

Presentation by Y. C. Richard Wong to LegCo Panel on Transport, Special Meeting on 17 December 2001 on “Shenzhen Western Corridor, Deep Bay Link and Route 10”.

The total construction cost of Route 10 is estimated to be HK\$22 billion (including the northern section, southern section and Tsing Lung Bridge). The targeted date for completion is 2008. The cost of constructing Route 10 represents a considerable outlay of public funds at a time when the government is supposedly facing a forecasted deficit of some HK\$60 billion in the coming year. It therefore requires careful consideration of the rationale for putting it forward at this stage in its present form.

**First, providing a connection to Deep Bay Link and relieving traffic on Tuen Mun Road into the urban areas.**

The Deep Bay Link will be completed in 2005, but Route 10 will not be ready until 2008. There is a 3 years gap. In this 3-year period traffic congestion on the already over utilized Tuen Mun Road will become extremely severe. Even after the 3-year period traffic congestion will still build up at Ting Kau Bridge. Route 10 does not provide a satisfactory solution for connecting traffic into the urban areas.

**Second, providing an alternate connection to Lantau Island and developing a proper long term transportation network for the flow of cargo and people to facilitate the development of Hong Kong’s logistics industry.**

Route 10 appears to provides an alternate link to Lantau Island via Tsing Lung Bridge. But the bridge could be constructed as a stand alone project linking Lantau Island to Tuen Mun Road.

What Route 10 fails to address is that this potentially valuable new connection between the Deep Bay Link and Lantau Island if constructed today would not be able to take into account future plans for the development of the container terminals, which have been displaced by the Disneyland initiative. This would be poor planning in view of the correct current emphasis on developing Hong Kong’s role as the logistics hub in southern China. Clearly road and rail networks and air and shipping linkages have to be harmonized to obtain the best overall benefit.

**Are there other alternatives?**

The presence of Route 3 with its low utilization rate suggests that a more cost effective short term solution for connecting to the Deep Bay Link and relieving congestion on Tuen Mun Road is available. Moreover by delaying the construction of Route 10 until its proper alignment can be finalized, after the future development plans for the container terminals has been resolved, would be a better strategy. It would be more cost effective, bring more benefits, and suit Hong Kong’s long run development needs.

The idea of constructing a Western Highway connecting the Deep Bay Link to Route 3 would provide a cheaper and earlier solution to congestion on Tuen Mun Road. It

could be done at a fraction of the cost of Route 10. One reported estimate puts the construction cost at HK\$3 billion with a possible completion date of 2005.

From a social point of view, it makes no sense to allow Route 3 to remain under utilized on the one hand, and to proceed with the construction of Route 10 to relieve congestion on Tuen Mun Road on the other hand. This is an enormous waste of public resources.

Simple economics would dictate that we should seek pecuniary measures to divert traffic from Tuen Mun Road to Route 3. This would allow a better utilization of already existing and expensive infrastructure.

One simple pecuniary measure is for government to purchase road capacity from Route 3, which is tolled. This can be achieved through what is known as a “shadow toll”. There is good social justification for why this should be done. Given that major trunk routes in Hong Kong have different types of ownership arrangements at this point, therefore some roads are tolled and others are not. The price signals for road utilization are necessarily distorted resulting in relative over utilization on toll free roads and relative under utilization on tolled roads. The purchase of road capacity on tolled roads by the government results in an implicit cash subsidy for those who utilize the tolled roads and an implicit subsidy for the value of time saved for those who use the toll free roads. Such a scheme results in an overall improvement in road utilization efficiency.

“Shadows tolls” have been utilized elsewhere, for example, the United Kingdom. They are usually designed to be temporary measures to address cases of extreme imbalance in road utilization resulting from over congestion on toll free roads.

The purchase of road capacity need not be applied to all forms of traffic. It is possible that the selective purchase of capacity applicable to trucks and lorries would be a better policy measure to relieve truck and lorry traffic from Tuen Mun Road to Route 3 for a variety of reasons. First, limit the amount of road capacity that needs to be purchased. Second, selective targeting of subsidies to support the development of the logistics industry. Third, enhancing the safety of road conditions on Turn Mun Road through the diversion of trucks and lorries to Route 3.

The average toll for trucks and lorries is HK\$40 on Route 3. If a subsidy of HK\$30 is provided per vehicle and the total number of trucks and lorries using Route 3 is estimated to be 40,000 per day then the total subsidy will be approximately HK\$ \$438 million a year. One should note that the amount of subsidy per vehicle can be reduced over time according to a predetermined schedule. This compares favorably with the average annual interest cost of HK\$ 550 million arising from the construction of Route 10 during the construction period.<sup>1</sup> The total interest cost for the construction period would be HK\$3.3 billion. It is obvious that “shadow tolls” provide a much more cost effective solution.

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<sup>1</sup> Assuming Route 10 has a linear expenditure time line for the duration of the construction period at an interest rate of 5%.

The benefits for drivers who stay on Tuen Mun Road have not been factored into the calculations. Assuming that on average each vehicle carries only one driver, whose value of time HK\$30/hour, who saves 5 minutes a day for a roundtrip, and there are 100,000 vehicles a day, then the total savings would be HK\$456 million. This last sum is less than the cash value of the subsidy provided to trucks and lorries on Route 3.

It seems clearly there is a choice for traffic arrangements that is dominant to the construction of Route 10 today.