

South Gippsland Water

Supplement to
Gravity Sewerage Code of Australia

WSA 02 - 2014

Melbourne Retail Water Agencies Edition Version 2.0

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1 Introduction

This document (this Supplement) is to be used as a supplement to the Gravity Sewerage Code of Australia WSA 02-2014 Melbourne Retail Water Agencies (MRWA) Edition Version 2.0 (the Code) including the MRWA Standard Drawings.

This supplement applies to Reticulation sewer, Branch Sewer, Main sewer and Trunk sewer mains constructed by South Gippsland Water or assets that will be gifted to South Gippsland Water by developers upon completion.

2 Requirements

South Gippsland Water has adopted the requirements of the MRWA WSA 02 Code along with use of the MRWA standard drawings with the amendments specified in Section 3 of this supplement.

Further References are specified in Section 4 of this supplement.

3 Amendments to WSA 02-2014 MRWA Edition Version 2.0

3.1 Table 1. Amendments to Part 0 Glossary of Terms Abbreviations and References

Term	Definition
Branch Sewer	Amend first part of definition to state: Sewer pipes nominally \geq DN 225 to DN 975.
Reticulation sewer	Amend first part of definition to state: Sewer pipes nominally DN 150 to DN 225.
Inspection Shaft	A structure at the end of a reticulation sewer to allow insertion into the sewer of equipment for inspection and maintenance.

3.2 Table 2. Amendments to Part 1 Planning and Design

WSA Section	Amendment
4.9	GRP pipe is not permitted for Reticulation sewers. Approval for GRP pipe Branch or Trunk Sewers must be specifically requested and will only be considered for specific construction methodologies.
4.15.2	South Gippsland Water requires TMS and MS covers to be manufactured from Ductile Iron, Cast Iron or Steel whichever is suitable to its application class.
5.4.5.2	In addition: Where sewers are designed to pass over water mains, sewer protection sleeves shall extend to at least 3.0m either side of the water main. This distance shall be measured perpendicular to the water main and from the centre of the water main. Pipe to be centrally located in the sleeve.

5.5.4	<p>Table 5.5 replace minimum size DN150 criteria with the following: All Reticulation sewers, Property Connection Sewers for >10 occupancy residential lots* Property connection sewers servicing commercial and industrial lots</p> <p><i>*This is as per the requirement stated on MRWA-S-104A but is added here for clarity.</i></p>
6.3.4	<p>Add: Spur branches are not permitted. Property connections shall not pass under roads. Horizontal deflections / bends in property connections will only be permitted if obstructions prevent direct entry.</p>
7.3.2	<p>Delete text and replace with: For reticulation sewers ≤ 225, the maximum distance between any two consecutive maintenance structures shall be 90m and subject to the provisions of Clause 7.3.1. Single Maintenance Shaft (MS) between consecutive Maintenance Holes (MH) is preferred see Figure 7.1.</p>
7.3.3	<p>Delete clause and replace with: Only MHs shall be used for sewers of sizes with an internal diameter > 300. The maximum spacing between any two branch or trunk sewer MHs shall be 300 m.</p> <p><i>Note South Gippsland Water have historical DN225 branch sewers that are in service throughout their sewer system to which the above MH criteria applies.</i></p>
7.4	Delete final paragraph of this section (refer to 7.8.5)
7.5	<p>Add to first paragraph: For all sewer isolations within South Gippsland Water's system inflatable plugs are only permitted to be used to isolate a sewer for a single period not exceeding 24 hours. Multiple periods of isolation at the same location using an inflatable plug will not be permitted during construction and testing.</p> <p>Mechanical plugs are required for all temporary isolation for all sewers where isolation is to exceed 24 hours.</p>
7.6.4.1	Pre-cast concrete MH systems are not permitted and shall not be used.
7.6.5	<p>Add to section: In shallower sewers where a suitably located MH or MS exists, property connections should still be directed to these structures as per the requirements for sewers >4m deep. NB MS Shaft Connections shall only be made in accordance with MRWA-S-305</p>
7.8.1	<p>Replace 1st paragraph with: Inspection Shafts are required at the permanent dead end of DN150 and DN225 sewers. Inspection Shafts shall have a shaft size of DN225.</p>
7.8.5.1	Delete and replace with:

	All temporary ends of pipe shall terminate using a MS with the upstream stub capped. The location of all MS shall be approved by South Gippsland Water considering factors such as potential for future extension and ease of access for maintenance.
7.8.5.2	Delete and replace with: All permanent ends of pipe shall terminate in a suitable Maintenance Structure; for e.g reticulation sewers that will not be extended further an IS would be considered suitable.
10.2.4	(d) Driveways (except where sewer mains are at rear of property)
10.2.8	Add to note (a): Number and type of Property services to be connected
10.2.9A	Add Clause: Once a Preliminary draft or final design has been completed and goes to the water agency for comment that version of the design shall be labelled and dated. Any time that amendments are then made to that design, a new design version shall be made. The version of the design and a summary phrase of the amendment shall be clearly indicated on the drawing or document footer. Only drawings that have been changed need to have a new revision number. The changes made in the new version shall be clearly indicated to show how the new version has changed; this shall be done by surrounding the text or drawing changes in a cloud.
10.5	Recording of As Constructed work shall be in accordance with South Gippsland Water's standard As-Constructed Sewer Drawing Set of drawings. The co-ordinate shall be GDA 94 MGA. South Gippsland Water's Sewer Standard Drawing Set (ASGNS-0100 through to ASGNS-0102) can be found on South Gippsland Water's Website and an Autocad template is available on request. <i>Please note that final Autocad drawings submitted to South Gippsland Water should be have no dependencies. Any reference files should be bound into the model of the submitted drawing.</i>

3.3 Table 3. Amendments to Part 2 Construction

WSA Section	Amendment
16.2.2	Horizontal and vertical deflections shall not be used and are not permitted unless express permission is sought from South Gippsland Water. Deflections will only be approved if they do not impact South Gippsland Waters ability to maintain their network. Therefore deflections will only be considered if both of the following apply: <ul style="list-style-type: none"> • If a straight line sewer cannot be achieved due to impact with other services and • The deflection occurs no more than 1000mm upstream from a sewer MH. <i>Note: Deflections are not to be installed immediately downstream of a sewer MH.</i>
16.11.1	Marking table tape shall be used as far as practicable on all sewer mains, and is compulsory for any mains that are constructed using open trench techniques. Non-Detectable tape will be accepted unless Detectable is specified at time of design by South Gippsland Water.
17.2.2	Pre-cast concrete MH systems are not permitted and shall not be used.
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17.10	Delete all text and replace with: Landings are not required and shall not be used.
21.1	Delete Paragraph 3 (the paragraph which follows Table 21.7) which states: <i>For all Land Development sewerage works, a minimum of 2 clear working days notification is required for the tests indicated...</i> And replace with : The South Gippsland Water Land Development Supervisor (LD Supervisor) (or their nominated representative) shall be present to witness all tests indicated in Table MRWA 21.7 unless alternative arrangements have been authorised by the LD Supervisor. The LD supervisor requires a minimum of 5 clear working days notice. Where requested, Inspection, Testing and Commissioning Plans shall be supplied to the South Gippsland Water superintendent for approval minimum of 5 clear working days prior to proposed works occurring.
MRWA Table 21.7	Add to note 3: South Gippsland Water will request CCTV for Visual / Deflection testing purposes for sewer's ≤ 5m in depth where the Land Development Supervisor deems necessary.

3.4 Table 4. Amendments to MRWA Standard Drawings

Drawing	Definition
MRWA-W-300	Table 300C – Maintenance Structure Limitations Inspection Shaft (IS) Shaft size shall be DN225. .

4 References

- South Gippsland Water Preferred Manufacturer List Technical Specification NAM-001

5 South Gippsland Water Standard Drawings

- South Gippsland Water Cover Standard Colours Drawing ASCNW-0301
- South Gippsland Water As-Constructed Sewer Standard Drawing Set:
 - ASGNS-0100,
 - ASGNS-0101,
 - ASGNS-0102 A, ASGNS-0102 B and ASGNS-0102 C