HEAVY VEHICLE INDUSTRY AUSTRALIA



HVIA Submission

On the TfNSW 'Future Mobility Testing and Research Centre' draft designs

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Heavy Vehicle Industry Australia
Represents and advances the interests of manufacturers and suppliers of heavy vehicles and their components, equipment and technology.

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Background

Heavy Vehicle Industry Australia (HVIA) is the peak industry association for Australian manufacturers of trucks and trailers (collectively referred to as heavy vehicles), as well as the dealerships, repairers, suppliers, and service providers that support the entire industry. We represent almost every major truck manufacturer/importer, all of Australia's major trailer manufacturers, and an ever-growing list of their component, equipment and technology providers.

HVIA's 300-plus corporate members collectively employ a local workforce of over 70,000 staff. Our member's interests cover an extensive range of vehicles, starting with 3.5-tonne light commercial trucks, and extending all the way up to Australia's unique 50-metre long, 100-tonne road trains.

The industry provides some of the world's most efficient, safe, innovative, and technologically advanced vehicles. HVIA seeks to work with government and industry stakeholders to promote an innovative and prosperous industry that supports a safe and productive heavy vehicle fleet operating for the benefit of all Australians.

Introduction

HVIA commends Transport for NSW (TfNSW) on the development of the proposed Future Mobility Testing and Research Centre.

The heavy vehicle industry in Australia is currently undergoing extensive technological innovation and change. The development of decarbonisation technologies and vehicles, advanced vehicle safety features, vehicle autonomy, and the continued expansion of Australia's unique Performance Based Standards (PBS) scheme are all driving demand for well-equipped local vehicle testing facilities.

A local state-of-the-art facility will support the Australian industry by allowing tests to be conducted within our shores and may also attract interest from overseas manufacturers lacking their own facilities.

HVIA has canvassed views from members involved in heavy vehicle testing. The expertise of HVIA members is closer to the design of vehicles, rather than their impacts on roads and surfaces. Therefore, HVIA suggests that TfNSW engage with qualified and experienced road design engineers on the specifics of details on facility road geometry and pavement design.

Nonetheless, within the boundaries of its members experience, HVIA has collated a range of suggestions and recommendations for TfNSW to consider in the development of the proposed Future Mobility Testing and Research Centre.

HVIA recommendations

At a high level, the facility should be configured to enable a wide range of tests to be completed, including:

- Australian Design Rules (ADR) tests applicable to heavy vehicles
- PBS tests
- Other non-regulatory whole-of-vehicle tests typically conducted by vehicle, trailer and component manufacturers including ride/handling, durability, and noise/vibration/harshness tests.

To complete the above tests, the facility will need to:

- be large enough to accommodate large heavy vehicle combinations, potentially including road trains up to 50 metres overall length and weighing over 100 tonnes gross mass, and special purpose vehicles such as cranes

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- have sufficient length and geometry to enable those combinations and vehicles to accelerate to highway speeds when fully laden
- have surfaces of sufficient strength to withstand the axle loads (i.e. vertical loads) and sheer forces (i.e. horizontal loads) imparted by vehicles with heavy axle loads (i.e. up to 10 tonnes on a single steer axle, and up to 30 tonnes on a quad axle group)
- feature a ride and handling circuit, gradient roads, gravel and rough roads, rumble strips, low friction surfaces, and an area for noise testing.

To support the test activities, the facility must be fully self-contained, as there is no industry nor retail in the nearby area. The following services need to be made available on site:

- vehicle fuel (i.e. diesel and petrol available from bowsers)
- vehicle charging for electric vehicles of all sizes
- hydrogen refuelling for hydrogen combustion and fuel cell vehicles
- a range of solid weights (e.g. concrete blocks) and loading facilities (e.g. forklifts or cranes)
- heavy-duty outriggers (for vehicle and trailer rollover testing)
- a large hardstand for parking of heavy vehicles and combinations
- emergency service facilities (e.g. dams and pumps for firefighting)
- offices, meeting rooms, presentation rooms, washing/toilet areas, catering
- suitable telecommunication facilities (e.g. mobile and internet) to allow remote working
- a weighbridge to confirm vehicle masses (i.e. minimum length 25-30 metres, multi-deck to allow split weighing of axle groups without the need to move vehicles)
- a truck/trailer wash area.

The facility should also feature on-site heavy vehicle workshops that are set up to facilitate ‘forward’ entry and exit, with suitable geometry of the entry and exit roads to accommodate heavy vehicle combinations. They should also feature:

- service pits and/or hoists
- compressed air lines
- warm/cold water, sinks
- basic workshop equipment/tools (e.g. heavy lift jacks, chocks) and first aid.

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