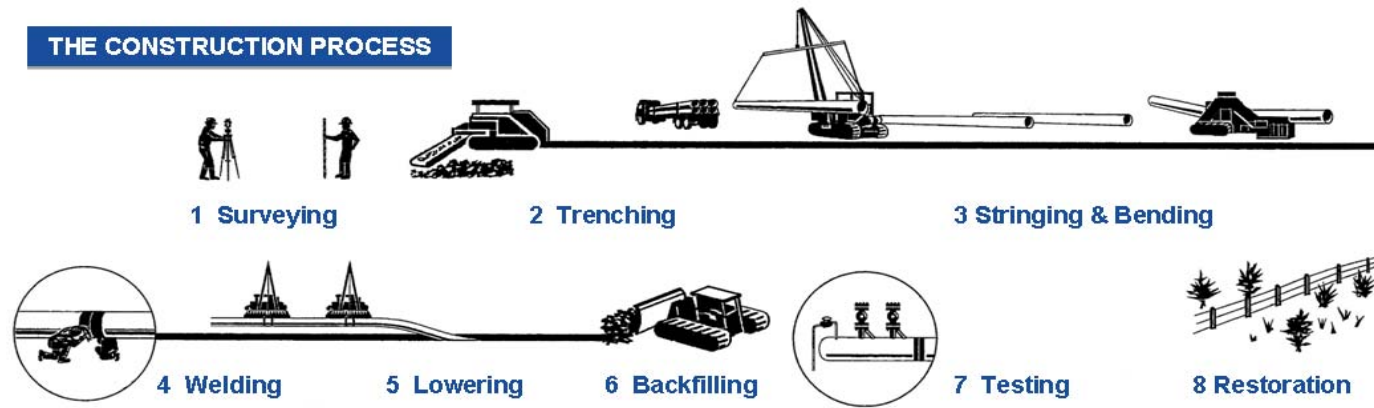


THE CONSTRUCTION PROCESS



Pipeline construction steps

The construction process involves the following general stages however they may vary as a result of the design and construction specifications that are yet to be developed:

- 1. Surveying** Site surveys and studies are undertaken to ensure the pipeline is located and built to match construction techniques and environment and heritage protection measures.
- 2. Trenching** The trench is excavated for the pipe with excavation materials stockpiled for backfill and excess materials to be removed to a clean fill site.
- 3. Stringing and Bending** Pipe that has already been inspected for integrity is laid end to end adjacent to the trench. Where necessary the pipe is bent to conform to land contours.
- 4. Welding** Pipe segments are welded together & the joints are sealed.
- 5. Lowering** The pipe is lowered into the trench in sections by side-boom cranes or excavators.
- 6. Backfilling** The pipe is covered with fine materials that do not damage its protective coating. The trench filled & compacted in layers & the road pavement is constructed to Council specifications.
- 7. Testing** The entire pipeline is pressure tested with water to ensure the integrity of the pipe & the welded joints.
- 8. Restoration** Following construction the grassed road reserve is restored as close as possible to its original condition prior to construction with suitable topsoil & appropriate grass seed.



Geotechnical testing to investigate ground conditions



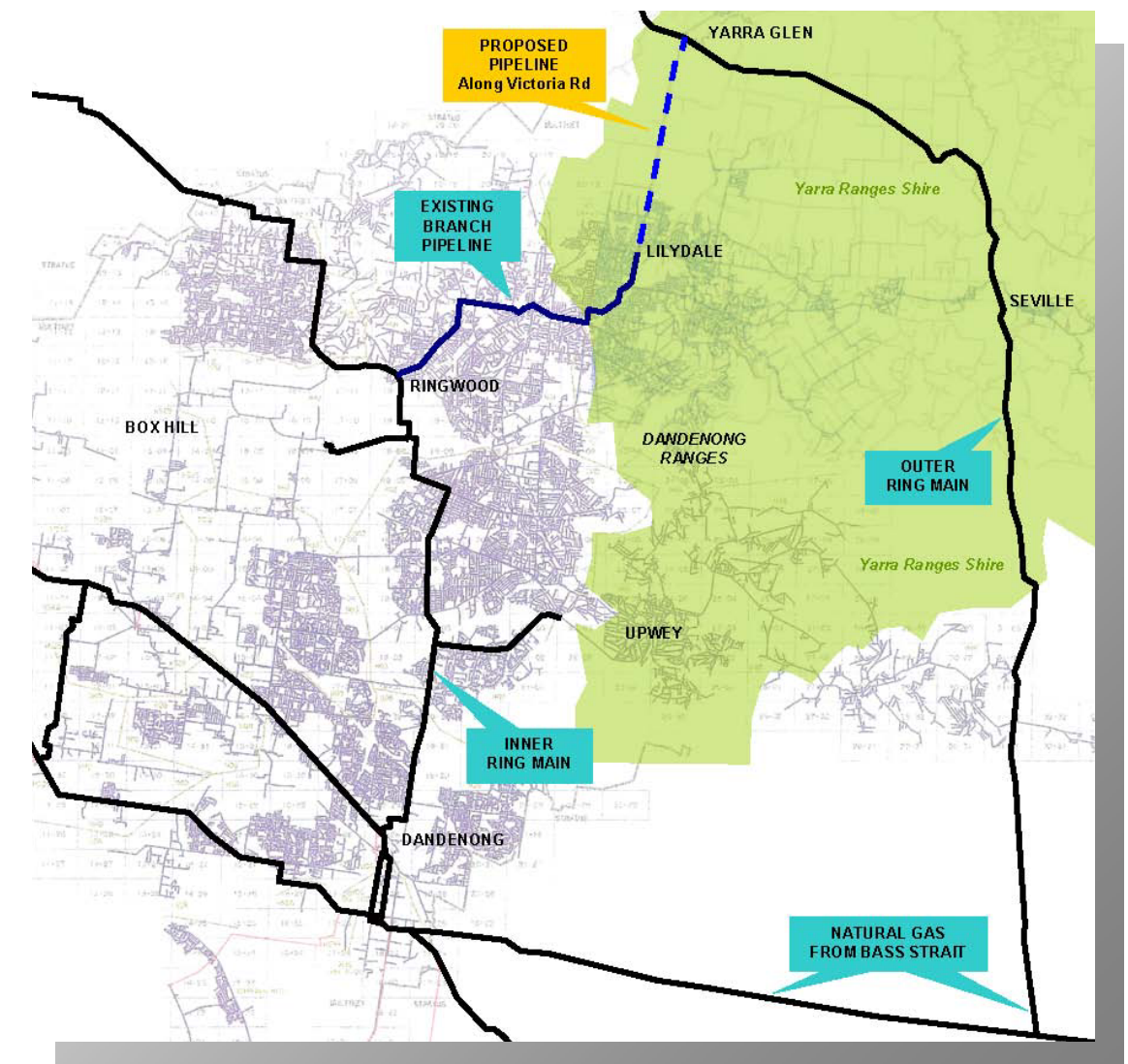
Ensuring Gas Supply Security – outer eastern region

Multinet Gas is a natural gas distributor with a network servicing the densely populated inner and outer eastern and south-eastern suburbs of Melbourne. The network includes approximately 9,800 kilometres of pipelines supplying approximately 660,000 domestic and business customers. In the outer eastern region its distribution network extends to Lilydale, Yarra Glen, Millgrove and to locations across the Dandenong Ranges.

To meet current and rapidly growing demand in the outer east and to reinforce the security of supply it has become necessary to increase the capacity of existing transmission pipelines that transport natural gas to the region.

“In preparation for the winter of 2012 it is essential to increase the volume of gas available to the distribution network that supplies our customers,” said Mike Fajdiga, Chief Operating Officer of Multinet Gas. *“We have obligations under the Gas Act, Gas Distribution Code and our Licence for security standards and to maintain the delivery pressure of gas to customers.”*

An existing transmission branch pipeline runs along Hull Rd and Manchester Rd to an existing underground Regulator Station on the north side of the Maroondah Highway at its intersection with Victoria Road. Multinet Gas has contracted Jemena Asset Management to undertake the design, construction, operation and maintenance of a new transmission link approximately 10 km in length along Victoria Road connecting the Outer Ring Main in Yarra Glen to the Lilydale Branch Pipeline (see map).





Safety design

In Australia pipelines of this type are required to meet stringent safety standards. The Project will comply with the requirements of the Pipelines Act 2005, its Regulations, Codes and Standards, and Australian Standard AS2885.

Jemena's Project manager, Jonathan Spink explains, "Safety aspects addressed in the Australian Standard include design, construction, operation and maintenance. Particular attention is given to wall thickness, fracture factor toughness, depth of cover, marking indicators and signs."

With a wall thickness of 13.5 millimeters in built up residential areas the pipe has a high fracture toughness to ensure safety against damage. Welding is carried out by specialist pipeline welders then each weld is x-rayed to assure the welding integrity. Prior to commissioning the pipeline is sealed off, filled with water and pressurized to 150 percent of the future gas pressure. This pressure is held and monitored over a 24 hour period to check the entire pipeline for integrity.

The 30cm diameter pipeline will be installed at a depth of 1.0 to 1.2 metres.

Community Consultation

A second Community Display will be held at the Chirside Park Shopping Centre to provide information, answer questions and receive feedback from members of the Community.

Thurs March 31 2011
Friday April 1 2011

Stakeholder Manager
Martin Wettenhall
Tel: 0419 761 849

Community Relations
Rob Magennis
Tel: 8551 7116

Community consultation is an essential part of the project consisting of a two-way discussion process that encourages a communications flow between Multinet (the owner), Jemena (the construction and maintenance contractor), Yarra Ranges Shire Council and other affected stakeholders in the Community. As a part of that process contact is being made with individual landowners and residents in the immediate vicinity of the pipeline route.

Jonathan outlined, "It is important that members of the Community are informed about the project and have the opportunity to ask questions and make comments."

Information gleaned from discussions with the Community will ensure that any issues or concerns are taken into account in the design of the pipeline.



Community display at Chirside Park 2010



Lowering pipe into the trench



Commencing road pavement reconstruction

Surveyed pipeline route

Since the first edition of this community newsletter and the Community Display at the Chirside Park Shopping Centre in May 2010 investigations have resulted in a series of reports to meet the requirements of the Environment Protection and Biodiversity Conservation Act and the requirements of the Cultural Heritage Act.

Geotechnical soil investigations have confirmed the suitability of the proposed route for the installation of a pipeline.

It is proposed that construction would be undertaken between August and December 2011 and will be managed to minimise impact on community, the local environment and roads.

Connecting into the Pakenham-Wollert outer ring pipeline near the intersection of Glenview and Yarraview Roads in Yarra Glen the pipeline route runs south to the Yarra River. Crossing under the Yarra River and Spadoni's Reserve using directional drilling to minimise impact on the environmentally sensitive river flats, the pipeline commences along the edge of Victoria Road to a little south of Macintyre Road. For approximately 1.5 km the route runs along the edge of private land on the east side of Victoria Road to avoid the areas of road with an Environmental Significance Overlay. From Coldstream West Road the route continues along Victoria Road to connect into the existing Ringwood-Lilydale Branch Pipeline at the intersection with the Maroondah Highway.



Welding similar pipe in the suburbs of Sydney

