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Guidelines for Approving RAV Access

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Refer to the Main Roads website for current version.

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2	15/08/2018	Removed reference to Concessional Guidelines. Removed reference to Strategic Road Freight Network. Added Network Performance Considerations and Use of Signage	s. 1, 3 cl. 6.7 & 6.8
3	20/09/2018	Amended wording in Swept Path Concerns and Network Performance Considerations Sections	cl. 6.1 and 6.7
4	28/01/2026	Updated to current corporate branding.	All

DEFINITIONS

The following are definitions for terms used in these Guidelines.

Term	Definition
HVS	Main Roads Heavy Vehicle Services
Main Roads website	www.mainroads.wa.gov.au
RAV	Restricted Access Vehicle

RELATED DOCUMENTS

Document Title	Location
RAV Access Approval & Review Policy	https://www.mainroads.wa.gov.au/4ab362/globalassets/heavy-vehicles/access-requirements-wa/rav-access-approval-review-policy.pdf?v=4a1d64
Standard Restricted Access Vehicle Route Assessment Guidelines	https://www.mainroads.wa.gov.au/49aa07/globalassets/heavy-vehicles/access-requirements-wa/access-guide-standard-restricted-access-vehicle-rav-route-assessment-guidelines/
Tri-Drive Route Assessment Guidelines	https://www.mainroads.wa.gov.au/4a325a/globalassets/heavy-vehicles/access-requirements-wa/access-guideline-tri-drive-route-assessment.pdf

1 PURPOSE

The Commissioner of Main Roads (the Commissioner) has the authority under provisions in the *Road Traffic (Vehicles) Act 2012* to approve RAV access on a public road. The Commissioner has delegated this authority to Main Roads Heavy Vehicle Services (HVS).

HVS administers the route assessment and approval process in order to provide efficient road access for RAVs, without having an adverse impact on road safety, the road infrastructure and public amenity. All route assessments must be conducted in accordance with the Route Assessment Guidelines relevant to the particular vehicle configuration and mass limit being requested. The following Route Assessment Guidelines are available on the Road Access page of the Main Roads website:

- Standard RAV Route Assessment Guidelines; and
- Tri-Drive Route Assessment Guidelines.

HVS decides whether a road will be approved for RAV access and may apply travel and road conditions to an approval when considered necessary for road safety, infrastructure protection or public amenity.

The purpose of this document is to provide guidance to Main Roads staff responsible for making decisions related to RAV access, particularly for roads that do not strictly meet the Route Assessment Guideline requirements. This document will also provide an understanding to stakeholders on the decision-making process.

These guidelines are not applicable to road design standards. However, if a road is constructed to the appropriate road design standards for the particular category of RAV and approved by Main Roads in consultation with HVS, the road will pass the RAV access assessment process.

2 ROLES & RESPONSIBILITIES

2.1 Main Roads WA

The Commissioner is empowered under the *Road Traffic (Vehicles) Act 2012* to approve RAV access on the public road network. The Commissioner has delegated these powers to the Heavy Vehicle Services (HVS).

HVS is responsible for reviewing all route assessments to decide if RAV access will be approved and what conditions, if any, will be applied. HVS will issue the approvals via either a RAV Order or a RAV Permit.

The Main Roads Regional Offices conduct route assessments on behalf of HVS and provide recommendations to HVS on the level of access that should be approved and if conditions should be applied.

2.2 Local Governments

Local Governments are key partners in the shared responsibility of safe and efficient RAV access within Western Australia and manage approximately 88 percent of West Australian roads. It is fundamental that Main Roads and Local Governments continue to build strong partnerships to ensure the best possible outcomes. Main Roads WA will ensure engagement with Local Government about RAV access on their roads.

3 NETWORK CONNECTIVITY CONSIDERATIONS

When considering access decisions, HVS and Local Governments should be mindful of network wide considerations relating to efficiency, connectivity, sustainability, asset protection, public safety and public amenity.

Where a more appropriate route is available, it is reasonable for Main Roads and Local Governments to propose alternative routes to the applicant.

Where only part of a road has been requested, HVS and Local Governments should give further consideration to ensuring network connectivity, which may mean assessing additional sections of road to those initially requested.

4 EQUITY OF ACCESS

When considering RAV access, HVS must approve the access for all operators under the same access conditions, which is the principle behind approving access via RAV Networks. The same principle applies to individual access permits, i.e. if a permit is provided to one operator allowing specific access, subject to certain conditions, the same access must be approved for all operators.

5 APPROVAL PRINCIPLES

When considering an application for RAV access approval, HVS must consider the following:

- Where the assessment identifies the road meets all of the relevant Route Assessment Guidelines, the road can be added to the relevant RAV Network;
- Where the assessment identifies the road does not meet all of the relevant Route Assessment Guidelines, however reasonable conditions can be applied to mitigate any associated risks, the road can be added to the relevant RAV Network subject to such conditions, e.g. speed restrictions;
- Where the assessment identifies the road does not meet all of the relevant Route Assessment Guidelines and applying reasonable conditions is not likely to mitigate any associated risk or is not likely to be complied with, the road should not be added to a RAV Network. However, access approval may still be granted under individual permit, following additional assessment based on the specific access requirement.
- Where the assessment identifies the road does not meet all of the relevant Route Assessment Guidelines, regard should be given to the historic safe operation of similar performing RAVs on the route, and approval for the increased RAV access can be approved subject to relevant upgrades being performed on the route within an agreed timeframe.

6 RISK ASSESSMENT

6.1 Public Safety

Public safety includes the safety of persons or property. This includes, but is not limited to, the safety of drivers and passengers of vehicles, the safety of persons such as pedestrians and people near the road-related area, and the safety of property such as vehicles and loads on or near the road-related area.

Public safety is about ensuring that the use of a RAV does not cause harm to other people using the roads or to property on or near the road. All road users have a legitimate expectation that they can use the road without being put at unreasonable risk of harm by another road user.

Main Roads adopts the Safe Systems approach, where applicable, when considering aspects of public safety and with the aim of safe travel on the public road network. This approach suggests (amongst other things) that road users will make mistakes, and vehicles and road infrastructure need to be 'forgiving' of them.

The same principles apply when approving RAV access, i.e. RAV drivers will make mistakes, so the road infrastructure needs to be 'forgiving' of them. In practice, this means the assessments must be reasonable and not be approved on the basis that the RAV driver will be faultless, allowing adequate safety margins and realistic expectations.

6.2 Level of Risk

A risk is significant if it has a high likelihood of occurrence or will have a serious or major consequence. A risk that is unlikely to occur or will have a minor impact is not a significant risk.

Regarding heavy vehicles, an incident may cause death or serious injury to a person or major damage to property (including the road infrastructure). The size and weight of heavy vehicles often makes the consequences of an incident more serious than a similar incident involving other vehicles. The impact of an incident does not depend on who is responsible for, or causes, the incident.

When HVS is deciding whether there is a significant risk, they need to consider both the likelihood that the potential risk will occur and the consequence if the risk is realised.

A risk cannot be significant simply because it may happen. There must be a reasonable likelihood that the risk will eventuate from the RAV using the particular road.

As a point for comparison, if the level of risk posed by general access vehicles is considered acceptable (that is, not significant), RAV access posing the same, or a lower, level of risk is not to be taken as significant.

7 MANAGING RISKS WITH CONDITIONS

7.1 Swept Path Concerns

Where the assessment identifies the road does not meet the swept path standards for the requested level of access, the road may still be approved under the following conditions:

- 1) A condition may be applied restricting specific turning movements to ensure the vehicle does not come into contact with roadside furniture or another vehicle, or cross the centreline of the road where sight distances are inadequate.
- 2) Where there are no line markings, it is acceptable for a RAV to use the entire available road space when making a turn, provided there is sufficient sight distances in all directions.
- 3) For a left turn into a side road, a RAV can swing out into the adjacent lane on the through road, even across a continuous centreline, provided there is sufficient sight distance in all directions of the intersection. However, traffic volumes should be considered, as it may not be practical for the RAV to swing out into an adjacent lane if there are no adequate breaks in traffic. Where a left turning lane (slip lane) exists, the RAV must remain within the turning lane, as the lane has been installed due to high traffic volumes or other safety reasons.
- 4) For a left turn into a through road, a RAV may swing out over the continuous centreline on the through road, provided there is sufficient sight distance to ensure the RAV can return to the correct side of the road without interfering with approaching traffic. However, traffic volumes should be considered, as it may not be practical for the RAV to swing out over the centreline if there are no adequate breaks in traffic.

- 5) For a right turn into a side road, a RAV must not cut across a marked give way or stop line with an adjoining centreline. Where there is no adjoining centreline, consideration can be given to allowing the RAV to cut across a small portion of the give way or stop line, subject to traffic volumes and adequate sight distances.
- 6) Where the swept path deficiency is considered marginal by HVS, a live on-road assessment may be conducted, at the discretion of HVS. If HVS considers it necessary for traffic management to ensure safety during the live assessment, this must be provided at the cost of the applicant. Where the live assessment demonstrates:
 - (a) the template vehicle configuration specified in the relevant Route Assessment Guidelines can safely manoeuvre the intersection, the road may be added to the relevant RAV Network; or
 - (b) that only a particular vehicle configuration used by the applicant (with a specific axle configuration and/or smaller dimension than the template vehicle configuration) can safely manoeuvre the intersection, the road may be approved under an individual permit, provided it complies with the relevant local access policy; or
 - (c) that only certain vehicle configurations approved to operate on the relevant RAV Network can safely manoeuvre the intersection, the road may be added to the relevant RAV Network with a condition excluding the vehicle configurations with poorer performing swept paths, provided the intersection is within an existing industrial area.
- 7) For sealed intersections, the RAV should remain on the seal to avoid damage to the seal edge and avoid degrading the gravel shoulder, presenting a risk to other road users. However, access can be approved for low volume roads, where the impact will be negligible and the road manager supports the access.

7.2 Gradient Concerns

Where the assessment identifies the road does not meet the gradient standards for the requested level of access, the road may still be approved under the following conditions:

- 1) If the road has adequate approach and departure to the gradient, therefore there is minimal risk of the RAV losing momentum and stalling or losing traction on the ascent, or minimal risk of the vehicle experiencing brake fade on the descent, the road may be added to the relevant RAV Network. Consideration must be given to the location of intersections with respect to the gradient, considering how the intersection locations may increase the risk of the gradient.
- 2) A live on-road assessment may be conducted at the discretion of HVS. If HVS considers it necessary for traffic management to ensure safety during the live assessment, this must be provided at the cost of the applicant. If the live assessment demonstrates:
 - (a) the template vehicle configuration specified in the relevant Route Assessment Guidelines can safely negotiate the gradient, the road may be added to the road network;
 - (b) that only a particular vehicle configuration used by the applicant (with a better performing towing vehicle and/or lesser gross mass than the template vehicle configuration) can safely negotiate the gradient, the road may be approved under an individual permit, provided it complies with the relevant local access policy. In this instance, the applicant may need to provide evidence that appropriate systems are in place to ensure all drivers are made aware of the gradient and have adequate experience or are provided with adequate training to safely negotiate the steep gradient.

7.3 Road Width Concerns

Where the assessment identifies the road does not meet the road width standards for the requested level of access, the road may still be approved under the following conditions:

- 1) A condition may be applied to lower the speed limit of the RAV. The speed limit will need to be lowered enough so the road width meets the standard at the lower speed. However, consideration needs to be given to introducing an unfavourable speed differential and whether this will cause greater safety concerns.
- 2) Where the road is a low volume road and the RAV is only required to travel a short distance, or traffic on the road is generally limited to local residents, the level of risk should be considered and if deemed to be negligible, access to the road may be approved under an individual permit, provided it complies with the relevant local access policy. The applicant may be required to erect warning signage on the road or provide evidence that contact has been made with all local residents advising of the presence of RAVs on the road.

7.4 Stacking Distance Concerns

Where the assessment identifies the road does not meet the stacking distance standards for the requested level of access, the road may still be approved under the following conditions:

- 1) If the applicant reaches a formal agreement with the rail service provider, the road may be approved under an individual permit, provided it complies with the relevant local access policy.
- 2) If the applicant is only using a vehicle with a length within the available stacking distance, the road may be approved under an individual permit, provided it complies with the relevant local access policy.

7.5 Sight Distance Concerns

Where the assessment identifies the road does not meet the sight distance standards for the requested level of access, the road may still be approved under the following conditions:

- 1) If the sight distance concern relates to an approach sight distance, a condition may be applied to lower the speed of the RAV. The speed limit will need to be lowered enough so the site distance meets the standard at the lower speed. The maximum speed restriction should not be more than 20 km/h less than the posted speed on the route, or 30 km/h less in 110 km/h speed zones.
- 2) If the sight distance concern relates to an entering sight distance, the road may be approved under an individual permit for temporary access, under an approved traffic management plan that reduces the speed of other traffic approaching the intersection on the through road.
- 3) Routes having intersections with lower than recommended entering sight distances can still be accepted if there is an adequate acceleration lane.
- 4) If the visibility of an intersection can be improved to an acceptable level by vegetation control or speed control signs, this may be recommended as a pre-requirement for RAV access. RAV access should not be permitted without prior confirmation that improved sight distance meets the minimum standard.

7.6 Road Infrastructure Concerns

Where the assessment identifies the road does not meet a standard relating to the road infrastructure, such as bridge ratings or pavement standards, the road may still be approved under an individual permit with a restricted mass limit.

8 NETWORK PERFORMANCE CONSIDERATIONS

Where it is identified by the relevant road manager that network performance is significantly impacted by the introduction of RAVs, consideration must be given to possible network improvements prior to RAV access being approved.

The assessor should consider if the current intersection layout/s along the proposed route are suitable for the level of RAV access requested and what potential impacts there are on network performance with the introduction of RAVs.

Consultation with the relevant road manager should be undertaken to ensure:

- Existing treatments such as acceleration lanes and turn pockets at intersections remain adequate for the proposed level of RAV access; and
- Consideration is given to potential significant impacts on network performance that may result in the need for intersection upgrades to include treatments such as turn pockets and/or acceleration lanes.

Traffic volumes, posted speed limits and sight distances must be considered as part of determining if significant infrastructure upgrades such as acceleration lanes, turn pockets or additional overtaking lanes are required or justified.

Alternatively, if network improvements are not viable, consideration can be given to applying access conditions such as:

- Granting access under curfew; or
- Granting access at particular times of the year when the traffic volumes are lower.

9 USE OF SIGNAGE

HVS may consider the installation of signage to mitigate safety risks in consultation with the relevant road manager and subject to approval from the relevant Main Roads Region.

10 FURTHER INFORMATION

Further information relating to the RAV access application and approval process can be obtained by contacting Main Roads HVS on 138 486 or hvsrouteassessments@mainroads.wa.gov.au.

Alternatively, please visit the Access Requirements in WA page on the Main Road website.