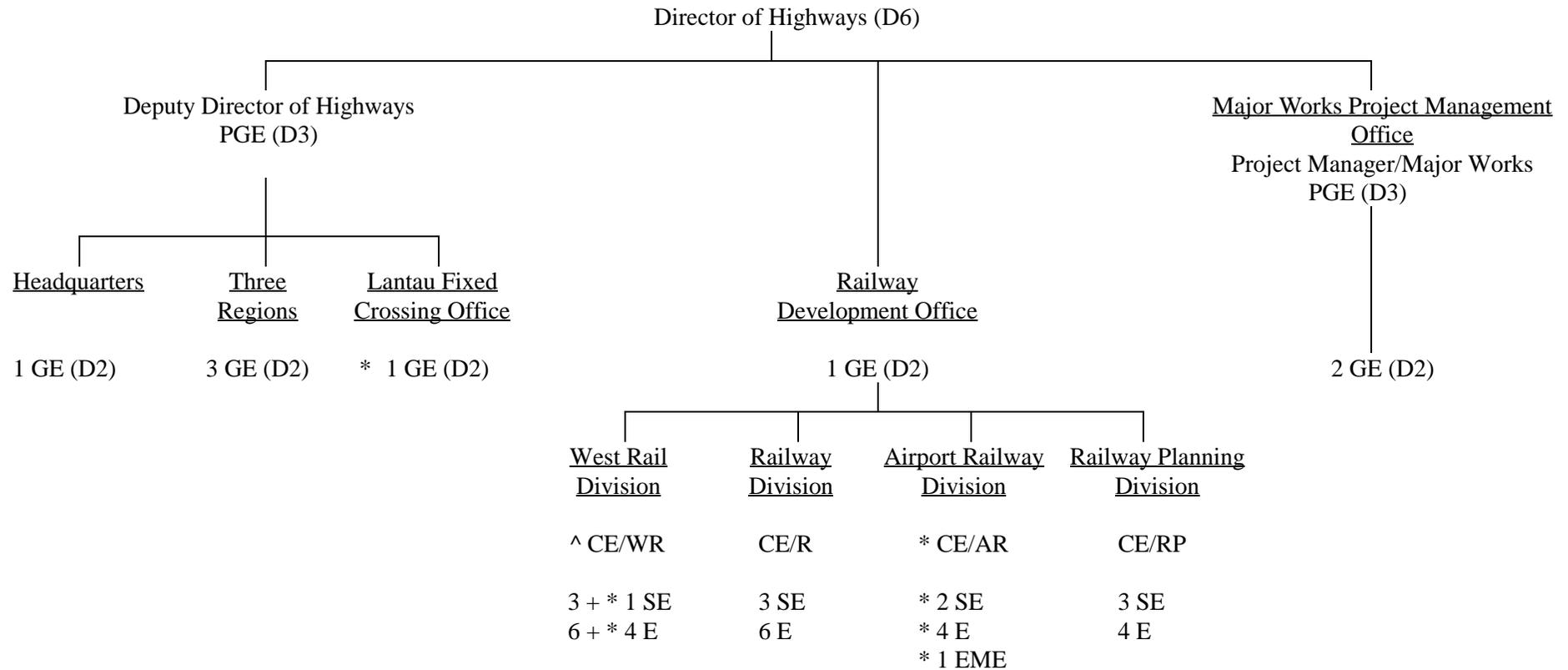
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現有及承諾興建的新鐵路
Existing and Committed New Railways

工程 Project	估計造價(付款當日價格) 十億元 Estimated Cost (Money of the Day Prices) \$ billion	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
1. 西鐵 West Rail	64.00	構思 Conceptualization	建議 Proposal	技術研究及詳細設計 Technical Studies & Detailed Design	核准 Authorization	施工 Construction						
2. 地鐵將軍澳支線 MTR Tseung Kwan O Extension	30.50	構思 Conceptualization	建議 Proposal	技術研究及詳細設計 Technical Studies & Detailed Design	核准 Authorization	施工 Construction						
3. 馬鞍山鐵路 Ma On Shan Rail	13.60	構思 Conceptualization	可行性研究 Feasibility Studies	建議、初步及詳細設計 Proposal, Preliminary & Detailed Design	核准 Authorization	施工 Construction						
4. 九鐵尖沙咀支線 KCR Tsim Sha Tsui Extension	5.10	構思 Conceptualization	可行性研究 Feasibility Studies	建議、初步及詳細設計 Proposal, Preliminary & Detailed Design	核准 Authorization	施工 Construction						
5. 上水至落馬洲支線 Sheung Shui-Lok Ma Chau Spur Line	14.00	構思 Conceptualization	可行性研究 Feasibility Studies	建議、初步及詳細設計 Proposal, Preliminary & Detailed Design	核准 Authorization	施工 Construction						
總數 Total :	127.20											
6. 第二次鐵路發展研究 Second Railway Development Study	35 million (百萬)					構思 Conceptualization	制訂策略 Formulate Strategy	其他新路線的可行性研究 Feasibility Studies for other new lines				

新鐵路計劃及第二次鐵路發展研究
New Railway Projects and the Second Railway Development Study

Existing Organisation Chart of Railway Development Office

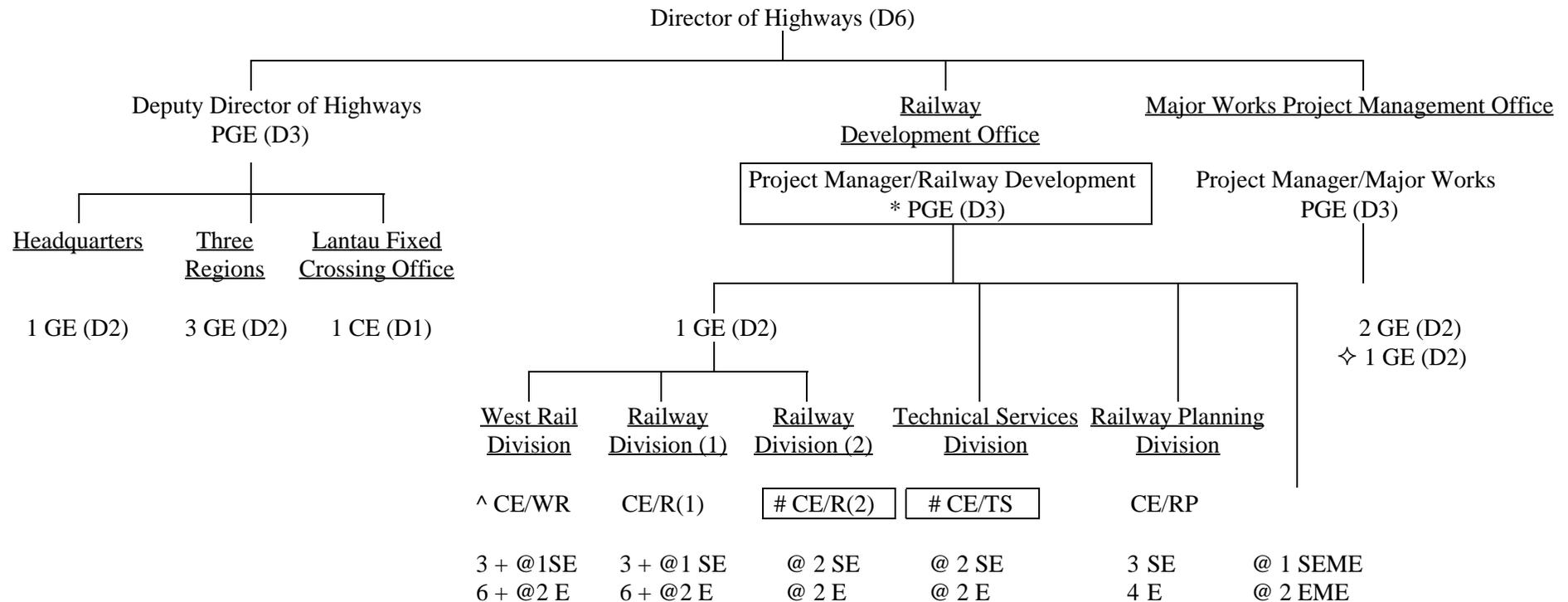


LEGEND

PGE - Principal Government Engineer
 GE - Government Engineer
 CE - Chief Engineer
 SE - Senior Engineer
 E - Engineer
 EME - Electrical & Mechanical Engineer

* - Supernumerary post to lapse on 1.4.1999
 ^ - Supernumerary post to lapse on 6.12.2001

Proposed Organisation Chart of Railway Development Office
(as at 1 April 1999)



LEGEND

PGE - Principal Government Engineer
 GE - Government Engineer
 CE - Chief Engineer
 E - Engineer
 SEME - Senior Electrical & Mechanical Engineer
 EME - Electrical & Mechanical Engineer

^ - Supernumerary post to lapse on 6.12.2001
 * - Proposed supernumerary post to be created for 2 years
 # - Proposed supernumerary posts to be created for 6 years
 @ - Proposed non-directorate posts to be created through the normal Departmental Establishment Committee machinery
 ◇ - Proposal under another ESC submission