QUU STANDARD WATER METER ARRANGEMENT DRAWINGS

DRAWING INDEX

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REV.	DATE	DESCRIPTION	AUTH.
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QUEENSLAND UrbanUtilities

DRAWING TITLE
QUU STANDARD
WATER METER ARRANGEMENT
DRAWING INDEX

QUEENSLAND URBAN UTILITIES DRAWING No. QUU-WAT-001

REVISION B

DRAWING STATUS
STANDARD

NOTES:

GENERAL NOTES

- THIS SET OF DRAWINGS DETAILS QUU'S REQUIREMENTS FOR METERING OF LARGE DOMESTIC AND FIRE SERVICES APPLICABLE FOR NEW DEVELOPMENTS, AS WELL AS ALTERATIONS AND REPLACEMENT OF EXISTING METERING ARRANGEMENTS.
- THIS SET OF DRAWINGS IS TO BE READ IN CONJUNCTION WITH THE SEQ CODE AND OTHER RELEVANT STANDARDS INCLUDING AS/NZS 3500: NATIONAL PLUMBING AND DRAINAGE CODE.
- THE WATER METERING ASSEMBLY ARRANGEMENTS CONTAINED WITHIN THIS SET OF DRAWINGS APPLY TO THE MAJORITY OF DEVELOPMENT PROPOSALS, AND HAVE BEEN DEVELOPED TO SIMPLIFY AND STANDARDISE METER ARRANGEMENT ASSEMBLIES FOR CUSTOMERS AND INDUSTRY. WHERE THESE DRAWINGS ARE INAPPROPRIATE FOR A PARTICULAR SITUATION, QUU SHALL BE CONSULTED AND WILL ADVISE OF THE NECESSARY REQUIREMENTS ON A CASE-BY-CASE BASIS.
- WATER METER ASSEMBLY COMPONENTS AS INDICATED IN THIS SET OF QUU STANDARD DRAWINGS SHALL BE PURCHASED AND SUPPLIED THROUGH QUU.
- QUU OWNED WATER METER ASSEMBLY COMPONENTS AS INDICATED IN THIS SET OF QUU STANDARD DRAWINGS SHALL BE MAINTAINED AND REPLACED PERIODICALLY AT NO COST TO THE OWNER UNLESS THE OWNER HAS ALTERED THE WATER METER SURROUNDS AND/OR IMPEDED ACCESSIBILITY TO THE WATER METER.
- DESIGN AND CONSTRUCTION OF WATER METER ASSEMBLY ARRANGEMENTS WITHIN A BASEMENT REQUIRES PRIOR QUU APPROVAL.
- DESIGN AND CONSTRUCTION OF WATER METER ASSEMBLY ARRANGEMENT SUPPORTS SHALL BE CERTIFIED BY A RELEVANT RPEQ ENGAGED BY THE CUSTOMER, AT THE CUSTOMER'S OWN COST.
- THIS SET OF DRAWINGS IS FOR INFORMATION ONLY. ALL "FOR CONSTRUCTION" DRAWINGS MUST BE CERTIFIED BY A RELEVANT RPEQ.

WATER METER SIZING

- THE WATER METER SHALL BE APPROPRIATELY SIZED BY THE DESIGNER FOR THE TYPE OF DEVELOPMENT, INTENDED PURPOSE AND REQUIRED FLOW RATES.
- THE METER AND ASSOCIATED ASSEMBLY SHALL NOT BE OVERSIZED FOR THE FLOW RATES TO BE METERED. THE METER SELECTED MUST HAVE A MINIMUM FLOW REGISTRATION FLOW RATE OF Q1<MINIMUM FLOW ANTICIPATED THROUGH THE METER, WHERE Q1 IS DEFINED BY NMI R49 AND LISTED ON THE METER MANUFACTURER'S DATA SHEET(S).
- THE METER SHALL BE SIZED TO ACCURATELY MEASURE THE MAJORITY OF THE VOLUME TO BE METERED. THE METER SELECTED MUST GENERATE WATER VELOCITIES WHEREBY 95% OF THE VOLUME ANTICIPATED THROUGH THE METER GENERATE OCCUR AT VELOCITIES BETWEEN THE METER'S Q2 AND Q3 ACCURACY BAND, WHERE Q2 AND Q3 ARE DEFINED BY NMI R49 AND LISTED ON THE METER MANUFACTURER'S DATA SHEET(S).
- THE METER ASSEMBLY SIZING GUIDE PROVIDED IN THIS SET OF DRAWINGS IS FOR REFERENCE ONLY. CORRECT METER ASSEMBLY SIZING IS THE RESPONSIBILITY OF THE HYDRAULIC ENGINEER.

WATER METER ASSEMBLY SELECTION

FOR THE DESIGN AND CONSTRUCTION OF A SINGLE DOMESTIC SERVICE LESS THAN 32mm NB IN SIZE, REFER TO SEQ CODE STANDARD DRAWING SEQ-WAT-1107-3.

QUU-WAT-003 - THIS METER ASSEMBLY ARRANGEMENT IS TO BE USED FOR THE DESIGN AND CONSTRUCTION OF A SINGLE DOMESTIC SERVICE THAT IS 32mm NOMINAL BORE (NB) OR GREATER.

QUU-WAT-004 - THIS METER ASSEMBLY ARRANGEMENT REQUIRES PRIOR QUU APPROVAL AND IS TO BE USED FOR THE DESIGN AND CONSTRUCTION OF A SINGLE DOMESTIC SERVICE THAT IS 32mm NOMINAL BORE (NB) OR GREATER LOCATED WITHIN A BASEMENT. QUU REQUIREMENTS FOR USING THIS TYPE OF METERING ARRANGEMENT INCLUDE:

- A BASEMENT INSTALLATION WILL ONLY BE CONSIDERED WHERE AN ABOVE-GROUND METER ARRANGEMENT IS IMPRACTICAL.
- THE METER ASSEMBLY ARRANGEMENT SHALL BE LOCATED NO LOWER THAN THE FIRST BASEMENT LEVEL.
- ACCESS TO THE METER MUST BE PROVIDED TO QUU, IN A MANNER ACCEPTED BY BOTH THE PROPERTY OWNER AND QUU.
- WATER METER IS READILY ACCESSIBLE FOR MAINTENANCE AND REPLACEMENT.
- WHERE THE METER IS NOT ACCESSIBLE AT ALL TIMES, A REMOTE METER READER SHALL BE INSTALLED AND ACCESSIBLE AT ALL TIMES, ON THE GROUND FLOOR.
- AESTHETICS IS NOT AN ACCEPTABLE REASON FOR A METER ASSEMBLY ARRANGEMENT TO BE LOCATED WITHIN A BASEMENT.

QUU-WAT-005 - THIS METER ASSEMBLY ARRANGEMENT IS TO BE USED FOR THE DESIGN AND CONSTRUCTION OF A COMBINED DOMESTIC SERVICE (DN32 AND LARGER) AND FIRE SERVICE (DN100 AND LARGER), WHICH ARE METERED SEPARATELY AND NOT INSTALLED TO SERVICE A COMMUNITY TITLE SCHEME TOWNHOUSE STYLE DEVELOPMENT.
SUBJECT TO PRIOR QUU APPROVAL, AN ALTERNATIVE TO **QUU-WAT-005** MAY BE TO HAVE A SEPARATE FIRE SERVICE (REFER QUU STANDARD DRAWINGS **QUU-WAT-007** OR **QUU-WAT-008** FOR DETAILS) AND DOMESTIC SERVICE (REFER TO SEQ CODE STANDARD DRAWING **SEQ-WAT-1107-3**, QUU STANDARD DRAWING **QUU-WAT-003** OR **QUU-WAT-004**) SERVICING THE PROPERTY FROM DIFFERENT POINTS ON THE WATER RETICULATION NETWORK.

QUU-WAT-006 - THIS METER ASSEMBLY ARRANGEMENT REQUIRES PRIOR QUU APPROVAL AND IS TO BE USED FOR THE DESIGN AND CONSTRUCTION OF A COMBINED DOMESTIC SERVICE (DN32 AND LARGER) AND FIRE SERVICE (DN100 AND LARGER), WHICH ARE SEPARATELY METERED AND LOCATED WITHIN A BASEMENT.
QUU REQUIREMENTS FOR USING THIS TYPE OF METERING ARRANGEMENT INCLUDE:

- A BASEMENT INSTALLATION WILL ONLY BE CONSIDERED WHERE AN ABOVE-GROUND METER ARRANGEMENT IS IMPRACTICAL.
- THE METER ASSEMBLY ARRANGEMENT SHALL BE LOCATED NO LOWER THAN THE FIRST BASEMENT LEVEL.
- ACCESS TO THE METERS MUST BE PROVIDED TO QUU, IN A MANNER ACCEPTED BY BOTH THE PROPERTY OWNER AND QUU.
- WATER METERS ARE READILY ACCESSIBLE FOR MAINTENANCE AND REPLACEMENT.
- WHERE THE METERS ARE NOT ACCESSIBLE AT ALL TIMES, A REMOTE METER READER SHALL BE INSTALLED AND ACCESSIBLE AT ALL TIMES, ON THE GROUND FLOOR.
- AESTHETICS IS NOT AN ACCEPTABLE REASON FOR A METER ASSEMBLY ARRANGEMENT TO BE LOCATED WITHIN A BASEMENT.

QUU-WAT-007 - THIS METER ASSEMBLY ARRANGEMENT IS TO BE USED FOR THE DESIGN AND CONSTRUCTION OF EITHER:

- A FIRE SERVICE (DN50 AND LARGER); OR
- A COMBINED FIRE AND DOMESTIC SERVICE (DN50 AND LARGER) FOR A TOWNHOUSE STYLE COMMUNITY TITLE SCHEME DEVELOPMENT.

QUU-WAT-008 - THIS METER ASSEMBLY ARRANGEMENT REQUIRES PRIOR QUU APPROVAL AND IS TO BE USED FOR THE DESIGN AND CONSTRUCTION OF A FIRE SERVICE (DN50 AND LARGER) LOCATED WITHIN A BASEMENT.
QUU REQUIREMENTS FOR USING THIS TYPE OF METERING ARRANGEMENT INCLUDE:

- A BASEMENT INSTALLATION WILL ONLY BE CONSIDERED WHERE AN ABOVE-GROUND METER ARRANGEMENT IS IMPRACTICAL.
- THE METER ASSEMBLY ARRANGEMENT SHALL BE LOCATED NO LOWER THAN THE FIRST BASEMENT LEVEL.
- ACCESS TO THE METER MUST BE PROVIDED TO QUU, IN A MANNER ACCEPTED BY BOTH THE PROPERTY OWNER AND QUU.
- WATER METER IS READILY ACCESSIBLE FOR MAINTENANCE AND REPLACEMENT.
- WHERE THE METER IS NOT ACCESSIBLE AT ALL TIMES, A REMOTE METER READER SHALL BE INSTALLED AND ACCESSIBLE AT ALL TIMES, ON THE GROUND FLOOR.
- AESTHETICS IS NOT AN ACCEPTABLE REASON FOR A METER ASSEMBLY ARRANGEMENT TO BE LOCATED WITHIN A BASEMENT.

PIPE MATERIALS

- NON-METALLIC PIPES AND FITTINGS SHALL NOT FORM ANY PART OF A WATER METER ASSEMBLY.
- SUBSTITUTION OF PIPE MATERIALS AND/OR FITTINGS SHOWN ON PLAN WITH ALTERNATE PIPE MATERIALS/FITTINGS IS NOT ACCEPTABLE WITHOUT PRIOR APPROVAL BY QUU.
- PRIME, CAULK AND WRAP ALL BURIED FLANGES AND BOLTS WITH DENSO PETROLATUM PRODUCTS, IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS.
- DUCTILE IRON PIPEWORK SHALL BE THERMAL BONDED EPOXY COATED TO A.S. 4158.
- COPPER SERVICE PIPEWORK SHALL BE CONTINUOUS COPPER TO A.S. 1432. ALL COPPER ALLOY FITTINGS MUST BE DEZINCIFICATION RESISTANT AND COMPLY WITH A.S. 3688. COMPRESSION AND CRIMPED FITTINGS SHALL NOT BE USED WITH COPPER SERVICES.

WATER METER OWNERSHIP

- OWNERSHIP OF WATER METER ASSEMBLY COMPONENTS SHALL BE AS INDICATED IN THIS SET OF QUU STANDARD DRAWINGS.
- ASSEMBLY DETAIL DOWNSTREAM OF QUU OWNED COMPONENTS IS SHOWN FOR REFERENCE ONLY AND IS CLASSIFIED AS INTERNAL PLUMBING.

INSTALLATION

- ALL WATER SERVICES SHALL HAVE QUU APPROVED WATER METER/S INSTALLED TO MEASURE THE VOLUME OF WATER SUPPLIED THROUGH THE PROPERTY SERVICE.
- PROVIDE ADEQUATE SPACE AROUND THE WATER METER ARRANGEMENT FOR METER READING, AS WELL AS MAINTENANCE AND REPLACEMENT OF THE METER (AND ASSOCIATED FITTINGS)
- ABOVE GROUND METER INSTALLATIONS SHALL BE ACCESSIBLE TO QUU PERSONNEL AT ALL TIMES FOR READING, MAINTENANCE AND REPLACEMENT ACTIVITIES.
- PREFERABLY WATER METER ARRANGEMENTS INSTALLED WITHIN BASEMENTS SHALL BE ACCESSIBLE TO QUU PERSONNEL AT ALL TIMES FOR READING, MAINTENANCE AND REPLACEMENT ACTIVITIES. WHERE UNINTERRUPTED ACCESS TO THE WATER METER ASSEMBLY ARRANGEMENT IS NOT POSSIBLE, A REMOTE METER READER SHALL BE CONNECTED TO THE WATER METER ASSEMBLY AND BE ACCESSIBLE TO QUU PERSONNEL AT ALL TIMES, AT GROUND LEVEL.
- REMOTE READING DEVICES ARE NOT PERMITTED TO BE FITTED TO QUU WATER METERS WITHOUT PRIOR WRITTEN CONSENT BY QUU. QUU'S WRITTEN CONSENT SHALL INCLUDE A LIST OF CONDITIONS WHICH SHALL BE SATISFIED. FOR FURTHER DETAILS PLEASE CONTACT QUU.
- WHERE A WATER METER IS REQUIRED TO BE CONNECTED TO AN AUTOMATIC METER READING SYSTEM, THE OWNER IS RESPONSIBLE TO ARRANGE AND INSTALL AN APPROVED QUU AMR SYSTEM.
- TYPICALLY A SINGLE WATER CONNECTION SHALL BE PROVIDED TO SERVICE THE ENTIRE DEVELOPMENT. WHERE MULTIPLE WATER CONNECTIONS TO SERVICE THE DEVELOPMENT ARE PROPOSED, QUU SHALL BE CONSULTED FOR APPROVAL.
- DESIGN AND CONSTRUCT SUITABLE SUPPORT FOR METER ASSEMBLY ARRANGEMENT (AS REQUIRED).
- WHERE SERVICE PIPE IS TO BE CONCRETE ENCASED, THE SERVICE PIPE SHALL BE TAPED WITH ABELFLEX (OR EQUIVALENT) AND HAVE AT LEAST 6 mm RADIAL CLEARANCE BETWEEN THE SERVICE PIPE AND THE CONCRETE ENCASEMENT.
- SAFETY BOLLARDS MAY BE REQUIRED TO BE INSTALLED IN SOME CASES, AS DIRECTED BY QUU.

WATER SERVICES ≥ DN100

- BEND FITTINGS SHALL HAVE FLANGED ENDS.
- WATER SERVICES FROM MAINS IN THE ADJOINING FOOTPATH SHALL BE CONSTRUCTED USING FLANGE CONNECTIONS.

REV.	DATE	DESCRIPTION	AUTH.
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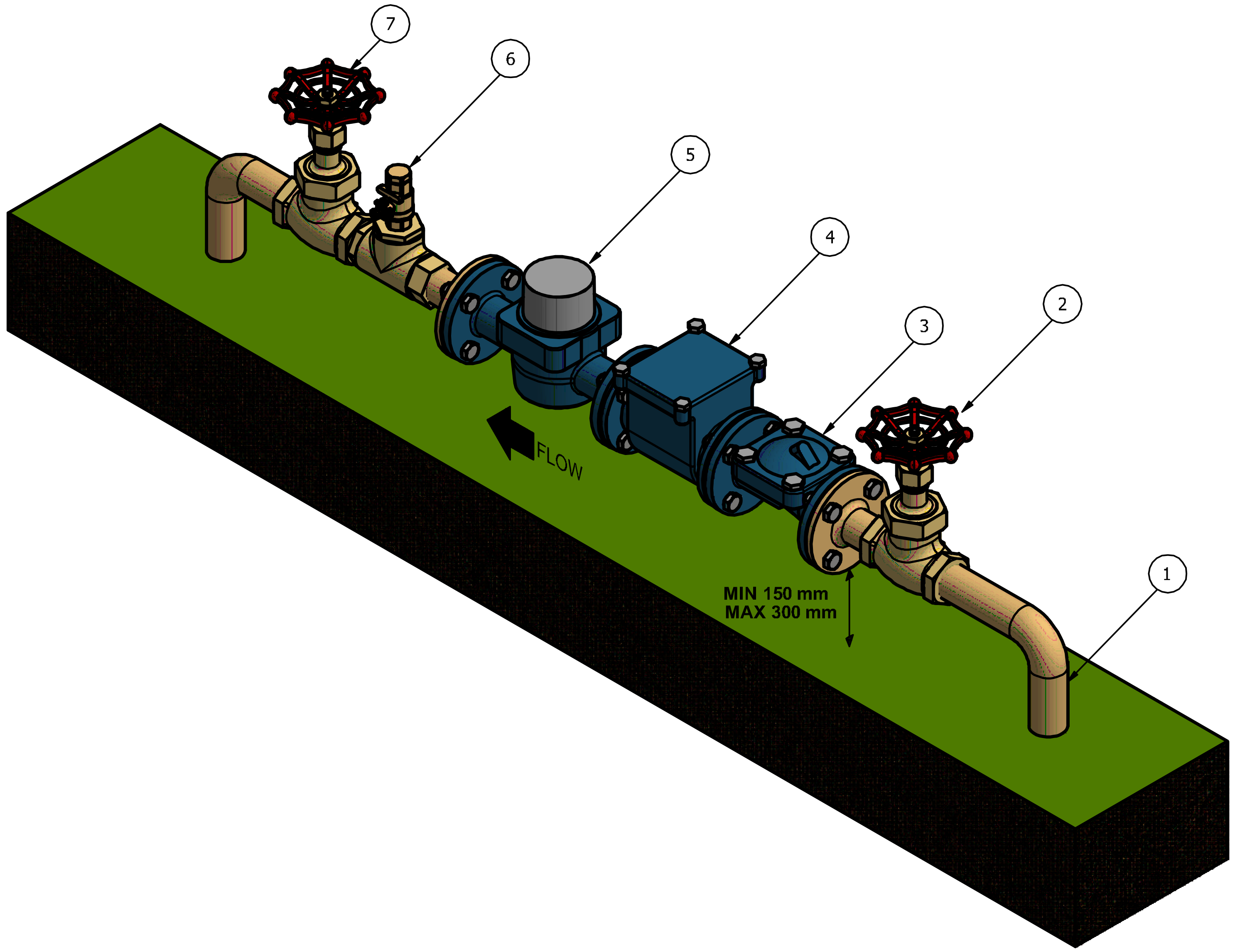
QUEENSLAND UrbanUtilities

DRAWING TITLE	QUEENSLAND URBAN UTILITIES DRAWING No.	REVISION
QUU STANDARD WATER METER ARRANGEMENT NOTES	QUU-WAT-002	A
	DRAWING STATUS: STANDARD	

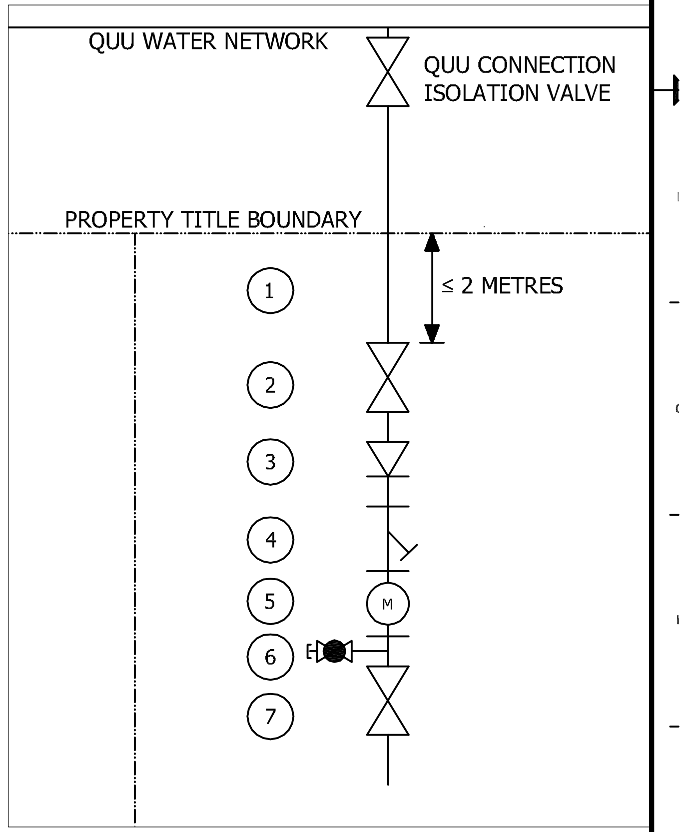
\\NFUJPRD202\Gdrive\194 WATER SUPP\775 Standards\2496 Design\Common SEQ Stds Project\01 SEQ Code Controlled Documents\3 Water Supply\4 Work In Progress\ACAD Dwgs\WM Arrangements\ QUU-WAT-003.dwg - Plotted by 088007 on 2019.03.25 at 08:54



NOTES:

1. THIS METER ASSEMBLY ARRANGEMENT IS ONLY APPLICABLE FOR DN32 AND LARGER DOMESTIC WATER SERVICE CONNECTIONS.
2. THE METER SIZING GUIDE PROVIDED IN THIS DRAWING IS FOR REFERENCE ONLY. CORRECT METER SIZING IS THE RESPONSIBILITY OF THE HYDRAULIC ENGINEER.
3. THIS METER ASSEMBLY ARRANGEMENT IS ONLY TO BE LOCATED WITHIN PRIVATE PROPERTY. THE 32 mm METER ASSEMBLY ARRANGEMENT MAY ALSO BE LOCATED OUTSIDE OF PRIVATE PROPERTY AND UNDERGROUND, SUBJECT TO PRIOR APPROVAL BY QUU.
4. THE WATER METER ASSEMBLY MUST BE LOCATED WITHIN TWO METRES OF THE FRONT PROPERTY TITLE BOUNDARY (SEE LAYOUT SCHEMATIC), UPSTREAM OF ALL INTERNAL OFFTAKES, AND SHALL BE ACCESSIBLE FOR READING, MAINTENANCE AND REPLACEMENT AT ALL TIMES.
5. THE PROPERTY SERVICE AND METER ASSEMBLY SHALL BE LOCATED AT LEAST 1.0 m FROM ALL ELECTRICAL SOURCES AND AT LEAST 600 mm HORIZONTALLY CLEAR OF EXISTING OR FUTURE DRIVEWAYS, FENCES AND STRUCTURES.L ANY OTHER ARRANGEMENT IS SUBJECT TO PRIOR APPROVAL BY QUU.
6. WATER METER ASSEMBLY SHALL HAVE 150 - 300 mm VERTICAL CLEARANCE FROM FINISHED SURFACE LEVEL TO UNDERSIDE OF FLANGE (AS SHOWN).
7. ASSEMBLY DETAIL DOWNSTREAM OF TEE & TESTING PORT (ITEM 6) IS SHOWN FOR REFERENCE ONLY AND IS CLASSIFIED AS PRIVATE PLUMBING.
8. SERVICE PIPE SMALLER THAN DN100 SHALL BE CONTINUOUS COPPER TO A.S. 1432.
9. PE PIPE SHALL NOT BE INSTALLED ABOVE GROUND.
10. THIS DRAWING IS FOR INFORMATION ONLY. ALL 'FOR CONSTRUCTION' DRAWINGS MUST HAVE ENGINEERING CERTIFICATION BY RELEVANT RPEQ.
11. THE ARRANGEMENT SHOWN ON THIS DRAWING ILLUSTRATES A DN50 SERVICE ARRANGEMENT. FITTINGS FOR OTHER SIZE SERVICES WILL BE SLIGHTLY DIFFERENT. THE TABLE BELOW DOES NOT PROVIDE DETAILS FOR ALL FITTINGS REQUIRED, ONLY THE MAIN COMPONENTS.
12. REFER TO QUU STANDARD DRAWING QUU-WAT-002 FOR FURTHER NOTES.

				Description					
Item	Fitting	Supplied by	Ownership	DN32 service * Length approx 0.5m	DN50 service Length approx 1m	DN100 service (with 80 mm meter) Length approx1.1m	DN100 service (with 100 mm meter) Length approx 1.3m	DN150 service Length approx 1.5m	DN200 service Length approx 1.7m
1	Service Pipe and 90^{0} Bend	Customer	Customer	DN32 Copper Class A, silver soldered with brass union, capillary - BSP M	DN50 Copper Class A, silver soldered with brass union, capillary - BSP M	DN100 Fl-Fl DI, thermal bonded epoxy coated	DN100 Fl-Fl DI, thermal bonded epoxy coated	DN150 Fl-Fl DI, thermal bonded epoxy coated	DN200 Fl-Fl DI, thermal bonded epoxy coated
2	Isolation Valve	QUU	QUU	DN32 BSP Brass Ball / Globe Valve	DN50 BSP Brass Ball / Globe Valve	DN100 Fl-Fl Gate Valve, thermal bonded epoxy coated ##	DN100 Fl-Fl Gate Valve, thermal bonded epoxy coated	DN150 Fl-Fl Gate Valve, thermal bonded epoxy coated	DN200 Fl-Fl Gate Valve, thermal bonded epoxy coated
3	Non Return Valve	QUU	QUU	Not required **	DN50 Fl-Fl Val-Matic Swing Flex	DN80 Fl-Fl Val-Matic Swing Flex	DN100 Fl-Fl Val-Matic Swing Flex	DN150 Fl-Fl Val-Matic Swing Flex	DN200 Fl-Fl Val-Matic Swing Flex
4	Strainer	QUU	QUU	Not required **	DN50 Fl-Fl in-line basket strainer, thermal bonded epoxy coated	DN80 Fl-Fl in-line basket strainer, thermal bonded epoxy coated	DN100 Fl-Fl in-line basket strainer, thermal bonded epoxy coated	DN150 Fl-Fl in-line basket strainer, thermal bonded epoxy coated	DN200 Fl-Fl in-line basket strainer, thermal bonded epoxy coated
5	Water Meter	QUU	QUU	32 mm mechanical meter (refer Note 2)	50 mm mechanical meter (refer Note 2)	80 mm mechanical meter (refer Note 2)	100 mm mechanical meter (refer Note 2)	150 mm mechanical meter (refer Note 2)	200 mm mechanical meter (refer Note 2)
6	Tee & Testing Port	QUU	Customer	DN32 x DN25 Brass Tee with DN25 BSP Brass Ball Valve	DN50 x DN25 Brass Tee with DN25 BSP Brass Ball Valve	DN80 Fl-Fl 316SS with DN25 tapping and DN25 BSP Brass Ball Valve	DN100 Fl-Fl 316SS with DN25 tapping and DN25 BSP Brass Ball Valve	DN150 Fl-Fl 316SS with DN25 tapping and DN25 brass ball valve	DN200 Fl-Fl 316SS with DN25 tapping and DN25 BSP brass ball valve
7	Customer Isolation Valve	Customer	Customer	BSP Brass Ball/Globe Valve	Brass Ball/Globe Valve	Brass Ball/Globe Valve	Gate Valve, thermal bonded epoxy coated	Gate Valve, thermal bonded epoxy coated	Gate Valve, thermal bonded epoxy coated
NA	Meter sizing guide - Number of dwellings serviced	NA	NA	7 - 21	22 -89	90 - 300	301 - 500	501 - 800	> 800



LAYOUT SCHEMATIC

\#\# DN100/80 FL-FL REDUCER (THERMAL BONDED EPOXY) TO BE INSTALLED ON DOWNSTREAM SIDE OF ISOLATION VALVE (ITEM 2)
* CUTOMER TO SUPPLY DN32 WATER METER ASSEMBLY WHEN USED AS A DOMESTIC SERVICE ONLY.
** DN32 WATER METER INCORPORATES INTEGRAL DUAL CHECK VALVE AND STRAINER

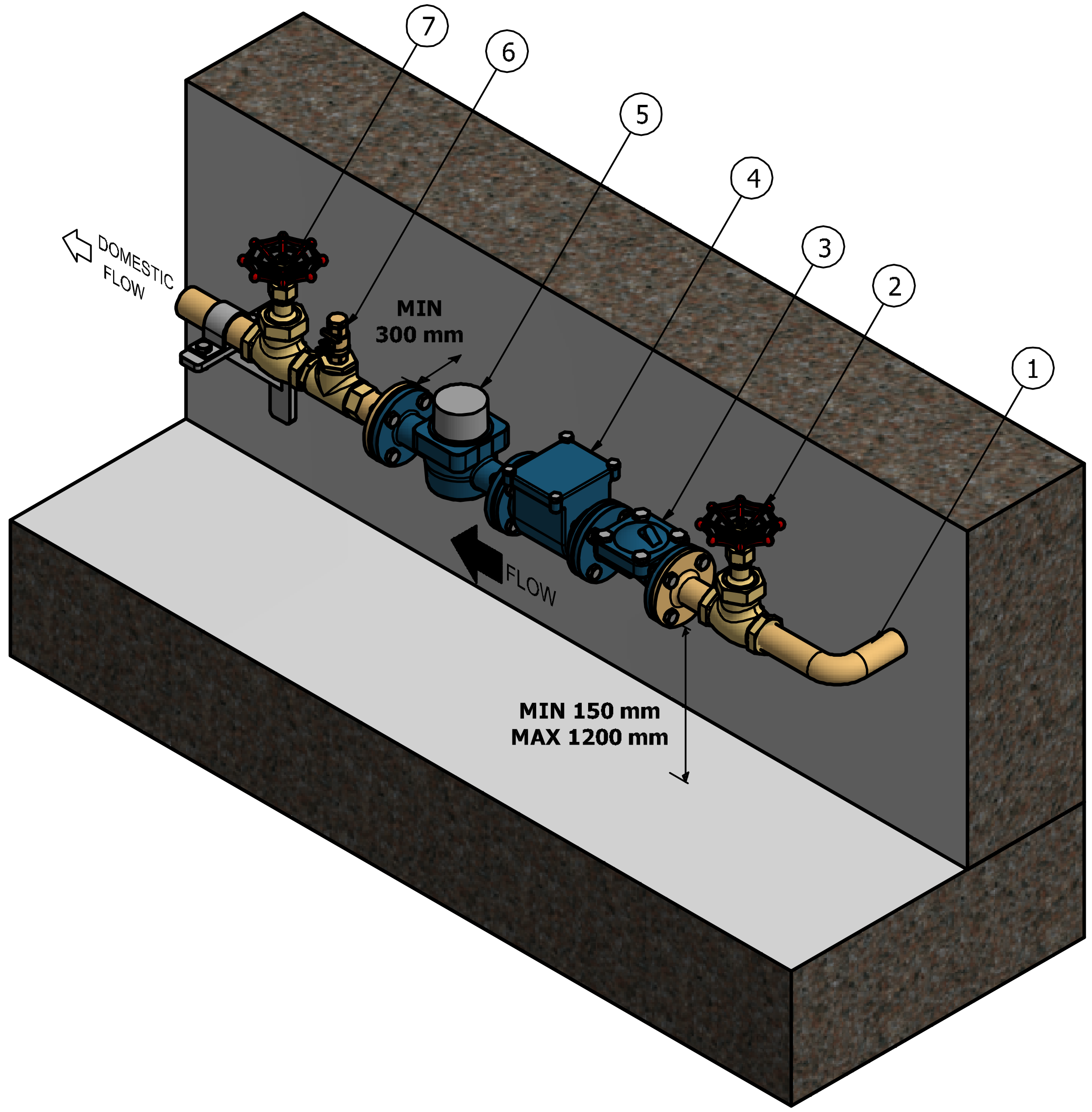
REV.	DATE	DESCRIPTION	AUTH.
B	25/03/19	DN 32 METERS NOTE	
A	01/03/19	ORIGINAL	

QUEENSLAND UrbanUtilities

DRAWING TITLE
TYPICAL GENERAL ARRANGEMENT
DN32 AND LARGER
DOMESTIC SERVICE

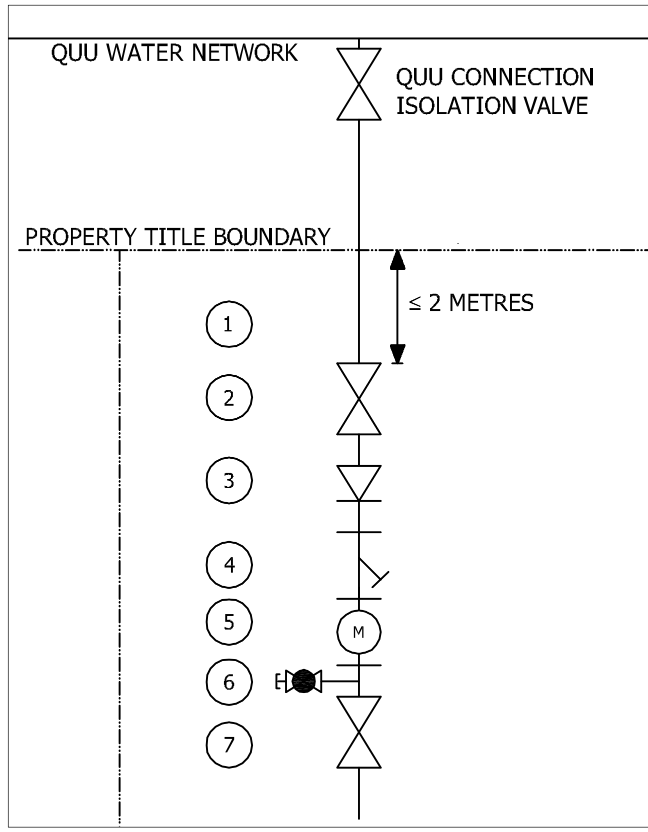
QUEENSLAND URBAN UTILITIES DRAWING No. QUU-WAT-003
REVISION B
DRAWING STATUS STANDARD

\\NFUJPRD202\Gdrive\194 WATER SUPP\775 Standards\2496 Design\Common SEQ Stds Project\01 SEQ Code Controlled Documents\3 Water Supply\4 Work In Progress\ACAD Dwgs\WM Arrangements\ QUU-WAT-004.dwg - Plotted by 088007 on 2019.03.25 at 08:56



NOTES:

1. THIS METER ASSEMBLY ARRANGEMENT IS ONLY APPLICABLE FOR DN32 AND LARGER DOMESTIC WATER SERVICE CONNECTIONS LOCATED WITHIN THE FIRST FLOOR OF A BASEMENT, WITHIN PRIVATE PROPERTY. THIS ARRANGEMENT SHALL ONLY BE CONSIDERED WHERE AN ABOVE-GROUND METER ARRANGEMENT LOCATION IS IMPRACTICAL, AND IS SUBJECT TO PRIOR APPROVAL BY QUU.
2. THE METER SIZING GUIDE PROVIDED IN THIS DRAWING IS FOR REFERENCE ONLY. CORRECT METER SIZING IS THE RESPONSIBILITY OF THE HYDRAULIC ENGINEER.
3. THE WATER METER ASSEMBLY SHALL BE LOCATED WITHIN TWO METRES OF THE FRONT PROPERTY TITLE BOUNDARY (SEE LAYOUT SCHEMATIC), UPSTREAM OF ALL INTERNAL OFFTAKES AND SHALL BE ACCESSIBLE FOR READING, MAINTENANCE AND REPLACEMENT AT ALL TIMES. ALTERNATIVELY, IF THE METER IS NOT ACCESSIBLE AT ALL TIMES, A REMOTE METER READER SHALL BE INSTALLED AND ACCESSIBLE AT GROUND LEVEL AT ALL TIMES.
5. WATER METER ASSEMBLY SHALL HAVE 150 - 1200 mm VERTICAL CLEARANCE FROM BASEMENT FLOOR TO UNDERSIDE OF FLANGE, AND MINIMUM 300 mm HORIZONTAL CLEARANCE FROM BASEMENT WALL TO OUTERMOST PROJECTION OF FLANGE (AS SHOWN). WHERE SERVICE PIPE (ITEM 1) IS FLANGED, THE MINIMUM HORIZONTAL CLEARANCE BETWEEN THE BASEMENT WALL AND THE SERVICE PIPE INSIDE FACE OF FLANGE SHALL BE 150 mm.
6. ASSEMBLY DETAIL DOWNSTREAM OF TEE & TESTING PORT (ITEM 6) IS SHOWN FOR REFERENCE ONLY AND IS CLASSIFIED AS PRIVATE PLUMBING.
7. SERVICE PIPE SMALLER THAN DN100 SHALL BE CONTINUOUS COPPER TO A.S. 1432.
8. THIS DRAWING IS FOR INFORMATION ONLY. ALL 'FOR CONSTRUCTION' DRAWINGS MUST HAVE ENGINEERING CERTIFICATION BY RELEVANT RPEQ.
9. THE ARRANGEMENT SHOWN ON THIS DRAWING ILLUSTRATES A DN50 SERVICE ARRANGEMENT. FITTINGS FOR OTHER SIZE SERVICES WILL BE SLIGHTLY DIFFERENT. THE TABLE BELOW DOES NOT PROVIDE DETAILS FOR ALL FITTINGS REQUIRED, ONLY THE MAIN COMPONENTS.
10. REFER TO QUU STANDARD DRAWING QUU-WAT-002 FOR FURTHER NOTES.



LAYOUT SCHEMATIC

Item	Fitting	Supplied by	Ownership	Descripton: DN32 service* Length approx 0.5m	DN50 service Length approx 1m	DN100 service (with 80 mm meter) Length approx1.1m	DN100 service (with 100 mm meter) Length approx 1.3m	DN150 service Length approx 1.5m	DN200 service Length approx 1.7m
1	Service Pipe and 90⁰ Bend	Customer	Customer	DN32 Copper Class A, silver soldered with brass union, capillary - BSP M	DN50 Copper Class A, silver soldered with brass union, capillary - BSP M	DN100 Fl-Fl DI, thermal bonded epoxy coated	DN100 Fl-Fl DI, thermal bonded epoxy coated	DN150 Fl-Fl DI, thermal bonded epoxy coated	DN200 Fl-Fl DI, thermal bonded epoxy coated
2	Isolation Valve	QUU	QUU	DN32 BSP Brass Ball/Globe Valve	DN50 BSP Brass Ball/Globe Valve	DN100 Fl-Fl Gate Valve, thermal bonded epoxy coated ##	DN100 Fl-Fl Gate Valve, thermal bonded epoxy coated	DN150 Fl-Fl Gate Valve, thermal bonded epoxy coated	DN200 Fl-Fl Gate Valve, thermal bonded epoxy coated
3	Non Return Valve	QUU	QUU	Not required **	DN50 Fl-Fl Val-Matic Swing Flex	DN80 Fl-Fl Val-Matic Swing Flex	DN100 Fl-Fl Val-Matic Swing Flex	DN150 Fl-Fl Val-Matic Swing Flex	DN200 Fl-Fl Val-Matic Swing Flex
4	Strainer	QUU	QUU	Not required **	DN50 Fl-Fl in-line basket strainer, thermal bonded epoxy coated	DN80 Fl-Fl in-line basket strainer, thermal bonded epoxy coated	DN100 Fl-Fl in-line basket strainer, thermal bonded epoxy coated	DN150 Fl-Fl in-line basket strainer, thermal bonded epoxy coated	DN200 Fl-Fl in-line basket strainer, thermal bonded epoxy coated
5	Water Meter	QUU	QUU	32 mm mechanical meter (refer Note 2)	50 mm mechanical meter (refer Note 2)	80 mm mechanical meter (refer Note 2)	100 mm mechanical meter (Note 2)	150 mm mechanical meter (Note 2)	200 mm mechanical meter (Note 2)
6	Tee & Testing Port	QUU	QUU	DN32 x DN25 Brass Tee with DN25 BSP Brass Ball Valve	DN50 x DN25 Brass Tee with DN25 BSP Brass Ball Valve	DN80 Fl-Fl 316SS with DN25 tapping and DN25 BSP Brass Ball Valve	DN100 Fl-Fl 316SS with DN25 tapping and DN25 BSP Brass Ball Valve	DN150 Fl-Fl 316SS with DN25 tapping and DN25 BSP Brass Ball Valve	DN200 Fl-Fl 316SS with DN25 tapping and DN25 BSP Brass Ball Valve
7	Customer Isolation Valve	Customer	Customer	BSP Brass Ball/Globe Valve	Brass Ball/Globe Valve	Gate Valve, thermal bonded epoxy coated	Gate Valve, thermal bonded epoxy coated	Gate Valve, thermal bonded epoxy coated	Gate Valve, thermal bonded epoxy coated
NA	Meter sizing guide - Number of dwellings serviced	NA	NA	7 - 21	22 - 89	90 - 300	301 -500	501 - 800	> 800

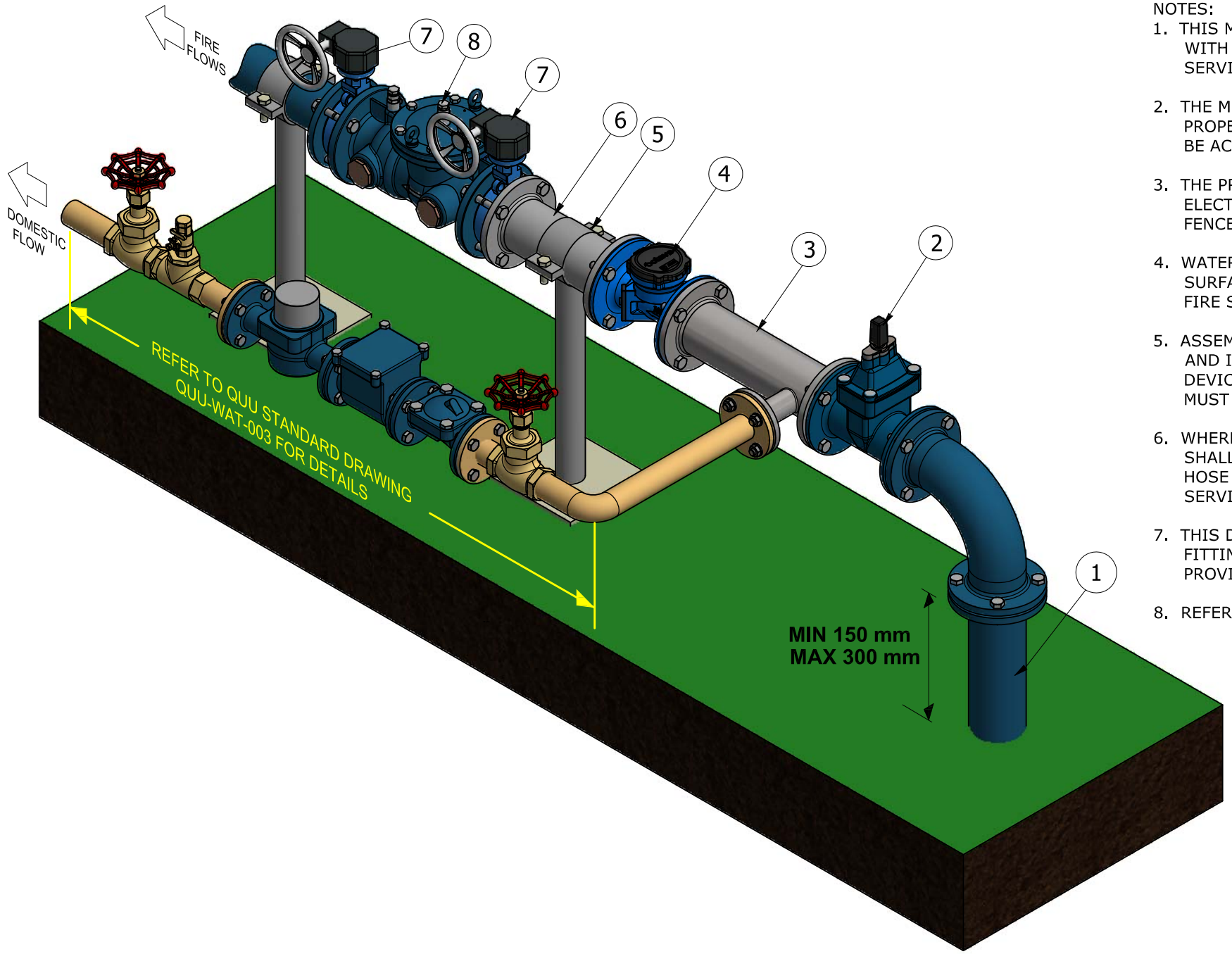
\## DN100/80 FL-FL REDUCER (THERMAL BONDED EPOXY) TO BE INSTALLED ON DOWNSTREAM SIDE OF ISOLATION VALVE (ITEM 2)
* CUTOMER TO SUPPLY DN32 WATER METER ASSEMBLY WHEN USED AS A DOMESTIC SERVICE ONLY.
** DN32 WATER METER INCORPORATES INTEGRAL DUAL CHECK VALVE AND STRAINER

REV.	DATE	DESCRIPTION	AUTH.
B	25/03/19	DN 32 METERS NOTE	
A	01/03/19	ORIGINAL	

QUEENSLAND UrbanUtilities

DRAWING TITLE
TYPICAL GENERAL ARRANGEMENT
DN32 AND LARGER DOMESTIC SERVICE
FOR BASEMENT INSTALLATION

QUEENSLAND URBAN UTILITIES DRAWING No. QUU-WAT-004
REVISION B
DRAWING STATUS STANDARD



NOTES:

1. THIS METER ASSEMBLY ARRANGEMENT IS FOR A DOMESTIC (DN32 AND LARGER) SERVICE COMBINED WITH A FIRE SERVICE (DN100 AND LARGER), WHICH ARE METERED SEPARATELY AND NOT INSTALLED TO SERVICE A TOWNHOUSE STYLE COMMUNITY TITLE SCHEME DEVELOPMENT.

2. THE METER ASSEMBLY ARRANGEMENT SHALL BE LOCATED WITHIN TWO (2) METRES OF THE FRONT PROPERTY BOUNDARY (REFER LAYOUT SCHEMATIC), UPSTREAM OF ALL INTERNAL OFFTAKES AND SHALL BE ACCESSIBLE FOR READING, MAINTENANCE AND REPLACEMENT AT ALL TIMES.

3. THE PROPERTY SERVICE AND METER ASSEMBLY SHALL BE LOCATED AT LEAST ONE (1) METRE FROM ALL ELECTRICAL SOURCES AND AT LEAST 600 mm HORIZONTALLY CLEAR OF EXISTING / FUTURE DRIVEWAYS, FENCES AND STRUCTURES. ANY OTHER ARRANGEMENT IS SUBJECT TO PRIOR APPROVAL BY QUU.

4. WATER METER ASSEMBLY SHALL HAVE MIN 150 - 300 mm VERTICAL CLEARANCE BETWEEN FINISHED SURFACE LEVEL AND UNDERSIDE OF FLANGE (AS SHOWN). THE HORIZONTAL CLEARANCE BETWEEN THE FIRE SERVICE METER ARRANGEMENT AND THE DOMESTIC SERVICE SHALL BE AT LEAST 300 mm.

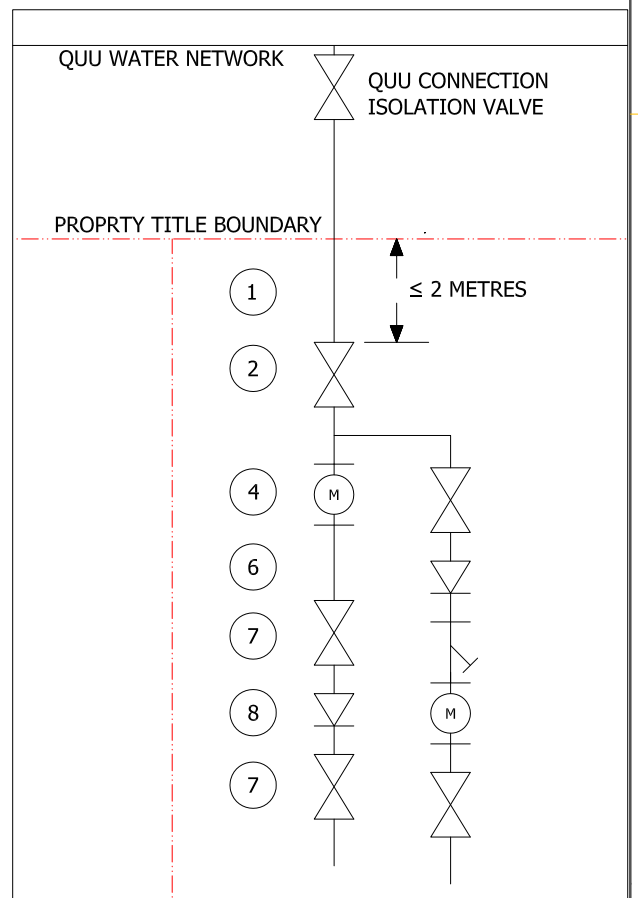
5. ASSEMBLY DETAIL DOWNSTREAM OF THE FIRE SERVICE PIPE (ITEM 6) IS SHOWN FOR REFERENCE ONLY AND IS CLASSIFIED AS PRIVATE PLUMBING. AS A MINIMUM, A CONTAINMENT BACKFLOW PREVENTION DEVICE MUST BE INSTALLED DOWNSTREAM OF THE PIPE (ITEM 6). THE BACKFLOW PREVENTION DEVICE MUST BE IN ACCORDANCE WITH A.S. 3500 AND BE AT LEAST A SINGLE CHECK VALVE.

6. WHERE THE FIRE SERVICE SUPPLIES BOTH HYDRANT AND SPRINKLER SERVICES, THE SPRINKLER SERVICE SHALL BRANCH OFF IMMEDIATELY DOWNSTREAM OF THE CONTAINMENT BACKFLOW PREVENTION DEVICE. HOSE REEL SERVICES MAY BE SUPPLIED FROM EITHER THE HYDRANT SERVICE LINE OR THE DOMESTIC SERVICE LINE.

7. THIS DRAWING ILLUSTRATES A DN150 FIRE SERVICE WITH A DN50 DOMESTIC SERVICE BRANCH. FITTINGS FOR OTHER SIZES SERVICES WILL BE SLIGHTLY DIFFERENT. THE TABLE BELOW DOES NOT PROVIDE DETAILS OF ALL THE FITTINGS REQUIRED, ONLY THE MAIN COMPONENTS.

8. REFER TO QUU STANDARD DRAWING QUU-WAT-002 FOR FURTHER NOTES.

Item	Fitting	Supplied by	Ownership	Description		
				DN100 service Length approx 1.3m	DN150 service Length approx 1.8m	DN200 service Length approx 2.2m
1	Service Pipe and 90^0 Bend	Customer	Customer	DN100 Fl-Fl DI, thermal bonded epoxy coated	DN150 Fl-Fl DI, thermal bonded epoxy coated	DN200 Fl-Fl DI, thermal bonded epoxy coated
2	Isolation Valve	QUU	QUU	DN100 Fl-Fl Gate Valve, thermal bonded epoxy coated	DN150 Fl-Fl Gate Valve, thermal bonded epoxy coated	DN200 Fl-Fl Gate Valve, thermal bonded epoxy coated
3	Branch offtake Pipe for domestic service	QUU	QUU	DN100 Fl-Fl 316SS, 500 mm long	DN150 Fl-Fl 316SS, 750 mm long	DN200 Fl-Fl 316SS, 1000 mm long
4	Fire Service Water Meter	QUU	QUU	100mm ultrasonic / electromagnetic meter	150mm ultrasonic / electromagnetic meter	200mm ultrasonic / electromagnetic meter
5	Pipe Support	Customer	Customer	Galvanized mild steel with rubber insert	Galvanized mild steel with rubber insert	Galvanized mild steel with rubber insert
6	Pipe	QUU	QUU	DN100 Fl-Fl 316SS, 300 mm long	DN150 Fl-Fl 316SS, 450 mm long	DN200 Fl-Fl 316SS, 600 mm long
7	Isolation Valve	Customer	Customer	DN100 Fl-Fl Gate Valve	DN150 Fl-Fl Gate Valve	DN200 Fl-Fl Gate Valve
8	Backflow Prevention Device (Refer Note 6 and A.S. 3500 section 4)	Customer	Customer	AS/NZS 2845.1 Compliant	AS/NZS 2845.1 Compliant	AS/NZS 2845.1 Compliant



LAYOUT SCHEMATIC

REV.	DATE	DESCRIPTION	AUTH.

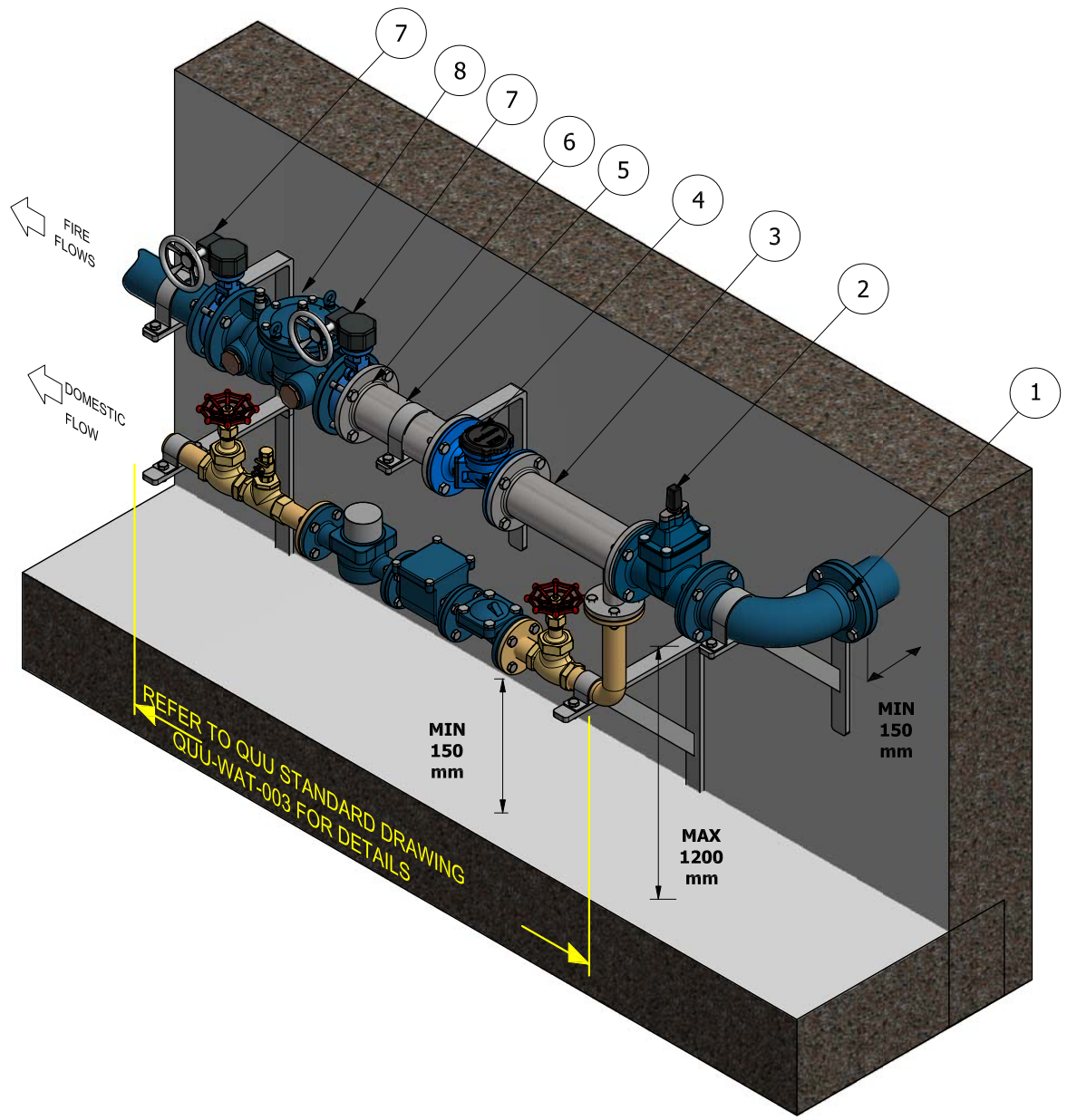
QUEENSLAND UrbanUtilities

DRAWING TITLE
TYPICAL GENERAL ARRANGEMENT
DN32 AND LARGER DOMESTIC SERVICE
WITH DN100 AND LARGER
FIRE SERVICE

QUEENSLAND URBAN UTILITIES DRAWING No. QUU-WAT-005

REVISION A

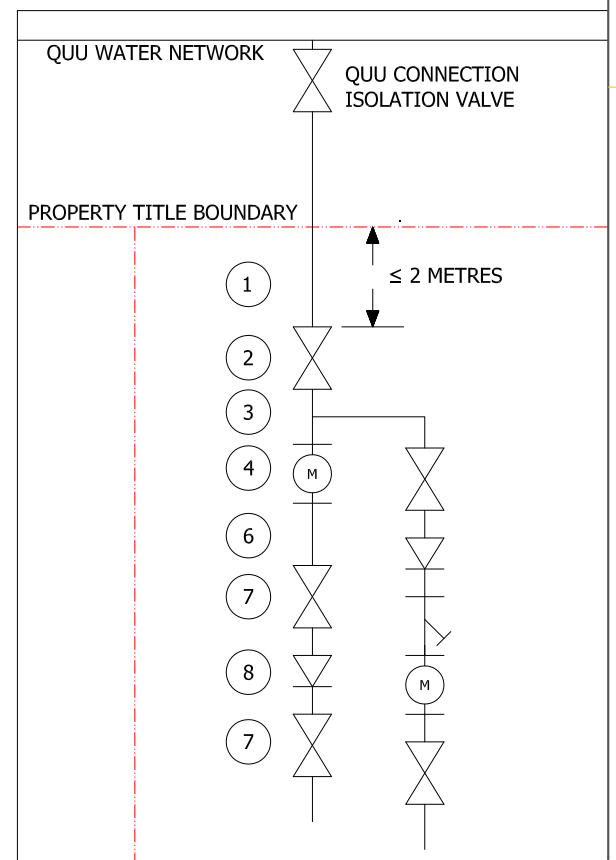
DRAWING STATUS STANDARD



NOTES:

1. THIS METER ASSEMBLY ARRANGEMENT IS FOR A DOMESTIC (DN32 AND LARGER) SERVICE COMBINED WITH A FIRE SERVICE (DN100 AND LARGER) TO BE INSTALLED WITHIN THE FIRST FLOOR OF A BASEMENT. THIS ASSEMBLY SEPARATELY METERS THE DOMESTIC AND FIRE FLOWS, AND SHALL NOT BE INSTALLED TO SERVICE A TOWNHOUSE STYLE COMMUNITY TITLE SCHEME DEVELOPMENT. THIS ARRANGEMENT SHALL ONLY BE CONSIDERED WHERE AN ABOVE-GROUND METER ARRANGEMENT LOCATION IS IMPRACTICAL, AND IS SUBJECT TO PRIOR APPROVAL BY QUU.
2. WHERE THE DOMESTIC SERVICE PIPE IS SMALLER THAN DN100, CONTINUOUS COPPER COMPLYING TO A.S. 1432 SHALL BE USED.
3. THE METER ASSEMBLY ARRANGEMENT SHALL BE LOCATED TWO (2) METRES OF THE FRONT BOUNDARY (SEE LAYOUT SCHEMATIC), UPSTREAM OF ALL INTERNAL OFFTAKES, AND SHALL PREFERABLY BE ACCESSIBLE FOR READING, MAINTENANCE AND REPLACEMENT AT ALL TIMES. ALTERNATIVELY, IF THE METERS ARE NOT ACCESSIBLE AT ALL TIMES, REMOTE METER READERS SHALL BE INSTALLED AND ACCESSIBLE AT GROUND LEVEL AT ALL TIMES.
4. WATER METER ASSEMBLY SHALL HAVE 150 - 1200 mm VERTICAL CLEARANCE FROM BASEMENT FLOOR TO UNDERSIDE OF FLANGE AND MINIMUM 150 mm HORIZONTAL CLEARANCE FROM BASEMENT WALL TO INSIDE FACE OF FLANGE (AS SHOWN). THE VERTICAL CLEARANCE BETWEEN THE TOP OF THE DOMESTIC METER ARRANGEMENT (I.E. TOP OF ISOLATION VALVE - ITEM 2) AND THE UNDERSIDE OF THE FIRE SERVICE ARRANGEMENT SHALL BE AT LEAST 300 mm.
5. ASSEMBLY DETAIL DOWNSTREAM OF FIRE SERVICE PIPE (ITEM 6) IS SHOWN FOR REFERENCE ONLY AND IS CLASSIFIED AS INTERNAL PLUMBING. AS A MINIMUM, A CONTAINMENT BACKFLOW PREVENTION DEVICE SHALL BE INSTALLED DOWNSTREAM OF THE PIPE (ITEM 6). THE BACKFLOW PREVENTION DEVICE SHALL BE IN ACCORDANCE WITH A.S. 3500 AND BE AT LEAST A SINGLE CHECK VALVE.
6. WHERE THE FIRE SERVICE SUPPLIES BOTH HYDRANT AND SPRINKLER SERVICES , THE SPRINKLER SERVICE SHALL BRANCH OFF IMMEDIATELY DOWNSTREAM OF THE CONTAINMENT BACKFLOW PREVENTION DEVICE. HOSE REEL SERVICES MAY BE SUPPLIED FROM EITHER THE HYDRANT SERVICE LINE OR THE DOMESTIC SERVICE LINE.
7. THIS DRAWING IS FOR INFORMATION ONLY. ALL 'FOR CONSTRUCTION' DRAWINGS SHALL HAVE ENGINEERING CERTIFICATION BY A RELEVANT RPEQ.
8. THIS DRAWING ILLUSTRATES A DN150 FIRE SERVICE WITH A DN50 DOMESTIC SERVICE BRANCH. FITTINGS WITH OTHER SIZE SERVICES WILL BE SLIGHTLY DIFFERENT. THE TABLE BELOW DOES NOT PROVIDE DETAILS OF ALL THE FITTINGS REQUIRED, ONLY THE MAIN COMPONENTS.
9. REFER TO QUU STANDARD DRAWING QUU-WAT-002 FOR FURTHER NOTES.

Item	Fitting	Supplied By	Ownership	Description		
				DN100 service Length approx 1.3m	DN150 service Length approx 1.8m	DN200 service Length approx 2.2m
1	Service Pipe and 90^0 Bend	Customer	Customer	DN100 Fl-Fl DI, thermal bonded epoxy coated	DN150 Fl-Fl DI, thermal bonded epoxy coated	DN200 Fl-Fl DI, thermal bonded epoxy coated
2	Isolation Valve	QUU	QUU	DN100 Fl-Fl Gate Valve, thermal bonded epoxy coated	DN150 Fl-Fl Gate Valve, thermal bonded epoxy coated	DN200 Fl-Fl Gate Valve, thermal bonded epoxy coated
3	Branch offtake Pipe for domestic service	QUU	QUU	DN100 Fl-Fl 316SS, 500mm long	DN150 Fl-Fl 316SS, 750mm long	DN200 Fl-Fl 316SS, 1000mm long
4	Fire Service Water Meter	QUU	QUU	100mm ultrasonic / electromagnetic meter	150mm ultrasonic / electromagnetic meter	200mm ultrasonic / electromagnetic meter
5	Pipe Support	Customer	Customer	Galvanized mild steel with rubber insert	Galvanized mild steel with rubber insert	Galvanized mild steel with rubber insert
6	Pipe	QUU	QUU	DN100 Fl-Fl 316SS, 300mm long	DN150 Fl-Fl 316SS, 450mm long	DN200 Fl-Fl 316SS, 600mm long
7	Isolation Valve	Customer	Customer	DN100 Fl-Fl Gate Valve	DN150 Fl-Fl Gate Valve	DN200 Fl-Fl Gate Valve
8	Backflow Prevention Device (Refer Notes 5 & 6 and A.S. 3500 section 4)	Customer	Customer	AS/NZS 2845.1 Compliant	AS/NZS 2845.1 Compliant	AS/NZS 2845.1 Compliant



LAYOUT SCHEMATIC

REV.	DATE	DESCRIPTION	AUTH.
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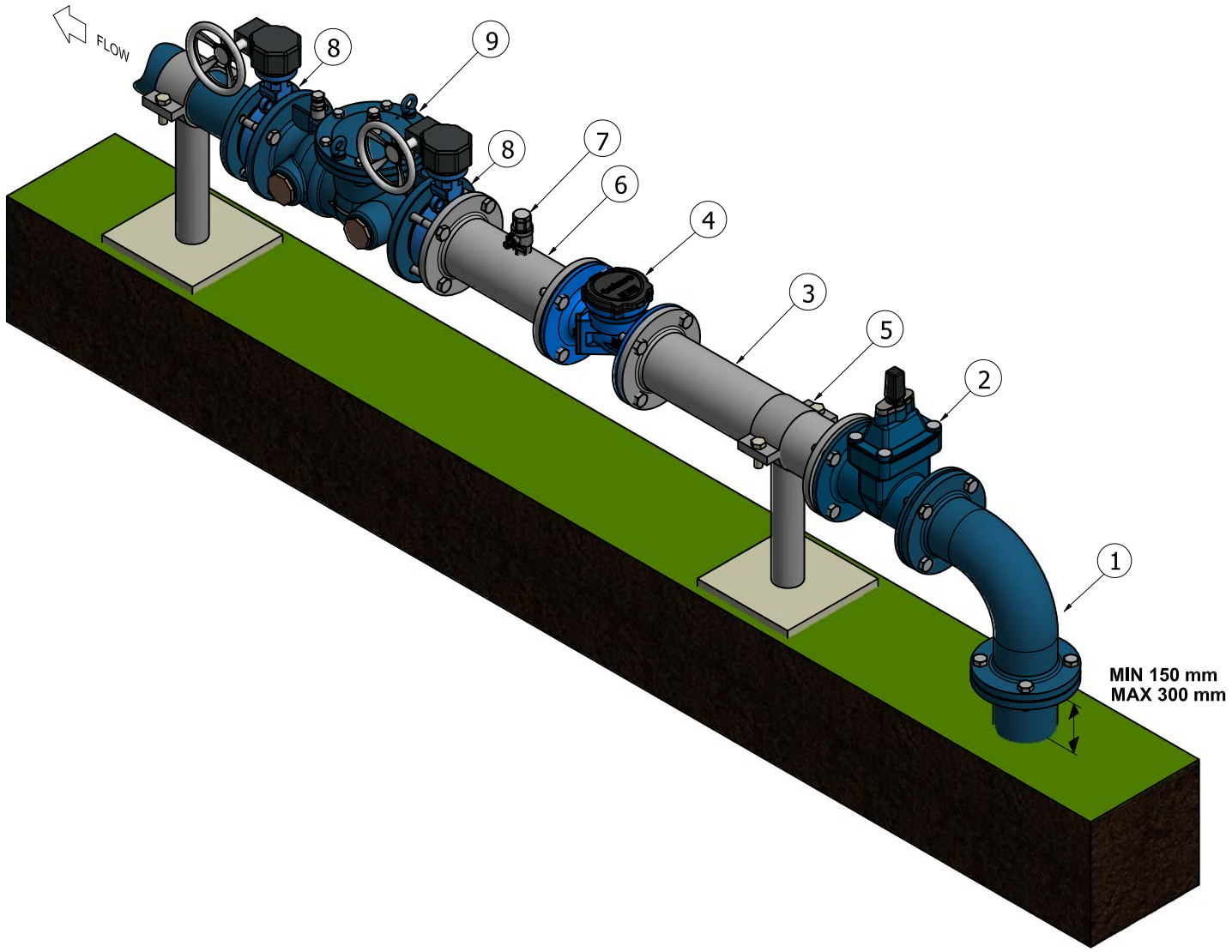
QUEENSLAND UrbanUtilities

DRAWING TITLE
TYPICAL GENERAL ARRANGEMENT
DN32 AND LARGER DOMESTIC SERVICE
WITH DN100 AND LARGER FIRE SERVICE
FOR BASEMENT INSTALLATION

QUEENSLAND URBAN UTILITIES DRAWING No. QUU-WAT-006

REVISION A

DRAWING STATUS STANDARD



NOTES:

1. THIS METER ASSEMBLY ARRANGEMENT IS APPLICABLE FOR A FIRE SERVICE OR A TOWNHOUSE STYLE COMMUNITY TITLE SCHEME (C.T.S.) DEVELOPMENT COMBINED FIRE AND DOMESTIC SERVICE.

2. A METER SIZING GUIDE FOR DOMESTIC FLOWS IS PROVIDED IN THIS DRAWING FOR REFERENCE ONLY. CORRECT METER SIZING IS THE RESPONSIBILITY OF THE HYDRAULIC ENGINEER.

3. THE START OF THE METER ASSEMBLY ARRANGEMENT SHALL BE LOCATED WITHIN TWO (2) METRES OF THE FRONT PROPERTY BOUNDARY (SEE LAYOUT SCHEMATIC), UPSTREAM OF ALL INTERNAL OFFTAKES, AND SHALL BE ACCESSIBLE FOR READING, MAINTENANCE AND REPLACEMENT AT ALL TIMES. THE PROPERTY SERVICE AND METER ASSEMBLY SHALL BE LOCATED AT LEAST 1.0m FROM ALL ELECTRICAL SOURCES AND AT LEAST 600mm HORIZONTALLY CLEAR OF EXISTING/FUTURE DRIVEWAYS, FENCES AND STRUCTURES. ANY OTHER ARRANGEMENT IS SUBJECT TO PRIOR APPROVAL BY QUU.

4. WATER METER ASSEMBLY SHALL HAVE 150 - 300 mm VERTICAL CLEARANCE BETWEEN FINISHED SURFACE LEVEL AND UNDERSIDE OF FLANGE (AS SHOWN).

5. ASSEMBLY DETAILED DOWNSTREAM OF THE PIPE (ITEM 6) IS SHOWN FOR REFERENCE ONLY AND IS CLASSIFIED AS INTERNAL PLUMBING. AS A MINIMUM, A CONTAINMENT BACKFLOW PREVENTION DEVICE SHALL BE INSTALLED DOWNSTREAM OF THE PIPE (ITEM 6). THE BACKFLOW PREVENTION DEVICE MUST BE IN ACCORDANCE WITH A.S. 3500 AND BE AT LEAST A SINGLE CHECK VALVE.

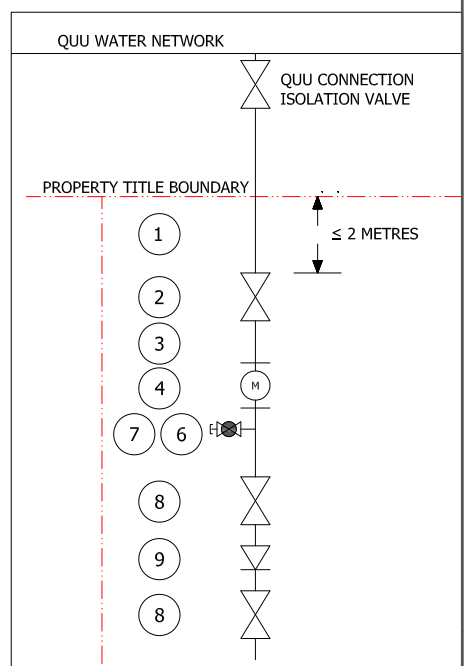
6. WHERE THE FIRE SERVICE SUPPLIES BOTH HYDRANT AND SPRINKLER SERVICES, THE SPRINKLER SERVICE SHALL BRANCH OFF IMMEDIATELY DOWNSTREAM OF THE CONTAINMENT BACKFLOW PREVENTION DEVICE.

7. THIS DRAWING ILLUSTRATES A DN150 FIRE SERVICE OR TOWNHOUSE STYLE C.T.S. COMBINED FIRE AND DOMESTIC SERVICE ARRANGEMENT. FITTINGS FOR OTHER SIZE SERVICES WILL BE SLIGHTLY DIFFERENT. THE TABLE BELOW DOES NOT PROVIDE DETAILS FOR ALL THE FITTINGS REQUIRED, ONLY THE MAIN COMPONENTS.

8. THIS DRAWING IS FOR INFORMATION ONLY. ALL 'FOR CONSTRUCTION' DRAWINGS SHALL HAVE ENGINEERING CERTIFICATION BY A RELEVANT RPEQ.

9. REFER TO QUU STANDARD DRAWING QUU-WAT-002 FOR FURTHER NOTES.

				Description				
Item	Fitting	Supplied by	Ownership	DN50 service Length approx 1m	DN100 service (with 80mm meter) Length approx 1.3m	DN100 service (with 100mm meter) Length approx 1.3m	DN150 service Length approx 1.8m	DN200 service Length approx 2.2m
1	Service Pipe and 90^0 Bend	Customer	Customer	DN50 copper Class A, silver soldered with brass union, capillary - BSP M	DN100 Fl-Fl DI, thermal bonded epoxy coated	DN100 Fl-Fl DI, thermal bonded epoxy coated	DN150 Fl-Fl DI, thermal bonded epoxy coated	DN200 Fl-Fl DI, thermal bonded epoxy coated
2	Isolation Valve	QUU	QUU	DN50 BSP Brass Ball / Globe Valve	DN100 Fl-Fl Gate Valve, thermal bonded epoxy coated	DN100 Fl-Fl Gate Valve, thermal bonded epoxy coated	DN150 Fl-Fl Gate Valve, thermal bonded epoxy coated	DN200 Fl-Fl Gate Valve, thermal bonded epoxy coated
3	Pipe (5D)	QUU	QUU	DN50 Fl-Fl 316SS, 250 mm long	DN100 / 80 Fl-Fl DI reducer and DN80 Fl-Fl 316SS pipe, 400mm long	DN100 Fl-Fl 316SS, 500 mm long	DN150 Fl-Fl 316SS, 750 mm long	DN200 Fl-Fl 316SS, 1000 mm long
4	Water Meter	QUU	QUU	50mm ultrasonic / electromagnetic meter (refer Note 2)	80mm ultrasonic / electromagnetic meter (refer Note 2)	100mm ultrasonic / electromagnetic meter (refer Note 2)	150mm ultrasonic / electromagnetic meter (refer Note 2)	200mm ultrasonic / electromagnetic meter (refer Note 2)
5	Pipe Support	Customer	Customer	Galvanized mild steel with rubber insert	Galvanized mild steel with rubber insert	Galvanized mild steel with rubber insert	Galvanized mild steel with rubber insert	Galvanized mild steel with rubber insert
6	Pipe (3D)	QUU	QUU	DN50 Fl-Fl 316SS, 150 mm long	DN100/80 Fl-Fl DI reducer & DN80 Fl-Fl 316SS pipe, 240 mm long	DN100 Fl-Fl 316SS, 300 mm long	DN150 Fl-Fl 316SS, 450 mm long	DN200 Fl-Fl 316SS, 600 mm long
7	Testing Port	QUU	QUU	DN25 BSP Brass Ball Valve	DN25 BSP Brass Ball Valve	DN25 BSP Brass Ball Valve	DN25 BSP Brass Ball Valve	DN25 BSP Brass Ball Valve
8	Isolation Valve	Customer	Customer	A.S. 3500 Compliant DN50 valve	A.S. 3500 Compliant DN100 valve	A.S. 3500 Compliant DN100 valve	A.S. 3500 Compliant DN150 valve	A.S. 3500 Compliant DN200 valve
9	Backflow Prevention Device (Refer to Notes 5 & 6 and AS3500 Section 4)	Customer	Customer	AS/NZS 2845.1 Compliant	AS/NZS 2845.1 Compliant	AS/NZS 2845.1 Compliant	AS/NZS 2845.1 Compliant	AS/NZS 2845.1 Compliant
NA	Meter sizing guide - Number of dwellings serviced	NA	NA	22 - 38	39 - 149	150 - 274	275 - 800	> 800



LAYOUT SCHEMATIC

REV.	DATE	DESCRIPTION	AUTH.
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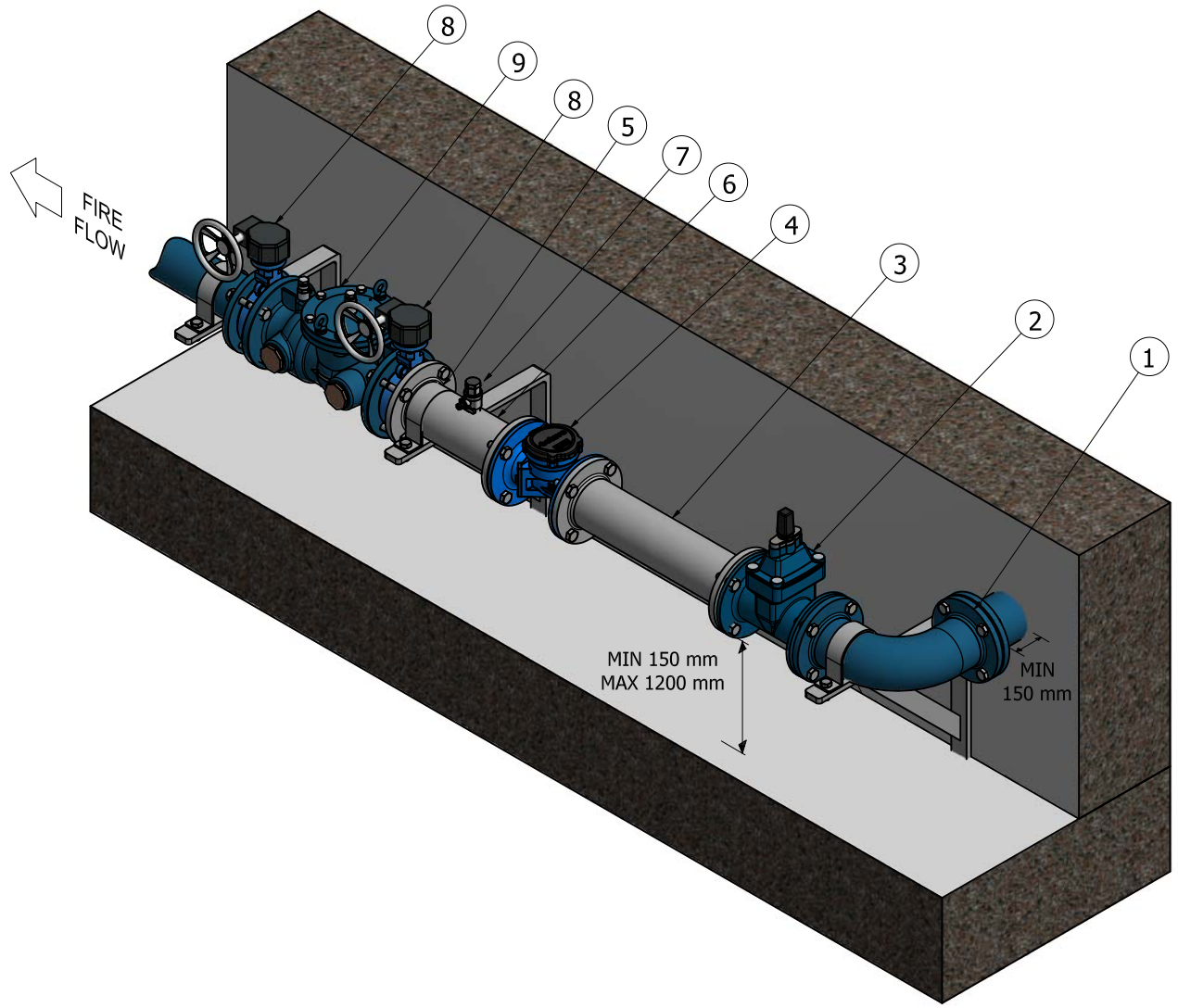
QUEENSLAND UrbanUtilities

DRAWING TITLE
TYPICAL GENERAL ARRANGEMENT
DN50 AND LARGER FIRE SERVICE
OR TOWNHOUSE STYLE C.T.S.
COMBINED FIRE & DOMESTIC SERVICE

QUEENSLAND URBAN UTILITIES DRAWING No. QUU-WAT-007

REVISION A

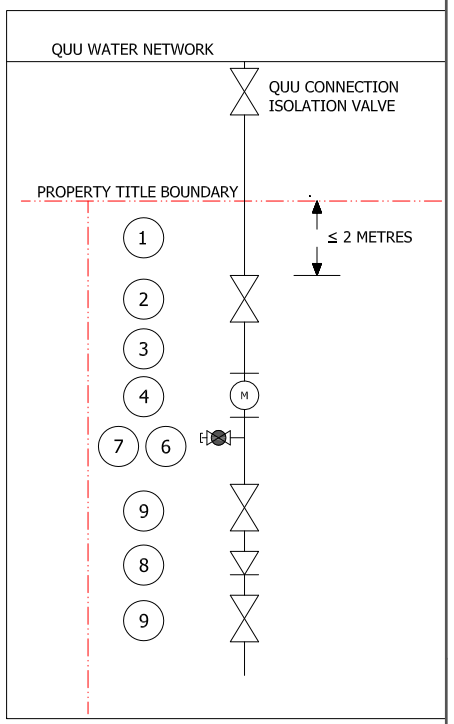
DRAWING STATUS STANDARD



NOTES:

1. THIS METER ARRANGEMENT IS ONLY APPLICABLE FOR A FIRE SERVICE LOCATED WITHIN THE FIRST FLOOR OF A BASEMENT, WITHIN PRIVATE PROPERTY. THIS ARRANGEMENT SHALL ONLY BE CONSIDERED WHERE AN ABOVE-GROUND METER ARRANGEMENT LOCATION IS IMPRACTICAL, AND IS SUBJECT TO PRIOR APPROVAL BY QUU.
2. THE METER ASSEMBLY ARRANGEMENT SHALL BE LOCATED TWO (2) METRES OF THE FRONT PROPERTY BOUNDARY (SEE LAYOUT SCHEMATIC), UPSTREAM OF ALL INTERNAL OFFTAKES, AND PREFERABLY BE ACCESSIBLE FOR READING, MAINTENANCE AND REPLACEMENT AT ALL TIMES. ALTERNATIVELY, IF THE METER IS NOT ACCESSIBLE AT ALL TIMES, A REMOTE METER READER SHALL BE INSTALLED AND BE ACCESSIBLE AT ALL TIMES, AT GROUND LEVEL.
3. WATER METER ASSEMBLY SHALL HAVE MINIMUM 150 - 1200 mm VERTICAL CLEARANCE FROM BASEMENT FLOOR TO UNDERSIDE OF FLANGE, AND MINIMUM 150 mm HORIZONTAL CLEARANCE FROM BASEMENT WALL TO INSIDE FACE OF FLANGE (AS SHOWN).
4. ASSEMBLY DETAIL DOWNSTREAM OF THE PIPE (ITEM 6) IS SHOWN FOR REFERENCE ONLY AND IS CLASSIFIED AS INTERNAL PLUMBING. AS A MINIMUM, A CONTAINMENT BACKFLOW PREVENTION DEVICE MUST BE INSTALLED DOWNSTREAM OF THE PIPE (ITEM 6). THE BACKFLOW PREVENTION DEVICE MUST BE IN ACCORDANCE WITH A.S. 3500 AND BE AT LEAST A SINGLE CHECK VALVE.
5. WHERE THE FIRE SERVICE SUPPLIES BOTH HYDRANT AND SPRINKLER SERVICES, THE SPRINKLER SERVICE SHALL BRANCH OFF IMMEDIATELY DOWNSTREAM OF THE CONTAINMENT BACKFLOW PREVENTION DEVICE.
6. THIS DRAWING IS FOR INFORMATION ONLY. ALL 'FOR CONSTRUCTION' DRAWINGS SHALL HAVE ENGINEERING CERTIFICATION BY A RELEVANT RPEQ.
7. THIS DRAWING ILLUSTRATES A DN150 FIRE SERVICE. FITTINGS FOR OTHER SIZE SERVICES WILL BE SLIGHTLY DIFFERENT. THE TABLE BELOW DOES NOT PROVIDE DETAILS OF ALL THE FITTINGS REQUIRED, ONLY THE MAIN COMPONENTS.
8. REFER TO QUU STANDARD DRAWING QUU-WAT-002 FOR FURTHER NOTES.

Item	Fitting	Supplied by	Ownership	Description				
				DN50 service Length approx 1m	DN100 service (with 80mm meter) Length approx 1.3m	DN100 service (with 100mm meter) Length approx 1.3m	DN150 service Length approx 1.8m	DN200 service Length approx 2.2m
1	Service Pipe and 90^0 Bend	Customer	Customer	DN50 copper Class A, silver soldered with brass union, capillary - BSP M	DN100 Fl-Fl DI, thermal bonded epoxy coated	DN100 Fl-Fl DI, thermal bonded epoxy coated	DN150 Fl-Fl DI, thermal bonded epoxy coated	DN200 Fl-Fl DI, thermal bonded epoxy coated
2	Isolation Valve	QUU	QUU	DN50 BSP Brass Ball / Globe Valve	DN100 Fl-Fl Gate Valve, thermal bonded epoxy coated	DN100 Fl-Fl Gate Valve, thermal bonded epoxy coated	DN150 Fl-Fl Gate Valve, thermal bonded epoxy coated	DN200 Fl-Fl Gate Valve, thermal bonded epoxy coated
3	Pipe (5D)	QUU	QUU	DN50 Fl-Fl 316SS, 250 mm long	DN100/80 Fl-Fl DI reducer and DN80 Fl-Fl 316SS pipe, 400 mm long	DN100 Fl-Fl 316SS, 500 mm long	DN150 Fl-Fl 316SS, 750 mm long	DN200 Fl-Fl 316SS, 1000 mm long
4	Water Meter	QUU	QUU	50 mm ultrasonic / electromagnetic meter	80 mm ultrasonic / electromagnetic meter	100 mm ultrasonic / electromagnetic meter	150 mm ultrasonic / electromagnetic meter	200 mm ultrasonic / electromagnetic meter
5	Pipe Support	Customer	Customer	Galvanized mild steel with rubber insert	Galvanized mild steel with rubber insert	Galvanized mild steel with rubber insert	Galvanized mild steel with rubber insert	Galvanized mild steel with rubber insert
6	Pipe (3D)	QUU	QUU	DN50 Fl-Fl 316SS, 150 mm long	DN100/80 Fl-Fl DI reducer and DN80 Fl-Fl 316SS pipe, 240 mm long	DN100 Fl-Fl 316SS, 300 mm long	DN150 Fl-Fl 316L SS, 450 mm long	DN200 Fl-Fl 316SS, 600 mm long
7	Testing Port	QUU	QUU	DN25 BSP Brass Ball Valve	DN25 BSP Brass Ball Valve	DN25 BSP Brass Ball Valve	DN25 BSP Brass Ball Valve	DN25 BSP Brass Ball Valve
8	Isolation Valve	Customer	Customer	A.S. 3500 Compliant DN50 valve	A.S. 3500 Compliant DN100 valve	A.S. 3500 Compliant DN100 valve	A.S. 3500 Compliant DN150 valve	A.S. 3500 Compliant DN200 valve
9	Backflow Prevention Device (Refer to Notes 5 - 6 and A.S. 3500 Section 4)	Customer	Customer	AS/NZS 2845.1 Compliant	AS/NZS 2845.1 Compliant	AS/NZS 2845.1 Compliant	AS/NZS 2845.1 Compliant	AS/NZS 2845.1 Compliant



LAYOUT SCHEMATIC

REV.	DATE	DESCRIPTION	AUTH.

QUEENSLAND UrbanUtilities

DRAWING TITLE
TYPICAL GENERAL ARRANGEMENT
DN50 AND LARGER FIRE SERVICE
FOR BASEMENT INSTALLATION

QUEENSLAND URBAN UTILITIES DRAWING No. QUU-WAT-008

REVISION A

DRAWING STATUS
STANDARD