Gas Service and Installation (GS&I) Rules

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1. General and scope

1.1 Introduction

These Gas Service and Installation Rules (GS&I Rules or Rules) are issued by Evoenergy pursuant to the Gas Service and Installation Code, issued September 2021, under the *Utilities (Technical Regulation) Act 2014* (the Act).

These GS&I Rules only apply within the ACT. Separate Rules are available for NSW installations.

1.2 Evoenergy and its partners

Evoenergy (ABN 76 670 568 688) is the trading name of the partnership between Icon Distribution Investments Limited can 83 073 025 224 and Jemena Networks (ACT) Pty Limited ACN 24 008 552 663.

Evoenergy's gas network is managed and operated by Jemena Asset Management (Jemena) and Zinfra, both being entities within the Jemena group. References to Evoenergy in this document includes anything delegated to either Jemena or Zinfra and vice versa.

Under the asset management contract between Evoenergy and Jemena, Evoenergy utilises Jemena Asset Management systems for the processes covered by these Rules.

The roles of each the partners is as follows:

Evoenergy – Owner of the ACT/Queanbeyan/Palerang gas network gas network and holder of the licence under the *Utilities Act 2000* and approver of all expenditure under its agreements with Jemena and Zinfra.

Jemena – Asset management, engineering and planning.

Zinfra – Fields services, covering both network operations and capital works.

1.3 Application

These Gas Service and Installation Rules apply to the following groups that determine locations and enclosure of gas services and associated meter assemblies, and undertake their installation, operation and maintenance:

- **Customers** connected to or wishing to connect to Evoenergy's gas network. This covers parties that are contracted to customers, including the following who are involved with location of meter installations and associated meter enclosures and installation of consumer piping:
  - gasfitters
  - builders

- developers
- building designers and architects

- **Evoenergy**, including Evoenergy's contractors and subcontractors, Jemena and Zinfra
- **Authorised Persons** – individuals who have been approved pursuant to Division 7.4 of the Utilities Act to work on a customer's gas services, who will be employees of Evoenergy, Jemena or Zinfra.

These GS&I Rules apply from the date of approval (as shown on front page of these GS&I Rules).

1.4 Purpose

The purpose of these Rules is to make the process of obtaining and maintaining gas services as simple and easy as possible, while ensuring high quality and safety of design, installation, operation and maintenance of with the gas service, and in particular the metering installation and any associated enclosure.

1.5 Relevant legislation

These Gas Service and Installation Rules are developed and approved pursuant to the *Gas Service and Installation Code* approved by the relevant Minister under the *Utilities (Technical Regulation) Act*. Technical regulation is undertaken by the Utilities Technical Regulator and its staff.

Evoenergy is licensed under the *Utilities Act* to provide gas distribution services. The licence is administered by the Independent Competition and Regulatory Commission.

These GS&I Rules are to be applied alongside the *Gas Network Boundary Code*, *Gas Safety and Network Operation Code* and the *Gas Metering Code*.

Customer piping that connects to Evoenergy's gas service is covered under the *Gas Safety Act*.

Other obligations relating to customer connections are governed by the *National Energy Retail Law* and *National Energy Retail Rules*, which the Australian Energy Regulator oversees and enforces. The Law and Rules are applicable to Evoenergy and energy retailers that supply gas to customers.

1.6 Applicable Standards

Applicable Standards for the installation of gas metering equipment include:

- AS/NZS 4645.1 – Gas networks - network management
- AS/NZS 5601 – Gas installations
- AS/NZS 60079 – Explosive atmospheres

Additional Standards applicable to these rules are:

- ASME/ANSI B16 – Pipe flanges and flanged fittings
- AS/NZS1170 – Structural design actions - permanent, imposed and other actions
- AS/NZS 1319 – Safety signs for the occupational environment
- AS 1432 – Copper tubes for plumbing, gas fitting and drainage applications
- AS 1725.1 – Chain link fabric fencing - Security fences and gates - General requirements
- AS 2944.1 – Plastics pipes and fittings for gas reticulation - polyamide pipes
- AS 3688 – Water supply – metallic fittings and end connectors
- AS ISO 7.1 – Pipe threads where pressure-tight joints are made on the threads Part 1: Dimensions, tolerances and designation
- AS/NZS 3000 – Electrical installations
- *AS/NZS 4129 – Fittings for polyethylene (PE) pipes for pressure applications*
- AS/NZS 4130 – Polyethylene (PE) pipes for pressure applications

as revised periodically.

Where an installation requires any other technical standards relevant to the location, design, installation, commissioning, operating and maintenance of gas services, meter assemblies and enclosures must nevertheless conform with the GS&I Code and these Rules.

1.7 Scope

1.7.1 What is the gas service?

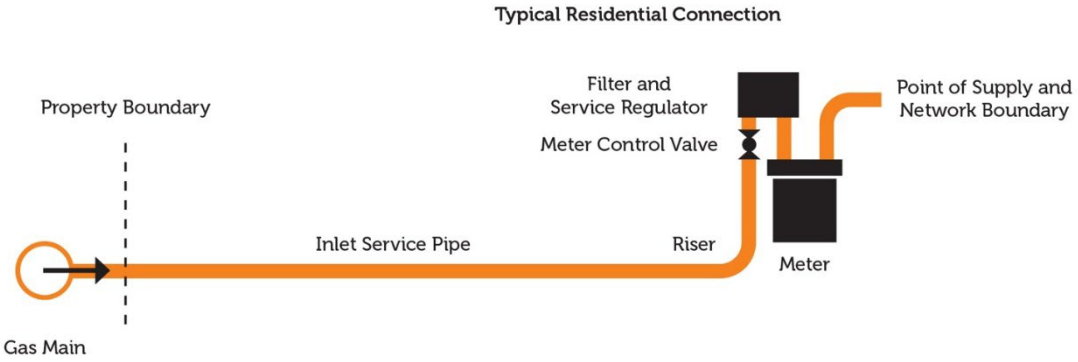
As set out in the definitions in Section 1.8 the gas service is a physical link between Evoenergy's gas distribution network and the customer's point of supply, where the gas service connects to the customer's piping, to allow the flow of gas into the customers consumer piping. The gas service is normally made up of the service pipe which connects to the distribution network, a service riser, which connects the service pipe to the meter assembly that supplies gas to the customer's installation.

1.7.2 Gas network boundary

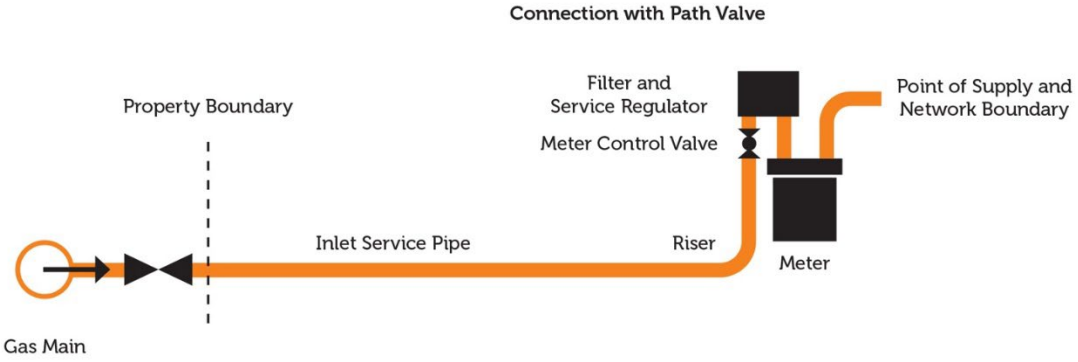
The boundary between a Gas Distribution Network and a customer's premises is at the point of supply, which is at the outlet of the meter assembly.

Figure 1. Typical residential gas service connections

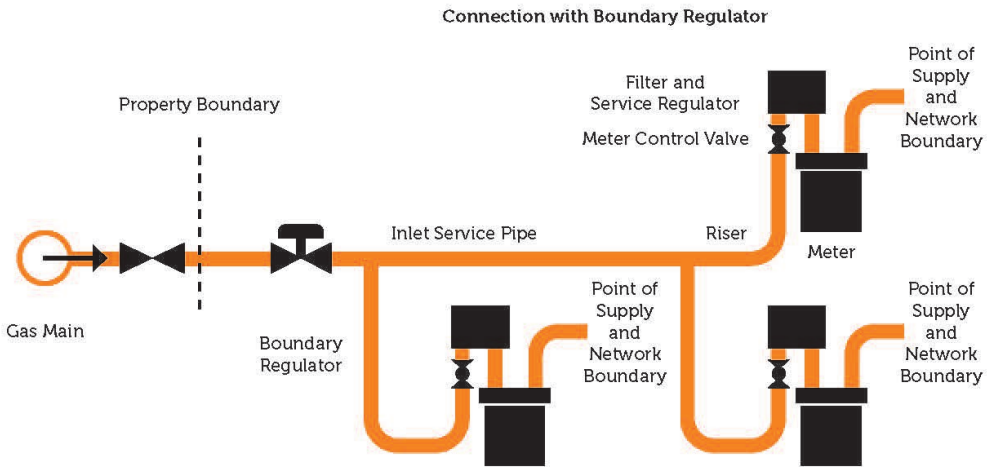
a) Typical residential connection



b) Path valve connection



c) Boundary regulator installation



Gas services established from the introduction of the *Utilities Act 2000*:

From the introduction of the *Utilities ACT 2000*, for all new gas services, the boundary between a gas network and a customer's installation is fixed at the point of supply, which is at the outlet of the meter assembly. Refer to Appendix E – Figures E1 to E7 for typical meter assembly outlet configurations.

1.7.3 What the GS&I Rules cover

The GS&I Rules apply to new gas services and additions and replacement or alteration to existing gas services in accordance with the requirements of the GS&I Code.

1.7.4 What the GS&I Rules do not cover

The GS&I Rules do not cover any work associated with the consumer piping downstream of the point of supply. The requirements for this work can be found in the *Gas Safety Act 2000* (ACT) and *AS/NZS 5601.1 Gas Installations*.

1.7.5 Pressure rating for low-pressure consumer piping installations

Unless otherwise agreed between Evoenergy and the customer, consumer piping is to be capable of safely carrying 7kPag, which is to be taken as the maximum overpressure to be considered in relation to clause 5.2.1 of A*S/NZS 5601.1:2022.*

1.8 Definitions

The following definitions apply within this document:

Term	Definition
the Act	the *Utilities (Technical Regulation) Act 2014*
Evoenergy	Evoenergy Distribution (ABN 76 670 568 688), being the gas distributor in the Australian Capital Territory. For the purpose of these GS&I Rules, this definition includes Evoenergy approved representative: Jemena Asset Management Pty Ltd (ABN 53 086 013 461).
AS/NZS or AS	When followed by numbers or letters AS/NZS or AS means a standard published by Standards Australia as current at the time, e.g. AS/NZS 4645.1 Gas Distribution Networks.
Authorised Person	A person authorised by Evoenergy, under the *Utilities Act 2000* Division 7.4 Sections 114 -117, to perform a specific type of duty or duties or to be at a specific location or locations, who is trained and has demonstrated the ability to perform such duty or duties safely and effectively.
Breather vent	A breather vent as defined in *AS/NZS 4645* (which calls up *AS/NZS 5601.1 Gas Installations)*

Term	Definition
Builder	A person who provides, has provided or intends to provide (is responsible for) the erection, alteration or demolition of a building.
BCA	Building Code of Australia
Consumer piping	Consumer piping is as defined within *AS/NZS 5601.1 Gas Installations*
Customer	1. A person to whom the service is provided under a customer contract; or 2. A person who has applied, orally or in writing, to the relevant utility for the service to be provided under a customer contract.
Customer contract	A customer connection contract, made under the National Energy Retail Law.
Distribution pipeline	Pipes used in the gas distributor's gas reticulation network to transport gas
Enclosure	Any structure/room where meter assemblies are housed
Gas Service	A physical link between a distribution pipeline and a point of supply to allow the flow of gas from the distribution pipeline to a customer.
Gas distribution network	Consists of infrastructure used, or for use, in relation to the distribution of gas by a person through a distribution pipeline for supply to premises of another person
Gas Distributor	1. a utility licensed for the distribution of gas through a gas network; or 2. in relation to a gas service for premises — a utility licensed to provide the service for the premises. Evoenergy is a gas distributor in the Australian Capital Territory.
Gas pressure	The pressure of gas above atmospheric pressure, classified as follows: a. Low pressure – up to 7 kPa b. Medium Pressure – over 7 kPa and up to 400 kPa c. Secondary pressure – over 400 kPa and up to 1050 kPa
Gas Retailer	An entity whose primary activity is the sale of gas to customers.
Gas Service and Installation Code or GS&I Code	The Gas Service and Installation Code, which commenced on the 29 August 2021, under the Act.
GS&I Rules	The Gas Service and Installation Rules issued by Evoenergy under the requirements of the Gas Service and Installation Code.

Term	Definition
Gas work	Work on Evoenergy gas infrastructure
Gas Fitter	An entity that may be licensed to do gas fitting work under the *Gas Safety Act 2000 (ACT)*, i.e., Licensed gasfitter and an Advanced Licensed gasfitter.
Gas fitting work	Work as defined in the *Gas Safety Act 2000 (ACT)* as follows: • Work on consumer piping, or proposed consumer piping, including the connection or disconnection of a gas appliance (other than a gas appliance designed to be portable by users) to or from the consumer piping; or • The inspection or testing of consumer piping; and • The installation, the connection or reconnection of the consumer piping to the point of supply.
Hazardous area	In accordance with *AS/NZS 60079* a hazardous area is defined as an area in which an explosive gas atmosphere is present, or may be expected to be present, in quantities such as to require special precautions in the design, construction, installation and use of apparatus.
Infrastructure	infrastructure as defined in the *Utilities* Act 2000 (ACT) (the Act) means pipelines, meters, or any equipment (including pressure control devices, excess flow valves, control valves, actuators, electrical equipment, telemetry equipment, cathodic protection installations, compounds, pits, buildings, signs and fences). This excludes pipework downstream of an agreed network boundary, agreed to prior to the 28 May 2013, in accordance with the regulations applying at the time of agreement. Refer to Section 1.3 of these Rules.
kPag	kilopascals (gauge pressure)
Legislation	The Acts, Regulations and all subordinate legislative instruments pertaining to gas safety in the Australian Capital Territory as in force from time to time.
MAOP	Maximum Allowable Operating Pressure
Meter control valve	A manually operated ball valve which is located on the end of a service riser, and which allows gas supply to a meter assembly to be shut off.
Metering installation	Comprises a gas meter assembly, its associated meter assembly protective and associated ancillary equipment. See definitions following below and diagram in Appendix A –

Term	Definition
(Metering) Ancillary Equipment	Equipment located separately to or together with the meter assembly that is used to correct flow to standard conditions, communicate meter readings remotely and/or allocate gas measured to customers and includes: 1. electrical connections and wiring conveying signals from the meter assembly 2. flow correction devices to enable uncorrected meter data to be adjusted for the effects of temperature and pressure 3. hot water meters 4. telecommunications equipment
Meter	Meter or gas meter means a device that measures and records quantities of gas by reference to volume, mass or energy content, as defined in the National Gas Rules and includes both master and sub meters.
Meter Assembly, Metering Assembly or Gas Meter(ing) Assembly	A meter and its associated metering equipment.
Metering equipment	Metering equipment means the associated equipment attached to the to filter, control, or regulate the flow of gas and includes (Appendix A –): 1. valves 2. pipework 3. fittings 4. filters 5. Pressure regulators 6. Over-pressure protection devices 7. Non-return valves 8. Mechanical indices 9. Meter bar/support equipment 10. Boundary regulator sets 11. Meter assembly protective equipment
Meter assembly protective equipment	Equipment installed to protect the meter assembly from damage from vehicles, persons and equipment, which may be owned by the customer or Evoenergy, and includes but is not limited to: 1. bollards 2. meter protection bars 3. meter cages

Term	Definition
Mechanical ventilation	Ventilation resulting from artificial means i.e. fans, extractors, etc.
Natural ventilation	Ventilation resulting natural forces. i.e. wind currents.
Person	Person includes a natural person, a firm, an unincorporated association or a body corporate;
Point of supply	Point of supply means the outlet of the meter assembly.
Property boundary	The front boundary of the boundaries of a block as defined in the deposited plan lodged with the Australian Capital Territory Registrar- General's office. This is usually the property line which divides the customer's private property from public areas, such as streets, roads and lanes.
Path valve	A valve situated approximately 225 mm outside the property boundary at the inlet of the gas service. It is usually below ground in a path box for easy access and is used to isolate the flow of gas into the gas service.
Secondary regulator set	A regulator set supplied from Evoenergy secondary distribution network (MAOP 1050 kPag)
Service riser	A vertical section of the gas service which protrudes from the floor of an enclosure or the ground
Source of release	A point or location from which gas may be released into the atmosphere so that an explosive gas atmosphere could be formed.
Technical Inspector	A technical inspector is appointed under Section 81 of the *Utilities (Technical Regulation) Act 2014* and applies the requirements of technical codes.
Technical Regulator	The Director-General of the ACT Directorate responsible for administering the *Utilities (Technical Regulation) Act 2014*, or a delegated officer
Type 1 enclosure	External enclosure positioned outside the confines of a building. The enclosure is typically constructed of wire fencing, brick or concrete and is not covered by a solid roof. The enclosure should have adequate natural ventilation to negate the potential to create a hazardous area.
Type 2 enclosure	Internal enclosure inside a building. The enclosure must be externally accessible with no access to the remainder of the building and be covered by a solid roof. The enclosure should have adequate natural or mechanical ventilation to negate the potential to create a hazardous area. This enclosure requires a hazardous area assessment and/or dossier.
Vented	Means the releasing of gas into the atmosphere usually from piping or a meter assembly
Vent line	A pipe connected to a pressure regulator breather vent, or relief valve discharge, which conveys gas to atmosphere and in a safe location whilst observing safe exclusion zones.

1.9 Disclaimer

These GS&I Rules apply to Evoenergy gas services in the ACT. Evoenergy accepts no responsibility for any other use of these GS&I Rules.

1.10 Contacts

Jemena

Web: www.jemena.com.au

Customer Portal: https://jemena.com.au/gas

Zinfra

Web: www.zinfra.com.au/locations

Evoenergy Gas

Customer Services can be accessed by calling 1300 405 727.

Web: www.evoenergy.com.au

2. Customer requirements

This Section outlines the rights and obligations of customers for connection to Evoenergy gas distribution network in accordance with the scope specified in these GS&I Rules.

2.1 Conformity to Standards

A customer's installation (piping and appliances) that connects to an Evoenergy gas service must conform with AS/NZS 5601.1.

2.2 Right, approval and refusal to connect a gas service

1. From 8 December 2023, new gas connections are restricted in most circumstances in the ACT. For more information on the regulation preventing new gas connections, please visit https://www.climatechoices.act.gov.au/policy-programs/preventing-new-gas-network-connections
2. Customers have the right to connect to Evoenergy's gas distribution network on entering into an agreement with a gas retailer for gas supply, subject to Evoenergy's approval being obtained for connection to its gas network. Evoenergy's approval is subject to its network's capacity being sufficient to enable supply of the customer's gas demand arising from the connection of the customer.
3. Evoenergy, or the Authorised Persons, may refuse gas supply or resupply to a customer or may disconnect the gas supply to the gas service where compliance with the gas distributor's GS&I Rules by the customer and/or its contractors has not been met.
4. Evoenergy, or the Authorised Persons, may refuse to provide gas supply to a customer where the customer piping installation has not been certified in accordance with the Gas Safety Act.
5. All gas works performed by Authorised Persons on the gas service, from the existing gas distribution pipeline to the outlet of the meter assembly, must have prior approval by Evoenergy and must be determined to acceptable by Evoenergy upon completion.
6. The customer is prohibited from upgrading, modifying or relocating Evoenergy's gas service (i.e. upstream of the point of supply). Such gas work must be performed by Evoenergy or its approved Authorised Persons in accordance with Evoenergy specifications in Section 4 of these Rules.
7. All meter assemblies have their outlet pressure adjustments sealed to prevent Unauthorised Persons performing an adjustment. The regulator set and settings must not be altered without prior approval from Evoenergy.

2.2.1 Scope of work of licensed gasfitters

1. As required under the *Gast Safety Act 2000* only licensed gasfitters are permitted to perform work on a customer's installation (i.e. consumer piping system).

2. Licensed gasfitters are permitted to connect a customer's installation to the point of supply (i.e. the outlet of the meter assembly).
3. Only Evoenergy's Authorised Persons may perform work on the Evoenergy network, including the gas service and the meter assembly.
4. In an emergency any person may operate the meter control valve to stop the supply of gas.
5. Only Authorised Persons may perform work on and Evoenergy gas service, including the meter assembly.

2.3 Number of gas services provided to a customer

1. A customer may request Evoenergy to provide more than one gas service connection to its premises.
2. Evoenergy may limit the number of gas services to one connection per building, or one group of buildings on the same parcel of land. Evoenergy may consider it necessary to provide more than one gas service to a large parcel of land with multiple connections, or where Evoenergy agrees to a customer's request to provide an additional gas service to the customer's premises.

2.4 Meter installation location and access

2.4.1 Provision of a location for a meter installation

Customers are required to provide and maintain on the customer's premises at the customer's expense a location to accommodate the gas service to enable gas supply. The meter assembly location must provide safe and unimpeded access for Evoenergy's Authorised Persons to undertake gas meter assembly operation and maintenance and meter replacement.

The customer may be required to take additional measures for accommodating the Gas Distributor's infrastructure if Evoenergy considers it necessary:

1. To prevent obstruction or diversion of the gas supply.
2. To avoid interference with the gas supply to other customers.
3. To secure the metering equipment for the purposes of gas supply.
4. To ensure access is provided to Authorised Persons, in particular:
    a. Reading of the meter
    b. Scheduled and unscheduled maintenance
5. Implement measures to maintain public safety.
6. Establish and maintain installation compliance with relevant technical standards.

2.4.2 Domestic/residential customers

New gas service installations for residential customers shall be installed externally and in accordance with the approved locations identified in Figures 1 (A) & (B) and at Appendix B - Domestic Gas Meter Location Reference Drawings so that gas meter assemblies are safely accessible for maintenance and reading.

In the specific circumstances of residential buildings of three levels or greater, a gas meter assembly installation for individual apartments is prohibited and Evoenergy will not approve the making of a gas service to its gas network supplying gas to individual apartments.

2.4.3 Industrial and commercial customers

Wherever possible new gas meter assembly installations for industrial and commercial customers must be located external to a customer's building, and/or the meter assembly can be installed on an external wall of the customer's building and comply with all Type 1 Enclosure. (as set out in Section 2.6.1).

Where it is not possible to locate a gas meter assembly installation external to a customer's building it may be located within a building, subject to it being on the ground floor level, can only be accessed via an external entrance to the building, with no internal access and complies with all Type 2 Enclosure requirements (as set out in Section 2.6.2).

2.4.4 Prohibited meter locations

In accordance to *AS/NZS 4645.1* but subject to additional requirements of Section 3.4 of these GS&I Rules, gas meter assemblies must not be installed in any internal location apart from a Type 2 approved enclosure refer Section 3.4.2 and the following locations:

1. a lift shaft or lift motor room;
2. a room specifically intended for electrical switchgear;
3. a fire hydrant duct or hose reel cabinet;
4. a sprinkler or hydrant pump room;
5. near a source of ignition;
6. in a position that would obstruct egress from a building;
7. in a position where the meter assembly would be subject to physical damage unless adequately protected. Specifically, physical protection for the metering equipment (including meters, regulators, filters, valves, meter bars, exposed inlet piping and vent line) must not be installed where the meter assembly location is within one (1) metre of roads, driveways, car parking areas, garages, loading docks etc., or other areas where there is mobile plant, equipment or vehicles moving within one (1) metre of the meter location;
8. in an area where excessive temperatures or sudden excessive changes in temperature may occur;
9. in an area of excessive vibration;
10. in the foundation area under a building;
11. in an external cavity wall, unless installed in a ventilated enclosure with external access and the cavity is sealed (see Figure 1(E));
12. in a position where access for meter reading or maintenance is restricted;
13. in an unventilated position;
14. on the ground, or on a floor which is frequently wetted, or on a floor which contains material which may corrode the meter;

15. where a service riser is not separated from an earth electrode by 500 mm;
16. within three (3) metres of an electrical substation;
17. an opening to a building within the exclusion zone (see Figure 1 (B-1));
18. within three (3) metres mechanical air take; and
19. inside an apartment of a medium density high-rise complex.

2.4.5 Exclusion zones

2.4.5.1 Exclusion Zones for Low Pressure Basic Metering Equipment

For low pressure basic metering equipment, the following exclusion zones apply.

1. A distance of x and y shown in Figure 2.b)i) from any openings i.e.: door, window, mechanical air inlets or any other opening of a building where gas can accumulate, measured from the point of gas discharge (e.g.: regulator vent or openings from a meter box) of the basic metering equipment; and
2. A distance of x and y shown in Figure 2.b)i) from source of ignition (including electricity meter box), measured from the point of gas discharge (e.g.: regulator vent or openings from a meter box) of the basic metering equipment.

2.4.5.2 Exclusion Zones for Medium Pressure Basic Metering Equipment

For medium pressure basic metering equipment with a pressure relief valve installed, apply the clearances and exclusion zones in Figure 2.b)i) and Figure 2.b)ii) for the relief vent termina shall apply.

2.4.6 Relief vent

2.4.6.1 General

All meter assembly breathers/relief vents must be vented outside the enclosure according to the requirements in AS 4645.1 - Gas Distribution Networks (Network Management). This may require penetrations through the external face of the building for vent line installation. The exclusion zones for the vent terminal shall be in accordance with the requirements in Figure 2.b)ii) – Vent Relief Terminal location.

In addition to conforming with *AS 4645.1 Appendix I 8.3*, a vent line diameter shall be sized to limit maximum backpressure at the relief valve inlet to 10% above relief valve set pressure.

2.4.6.2 Relief vent terminal location

A relief vent terminal shall be located where gas discharge will dissipate without entering buildings or creating any hazard. The point of discharge shall:

1. be located so there is no ignition source or opening into a building within the exclusion zone shown in Figure 2.b), Figure 2.b)i) and Figure 2.b)iii);
2. be at least three (3) m from a mechanical air inlet unless calculations based on Figure 2.b)iii) give a greater distance;
3. in cases where there is any object (e.g. wall, ground, etc.) in the direction of discharge and within the exclusion zone of Figure 2.b)ii) and Figure 2.b)iii),

install a vent line to redirect the gas discharge so there is no ignition source or opening into a building within a sphere of radius L (of Figure 2.b)ii)) centred on the vent terminal discharge point.

2.5 Metering installation design and configuration

2.5.1 Meter assembly design

Following advice from a customer's retailer of a customer's request for gas supply Evoenergy will design a meter installation suitable for a customer's gas supply requirements and to suit the location agreed between Evoenergy and the customer. Where the meter assembly is other than a standard residential meter assembly Evoenergy will advise the customer of the meter installation design to be installed.

The expected gas demand for the installation, taking into account the diversity of demand, and the pressure required for the operation of the appliances will be key information to be provided by the customer. This includes embedded networks which are metered with a single Evoenergy meter but serve multiple customers.

Gasfitters acting for customers are required to use the Jemena Portal to provide the relevant information about pipe size and appliance maximum demand as part of the process of requesting supply. This data will be used by Jemena in selecting the appropriate meter assembly for installation.

2.5.2 By-pass

If an uninterrupted supply of gas is essential for customer operation, the gas retailer must be notified by the Customer at the time of requesting gas supply to enable Evoenergy to determine the suitability of a meter assembly fitted with a permanent by-pass. By-passes are usually installed for special requirements such as continuously operated Industrial or Commercial processes, essential services, and public and large private hospitals.

By-pass valves are sealed in the closed position and must not be operated. Evoenergy authorisation must be obtained to operate an unmetered by-pass on a meter assembly.

2.6 Metering assembly enclosure design

This section details the requirements for the design of any enclosure intended to house metering equipment. When directed by Evoenergy, enclosures must be installed to prevent unauthorised persons access or damage to meter assemblies. Enclosures (both type 1 and type 2) are normally installed by Evoenergy but are the property of the customer and must be maintained in good order by the customer.

Two enclosure types are listed below in order of preference for industrial and commercial installations. The building owner or representative shall provide justification to Evoenergy at the building design stage for requesting an enclosure.

1. Type 1 enclosure - external enclosure positioned outside the confines of a building. The enclosure is typically constructed of wire fencing, brick or concrete that allows for cross ventilation and is not covered by a solid roof and

meets the natural ventilation requirements of *AS/NZS 4645.1* and does not create a hazardous area as per *AS/NZS 60079.*

2. Type 2 enclosure - internal enclosure on the external face of a building. The room must be externally accessible with no access to the remainder of the building and be covered by a solid roof and is subject to a hazardous area assessment or dossier.

Schematic drawings of such enclosures are shown in Figure 3, Figure 4, and Figure 5. No other equipment (e.g. sub meters, water meters, pumps, compressors, fire hydrants) can be placed within an enclosure unless authorised to do so in writing from Evoenergy.

2.6.1 Type 1 enclosure

External Type 1 enclosures must comply with the following requirements, as indicated in Figure 3 and Figure 4.

1. The location of the Type 1 enclosure must be approved by Evoenergy at the site design stage.
2. Type 1 enclosure dimensions must be as indicated in the Figures, or on Evoenergy supplied meter assembly site layout drawings, whichever is the greater.
3. Type 1 enclosure clearance dimensions, reference Figure 4 are dependent on the model of the set to be installed. Refer specific site layout for dimensions or Evoenergy-supplied meter assembly site layout drawings, whichever is the greater.
4. The Type 1 enclosure must (or as otherwise approved by Evoenergy) be fitted with signage as in Appendix D – Signage Type 1 Enclosure. The design must comply with *AS/NZS 1319*.
5. The Type 1 enclosure floor must be constructed of concrete and be level, as demonstrated in the Figure 3 and Figure 4.
6. Appropriate permanent safety barriers (e.g. Armco railing) must be installed between a Type 1 enclosure adjacent to a vehicular traffic path (see Figure 7 - examples of appropriate permanent safety barriers).
7. The design and construction of the Type 1 enclosure must not restrict natural ventilation such that any gas can freely escape.
8. The Type 1 enclosure must be fitted with an Evoenergy supplied gas distribution padlock; door(s) must be fitted with a lock that a gas distribution key can open.

2.6.2 Type 2 enclosure

Type 2 enclosures must comply with the following requirements as indicated in Figure 5 and Figure 6:

1. The location of the Type 2 enclosure must be approved by Evoenergy at the building/site design stage.
2. The Type 2 enclosure must be situated by the external wall of a building closest to where the gas service enters the building, unless specifically approved by Evoenergy.

3. The Type 2 enclosure to house the meter assembly may be secured into the face of the customer's building.
4. The Type 2 enclosure must meet the relevant Australian Standards and only be accessed via the external face of the customer's building.
5. The Type 2 enclosure may be fitted with a single-entry door where maintenance activities can be undertaken on meter assembly without the meter assembly impeding access to the Type 2 enclosure entry door. Examples of such Type 2 enclosures are shown in the Figure 5 and Figure 6. This requirement may be varied subject to specific approval from Evoenergy.
6. The Type 2 enclosure must have adequate clearance for maintenance work to be performed. Clearance dimensions in Figure 5 and Figure 6 should be used. This requirement may be varied subject to specific approval from Evoenergy.
7. The Type 2 enclosure floor must be constructed of concrete and be level.
8. The Type 2 enclosure door(s) must (or as otherwise approved by Evoenergy) be fitted with signage as in Appendix D – Signage. The design must comply with *AS/NZS 1319*.
9. The Type 2 enclosure walls and door(s) must have the appropriate Building Code Australia (BCA) fire rating.
10. The meter assembly must not be installed in a Type 2 enclosure containing an unsealed grease trap.
11. All meter assembly relief vents must be vented outside the Type 2 enclosure according to the requirements in *AS/NZS 4645.1*. This may require penetrations through the external face of the customer's building for vent line installation.
12. Regulator relief vent line terminal points should be positioned such that gas discharge can be detected. The vent line terminal points must be protected from rainwater and vermin ingress.
13. The Type 2 enclosure's ventilation must comply with *AS/NZS 4645.1*.
14. Natural ventilation construction must not be of a type that restricts the flow of gas to the outside of the Type 2 enclosure. The design must take into account that gas is lighter than air to avoid gas entrapment within the enclosure.
15. For Type 2 enclosures the following criteria applies:
    a. The building owner or authorised representative must undertake a hazardous area assessment in accordance with the requirements of *AS /NZS 60079.14*. Evoenergy reserves the right to withhold gas supply to an installation where the hazardous area assessment has not been performed.
    b. In accordance with AS/NZS 60079.10.1, the building owner or authorised representative must obtain a hazardous area dossier, for any other electrical equipment that is installed in the enclosure aside from the EX approved gas rated sensor, for the Type 2 enclosure. Prior to gas supply, Evoenergy must sight the hazardous area dossier for the Type 2 enclosure. Evoenergy reserves the right to withhold gas supply to an installation where the hazardous area dossier cannot be sighted. An Evoenergy branded notice shall be placed in the room indicating that no further electrical apparatus is to be installed in the room, unless added to a dossier. Refer to Appendix E –.

c. Figure 5 classifies the default hazardous area generated by a meter assembly installed in a Type 2 enclosure. The building owner or authorised representative must obtain certification from a design engineer that the Type 2 enclosure has undergone a ventilation assessment in accordance with AS/NZS 60079.10.1, deeming the Type 2 enclosure to have adequate ventilation to utilise Figure 5 classification. Downgrading of Figure 5 classification to non-hazardous is permitted as long as the ventilation assessment confirms the downgrade is justifiable, and certification is provided. Certification shall form part of the hazardous area dossier.

16. Ventilation by mechanical means must service the meter assembly Type 2 enclosure only and not ventilate any other area of the building.
17. Fan motors shall be remote from the exhaust duct (indirect drive) or be rated to operate in a Zone 1 hazardous area.
18. Ventilation ducts from the Type 2 enclosure that pass through a wall must be fitted with an appropriate fire damper.
19. Where required by BCA, the Type 2 enclosure will be fitted with a fire sprinkler.
20. Where required by BCA, the Type 2 enclosure will be fitted with a smoke detector.
21. The building owner or authorised representative shall be responsible for the maintenance and upkeep of fire protection systems, gas detection systems, hazardous area rated equipment, ventilation equipment and integrity of any vent lines.
22. The building owner or authorised representative shall maintain maintenance records of the fire protection system, gas detection system, hazardous area dossier, hazardous area rated equipment, ventilation equipment and vent lines for review by Evoenergy at any time.
23. A copy of all documentation shall be kept in the enclosure.
24. The building owner or authorised representative shall be responsible for ensuring no obstructions are placed on either side of the Type 2 enclosure door(s).
25. The Type 2 enclosure door(s) must be fitted with a lock that an Evoenergy gas distribution key can open.

2.7 Installation of metering assembly

When a customer has advised Evoenergy that the location for the metering installation is ready, Evoenergy will arrange for an Authorised Person to install the meter assembly and any ancillary equipment.

2.8 Safety signage

Safety signage installed on meter enclosures and/or in the vicinity of meter assemblies must not be removed and must be maintained in good condition.

2.9 Certificate of compliance

Before a meter can be permanently commissioned in a customer's meter assembly a gas fitter, licensed in the ACT, must generate a Start OF Works Notice for the customer's installation in accordance with the Gas Safety Act. Once the gas fitter certifies the gas appliances have been installed to compliance, copies of the Certificate of Compliance must be issued to:

a. Evoenergy or their authorized representative,

b. the customer or a person having control or management of the customer's installation, and

c. Access Canberra

2.10 Testing and commissioning

When the customer's meter has been installed into the meter assembly, Evoenergy may use gas to commission and test the meter assembly ensure that gas is flowing and being measured at the correct pressure ready for use by the customer. Evoenergy will advise the customer when commissioning and testing is complete, and the customer is able to commence taking and using gas.

2.11 Meter upgrade and maintenance

2.11.1 External meter upgrade and maintenance

Evoenergy will maintain meter assemblies that are external to buildings or in type 2 Enclosures as part of its routine maintenance planning.

Where a customer plans to change their demand for gas, either through adding or subtracting appliances or replacing an existing appliance with one that has higher or lower gas consumption, they must advise their retailer, who will in turn advise Evoenergy. Evoenergy will determine if an increase in consumption can be supplied by the gas distribution network and whether there is a need for a larger or smaller gas meter.

2.11.2 Internal meter upgrade and maintenance

Evoenergy will maintain meters that are inside a building and pre-date the GS&I Rules Code 2013 (and therefore do not comply with the requirements for new connections set out in Section 2.4) as part of its routine maintenance planning. This shall include a five yearly safety inspection for meters identified in Evoenergy's Internal Residential Meter Inspection Program conducted in 2018-2019.

Where a customer plans to change their demand for gas, either through adding or subtracting appliances or replacing an existing appliance with one that has higher or lower gas consumption, they must advise their retailer, who will in turn advise Evoenergy, to determine if an increase in consumption can be supplied by the gas distribution network and whether there is a need for a larger or smaller gas meter. If the change in demands results in the need for a change of meter assembly configuration,

Evoenergy is required to relocate the meter assembly to an external location.

2.12 Inspection of existing meter assemblies located inside a customer's premises

2.12.1 Existing internal residential meter assemblies

1. As identified above in Section 2.4.2, all new meter assemblies for residential customers shall be installed externally to the customer's premises.
2. Existing domestic/residential meter assemblies that were identified as being inside a customer's premises under Evoenergy's Internal Residential Meter Inspection Program conducted in 2018-2019 will be inspected by Evoenergy every five (5) years thereafter to ensure ongoing safety.
3. Where Evoenergy completes an inspection of a meter assembly installed inside a customer's premises it will, within five (5) business days, provide to the customer an inspection report signed and dated, detailing the following:
    a. safety and condition of the internal gas meter assembly,
    b. the latest date of next safety and condition inspection,
    c. information enabling customers, owners and occupants to be informed of their obligations in maintaining the safety and condition of the internal metering installation, and
    d. Evoenergy safety and emergency information, including contact information.
4. At any time when a customer becomes concerned about the safety of a meter assembly installed inside their premises a customer may request that Evoenergy undertake a safety and condition inspection on an existing internal meter assembly. If requested:
    a. Evoenergy will advise the customer of the charge that may be payable as set out in paragraph 4 c below. Evoenergy must schedule and carry out the inspection in accordance with its operational priority levels for urgent work, but in no more 30 days of the request.
    b. if the safety and condition inspection results in Evoenergy finding a fault requiring rectification or an adjustment is required, the customer is not obliged to bear any cost.
    c. if the safety and condition inspection does not identify a fault or adjustment, then Evoenergy may levy a charge to the customer that reflects the fair and reasonable costs.
5. Where a customer experiences a dangerous incident occurring (i.e.: loss of containment) it must advise Evoenergy immediately by phone. Evoenergy is required to ensure an Authorised Person performs an operational inspection of the gas meter assembly within one (1) day of a dangerous incident occurring, for the purpose of managing safety risks to occupants.
6. In the event Evoenergy determines that there is a safety risk and/or operating condition of the gas meter assembly poses an immediate or imminent threat to occupants, workers or the general public, Evoenergy will isolate the gas supply from the meter assembly and make a temporary or permanent repair to the gas meter assembly, where it can be made without altering its

configuration within seven (7) days of the isolation from the gas supply. Where a temporary repair has been made and a permanent repair can be made without a change to the configuration of the gas meter assembly, it will be made within 30 days of the isolation from the gas supply.

7. Where a repair is only possible by changing the configuration of the gas meter assembly, Evoenergy will relocate the meter assembly to an external location.
8. Where a residential customer with a meter assembly installed inside their premises decides to no longer use gas and has its supply terminated, the Customer may request that Evoenergy remove the meter assembly and Evoenergy must undertake such removal (to the extent practicable) and leave the remaining piping in a permanently safe condition. The customer will be required to pay the applicable charge for disconnection and abolishment of a gas service set out in Evoenergy's approved Access Arrangement.

2.13 Abolishment and disconnection of gas supply

2.13.1 Zero consumption sites – isolating the consumer piping

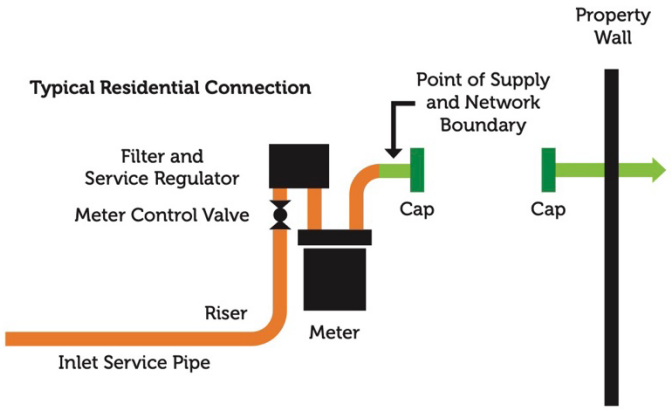
Under ACT Government greenhouse gas emissions objectives and policies, gas customers are incentivised to replace gas appliances with electric alternatives. Consequently, there will be an increasing number of premises that have zero consumption but retain an active gas service, service regulator and meter.

It is STRONGLY recommended that such premises are permanently disconnected from the gas network as described below in 2.13.3, but as a minimum, gas fitters shall (as illustrated in Figure 2):

1. Close the meter control valve at the meter inlet.
2. Purge gas contained in regulator, pipework and meter using the procedure in AS/NZS 5601.1;
3. Cut the consumer piping and cap off the network side at the outlet of the gas meter assembly and cap off the customer side on the consumer piping;
4. Advise the customer that gas is still present on their property and that they should arrange for a permanent disconnection in the street;
5. Tag the meter control valve with a "Gas still connected" tag and affix "Gas still connected" sticker[1] inside the electrical meter enclosure; and
6. Complete all requirements from the gas fitting licence inspectorate.

[1] Tags and stickers are available from Evoenergy's field contractor, Zinfra, at their warehouse at 5-7 Johns Place Hume ACT 2620.

Figure 2. Gas fitter disconnection of Zero consumption sites



Note that the above in no way replaces the need for a permanent disconnection in accordance with 2.13.3 below.

2.13.2 Temporary disconnection

A temporary disconnection is applied by an Authorised Person at the gas meter and prevents the flow of gas to the customer. Retailers may apply for temporary disconnection:

1. for controlling customer debt; and
2. to remove network charges for a zero-consuming site without a retail contract.

Customers cannot apply for temporary disconnection directly with Evoenergy, except in unusual circumstances, determined by Evoenergy on a case-by-case basis.

The meter control valve will be tagged with a “Gas still connected” tag by an authorised person who wads the meter.

2.13.3 Permanent disconnection (abolishment, decommissioning)

A permanent disconnection is applied by an Authorised Person outside of the property boundary by cutting the service pipe, capping off at the gas main in the public road reserve and removing the metering installation. Excavation and restoration are required.

Customers may apply for a permanent disconnection, generally via their retailer, in the following circumstances:

1. To safely isolate gas supply to a property to be demolished, ensuring that an uncontrolled gas escape will not occur either in the work site or in the public road reserve;
2. Where all gas appliances and customer equipment have been disabled and/or removed from the premises and gas supply is no longer needed. Permanent disconnection is recommended in this circumstance to ensure that an unsafe condition does not develop after an extended period of no gas use.

Applications for permanent disconnection can be taken directly from customers where it is demonstrated that there is no retail account for the premises. Otherwise, permanent disconnections shall be applied for through a retailer.

3. Evoenergy requirements

This Section outlines the rights and obligations of Evoenergy in establishing and maintaining a gas service from its gas distribution network to a customer's consumer piping network in accordance with the scope specified in these GS&I Rules.

For works performed on Evoenergy's gas infrastructure (gas distribution Network and gas service) Evoenergy is responsible for:

1. all works, including the outsourcing of works to third parties regarding construction and maintenance of gas services and equipment.
2. Ensuring any Authorised Person engaged to perform works on Evoenergy gas network is trained and assessed/deemed as competent to conduct the works. Evoenergy will maintain a current list of Authorised Persons and document their competencies available for inspection.

3.1 Conformity with Standards

Evoenergy, its contractors Jemena and Zinfra, and Authorised Persons are required to perform all work associated with a gas service in conformance with the relevant Standards identified at Section 1.6.

3.2 Obligation, approval and refusal to connect

Where a customer has made a valid request for supply through an energy retailer, Evoenergy is obliged to connect the customer to its gas distribution network with the following exceptions and conditions:

1. Evoenergy, or the Authorised Persons, may refuse gas supply or resupply to a customer or may disconnect the gas supply to the gas service where compliance to the gas distributor's GS&I Rules has not been met.
2. Evoenergy, or the Authorised Persons, may refuse to provide gas supply to a customer where the customer piping installation has not been certified by a gas fitter in accordance with the Gas Safety Act.
3. All gas works performed by Authorised Persons on the gas service, from the existing gas distribution pipeline to the outlet of the meter assembly, must have prior approval by Evoenergy and must be acceptable by Evoenergy upon completion.

3.3 Number of gas service connections to be provided to a customer

Where a customer has requested more than one gas service to their premises Evoenergy shall give reasonable consideration to that request. In addition, Evoenergy may consider it necessary to provide more than one gas service to a large parcel of land with multiple gas service

connections. Evoenergy may limit the number of gas services to one connection per building, or one group of buildings on the same parcel of land.

3.3.1 Labelling of gas services

If a premises has sub-tenancies with separate gas services to individual customers, Evoenergy must mark and identify each gas service. The identification shall be placed on the gas service including the meter assembly.

3.4 Meter installation and location and access

1. Evoenergy will negotiate with customers to determine a suitable meter installation location as set out in Section 2.4. A gas meter assembly must be installed in a manner that protects the health and safety of Authorised Persons working and ensures the integrity of the meter assembly.
2. A gas service must not run under or through a customer's building or be included in the building's foundations area unless it is not practicable to do otherwise, and in these circumstances it must comply with the requirements of AS/NZS 4645.

3.5 Meter installation design and configuration

3.5.1 Meter assembly design

Evoenergy will design the meter assembly based on information about customer demand (Maximum demand). Domestic and Industrial and Commercial (I&C) meter assembly design and calibration, including performance parameters (flow and pressure control) are configured in accordance with GAS-1799-DG-EQ-001 Rev 0, Jemena Customer Pressure Control & Metering Equipment Design Basis Manual.

3.5.2 Supply pressure

Depending upon connected gas load (appliances) and available supply pressure, meter assembly are issued with the following delivery pressures:

Device	Set pressure (kPag)	Set pressure tolerance (kPag)	Lock-up criterion (kPag)	Max. inlet pressure (kPag)
Regulator	2.75	2.7 – 2.8	≤ 3.2	400
	5	4.8 – 5.2	≤ 6.0	
	35	34 – 36	≤ 40	
	100	98 – 102	≤ 105	1050
Relief Valve	3.5	3.3 – 3.5	-	400
	5	4 – 5	-	
	8	7 – 9	-	
	42	42 – 45	-	
	130	130 – 135	-	1050
Slamshut (OPSO)	7	6.8 – 7.2	≤ 7.2	400
	12	11 – 13	≤ 13	
	50	48 – 52	≤ 52	
	140	138 – 142	≤ 142	1050

Appendix E – contains a table of pressure settings for Evoenergy's standard meter assembly configurations. Other regulator settings may be chosen by Evoenergy in specific cases.

During installation of a meter assembly or boundary regulator set the delivery pressure into the customer piping must be confirmed.

3.5.3 By-pass

If a customer requests, through its energy retailer, an uninterrupted supply of gas because it is essential for customer operation, Evoenergy must determine the suitability of a meter assembly fitted with a permanent by-pass. By-passes are suitable for special requirements such as continuously operated Industrial or commercial processes, essential services, and public and large private hospitals.

By-pass valves are to be sealed in the closed position and must not be operated. Evoenergy authorisation must be obtained to operate an unmetered by-pass on a meter assembly.

3.6 Metering assembly enclosure design

Evoenergy is responsible to ensure that a customer's enclosure conforms with the requirements for meter assembly enclosures set out in 2.6.

3.7 Installation of metering assembly

Evoenergy is required to coordinate with the customer to install the meter assembly at the location agreed in accordance with Section 3.4 as determined by the design described in Section 3.5.1 at the supply pressure determined in accordance with Section 3.5.2 and including any permanent bypass in accordance with Section 3.5.3 as agreed with the customer.

3.8 Safety signage

Evoenergy is required to ensure all safety signage has been applied whether by the customer or by its Authorised Persons. These must include locations identified as "Hazardous Area".

3.9 Certificate of compliance

Evoenergy is required to ensure that gas is not delivered through the meter assembly into a customer's consumer piping before it has a copy of the certificate of compliance for the customer's installation.

3.10 Testing and commissioning

Once Evoenergy has the certificate of compliance from the customer and a meter has been installed in the meter assembly, Evoenergy may use gas for testing and commissioning the meter installation and downstream consumer piping.

3.11 Inspection of existing meter assemblies located inside a customer's premises

3.11.1 Existing internal residential meter assemblies

1. Evoenergy must inspect existing domestic/residential meter assemblies that were identified as being inside a customer's premises under Evoenergy's Internal Residential Meter Inspection Program conducted in 2018-2019 every five years.
2. Where Evoenergy completes an inspection of a meter assembly installed inside a customer's premises it must, within five (5) business days, provide to the customer an inspection report signed and dated, detailing the following:
    e. safety and condition of the internal gas meter assembly,
    a. the latest date of next safety and condition inspection,
    b. information enabling customers, owners and occupants to be informed of their obligations in maintaining the safety and condition of the internal metering installation, and
    c. Evoenergy safety and emergency information, including contact information.
3. If a customer requests that Evoenergy undertake a safety and condition inspection on an existing internal meter assembly:

a. Evoenergy must advise the customer of the charge that may be payable as set out in paragraph 4 c below. Evoenergy must schedule and carry out the inspection in accordance with its operational priority levels for urgent work, but in no more 30 days of the request.

b. if the safety and condition inspection results in Evoenergy finding a fault requiring rectification or an adjustment is required, the Customer must not bear any cost.

c. if the safety and condition inspection does not identify a fault or adjustment, then Evoenergy may levy a charge to the customer that reflects the fair and reasonable costs.

4. When a customer advises Evoenergy of a dangerous incident occurring (i.e.: loss of containment), Evoenergy must ensure an Authorised Person performs an operational inspection of the gas meter assembly within one (1) day of a dangerous incident occurring, for the purpose of managing safety risks to occupants.

5. In the event Evoenergy determines that there is a safety risk and/or operating condition of the gas meter assembly poses an immediate or imminent threat to occupants, workers or the general public, Evoenergy must isolate the gas supply from the meter assembly and make a temporary or permanent repair to the gas meter assembly, where it can be made without altering its configuration, within seven (7) days of the isolation from the gas supply. Where a temporary repair has been made and a permanent repair can be made without a change to the configuration of the gas meter assembly, it will be made by Evoenergy within 30 days of the isolation from the gas supply.

6. Where a repair is only possible by changing the configuration of the gas meter assembly, Evoenergy must relocate the meter assembly to an external location.

7. Where a residential customer with a meter assembly installed inside their premises decides to no longer use gas and has its supply terminated, the customer may request that Evoenergy remove the meter assembly and Evoenergy must undertake such removal (to the extent practicable) and leave the remaining piping in a permanently safe condition.

3.12 Meter upgrade and maintenance

3.12.1 External meter upgrade and maintenance

1. Evoenergy must inspect and maintain all external meter assemblies and those with Type 2 enclosures in accordance with the requirements of its Safety and Operating Plan. When Evoenergy is advised by a retailer that a customer intends to change their gas consumption shall assess the impact of the changes on the ability of its distribution network to supply the changes consumption and whether the existing meter needs to be changed. Evoenergy shall advise the customer of any required change to the meter assembly before making the changes.

2. Where a meter does not meet the requirements of 3.5 and the gas service is subject to an alteration to the gas service or a meter is to be replaced or upgraded such as to require an alteration to the pipework Evoenergy will reconfigure the as meter assembly to bring it into compliance with 3.5

3.12.2 Internal meter upgrade and maintenance

For existing gas meter assembly installations inside the customer's building that pre-date (and do not comply with the requirements for new gas services) these Rules:

1. only like-for-like replacements can be carried out in the current location so as to maintain the existing supply to the customer; and
2. any alteration to the configuration of existing gas meter installation, other than in 1) above, will require the relocation of the gas meter assembly to an external location as detailed in section 2.4.

Note 1: The replacement meter must be the same as the installed meter in design specifications.

Note 2: The above does not preclude replacement of diaphragms, O-rings, springs and the like as part of normal meter assembly servicing carried out by Evoenergy Authorised Persons.

3.13 Abolishment and disconnection of gas supply

3.13.1 Zero consumption sites

Where Evoenergy becomes aware that a customer is no longer using gas and appliances have been removed or disconnected from the customer's installation, and the customer has not sought to have the gas service disconnected and abolished as provided under Section 3.13.3, Evoenergy may close and tag the meter control valve and purge the meter.

3.13.2 Temporary disconnection

Evoenergy will, consistent with the National Energy Retail Rules, temporarily disconnect at the gas meter and prevents the flow of gas to the customer when requested by the current retailer for a gas service:

1. for controlling customer debt;
2. to remove network charges for a zero-consuming site without a retail contract.

Evoenergy will not, except in unusual circumstances determined by Evoenergy on a case-by-case basis, apply a temporary disconnection of a gas service at an individual customer's request.

3.13.3 Permanent disconnection (abolishment, decommissioning)

Customers may apply for a permanent disconnection, generally via their retailer, in the following circumstances:

1. To safely isolate gas supply to a property to be demolished, ensuring that an uncontrolled gas escape will not occur either in the work site or in the public road reserve; or
2. Where all gas appliances and customer equipment have been disabled and/or removed from the premises and gas supply is no longer needed. Permanent

disconnection is highly recommended in this circumstance to ensure that an unsafe condition does not develop after an extended period of no gas use,

Evoenergy will disconnect and abolish the gas service and charge the amount permitted for this service under the approved Access Arrangement.

Applications for permanent disconnection can be taken directly from customers where it is demonstrated that there is no retail account for the premises. Otherwise, permanent disconnections shall be applied for through a retailer.

The retailer and/or Evoenergy will make aware the total cost and receive written approval for payment from the customer prior to permanent disconnection. Abolishment charges will be disclosed at the time of application.

4. Responsibilities of Evoenergy Authorised Persons

4.1 Authorised Persons

Evoenergy is responsible and liable under the Act for all work performed on its gas distribution network. Evoenergy may authorise/approve a person to perform work on its infrastructure in accordance with Division 7.4 of the *Utilities Act*.

The sub-contractor engaged to carry out works on the network is Zinfra. Zinfra manages the training, competency and record keeping of Authorised persons.

Suitably competent individuals or organisations seeking to become Authorised Persons should contact Zinfra in the ACT.

4.2 Competency of Authorised Persons

Evoenergy must ensure all Authorised Persons are assessed/deemed as competent to perform the work that they have been authorised to undertake on behalf of Evoenergy.

4.3 Documentation and identification of Authorised Persons

Evoenergy must ensure that for each of its Authorised Persons it keeps and maintains records of Authorised Persons' competency and training, such that is available for inspection if required.

Evoenergy shall also supply each Authorised Persons with identity cards in accordance with the Utilities Act and require the Authorised persons to have the identity card available for presentation to people who reasonably need to see it, including customers, customers' plumbers, builders or representatives.

4.4 Responsibilities of Authorised Persons

An Authorised person may have the following responsibilities in relation to gas services and meter reading:

1. read a customer's gas meter
2. provide supply sufficient information to Evoenergy so that Evoenergy can authorise the work, and provide suitable equipment;
3. obtain authorisation for any gas work;
4. once authorisation is obtained, perform and/or supervise the gas work;
5. ensure all gas work, notifications and certificates are performed in accordance with the Acts;
6. confirm with Evoenergy that a gas distribution pipeline is available with adequate gas supply and pressure before starting work;
7. plan and perform the gas work;
8. perform the gas work to an acceptable level of competency and to the satisfaction of Evoenergy;
9. correct all defects promptly when advised by Evoenergy;
10. take corrective action where an installation has been found to be unsafe and ensure the customer and Evoenergy are advised immediately of the defect and the corrective action taken;
11. manage direct or indirect claims arising from damages to persons or property through work performed by the Authorised Person.
12. ensure that a gas service is designed and installed so that all gas conveyed through the installation is measured through the gas distributor's meter;
13. decline to perform gas service work on behalf of Evoenergy should they believe that the instructions and/or materials supplied by Evoenergy are insufficient to successfully complete the gas service works or should they believe the work is beyond their level of training or competency's; and
14. ensure that the metering asset location and enclosure design meet the requirements of theses GS&I Rules.
15. is not to permitted to engage in work on consumer piping unless they have:
    a. been trained to work on the consumer piping in accordance with the *Gas Safety Act 2000* and *AS/NZS 5601 Gas Installations*, and
    b. obtained prior approval from the owner of the consumer piping.
16. In the event and for the purpose of testing and commissioning of the gas meter assembly and consumer piping is allowed to supply gas temporarily.

5. Breach of Gas Service and Installation (GS&I) Rules

5.1 Breach by Evoenergy

Where Evoenergy is in breach of the GS&I Rule and the Gas Service and Installation Code, and a customer or third party suffers or may potentially suffer a loss, Evoenergy will rectify the work at no cost to the Customer or third party and take immediate action to comply with GS&I Rules.

Where any Authorised Persons engaged to perform works on behalf of Evoenergy, fail to conform with the GS&I Rules, industry and technical codes and/or standards, Evoenergy is responsible to make good on the rectification of these works and associated costs.

Where there has been a breach of the GS&I Rules that is material in its effect or results in a loss to customers or third parties, or where there is a series of breaches that indicate the existence of a systemic problem, Evoenergy is to notify the Technical Regulator within 30 days of discovering the breach/es. The notification must include details of the:

a. nature of the breach/es;
b. party responsible for the breach/es;
c. location of the breach/es (address, location details etc..); and
d. corrective action planned or completed.

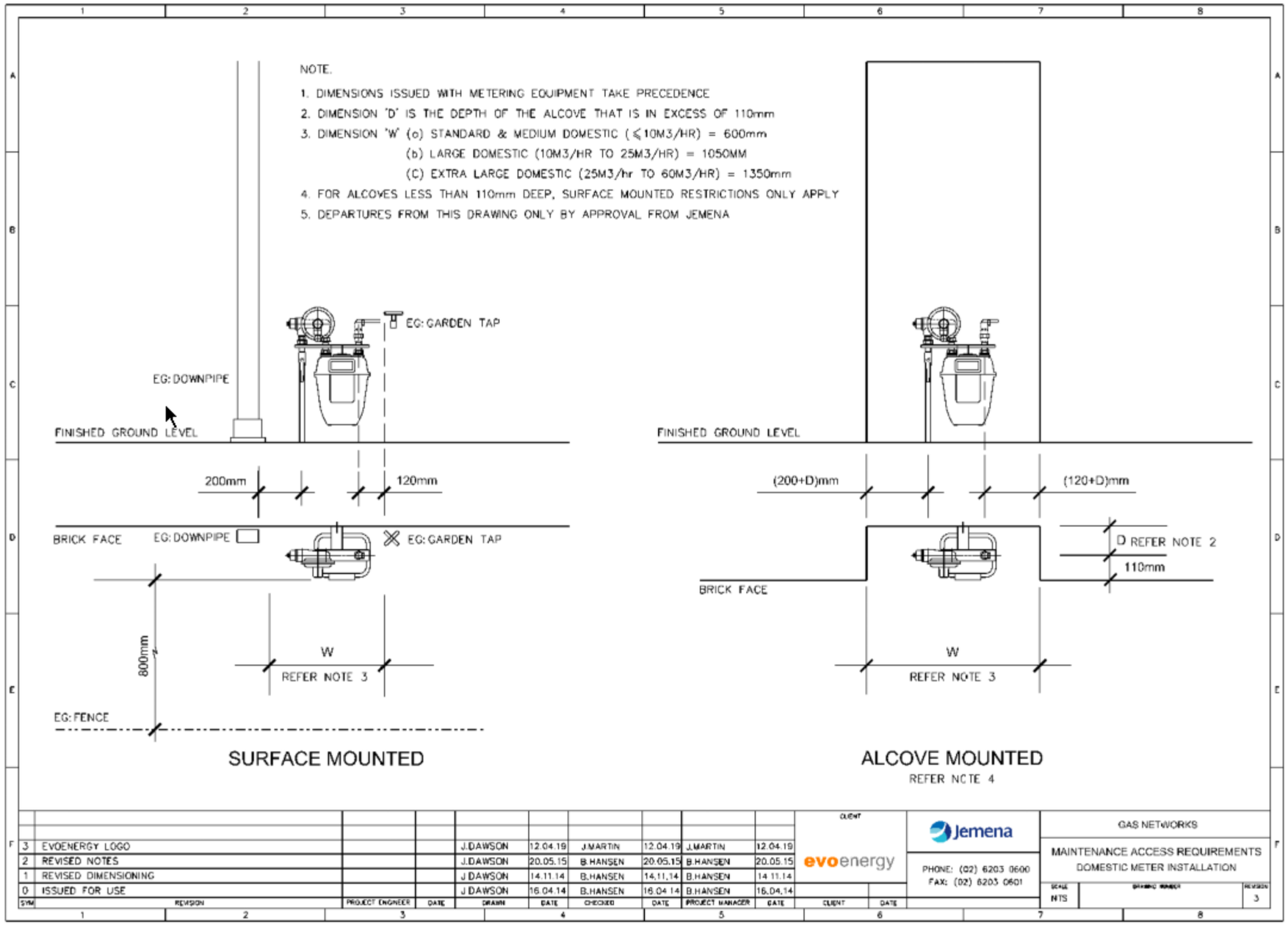
Evoenergy will report annually the details of any breaches that are material in their effect or result in loss by customers or third parties to the Technical Regulator in accordance with the reporting requirements of the GS&I Rules.

5.2 Breach by Customer or Third Party

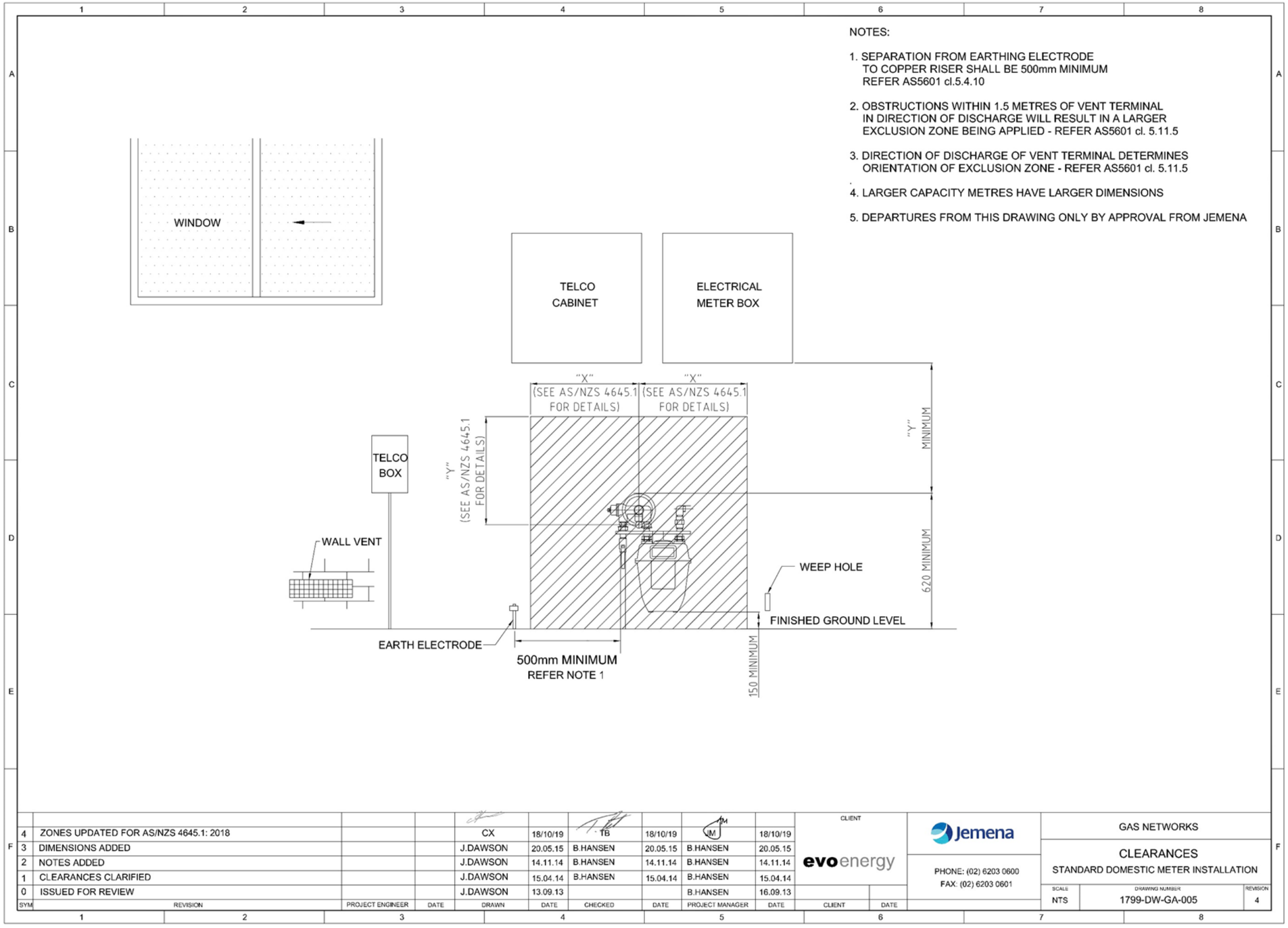
GS & I Rules may allow Evoenergy to refuse gas supply, resupply or to disconnect the gas supply to the gas service if a customer, customer's agent or non-Authorised third party breaches the GS & I Rules.

Figure 3. Access/clearance requirements for residential gas meter installation

a) Maintenance access requirements for residential gas meter installation



b) Clearance requirements residential gas meter installation



SYM	REVISION	PROJECT ENGINEER	DATE	DRAWN	DATE	CHECKED	DATE	PROJECT MANAGER	DATE
4	ZONES UPDATED FOR AS/NZS 4645.1: 2018			CX	18/10/19	TB	18/10/19	JM	18/10/19
3	DIMENSIONS ADDED			J.DAWSON	20.05.15	B.HANSEN	20.05.15	B.HANSEN	20.05.15
2	NOTES ADDED			J.DAWSON	14.11.14	B.HANSEN	14.11.14	B.HANSEN	14.11.14
1	CLEARANCES CLARIFIED			J.DAWSON	15.04.14	B.HANSEN	15.04.14	B.HANSEN	15.04.14
0	ISSUED FOR REVIEW			J.DAWSON	13.09.13			B.HANSEN	16.09.13

CLIENT: evo energy

Jemena
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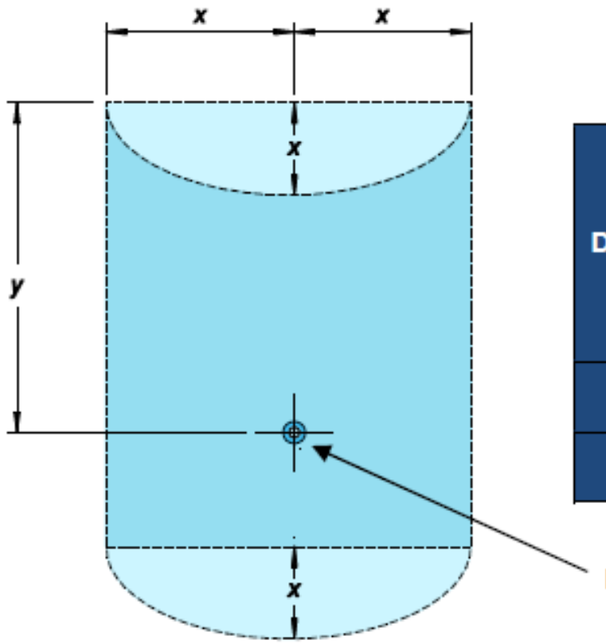
GAS NETWORKS
CLEARANCES
STANDARD DOMESTIC METER INSTALLATION

SCALE	DRAWING NUMBER	REVISION
NTS	1799-DW-GA-005	4

c) Vent terminal clearance requirements residential gas meter installation (general)

Refer AS 4645.

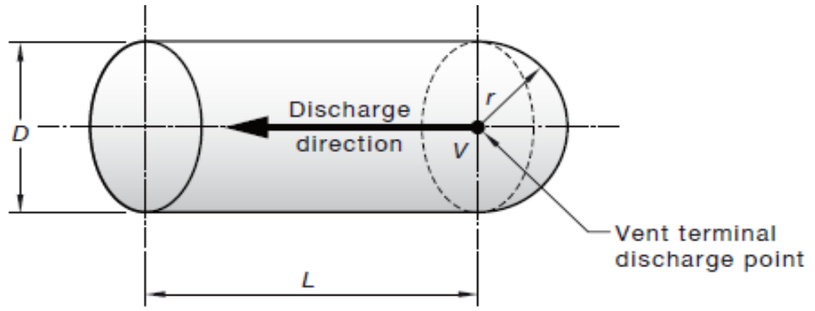


Distance	Venting regulators		OPSO or non-venting regulators	
	Source of ignition (mm)	Opening (mm)	Source of ignition (mm)	Opening (mm)
x	500	800	400	400
y	500	1000	400	400

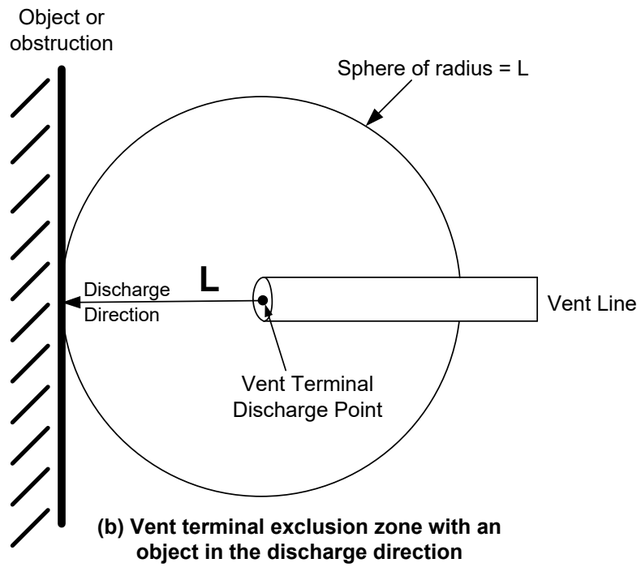
Notes

1. For venting regulators the vent position is horizontal or downwards, if regulator vent discharges in an upwards direction, y shall be multiplied by 1.5.

d) Vent relief terminal details



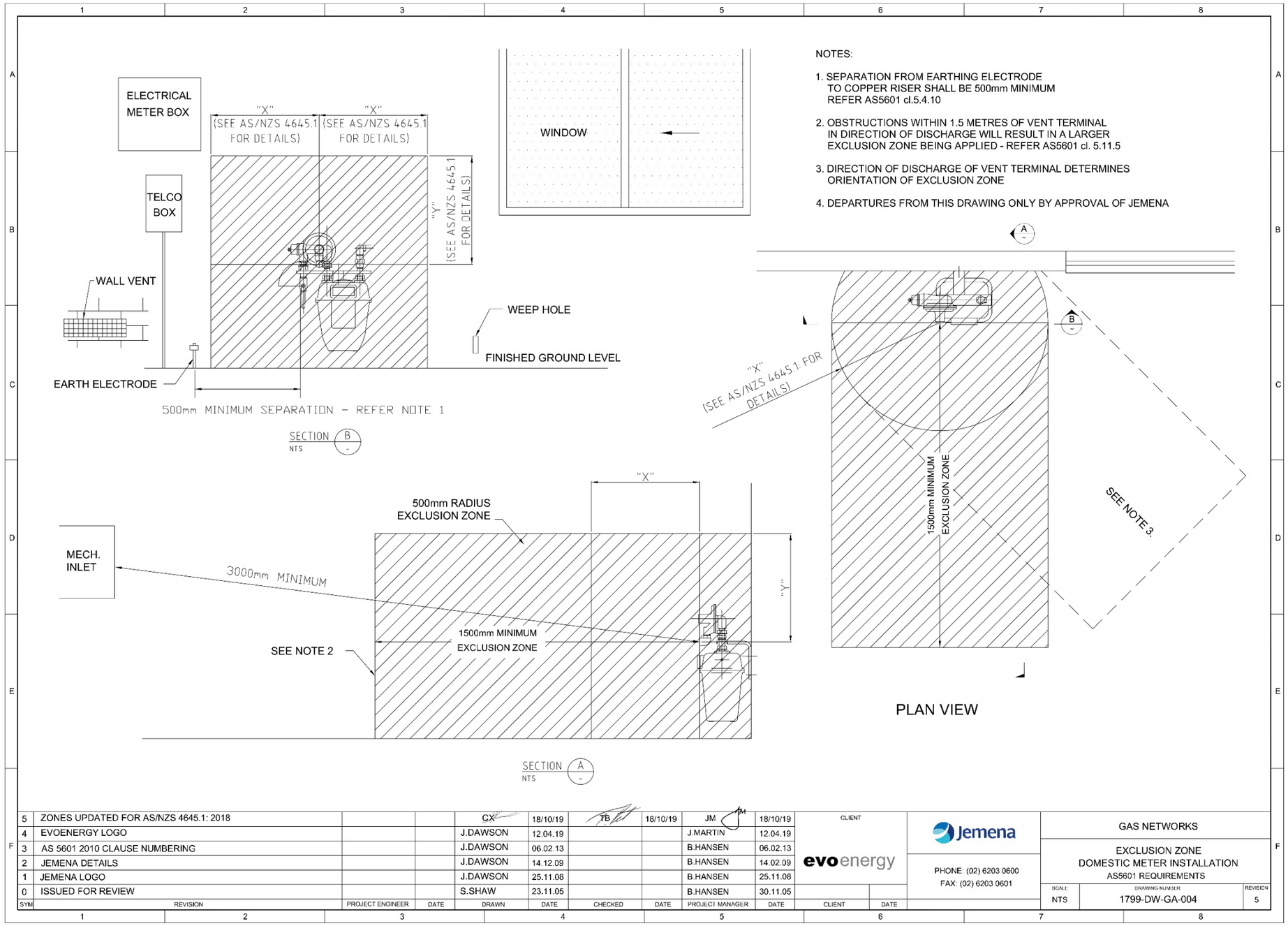
(a) Vent terminal exclusion zone with no object in the discharge direction



(b) Vent terminal exclusion zone with an object in the discharge direction

Vent terminal diameter (not shown)	Exclusion zone, m		
	L	***D***	***r***
Not exceeding 50 mm	1.5	1	0.5
Exceeding 50 mm	1.5*T*	*T*	0.5*T*

e) Vent terminal clearance requirements residential gas meter installation (detail)



SYM	REVISION	PROJECT ENGINEER	DATE	DRAWN	DATE	CHECKED	DATE	PROJECT MANAGER	DATE
5	ZONES UPDATED FOR AS/NZS 4645.1: 2018			CX	18/10/19	TB	18/10/19	JM	18/10/19
4	EVOENERGY LOGO			J.DAWSON	12.04.19			J.MARTIN	12.04.19
3	AS 5601 2010 CLAUSE NUMBERING			J.DAWSON	06.02.13			B.HANSEN	06.02.13
2	JEMENA DETAILS			J.DAWSON	14.12.09			B.HANSEN	14.02.09
1	JEMENA LOGO			J.DAWSON	25.11.08			B.HANSEN	25.11.08
0	ISSUED FOR REVIEW			S.SHAW	23.11.05			B.HANSEN	30.11.05

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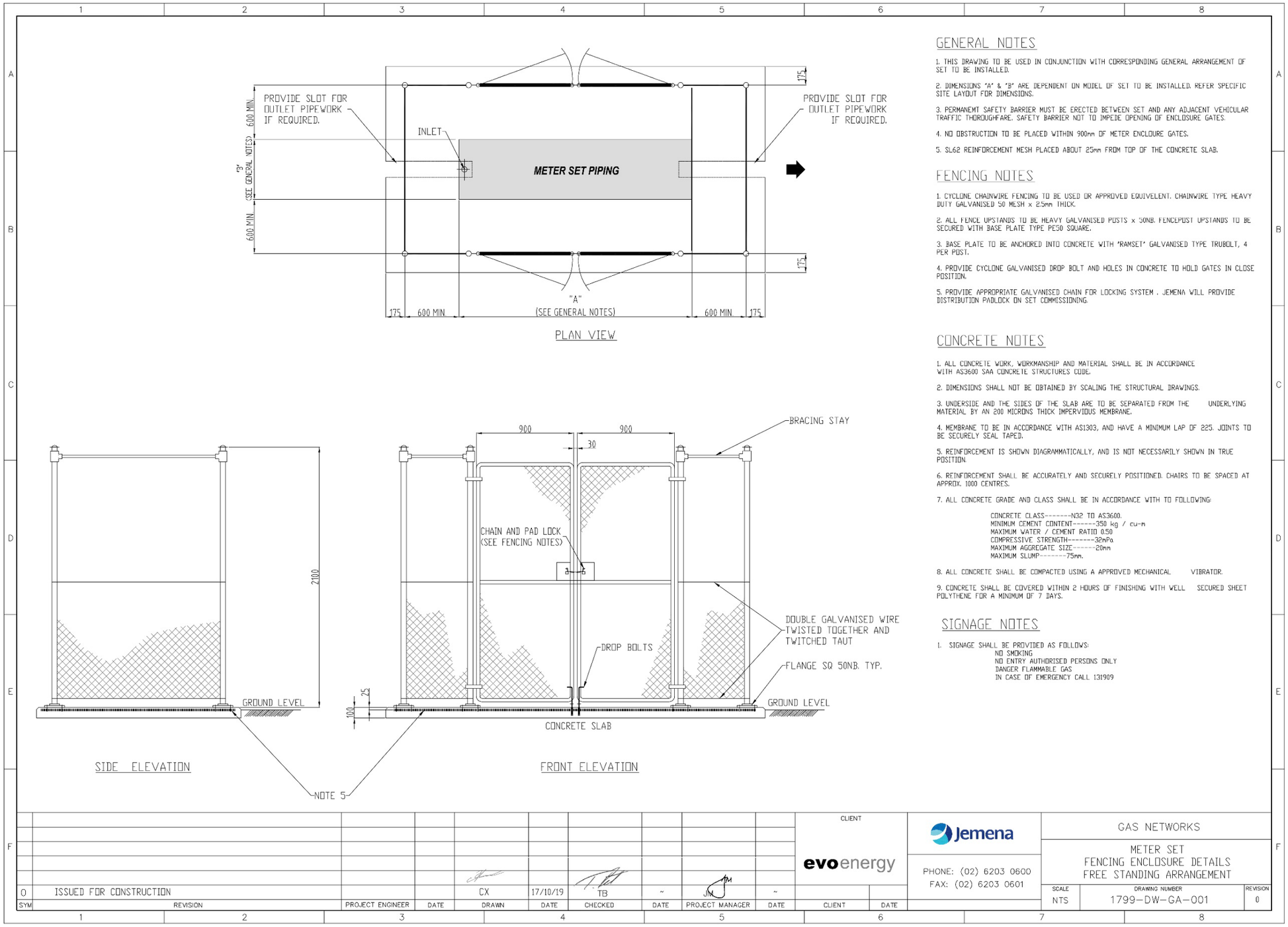
GAS NETWORKS
EXCLUSION ZONE
DOMESTIC METER INSTALLATION
AS5601 REQUIREMENTS

SCALE	DRAWING NUMBER	REVISION
NTS	1799-DW-GA-004	5

Figure 4. Type 1 enclosure – free standing



GENERAL NOTES

1. THIS DRAWING TO BE USED IN CONJUNCTION WITH CORRESPONDING GENERAL ARRANGEMENT OF SET TO BE INSTALLED.

2. DIMENSIONS "A" & "B" ARE DEPENDENT ON MODEL OF SET TO BE INSTALLED. REFER SPECIFIC SITE LAYOUT FOR DIMENSIONS.

3. PERMANENT SAFETY BARRIER MUST BE ERECTED BETWEEN SET AND ANY ADJACENT VEHICULAR TRAFFIC THOROUGHFARE. SAFETY BARRIER NOT TO IMPEDE OPENING OF ENCLOSURE GATES.

4. NO OBSTRUCTION TO BE PLACED WITHIN 900mm OF METER ENCLOURE GATES.

5. SL62 REINFORCEMENT MESH PLACED ABOUT 25mm FROM TOP OF THE CONCRETE SLAB.

FENCING NOTES

1. CYCLONE CHAINWIRE FENCING TO BE USED OR APPROVED EQUIVELENT. CHAINWIRE TYPE HEAVY DUTY GALVANISED 50 MESH x 25mm THICK.

2. ALL FENCE UPSTANDS TO BE HEAVY GALVANISED POSTS x 50NB. FENCEPOST UPSTANDS TO BE SECURED WITH BASE PLATE TYPE PE50 SQUARE.

3. BASE PLATE TO BE ANCHORED INTO CONCRETE WITH "RAMSET" GALVANISED TYPE TRUBOLT, 4 PER POST.

4. PROVIDE CYCLONE GALVANISED DROP BOLT AND HOLES IN CONCRETE TO HOLD GATES IN CLOSE POSITION.

5. PROVIDE APPROPRIATE GALVANISED CHAIN FOR LOCKING SYSTEM . JEMENA WILL PROVIDE DISTRIBUTION PADLOCK ON SET COMMISSIONING.

CONCRETE NOTES

1. ALL CONCRETE WORK, WORKMANSHIP AND MATERIAL SHALL BE IN ACCORDANCE WITH AS3600 SAA CONCRETE STRUCTURES CODE.

2. DIMENSIONS SHALL NOT BE OBTAINED BY SCALING THE STRUCTURAL DRAWINGS.

3. UNDERSIDE AND THE SIDES OF THE SLAB ARE TO BE SEPARATED FROM THE UNDERLYING MATERIAL BY AN 200 MICRONS THICK IMPERVIOUS MEMBRANE.

4. MEMBRANE TO BE IN ACCORDANCE WITH AS1303, AND HAVE A MINIMUM LAP OF 225. JOINTS TO BE SECURELY SEAL TAPED.

5. REINFORCEMENT IS SHOWN DIAGRAMMATICALLY, AND IS NOT NECESSARILY SHOWN IN TRUE POSITION.

6. REINFORCEMENT SHALL BE ACCURATELY AND SECURELY POSITIONED. CHAIRS TO BE SPACED AT APPROX. 1000 CENTRES.

7. ALL CONCRETE GRADE AND CLASS SHALL BE IN ACCORDANCE WITH TO FOLLOWING:

CONCRETE CLASS--------N32 TO AS3600.
MINIMUM CEMENT CONTENT------350 kg / cu-m
MAXIMUM WATER / CEMENT RATIO 0.50
COMPRESSIVE STRENGTH-------32mPa
MAXIMUM AGGREGATE SIZE------20mm
MAXIMUM SLUMP--------75mm.

8. ALL CONCRETE SHALL BE COMPACTED USING A APPROVED MECHANICAL VIBRATOR.

9. CONCRETE SHALL BE COVERED WITHIN 2 HOURS OF FINISHING WITH WELL SECURED SHEET POLYTHENE FOR A MINIMUM OF 7 DAYS.

SIGNAGE NOTES

1. SIGNAGE SHALL BE PROVIDED AS FOLLOWS:
NO SMOKING
NO ENTRY AUTHORISED PERSONS ONLY
DANGER FLAMMABLE GAS
IN CASE OF EMERGENCY CALL 131909

SYM	REVISION	PROJECT ENGINEER	DATE	DRAWN	DATE	CHECKED	DATE	PROJECT MANAGER	DATE	CLIENT	DATE
0	ISSUED FOR CONSTRUCTION			CX	17/10/19	TB	~	JM	~		

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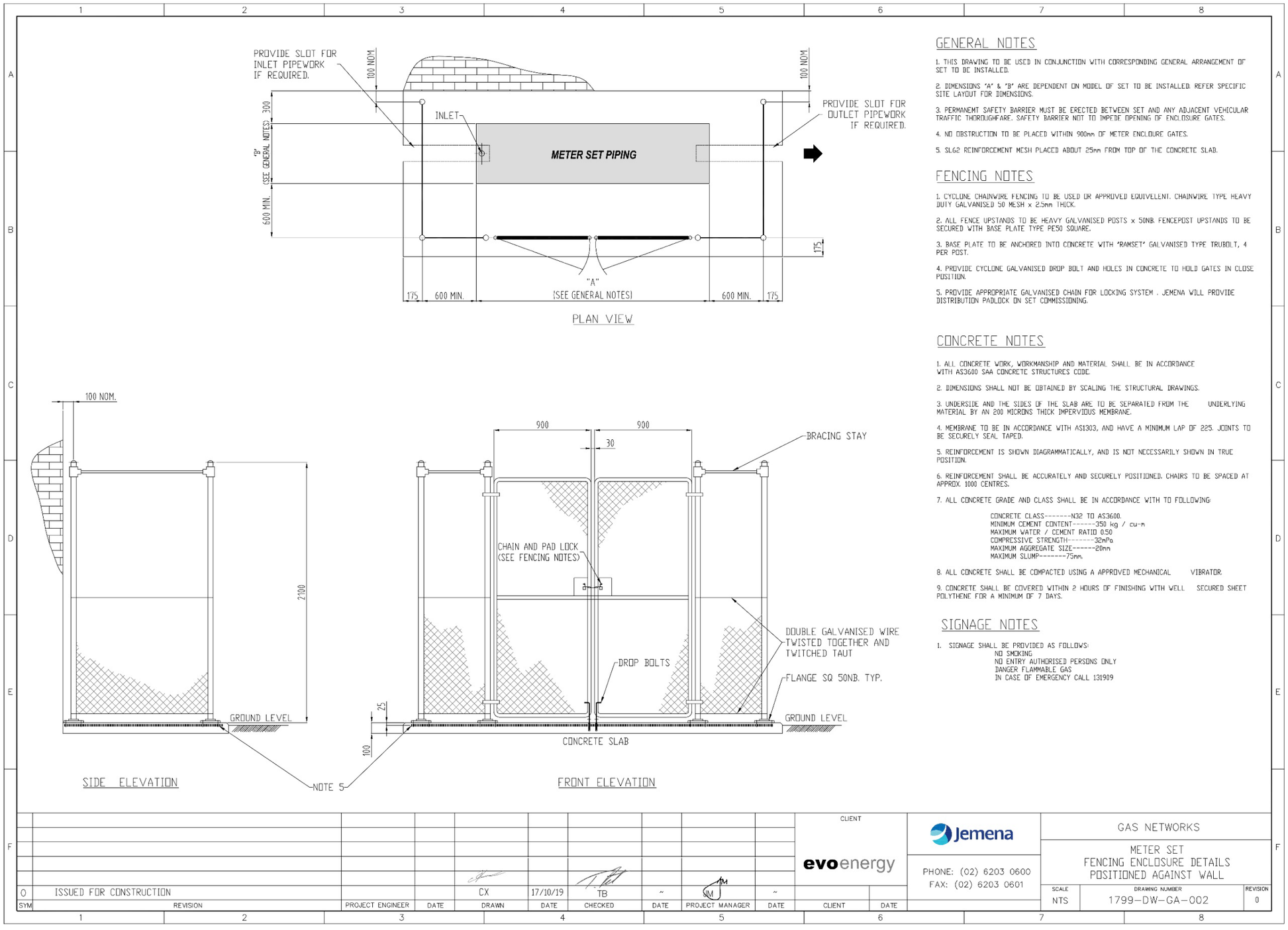
GAS NETWORKS

METER SET
FENCING ENCLOSURE DETAILS
FREE STANDING ARRANGEMENT

SCALE	DRAWING NUMBER	REVISION
NTS	1799-DW-GA-001	0

Figure 5. Type 1 enclosure – adjacent to a wall



GENERAL NOTES

1. THIS DRAWING TO BE USED IN CONJUNCTION WITH CORRESPONDING GENERAL ARRANGEMENT OF SET TO BE INSTALLED.
2. DIMENSIONS "A" & "B" ARE DEPENDENT ON MODEL OF SET TO BE INSTALLED. REFER SPECIFIC SITE LAYOUT FOR DIMENSIONS.
3. PERMANENT SAFETY BARRIER MUST BE ERECTED BETWEEN SET AND ANY ADJACENT VEHICULAR TRAFFIC THOROUGHFARE. SAFETY BARRIER NOT TO IMPEDE OPENING OF ENCLOSURE GATES.
4. NO OBSTRUCTION TO BE PLACED WITHIN 900mm OF METER ENCLOURE GATES.
5. SL62 REINFORCEMENT MESH PLACED ABOUT 25mm FROM TOP OF THE CONCRETE SLAB.

FENCING NOTES

1. CYCLONE CHAINWIRE FENCING TO BE USED OR APPROVED EQUIVELENT. CHAINWIRE TYPE HEAVY DUTY GALVANISED 50 MESH x 2.5mm THICK.
2. ALL FENCE UPSTANDS TO BE HEAVY GALVANISED POSTS x 50NB. FENCEPOST UPSTANDS TO BE SECURED WITH BASE PLATE TYPE PE50 SQUARE.
3. BASE PLATE TO BE ANCHORED INTO CONCRETE WITH 'RAMSET' GALVANISED TYPE TRUBOLT, 4 PER POST.
4. PROVIDE CYCLONE GALVANISED DROP BOLT AND HOLES IN CONCRETE TO HOLD GATES IN CLOSE POSITION.
5. PROVIDE APPROPRIATE GALVANISED CHAIN FOR LOCKING SYSTEM . JEMENA WILL PROVIDE DISTRIBUTION PADLOCK ON SET COMMISSIONING.

CONCRETE NOTES

1. ALL CONCRETE WORK, WORKMANSHIP AND MATERIAL SHALL BE IN ACCORDANCE WITH AS3600 SAA CONCRETE STRUCTURES CODE.
2. DIMENSIONS SHALL NOT BE OBTAINED BY SCALING THE STRUCTURAL DRAWINGS.
3. UNDERSIDE AND THE SIDES OF THE SLAB ARE TO BE SEPARATED FROM THE UNDERLYING MATERIAL BY AN 200 MICRONS THICK IMPERVIOUS MEMBRANE.
4. MEMBRANE TO BE IN ACCORDANCE WITH AS1303, AND HAVE A MINIMUM LAP OF 225. JOINTS TO BE SECURELY SEAL TAPED.
5. REINFORCEMENT IS SHOWN DIAGRAMMATICALLY, AND IS NOT NECESSARILY SHOWN IN TRUE POSITION.
6. REINFORCEMENT SHALL BE ACCURATELY AND SECURELY POSITIONED. CHAIRS TO BE SPACED AT APPROX. 1000 CENTRES.
7. ALL CONCRETE GRADE AND CLASS SHALL BE IN ACCORDANCE WITH TO FOLLOWING:

   CONCRETE CLASS-------N32 TO AS3600.
   MINIMUM CEMENT CONTENT------350 kg / cu-m
   MAXIMUM WATER / CEMENT RATIO 0.50
   COMPRESSIVE STRENGTH-------32mPa
   MAXIMUM AGGREGATE SIZE------20mm
   MAXIMUM SLUMP-------75mm.

8. ALL CONCRETE SHALL BE COMPACTED USING A APPROVED MECHANICAL VIBRATOR.
9. CONCRETE SHALL BE COVERED WITHIN 2 HOURS OF FINISHING WITH WELL SECURED SHEET POLYTHENE FOR A MINIMUM OF 7 DAYS.

SIGNAGE NOTES

1. SIGNAGE SHALL BE PROVIDED AS FOLLOWS:
   NO SMOKING
   NO ENTRY AUTHORISED PERSONS ONLY
   DANGER FLAMMABLE GAS
   IN CASE OF EMERGENCY CALL 131909

SYM	REVISION	PROJECT ENGINEER	DATE	DRAWN	DATE	CHECKED	DATE	PROJECT MANAGER	DATE	CLIENT	DATE
0	ISSUED FOR CONSTRUCTION			CX	17/10/19	TB	~	NM	~		

CLIENT: evoenergy

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GAS NETWORKS

METER SET
FENCING ENCLOSURE DETAILS
POSITIONED AGAINST WALL

SCALE	DRAWING NUMBER	REVISION
NTS	1799-DW-GA-002	0

Figure 6. Type 2 enclosure

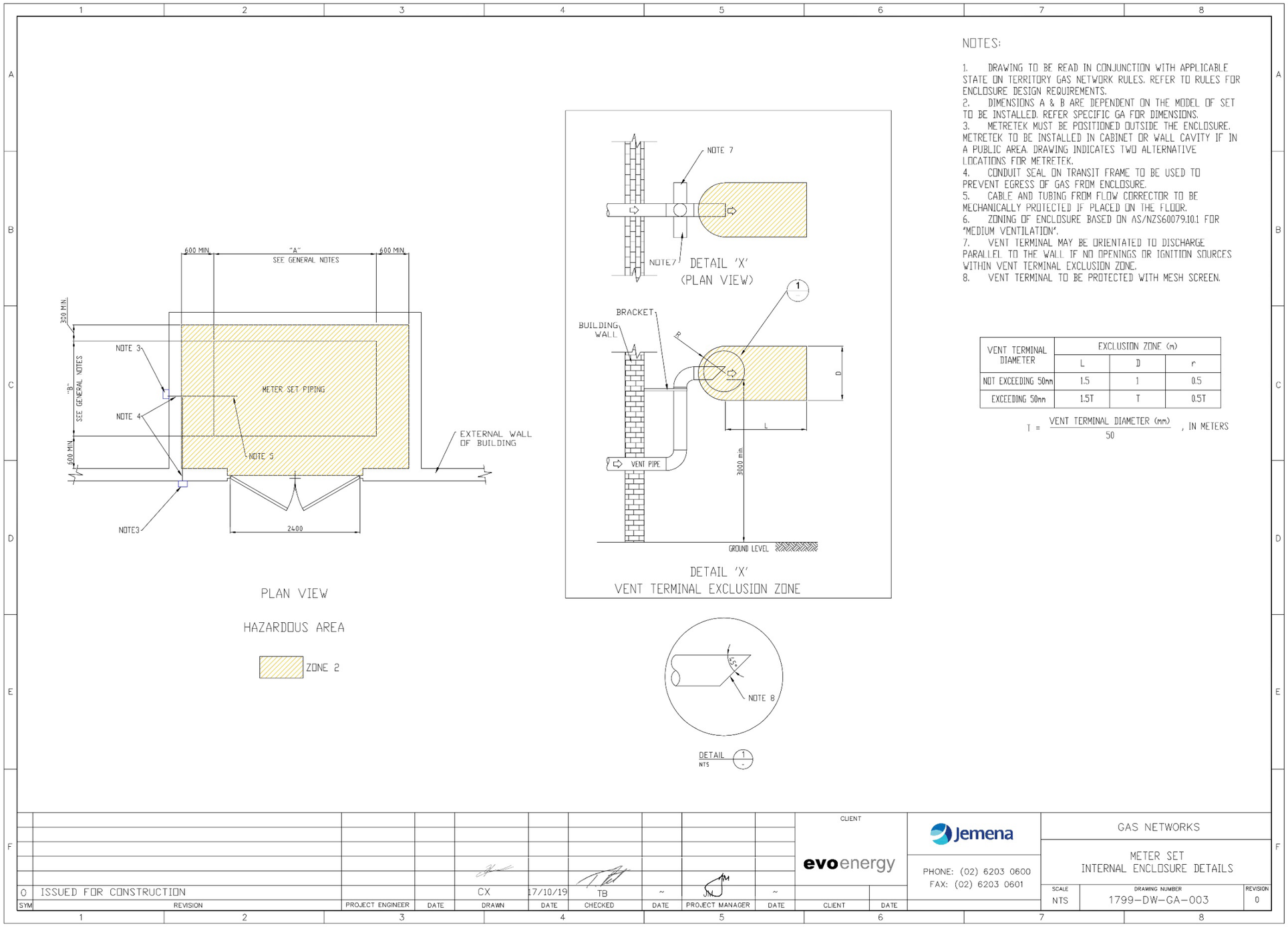


Figure 7. Meter set installation design for a Type 1 Or Type 2 enclosure

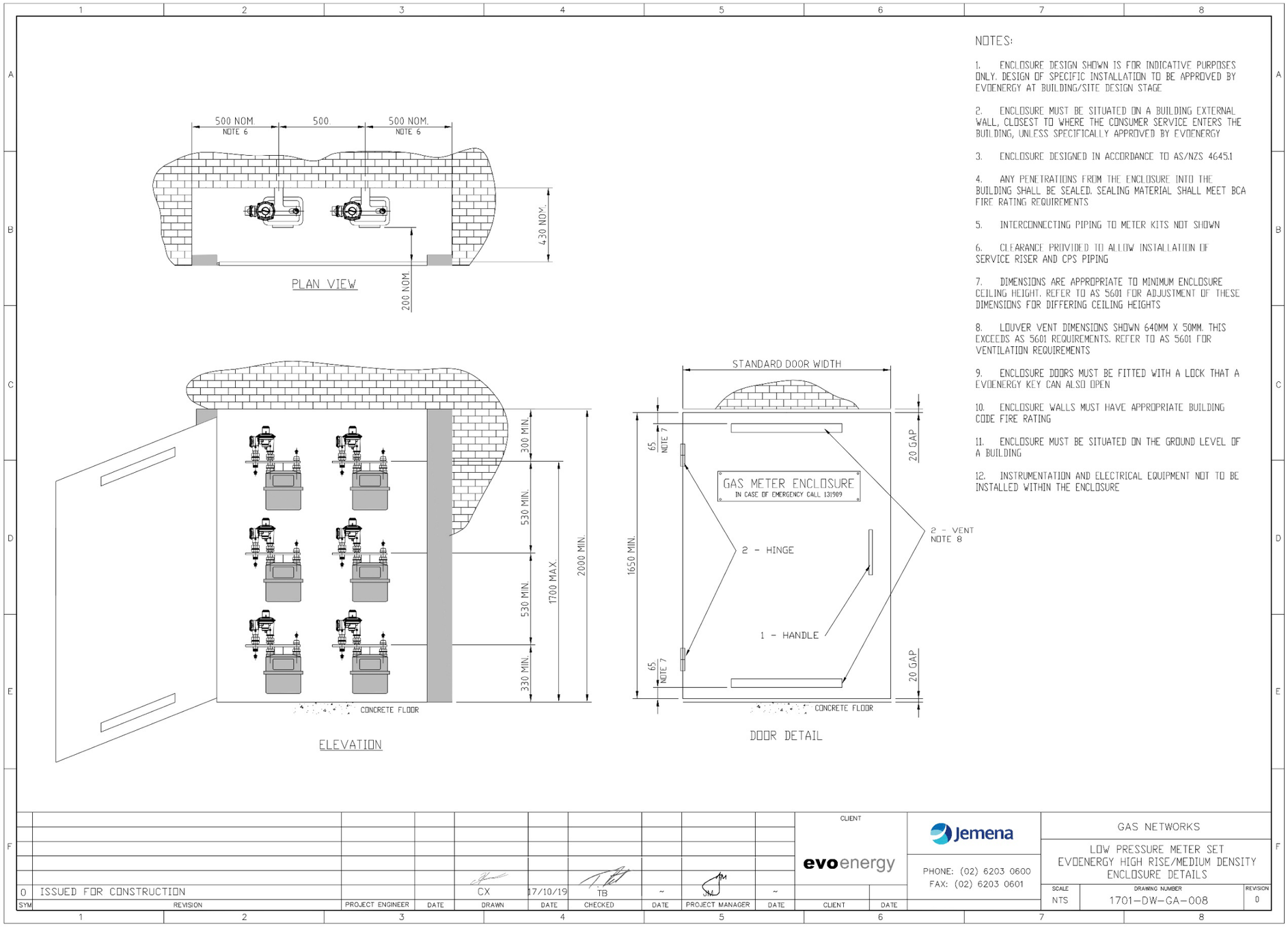
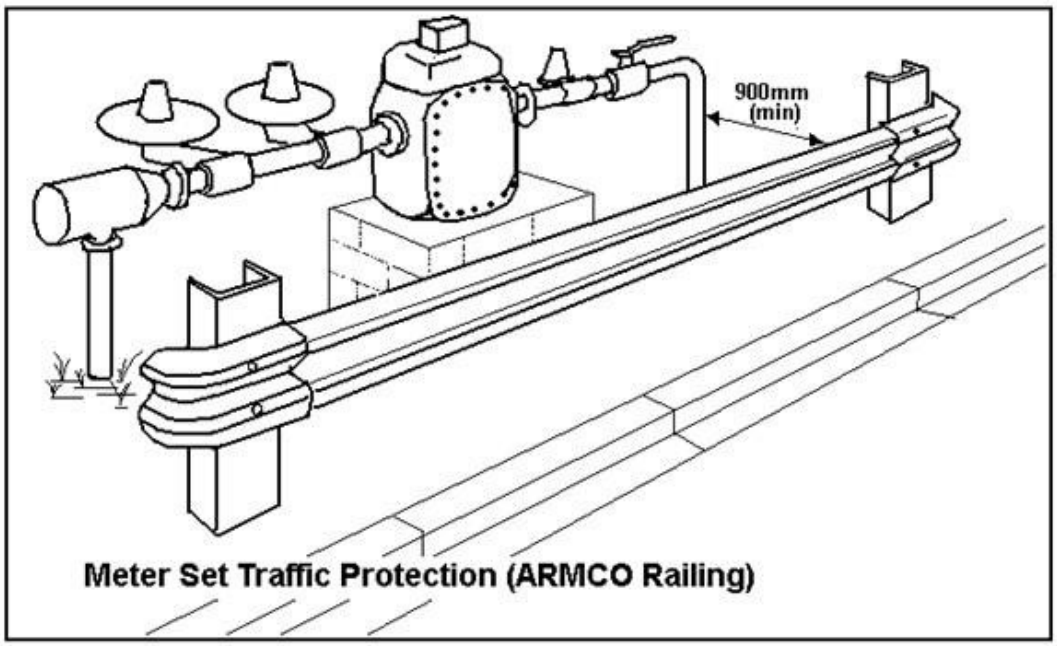
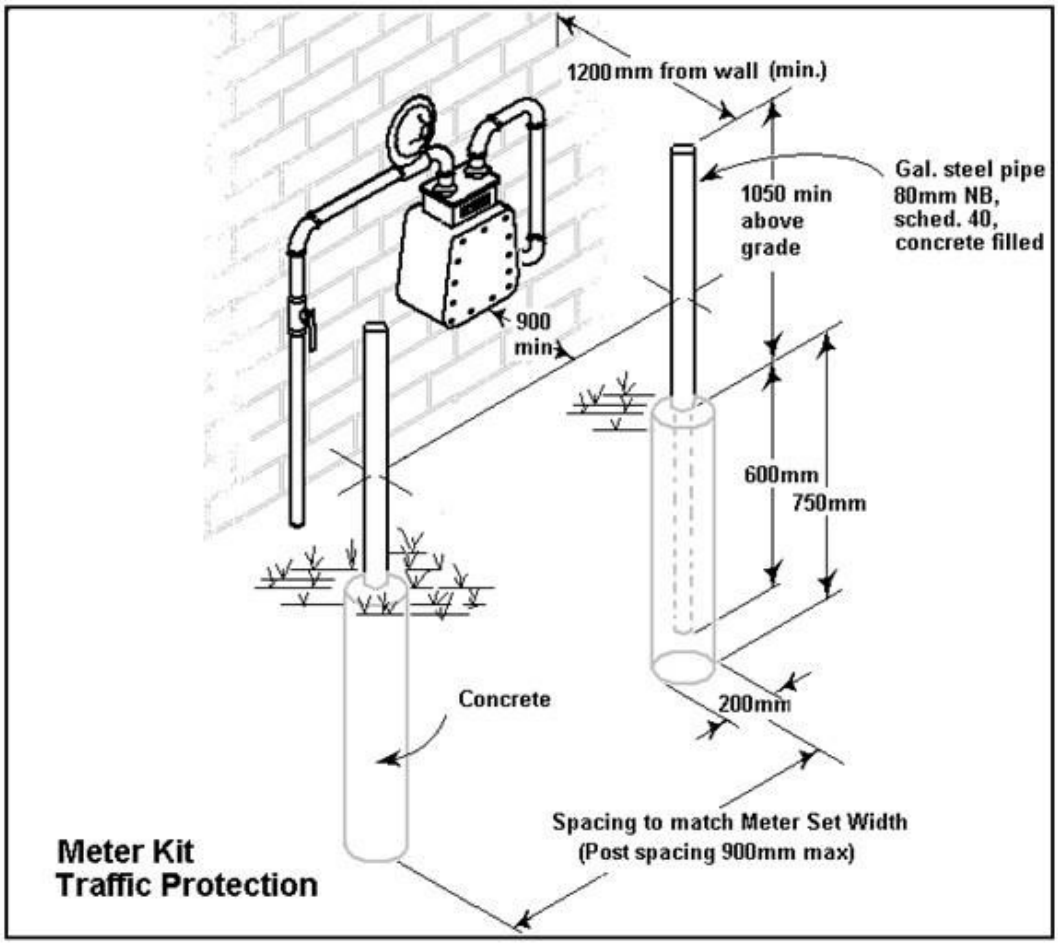


Figure 8. Examples of appropriate permanent safety barriers

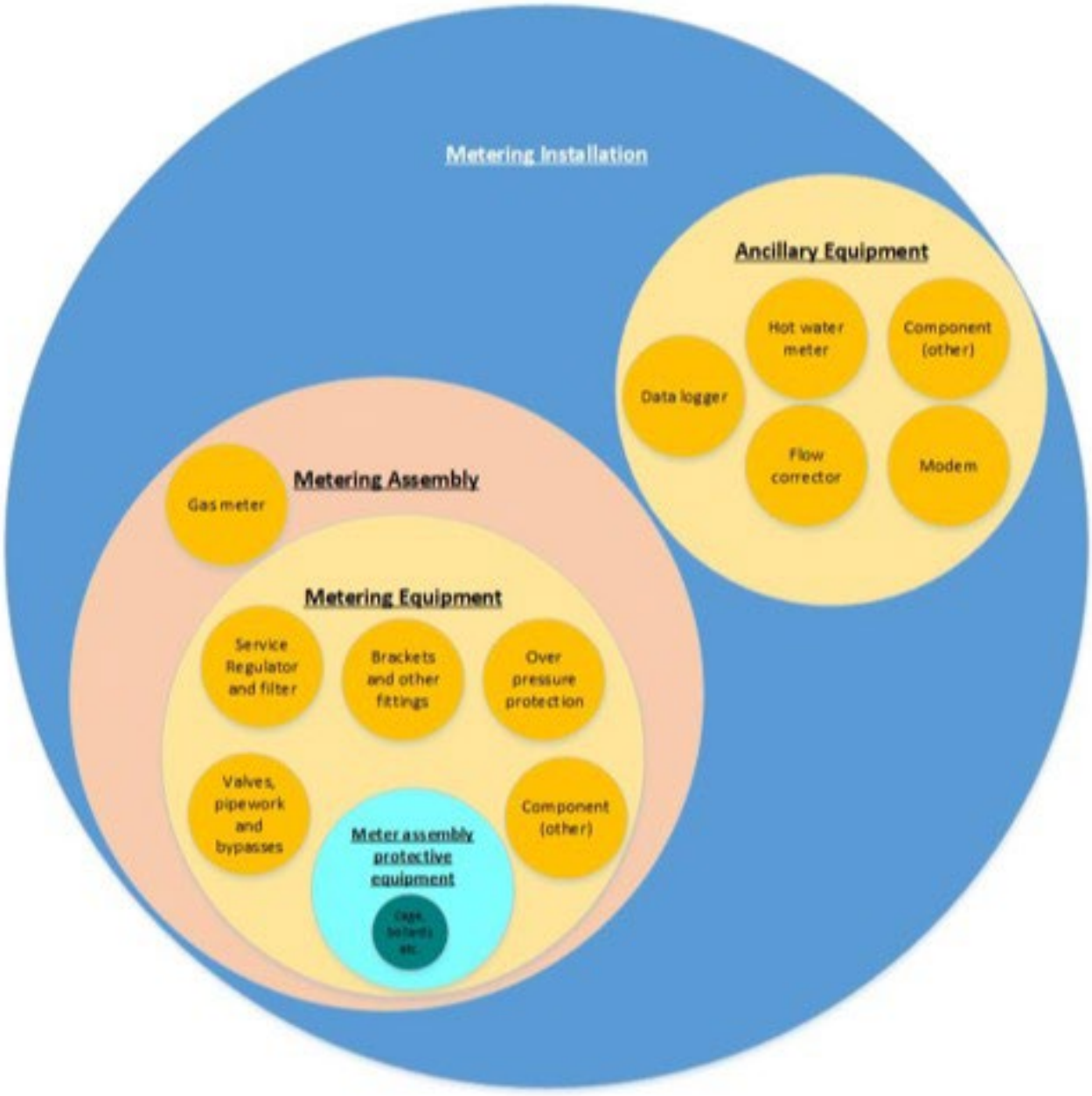
Enclosures not shown





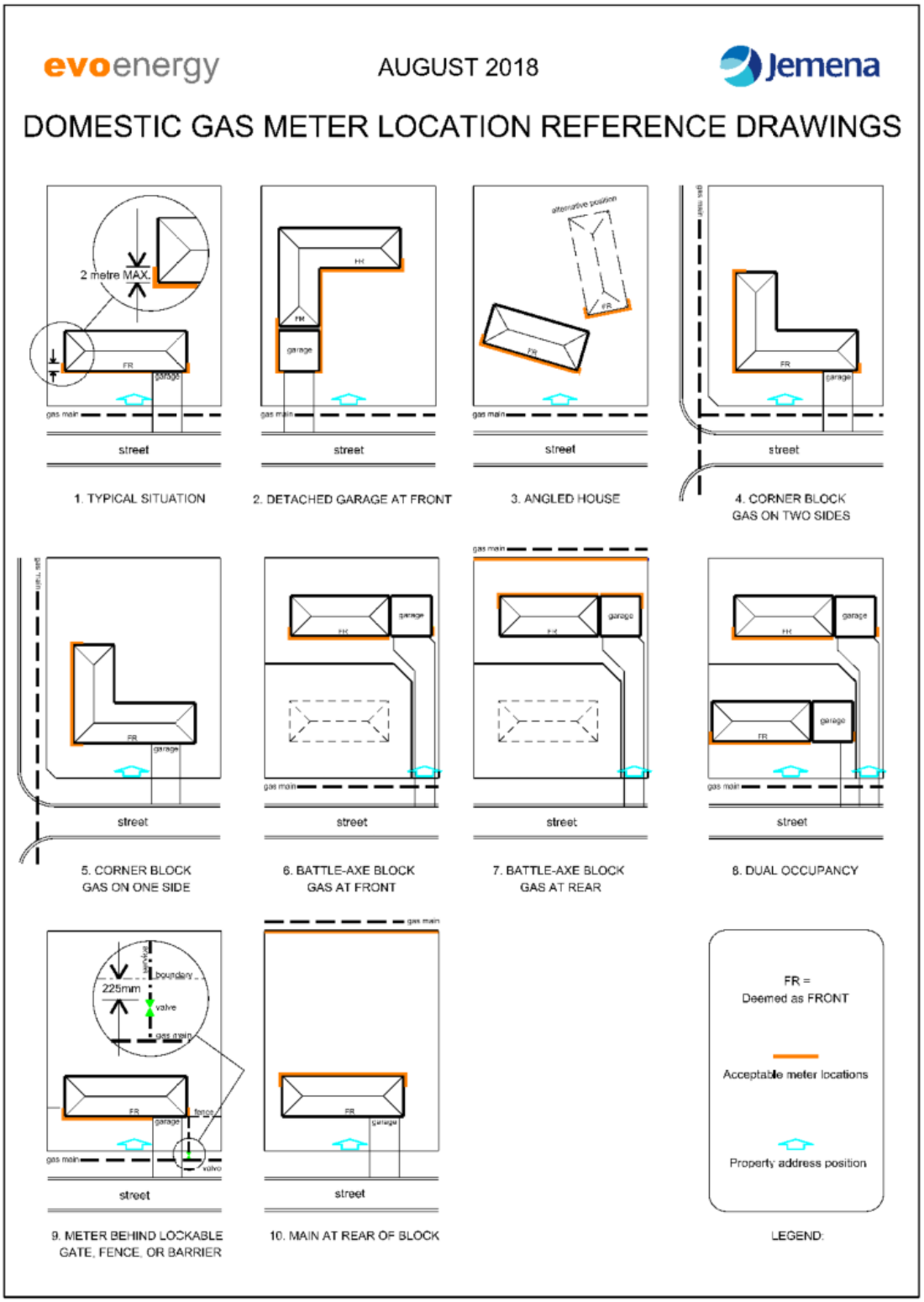
Appendices

Appendix A – Meter installation, assembly, metering equipment and metering assembly protective equipment

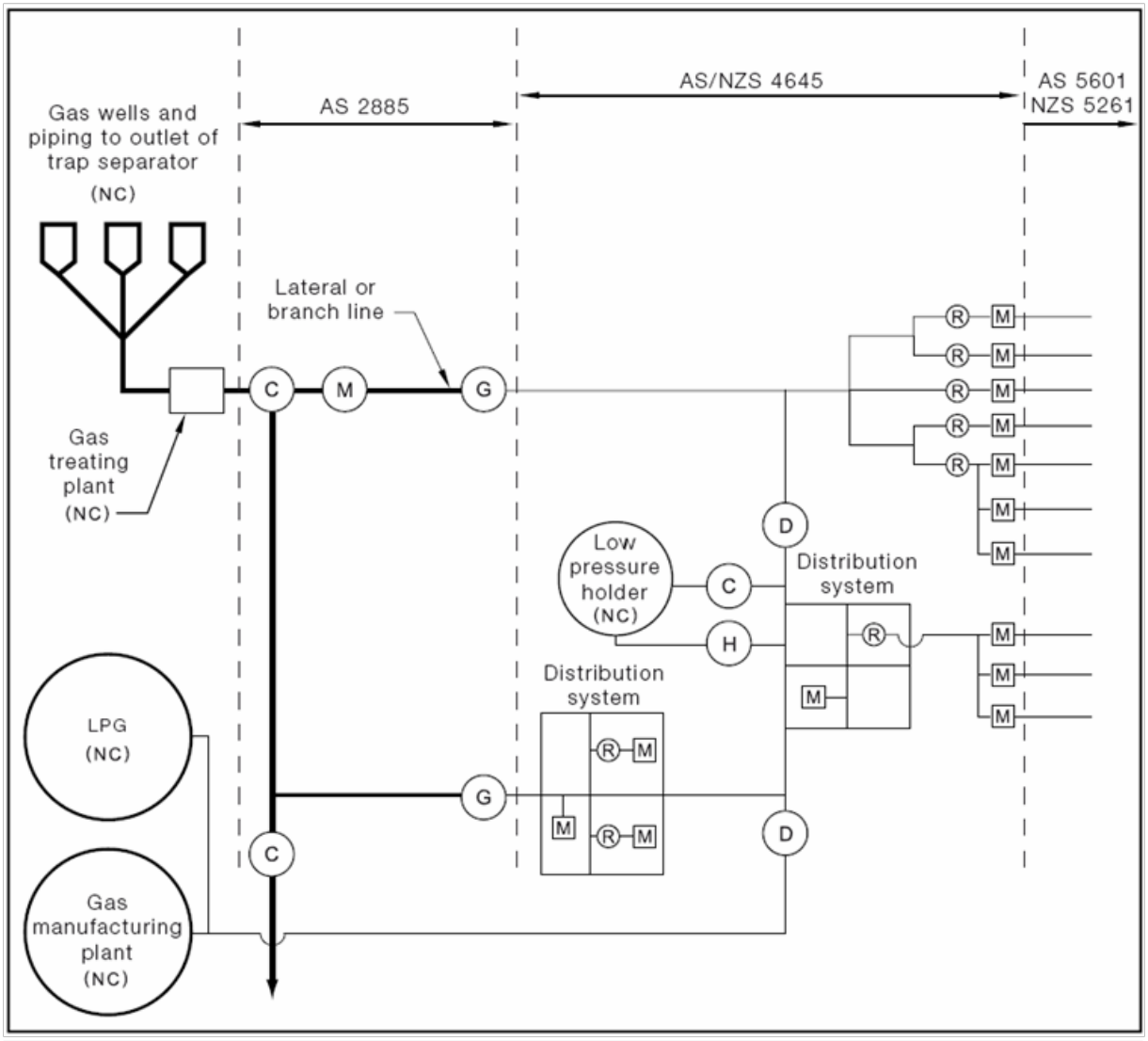


Appendix B – Domestic gas meter location reference drawings

(Available from Evoenergy website)



Appendix C – Scope of AS/NZS 4645.1 in Gas supply



Appendix D – Signage

Type 1 enclosure: flammable gas

Use for Figure 3 and Figure 3 Type 1 enclosures

(dimensions 300x200mm)

Zone 2 Hazardous Area

Type 2 enclosures:

Use for Figure 5 Type 2 Enclosure

300 x 200mm

evoenergy

NOTICE

ANY ELECTRICAL EQUIPMENT INSTALLED WITHIN THIS ENCLOSURE REQUIRES A DOSSIER AS PER AS/NZS 60079.14

ANY ADDITIONAL EQUIPMENT BEING INSTALLED REQUIRES AN UPDATE OF THE HAZARDOUS AREA ASSESSMENT

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t 132 386 | evoenergy.com.au

Jemena Networks (ACT) Pty Ltd (ABN 24 008 552 663) and Icon Distribution Investments Limited (ABN 83 073 025 224) t/as Evoenergy (ABN 76 670 568 668)

Appendix E – Standard gas metering equipment characteristics (informative)

Evoenergy reserves the right to change these parameters. For current meter equipment parameters please refer to:

https://www.evoenergy.com.au/developers/service-and-installation-rules

Meter Model	Capacity	Inlet Pressure	Metering Pressure	Nominal Outlet Pressure	Outlet Connection Size	Dimensions WxDxH
M8	8 SCM/hr 300 MJ/hr	<400 kPa	2.75 kPa	2.75 kPa	20mm BSP	330x230x455
M10	10 SCM/hr 380 MJ/hr	<400 kPa	2.75 kPa	2.75 kPa	20mm BSP	400x230x400
M25D	25 SCM/hr 950 MJ/hr	<400 kPa	5 kPa	2.75 kPa	25mm BSP	650x285x570
M60D	60 SCM/hr	<400 kPa	5 kPa	2.75 kPa	40mm BSP	1070x395x680
M25 M60	25 SCM/hr 60 SCM/hr	<400 kPa	5kPa	5kPa	32mm BSP 40mm BSP	470x285x670 830x395x680
M75	75 SCM/hr	<400 kPa	35kPa	35kPa	40mm BSP	840x395x685

FIGURE E1 – Standard residential gas meter assembly – Model M8

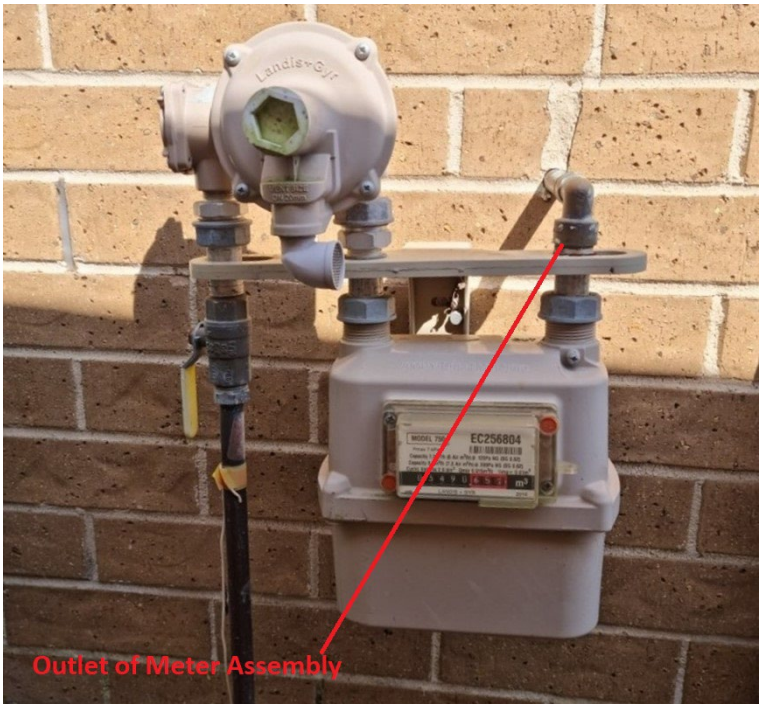

FIGURE E2 – Residential gas meter assembly – Model M10

FIGURE E3 – Commercial gas meter assembly – Model M25

FIGURE E4 – Residential gas meter assembly – Model M25D

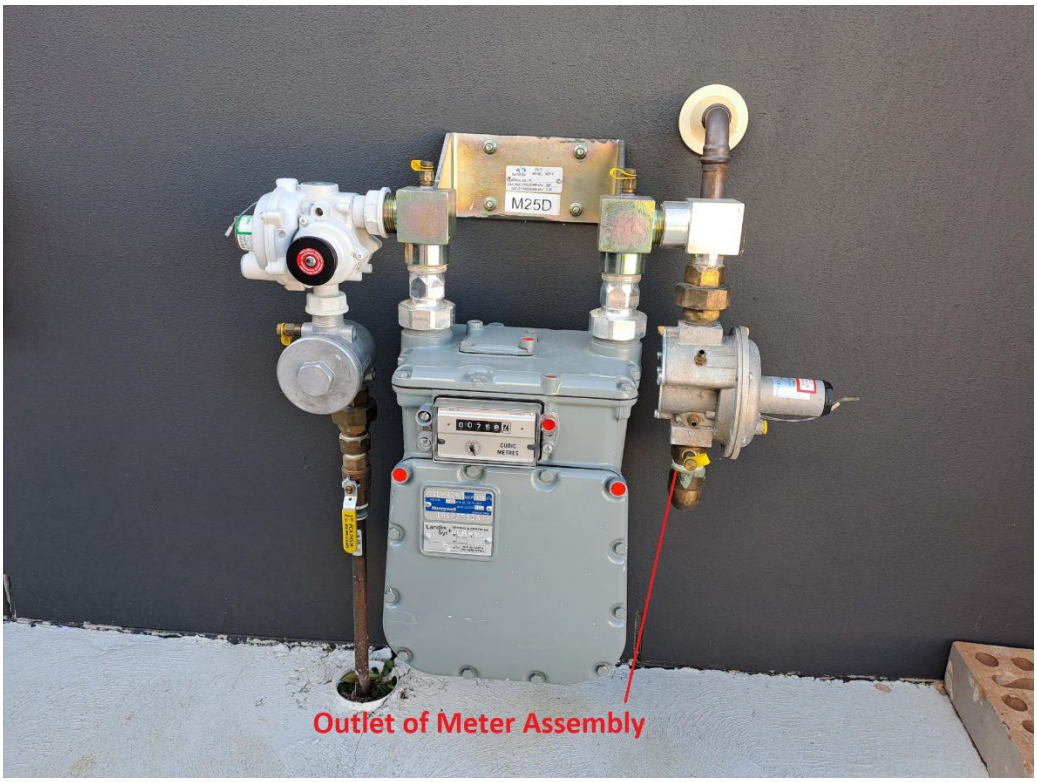

FIGURE E5 – Commercial gas meter assembly – Model M60

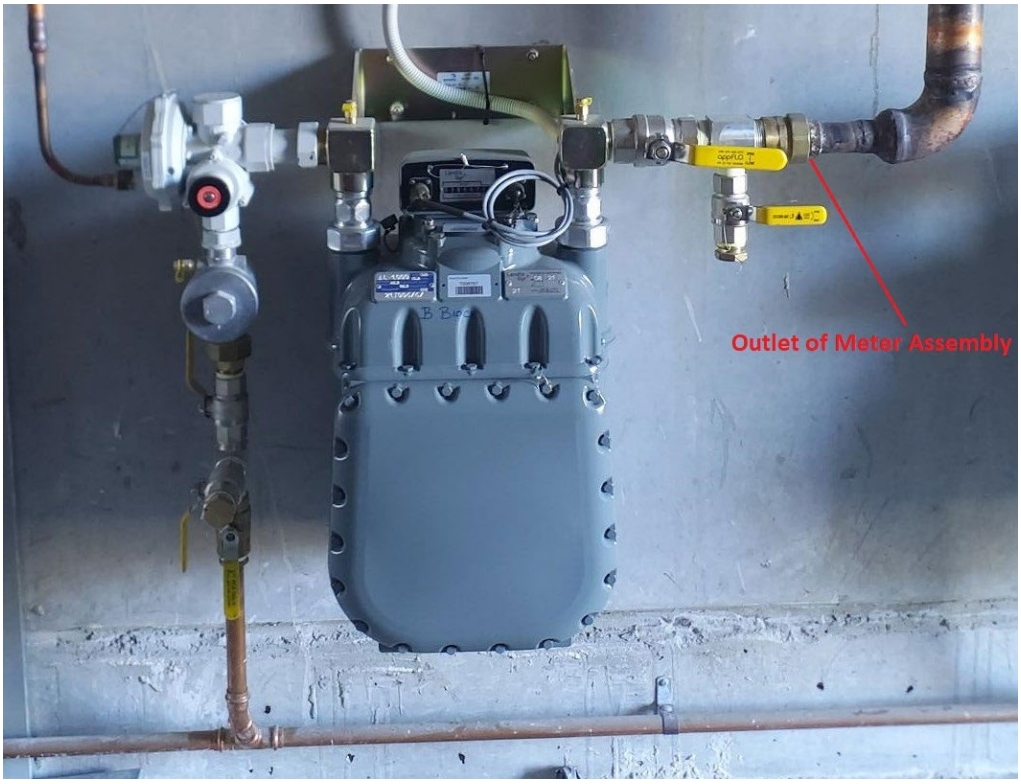

FIGURE E6 – Residential gas meter assembly – Model M60D

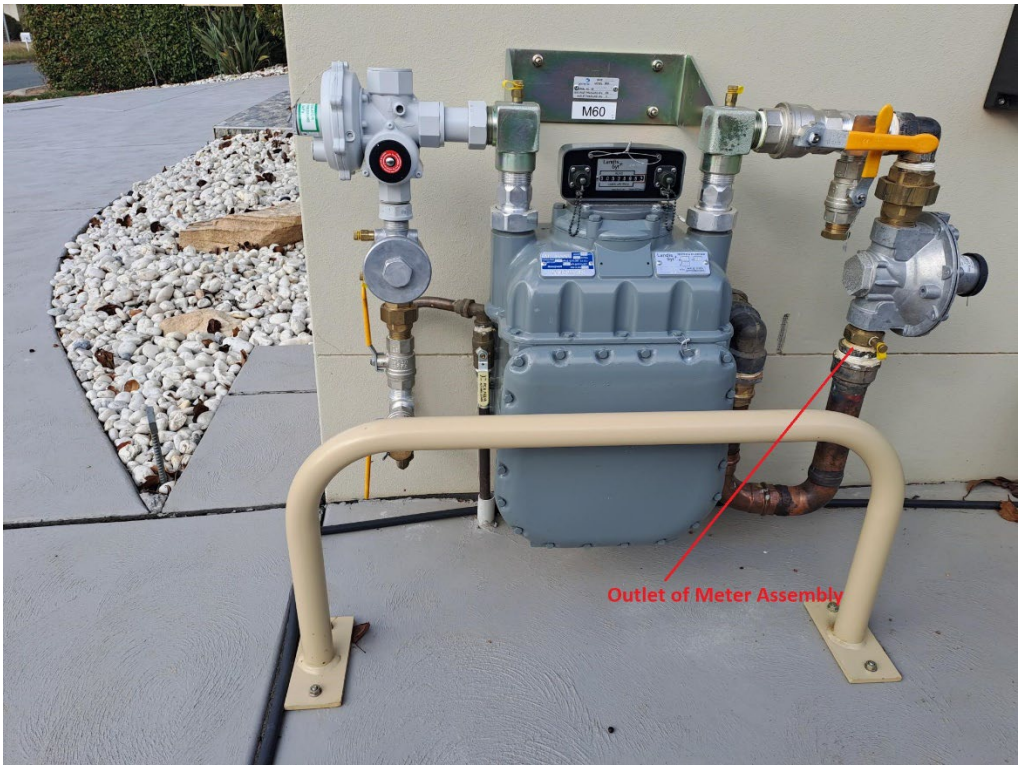

FIGURE E7 – Commercial gas meter assembly – Model M75

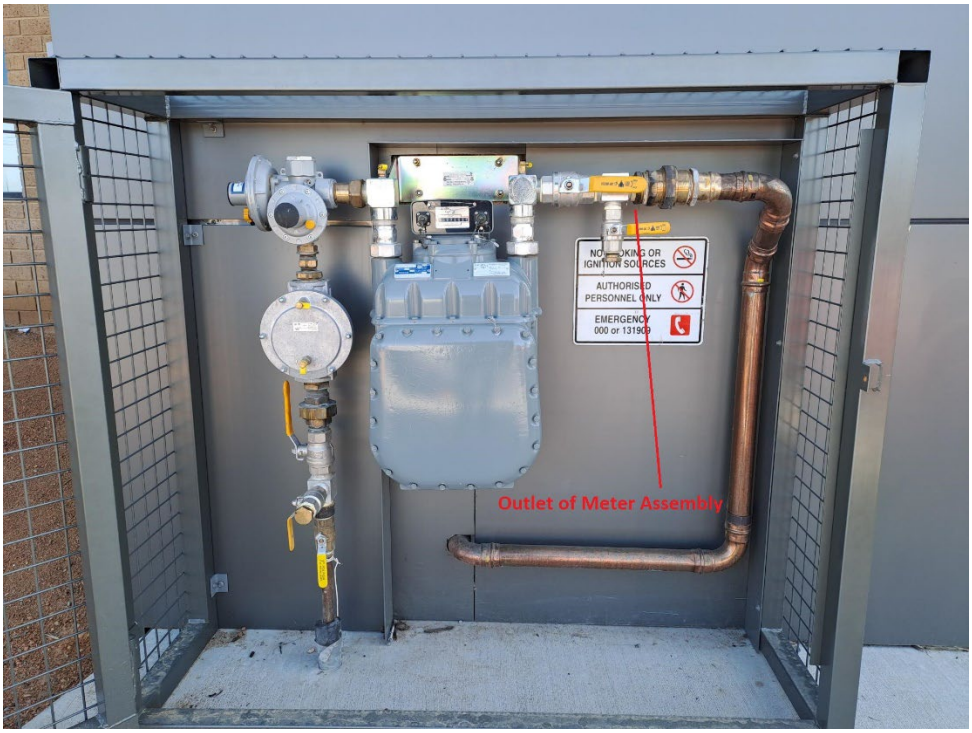

FIGURE E8 – Example of large non-standard meter assembly

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