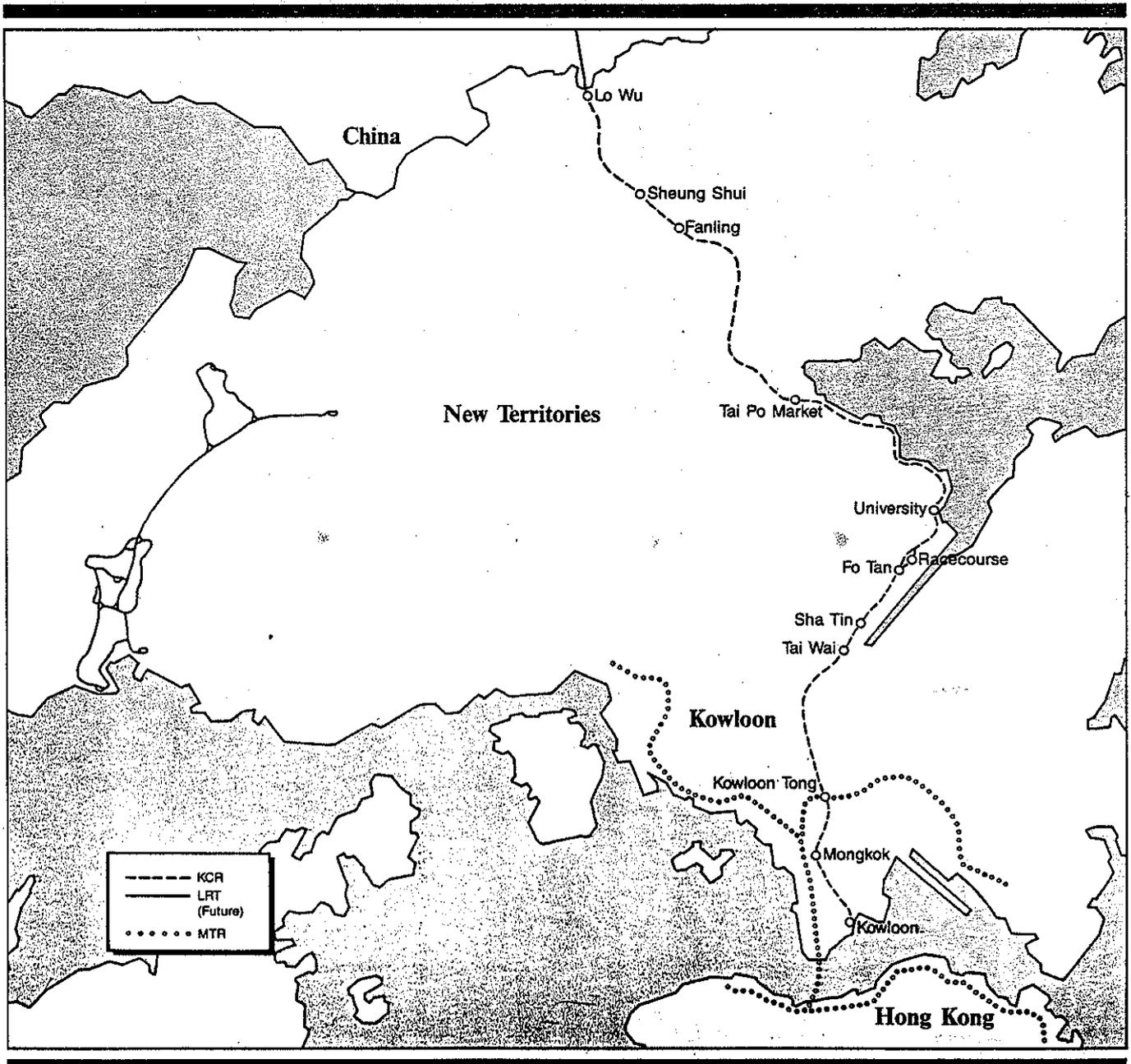




Kowloon-Canton Railway Corporation

FACT SHEET

1964



ACTIVITIES AND OBJECTIVES OF THE CORPORATION

The Kowloon-Canton Railway Corporation was incorporated on 24 December 1982 by Ordinance as a public corporation wholly owned by the Hong Kong Government.

The principal activities of the Corporation are the :-

- (1) operation of local and international passenger services on the railway system between Kowloon and Lo Wu;
- (2) operation of international freight traffic;
- (3) development of associated commercial activities;
- (4) construction and subsequent operation of the western New Territories light rail transit system.

The Corporation is required to operate the KCR having regard to :-

- (1) the reasonable requirements of the public transport system of Hong Kong, and
- (2) efficiency, economy and safety of operations in respect of the services and facilities provided by it.

The Corporation is also required to operate the railway on full commercial principles and to make a profit.

ORGANIZATION

The Corporation's affairs are overseen by the Managing Board members of which are appointed by the Governor. Day-to-day affairs are the responsibility of the Executive Directorate under the Managing Director.

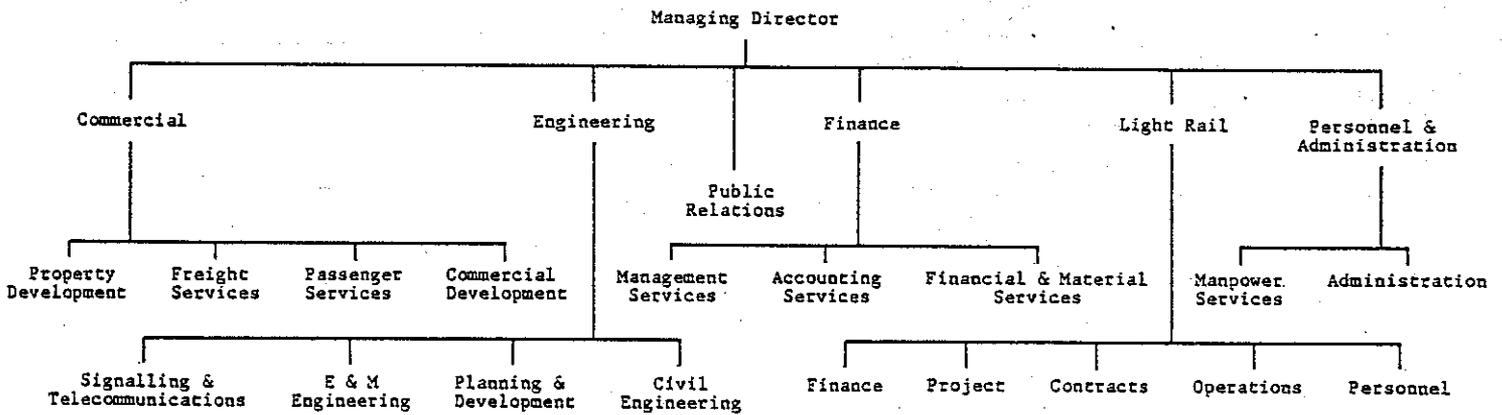
The Corporation's Managing Board consists of :-

- Mr. H.M.G. Forsgate (Chairman)
- Mr. Peter Quick (Managing Director) (ex-officio)
- The Honourable Chan Kam-chuen
- The Honourable Cheung Yan-lung
- The Honourable David K.P. Li
- Mr. J.A. Richardson
- The Honourable Lau Wong-fat
- Mr. Samuel P.W. Wong
- Mr. David Nendick (Secretary for Monetary Affairs,
Hong Kong Government) (ex-officio)
- The Honourable Harnam Grewal (Secretary for Transport,
Hong Kong Government)
(ex-officio)

Members of the Executive Directorate are :-

- Mr. Clement Chiu (Engineering Director)
- Mr. Felix Chow (Finance Director)
- Mr. Abraham Razack (Commercial Director)
- Mr. John Trafford (Personnel & Administration Director
and Secretary to the Managing Board)
- Mr. Joe Wade (Light Rail Director)

The Corporation's organization structure by function is as follows :-



KOWLOON-CANTON RAILWAY

(1) Passenger Services

Electric train service between Kowloon and Lo Wu

The railway was completely electrified in July 1983, since then all passenger services on the 34-km railway with 12 stations are operated by electric multiple unit (EMU) trains.

Trains operate from 6 a.m. to midnight. During the morning and evening peak periods, they run at $3\frac{3}{4}$ -minute intervals between Kowloon and Tai Po Market, 5-minute intervals to Sheung Shui, and 15-minute intervals to Lo Wu. Outside the peak hours, there are 9 trains an hour each way between Kowloon and Tai Po Market, 6 trains an hour between Kowloon and Sheung Shui, and 3 trains an hour between Kowloon and Lo Wu. Additional trains run between Kowloon and Racecourse stations, which are strengthened during race meetings or cross betting events held at Shatin Racecourse. The whole trip from Kowloon to Lo Wu takes only 37 minutes.

To serve the new housing estates expected to be completed between 1988 and 1989, a new station in north Tai Po, scheduled to open for service by late 1988, is being constructed.

Rolling stock consists of 61 three-car Electric Multiple Units. The EMUs are of two types, the outer suburban sets (41) each has a small first-class section, a luggage compartment, and two toilets, while the inner suburban sets (20) intended for shorter journeys are ordinary-class only. An outer suburban EMU set has a capacity for 775 passengers - 226 seated and 549 standing, while that of an inner set is 845 passengers - 256 seated and 589 standing.

Trains are mostly of six-car formation, building to 9 cars during busy periods. All trains have at least one outer suburban set.

To cope with the anticipated growth in passenger traffic in years to come, an order for 25 sets of EMUs, scheduled to be delivered between 1987 and 1988, was placed in 1985.

For local travel between Kowloon and Sheung Shui stations, fares for adults range from \$1.50 to \$5.00 for single journey, ordinary-class. For journeys to and from Lo Wu Station, fares for adults range from \$9.00 to \$14.50 for single journey, ordinary-class.

Kowloon Tong Station provides easy interchange with the Mass Transit Railway. To enable passengers to travel on both the KCR and the MTR with a single ticket, Common Stored Value Tickets (CSVTs) valid for six months in denominations of \$50, \$100 and \$200 (\$15 for children) are available.

Through train service between Kowloon and Guangzhou

This service is operated in conjunction with the Guangzhou Railway Administration. The diesel-hauled trains are air-conditioned.

Four trains are operated each way daily, accommodating about 750 passengers per train and the journey takes about three hours from Kowloon to Guangzhou.

Number of passengers carried

In 1985, the railway carried about 103.39 million passengers, including 1.64 million on the through train service.

(2) Freight Services

About 20 freight trains operate daily, 10 in each direction. Loaded wagons come into Hong Kong from China and some are loaded in the reverse direction. Freight traffic is exclusively conveyed in diesel-hauled wagons which belong to China.

Freight terminals are located at Hunghom, Homantin (for livestock handling), Sha Tin and Fo Tan. A new terminal in Mong Kok has been opened in November 1986.

In 1985, about 2.52 million tonnes of goods and 2.06 million head of livestock were carried by the railway to Hong Kong while exports to China were 588,000 tonnes.

(3) Commercial Activities

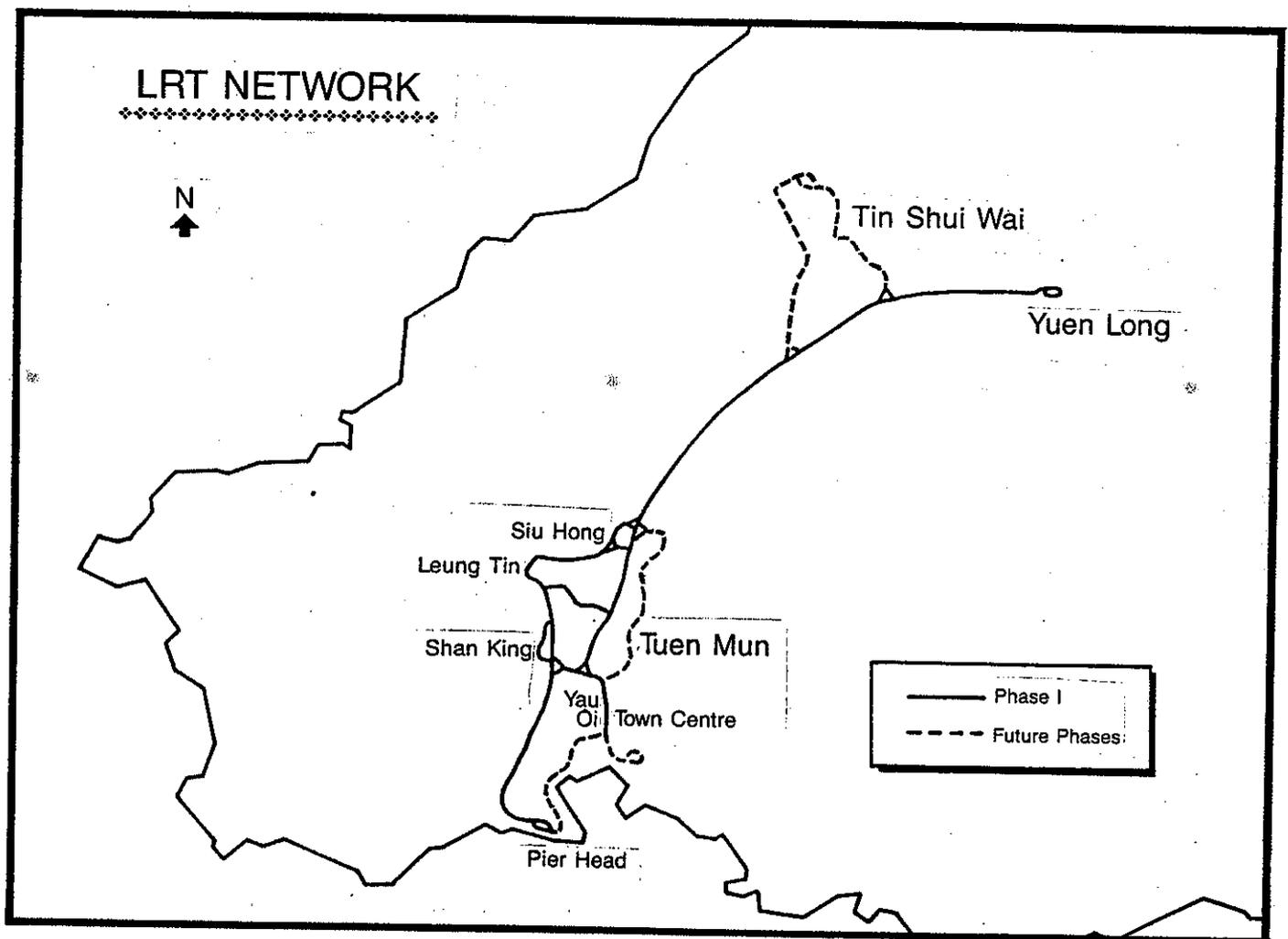
The Corporation also devotes considerable effort in the development of associated commercial activities to make the best use of its assets to generate ancillary revenue. These include leasing of space for offices, shops, restaurants, kiosks and duty free business, the award of contracts for operating the multi-storey carpark above Kowloon Station and advertising rights on KCR properties, and property development. The first property development project undertaken by the Corporation is a residential/commercial complex which will be jointly developed by the Corporation and a local property developer above the future LRT terminus in Tuen Mun. The project is expected to be completed in 1989.

Light Rail Transit System

The Corporation has accepted Government's invitation to construct a light rail transit (LRT) system in the western New Territories and to become its owner/operator.

The LRT network as planned comprises 16 routes on 34 kilometres of double track and about 66 stops serving Tuen Mun, Yuen Long, the Castle Peak Road Corridor between Tuen Mun and Yuen Long, and Tin Shui Wai. When fully completed in the early to mid-1990s, the LRT system will be capable of moving 70,000 passengers an hour and will become the backbone of a comprehensive and integrated public transport system for the region.

The \$1 billion contract for phase 1 of the project, covering 7 routes on 23 kilometres of track and with 41 stops, was awarded to the Leighton MTA consortium of Australia in August 1985. Work on site started in late 1985 and commercial service is scheduled to commence in the summer of 1988.



BRIEF HISTORY

- 1898 The British Chinese Corporation obtained a concession from the Qing Dynasty to build the railway between Canton (Guangzhou) and Kowloon. Later on, the original agreement was altered such that the railway was divided into two sections at Shenzhen River. Each section was to be built by the respective governments.
- 1906 Work on the 35 km British Section commenced.
- 1910 British Section of KCR in operation as a single-track railway with 9 stations, steam-powered locomotives and mechanical signalling.
- 1914 Tsimshatsui Terminus in use.
- 1949 The through train service to Guangzhou ceased operation.
- 1962 Steam-powered locomotives replaced by diesel-powered locomotives.
- 1965 A decision was made to resite the Kowloon Terminus from Tsimshatsui to Hunghom.
- 1973 Government authorised double-tracking between Kowloon and Sha Tin, including a new double-tracked tunnel at Beacon Hill.
- 1975 The Kowloon Terminus moved from Tsimshatsui to Hunghom.
- 1976 Government commissioned Transmark, the independent consultancy arm of British Rail, to study the future requirements of KCR in relation to emerging passenger and freight needs through to the 1990s.
- 1978 Government adopted Transmark's recommendations and decided to proceed with the modernisation and electrification of the whole line from Kowloon to Lo Wu. Work on the project commenced in the middle of the year.
- A new loop line and a new station were opened to serve Shatin Racecourse.
- 1979 In conjunction with the Guangzhou Railway Administration, through train service between Kowloon and Guangzhou re-introduced as a first-class-only express service.
- 1981 New Beacon Hill Tunnel came into operation.
- Government decided to change the status of the railway from a department of Government to a public corporation. A Transitional KCR Corporation Board was established to undertake the necessary planning and preparatory work relating to the legislative, financial and management structure of the new Corporation.
- 1982 First stage of electrification and modernisation project, the electric train service for the inner suburban section between Kowloon and Sha Tin, commissioned on 6 May.
- A new station at Kowloon Tong opened to provide interchange with the Mass Transit Railway.
- KCR Corporation incorporated on 24 December and members of the Managing Board appointed.

- 1983 KCR Corporation vested and assumed responsibility for operating the KCR on 1 February.

Second stage of electrification and modernisation project, the first section of outer suburban electric train service between Sha Tin and Tai Po Market, commissioned on 2 May. Tai Po Kau Station closed.

The final stage of electric train service through to Lo Wu opened by the Governor on 15 July. Full commercial electric train service commenced on 16 July.

Diesel-hauled passenger train service ceased operation after traffic on 15 July. A special "last diesel train" was run on 23 July between Kowloon and Sheung Shui stations, carrying 680 passengers.

Tai Wai temporary station opened on 15 August.

Government announced on 22 November to invite the Corporation to consider becoming the owner and operator of the Light Rail Transit system in the western New Territories.

- 1984 Non-stop Kowloon-Lo Wu Express Train with customs/immigration formalities carried out at Kowloon Station introduced on 15 March.

To meet increasing demand, the third through train between Kowloon and Guangzhou commenced operation daily from 1 July.

The Corporation decided on 16 July to build and operate the Light Rail Transit system in the western New Territories.

The first through ticketing system on Hong Kong's public transport network enabling passengers to travel on both the Kowloon-Canton Railway and the Mass Transit Railway with one single ticket called the Common Stored Value Ticket (CSVT) introduced on 15 October.

The railway registered a record daily traffic volume of 415,000 passenger-journeys on 9 December when the first ever fireworks display was held in Sha Tin.

- 1985 A new station at Fo Tan commissioned on 15 February.

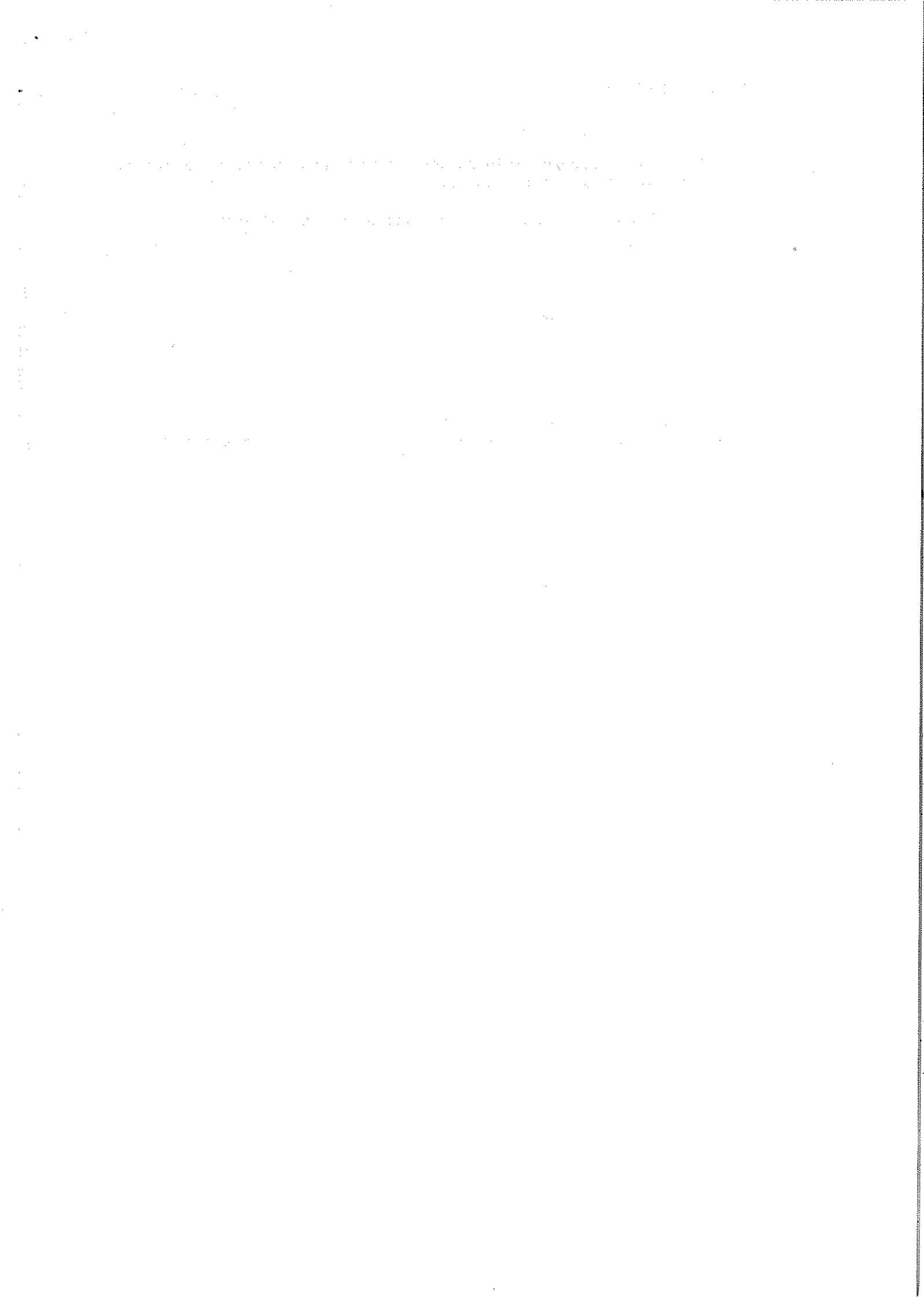
The Corporation decided in June to build a new station in north Tai Po. The station is scheduled to open for service towards the end of 1988.

Phase one LRT contract awarded to Leighton MTA consortium on 2 August.

Racecourse Station permanently opened on 1 October.

Ground-breaking ceremony for phase one of the LRT project held on 18 November.

Hong Kong Railway Museum, converted from the old Tai Po Market Station premises, officially opened on 20 December.



1986 The fourth through train between Kowloon and Guangzhou commenced operation daily from 1 April.

The permanent Tai Wai Station commissioned on 23 April.

Published by Public Relations Department
KOWLOON-CANTON RAILWAY CORPORATION

November 1986



PR/15/85/G/PRD

九廣鐵路公司
Kowloon-Canton Railway Corporation

Press Release
新聞稿

30 April 1985

Text of Speech by Mr P V Quick
Managing Director of the
Kowloon-Canton Railway Corporation
to Rotary Club of Hong Kong

The Western New Territories LRT

Last week the KCR Corporation received bids from all five international consortia who had been prequalified and invited to tender for phase one of the LRT project in the western New Territories. Your Club's invitation for a speech today gives me an opportunity to provide an update on the current situation of this exciting project. The Corporation is now busy evaluating the bids with a view to award the contract in about three months' time as originally scheduled.

The LRT is an integral part of Government's public transport strategy for the western New Territories. Though there will be no direct financial input or guarantees from Government for any loans to be secured for the project, the Government is taking a keen interest in its development and is giving active support in a number of ways.

Government is directly and extensively involved with the physical implementation of the project. It is responsible for the acquisition and formation of all land required for the LRT, including all associated civil engineering works such as footbridges, road works and diversions, new structures to carry the LRT, preparation of the depot and termini sites, etc. The Government will spend some \$500 million in the next three years on these preparatory works for the LRT. This will be in addition to the cost of forming track beds and reserves in Tuen Mun, which took place in conjunction with the development of the New Town.

/cont'd

For information please contact:-
Mr. Jonathan Yu (Sr. P.R. Manager): 0-6069362
Miss Jenny Fung (P.R. Manager): 0-6069360

查詢資料請與下列職員聯絡:
余開堅先生(高級公關經理): 0-6069362
馮群英小姐(公關經理): 0-6069360

To ensure that Government activities associated with the project are effectively planned and coordinated with those of the Corporation, a Government/KCRC LRT Liaison Committee was established and has now been working smoothly for several months. The Committee has two sub-groups to advise on transport planning and operations and the co-ordination of civil engineering works, resumptions and necessary clearances.

The five international consortia bidding for the project all have extensive experience in implementating light rail projects. Technically, we have no doubt that whoever wins the contract, the residents in the western New Territories will eventually have a high grade, efficient urban transport system which is second to none.

As the LRT is the only major development project likely to be undertaken by the Corporation in the near future, it is not considered prudent to establish a large, multi-disciplined project team to design, implement and project manage the LRT. Hence, the consortium awarded the contract will be charged with providing project management as well as design and construction expertise. Effective and efficient monitoring by the Corporation of both physical work and quality of workmanship and equipment is essential and this will be done by a small in-house project team headed by our Light Rail Director, with specialist help provided by civil, electrical and mechanical consultants and financial advisers.

An initial scrutiny of the bids showed that competition is very keen and we are confident that phase one can be completed within the original budget. Each consortium has the backing of international banks and financial institutions in providing funding for the project. There is a variety of financing proposals, some of which are very interesting, with packages supported by fixed rate Hong Kong Dollar funds with repayment periods stretching well beyond 1997. I believe this shows great support for the project, and by implication, confidence in the long-term future of Hong Kong. This is all the more encouraging in view of the fact that the KCRC will take full responsibility for the financial commitments for the LRT without a Government guarantee.

/cont'd

The various stages of tender evaluation, shortlisting and negotiations will take place in the next couple of months prior to a Board decision and formal award of contract. Construction work can then start, probably on the depot site at Area 18 of Tuen Mun close to Butterfly Estate. The rail network will then be progressively developed, starting from the Tuen Mun end where a majority of the reserves have been created, then through to Yuen Long in 1987. 70 light rail vehicles will be required for phase one and the first will be delivered in mid-1987.

Phase one of the LRT, which makes up about two-thirds of the full system at present planned, comprises seven routes on 23 kilometres of double track and 41 stops. The seven routes include four within Tuen Mun and three between the New Town and Yuen Long. We are working on a very tight implementation programme of less than three years. Commissioning tests will commence in early 1988 for opening commercial services in mid-1988.

The Corporation Board have examined the feasibility of property development above the depot and major termini (at Yuen Long and Pier Head in Tuen Mun) and concluded that development above the depot and Yuen Long terminus would not be viable in present market conditions. However, there is the possibility of a mixed commercial/residential development above the Pier Head terminus site and this is now being examined in detail.

Concurrent with the implementation of the project, the Corporation has commenced a comprehensive community relations and publicity programme in the region. As with any other major construction work, people living in and around the western New Territories will be affected by these works, and it is our objective to keep them adequately informed of progress on the system which will serve them in a few years time. The Corporation and its contractor will try and ensure that disruptions during construction will be kept to a minimum.

/cont'd

- 4 -

We have been holding briefing sessions for the district boards and mutual-aid committee representatives of estates and giving talks to schools in the region. These will continue and increase as the project develops. The Corporation is represented on the Traffic and Transport Committees of the Tuen Mun and Yuen Long district boards, whose views on the project together with those we obtained through public opinion surveys will be fully taken into account. A number of suggestions including naming of stops and provision of ramps at stops for use of the system by the physically handicapped have already been taken on board.

The LRT will form the backbone of the internal public transport system of the western New Territories. I am sure all of you understand the important role transport plays in the well-being of a community. We are certain that the LRT will assist and stimulate growth in the region. Operationally our objective is to make it a user-friendly community system that is simple, convenient and economical to use, yet still provide the benefits of safety, comfort, efficiency and freedom from pollution like a modern mass transit railway.

Unlike the MTR, all work for the LRT will be on the surface. Residents in the region will find it interesting to watch a brand new rail system growing before their eyes, a transport system we believe they and Hong Kong can be proud of.

Presentation on Light Rail Transit System
by Kowloon-Canton Railway Corporation
to Tuen Mun District Board

30 June 1986

Introduction

1. The Corporation is pleased to be able to meet members of the district board again to give an update on the LRT project. During the past year-and-a-half, our representatives have conducted briefing sessions to all public housing estates along the LRT route in Tuen Mun and Yuen Long and given 48 talks to schools and community organisations in the region, with approximately 20,000 people attending altogether. In addition, exhibitions were held, pamphlets distributed and a videotape on LRT shown. In total, we estimate that about one-third the residents in the region now have a fair degree of knowledge of the LRT. During our discussions with organisations and residents in the region, we have been able also to gather views and opinions on various aspects of the system. These activities will continue in the next two years prior to the commissioning of the system.

2. The contract for phase one of the LRT was awarded to an Australian consortium in August last year and work commenced on site later that year. What we will try to do today is to talk about the progress of work on the contract and introduce our latest concepts on and design of various aspects of the system and give you some ideas on the type of service we will be able to provide to the region when phase one of the LRT commences service in August 1988.

Civil Works

3. For the past few months, government and the various utilities companies have been doing a variety of preparatory works all over Tuen Mun and Yuen Long in forming the LRT reserve and in diverting utilities to make way for the LRT. These preparatory works are coordinated by government who then hands over work sites to our contractor. Utility diversion is substantially complete in Tuen Mun except those at Tai Hing and Yau Oi Estates. The works along Castle Peak Road from Nam Tei to Yuen Long are expected to be completed by mid-1987.

.../cont'd

4. The civil works in the actual LRT contract generally involve the preparation work for the formation of LRT reserve to the final level and the installation of associated drains, cable ducts and overhead line mast foundations; it also includes the laying of trackworks and the construction of stops, termini & interchanges, electricity substations and rectifier stations and depot buildings. The nature of the civil works in this project can be considered to be relatively simple but they are complicated by the fact that work has to be carried out along 23km long narrow strips of sites, of which some are located inside densely populated housing estates. The engineering team is trying every possible means to minimize any disruptions and inconveniences that the construction works may cause to the general public.

5. According to the Contractor's construction programme, civil works will generally be carried out in a northerly direction starting from the Depot and railway reserve near Butterfly Estate and Melody Garden in Tuen Mun. So far, civil works have concentrated largely on the depot site in Area 18 of Tuen Mun, where piling for the administration building and workshops has been completed. The depot occupies an area of about six hectares and includes an administration building, maintenance workshops, service areas and a light rail vehicle stabling yard. The preparation of the permanent way formation reserve has just commenced in Tuen Mun in early June. It is anticipated to commence work in road junctions in September this year. The trackworks, stops, termini & interchanges, electricity stations are still under detailed design by the civil and structural engineers.

Formation and Trackwork

6. Since the LRT system is designed in such a way that it does not require any viaducts and tunnels, as a clear distinction from the KCR and MTR, all the tracks will be laid at ground level. Therefore, it is required to excavate wide trenches of approximately 700mm deep in order to accommodate ballast, sleepers and rail. Temporary drainage system and barriers will be provided when necessary during the excavation. The tracks will be standard gauge steel rails, continuously welded and laid on prestressed concrete sleepers similar to the KCR.

.../cont'd

7. Because over 95% of the tracks will be laid on a segregated right-of-way reserve adjacent to the roads, the existing traffic will be virtually unaffected by the construction works in these areas. These tracks will be segregated from road traffic through a variety of ways designed by government, e.g. tref kerbs, fencing or vegetation. Except for the section in Yuen Long main road and Pui To Road, these segregated tracks will be ballasted like traditional railway tracks.

8. At the moment, a major bridge for LRT is being constructed over the nullah adjacent to the road bridge in Pui To Road, scheduled to be completed early next year. Track laying along Lung Mun Road, Melody Garden will commence in late 1986, in Shan King Estate and Tai Hing Estate in early 1987, and in mid 1987 in Yau Oi Estate and Siu Hong Court. Test run of vehicles will commence in September or October 1987 along the Lung Mun Road section of track, and progressively extend to other areas.

Stops

9. Outline design of the stops has been agreed. There will be 41 stops for phase one and these are conveniently located. The stops will be simple and functional. This slide shows a drawing of a typical stop from the trackside and this slide shows the view from the other side. Each stop, apart from those on loops in some areas, has a minimum of two platforms, one serving each direction of travel. The platforms will be 40 metres long and generally three metres wide, and about 910 mm above rail level matching the vehicle floorline to enable easy boarding and alighting. All stops will have ramps and steps for access and canopies for shelter. Access to the stops will generally be by adjacent footpaths, footbridges, or pedestrian crossings. Ticket vending machines and a public address system will be provided on platforms. Construction work on each platform will take a few months. As the LRT stops are still under detailed design, it is difficult to determine precisely when each stop will be constructed. However, according to the programme, the first stop construction will commence in August 1986 and the last one will be completed by April 1988.

.../cont'd

Power Supply and Overhead Line

10. The light rail vehicles will draw power from an overhead catenary system. Power comes from CLP's 132kV network to two primary substations, one in Yuen Long one in Tuen Mun, and is then distributed to 10 rectifier stations and workshop substation via LRT's own internal 11kV network before transforming into 750V direct current to feed the overhead lines. Construction of the primary substation in Tuen Mun will commence soon.

Communications and Control

11. Comprehensive communications and control facilities have been planned to ensure safe and efficient service. The systems will be based on an operational control centre which is located in the depot administration building. The centre regulates and supervises all vehicle operations as well as the associated electrical, mechanical and communication systems.

12. The operational control centre has direct radio contact with all light rail vehicles and the centre can use the public address system to talk to passengers on board or at the stops. It also serves as the centre for external communications in the event of emergencies, liaising with the emergency services as well as Transport Department and other transport operators.

13. The LRT's control system also consists of traffic lights and track switches which will be activated by means of a track-side loop and transponder on the light rail vehicles. The transponders will activate the lights to give suitable levels of priority to the light rail at road junctions. The loops and transponders will also be used to provide information to the operational control centre for comparison of actual and scheduled vehicle operations. The centre can use this information to assist drivers to maintain their schedules and deal with vehicle breakdowns and other problems.

System Reliability

14. It would be useful when talking of the power supply and control systems to address the question of reliability. Electrically the phase one network is divided into two sections - Tuen Mun and Yuen Long (including the corridor), power supply for each section is fed from its own primary substation. In normal operations the two substations are independent, but in case of failure of one, the other will be able to supply electricity to the whole network.

.../cont'd

15. In each of the rectifier stations which I have mentioned, there will again be two transformers, so that in case of failure of one, the other will be able to continue to supply electricity. In the event of the failure of the entire rectifier station, electricity for that particular section of the overhead line will be fed from the two adjacent rectifier stations.

16. It should also be noted that the LRT system in Tuen Mun is a network. In case of total failure of one particular section, the control centre can divert vehicles to run along other lines and at the same time inform passengers at the affected stops. It would also be able to re-orient the system's feeder buses to assist in carrying passengers on the affected section. For major breakdowns, the Transport Department already has established procedures in coordinating services of the various transport operators and no doubt plans will be devised for the LRT service area as well.

Light Rail Vehicles

17. The vehicles will be of modern design, built to suit Hong Kong's operating conditions and designed to provide a high quality of passenger convenience and comfort. The LRV main body is made of stainless steel while the cab, rear end and the side skirts are of fibre glass. The vehicles will be single-decked, 20 metres long, 2.65 metres wide, with three sliding doors on the platform side. Each can accommodate 60 seated and 130 standing passengers. The LRV is single end drive normally with the provision for rear end driving in emergencies or in the depot.

18. Since the LRVs have to mix with road traffic at junctions, some aspects are similar to road vehicles, e.g. direction indicators. The braking performance is compatible to road vehicles and the LRVs can accelerate rapidly to attain maximum speeds of up to 80 kilometres per hour. The LRV is propelled by two motors, one on each bogie. The motors are driven by advanced power-electronics device to improve riding comfort and reduce power consumption.

19. All vehicles will be air-conditioned and a special feature of the design is reducing the "temperature shock" to passengers. The interior temperature of the vehicles will change with outside temperature so that a reasonable difference is maintained to give maximum comfort to passengers while reducing power consumption. For example, if the outside temperature is 35°C, the temperature inside will be at 28°C, but when the temperature outside is 25°C, the inside temperature is also 25°C.

.../cont'd

20. 70 LRVs have been ordered for phase one. Manufacture has commenced in Europe on the bogies and traction equipment, and in Australia for body works. Test run of the first vehicle will commence in the manufacturer's plant in Australia in February 1987. The first batch of LRVs will be delivered to Hong Kong in mid-1987 and testing should commence in Hong Kong in September or October next year.

21. Some residents have expressed concern about noise generated by the LRVs. Modern light rail vehicles are fairly quiet compared with heavy road vehicles and we have incorporated into the vehicle design a lot of special features that will help to minimise noise. Unlike MTR or KCR trains where the entire air-conditioning unit is mounted on the roof, the unit is split-mounted on LRVs, with the evaporator on the roof and the noisier condenser unit on the underframe. The side skirt of the vehicle body bounds the noise and also partially absorbs it as it has sound absorbing coating. The pneumatic system uses screw type air-compressor which is much more quiet than conventional ones. On the wheels of the vehicles, there are rubber elements between the wheel rim and hub to dampen the sound generated and give more flexibility to the wheel when turning on curves. Some of the vehicles are equipped with flange lubricators which give a thin film of lubricant on the rail which will further reduce the noise.

22. The Corporation is in consultation with the Environmental Protection Department on noise aspects and we have engaged a noise consultant who will conduct noise assessment studies in the area and in future assist us in monitoring the situation. The professional view we have so far obtained is that the LRVs will not generate excessive noise levels.

Operational Objectives

23. Phase one of the LRT comprises 23 kilometers of double track with 41 stops. The LRT system and its associated feeder bus services have been designed to provide a comprehensive and integrated public transport service within Tuen Mun, Yuen Long and Castle Peak Road Corridor between the two towns. Our objective in determining the routes, stops, frequencies and fare collection system is to provide residents of the region with a safe, frequent, flexible and highly efficient and convenient service which can cope with future development in the area.

.../cont'd

Routes and Service Characteristics

24. Our present intention is to operate seven LRT routes on completion of the phase one contract, of which four routes will be within Tuen Mun and three between Tuen Mun and Yuen Long. The routes as at present envisaged are:

Within Tuen Mun	{ Tuen Mun Ferry Pier to Yau Oi Tuen Mun Ferry Pier to Siu Hong Yau Oi to Siu Hong Yau Oi to Leung Tin
Between Tuen Mun and Yuen Long	{ Tuen Mun Ferry Pier to Yuen Long Yau Oi to Yuen Long Shan King to Yuen Long

25. In addition to the LRT routes, we will be using over 20 buses to operate several feeder bus routes in the region to serve those areas not covered by the phase one LRT routes and places where considerable demand for internal travel exist. At present we plan to run the following five bus services:

So Kwun Wat to Tuen Mun Town Centre
Bowring Camp to Tuen Mun Town Centre
Tap Shek Kok to Tuen Mun Ferry Pier Interchange
Yuen Long Interchange to Lau Fau San
Yuen Long Industrial Estate to Tai Tong

26. We have been approaching the companies operating buses in Hong Kong (including KMB) to see if they would like to run the feeder buses on our behalf. It is also possible that the Corporation buys new buses and operate the feeder routes ourselves. A firm decision on this will be made within the next few weeks.

27. You can see from this map the comprehensive internal service we will be able to offer. With the Corporation in charge of both the LRT and the bus feeders, we will be able to coordinate routings and frequencies more effectively. The major interchanges at Yuen Long terminus, Tuen Mun Town Centre and Tuen Mun Ferry Pier will enable the system to be effectively linked with other modes of transport as well as external bus services operated by KMB.

28. The service frequency on individual LRT routes will range from 6 to 15 an hour (i.e. a vehicle every 4 to 10 minutes). The LRVs will run from 5.30 a.m. to half-past midnight on weekdays, and 6 a.m. to 12 midnight on Sundays and public holidays.

.../cont'd

29. The LRVs will be capable of travelling singly or in pairs. The average speed, including stopping times on routes, is likely to be about 25 kph. A typical journey from Tuen Mun town centre to Yuen Long town centre will take about 20 minutes.

Fare Collection

30. While certain technical details have yet to be worked out on the fare collection system, the basic parameters for achieving our objective of having a simple system that is easy to understand and use have been determined.

31. A totally new fare system to give maximum convenience and benefits to regular users will be introduced. It will be an open fare system with no barriers or turnstiles. A simple zonal integrated fare structure for both the LRT and its feeder buses will be used (though the number and boundaries of zones have yet to be finalised), enabling free transfer between different routes within the same fare zone and free transfer between LRT and feeder buses. Travel from one zone to another will have a higher fare than travel within one zone.

32. There will most probably be two types of tickets, single journey tickets which are available from automatic ticket vending machines on all platforms of stops purchased for a particular journey, and tickets which will be available from the termini and commercial outlets in the region, enabling passengers to travel multiple journeys within a specified period of time. As the LRT will be a transport system dedicated to serve the western New Territories, our present intention is to give the regular travellers who use the second type of tickets the greatest benefits. It is likely that they will pay, on average, a lower fare per journey compared with occasional users who use single journey tickets. Design of the ticket vending machines and tickets are in progress. Work will commence shortly on the fabrication of a prototype vending machine.

33. With over two years to go before the LRT is in operation, we cannot be precise at this stage as to the level of fares we will be charging. We can assure you however that fares will be set at very realistic and competitive levels to attract the maximum ridership, not forgetting that the LRT will have to compete with mini-buses, taxis, private cars, etc. Though we have no idea what bus fares will be like in 1988, we are certain that LRT fares will not be substantially higher than bus fares. Generally speaking, taking the system as a whole, people may be paying a little bit more than the buses. Considering the higher standard of service provided by the LRT in terms of frequency, comfort, reliability and safety, most people would consider this difference in fares reasonable.

34. As an indication of LRT fare levels in cash terms, should the system be operating today, we would suspect that short distance passengers may be charged more or less the same fare as the buses; for medium distance travellers, they may be paying at most 20 or 30 cents more than the buses; and, for the long distance travellers, a slightly higher premium. If one takes into account the more comprehensive network coverage of LRT and its bus feeders and the zonal and integrated fare structure, a not insignificant portion of passengers may in fact find it cheaper to travel on the LRT!

Property Development

35. KCRC has started to look into property development schemes to make the best use of its land assets. Of the three possible areas for property development associated with the LRT, the one above the Tuen Mun Ferry Pier terminus and transport interchange has been finalised and work has started on site. The two others, i.e. the depot site in Area 18 of Tuen Mun and the Yuen Long terminus are actively being pursued. All three developments will comprise blocks of residential units above a podium with commercial and recreational facilities. These developments will add to the supply of private sector housing in the region, provide residents with more facilities for shopping, leisure and recreation, and additional passengers for the LRT. The profits when realised will help the Corporation to reduce borrowing, assist in projects to improve or renew passenger facilities, and help develop future infrastructural projects such as extensions to the LRT.

Employment Opportunities

36. We envisage that about 500 staff will be required when phase one of the LRT is in operation in 1988. The bulk of the staff will be recruited between late 1987 and mid-1988. The Corporation expects a significant portion of the workforce to come from Tuen Mun and Yuen Long and we welcome applications from qualified candidates in the region.

Future Extensions

37. One of the advantages of having an integrated transport system in the region based on the LRT is that the bus feeders can quickly and efficiently be replaced with LRT when demand increases, and the LRT itself has the capacity to expand to serve the region's needs well into the next century.

.../cont'd

38. I am sure most of you are aware that the Corporation is undertaking a consultancy study on extensions to the LRT system, including possible links to the KCR and the MTR. The study in fact consists of two parts, the first on extensions within the western New Territories. The possible routes include the following:

- Yau Oi to Tuen Mun Ferry Pier
- link with Sam Shing Estate
- the Bowring Camp loop
- the line serving Tin Shui Wai
- link with Long Ping Estate

39. The consultants will examine the extent and content of these and other additions to the system and determine the optimum timing for their construction. Some of these will, of course, have to tie in with or are dependent on government development plans or works in the region, for example, plans for Tin Shui Wai and the reclamation south of Yau Oi.

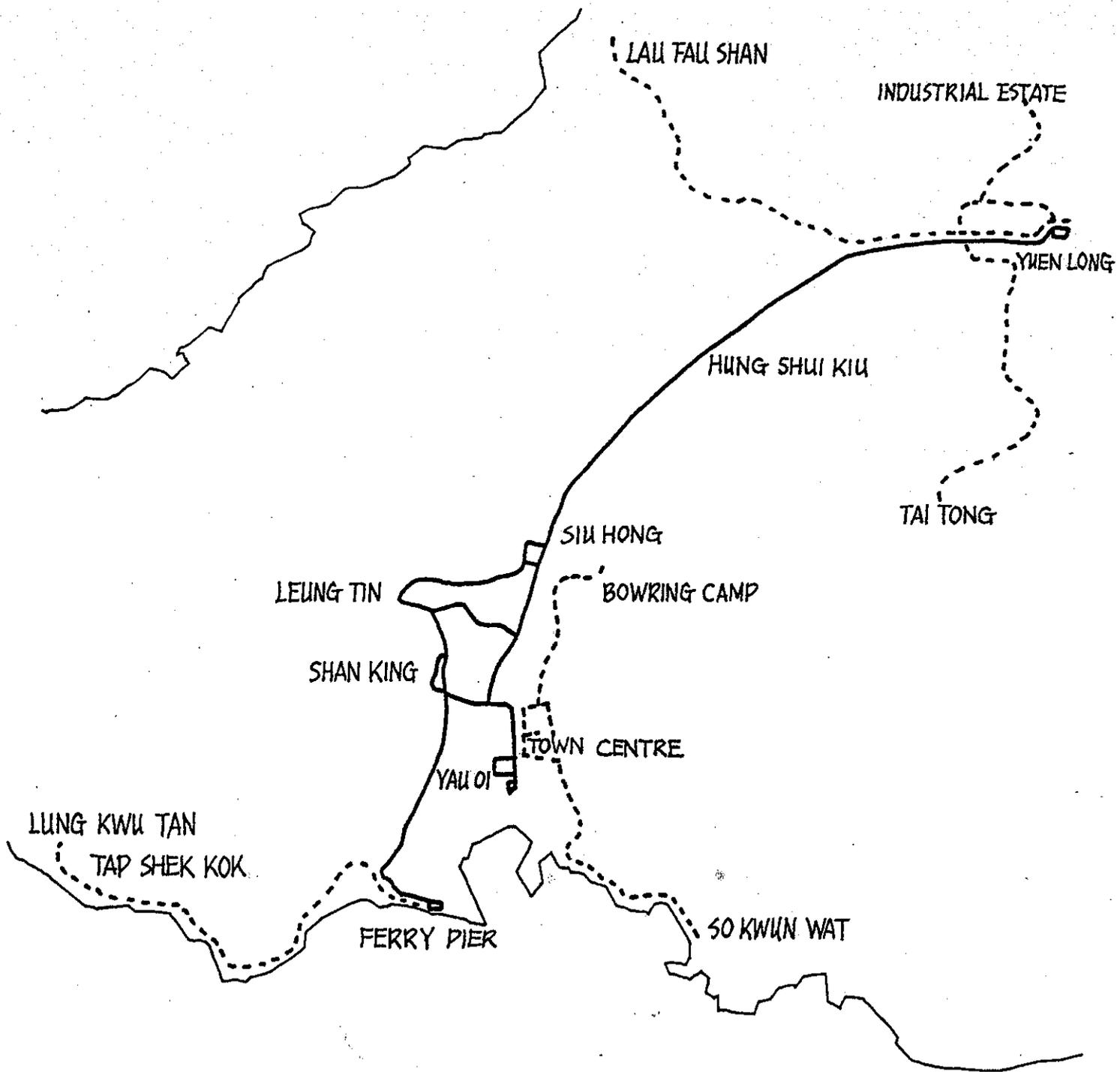
40. The second part of the study examines possible links with the urban area. All the three possible corridors will be investigated, i.e. a connection from Tuen Mun to Tsuen Wan along the coastline, a link from Yuen Long to Tsuen Wan, and a link from Yuen Long eastwards to join the KCR at either Sheung Shui, Fanling or Tai Po. The consultants will evaluate the construction cost, patronage projections and potential revenue from these options to come up with a recommendation for the preferred option, and propose an implementation plan for the link if such link is considered viable. The whole study is expected to be completed at the end of the year.

Conclusion

41. In conclusion, the Corporation will endeavour to see to it that the LRT system that will be operating in a little over two years' time will stand comparison with the best systems in the world. We are confident that the system will be welcomed by the people living in the western New Territories and that it will grow together with future growth and development of the region, making it a better place to live and work. We are also convinced that some time in the future, Hong Kong will have more LRT systems built.

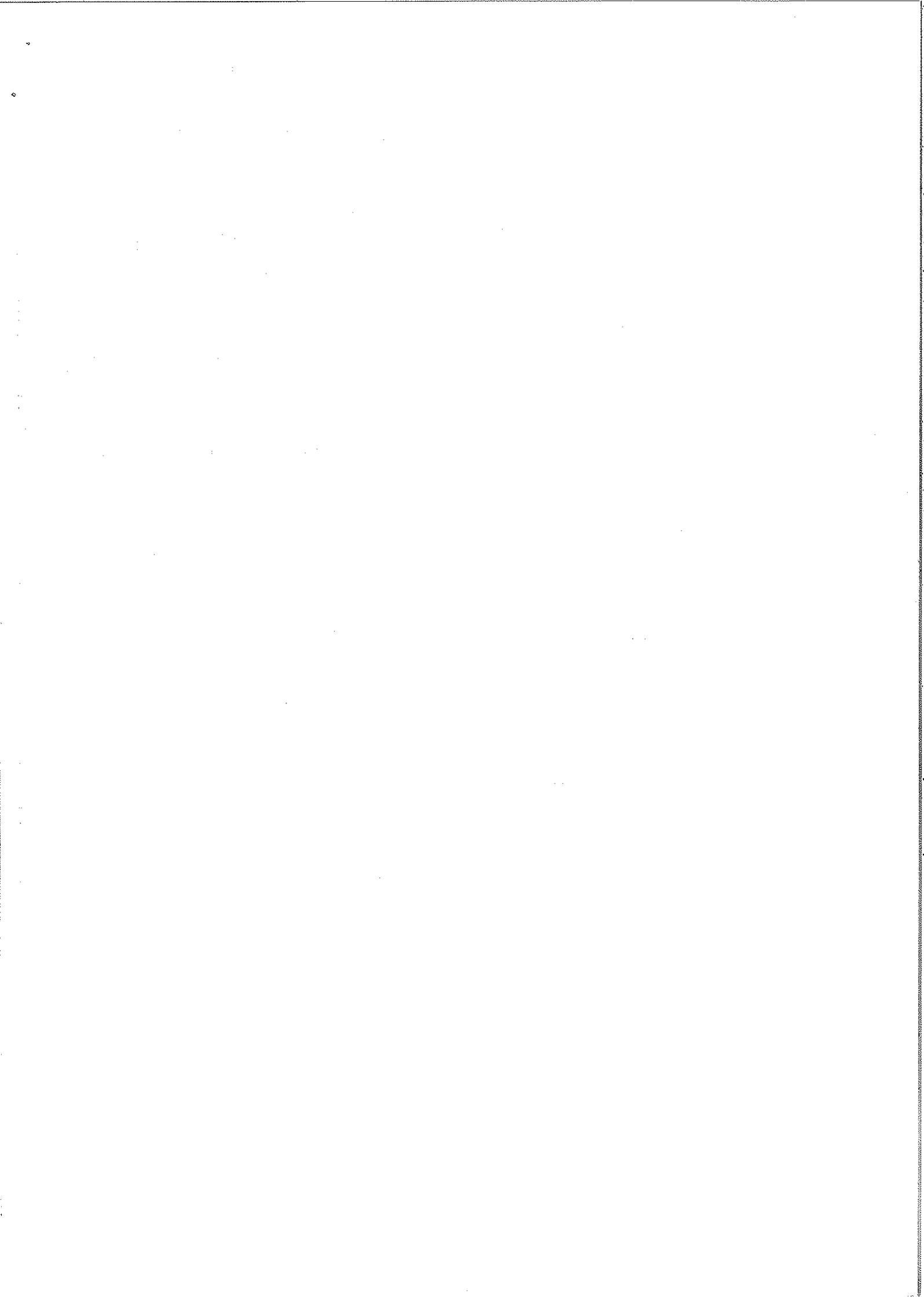
42. The LRT will be a community transport system of Tuen Mun and Yuen Long. It is our aim to continue to keep in close touch with residents in the region and their representatives. We are always prepared to listen to your views and discuss with you your areas of concern. My colleagues and I will be pleased to answer any question that you may have. Thank you.

LRT PHASE ONE AND FEEDER BUSES NETWORK



— LRT PHASE I

- - - - PROPOSED FEEDER BUS ROUTES





PR/44/86/G/PRD

九廣鐵路公司 Kowloon-Canton Railway Corporation

Press Release

新聞稿

4 December 1986

Text of speech by Mr. Joe Wade, Light Rail Director of the Kowloon-Canton Railway Corporation at the Luncheon Meeting of the Rotary Club of Kowloon on 4 December 1986

Light Rail Transit

INTRODUCTION

I've been invited to talk to you about LRT. First let me give you a potted history.

In 1972 a modern tram system was proposed by Hong Kong Tramways to Government for the new town of Tuen Mun.

In 1978 Government sponsored the Tuen Mun New Town Transport Study of alternative modes which recommended the LRT.

This recommendation was accepted quickly and negotiations with Tramways and their parent company, in various forms, continued until January 1983 when negotiations were called off.

In November of that same year Government invited Kowloon-Canton Railway Corporation (KCRC) to build and operate the LRT which during the previous 5 years negotiations developed from a Tuen Mun Town System into a Regional System for the North Western Region serving Tuen Mun, Yuen Long and the proposed new development at Tin Shui Wai.

On July 16, 1984 KCRC decided to accept Government's offer, to build and operate the Regional System. Tender documents were issued in January 1985 and the Contract for Phase 1 of the Regional System was placed in August 1985. Included in that Contract for Phase 1 were options for the construction of the remainder of the System.

That's the potted history up to Contract award for Phase 1 which, now that you have been reminded, you will all recall.

Now I would like to tell you briefly what has happened since then.

PROGRESS ON PHASE 1

Since August 1985 we have made good progress. The legislation to empower KCRC to build and operate the LRT and its feeder services has been enacted.

The majority of utilities that were within the LRT reserve have been diverted.

The work to form the reserve in the northern area by Government is making good progress.

For information please contact:
Miss Jenny Fung (P.R. Manager): 0-6069360
Mrs Tracy Lai (P.R. Officer): 0-6069355

查詢資料請與下列職員聯絡:
馮群英小姐(公關經理): 0-6069360
勵吳麗娟女士(公關主任): 0-6069355

The majority of the design for the LRT is completed and the remainder will be completed over the next few months.

The construction of the property development taking place over the Pierhead LRV/ferry and bus interchange is making good progress as is clearly visible.

The designs of the podiums for property development at the depot site and Yuen Long LRT/bus interchange are nearly completed.

All this is taking place in a background of the recent successful sale of residential units by Sino Realty at the Tuen Mun Town Plaza and the rising demand for industrial land in the Region.

The LRT depot site has been formed and the administration buildings and workshops are taking shape.

Trackwork is being laid and bases for the overhead line poles are being installed.

The vehicle manufacturer has started manufacture. European components are already being delivered to Australia and the first vehicle is expected to be running around on a test track in Melbourne in 3 months time.

Serious recruitment for operational personnel has now started to meet the intensive training activities that are a feature of the 1987 and 88 programme.

We are as you can see on course for the 1988 opening.

PROBLEMS

Of course we have not got this far without problems.

One of the major ones that is not yet resolved has arisen from reappraisals of population growth in the Region mainly as a result of the planned slowdown in the development of Tin Shui Wai. Tin Shui Wai you will remember is the joint Government-private sector project to develop an area of 488 hectares which could ultimately house 340,000 people. In July 1982, Government entered into a joint venture agreement with Mightycity Company Limited, whereby Mightycity will be paid \$1,458 million from Government for surrendering its land. However, Mightycity is to spend not less than that amount on its portion of the development of around 40 hectares. Government has so far committed a further \$130 million on planning, investigation, design and construction work.

The slowdown of the Tin Shui Wai population growth means that it will only have 90,000 people in 1992 and 146,500 in 1996.

This will affect the revenues of the LRT in the early years of its operation. However there is a rainbow. Government is becoming concerned about its current policy to concentrate developments in the area of the Hong Kong harbour and, of course, is reviewing how best it can maximise the use of its investments in Tin Shui Wai. So what has gone down for the moment hopefully will soon recover - perhaps even to greater heights.

WHAT'S NEXT

In the immediate future we are planning to complete the Regional System as soon as sensible.

Phase 1 represents only 23 km of the 34 km trackwork system and only 70 of the 145 vehicles needed to complete the Regional System.

It is being built in phases this way to match the availability of the formed land for the track and the projected build up of population. Phase 1 was not and is not intended to stand alone.

So although our thinking is, as yet, not finalised the preliminary plan for additional routes to the Regional System looks like this :

Route	
From	To
1. Tuen Mun Ferry Pier	Yau Oi
2. Yau Oi	Sam Shing
3. Town Centre	Tuen Mun (NE)
4. Town Centre	Tuen Mun (SE)
5. Sam Shing	So Kwun Wat Marina So Kwun Wat Town Centre
6. Yuen Long (Northern Bypass line serving Long Ping Estate)	-
7. Tin Shui Wai Stage 1	-
8. Tin Shui Wai Stage 2	-
9. Tin Shui Wai Stage 3	-

If all goes well, the whole Regional System could be significantly completed by 1992 leaving only the final leg at Tin Shui Wai and the final connection at So Kwun Wat to be done thereafter.

Now, for the Urban Link. We have employed Consultants to study the viability of linking the LRT in the North West Region to the Urban area via KCR at Sheung Shui or Fanling or Taipo and via MTR at Tsuen Wan.

The specific routes being studied are :

Yuen Long - Sheung Shui/Fanling
Yuen Long - Taipo
Yuen Long - Tsuen Wan
Tuen Mun - Tsuen Wan

The Consultants' final report is not due till January 87. However we did plan to shortlist 2 routes for more detailed study after the first few months of study. We have done this and we are studying in more detail the

Yuen Long - Taipo and
Yuen Long - Tsuen Wan routes.

The northernmost route to Sheung Shui/Fanling has too few passengers.

The southernmost route is too expensive, costing about half as much again as the Yuen Long - Tsuen Wan route and more than twice the Yuen Long - Tai Po route.

The Yuen Long - Tsuen Wan route looks the best prospect for high patronage and lower costs. It is the shortest link between the regional system and the heavy railways, having a route length of about 12.5 kilometres. A journey on the LRT from Yuen Long to Tsuen Wan is expected to take only slightly over 12 minutes.

We see that an Urban Link is important and it makes transport sense. However for KCRC to proceed it must be viable. The prospect of this link going ahead is threatened by indications that Government is planning to build a major highway parallel to the proposed LRT route and, of course, the slowdown in Tin Shui Wai. This aspect is a matter of concern which we need to monitor as Government plans develop further.

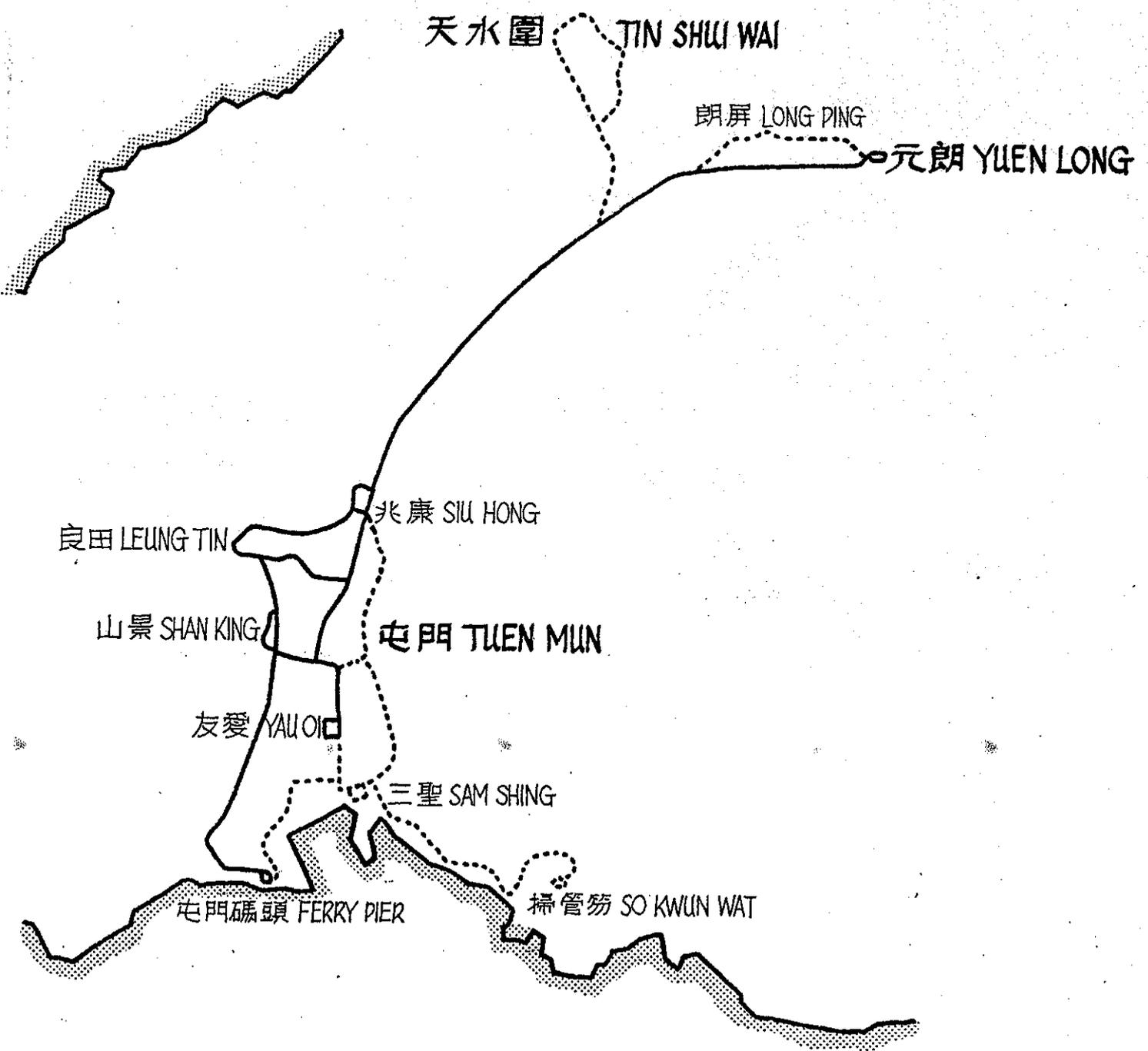
The Yuen Long - Taipo route has less patronage than the Tsuen Wan route but its costs are lower and it does complete the transport loop to KCRC's main line in the East.

When we are likely to start work on the Urban Link? We could start work as early as 1990.

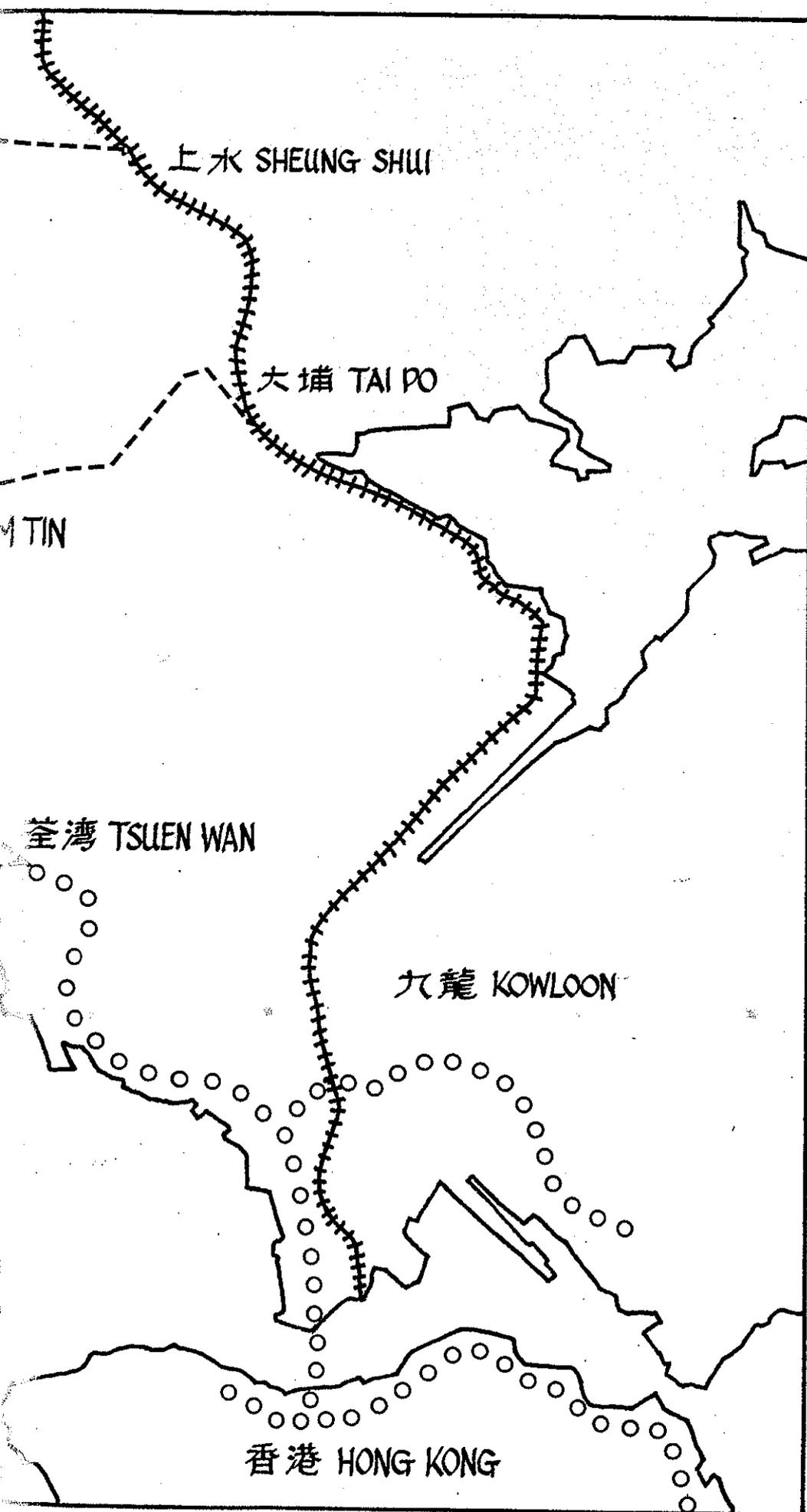
- End -

輕便鐵路路線圖

LRT NETWORK



—— 第一期路線 REGIONAL SYSTEM PHASE I
 設計中路線 REGIONAL SYSTEM UNDER DESIGN



上水 SHEUNG SHUI

大埔 TAI PO

M TIN

荃灣 TSUEN WAN

九龍 KOWLOON

香港 HONG KONG

++++++
九廣鐵路
KCR

—————
輕便鐵路
LRT

輕便鐵路擴展至
市區的可能路線
POSSIBLE LRT
URBAN LINK

○○○○
地下鐵路
MTR