

**For discussion
on 15 March 2002**

Legislative Council Panel on Transport

Regulation of Traffic During Road Openings

PURPOSE

This paper informs members of the regulation of traffic during road openings.

BACKGROUND

2. At the meeting on 16 June 2000, the subject of road opening and the associated regulation of traffic was discussed. Upon Members' request, the Administration provided a further information paper on "Monitoring and control of road opening works" in January 2001. This paper serves to update members on the current mechanism for regulation of road openings and the various measures for regulating traffic movement during road openings, in particular one-lane two-way traffic control for roadworks on two-lane two-way roads.

REGULATION OF ROAD OPENINGS

Excavation Permit System

3. Government Departments and utility companies are required by law to obtain an Excavation Permit (EP) for carrying out road opening works. Before Highways Department (HyD) issues an EP, the applicant is required to (among other things) -

- (a) coordinate with other parties carrying out roadworks in the vicinity to arrange their works such that the traffic impact of their works would be tolerable and minimized;
- (b) submit temporary traffic management (TTM) proposals including any temporary signal control design to TD and the Police for comments/approval, in accordance with the Code of Practice for the Lighting, Signing and Guarding of Road Works issued by HyD; and

- (c) for road opening works affecting designated major roads (e.g. Nathan Road, King's Road, Connaught Road Central, etc.), submit a Traffic Impact Assessment (TIA) to Transport Department (TD) and the Police for approval, to ensure that proper traffic management measures are devised to avoid undue impact on pedestrian and vehicular movement.

If considered necessary, the Police or TD may require the roadworks contractor to conduct trial run for the proposed TTM before the road opening works can commence.

Monitoring

4. HyD will carry out regular audit site inspections to ensure the road openings are carried out in accordance with the EP conditions. Any observed non-compliances will be recorded and sent to the permit holder for rectification as soon as possible, and HyD will conduct follow-up audit site inspections to ensure these non-compliances have been rectified. For serious or repeated infringements on the lighting, signing and traffic control requirements, HyD staff will report the case to the Police for prosecution actions. The Police, as one of their routine duties, will also carry out checks on road openings (sometimes in conjunction with HyD and TD if complaints are received), and require the contractor to rectify any deficiencies immediately or even stop the works if there are serious congestion or road safety problems.

One-lane Two-way Traffic Control

5. For 2-lane 2-way roads, road opening works often necessitate one-lane two-way traffic operations. Members have asked the Administration to explore ways to optimize control and to improve compliance with such operation. The progress is as follows –

- (a) Deploying additional manpower to regulate traffic for extended hours

Roadworks agents are required to deploy additional manpower for manual control at critical sites for extended hours. A list of 'critical' roads with specific extended time for manual control, e.g. Friday nights on the Peak, where the works agents have been asked to conduct manual regulation of one-lane two-way traffic until late evenings/nights, is at the Annex.

(b) Adjusting green time of traffic lights to match varying traffic volume automatically

The traditional portable traffic signals can only be operated in fixed time mode. It is found to be inefficient when operated in locations where the traffic flow is fluctuating. A 'vehicle actuated' traffic signal system equipped with a detector to detect the presence or absence of waiting vehicles at each approach would enhance the efficiency and effectiveness of the signal control, by automatically adjusting the allocation of green times for each signal cycle. After going through a process of market research, equipment evaluation and testing, TD has in January 2002 approved the use of a vehicle actuated portable traffic signal system based on infra-red beam technology. TD in conjunction with HyD have introduced roadworks contractors to this new technology and encouraged them to use it at roadworks sites.

(c) Installing enforcement cameras

TD has further reviewed the suggestion to install Red Light Cameras (RLC) together with portable traffic signals, but found that it was not feasible because of the following physical limitations and practical difficulties –

- It is necessary to position the RLC to capture both the red signal aspect and the registration plate of the offending vehicle on one photograph. It would be extremely difficult to find such a suitable location for a RLC at roadworks site, due to the much lower height of portable signals which can easily be blocked by vehicles. The existence of barriers, fences and construction machinery will also block the view of the camera. Moreover, the installation would need to be frequently relocated to suit different stages of construction.
- The portable signals are operated by roadworks contractors whereas the RLC would have to be installed and operated by the Police. This would have immense technical and interface problems.

- Up to now, suitable equipment in terms of cost effectiveness and precision for use with roadworks has not yet been identified. Transport Department will nevertheless continue to look for new technology development in this field.
- The current practice is to install RLCs at locations known to have red light jumping problem. General application of RLC at roadworks sites would require substantial increase in resources. The equipment and installation cost for one RLC is about HK\$500,000.

LEGISLATION AND PENALTIES

6. Under the existing Road Traffic (Traffic Control) Regulations, it is an offence for failing to comply with the red light of traffic signals (including portable traffic signals). The maximum penalty for this offence is a fine of \$10,000 and imprisonment for 6 months. Moreover, the offender may also be prosecuted for Dangerous Driving if a traffic accident results from his action of jumping a red light. This latter offence carries a maximum penalty of 3 years imprisonment.

ADVICE SOUGHT

7. Members are invited to note the content of this paper.

Transport Department
March 2002

Roads	Activities & Abnormal Peak Periods for manual traffic control				
	Weekday night	Weekend		Special Event	
		Saturday	Sunday	Mid-autumn festivals	Astronomical events
Southern District					
Repulse Bay Road/ Stanley Gap Road	-	Holiday makers to beaches, country parks & Stanley market 2pm – 7pm		Outing 6pm – 2 am	Outing 6pm – 2am
Island Road	-	“		“	“
Tai Tam Road	-	“		“	“
Shek O Road	-	Holiday makers to beaches 2pm – 7pm		“	“
The Peak					
Peak Road	Holiday makers visiting the Peak			Outing 6pm – 2am	Outing 6pm – 2am
	Friday evenings & evenings before P.H.s 6 pm – 9pm	2pm – 9pm	2pm – 6pm		
Wanchai District					
Tai Hang Road	7pm – 8pm vehicular traffic is still heavy	2pm – 7pm	-	-	-
Stubbs Road	“	Holiday makers to beaches and the Peak 2pm – 7pm		-	-

Roads	Activities & Abnormal Peak Periods for manual traffic control				
	Weekday night	Weekend		Special Event	
		Saturday	Sunday	Mid-autumn festivals	Astronomical events
Sai Kung District					
Clear Water Bay Road (from J/o Hiram's Highway to Tai Au Mun)	-	Holiday makers to beaches and country parks (3pm - 7pm)		Outing (8pm-2am)	Outing (8pm-2am)
Hiram's Highway and Po Tung Road	-	Holiday makers (5pm - 10pm)		-	Outing (8pm-2am)
Sai Sha Road (from Tai Mong Tsai Road to Sai O)	-	Holiday makers (5pm - 10pm)		-	-
Tai Mong Tsai Road	-	-	-	BBQ site (8pm - 2am)	-
Fei Ngo Shan Road	-	-	-	Outing (8pm-2am)	-
Po Toi O Chuen Road	-	-	Seafood (6pm-11pm)	-	-
Tai Po District					
Sai Sha Road (from Nai Chung to Kei Ling Ha Lo Wai)	-	BBQ sites and country parks (5pm - 8pm)		BBQ site (8pm - 3am)	-
Ting Kok Road		BBQ sites (3pm - 10pm)		Outing (8pm-2am)	-
Bride Pool Road		BBQ sites (8pm -10pm)		Outing (8pm-2am)	-
North District					
Luk Keng Road	-	Country parks (5pm - 8pm)		Outing (8pm - 2am)	-