PRELIMINARY IMPACT ANALYSIS

PROPOSAL: This proposal seeks to review Joint Australian New Zealand Standard AS/NZS 3500.2 *Plumbing and drainage Part 2: Sanitary plumbing and drainage* to include Minor amendments to Section 16 Vacuum drainage design and installation

Responsible Technical committee: Australian Standard Committee WS-014, *Plumbing and Drainage*.

NCC REFERENCE: For revisions or amendments to existing National Construction Code (NCC) referenced documents, provide additional information	**BCA Volume One:** N/A **BCA Volume Two:** N/A **PCA Volume Three:** C1.3, CV2.2, C2.3, C2.4
PROPONENT:	Nominating organisation: N/A Nominating individual: Fred Reynolds Position: Independent Chair WS-014 Contact email: fredreyn@tpg.com.au
DATE OF PIA: To differentiate between versions include the document date and/or version number	Date: 20 Jan 2020 Version: 1 Status: DRAFT

NATURE AND EXTENT OF THE PROBLEM:

AS/NZS 3500.2 Section 16 Vacuum drainage design and installation was first introduced in the last (2018) edition of 3500.2. Unfortunately, a number of small errors were included in the final text. These errors, which had been identified at Public comment, were not rectified prior to publication. This project proposes to correct these errors.

Most of the proposed amendments are considered editorial or involve clarification of some informative text.

The only amendment that involves a significant change to the text relates to Clause 16.4.3. Materials. This clause outlines the materials that can be used in vacuum drainage systems are given in Clause 16.3.1.and their support fixing of brackets and clips is given in Table 10.2.1, but this Table did not include Stainless Steel pipe fixing spacing's.

OBJECTIVES:

The objective of this project is to correct some minor errors in Section 16 of 3500.2

OPTIONS:

The options to resolve the issues described above includes:

Option 1. Status Quo

No change to the standards.

Option 2. Non-regulatory

This option would consist of including notes under the relevant clauses, however as this would not resolve the issues this option was not considered appropriate and has been discounted from this analysis.

Option 3. Regulatory.

Correction of the identified errors within AS/NZS 3500.2. (see Attachment A).

IMPACT ANALYSIS (OF ALL OPTIONS):

Analysis of the options outlined above are as follows:

Option 1. Status Quo

No serious consequences identified if the errors remain uncorrected, however the issues outlined above would continue. These errors are considered a risk to causing confusion within the plumbing industry as many practitioners are new to the use of vacuum drainage technology.

Option 3. Regulatory

Vacuum pipes installed above ground Clause 16.4.3 specifically addresses stainless steel fixing and refers to AS/NZS 3500.1.

However, the requirements have simply been added from the AS/NZS 3500.1 spacing's to Table 10.2.1. Clause 16.4.3 has therefore been changed to refer to Table 10.2.1 for fixings for all permitted pipe types. This is not really a technical change since the requirements are still the same, they have just been relocated.

All the changes are likely to be cost neutral. In the case of the change to 16.4.3 the change may have reduced some possible confusion.

The proposed amendment is not considered to result in any additional costs or change in practice for industry, however are considered to remove the risk of confusion to the plumbing industry. The amendment proposed is considered simply and logical and not to warrant a more in-depth analysis of the change.

TRANSITIONAL MEASURES

No transitional measures are considered necessary.

CONSULTATION:

- Public consultation of the 2018 revision of AS/NZS 3500.2 identified errors, however was outside the scope of any existing projects which would enable its correction at the time.
- AVAC Australia assisted in identifying the errors and supports the changes proposed.
- WS-014 supported the project proposal and supports the proposed changes (see minutes of meeting 009).
- The ABCB's Plumbing Code Committee has supported the project proposal.

Public consultation is expected to occur on in the first half of 2020.

CONCLUSION AND RECOMMENDED OPTION:

Based on this analysis of the options to address the issue described above, it is recommended that the proposed corrections (option 3) be supported.

IMPLEMENTATION AND REVIEW:

It is intended that the proposed amendment will be implemented as part of the NCC 2022 revision cycle.

LIST OF ATTACHMENTS:

- Attachment A: Schedule of changes

Attachment A: SCHEDULE OF CHANGES

No.	Clause / Ref	Proposed Change	Justification / Reason for Change	Cost implications
	16.2.8	Relocate Notes into a commentary box after Notes in Scope	The Notes which describe vacuum systems would be better if they were commentary and located in the scope.	Nil
	Clause 16.4.5	Delete the top of the rise above the branch line. (Drafting error)	Pipeline is under negative pressure and therefore cannot have an open vent at the top of the riser or the pressure would be lost	Nil
	Clause 16.5	Insert accessible prior to inspection on first line	Inspection openings must be easy to get into to ensure effective inspection of pipework at key locations.	Very minor and likely unquantifiable.
	Clause 16.5.1	Insert “requirements” in heading of clause	The heading of the clause should be plural as there are multiple requirements	Nil
	Clause 16.6	Remove “pipe” from Figure 16.6 and change the wording to Vacuum sensor.	Vacuum sensor is included in the definitions. Figure 16.6 has a sensor pipe which is not included in the definitions.	Nil
	Clause 16.11.1	In note 1 delete “when available in the material selected”	The note should only state that DN 40 is preferred it has nothing to do with the supply of the material	Nil
	Clause 16.11.2	In note 1 delete “when available in the material selected”	The note should only state that DN 40 is preferred it has nothing to do with the supply of the material	Nil
	Clause 16.14.3 Table 10.2.1	Remove clause relating to stainless steel pipes only and refer to brackets and spacing’s for all materials. Add SS bracket spacing to Table.	Vacuum systems permit materials other than stainless steel to be installed. SS was specifically mentioned since there were no requirements for brackets in Part 2, hence the reference to Part 1. Need to include all materials in the one Table.	Nil
	Appendix E	Tables E3 and E4 to include a note to Clause 16.11.1 for the specific case of vacuum lift lines. Correct the column heading in E4	Table E3 and E4 the minimum size is DN 50 however DN 40 is referenced in Clause16.11.1	Nil