



Sustainability – Resource Smart Design

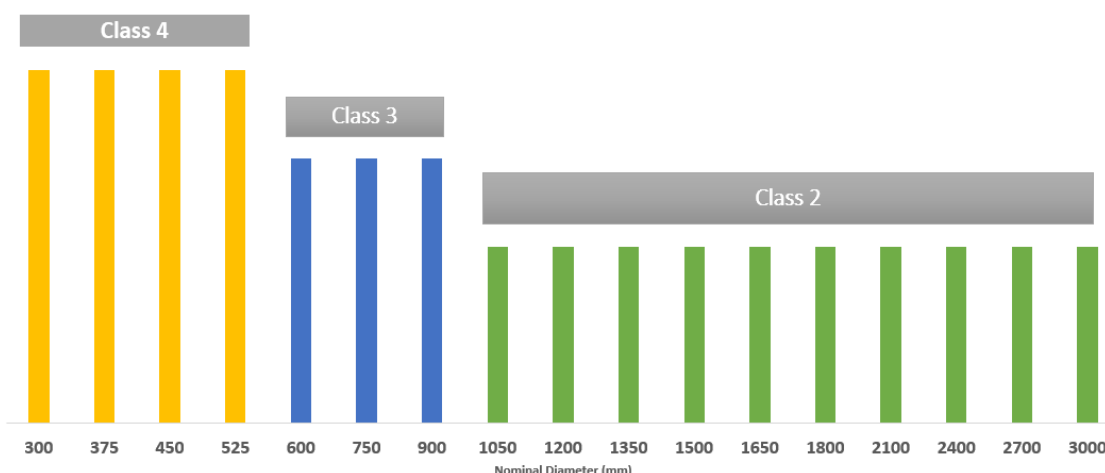
The installed design of a rigid wall steel reinforced concrete pipe is performed in accordance with AS/NZS 3725 Design for Installation of Buried Concrete Pipe. The standard provides a range of support types that can be used in conjunction with a range of class of pipe detailed in AS/NZS 4058 Precast concrete pipes (pressure and non-pressure).

Designing for sustainability impacts requires us to think “resource smart”.

Concrete pipe offers the designer and asset owner valuable resource smart attributes:

- Concrete pipe comes in a range of strength classes allowing designs to be material efficient by selecting the class of pipe needed to do the job.
- Concrete pipe installed support types can be selected based on a minimum use of imported granular materials. Less imported material to construct a pipeline greatly reduces the carbon footprint of a pipeline

**SUSTAINABLE DESIGN - USE LESS MATERIALS
ADOPT MINIMUM SUPPORT AND CLASS REQUIRED**
Class of pipe required for 0.4m fill height with SM1600 live loading* and H1 Support Type



*worst load case in range 0.4 to 2.0m fill for application of AS5100 loads in accordance with AS/NZS 3725 adopting minimum trench width for trench condition

as it reduces the material, reduces the transport of the material to site, and reduces the transport of excess trench spoil from site. No more than a class 4 combined with H1 support is required to withstand SM1600 design loading at 400mm height of cover **.

- Concrete pipe is 100% recyclable. It is recycled on exhumation, processed on site with steel heading for recycling and concrete crushed and re-purposed as a recycled aggregate.
- Concrete pipe contains recycled and waste materials such as recycled steel, flyash, and slag.
- Concrete pipe is easily repairable if damaged, compatible with standard concrete repair materials.
- Concrete pipe autogenously heals.
- Concrete pipe increases strength with age.
- Concrete pipes ultimate load strength is at least 150% of the design load strength, building in resilience to unforeseen overload.
- Concrete pipe's longevity is proven, often outlasting the internationally accepted design life of 100 years.
- Concrete pipe is Resilient to catastrophic events such as flooding and bush fires.

** Design in accordance with AS/NZS 3725. H1 bedding factor of 1.5. minimum trench width, trench condition