

Supplement to the Sewerage Code of Australia

WSA 02-2014-3.1

MRWA Edition Version 2

Document Control

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Specific changes on this version

This document was created to reflect Coliban Water specific changes to the Sewerage code of Australia (WSA02-204-3.1 MRWA V2). This review was undertaken with subject matter experts from various departments and incorporates lessons learned from the challenges encountered in previous project delivery activities.

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INTRODUCTION

This supplement outlines Coliban Water's specific requirements in relation to the design and construction of sewerage works.

The information in this document is to be read in conjunction with the Sewerage Code of Australia (WSA 02-2014-3.1, Melbourne Retail Water Agencies Edition, version 2), further referred to as The Code.

Where this information conflicts with the standard clauses of the Sewerage Code of Australia, the information in this Supplement shall take precedence.

This supplement is applicable to:

- All new works undertaken by Coliban Water appointed contractors (Capital Investment Projects) and Developer Installed Works.
- Operation and Maintenance works on existing assets including asset replacement works.

This supplement provides a mixture of mandatory requirements and informative statements presented in the same way as The Code; that is, the informative text is italicised to enable clear differentiation from mandatory requirements.

This supplement commences on 1 May 2026.

Please refer to separate Transition Arrangements for Developer Installed Works issued with a letter of conditions and Capital Investment Projects in the design phase or construction phases prior to the commencement date.

PART 0: GLOSSARY OF TERMS, ABBREVIATIONS AND REFERENCES

| Glossary of Terms

Add the following:

Term	Definition
The Code	Gravity Sewerage Code of Australia (WSA 02-2014-3.1, Melbourne Retail Water Agencies Edition)
Capital Investment Project	Design and construction of sewer infrastructure managed directly by Coliban Water
Developer Installed Works	Design and construction of sewer infrastructure managed by a developer.
Case Manager	Coliban Water appointed person assisting developers with the design and construction of works.
Preliminary Design Plans	The first design plans submitted by a land developer's consultant showing proposed pipe layout and pipe sizes.
Superintendent	Add the following sentence: The consultant is considered the Superintendent for Developer Installed Works, unless otherwise specified in the Developer Works Deed.
Products catalogues	Coliban Water's Preferred Equipment Manufacturers List is available on the MRWA web portal. The portal provides a checklist of makes and models for site and plant equipment. The products tab allows you to refine a search by ticking Coliban Water to search for all products we accept. See also WSAA Product specifications for Product and Materials.
Split service	Add Coliban Water does not permit split services.
Concept Plan	Replace The Code definition with: A package of information provided to the designer by Coliban Water to enable the appropriate planning / design of the water system. For Developer Installed Works a Concept Plan refers to the initial design submission with a Mains Extension application.
Trafficable area	Replace the definition with: Means the entire road reserve and any area where vehicular traffic is likely.

PART 1: PLANNING AND DESIGN

2 SYSTEM PLANNING

2.4 Planning Parameters

2.4.1 Loading per serviced lot

Add:

Residential Loading Rates	CW	420l/lot/day
Commercial Loading Rates	WSA	75 EP/Ha within 170L/EP/day
Industrial Loading Rates (<i>where specific data is not available</i>)	WSA	
Non-Res infill	CW	Median of all active (non-zero) Non-Res customers in system

4 PRODUCTS AND MATERIALS

This section is to be read in conjunction with the Product Appraisals section on the Water Services Association of Australia website (www.wsaa.asn.au) and the Melbourne Retail Water Agencies (MRWA) products portal (<http://www.mrwa.com.au>).

4.13 MAINTENANCE STRUCTURE

4.13.2 Classification and application

In addition, add;

Property Connections Crossing property boundaries or common property shall be limited to 3m from the edge of the servicing lot boundary.

Where a property connection is longer than 3m, minimum grade will be 1 in 60. Refer to Standards MRWA-S-301 Table 301-A - w.

Inspection shafts will be limited to having a maximum depth of 3m. Refer to Standards MRWA-S-300. Table 300-C Maintenance Structure Limitations.

Inspection openings as shown on drawing MRWA-S-302 to MRWA-S-304 will include a sweeping radius bend at position H. Marker tape will be replaced with a riser to surface finished with a lightweight concrete cover where located in a non-trafficable location. Trafficable locations will have class D cover.

For Drawings MRWA-S-301 to MRWA-S-304 the minimum distance to all boundaries will be 600mm to a maximum of 1000mm when entering the property.

4.15 ACCESS COVERS AND FRAMES

4.15.2 Application

In addition, add;

Access covers to be installed in Group 2 and Group 3 areas defined in WSA PS 291 to be minimum Class D. Coliban Water applies this consistently to all road reserves and residential driveways surface fittings.

4.18 Valves

In addition, add:

- All key operated (buried) valves shall be clockwise closing;
- All valves in pits, buildings or above ground are clockwise closing. Closing direction shall be indicated on the valve.

5 DETAIL DESIGN

Add:

Considerations for rising mains and pressure sewer connections:

- Pressure sewer connections shall not be into rising mains (must be to a low-pressure network)
- A Gooseneck arrangement shall be provided for discharge into the gravity network.
- The condition of the receiving gravity manhole shall be assessed and a suitable lining of the manhole shall be provided to resist corrosion due to H₂S
- Must not be in private property without water agency approval.

5.2 DETAIL DESIGN CONSIDERATIONS

5.2.1 Catchment design

Add:

Sewers within any project area shall be designed to drain the specified catchment.

To ensure future extension of the system, it may be necessary to carry out preliminary designs for large areas of nearby land (actual proposals or hypothetical developments) that make up the catchment.

As appropriate, sewers within any project area shall be designed to enable future extension of the system to service the whole physical catchment. The optimum depth and diameter of any future extension shall be determined. Any potential stormwater systems or other major services shall also be considered.

5.2.3 Sewer layout

Add:

(s) Future development plans and the need to avoid unnecessarily reducing the development potential of adjoining lands;

Refer also to minimum grades for self-cleansing 5.5.7 and in particular, Table 5.6.

5.2.4.1 General

Add:

Add to the notes of MRWA-S-209 the following:

- Retaining walls adjacent to sewer maintenance holes must maintain a minimum horizontal clearance to the maintenance holes equal to the vertical distance between the toe end of the retaining wall to the rim level of the maintenance holes.
- To avoid complete collapse of sewers/maintenance structures in case of a collapsed retaining wall, sewers must always be placed below the toe level of the retaining wall.
- Retaining wall height max of 1m when the infill is over an existing sewer/manhole.
- Any piles/piers for retaining walls near existing sewer must only be bored, not driven.
- Replace Note 9.2 with 'Sewers shall cross retaining-walls at a 90° angle +/- 10°, > 600 from retaining wall piles.'
- Replace Note 10.1 with 'Minimum vertical clearance between pipe and retaining wall of 750.'
- Replace the maximum depth from the toe level of the retaining wall to the top of the property connection branch as 3000 in Figure 209-E.

5.2.8 Easements

Replace the third paragraph with:

The minimum easement width for a sewer placement shall be 2.5 m when the pipeline is centrally located, or 3m if the easement is shared with other drainage assets.

5.3 HORIZONTAL ALIGNMENT OF SEWERS

5.3.2 Roads, Reserves and open spaces

Add:

(e) A continuous length of PE pipe shall be used for the crossing.

5.3.3 Railway reserves

Add:

A continuous length of PE pipe shall be used for the crossing.

5.3.4 Waterways

Add:

A continuous length of PE pipe shall be used for the crossing.

5.3.8 Horizontal curves in sewers

5.3.8.1 General

Add:

Coliban Water accepts bends as laid out in Appendix G – G4

However, when a horizontal bend is not accessible by a maintenance structure, bends shall be long radius and be restricted to 30°.

No more than one bend shall be present in a single main without a maintenance structure.

Coliban Water will consider horizontal bends in private property only when attached to an appropriate accessible structure.

5.3.8.2 Use of manufactured and variable bends in reticulation sewers

Add:

Coliban Water accepts bends as laid out in Appendix G – G4

5.4 Obstructions and Clearances

5.4.4 Clearance from structures

Add:

Retaining walls adjacent to sewer maintenance holes must maintain a minimum horizontal clearance to the maintenance holes equal to the vertical distance between the toe end of the retaining wall to the rim level of the maintenance holes.

5.4.6 Marker Posts

Add:

Coliban Water adopts FIGURE 403-C: MARKER POST FOR SEWERS on drawing MRWA-S-403

5.5 PIPE SIZING AND GRADING

5.5.4 Minimum pipe sizes for maintenance purposes

Add:

Coliban Water adopts the figure in Table 5.5 for the minimum diameter of sewers serving Commercial Properties over sizes shown in the MRWA Drawings

Coliban Water's position is that industrial/commercial developments are to be serviced with DN225 as per Table 5.5. Grades must comply with those in Table 5.6.

In situations where \geq DN225 is not available or upgrade of existing assets to DN225 is unreasonable or not practical, then DN150 may be accepted if the requirements outlined in MRWA-S-104A are met with Coliban Water approval.

Coliban Water interprets MRWA-S-104A as providing guidance for industrial/commercial developments property connection capacity, not the design and installation of new assets.

5.5.5.2 Design assumptions

Add:

The design flow containment standard ARI shall be assumed to be 18.1% of the Annual Exceedance Probability (AEP) flow.

5.6 VERTICAL ALIGNMENT OF SEWERS

5.6.3 Minimum cover over sewers

Add:

(e) meet any requirement specified in the Coliban Water Build over Consent Guidelines.

5.6.4.4 Partial lot service

Replace the last paragraph with:

If partial lot control is permitted, prospective buyers of lots with partial control shall be informed of the limited service by the following methods;

- A limitation on the title defining the minimum floor level in AHD for a sewer building at the most distant point from the sewer connection point; and

- A sewer control area shown on the title.

5.6.6.6.3 Reticulation Sewers

Where grades are proposed steeper than 1:20, Coliban water would prefer grades be amended to 1 in 20. If this is not possible then the following conditions must be met.

- Mains laid steeper than 1 in 20 grade require cement stabilized Type B embedment as per MRWA-S-202.
- PVC mains at grades steeper than 1 in 20 shall be solvent welded and this joint type shall be specified in the design where PVC DWV pipes have been selected as per MRWA-S-205.
- For mains at grades steeper than 1 in 10, calculation of velocities and Froude numbers for the steep section and section immediately downstream (MRWA-S-205) will be required to determine the extent of hydraulic jump and odour generation.
- For mains at grades steeper than 1 in 10, Trench Stops are required at spacings equivalent to the grade of the sewer.

5.6.7 Vertical Curves in Sewers

Add:

Coliban Water accepts bends as laid out in Appendix G – G4

6 PROPERTY CONNECTION

6.2 LIMITATIONS OF CONNECTIONS TO SEWER

First sentence shall be replaced by the following:

Properties shall not be directly connected to sewers larger than 225mm unless authorised by Coliban Water.

Special precautions as specified by Coliban Water may be required.

6.4 NUMBER OF PROPERTY CONNECTION POINTS

6.4.1 Single occupancy lots

Add:

The design shall meet all the requirements specified in the Coliban Water Land Development Guidelines.

6.5 PROPERTY CONNECTION SEWERS

6.5.1 General

Add:

Combined Drains

Coliban Water does not accept new combined drains.

Where a development's parent lot is currently serviced by a combined drain with another existing lot, the combined drain cannot be used to connect additional lots. The developer must provide separate connection points to each of the new lots or additional occupancies constructed on the same existing lot. This may require a sewer main extension.

Spur Branches

Refer MRWA-S-104A to MRWA-S-106:

Coliban Water does not allow spur branches on private property.

Minimum default grade for DN100 is 1 in 60 as per MRWA-S-104A and must connect to DN150 sewer.

Spur branches are not permitted on the same alignment or parallel to a sewer main. Extension to sewer main will be required.

If the nearest downstream maintenance structure does not have reasonable access for CCTV & cleaning equipment, then a mains extension to extend reticulated sewer will be required including an accessible structure.

Long Property Connections

Coliban Water accepts long property connections within road reserve if the following limitations are met,

- Maximum length is 25m
- Minimum grade of 1 in 60 is achieved
- Full Lot control is achieved
- 900mm cover requirement is achieved.

7 MAINTENANCE STRUCTURES

7.4 SPECIAL CONSIDERATIONS FOR LOCATION OF MAINTENANCE STRUCTURE

Replace last paragraph with:

If a sewer is planned to be extended in the near future, a temporary maintenance structure is required at the termination of the sewer branch.

7.5 SPECIAL CONSIDERATIONS FOR CONNECTION OF NEW SEWERS TO EXISTING SEWERS

Add:

Existing structures that require modifications for new connections must also be upgraded to meet the Sewerage Code of Australia (WSA 02-2014-3.1 MRWA). This may include the type of structure, overall condition, class of cover required and removal of step irons.

7.6 MAINTENANCE HOLES (MH's)

7.6.3 Design parameters for MHs

Add:

Coliban Water prefers the construction of concrete Maintenance holes. Where Plastic MH's are proposed the following limitations must be met

- Depth limited to 3m without water agency approval.
- Base arrangements must consider future extension opportunities.

- Number of connections, existing and future, shall be limited to that outline in Table 300C, MRWA-S-300

7.6.6 MH drops

Replace third paragraph with:

The use of external drops is not allowed in any case.

7.6.9 Ladders, step irons and landings

Replace this section with:

Ladders, step irons and landings shall not be incorporated in new MHs.

8 ANCILLARY STRUCTURES

8.3 VERTICAL AND NEAR VERTICAL SEWERS

8.3.1 General

Replace first paragraph with:

Vertical or near vertical sewers are not permitted. Maintenance holes and internal drop structure shall be specified.

10 DESIGN REVIEW AND DRAWINGS

10.5 RECORDING OF WORK AS CONSTRUCTED INFORMATION

Add:

"Details of Coliban Water's As-Constructed Drawings and submission requirements are detailed in the Geographic Information System – Spatial Data Technical Specification, Section 4", linked here: <https://coliban.com.au/builders-developers/technical-standards-and-regulations>.

PART 2: CONSTRUCTION

12 GENERAL CONSTRUCTION

12.4 Customer Focus

12.4.1 General

Change paragraph one to:

Coliban Water's "Requirements for customer service" are outlined in the Urban Customer Charter and Rural Customer Charter. These documents can be found on the Coliban Water website www.coliban.com.au.

For Developer Installed Works change reference to 'Superintendent' in paragraph 5 (five) to 'Case Manager'.

12.8 Alteration of Existing Services

Add:

Applications through Coliban Water's Consent to Connect Process are required prior to any alteration of service drains. All service alterations requiring a PIC number, will be managed through this Consent to Connect process. At the completion of the alteration, drainage notes and a Plumbing Industry Commission Compliance certificate are required to be submitted to Coliban Water.

13 PRODUCTS AND MATERIALS

13.5 Supply of Water to the Works

Add:

All potable water supply for construction works must be sourced from Coliban Water standpipes. Information about using a Coliban Water standpipe can be found on Coliban Water's website.

16 PIPE LAYING AND JOINTING

16.11 Markers

16.11.3 Marker Posts

In addition, add;

Marker posts to be marked with: "Coliban Water 1300 363 200". Marker post to be located a maximum of 1m from the asset.

17 MAINTENANCE HOLES (MHs)

17.2 Concrete MHs

17.2.4 Benching and Channels

In addition, add:

Existing PVC pipes are not to be converted to Manhole Channels.

17.7 COVERS

Add:

Bolt holes must be removed from maintenance structures and filled with ferro unless it is placed in a flood zone.

18 MAINTENANCE CHAMBERS (MC), MAINTENANCE SHAFTS (MS) AND INSPECTION SHAFTS (IS)

Add:

All maintenance chambers shall have a minimum internal diameter of 600mm to ensure access sufficient for maintenance purposes.

20 Fill

Add:

Refer to the Water Agency adopted version of the MRWA Backfill Specification 04.03 and Standard MRWA-S-201.

21 Acceptance Testing

21.11 MRWA CCTV Inspection

21.11.1 General

Replace paragraph 3 with the following:

CCTV inspection is required for all sewers including those less than 300mm in diameter.

21.11.3 Reporting

Replace paragraph 1 with the following:

Submit all results and reports from the CCTV inspection to the Water Agency Via the project ACDC Portal. Alternatively, results may be submitted via USB or a portable hard drive accompanied with a transmittal form outlining their contents.

Delete paragraph 3.

24 RESTORATION

24.6 Provision for and rectification of settlement

Add:

Trench subsidence over sewer mains is not acceptable to Coliban Water. Please ensure that all practical measures and checks are implemented, to ensure that the contractor/s achieve the backfill and compaction requirements of the WSA Code, MRWA Backfill Specification 04-03.2 and MRWA-S-200 & S201 during the construction and reinstatement process for future gifted assets to Coliban Water.