

**WARNING**  
 Where a metallic water service is to be replaced using non metallic pipe a licensed electrician shall assess affected property's electricity supply for defects and the likely effect on earthing adequacy. Work can commence once the electrician declares in writing that it is safe to proceed.



**DN.20 METER RENEWAL**

1 : 5

**GENERAL NOTES**

1. All dimensions in millimeters (mm), unless noted otherwise.
2. DN refers to the nominal internal diameter of the installation/components.
3. Installation and fittings schedule is also suitable for DN.25 meter.
4. All existing metallic service connections should be considered an electrical hazard and electrical bridging leads (min. 70 Amp rating) and low voltage insulated gloves should be utilised at all times.
5. Reinstate all surfaces to match existing.
6. Reinstall property pressure limiting valve where existing.
7. Installation must comply with Manufacturer's specifications.
8. Connectors and gate valves must be pressure rated PN16. Minimum body dezincification resistant brass to AS/NZS 2345 and comply with Potable Water Contact to AS/NZS 4020.
9. Provide additional adaptors to suit the existing property connection materials.
10. All products to be in accordance with TasWater's approved products catalogue.
11. All copper fittings to be 'Viega pro-press' system, or equivalent.
12. All pipes and fittings are to be approved by TasWater.

SCHEDULE OF ITEMS	
No.	DESCRIPTION
①	Pipe and Fittings (PN 16 minimum)
②	Nut and Tail Connector
③	Ball Valve - W/MRK R/A Lockable Quarter Turn Brass DZR, Resilient Seated with Extendable Nut and Tail.
④	'Sensus' Water Meter with Dual Check Valve

**ITEMS SUPPLIED BY TASWATER**

1. Water meter - complete with inbuilt strainer and dual check valve.
2. Water meter nuts and tails.
3. Valves

**ITEMS NOT SUPPLIED BY TASWATER**

1. Pipework and adaptor couplings.

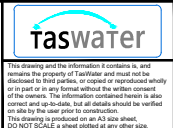


<b>Revision Notes</b>					
5. AMENDMENTS TO SHEETS 7, 12 AND 17					
6. UPDATE GEN NOTES TO SHEETS 1, 2, 3, 5, 6, 8, 9, 10 AND 11					
Rev.	6	Date	28/06/2023	Approved	G. HENDERSON

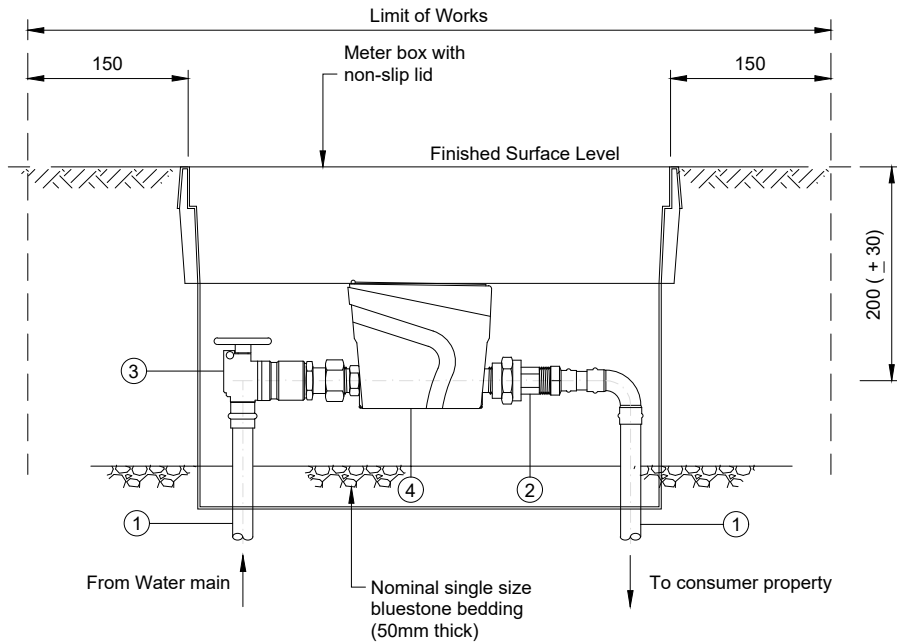


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Sheet Size	A3
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Verified	R. JAMES	20/03/2017
Project No.	JR16982-035	Discipline W
Vault Folder	STANDARDS	2018
HPRM File Ref.	T15832-006-0004	



<b>TASWATER STANDARD DRAWING</b>		
PROPERTY SERVICE CONNECTIONS		
DN.20 AND DN.25 WATER METER RENEWAL		
ABOVE GROUND		
TASMANIAN WATER & SEWAGE CORPORATION PTY LTD		Sheet Number
ABN: 47 162220 633		REVISED BY
TWS-W-0002		01 of 19
		6



### DN.20 METER RENEWAL

1 : 5

SCHEDULE OF ITEMS	
No.	DESCRIPTION
①	Pipe and Fittings (PN 16 minimum)
②	Nut and Tail Connector
③	Ball Valve - W/MRK R/A Lockable Quarter Turn Brass DZR, Resilient Seated with Extendable Nut and Tail.
④	'Sensus' Water Meter with Dual Check Valve

**WARNING**  
 Where a metallic water service is to be replaced using non metallic pipe a licensed electrician shall assess affected property's electricity supply for defects and the likely effect on earthing adequacy. Work can commence once the electrician declares in writing that it is safe to proceed.



LOCATION	METER BOX TYPE
Non Trafficable	Standard polyethylene meter box with black/green non-slip lid ('Draper' Model DRA 20/1 or 20/3)
Footpath and Paved areas (Class B to AS/NZS 3996)	Standard polyethylene meter box with galvanised non-slip lid ('Draper' Model DRA 30/5)
Trafficable	Proprietary or in-situ meter boxes with trafficable lids to AS/NZS 3996

### GENERAL NOTES

- All dimensions in millimeters (mm), unless noted otherwise.
- DN refers to the nominal internal diameter of the installation/components.
- Installation and fittings schedule is also suitable for DN.25 meter.
- All existing metallic service connections should be considered an electrical hazard and electrical bridging leads (min. 70 Amp rating) and low voltage insulated gloves should be utilised at all times.
- Reinstate all surfaces to match existing.
- Footpaths and paved areas are defined as areas with a Class B wheel loading to AS/NZS 3996. In areas with wheel loading greater than Class B then a polyethylene pit is unsuitable.
- In footpaths and paved areas the Polyethylene meter box must be supported with an insitu N25 concrete surround of minimum dimension 50 wide and 100 deep ('Rapidset' not permitted).
- Reinstall property pressure limiting valve where existing.
- Installation must comply with Manufacturer's specifications.
- Connectors and gate valves must be pressure rated PN16. Minimum body dezincification resistant brass to AS/NZS 2345 and comply with Potable Water Contact to AS/NZS 4020.
- Provide additional adaptors to suit the existing property connection materials.
- All products to be in accordance with TasWater's approved products catalogue.
- All copper fittings to be 'Vienga pro-press' system, or equivalent.
- All pipes and fittings are to be approved by TasWater.

### ITEMS SUPPLIED BY TASWATER

- Polyethylene meter box
- Water meter - complete with inbuilt strainer and dual check valve.
- Water meter nuts and tails.
- Valves

### ITEMS NOT SUPPLIED BY TASWATER

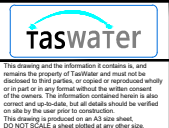
- Pipework and adaptor couplings.

Revision Notes				
5. AMENDMENTS TO SHEETS 7, 12 AND 17				
6. UPDATE GEN NOTES TO SHEETS 1, 2, 3, 5, 6, 8, 9, 10 AND 11				
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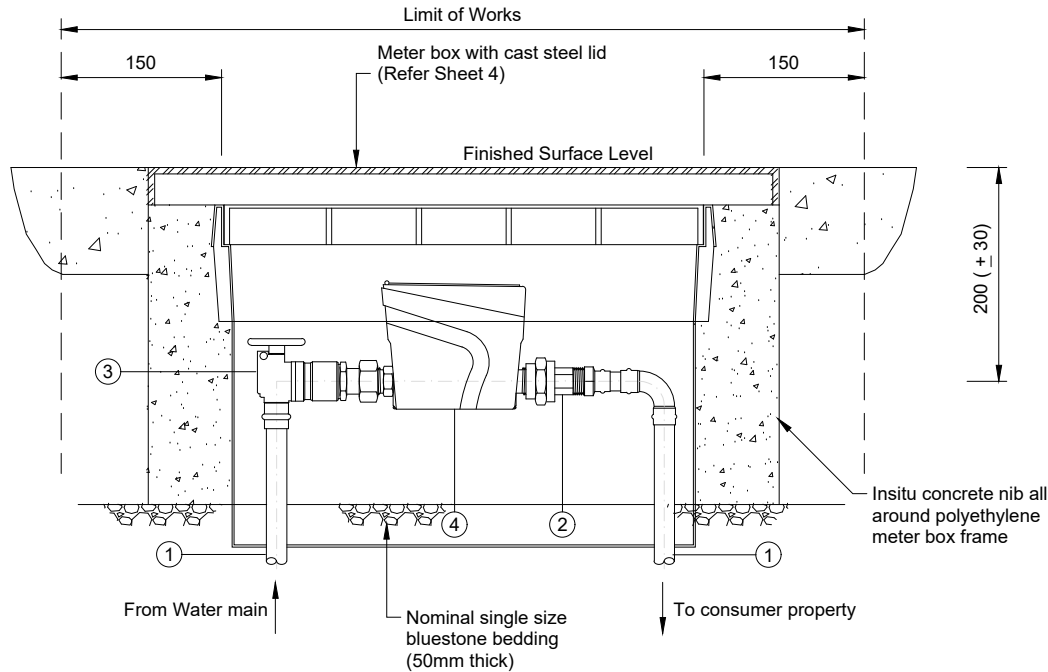


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TASWATER STANDARD DRAWING		
6		
DN.20 AND DN.25 WATER METER RENEWAL		
BELOW GROUND (NON-TRAFFICABLE)		
TASMANIAN WATER & SEWAGE CORPORATION PTY LTD	Drawn Number	REVISIONS
ABR: 47 16220 653	TWS-W-0002	02 of 19 5



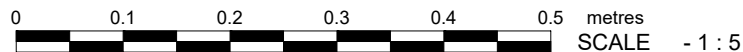
## DN.20 METER RENEWAL

1 : 5

SCHEDULE OF ITEMS	
No.	DESCRIPTION
①	Pipe and Fittings (PN 16 minimum)
②	Nut and Tail Connector
③	Ball Valve - W/MRK R/A Lockable Quarter Turn Brass DZR, Resilient Seated with Extendable Nut and Tail.
④	'Sensus' Water Meter with Dual Check Valve

### WARNING

Where a metallic water service is to be replaced using non metallic pipe a licensed electrician shall assess affected property's electricity supply for defects and the likely effect on earthing adequacy. Work can commence once the electrician declares in writing that it is safe to proceed.



LOCATION	METER BOX TYPE
Non Trafficable	Standard polyethylene meter box with green/black non-slip lid ('Draper' Model DRA 20/1 or 20/3)
Footpath and Paved areas (Class B to AS/NZS 3996)	Standard polyethylene meter box with galvanised non-slip lid ('Draper' Model DRA 30/5)
Trafficable	Proprietary or in-situ meter boxes with trafficable lids to AS/NZS 3996

### GENERAL NOTES

- All dimensions in millimeters (mm), unless noted otherwise.
- Installation and fittings schedule is also suitable for DN.25 meter.
- DN refers to the nominal internal diameter of the installation/components.
- All existing metallic service connections should be considered an electrical hazard and electrical bridging leads (min. 70 Amp rating) and low voltage insulated gloves should be utilised at all times.
- Reinstate all surfaces to match existing.
- Footpaths and paved areas are defined as areas with a Class B wheel loading to AS/NZS 3996. In areas with wheel loading greater than Class B then a polyethylene pit is unsuitable.
- In footpaths and paved areas the Polyethylene meter box must be supported with an insitu N25 concrete surround of minimum dimension 50 wide and 100 deep ('Rapidset' not permitted).
- Reinstall property pressure limiting valve where existing.
- Installation must comply with Manufacturer's specifications.
- Connectors and gate valves must be pressure rated PN16. Minimum body dezincification resistant brass to AS/NZS 2345 and comply with Potable Water Contact to AS/NZS 4020.
- Provide additional adaptors to suit the existing property connection materials.
- All products to be in accordance with TasWater's approved products catalogue.
- All copper fittings to be 'Vienga pro-press' system, or equivalent.
- All pipes and fittings are to be approved by TasWater.

### ITEMS SUPPLIED BY TASWATER

- Polyethylene meter box
- Water meter - complete with inbuilt strainer and dual check valve.
- Water meter nuts and tails.
- Valves

### ITEMS NOT SUPPLIED BY TASWATER

- Pipework and adaptor couplings.

Revision Notes  
5. AMENDMENTS TO SHEETS 7, 12 AND 17  
6. UPDATE GEN NOTES TO SHEETS 1, 2, 3, 5, 6, 8, 9, 10 AND 11

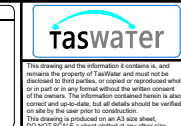
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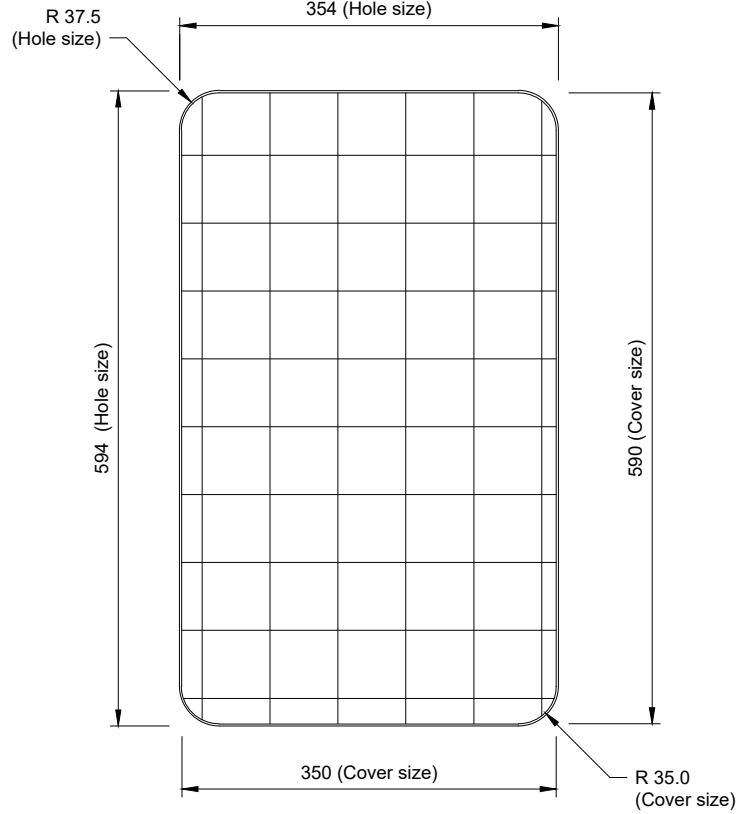
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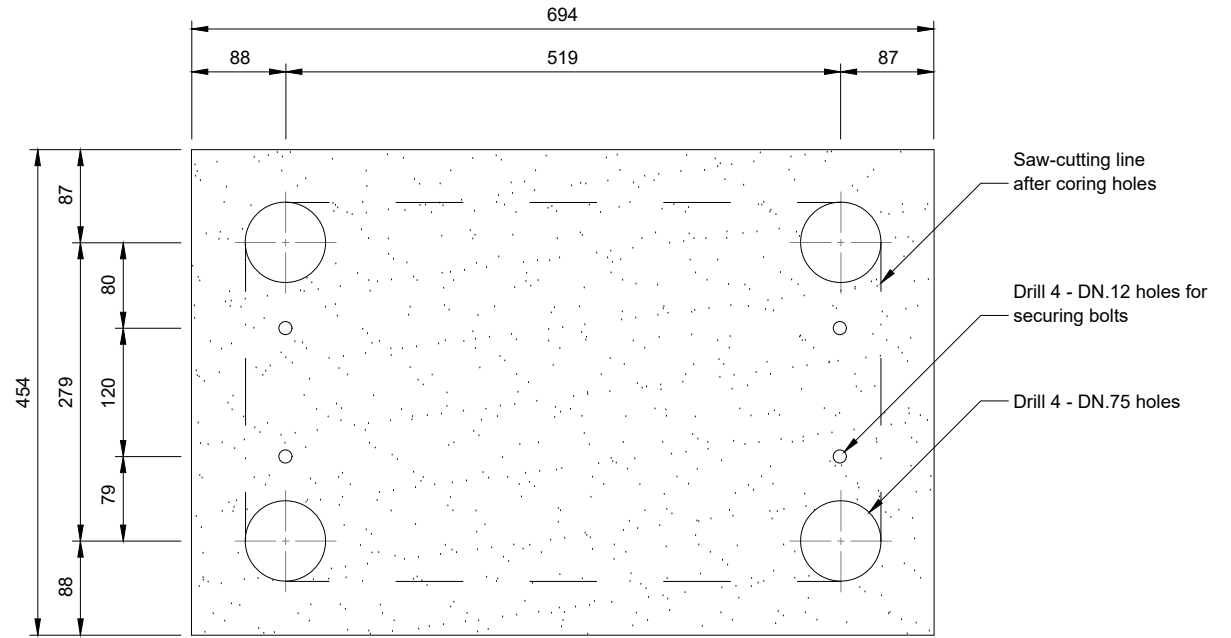
DRAWING ISSUE  
**APPROVED**



TASWATER STANDARD DRAWING PROPERTY SERVICE CONNECTIONS DN.20 AND DN.25 WATER METER RENEWAL BELOW GROUND (TRAFFICABLE)	
TASMANIAN WATER & SEWAGE CORPORATION PFLY LTD ABR: 47 162220 653	Sheet Number: TWS-W-0002 Revision: 03 of 19 6



(6mm steel plate)  
**CAST STEEL COVER**  
 1 : 5



**CONCRETE DRILLING TEMPLATE**  
 1 : 5

**GENERAL NOTES**

- All dimensions in millimeters (mm), unless noted otherwise.
- Installation
  - Locate position in property for water meter.
  - Secure template in place with 4 x M10 chemical anchors.
  - Core DN.75 holes into concrete using the template as a guide.
  - Remove template and saw-cut concrete to form opening for cast iron cover.



Revision Notes					
5. AMENDMENTS TO SHEETS 7, 12 AND 17					
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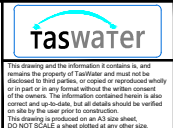


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Project No.	JR16982-035	Discipline W
Vault Folder	STANDARDS	2018
HPRM File Ref.	T1582-006-0004	

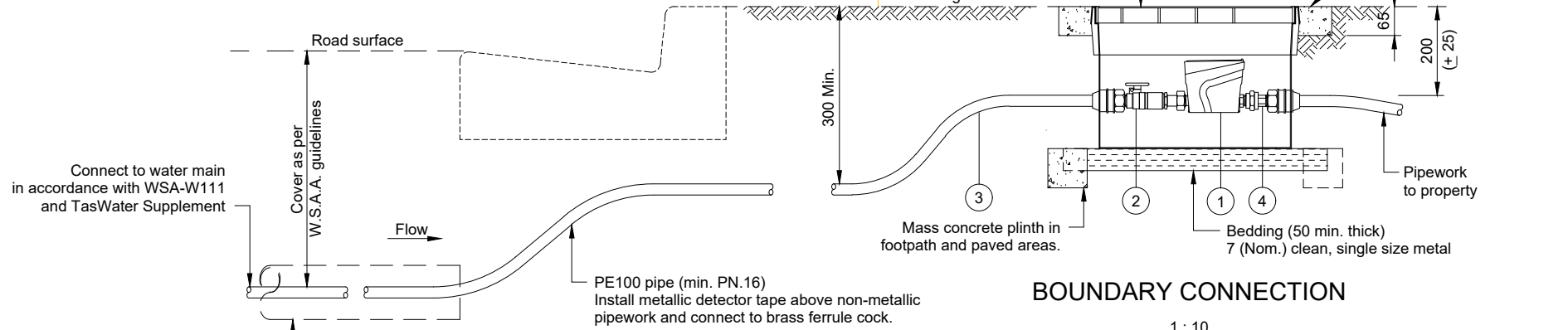
DRAWING ISSUE

**APPROVED**



<b>TASWATER STANDARD DRAWING</b>			
PROPERTY SERVICE CONNECTIONS			
CAST STEEL COVER			
AND CUTTING TEMPLATE			
TASMANIAN WATER & SEWAGE CORPORATION PTY LTD ABN: 47 162220 653		Sheet Number	REVISED
		TWS-W-0002	04 of 19 5

TABLE 1	
LOCATION	METER BOX TYPE
Non Trafficable (Class A to AS/NZS 3996 - extra light duty)	Standard polyethylene meter box with green non-slip lid (‘Draper’ Model DRA 20/3, or similar approved)
Footpath and Paved areas (Class B to AS/NZS 3996 - light duty)	Alluminium alloy meter box with alloy non-slip lid (‘Bennet & Kingston’ box and lid, or similar approved)



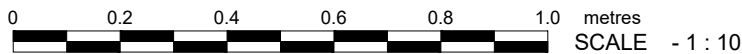
SCHEDULE OF ITEMS		
No.	DESCRIPTION	COMMENTS
①	‘Sensus’ Water Meter with Dual Check Valve	Supplied by TasWater
②	Ball Valve - W/MRK Lockable Quarter Turn Brass DZR, Resilient Seated with Extendable Nut and Tail	Supplied by TasWater
③	Pipe and Fittings (PN.16 minimum)	
④	Brass Nut and Tail	Supplied by TasWater

### GENERAL NOTES

- All dimensions in millimeters (mm), unless noted otherwise.
- DN refers to the nominal internal diameter of the installation/components.
- Water connection to be located next to driveway entrance.
- Water connection point to be located between driveway entrance and nearest side boundary, unless otherwise approved.
- Light trafficable areas are defined as areas with Class 'B' wheel loadings to AS/NZS 3996. In areas with wheel loadings greater than Class 'B' then an aluminium alloy pit with concrete surround is unsuitable.
- In rural and semi-rural situations the cast iron mains cover may be replaced with a DN.150 PVC end connection and screw cap where approved by authorised officer.
- Refer to TasWater's boundary backflow containment guidelines for hazard ratings.
- Any pressure limiting valves installed under the requirements of clause 3.3.4 of AS.3500.1-2003 are to be installed outside of and downstream of the meter box.
- After installation of meter, TasWater must be notified by returning meter sheet to "Development@taswater.com.au" stating TasWater reference number in subject line.
- Failure to install or contact TasWater after installation will result in non issue of any compliance certificates.

### VALVE & EQUIPMENT SCHEDULE

- Only use products with watermark certification and approved for use by TasWater and listed within TasWater's approved products catalogue.
- Installation must comply with manufacturer's written instructions
- TPFNR ferrule cock, connectors, tapping band and gate valve must be pressure rated PN16 minimum body dezincification brass to AS/NZS 2345 and comply with potable water contact to AS/NZS 4020.
- All valves must be resilient seated, clockwise closing to AS 1628 with 316 stainless steel bolts and washers.
- In footpaths and paved areas the meter box must be supported with insitu N25 concrete.
- Unless approved otherwise the water meter/s, tails and meter boxes are to be supplied by TasWater.

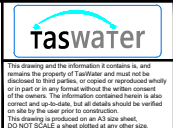


Revision Notes				
5. AMENDMENTS TO SHEETS 7, 12 AND 17				
6. UPDATE GEN NOTES TO SHEETS 1, 2, 3, 5, 6, 8, 9, 10 AND 11				
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Sheet Size	A3
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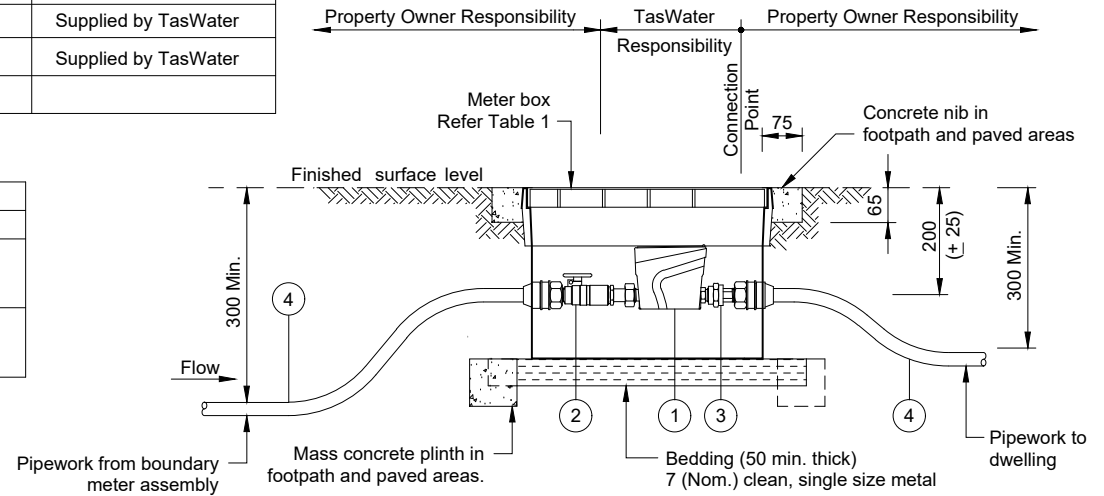
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Project No.	JR16982-035	Discipline W
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TASWATER STANDARD DRAWING PROPERTY SERVICE CONNECTIONS DN.20 AND DN.25 WATER METERS BELOW GROUND (LOW HAZARD)		
TASMANIAN WATER & SEWAGE CORPORATION PTY LTD ABN: 47 162220 633	Sheet Number TWS-W-0002	REVISIONS 05 of 19 6

SCHEDULE OF ITEMS		
No.	DESCRIPTION	COMMENTS
①	'Sensus' Water Meter with Dual Check Valve	Supplied by TasWater
②	Ball Valve - W/MRK Lockable Quarter Turn Brass DZR, Resilient Seated wih Extendable Nut and Tail	Supplied by TasWater
③	Brass Nut and Tail	Supplied by TasWater
④	Pipe and Fittings (PN.16 minimum)	

TABLE 1	
LOCATION	METER BOX TYPE
Non Trafficable (Class A to AS/NZS 3996 - extra light duty)	Standard polyethylene meter box with green non-slip lid ('Draper' Model DRA 20/3, or simiar approved)
Footpath and Paved areas (Class B to AS/NZS 3996 - light duty)	Alluminium alloy meter box with alloy non-slip lid ('Bennet & Kingston' box and lid, or similar approved)



### METER CONNECTION

1 : 10

#### GENERAL NOTES

- All dimensions in millimeters (mm), unless noted otherwise.
- DN refers to the nominal internal diameter of the installation/components.
- All existing service connections should be considered an electrical hazard and electrical bridging leads (min. 70 Amp rating) and low voltage insulated gloves shall be utilised at all times.
- Water meter to be located in common ground in front of dwelling.
- Applicant must install water meter within appropriate pit as per these drawings.
- Works to be completed by a competent plumber.
- Installation must meet these requirements, if not TasWater will rectify with all associated cost to be borne by the applicant / developer.
- Any pressure limiting valves installed under the requirements of clause 3.3.4 of AS 3500.1-2003 are to be installed outside of and downstream of the meter box.
- After installation of meter, TasWater must be notified by returning meter sheet to [Development@taswater.com.au](mailto:Development@taswater.com.au) stating TasWater reference number in subject line.
- Failure to install or contact TasWater after installation will result in non issue of any compliance certificates.

#### VALVE & EQUIPMENT SCHEDULE

- Only use products with watermark certification and approved for use by TasWater and listed within TasWater's approved products catalogue.
- Installation must comply with manufacturer's written instructions
- All valves must be resilient seated, clockwise closing to AS 1628 with 316 stainless steel bolts and washers.
- In footpaths and paved areas the meter box must be supported with insitu N25 concrete.
- Unless approved otherwise the water meter/s, tails and meter boxes are to be supplied by TasWater.

**WARNING**  
Where a metallic water service is to be replaced using non metallic pipe a licensed electrician shall assess affected property's electricity supply for defects and the likely effect on earthing adequacy. Work can commence once the electrician declares in writing that it is safe to proceed.

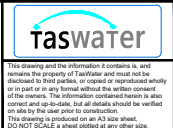


Revision Notes				
5. AMENDMENTS TO SHEETS 7, 12 AND 17				
6. UPDATE GEN NOTES TO SHEETS 1, 2, 3, 5, 6, 8, 9, 10 AND 11				
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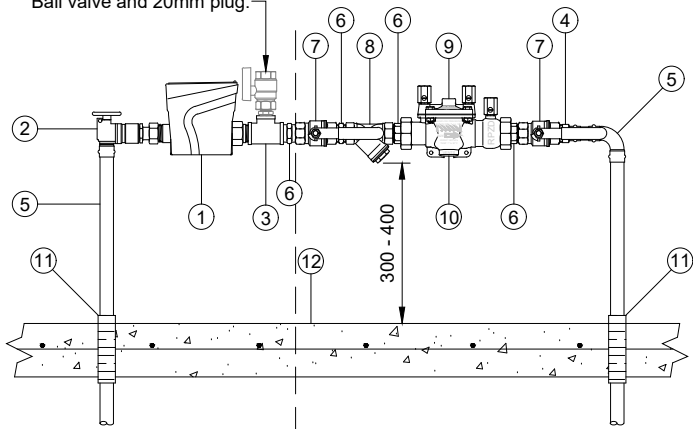
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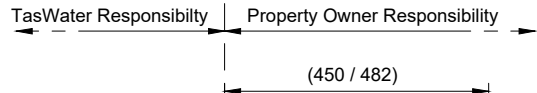
TASWATER STANDARD DRAWING PROPERTY SERVICE CONNECTIONS DN.20 AND DN.25 WATER METERS SUB METER (LOW HAZARD)		
TASMANIAN WATER & SEWAGE CORPORATION PTY LTD ABN: 47 162220 653	Sheet Number <b>TWS-W-0002</b>	Revision <b>06 of 19</b>

20mm Tapping for Pressure Testing,  
Ball valve and 20mm plug.



**ELEVATION**

1 : 10



**PLAN**

1 : 10

Direction of Flow

Direction of Flow

**VALVE & EQUIPMENT SCHEDULE**

1. Only use products with watermark certification and approved for use by TasWater and listed within TasWater's approved products catalogue.
2. Installation must comply with manufacturer's written instructions.
3. All valves must be resilient seated, clockwise closing to AS 1628 with 316 stainless steel bolts and washers.
4. Unless approved otherwise the water meter/s, tails and meter boxes are to be supplied by TasWater.



**SCHEDULE OF ITEMS**

No.	DESCRIPTION	COMMENTS
①	DN.25 'Sensus' Water meter with Dual Check Valve	Supplied by TasWater
②	DN.25 Ball Valve - W/MRK R/A Lockable Quarter Turn Brass DZR, Resilient Seated with Extendable Nut and Tail	
③	DN.25 x 20 Brass Tee (Fem - Fem x Fem)	Or Approved Equivalent
④	DN.25 'Viega' Pro-press Water Male Line Adaptor	Or Approved Equivalent
⑤	DN.25 Type 'A' Copper Pipework	
⑥	DN.25 Brass Nipple	
⑦	DN.25 Ball Valve - Lockable Quarter Turn brass DZR with brass handle, resilient seated.	
⑧	DN.25 Strainer	Owned, operated and maintained by Property Owner
⑨	Medium Hazard DN.25 'ValvCheQ' DC03 Double Check Valve - or equivalent High hazard DN.25 'ValvCheQ' RPZD RP03 Valve Only - or equivalent	Owned, operated and maintained by Property Owner
⑩	Vent only applies to RPZD	
⑪	Pipe Wrapped where Concrete will contact Pipe	(Refer Note 5)
⑫	100mm (minimum) Reinforced Concrete Slab	SL72 placed central

**GENERAL NOTES**

1. All dimensions in millimeters (mm), unless noted otherwise.
2. DN refers to the nominal internal diameter of the installation/components.
3. Installation and fittings schedule is also suitable for DN.20 meter.
4. Dimensions shown in brackets apply to (DN.20 / DN.25) based on a ValvCheQ Backflow device being installed. If an alternative backflow device is installed confirm dimensions.
5. All existing metallic service connections should be considered an electrical hazard and electrical bridging leads (min. 70 Amp rating) and low voltage insulated gloves should be utilised at all times.
6. All metallic pipe work to be 'Denso' wrapped, or equivalent where it comes in contact with concrete - to protect it from corrosion.
7. Where a vented back flow prevention device is required such as a Reduced Pressure Zone Device (RPZD) it shall:
  - Comply with AS 3500 and AS 2845; and shall
  - Have free ventilation to the atmosphere for the relief valve at all times.
  - Not to be in an area that may be subject to ponding;
  - Have the relief drain outlet not less than 300mm above the surrounding surface.
8. Install the meter assembly in cage in accordance with TWS-W-0003.
9. Install and locate the meter assembly so that the meter can be easily read.
10. The Property Owner is responsible for the ongoing maintenance of the security cage.

Revision Notes				
5. AMENDMENTS TO SHEETS 7, 12 AND 17, UPDATES TO ValvCheQ NOTE				
6. UPDATE GEN NOTES, UPDATE METER HT TO SHEETS 7 AND 12				
Rev.	Date	Approved		
6	28/06/2023	G. HENDERSON		

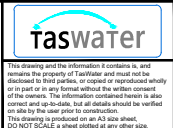


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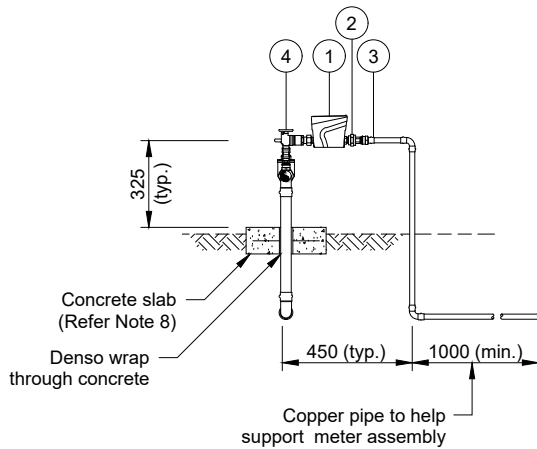
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DRAWING ISSUE

**APPROVED**



<b>TASWATER STANDARD DRAWING</b>						
<b>PROPERTY SERVICE CONNECTIONS</b>						
<b>DN.20 AND DN.25 WATER METERS</b>						
<b>MEDIUM - HIGH HAZARD</b>						
TASMANIAN WATER & SEWAGE CORPORATION PTY LTD ABN: 47 162220 653		<table border="1"> <tr> <td>Sheet Number</td> <td>07 of 19</td> </tr> <tr> <td>Revision</td> <td>6</td> </tr> </table>	Sheet Number	07 of 19	Revision	6
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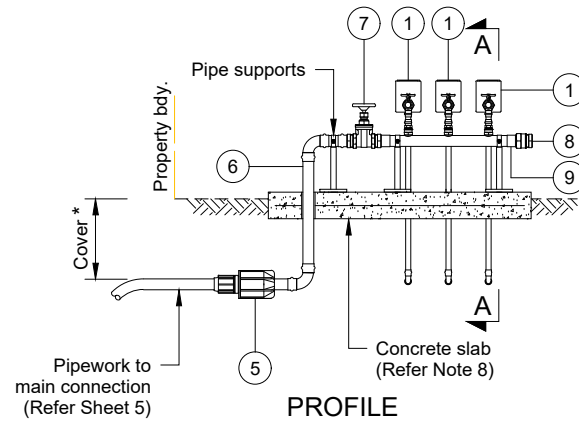


SECTION A - A

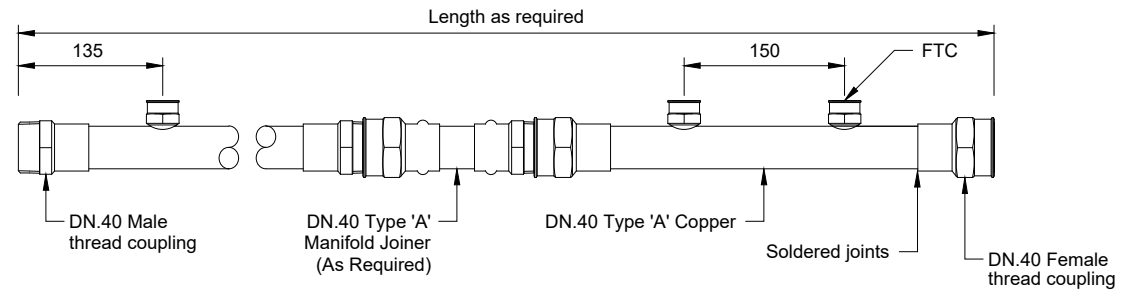
ABOVE GROUND

1 : 20

Cover \* 300 Min. for non-trafficable  
450 Min. for trafficable  
(Refer Table 5.3 of AS3500.1)



PROFILE



(FTC - DN20 Female thread coupling, typ. 3 places)

DN.40 MANIFOLD

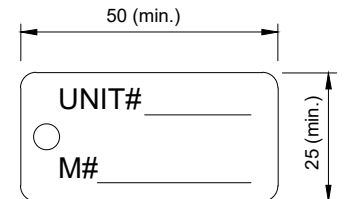
1 : 5

VALVE & EQUIPMENT SCHEDULE

1. Only use products with watermark certification and approved for use by TasWater and listed within TasWater's approved products catalogue.
2. Installation must comply with manufacturer's written instructions.
3. All valves must be resilient seated, clockwise closing to AS 1628 with 316 stainless steel bolts and washers.
4. In footpaths and paved areas the meter box must be supported with insitu N25 concrete.
5. Unless approved otherwise the water meter/s, tails and meter boxes are to be supplied by TasWater.

GENERAL NOTES

1. All dimensions in millimeters (mm), unless noted otherwise.
2. DN refers to the nominal internal diameter of the installation/components.
3. The meter assemblies are to be installed and located so that the meters can be easily read.
4. For pipes less than DN.100, or where freezing is likely the cage is to be lined with a polycarbonate frost shield.
5. Where a vented back flow prevention device is required such as a Reduced Pressure Zone Device (RPZD) it shall - comply with AS 3500 and AS 2845 and shall:
  - have free ventilation to the atmosphere for the relief valve at all times;
  - not be in an area that may be subject to ponding;
  - have the relief drain outlet not less than 300mm above the surrounding surface.
6. The cage enclosure and associated support structure shall be hot-dipped galvanised after fabrication to AS 2312 : 2002.
7. All supports shall be designed to suit the pipes and assembly sizes selected.
8. The property owner is responsible for the ongoing maintenance of the security cage.
9. Concrete slab - 100mm thick, 25Mpa and with SL72 reinforcement placed central.
  - With Cage {extend the finished edge 50mm (all round) past the proposed cage size}.
  - Without Cage {Pipe work to be placed centrally on slab and the finished edge 150mm from pipe edge}.
10. All meters shall be tagged with a meter tag that clearly shows the unit # and meter number.
11. The meter tag shall have a hole to allow attachment to meter assembly.
12. The meter tag needs to be of a material that is water proof and the required information to be in a legible permanent print to identify the meter.



METER TAG

N.T.S.

SCHEDULE OF ITEMS		
No.	DESCRIPTION	COMMENTS
①	'Sensus' Water Meter with Dual Check Valve	Supplied by TasWater
②	Brass Nut and Tail	Supplied by TasWater
③	'Viega' Pro-press Water Female Line Adaptor	Or Approved Equivalent
④	Ball Valve - W/MRK R/A Lockable Quarter Turn Brass DZR, Resilient Seated with Extendable Nut and Tail.	
⑤	Universal Adaptor	
⑥	Type 'A' Copper Pipework	
⑦	Gate Valve - Brass, Resilient Seated with Brass handle	
⑧	DN.40 Brass Plug	
⑨	DN.40 Type 'A' Copper Manifold	Refer Detail

Revision Notes  
5. AMENDMENTS TO SHEETS 7, 12 AND 17  
6. UPDATE GEN NOTES TO SHEETS 1, 2, 3, 5, 6, 8, 9, 10 AND 11

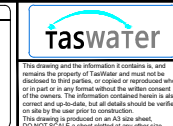
Rev.	Date	Approved
6	28/06/2023	G. HENDERSON



Scale	AS SHOWN
Datum	N/A
Sheet Size	A3

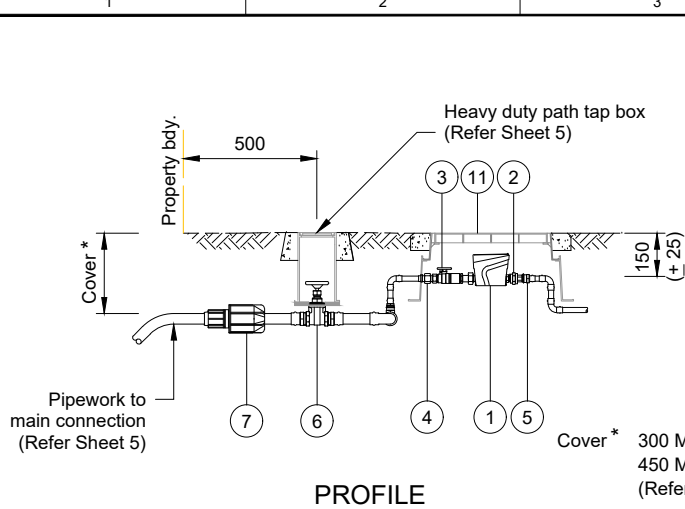
Drawn	R. HAWLEY	07/02/2017
Designed	R. CAMERON	08/02/2017
Verified	R. JAMES	20/03/2017
Project No.	JR16982-035	Discipline W
Vault Folder	STANDARDS	© 2018
HPRM File Ref.	T15932-006-0004	

DRAWING ISSUE  
**APPROVED**

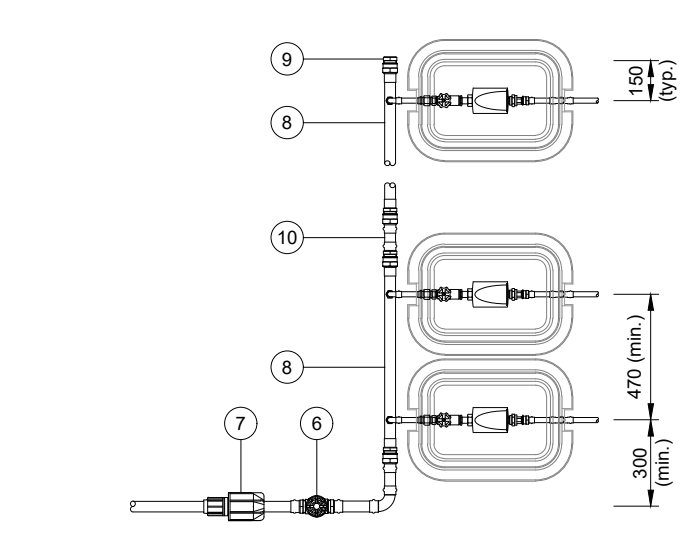


TASWATER STANDARD DRAWING PROPERTY SERVICE CONNECTIONS DN.20 WATER METER MANIFOLD ABOVE GROUND		
TASMANIAN WATER & SEWAGE CORPORATION PTY LTD ABN: 47 162220 653	Sheet Number <b>TWS-W-0002</b>	REVISED BY <b>08 of 19 6</b>



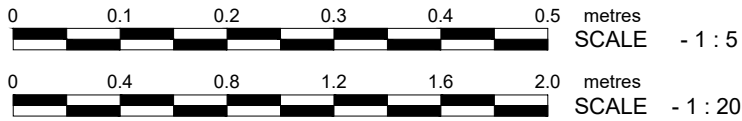


PROFILE

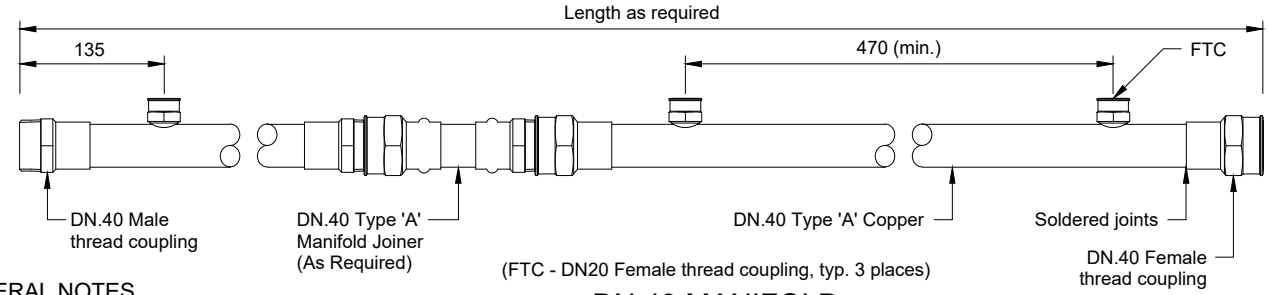


PLAN VIEW  
BELOW GROUND

1 : 20



SCHEDULE OF ITEMS		
No.	DESCRIPTION	COMMENTS
①	'Sensus' Water Meter with Dual Check Valve	Supplied by TasWater
②	Brass Nut and Tail	Supplied by TasWater
③	Ball Valve - W/MRK Lockable Quarter Turn Brass DZR, Resilient Seated with Extendable Nut and Tail	
④	'Viega' Pro-press Water Female Line Adaptor	Or Approved Equivalent
⑤	'Viega' Pro-press Water Female Line Adaptor	Or Approved Equivalent
⑥	Gate Valve - Brass DZR, Resilient Seated with Brass Handle	
⑦	Universal Adaptor	
⑧	DN.40 Type 'A' Copper Manifold	Refer Detail
⑨	DN.40 Brass Plug	
⑩	DN.40 Type 'A' Manifold Joiner (As Required)	
⑪	Meter Pit - Non-Trafficable 'Draper' Model Modular DRA 100, or similar	Refer Sheet 5

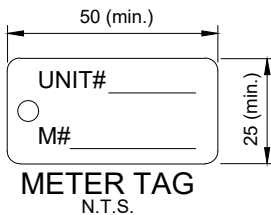


DN.40 MANIFOLD

1 : 5

GENERAL NOTES  
BELOW GROUND

- All dimensions in millimeters (mm), unless noted otherwise.
- DN refers to the nominal internal diameter of the installation/components.
- Water connection to be located next to driveway entrance.
- Light trafficable areas are defined as areas with a Class 'B' wheel loading to AS/NZS 3996. In areas with a wheel loading greater than Class 'B' then a "Draper" pit is unsuitable.
- All meters shall be tagged with a meter tag that clearly shows the unit # and meter number.
- The meter tag shall have a hole to allow attachment to meter assembly.
- The meter tag needs to be of a material that is water proof and the required information to be in a legible permanent print to identify the meter.



VALVE & EQUIPMENT SCHEDULE

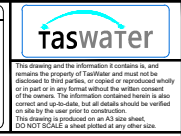
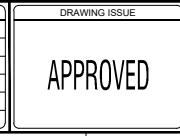
- Only use products with watermark certification and approved for use by TasWater and listed within TasWater's approved products catalogue.
- Installation must comply with manufacturer's written instructions.
- All valves must be resilient seated, clockwise closing to AS 1628 with 316 stainless steel bolts and washers.
- In footpaths and paved areas the meter box must be supported with insitu N25 concrete.
- Unless approved otherwise the water meter/s, tails and meter boxes are to be supplied by TasWater.

Revision Notes				
5. AMENDMENTS TO SHEETS 7, 12 AND 17				
6. UPDATE GEN NOTES TO SHEETS 1, 2, 3, 5, 6, 8, 9, 10 AND 11				
Rev.	6	Date	28/06/2023	Approved
				G. HENDERSON



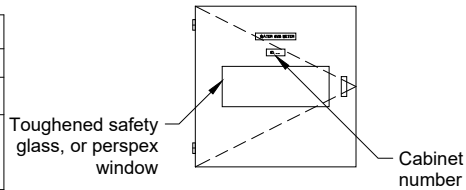
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Verified	R. JAMES	20/03/2017
Project No.	JR16982-035	Discipline W
Vault Folder	STANDARDS	© 2018
HPRM File Ref.	T1582-006-004	



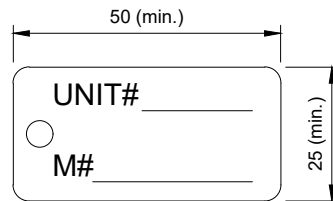
TASWATER STANDARD DRAWING PROPERTY SERVICE CONNECTIONS DN.20 WATER METER MANIFOLD BELOW GROUND			
TASMANIAN WATER & SEWAGE CORPORATION PTY LTD ABR: 47 16220 653			Sheet Number TWS-W-0002
			Revision 09 of 19
			Page 6

SCHEDULE OF ITEMS		
No.	DESCRIPTION	COMMENTS
①	'Sensus' Water meter with Dual Check Valve	Supplied by TasWater
②	Ball Valve - W/MRK Lockable Quarter Turn Brass DZR, Resilient Seated with Extendable Nut and Tail	
③	'Viega' Pro-press Water Female Line Adaptor	Or Approved Equivalent
④	Type 'A' Copper Pipework	
⑤	DN.40 Copper Manifold	Refer Sheet 8



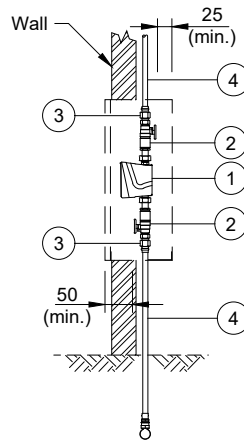
### CABINET DOOR LAYOUT

1 : 20

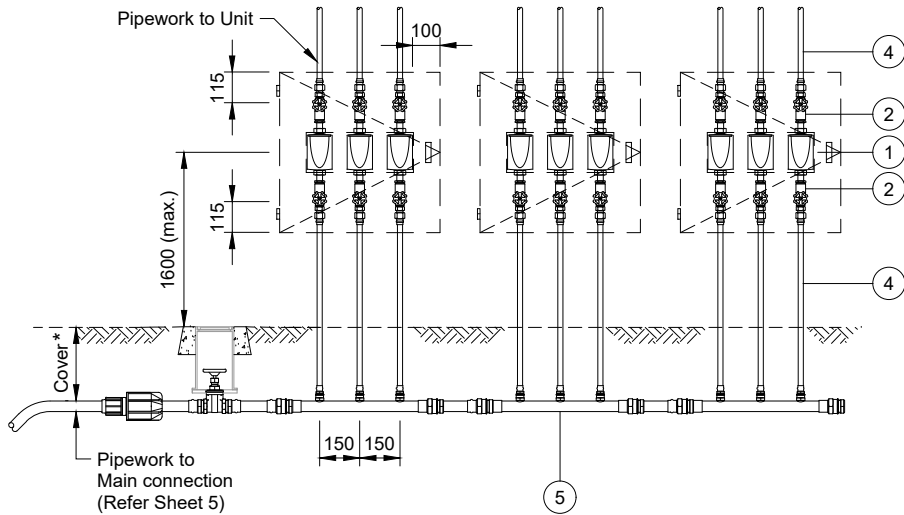


### METER TAG

N.T.S.



Cover \* 300 Min. for non-trafficable  
450 Min. for trafficable  
(Refer Table 5.3 of AS3500.1)



### FRONT VIEW

### SIDE VIEW

### CABINET GENERAL ARRANGEMENT



### VALVE & EQUIPMENT SCHEDULE

1. Only use products with watermark certification and approved for use by TasWater and listed within TasWater's approved products catalogue.
2. Installation must comply with manufacturer's written instructions.
3. All valves must be resilient seated, clockwise closing to AS 1628 with 316 stainless steel bolts and washers.
4. Unless approved otherwise the water meter/s, tails and meter boxes are to be supplied by TasWater.

### GENERAL NOTES

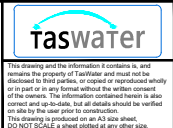
1. All dimensions in millimeters (mm), unless noted otherwise.
2. DN refers to the nominal internal diameter of the installation/components.
3. The meters are to be easily accessible and readable from floor level of common property. Maximum height for the centreline of the meter assembly is to be 1600mm.
4. Where meters are located in a utility room, adequate ventilation must be provided. The cupboard must not be classified as a confined space for entry purposes.
5. The cabinet shall be marked clearly with the words "Water Meters" on the outside of the door as shown. Where more than one meter cabinet is installed then each cabinet shall have a cabinet ID number fixed to the outside of the door as shown.
6. All cabinets shall be either banded as shown, or drained to the stormwater system to manage seepage from maintenance events. All penetrations shall be sealed.
7. The cabinet shall have a minimum 100mm bund if it is located inside a building.
8. The cabinet size shall provide for the minimum dimensions shown.
9. Water meter cabinets shall allow access to the meter assembly for maintenance and customer interactions.
10. A minimum of 2 sq. metres, or an area of 1.5 x door width (which ever is greater) shall be provided for maintenance and customer interaction. The cabinet shall have adequate lighting during daylight hours and shall not require additional aids such as ladders to maintain meters or to obtain meter data.
11. There will be sufficient room for the cabinet door(s) to swing open completely and provision for them to be held open.
12. The cabinet material shall be either 1mm thick steel, or 1.5mm thick 5251, or 5083 alloy aluminium. Cabinets shall be powder coated to suit building architecture.
13. The cabinet door(s) are to be fabricated from a non-metallic product, preferable to have either toughened safety glass or perspex viewing port to enable easy viewing of meter assembly without opening doors.
14. The cabinet does not need to be locked, but must be fitted with a latch where a double padlock can be fitted in the future as required.
15. The meter cabinet shall be strategically located to enable best maximum range for AMR (best option is by locating meter cabinet so that the TasWater meter reader can automatically read the meters from the closest road frontage without having to enter the complex.)
16. All external edges are to be rounded.
17. Cabinet door(s) shall have a hand operated one point stainless steel quarter turn latch to close the door and shall have lift off type hinges with hinge pins - both stainless steel.
18. The meters may be installed in a fire facility cabinet with shown installation dimensions to be maintained.
19. All meters shall be tagged with a meter tag that clearly shows the unit # and meter number.
20. The meter tag shall have a hole to allow attachment to meter assembly.
21. The meter tag needs to be of a material that is water proof and the required information to be in a legible permanent print to identify the meter.

Revision Notes				
5. AMENDMENTS TO SHEETS 7, 12 AND 17				
6. UPDATE GEN NOTES TO SHEETS 1, 2, 3, 5, 6, 8, 9, 10 AND 11				
Rev.	Date	Approved		
6	28/06/2023	G. HENDERSON		



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Datum	N/A
Sheet Size	A3
References	

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Verified	R. JAMES	20/03/2017
Project No.	JR16982-035	Discipline W
Vault Folder	STANDARDS	© 2018
HPRM File Ref.	T1582-006-0004	

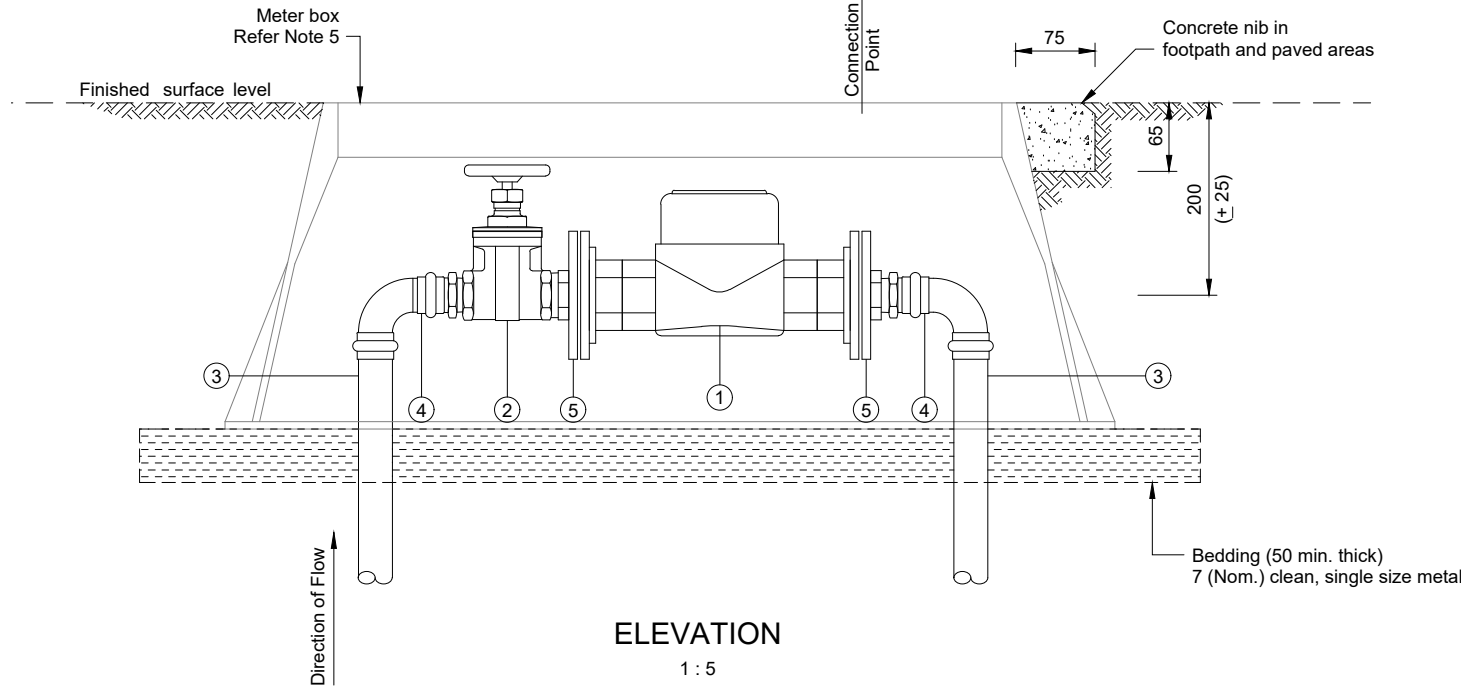


TASWATER STANDARD DRAWING		
PROPERTY SERVICE CONNECTIONS		
DN.20 WATER METER MANIFOLD		
LOW HAZARD		
TASMANIAN WATER & SEWAGE CORPORATION PTY LTD ABN: 47 162220 633	Sheet Number <b>TWS-W-0002</b>	REVISED BY 10 of 19 6

BOUNDARY CONNECTION PARTS LIST

No.	DESCRIPTION	COMMENTS
①	DN.32 'Sensus' Iperl Water Meter with Dual Check Valve	Supplied by TasWater
②	DN.32 Gate Valve	Supplied by TasWater
③	DN.32 Type 'A' Copper Pipework	
④	B-Press Fittings or Equivalent	
⑤	DN.32 BSP to Table E Flange Adaptor	

TasWater Responsibility ← | → Property Owner Responsibility



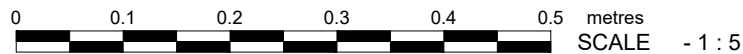
ELEVATION  
1 : 5

VALVE & EQUIPMENT SCHEDULE

1. Only use products with watermark certification and approved for use by TasWater and listed within TasWater's approved products catalogue.
2. Installation must comply with manufacturer's written instructions.
3. All valves must be resilient seated, clockwise closing to AS 1628 with 316 stainless steel bolts and washers.
4. Unless approved otherwise the water meter/s, tails and meter boxes are to be supplied by TasWater.

GENERAL NOTES

1. All dimensions in millimeters (mm), unless noted otherwise.
2. DN refers to the nominal internal diameter of the installation/components.
3. Installation and fittings schedule is also suitable for DN.40 meter.
4. A 3mm clearance has been added where a gasket is required.
5. All metallic pipe work to be 'Denso' wrapped, or equivalent where it comes in contact with concrete - to protect it from corrosion.
6. Install and locate the meter assembly so that the meter can be easily read.
7. Meter Box - "NDS" Pro Series Part No.222BCB.



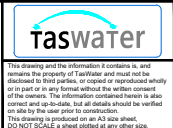
Revision Notes				
5. AMENDMENTS TO SHEETS 7, 12 AND 17				
6. UPDATE GEN NOTES TO SHEETS 1, 2, 3, 5, 6, 8, 9, 10 AND 11				
Rev.	Date	Approved		
6	28/06/2023	G. HENDERSON		



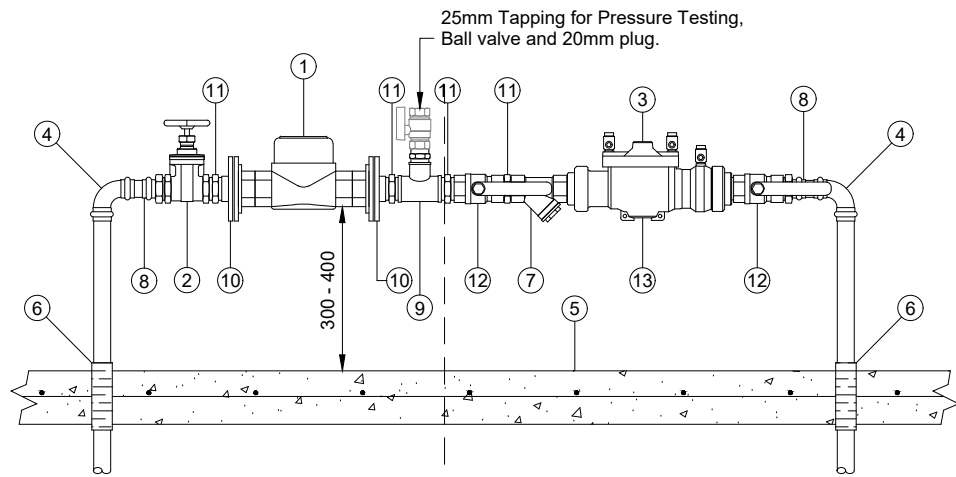
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Project No.	JR16982-035	Discipline W
Vault Folder	STANDARDS	2018
HPRM File Ref.	T15832-006-0004	

DRAWING ISSUE  
**APPROVED**

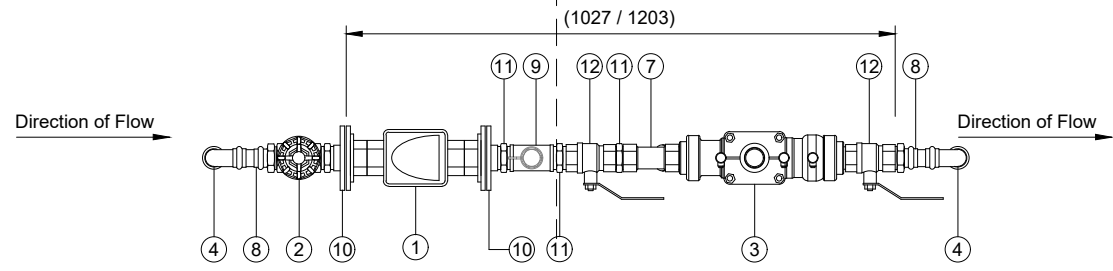


TASWATER STANDARD DRAWING PROPERTY SERVICE CONNECTIONS DN.32 AND DN.40 WATER METERS BELOW GROUND		
TASMANIAN WATER & SEWAGE CORPORATION PTY LTD ABN: 47 162220 653	TWS-W-0002	11 of 19 6



**ELEVATION**  
1 : 10

TasWater Responsibility      Property Owner Responsibility



**PLAN**  
1 : 10

**VALVE & EQUIPMENT SCHEDULE**

1. Only use products with watermark certification and approved for use by TasWater and listed within TasWater's approved products catalogue.
2. Installation must comply with manufacturer's written instructions.
3. All valves must be resilient seated, clockwise closing to AS 1628 with 316 stainless steel bolts and washers.
4. Unless approved otherwise the water meter/s, tails and meter boxes are to be supplied by TasWater.



**BOUNDARY CONNECTION PARTS LIST**

No.	DESCRIPTION	COMMENTS
①	DN.32 'Sensus' Iperl Water Meter with Dual Check Valve	Supplied by TasWater
②	DN.32 Gate Valve	Supplied by TasWater
③	Medium Hazard DN.32 'ValvCheQ' DC03 Double Check Valve - or equivalent High hazard DN.32 'ValvCheQ' RPZD RP03 Valve Only - or equivalent	Owned, operated and maintained by Property Owner
④	DN.32 Type 'A' Copper Pipework	
⑤	100mm (minimum) Reinforced Concrete Slab	SL72 placed central
⑥	Pipe Wrapped where Concrete will contact Pipe	(Refer Note 5)
⑦	DN.32 Strainer	Owned, operated and maintained by Property Owner
⑧	B-Press Fittings or Equivalent	
⑨	DN.32 x 25 Fem x Fem BSP Reducing Tee	
⑩	DN.32 BSP to Table E Flange Adaptor	
⑪	DN.32 Nipple	
⑫	DN.32 Ball Valve - Lockable Quarter Turn brass DZR with brass handle, resilient seated	
⑬	Vent only applies to RPZD	

**GENERAL NOTES**

1. All dimensions in millimeters (mm), unless noted otherwise.
2. DN refers to the nominal internal diameter of the installation/components.
3. Installation and fittings schedule is also suitable for DN.40 meter.
4. Dimensions shown in brackets apply to (DN.32 / DN.40) based on a ValvCheQ Backflow device being installed. If an alternative backflow device is installed confirm dimension.
5. A 3mm clearance has been added where a gasket is required.
6. All metallic pipe work to be 'Denso' wrapped, or equivalent where it comes in contact with concrete - to protect it from corrosion.
7. Install and locate the meter assembly so that the meter can be easily read.
8. Where a vented back flow prevention device is required such as a Reduced Pressure Zone Device (RPZD) it shall:
  - Comply with AS 3500 and AS 2845; and shall
  - Have free ventilation to the atmosphere for the relief valve at all times.
  - Not to be in an area that may be subject to ponding;
  - Have the relief drain outlet not less than 300mm above the surrounding surface.
9. Install the meter assembly in cage in accordance with TWS-W-0003.
10. The Property Owner is responsible for the ongoing maintenance of the security cage.

Revision Notes				
5. AMENDMENTS TO SHEETS 7, 12 AND 17. UPDATING ValvCheQ NOTE				
6. UPDATE GEN NOTES, UPDATE METER HT TO SHEETS 7 AND 12				
Rev.	6	Date	28/06/2023	Approved
				G. HENDERSON

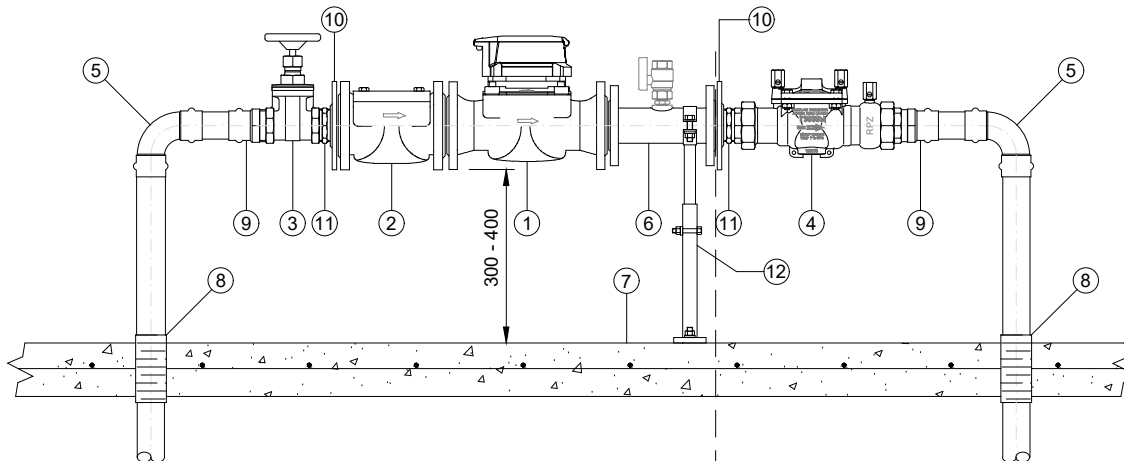


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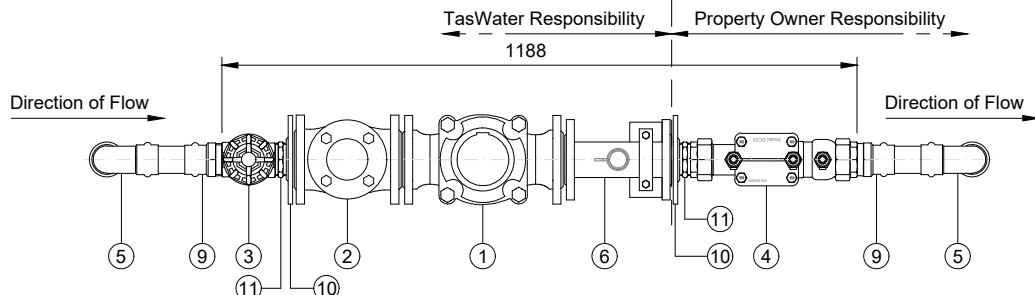
Drawn	R. HAWLEY	07/02/2017
Designed	R. CAMERON	08/02/2017
Verified	R. JAMES	20/03/2017
Project No.	JR16982-035	Discipline W
Vault Folder	STANDARDS	2018
HPRM File Ref.	T1582-006-0004	



<b>TASWATER STANDARD DRAWING</b>		
<b>PROPERTY SERVICE CONNECTIONS</b>		
<b>DN.32 AND DN.40 WATER METERS</b>		
<b>MEDIUM - HIGH HAZARD</b>		
TASMANIAN WATER & SEWAGE CORPORATION PTY LTD ABN: 47 162220 633	<b>TWS-W-0002</b>	Sheet Number: 12 of 19 REVISED TO: 6



**ELEVATION**  
1 : 10



**PLAN**  
1 : 10



**BOUNDARY CONNECTION PARTS LIST**

No.	DESCRIPTION	COMMENTS
①	DN.50 'Sensus' Meistream Plus Water Meter	Supplied by TasWater
②	DN.50 'Sensus' WP-F Dirt Box	Supplied by TasWater
③	DN.50 Gate Valve	Supplied by TasWater
④	Low Hazard DN.50 'ValvCheQ' DCO3U Double Check Valve	Owned, operated and maintained by Property Owner
⑤	DN.50 "Type A" Copper Water Pipe	
⑥	DN.50 x 200mm Hydrant Riser with 25mm Tapping for Pressure Testing, 20mm Valve and Plug	Supplied by TasWater
⑦	100mm (minimum) Reinforced Concrete Slab	SL72 placed central
⑧	Pipe Wrapped where Concrete will contact Pipe	(Refer Note 3)
⑨	B-Press Fittings or Equivalent	
⑩	DN.50 BSP to Table E Flange Adaptor	
⑪	DN.50 Nipple	
⑫	Pipe Support Bracket	Supplied and installed by Property Owner (Refer Sheet 18)

**VALVE & EQUIPMENT SCHEDULE**

1. Only use products with watermark certification and approved for use by TasWater and listed within TasWater's approved products catalogue.
2. Installation must comply with manufacturer's written instructions.
3. All valves must be resilient seated, clockwise closing to AS 1628 with 316 stainless steel bolts and washers.
4. Unless approved otherwise the water meter/s, tails and meter boxes are to be supplied by TasWater.

**GENERAL NOTES**

1. All dimensions in millimeters (mm), unless noted otherwise.
2. DN refers to the nominal internal diameter of the installation/components.
3. If alternative backflow device is installed confirm overall length.
4. A 3mm clearance has been added where a gasket is required.
5. All metallic pipe work to be 'Densio' wrapped, or equivalent where it comes in contact with concrete - to protect it from corrosion.
6. Install and locate the meter assembly so that the meter can be easily read.
7. Install the meter assembly in cage in accordance with TWS-W-0003.
8. The Property Owner is responsible for the ongoing maintenance of the security cage.

Revision Notes				
5. AMENDMENTS TO SHEETS 7, 12 AND 17				
6. AMENDMENT TO ValvCheQ NOTE				
7. UPDATE GEN NOTES, UPDATE METER HT, BOUNDARY CONNECTION PARTS TO SHEETS 13, 14, 15, 16, 17 AND 18				
Rev.	Date	Approved		
7	28/06/2023	G. HENDERSON		

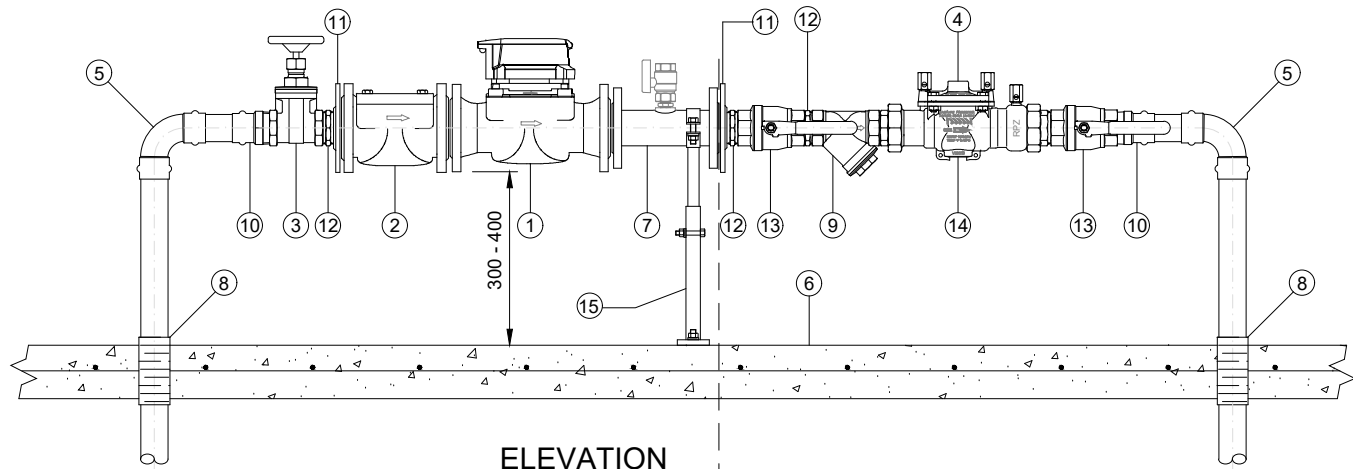


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Vault Folder	STANDARDS	2018
HPRM File Ref.	T1582-006-0004	



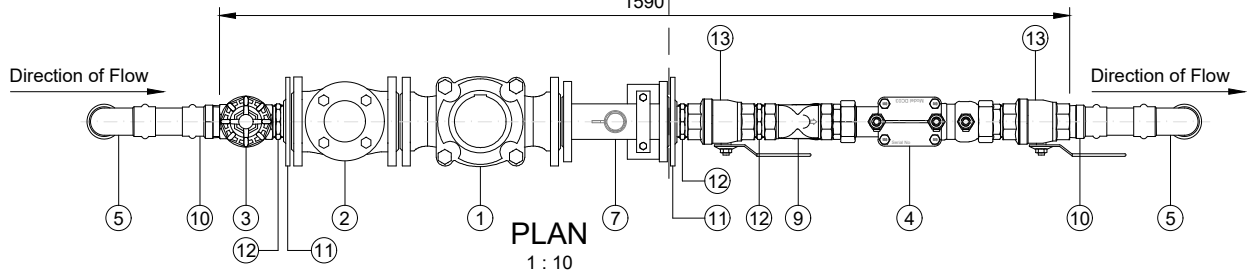
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<b>DN.50 WATER METER</b>						
<b>LOW HAZARD</b>						
TASMANIAN WATER & SEWAGE CORPORATION PTY LTD ABN: 47 162220 653		<table border="1"> <tr> <td>Sheet Number</td> <td>13 of 19</td> </tr> <tr> <td>Revision</td> <td>7</td> </tr> </table>	Sheet Number	13 of 19	Revision	7
Sheet Number	13 of 19					
Revision	7					



**ELEVATION**  
1 : 10

TasWater Responsibility      Property Owner Responsibility

1590



**PLAN**  
1 : 10



**GENERAL NOTES**

1. All dimensions in millimeters (mm), unless noted otherwise.
2. DN refers to the nominal internal diameter of the installation/components.
3. If alternative backflow device is installed confirm overall length.
4. A 3mm clearance has been added where a gasket is required.
5. All metallic pipe work to be 'Densio' wrapped, or equivalent where it comes in contact with concrete - to protect it from corrosion.
6. Install and locate the meter assembly so that the meter can be easily read.
7. Where a vented back flow prevention device is required such as a Reduced Pressure Zone Device (RPZD) it shall:
  - Comply with AS 3500 and AS 2845; and shall
  - Have free ventilation to the atmosphere for the relief valve at all times.
  - Not be in an area that may be subject to ponding;
  - Have the relief drain outlet not less than 300mm above the surrounding surface.
8. Install the meter assembly in cage in accordance with TWS-W-0003.
9. The Property Owner is responsible for the ongoing maintenance of the security cage.

**VALVE & EQUIPMENT SCHEDULE**

1. Only use products with watermark certification and approved for use by TasWater and listed within TasWater's approved products catalogue.
2. Installation must comply with manufacturer's written instructions.
3. All valves must be resilient seated, clockwise closing to AS 1628 with 316 stainless steel bolts and washers.
4. Unless approved otherwise the water meter/s, tails and meter boxes are to be supplied by TasWater.

**BOUNDARY CONNECTION PARTS LIST**

No.	DESCRIPTION	COMMENTS
①	DN.50 'Sensus' Meistream Plus Water Meter	Supplied by TasWater
②	DN.50 'Sensus' WP-F Dirt Box	Supplied by TasWater
③	DN.50 Gate Valve	Supplied by TasWater
④	Medium Hazard DN.50 'ValvCheQ' DCO3 Double Check Valve - or equivalent High hazard DN.50 'ValvCheQ' RPZD RP03 Valve Only - or equivalent	Owned, operated and maintained by Property Owner
⑤	DN.50 "Type A" Copper Water Pipe	
⑥	100mm (minimum) Reinforced Concrete Slab	SL72 placed central

No.	DESCRIPTION	COMMENTS
⑦	DN.50 x 200mm Hydrant Riser with 25mm Tapping for Pressure Testing, 20mm Valve and Plug	Supplied by TasWater
⑧	Pipe Wrapped where Concrete will contact Pipe	(Refer Note 3)
⑨	DN.50 Strainer	Owned, operated and maintained by Property Owner
⑩	B-Press Fittings or Equivalent	
⑪	DN.50 BSP to Table E Flange Adaptor	
⑫	DN.50 Nipple	
⑬	DN.50 Ball Valve	
⑭	Vent only Applies to RPZD	
⑮	Pipe Support Bracket	Supplied and installed by Property Owner (Refer Sheet 18)

**Revision Notes**

5. AMENDMENTS TO SHEETS 7, 12 AND 17  
 6. AMENDMENT TO ValvCheQ NOTE  
 7. UPDATE GEN NOTES, UPDATE METER HT, BOUNDARY CONNECTION PARTS TO SHEETS 13, 14, 15, 16, 17 AND 18

Rev.	Date	Approved
7	28/06/2023	G. HENDERSON

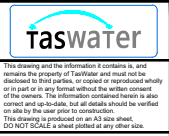


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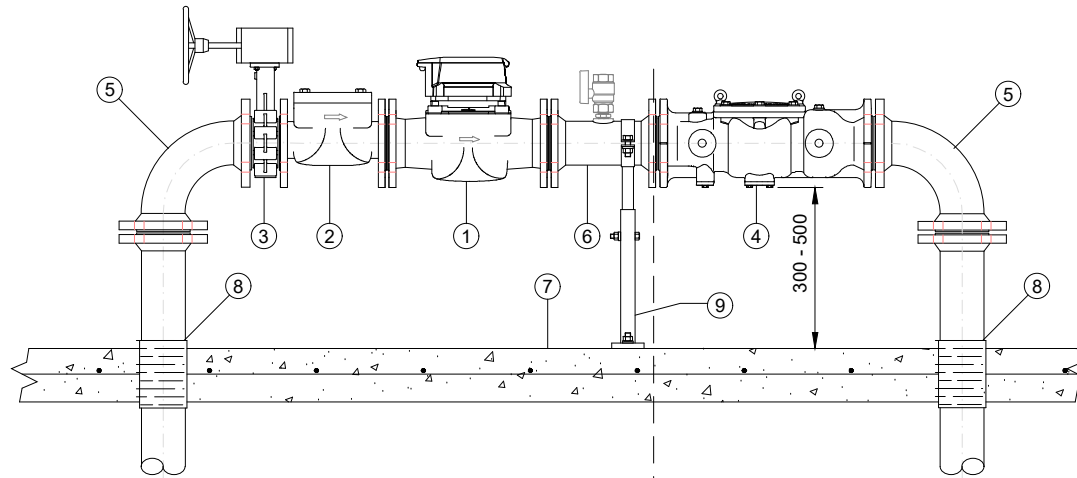
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Designed	R. CAMERON	08/02/2017
Verified	R. JAMES	20/03/2017
Project No.	JR16982-035	Discipline W
Vault Folder	STANDARDS	© 2018
HPRM File Ref.	T1582-006-0004	

**DRAWING ISSUE**

**APPROVED**

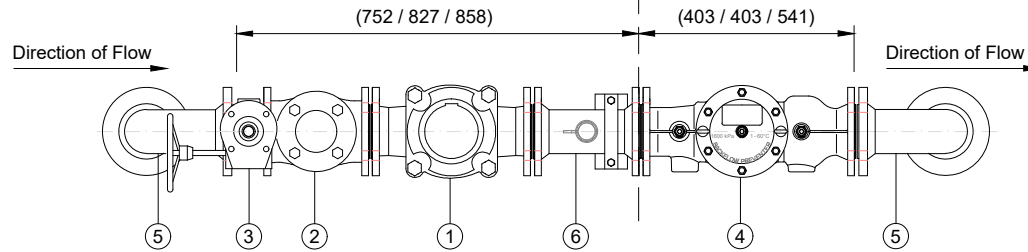
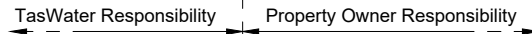


<b>TASWATER STANDARD DRAWING</b>					
7 DN.50 WATER METER MEDIUM - HIGH HAZARD					
TASMANIAN WATER & SEWAGE CORPORATION PTY LTD ABR: 47 16220 653	<table border="1"> <tr> <td>Sheet Number</td> <td>14 of 19</td> </tr> <tr> <td>Revision</td> <td>7</td> </tr> </table>	Sheet Number	14 of 19	Revision	7
Sheet Number	14 of 19				
Revision	7				



**ELEVATION**

1 : 10



**PLAN**

1 : 10



**BOUNDARY CONNECTION PARTS LIST**

No.	DESCRIPTION	COMMENTS
①	DN.65 'Sensus' Meistream Plus Water Meter	Supplied by TasWater
②	DN.65 'Sensus' WP-F Dirt Box	Supplied by TasWater
③	DN.65 Lug Type Butterfly Valve with Worm Gear Actuator	Supplied by TasWater
④	Low Hazard DN.65 'ValvCheQ' DCO3U Double Check Valve Non-Testable - or equivalent.	Owned, operated and maintained by Property Owner
⑤	DN.65 PN16 Metallic Water Pipe	Copper not to be used for DN.100
⑥	DN.65 x 200mm Hydrant Riser with 25mm Tapping for Pressure Testing, 20mm Valve and Plug	Supplied by TasWater
⑦	100mm (minimum) Reinforced Concrete Slab	SL72 placed central
⑧	Pipe Wrapped where Concrete will contact Pipe	(Refer Note 5)
⑨	Pipe Support Bracket	Supplied and installed by Property Owner (Refer Sheet 18)

**VALVE & EQUIPMENT SCHEDULE**

1. Only use products with watermark certification and approved for use by TasWater and listed within TasWater's approved products catalogue.
2. Installation must comply with manufacturer's written instructions.
3. All valves must be resilient seated, clockwise closing to AS 1628 with 316 stainless steel bolts and washers.
4. Unless approved otherwise the water meter/s, tails and meter boxes are to be supplied by TasWater.

**GENERAL NOTES**

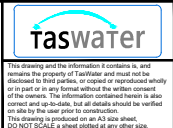
1. All dimensions in millimeters (mm), unless noted otherwise.
2. DN refers to the nominal internal diameter of the installation/components.
3. Installation and fittings schedule is also suitable for DN.80 and DN.100 meters.
4. Dimensions shown in brackets apply to (DN.65 / DN.80 / DN.100) based on ValvCheQ Backflow device being installed. If alternative backflow device is installed confirm dimensions.
5. A 3mm clearance has been added where a gasket is required.
6. All metallic pipe work to be 'Densio' wrapped, or equivalent where it comes in contact with concrete - to protect it from corrosion.
7. Install and locate the meter assembly so that the meter can be easily read.
8. Install the meter assembly in cage in accordance with TWS-W-0003.
9. The Property Owner is responsible for the ongoing maintenance of the security cage.

Revision Notes				
5. AMENDMENTS TO SHEETS 7, 12 AND 17				
6. AMENDMENT TO ValvCheQ NOTE				
7. UPDATE GEN NOTES, UPDATE METER HT, BOUNDARY CONNECTION PARTS TO SHEETS 13, 14, 15, 16, 17 AND 18				
Rev.	Date	Approved		
7	28/06/2023	G. HENDERSON		

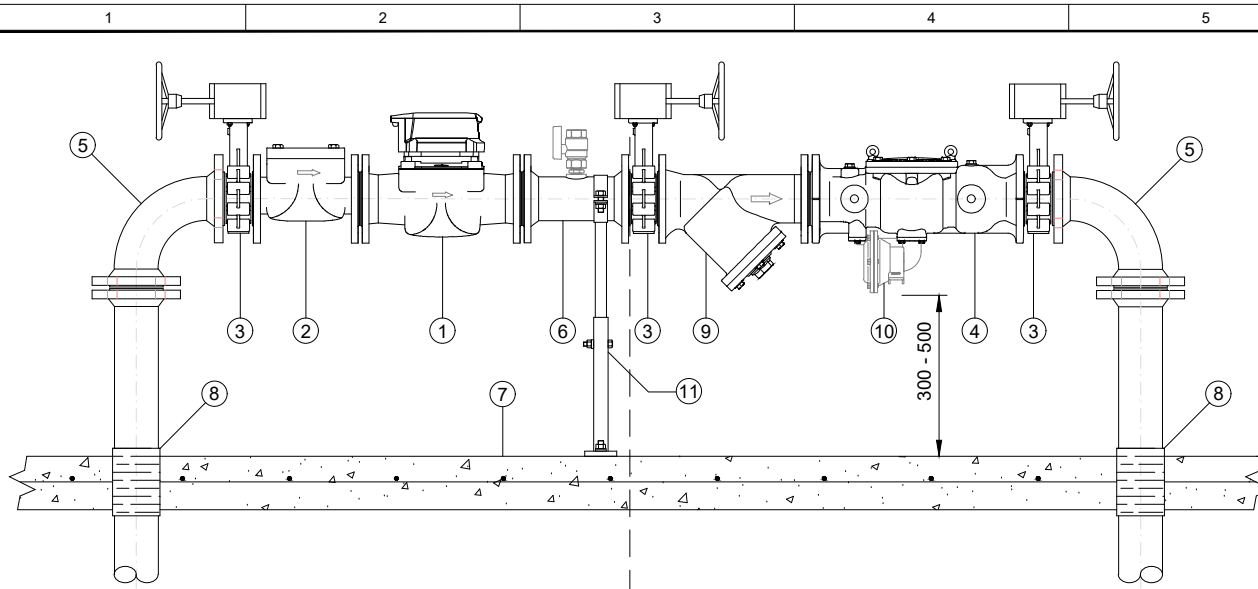


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Designed	R. CAMERON	08/02/2017
Verified	R. JAMES	20/03/2017
Project No.	JR16982-035	Discipline W
Vault Folder	STANDARDS	2018
NPRM File Ref.	T1582-006-0004	



<b>TASWATER STANDARD DRAWING</b>						
<b>PROPERTY SERVICE CONNECTIONS</b>						
<b>DN.65, DN.80 AND DN.100 WATER METERS</b>						
<b>LOW HAZARD</b>						
TASMANIAN WATER & SEWAGE CORPORATION PTY LTD ABN: 47 162220 633		<table border="1"> <tr> <td>Sheet Number</td> <td>15 of 19</td> </tr> <tr> <td>Revision</td> <td>7</td> </tr> </table>	Sheet Number	15 of 19	Revision	7
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Revision	7					



**ELEVATION**

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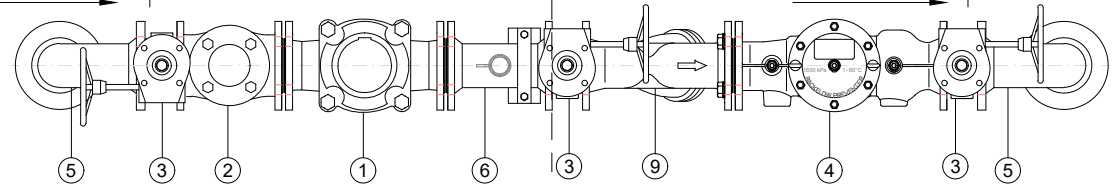
TasWater Responsibility      Property Owner Responsibility

(752 / 827 / 858)

(778 / 810 / 1012)

Direction of Flow

Direction of Flow



**PLAN**

1 : 10



**GENERAL NOTES**

1. All dimensions in millimeters (mm), unless noted otherwise.
2. DN refers to the nominal internal diameter of the installation/components.
3. Installation and fittings schedule is also suitable for DN.80 and DN.100 meters.
4. Dimensions shown in brackets apply to (DN.65 / DN.80 / DN.100) based on ValvCheQ Backflow device being installed. If alternative backflow device is installed confirm dimensions.
5. A 3mm clearance has been added where a gasket is required.
6. All metallic pipe work to be 'Denso' wrapped, or equivalent where it comes in contact with concrete - to protect it from corrosion.
7. Install and locate the meter assembly so that the meter can be easily read.
8. Where a vented back flow prevention device is required such as a Reduced Pressure Zone Device (RPZD) it shall:
  - Comply with AS 3500 and AS 2845; and shall
  - Have free ventilation to the atmosphere for the relief valve at all times.
  - Not be in an area that may be subject to ponding;
  - Have the relief drain outlet not less than 300mm above the surrounding surface.
9. Install the meter assembly in cage in accordance with TWS-W-0003.
10. The Property Owner is responsible for the ongoing maintenance of the security cage.

**VALVE & EQUIPMENT SCHEDULE**

1. Only use products with watermark certification and approved for use by TasWater and listed within TasWater's approved products catalogue.
2. Installation must comply with manufacturer's written instructions.
3. All valves must be resilient seated, clockwise closing to AS 1628 with 316 stainless steel bolts and washers.
4. Unless approved otherwise the water meter/s, tails and meter boxes are to be supplied by TasWater.

**BOUNDARY CONNECTION PARTS LIST**

No.	DESCRIPTION	COMMENTS
①	DN.65 'Sensus' Meistream Plus Water Meter	Supplied by TasWater
②	DN.65 'Sensus' WP-F 250mm Dirt Box	Supplied by TasWater
③	DN.65 Lug Type Butterfly Valve with Worm Gear Actuator	Supplied by TasWater
④	Medium Hazard DN.65 'ValvCheQ' DCO3U Double Check Valve - or equivalent High Hazard DN.65 'ValvCheQ' RPZD RP03 Valve Only - or equivalent	Owned, operated and maintained by Property Owner
⑤	DN.65 PN16 Metallic Water Pipe	Copper not to be used for DN.100
⑥	DN.65 x 200mm Hydrant Riser with 25mm Tapping for Pressure Testing, 20mm Valve and Plug	Supplied by TasWater
⑦	100mm (minimum) Reinforced Concrete Slab	SL72 placed central
⑧	Pipe Wrapped where Concrete will contact Pipe	(Refer Note 5)
⑨	DN.65 Strainer	Owned, operated and maintained by Property Owner
⑩	Vent only applies on High Hazard installations where a RPZD is used	
⑪	Pipe Support Bracket	Supplied and installed by Property Owner (Refer Sheet 18)

<b>Revision Notes</b>				
5. AMENDMENTS TO SHEETS 7, 12 AND 17				
6. AMENDMENT TO ValvCheQ NOTE				
7. UPDATE GEN NOTES, UPDATE METER HT, BOUNDARY CONNECTION PARTS TO SHEETS 13, 14, 15, 16, 17 AND 18				
Rev.	7	Date	28/06/2023	Approved
			G. HENDERSON	



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Designed	R. CAMERON	08/02/2017
Verified	R. JAMES	20/03/2017
Project No.	JR16982-035	Discipline W
Vault Folder	STANDARDS	© 2018
HPRM File Ref.	T1582-006-0004	

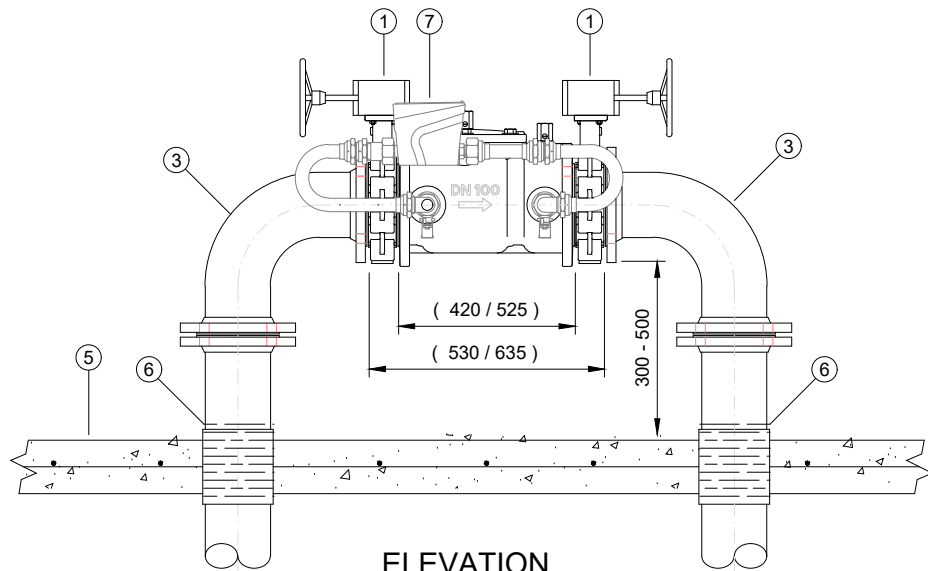
DRAWING ISSUE

**APPROVED**



<b>TASWATER STANDARD DRAWING</b>		
<b>PROPERTY SERVICE CONNECTIONS</b>		
<b>DN.65, DN.80 AND DN.100 WATER METERS</b>		
<b>MEDIUM - HIGH HAZARD</b>		
TASMANIAN WATER & SEWAGE CORPORATION PTY LTD ABN: 47 162220 653	Drawn Number	REVISED
TWS-W-0002	16 of 19	7

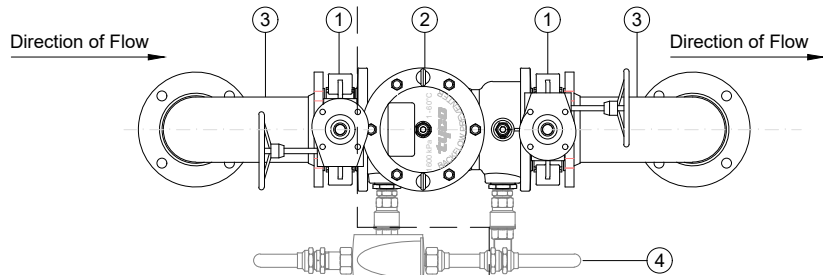




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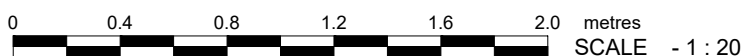
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TasWater Responsibility | Property Owner Responsibility

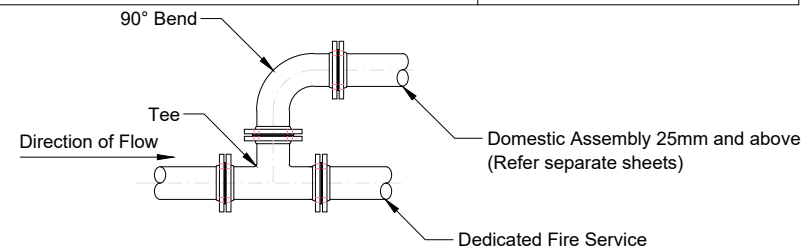


PLAN

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BOUNDARY CONNECTION PARTS LIST		
No.	DESCRIPTION	COMMENTS
①	DN.100 Lug type Butterfly Valve with Worm Gear Actuator	1 x Supplied by TasWater
②	Low Hazard 'ValvCheQ' DN.100 SDCT03 Single Check Valve - or equivalent	Owned, operated and maintained by Property Owner
③	DN.100 PN16 Metallic Water Pipe	Copper not to be used
④	Metered Bypass	Supplied by TasWater
⑤	100mm (minimum) Reinforced Concrete Slab	SL72 placed central
⑥	Pipe Wrapped where Concrete will contact Pipe	(Refer Note 3)
⑦	'Sensus' Meter size for Low Flow Bypass	DN.25 Bypass for DN.100 - DN.150 DN.32 Bypass for DN.200 DN.40 Bypass for >DN.200



PLAN - DOMESTIC ASSEMBLY

1 : 20

VALVE & EQUIPMENT SCHEDULE

1. Only use products with watermark certification and approved for use by TasWater and listed within TasWater's approved products catalogue.
2. Installation must comply with manufacturer's written instructions.
3. All valves must be resilient seated, clockwise closing to AS 1628 with 316 stainless steel bolts and washers.
4. Unless approved otherwise the water meter/s, tails and meter boxes are to be supplied by TasWater.

GENERAL NOTES

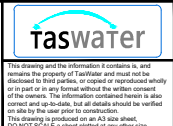
1. All dimensions in millimeters (mm), unless noted otherwise.
2. Dimensions shown in brackets apply to (Low/Medium) hazard based on ValvCheQ backflow device being installed. If alternative backflow device is installed confirm dimensions.
3. DN refers to the nominal internal diameter of the installation/components.
4. Install and locate the meter assembly so that the meter can be easily read.
5. All metallic pipe work to be 'Denso' wrapped, or equivalent where it comes in contact with concrete - to protect it from corrosion.
6. Medium hazard fire assembly suitable for high Hazard sites, provided the domestic supply is separate and fitted with RPZD.
7. Where a vented back flow prevention device is required such as a Reduced Pressure Zone Device (RPZD), it shall:
  - Comply with AS 3500 and AS 2845; and shall
  - Have free ventilation to the atmosphere for the relief valve at all times;
  - Not be in an area that may be subject to ponding;
  - Have the relief drain outlet not less than 300mm above the surrounding surface.
8. Install the meter assembly in cage in accordance with TWS-W-0003.
9. The Property Owner is responsible for the ongoing maintenance of the security cage.

Revision Notes				
5. AMENDMENTS TO SHEETS 7, 12 AND 17. UPDATING ValvCheQ NOTE				
6. UPDATE GEN NOTES, UPDATE METER HT, BOUNDARY CONNECTION PARTS TO SHEETS 13, 14, 15, 16, 17 AND 18				
Rev.	6	Date	28/06/2023	Approved
				G. HENDERSON



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Datum	N/A
Sheet Size	A3
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Verified	R. JAMES	20/03/2017
Project No.	JR16982-035	Discipline W
Vault Folder	STANDARDS	© 2018
HPRM File Ref.	T15982-006-0004	



TASWATER STANDARD DRAWING PROPERTY SERVICE CONNECTIONS DN.100 WATER METER FIRE CONNECTION		
TASMANIAN WATER & SEWAGE CORPORATION PTY LTD ABR: 47 16220 653	TWS-W-0002	17 of 19 6

BOUNDARY CONNECTION PARTS LIST		
No.	DESCRIPTION	COMMENTS
①	DN.100 'EuroMag MUT 2300' EL Flow Meter	Supplied by TasWater
②	DN.100 Strainer	Owned, operated and maintained by Property Owner
③	DN.100 Lug Type Butterfly Valve with Worm Gear Actuator	1 x Supplied by TasWater
④	DN.100 Lug Type Butterfly Valve with Worm Gear Actuator - Not Required for Non-Testable Backflow Devices	or Approved Equivalent
⑤	DN.100 PN16 Metallic Water Pipe	Copper not to be used

No.	DESCRIPTION	COMMENTS
⑥	Low Hazard DN.100 'ValvCheQ' DCO3 Double Check Non-Testable Valve - or equivalent Medium Hazard DN.100 'ValvCheQ' DCO3 Double Check Testable Valve - or equivalent High Hazard DN.100 'ValvCheQ' RPZD RP03 Complete Assembly - or equivalent	Owned, operated and maintained by Property Owner
⑦	Earth Stake through 50mm Conduit	
⑧	DN.100 x 200mm Hydrant Riser with 25mm Tapping for Pressure Testing, 20mm Valve and Plug	Supplied by TasWater
⑨	100mm (minimum) Reinforced Concrete Slab	SL72 placed central
⑩	Concrete Thrust Block made to WSAA Standard	(Refer MRWA-W-205)
⑪	Pipe Wrapped where Concrete will contact Pipe	(Refer Note 3)
⑫	Main Isolator	Supplied by TasWater

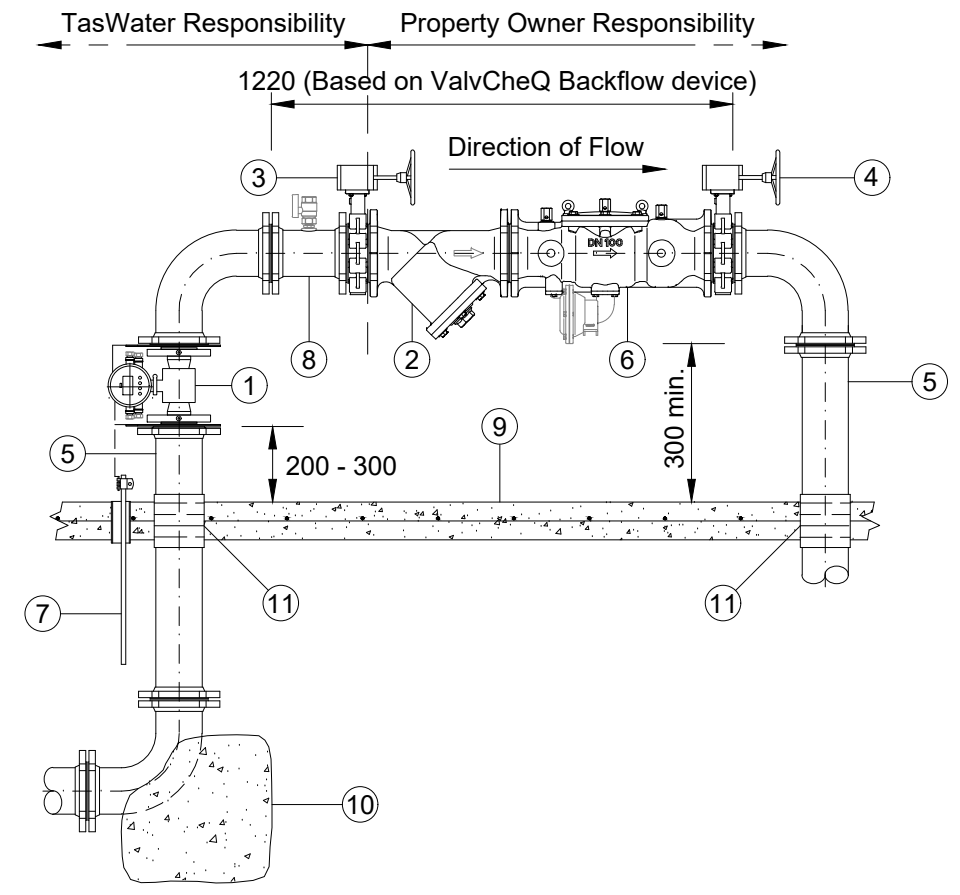
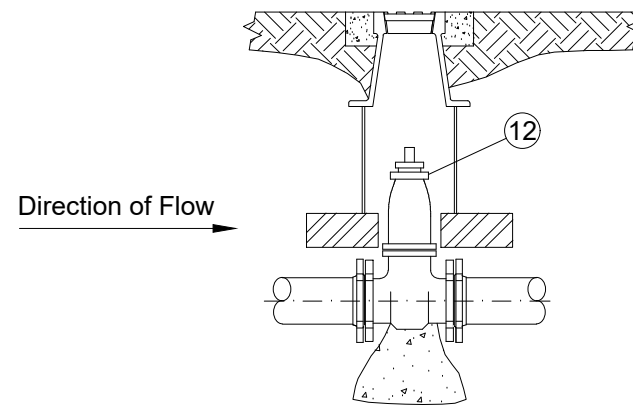
### VALVE & EQUIPMENT SCHEDULE

- Only use products with watermark certification and approved for use by TasWater and listed within TasWater's approved products catalogue.
- Installation must comply with manufacturer's written instructions.
- All valves must be resilient seated, clockwise closing to AS 1628 with 316 stainless steel bolts and washers.
- Unless approved otherwise the water meter/s, tails and meter boxes are to be supplied by TasWater.

### GENERAL NOTES

- All dimensions in millimeters (mm), unless noted otherwise.
- DN refers to the nominal internal diameter of the installation/components.
- A 3mm clearance has been added where a gasket is required.
- All metallic pipework to be 'Denso' wrapped, or equivalent where it comes in contact with concrete - to protect it from corrosion.
- Where a vented back flow prevention device is required such as a Reduced Pressure Zone Device (RPZD) it shall:
  - Comply with AS 3500 and AS 2845; and shall
  - Have free ventilation to the atmosphere for the relief valve at all times.
  - Not be in an area that may be subject to ponding;
  - Have the relief drain outlet not less than 300mm above the surrounding surface.
- Install the meter assembly in cage in accordance with TWS-W-0003.
- The Property Owner is responsible for the ongoing maintenance of the security cage.
- Install and locate the meter assembly so that the meter can be easily read.
- The Magflow Meter requires a straight length of pipe measured from the centre of the meter:
  - To an upstream length of 5 times the Nominal diameter; and
  - To a downstream length of 3 times the Nominal diameter to minimize turbulence.
- Earth the meter as per manufacturer's specifications.
- Locate the meter in an upright position to ensure accuracy.
- Install main isolator in ground to ensure minimum turbulence near the meter.
- Concrete slab to have 50mm conduit for correct installation of earth stake.

**WARNING**  
Where a metallic water service is to be replaced using non metallic pipe a licensed electrician shall assess affected property's electricity supply for defects and the likely effect on earthing adequacy. Work can commence once the electrician declares in writing that it is safe to proceed.



**ELEVATION**  
1 : 20



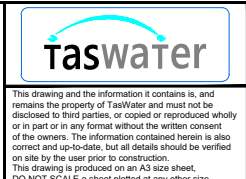
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5. AMENDMENTS TO SHEETS 7, 12 AND 17				
6. AMENDMENT TO ValvCheQ NOTE				
7. UPDATE GEN NOTES, UPDATE METER HT, BOUNDARY CONNECTION PARTS TO SHEETS 13, 14, 15, 16, 17 AND 18				
Rev.	7	Date	28/06/2023	Approved
				G. HENDERSON



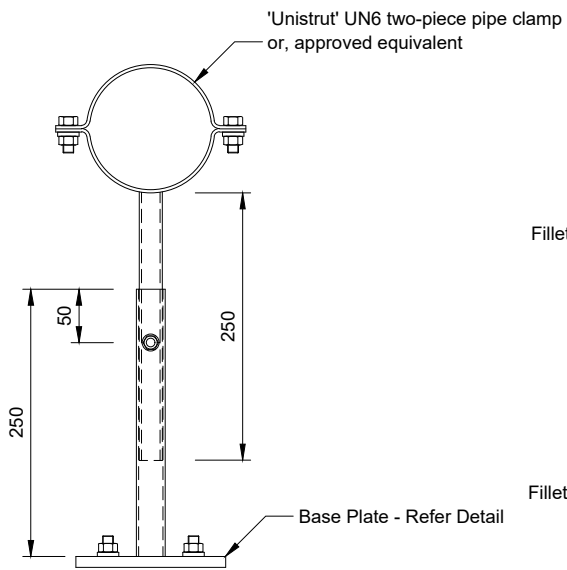
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Designed	R. CAMERON	08/02/2017
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Vault Folder	STANDARDS	© 2018
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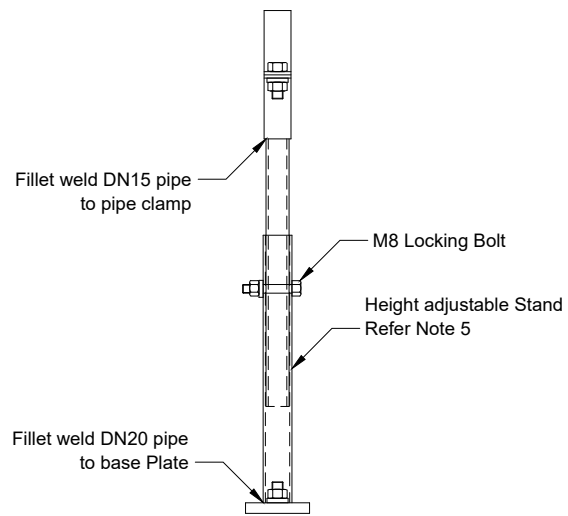
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**APPROVED**



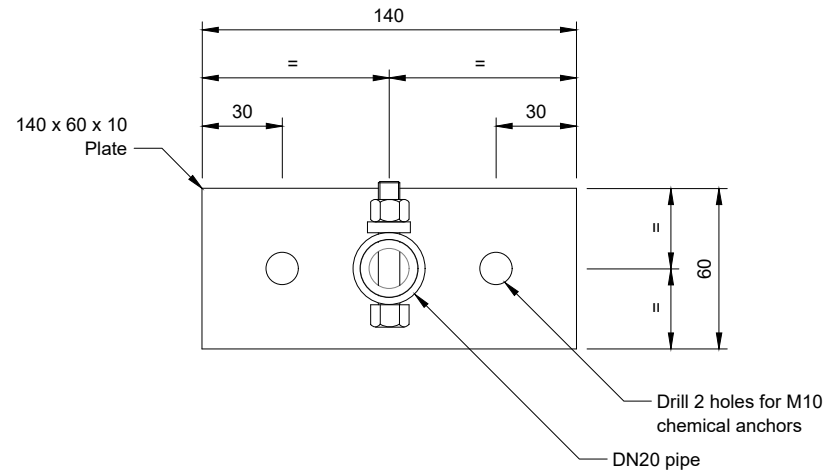
TASWATER STANDARD DRAWING PROPERTY SERVICE CONNECTIONS DN.100 WATER METER ELECTROMAGNETIC FLOW METER		
TASMANIAN WATER & SEWAGE CORPORATION PTY LTD ABN: 47 162220 653	TWS-W-0002	18 of 19
		7



FRONT VIEW

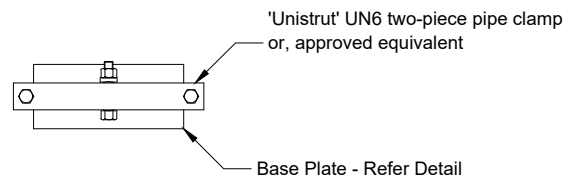


SIDE VIEW



BASE PLATE

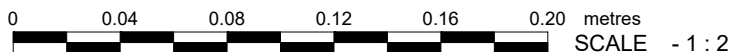
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PLAN VIEW

PIPE SUPPORT BRACKET

1 : 5



GENERAL NOTES

1. All dimensions in millimeters (mm), unless noted otherwise.
2. All materials and fixings to be galvanised mild steel.
3. Secure base plate to either a concrete slab or concrete footings with M10 chemical anchors.
4. Pour 300 x 300 x 300 concrete footings if no concrete slab is present.
5. Height Adjustable Stand
  - Weld to base plate 250 long x DN20 (wt 2.11) pipe.
  - Weld to pipe clamp 250 long x DN15 (wt 2.11) pipe.
  - Insert DN15 pipe into DN20 adjust height to suit.
  - Drill hole through DN15 pipe and secure with locking bolt.
6. Select the pipe clamp to suit the pipe diameter.

Revision Notes				
5. AMENDMENTS TO SHEETS 7, 12 AND 17				
Rev.	5	Date	31/10/2018	Approved
				G. HENDERSON

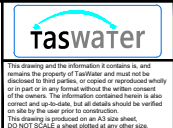


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HPRM File Ref.	T1582-006-0004	

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TASWATER STANDARD DRAWING		
PROPERTY SERVICE CONNECTIONS		
PIPE SUPPORT BRACKET		
DETAILS		
TASMANIAN WATER & SEWAGE CORPORATION PTY LTD ABN: 47 162220 653	Sheet Number TWS-W-0002	REVISIONS 19 of 19 5