Standards Alert

"Technical specification - Reticulation Sewers in Basements Version 3" is now available.

This version aims to:

- Further minimise the risk of sewer overflows in buildings.
- Provide safer and effective access for operations and maintenance activities.
- Streamline design acceptance through clearer submission requirements.

Why has the specification been updated?

We receive many proposals each year for our sewers to be in a basement to facilitate growth and development. These represent high-risk situations because a failure of the asset can drain a large catchment inside a building. Designs following our specification will help to reduce the likelihood of a failure occurring. This version of the specification has:

- improved requirements to allow safe and effective operation and maintenance activities.
- clarification of design requirements to improve assurance that proposals have adequately considered key building and pipeline design matters.
- clarification of design submission requirements to help streamline reviews and acceptance.

What are the key changes?

- Added preferences for servicing options.
- Added requirement for maintenance structures at changes in sewer direction. Bends within basements are not permitted.
- Added further access requirements to maintenance structures, increased working spaces and clearances.
- Added requirement to provide record of acceptance from appropriate building design professionals and practitioners that the sewer design is integral with the building design and meets building fire rating and waterproofing requirements.

- Added further guidance for floor and wall penetrations and included concept figures.
- Clarified submission requirements for designs.

What are the key benefits and impacts to users and stakeholders?

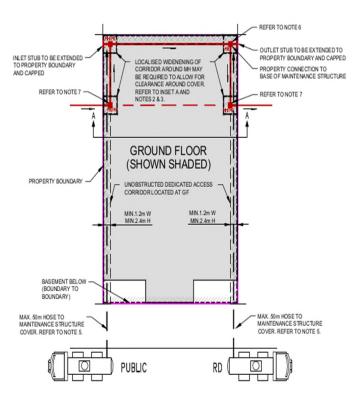
Preferred sewer alignment

 Designs following the most preferred options will reduce risks associated with failures, overflows and allow safe access for maintenance activities.

Maintenance structure requirements

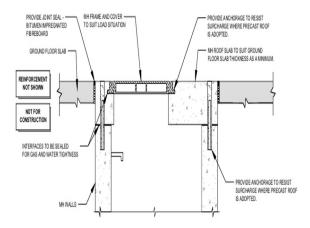
- Maintenance equipment will be able to access pipes to clear blockages because maintenance structures replace bends. Our maintenance equipment cannot pass thorough standard ductile iron bends.
- Some limitations on the use of maintenance shafts provide better access for maintenance activities.
- Increased passageway and working space around maintenance structure access covers to ensure equipment can be deployed safely within the confines of buildings and their basements.
- Early consideration of building layout and sewer alignment can reduce or avoid the need for maintenance structures.





Added guidance for floor penetrations

 Concept figures show some key design considerations and inform details to be shown on design drawings. This will support assurance of the suitability of designs and help streamline design acceptance.



Submission requirements for designs

Sewers in basements present a high-risk situation should an overflow occur. There can be considerable damage and restoration costs, odour and health consequences, loss of amenity for building users, regulatory and reputation impacts.

- A range of submission requirements are listed to support assurance of the suitability of designs and help streamline the review process.
- The items listed reflect best practice to help ensure safety, functionality, and compliance.

 Conducting a Safety in Design assessment is essential to ensure the safety of maintenance staff, building occupants and the general public.

When do I apply the new standard?

New or updated standards apply only to projects that commence design development after publication of the standard. There is no requirement to apply them retrospectively.

If exceptions are required for existing projects, Sydney Water's authorised person, typically a Case Manager will issue an instruction. These exceptions may include critical safety risks or cost savings due to application of the new or updated standard.

Where can I find the new standard?

The specification is available on:

- iConnect (for our staff)
- <u>SWDelivery Portal</u> (for our delivery partners)
- <u>SW website</u> (for public users)

How can I provide feedback?

If you have any feedback on this specification, please contact the us at: standards@sydneywater.com.au.

Please feel free to pass this alert onto others that may benefit.

