

Qualitative appraisal

The qualitative appraisal comprises six focus areas:

Focus Area 1: Objectives that support LTA's Land Transport Masterplan (LTMP) and Walk, Cycle & Ride (WCR) vision

Criteria:

- a) The TIA clearly sets out achieving higher mass transport and/or active mobility mode share as one of the key transport objectives of the proposed development. For example – encourages the use of public transport (PT), designs/features that support walking and/or cycling, etc.
- b) The report includes a section detailing how the proposed development can achieve this objective, so that more trips can be moved towards WCR.

Focus Area 2: Documentation & application of methodology – is logical and applies appropriate techniques

Criteria:

- a) The adopted methodology is clearly documented in the TIA report and scientific approach(s)/ method(s) are appropriately applied in the assessments undertaken.
- b) The TIA follows the proposed methodology closely, i.e. the methodology as agreed at the inception stage (scoping meeting) and is clearly documented in the inception report.
- c) Key elements in determining the appropriate methodology are described in detail and may include the following:
 - i. How data is collected and/or interview survey(s) are conducted,
 - ii. How assumptions or parameters were determined; for example – mode share, traffic distribution, etc; and
 - iii. Proposed modelling workflow, scenario tests and the evaluations to be undertaken, etc.

Focus Area 3: Assessment of WCR connectivity and assessment of flow of private vehicles

There are two main forms of travel, namely, trips by public and private transport. This focus area assesses the completeness of the connectivity assessment for public transport and private transport modes.

For travel by public transport, the following are to be identified:

- a) PTAL of the proposed development and propose mitigating measures if relevant;
- b) Walking distance within 400m (to bus stop) and 800m (to MRT station) radius of the proposed development;
- c) Cycling route to nearest MRT station; and
- d) Walking route to nearest transport node.

For assessment of travel by private transport, the following should be assessed:
(to discuss with LTA on requirements during inception stage).

- a) Location of development access point(s) proposed;
- b) Adequacy of pick-up & drop-off (PUDO) facility and propose improvements if relevant; and
- c) Adequacy of internal circulation and propose improvements if relevant.

Criteria:

- a) Assessment of existing & future connectivity of all transport modes, from the site to nearby transport nodes.
- b) Identify issues (if any) for each of the transport modes and recommend appropriate improvement(s) to mitigate connectivity issues, if any.
- c) Recommendation(s) are to be supported by appropriate scientific techniques/tools.

Focus Area 4: Traffic Assessment Models

Traffic assessment is to be supported by well calibrated assessment models (single junction assessment, microsimulation or mesoscopic software) with acceptable degree of accuracy.

Criteria:

- a) Proper application and documentation of model(s), including its development (model verification, calibration & validation), and confirmation on fit for purpose.
- b) Proper application and documentation of base year model(s) to reflect existing traffic condition accurately (e.g. bottlenecks, driving behaviours, side frictions, etc.)
- c) Demonstrate that future year scenario traffic simulations or assignments are logical and realistic with acceptable degree of accuracy.
- d) Not to exceed three reviews for the proposed model(s) to be accepted.

Focus Area 5: Analyses & evaluation and identification of development impact

Criteria:

- a) Appropriate method/techniques are applied in the analyses and evaluation of existing and future year scenario traffic condition.
- b) Model outputs are appropriately analysed, organized and well presented in the TIA report.
- c) Traffic issue(s) are systematically identified for both private and PT/mass transport modes with minimal clarification required.

Note: *Changes to the methodology may be accepted provided sufficient justification is presented and the OIC is informed in advance*

Focus Area 6: Adequacy of recommendation(s) to mitigate negative traffic impact on the road network

Criteria:

- a) The recommendation(s) should take into consideration site condition and site constraints. Therefore, recommendations have to be logical and implementable.
- b) More than two transport improvements and/or demand management measures are to be recommended to encourage/facilitate travel by PT/mass transportation and/or other active mobility modes.
- c) Physical improvement(s) to be recommended only when negative impact on traffic cannot be adequately minimised or mitigated by the transport improvement proposed and/or demand management measures.
- d) For Type 2 and Type 3 TIAs – measures/design features to improve the performance of PT/mass transport in the traffic are to be studied and recommended (where possible) while maintaining overall traffic efficiency.

Quantitative appraisal

The quantitative appraisal takes into consideration two key aspects:

(1) The total number of reviews before an approval/clearance is obtained. Refer to Table 1

Table 1

TIA Type	Minimum standard
Type 1	3 rounds of review
Type 2	4 rounds of review
Type 3	5 - 6 rounds of review

(2) The total time taken to complete the TIA.

Complete within the duration as per the TIA classification type (6, 8 or 12 months as appropriate)