

# Great Western Highway Upgrade Hartley Valley to Forty Bends

Case study – Steinzeug Keramo® vitrified clay pipe





# Vitrified clay pipe meets RMS specifications in high acid sulphate soil conditions

Roads and Maritime Services (RMS) is carrying out work on safety upgrades and road improvements on the Great Western Highway between Hartley Valley and Forty Bends, NSW.

The project included a stormwater pipeline in high acid sulphate soil conditions (pH2) for which RMS required a 100 year design life. Within the limitations of the design specifications, using steel reinforced concrete pipes with extra cover to reinforcement was not an option to meet this requirement.

At a pre-tender meeting with the contractors and RMS' design team, Humes raised this issue and put forward a solution to use Steinzeug Keramo® vitrified clay (VC) pipe to meet the 100 year requirement. RMS accepted the vitrified clay option and had the R11 specification changed accordingly with no other alternatives approved.

Steinzeug Keramo® VC pipe is a totally inert rigid pipe which provides high abrasion resistance, low friction coefficients, a high load carrying capacity and most importantly, is immune to sulphuric acid attack.

Humes is proud to be the exclusive Australian supplier of the Steinzeug Keramo® range of vitrified clay pipe manufactured in Germany. At 1443m of DN400 to DN600, this project involved the largest quantity of VC pipe that Humes has supplied to date. The pipes were imported in over 21 shipping containers with not one single pipe broken in transit.

Johnny Curran, Senior Project Engineer for Seymour Whyte said that overall he was pleased with the quality of the Steinzeug Keramo® product which he found to be similar to concrete pipe in terms of robustness and ease of installation.

Humes offers Steinzeug Keramo® trench pipe from DN150 to DN1200 and jacking pipe from DN100 to DN1200. A full range of fittings is also available to provide a complete vitrified clay pipe solution.

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## Project

Great Western Highway Upgrade – Hartley Valley to Forty Bends, NSW

## Principal

Roads and Maritime Services

## Contractors

Seymour Whyte Construction

## Product supplied

1443 m of DN400 - DN600 Steinzeug Keramo® vitrified clay (VC) pipe

