

Sewerage Pumping Station Code of Australia

The Power and Water Corporation has moved to adopt the Sewerage Code of Australia as the general basis for the design of sewerage infrastructure under its control in the Northern Territory. This document is read as a supplement to the Sewerage Code of Australia to provide details of those modification and additions to suit the particular requirements of the Power and Water Corporation.

Where appropriate WSA Standard Drawings are either:

- ❖ Adopted in full (AIF)
- ❖ Adopted with minor amendments or qualification (NT Variant)
- ❖ Not Applicable to PWC works. Refer to PWC issue Standard Drawings for equivalent details (N/A)

In addition, PWC have issued some standard drawings for which there is no WSA equivalent

| Requirement | WSAA Drawing Title | WSAA Drawing |
|-------------|---|---------------------|
| AIF | Concept Plan – Typical Catchment Plan | SPS-1100 |
| N/A | Pumping Station Concept Design – Site Layout | SPS-1101 |
| NT Variant | Pumping Station Concept Design – Site Plan | SPS-1102 |
| N/A | Pumping Station Concept Design – Power and Control Cubicle, Base and Conduit Details | SPS-1103 |
| AIF | Pressure Main Concept Design – Sections and Mean Static Head Calculation | SPS-1104 |
| N/A | Typical Site Plan – Sydney Water – Fronting and Not Fronting Adjacent Roadway | SPS-1200 |
| N/A | Typical Site Plan – SA Water – Fronting Adjacent Roadway | SPS-1201 |
| N/A | Typical Site Plan – SA Water – Not Fronting Adjacent Roadway | SPS-1202 |
| N/A | Typical Site Plan – Brisbane Water – Fronting Adjacent Roadway | SPS-1203 |
| N/A | Typical Site Plan – SA Water Corporation – Fronting Adjacent Roadway | SPS-1204 |
| AIF | Access Roadway – Cross Section and Drainage Details | SPS-1205 |
| NT Variant | General Arrangement – Inlet MH, Wet-Well and Valve Chamber | SPS-1300 |
| NT Variant | Detailed Arrangement – Wet-Well, Buried Valves, DN 100 Pipework | SPS-1301 |
| NT Variant | Civil Plan – Wet-Well and Valve Chamber | SPS-1302 |
| NT Variant | Wet-Well Construction – Pre-Cast Concrete Components | SPS-1303 |
| NT Variant | Wet-Well Construction – Cover and Access Hole details | SPS-1304 |
| NT Variant | Electrical and Telemetry – Conduit Details | SPS-1305 |
| N/A | Valve Chamber Adjacent to Wet Well – Pipe, Section and Cover – Non-Trafficable | SPS-1306 |
| N/A | Valve Chamber Adjacent to Wet Well – Pipework | SPS-1307 |
| NT Variant | Water Supply – Reduced Pressure Zone Arrangement | SPS-1308 |
| NT Variant | Mobile Pump Connection Arrangement – Pumping Stations ≤40 L/s | SPS-1309 |
| NT Variant | Mobile Pump Connection Arrangement – Pumping Stations >40 L/s | SPS-1310 |
| NT Variant | Grit Collection MH – Detailed Arrangement | SPS-1400 |
| NT Variant | Grit Collection MH – Detailed Arrangement | SPS-1401 |

| Requirement | WSAA Drawing Title | WSAA Drawing |
|-------------|---|---------------------|
| NT Variant | Emergency Storage – Typical Arrangement and Levels Configuration 1 | SPS-1402 |
| NT Variant | Emergency Storage – Shallow and Deep Installations and Brickwork | SPS-1403 |
| NT Variant | Emergency Relief System – Arrangement and Cross Section for DN 150 to DN 375 Overflow Pipes | SPS-1404 |
| NT Variant | Discharge MH – Arrangement and Cross Section for Pressure Mains \leq DN 300 | SPS-1405 |
| N/A | Pump to Pressure Main Connection – Hose Connection Band Assemblies | SPS-1500 |
| N/A | Pump to Pressure Main Connection – Wall Pipe Bracket Assemblies | SPS-1501 |
| N/A | Pump to Pressure Main Connection – Wall Pipe Bracket Details | SPS-1502 |
| N/A | Pump to Pressure Main Connection – Hose Connection Bends | SPS-1503 |
| N/A | Pump to Pressure Main Connection – Hose Connection Bend Quick Connection Details | SPS-1504 |
| NT Variant | Hydraulic Level Sensor – Stilling Tube | SPS-1505 |
| NT Variant | External Hinged Covers – Opening Grate Type | SPS-1506 |
| NT Variant | External Hinged Covers – Opening Grate Type | SPS-1507 |
| N/A | Miscellaneous Details – Survey Plate, Pump Label Plate, Valve Spindle Access | SPS-1508 |
| AIF | Design – Typical Pressure Main Characteristic Curve | SPS-1600 |
| NT Variant | Pipe Installation, Support and Trench Fill – Pressure Mains \leq DN 300 | SPS-1601 |
| NT Variant | Scour Arrangement – Pump and Gravity | SPS-1602 |
| NT Variant | Scour Arrangement – Pressure Mains \leq DN 300 \leq 2.2m to Invert | SPS-1603 |
| N/A | Scour Arrangement – Pressure Mains \leqDN 300 $>$2.2m to Invert | SPS-1604 |
| NT Variant | Gas Release Arrangement - Pressure Mains \leq DN 300 | SPS-1605 |
| N/A | Gas Release Arrangement – Pressure Mains $>$DN 300 | SPS-1606 |
| AIF | Soil Classification Guidelines and Allowable Bearing Pressures for Bulkheads | SEW-1200 |
| AIF | Embedment & Trench Fill – Typical Arrangements | SEW-1201 |
| NT Variant | Standard Embedment – Flexible & Rigid Pipes | SEW-1202 |
| NT Variant | Special Embedment – Inadequate Foundations Requiring Over-Excavation & Replacement | SEW-1203 |
| NT Variant | Special Embedment – Support Utilising Piles | SEW-1204 |
| AIF | Special Embedment – Concrete & Stabilised Supports | SEW-1205 |
| AIF | Trench Drainage – Bulkheads & Trenchstop | SEW-1206 |
| NT Variant | Trench Drainage – Typical Systems | SEW-1207 |
| AIF | Verticals & Near Verticals – Exposed & Concealed Methods | SEW-1208 |
| N/A | Maintenance Holes – Sewers \leq DN 300 – Pre-Cast Types P1 & P2 | SEW-1300 |
| N/A | Maintenance Holes – Sewers \leq DN 300 – Cast In-situ Types C1 & C2 | SEW-1301 |
| N/A | Maintenance Holes – Pipe Connection Details | SEW-1302 |
| N/A | Maintenance Holes – Sewers \leq DN 300 – Changes in Level Details | SEW-1303 |
| N/A | Maintenance Holes – Sewers \leq DN 300 – Typical Channel Arrangements | SEW-1304 |
| N/A | Maintenance Holes – Typical Channel Arrangements | SEW-1305 |

| Requirement | WSAA Drawing Title | WSAA Drawing |
|--|--|---------------------|
| N/A | Maintenance Holes – Alternative Drop Connections | SEW-1307 |
| N/A | Maintenance Holes – Typical MH Cover Arrangements | SEW-1308 |
| N/A | Maintenance Holes – MH Connection Details – DN 110 to DN 450 PE Pipe | SEW-1313 |
| NT Variant | Maintenance Shafts – Typical Installation | SEW-1314 |
| N/A | Maintenance Shafts – MS & Variable Bend Installations | SEW-1315 |
| NT Variant | Maintenance Shafts – TMS and Connection Installations | SEW-1316 |
| NT Variant | Maintenance Shafts – Typical MS Cover Arrangements | SEW-1317 |
| | | |
| AIF | Buried Crossings – Syphon Arrangement | SEW-1400 |
| NT Variant | Buried Crossings - Railways | SEW-1401 |
| NT Variant | Buried Crossings – Major Roadways | SEW-1402 |
| AIF | Buried Crossings – Bored & Jacked Encasing Pipe Details | SEW-1403 |
| AIF | Aerial Crossings – Bridge Crossing Concepts | SEW-1406 |
| NT Variant | Ventilation Systems – Induct Vent | SEW-1407 |
| NT Variant | Ventilation Systems – Educt Vent | SEW-1408 |
| | | |
| NT Variant | Embedment & Trench Fill – Typical Arrangement | WAT-1201 |
| NT Variant | Standard Embedment – All Pipe Types | WAT-1202 |
| N/A | Special Embedments – Inadequate and Poor Foundation | WAT-1203 |
| N/A | Special Embedments – Concrete, Geotextile and Cement Stabilised Systems | WAT-1204 |
| NT Variant | Thrust Block Details Concrete Blocks | WAT-1205 |
| N/A | Thrust Block Details – Timber & Recycled Plastic Blocks | WAT-1206 |
| NT Variant | Thrust and Anchor Blocks – Gate Valves and Vertical Bends | WAT-1207 |
| AIF | Restrained Joint System – DN 100 to DN 375 DI Mains | WAT-1208 |
| AIF | Trench Drainage – Bulkheads & Trenchstop | WAT-1209 |
| N/A | Trench Drainage – Typical Systems | WAT-1210 |
| AIF | Buried Crossings Under Obstructions | WAT-1211 |
| AIF | Buried Crossing Major Roadways | WAT-1212 |
| AIF | Buried Crossings - Railways | WAT-1213 |
| NT Variant | Buried Crossings – Bored & Jacked Encasing Pipe Details | WAT-1214 |
| | | |
| N/A Refer W1-2-03D, W1-2-03F & W1-2-03H | Valve and Hydrant Identification Markers and Marker Posts | WAT-1300 |
| N/A Refer W1-2-03A, W1-2-03B & W1-2-03 | Typical Surface Fitting Installation – Gate Valve Surface Boxes – Non-Trafficable | WAT-1303 |
| N/A Refer W1-2-03A, W1-2-03B & W1-2-03 | Typical Surface Fitting Installation – Gate Valve Surface Boxes – Trafficable | WAT-1304 |
| NT Variant | Typical Appurtenance Installation – Scour Arrangements | WAT-1307 |
| AIF | Aerial Crossings - Aqueduct | WAT-1310 |
| AIF | Aerial Crossings – Aqueduct - Protection Grille | WAT-1311 |
| AIF | Aerial Crossings – Bridge Crossing Concepts | WAT-1312 |

| Requirement | WSAA Drawing Title | WSAA Drawing |
|--------------------|---|---------------------|
| AIF | Flanged Joints – Bolting Details | WAT-1313 |
| AIF | Typical Steel Pipe Jointing – Butt Welding of Joints | WAT-1400 |
| AIF | Typical Steel Pipe Jointing – Rubber Ring Joint Spigot Bands | WAT-1401 |
| NT Variant | Typical Steel Pipe Jointing – Welded Pipe Collars | WAT-1402 |
| NT Variant | Typical Steel Fabrication - Bends | WAT-1403 |
| NT Variant | Joint Corrosion Protection Cement Mortar Lined Steel Pipe DN 300 to DN 1200 | WAT-1408 |
| N/A | Hydrant Installation Fittings – PE Assemblies | WAT-1409 |