

# Vehicle dimensions and mass permitting manual (volume 2)

## Part D

### Processing HPMV higher mass permit applications

**Current as at 1 August 2022**

#### **Disclaimer**

This publication is intended to provide general information about the permitting of vehicles that exceed dimension and mass limits. While every effort has been made to ensure the quality and accuracy of this information, readers are advised that the information provided does not replace or alter the laws of New Zealand, does not replace any legal requirement, and is not a substitute for expert advice applicable to the reader's specific situation. Readers should also be aware that the content in this publication may be replaced or amended subsequent to this publication, and any references to legislation may become out of date if that legislation is amended.

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## Record of amendments in this part

**Note:** Amendments are numbered consecutively and may affect individual or multiple parts in one or both volumes of the *Vehicle dimensions and mass permitting manual*. For a complete record of all amendments to this manual, please refer to the 'Record of amendments' at the start of both volume 1 and volume 2.

Amendment to 2nd edition	Description of main changes in this part	Effective date
Amendment 6, release 7	<p><b>Local RCA conditions:</b> Clarification about local RCA conditions added to step 5 in the procedure. Local roads with conditions incompatible with Waka Kotahi policy, for example speed limits, must be removed from permit routes. PIOs should advise operators to apply directly to the local RCA for a permit for such roads. See subtask 2. <i>Manually editing permit details</i> in section D4.3.</p> <p><b>Adjusting permit mass limits:</b> Clarification added that permit mass limits for individual axles must be manually adjusted if they exceed the certified axle rating. Previously, the manual incorrectly stated that individual permit mass limits should never be adjusted. See section D4.4 <i>Checking permit mass limits are within design limits</i>.</p>	1 August 2022
Amendment 6, release 5	<p><b>Permitting roles and responsibilities:</b> Information updated for new job titles and role changes. See section D1.2 <i>HPMV higher mass permitting roles and responsibilities</i>.</p> <p><b>Guidelines for assigning a 'lead PIO'</b> or requesting a change to a permitting region have been added. See section D1.5 <i>Initial screening of HPMV permit applications by the Permitting team</i>.</p> <p><b>Updates to vehicle safety checks:</b></p> <ul style="list-style-type: none"> <li>• <i>RUC check first:</i> The RUC check, which was previously done against permit weights, has been moved to the start of the PIO checks to save processing time if the gross weight exceeds the maximum RUC weight available. Buying additional RUC on an H type licence is no longer possible. See section D2.2 <i>Before you start: Checking maximum RUC weight</i>.</li> <li>• <i>Roll stability checks no longer done by PIOs:</i> These checks are now done by the central Permitting team and the PIO SRT checks have been removed from this part. Details about the roll stability checks can be found in part A of this volume.</li> <li>• <i>Attributes check sheets:</i> New information has been added about the two types of attributes check sheets that are acceptable with HPMV higher mass permit applications. See section D2.1 <i>About attributes check sheets</i>.</li> <li>• <i>Eligible vehicle types:</i> A comprehensive new table of vehicle types that are eligible for an HPMV permit has been added. It includes diagrams and RUC details for R12T23, R13T23 and B1243 designs, which were not previously covered in the manual. See section D2.7 <i>Eligible vehicle types and RUC details</i>.</li> </ul>	1 June 2022

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## Record of amendments in this part continued

Amendment to 2nd edition	Description of main changes in this part	Effective date
Amendment 6 (continued)	<p><b>Full HPMV routes:</b> The permitting process for full HPMV routes has been standardised. Procedures have been streamlined and updated. See sections:</p> <ul style="list-style-type: none"> <li>• <i>D3.1 Permitting for full HPMV routes</i> and the following sections in chapter D3</li> <li>• <i>D4.2 Standard permit route descriptions</i></li> <li>• <i>D4.3 Creating an HPMV higher mass permit</i>, and</li> <li>• <i>D6.3 Processing an application to renew a higher mass permit</i>.</li> </ul> <p><b>Entering application details in OPermit:</b> Notes added that –</p> <ul style="list-style-type: none"> <li>• load descriptions should be generic for HPMV permits</li> <li>• axle weight flexibility options User Defined and No AWF have been phased out and should not be used, even if they still appear in OPermit, and</li> <li>• permit periods may be reduced to any duration if there are operator safety concerns; previously, permit periods were set for 12 or for 24 months.</li> </ul> <p>See section <i>D3.2 Entering general application details into OPermit</i>.</p> <p><b>Permit conditions:</b> Note added that HPMV permits must not be issued with conditions such as speed limits or bridge crossing restrictions. See section <i>D4.3 Creating an HPMV higher mass permit</i>.</p> <p><b>Manually adjusting permit mass limits:</b> The procedure has been clarified for manually adjusting permit mass limits that exceed a vehicle's certified ratings (or 'design limits'). See section <i>D4.4 Checking permit mass limits are within design limits</i>.</p> <p><b>Manual check for R12T23s:</b> An additional manual check has been added for R12T23s because OPermit does not correctly calculate the legal mass limits for the rear axle group. This check needs to be done only for permits with general access axle weight flexibility. See section <i>D4.5 Checking permit mass limits for an R12T23 are within legal limits</i>.</p> <p><b>Updating the permit portal:</b> Subtask added with steps for naming the permit PDF file and for uploading the permit to the permit portal. See section <i>D4.8 Issuing an HPMV higher mass permit</i>, subtask 2.</p> <p><b>Returning or declining an application:</b> When to return and when to decline a permit application has been clarified. See section <i>D4.9 Returning or declining an HPMV higher mass permit application</i>.</p>	1 June 2022

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## Record of amendments in this part continued

Amendment to 2nd edition	Description of main changes in this part	Effective date
Amendment 6 (continued)	<p><b>Renewals process revised:</b></p> <ul style="list-style-type: none"> <li>the bridge engineer check has been reinstated for renewal applications with structures that are not on the full HPMV network, and</li> <li>information about acceptable route changes with permit renewal applications has been added.</li> </ul> <p>See section <i>D6.1 About renewal applications</i>.</p> <p><b>Feasibility applications:</b> Obtaining local road approvals has now been added to feasibility studies. Previously, feasibility studies could be done for state highways only. See section <i>D6.4 About feasibility applications</i>. <b>The mass limit tables</b> from the VDAM Rule have been updated for minor changes in the rule (as at 1 May 2021). See <i>Chapter D7: General access and HPMV permit mass limits tables</i>.</p> <p><b>The mass limit tables</b> from the VDAM Rule have been updated for minor changes in the rule (as at 1 May 2021). See <i>Chapter D7: General access and HPMV permit mass limits tables</i>.</p> <p><b>Manually checking legal mass limits:</b> The chapter about manually checking compliance with the axle mass limits in the VDAM Rule has been substantially revised. This chapter is for operators, enforcement agents or staff in local RCAs need to check compliance with legal mass limits without access to a permitting system like OPermit. It includes information on critical axle groups and sample axle mass limit tables for use in permits. See <i>Chapter D8: HPMV higher mass permitting resources for manual compliance checks</i>.</p>	1 June 2022



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# Part D: Processing HPMV higher mass permit applications

## Introduction

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### About this part

This part of the *Vehicle dimensions and mass permitting manual* (volume 2) describes how Waka Kotahi NZ Transport Agency processes HPMV higher mass permit applications and issues HPMV higher mass permits. It focuses mainly on the permitting procedures for permit issuing officers in the Waka Kotahi regional offices.

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### Legal background

Before issuing an HPMV permit, Waka Kotahi (or any other road controlling authority) is required by law to consider:

- the safety of the vehicle
- the safety of road users, and
- the durability of roads and bridges on which the vehicle may operate.

**Legislation reference:** Land Transport Rule: Vehicle Dimensions and Mass 2016, section 5.2(1).

The processes and procedures described in this part are designed to ensure Waka Kotahi meets these legal obligations when issuing HPMV higher mass permits.

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### Purpose

The purpose of this part is to be a 'how-to' reference for anyone involved in processing HPMV higher mass permit applications. It is intended to document best practice and make the permitting process transparent to all stakeholders.

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### Audience

The primary audience for this part is:

- permit issuing officers (PIOs) in the Waka Kotahi regional offices (and regional permitting contractors), and
- Waka Kotahi technical staff and contractors involved in permitting.

Local road controlling authorities, permit applicants and enforcement officers may also be interested in how Waka Kotahi processes HPMV higher mass permit applications.

*Chapter D8: HPMV higher mass permitting resources for manual compliance checks* includes guidance and templates particularly aimed at staff in local road controlling authorities that issue HPMV higher mass permits without access to a permitting system such as OPermit.

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## Introduction continued

### Policy in volume 1

This part should be read in conjunction with the policy information in *Part D: HPMV higher mass permits* in volume 1 of this manual.

Permitting staff should take the time to familiarise themselves with the policy in order to:

- advise applicants correctly and refer them to relevant information, and
- understand the reasons for and background to the permitting process and procedures.

### Terminology and abbreviations

Specific terminology and abbreviations are used throughout this manual. For definitions and explanations, see *Part I: Definitions and glossary* in volume 1.

### In this part

This part contains the following chapters:

Chapter	See page
Chapter D1: General information and process overview	D1-1
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# Chapter D1: General information and process overview

## Overview

### About this chapter

This chapter gives an overview of the HPMV higher mass permitting process. It includes:

- overview diagrams
- descriptions of permitting roles and responsibilities
- guidelines for dealing with applicants, and
- information about the initial screening of higher mass permit applications done by the Waka Kotahi Permitting team.

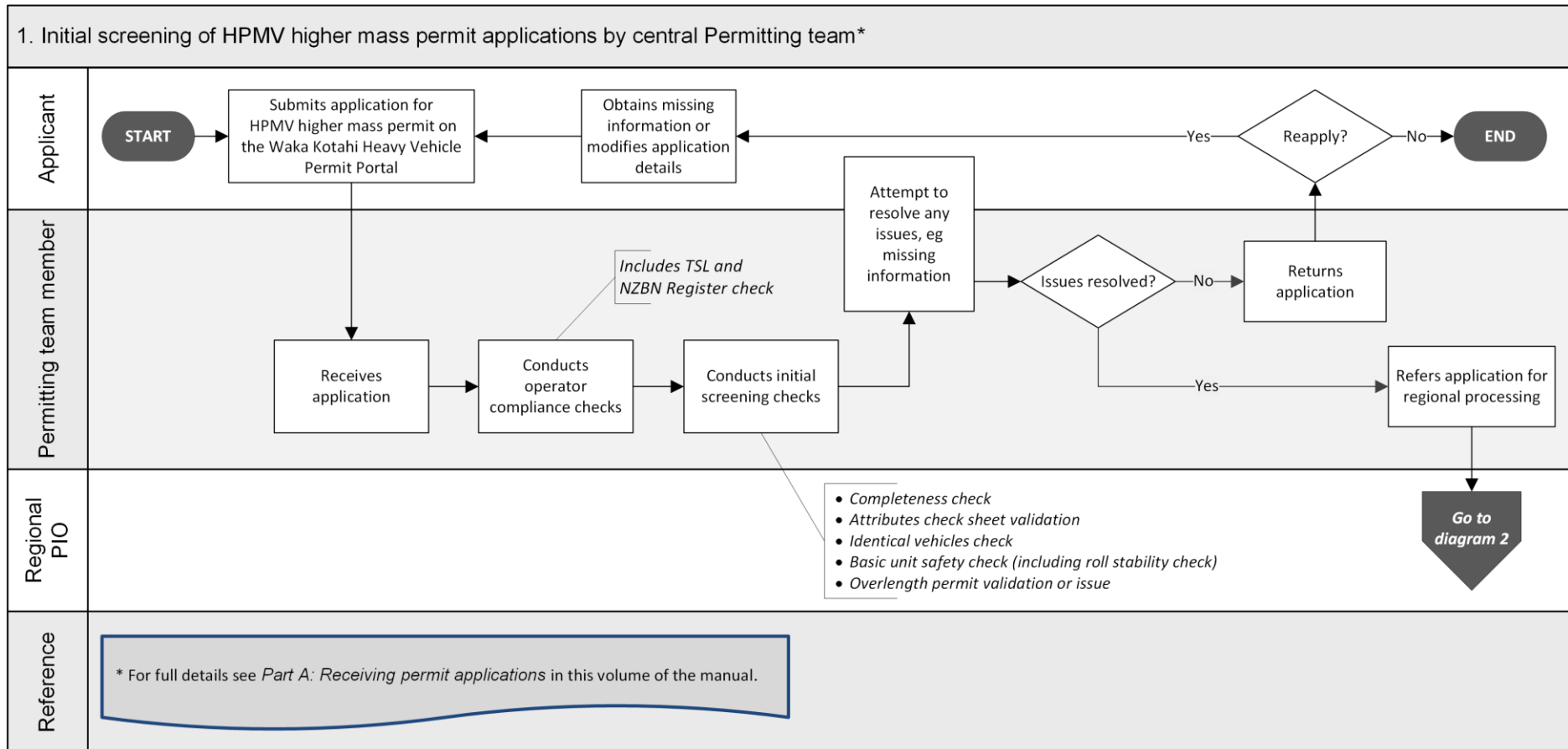
### In this chapter

This chapter contains the following sections:

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# D1.1 Overview diagrams of the HPMV higher mass permitting process

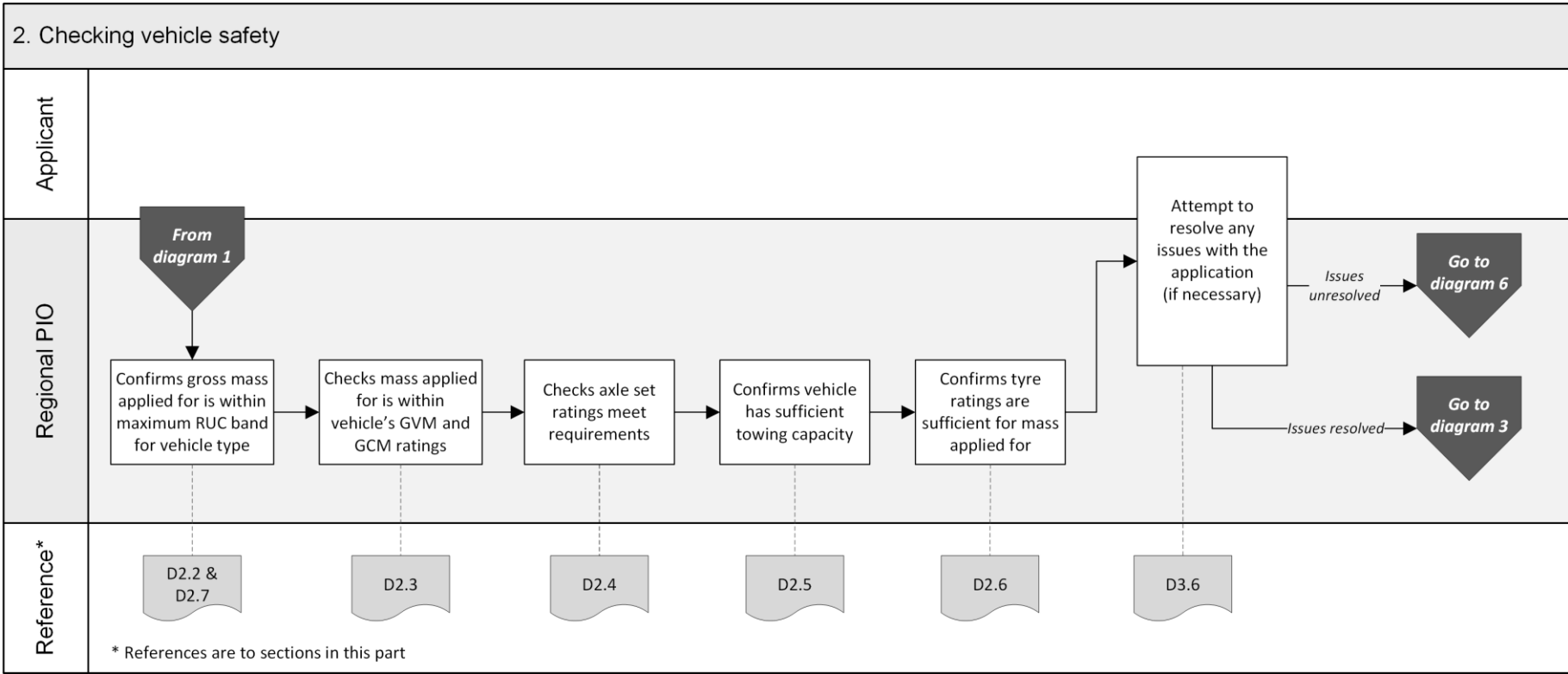
**Diagram 1** This diagram gives an overview of the initial screening checks for higher mass permit applications. These initial checks are done by the central Waka Kotahi Permitting team.



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# D1.1 Overview diagrams of the HPMV higher mass permitting process continued

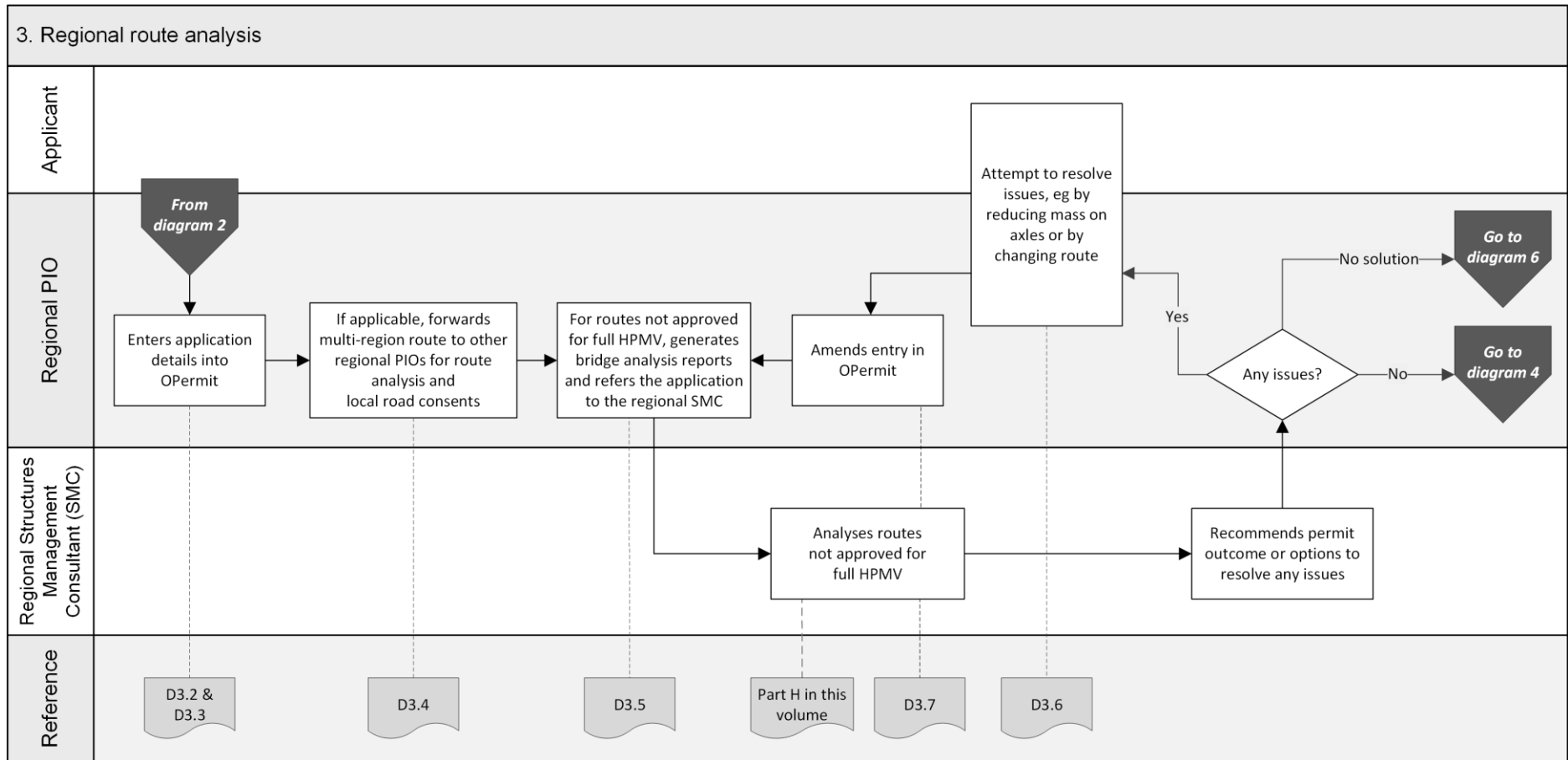
**Diagram 2** This diagram illustrates the vehicle safety checks done by a regional PIO.



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# D1.1 Overview diagrams of the HPMV higher mass permitting process continued

**Diagram 3** This diagram illustrates how regional PIOs analyse routes for HPMV higher mass permit applications.

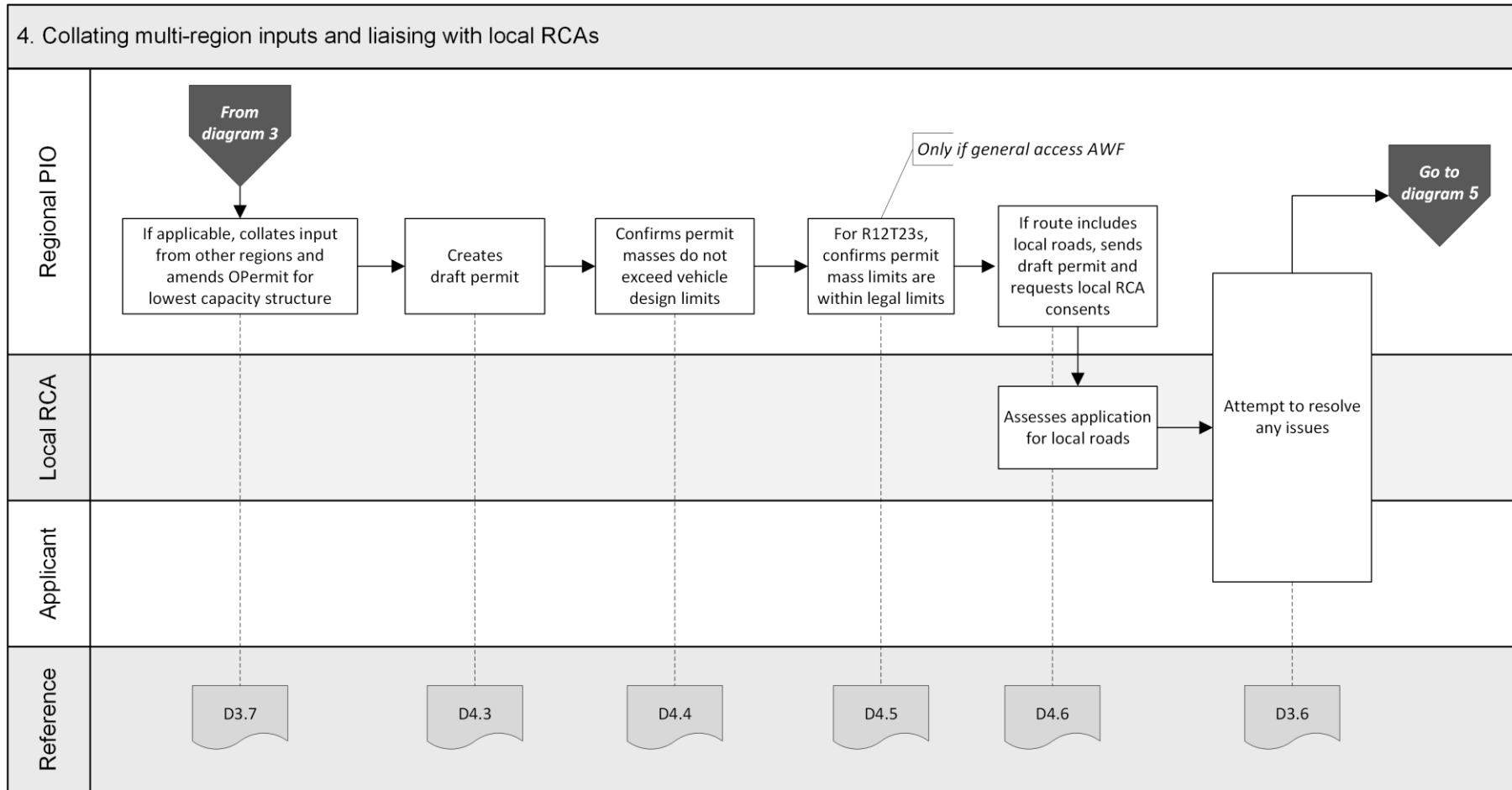


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# D1.1 Overview diagrams of the HPMV higher mass permitting process continued

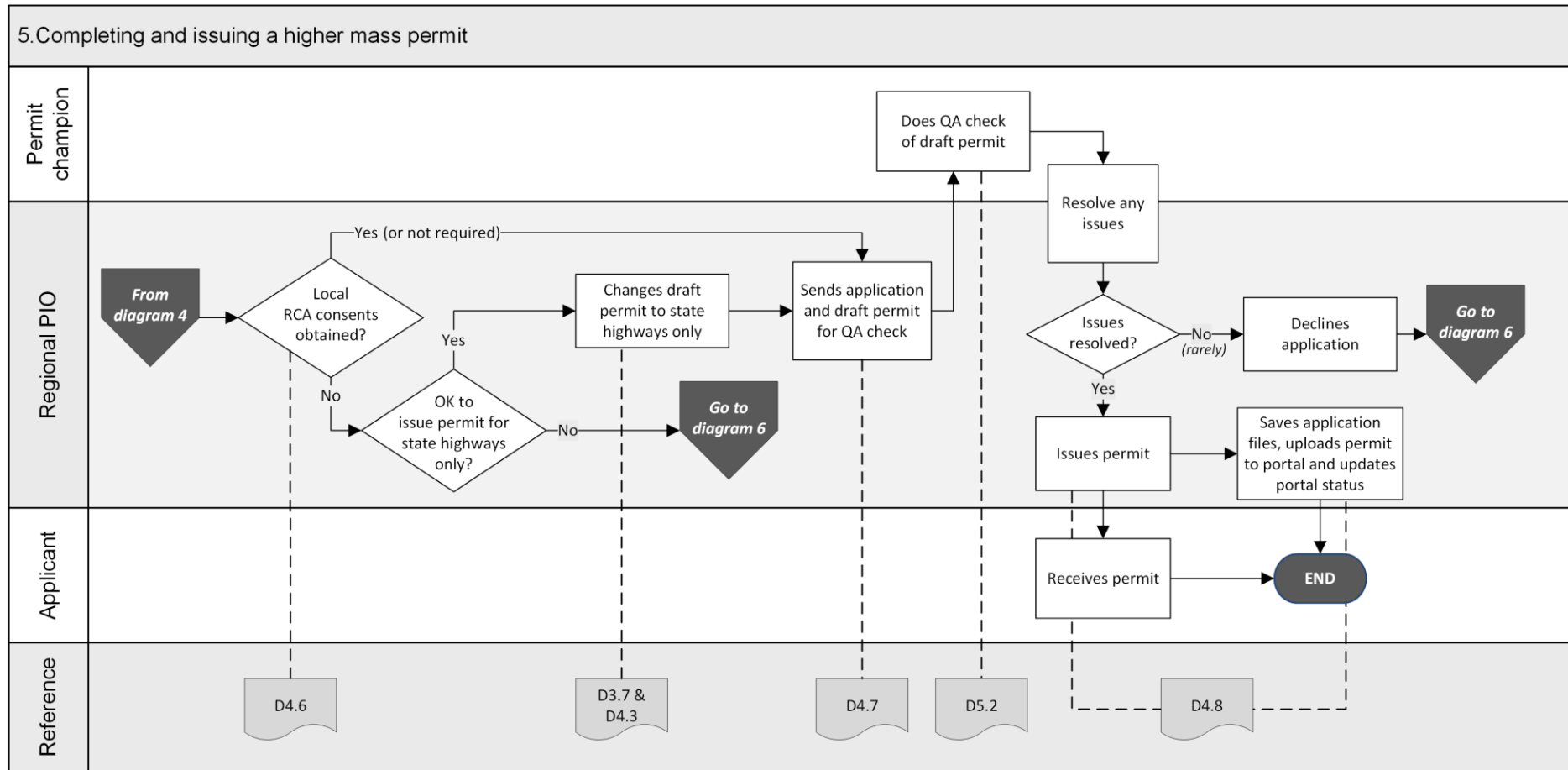
**Diagram 4** This diagram illustrates how regional PIOs collate multi-region inputs (if applicable) and liaise with local RCAs.



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## D1.1 Overview diagrams of the HPMV higher mass permitting process continued

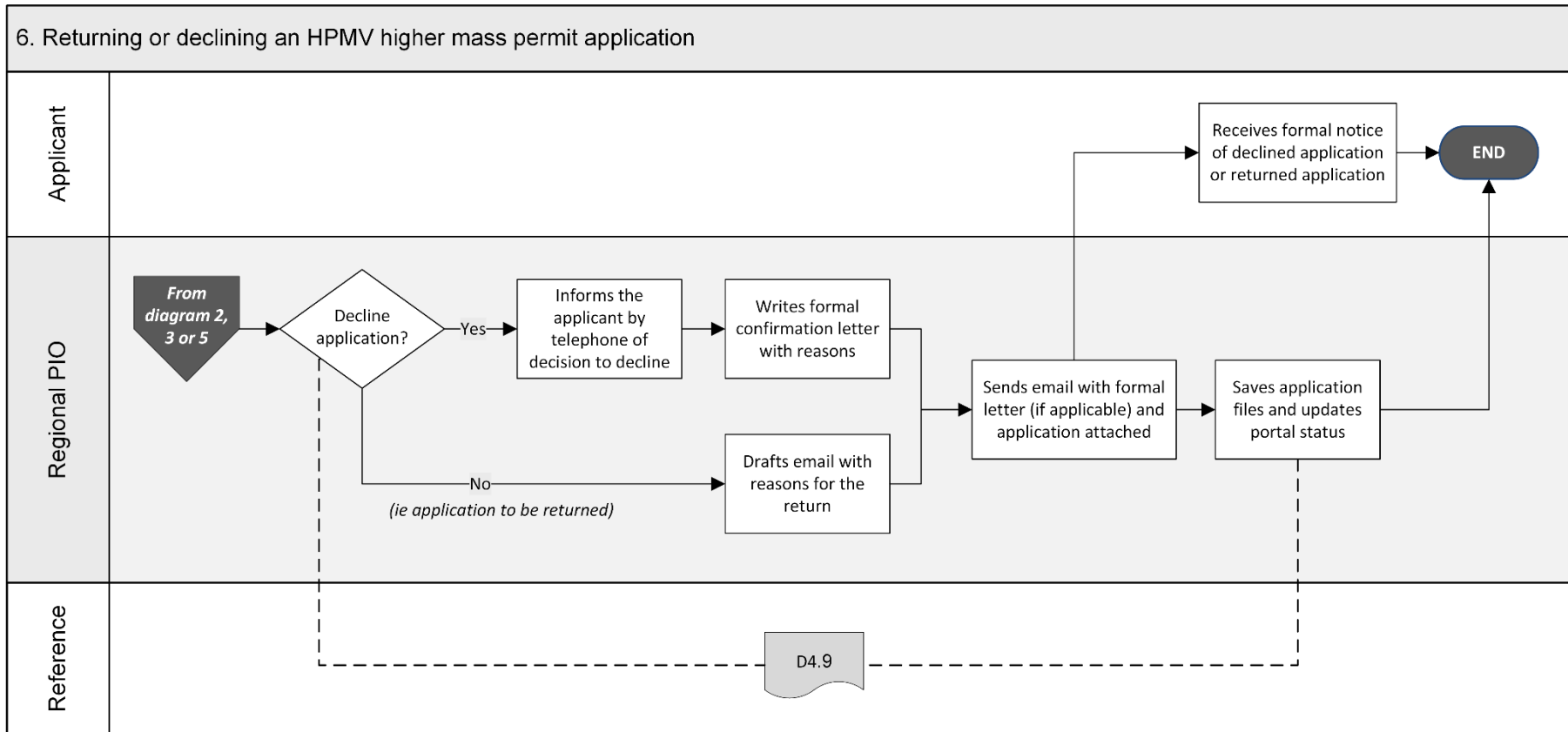
**Diagram 5** This diagram shows the tasks involved in completing and issuing an HPMV higher mass permit.



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# D1.1 Overview diagrams of the HPMV higher mass permitting process continued

**Diagram 6** This diagram illustrates the process for declining an HPMV higher mass permit application.



## D1.2 HPMV higher mass permitting roles and responsibilities

### Who is involved?

The table below summarises the roles and responsibilities involved in processing HPMV higher mass permit applications.

Role	Responsibilities
Central Permitting team member	<ul style="list-style-type: none"> <li>• Receives HPMV permit applications</li> <li>• Conducts operator compliance checks and determines permit period, or escalates compliance check to manager</li> <li>• Does initial screening checks for basic eligibility and completeness</li> <li>• Conducts basic vehicle safety checks, including roll stability check of trailers</li> <li>• Contacts the applicant for any missing or incorrect information</li> <li>• Returns incomplete or inaccurate applications</li> <li>• Issues an HPMV overlength permit or validates an existing overlength permit, if required</li> <li>• Refers the application to the relevant regional PIO for detailed vehicle safety checks and route analysis</li> </ul>
Manager Permitting, Case Manager or Senior Case Officer	<ul style="list-style-type: none"> <li>• Investigates escalated operator compliance checks and makes a final decision about permit eligibility and the permit term</li> <li>• Notifies operators of a proposal to decline an application due to safety concerns</li> <li>• Issues formal notice of declined application due to safety concerns</li> </ul>
Regional permit issuing officer ('regional PIO')	<ul style="list-style-type: none"> <li>• Conducts detailed vehicle safety checks</li> <li>• Liaises with other regional PIOs for multi-region applications, if applicable</li> <li>• Processes routes not approved for full HPMV in OPermit and refers the OPermit reports for such routes to the regional structures management consultant (SMC)</li> <li>• Liaises with local road controlling authorities and obtains consents for the use of local roads</li> <li>• Works with the applicant to resolve any issues with the application (for example by altering the route or adjusting weights), and</li> <li>• Issues a higher mass permit, or returns or declines the application</li> </ul>

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## D1.2 HPMV higher mass permitting roles and responsibilities continued

### Who is involved? (continued)

Role	Responsibilities
Regional structures management consultant (SMC)	<ul style="list-style-type: none"> <li>Assesses capacity of bridges and structures on routes that are not approved for full HPMV</li> <li>Recommends whether to approve or decline the application, or</li> <li>Suggests changes so that a permit can be issued</li> </ul>
Permit champion	Reviews applications and draft permits for compliance with permitting policies and legislation

### Role of local road controlling authorities

Under the VDAM Rule, local road controlling authorities (RCAs) are responsible for issuing HPMV higher mass permits for the use of local roads under their control.

However, Waka Kotahi may issue HPMV higher mass permits for both state highways and local roads if the local RCAs involved consent in writing to the inclusion of the local roads in the permits.

Some local RCAs have entirely delegated the issuing of permits for local roads to Waka Kotahi.

Regional PIOs need to find out what the specific arrangements are in their region to determine how best to liaise with local RCAs.

**Legislation reference:** VDAM Rule section 5.3.

## D1.3 Guidelines for dealing with permit applicants

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### **Balanced approach**

Waka Kotahi policy is to assist permit applicants as much as possible so that permits can be issued. You are expected to work with applicants in a proactive and helpful manner and try to resolve any issues with an application in consultation with the applicant.

At the same time, consideration of the safety of other road users and the durability of infrastructure must remain paramount. You must return or decline an application if issues cannot be resolved.

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### **Turnaround time**

The target turnaround time for processing HPMV higher mass permit applications is 20 days from receipt of an application in the permit portal to when the permit is issued, provided there are no operator compliance issues that need to be investigated.

Actual processing time may be less, or it may take longer due to factors outside the control of Waka Kotahi. For example, applications that need consents from multiple local road controlling authorities may take longer to process.

PIOs should process permit applications within the overall 20-day turnaround target unless delays are caused by external factors beyond their control. Workload or capacity issues should be escalated to team leads or managers as soon as possible.

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### **Gather issues with an application**

As you conduct the checks described in this part, you may find that a single application has multiple issues that would make it ineligible for a permit.

As a general guideline, take notes of any issues as you come across them until you have completed all checks, or a set of checks, to avoid having to contact an applicant several times.

The types of issues you need to follow up with an applicant include:

- the mass applied for (either gross mass or axle masses) exceeds the vehicle's design limits
  - the mass applied for exceeds legal limits, or
  - the mass applied for exceeds the capacity of bridges on the desired route.
- 

### **When to contact the applicant**

Be guided by your experience to determine when best to contact an applicant to resolve issues. Balance the objective to minimise the number of times that you need to contact an applicant against notifying the applicant quickly if they need to address major issues that would otherwise result in the application being declined.

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## D1.3 Guidelines for dealing with permit applicants

continued

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**Email or telephone?**

Use your judgment to determine whether to contact an applicant by telephone or whether to email them.

As a guideline, email is more appropriate if there are multiple or major issues with an application. Minor issues and straightforward queries may be resolved more quickly by telephone.

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**Keep records in the permit portal**

Make sure you keep a record of any communication you have with an applicant. Record the date and the outcome of any correspondence or conversations using the comments feature in the permit portal.

Keeping good records is essential in case an operator appeals against a reduced permit period or a decision to decline a permit.

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## D1.4 OPermit and other permitting systems

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### Training and user guides

The procedures described in this part require access to and familiarity with the systems and applications used for permitting. But this manual does not include detailed instructions for using these applications.

If you are unfamiliar with any of the permitting systems and applications, talk to your manager, ask for training or consult existing user guides.

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### The permit portal

The Permit Issuing and Management System (referred to as the 'permit portal') is the central database and management tool for HPMV permit applications.

The Waka Kotahi online Heavy Vehicle Permit Portal (at [hpmvpermits.nzta.govt.nz](https://hpmvpermits.nzta.govt.nz)) is the customer-facing part of the permit portal. It allows applicants to register their company and vehicles, submit permit applications and track the progress of their applications.

All applications and documents submitted in the portal are captured and stored in the portal database.

Permitting staff use the workflow and administration interface of the portal to access submitted applications and documents. This is also where the status of applications gets updated throughout the permitting process.

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### OPermit

OPermit is a database of information about operators, vehicles and routes. It includes data about bridges and other road infrastructure that is used to assess their load-bearing capacity.

OPermit is also a workflow tool for regional PIOs to:

- enter and store permit application details
  - check the suitability of routes not approved for full HPMV for the masses applied for
  - check compliance with legal mass limits, and
  - generate the permit document.
-



## D1.5 Initial screening of HPMV permit applications by the Permitting team

### Why screen applications?

Newly received permit applications must first be screened by Permitting team members in the Waka Kotahi Palmerston North office before being referred for regional processing. This is important because the Permitting team ensures that:

- the operator compliance checks are done (this is a legal requirement)
- an application is complete and meets basic requirements before it is referred for regional processing, and
- for applications received in PDF form, the application is entered and captured in the permit portal database for reporting purposes and to enable the operator to renew the permit in the portal.

### Applications received in regional offices

If an applicant submits an HPMV permit application directly to a regional office, the regional PIO must first forward the application to the Permitting team (email [hpmvinfo@nzta.govt.nz](mailto:hpmvinfo@nzta.govt.nz)) before doing any processing.

The Permitting team will refer the application back for regional processing once they have completed the operator compliance checks and the initial screening checks.

### Initial screening checks

The initial screening checks done by the Permitting team are as follows.

Check	To confirm that ...
Legal eligibility checks	the applicant: <ul style="list-style-type: none"> <li>• has a valid TSL number, and</li> <li>• is a valid legal entity entitled to hold a permit.</li> </ul>
Operator compliance checks	the operator does not pose an undue safety risk if issued with a permit.
Basic eligibility and completeness checks	<ul style="list-style-type: none"> <li>• the application is eligible for an HPMV higher mass permit, and</li> <li>• all required information and attachments are provided with the application.</li> </ul>
Identical vehicles check	trailers in multi-registration applications are identical and meet the requirements for being on a single permit.

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## D1.5 Initial screening of HPMV permit applications by the Permitting team continued

### Initial screening checks (continued)

Check	To confirm that ...
Valid attributes check sheets	the attributes check sheets meet Waka Kotahi requirements and are for the vehicles on the application.
Basic unit safety check	the mass applied for is within the vehicle's certified design limits for gross vehicle mass (GVM) and gross combination mass (GCM). <b>Note:</b> Regional PIOs do a more detailed version of this check because of its importance.
Roll stability check	the vehicle meets roll stability requirements.
Overlength permit	the vehicle has an existing overlength permit, or is issued with an overlength permit, if required.

For full details of the initial screening checks, see *Part A: Receiving permit applications* in this volume of the manual.

### Assigning a 'lead region'

Permitting team members also check (and sometimes change) the region selected on a permit application form. The region determines which regional office the application will be referred to for further processing.

The guidelines for assigning a 'lead region' for a permit application are as follows:

If the applicant has applied for...	then the lead region is...
the 'Same route'	the region that issued the previous permit with the route to be mirrored.
a 'New route'	where the route starts or where the operator depot is located.
a renewal	the region that issued the permit to be renewed.

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## D1.5 Initial screening of HPMV permit applications by the Permitting team continued

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### **Assigning a 'lead region'** (continued)

Assigning a lead region is not always clear-cut. If you feel that a permit application has been incorrectly assigned to your region, email [hpmvinfo@nzta.govt.nz](mailto:hpmvinfo@nzta.govt.nz) and ask for the application to be assigned to a different region.

You can also ask the Permitting team to reassign applications to share the workload, or to change the portal settings so that PIOs can see applications for multiple regions.

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# Chapter D2: Checking vehicle safety

## Overview

### About this chapter

This chapter describes the vehicle safety checks regional PIOs must do when processing an HPMV higher mass permit application.

The purpose of the checks described in this chapter is to confirm that a vehicle can safely operate within its design limits under a higher mass permit. This is a legal requirement under the VDAM Rule, which specifies that road controlling authorities (RCAs) must consider, among other factors, the safety of vehicles before issuing a permit to exceed mass limits.

**Legislation reference:** VDAM Rule section 5.2(1).

### Additional vehicle check against permit masses

Modern HPMVs are designed to carry heavy loads and, in most cases, checking the masses applied for against certified vehicle ratings is sufficient to establish vehicle safety.

However, permit masses are generally **higher** than application masses because of axle weight flexibility. PIOs must therefore do a quick additional vehicle check against permit masses at the end of the permitting process after the draft permit has been created with the permit masses. This check is described in section *D4.4 Checking permit mass limits are within design limits*.

### In this chapter

This chapter contains the following sections:

Section	See page
D2.1 About attributes check sheets	D2-2
D2.2 Before you start: Checking maximum RUC weight	D2-3
D2.3 Checking GVM and GCM	D2-5
D2.4 Checking axle set ratings	D2-8
D2.5 Checking towing capacity	D2-10
D2.6 Checking tyre ratings	D2-12
D2.7 Eligible vehicle types and RUC details	D2-13

## D2.1 About attributes check sheets

---

### What are attributes check sheets?

Most of the vehicle safety checks described in this chapter involve PIOs checking information on attributes check sheets to confirm that the vehicle units on a permit application can safely carry the load applied for.

Permit applicants must submit vehicle attributes check sheets with all HPMV permit applications. The attributes check sheets must be completed and signed by a Waka Kotahi approved heavy vehicle specialist certifier.

When completing an attributes check sheet, certifiers assess whether a vehicle is technically capable of carrying a heavier load within its certifications or manufacturer's design limits for vehicle 'attributes' such as gross vehicle mass, axle mass, brake capacity and tyre ratings.

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### Certifiers' responsibilities

The certifier signing an attributes check sheet is responsible for ensuring that all required information is included and correct.

Certifiers must also ensure that they use the current and correct attributes check sheet template issued by Waka Kotahi.

Certifiers are allowed to add their logo or branding but must not otherwise change the contents of the form.

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### Two types of attributes check sheet

There are two types of attributes check sheets:

- a 'High Productivity Motor Vehicle/ISO Permit Attributes Check Sheet', which must be completed for **each unit** of a vehicle combination on a permit application, and
- a '50MAX High Productivity Combination Motor Vehicle Attributes Check Sheet', which covers all vehicle units in a **combination**.

Waka Kotahi accepts both types of attributes check sheet with HPMV higher mass permit applications. A mix of the two different types of attributes check sheets for different vehicle units is also acceptable provided that, together, the attributes check sheets cover all the required information for all vehicle units applied for.

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### More information

For more information about attributes check sheets see:

- section *A4.1 About attributes check sheets and route descriptions* in part A of this volume
  - section *D2.4 Vehicle attributes check* in volume 1 of this manual, or
  - Technical bulletins 9 and 11 on the Waka Kotahi vehicle inspection portal at [vehicleinspection.nzta.govt.nz/virms/hvsc/tb](https://vehicleinspection.nzta.govt.nz/virms/hvsc/tb) with the approved attributes check sheets for downloading.
-

## D2.2 Before you start: Checking maximum RUC weight

### Why do this check?

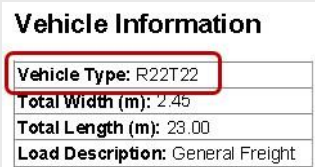
The purpose of this check is to ensure that the total mass applied for does not exceed the maximum road user charges (RUC) weight available for the vehicle combination. It is intended to prevent a permit being issued with a gross mass for which the operator is unable to pay sufficient RUC.

**IMPORTANT:** PIOs are not required to confirm that an applicant has **paid** sufficient RUC for operating under the permit they have applied for, only that sufficient RUC is available for the gross mass on the permit.

### Procedure

Follow the steps below to confirm that the gross mass on the permit does not exceed the maximum RUC weight available for the vehicle combination.

**Note:** You should do this check at the start of processing a permit application because you may need to return the application if the total mass applied for exceeds the maximum RUC weight.

Step	Action								
1	Look up the vehicle type on the application form. <div style="text-align: center; margin: 10px 0;">  <p><b>Vehicle Information</b></p> <table border="1"> <tr> <td>Vehicle Type:</td> <td>R22T22</td> </tr> <tr> <td>Total Width (m):</td> <td>2.45</td> </tr> <tr> <td>Total Length (m):</td> <td>23.00</td> </tr> <tr> <td>Load Description:</td> <td>General Freight</td> </tr> </table> </div>	Vehicle Type:	R22T22	Total Width (m):	2.45	Total Length (m):	23.00	Load Description:	General Freight
Vehicle Type:	R22T22								
Total Width (m):	2.45								
Total Length (m):	23.00								
Load Description:	General Freight								
2	In section <i>D2.7 Eligible vehicle types and RUC details</i> , look up the maximum RUC weight for the relevant vehicle type in the table.								
3	Is the maximum RUC weight for the vehicle type shown in section D2.7 <b>equal to or greater than</b> the total mass applied for? <ul style="list-style-type: none"> <li>• If <b>yes</b>, the application meets RUC requirements. Continue with the next section <i>D2.3 Checking GVM and GCM</i>.</li> <li>• If <b>no</b>, go to step 4.</li> </ul>								
4	Contact the applicant and advise them that the total mass applied for exceeds the H type RUC weight available for their vehicle. Ask the applicant whether they want to: <ul style="list-style-type: none"> <li>– reduce the masses applied for, or</li> <li>– have the application returned to them.</li> </ul>								

*Continued on next page*

## D2.2 Before you start: Checking maximum RUC weight continued

### Procedure (continued)

Step	Action
5	<p>Does the applicant want to reduce the masses applied for in line with the maximum RUC weight?</p> <ul style="list-style-type: none"><li>• If <b>yes</b>, go to step 6.</li><li>• If <b>no</b>, go to step 7.</li></ul>
6	<p>In consultation with the applicant, adjust the application masses so that the total mass applied for is within the maximum RUC weight for the combination.</p> <p>Send an email to the applicant to confirm the new application masses.</p> <p>Then continue with the next section <i>D2.3 Checking GVM and GCM</i>.</p>
7	<p>Return the application with a cover note explaining the reason – see section <i>D4.9 Returning or declining an HPMV higher mass permit</i> application.</p>



## D2.3 Checking GVM and GCM

### Why do this check?

The purpose of this check is to confirm that the total mass applied for is within the vehicle's certified safety ratings for gross vehicle mass (GVM) and, for towing vehicles, gross combination mass (GCM).

**Note:** This check is more detailed than the initial screening check done by the Permitting team. It is critically important and the foundation for the other vehicle safety checks that follow.

### Two subtasks

This check involves two subtasks:

1. **Checking the gross vehicle mass (GVM) rating** for all vehicle units, and
2. **Checking the gross combination mass (GCM) rating** for towing vehicles.

These two subtasks are described in detail below.

### 1. Checking the GVM rating

Follow the steps below to confirm that the total unit mass applied for is within the vehicle unit's certified safety rating.

Step	Action
1	Refer to the 'HIGHER MASS HPMV Permit' section on the attributes check sheet and note the gross vehicle mass (GVM) for the unit.
2	On the application form, look up the total unit mass for the unit. <b>Tip:</b> If the applicant has not entered the total unit mass, add up the individual axle masses for the unit to calculate the total.  Is the total unit mass for the unit <b>less than or equal to</b> the GVM on the attributes check sheet?  <ul style="list-style-type: none"> <li>• If <b>yes</b>, the total mass applied for is within the unit's safety rating. Go to step 3.</li> <li>• If <b>no</b>, make a note of the issue and then go to step 3.</li> </ul>
3	Repeat steps 1 and 2 for each vehicle unit on the application form.
4	When you have checked the GVM for all vehicle units, continue with subtask 2. <i>Checking the GCM rating.</i>

*Continued on next page*

## D2.3 Checking GVM and GCM continued

### 2. Checking the GCM rating

Follow the steps below to confirm that the gross combination mass (GCM) of any towing unit on the application form is within the certified rating on the attributes check sheet.

**Note:** Towing units are the prime mover and, if the vehicle combination is a B-train, the trailer towing another trailer.

Step	Action
1	On the application form, refer to the GCM of the prime mover.
2	<p>On the corresponding attributes check sheet, look up the GCM rating for the prime mover.</p> <p>Is the GCM on the application form <b>less than or equal to</b> the GCM rating on the attributes check sheet?</p> <ul style="list-style-type: none"> <li>• If <b>yes</b>, go to step 3.</li> <li>• If <b>no</b>, make a note of the issue and then go to step 3.</li> </ul>
3	<p>On the application form, look up the total mass applied for the entire vehicle combination.</p> <p>Is the total mass applied for <b>less than or equal to</b> the GCM rating of the prime mover?</p> <ul style="list-style-type: none"> <li>• If <b>yes</b>, the prime mover meets safety requirements. Go to step 4 if the vehicle is a B-train or to step 6 for all other vehicle types.</li> <li>• If <b>no</b>, make a note of the issue and then go to step 4 if the vehicle is a B-train, or to step 6 for all other vehicle types.</li> </ul>
<b><i>B-trains only</i></b>	
4	<p>If the vehicle combination is a B-train, validate the GCM on the application form for the trailer towing another trailer against the corresponding attributes check sheet.</p> <p>Make a note if there is a discrepancy.</p>

*Continued on next page*

## D2.3 Checking GVM and GCM continued

### 2. Checking the GCM rating (continued)

Step	Action
5	<p>Add up the total application masses for the two trailers and compare the sum to the GCM on the attributes check sheet of the trailer towing the second trailer.</p> <p>Is the sum of the mass applied for on the two trailers <b>less than or equal to</b> the GCM rating of the towing trailer?</p> <ul style="list-style-type: none"> <li>• If <b>yes</b>, the towing trailer meets safety requirements. Go to step 6.</li> <li>• If <b>no</b>, make a note of the issue and then go to step 6.</li> </ul>
6	<p>Have you noted any issues with either the GVM or GCM ratings of any vehicle units?</p> <ul style="list-style-type: none"> <li>• If <b>yes</b>, continue with section <i>D3.6 Attempting to resolve issues</i>.</li> <li>• If <b>no</b>, continue with section <i>D2.4 Checking axle set ratings</i>.</li> </ul>

## D2.4 Checking axle set ratings

### Why do this check?

The purpose of this check is to confirm that the **axle set** masses applied for are within the certified ratings on the attributes check sheet.

### Procedure

Follow the steps below to confirm that the certified axle set ratings are sufficient for the mass applied for.

Step	Action
1	On the application form, note the vehicle type (for example R22T22).
2	Refer to the table on the application with the axle details for each unit. Based on the axle configuration for the vehicle type, add up the total mass for each unit for the: <ul style="list-style-type: none"> <li>– front axle <b>set</b> (except for semi-trailers), and</li> <li>– rear axle <b>set</b>.</li> </ul> Make a note of the sums.
3	On the attributes check sheet for each unit, note the ratings for: <ul style="list-style-type: none"> <li>– Maximum Front Axle Group Mass, and</li> <li>– Maximim Rear Axle Group Mass.</li> </ul> <b>Examples:</b>

*HPMV/ISO Permit attributes check sheet:*

Maximum Front Axle Group Mass (or rating at kingpin)	16 000kg	Maximum Rear Axle Group Mass	18 000kg
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*50MAX combination attributes check sheet:*

<b>Vehicle 1</b> , 5 <sup>th</sup> wheel/Draw Beam rating	34,000 kg	MTM braked	34,000 kg	Max Frt Axle Crp Mass	11,000 kg	Max Rr Axle group mass	21,000 kg
<b>Vehicle 2</b> , Draw Bar/King Pin Mount Rating	34,000 kg	5 <sup>th</sup> Wheel rating	N/A kg	MTM Braked	N/A kg	FA Crp/King pin rating	16,000 kg
Max rear axle group Mass	19,500 kg	Vehicle 3, King Pin Mount Rating	N/A kg	Max rear axle Group Mass	N/A kg		

3	Are the front and rear axle set masses on the application form (the sums from step 2) <b>less than or equal to</b> the ratings on the attributes check sheet? <ul style="list-style-type: none"> <li>• If <b>yes</b>, the axle set masses applied for are within the unit's safety ratings. Go to step 4.</li> <li>• If <b>no</b>, make a note of any issues and then go to step 4.</li> </ul>
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*Continued on next page*

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## D2.4 Checking axle set ratings continued

**Procedure**  
(continued)

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Step	Action
4	When you have checked the axle set ratings for all vehicle units, continue with section <i>D2.5 Checking towing capacity</i> .

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## D2.5 Checking towing capacity

**Two subtasks** Checking a vehicle's towing capacity consists of two subtasks to confirm that the mass applied for is within the vehicle's certified safety ratings:

1. **Checking the draw bar or draw beam**, and
2. **Checking maximum towed mass (MTM) braked** (if provided).

These two subtasks are described in detail below.

### 1. Checking draw bar or draw beam

Follow the steps below to confirm that the vehicle's draw bar or draw beam ratings meet safety requirements.

Step	Action							
1	<p>For each towing unit in the vehicle combination, add up the total unit mass of any towed units from the application form. Make a note of the sums.</p> <p><b>Examples:</b></p> <ul style="list-style-type: none"> <li>• For the prime mover, add up the total unit mass of all towed trailers.</li> <li>• For a trailer towing another trailer (in a B-train), note the total unit mass of the towed trailer.</li> </ul>							
2	<p>Refer to the design limits section on the attributes check sheet.</p> <table border="1" data-bbox="592 1258 1409 1615"> <thead> <tr> <th>If the certifier has...</th> <th>Then...</th> </tr> </thead> <tbody> <tr> <td>circled 'Draw Bar' or 'Draw Beam'</td> <td>go to step 3.</td> </tr> <tr> <td>circled 'King Pin' or '5th Wheel Mount'</td> <td rowspan="2">continue with subtask 2. <i>Checking MTM braked.</i></td> </tr> <tr> <td>not provided any tow coupling rating</td> </tr> </tbody> </table> <p><b>Note:</b> The only tow coupling you need to check is the draw bar/draw beam rating if provided. Complex technical components such as 5th wheels are covered by other aspects of the compliance process and do not need to be checked for permitting. If the certifier has provided no tow coupling ratings at all on the attributes check sheet, then the GVM and GCM checks are sufficient.</p>	If the certifier has...	Then...	circled 'Draw Bar' or 'Draw Beam'	go to step 3.	circled 'King Pin' or '5th Wheel Mount'	continue with subtask 2. <i>Checking MTM braked.</i>	not provided any tow coupling rating
If the certifier has...	Then...							
circled 'Draw Bar' or 'Draw Beam'	go to step 3.							
circled 'King Pin' or '5th Wheel Mount'	continue with subtask 2. <i>Checking MTM braked.</i>							
not provided any tow coupling rating								

*Continued on next page*

## D2.5 Checking towing capacity continued

### 1. Checking draw bar or draw beam (continued)

Step	Action
3	<p>On the attributes check sheet, is the rating for the draw bar or draw beam (whichever applies) <b>equal to or higher than</b> the total unit mass of any towed units (the sums from step 1)?</p> <ul style="list-style-type: none"> <li>• If <b>yes</b>, the tow coupling meets safety requirements. Continue with subtask 2. <i>Checking MTM braked.</i></li> <li>• If <b>no</b>, make a note of the issue and then continue with subtask 2.</li> </ul>

### 2. Checking MTM braked

Follow the steps below to confirm that the maximum towed mass (MTM) braked meets safety requirements.

Step	Action
1	<p>On the attributes check sheet, refer to the 'Maximum Towed Mass Braked' (or 'MTM Braked') field.</p> <p>Has the certifier provided a rating?</p> <ul style="list-style-type: none"> <li>• If <b>yes</b>, go to step 2.</li> <li>• If <b>no</b>, continue with section <i>D2.6 Checking tyre ratings.</i></li> </ul> <p><b>Note:</b> You need to check the MTM braked rating only if the certifier has provided it on the attributes check sheet.</p>
2	<p>Is the MTM braked rating on the attributes check sheet <b>equal to or higher than</b> the total unit mass of any towed units (the sums you calculated in subtask 1, step 1)?</p> <ul style="list-style-type: none"> <li>• If <b>yes</b>, the vehicle's MTM braked capacity meets safety requirements. Continue with section <i>D2.6 Checking tyre ratings.</i></li> <li>• If <b>no</b>, make a note of the insufficient MTM braked rating and then continue with section D2.6.</li> </ul>

## D2.6 Checking tyre ratings

**Information on tyres** For this check you need to calculate the load capacity of the vehicle's tyres based on the number of tyres in the vehicle's axles.

If you are unsure of the number of tyres in an axle or axle set, look up the entry for 'Axle types' in *Part I: Definitions and glossary* in volume 1 of this manual and refer to the illustrations.

**Procedure** Follow the steps below to confirm that the tyre ratings are sufficient for the mass applied for.

Step	Action
1	On the attributes check sheet, refer to the 'Tyre Size and Rating' values for the front axle set and the rear axle set.
2	Based on the number of tyres in each axle set, add up: <ul style="list-style-type: none"> <li>– the individual tyre ratings for the front axle set, and</li> <li>– the individual tyre ratings for the rear axle set.</li> </ul> <p>Make a note of the sums.</p> <p><b>Note:</b> Sometimes certifiers have done this calculation and entered a combined rating for the axle sets on the attributes check sheet.</p>
3	Are the total tyre ratings you calculated in step 2 for the front and rear axle sets <b>equal to or higher than</b> the corresponding axle set masses applied for on the application form? <ul style="list-style-type: none"> <li>• If <b>yes</b>, the tyre ratings meet requirements. Go to step 4.</li> <li>• If <b>no</b>, make a note of any issues and then go to step 4.</li> </ul>
4	Repeat steps 1–3 for each vehicle unit applied for.
5	When you have checked the tyre ratings for all vehicle units on the application form, continue with <i>Chapter D3: Analysing routes</i> .



## D2.7 Eligible vehicle types and RUC details

### HPMV vehicle designs

The table below shows vehicle combinations that are eligible for HPMV higher mass permits and their RUC details.





#### *RUC weight limits for H type vehicles*

The maximum RUC weight limits in the table are for H type distance licences for HPMV combinations that operate under a permit.

#### Legislation references:

- Road User Charges Regulations 2012, and
- Road User Charges (Rates) Regulations 2015.







**Note:** In addition to the rates specified in the regulations, Waka Kotahi as the RUC collector may assess vehicles for special rates under section 90A of the Road User Charges Act 2012.

Type	Diagram	Maximum length	OL permit if...	Type H vehicle RUC #	Maximum RUC weight
<b><i>Rigid combinations (truck and full trailer)</i></b>					
<b>R12T22</b> 7 axles	 RUC type 6 + 43 6x4 prime mover and 4-axle full trailer	23m	>20m	H74	53,000kg
<b>R12T23</b> 8 axles	 RUC type 6 + 951 6x4 prime mover and 5-axle full trailer	23m	>20m	H76	53,000kg
<b>R22T22</b> 8 axles	 RUC type 14 + 43 8x4 prime mover and 4-axle full trailer	23m	>20m	H83	58,000kg
<b>R13T23</b> 9 axles	 RUC type 14 + 951 8x4 prime mover and 5-axle full trailer	23m	>20m	H63	62,000kg

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## D2.7 Eligible vehicle types and RUC details continued

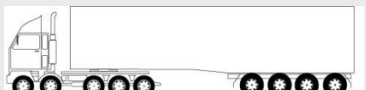


### HPMV vehicle designs (continued)

Type	Diagram	Maximum length	OL permit if...	Type H vehicle RUC #	Maximum RUC weight
<b>Rigid combinations (truck and full trailer) continued</b>					
<b>R22T23</b> 9 axles	 RUC type 14 + 951 8x4 prime mover and 5-axle full trailer	23m	>20m	H63	62,000kg
<b>R23T22</b> 9 axles	 RUC type 19 + 43 10x4 prime mover and 4-axle full trailer	23m	>20m	H93	58,000kg
<b>R23T23</b> 10 axles	 RUC type 19 + 951 10x4 prime mover and 5-axle full trailer	23m	>20m	H38	63,000kg <sup>1</sup> (but see Note below)
<b>Articulated vehicles (truck and semi-trailer)</b>					
<b>A124</b> 7 axles	 RUC type 6 + 43 6x4 prime mover and quad-axle semi-trailer Note: This design is eligible if there is only one steering axle in the quad set.	19.45m	>19m	H74	53,000kg
<b>A223</b> 7 axles	 RUC type 14 + 33 8x4 prime mover and tri-axle semi-trailer	19.45m	>19m	H77	48,000kg
<b>A134</b> 8 axles	 RUC type 14 + 43 8x4 prime mover and quad-axle semi-trailer Note: This design is eligible if there is only one steering axle in the quad set.	19.45m	>19m	H83	58,000kg

Continued on next page

## D2.7 Eligible vehicle types and RUC details continued


### HPMV vehicle designs (continued)

Type	Diagram	Maximum length	OL permit if...	Type H vehicle RUC #	Maximum RUC weight
<b>Articulated vehicles (truck and semi-trailer) continued</b>					
<b>A224</b> 8 axles	 <p>RUC type 14 + 43</p> <p>8x4 prime mover and quad-axle semi-trailer</p> <p>Note: This design is eligible if there is only one steering axle in the quad set.</p>	19.45m	>19m	H83	58,000kg
<b>A234</b> 9 axles	 <p>RUC type 19 + 43</p> <p>10x4 prime mover and quad-axle semi-trailer</p> <p>Note: This design is eligible if there is only one steering axle in the quad set.</p>	19.45m	>19m	H93	58,000kg
<b>B-trains (truck and two semi-trailers)</b>					
<b>B1222</b> 7 axles	 <p>RUC type 6 + 929 + 29</p> <p>6x4 prime mover and 4-axle B-train</p>	23m	>20m	H79	52,000kg
<b>B1232</b> 8 axles	 <p>RUC type 6 + 939 + 29</p> <p>6x4 prime mover and 5-axle B-train</p>	23m	>20m	H85	53,000kg

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## D2.7 Eligible vehicle types and RUC details continued

### HPMV vehicle designs (continued)

Type	Diagram	Maximum length	OL permit if...	Type H vehicle RUC #	Maximum RUC weight
<b><i>B-trains (truck and two semi-trailers) continued</i></b>					
<b>B1233</b> 9 axles	 RUC type 6 + 939 + 33 6x4 prime mover and 6-axle B-train	23m	>20m	H99	58,000kg
<b>B2223</b> 9 axles	 RUC type 14 + 929 + 33 8x4 prime mover and 5-axle B-train	23m	>20m	H32	58,000kg
<b>B2232</b> 9 axles	 RUC type 14 + 939 + 29 8x4 prime mover and 5-axle B-train	23m	>20m	H35	58,000kg
<b>B2233</b> 10 axles	 RUC type 14 + 939 + 33 8x4 prime mover and 6-axle B-train	23m	>20m	H13	63,000kg <sup>1</sup> (but see Note below)
<b>B1243</b> 10 axles	 RUC type 6 + 43 + 33 6x4 prime mover and 7-axle B-train	23m	>20m	H15	60,000

**Note:**

1. The maximum weight available under an HPMV higher mass permit is 62,000kg unless the vehicle has been granted a non pro-forma overlength permit to exceed 23 metres in length. A non pro-forma overlength permit is only rarely approved in exceptional cases for highly constrained routes.

# Chapter D3: Analysing routes

## Overview

### About this chapter

HPMV higher mass permits specify the routes on which the vehicle is permitted to travel.

This chapter describes how to process state highways for an HPMV higher mass permit in OPermit.

How to deal with local roads applied for is described in section *D4.6 Liaising with local road controlling authorities*.

### OPermit

Most procedures in this chapter require use of and familiarity with OPermit, but they do not give detailed instructions on how to use the system. If you need help with using OPermit, please ask for training.

### In this chapter

This chapter contains the following sections:

Section	See page
D3.1 Permitting for full HPMV routes	D3-2
D3.2 Entering general application details into OPermit	D3-3
D3.3 Entering route details into OPermit	D3-5
D3.4 Forwarding multi-region applications	D3-7
D3.5 Referring the application for bridge analysis	D3-8
D3.6 Attempting to resolve issues	D3-10
D3.7 Amending application details in OPermit	D3-11

## D3.1 Permitting for full HPMV routes

---

**What is ‘full HPMV’?**

‘Full HPMV’ refers to the maximum mass limits that are specified in the VDAM Rule and available under a permit.

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**Approved full HPMV routes**

Waka Kotahi has approved most state highways as ‘full HPMV routes’, that is as routes where bridges and culverts can support the maximum HPMV permit mass limits.

The state highways and key local heavy vehicle bypasses and link roads approved for full HPMV are published on the Waka Kotahi website at [nzta.govt.nz/commercial-driving/high-productivity/full-hpmv-network-map/](https://nzta.govt.nz/commercial-driving/high-productivity/full-hpmv-network-map/).

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**Definitive reference: PDFs**

The definitive reference for permitting are the PDF lists of approved full HPMV routes for the North Island and the South Island published on the Waka Kotahi website.

At this stage, the full HPMV network map is for guidance only.

---

**Streamlined permitting process**

A streamlined permitting process applies to full HPMV routes. Full HPMV routes do not require:

- OPermit structural analysis
  - referral to regional structures management consultants (SMCs or bridge engineers) for analysis, or
  - inputs from PIOs in other regions.
- 

**‘Additional’ routes need structural analysis**

State highways applied for that are not approved for full HPMV are often referred to as ‘additional’ routes. They require full structural analysis and, if they go through multiple permitting regions, approval from the other regions.

---

## D3.2 Entering general application details into OPermit

**When to enter data into OPermit** Entering general application details is the first part of processing a permit application in OPermit.

**Prerequisite** You must have completed the vehicle safety checks described in chapter D2 before entering general application details into OPermit.

**Procedure** Follow the steps below to enter general application details into OPermit.

Step	Action
1	Before you log on to OPermit, check in the permit portal whether the applicant is subject to a reduced permit period because of operator safety concerns. If a reduced permit period applies, note the duration.
2	In OPermit, check whether the applicant company is already in the system. <ul style="list-style-type: none"> <li>• If <b>yes</b>, check the applicant's details on the application form against the records in OPermit and make any necessary changes.</li> <li>• If <b>no</b>, set up the applicant in OPermit using the <b>Add New Company</b> function.</li> </ul>
3	Enter application details such as permit type and dates.  <b>IMPORTANT:</b> Ensure the 'Permit To' date matches the permit period in the portal that you looked up in step 1.
4	Search for the vehicle registration numbers to find out whether the vehicle units already exist in the system. <ul style="list-style-type: none"> <li>• If <b>yes</b>, check the details. If any details differ from the application, contact the applicant to establish the correct details before making any changes in OPermit.</li> <li>• If <b>no</b>, set up the vehicle units using the <b>Add New Vehicle</b> function.</li> </ul>

*Continued on next page*

## D3.2 Entering general application details into OPermit continued

### Procedure (continued)

Step	Action
5	<p>Enter the vehicle details from the application form into the relevant OPermit fields.</p> <p><b>Note:</b> In the 'Load Description' field, it is generally best to enter a generic description (for example 'General Freight' or 'Bulk Liquid') even if the applicant has provided specific details. Although the load description is not an enforceable permit condition, a generic description gives the operator more flexibility. In future, this will be managed through more limited options on the application form.</p>
6	<p>Enter the axle weight flexibility (AWF) and axle details from the application form into the relevant OPermit fields.</p> <p><b>Note:</b> If the applicant has applied for general access AWF, select 'Class 1' in OPermit. 'Class 1' is old terminology for general access that has not been updated in OPermit. Also, be aware that HPMV permits are no longer issued for 'User Defined' or 'No AWF', although these options are still shown in OPermit.</p>



## D3.3 Entering route details into OPermit

### Streamlined route processing

You only need to process 'additional' routes applied for in OPermit, that is only state highways (and local roads, if applicable) that are not approved for full HPMV. Such routes are 'additional' to the full HPMV routes, to which applicants have as-of-right access under a higher mass permit.

The details of such additional routes must be entered into OPermit, and you must generate bridge analysis reports for these routes for referral to the regional structures management consultant (SMC).

### Two subtasks

Entering route details into OPermit involves either one or the other of these two subtasks:

1. **Processing additional routes applied for** if the applicant has requested routes in addition to full HPMV routes.
2. **Using a pre-defined full HPMV route** if the route applied for is **entirely** on the full HPMV network.

These two subtasks are described in detail below.

### 1. Processing additional routes applied for

Follow the steps below if the applicant has applied for routes that are not approved for full HPMV.

**Note:** Please ensure that you only process routes in OPermit that are not approved for full HPMV. If in doubt, refer to the PDF lists of approved full HPMV routes at [nzta.govt.nz/commercial-driving/high-productivity/full-hpmv-network-map/](https://nzta.govt.nz/commercial-driving/high-productivity/full-hpmv-network-map/).

Step	Action
1	In OPermit, select the appropriate region and check whether the additional routes requested are in a pre-defined route. <ul style="list-style-type: none"> <li>• If <b>yes</b>, select the pre-defined route.</li> <li>• If <b>no</b>, set up the route using the <b>Add New Route</b> function.</li> </ul>
2	If necessary, copy and edit the pre-defined OPermit route for any differences with the route applied for.
3	Do the routes applied for go through other permitting regions? <ul style="list-style-type: none"> <li>• If <b>yes</b>, continue with section <i>D3.4 Forwarding multi-region applications</i>.</li> <li>• If <b>no</b>, continue with section <i>D3.5 Referring the application for bridge analysis</i>.</li> </ul>

*Continued on next page*

## D3.3 Entering route details into OPermit continued

### 2. Using a pre-defined full HPMV route

Follow the steps below if the route applied for is **entirely** on the full HPMV network.

Step	Action
1	<p>In OPermit, find and select the pre-defined 'dummy' full HPMV route that is commonly used in your region.</p> <p><b>Note:</b> OPermit requires a route to be selected for processing an application, but the data from the dummy route is not needed in the permit document and will be deleted (this is explained in section D4.3).</p>
2	<p>On the Route Details page, quickly check the route description or route comment to confirm you have selected a full HPMV pre-defined route.</p>
3	<p>Continue processing the application, but <b>skip</b>:</p> <ul style="list-style-type: none"> <li>- generating bridge analysis reports, and</li> <li>- referring the application to the SMC for analysis.</li> </ul>
4	<p>When you are ready to generate the permit, continue with section <i>D4.3 Creating an HPMV higher mass permit</i> in the next chapter.</p>

## D3.4 Forwarding multi-region applications

### How are multi-region applications processed?

Additional state highways on a permit application that are not approved for full HPMV must be analysed for route suitability by the structures management consultant (SMC or bridge engineer) in each permitting region they go through.

The different PIOs in the regions involved also liaise with local RCAs in their region to obtain local road consents, if required.

The mass limits on the permit are determined by the lowest capacity structure on the overall route.

### Who manages multi-region applications?

Generally, the PIO in the region where the route starts is the 'lead PIO' and liaises with the other regional PIOs involved and issues the final permit. For more details see *Assigning a 'lead region'* in section D1.5.

**Note:** In some regions, particularly in the South Island, PIOs may deal with multi-region routes without forwarding them to other regional offices, provided this practice is approved by all the regional SMCs involved.

### Procedure

Follow the steps below to forward an application with additional routes for route analysis in the other regions involved.

Step	Action
1	On the application form (or in the attached route description), identify the different regions involved for any routes not approved for full HPMV.
2	Forward the application and all attached documents to the PIOs in the regions involved.
3	In your cover email, advise the other PIOs of the application number in OPermit.
4	Make a note in your diary to follow up if you have not had a reply within 5 working days.  <b>Note:</b> Regional processing may take longer than 5 days due to factors beyond a PIO's control. However, it is good practice to communicate regularly with the other PIOs about progress.
5	While you wait for the route analysis from other regions to be completed, continue processing the application for your region – see section <i>D3.5 Referring the application for bridge analysis</i> .

## D3.5 Referring the application for bridge analysis

### When to refer applications for bridge analysis

All HPMV higher mass permit applications that include additional routes that are not approved for full HPMV must be referred to the regional structures management consultant (SMC) for detailed analysis. This applies even when the bridge analysis reports in OPermit indicate that the additional routes are unrestricted for the masses applied for.

Please ensure that you do not refer routes approved for full HPMV to the SMC for analysis. If in doubt, check the PDF lists of approved full HPMV routes for the North Island and the South Island published on the Waka Kotahi website at [nzta.govt.nz/commercial-driving/high-productivity/full-hpmv-network-map/](https://nzta.govt.nz/commercial-driving/high-productivity/full-hpmv-network-map/).

### Role of the SMC

The role of the regional SMC is to:

- provide specialist structural analysis of the application
- advise the PIO whether the route is suitable or whether the application should be declined due to bridge constraints, or
- recommend options for the PIO to discuss with the applicant so that the application may be approved, namely:
  - changing the route, or
  - adjusting weights.

### Procedure

Follow the steps below to refer the application to the regional SMC.

**Note:** Only do this for applications with additional routes that are not approved for full HPMV.

Step	Action
1	<p>In OPermit, generate the following bridge analysis reports:</p> <ul style="list-style-type: none"> <li>• Summary Report</li> <li>• Element Comparison Report, and</li> <li>• Detail Report.</li> </ul> <p><b>Note:</b> Not all SMCs use all the above reports. Be guided by what is common practice in your region.</p>
2	Attach the reports and the application to an email and send it to the SMC in your region.
3	In the permit portal, change the status of the application to indicate that it is with the regional SMC.

*Continued on next page*

## D3.5 Referring the application for bridge analysis continued

### Next step

When the regional SMC has reported back to you, refer to the table below to determine your next step.

If the SMC advises that...	Then...
the route passes for the vehicle configuration	continue with <i>Chapter D4: Completing an HPMV higher mass permit or declining an application.</i>
the route fails for the vehicle configuration (this will only rarely be the case)	decline the permit application – see section <i>D4.9 Returning or declining an HPMV higher mass permit application.</i>
Application details (route or mass) need to change to enable a permit to be issued	<p>contact the applicant and discuss the options – see section <i>D3.6 Attempting to resolve issues.</i></p> <p>If the applicant agrees to changing application details, continue with section <i>D3.7 Amending application details in OPermit.</i></p>

## D3.6 Attempting to resolve issues

### Balanced approach

Use your judgment and experience to decide when best to contact an applicant if there are issues with an application.

The aim is to find a resolution in consultation with the applicant so that a permit can be issued. At the same time, consideration of the safety of other road users and the durability of infrastructure must remain paramount. You must decline an application if you cannot resolve issues.

### Procedure

Follow the steps below to attempt to resolve any issues.

Step	Action							
1	Refer to your notes where you recorded the issues, or open the relevant page in OPermit.							
2	Contact the applicant by telephone or email and explain the issues.							
3	<p>If appropriate, discuss options with the applicant to resolve the issues. Options include:</p> <ul style="list-style-type: none"> <li>– changing the route</li> <li>– reducing the total gross mass and/or individual axle masses, or</li> <li>– not proceeding with the application.</li> </ul> <p><b>Note:</b> If the route is capable of supporting a higher mass HPMV but at a lower total mass and/or lower axle masses than applied for, the regional SMC should recommend the total mass or axle masses that would enable the vehicle to obtain a permit.</p>							
4	<p>Refer to the table below to determine your next step.</p> <table border="1"> <thead> <tr> <th>If the applicant agrees to...</th> <th>Then...</th> </tr> </thead> <tbody> <tr> <td>change the route</td> <td rowspan="2">continue with section <i>D3.7 Amending application details in OPermit.</i></td> </tr> <tr> <td>Adjust the mass</td> </tr> <tr> <td>not proceed with the application (or the issues cannot be resolved)</td> <td>return or decline the application – see section <i>D4.9 Returning or declining an HPMV higher mass permit application.</i></td> </tr> </tbody> </table>	If the applicant agrees to...	Then...	change the route	continue with section <i>D3.7 Amending application details in OPermit.</i>	Adjust the mass	not proceed with the application (or the issues cannot be resolved)	return or decline the application – see section <i>D4.9 Returning or declining an HPMV higher mass permit application.</i>
If the applicant agrees to...	Then...							
change the route	continue with section <i>D3.7 Amending application details in OPermit.</i>							
Adjust the mass								
not proceed with the application (or the issues cannot be resolved)	return or decline the application – see section <i>D4.9 Returning or declining an HPMV higher mass permit application.</i>							

## D3.7 Amending application details in OPermit

### When to amend details in OPermit

You may need to amend details in OPermit to:

- test whether the adjustments discussed with the applicant and the regional SMC will allow a permit to be issued
- accommodate the lowest capacity structure on a multi-region route
- adjust mass limits to be within the certified ratings for the vehicle, or
- obtain consents for the use of local roads from a local RCA.

Adjustments may take multiple iterations.

**Note:** Changes to routes or masses will only be necessary if the application includes additional routes that are not approved for full HPMV.

### Procedure

Follow the steps below to amend application details in OPermit.

Step	Action
1	In OPermit, access the application you want to amend.
2	Change mass and/or details of additional routes, as required.
3	If applicable, generate new bridge analysis reports, ie: <ul style="list-style-type: none"> <li>– Summary Report (if required by the SMC)</li> <li>– Element Comparison Report, and</li> <li>– Detail Report.</li> </ul>
4	Send the new reports to the SMC in your region with the subject line 'Revised reports for permit application No [ <i>insert number</i> ]'
5	Repeat steps 1–4 until the SMC advises you to either issue a permit or decline the application (this will rarely be the case).  Then continue with <i>Chapter D4: Completing an HPMV higher mass permit or declining an application</i> .





# Chapter D4: Completing an HPMV higher mass permit or declining an application

## Overview

### About this chapter

This chapter describes how to create and issue an HPMV higher mass permit, or how to return or decline an application.

### Sample permit forms for local RCAs

Local road controlling authorities (RCAs) that issue their own HPMV higher mass permits can find sample VDAM permit forms on the Waka Kotahi website at [nzta.govt.nz/assets/Commercial-Driving/docs/VDAM-Permit-Samples-RCA.pdf](https://nzta.govt.nz/assets/Commercial-Driving/docs/VDAM-Permit-Samples-RCA.pdf).

### In this chapter

This chapter contains the following sections:

Section	See page
D4.1 Before you create a permit document	D4-2
D4.2 Standard permit route descriptions	D4-3
D4.3 Creating an HPMV higher mass permit	D4-5
D4.4 Checking permit mass limits are within design limits	D4-7
D4.5 Checking permit mass limits for an R12T23 are within legal limits	D4-11
D4.6 Liaising with local road controlling authorities	D4-13
D4.7 Getting permit champion sign-off	D4-15
D4.8 Issuing an HPMV higher mass permit	D4-16
D4.9 Returning or declining an HPMV higher mass permit application	D4-19

## D4.1 Before you create a permit document

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**Introduction** HPMV higher mass permits are generated in OPermit but require some manual adjustments, which are explained in the following sections.

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**IMPORTANT:  
No permits  
with VINs** All vehicle units on a permit must be identified by their registration number. You must not issue a higher mass permit with vehicle identification numbers (VINs) instead of registration numbers.

The VDAM Rule makes provision for identifying identical trailers on a permit by type ('bulk permitting'). Waka Kotahi is developing criteria for bulk permitting but, for the time being, continues to require permits to be issued with registration numbers for each vehicle unit covered by the permit.

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**Unregistered vehicles** Applications for unregistered vehicles are treated as feasibility studies. For details see section *D6.4 About feasibility applications*.

---

**Prerequisites** You must have done the following before creating a permit:

- completed all vehicle safety checks
- analysed routes that are not approved for full HPMV and obtained approval from the SMC for such routes
- resolved any issues with the application, and
- if applicable, collated inputs from other regions for local road consents or approvals for state highways that are not on the full HPMV network.

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## D4.2 Standard permit route descriptions

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**Introduction** OPermit generates standard headings and text for route descriptions on HPMV higher mass permit documents.

This section describes what PIOs may and may not change in HPMV permit route descriptions.

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**IMPORTANT:  
Do not change  
the link** OPermit generates a standard route description for HPMV higher mass permits that includes a link to the PDF lists of approved full HPMV routes on the Waka Kotahi website (see *Standard text* below).

This link is a ‘reference to an external source’ that can form part of a route description under the VDAM Rule.

To ensure the reference is legally enforceable, you must include the link to the website and the accompanying text in the permit exactly as generated by OPermit.

**Legislation reference:** VDAM Rule schedule 4.

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## D4.2 Standard permit route descriptions continued

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**Standard text** Below is the standard text and link for HPMV higher mass permit route descriptions.

The text *in red* explains what you may change or need to modify.

### ROUTE AND SPECIAL INSTRUCTIONS

This permit applies only to the route or routes set out below (if any).

#### 1. APPROVED FULL HPMV ROUTES

Travel is permitted on the Approved Full HPMV Routes published at: <https://www.nzta.govt.nz/commercial-driving/high-productivity/full-hpmv-network-map/>.

The PDF lists of approved routes for the North Island or the South Island are the definitive reference.

**Note:** The PDF lists are updated from time to time. Permit holders must use the latest revision together with this permit at all times.

*[You may copy and paste the South Island tables of approved state highways and heavy vehicle bypasses here if you wish]*

#### 2. ADDITIONAL STATE HIGHWAYS COVERED BY THIS PERMIT

Travel is also permitted under this permit on the following state highways.

*[Insert the state highway table from OPermit (or the format preferred in your region) here if the applicant has applied for state highways that are not approved for full HPMV.*

*[If not required, remove this heading and renumber the next heading below.]*

#### 3. LOCAL AUTHORITY ROADS COVERED BY THIS PERMIT

Travel is also permitted under this permit on the following local authority roads.

*[Insert local road details by local RCA]*

##### **Waikato & Bay of Plenty region** *[North Island permits only]*

Travel is permitted on the roads listed in the “Waikato-Bay of Plenty Local Authority Approved HPMV Routes addendum”.

The addendum is attached to this permit. Permit holders will be emailed updates and must use the latest revision together with this permit at all times.

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## D4.3 Creating an HPMV higher mass permit

**Two subtasks** Creating an HPMV higher mass permit involves the following two subtasks:

1. **Generating the permit document in OPermit, and**
2. **Manually editing permit details.**

These subtasks are described in detail below.

### 1. Generating the permit document in OPermit

Follow the steps below to generate the permit document in OPermit.

Step	Action
1	In OPermit, access the application you want to create the permit for from the Pending Applications list.
2	Click the tick box below the Messages and Errors panel to confirm that all messages and errors have been investigated.  If applicable, enter details of how any errors were resolved in the Comments box.
3	Enter and confirm the fees information required for this permit.
4	On the Instructions page, click <b>Issue</b> .  Save the document to the appropriate file location in your system before opening it.  <b>Note:</b> To retain the formatting, do not open the document directly from OPermit. Save it first before you open it in Microsoft Word.
5	Continue with subtask 2. <i>Manually editing permit details.</i>

*Continued on next page*

## D4.3 Creating an HPMV higher mass permit continued

### 2. Manually editing permit details

Follow the steps below to manually edit permit details.

Also see section *D4.2 Standard permit route descriptions*.

Step	Action
1	Open the permit document in Microsoft Word.
2	Under 'ROUTE AND SPECIAL INSTRUCTIONS', either: <ul style="list-style-type: none"> <li>• move the route table to underneath the second heading (additional state highways), or</li> <li>• delete the table if not required or not used in your region, or if you have used a pre-defined 'dummy' full HPMV route.</li> </ul>
3	Under the heading '1. APPROVED FULL HPMV ROUTES', leave the text or link exactly as generated by OPermit.  <b>IMPORTANT:</b> Do not change the wording or the link. Any changes may affect the enforceability of the permit route description.
4	If the applicant has not requested additional state highways that are not on the full HPMV network, delete the second heading and renumber the third heading accordingly.
5	Under the third heading, insert local roads applied for.  Use separate subheadings for each local authority and insert any local RCA conditions.  <b>Note:</b> Without exception, do not include RCA conditions if they are incompatible with Waka Kotahi policy, for example speed restrictions or bridge crossing conditions. Remove affected local roads from the permit document and advise the applicant to apply directly to the local RCA for a permit for these roads.
6	Delete everything past the Fees table, ie: <ul style="list-style-type: none"> <li>– Special Conditions: Bridge Engineering Supervision, and</li> <li>– Bridge Engineering Supervision Requirements.</li> </ul>
7	Adjust the formatting of the document as necessary and then save the file.
8	Continue with section <i>D4.4 Checking permit mass limits are within design limits</i> .

## D4.4 Checking permit mass limits are within design limits

### Why do this check?

Permits must not be issued with mass limits that exceed a vehicle's design limits (that is the certified ratings on the attributes check sheet).

In some cases, permit masses exceed a vehicle's design limits because permit masses are generally higher than application masses to allow for axle weight flexibility (AWF).

If permit masses exceed design limits, you need to manually adjust the permit mass limits as described in this section.

**Legislation reference:** VDAM Rule section 5.2(3).

### Important rules

The following rules apply to manual adjustments of permit masses:

- You must not adjust an individual axle mass limit unless the permit mass limit exceeds the certified rating for the individual axle.
- Permits must be issued for either general access (formerly 'Class 1') or HPMV AWF. Do not mix general access or HPMV mass limits on one permit other than what is allowed under the AWF policy. For details see section *D2.1 Axle weight flexibility* in volume 1.
- Never issue a permit if **any** of the certified vehicle ratings are exceeded, including for components such as the draw bar/draw beam or tyres.

### Procedure

Follow the steps below to confirm that the mass limits on the permit do not exceed the vehicle's design limits.

For an illustration, see *Example of manual permit mass adjustments* below.

Step	Action
1	<p>On page 1 of the permit, refer to the mass limits table.</p> <p>For each vehicle unit you are checking, note the following mass limits:</p> <ul style="list-style-type: none"> <li>– axle <b>set</b> mass limits (front and rear), and</li> <li>– axle <b>combination</b> mass limit (total mass limit for the unit).</li> </ul> <p><b>Remember:</b> The definition of 'axle set' includes an individual axle – see <i>Part 1: Definitions and glossary</i> in volume 1.</p>

*Continued on next page*

## D4.4 Checking permit mass limits are within design limits continued

### Procedure (continued)

Step	Action
2	<p>On the attributes check sheet for the unit, confirm that the following certified ratings are <b>equal to or greater than</b> the permit mass limits you noted in step 1:</p> <ul style="list-style-type: none"> <li>– gross vehicle mass (GVM) for the unit</li> <li>– front and rear axle set ratings (referred to as axle ‘groups’ on the attributes check sheet)</li> <li>– tyre ratings, and</li> <li>– draw beam/draw bar and, if provided, MTM braked.</li> </ul>
3	<p>Are all applicable ratings on the attributes check sheet <b>equal to or greater</b> than the permit mass limits?</p> <ul style="list-style-type: none"> <li>• If <b>yes</b>, continue with section <i>D4.6 Liaising with local road controlling authorities</i> or, if the vehicle is an R12T23, with section D4.5.</li> <li>• If <b>no</b>, go to step 4.</li> </ul>
4	<p>Manually reduce the relevant mass limit on the permit document to be equal to the applicable certified rating on the attributes check sheet.</p> <p>For an illustration, see <i>Example of manual permit mass adjustments</i> below.</p>
5	<p>When you have done this check for each vehicle unit on the application and made any necessary adjustments to the permit document, continue with section <i>D4.6 Liaising with local road controlling authorities</i>.</p>

*Continued on next page*



## D4.4 Checking permit mass limits are within design limits continued

### Example of manual permit mass adjustments

The screenshots below show the mass limits on a sample permit document and the applicable certified ratings on the attributes check sheet for the trailer.

#### Permit mass limits

VAI: 1.01

	Prime mover				Trailer				
Axle number	1	2	3	4	5	6	7	8	9
Axle type*	S	S	T	T	T	T	T	T	T
Individual Axle Mass Limit (kg)	5500	5500	8800	8800	8800	8800	7000	7000	7000
Axle Set Mass Limit (kg)	11000		16000		15000		19000		
Axle Combination Mass Limit (1-4) (kg)	27000								
Axle Combination Mass Limit (2-4) (kg)	21500								
Axle Combination Mass Limit (3-6) (kg)					31000				
Axle Combination Mass Limit (3-9) (kg)					44000				
Axle Combination Mass Limit (5-9) (kg)					35000				
Spacing from previous axle (m)	0.00	1.94	3.36	1.35	5.38	1.24	4.86	1.24	1.27
Tyre Size	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard

\* S=Single tyred axle, T=Twinned axle, 4=Four tyred oscillating axle, 8=Eight tyred oscillating axle, 12=Twelve tyred oscillating axle, 16=Sixteen tyred oscillating axle. The tyre sizes shall be as indicated above.

#### Ratings from the trailer's attributes check sheet

Compare the highlighted permit mass limits for the trailer above with the certified ratings on the trailer's attributes check sheet:

HIGHER MASS HPMV/ISO Permit: Please complete the design limit (from the certification documents) in kg.			
Gross Vehicle Mass	32,000kg	Gross Combination Mass	N/A
Maximum braked mass (brake code mass or GVM if to Schedule 5 or Standard Compliant)			
Draw Bar Rating	32,000kg	Maximum Towed Mass Braked	32,000kg
Total Load Anchorage to NZS5444 or Log Bolster ratings to the Bolster Attachment Code - LIMITED GROSS RATING			
Maximum Front Axle Group Mass (or rating at kingpin)	16,000kg	Maximum Rear Axle Group Mass	18,000kg
Tyre Size and Rating	Front Axle Set	Rear Axle Set	30,900kg

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## D4.4 Checking permit mass limits are within design limits continued

### Example of manual permit mass adjustments (continued)

In the above example, the permit mass limits exceed the certified ratings on the attributes check sheet as follows:

	Permit mass limit	Certified rating on attributes check sheet
Rear axle set	19,000kg	18,000kg
Full trailer (axles 5-9)	35,000kg	GVM, Draw Bar and MTM braked: 32,000kg

### Manual adjustments

This means that you must make **two** manual adjustments to the permit:

1. Reduce the permit mass on the trailer's rear axle set from 19,000kg to 18,000kg, and
2. Reduce the permit mass for the full trailer (axles 5-9) from 35,000kg to 32,000kg:

Trailer					
5	6	7	8	9	
T	T	T	T	T	
8800	8800	7000	7000	7000	
15000		<del>19000</del>			18,000kg
31000					
44000					
<del>35000</del>					32,000kg

### More information

For more information about axle weight flexibility and the difference between application masses and permit masses, see section *D3.6 Determining axle weight flexibility type, total mass and individual axle masses* in volume 1 of this manual.

## D4.5 Checking permit mass limits for an R12T23 are within legal limits

### When you need to do this check

You need to manually confirm that the permit mass limits for the trailer do not exceed the legal limit if the permit is for:

- an R12T23 vehicle combination, AND
- for general access axle weight flexibility (AWF).

A simple manual check is necessary because OPermit does not always correctly calculate the general access mass limits for the 4 to 8 axle group (the trailer) for an R12T23 combination with general access AWF.

This error only occurs with R12T23 combinations on general access AWF, so you do **not** need to do this check if the permit is for HPMV AWF or any other vehicle combination.

### Procedure

Follow the steps below to confirm that the permit mass limits for an R12T23 on general access AWF are within the legal limit.

Also see the *Example* on the next page.

Step	Action
1	On page 1 of the permit, refer to the mass limits table. Note the axle combination mass limit for the 4–8 group (the trailer).
2	In the row 'Spacing from previous axle', add up the axle spacings for axles 5–8 (that is the wheelbase for the trailer). Make a note of the sum.
3	Look up the VDAM Rule general access mass limit for the trailer's wheelbase in: <ul style="list-style-type: none"> <li>– section <i>D7.6 Table 6: Maximum total mass limits (General access)</i>, or</li> <li>– the VDAM Rule schedule 3, part 2, table 2.1.</li> </ul>
3	Is the permit mass limit for the 4–8 axle group less than or equal to the legal mass limit in the VDAM Rule for the wheelbase you calculated in step 2? <ul style="list-style-type: none"> <li>• If <b>yes</b>, the permit mass limit is within the legal limit. Continue with section <i>D4.6 Liaising with local road controlling authorities</i>.</li> <li>• If <b>no</b>, manually change the mass limit for the 4–8 axle group to the legal limit. Then continue with section <i>D4.6 Liaising with local road controlling authorities</i>.</li> </ul>

*Continued on next page*

## D4.5 Checking permit mass limits for an R12T23 are within legal limits continued

### Example

In the example below:

- The permit mass limit for the axle combination 4-8 (the trailer) is 29,000kg.
- The trailer's wheelbase is  $1.31\text{ m} + 2.70\text{ m} + 1.25\text{ m} + 1.25\text{ m} = 6.51\text{ m}$ .

	Prime mover			Trailer				
Axle number	1	2	3	4	5	6	7	8
Axle type	S	T	T	T	T	T	T	T
Individual Axle Mass Limit (kg)	7200	8200	8200	8200	8200	7000	7000	7000
Axle Set Mass Limit (kg)			15000		15000			18000
Axle Combination Mass Limit (1-3) (kg)			25000					
Axle Combination Mass Limit (2-5) (kg)					30000			
Axle Combination Mass Limit (2-6) (kg)						40000		
Axle Combination Mass Limit (4-8) (kg)								<del>29000</del> 28000
Spacing from previous axle (m)	0.00	3.90	1.35	5.80	1.31	2.70	1.25	1.25
Tyre Size	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard

= 6.51m

### VDAM Rule general access mass limit

The general access mass limit in the VDAM Rule for a wheelbase of 6.51 metres is 28,000kg.

GENERAL ACCESS	
Distance from the centre of the first to the centre of the last axle	Mass limit (kg)
5.4m but less than 5.8m	26,000
5.8m but less than 6.4m	27,000
6.4m but less than 7.0m	28,000
7.0m but less than 7.6m	29,000
7.6m but less than 8.2m	30,000

### Manual change required

You must manually change the permit mass limit for the 4-8 axle group from 29,000kg to the legal limit of 28,000kg.

## D4.6 Liaising with local road controlling authorities

### Regional differences

The relationships and arrangements between Waka Kotahi and local road controlling authorities (RCAs) vary from region to region.

While some local RCAs issue HPMV higher mass permits for local roads independently from Waka Kotahi, others consent to the inclusion of local roads in permits issued by Waka Kotahi. Some local RCAs have delegated their permitting issuing authority entirely to Waka Kotahi.

### Role of PIOs

How PIOs liaise with a local RCA depends on the specific arrangements in their region. In general, PIOs are expected to foster good relationships and assist local RCAs with permitting as much as possible.

### Pre-approved routes or routes under MOU?

Some local RCAs have pre-approved routes suitable for HPMV mass limits. These pre-approved routes are documented in letters, local road addendums or on the website of some RCAs.

PIOs can generally include pre-approved routes in permits without permit-specific consent from the local RCA. However, some local RCAs also have reporting or other requirements in relation to pre-approved routes, so you need to familiarise yourself with the specific arrangements in your region.

Pre-approved routes are different from routes covered by a memorandum of understanding (MOU) between Waka Kotahi and a local RCA. An MOU is a formal contract under which Waka Kotahi issues permits for local roads on behalf of a local RCA.

### Procedure

If applicable in your region, follow the steps below to liaise with local RCAs and get their consent for including local roads on the permit.

Step	Action
1	If a route includes local roads that are not pre-approved, write an email to the local RCA and request their written consent to the inclusion of these local roads in the permit.
2	Attach the draft permit to your email, and any other documents required by the local RCA.  <b>Note:</b> Local RCA requirements vary from region to region. You need to find out what the standard requirements are in your region.
3	Send the email to each of the local RCAs affected by the proposed route.

*Continued on next page*

## D4.6 Liaising with local road controlling authorities

continued

### Procedure (continued)

Step	Action
4	<p>If a local RCA raises concerns about or objects to the use of a local road, attempt to find a resolution in consultation with the applicant and the local RCA.</p> <p>This may involve changing application details (route or weights) and rerunning the application through OPermit – see section <i>D3.7 Amending application details in OPermit</i>.</p>
5	<p>Has each local RCA involved given written consent to the use of the local roads under its control?</p> <p><b>Note:</b> An email confirming consent is sufficient.</p> <ul style="list-style-type: none"> <li>• If <b>yes</b>, continue with section <i>D4.7 Getting permit champion sign-off</i>.</li> <li>• If <b>no</b>, go to step 6.</li> </ul>
6	<p>Is it feasible to issue the permit without the local roads for which consent has been denied?</p> <ul style="list-style-type: none"> <li>• If <b>yes</b>, amend the route details on the draft permit. Then continue with section <i>D4.7 Getting permit champion sign-off</i>.</li> <li>• If <b>no</b>, advise the applicant to apply directly to the local RCAs for a permit. Continue with section <i>D4.9 Returning or declining an HPMV higher mass permit application</i>.</li> </ul>

## D4.7 Getting permit champion sign-off

- Role of permit champion** Permit champions are experienced PIOs or Waka Kotahi technical staff. Their role is to:
- review a draft permit and relevant documents for compliance with permitting policies and legal requirements
  - raise and resolve any concerns with the PIO, and
  - sign off on the permit before it is issued.

**Procedure** Follow the steps below to get sign-off from the permit champion.

Step	Action
1	<p>Send an email to the permit champion for your region with the following attachments:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> permit application</li> <li><input type="checkbox"/> draft permit, and</li> <li><input type="checkbox"/> attributes check sheets.</li> </ul> <p>Also, if applicable:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> overlength permit or overlength permit number</li> <li><input type="checkbox"/> regional SMC's approval, and</li> <li><input type="checkbox"/> consents from local RCAs to the use of local roads.</li> </ul>
2	In the permit portal, change the status of the application to <b>PIO to Champion</b> .
3	If the permit champion raises any concerns, take the necessary action to resolve the issues. Ask the permit champion or SMC for advice, if necessary.
4	<p>Resubmit the permit to the permit champion until you receive sign-off.</p> <p>Then continue with issuing the permit – see section <i>D4.8 Issuing an HPMV higher mass permit</i>. Even if the permit is issued by the permit champion, ensure that the admin tasks described in section D4.8 are completed.</p>
5	If the issues cannot be resolved to the permit champion's satisfaction, decline the application – see section <i>D4.9 Returning or declining an HPMV higher mass permit application</i> .

## D4.8 Issuing an HPMV higher mass permit

**Two subtasks** Issuing an HPMV higher mass permit involves two subtasks:

1. **Issuing the permit to the applicant**
2. **Updating the permit portal.**

These two subtasks are described in detail below.

### 1. Issuing the permit to the applicant

Follow the steps below to issue a higher mass permit to the applicant.

Step	Action
1	Open the permit document in Microsoft Word and add your signature and the date, if you have not already done so.
2	Save the permit document as a PDF file.
3	Using the standard email template in your region, draft an email to the applicant and attach the PDF file of the permit.  <b>IMPORTANT:</b> Only permits issued as PDFs are valid legal documents.
4	Save any email correspondence or file notes related to the permit in the application folder.  Then continue with subtask 2. <i>Updating the permit portal.</i>

### 2. Updating the permit portal

Follow the steps below to upload the permit document and update the application details in the permit portal.

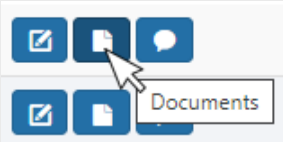
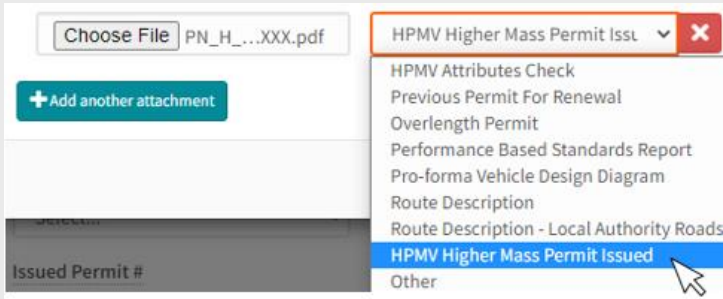

Step	Action
1	Check the name of the PDF file of the permit. Ensure you have included the permit number and operator name. Rename the file to include these details if necessary.  <b>Example:</b>  PN-H-21-1234 Good Trucking Co.pdf  You may include other details in the file name if you wish.
2	In the permit portal, click on <b>Manage Applications</b> .

*Continued on next page*



## D4.8 Issuing an HPMV higher mass permit continued


### 2. Updating the permit portal (continued)

Step	Action
3	<p>In the list of applications, find the application for which you have issued the permit and click on the <b>Documents</b> icon on the right:</p> 
4	<p>Click on <b>Add another attachment</b> and then <b>Choose File</b>.</p>
5	<p>Select the PDF file of the permit document you want to upload and click on <b>Open</b>. Then select <b>HPMV Higher Mass Permit Issued</b> from the drop-down list:</p> 
6	<p>In the list of applications, click on the status of the application:</p> 
	<p>The 'Update Application' pop-up appears.</p>

*Continued on next page*

## D4.8 Issuing an HPMV higher mass permit continued

### 2. Updating the permit portal (continued)

Step	Action
7	<p>In the 'Update Application' pop-up:</p> <ul style="list-style-type: none"><li><input type="checkbox"/> change the status of the application to <b>Issued</b></li><li><input type="checkbox"/> record the permit number, and</li><li><input type="checkbox"/> enter the total mass approved.</li></ul>  <p>Then click on <b>Save changes</b>.</p>

**End of process** This completes the processing of an HPMV higher mass permit application.

## D4.9 Returning or declining an HPMV higher mass permit application

### Return or decline an application?

If an HPMV permit application has issues that cannot be resolved and a permit cannot be issued, regional PIOs can either return or decline the application.

Follow these guidelines to decide whether to return or decline an application:

- **Return:** During the initial screening checks, a permit application may be returned if it fails to meet basic requirements such as ineligible vehicle type or no permit required.

Regional PIOs should return an application if the applicant decides not to proceed because issues cannot be resolved or they change their mind about applying for a permit. PIOs need to save records of all communications with the applicant and of efforts made to resolve issues.

- **Decline:** PIOs must decline an application if there are serious issues that cannot be resolved in consultation with the applicant. Serious issues are, for example, if the masses applied for exceed:
  - legal limits
  - the vehicle's certified ratings and the weight cannot be reduced, or
  - the capacity of a structure critical to the route applied for and the applicant is unwilling or unable to change the route or reduce weights.

In practice, regional PIOs rarely decline a permit application. It is more common that applications are returned.

### IMPORTANT: Keep records

Applicants can appeal to the District Court against a decision to decline a permit application. PIOs must therefore ensure that they:

- follow standard procedures
- keep comprehensive records (including of efforts to resolve issues), and
- document reasons for a decision to decline.

**Legislation reference:** Land Transport Act 1998 section 106.

*Continued on next page*

## D4.9 Returning or declining an HPMV higher mass permit application continued

**Two subtasks** Go to the subtask below that applies to what you want to do:

1. **Returning a permit application, or**
2. **Declining an application.**

These two subtasks are described in detail below.

**1. Returning a permit application** Follow the steps below to return an HPMV higher mass permit application.

Step	Action
1	Draft an email advising the applicant that you are returning the permit application. Include the reasons for returning the application and refer to efforts made to resolve any issues.
2	Attach the original permit application and all attachments, then send the email to the applicant.
3	Save any remaining documents and any correspondence with the applicant in the application folder.
4	In the permit portal, add a comment with the reasons for the return. Then update the application status to <b>Returned</b> .

**2. Declining an application** Follow the steps below to decline an HPMV higher mass permit application.

Step	Action
1	Telephone the applicant and advise them verbally that their permit application has been declined.
2	Write a formal letter to confirm in writing that the application has been declined.  Include the reasons why the application has been declined. Refer to the efforts made to resolve issues.  Sign the letter and include your job title, then save it as a PDF file.

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## D4.9 Returning or declining an HPMV higher mass permit application continued

### 2. Declining an application

(continued)

Step	Action
3	Draft an email and attach: <ul style="list-style-type: none"> <li>– the PDF version of the formal letter, and</li> <li>– the original permit application and all attachments.</li> </ul> Send the email to the applicant.
4	Save any remaining documents and emails related to the application in the application folder.
5	In the permit portal, add a comment with the reasons for the decline. Then update the application status to <b>Declined</b> .

**End of process** This completes the processing of an HPMV higher mass permit application for returned or declined applications.



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# Chapter D5: Permit champion procedures for quality assurance

## Overview

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**About this chapter**

This chapter describes how to do a quality assurance (QA) check and sign off draft HPMV higher mass permits.

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**Audience**

The audience for this chapter is senior PIOs, Waka Kotahi technical staff or anyone who acts as a permit champion to conduct QA checks and sign off permits.

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**In this chapter**

This chapter contains the following sections:

Section	See page
D5.1 Guidelines for permit champions	D5-2
D5.2 How to do a quality assurance check	D5-3

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## D5.1 Guidelines for permit champions

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### **Role of permit champion**

The role of a permit champion is to review draft HPMV higher mass permits and relevant documents and:

- ensure compliance with the VDAM Rule and Waka Kotahi permitting policy, process and procedures
  - advise and upskill PIOs, and
  - sign off on permits before they are issued.
- 

### **Reference information**

Reference sources for permit champions are:

- *Part D: HPMV higher mass permits* in volume 1 of this manual (policy)
- *Part D: Processing HPMV higher pass permit applications* in volume 2 (the permitting process and procedures described in this part), and
- the most recent consolidated version of the VDAM Rule (legislative basis).

Permit champions are expected to be familiar with these reference sources.

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### **Turnaround time**

Permit champion checks should be done as quickly as possible. The outside limit to complete a QA check and sign off a permit is three working days.

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### **Access to the permit portal**

Permit champions need to have access to and familiarity with the Permit Issuing and Management System (the permit portal).

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## D5.2 How to do a quality assurance check

### Procedure

Follow the steps below to do a QA check of a draft HPMV higher mass permit. Make notes of any discrepancies or issues as you do the checks described.

Step	Action
1	<p>Confirm that you have received or have access to the following documents, as applicable:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> permit application</li> <li><input type="checkbox"/> HPMV attributes check sheets</li> <li><input type="checkbox"/> draft permit</li> <li><input type="checkbox"/> overlength permit or permit number</li> <li><input type="checkbox"/> regional SMC's approval (in writing), and</li> <li><input type="checkbox"/> local RCA approvals (in writing).</li> </ul> <p>If anything is missing, request the missing information from the PIO.</p>
2	<p>Check the application, the permit and associated documents for the following:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> all required information provided</li> <li><input type="checkbox"/> axle weight flexibility option indicated</li> <li><input type="checkbox"/> unrealistic numbers ('sanity check'), and</li> <li><input type="checkbox"/> overlength permit held (or issued) if vehicle is overlength.</li> </ul> <p>Note anything suspicious.</p>
3	<p>In the permit portal, check the comments for a note that a reduced permit period applies because of operator safety concerns.</p> <p>Confirm that the permit has the correct permit period.</p>
4	<p>Refer to the attributes check sheets and compare each vehicle unit's certified mass ratings to the permit mass limits on page 1 of the permit.</p> <p>Confirm that the permit mass limits do not exceed any certified ratings on the attributes check sheet.</p>
5	<p>Refer to the RCA and SMC approvals. If there are any declined bridges or local roads, confirm that declined roads or affected portions of highways have been removed from the route description on the permit.</p>

*Continued on next page*

## D5.2 How to do a quality assurance check continued

### Procedure (continued)

Step	Action
6	<p>Check the draft permit for:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> correct template used</li> <li><input type="checkbox"/> all details correct (especially dates, route, masses)</li> <li><input type="checkbox"/> critical and additional HPMV permit conditions, and</li> <li><input type="checkbox"/> bridge supervision pages deleted.</li> </ul>
7	<p>Is the draft permit acceptable and ready to be issued?</p> <ul style="list-style-type: none"> <li>• If <b>yes</b>, go to step 8.</li> <li>• If <b>no</b>, go to step 9.</li> </ul>
8	<p>Depending on the arrangements in your region, issue the permit to the applicant in accordance with section <i>D4.8 Issuing an HPMV higher mass permit</i>.</p> <p>Alternatively, send an email to the PIO confirming that the permit can be issued. Include the vehicle registration numbers and permit number in the subject line. Then go to step 10.</p>
9	<p>If the draft permit is unacceptable, email the PIO detailing the areas of non-compliance, eg:</p> <ul style="list-style-type: none"> <li>– vehicle non-compliant</li> <li>– masses to correct</li> <li>– wrong permit period, or</li> <li>– incorrect template used.</li> </ul> <p>Request a revised draft permit and repeat checks as necessary.</p> <p>If there are serious issues that cannot be resolved, advise the PIO to decline the application.</p>
10	<p>Save any emails or notes you have made, such as:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> QA checks completed</li> <li><input type="checkbox"/> calculations of axle mass limits (for example a manual calculation for R12T23 with general access AWF)</li> <li><input type="checkbox"/> any areas of concern, or</li> <li><input type="checkbox"/> advice to the PIO (request for changes, or permit approved or declined).</li> </ul>

### End of permit champion process

This completes the process of checking and signing off on HPMV higher mass permits.

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# Chapter D6: Processing renewal and feasibility applications

## Overview

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### About this chapter

This chapter describes how to process applications for:

- renewals of HPMV higher mass permits, and
  - feasibility studies.
- 

### In this chapter

This chapter contains the following sections:

Section	See page
D6.1 About renewal applications	D6-2
D6.2 Overview diagrams of processing renewal applications	D6-3
D6.3 Processing an application to renew a higher mass permit	D6-5
D6.4 About feasibility applications	D6-7
D6.5 Overview diagrams of processing feasibility applications	D6-8
D6.6 Processing a feasibility application	D6-10

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## D6.1 About renewal applications

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### **When permits can be renewed**

Operators can renew an HPMV higher mass permit if they applied for the original permit in the permit portal **and** they:

- are using the same vehicle combination specified in the original permit
- have made no modifications to the vehicle units since the original permit was issued
- continue to operate with the same total mass, individual axle masses and axle spacings
- originally applied for either general access (formerly Class 1) or HPMV axle weight flexibility (AWF) and there is no change to the AWF option.

If any of the above details has changed, operators must submit a new permit application.

Minor changes to the route are acceptable – see below for details.

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### **Acceptable route changes**

Permits can be renewed with different local roads because new local RCA approvals are required for renewals anyway.

Changes to state highways are also acceptable if any new state highways requested are approved for full HPMV.

However, if applicants want additional state highways that are not approved for full HPMV, they must submit a new application.

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### **No more renewals for user defined AWF**

Permits with 'User Defined' or 'No AWF' can no longer be renewed because these axle weight flexibility options have been phased out. Applicants need to apply for a new permit with either general access or HPMV AWF.

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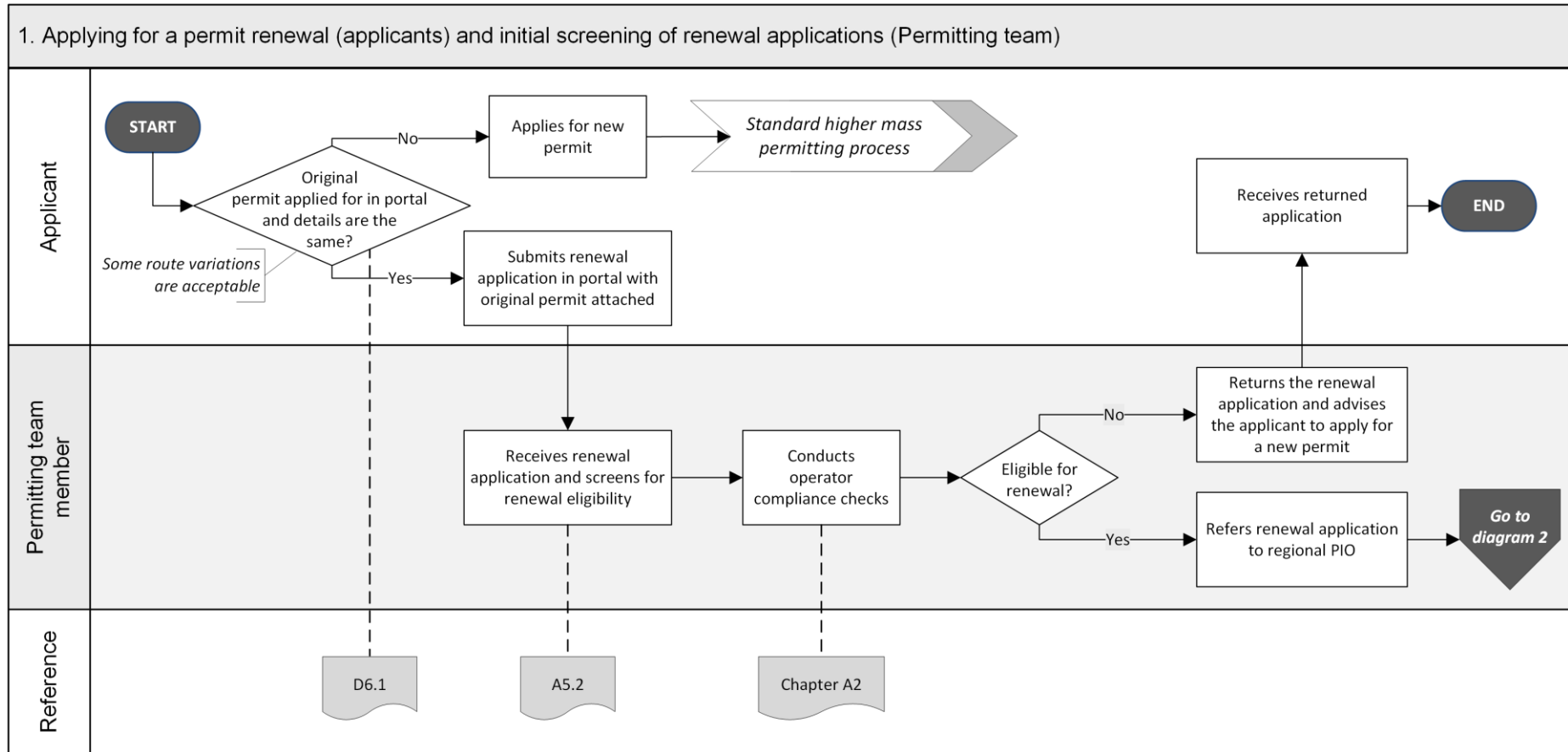
### **No vehicle safety checks**

The process for renewing a permit is largely the same as for a new permit application. However, PIOs do not need to do the vehicle safety checks because the vehicles will be the same as for the original application.

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## D6.2 Overview diagrams of processing renewal applications

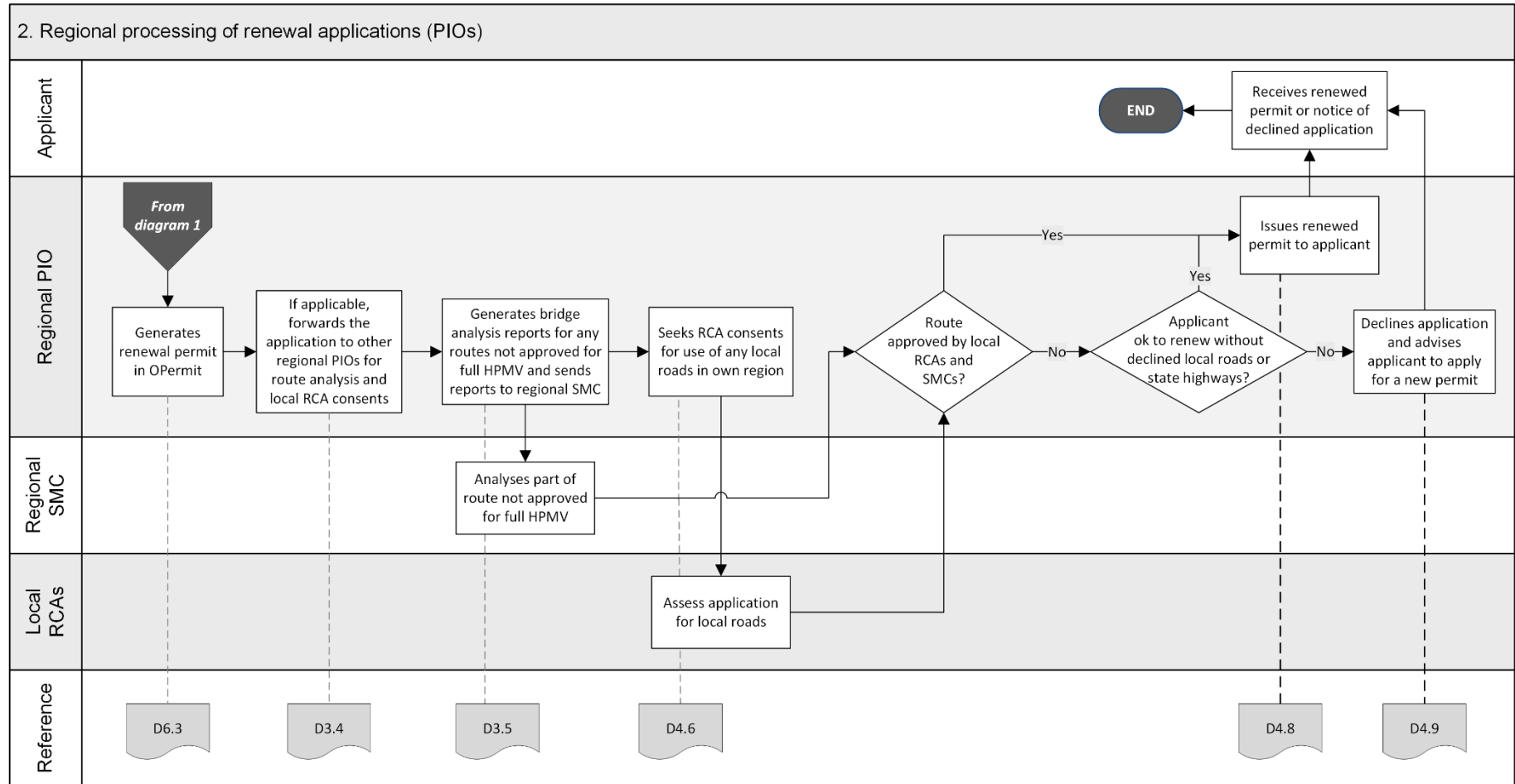
**Diagram 1** This diagram illustrates how applicants apply to renew an HPMV higher mass permit on the permit portal, and how the Permitting team receive and screen renewal applications for eligibility and operator safety.



*Continued on next page*

## D6.2 Overview diagrams of processing renewal applications continued

**Diagram 2** This diagram illustrates the processing tasks for a regional PIO to renew an HPMV higher mass permit.



## D6.3 Processing an application to renew a higher mass permit

### Only portal applications accepted

Waka Kotahi only accepts renewal applications submitted in the permit portal.

If you receive a renewal application directly in a regional office, you **must return it** to the applicant and advise them of the requirements for renewal applications (see section *D6.1 About renewal applications*).

### Initial screening and operator compliance checks

On receipt of a renewal application, the Permitting team:

- compare the renewal application and the original permit details to confirm that the application qualifies as a renewal, and
- conduct operator compliance checks to confirm legal eligibility and operator safety.

For full details see section *A5.2 Initial screening of higher mass permit renewal applications* in part A of this volume.

### Check file notes and records

If you notice discrepancies between the renewal application and the original permit, check any correspondence or file notes for changes that were agreed to when the original permit was issued.

If you cannot find a reason for the discrepancies in the records, use your judgment to decide whether to contact the applicant to try to resolve the issues or whether to return the application.

### Procedure

Follow the steps below to process a renewal application.

Step	Action	In accordance with section...
1	<p>Has the applicant requested additional state highways that are not approved for full HPMV?</p> <ul style="list-style-type: none"> <li>• If <b>yes</b>, the application cannot be processed as a renewal. Go to step 8.</li> <li>• If <b>no</b>, go to step 2.</li> </ul>	D6.1
2	<p>In the permit portal, check the comments for a note that a reduced permit period applies because of operator safety concerns.</p> <p>Make a note of the applicable period.</p>	

*Continued on next page*

## D6.3 Processing an application to renew a higher mass permit continued

### Procedure (continued)

Step	Action	In accordance with section...
3	In OPermit, search for the permit to be renewed and copy it.  Change the dates in line with the permit period specified in the portal, and make any other changes necessary. For example, you may need to re-enter the load description or the route.	
4	If applicable, forward a multi-region renewal application together with the original permit to the other regional PIOs for SMC (bridge engineer) analysis and local RCA consents.	D3.4
5	If applicable, generate bridge analysis reports for the parts of the route not approved for full HPMV and refer the application to the SMC in your region for analysis.	D3.5
6	Obtain local road consents for any local roads in your region.  Send both the new draft permit and the original permit to the local RCAs when you request their consents.	D4.6
7	Have you obtained all required SMC approvals and local road consents (including from other regions)?  <ul style="list-style-type: none"> <li>• If <b>yes</b>, issue the renewed permit.</li> <li>• If <b>no</b>, go to step 8.</li> </ul>	D4.8
8	Contact the applicant and ask if they want to renew the permit without the additional highways that are not on the full HPMV network, or without the declined local roads.  <ul style="list-style-type: none"> <li>• If <b>yes</b>, issue the renewed permit.</li> <li>• If <b>no</b>, return the application and advise the applicant to apply for a new permit. Continue with section <i>D4.9 Returning or declining an HPMV higher mass permit application</i>.</li> </ul>	D4.8

**End of process** This ends the process for renewing a higher mass permit.



## D6.4 About feasibility applications

### Why do feasibility studies?

Transport operators and vehicle manufacturers may apply for a feasibility study if they want to find out the maximum loads they may carry on certain vehicles or routes.

They may also apply for a feasibility study if they have an unregistered vehicle.

### Feasibility application requirements

To apply for a feasibility study, operators must complete the regular HPMV higher mass permit application form and select the 'Feasibility' option.

Applicants must provide the same details as for a regular permit application except for:

- vehicle registration numbers (unregistered vehicles are acceptable), and
- attributes check sheets (they are not required).

### Not a legal permit

Although the output of a feasibility study is a document that looks similar to a permit, a feasibility study document cannot be used as a legal permit or a formal document.

A feasibility study document has a watermark 'Feasibility Study Only'.

### Overview of processing feasibility applications

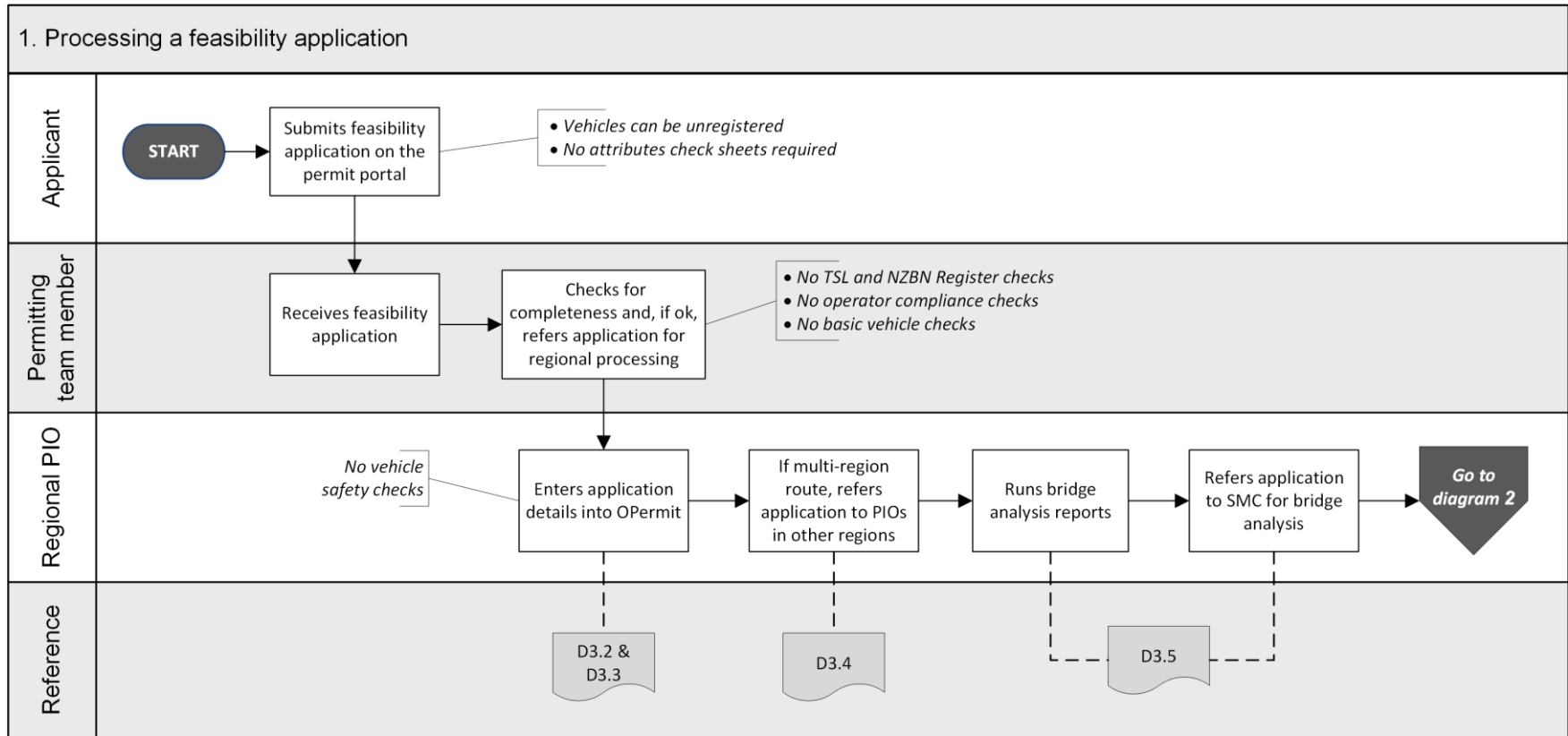
The workflow for processing feasibility applications is a streamlined version of the full permitting process, as summarised in the table below.

Initial screening (Permitting team)	Regional processing (Regional PIOs)
<p>Do:</p> <ul style="list-style-type: none"> <li>• Completeness check</li> </ul> <p>Do <b>not</b> do:</p> <ul style="list-style-type: none"> <li>• TSL and NZBN Register checks</li> <li>• Operator compliance checks</li> <li>• Basic vehicle checks</li> </ul>	<p>Do:</p> <ul style="list-style-type: none"> <li>• Enter application details in OPermit and run structural analysis for any routes not approved for full HPMV</li> <li>• Forward applications with multi-region routes to other regions (if applicable)</li> <li>• Refer applications for SMC analysis of any routes not approved for full HPMV</li> <li>• Obtain local road consents</li> </ul> <p>Do <b>not</b> do:</p> <ul style="list-style-type: none"> <li>• Vehicle safety checks</li> <li>• Attempt to resolve any issues</li> </ul>

For details see the following sections.

## D6.5 Overview diagrams of processing feasibility applications

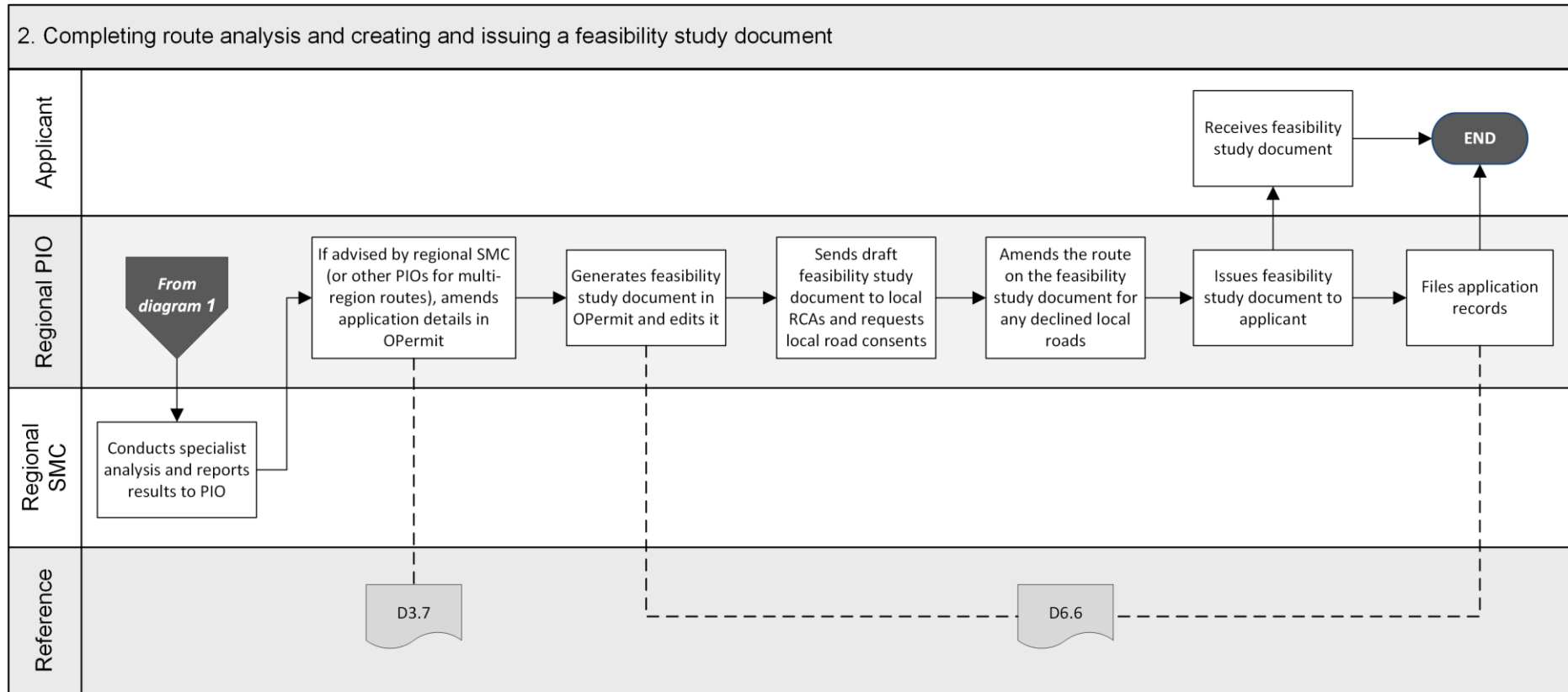
**Diagram 1** This diagram illustrates the first set of tasks involved in processing a feasibility application.



*Continued on next page*

## D6.5 Overview diagrams of processing feasibility applications continued

**Diagram 2** This diagram illustrates the final tasks of processing a higher mass feasibility application.



## D6.6 Processing a feasibility application

**Four subtasks** Conducting a feasibility study involves three subtasks:

1. **Processing a feasibility application**
2. **Creating a feasibility study document**
3. **Obtaining local road consents, and**
4. **Issuing a feasibility study document.**

These subtasks are described in detail below.

### 1. Processing a feasibility application

Follow the steps below to process a feasibility application.

Step	Action	In accordance with section...
1	Enter the feasibility application details in OPermit. Ensure you tick the Feasibility Study tick box on the Applications Details page.	D3.2 and D3.3
2	If the application masses exceed policy limits, reduce them until they pass the checks in OPermit.	D3.7
3	If you need inputs from other regions for local road consents or state highways that are not approved for full HPMV, forward the feasibility application to the PIOs in the other regions involved.	D3.4
4	For any state highways in your region that are not approved for full HPMV, generate the structural analysis reports in OPermit and refer the reports together with the application to the regional SMC.	D3.5
5	When you have collated any responses from other PIOs and the SMC, amend application details in OPermit if required. For example, you may need to lower gross mass to accommodate the weakest structure on the route, or change the route.	D3.7
6	Continue with subtask 2. <i>Creating a feasibility study document.</i>	

*Continued on next page*

## D6.6 Processing a feasibility application continued

### 2. Creating a feasibility study document

Follow the steps below to create a feasibility study document.

Step	Action																																																																																	
1	<p>Generate a feasibility study document in OPermit.</p> <p>Save the document and open it in MS Word and open it.</p>																																																																																	
2	<p>Make the following changes to the document:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Emphasise 'FEASIBILITY STUDY ONLY - NOT FOR USE AS A PERMIT' in a prominent position on page 1.</li> <li><input type="checkbox"/> Delete the words 'is hereby authorised to use'.</li> <li><input type="checkbox"/> Remove the permit period dates and leave the space blank.</li> </ul> <p><b>Example:</b></p> <p><b>Permit for High Productivity Motor Vehicle</b></p> <p>UNDER Land Transport Rule: Vehicle Dimensions and Mass 2016  AAA Tranzport Ltd  PO Box 102938, Hauraki  Writer, Fax: 09 999 0097. Phone: 09 999 0091</p> <p>Permit No.: XY/H/17/0123</p> <p><b>FEASIBILITY STUDY ONLY - Not for use as a permit</b></p> <p>is hereby authorised to use (vehicle description): High Productivity Motor Vehicle (HPMV AWF)  Registered N<sup>o</sup>(s): ABC123, XYZ087  for High Productivity Motor Vehicle trip(s) between: [Leave dates blank]  For the transport of: General Bulk  On Route: Oteha Valley Rd Albany, SH 1 north to Woodcocks Rd, Warkworth and return</p> <p><b>Conditions</b></p> <p style="text-align: center;">Axle weight flexibility: HPMV</p> <table border="1"> <thead> <tr> <th>Axle number</th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> <th>6</th> <th>7</th> <th>8</th> </tr> </thead> <tbody> <tr> <td>Axle type*</td> <td>S</td> <td>T</td> <td>T</td> <td>T</td> <td>T</td> <td>T</td> <td>T</td> <td>T</td> </tr> <tr> <td>Individual Axle Mass Limit (kg)</td> <td>5500</td> <td>5500</td> <td>8800</td> <td>8800</td> <td>8800</td> <td>8800</td> <td>8800</td> <td>8800</td> </tr> <tr> <td>Axle Set Mass Limit (kg)</td> <td colspan="2">11,000</td> <td colspan="2">16,000</td> <td colspan="2">16,000</td> <td colspan="2">16,000</td> </tr> <tr> <td>Axle Combination Mass Limit (kg)</td> <td colspan="4">28,000 over axles 1 – 4 (prime mover)</td> <td colspan="4">28,000 over axles 5 – 8 (trailer)</td> </tr> <tr> <td>Axle Combination Mass Limit (kg)</td> <td colspan="2"></td> <td colspan="4">29,000 over axles 3 – 6</td> <td colspan="2"></td> </tr> <tr> <td>Axle Combination Mass Limit (kg)</td> <td colspan="2"></td> <td colspan="6">42,000 over axles 3 – 8</td> </tr> <tr> <td>Spacing from previous axle (m)</td> <td>0.00</td> <td>1.90</td> <td>3.57</td> <td>1.32</td> <td>4.90</td> <td>1.30</td> <td>4.10</td> <td>1.30</td> </tr> <tr> <td>Tyre Size</td> <td>Standard</td> <td>Standard</td> <td>Standard</td> <td>Standard</td> <td>Standard</td> <td>Standard</td> <td>Standard</td> <td>Standard</td> </tr> </tbody> </table> <p>* S=Single tyred axle, T=Twin tyred axle, SL=Single Large Tyred Axle, M=Single Mega Tyred Axle</p> <p>The total mass on any individual axle, axle set or combination of axles must not exceed the sum of the mass limits shown for those axles in the table above.</p> <p><b>Critical Conditions</b></p> <ol style="list-style-type: none"> <li>The gross mass of the vehicle with the load must not exceed 56,000 Kilograms.</li> </ol>	Axle number	1	2	3	4	5	6	7	8	Axle type*	S	T	T	T	T	T	T	T	Individual Axle Mass Limit (kg)	5500	5500	8800	8800	8800	8800	8800	8800	Axle Set Mass Limit (kg)	11,000		16,000		16,000		16,000		Axle Combination Mass Limit (kg)	28,000 over axles 1 – 4 (prime mover)				28,000 over axles 5 – 8 (trailer)				Axle Combination Mass Limit (kg)			29,000 over axles 3 – 6						Axle Combination Mass Limit (kg)			42,000 over axles 3 – 8						Spacing from previous axle (m)	0.00	1.90	3.57	1.32	4.90	1.30	4.10	1.30	Tyre Size	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
Axle number	1	2	3	4	5	6	7	8																																																																										
Axle type*	S	T	T	T	T	T	T	T																																																																										
Individual Axle Mass Limit (kg)	5500	5500	8800	8800	8800	8800	8800	8800																																																																										
Axle Set Mass Limit (kg)	11,000		16,000		16,000		16,000																																																																											
Axle Combination Mass Limit (kg)	28,000 over axles 1 – 4 (prime mover)				28,000 over axles 5 – 8 (trailer)																																																																													
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Axle Combination Mass Limit (kg)			42,000 over axles 3 – 8																																																																															
Spacing from previous axle (m)	0.00	1.90	3.57	1.32	4.90	1.30	4.10	1.30																																																																										
Tyre Size	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard																																																																										

Continued on next page

## D6.6 Processing a feasibility application continued

### 2. Creating a feasibility study document (continued)

Step	Action
3	When you have completed the draft feasibility study document, continue with subtask 3. <i>Obtaining local road consents.</i>

### 3. Obtaining local road consents

Follow the steps below to obtain consents from local RCAs in your region for any the local roads requested on the feasibility application that are not pre-approved.

Step	Action
1	Write an email to the local RCAs involved and request their written consent to the inclusion of local roads requested in the feasibility application.
2	Attach the draft feasibility study document to the email and send it to each of the local RCAs.
3	When you have received written replies from all the local RCAs, remove any local roads that are not approved from the feasibility study document.  <b>Note:</b> You do not need to discuss changing the route with the applicant if not all local roads are approved.
4	When you have made all necessary changes to the feasibility study document, continue with subtask 4. <i>Issuing a feasibility study document.</i>

### 4. Issuing a feasibility study document

Follow the steps below to issue a feasibility study document.

Step	Action
1	Remove the typed PIO name and date of signature from the feasibility study document, if applicable, and do not add your signature.  This is an additional measure to ensure that the document cannot be mistaken for a permit.
2	When you are satisfied that all details in the feasibility study document are correct, save it as a PDF file.

*Continued on next page*

## D6.6 Processing a feasibility application continued

### 4. Issuing a feasibility study document (continued)

Step	Action
3	Draft an email to the applicant. Emphasise in your email that the feasibility study document is <b>not a legal permit</b> .
4	Attach the PDF file of the feasibility study document to the email and send it to the applicant.
5	<p>Upload the feasibility study document to the permit portal and update the status of the application.</p> <p>In the 'Update Application' pop-up:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> change the status of the application to <b>Issued</b></li> <li><input type="checkbox"/> in the Permit Number field, record the feasibility number, and</li> <li><input type="checkbox"/> enter the total mass on the feasibility study document.</li> </ul> <div data-bbox="702 918 1284 1153" data-label="Form"> </div>
6	Save all application documents in the application folder.

**End of process** This completes the processing of a feasibility application.





# Chapter D7: General access and HPMV permit mass limits tables

## Overview

### About this chapter

The tables in this chapter show the general access and the HPMV permit mass limits that are specified in the VDAM Rule.

### Comparative table format

The general access and HPMV permit mass limits for individual axles, axle sets and axle groups are shown side by side in this chapter for easy comparison of the different limits as well as the different axle and tyre type specifications.

However, general access and HPMV permit mass limits are not a one-for-one match. There are some differences in axle and tyre type specifications, and some specifications and mass limits that apply to general access do not have an equivalent HPMV specification and mass limit, and vice versa.

**IMPORTANT:** You must pay close attention to the different axle and tyre type specifications that apply to the different mass limits.

### In this chapter

This chapter contains the following sections:

Section	See page
D7.1 Table 1: Maximum mass on individual axles	D7-2
D7.2 Table 2: Maximum sum of axle mass on two axles in a tandem axle set	D7-5
D7.3 Table 3: Maximum sum of axle mass on a tri-axle set	D7-8
D7.4 Table 4: Maximum sum of axle mass on a quad-axle set	D7-9
D7.5 Table 5: Maximum sum of axle mass on any two or more axles not otherwise described	D7-10
D7.6 Table 6: Maximum total mass limits	D7-11
D7.7 Table 7: 45/46t general access mass limits	D7-15

## D7.1 Table 1: Maximum mass on individual axles

**Table 1** This table shows the maximum general access and HPMV permit mass limits on individual axles according to tyre type. A set of two axles less than 1 metre from the centre of the first to the centre of the last axle is counted as one axle.  
**Legislation reference:** VDAM Rule schedule 3, part 1, table 1.1B (general access limits), and part 3, table 3.1 (HPMV limits).

GENERAL ACCESS		HPMV	
Type of axle	Mass limit	Type of axle	Mass limit
<i>Single standard tyres</i>	<i>kg</i>	<i>Single standard tyres</i>	<i>kg</i>
In a twin-steer axle set, or in a tandem axle set with a single large-tyred axle	5500	In a twin-steer axle set, or in a tandem axle set with a twin or single large-tyred axle	5500
In a tandem axle set with a twin-tyred axle:			
• in a passenger service vehicle	5800		
• in any other vehicle	5500		
In any other axle set	6000	In any other axle set	6000
<i>Single large-tyred</i>	<i>kg</i>	<i>Single large-tyred</i>	<i>kg</i>
In a twin-steer axle set or a quad-axle set	5500	In a twin-steer axle set	5500
		In a quad-axle set	6000
In a tandem set with a single large-tyred axle or a single standard-tyred axle or in a tri-axle set	6600	In a tandem axle set with two single large-tyred axles or in a tandem axle set with a single standard-tyred axle or in a tri-axle set	6600
In any other axle set	7200	In any other axle set	7200

*Continued on next page*

## D7.1 Table 1: Maximum mass on individual axles continued

Table 1 (continued)

GENERAL ACCESS		HPMV	
Type of axle	Mass limit	Type of axle	Mass limit
<i>Single mega-tyred</i>		<i>Single mega-tyred</i>	
In a twin-steer axle set	5500	In a twin-steer axle set	5500
In a single-steer axle set	7200	In a single-steer axle set	7200
In a quad-axle set	6000	In a quad-axle set	6000
In a tri-axle set	7000	In a tri-axle set	7000
In any other axle set	7600	In any other axle set	7600
<i>Twin-tyred</i>		<i>Twin-tyred</i>	
In a quad-axle set	6000	In a quad-axle set	6000
In a tri-axle set	7000	In a tri-axle set	7000
In a tandem axle set with a single standard-tyred axle:			
• in a passenger service vehicle	8700		
• in any other vehicle	8200		
In any other axle set:			
• in a public transport service bus	9000		
• in any other vehicle	8200	In any other axle set	8800

Continued on next page

## D7.1 Table 1: Maximum mass on individual axles continued

Table 1 (continued)

GENERAL ACCESS		HPMV	
Type of axle	Mass limit	Type of axle	Mass limit
<i>Oscillating axle</i>	<i>kg</i>	<i>Oscillating axle</i>	
In any axle set	9500	In any axle set	9500

## D7.2 Table 2: Maximum sum of axle mass on two axles in a tandem axle set

**Table 2**

The tables below show the maximum general access and HPMV permit sums of axle mass on two axles in a tandem axle set.

A tandem axle set consists of two axles that are at least 1 metre but no more than 2 metres from the centre of the first to the centre of the last axle.

The 2-metre maximum does not apply to twin-steer axle sets.

**Legislation reference:** VDAM Rule schedule 3, part 1, table 1.2 (general access limits), and part 3, table 3.2 (HPMV limits).

GENERAL ACCESS		HPMV	
Type of axles	Mass limit (kg)	Type of axles	Mass limit (kg)
Two single standard-tyred axles	11,000	Two single standard-tyred axles	11,000
<i>Two single large-tyred axles</i>		<i>Two single large-tyred axles</i>	
In a twin-steer axle set	11,000	In a twin-steer axle set	11,000
Not in a twin-steer axle set	13,000	Not in a twin-steer axle set	13,000
<i>Two single mega-tyred axles</i>		<i>Two single mega-tyred axles</i>	
In a twin-steer axle set	11,000	In a twin-steer axle set	11,000
Not in a twin-steer axle set	14,000	Not in a twin-steer axle set	14,000

*Continued on next page*

## D7.2 Table 2: Maximum sum of axle mass on two axles in a tandem axle set continued

Table 2 (continued)

GENERAL ACCESS		HPMV	
Type of axles	Mass limit	Type of axles	Mass limit
<i>Two twin-tyred axles</i>		<i>Two twin-tyred axles</i>	
Spaced less than 1.3m from the first axle to the last axle	14,500	Spaced less than 1.3m from the first axle to the last axle	15,000
Spaced 1.3m or more but less than 1.8m from the first axle to the last axle	15,000	Spaced 1.3m or more from the first axle to the last axle	16,000
Spaced 1.8m or more from the first axle to the last axle	15,500		
<i>Twin-tyred axle</i>		<i>Twin-tyred axle</i>	
For a passenger service vehicle:			
• with a single standard-tyred axle and load share of 60/40	14,500		
• with a single large-tyred axle or single mega-tyred axle and load share between 60/40 and 55/45	14,500		
For any other vehicle:			
• with a single large-tyred axle or single mega-tyred axle and load share of 60/40	13,600	With a single large-tyred axle or a single mega-tyred axle and load share of 60/40	13,600
• with a single large-tyred axle or a single mega-tyred axle and load share of 55/45	14,500	With a single large-tyred axle or a single mega-tyred axle and load share of 55/45	14,500

Continued on next page

## D7.2 Table 2: Maximum sum of axle mass on two axles in a tandem axle set continued

Table 2 (continued)

GENERAL ACCESS		HPMV	
Type of axles	Mass limit	Type of axles	Mass limit
<i>Single standard-tyred axle</i>	<i>kg</i>	<i>Single standard-tyred axle</i>	<i>kg</i>
With an oscillating axle	13,000	With an oscillating axle	13,000
With a single large-tyred axle or a twin-tyred axle or a single mega-tyred axle	12,000	With a single large-tyred or a single mega-tyred axle	12,000
		With a twin-tyred axle	13,300
<i>Other combinations</i>	<i>kg</i>	<i>Two oscillating axles</i>	<i>kg</i>
Two oscillating axles	15,000	Spaced less than 1.3m from the first axle to the last axle	15,000
		Spaced 1.3m or more from the first axle to the last axle	16,000

## D7.3 Table 3: Maximum sum of axle mass on a tri-axle set

**Table 3**

This table shows the maximum general access and HPMV permit sum of axle mass on a tri-axle set.

A tri-axle set consists of three axles where:

- the axles are spaced at least 2 metres (or 1.8 metres in the case of a single standard-tyred axle) but no more than 3 metres from the centre of the first to the centre of the last axle, and
- all axles contain an equal number of tyres.

**Legislation reference:** VDAM Rule schedule 3, part 1, table 1.3 (general access limits), and part 3, table 3.3 (HPMV limits).

GENERAL ACCESS		HPMV	
Type of axles	Mass limit	Type of axles	Mass limit
<i>Three oscillating axles, three twin-tyred axles, three single large-tyred axles, or three single mega-tyred axles</i>	<i>kg</i>	<i>Three oscillating axles, three twin-tyred axles, three single large-tyred axles, or three single mega-tyred axles</i>	<i>kg</i>
Spaced 2m or more but less than 2.4m from the first axle to the last axle	16,000	Spaced 2m or more but less than 2.4m from the first axle to the last axle	16,000
Spaced 2.4m or more but less than 2.5m from the first axle to the last axle	17,500	Spaced 2.4m or more but less than 2.5m from the first axle to the last axle	18,000
Spaced 2.5m or more from the first axle to the last axle	18,000	Spaced 2.5m or more from the first axle to the last axle	19,000
<i>Three single standard-tyred axles</i>	<i>kg</i>		
Spaced 1.8m or more and less than 3m from the first axle to the last axle	8200		



## D7.4 Table 4: Maximum sum of axle mass on a quad-axle set

**Table 4**

This table shows the maximum general access and HPMV permit sum of axle mass on a quad-axle set.

A quad-axle set consists of four axles where:

- the axles are spaced at least 3.75 metres and no more than 4 metres from the centre of the first to the centre of the last axle
- all axles contain an equal number of tyres, and
- none of the axles is a single standard-tyred axle.

**Legislation reference:** VDAM Rule schedule 3, part 1, table 1.4 (general access limits), and part 3, table 3.4 (HPMV limits).

GENERAL ACCESS		HPMV	
Type of axles	Mass limit	Type of axles	Mass limit
<i>Quad-axle set with...</i>	<i>kg</i>	<i>Quad-axle set with...</i>	<i>kg</i>
Four twin-tyred axles	20,000	Twin-tyred axles	22,000
Four single large-tyred axles		Single large-tyred axles	
Four single mega-tyred axles		Single mega-tyred axles	
		Oscillating axles with at least one steering axle	

## D7.5 Table 5: Maximum sum of axle mass on any two or more axles not otherwise described

**Table 5**

This table shows the maximum general access and HPMV permit sum of mass on any two or more axles that together do not constitute a single tandem axle set, a single tri-axle set or a single quad-axle set, where the distance from the centre of the first axle to the centre of the last axle is 1.0 metre or more but less than 1.8 metres (including maximum gross mass).

**Legislation reference:** VDAM Rule schedule 3, part 1, table 1.5 (general access limits), and part 3, table 3.5 (HPMV limits).

GENERAL ACCESS		HPMV	
Type of axles	Mass limit (kg)	Type of axles	Mass limit (kg)
Two single standard-tyred axles	11,000	Two single standard-tyred axles	11,000
Two single large-tyred axles	12,000	Two single large-tyred axles	12,000
		Two single mega-tyred axles	13,000
A single standard-tyred axle with a single large-tyred axle, single mega-tyred axle or a twin-tyred axle	12,000	A single standard-tyred axle with a single large-tyred axle, single mega-tyred axle or a twin-tyred axle	12,000
Any other two or more axles	14,500	Any other two or more axles	14,500

## D7.6 Table 6: Maximum total mass limits

**Table 6**

This table shows the maximum sum of mass allowed for general access and under an HPMV higher mass permit on any two or more axles that together do not constitute a single tandem axle set, single tri-axle set or single quad-axle set, where the distance from the centre of the first axle to the centre of the last axle is 1.8 metres or more (including maximum gross mass).

**Legislation reference:** VDAM Rule schedule 3, part 2, table 2.1 (general access limits) and part 4 (HPMV limits).

GENERAL ACCESS		HPMV	
Distance from the centre of the first to the centre of the last axle	Mass limit (kg)	Distance from the centre of the first to the centre of the last axle	Mass limit (kg)
1.8m but less than 2.5m	15,500	1.8m but less than 2.0m	15,500
		2.0m but less than 2.5m	16,000
2.5m but less than 3.0m	17,500	2.5m but less than 3.0m	17,500
3.0m but less than 3.3m	19,000	3.0m but less than 3.3m	19,000
3.3m but less than 3.6m	20,000	3.3m but less than 3.6m	20,000
3.6m but less than 4.0m	21,000	3.6m but less than 4.0m	21,000
4.0m but less than 4.4m	22,000	4.0m but less than 4.4m	22,000
4.4m but less than 4.7m	23,000	4.4m but less than 4.5m	23,000
		4.5m but less than 4.7m	23,500
4.7m but less than 5.1m	24,000	4.7m but less than 5.0m	24,000
5.1m but less than 5.4m	25,000	5.0m but less than 5.4m	25,000

*Continued on next page*

## D7.6 Table 6: Maximum total mass limits continued

Table 6 (continued)

GENERAL ACCESS		HPMV	
Distance from the centre of the first to the centre of the last axle	Mass limit (kg)	Distance from the centre of the first to the centre of the last axle	Mass limit (kg)
5.4m but less than 5.8m	26,000	5.4m but less than 5.5m	26,000
		5.5m but less than 5.8m	26,500
5.8m but less than 6.4m	27,000	5.8m but less than 6.0m	27,000
6.4m but less than 7.0m	28,000	6.0m but less than 6.5m	28,000
7.0m but less than 7.6m	29,000	6.5m but less than 7.0m	29,500
7.6m but less than 8.2m	30,000		
8.2m but less than 8.8m	31,000	7.0m but less than 7.5m	31,000
8.8m but less than 9.4m	32,000	7.5m but less than 8.0m	32,500
9.4m but less than 10.0m	33,000		
10.0m but less than 10.8m	34,000	8.0m but less than 8.5m	34,000
10.8m but less than 11.6m	35,000	8.5m but less than 9.0m	35,000
11.6m but less than 12.0m	36,000	9.0m but less than 9.5m	36,000
12.0m but less than 12.5m	37,000	9.5m but less than 10.0m	37,000
12.5m but less than 13.2m	38,000	10.0m but less than 10.5m	38,000
13.2m but less than 14.0m	39,000	10.5m but less than 11.0m	39,000

*Continued on next page*

## D7.6 Table 6: Maximum total mass limits continued

Table 6 (continued)

GENERAL ACCESS		HPMV	
Distance from the centre of the first to the centre of the last axle	Mass limit (kg)	Distance from the centre of the first to the centre of the last axle	Mass limit (kg)
14.0m but less than 14.8m	40,000	11.0m but less than 11.5m	40,000
14.8m but less than 15.2m	41,000	11.5m but less than 12.0m	41,000
15.2m but less than 15.6m	42,000	12.0m but less than 12.5m	42,000
15.6m but less than 16.0m	43,000	12.5m but less than 13.0m	43,000
16.0m or more	44,000	13.0m but less than 13.5m	44,000
<p><b>Note:</b> For 45/46t general access mass limits for heavy motor vehicles with at least 7 or 8 axles and a minimum wheelbase, see section <i>D7.7 Table 7: 45/46t general access mass limits</i>.</p>		13.5m but less than 14.0m	45,000
		14.0m but less than 14.5m	46,000
		14.5m but less than 15.0m	47,000
		15.0m but less than 15.5m	48,000
		15.5m but less than 16.0m	49,000
		16.0m but less than 16.5m	50,000
		16.5m but less than 17.0m	51,000
		17.0m but less than 17.5m	52,000
		17.5m but less than 18.0m	53,000

*Continued on next page*

## D7.6 Table 6: Maximum total mass limits continued

Table 6 (continued)

GENERAL ACCESS		HPMV	
Distance from the centre of the first to the centre of the last axle	Mass limit (kg)	Distance from the centre of the first to the centre of the last axle	Mass limit (kg)
N/A		18.0m but less than 18.5m	54,000
		18.5m but less than 19.0m	55,000
		19.0m but less than 19.5m	56,000
		19.5m but less than 20.0m	57,000
		20.0m but less than 20.5m	58,000
		20.5m but less than 21.0m	59,000
		21.0m but less than 21.5m	60,000
		21.5m but less than 22.0m	61,000
		22.0m or more <sup>1</sup>	62,000 or more <sup>1</sup>

**Note:**

- For distances of more than 22 metres, the maximum allowed mass for a vehicle combination above 62,000kg increases by 1000kg for each 0.5 metre in distance. However, such permit masses would only be available to a vehicle with a non pro-forma overlength permit, which is only granted in exceptional circumstances.

## D7.7 Table 7: 45/46t general access mass limits

### General access limits table 7

This table shows the maximum general access gross mass limits for heavy motor vehicles with at least seven axles and a minimum wheelbase of 16.8 metres.

**Legislation reference:** VDAM Rule schedule 3, part 2, table 2.2.

Axle requirements	Mass limit (kg)
<i>Distance from the centre of the first axle to the centre of the last axle:</i>	
16.8m or more, and a minimum of 7 axles	45,000
17.4m or more, and a minimum of 8 axles	46,000





# Chapter D8: HPMV higher mass permitting resources for manual compliance checks

## Overview

### About this chapter

This chapter contains reference material for processing HPMV higher mass permit applications without a permitting tool like the Waka Kotahi OPermit system. The information provides guidance for manually checking compliance with legal mass limits and templates for use in permits.

### Audience

The audience for this chapter is anyone involved in permitting who may need to manually check mass compliance for an HPMV higher mass permit, for example:

- staff in local road controlling authorities (RCAs) who issue higher mass permits without access to the Waka Kotahi permitting system OPermit
- transport operators, and
- enforcement agents.

### Sample permit forms for local RCAs

Sample VDAM permit forms can be found on the Waka Kotahi website at [nzta.govt.nz/assets/Commercial-Driving/docs/VDAM-Permit-Samples-RCA.pdf](https://nzta.govt.nz/assets/Commercial-Driving/docs/VDAM-Permit-Samples-RCA.pdf).

### In this chapter

This chapter contains the following sections:

Section	See page
D8.1 Critical axle groups for HPMVs	D8-2
D8.2 Manually checking compliance with axle mass limits	D8-6
D8.3 Axle weight flexibility tables for use in permits	D8-13

## D8.1 Critical axle groups for HPMVs

### Definition of axle 'group'

Axle groups are any two or more axles that together do not constitute a single tandem axle set, single tri-axle set, or single quad-axle set, where the distance from the centre of the first axle to the centre of the last axle is 1.8 metres or more.

### VDAM Rule total mass limits apply

Axle groups are subject to the total mass limits in the VDAM Rule schedule 3, part 2 and part 4, which are reproduced above in section *D7.6 Table 6: Maximum total mass limits*.

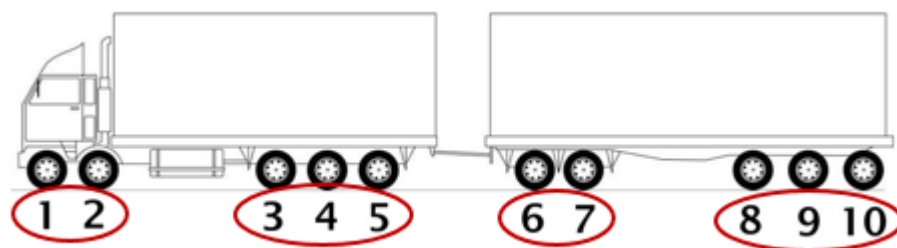
Total mass limits depend on the distance between the first and the last axle and are therefore also referred to as 'distance mass limits'.

### What are 'critical' axle groups?

'Critical axle groups' are the key axle groups in a vehicle combination for checking compliance with the VDAM Rule total mass limits for an HPMV higher mass permit.

### Example

This vehicle combination (an R23T23) has 10 axles numbered from the front and grouped into four sets:



The following critical axle groups should be checked for compliance with the total mass limits in the VDAM Rule:

- 1 to 5 (Truck)
- 3 to 7 (Central five)
- 3 to 10 (Back eight)
- 6 to 10 (Trailer)
- 1 to 10 (Whole combination)

The critical axle groups for other vehicle designs are listed in the table on the following pages.

The total mass limits check is described in section *D8.2 Manually checking compliance with axle mass limits*, subtask 3. *Checking total mass limits*.

*Continued on the next page*

## D8.1 Critical axle groups for HPMVs continued

### Table

The table below shows the critical axle groups for vehicles eligible for HPMV permits.

For diagrams of the different vehicle types, see section *D2.7 Eligible vehicle types and RUC details*.

Vehicle	Critical axle groups (counted from front of vehicle)
<b>R12T22</b> (7 axles)	1 to 3 (Truck) 2 to 5 (Central four) 2 to 7 (Back six) 4 to 7 (Trailer) 1 to 7 (Whole combination)
<b>R12T23</b> (8 axles)	1 to 3 (Truck) 2 to 5 (Central four) 2 to 8 (Back seven) 4 to 8 (Trailer) 1 to 8 (Whole combination)
<b>R22T22</b> (8 axles)	1 to 4 (Truck) 3 to 6 (Central four) 3 to 8 (Back six) 5 to 8 (Trailer) 1 to 8 (Whole combination)
<b>R13T23</b> (9 axles)	1 to 4 (Truck) 2 to 6 (Central five) 2 to 9 (Back eight) 5 to 9 (Trailer) 1 to 9 (Whole combination)
<b>R22T23</b> (9 axles)	1 to 4 (Truck) 3 to 6 (Central four) 3 to 9 (Back seven) 5 to 9 (Trailer) 1 to 9 (Whole combination)
<b>R23T22</b> (9 axles)	1 to 5 (Truck) 3 to 7 (Central five) 3 to 9 (Back seven) 6 to 9 (Trailer) 1 to 9 (Whole combination)

*Continued on next page*

## D8.1 Critical axle groups for HPMVs continued

Table (continued)

Vehicle	Critical axle groups (counted from front of vehicle)
<b>R23T23</b> (10 axles)	1 to 5 (Truck) 3 to 7 (Central five) 3 to 10 (Back eight) 6 to 10 (Trailer) 1 to 10 (Whole combination)
<b>A124</b> (7 axles)	1 to 3 (Truck) 2 to 7 (Back six) 1 to 7 (Whole combination)
<b>A223</b> (7 axles)	1 to 4 (Truck) 3 to 7 (Back five) 1 to 7 (Whole combination)
<b>A134</b> (8 axles)	1 to 4 (Truck) 2 to 8 (Back seven) 1 to 8 (Whole combination)
<b>A224</b> (8 axles)	1 to 4 (Truck) 3 to 8 (Back six) 1 to 8 (Whole combination)
<b>A234</b> (9 axles)	1 to 5 (Truck) 3 to 9 (Back seven) 1 to 9 (Whole combination)
<b>B1222</b> (7 axles)	1 to 3 (Truck) 2 to 5 (Central four) 2 to 7 (Back six) 4 to 7 (Trailers) 1 to 7 (Whole combination)
<b>B1232</b> (8 axles)	1 to 3 (Truck) 2 to 6 (Central five) 2 to 8 (Back seven) 4 to 8 (Trailers) 1 to 8 (Whole combination)

*Continued on next page*

## D8.1 Critical axle groups for HPMVs continued

Table (continued)

Vehicle	Critical axle groups (counted from front of vehicle)
<b>B1233</b> (9 axles)	1 to 3 (Truck) 2 to 6 (Central five) 2 to 9 (Back eight) 4 to 9 (Trailers) 1 to 9 (Whole combination)
<b>B2223</b> (9 axles)	1 to 4 (Truck) 3 to 6 (Central four) 3 to 9 (Back seven) 5 to 9 (Trailers) 1 to 9 (Whole combination)
<b>B2232</b> (9 axles)	1 to 4 (Truck) 3 to 7 (Central five) 3 to 9 (Back seven) 5 to 9 (Trailers) 1 to 9 (Whole combination)
<b>B2233</b> (10 axles)	1 to 4 (Truck) 3 to 7 (Central five) 3 to 10 (Back eight) 5 to 10 (Trailers) 1 to 10 (Whole combination)
<b>B1243</b> (10 axles)	1 to 3 (Truck) 2 to 7 (Central six) 2 to 10 (Back nine) 4 to 10 (Trailers) 1 to 10 (Whole combination)

## D8.2 Manually checking compliance with axle mass limits

### Introduction

This section describes how to manually check whether the axle masses on an HPMV higher mass permit application are within the legal limits prescribed in the VDAM Rule.

If you are a Waka Kotahi PIO or contractor, this check is automatically done by OPermit.

### Which mass limits apply?

The table below gives an overview of which prescribed mass limits in the VDAM Rule apply depending on the axle weight flexibility (AWF) option applied for.

AWF option	Applies to...	Applicable limits in the VDAM Rule...	Or see section...
General access	<ul style="list-style-type: none"> <li>Individual axles</li> <li>Axle sets</li> </ul>	schedule 3, part 1	D7.1 to D7.5 ( <b>General access limits</b> )
	<ul style="list-style-type: none"> <li>Pairs of axle sets</li> </ul>	schedule 3, part 2	<i>D7.6 Table 6: Maximum total mass limits (General access limits)</i>
	<ul style="list-style-type: none"> <li>Groups of 3 or more axle sets</li> </ul>	schedule 3, part 4	<i>D7.6 Table 6: Maximum total mass limits (HPMV limits)</i>
HPMV	<ul style="list-style-type: none"> <li>Individual axles</li> <li>Axle sets</li> </ul>	schedule 3, part 3	D7.1 to D7.5 ( <b>HPMV limits</b> )
	<ul style="list-style-type: none"> <li>Groups of 2 or more axle sets</li> </ul>	schedule 3, part 4	<i>D7.6 Table 6: Maximum total mass limits (HPMV limits)</i>

**Note:** HPMV mass limits apply to all groups of three or more axle sets, regardless of the AWF option applied for.

For more information and examples, see section *D3.6 Determining axle weight flexibility type, total mass and individual axle masses* in volume 1 of this manual.

*Continued on next page*

## D8.2 Manually checking compliance with axle mass limits continued

### Three subtasks

Checking axle mass limits involves the following three subtasks:

1. **Checking individual axle mass limits**
2. **Checking axle set mass limits**, and
3. **Checking total mass** limits (also sometimes referred to as axle distance mass limits or group mass limits).

These three subtasks are explained in detail below.

### 1. Checking individual axle mass limits

Follow the steps below to check individual axle mass limits.

**Legislation reference:** VDAM Rule schedule 3.

Step	Action									
1	Note the axle weight flexibility (AWF) option selected on the application form (either 'General Access' or 'HPMV').									
2	Refer to the unit information on the application form and note: <ul style="list-style-type: none"> <li>– each individual axle type (single standard-tyred, single large-tyred, etc), and</li> <li>– the type of axle set the individual axle is in (twin-steer, tandem, quad-axle, etc).</li> </ul>									
3	Refer to this table to look up the applicable legal mass limit: <table border="1" style="margin: 10px auto;"> <thead> <tr> <th>If the AWF option is...</th> <th>Then refer to the VDAM Rule...</th> <th>Or in this manual...</th> </tr> </thead> <tbody> <tr> <td>General access</td> <td>schedule 3, part 1, table 1.1B</td> <td><i>D7.1 Table 1: Maximum mass on individual axles (General access limits)</i></td> </tr> <tr> <td>HPMV</td> <td>schedule 3, part 3, table 3.1</td> <td><i>D7.1 Table 1: Maximum mass on individual axles (HPMV limits)</i></td> </tr> </tbody> </table> <p>Confirm that the mass applied for on each individual axle is <b>less than or equal to</b> the legal limit.</p>	If the AWF option is...	Then refer to the VDAM Rule...	Or in this manual...	General access	schedule 3, part 1, table 1.1B	<i>D7.1 Table 1: Maximum mass on individual axles (General access limits)</i>	HPMV	schedule 3, part 3, table 3.1	<i>D7.1 Table 1: Maximum mass on individual axles (HPMV limits)</i>
If the AWF option is...	Then refer to the VDAM Rule...	Or in this manual...								
General access	schedule 3, part 1, table 1.1B	<i>D7.1 Table 1: Maximum mass on individual axles (General access limits)</i>								
HPMV	schedule 3, part 3, table 3.1	<i>D7.1 Table 1: Maximum mass on individual axles (HPMV limits)</i>								

*Continued on next page*

## D8.2 Manually checking compliance with axle mass limits continued

### 1. Checking individual axle mass limits (continued)

Step	Action
4	<p>Are the individual axle masses applied for within the legal limits?</p> <ul style="list-style-type: none"> <li>• If <b>yes</b>, go to step 5.</li> <li>• If <b>no</b>, contact the applicant and ask whether the mass can be adjusted to within the legal limit. If no adjustment can be made, decline the application.</li> </ul>
5	Repeat steps 1 to 4 for each vehicle unit applied for.
6	When you have checked all units, continue with subtask 2. <i>Checking axle set mass limits.</i>

### 2. Checking axle set mass limits

Follow the steps below to check axle set mass limits.

**Legal reference:** VDAM Rule schedule 3.

Step	Action									
1	Refer to the unit information on the application form.									
2	<p>Note the axle <b>set types</b> on the unit (tandem, tri-axle or quad-axle set).</p> <p>Add up the total mass for each axle set and make a note of the sums.</p>									
3	<p>Refer to this table to look up the applicable legal mass limit for each axle set:</p> <table border="1"> <thead> <tr> <th>If the AWF option is...</th> <th>Then refer to the VDAM Rule...</th> <th>Or in this manual...</th> </tr> </thead> <tbody> <tr> <td>General access</td> <td>schedule 3, part 1, tables 1.2 to 1.5</td> <td>D7.2 to D7.5 (<b>General access limits</b>)</td> </tr> <tr> <td>HPMV</td> <td>schedule 3, part 3, tables 3.2 to 3.5</td> <td>D7.2 to D7.5 (<b>HPMV limits</b>)</td> </tr> </tbody> </table> <p>Confirm that the mass applied for on each axle set (the sums from step 2) is <b>less than or equal to</b> the legal limit.</p>	If the AWF option is...	Then refer to the VDAM Rule...	Or in this manual...	General access	schedule 3, part 1, tables 1.2 to 1.5	D7.2 to D7.5 ( <b>General access limits</b> )	HPMV	schedule 3, part 3, tables 3.2 to 3.5	D7.2 to D7.5 ( <b>HPMV limits</b> )
If the AWF option is...	Then refer to the VDAM Rule...	Or in this manual...								
General access	schedule 3, part 1, tables 1.2 to 1.5	D7.2 to D7.5 ( <b>General access limits</b> )								
HPMV	schedule 3, part 3, tables 3.2 to 3.5	D7.2 to D7.5 ( <b>HPMV limits</b> )								

*Continued on next page*



## D8.2 Manually checking compliance with axle mass limits continued

### 2. Checking axle set mass limits (continued)

Step	Action
4	<p>Are the axle set masses applied for within the legal limits?</p> <ul style="list-style-type: none"> <li>• If <b>yes</b>, go to step 5.</li> <li>• If <b>no</b>, contact the applicant and ask whether the mass can be adjusted to within the legal limit. If no adjustment can be made, decline the application.</li> </ul>
5	Repeat steps 1 to 4 for each vehicle unit applied for.
6	When you have checked the axle set masses on all units, continue with subtask 3. <i>Checking total mass limits.</i>

### 3. Checking total mass limits

Follow the steps below to confirm that the total mass limits are within legal limits.

**Legislation reference:** VDAM Rule schedule 3.

Step	Action
1	<p>Note the vehicle type indicated on the application form (for example R22T22).</p> <p>For diagrams of all eligible vehicle combinations, see section <i>D2.7 Eligible vehicle types and RUC details.</i></p>
2	<p>Look up the critical axle groups for the vehicle type in section <i>D8.1 Critical axle groups for HPMVs.</i></p> <p>Create a simple 4-column table and record the critical axle groups in the left column as shown in <i>Example of checking total mass limits</i> below.</p>
3	<p>For each critical axle group, calculate the distance from the first axle in the group to the last axle by adding up the spacings between the axles on the application form.</p> <p>Make a note of the distances in the second column of the table you created in step 2.</p>

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## D8.2 Manually checking compliance with axle mass limits continued

### 3. Checking total mass limits (continued)

Step	Action												
4	<p>Calculate the total mass applied for on each critical axle group by adding up the relevant individual axle masses in the group from the application form.</p> <p>Enter the sums in the third column of the table.</p>												
5	<p>Look up the legal mass limit for the distances you calculated in step 3. Use this table for guidance:</p> <table border="1"> <thead> <tr> <th>If the critical axle group has...</th> <th>and axle weight flexibility is...</th> <th>then look up the mass limit in the VDAM Rule...</th> </tr> </thead> <tbody> <tr> <td>2 axle sets</td> <td>General access</td> <td>schedule 3, part 2, table 2.1</td> </tr> <tr> <td></td> <td>HPMV</td> <td>schedule 3, part 4</td> </tr> <tr> <td>3 axle sets</td> <td>either general access or HPMV</td> <td>schedule 3, part 4</td> </tr> </tbody> </table> <p>Enter the legal mass limit for each critical axle group in the fourth column of your table.</p>	If the critical axle group has...	and axle weight flexibility is...	then look up the mass limit in the VDAM Rule...	2 axle sets	General access	schedule 3, part 2, table 2.1		HPMV	schedule 3, part 4	3 axle sets	either general access or HPMV	schedule 3, part 4
If the critical axle group has...	and axle weight flexibility is...	then look up the mass limit in the VDAM Rule...											
2 axle sets	General access	schedule 3, part 2, table 2.1											
	HPMV	schedule 3, part 4											
3 axle sets	either general access or HPMV	schedule 3, part 4											
6	<p>Compare the application masses you calculated in step 4 with the legal limits you looked up in step 5 (the third and fourth columns in your table).</p> <p>Are the application masses <b>less than or equal to</b> the legal limits?</p> <ul style="list-style-type: none"> <li>• If <b>yes</b>, the masses applied for on the critical axle groups comply with the legal mass limits. Continue processing the application.</li> <li>• If <b>no</b>, contact the applicant and ask whether the excess mass can be adjusted to be within the legal limit. If no adjustment can be made, decline the application.</li> </ul>												

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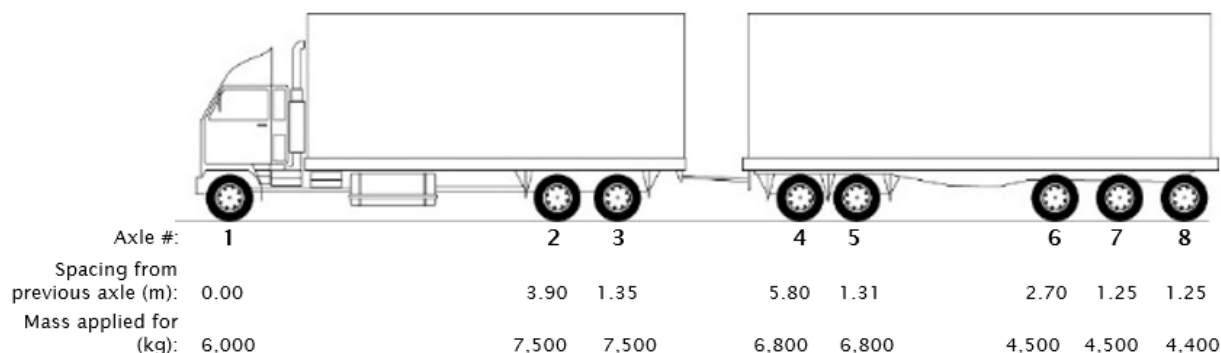
## D8.2 Manually checking compliance with axle mass limits continued

### Example of checking total mass limits

This example illustrates how to do the calculations and checks described in subtask 3. *Checking total mass* limits in section D8.2 above.

#### Sample vehicle

The vehicle in this example is an 8-axle R12T23 combination with the following axle spacings:



#### Axle weight flexibility

The axle weight flexibility (AWF) applied for in this example is general access AWF.

#### Calculations table example:

The table below shows the calculations from subtask 3 for the sample R12T23 vehicle combination:

Critical axle group (step 2 in subtask 3)	Distance from first to last axle (step 3 in subtask 3)	Mass applied for (step 4 in subtask 3)	Legal mass limit for general access AWF (step 5 in subtask 3)
1 to 3 (truck; 2 axle sets)	5.25m	21,000kg	25,000kg
2 to 5 (central four; 2 axle sets)	8.46m	28,600kg	31,000kg
2 to 8 (back seven; 3 axle sets)	13.66m	42,000kg	45,000kg (see <b>Note</b> below table)
4 to 8 (trailer; 2 axle sets)	6.51m	27,000kg	28,000kg
1 to 8 (whole combination; 4 axle sets)	17.56	48,000kg	53,000kg

**Note:** HPMV mass limits apply to **groups of three or more axle sets**, regardless of the AWF option applied for. However, the permit mass limit for the group may need to be lower – see *Permit mass limits* below.

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## D8.2 Manually checking compliance with axle mass limits continued

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### Example of checking total mass limits (continued)

#### *Checking total application masses*

You can quickly check whether the total masses applied for are within the legal limits by comparing the masses in columns 3 and 4 in the calculations table example above.

If the masses applied for exceed the legal limits, you need to contact the applicant and discuss lowering the mass, or you must decline the application.

---

### Permit mass limits

Permit masses can be higher than application masses because of axle weight flexibility – particularly the masses on individual axles and axle sets.

The exception is the mass limit on the permit for a **group of three or more axle sets**, which must be the lesser of:

- the sum of the individual axles in the axle group on the permit application
- the sum of the relevant axle set mass limits, or
- the applicable mass limit in the VDAM Rule schedule 3, part 4.

#### *Permit mass limits must not exceed vehicle design limits*

You should also confirm that the permit mass limits are within the certified ratings of the vehicle. Because of axle weight flexibility, you may need to adjust the permit mass limit to be within the vehicle's safety rating – for details see section *D4.4 Checking permit mass limits are within design limits*.

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## D8.3 Axle weight flexibility tables for use in permits

**Audience** This section is intended for anyone involved in permitting who does not have access to the Waka Kotahi permitting system OPermit, for example staff in local road controlling authorities.

**Axle mass limit tables on permits** HPMV higher mass permits include a table on page 1 of the permit that sets out the detailed axle mass limits for the AWF option applied for (either general access or HPMV).

This section explains the inputs into these tables. It also includes table templates for specific vehicle types that can be copied and used in permit documents.

**Description of inputs** Refer to the notes on the next page for details of what to enter into the fields in the table below.

R22T22 (8 axles)	Truck				Trailer			
Axle Number	1	2	3	4	5	6	7	8
Axle Type*	<i>Copy from application</i>							
Individual Axle Mass Limit (kg)	<i>Input mass limits depending on AWF option (see Note 1)</i>							
Axle Set Mass Limit (kg)	<i>Input mass limits depending on AWF option (see Note 2)</i>							
Axle Group Mass Limit (kg)	<i>Input mass limit based on axle spacing (see Note 3)</i> _____ over axles 1-4 (truck)							
Axle Group Mass Limit (kg)			<i>Input mass limit based on axle spacing (see Note 3)</i> _____ over axles 3-6					
Axle Group Mass Limit (kg)			<i>Input mass limit based on sum of mass on axles 3-8 on permit application (see Note 4)</i> _____ over axles 3-8					
Axle Group Mass Limit (kg)					<i>Input mass limit based on axle spacing (see Note 3)</i> _____ over axles 5-8 (trailer)			
Spacing from previous axle (m)	<i>Copy from application</i>							
Tyre Size	<i>Copy from application</i>							

\* S=Single-tyred axle; SL=Single large-tyred axle; M=Single mega-tyred axle; T=Twin-tyred axle

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## D8.3 Axle weight flexibility tables for use in permits continued

### Note 1:

For **individual axles**, input the mass limits from the general access or HPMV permit mass limit tables as referenced below, depending on the AWF option applied for.

AWF type	Refer to VDAM Rule...	Or in this manual to...
General access	schedule 3, part 1, table 1.1B	<i>D7.1 Table 1: Maximum mass on individual axles (General access limits)</i>
HPMV	schedule 3, part 3, table 3.1	<i>D7.1 Table 1: Maximum mass on individual axles (HPMV limits)</i>

### Note 2:

For **axle sets**, input the mass limits from the general access or HPMV tables as set out below, depending on the AWF type applied for.

AWF type	Refer to VDAM Rule...	Or in this manual to...
General access	schedule 3, part 1, tables 1.2 to 1.5	D7.2 to D7.5 (General access limits)
HPMV	schedule 3, part 3, tables 3.2 to 3.5	D7.2 to D7.5 (HPMV limits)

### Note 3:

For **pairs of axle sets**, input the mass limits from the general access or HPMV tables as set out below, depending on the AWF type applied for, or the sum of the relevant axle set mass limits, whichever is the lesser.

AWF type	Refer to VDAM Rule...	Or in this manual to...
General access	schedule 3, part 2, table 2.1	<i>D7.6 Table 6: Maximum total mass limits (General access limits)</i>
HPMV	schedule 3, part 4	<i>D7.6 Table 6: Maximum total mass limits (HPMV limits)</i>

### Note 4:

Where axle group mass limits are **for three axle sets**, input the lesser of:

- the sum of the individual axles in the axle group on the permit application
- the sum of the relevant axle set mass limits, or
- the applicable mass limit in the VDAM Rule schedule 3, part 4 (HPMV limits apply to groups of three axle sets regardless of the AWF option applied for).

*Continued on next page*

## D8.3 Axle weight flexibility tables for use in permits

continued

### Rigid truck and full trailer combinations

**Note:** The red numbers in the tables refer to the explanatory notes on page D8-14 above.

#### R12T22

(7 axles)

Axle Number	1	2	3	4	5	6	7
Axle Type*							
Individual Axle Mass Limit (kg)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Axle Set Mass Limit (kg)	(2)	(2)		(2)		(2)	
Axle Group Mass Limit (kg)	(3)___ over axles 1–3 (truck)						
Axle Group Mass Limit (kg)			(3)_____ over axles 2–5				
Axle Group Mass Limit (kg)			(4)_____ over axles 2–7				
Spacing from previous axle (m)			(3)_____ over axles 4–7 (trailer)				
Tyre Size							

#### R12T23

(8 axles)

Axle Number	1	2	3	4	5	6	7	8
Axle Type*								
Individual Axle Mass Limit (kg)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Axle Set Mass Limit (kg)	(2)	(2)		(2)		(2)		
Axle Group Mass Limit (kg)	(3)___ over axles 1–3 (truck)							
Axle Group Mass Limit (kg)			(3)_____ over axles 2–5					
Axle Group Mass Limit (kg)			(4)_____ over axles 2–8					
Axle Group Mass Limit (kg)			(3)_____ over axles 4–8 (trailer)					
Spacing from previous axle (m)								
Tyre Size								

*Continued on next page*

## D8.3 Axle weight flexibility tables for use in permits

continued

### R22T22 (8 axles)

Axle Number	1	2	3	4	5	6	7	8
Axle Type*								
Individual Axle Mass Limit (kg)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Axle Set Mass Limit (kg)	(2)		(2)		(2)		(2)	
Axle Group Mass Limit (kg)	(3)_____ over axles 1–4 (truck)							
Axle Group Mass Limit (kg)			(3)_____ over axles 3–6					
Axle Group Mass Limit (kg)			(4)_____ over axles 3–8					
Axle Group Mass Limit (kg)					(3)_____ over axles 5–8 (trailer)			
Spacing from previous axle (m)								
Tyre Size								

### R13T23 (9 axles)

Axle Number	1	2	3	4	5	6	7	8	9
Axle Type*									
Individual Axle Mass Limit (kg)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Axle Set Mass Limit (kg)	(2)	(2)			(2)		(2)		
Axle Group Mass Limit (kg)	(3)_____ over axles 1–4 (truck)								
Axle Group Mass Limit (kg)			(3)_____ over axles 2–6						
Axle Group Mass Limit (kg)			(4)_____ over axles 2–9						
Axle Group Mass Limit (kg)					(3)_____ over axles 5–9 (trailer)				
Spacing from previous axle (m)									
Tyre Size									

Continued on next page



## D8.3 Axle weight flexibility tables for use in permits

continued

### R22T23 (9 axles)

Axle Number	1	2	3	4	5	6	7	8	9
Axle Type*									
Individual Axle Mass Limit (kg)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Axle Set Mass Limit (kg)	(2)		(2)		(2)		(2)		
Axle Group Mass Limit (kg)	(3)_____ over axles 1–4 (truck)								
Axle Group Mass Limit (kg)			(3)_____ over axles 3–6						
Axle Group Mass Limit (kg)			(4)_____ over axles 3–9						
Axle Group Mass Limit (kg)					(3)_____ over axles 5–9 (trailer)				
Spacing from previous axle (m)									
Tyre Size									

### R23T22 (9 axles)

Axle Number	1	2	3	4	5	6	7	8	9
Axle Type*									
Individual Axle Mass Limit (kg)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Axle Set Mass Limit (kg)	(2)		(2)			(2)		(2)	
Axle Group Mass Limit (kg)	(3)_____ over axles 1–5 (truck)								
Axle Group Mass Limit (kg)			(3)_____ over axles 3–7						
Axle Group Mass Limit (kg)			(4)_____ over axles 3–9						
Axle Group Mass Limit (kg)					(3)_____ over axles 6–9 (trailer)				
Spacing from previous axle (m)									
Tyre Size									

Continued on next page

## D8.3 Axle weight flexibility tables for use in permits continued

### R23T23 (10 axles)

Axle Number	1	2	3	4	5	6	7	8	9	10
Axle Type*										
Individual Axle Mass Limit (kg)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Axle Set Mass Limit (kg)	(2)		(2)			(2)		(2)		
Axle Group Mass Limit (kg)	(3)_____ over axles 1–5 (truck)									
Axle Group Mass Limit (kg)			(3)_____ over axles 3–7							
Axle Group Mass Limit (kg)			(4)_____ over axles 3–10							
Axle Group Mass Limit (kg)							(3)_____ over axles 6–10 (trailer)			
Spacing from previous axle (m)										
Tyre Size										

### Truck and semi-trailer combinations

**Note:** The red numbers in the tables refer to the explanatory notes on page D8-14 above.

### A124 (7 axles)

Axle Number	1	2	3	4	5	6	7
Axle Type*							
Individual Axle Mass Limit (kg)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Axle Set Mass Limit (kg)	(2)	(2)		(2)			
Axle Group Mass Limit (kg)	(3)_ over axles 1–3 (truck)						
Axle Group Mass Limit (kg)			(3)_____ over axles 2–7				
Spacing from previous axle (m)							
Tyre Size							

*Continued on next page*

## D8.3 Axle weight flexibility tables for use in permits

continued

### A223 (7 axles)

Axle Number	1	2	3	4	5	6	7
Axle Type*							
Individual Axle Mass Limit (kg)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Axle Set Mass Limit (kg)	(2)		(2)		(2)		
Axle Group Mass Limit (kg)	(3)_____ over axles 1–4 (truck)						
Axle Group Mass Limit (kg)			(3)_____ over axles 3–7				
Spacing from previous axle (m)							
Tyre Size							

### A134 (8 axles)

Axle Number	1	2	3	4	5	6	7	8
Axle Type*								
Individual Axle Mass Limit (kg)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Axle Set Mass Limit (kg)	(2)	(2)			(2)			
Axle Group Mass Limit (kg)	(3)_____ over axles 1–4 (truck)							
Axle Group Mass Limit (kg)		(3)_____ over axles 2–8						
Spacing from previous axle (m)								
Tyre Size								

### A224 (8 axles)

Axle Number	1	2	3	4	5	6	7	8
Axle Type*								
Individual Axle Mass Limit (kg)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Axle Set Mass Limit (kg)	(2)		(2)		(2)			
Axle Group Mass Limit (kg)	(3)_____ over axles 1–4 (truck)							
Axle Group Mass Limit (kg)			(3)_____ over axles 3–8					
Spacing from previous axle (m)								
Tyre Size								

Continued on next page

## D8.3 Axle weight flexibility tables for use in permits continued

### A234 (9 axles)

Axle Number	1	2	3	4	5	6	7	8	9
Axle Type*									
Individual Axle Mass Limit (kg)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Axle Set Mass Limit (kg)	(2)		(2)			(2)			
Axle Group Mass Limit (kg)	(3)_____ over axles 1–5 (truck)								
Axle Group Mass Limit (kg)			(3)_____ over axles 3–9						
Spacing from previous axle (m)									
Tyre Size									

### B-trains

**Note:** The red numbers in the tables refer to the explanatory notes on page D8-14 above.

### B1222 (7 axles)

Axle Number	1	2	3	4	5	6	7
Axle Type*							
Individual Axle Mass Limit (kg)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Axle Set Mass Limit (kg)	(2)	(2)		(2)		(2)	
Axle Group Mass Limit (kg)	(3)_ over axles 1–3 (truck)						
Axle Group Mass Limit (kg)			(3)_____ over axles 2–5				
Axle Group Mass Limit (kg)			(4)_____ over axles 2–7				
Axle Group Mass Limit (kg)					(3)_____ over axles 4–7 (trailers)		
Spacing from previous axle (m)							
Tyre Size							

*Continued on next page*

## D8.3 Axle weight flexibility tables for use in permits

continued

### B1232 (8 axles)

Axle Number	1	2	3	4	5	6	7	8
Axle Type*								
Individual Axle Mass Limit (kg)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Axle Set Mass Limit (kg)	(2)	(2)		(2)			(2)	
Axle Group Mass Limit (kg)	(3) over axles 1–3 (truck)							
Axle Group Mass Limit (kg)				(3) over axles 2–6				
Axle Group Mass Limit (kg)				(4) over axles 2–8				
Axle Group Mass Limit (kg)				(3) over axles 4–8 (trailers)				
Spacing from previous axle (m)								
Tyre Size								

### B1233 (9 axles)

Axle Number	1	2	3	4	5	6	7	8	9
Axle Type*									
Individual Axle Mass Limit (kg)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Axle Set Mass Limit (kg)	(2)	(2)		(2)			(2)		
Axle Group Mass Limit (kg)	(3) over axles 1–3 (truck)								
Axle Group Mass Limit (kg)				(3) over axles 2–6					
Axle Group Mass Limit (kg)				(4) over axles 2–9					
Axle Group Mass Limit (kg)				(3) over axles 4–9 (trailers)					
Spacing from previous axle (m)									
Tyre Size									

Continued on next page

## D8.3 Axle weight flexibility tables for use in permits

continued

### B2223 (9 axles)

Axle Number	1	2	3	4	5	6	7	8	9
Axle Type*									
Individual Axle Mass Limit (kg)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Axle Set Mass Limit (kg)	(2)		(2)		(2)		(2)		
Axle Group Mass Limit (kg)	(3) _____ over axles 1–4 (truck)								
Axle Group Mass Limit (kg)			(3) _____ over axles 3–6						
Axle Group Mass Limit (kg)			(4) _____ over axles 3–9						
Axle Group Mass Limit (kg)					(3) _____ over axles 5–9 (trailers)				
Spacing from previous axle (m)									
Tyre Size									

### B2232 (9 axles)

Axle Number	1	2	3	4	5	6	7	8	9
Axle Type*									
Individual Axle Mass Limit (kg)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Axle Set Mass Limit (kg)	(2)		(2)		(2)		(2)		
Axle Group Mass Limit (kg)	(3) _____ over axles 1–4 (truck)								
Axle Group Mass Limit (kg)			(3) _____ over axles 3–7						
Axle Group Mass Limit (kg)			(4) _____ over axles 3–9						
Axle Group Mass Limit (kg)					(3) _____ over axles 5–9 (trailers)				
Spacing from previous axle (m)									
Tyre Size									

Continued on next page

## D8.3 Axle weight flexibility tables for use in permits

continued

### B2233 (10 axles)

Axle Number	1	2	3	4	5	6	7	8	9	10
Axle Type*										
Individual Axle Mass Limit (kg)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Axle Set Mass Limit (kg)	(2)		(2)		(2)			(2)		
Axle Group Mass Limit (kg)	(3)_____ over axles 1–4 (truck)									
Axle Group Mass Limit (kg)			(3)_____ over axles 3–7							
Axle Group Mass Limit (kg)			(4)_____ over axles 3–10							
Axle Group Mass Limit (kg)			(3)_____ over axles 5–10 (trailers)							
Spacing from previous axle (m)										
Tyre Size										

### B1243 (10 axles)

Axle Number	1	2	3	4	5	6	7	8	9	10
Axle Type*										
Individual Axle Mass Limit (kg)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Axle Set Mass Limit (kg)	(2)	(2)		(2)				(2)		
Axle Group Mass Limit (kg)	(3) over axles 1–3 (truck)									
Axle Group Mass Limit (kg)			(3)_____ over axles 2–7							
Axle Group Mass Limit (kg)			(4)_____ over axles 2–10							
Axle Group Mass Limit (kg)			(3)_____ over axles 4–10 (trailers)							
Spacing from previous axle (m)										
Tyre Size										