

Legislative Council Panel on Transport

Route 9 – Section between Tsing Yi and Cheung Sha Wan and Section between Cheung Sha Wan and Sha Tin

PURPOSE

This paper seeks Members' views on the implementation of the remaining sections of Route 9 under two projects: Route 9 between Tsing Yi and Cheung Sha Wan (Route 9-TYCSW) and Route 9 between Cheung Sha Wan and Sha Tin (Route 9-CSWST).

BACKGROUND

2. Route 9 is a trunk road linking Lantau and Sha Tin via Tsing Yi Island and West Kowloon. The North Lantau Highway and Lantau Link completed in 1997 form part of this route. Route 9-TYCSW (PWP Item No. 711TH) will connect Lantau Link with the West Kowloon Highway at Cheung Sha Wan while Route 9-CSWST (PWP Item No. 694TH) will extend the route to Tai Wai in Shatin. The layout of the two sections is shown on the plan at Enclosure 1. The work has been split into two projects to facilitate planning and management. After completion, Route 9 will provide a direct route for traffic from North East New Territories (NENT) to North West New Territories (NWNT) and to the Airport.

3. For the Route 9-TYCSW, a major element of work (namely the Ngong Shuen Chau Viaduct) is scheduled to begin construction in March 2002, with the remaining major elements of work including Nam Wan Tunnel and Stonecutters Bridge following in 2003.

4. For Route 9-CSWST, main construction works will commence in phases starting from January 2003. However, a small amount of enabling work will need to be carried out in late 2001/early 2002 under the Ma On Shan Railway contracts to avoid future disturbance on the railway from construction work.

ROUTE 9-TYCSW (PWP ITEM 711TH)

Justifications

5. Route 9-TYCSW will provide an alternative route to Route 3 Tsing Yi and Kwai Chung Sections (Cheung Tsing Highway, Cheung Tsing

Bridge and Tsing Kwai Highway) and is required to relieve the traffic on Route 3 Tsing Yi and Kwai Chung Sections as the existing capacity of this section of Route 3 will not be able to cope with the growing traffic demand by 2007. The forecast peak hour V/C ratios at critical sections of these highways with and without Route 9-TYCSW are as below –

	V/C Ratios					
	2007		2011		2016	
	<i>Without</i> Route 9- TYCSW	<i>With</i> Route 9- TYCSW	<i>Without</i> Route 9- TYCSW	<i>With</i> Route 9- TYCSW	<i>Without</i> Route 9- TYCSW	<i>With</i> Route 9- TYCSW
Route 9 – TYCSW	-	0.5	-	0.7	-	0.9
Route 3 comprising Cheung Tsing Highway, Cheung Tsing Tunnel and Tsing Kwai Highway	1.0	0.7	1.2	0.8	1.2	0.9

6. Route 9-TYCSW will provide a route for container traffic to access the Container Terminal No. 9 under construction without the need to go through the Tsing Yi local road network.

Project Scope

7. In view of the above considerations, we propose to construct Route 9-TYCSW under PWP Item **711TH**, the scope of which includes -

- (a) about 1.5 kilometres of dual three-lane highway connecting Cheung Tsing Highway at the North West Tsing Yi Interchange with the Nam Wan Tunnel;
- (b) a 1.2 kilometres three-lane twin-tube Nam Wan Tunnel at Tsing Yi;
- (c) about 2.7 kilometres of dual three-lane elevated highway, including the Stonecutters Bridge of about one kilometre in span, connecting the Nam Wan Tunnel with the Ngong Shuen Chau Viaduct (NSCV);

- (d) about 2.2 kilometres of dual three-lane NSCV, connecting the Stonecutters Bridge with the West Kowloon Highway and another section of Route 9 at the Lai Wan Interchange;
- (e) slip roads connecting Route 9 with the local road networks at Container Terminal Number 8 (CT8) and the proposed Container Terminal Number 9 (CT9);
- (f) realignment of Container Port Road South underneath NSCV; and
- (g) environmental mitigation measures, traffic control and surveillance system, electrical and mechanical systems, geotechnical, landscape, roads and drainage works.

8. We plan to implement the construction works for **711TH** in phases, with NSCV commencing first, because of its close proximity to the proposed West Rail at Lai Wan Interchange. The site plan and typical sections for NSCV are at Enclosure 2A and 2B respectively. The bridge works involving heavy constructions will, if not completed early, impose great risk on the operation of the high speed electrified trains. We therefore need to commence construction of NSCV in early 2002 with an aim to complete the concerned bridge works before the commissioning of West Rail in late 2003. After the completion of NSCV, direct connections between CT8 and West Kowloon Highway will be provided and will relieve traffic at the ground level roads of Kwai Chung and Cheung Sha Wan.

9. The remaining parts of **711TH** are under detailed design for construction to commence in 2003. However, a small amount of site formation and drainage works for the Stonecutters Bridge is falling in the site of the CT9 that is currently under active construction for full commissioning in 2004. To avoid undesirable disruption to the future terminal operation, we need to advance the concerned site formation and drainage works and entrust them to the Director of Territory Development for construction under **387CL**¹ - 'Container Terminal No. 9 - Engineering Works and Infrastructure'.

¹ **387CL** - 'Container Terminal No. 9 - Engineering Works and Infrastructure' is in Category A of the Public Works Programme, targeting for completion of construction in late 2004 at an estimated cost of \$2.71 billion in MOD prices.

Financial Implications

10. We estimate the total cost of **711TH** to be \$14.7 billion in MOD prices and the part with respect to NSCV which is to be upgraded to Category A to be \$4,135.6 million in MOD prices, made up as follows –

		\$million	
(a)	Roads and drains	158.4	
(b)	Elevated highway structures	2,802.8	
(c)	Road lighting	30.0	
(d)	Environmental mitigation measures	39.9	
	(i) noise barriers	34.2	
	(ii) low noise road surfacing	5.7	
(e)	Landscaping works	36.2	
(f)	Advance site formation and drainage works for Stonecutters Bridge	2.0	
(g)	Consultants' fees	259.4	
	(i) construction stage	29.8	
	(ii) site staff costs	212.6	
	(iii) Electrical and Mechanical Services Trading Fund (EMSTF) charges	5.0	
	(iv) Environmental Monitoring and Audit (EM&A) programme	12.0	
(h)	Contingencies	<u>330.0</u>	
	Sub-total	3,658.7	(at September 2000 prices)
(i)	Provision for price adjustment	476.9	
	Total	<u>4,135.6</u>	(in MOD prices)

11. We estimate the annual recurrent expenditure arising from the works to be \$26.2 million.

Public Consultation

12. We presented the major findings of the Detailed Feasibility Study to the Sham Shui Po Provisional District Board (SSPPDB) and the Kwai Tsing Provisional District Boards (K&TPDB) in June 1998 and July 1998 respectively. SSPPDB supported the Project in principle. Both District Boards suggested that connection between the local road network and the section of Route 9 should be provided as far as possible. In response to the suggestion, we have improved the connections between the local road networks and Route 9 during the detailed design stage by introducing additional access ramps in Tsing Yi and Stonecutters Island areas. Now traffic in these two areas can have direct access to and from Route 9 to reach Kowloon and the eastern and western sides of New Territories including Lantau Island.

13. We consulted the two Provisional District Boards again in August 1999 and September 1999 respectively on the refined layout of the Project. K&TPDB supported the Project in principle. As for SSPPDB, the Board had no comment on the layout of the roadwork. However, some members raised concern on the adequacy of the proposed noise mitigation measures to be provided adjacent to two proposed housing development sites, namely, Site 10 and Site 6 at Lai Wan Interchange. Essentially the mitigation measures would be noise barriers of three-metre high in addition to low noise surfacing. The Board requested us to discuss the matter in its Environmental Committee, with information on costs respectively for the installation of noise enclosures and seven-metre high noise barriers on the viaduct adjacent to these two housing sites, and the likely enhancement in the development potential of these two sites, as compared to the proposed 3-metre high noise barriers installation.

14. In response to this request, we checked the effects of seven-metre high noise barriers and noise enclosures and we also requested the Director of Housing (D of H) to advise whether there would be any enhancement in the development potential of Site 10 and Site 6. The findings indicated that seven-metre noise barriers or noise enclosures would not produce significant overall difference in noise attenuation (smaller than one dB(A) difference) because of the ambient noise level contributed from existing West Kowloon Highway. Moreover, noise enclosures would concentrate the vehicle emission at either Site 10 or Site 6 and is therefore

considered not appropriate. The predicted critical noise levels in Site 10 contributed from Route 9-TYCSW under the scenarios of with and without the provisioning of either three-metre or seven-metre high noise barriers are as follows:

Assessed Noise Level (dB)(A)	Without 3-metre noise barriers	With 3-metre noise barriers	With 7-metre noise barriers
	74.0	70.0	69.5

15. On additional costs, 7-metre high noise barriers and noise enclosures would increase the construction costs by \$90 million and \$370 million respectively. We had liaised closely with the D of H during the Environmental Impact Assessment (EIA) process of the Project and the D of H, in undertaking the detailed design for Site 10, had taken the adjoining environmental conditions into consideration. Hence the use of seven-metre high noise barriers will not enhance the development potential of the site. The planning of Site 6 was at a very preliminary stage and therefore the EIA of the Project had been based on an assumed layout. As the overall difference in noise attenuation with using seven-metre noise barriers was found to be insignificant (taken as a one dB(A) difference), the development potential would unlikely be affected.

16. We presented the findings to the Environmental Committee of SSPPDB in September 1999. Members had varied views but the majority still wished us to consider installing seven-metre high noise barriers along the ramps at Lai Wan Interchange instead of three-metre high noise barriers. We maintained that the use of seven-metre high noise barriers would not be cost-effective and recommended in the EIA report to use three-metre high noise barriers. Members however suggested that we should present their views to the Finance Committee for information. Despite this, the Environmental Committee supported the Project in principle.

17. Maintaining that the provision of three-metre high noise barriers along the ramps at Lai Wan Interchange is appropriate, we consulted the Advisory Council on the Environment (ACE) on the EIA report of this Project in September 1999. ACE did not make specific comments on the noise mitigation measures proposed and endorsed the EIA Report on 27 September 1999. The Director of Environmental Protection (DEP) approved the EIA Report in October 1999

18. We gazetted the road scheme of **711TH** under the Roads (Works, Use and Compensation) Ordinance on 20 April 2000. We received one objection from the owner of TYTL No.128 on the grounds that the construction works might create disruption and disturbance to his operations within the Lot and the roads would produce visual impact to his property. We clarified with the objector that the construction works of the viaduct would be carried out at bridge deck level which is some 40 metres above ground level and at restricted hours and would not impose disruption to his operation at ground level. We also demonstrated to the objector through the use of photomontages that the visual impact of the bridge to his property would not be significant. Subsequent to our clarifications, the objector withdrew the objection unconditionally on 23 August 2000. Accordingly, the Secretary for Transport authorized the road scheme under the Roads (Works, Use and Compensation) Ordinance on 11 September 2000.

Environmental Implications

19. The project is a designated project under Schedule 2 of the EIA Ordinance (Cap. 499) and an Environmental Permit is required for the construction and operation of the Project. The EIA report for the Project was completed in early 1999. The ACE endorsed and the DEP approved the EIA report for the Project under the EIA Ordinance on 27 September and 19 October 1999 respectively. The road scheme had since been slightly modified as a result of design development. Supplementary EIA information on the modified scheme was approved by the DEP. The DEP issued the Environmental Permit on 28 December 2000.

20. The supplementary EIA information together with the EIA report concluded that the environmental impacts of the Project could be controlled to within established criteria under the EIA Ordinance and the Technical Memorandum on EIA Process. We shall implement the measures on all different environmental disciplines as recommended in the supplementary EIA information, the approved EIA report, the approved Environmental Monitoring and Audit (EM&A) Manual, and the Conditions stipulated in the Environmental Permit.

21. The key measures include the provision of low noise road surfacing on all the new roads and installation of three-metre high noise barriers at Lai Wan Interchange area for the protection of nearby noise sensitive receivers. The traffic noise levels on noise generated will be reduced by three to five dB(A) at critical noise sensitive receivers when all

these noise mitigation measures are in place. As for air quality, an assessment was carried out to quantify the likely air quality impact on the surrounding environment due to traffic emissions. The assessment concluded that the traffic emissions would not exceed the Air Quality Objectives as stipulated in the Air Pollution Control Ordinance. For short term impacts during construction stage, we will control noise, dust and site surface water run-off nuisance to comply with established criteria through the implementation of appropriate mitigation measures in the works contract. We will implement an EM&A programme as stipulated in the EM&A Manual during the course of construction and operation to ensure that proactive mitigation measures are adopted to avoid the occurrence of adverse environmental impacts to the public.

22. Apart from the above, we have considered in the planning and design stages to minimize the generation of construction and demolition material (C&DM). We have adopted all practical measures to reduce the C&DM generation. We shall reuse the public fill generated from the Project either on site or in other reclamation sites as far as possible. We estimate that about 160,000 cubic metres (m³) of C&DM will be generated by the NSCV Contract. Of these, about 7 000 m³ (4.4%) will be reused on site, 149 500 m³ (93.4%) will be reused as fill in public filling area and 3 500 m³ (2.2%) will be disposed of at landfills.

23. We shall require the contractor under the contract to submit a waste management plan to the Engineer for approval on the advice of the DEP. The waste management plan shall include appropriate mitigation measures such as the allocation of an area for waste segregation prior to disposal. We shall ensure that the day-to-day operations on site comply with the approved waste management plan. We shall also require the contractor to use steel instead of timber for formwork and temporary work as far as practicable to further minimize the generation of waste. We shall control the disposal of C&DM through a trip-ticket system. We shall record the disposal, reuse and recycling of C&DM for monitoring purposes.

Land Acquisition

24. For the NSCV, we shall require respectively the permanent alienation of 150 000 square metres (m²) of land in Stonecutters Island and West Kowloon areas and temporary occupation of 4 660 m² of land along Container Terminal No. 8.

ROUTE 9 – CSWST (PWP ITEM 694TH)

Justifications

25. Route 9-CSWST will provide the fourth road link between Sha Tin and Kowloon, serving the increasing traffic demand between Northeast New Territories and West Kowloon, Hong Kong Island West and Lantau. It will also help to alleviate the traffic congestion problems at the Lion Rock Tunnel, Tate's Cairn Tunnel and Tai Po Road. The forecast peak hour V/C ratios at critical sections of these highways with or without the proposed section of Route 9 are as below –

	V/C Ratios					
	2007		2011		2016	
	<i>Without</i> Route 9- CSWST	<i>With</i> Route 9- CSWST	<i>Without</i> Route 9- CSWST	<i>With</i> Route 9- CSWST	<i>Without</i> Route 9- CSWST	<i>With</i> Route 9- CSWST
Lion Rock Tunnel	1.4	1.2	1.3	1.1	1.3	1.1
Tate's Cairn Tunnel	1.1	1.0	1.1	1.0	1.3	1.1
Tai Po Road	1.1	0.7	1.2	0.7	1.2	0.8
R9-CSWST	-	0.7	-	0.7	-	0.8

Project Scope

26. In view of the above considerations, we propose to construct **694TH** (Route 9-CSWST), the scope of which includes –

- (a) a 1.4 kilometres dual three-lane elevated carriageway (the Lai Chi Kok Viaduct) from Lai Wan Interchange to Butterfly Valley, and connecting to Route 9-TYCSW, with slip roads connecting to Lai Wan Interchange and Ching Cheung Road;
- (b) a 0.5 kilometre of dual three-lane carriageway within Butterfly Valley;
- (c) a 2.1 kilometres long dual three-lane tunnel under the Eagle's Nest Hill (the Eagle's Nest Tunnel);

- (d) a toll plaza at the valley of Sha Tin Heights;
- (e) a one kilometre long dual three-lane tunnel under Sha Tin Heights (the Sha Tin Heights Tunnel);
- (f) a 0.6 kilometre long dual two-lane tunnel approach roads in Tai Wai, and with slip roads connecting to Che Kung Miu Road (the Sha Tin Heights Tunnel Approach Road and Che Kung Miu Road Slip Roads); and
- (g) associated electrical and mechanical works, environmental mitigation measures, drainage works, landscaping works and geotechnical works.

27. The main construction of the project will commence in 2003 for completion in April 2007. The Enabling Works, which are described in more details in the following paragraphs, will commence in December 2001 for completion in June 2002.

28. The Enabling Works consist of the construction of ten foundations with piers of a section of the proposed Che Kung Miu Road Slip Roads. This section of slip roads will cross over the future tracks and depot of the Ma On Shan Rail (MOSR), as well as the existing East Rail tracks. The MOSR has already commenced construction. The concerned foundations and piers will need to be located very close to the building structures of the depot and the rail tracks. Because the construction of the MOSR will involve complicated track diversion and multi-disciplinary engineering works, KCRC has advised that the only practical way to construct the concerned Route 9 foundations and piers would be to build them in advance together with the MOSR. If this is not done, their construction at a later stage would be very difficult, if not impossible at all, and with great risk to the construction and operation of the MOSR. A drawing illustrating the engineering difficulties of the interface between the concerned section of Che Kung Miu Road slip roads and the MOSR is at Enclosure 3.

29. After discussion with KCRC, we agreed to incorporate the construction works of the concerned foundations/piers into the works contract of the MOSR as provisional works, and the latest date for instructing the go-ahead of the Enabling Works will be December 2001. We plan to partially upgrade **694TH** in October this year to fund the

Enabling Works, after the road scheme is authorized under the Roads (Works, Use and Compensation) Ordinance in August. We plan to apply for funding approval for the main construction works at a later stage as such works would not start until early 2003.

Financial Implications

30. We estimate the total cost of **694TH** to be \$9,271 million in MOD prices and the part with respect to the Enabling Works which is to be upgraded to Category A to be \$31.1 million in MOD prices, made up as follows -

	\$million
(a) Construction cost of Enabling Works	24.5
(b) KCRC's on-cost for construction management and site supervision <i>Note 1</i>	2.9
(c) Contingencies	<u>3.7</u>
Total	<u>31.1</u> (in MOD prices <i>Note 2</i>)

Note 1: On-cost estimated at 12% of the construction value. The actual on-cost percentage is subject to agreement with KCRC.

Note 2: No allowance for inflation as the works contract is not subject to price fluctuation.

Public Consultation

31. We consulted the Sha Tin Provisional District Board (PDB) on 27 March 1998, the Environmental Committee of Sham Shui Po PDB and the Kwai Tsing PDB on 8 July 1999, and the Traffic & Transport Committee of Sham Shui Po PDB on 29 July 1999.

32. Members of the Sha Tin PDB were concerned about the possible impacts on the surrounding area caused by the noise, dust and vehicle emission during the construction and operation stages. Members also suggested that full enclosure should be installed to the section adjacent to Sha Tin Heights and heavy vehicles should be prohibited from using the route to reduce noise disturbance to nearby residents. Regarding the noise

problem, we affirmed to the members that all necessary mitigation measures such as noise reducing road surface or noise barriers would be adopted. In addition, we are now contemplating to provide a full enclosure on a section of the Sha Tin Approach Roads. As regards restricting heavy vehicles from using the route, we explained that this might force the vehicles to use Tai Po Road and as a result increase the noise level along that road. We reassured that Transport Department would closely monitor the traffic situation on both Route 9 and Tai Po Road and, if necessary, implement suitable traffic management measures. In respect of the air quality issue, we confirmed that effective ventilation system would be designed for the tunnels to ensure that the air quality objectives inside the tunnels would be fulfilled. The PDB in general supported the Route 9 project, subject to the satisfactory implementation of environmental mitigation measures.

33. Members of the Sham Shui Po PDB expressed their concerns on a number of environmental and traffic matters. Our response on these matters are summarized below -

- (a) regarding the noise impact, suitable noise barriers and enclosures would be installed;
- (b) in respect of the ecological impact, the removal of trees would not affect the stability of the slopes, and that extensive replanting would be carried out;
- (c) concerning vehicle emissions from the tunnels, the emission would be extracted and dispersed to suitable locations, thus causing minimal impact to the nearby residents;
- (d) about the potential hazard of Tai Po Road Treatment Works, the chlorination house would be relocated and the size of chlorine storage appliances reduced from 1000 kg to 50 kg, so as to greatly reduce the risk and consequences of chlorine leakage; and
- (e) as regards traffic control for the Route, a comprehensive traffic management scheme would be devised to ensure the traffic would be properly guided both during normal and emergency situation.

The Sham Shui Po PDB accepted the Route 9 project and requested the Government to look into ways to further reduce the impact of the project to the residents and development in the surroundings.

34. Members of the Kwai Tsing PDB mainly raised questions relating to possible noise impact to the vicinity and the clearance of Mui Kong Village in Butterfly Valley. Regarding noise impact and members' wish to see more mitigation measures, we explained that all noise sensitive receivers likely to be affected by the road project had been assessed, and the mitigation measures provided would be adequate to keep the noise levels to within prevailing standards. As regards the clearance of Mui Kong Village, we explained that the clearance operation would be carried out by Lands Department and Housing Department, and appropriate arrangements would be made regarding re-housing and compensation. We also mentioned that suitable traffic management schemes would be devised to ensure that the impact on the existing traffic would be kept to a minimum during the construction period. The PDB had no objection to the road scheme in general.

35. We gazetted the road scheme of this section of Route 9 under the Roads (Works, Use and Compensation) Ordinance in July 2000. We received a total of 68 objections and 3 of them have been withdrawn up to now. The objections are raised by the residents living in Wai Man Tsuen, Butterfly Valley New Village, Caldecott Road and the Tai Wai area. Objections are being dealt with, and we will submit the road scheme to the Chief Executive in Council for consideration.

Environmental Implications

36. The project is a designated project under Schedule 2 of the Environmental Impact Assessment (EIA) Ordinance (Cap. 499). As part of the Investigation Assignment, we employed a consultant to conduct an EIA to identify, predict and assess the potential environmental impacts arising from the project. The EIA identified noise, air quality and ecological impacts being the major concerns. A package of mitigation measures to address these impacts has been proposed, and these are highlighted below -

- (a) noise barriers ranging from three to five metres high, semi-enclosures and full enclosures will be installed to protect noise sensitive receivers in the vicinity of the route;

- (b) the two tunnels will be fully ventilated to cater for both normal operation and emergency situation. In particular, a mid-ventilation building will be constructed for the Eagles' Nest Tunnel, so that the vehicle emission will be extracted away from sensitive areas and dispersed at a suitable location;
- (c) re-planting will be carried out to compensate for trees fell due to the project. The re-planting area would be at least as big as the area affected, and native tree species would be used to re-establish the woodland habitat; and
- (d) extensive soft and hard landscaping works will be provided along the route, especially under the Lai Chi Kok Viaduct and Ching Cheung Road, to enhance the surrounding areas.

Also, we will set up an environmental monitoring and audit programme to ensure that the recommendation made in the EIA would be properly carried out. We will also need to apply for an Environmental Permit for the construction and operation of the project.

37. The ACE endorsed the EIA Report for the project without conditions on 1 November 1999. The DEP subsequently approved the EIA Report on 5 November 1999 under the EIA Ordinance.

38. Regarding the C&DM, as the extent of excavation is minimal for the Enabling Works, the disposal, reuse and recycling of them will be absorbed in the management scheme formulated under the works contract of the MOSR managed by KCRC.

Land Acquisition

39. Land acquisition is not required for the Enabling Works since these are within the works limit of the MOSR.

THE WAY FORWARD FOR THE TWO PROJECTS

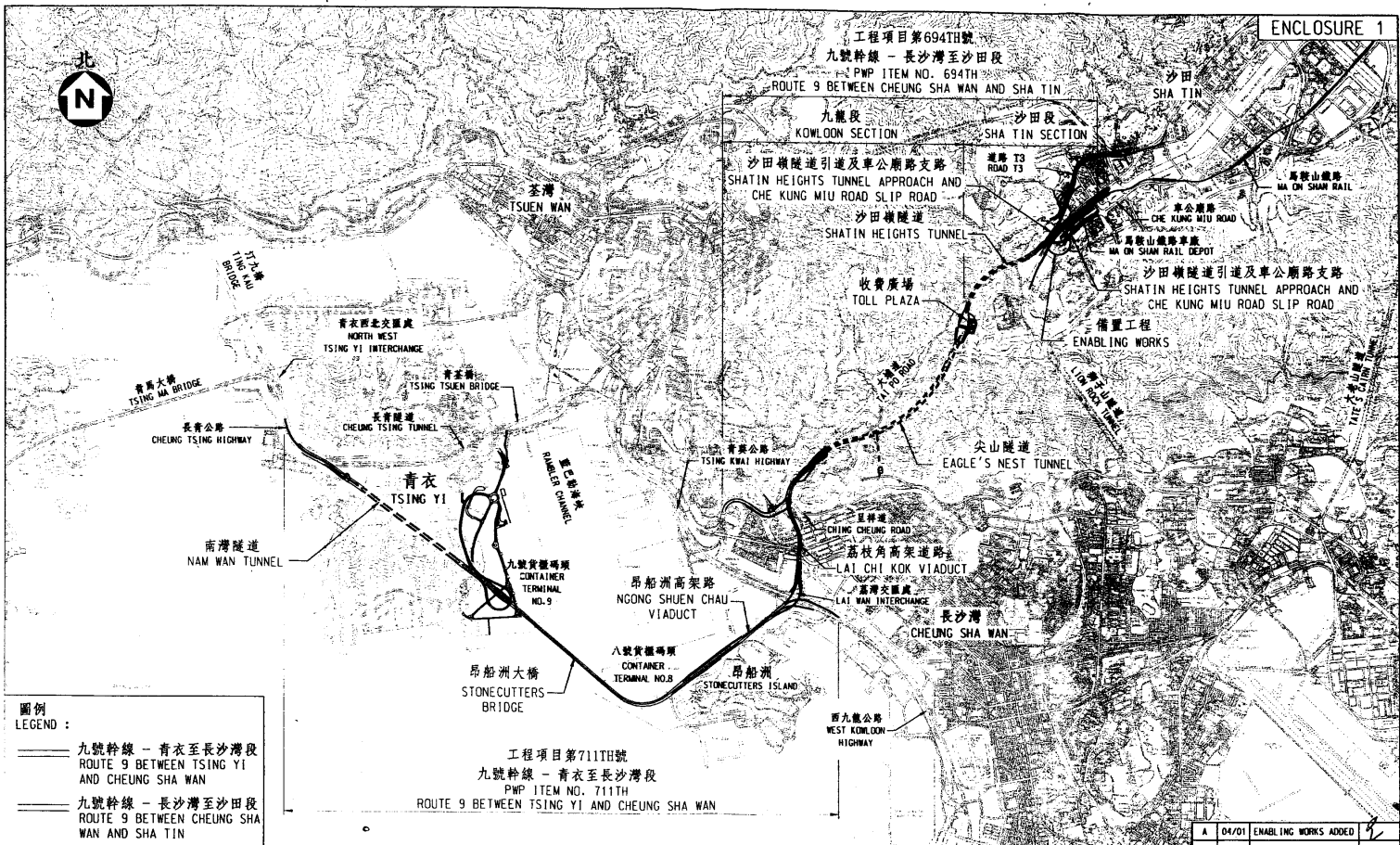
40. We will seek the approval of the Public Works Sub-Committee of the Finance Committee in May 2001 to upgrade part of **711TH** to enable

the Phase 1 Works of Route 9-TYCSW, i.e. Ngong Shuen Chau Viaduct, to commence in March 2002. We will also seek the approval of the Public Works Sub-Committee of the Finance Committee in October 2001 to upgrade part of **694TH** to enable the Enabling Works of Route 9-CSWST, i.e. part of the foundations and columns of the Che Kung Miu Road Slip Roads, to commence in December 2001.

ADVICE SOUGHT

41. Members are invited to provide comments on two projects before we seek the approval of the Public Works Sub-Committee.

Transport Bureau
April 2001



圖例
LEGEND :

—— 九號幹線 - 青衣至長沙灣段
 ROUTE 9 BETWEEN TSING YI AND CHEUNG SHA WAN

—— 九號幹線 - 長沙灣至沙田段
 ROUTE 9 BETWEEN CHEUNG SHA WAN AND SHA TIN

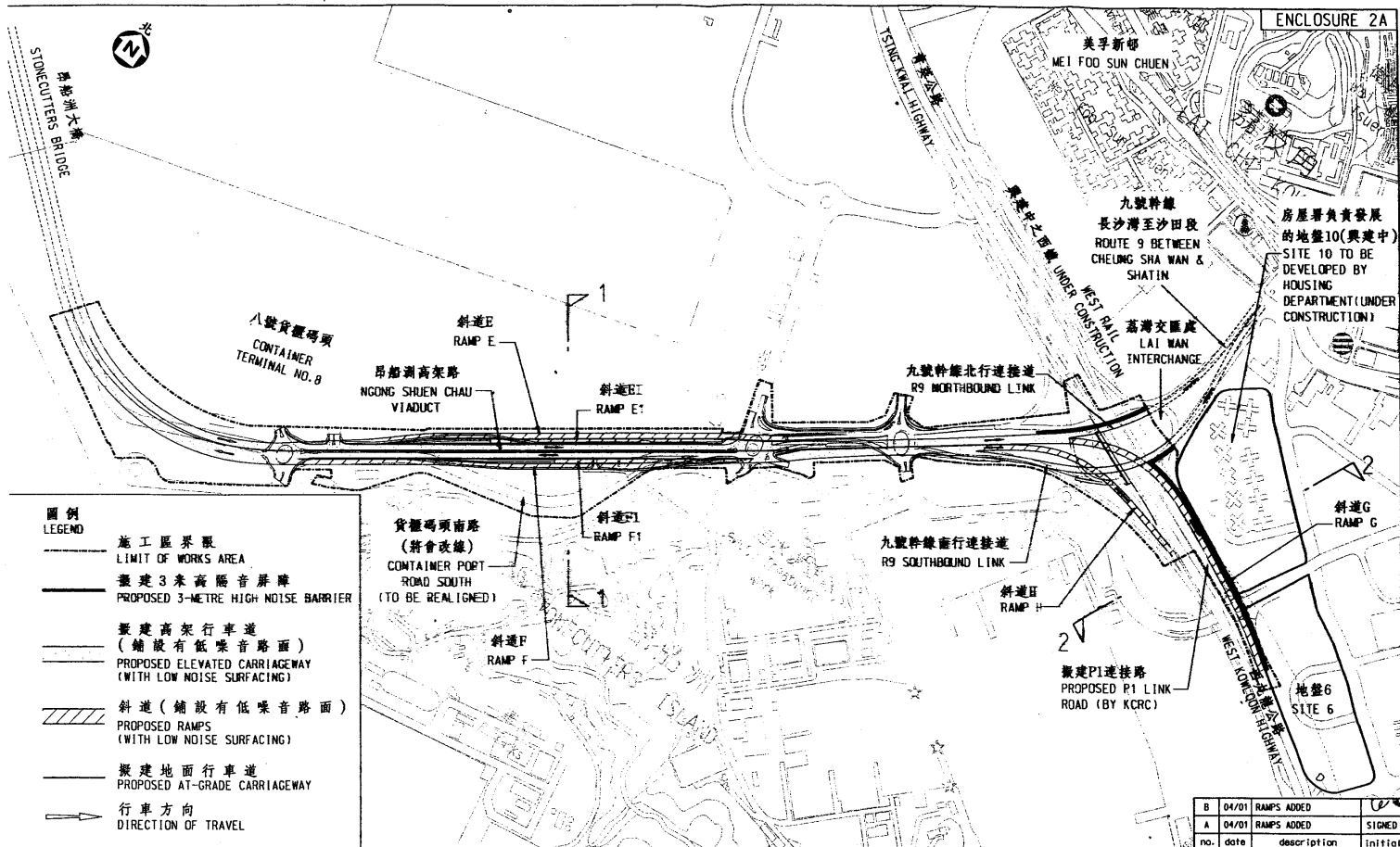
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 九號幹線 - 青衣至長沙灣段
 PWP ITEM NO. 711TH
 ROUTE 9 BETWEEN TSING YI AND CHEUNG SHA WAN

drawing title 圖則名稱
 工務計劃項目第711TH號及第694TH號
 PWP ITEM NO. 711TH AND 694TH
 九號幹線 - 青衣至長沙灣段及長沙灣至沙田段
 ROUTE 9 - BETWEEN TSING YI AND CHEUNG SHA WAN & CHEUNG SHA WAN AND SHA TIN

designed	SIGNED	drawn	SIGNED
K. C. LAI	14/03/2001	H. Y. YIP	20/03/2001
checked	SIGNED	approved	SIGNED
K. C. LAI	20/03/2001	K. S. NG	20/03/2001
office	MAJOR WORKS PROJECT MANAGEMENT OFFICE 主要工程管理處		

A	04/01	ENABLING WORKS ADDED	
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圖例
LEGEND

- 施工區界限
LIMIT OF WORKS AREA
- 擬建3米高隔音屏障
PROPOSED 3-METRE HIGH NOISE BARRIER
- 擬建高架行車道
(鋪設有低噪音路面)
PROPOSED ELEVATED CARRIAGEWAY
(WITH LOW NOISE SURFACING)
- 斜道 (鋪設有低噪音路面)
PROPOSED RAMP
(WITH LOW NOISE SURFACING)
- 擬建地面行車道
PROPOSED AT-GRADE CARRIAGEWAY
- 行車方向
DIRECTION OF TRAVEL

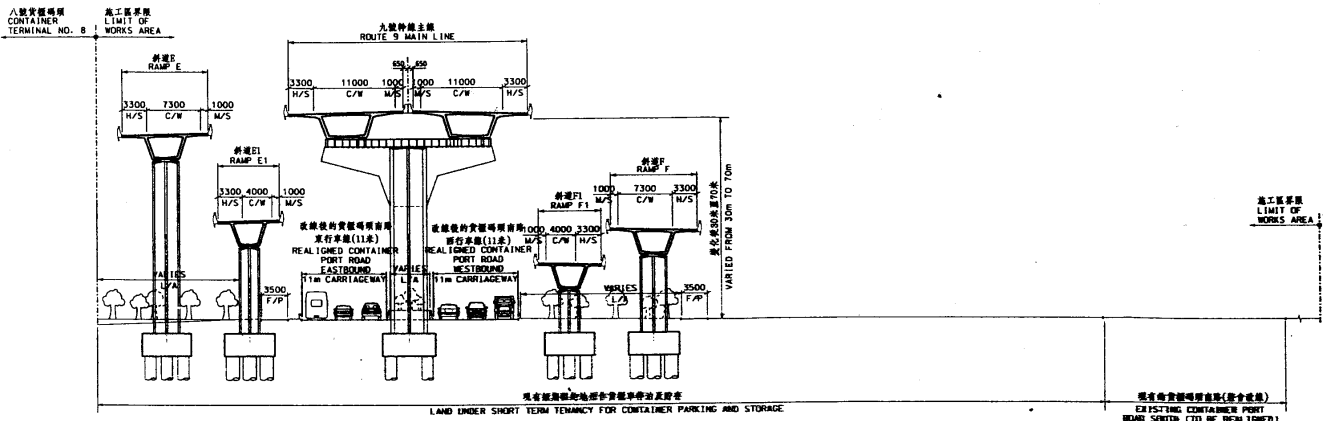
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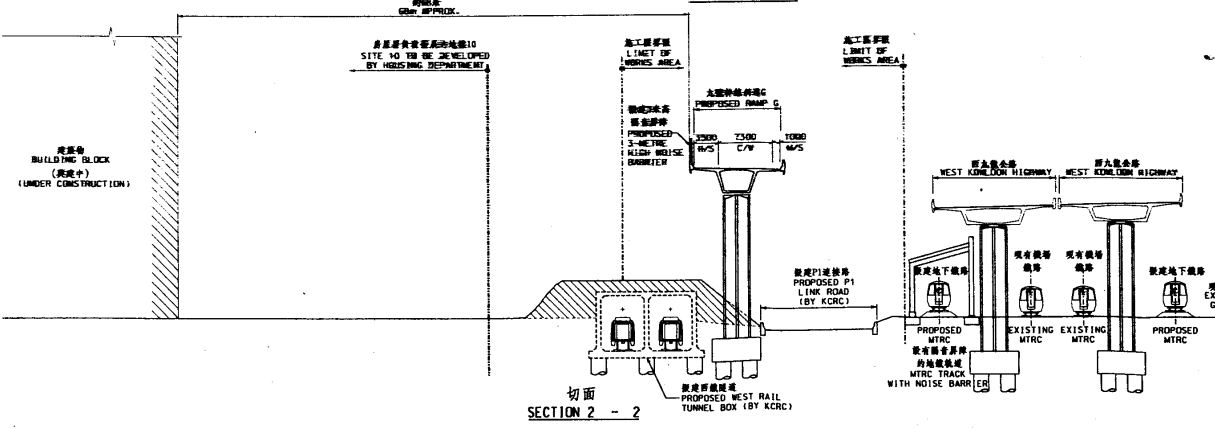
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 PHP ITEM NO. 711TH - ROUTE 9 BETWEEN TSING YI AND CHEUNG SHA WAN
 昂船洲高架路 (平面圖)
 NGONG SHUEN CHAU VIADUCT (SITE PLAN)

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切面 SECTION 1 - 1



切面 SECTION 2 - 2

NOTES: 註釋
 1. 除另有註明外所有量度均以毫米為單位
 1. ALL DIMENSION IN mm UNLESS OTHERWISE STATED

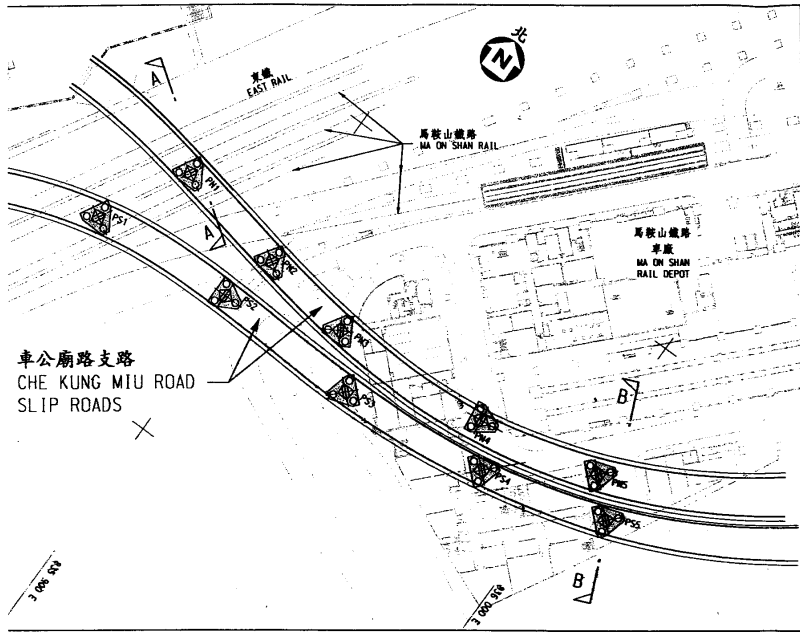
- LEGEND: 圖例
- 擬定六號幹線橋樑
PROPOSED STRUCTURES UNDER ROUTE 9
 - 現有六號幹線橋樑
EXISTING STRUCTURES/WORKS TO BE CARRIED OUT BY OTHERS
 - C/W 行車道
CARRIAGEWAY
 - M/S 邊界
MARGINAL STRIP
 - H/S 硬路肩
HARD SHOULDER
 - L/A 環境美化地區
LANDSCAPE AREA
 - F/P 行人路
FOOTPATH

drawing title 圖則名稱
 工務計劃項目第711TH號 - 九號幹線青衣至長沙灣段
 PWP ITEM NO. 711TH - ROUTE 9 BETWEEN TSING YI AND CHEUNG SHA WAN
 昂船洲高架路 (切面圖)
 NGONG SHUEN CHAU VIADUCT (SECTIONS)

designed	K. C. LAI	SIGNED	28/3/2001	drawn	H. Y. YIP	SIGNED	28/3/2001
checked	K. C. LAI	SIGNED	28/3/2001	approved	K. S. NG	SIGNED	28/3/2001
office	MAJOR WORKS PROJECT MANAGEMENT OFFICE 主要工程管理處						

A	04/01	TITLE AMENDED	initial
no.	date	description	
		drawing no. 圖號	scale 比例
		MW6711TH-SP0006A	1:500
COPYRIGHT RESERVED 版權所有 備申必究			
		路政署 HIGHWAYS DEPARTMENT HONG KONG	

Team1\6711TH\mw6711th-sp0006a.dgn



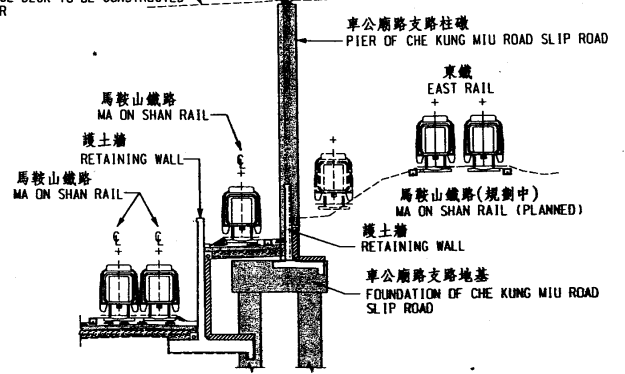
平面圖 PLAN
比例 SCALE 1 : 1000

圖例 LEGEND:

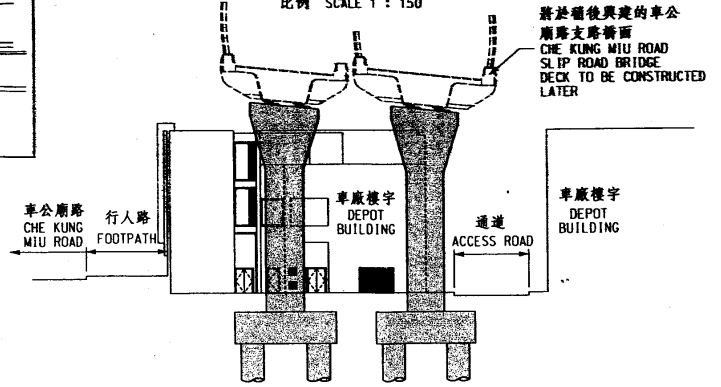
- 包括在備置工程內的地基及橋墩
PIERS AND FOUNDATIONS TO BE CONSTRUCTED UNDER ENABLING WORKS

將於稍後興建的車公廟路支路橋面
CHE KUNG MIU ROAD SLIP ROAD
BRIDGE DECK TO BE CONSTRUCTED
LATER

ENCLOSURE 3



切面 SECTION A - A
比例 SCALE 1 : 150



切面 SECTION B - B
比例 SCALE 1 : 150

將於稍後興建的車公廟路支路橋面
CHE KUNG MIU ROAD
SLIP ROAD BRIDGE
DECK TO BE CONSTRUCTED
LATER

drawing title 圖則名稱

工務計劃項目第694TH號 - 九號幹線長沙灣至沙田段
PWP ITEM NO. 694TH - ROUTE 9 BETWEEN CHEUNG SHA WAN AND SHA TIN
備置工程
ENABLING WORKS

\\Tcam1\6694th\drawing\mw6694th\ap0004a.dgn

A	04/01	PIER NO.	AMENDED						
no.	date	description	initial						
designed	C. W. YUNG	SIGNED	2/4/2001	drawn	H. Y. YIP	SIGNED	2/4/2001	drawing no. 圖號	scale 比例
checked	C. W. YUNG	SIGNED	3/4/2001	approved	T. W. KONG	SIGNED	3/4/2001	NW6694TH-SP0004A	AS SHOWN 如圖示
office	MAJOR WORKS PROJECT MANAGEMENT OFFICE 主要工程管理處			COPYRIGHT RESERVED 版權所有 嚴禁仿效		HIGHWAYS DEPARTMENT 路政署 HONG KONG 香港			