



**Addendum to the Water Industry Technical  
Standards and National Codes of Practice**

**DOCUMENT W2**

**Sewerage Code**

**WSA 02-1999**

**Addendum**

**PART 4 - CONSTRUCTION**

<b>Gippsland Water Business Management System</b>	
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# WSA 02-1999 – Sewerage Code of Australia

## Gippsland Water Addendum

### PART 4 - CONSTRUCTION

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## **1. GENERAL**

### **1.1 Scope**

No addendum.

Gippsland Water does not approve the use of PVC profile wall pipe (or Ultra Rib pipe).  
Gippsland Water does not approve the use of FRC pipe.

### **1.2 Interpretation**

No addendum.

## **2. QUALITY**

### **2.1 Personnel Qualifications**

Construction contractor to be a Gippsland Water accredited pipelayer in accordance with the specified requirements of the Accredited Pipelayers List.

### **2.2 Inspection and Test Plans**

No addendum.

### **2.3 Acceptance Testing**

Gippsland Water no longer requires notice of any testing.

The accredited design consultant, responsible for the works, must be notified to enable supervision.

Test result sheets are available on the Gippsland Water website.

All test sheets shall be forwarded to the accredited design consultant who will provide to Gippsland Water with the as constructed information / certification forms.

## **3. GENERAL CONSTRUCTION**

### **3.1 General**

No addendum.

### **3.2 Order of Construction**

No addendum.

### **3.3 Work in Existing Roadways**

No addendum.

## **4. MATERIALS**

### **4.1 General**

No addendum.

### **4.2 On-site Stockpiles**

No addendum.

### **4.3 Embedment Material**

Addendum only required to the following sub clauses.

#### **Clause 4.3.2 – Source of Materials**

Omit this clause.

#### **Clause 4.3.3.1 – Initial sample**

Omit this clause.

**4.4 Trench Fill**

No addendum.

**4.5 Cement-Stabilised Trench Fill**

No addendum.

**4.6 Vitrified Clay Pipes and Fittings**

Remove the words “see Water Agency table”.

**4.7 PVC Sewer Pipes and Fittings**

Remove the words “see Water Agency table”.

**4.8 Ductile Iron Pipes and Fittings**

Remove the words “see Water Agency table”.

**4.9 Grey (cast) Iron Fittings**

No addendum.

**4.10 GRP Pipes and Fittings**

Omit this clause.

**4.11 PE Pipes and Fittings**

Remove the words “see Water Agency table”.

**4.12 Steel Pipes and Fittings**

Remove the words “see Water Agency table”.

**4.13 Elastomeric Seals**

Remove the words “see Water Agency table”.

**4.14 Solvent Cement and Priming Fluids**

No addendum.

**4.15 Polyethylene Sleeving**

No addendum.

**4.16 Concrete/Mortar/Render**

Remove the words “see Water Agency table”.

All Concrete shall be special class concrete S32 in accordance with AS3600 as follows:

- Characteristic compressive strength 32 Mpa
- Maximum aggregate size 20mm
- Maximum slump 100mm
- Cement to be Portland Cement Type D sulphate resisting.

**4.17 Reinforcement**

No addendum.

**4.18 Maintenance Hole (MH) Components**

No addendum.

**4.19 Maintenance Shafts(MS) Terminal Maintenance Shafts(TMS) and Inspection Shafts**

No addendum.

**4.20 Covers and Frames**

Remove the words “see Water Agency table”.

**4.21 Ladders**

Remove the words “see Water Agency table”.  
Refer also addendum Clause 9.8 of Part 2.

**4.22 Step Irons**

Remove the words “see Water Agency table”.  
Refer also addendum Clause 9.7 of Part 2.

**4.23 Vents**

No addendum.

**4.24 Geotextile Filter Fabric**

Refer to standard drawing SEW-102 (note 3) for minimum lap.

**4.25 Timber Piles**

No addendum.

**4.26 Metal-Banded Flexible Couplings**

No addendum.

**4.27 Joint Components**

No addendum.

**4.28 Vacuum Sewerage Components**

No addendum.

**4.29 Non-Return Valves**

No addendum.

**5. EXISTING SERVICES**

**5.1 Location of Services**

No addendum.

**5.2 Protection and Maintenance of Services**

No addendum.

**5.3 Repair of Services**

Replace with:

If a service is damaged during construction notify Gippsland Water and arrange or perform repair to the satisfaction of the owner. Where possible obtain from the owner, a certificate stating that the repair has been carried out to their satisfaction.

**6. EXCAVATION**

**6.1 Safety**

No addendum.

**6.2 Limits of Excavation**

Remove the words “see Water Agency table”.

**6.3 Excavation across Improved Surfaces**

No addendum.

**6.4 Explosives**

No addendum.

**6.5 Support of Excavations**

No addendum.

**6.6 Drainage and Dewatering**

No addendum.

**6.7 Over Excavation**

No addendum.

**6.8 Foundations and Foundation Stabilisation**

No addendum.

**6.9 Surplus Excavated Material**

No addendum.

**7. PIPE EMBEDMENT**

**7.1 General**

No addendum.

**7.2 Concrete Embedment and Encasement**

No addendum.

**7.3 Geotextile Surround and Pillow**

Only use geotextile surround and pillow in unstable ground conditions.

**8. PIPE LAYING AND JOINTING**

**8.1 General**

No addendum.

**8.2 Method**

No addendum.

**8.3 Junctions, Property Connection Sewers, Inspection Openings, Inverted Syphons, Water Seals and Vertical Risers**

No addendum.

**8.4 Dead Ends**

No addendum.

**8.5 Marking of Property Connection Sewers and Dead Ends**

Identification/marker tape system shall be used to mark dead ends and property connections as shown on Standard Drawing SEW-304 and the relevant addendum.

**8.6 Trench Stops**

No addendum.

**8.7 Bulkheads**

No addendum.

**8.8 Corrosion Protection of Ductile and Cast Iron**

No addendum.

**8.9 Detectable Tape**

Replace with:

Detectable tape shall be used on all pipelines and property connection sewers where the length of the property connection exceeds 5 metres.

**8.10 Bored Pipes Under Roads, Driveways and Elsewhere**

Replace paragraph 2 with:

For road crossings and bore lengths greater than 10.0m use an encasement pipe of sufficient strength to withstand all expected loading conditions. The design drawings indicate where encasing pipes are required.

**8.11 Aqueducts**

No addendum.

**9. MAINTENANCE HOLES (MHs)**

**9.1 General**

No addendum.

**9.2 Precast Concrete MH Systems**

Add note:

Grade S32 as per Part 1 Clause 2.9.3.6.

**9.3 Post-formed Benching and Channels**

No addendum.

**9.4 MH Covers**

No addendum.

**9.5 Connections to MHs**

No addendum.

**9.6 MH Drops**

No addendum.

**10. MAINTENANCE SHAFTS (MSs) AND INSPECTION SHAFTS**

**10.1 General**

No addendum.

**10.2 Sealing Caps**

Delete:

“seal shaft in accordance with manufacturers instructions” and add “use screw caps only”.



### **10.3 Seating Access Covers and Surrounds**

As per SEW-209, SEW-210, SEW-211, SEW-212 covers are to be in accordance with AS 3996

- Class “B” loadings for parks and easements (non trafficable area)
- Class “D” loadings for road reserves (trafficable area)

Alternative light duty cover arrangements (eg. concrete I.S. cover) are only to be used on customer property connection inspection openings located in a non trafficable location. Customer property connection openings located in trafficable locations (such as driveways) must be constructed to Class “D” requirements.

Gippsland Water requires TMS and MS covers to be manufactured from ductile iron, cast iron or steel, which ever is suitable to its application class, in accordance with AS 3996 (typical of “gatic” or “gatic cast body concrete fill” arrangement).

### **10.4 Connections to MSs and TMSs**

No addendum.

## **11. VACUUM COLLECTION CHAMBERS AND STATIONS**

### **11.1 General**

No addendum.

### **11.2 Commissioning**

No addendum.

## **12. TOLERANCES ON AS-CONSTRUCTED WORK**

### **12.1 Horizontal Tolerances**

No addendum.

### **12.2 Vertical Tolerances**

No addendum.

### **12.3 Tolerances on finished surface structures and fittings**

No addendum.

### **12.4 Cast In-Situ Concrete Structures and Slabs**

No addendum.

## **13. FILLING**

### **13.1 General**

No addendum.

### **13.2 Compaction and Density Testing**

Where Gippsland Water requires density testing the Contractor shall submit the test result to Gippsland Water prior to practical completion of the job.

Gippsland Water reserves the right to undertake additional testing of backfill material.

Where compaction testing fails the Contractor will be required to:

1. Reimburse Gippsland Water for the costs of such testing and
2. Achieve proper compaction.

## **14. RESTORATION**

No addendum.

## **15. CONNECTION TO EXISTING SEWERS**

Any connections to existing sewers shall be in accordance with Gippsland Water's Confined Spaces Entry and Occupational Health and Safety requirements.

**Ten working days** notice shall be given to the responsible Gippsland Water Officer prior to any works on existing sewers.

For accredited contractors undertaking a live sewer connection for Developer Works (Owner Cost Works) (including confined space entry) use Form 3 and place a mark in the box "Sewer":

FORM 3 - Application to Work on or Near Gippsland Water Assets

For accredited contractors undertaking a sewer point cut-in for Property Connections (eg. a new connection branch for a minor development or single residence) (including confined space entry) use Form 3A:

FORM 3A - Application to Carry Out Works on Gippsland Water Sewer (Sewer Cut-in)

## **16. CLOSED CIRCUIT COLOUR TV (CCCTV) INSPECTION**

Gippsland Water will advise of the need for CCCTV inspections. If problems are identified as a result of Contractor error, then the Contractor shall wear the costs incurred for the camera. If no problems are found then GW will pay the costs incurred for the camera.

## **17. WORK-AS-CONSTRUCTED DETAILS**

Refer Clause 5.3.2 of Part 1 for the requirements on recording of as-constructed information.

## **18. REFERENCED DOCUMENTS**

### **18.1 Standard Drawings**

No addendum.

### **18.2 Referenced Standards and Codes**

Under AS3706 – add "Geotextiles – Methods of Test" as the title of the Australian Standard.

### **18.3 WSAA Documents**

No addendum.

## **APPENDICES**

### **INSPECTION AND TEST PLAN GRAVITY SEWERS**

No addendum to Appendix A – Inspection and Test Plan, Gravity Sewers.

Gippsland Water will be reviewing the former Certification Check Lists used under W.I.T.S. and will prepare similar check lists for the following:

1. Design Certification Check List
2. Pre-Construction Certification Check List
3. Construction Certification Check List
4. End of Defects Liability Period Certification Check List

Check lists will be required to be submitted to Gippsland Water for all jobs.