2. PROJECT DESCRIPTION

2.1 Scope of Project

The scope of the project involves the modification and improvement of existing highways in the town centres of Yuen Long (YUL), Tin Shui Wai (TIS) and Tuen Mun (TMC) and the provision of an access road to Kam Tin Station in order to enhance the effectiveness of the existing highway network, facilitate natural future traffic growth in the areas as a result of planning demand and to accommodate the localised growth associated with the future public use of the West Rail stations.

Much of the civil construction works for the EPIWs will be undertaken within the gazetted boundary of West Rail Phase I. The extent and limit of the EPIWs in Yuen Long, Tin Shui Wai, Tuen Mun Centre and Kam Tin are shown in *Figures 2.1a-d* and described in the sub-sections below.

2.1.1 Yuen Long EPIW

All the roads within the scope of Yuen Long EPIW are at-grade. The existing Long Yat Road will be re-aligned to provide access to the proposed Public Transport Interchange (PTI) to be located at ground level below the future station related Comprehensive Development Area (CDA) south of the Sun Yuen Long Centre, and to provide Emergency Vehicle Access (EVA) for Yuen Long station.

Prior to the re-alignment of Long Yat Road, Roads L1, L2 and L3 will be constructed to accommodate the existing traffic using Long Yat Road and maintain a functional highway network during the construction of West Rail. In association with the construction and re-alignment of these roads, the road junctions at L1/L2, L2/L3 and Long Yat Road/Castle Peak Road will be widened.

2.1.2 Tin Shui Wai EPIW

All roads within the scope of Tin Shui Wai EPIW are at-grade. The Tin Fuk Road and Ping Ha Road junction will be moved approximately 25 m to the north to accommodate development of the West Rail station: these works will require the realignment of both Tin Fuk Road and Ping Ha Road.

Approximately 400 m of the existing Tin Fuk Road, to the east of the junction, will be widened to a dual two lanes. The westbound carriageway of Tin Fuk Road will gradually be increased to four lanes towards the Tin Fuk Road/Ping Ha Road junction. Tin Yiu Road will also be modified in the realignment works.

2.1.3 Tuen Mun Centre EPIW

All the roads considered in Tuen Mun Centre EPIW are at-grade. In Tuen Mun, the existing roads and junctions at Tuen Mun Heung Sze Wui Road, Yan Ching Street, Pui To Road and Ho Pong Street will be widened.

At the junction of Tuen Mun Heung Sze Wui Road and Yan Ching Street, the existing carriageway of Tuen Mun Heung Sze Wui Road will be widened to dual two lanes in both northbound and southbound directions.

At the junction of Tuen Mun Heung Sze Wui Road and Pui To Road, each carriageway approaching the junction will be widened to four lanes and one additional lane will be provided at the exits of the junction. The road improvement works will also include widening at the Ho Pong Street and Pui To Road junction.

2.1.4 Kam Tin (Eastern Access Road) EAR

The Eastern Access Road will be a dual carriageway which connects the West Rail Kam Tin Station, and associated Public Transport Interchange and park and ride facilities, to Kam Sheung Road and the Kam Tim Bypass. The Eastern Access Road will be constructed primarily at-grade but will have two bridges over the two branches of the proposed drainage channels. A roundabout will be provided adjacent to the station as part of the Kam Tin Station works.

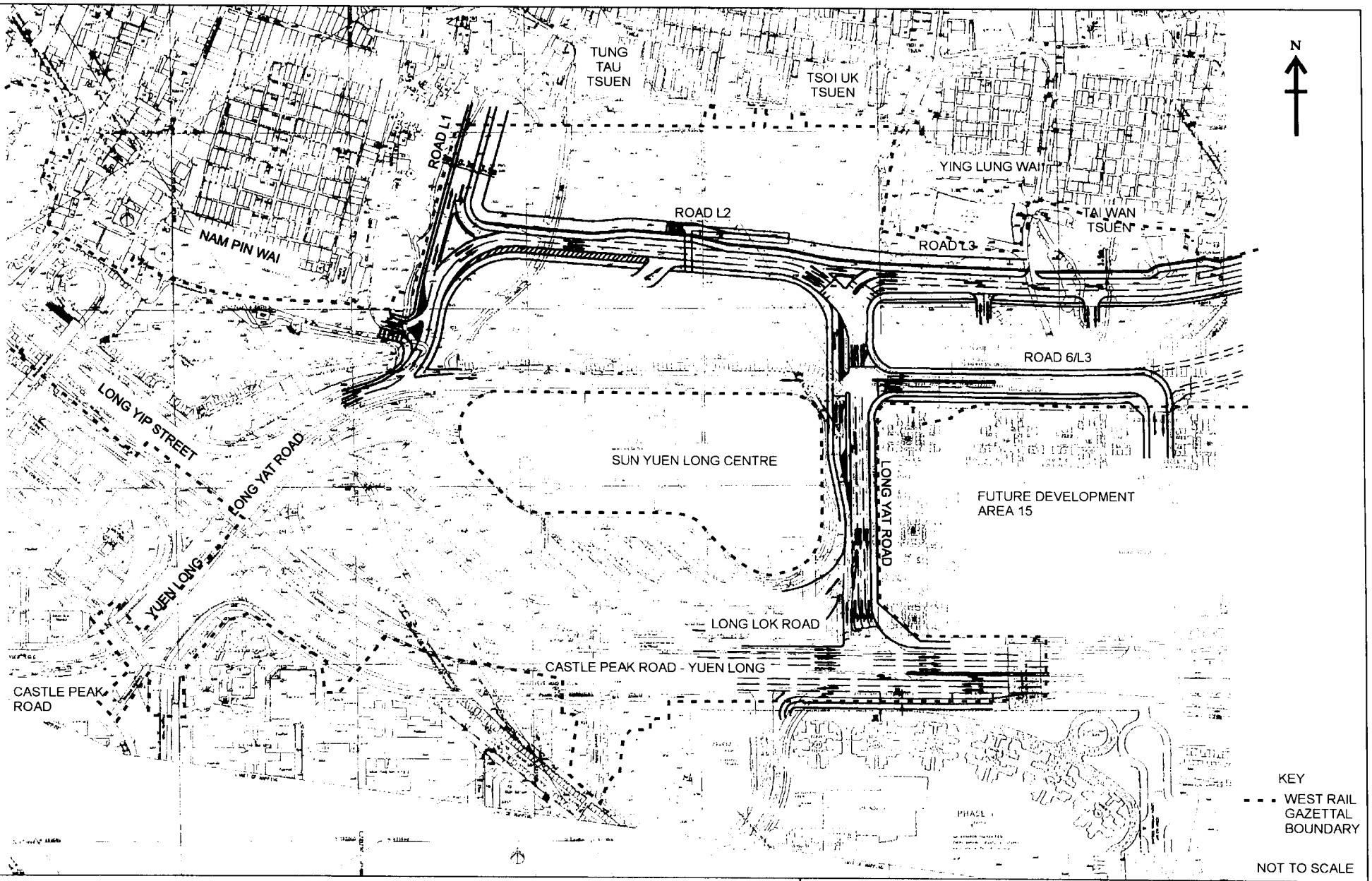
2.2 Project Programme

The precise details of the construction programming of the EPIWs have still to be finalised. These details will be confirmed during the detailed design phase and subsequently by the Contractor(s) appointed to undertake the Works. However, it is currently envisaged that construction of the EPIWs will be undertaken in accordance with the preliminary programme dates defined in Table 2.2a below.

Table 2.2a Preliminary Construction Programme Dates for the EPIWs

EPIW	Preliminary Construction Commencement Date	Preliminary Construction Completion Date
Yuen Long	February 2000	January 2001
Tin Shui Wai	October 1999	October 2000
Tuen Mun Centre	June 2001	June 2003
Kam Tin	June 2001	January 2003

Construction works for the stations associated with the EPIWs are scheduled to begin in mid-late 1999 and are expected to be completed by November 2003. There is the potential, therefore, for cumulative impacts as the construction works are likely to occur concurrently; however, the EPIWs will be operational before the stations are completed.



EXTENT OF ROAD WORKS PROPOSED FOR YUEN LONG

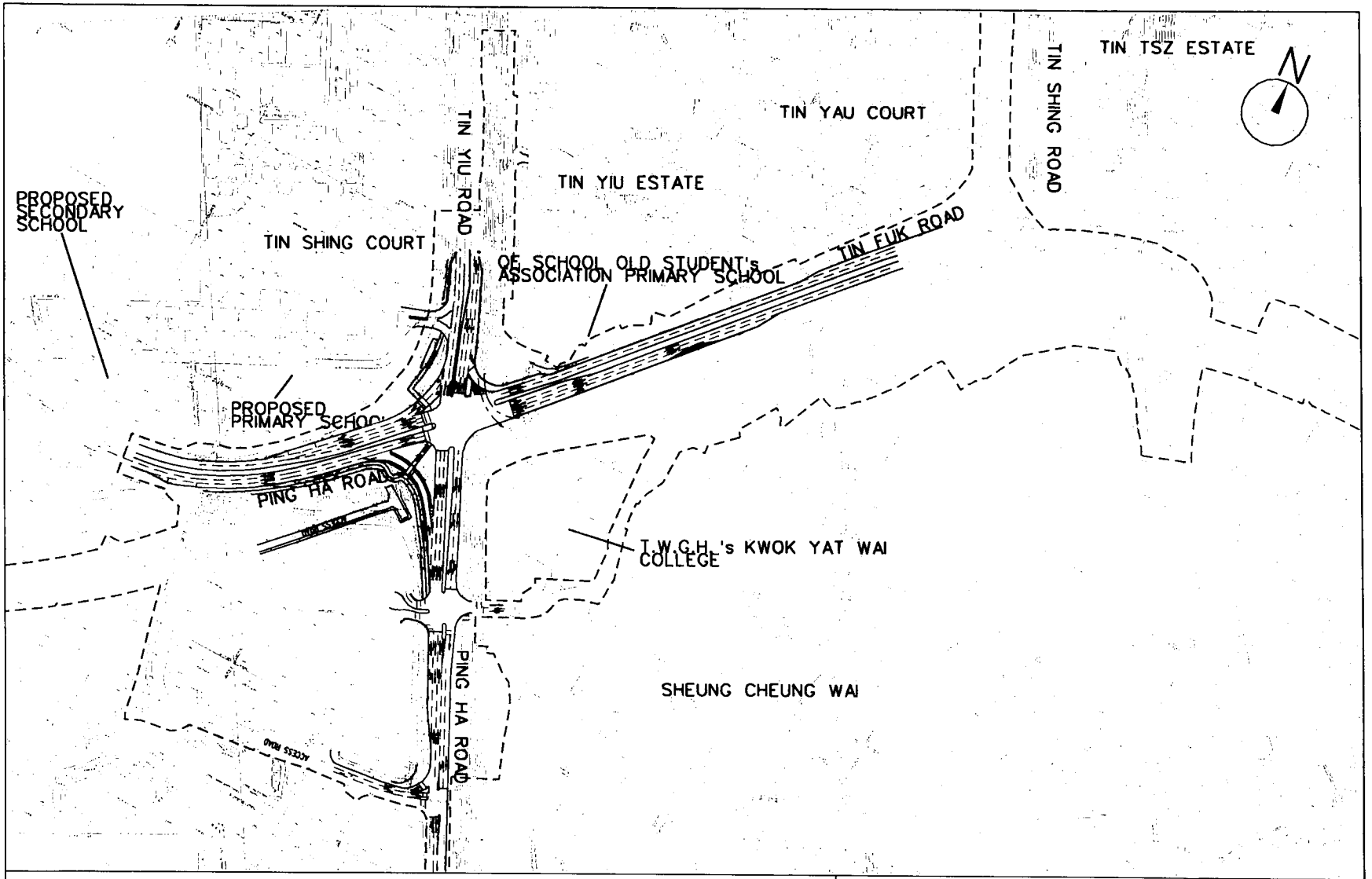
FIGURE 2.1a

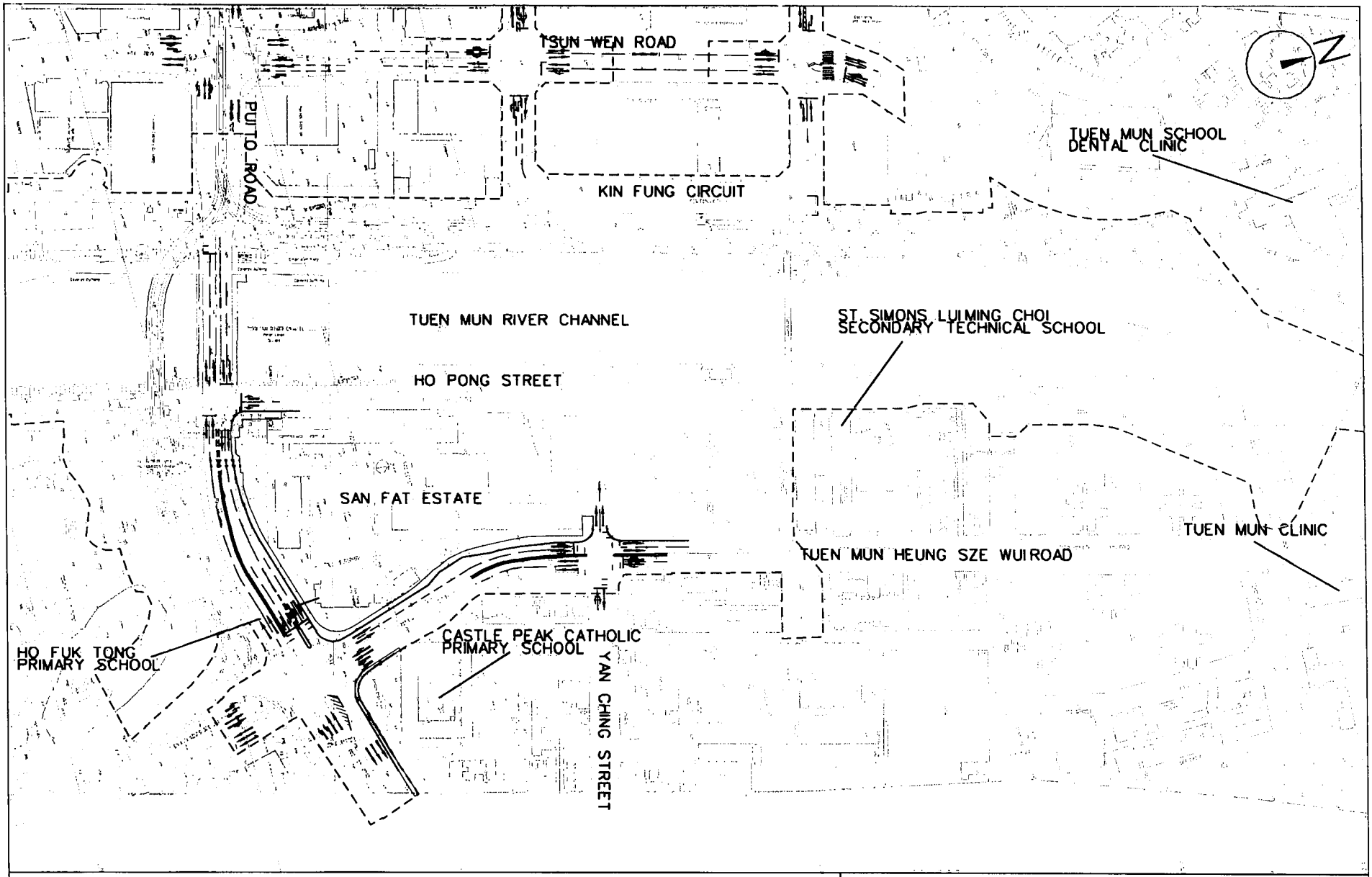
ERM

KOWLOON - CANTON RAILWAY CORPORATION

WEST RAIL: DD-901 ENVIRONMENTAL SUPPORT SERVICES

C1800r27


TIN TSZ ESTATE
N
TIN SHING ROAD
TIN YAU COURT
TIN YIU ROAD
TIN YIU ESTATE
PROPOSED SECONDARY SCHOOL
TIN SHING COURT
QE SCHOOL OLD STUDENT's ASSOCIATION PRIMARY SCHOOL
TIN FUK ROAD
PROPOSED PRIMARY SCHOOL
PING HA ROAD
T.W.G.H.'s KWOK YAT WAI COLLEGE
PING HA ROAD
SHEUNG CHEUNG WAI
WEST RAIL GAZETTAL BOUNDARY
EXTENT OF ROAD WORKS PROPOSED FOR TIN SHUI WAI
SCALE: 1/5,000
FIGURE 2.1b
ERM
KOWLOON - CANTON RAILWAY CORPORATION
WEST RAIL: DD-901 ENVIRONMENTAL SUPPORT SERVICES



WEST RAIL GAZETTAL BOUNDARY

FIGURE 2.1c

EXTENT OF ROAD WORKS PROPOSED FOR TUEN MUN CENTRE

SCALE: 1/3500

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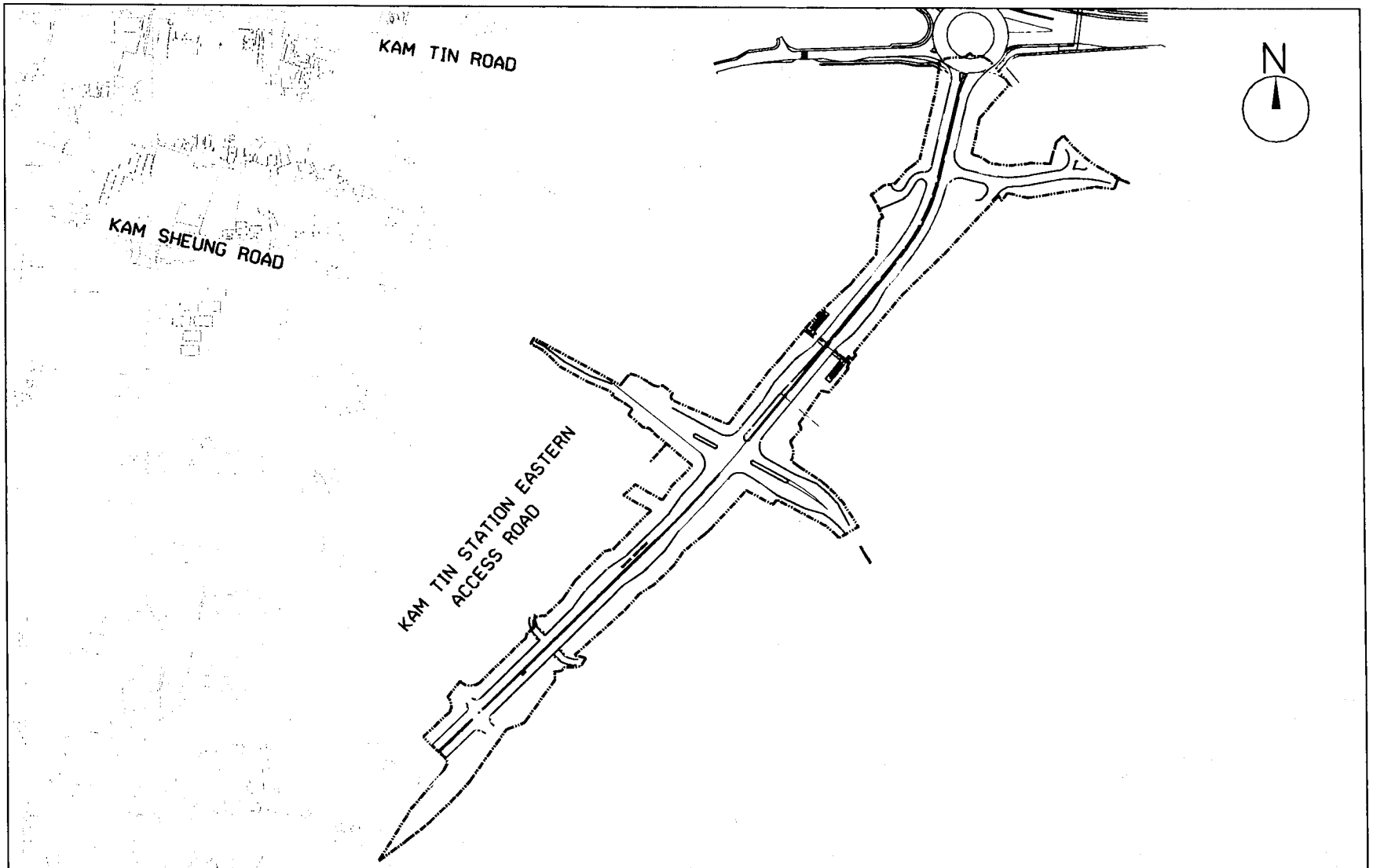
ERM

KOWLOON - CANTON RAILWAY CORPORATION

WEST RAIL: DD-901 ENVIRONMENTAL SUPPORT SERVICES



– WEST RAIL GAZETTAL BOUNDARY

EXTENT OF ROAD WORKS PROPOSED FOR KAM TIN

FIGURE 2.1d

SCALE: 1/5,000

C1608/kam.1

ERM

KOWLOON - CANTON RAILWAY CORPORATION

WEST RAIL: DD-901 ENVIRONMENTAL SUPPORT SERVICES

For the purposes of defining relevant dates for the operational assessment, the EPIWs scheduled dates provide a worst case scenario: this is an earliest assessment date for prevailing noise assessment and the latest date for future noise assessment.

In the assessment of construction related impacts, since a detailed construction programme is not defined, consideration of cumulative effects of both railway and EPIW activities has been made on the basis of judgement. Since in most locations the EPIW site activities will be closest to sensitive properties, a doubling of the localised plant inventory is likely to represent cumulative impacts.

In accordance with the programme and the *Technical Memorandum on Environmental Impact Assessment Process* (EIA O TM), the predictions of prevailing road traffic noise will based upon 1999 traffic data for the existing highway network and planning assumptions. The future road traffic noise will be based upon traffic forecasts for the worst case scenario within a 15 year period from commencement of operation of the EPIWs, natural traffic growth, the relevant future planning scenarios and the full operation of West Rail and the supporting public road transport infrastructure.

From analysis of the forecasted traffic data, it is expected that the maximum traffic projection for the peak hour traffic flow within the Project will occur in the year 2018. This Study has, therefore, been based upon the change in road traffic noise in the environment resulting from traffic growth over a full 19 year period from the existing situation to the future maximum use of the EPIWs. The traffic data prepared for this Study by KCRC and its traffic consultants are presented in *Annex A*.

2.3 Consideration of Alternatives

The EPIW schemes involve the alteration and widening of existing highways and the provision of a single road linking Kam Tin Station to the wider road network.

For those alterations to existing highways, the scope for the consideration of alternative schemes is limited, since the roads already exist and have been identified, through Traffic Impact Assessment studies undertaken for the Project proponent as part of the West Rail Project, as areas where road improvements are required. The location of the EPIW works has been selected primarily on the grounds of engineering practicality and highway feasibility. It is not considered relevant to undertake a comparison of the proposed schemes against the location or siting of alternative schemes as these would not fulfil the objectives of the EPIW schemes, namely to enhance the effectiveness of the existing highway network, facilitate natural future traffic growth in the areas as a result of planning demand and to accommodate the localised growth associated with the future public use of the West Rail stations.

The alignment of the Eastern Access Road has been determined by the need to establish a direct link to the local road distribution network. The proposed alignment achieves connections with the Kam Sheung Road and the proposed Kam Tin Bypass through the selection of the most direct, engineeringly feasible alignment which avoids the

resumption of large numbers of residential properties. The selected alignment also minimises landtake and hence potential impacts to environmental resources; alternative means of achieving the mitigation of predicted impacts, where appropriate, are discussed within the relevant technical sections.

2.4 "Do Nothing" Scenarios

Without the implementation of the proposed EPIW works at Yuen Long, Tin Shui Wai and Tuen Mun Centre, the increased traffic flows associated with natural future traffic growth and projected increases associated with the future public use of the West Rail stations will place a burden on road junctions that have already been identified as requiring enhancement. The future traffic modelling of the area has predicted that this will result in traffic congestion at the identified road junctions. This traffic congestion will result in the road vehicles having to accelerate and decelerate more regularly than free flowing traffic which will lead to an increase in air pollutant levels in the area of the EPIWs. It is predicted that the proposed junction improvements will lead to an improvement in the local air quality, (when assuming the same volume of traffic volumes flowing through the areas of the EPIWs).

Vehicular access to the West Rail Kam Tin Station is fundamental to maximise rail patronage and to enable the transfer of passengers from public transport and private vehicles. The existing road system in the immediate vicinity of the Station are capacity constrained and are primarily single lane with passing places, reflecting the rural context within which the new station is to be constructed.

Under a "do-nothing scenario", these rural roads would be unable to accommodate the traffic generated by the new station. The resultant traffic congestion would result in vehicles having to accelerate and decelerate more regularly than free flowing traffic which will lead to an increase in air pollutant levels in the Kam Tin area and greater disruption to the movement of local people.