

7.5.39 It should also be noted that for the majority of containers carried, the PRL represents a very minor part of a much longer journey from the deep hinterland of China to another country or continent. The alternative to the PRL could likely involve a rail journey to another port in China and would also have air quality impacts. Clearly it is outside the scope of RDS-2 to assess the "global" impacts of these alternatives against comparable journeys via the PRL.

7.6 Mass Transportation Centre

7.6.1 The preceding sections have presented the key environmental impacts that may result from the implementation of the Component and Stand Alone schemes that comprise the proposed rail development options. Where appropriate, reference has also been made to the impacts that may be associated with other key related infrastructure, such as depots and/or the PRT. However, at the current level of engineering detail, and given that this is a strategic study, assessments have not been undertaken regarding the impacts that may result from individual stations or traction sub-stations etc. This is because the details and precise locations of these components are not yet finalised. Assessments of the impacts related to the construction and operation of these facilities will need to be undertaken at a later stage of the development process, and during the EIA stage.

7.6.2 However, the main RDS-2 study did undertake a Topical Study into the need for, and most appropriate location of, a Mass transportation Centre (MTC). After considering a number of other potential sites, the topical study resolved that the most appropriate location for the MTC would be at Hung Hom (HUH).

7.6.3 As with the preceding sections for the Component and Stand Alone schemes, this section presents a discussion on the MTC and the predicted key environmental impacts that are likely to be associated with its construction and operation.

Description and Assumed Construction Methodology

7.6.4 The concept of the Mass Transportation Centre is that it would serve as a terminus and interchange for Cross Boundary Inter-City services, providing customs and immigration facilities and acting as a centralised venue for a major KCR/MTR rail interchange and a bus/taxi PTI. The main functions of the MTC are as follows:

- to operate as a terminus for Cross Boundary Inter-City trains which require customs and immigration facilities. These are split into Through Train Services (TTS) (e.g. to Guangzhou) and Long Distance Services (LDS) (e.g. to Beijing and Shanghai);
- to serve as a regional railway station, including Boundary Train Services (BTS) to Lo Wu/Lok Ma Chau; and
- to provide good connections to KCR and MTR systems and road-based public transport (e.g. Buses and Taxis).

Location of the MTC

7.6.5 The MTC Study considered a number of options for the location of the MTC, both on Hong Kong Island and Kowloon. Initially, three options on Hong Kong Island were considered due to the preference of locating the MTC within the main financial and urban areas of Hong Kong. The three options considered were as follows:

- Option 1: East Rail Extension - Terminus within Tamar Area.
- Option 2: East Rail Extension - Terminus within Victoria Park.
- Option 3: West Rail Extension - Terminus within the Tamar Area.

7.6.6 The Study concluded that none of the Hong Kong Island options could satisfactorily fulfil the requirements without having financial or engineering implications or undesirable environment impacts. The determining factor for relocating the MTC to Kowloon side are as follows:

- An MTC on the Hong Kong Island would require reclamation within Victoria Harbour which is undesirable and is a potential fatal flaw for all the options on Hong Kong Island.
- A single MTC on the Hong Kong Island at either Victoria Park (VIP) or Tamar (TAM) would result in fewer TTS passengers than a single MTC on the Kowloon side at HUH or West Kowloon (WKN).
- Having an MTC on Hong Kong Island (at either VIP or TAM) in addition to an MTC on the Kowloon side at either HUH or WKN would increase the total through train services patronage by up to 10%.
- If ER journey times could be reduced to be similar to those via WR then, HUH would attract more passengers than WKN. (Although, based on current ER speeds, an MTC at WKN attracts marginally more passengers than an MTC at HUH).
- VIP is less attractive than TAM because of its location away from the main business district of Hong Kong Island.

7.6.7 With the elimination of the Hong Kong Island MTC options, only two viable sites were identified in Kowloon, either at Hung Hom (HUH) station on the existing East Rail, or WKN station on West Rail. For either location to be considered viable, good connections should be provided from the MTC to Hong Kong Island.

7.6.8 The screening process has since concluded that HUH is the preferred option for the following reasons:

- It will be directly served by four domestic rail services: the existing East Rail (ER), and the proposed Fourth Harbour Crossing (FHC), East Kowloon Line (EKL) and Kowloon Southern Loop (KSL). While WKN will only be served by West Rail and the KSL and also have no direct connection to Hong Kong Island.

- The ability of West Rail to accommodate Inter-City services is now similar to East Rail, following the decisions to provide more frequent, shorter trains and to reduce passing loops at stations, so HUH is equal to WKN. (In the medium to long term, it is assumed that the Inter-City services will by-pass both WR and ER, via REL).
- It is considered feasible for the REL to run to HUH via an underground alignment from the New Territories, under urban Kowloon, emerging from tunnel on the south side of Ho Man Tin Hill close to Hung Hom. However, it has not been possible to identify a practicable route for the REL to access WKN.
- The cost of construction at HUH will be substantially less cost than at WKN, as an MTC already exists at HUH. Although improvements at HUH will be necessary to accommodate all the services, these should be relatively inexpensive as the tracks are at ground level. A new underground MTC at WKN would be likely to be a substantially more expensive option.

General Environmental Issues

- 7.6.9 As determined by the screening process, the existing HUH station provides the most viable location for the MTC, although, it will require considerable modifications and extensions to accommodate the additional railway lines, platforms and facilities for the better movement of passengers within the station. The current engineering details indicates that the modifications will be undertaken in two stages, to allow for the continued use of the station throughout the construction period. The stages are as follows:

Stage 1

- 7.6.10 Minor modification to the existing platforms will be required to improve passenger access and to accommodate the future re-development of the station at a later stage. The modifications will involve the installation of escalators and walkways to facilitate the better movement of passengers within the station as well as minor internal alterations to the concourse building. As the construction works will be contained within the station concourse building, the potential environmental impacts to external receivers will be effectively mitigated and no insurmountable impacts are anticipated.

Stage 2

- 7.6.11 The currently available design information indicates that, in order to maintain the existing rail services throughout the construction phase, the existing HUH station will have to be demolished in several phases. The initial phase of works will involve the demolition of the multi-storey car park, with subsequent phases involving the demolition of the Hung Hom station, the freight yard and the construction of a new MTC located on the existing site. The proposed works may give rise to potential noise, dust and asbestos impacts associated with the demolition and construction works. However, with the adoption of appropriate mitigation, no insurmountable impacts are envisaged.

- 7.6.12 During the operational phase, the potential environmental impacts from the operation of the MTC will be associated with the movement of passengers, the PA system, and fixed plant installations. As these potential impacts will be contained within the station structure, no insurmountable impacts are envisaged to the external sensitive receivers.

Specific Environmental Issues

Stage 1

- As the proposed construction works will be limited to internal modifications of the existing HUH station, the potential impacts will most likely only result in disruption to public access to the station and consequential inconvenience to KCR passengers and rail services. Passengers and KCR staff may experience noise impacts from the construction works, however, these impacts are anticipated to be experienced on a transient or intermittent basis. No insurmountable impacts are anticipated.

Stage 2

- The major modification works will involve the demolition and construction of the multi-story car park and HUH Station in a number of separate phases to allow for the continued operation of the station while the redevelopment and expansion works are in progress. The demolition works are likely to result in noise and dust impacts, with the possibility that asbestos containing materials may be encountered during these works. Noise and dust impacts from the demolition and construction works may affect the Hong Kong Polytechnic University (and associated buildings), the Hong Kong Coliseum, the Pak Sui Yuen residential block, New and World Funeral Parlors and the new office and residential properties located to the north-east of the station. Disruption to road traffic leading up to the Cross Harbour Tunnel Toll gates and passengers using the KCR rail services is also anticipated. However, it is envisaged that the demolition and construction of the MTC could be undertaken without giving rise to any insurmountable impacts. Nevertheless, it is considered that this aspect of the scheme shall require further detailed assessment during the later design and EIA stages of the scheme's development.
- It is not envisaged that the operation of the MTC will give rise to any insurmountable impacts. Any impacts which may arise will be associated with the operation of the trains (e.g. break squeak), the movement of passengers, the PA system and fixed plant installations will be confined within the station concourse building and associated developments.
- As a large development and major public transport interchange, the MTC is likely to generate local traffic and possibly related developments. These associated factors could have potential environmental implications (eg for air quality, noise etc.). It is therefore recommended that, similar to other railway stations with an interchange function, clear co-ordination should be maintained between the various parties involved in the planning, development and future operation of the MTC, its supporting facilities, and its nearby developments to minimise any potential adverse environmental impacts related to its operations.