

1. Introduction

The City of Rockingham continues to experience strong development growth and as a result this has placed additional emphasis on considering and responding to the likely impacts on any existing or proposed traffic related infrastructure.

This procedure is designed to outline the minimum standards and technical information required to guide both applicants in the preparation of traffic related documentation, and the City in the assessment and determination of the submissions.

2. Statement of Intent

This Procedure articulates the City's position on the planning, design and construction of any proposed development (or change of land use) which has traffic implications and is to be considered by applicants, and internal staff in the design, consideration, assessment, and determination of:

- Structure Plans;
- Subdivision Applications; and
- Development Applications.

This Planning Procedure applies specific rigor to strategic and statutory proposals for residential, commercial, industrial or rural residential developments by:

- (a) Applying the objectives and requirements of Liveable Neighbourhoods (WAPC 2009), Australian Standards, WA state government policies and guidelines;
- (b) Ensuring that the objectives and intent of the approved development, structure plan and subdivision are appropriately implemented; and
- (c) Ensuring that infrastructure is designed and constructed in accordance with adopted engineering standards.

The purpose of this Planning Procedure is therefore to:

- (a) Provide guidance on the level of traffic assessment required for a proposed development and/or change of use in accordance with WAPC's *Transport Impact Assessment Guidelines*;
- (b) Ensure that the existing and proposed road network within the City is able to function satisfactorily in providing an environment that is safe, efficient, and minimises delays for all users (vehicles, pedestrians and cyclists);
- (c) Ensure that all proposed development and/or change in use considers the impact of generated traffic on adjacent road network and intersections. When the increased traffic results in exceeding the capacity of adjacent road network and intersections then remedial measures to improve the network performance must be provided;
- (d) Ensure that sufficient parking (vehicles and/or bicycle) is provided and designed in accordance with AS2890;

- (e) Ensure that considerations have been made for pedestrians and cyclists to promote a healthier lifestyle, as well as reducing dependence on private car travel; and
- (f) Ensure that considerations have been made for public transport to reduce dependence on private car travel.

This Procedure applies to proposals that facilitate residential, commercial, industrial or rural-residential zoning, subdivision or development; and is applicable to all activities, works, services and programs conducted by the City, its contractors and consultants.

3. General Requirements

The level of assessment applied by the City in its consideration of proposed development (or change of land use) will be in accordance with those specified in the WAPC's *Transport Impact Assessment Guidelines*.

Stage of Planning	Level of Assessment
Structure Plan	Transport Impact Assessment
Subdivision	Transport Impact Statement (peak hour volumes between 10 and 100) Or Transport Impact Assessment (peak hour volumes more than 100)
Development Application	Transport Impact Statement (peak hour volumes between 10 and 100) Or Transport Impact Assessment (peak hour volumes more than 100)

Note: *In certain circumstances the City may amend the required level of traffic assessment and/or consider waiving the traffic assessment requirements due to the low anticipated traffic generation or the general belief that the proposed development will have little or no impact on the surrounding road network.*

This exemption only applies to subdivision applications and standalone development applications (DA's).

4. Detailed Guidance

In addition to the information required to be provided in either a Transport Impact Statement (TIS) or Transport Impact Assessment (TIA) as specified in the WAPC's *Transport Impact Assessment Guidelines*, the following section provides further clarifications (where applicable) on the amount of details that the City requires in order to assess an application.

4.1 Existing Road Network, Land Use and Traffic Volumes (TIS and TIA)

Description of the existing road network and land use internally and within proximity of the proposed development shall to be provided in order to understand the current situation and how the proposed development would fit into the surrounding area. A plan showing the location of the proposed development with land use information in the background would facilitate understanding of its regional context. Any changes to the existing road network and land use shall also be described and shown in a plan format.

Information on public transport routes and pedestrian/cyclist facilities is requested to be presented in a plan format. Public transport schedules should be presented in a clear table format showing the relevant service frequency for Weekdays, Saturday, and Sunday and Public Holidays. Existing public transport routes and service frequency may be sourced from the Transperth website (www.transperth.wa.gov.au). Existing pedestrian/cyclist facilities may be obtained from Nearmap aerial imagery or from the Department of Transport's website (www.transport.wa.gov.au).

A map showing the existing and proposed public transport routes must be provided. PTA should be contacted to obtain their advice on future planning for public transport in the vicinity of the Development.

Existing traffic volumes (daily and peak hour) shall be provided for the road network (both internally and externally) when this information is available. Traffic volume information may be sourced from MRWA's Traffic Map and the City of Rockingham.

Note: The overall detail is to be commensurate with the anticipated impact the Development will have on the surrounding road network, including access to and from the site for all modes of transport.

4.2 Proposed Development (TIS and TIA)

Details of the proposed development are to be provided in a table and plan format outlining the land use, floor space or associated lot yield. It is important to ensure that most recent layout and information is used to ensure consistency and avoid delays

4.3 Proposed Road Network and Future Volumes (TIS and TIA)

All new roads within the development must be designed in accordance with Liveable Neighbourhood (2009). Any deviation from typical road cross sections of Liveable Neighbourhood must be clearly justified. Road network hierarchy for the road network (internal and external) shall be clearly shown in a plan format. Road reservation widths and cross sections for each of the road hierarchy shall also be provided in a sketch to clearly demonstrate the expected road cross section.

It is important that the methodology and assumptions on the determination of future traffic volumes (trip generation, trip distribution, mode choice, and trip assignment) are clearly explained and referenced. If a traffic model is to be developed by either using a software or spreadsheet, it is expected that these will be clearly described. Referencing that a traffic model was created with no further explanation is considered to be inadequate. It is recommended that the methodology and assumptions be supplemented with plan drawings to clearly illustrate them.

Trip Generation rates may be sourced from either WAPC's *Transport Impact Assessment Guidelines*, RTA's *Guide to Traffic Generating Developments* or ITE's *Trip Generation Manual*. It is expected that the source of the trip generation rates is to be clearly referenced. Other sources of trip generation rates may also be accepted however it shall be clearly referenced.

Future traffic volumes (daily and peak hour) must be provided for the road network (internal and external) in a plan format for clear illustration. If intersection analysis is required then turning volumes for the critical intersections shall also be provided for both AM and PM peak hour.

Intersection control for all intersections (internal and connection with adjacent road network) shall be described and justified. It is advised that the intersection control be shown in a plan format.

The proposed access strategy should also be described taking into consideration all recommendations outlined in Liveable Neighbourhood (2009).

4.4 Intersection Analysis (TIA)

Critical intersections (internal, at the development's boundary, within close proximity) that are impacted by the proposed development must be analysed by means of a traffic software (e.g. SIDRA, LINSIG, etc.). This allows for the level of performance of these intersections to be determined and decisions can be made whether the intersection would perform satisfactorily. All software files used in the intersection analysis must be made available to the City on request so that further assessment could be made when required. It should be noted that MRWA now require that LINSIG software be used for conducting traffic modelling of new and modified traffic signals.

At a minimum, the analysis is to be conducted for the following scenarios:

- Existing Scenario (AM and PM peak hour);
- Future Scenario without development (AM and PM peak hour);
- Future Scenario with full development (AM and PM peak hour).

The traffic analysis results must be supplied with the traffic assessment and this detail is to be presented in a table format, which includes the following minimum information;

- Average delays;
- 95% back of queue (in metres);
- Degree of saturation; and
- Level of service.

The adopted intersection geometry shall also be shown in a plan format. Discussions should then be provided to suggest whether the intersection performs satisfactorily or if remedial measures are required. All remedial measures proposed shall be accompanied with associated traffic analysis to demonstrate that it would perform satisfactorily.

Should the results of the traffic analysis suggests that external road network is inadequate to cater for the proposed demand then remedial measures must be proposed for the application to proceed further.

It should be noted that should further additional intersection analysis be required as part of the assessment, this would be at the discretion of the City of Rockingham.

4.5 Crash Data (TIA)

Crash data for the last five (5) years shall be provided for the relevant road and/or intersections impacted by the proposed development. The crash data can be obtained from MRWA's Crash Analysis Reporting System software.

A discussion of the crash data is to follow to highlight any safety risks associated with the existing geometry layout and how it would impact on the proposed development.

4.6 Service Vehicles (TIS and TIA)

Details of the service vehicles to be used for the development are required to be provided (eg. size, schedule, loading bay, etc) and designed in accordance with AS2890.2. If the service vehicle is to enter the proposed development then swept path analysis showing entering and exiting in forward gear is required to be provided.

4.7 Vehicle Parking (TIS and TIA)

Vehicle parking is to be designed in accordance with AS2890. It is recommended that the following items be considered in designing vehicle parking bays;

- Dimension of car parking bay suitable for its intended purposes. Different uses are to be clearly indicated (e.g. staff, visitors, etc.) on a plan.
- Traffic control devices to control vehicle speed
- Adjacent vertical obstructions may require the car parking bay to be widened
- Blind aisles shall require a minimum one metre aisle extension and may require means of turning around at the end and drive out forward (e.g. turning bay)
- Gradients (minimum and maximum requirements)
- Circulating roadways and ramps
- Access driveway width and location
- Sight distance for vehicles and pedestrians
- Queueing areas
- Signage and pavement marking
- Column location and spacing
- Headroom requirements
- Swept path analysis
- Additional clearance to the traffic lane for on-street car parking

4.8 Pedestrian and Cyclists (TIS and TIA)

A map showing the existing and proposed pedestrian and/or cycle path network is required to be provided. It should be noted that the City has a minimum 2 metre wide footpath requirement.

4.9 Drawings

Dimensions and gradients are to be shown clearly on the drawings so that no manual measurements are required.

5. **Approval**

Following the process of assessing the report (TIS or TIA) and/or drawings submitted for consideration with the application, conditions will be established and issued to the applicant or recommended to the WAPC as part of the City's acceptance for the works to occur.

6. **Interpretations**

6.1 Agency Acronyms

ITE - Institute of Transportation Engineers

MRWA - Main Roads Western Australia

PTA - Public Transport Authority

RTA - Road Traffic Authority

WAPC - Western Australian Planning Commission

6.2 Interpretations

Access Driveway - A roadway extending from the edge of the frontage roadway to the property boundary to connect with the first ramp, circulation roadway, parking aisle or domestic driveway encountered, and carrying one or two-way traffic.

Blind Aisle - A parking aisle closed at one end

Circulation Roadway - A roadway within an off-street car park which is used solely for circulation and to gain access to parking aisles, and on which there is no parking.

7. **Authority**

All planning and development proposals shall have due regard to the information presented in this Planning Procedure to ensure compliance with WAPC's *Transport Impact Assessment Guidelines*, Australian Standards, WA state government policies and guidelines.

8. **Other Relevant Documentation**

This Planning Procedure should also be read in conjunction with the following documentation;

- WAPC's *Transport Impact Assessment Guidelines (2016, Volume 1 to 5)*
- Liveable Neighbourhoods (2009)
- City of Rockingham's *Town Planning Scheme No. 2*

- Planning Policy 3.3.14 – *Bicycle Parking & End-of-Trip Facilities*
- AS2890 – *Parking Facilities (Part 1, 2, 3, 5, and 6)*
- *Austrroads' Guide to Road Design*

9. Adoption

This Planning Procedure was endorsed by the Director, Planning and Development Services on 29 March 2019.