

THIRD PARTIES COMPLETING UNDER TRACK BORES AND EXCAVATING ON V/LINE LEASED LAND

Key Requirements and Recommendations for Working Under Railway Tracks

Under Track Crossings

- **Orientation:** Ensure that all under track crossings intersect the railway tracks at a 90-degree angle, unless otherwise approved in writing by V/Line.

Pit Location

- **Restriction:** No temporary or permanent pits are permitted on V/Line lease areas.
- **Protection:** Construction pits must be covered and protected when the contractor is not on site.

Ground Settlement

- **Liability:** Contractors are responsible for any ground settlement that occurs after excavation.
- **Correction:** Contractors must rectify and restore the ground to V/Line's satisfaction. If the contractor fails to do so, V/Line will carry out the necessary work and invoice the contractor.

Construction Methodologies

- **Recommendation:** Consult V/Line regarding construction methodologies before beginning work to ensure alignment with their requirements.

Service Location

- **Requirement:** All underground services within V/Line lease areas must be located and proved before excavation starts.
- **Note:** V/Line's underground obstacles are not listed on Before You Dig Australia. Contractors must independently locate these obstacles.

Geotechnical Investigation

- **Boreholes:** Drill at least 4 geotechnical bores within the rail reserve.
 - **Coverage:** Ensure bores are on both sides of the railway tracks.
 - **Proximity:** Place at least 2 bores on each side of the tracks, situated close to but outside the danger zone.

Design Compliance

- **Basis:** Approval from Victrack or other third parties does not constitute V/Line approval.
 - **Compliance:** Design and construction must be based on the verified location of services and the geotechnical data obtained from the required investigation.

Standards Compliance

- *Minimum Requirement:* All under track bores must comply with AS4799 and V/Line standards.
- *BoreHole Diameter and Train Running:*
 - *Less Than 100mm Diameter:* Can be completed while trains are running, adhering to rail safe-working procedures.
 - *Greater Than 100mm Diameter:* Preferably completed when no trains are running. Applicants must meet specific standards and requirements for these conditions.
- *Demonstration:* Applicants must show their capability to adhere to the outlined standards for under track bores.

Ensure adherence to these guidelines to maintain safety compliance and efficient project execution.

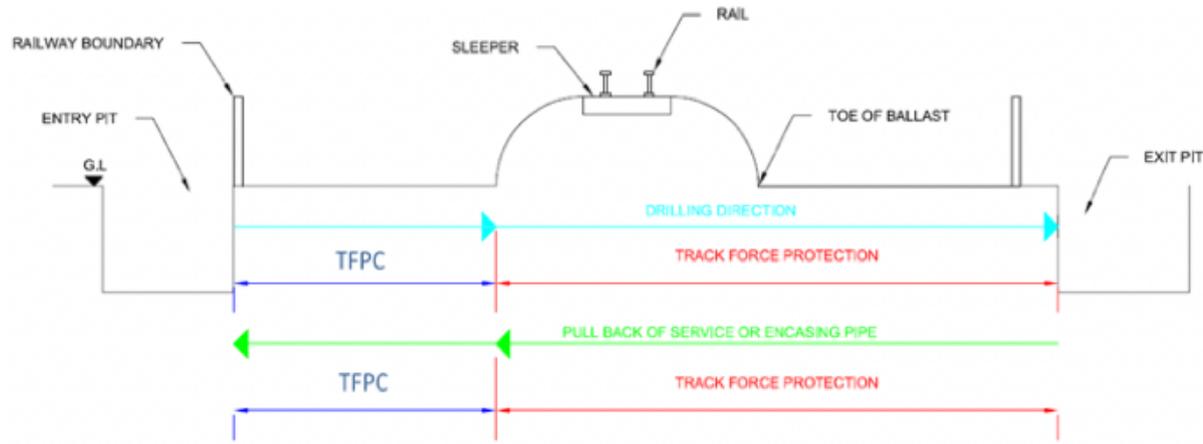
1. HDD – Holes greater than 100 mm diameter

1.1. Encasing pipe

A track force protection co-ordinator (TFPC) must be on site as soon as the bore head enters the rail reserve. Track protection shall be in place from the time the bore commences to travel from the toe of the ballast on one side of the track. The protection shall remain in place until such time as the encasing pipe has been installed from the exit pit back to the entry pit at the toe of the ballast and the grouting between the borehole and encasing pipe has been completed. If a construction shift ceases prior to completing the encasing pipe installation and grouting, track protection shall remain in place until after the passage of the last train and be back in place before the passage of the first train.

1.2. No encasing pipe – Service pipe

A TFPC must be on site as soon as the bore head enters the rail reserve. Track protection shall be in place from the time the bore commences to travel from the toe of the ballast on one side of the track. The protection shall remain in place until such time as the service pipe has been installed from the exit pit back to the entry pit at the toe of the ballast and the grouting between the borehole and service pipe has been completed. If a construction shift ceases prior to completing the service pipe installation and grouting, track protection shall remain in place until after the passage of the last train and be back in place before the passage of the first train.

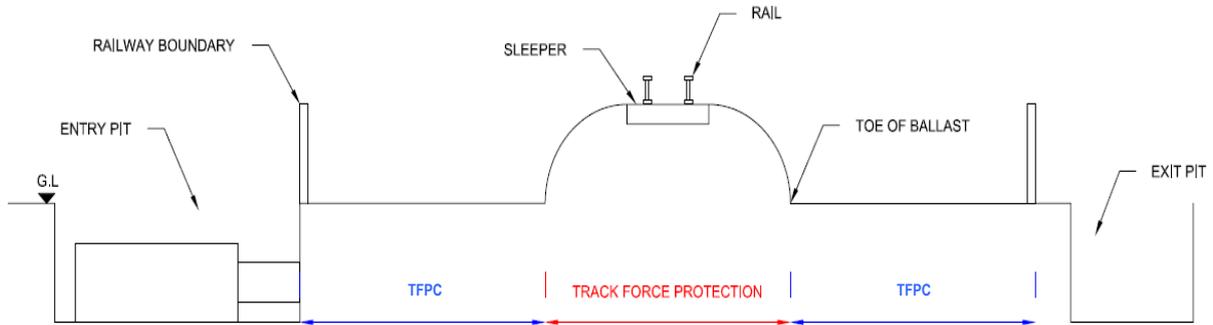


2. Holes greater than 100 mm diameter (Other than HDD - pipe jacking, micro-tunnelling etc.)

2.1. Encasing or Service pipe

A TFPC must be on site as soon as the cutter head enters the rail reserve. Track protection shall be in place from the time the cutter head commences to travel from the toe of the ballast on one side of the track until it reaches the toe of the ballast on the other side of the track. If a construction shift ceases prior to completing the installation from one side of the toe of the ballast to the other side of the ballast, then the encasing or service pipe must be pushed right up to the cutter head to ensure there is no void between the pipe and the cutter head, and at this point the track protection can cease. Once drilling continues the track protection must be in place again until it reaches the opposite side of the ballast and from this point onwards a TFPC will be sufficient. If the annulus

between the borehole and encasing/service pipe needs to be grouted, then it must be grouted with track protection in place.



3. Track monitoring requirements for all under track bores greater than 100 mm diameter

The track must be monitored at all times during all under track bores and grouting works to ensure that the geometry of the track is not compromised. The third party must make arrangements to have a competent person monitor the rail to V/Lines track geometry standard NIST 2706 and demonstrate how they will do so. The monitoring must occur 20 meters either side of the bore (40 meters in total) at 2-metre intervals. The survey must be recorded at regular intervals and must be available to V/Line upon request. If a construction shift ceases prior to completing the installation of the encasing pipe or service pipe, track monitoring shall remain in place until after the last train and be in place prior to the first train passes.

