



## MINIMUM REQUIREMENT FOR PRIVATE PROPERTY INSTALLATION FOR THE GREEN PIPE®

**For use under Victorian Public roads please refer to AS/NZS 2566.2 Part 2 “Installation”**

### **SITE PREPARATION:**

Trenches should be excavated as narrow as practical to allow efficient installation. All rocks, tree roots and other hard objects should be removed.

When installation is under an embankment the same precautions as above should be adopted where possible.

### **Trench depth:**

Minimum cover depths are determined by the proposed load that you intend the pipes to handle. The depths shown below are for legal axle loads as advised by State or Federal road authorities.

### **Trench width:**

The width of the trench should be kept to the minimum necessary to ensure safe working whilst ensuring stable compaction and reduce installation costs.

If you have unstable soil conditions it may be necessary to shore up trench walls or cut a sub-trench in the floor of your main trench.

**The minimum cover & width you should allow for adequate compaction and load protection.**

<b>The Green Pipe Diameter</b>	<b>Minimum cover over Crown of pipe</b>	<b>Recommended Trench Width</b>
250 mm (10")	300 mm	500 mm
300 mm (12")	350 mm	500 mm
375 mm (15")	450 mm	700 mm
450 mm (18")	600 mm	700 mm
525 mm (21")	700 mm	800 mm
600 mm (24")	800 mm	900 mm

### **Bedding Material**

Wherever necessary bedding material must be added to the bottom of the trench to ensure uniform support along its entire length. Holes should be dug under the bell-mouth ends or joints to provide even support along the pipe. Bedding should be laid in a continuous layer, 75mm thick, of materials, which comply with the following:

Continued



## **INSTALLATION PROCEDURES (cont.)**

- a) Gravel or crushed rock of suitable grading no larger than 15 mm in size.
- b) Sand on a 13 mm sieve that contains no rocks, hard or sharp objects.
- c) The excavated material can be used providing provided that it meets with the essential requirements of (a) and/or (b) and it is free of rocks.

Trenches should be free of any groundwater and in unstable soils additional bedding material and geofabric may be required to ensure pipes are installed with a sound foundation.

### **Side support:**

For a successful installation **it is critical to achieve correct compaction of materials for side support. Recommended compaction is to 95% dry density.** Incorrect embedment of side support materials may cause instability.

Build up side compaction evenly to avoid disturbing the pipe alignment.

Materials used for side support should comply with the requirements listed for Bedding Material.

Side support material should be evenly tamped in layers of between 75mm and 150mm (dependant upon pipe size) to an even surface finish.

Side support material compaction should be continued over the height of the pipe to a minimum of 200mm. This overlay protects the pipe during final backfill

In embankment installations the side fills should be brought up evenly on both sides and continued to surround the pipe by 300mm or twice the diameter of the pipe; whichever is the greater.

### **Backfill:**

The remainder of the trench or embankment can be filled with excavated materials providing it does not contain large rocks, hard or sharp objects and is evenly compacted in 200mm increments.

Backfill should not be used to dump rubbish or unwanted materials. Failure to backfill correctly may contaminate your installation with rocks or other sharp objects leading to pipe invasion or breakage.

### **Pipe Deflection:**

Pipe deflection should always be checked on completion of installation and any noticeable deflection (over 5%) requires immediate review of the compaction, bedding materials and installation techniques used.

### **Note:**

Correct installation procedures, bedding, side support, overlay and backfill materials are essential for a successful installation and the long-term life and performance of your pipe. Particular care must be taken if you have unstable soils or high levels of ground water trench contamination.

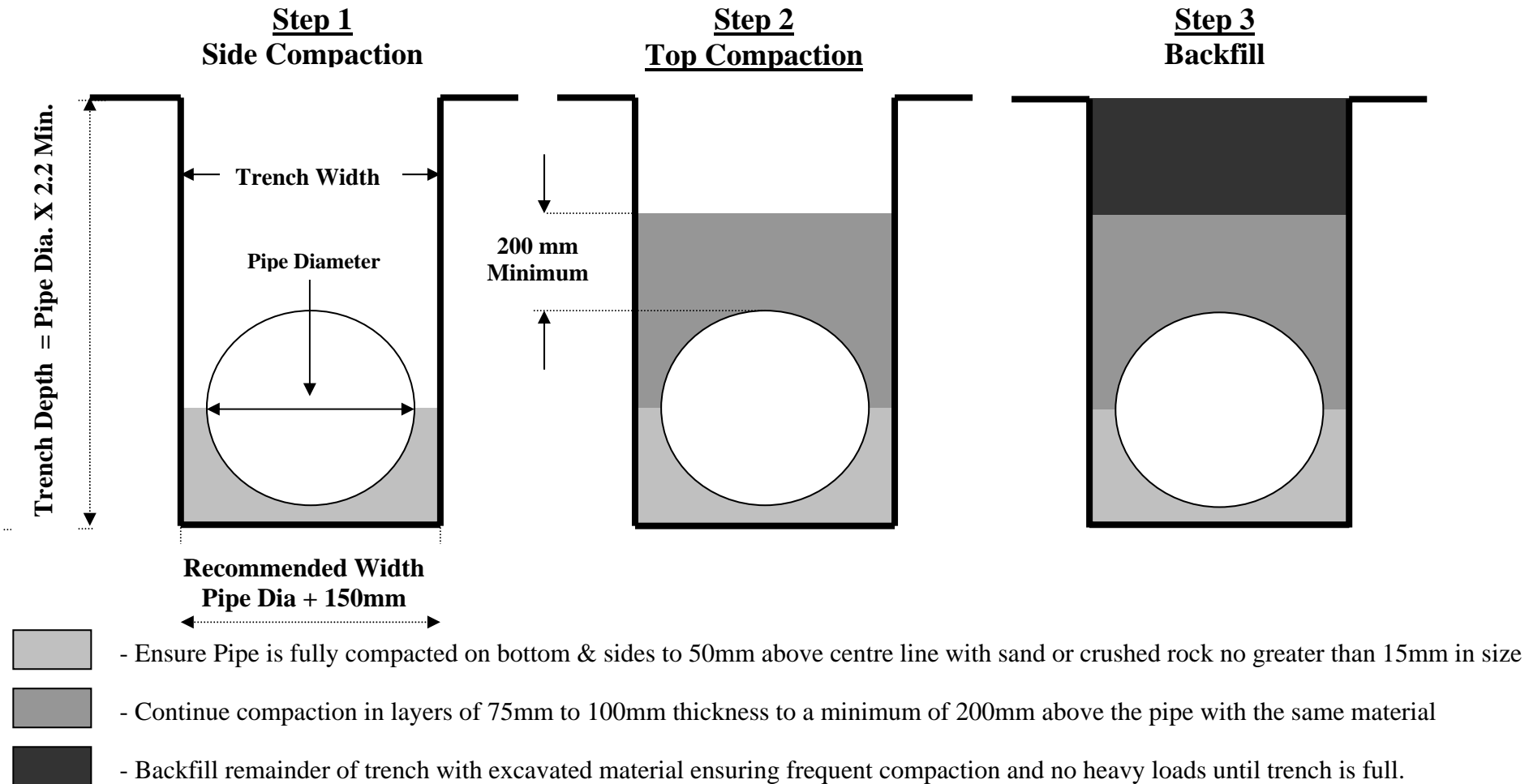
**DO IT RIGHT.....DO IT ONCE**

**To ensure optimum performance of your RPT Green Pipe the above installation procedures must be followed. Failure to follow all of the above procedures will void all written or implied warranties for The Green Pipe.**

If you require further information please contact RPT on 03 5480 7060 or fax your enquiry to 03 5482 4665

## REQUIRMENT FOR PRIVATE PROPERTY INSTALLATION FOR THE GREEN PIPE

*For use under Public roads please refer to AS/NZS 2566.2 Part 2 "Installation"*



**Installed correctly to these instructions will ensure satisfactory performance of The Green Pipe in culvert application. Failure to follow these instructions may result in the pipe collapsing under heavy loads and may void any warranty.**