



Environmental Report of
Transport Branch,
Transport Department and Highways Department
2001/2002

Environmental Report of Transport Branch of the Environment, Transport and Works Bureau, <u>Transport Department and Highways Department 2001/02</u>

FOREWORD

As one of the world's most densely populated and fast-moving cities, Hong Kong people expects not only a safe and reliable transport system but one that is provided in an environmentally friendly manner. More efficient use of road space may mean the need to change buses to get to your destinations and better environment for pedestrians may lead to longer walking distance to pick-up/drop-off points. Our travelling habits and mindsets have to change.

We are encouraged to note that these changes are happening. With public support, priority is now given to railways, an efficient and environmentally friendly mode of transport. Bus passengers now want to see more bus-bus interchanges and enjoy the advantages that bus route rationalisation has brought. Pedestrians feel the improvement brought by pedestrian schemes and are urging for its extension to more districts.

We will continue our efforts to minimise the impacts of transport activities on our environment and provide the community with an efficient and environmentally friendly transport system that will meet its social, economic and recreational needs.

ENVIRONMENTAL STATEMENT / POLICY

"The Environment, Transport and Works Bureau, the Transport Department and the Highways Department are committed to providing transport infrastructure and services in an environmentally acceptable manner to ensure the sustainable development of Hong Kong."

CHAPTER 1 - INTRODUCTION

This is the third environmental report published by the Transport Branch of the Environment, Transport and Works Bureau, the Transport Department and the Highways Department.

2. The Transport Branch's main responsibility is to formulate policies on the development of the transport infrastructure, the provision of transport services, the management of traffic, and the introduction of environmental improvement measures in transport-related areas. The Transport Department and the Highways Department are responsible for implementing these policies.

Programme Areas of Transport Branch, Transport Department and Highways Department

- 3. In pursuing our policy objective to provide a safe, efficient and reliable transport system which meets the economic, social and recreational needs of the community, and is capable of supporting sustainability and the future development of Hong Kong, we will –
- expand and improve our transport infrastructure network
- improve the quality and co-ordination of public transport services
- manage road use, reduce congestion and promote safety
- seek and support environmental improvement measures in transport-related areas

- 4. The programme areas of the Transport Department are to -
- implement policies on public transport development, franchising and regulation, and assist in the formulation of infrastructure development programmes
- regulate vehicles and drivers
- plan and implement traffic management, road improvement and pedestrian schemes; monitor and regulate public transport operations; formulate and implement road safety strategies and measures
- ensure the efficient management of tunnels, bridges, parking meters and Government multi-storey car parks
- ensure the efficient management and operation of rehabus services and improve access to public transport for people with disabilities
- 5. The programme areas of the Highways Department are to –
- expand and improve the road network to meet the growth and changes in transport and development requirements
- maintain the integrity and riding comfort of the road network
- provide high quality technical support for the planning, design, construction and maintenance of the road network
- update and implement the Railway Development Strategy

Commitment to the Environment

- 6. On the transport front, air pollution and noise pollution are the two major concerns. To protect and enhance the environment, a multi-faceted approach is adopted –
- priority for efficient, environmentally friendly transport modes such as railways

- reduction of traffic and greater emphasis on pedestrian facilities
- further tightening of vehicle emission controls
- exploring the use of alternative fuel vehicles to replace diesel vehicles
- implementing noise reduction measures in all new and existing highways
- implementing landscaping and streetscape enhancement works

CHAPTER 2 - ACTIONS TAKEN AND ACHIEVEMENTS MADE

Priority for Efficient and Environmentally Friendly Transport Modes

- 7. At present, railways are the most environmentally friendly and efficient mass carriers in Hong Kong, carrying more than 30% of our public transport passengers. This has been achieved through a series of railway development programmes in the past 20 years. As at April 2002, the length of the Kowloon-Canton Railway Light Rail, East Rail and Mass Transit Railway (MTR) lines stood at 32 km, 34 km and 82 km respectively.
- 8. Railway forms the backbone of Hong Kong's transport system. The railway network will be expanded to over 200 km by 2007 through the addition of the following lines -
- MTR Tseung Kwan O Line (commissioned in August 2002)
- West Rail Phase I
- Ma On Shan Rail Link
- East Rail Extension to Tsim Sha Tsui
- Penny's Bay Rail Link
- Sheung Shui to Lok Ma Chau Spur Line



9. Railway Development Strategy 2000 further recommends the implementation of five passenger lines including the Shatin to Central Link

(SCL), the Kowloon Southern Link (KSL), the Island Line Extensions (ILE), the Northern Link and the Regional Express Line, together with a Port Rail Line. Completion of these railway projects will increase the railway share of the public transport market from 39% by 2006 to about 45%.



- 10. The two railway Corporations submitted in July 2001 their bidding proposals for SCL and their respective proposals for KSL and ILE. These were being considered by Government at the end of the reporting period. To ensure the huge resources on railway projects are invested in a cost-effective manner, Government keeps constant review on the priority of the railway projects in light of changes in transport, population and land use planning.
- 11. With railway as the backbone of Hong Kong's public transport system, efforts have been devoted to enhancing the co-ordination between railway and other public transport modes. This avoids wasteful duplication of public transport resources and alleviates traffic congestion in the urban area.

Reduction in Traffic

- 12. To reduce traffic in busy areas and hence the impact on the environment, we have taken the following measures -
- implementation of more bus-bus and bus-rail interchange schemes
- rationalisation of bus routes and stops
- introduction of park-and-ride schemes

Bus-bus Interchange Schemes

- 13. Bus-bus interchange schemes are pursued as one of the measures to –
- achieve more efficient use of bus resources
- relieve congestion and minimise environmental impact on busy corridors
- reduce the need for long-haul point-to-point bus routes



Bus-bus interchange scheme in Wan Chai

14. In 2001/02, the following 20 bus-bus interchange schemes with fare discount offered to passengers using such services were implemented –

Interchange Location	No. of Routes	Date of Introduction
Causeway Road (Phase 1)	4	August 2001
Wan Chai Ferry	3	August 2001
Eastern Harbour Crossing	3	September 2001
Causeway Road (Phase 2)	4	December 2001
King's Road (Phase 1)	3	December 2001
King's Road (Phase 2)	4	December 2001
Chai Wan Road	2	December 2001
Shau Kei Wan Road (Phase 1)	7	December 2001
Choi Hung Road	2	December 2001
Kwun Tong Road (Phase 1)	21	December 2001
Ap Lei Chau Bridge Road	5	January 2002
Admiralty	7	January 2002
Wong Chuk Hang Bus Terminus	5	January 2002
Sai Ying Pun	5	January 2002
Central (Phase 1)	11	January 2002
Central (Phase 2)	9	January 2002
Shau Kei Wan Road (Phase 2)	2	January 2002
Prince Edward Road East	8	January 2002
Kowloon City	3	January 2002
Kwun Tong Road (Phase 2)	21	January 2002

As at March 2002, a total of 44 bus-bus interchange schemes have been implemented and some 72,000 passengers are using these interchanges every day. The schemes have facilitated and enhanced inter-district travel without the need to introduce additional bus routes. Through the provision of fare discount incentives and selection of convenient interchanging locations, passengers generally welcome the implementation of these schemes.

Bus-rail Interchange Scheme

16. With effect from 1 September 2001, the Mass Transit Railway Corporation Limited and the New Lantao Bus Co. (1973) Ltd. (NLB) jointly implemented a bus-rail interchange scheme between the Tung Chung MTR Line and NLB's services. Passengers are offered \$1 fare discount for interchanging between MTR and NLB's routes 37, 38 and N38. Response to

the scheme is generally positive and about 3,300 passengers use the interchange every day.

Rationalisation of Bus Routes and Stops

- Bus activities and buses weaving into/out of bus stops is one of the causes for road congestion, in particular on the major corridors which are overloaded. Road congestion results in more vehicle emissions. To improve the efficiency of bus operation and to alleviate the traffic and environmental impact, the Transport Department has been working together with the franchised bus companies to rationalise bus services.
- 18. Through the cancellation of low-patronage routes, route amalgamation, frequency adjustment and redeployment of buses away from Hong Kong Island to newly developed areas, about 150 bus trips passing through Central and 250 bus trips passing through Yee Wo Street per day were removed in 2001/02. On the Kowloon side, 15 bus routes were diverted to skip the section of Salisbury Road between Star Ferry and Nathan Road and about 1,200 bus trips per day were removed.
- 19. Moreover, bus stop rationalisation schemes were implemented to reduce about 270 bus stoppings per hour between Central and North Point on Hong Kong Island and about 300 bus stoppings per hour along Cheung Sha Wan Road in Kowloon.

Park-and-Ride Scheme

20. Park-and-ride (PnR) facilities are designed to encourage existing commuters who normally use their private cars to travel to busy urban areas to switch to public transport. PnR facilities are usually provided at public transport hubs strategically located on the fringe of busy business/urban areas so that motorists can leave their cars



Park-and ride facility

behind and use public transport to complete their trips.

21. Since December 1997, a PnR scheme has been operating at Choi

Yuen Road near the Sheung Shui KCR Station. The site can accommodate about 200 vehicles. PnR schemes have also been operating at Hong Kong, Kowloon and Tsing Yi Stations of the Airport Express Line since July 1998. The three schemes together provide about 870 parking spaces. The success of these schemes has demonstrated public support for the PnR policy.

Apart from these schemes, PnR facilities have been planned at the existing rail station at Choi Hung and future rail stations at Tsuen Wan West, Kam Sheung Road, Tin Shui Wai, Tuen Mun Centre and Wu Kai Sha. Construction of the Choi Hung PnR scheme which will provide 450 parking spaces commenced in November 2001 with target completion in 2006. In planning future rail stations and major transport interchanges, especially those on the fringe of the urban area, PnR facilities will be developed wherever practicable.

Greater Emphasis on Pedestrian Facilities

Pedestrian Schemes

23. Since March 2000, the Transport Department has implemented a of number full-time, part-time and traffic-calming pedestrian schemes various districts to improve the overall pedestrian environment. The schemes are welcomed by the District Councils. pedestrians and shop operators in the area. Details of the schemes introduced/in active progress during 2001/02 are as follows –



Traffic calming scheme at Russell Street

District	Progress	Street Name
Causeway Bay	Part-time pedestrianised streets	Lockhart Road
		East Point Road
		Great George Street
	Traffic calming streets	Pak Sha Road
		Foo Ming Street
		Lan Fong Road
		Russell Street (outside
		Time Square)
Tsim Sha Tusi	Traffic calming streets	Haiphong Road
		Hankow Road (North
		of Peking Road)
		Lock Road
		Ashley Road
		Ichang Street
		Hankow Road (South
		of Peking Road)
		Canton Road
Mong Kok	Traffic calming street	Fa Yuen Street
Central	Full-time pedestrianised streets	Theatre Lane
		Chiu Lung Street
	Part-time pesdestrianised street (on trial)	Lan Kwai Fong Area
Sham Shui Po	Part-time pedestrianised streets	Apliu Street
		Fuk Wa Street
		Pei Ho Street

24. Implementing pedestrian schemes is an on-going programme. We will continue to identify areas with heavy vehicular traffic and pedestrian flow and devise suitable pedestrian schemes.

Pedestrian Walkway Systems

25. Pedestrian walkway systems can help minimise potential conflict between pedestrians and vehicles, reduce traffic congestion and air pollution, and provide a better walking environment for pedestrians. In selecting areas for development of comprehensive walkway systems, priority is accorded to areas with heavy pedestrian and traffic flow. A comprehensive pedestrian walkway system in Wan Chai in conjunction with the pedestrian scheme for the

district is under planning. The preliminary feasibility study would be completed in September 2002.

Tightening of Emissions Control

Retrofitting of Diesel Catalysts by Franchised Bus Companies

As at March 2002, there were some 6,400 franchised buses operating in Hong Kong. Among the 6,400 buses, about 69% of the buses were running on engines that are compliant with Euro emission standards.



A Euro III bus

For the remaining pre-Euro buses, the bus companies will either scrap them or retrofit with diesel catalysts by end 2002. As at March 2002, over 1,800 pre-Euro buses, representing 93% of the pre-Euro bus fleet, have already been retrofitted with diesel catalysts. This has reduced particulate emissions by 25%.

Tightened Emission Standards

28. With effect from 1 October 2001, all new franchised buses and newly imported medium and heavy diesel vehicles over 3.5 tonnes are required to comply with the latest Euro emission standards when they are registered in Hong Kong.

Strengthened Smoke Tests

29. The Transport Department has progressively strengthened the smoke tests diesel vehicles in their annual inspection and roadworthiness examination by conducting engine speed checks and air Since early 2000, the filter checks. Transport Department has tightened the smoke test by checking the maximum guard engine speed to against tampering with the engine setting to



A goods vehicle being tested on a dynamometer

achieve better test results. In early 2001, Transport Department installed a chassis dynamometer in the Kowloon Bay Vehicle Examination Centre. The dynamometer is able to test a vehicle under simulated working conditions hence giving more representative test results. Another dynamometer is planned to be installed in the Department's vehicle examination centre with a view to conducting smoke tests for all diesel vehicles using dynamometers.

30. Since November 2000, the Transport Department has also started to conduct emission tests on petrol and liquefied petroleum gas (LPG) vehicles.

Using Alternative Fuelled Vehicles To Replace Diesel Vehicles

Conversion of LPG Taxis

31. Following the successful completion of the trial of LPG taxis in late 1998, taxi owners have started to replace their diesel taxis with LPG ones. As at end March 2002, about 15,000 taxis (or over 80%) already operated on LPG.



A LPG taxi

Incentive Scheme for LPG/Electric Light Buses

As at end March 2002, there were 65 light buses operating on LPG/electricity. Results of the LPG and electric light buses trial schemes completed in early 2001 indicated that both kinds of light buses are technically feasible for operation in Hong Kong. In November 2001, the Administration announced a proposed incentive scheme to encourage diesel light bus owners to replace their vehicles with those running on LPG or electricity. The scheme was launched in August 2002.



A LPG light bus



An electric light bus

LPG Filling Stations

33. As at end March 2002, 30 LPG filling stations have been operating in various locations of Hong Kong. At least 12 more stations would commence operation by the end of 2002. Together, these stations should provide adequate refilling facilities for taxis and light buses.



LPG filling station

Use of Ultra Low Sulphur Diesel (ULSD) by Franchised Bus Companies

34. Since 1 February 2001, all franchised buses have switched to use ULSD. This change in fuel has reduced particulate emissions of Euro buses by 5 to 10%.

Environmental Impact Assessment of Road Projects

- As a standard procedure, we carry out Environmental Impact Assessment studies for all designated projects at the planning stage to identify the potential environmental impact of the projects, develop corresponding mitigation measures for future implementation and recommend environmental monitoring requirements during construction. Alternative schemes to avoid the potential impact and measures to enhance the environment are also considered in the studies.
- 36. The Environmental Impact Assessment reports of the following projects were approved under the Environmental Impact Assessment Ordinance in 2001/02 –
- Lei Yue Mun Road Underpass, Modification at Junction with Yau Tong Road and Associated Improvement Works
- Central Wan Chai Bypass and Island Eastern Corridor Link
- Improvement to Castle Peak Road between Ka Loon Tsuen and Siu Lam

Noise Reduction Measures

- Wherever technically feasible, the Highways Department adopts appropriate noise mitigation measures to minimise the environmental impact brought by new road projects or major improvement works to existing roads. These include the provision of roadside noise barriers and low noise road surfacing material.
- 38. One of the most widely adopted noise mitigation measures is the erection of roadside noise barriers. So far more than 16,000 metres long of
- noise barriers have been installed. 2001/02, over 2,600 metres long of noise barriers were installed mainly under the projects of Improvement to Kam Tin Road, Highway between Shap Pat Heung Interchange and Pok Oi Interchange, Tsing Yi North Coastal Road and Hiram's Highway Highways Improvement. The Department is conducting an initial search on the availability requirements of noise barrier materials



in North America, Europe and East Asia with a view to identifying better and more effective materials for noise barrier designs.

39. In addition to noise barriers, it is now a standard requirement to apply low-noise road surfacing material to all new high-speed roads (i.e. roads with a speed limit of 70km/h or higher) and existing high-speed roads undergoing improvement. So far, 125km (98%) of the high-speed roads have been surfaced with such material. In 2001/02, more than 260,000 square metres of low-noise road surfacing materials were laid. Meanwhile, the Highways Department is conducting trials on low-noise road surfacing materials for low speed roads and more durable low noise road surfacing materials.

Landscaping

40. The Highways Department has incorporated landscaping measures in road projects at every opportunity to enhance the general environment. In 2001/02, about 430,000 trees and shrubs were planted under various road projects and maintenance programmes. To facilitate the maintenance of underground utilities and to enhance the appearance of public footpaths and amenity areas, pavers with selected patterns have been used to form the areas or to replace the existing ones. In 2001/02, areas of over 92,000m² have been paved.



Nam Long Shan Road (before planting on shotcreted surface)



Nam Long Shan Road (after planting on shotcreted surface)

Office Management

- 41. The Environment, Transport and Works Bureau, the Transport Department and the Highways Department have all appointed their own Green Managers to serve as the focal point for introducing and reviewing initiatives to improve environmental performance.
- With the growing popularity of recycled products, we now use more recycled paper, refillable ball pen and recycled toner cartridges. For example, the Highways Department improved the ratio of recycled paper to traditional white paper being used from 1:5 in 2000/01 to 1:3 in 2001/02. The Transport Department reduced the overall consumption of stationery by about 10%.
- 43. While the overall consumption of paper may fluctuate from year to year with the number of major review reports or surveys being conducted, it is now a standard practice to encourage staff to use e-mail for communication in

order to reduce the consumption of paper. In addition, e-tender has been used for some of the tender documents. In 2001/02, the Transport Department sent out electronic tender documents in CDs to tenderers for seven of its consultancy agreements.

On conservation of energy, the Highways Department has maintained the level of power consumption at that of 2000/01, which is about 60% of the consumption level of 1999/2000. As the Environment, Transport and Works Bureau and the Transport Department are accommodated in joint-user buildings, their power consumption could not be captured individually.

CHAPTER 3-MEASURES TO BE TAKEN IN 2002/03

45. We will continue to implement measures to minimise the impact of transport activities on the environment in 2002/03.

Reduction in Traffic

More Bus-bus and Bus-rail Interchange Schemes

- To reduce the number of bus trips and the demand for more direct bus services, particularly those into the Central Business District, the Transport Department will continue to promote bus-bus interchange schemes. About 93 new bus-bus interchange schemes will be implemented in various districts from 2002 to 2004.
- 47. We will continue to encourage the bus and minibus operators and railway corporations to provide interchange schemes. Schemes being actively pursued include those for the Tseung Kwan O Line and West Rail.

More Rationalisation Measures

48. In 2002/03, the Transport Department plans to further rationalise the bus services, in particular those in Causeway Bay and Nathan Road through route diversion to less congested roads, merging of bus routes and adjusting the bus service level to match passenger demand. The Department will also explore the feasibility to truncate bus routes of low occupancy rates at the periphery of congested areas. In addition, there are plans to rationalise the bus stops on Nathan Road, Hennessy Road and Yee Wo Street to enhance the usage of road space.

Better Co-ordination of Public Transport Modes

49. With the objective of making railway the backbone of the public transport system, efforts have been devoted to enhancing the coordination between railway and other public transport modes. To ensure provision of the appropriate level of public transport services to meet demand and to optimise the use of resources, studies on co-ordination of other public transport services with new railways which would become operational between 2002 and 2005

have been completed in 2001. Findings from the studies will form the basis for the planning and implementation of a coordinated public transport network along the new railway corridors.

50. To tie in with the opening of the Tseung Kwan O MTR line in August 2002, a number of rationalisation measures on bus, green minibus and residents' services have been implemented to match the changing demand and maintain a balanced and co-ordinated public transport system while providing passengers with reasonable choices of transport. The Administration will adopt a similar approach upon commencement of new railways in the coming years.

Greater Emphasis on Pedestrian Facilities

Pedestrian schemes will be implemented in Sham Shui Po, Jordan and Wan Chai areas in 2002/03. In Sham Shui Po, a part-time pedestrian scheme will be introduced in Apliu Street (between Yen Chow Street and Kweilin Street). In Jordan, Nanking Street (between Parkes Street and Shanghai Street) will become a full-time pedestrian street while Temple Street and Nanking Street (between Battery Street and Shanghai Street) will be closed on a part-time basis for pedestrians. In Wan Chai, footpaths at the south of Johnston Road will be widened and traffic calming measure will be introduced at O'Brien Road. The Transport Department will also explore the feasibility of introducing further pedestrian schemes in Tsim Sha Tsui, Causeway Bay and Central.

Tightening of Emissions Control

The franchised bus companies have developed programmes to retrofit their Euro I buses with catalytic converters and continuous regenerating traps (CRT) to upgrade the environmental performance of their bus fleets within the coming few years. They will also continue with the trials of installing CRTs on Euro II buses.

Using Alternative Fuelled Vehicles To Replace Diesel Vehicles

Incentive Scheme for LPG/Electric Minibus

53. In 2002/03, the Administration will continue to encourage light bus owners to participate in the incentive scheme to replace their diesel vehicles with those running on LPG or electricity.

Environmentally Friendly Transport Modes

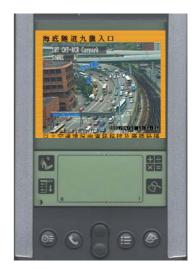
The Transport Department completed a study to examine the feasibility of introducing trolley bus operation in Hong Kong in June 2001. The study concluded that the introduction of trolley buses was not recommended for existing built-up areas, whilst the possibility of trolley bus operation in new development areas could be further explored. In this connection, the merits of introducing trolley buses as against other environmentally friendly transport modes in the South East Kowloon Development will be examined to determine the best transport mode for this new development area.

Application of IT to Transport Management

- 55. In order to meet the increasing travel demand in a sustainable manner, the Administration has been exploring ways to maximise the capacity and performance of our existing transport system by employing advanced information and telecommunication technologies.
- 56. The Transport Department has developed the Intelligent Transport Systems Strategy in 2001 for the implementation of transport information services and traffic management systems in Hong Kong in the next ten years. Two new core projects are the Transport Information System and the Journey Time Indication System.

57. The Transport Information System is a centralised data warehouse of comprehensive transport information and is scheduled he commissioned in phases starting from the latter half of 2003. It will provide two main services, namely, the **Public Transport** Information Service and the Intelligent Road Network.





Transport Information System

- The Public Transport Information Service aims to assist public transport passengers and motorists to make pre-trip planning by providing the public with various options of travelling on public transport modes and motorists with a free searching function of alternative driving routes. The public may access the information via the internet, through the Government's Integrated Call Centre, and customer service centres provided by public transport operators or mobile phones via service providers.
- 59. The Intelligent Road Network will provide up-to-date information on traffic directions, turning movements at road junctions and stopping restrictions, etc. Value-added service providers in the private sector can make use of the information to provide the public with services such as car navigation, fleet management systems and personalised information services.
- 60. A Journey Time Indication System will be provided to advise motorists of the estimated journey time on key routes from Hong Kong Island to Kowloon via the three cross-harbour tunnels. The system is scheduled for commissioning in phases starting from early 2003.

- The Area Traffic Control System is a computerised system which provides real time co-ordination and adjustment of traffic control signals within a district to maximise the use of road capacities and to minimise traffic delays. The System is now in operation in the urban areas and the new towns of Tsuen Wan, Kwai Tsing, Shatin and Ma On Shan and will be extended to Tai Po and North District by early 2004.
- 62. With the provision of the above traffic control and management facilities, it is expected that fuel consumption, vehicle emissions and travelling time could be saved.

Other Environmental Measures

- 63. The Highways Department accords priority to the research on the use of construction and demolition (C&D) material/waste in highway construction, and plans to develop guidelines on C&D waste minimisation, handling and recycling. In this connection, the Department has already prepared a set of specifications on the use of recycled aggregates from C&D materials as sub-base under carriageways. The Department will continue with the research and development of recycled sub-base/bituminous roadbase with a view to reusing reclaimed asphalt pavement from road maintenance in highway construction thereby minimising the impact on the environment. In a number of selected contracts serving as trial schemes, the contractors are required to prepare waste management plans to minimise construction waste and to ensure that any waste is properly handled.
- 64. The Highways Department is conducting trials on low noise road surfacing material for low speed roads and more durable low noise road surfacing material and will closely monitor the progress. As part of its on-going efforts, the Highways Department also conducts researches on measures to beautify the environment, which include planting on shotcreted slopes, colouring of slope surfacing, and upgrading of streetscape. The Department is carrying out studies on the standards for enhancing the appearance of highway structures, streetscape and street furniture. Renovation of a number of existing highway structures to improve their appearance is planned for 2002/03. Trial sites are also being identified for the provision of new street fixtures.

With a view to reducing the number of road excavations in Hong Kong and to minimising potential nuisance to the general public in road excavations, the Highways Department has commissioned a consultancy to investigate the feasibility of implementing Common Utility Enclosure (CUE) in both new developments and built up areas in Hong Kong. CUE could be in the form of tunnels, troughs, cross road ducts and the like which provide a common passage for accommodating utility services without the need for road excavations. The study is expected to be completed in 2003.

CHAPTER 4-PLANS FOR THE LONGER TERM



- 66. Integrating transport and land use planning will reduce public reliance on road-based transport, which in turn alleviates the demand on the transport system and lessens the impact on the environment. In this regard, we will pursue initiatives which place greater emphasis on the needs of the pedestrians in transport and land use planning. These include –
- siting intensive development and employment centres within easy pedestrian reach of rail stations;
- pedestrianising selected roads, and providing grade-separated walkways, to reduce the number of short motorised trips and potential conflicts between pedestrians and vehicles; and
- encouraging through the planning process non-polluting travel such as walking and cycling which will reduce the need for motorised travel at the local level.

- 67. Despite these initiatives, increases in population and economic activity will place additional demands on existing and future transport systems, making it vitally important to provide new systems, and improve existing infrastructure, in a timely manner. This will be achieved by –
- regularly reviewing the need, scope and timing for strategic highway projects to ensure they dovetail with current or future land use and population parameters;
- devising plans and environmental mitigation measures to cope with an expected significant increase in cross-boundary traffic; and
- giving priority to railway development.
- 68. The Government's long-term aims are to develop a transport system that meets community expectations and contributes towards the sustainable development of Hong Kong. To achieve this goal, we will need the full support of the community and the transport operators. This may mean walking to work instead of taking a taxi, driving to a train station instead of driving to work.
- 69. We all need to be more aware that our individual transport choices have a direct bearing on the health of the community, economic efficiency and pollution levels. The challenge now for us is to meet the growing commuting needs of the society in an environmentally acceptable manner. We owe it to our next generation to rise to this challenge and make Hong Kong a more pleasant place for all.

January 2003