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Australian Defence Force Restricted Access Vehicles **Operating Conditions**

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D19#309780
June 2025

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Document Control

Owner	Director Heavy Vehicle Services
Custodian	Manager Heavy Vehicle Road Network Access
Document Number	D19#309780
Issue Date	April 2019
Review Frequency	As required

Amendments

Revision Number	Revision Date	Description of Key Changes	Section / Page No.
1	10/10/2019	Amended 45m rigid truck, towing a 4-axle dog trailer to allow 24.0m combination length.	Appendix 1
2	12/12/19	Added HX81 prime mover & amended wording in Section 8	Appendix 1 & s.8
3	2/9/2020	Added additional prime mover, low loader combinations & specified routes of operation. Reformatted entire document. Amended wording in clause 3.1.2	All
4	17/9/2020	Added section for Emergency Access	s.5.7, p.9
5	5/11/2020	Added section for Crossing Restricted Structures or using Non Approved Routes	s.5.7, p.9 & 10
6	11/2/2021	Added Definitions. Amended Crossing Restricted Bridges or using Non-Approved Routes section. Removed Appendices.	p.5, s.6.1, s.6.2, s.6.3, p.10, s.11, p.12/13.
7	14/5/2021	Added the 42m rigid vehicle to Category 1 vehicles	s.1
8	17/11/2021	Added the Category 3 PMV-M Bushmaster and PM-GMV Trailer	s.1
9	31/5/2022	Added the 40m rigid vehicle towing a 3 axle boat trailer to Category 1 vehicles. Added the SF MAN rigid vehicle towing a 3 axle boat trailer as a category 4 vehicle.	s.1, s.5
10	31/01/2023	Added Category 3 Mercedes Benz Actros 8x8 Truck with Hallmark 4T - 2 axle pig trailer	s.1
11	5/05/2023	Updated Category 4 Vehicles title to Two Axle Rigid Truck Towing a 3 Axle Boat Trailer	s.1, p.9
12	17/8/2023	Added 42M rigid truck, towing a 4 axle dog trailer	s.1

13	9/11/2023	Added Category 5 three axle all-terrain crane and associated requirements within relevant sections.	s.1, p.10, s.2, p.11 s.5, p.11-12 & s.7, p.13-14.
14	20/06/2025	Added M142 Rigid Truck to Category 1 vehicles and clarified definition of State of Western Australia to include Christmas Island and Cocos Island.	s.1, Definitions

DEFINITIONS

The following are definitions for terms used in these Operating Conditions. Refer to the definitions in the *Road Traffic (Administration) Act 2008* and the *Road Traffic (Vehicles) Act 2012* and any subsidiary legislation to these Acts for the meanings of any terms not defined in this section. If a definition in the relevant Acts or the subsidiary legislation conflicts with a definition in this section, the definition in this section prevails for the purpose of these Operating Conditions.

Term	Definition
ADF	Australian Defence Force
ADF Escort Vehicle	A pilot vehicle that is exempt under the Australian Defence Force Road Transport Exemption Framework from pilot licensing and vehicle marking requirements.
Category 2 Australian Defence Force Vehicle Network	The Category 2 Australian Defence Force Vehicle Network approved roads are published in the form of a Road Table or are available on the RAV Mapping Tool on the Main Roads website.
Licensing Authority	Government Authority responsible for the administration of the vehicle licensing provisions of the law of the relevant State, Territory or the Commonwealth.
Main Roads Website	www.mainroads.wa.gov.au
Permit	Means a permit issued under Part 4 of the <i>Road Traffic (Vehicles) Act 2012</i> , which these Operating Conditions form part of.
Order	The Order that is published in the Gazette subject to these Operating Conditions, under the provisions of Part 4 of the <i>Road Traffic (Vehicles) Act 2012</i> , which these Operating Conditions form part of.
RAV	Restricted Access Vehicle operated by the Australian Defence Force, to which these Operating Conditions apply, including any load.
State of Western Australia	All areas under Western Australian State jurisdiction, including Christmas Island and Cocos Island.
Tandem Drive Network 2	The Tandem Drive Network 2 approved roads are published in the form of Road Tables or are available on the RAV Mapping Tool on the Main Roads website.
Vehicles Regulations	<i>Road Traffic (Vehicles) Regulations 2014.</i>

REFERENCES AND RELATED DOCUMENTS

The following documents relate to these Operating Conditions and are available on the Main Roads website:

Document Number	Description
Contact Details for Other Agency Approvals	Available on the Oversize Overmass (OSOM) page on the Main Roads website: https://www.mainroads.wa.gov.au/globalassets/heavy-vehicles/contact-details-for-other-agency-approvals.pdf?v=4a4c3e
Oversize Vehicle & Pilot Vehicle General Requirements	Available on the Oversize Overmass (OSOM) page on the Main Roads website: https://www.mainroads.wa.gov.au/globalassets/heavy-vehicles/getting-a-permit/osom/oversize-vehicle-and-pilot-vehicle-general-requirements.pdf?v=49f806

1 APPLICATION

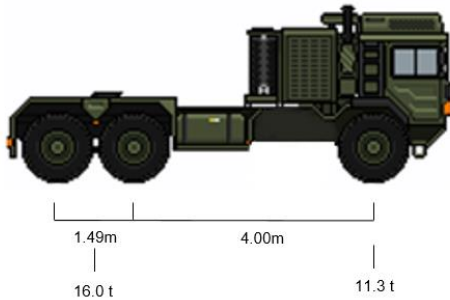
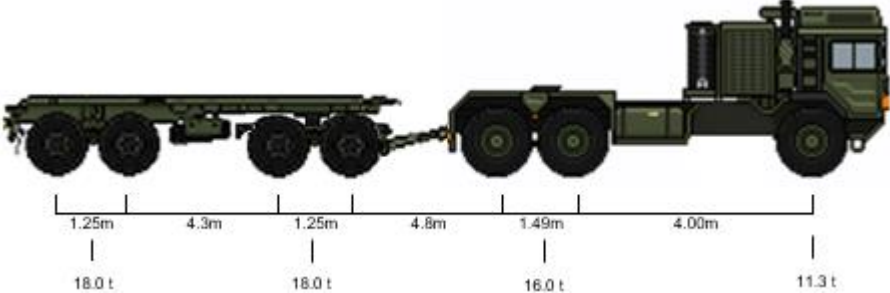
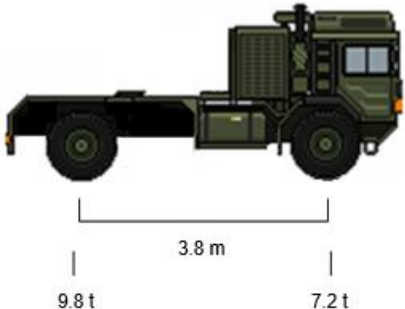
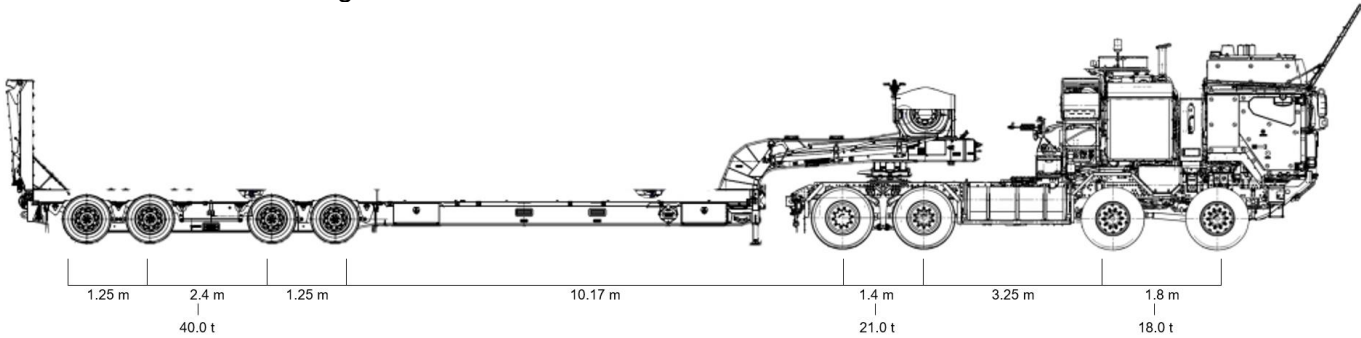
1.1 Approved Vehicles

These Operating Conditions apply to a RAV in the following table, when operating under an order or permit issued by Main Roads or operating under the Australian Defence Force Road Transport Exemption Framework:

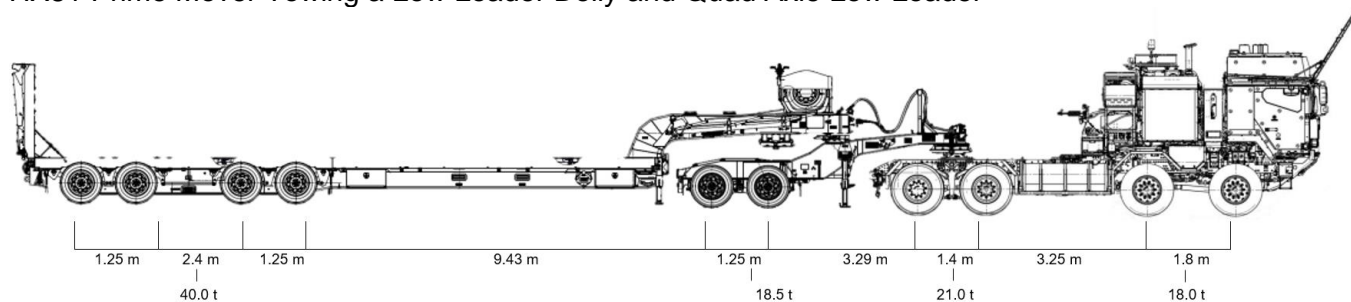
Category 1 RAVs			
Description and Configuration	Max. Length	Max. Width	Max. Height
HX77 Rigid Truck 	12.5 m	2.6 m	4.9 m
HX77 Rigid Truck Towing a 2 Axle Dog Trailer 	19.0 m	2.6 m	4.9 m
HX77 Rigid Truck Towing a 3 Axle Dog Trailer 	20.0 m	2.6 m	4.9 m
HX77 Rigid Truck Towing a 4 Axle Dog Trailer 	23.0 m	2.6 m	4.9 m

<p>HX77 Rigid Truck Towing a Single Axle Trailer</p>  <p>The diagram shows a side profile of an HX77 rigid truck towing a single axle trailer. The truck has a long wheelbase. Dimensions are indicated below the vehicle: 8.13 m between the first and second axles, 1.40 m between the second and third axles, 3.93 m between the third and fourth axles, and 1.80 m between the fourth axle and the front of the truck. Axle weights are marked as 5.0 t for the first axle, 22.4 t for the second axle, and 18.5 t for the third axle.</p>	22.0 m	2.6 m	4.9 m
<p>40M Rigid Truck</p>  <p>The diagram shows a side profile of a 40M rigid truck. The wheelbase is 4.50 m. Axle weights are marked as 11.2 t for the first axle and 11.1 t for the second axle.</p>	12.5 m	2.6 m	4.9 m
<p>40M Rigid Truck Towing a 2 Axle Dog Trailer</p>  <p>The diagram shows a side profile of a 40M rigid truck towing a 2-axle dog trailer. Dimensions are indicated below the vehicle: 3.78 m between the first and second axles of the trailer, 4.80 m between the second and third axles, and 4.50 m between the third axle and the front of the truck. Axle weights are marked as 9.0 t for the first axle, 8.0 t for the second axle, 11.2 t for the third axle, and 11.1 t for the fourth axle.</p>	19.0 m	2.6 m	4.9 m
<p>40M Rigid Truck Towing a 3 Axle Boat Trailer</p>  <p>The diagram shows a side profile of a 40M rigid truck towing a 3-axle boat trailer. Dimensions are indicated below the vehicle: 1.55 m between the first and second axles of the trailer, 1.55 m between the second and third axles, 7.0 m between the third axle and the front of the truck, and 4.50 m between the fourth axle and the front of the truck. Axle weights are marked as 9.0 t for the first axle, 11.2 t for the second axle, and 11.1 t for the third axle.</p>	21.25 m	2.85 m	4.6 m
<p>45M Rigid Truck</p>  <p>The diagram shows a side profile of a 45M rigid truck. The wheelbase is 1.60 m between the first and second axles, 1.55 m between the second and third axles, 3.20 m between the third and fourth axles, and 1.80 m between the fourth axle and the front of the truck. Axle weights are marked as 24.0 t for the first axle and 20.0 t for the second axle.</p>	12.5 m	2.6 m	4.9 m

<p>45M Rigid Truck Towing a 2 Axle Dog Trailer</p> 	21.0 m	2.6 m	4.9 m
<p>45M Rigid Truck Towing a 3 Axle Dog Trailer</p> 	21.0 m	2.6 m	4.9 m
<p>45M Rigid Truck Towing a 4 Axle Dog Trailer</p> 	24.0 m	2.6 m	4.9 m
<p>45M Dry Support Rigid Truck</p> 	12.5 m	2.6 m	4.9 m
<p>HX81 Prime Mover</p> 	12.5 m	2.6 m	4.9 m

<p>42M Rigid Truck</p> 	10.0 m	2.6 m	4.6 m
<p>42M Rigid Truck Towing a 4 Axle Dog Trailer</p> 	21.0 m	2.6 m	4.6 m
<p>M142 Rigid Truck</p> 	8.0 m	2.5 m	4.3 m
Category 2 RAVs			
Description and Configuration			
<p>HX81 Prime Mover Towing a Quad Axle Low Loader</p>  <p>Max. Length: 25.0 m Max. Width: 3.5 m Max. Height: 4.9 m</p>			

HX81 Prime Mover Towing a Low Loader Dolly and Quad Axle Low Loader



Max. Length: 29.0 m

Max. Width: 3.5 m

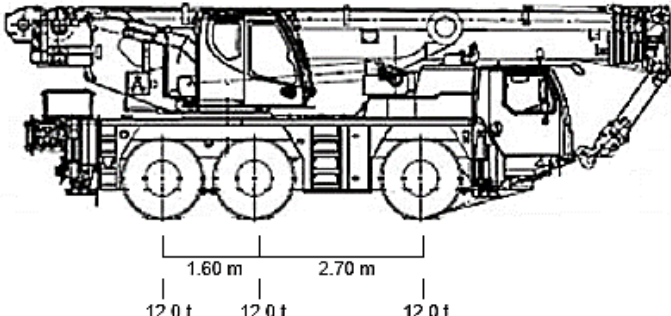
Max. Height: 4.9 m

Category 3 RAVs

Description and Configuration	Max. Length	Max. Width	Max. Height
PMV-M Bushmaster and PM-GMV Trailer 	11.5 m	2.5 m	4.3 m
Mercedes Benz Actros 8x8 Truck with Hallmark 4T – 2 Axle Pig Trailer <p>Note: 12.0 tonne permitted on the Twin Steer Axle Group where it is fitted with load sharing suspension and tyres ≥ 375 mm. Statutory mass limits apply to all other axle groups.</p>	16.1 m	2.6 m	4.3 m

Category 4 RAVs

Description and Configuration	Max. Length	Max. Width	Max. Height
Axle Rigid Truck Towing a 3 Axle Boat Trailer <p>Note: Statutory mass limits apply to this combination.</p>	19.0 m	3.23 m	4.3 m

Category 5 RAVs			
Description and Configuration	Max. Length	Max. Width	Max. Height
<p>3 Axle All Terrain Crane</p> 	12.5 m	2.7 m	4.3 m

2 AXLE SPACING AND GROUND CONTACT WIDTH

- 2.1.1** A RAV must comply with the minimum axle spacing requirements specified for the particular RAV in sub-clause 1.1.
- 2.1.2** A Category 1 RAV must have a minimum Ground Contact Width (GCW) of 2.42 metres.
- 2.1.3** A Category 2 RAV must have a minimum GCW as specified below:
- (a) 2.67 metres for the Quad Axle Low Loader; and
 - (b) 2.41 metres for the Low Loader Dolly.
- 2.1.4** A Category 3 RAV must have a minimum GCW of 2.43 metres.
- 2.1.5** A Category 5 must have a minimum GCW of 2.40 metres.

3 DIMENSION REQUIREMENTS

A RAV must not exceed a dimension limit specified for the particular RAV in sub-clause 1.1.

3.1 Height Limits Exceeding 4.3 metres

- 3.1.1** A RAV exceeding 4.3 metres in height must not be driven on a road without current written approval from all the relevant Cable Operators, unless the height is less than 4.6 metres and the vehicle is being driven on a road that is listed in Tandem Drive Network 2. The written approval must be carried in the RAV and produced upon request.

Note: “Contact Details for Other Agency Approvals” are available on the Oversize Over-mass Permits page on the Main Roads website.

- 3.1.2** There are a number of overhead structures that restrict the allowable load height on the State’s Road Network. These structures are listed in the *Structure Heights* document, available on the Oversize Overmass (OSOM) page and the RAV Mapping Tool on the Main Roads website.

4 MASS LIMITS

A RAV must not exceed an axle group mass limit specified for the particular vehicle in sub-clause 1.1.

5 ACCESS REQUIREMENTS

5.1 Approved Roads and Conditions

- 5.1.1 A Category 1 RAV may be driven on any public road within the State of Western Australia, subject to clause 5.2 and 5.3.
- 5.1.2 A Category 2 RAV must not operate on any road that is not in the Category 2 Australian Defence Force Vehicle Network.
- 5.1.3 A Category 3 RAV may be driven on any public road within the State of Western Australia.
- 5.1.4 A Category 4 RAV may be driven on any public road within the State of Western Australia, subject to clause 5.2.
- 5.1.5 Category 5 RAV may be driven on any public road within the State of Western Australia, subject to clause 5.2 and 5.5.

5.2 Prohibited Roads

- 5.2.1 A Category 1, 2, 4 & 5 RAV must not operate on any of the following roads:
 - (a) Graham Farmer Freeway; or
 - (b) Mitchell Freeway; or
 - (c) Kwinana Freeway.

5.3 Category 1 RAV Restricted Bridges

A Category 1 RAV must not be driven on a bridge listed in the Australian Defence Force Vehicles Restricted Structures, available and maintained on the Australian Defence Force (ADF) page and the RAV Mapping Tool on the Main Roads website.

Note: *It is an offence under the Road Traffic Code 2000 for a vehicle to cross a bridge if the vehicle has a mass limit in excess of the posted mass limit for the bridge*

5.4 A Category 2 RAV Crossing the Ord Diversion Dam Bridge

A Category 2 RAV crossing Bridge 1242, Ord Diversion Dam located at SLK 39.65 on Victoria Highway (Longitude 128.70, Latitude -15.79) must comply with the following:

- (a) The RAV must travel across the bridge as close as practicable to the centre of the bridge; and
- (b) All other traffic must be excluded from the bridge during the crossing; and
- (c) The RAV must cross the bridge at a maximum speed of 10 km/h; and
- (d) A minimum of two (2) ADF escort vehicles must accompany the RAV to manage traffic during the bridge crossing.

5.5 Category 5 RAV Restricted Bridges

A Category 5 RAV must not be driven on a bridge listed in the All Terrain Special Purpose Vehicles Restricted Structures, available and maintained on the Australian Defence Force (ADF) page and the RAV Mapping Tool on the Main Roads website.

Note: *Drive Over Structure locations are published on the RAV Mapping Tool and can be found via the "Open Data Maps & Apps" on the Main Roads website.*

5.6 Route Assessment

Prior to departure, the ADF must assess the route of travel to ensure that it is suitable and safe for use and that it can be driven along without contravening these Operating Conditions.

5.7 Damage

A RAV must not be driven along a route or within an area if to do so would be likely to cause:

- (a) Damage to property or another vehicle; or
- (b) Damage to telecommunication, electrical, gas, water or sewage services; or
- (c) Damage to a road (including a bridge), structure, roadside furniture, rail crossing or tree.

6 CROSSING RESTRICTED BRIDGES OR USING NON-APPROVED ROUTES

The ADF Land Vehicle Safety Cell coordinates all requests outlined in this section on behalf of the ADF. As such, contact must be made with the ADF Land Vehicle Safety Cell on 02 5108 7405 or 0438 558 578 in the first instance, who will then submit the relevant permit application form or liaise directly with Main Roads.

6.1 Applying to Cross a Restricted Bridge

If a Category 1 RAV needs to cross a restricted bridge listed in the Australian Defence Force Vehicles Restricted Structures, an application for a Bridge Crossing Permit can be made by submitting a [Bridge Crossing Permit Application form](#) (no fee will be charged), available on the Oversize Overmass (OSOM) page of the Main Roads website.

6.2 Applying to Use a Non-Approved Route

If a Category 2 RAV needs to access a road not listed in the Category 2 Australian Defence Force Vehicle Approved Network, an application for a Single Trip Permit can be made by submitting a [Single Trip Permit Application form](#) (no fee will be charged), available on the Oversize Overmass (OSOM) page of the Main Roads website.

6.3 Emergency Access

If urgent access is required in the event of an emergency and the RAV requires to cross a restricted bridge or use a non-approved route, contact Main Roads Heavy Vehicle Technical Officer on +61417096944.

7 WARNING DEVICES

7.1 Lights

7.1.1 A RAV must operate with headlights switched on at all times.

7.1.2 A RAV in excess of 3.0 metres in width or 25 metres in length must display at least one amber flashing warning light, which must be visible in all directions, or must be supplemented by additional warning lights so at least one warning light is visible in all directions.

7.1.3 A warning light must comply with the requirements in the *Oversize Vehicle & Pilot Vehicle General Requirements*.

7.1.4 A RAV must not display an amber flashing warning light if not required under this Clause.

7.2 Warning Signs and Flags

- 7.2.1** A RAV exceeding 2.6 metres in width or 25 metres in length must clearly display:
- (a) “Oversize” warning sign on the front of the vehicle; and
 - (b) “Oversize” warning sign on the rear of the vehicle, or if carrying a rear projecting load, the “Oversize” warning sign is to be mounted as close to the rear of the load as practical; and
 - (c) Four (4) warning flags. One flag must be positioned at each side of both the front and rear of the vehicle, or if there is any projecting load, at each side of both the front and rear of the projecting load.
- 7.2.2** A RAV with a length exceeding 24 metres, up to 25 metres, and with a width not exceeding 2.6 metres, must only display an “Oversize” warning sign on the rear of the vehicle, or if carrying a rear projecting load, as close to the rear of the load as practical.
- 7.2.3** A Category 5 RAV must have a warning flag, attached to the front of the boom or jib at all times.
- 7.2.4** An oversize warning sign and warning flags must comply with the requirements set out in the *Oversize Vehicle & Pilot Vehicle General Requirements*.
- 7.2.5** A RAV must not display an “Oversize” warning sign if not required under this section.

7.3 Additional Warning Devices at Night

- 7.3.1** If travelling at night, a RAV in excess of 2.6 metres in width or 25 metres in length must display at least one amber flashing warning light, which must be visible all directions, or must be supplemented by additional warning lights so at least one warning light is visible in all directions.
- 7.3.2** A warning light must comply with the requirements outlined in the *Oversize Vehicle & Pilot Vehicle General Requirements*.
- 7.3.3** A RAV travelling at night must also display:
- (a) Lights showing yellow to the front and red to the rear (known as “side markers”), no more than 2 metres apart along both sides of the vehicle or load; and
 - (b) If in excess of 2.6 metres in width, yellow or white lights (known as “front clearance lights”) on the front of the trailer deck, one on each side of the trailer, as near as practical to the front outer edge and clearly visible to oncoming traffic; and
 - (c) If carrying a load that is not contained within the confines of the vehicle, flood lights attached to the load or the trailer, directed upward at the extremities of the load in a manner so as not to dazzle any driver; and
 - (d) An amber flashing warning light mounted on the extremity of a load projecting more than 1.2 metres from the rear of the vehicle.

7.4 Other Markings

- 7.4.1** If a Category 5 RAV has a forward projection exceeding 1.2 metres, the part that is projecting forward of the vehicle’s body must display striping made from retro-reflective material, coloured red and white or red and yellow, as shown in the following example.



8 COMPLYING WITH LICENSING CONDITIONS

In addition to these Operating Conditions, the RAV must be driven in accordance with any conditions of the vehicle's licence, as imposed by the relevant Licensing Authority.

9 COMPULSORY HEAVY VEHICLE INCIDENT REPORTING

All on-road incidents involving a RAV must be reported to Main Roads Heavy Vehicle Services by the ADF. The Heavy Vehicle Incident Reporting form is available on the Incident Reporting page on the Main Roads website and it must be submitted within 48 hours of the incident occurring.

10 PERMIT STATUS

10.1 Permit Amendments & Notifications

- 10.1.1** These Operating Conditions are subject to occasional amendments. If amendments are made the ADF will be notified accordingly. The ADF is to ensure that they are operating vehicles on the public road network in accordance with the current and up to date Operating Conditions.
- 10.1.2** Heavy Vehicle Travel Impacts are published when road conditions may impede the movement of Restricted Access Vehicles. The ADF is required to check the Heavy Vehicle Travel Impacts on the Main Roads website prior to operating a RAV on the public road network to ensure that there is no relevant information that will impede their vehicle operating on the WA road network.
- 10.1.3** All conditions stipulated in HVS Updates or Heavy Vehicle Travel Impacts must be adhered to.