

**For discussion
on 24 March 2006**

Legislative Council Panel on Transport

Expansion of Journey Time Indication System to Kowloon

PURPOSE

This paper seeks Members' view on the proposal to expand the existing Journey Time Indication System (JTIS) on Hong Kong Island (JTIS Hong Kong) to Kowloon (JTIS Kowloon).

BACKGROUND

2. In 2003, we implemented the JTIS Hong Kong to inform motorists of the estimated journey time for travelling from Hong Kong Island to Kowloon via the three road-harbour crossings. We installed digital journey time indicators at critical traffic diversion points, viz. Gloucester Road eastbound (near Revenue Tower), Canal Road Flyover northbound (near the exit of Aberdeen Tunnel) and Island Eastern Corridor westbound (near City Garden) to allow motorists to make an informed choice on the route to be taken based on the latest traffic situation.

3. Apart from the digital indicators, we also launched a Traffic Speed Map on the internet for the approach roads to the three road-harbour crossings on Hong Kong Island in August 2005, so that commuters can better plan their routes before embarking on the journey. The digital indicators and the Traffic Speed Map have been operating satisfactorily. The daily hit rate of the Traffic Speed Map at Transport Department (TD)'s website has been increasing, and the current visitor count is around 1,500 per day. It is noteworthy that in December 2005, the hit rate increased to 3,900 per day, and exceeded 10,000 during the Sixth Ministerial Conference of the World Trade Organization. This reflects that the Traffic Speed Map is a useful tool for pre-trip planning, especially during major events and incidents with traffic impact.

4. By informing motorists of the latest traffic situation, they will be able to make an informed choice as regards the routes to cross the harbour, thus enhancing the distribution of traffic and alleviating the congestion on the approach roads. The system can bring about reduction in travelling time

and costs due to avoidance of congestion, improved safety and lower fuel consumption and emissions. A before-and-after survey was conducted on JTIS Hong Kong in December 2002 and January 2004 respectively. It was found that the average travelling speed had generally increased by 4%. In view of the satisfactory performance of the JTIS Hong Kong, we propose to expand the system to major approach roads to the road-harbour crossings on the Kowloon side.

PROPOSAL

5. We propose to expand JTIS to Kowloon to provide similar information to the motorists travelling from Kowloon to Hong Kong. The scope of the proposed works comprises –

- (a) installation of journey time indicators with digital display modules at six strategic locations in Kowloon (a list of the locations and a map showing the locations and the sign face details are at **Enclosure 1** and **Enclosure 2** respectively);
- (b) installation of the necessary vehicle detection equipment along the approach roads to the road-harbour crossings in Kowloon and tunnel exits on Hong Kong Island to collect the traffic data required for computation of the estimated vehicle journey time;
- (c) installation of a computer system for computing journey time information, and for monitoring and controlling the system operation;
- (d) integration with the JTIS Hong Kong as a single system; and
- (e) dissemination of the journey time information and average vehicle speeds of the combined JTIS Hong Kong and JTIS Kowloon system on the Internet.

6. At present, JTIS Hong Kong measures the journey time through tracking the position and speed of a fleet of buses equipped with Global Positioning System, supplemented by video images captured by cameras at

strategic locations. Since the launch of JTIS Hong Kong in 2003, some new technologies have been developed and are used in other countries for similar purposes. Automatic license plate recognition technology was widely adopted in Europe while cellular phone positioning technology was put on trial in the Netherlands and in USA (Maryland and Virginia). We will assess whether it would be more efficient and cost effective to adopt a different technology for the new system. If so, we will make adjustments to JTIS Hong Kong to merge it with JTIS Kowloon.

7. It has been our intention to expand JTIS further to other tunnels and the associated approach roads in the New Territories (e.g. the three tunnels linking Sha Tin and the urban area/Tsuen Wan and their approach roads). However, the commissioning of new road infrastructure (e.g. Route 8) in the coming years will have implications on the scale and coverage of the system. Given that the costs of the expansion and the technologies to be adopted hinge largely on the areas to be covered, it would therefore be prudent to take forward the present project first. We will consider how JTIS can be further expanded to cover the New Territories upon completion of the present project.

FINANCIAL IMPLICATIONS

8. We estimate the cost of the project to be \$52.5 million in MOD price, made up as follows: –

	\$ million
(a) Electronic, electrical and mechanical equipment installation	32.0
(b) Refurbishment of gantry sign	5.0
(c) Incorporation of JTIS Hong Kong to the new system	4.8
(d) Electrical and Mechanical Services Trading Fund project management charge ¹	6.5

¹ Since the establishment on 1 August 1996 under the Trading Fund Ordinance, the EMSTF charges government departments for design and technical consultancy services for E&M installations provided by the Electrical and Mechanical Services Department (EMSD). The services rendered for this project include carrying out the design on all E&M installations and providing technical advice to the Government on all E&M works and their impacts on the project from maintenance and general operation points of view.

(e)	Contingencies	4.2	
	Sub-total	52.5	(in September 2005 prices)
(f)	Provision for price adjustment	0.0	
	Total	52.5	(in MOD prices)

9. We propose to engage the Electrical and Mechanical Services Department to undertake the management of the project. We estimate that the additional annual recurrent expenditure will be around \$6.5 million.

IMPLEMENTATION PROGRAMME

10. Subject to funding approval, the implementation programme for the project will be as follows –

<u>Activity</u>	<u>Period</u>
Preliminary System Design	March to September 2006
Tendering / Assessment / Award	September 2006 to February 2007
Construction of JTIS Kowloon	February 2007 to June 2008
Testing and Commissioning	June to August 2008

WAY FORWARD

11. We plan to seek the endorsement of the Public Works Subcommittee on 24 May 2006 for the approval of the Finance Committee on 23 June 2006.

ADVICE SOUGHT

12. Members are invited to comment on the proposal.

Environment, Transport and Works Bureau
March 2006

**List of Proposed Locations for Installing
Journey Time Indicators**

	<u>Locations</u>	<u>Destinations</u>		
		Hong Kong (West)	Hong Kong (Central)	Hong Kong (East)
(i)	Ferry Street southbound near Dundas Street	✓	✓	
(ii)	Gascoigne Road eastbound near Chatham Road South		✓	✓
(iii)	Waterloo Road southbound, near Argyle Street	✓	✓	✓
(iv)	Princess Margaret Road southbound near Hong Chong Road	✓	✓	
(v)	East Kowloon Corridor southbound near Sheung Heung Road	✓	✓	
(vi)	Chatham Road North southbound near Wuhu Street	✓	✓	

