

3 April 2008

Waters & Farr
PO Box 13 329
Onehunga
AUCKLAND

Attention: Alan Paterson
General Manager

Dear Alan

Bosspipe Product & TNZ F/2 Specification for Pipe Subsoil Drain Construction

Reference:

We have reviewed your request, supported by an appraisal by Opus International Consultants, for Transit to approve Bosspipe to be used as an alternative to materials conforming to TNZ F/2.

We understand that Bosspipe is manufactured in Wanganui by Waters & Farr, a business unit of Interpipe Holdings Ltd.

Transit Approval – under TNZ F/2, Specification for Pipe Subsoil Drain Construction

Waters & Farr's Bosspipe range including StormBoss and FarmBoss pipe made from polypropylene may be used in Transit contracts for State Highway works where TNZ F/2, Specification for Pipe Subsoil Drain Construction apply, provided that:

1. The non-perforated pipes are manufactured in accordance with AS/NZS 5065:2005, Polyethylene and polypropylene pipes and fittings for drainage and sewerage applications.
2. The pipes are designed and installed to AS/NZS 2566 Buried Flexible Pipelines.
3. The nominal internal pipe diameter does not exceed 450mm.
4. The pipes are clearly identified in respect of:
 - a. nominal internal diameter – (DN);
 - b. stiffness class – (SN);
 - c. the standard identification markings for manufacturer, manufacturing date, manufacturing location and pipe material.

National Office

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5. Perforations to the pipes shall be arranged in the following patterns at locations similar to those shown in Appendix 1 of TNZ F/2. Perforations are to be cleanly made centrally in the troughs between the ribs without affecting the ribs in any way.

Pipe DN	Rib Pitch (mm)	Trough Width (mm)	Hole Size (mm)	Holes per Trough (per side)	Approx Open Area (mm ² /m)	Angle between Holes
DN225	28.5	6.5	5.5±0.5	2-1-2-1...	2510	25°
DN300	40	8.5	6.5±1.0	2-2-2-2...	3320	25°
DN375	57	13	6.5±1.5	3-3-3-3...	3500	12.5°
DN450	66.5	15	6.5±1.5	4-4-4-4...	4000	8°

6. The perforations are made such that the class-marking stripe is at the 12 o'clock position to allow the pipes to be correctly located in the ground.
7. A product guide, as suggested in the Opus appraisal letter, that details handling, jointing and other installation aspects is made available to contractors.
8. This approval shall remain valid until the product specifications materially change or TNZ F/2 is amended.
9. This approval will be given effect by listing on the Transit website.
10. Removal of the listing from the website shall constitute withdrawal of the approval.
11. Transit reserves the right to withdraw this approval at any time.

Yours sincerely



Rudolph Kotze CPEng
Bridges & Structures Manager
Transit New Zealand