

# Rail Academy Newport – Signalling Upgrades

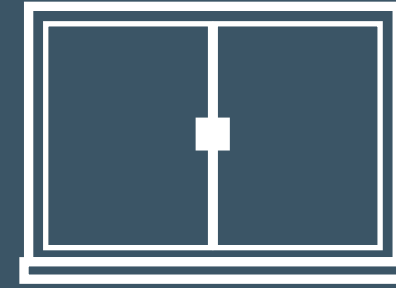
## Courseware Development for Signalling Design and Testing

The MTIA Strategic Signalling Taskforce (SST) has successfully developed new courseware tailored for signalling design and testing roles. This aligns with a revised signalling competency framework designed in collaboration with Metro Trains Melbourne (MTM) and V/Line.

To support the delivery of this coursework, MTM was engaged to project manage the construction and commissioning of crucial signalling upgrades at the Rail Academy Newport (RAN). This cost-effective solution enhances the Academy's facilities by providing state-of-the-art equipment that mirrors real-world signalling systems.

Signal equipment upgrades were made to the existing 550m section of double track and complimented the existing signalling equipment, upgrades are now complete and ready for use in November 2024.

The upgraded signalling system not only enhances RAN's capabilities but also provides significant benefits to the rail industry. By offering hands-on, practical learning experiences, the facility now serves as an ideal destination for training rail operators and suppliers, helping them meet the evolving needs of the industry.

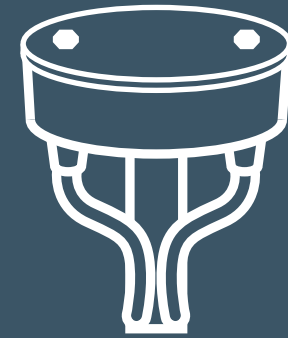


### 1 Signalling Zone Box

A centralised control point installed to manage the new signalling components.

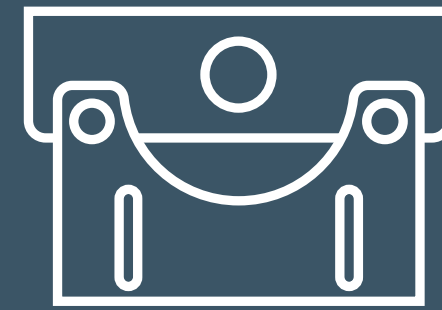
### 2 TPWS Disconnection Boxes

Installed to facilitate maintenance and testing by allowing safe disconnection of the TPWS equipment from the trackside.



### 15 Axle Counters

Installed along multiple zones of track to enhance train detection and track occupancy monitoring, improving safety and efficiency.



### 10 GAKs (Trackside Connection Boxes)

Essential trackside connection points that integrate various signalling components, ensuring reliable communication and control across the track network.



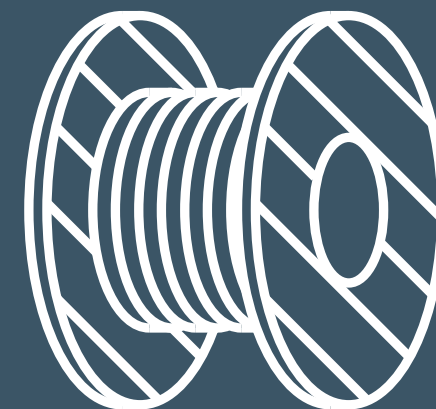
### 1 TPWS

A train protection warning system installed to prevent signal overruns and enhance operational safety on the track, including Over Speed Sensors (OSS) and Train Stop Systems (TSS) for comprehensive safety management.



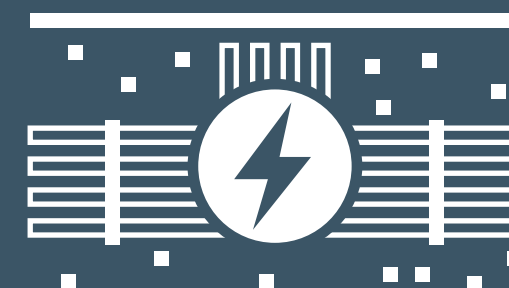
### 1 Set of Pedestrian Gates

Used to ensure pedestrians are physically stopped from crossing track when rail traffic is in close proximity.



### 2000m of Signalling Cable

Installed to support the new signalling infrastructure, providing reliable communication and control across the track.



### 200m of Cable Route

Conduit buried underground to safely house and protect the signalling cables, ensuring secure connectivity between pits and enhancing the durability of the cable network.

#### New assets, include but not limited to:

- Signalling enclosures
- Axle counter disconnection boxes
- Track protection warning system (TPWS) disconnection boxes
- Signage posts
- Signals
- Upgraded pedestrian crossing with active controls
- Upgrade of existing railway crossing boom mechanism and arm
- Interfacing to existing cable routes as required to support cable running works