

**For Discussion
on 27 June 2008**

Legislative Council Panel on Transport

Enhancement of the Safety of Long Downhill Roads

Purpose

This paper briefs Members on the results and recommendations of the review on long steep downhill roads in the territory conducted by the Transport Department (TD).

Background

2. Following the fatal traffic accident on New Hiram's Highway near Nam Pin Wai Roundabout in Sai Kung on 1 May 2008, TD has, in conjunction with Highways Department and the Police, formed an expert group to examine the site environment in the vicinity of the accident location and to identify appropriate enhancement measures. In consultation with the Sai Kung District Council, a series of improvement measures have been gradually put in place since May. The installation of a speed enforcement camera at New Hiram's Highway is expected to complete in August. Other longer term measures, such as provision of crash barriers, are also in progress. With a view to further enhancing road safety, TD has also conducted a territory-wide review of long steep downhill roads.

The Review of Long Steep Downhill Roads

3. Based on road gradient and length, TD has identified a total of 29 downhill road sections in the territory : 12 on Hong Kong Island, 4 in Kowloon and 13 in the New Territories. These 29 road sections have gradients ranging from about 10% to 17% and road lengths from about 500 to 2,000 metres. The list of road sections and their gradients and lengths are set out at the **Annex**.

4 For each identified road section, TD has collected and reviewed all relevant information regarding the existing road conditions and traffic facilities, including road geometry (i.e. vertical and horizontal alignments), road surfacing conditions, street furniture, safety barriers, crash cushions, traffic signs, road markings and traffic management measures. It has also examined kerbside activities, accident records, traffic flow and vehicle mix, and taken into account the Police's observation of speeding activities.

5. The review shows the existing traffic management measures, warning traffic signs, road markings and roadside barriers at all these road sections are in compliance with the prevailing design standards. Over the years, various safety measures have already been implemented along these road sections as part of TD's continuous monitoring work, or as responses to requests and suggestions received from interested parties. Because of the characteristics of environment of these road sections, many are already provided with warning signs and road markings that are over and above what are provided under normal circumstances. Besides, as justified on individual circumstances, 17 of the road sections are provided with anti-skid surfacing at critical locations. Furthermore, because of the hilly terrain and narrow road width, traffic management measures such as prohibition of long vehicles or heavy goods vehicles are imposed on some of the road sections, including Magazine Gap Road, Clear Water Bay Road, Tung Chung Road and Lam Kam Road.

Recommendations on Enhancement Measures

6. That said, we have identified a number of measures which will provide further alert to motorists, and further enhance the safety of the road environment. These include traffic control measures (4 locations), improvements to traffic signs and road markings (28 locations), roadside barriers (10 locations), road surfacing (3 locations) and the provision of speed enforcement cameras (2 locations). Work on the bulk of these improvement measures, such as modification/addition of warning/advisory signs and road markings, are already in progress and will be completed by mid-July. For other measures, such as modification/addition of roadside barriers and improvement of road surface, they are expected to be completed by the end of 2008. Installation of fixed speed enforcement cameras will be implemented in the context of the Stage 3 Expansion Project of the Speed Enforcement Camera System. The Police will step up mobile enforcement action for these locations as necessary during the interim period.

On-going Programmes

7. TD attaches great importance to road safety and has all along been taking proactive action in enhancing road safety. We will continue to carry out the following work :-

- (a) As the behaviour of road users (including drivers and pedestrians) has been the contributory factor for over 90% of the traffic accidents, apart from improvement in traffic facilities and management, the government has also been enhancing road safety through legislation and enforcement, as well as publicity and education. TD and the Police organise talks, seminars, thematic training courses and road safety workshops particularly for the transport trades to promote road safety and a responsible driving culture. We also work with the Road Safety Council to enhance road safety through on-going publicity and educational activities to instill and foster a courteous and considerate driving attitude. Road safety messages are also disseminated through Announcements in the Public Interest on television and radio, leaflets, as well as advertisements at prominent locations and bus body on a regular basis;
- (b) TD's work on investigating traffic accidents and improving road facilities includes but is by no means confined to traffic black spots. For any location with traffic accidents involving serious causalities or causing considerable public concern, any location that has frequent occurrence of a similar type of traffic accidents, or any individual accident which is apparently caused by road environment factors, TD will explore possible measures and submit appropriate improvement proposals to enhance road safety;
- (c) In addition to investigation of accident sites, TD carries out other studies, including road safety review for strategic roads (e.g. Tolo Highways, Tuen Mun Highways etc.), and area studies on road safety (e.g. areas in the vicinity of Wan Chai Road). The review on long steep downhill roads is an example of this kind of special studies;

- (d) TD seeks views from District Councillors, local communities and members of the public through regular meetings with the traffic and transport committees of the District Councils, the government hotline, the Transport Complaint Unit, etc., and take appropriate improvement measures to enhance road safety as and when necessary; and
- (e) As part of the daily work, TD and Highways Department conduct regular inspections on road traffic and facilities throughout the territory and take follow-up actions as and when necessary.

ADVICE SOUGHT

- 8. Members are invited to note the contents of this paper.

**Transport Department
June 2008**

Review of Long Steep Downhill Roads

List of Locations

Road (maximum gradient, length)	Road Sections	
	From	To
Hong Kong Island		
1. Old Peak Road, Mid-levels (17%, 560m)	Old Peak Road/ Tregunter Path	Old Peak Road/Robinson Road
2. Magazine Gap Road, Mid-levels (10%, 1850m)	Magazine Gap Road/Peak Road	Magazine Gap Road/Garden Road
3. Garden Road, Central (13%, 800m)	Robinson Road	Queen's Road Central
4. Smithfield, Western (11%, 1000m)	Pok Fu Lam Road	Forbes Street
5. Sassoon Road, Southern (11%, 520m)	Pok Fu Lam Road/ Sassoon Road	Sassoon Road/Victoria Road Roundabout
6. Aberdeen Reservoir Road, Southern (16%, 500m)	Aberdeen Reservoir Road House No. 38	Aberdeen Reservoir Road/ Aberdeen Main Road
7. Blue Pool Road, Wan Chai (14%, 500m)	Tai Hang Road	98 Blue Pool Road
8. Broadwood Road, Wan Chai (10%, 900m)	Tai Hang Road	Link Road
9. Chai Wan Road, Eastern (11%, 880m)	Tai Tam Road	Shau Kei Wan Road
10. Chai Wan Road, Eastern (10%, 1000m)	Tai Tam Road	Chai Wan Roundabout
11. Pak Fuk Road, Eastern (10%, 800m)	Tin Hau Temple Road	Pak Fuk Road Safety Town
12. Cloud View Road, Eastern (10%, 520m)	33 Cloud View Road	Tin Hau Temple Road

Road (maximum gradient, length)	Road Sections	
	From	To
Kowloon		
13. Shatin Pass Road, Tsz Wan Shan (17%, 500m)	Fat Chong Temple	Nga Chuk Street
14. Wan Wah Street, Tsz Wan Shan (12%, 500m)	Tsz Wan Shan Road	Shung Wah Street
15. Clear Water Bay Road, Ngau Chi Wan (11%, 1350m)	Fei Ngo Shan Road	New Clear Water Bay Road
16. Ede Road, Kowloon Tong (11%, 560m)	Eastbourne Road	Cornwall Street
The New Territories		
17. Lam Kam Road, Yuen Long (13%, 800m)	Kadoorie Agricultural Research Centre	Route Twisk
18. Tai Mo Shan Road, Tsuen Wan (12.5%, 2000m)	Hong Kong Youth Hostels Association - Sze Lok Yuen	Route Twisk
19. Wah King Hill Road, Kwai Chung (10.5%, 900m)	Regency Park	Wah Yan Court
20. Keng Hau Road, Sha Tin (15%, 510m)	Tai Po Road (Sha Tin Heights)	Roundabout at Che Kung Miu Road
21. Lam Kam Road, Tai Po (10%, 730m)	Kadoorie Farm	Ng Tung Chai
22. Lo Fai Road, Tai Po (10%, 500m)	Ting Kok Road	Lo Ping Road
23. Hiram's Highway / New Hiram's Highway, Sai Kung (10%, 1600m)	Hiram's Highway near Chuk Kok Road	New Hiram's Highway near Nam Pin Wai Roundabout
24. Clear Water Bay Road near Ah Kung Wan Road, Sai Kung (10%, 600m)	Ah Kung Wan Road	Hang Hau Road Roundabout
25. Hang Hau Road, Tseung Kwan O (10%, 500m)	Clear Water Bay Road	Po Ning Road Roundabout

Road (maximum gradient, length)	Road Sections	
	From	To
26. Improved Tung Chung Road, Lantau (12.5%, 1300m)	Pak Kung Au	Lung Tseng Tau
27. Improved Tung Chung Road, Lantau (10%, 1400m)	Pak Kung Au	Cheung Sha
28. South Lantau Road, Lantau (10%, 850m)	Nam Shan	Pui O
29. South Lantau Road, Lantau (10%, 500m)	Nam Shan	Mui Wo