

Easement Guidelines



Easement Guidelines

| | | |
|----------|--|-----------|
| 1 | Overview | 3 |
| 1.1 | What is an easement? | 3 |
| 1.2 | Why Sydney Water requires easements | 3 |
| 1.3 | Circumstances in which easements are required | 3 |
| 1.4 | When are easements acquired? | 4 |
| 1.5 | How to progress developer initiated easement actions | 4 |
| 1.6 | How to progress Sydney Water initiated easement actions | 8 |
| 1.7 | Operational requirements for incorporation into easements | 9 |
| 2 | Water Mains | 10 |
| 2.1 | Types of easements | 10 |
| 2.2 | Easements for below ground/above ground works | 10 |
| 2.3 | Easements within community title subdivisions and conventional subdivisions with private access ways | 14 |
| 3 | Sewer Mains | 19 |
| 3.1 | Categories of Sewer Mains Affected | 19 |
| 3.2 | Gravity Sewer Mains Easement | 20 |
| 3.3 | Sewer Rising Mains Easement | 22 |
| 3.4 | General Notes | 23 |
| 4 | Stormwater Works | 23 |
| 4.1 | Easement Width | 24 |
| 4.2 | Easement Conditions | 24 |
| 5 | Miscellaneous Works | 25 |
| • | Access | |
| • | Batter/Retaining Walls | |
| • | Surface Drainage | |
| • | Multi-Purpose Easements | |
| 6 | Appendices | 26 |
| • | Easement Requirements Form | |
| • | Easement Width | |
| • | Easement Layout | |

1. Overview

1.1 What is an easement?

Put simply, an easement is a right, held by one party (e.g., Sydney Water) to make use of the land of another for certain specific purposes.

Easements are legally enforceable and in addition to imparting rights to the party benefiting from the easement, can restrict the use of the burdened property and impose certain obligations on the land owner and successive owners.

Although there are various legal mechanisms available other than easements for imposing these restrictions and obligations and guaranteeing rights (e.g., covenants and in Community Title Subdivisions By-Laws), for ease of addressing operational requirements in these Guidelines, the term 'easement' will be used, in a broad sense, to refer to any such mechanism irrespective of which one is chosen by Sydney Water to apply its requirements.

Easements are normally unlimited in application in relation to their height above ground and depth below ground, however, they may be set to a specific height and/or depth in special circumstances.

1.2 Why Sydney Water requires easements

Easements are acquired over land to legally impose operational requirements in respect of certain types of services and to reinforce certain statutory powers of Sydney Water. Easements are necessary to:

- (a) protect Sydney Water's property and other property from damage and prevent personal injury;
- (b) ensure access to Sydney Water's works for operations and maintenance;
- (c) alert owners of property that pipe work and/or other infrastructure is on their property and that special conditions apply; and
- (d) to facilitate construction and limit the future use of the land in a particular way so as to satisfy the above.

In addition to the above, Sydney Water also uses Positive Covenants where appropriate to secure indemnities and impose specific obligations as a complement to easements.

Note: The creation of an easement does not vary or affect any right that the registered proprietor of land affected by the easement may have under Section 41 of the Sydney Water Act 1994 unless otherwise provided for in a Positive Covenant as a complement to an easement. Likewise, the creation of an easement does not vary or affect any obligation, privilege, right, power, authority, duty, liability, immunity or remedy that the registered proprietor or Sydney Water may have under Section 44 of the Sydney Water Act 1994.

1.3 Circumstances in which easements are required

Sydney Water requires that easements be obtained over certain services and works which are, or will be, owned by Sydney Water and which are laid anywhere other than in dedicated public roads or pathways and Sydney Water owned land.

Easements are therefore required in private property, public reserves, Crown reserves, other government owned land as required, private roads or access ways in both conventional and Community Title Subdivisions and rights of way and rights of carriageway, for the following services and works;

- (a) All water mains;

Note: where it may be necessary for Sydney Water to drain water or waste water from a water main through a private drainage system located in private property, Sydney Water will also require rights by way of a drainage easement or other appropriate means.

- (b) All sewer pressure (rising) mains;
- (c) Sewer gravity mains greater than 600 mm in diameter (not equal to or less than);
- (d) Sewer gravity mains 600 mm and smaller in diameter in *special circumstances* which warrant the additional protection of an easement and network operations discretion;
- (e) All stormwater conduits including pipes, reinforced box sections, open channels etc. (except in special circumstances where, as an alternative, the land is to be acquired by Sydney Water);
- (f) All electrical and telemetry lines (both underground and/or overhead) that are the responsibility of Sydney Water;
- (g) Non-public access roads used by Sydney Water
- (h) Earthworks/retaining walls that support Sydney Water Land and/or structures and which are not within the boundaries of a Sydney Water property; and
- (i) Drainage lines that convey natural runoff from Sydney Water land to a Council system or approved discharge point.

NOTE: The National Parks and Wildlife Service and the State Rail Authority will not agree to, or permit, the creation of easements under the terms and conditions normally required by Sydney Water over land under their control. Alternative arrangements are required and contact should be made with Sydney Water Property Services (email acquisitions@sydneywater.com.au) in these circumstances.

1.4 When are easements acquired?

Although each case needs to be considered on its merits, most easements are acquired after the construction of the works to ensure that the easement is correctly located in relation to the completed works. In some circumstances though, the easement may be acquired well before the works commence, to ensure that the land will be available for the specific purpose when required.

It is important that operational requirements are established at the earliest possible stage so that the requirements can be factored into the design of any proposed development or land parcel affected and that the necessary negotiations with the land owner can be conducted. To enable the acquisition of easements to proceed, works must be installed in accordance with these Guidelines and Designers must complete the Easement Requirement Form as appropriate. The completed form should be forwarded to Sydney Water for processing along with design plans and other items as set out in the Easement Requirements Form.

In the case of easements for existing works (i.e. works not previously protected by easements and works affected by road closure actions), Sydney Water's operational personnel should initiate the action and complete the Easement Requirement Form and forward it to Sydney Water Property Services

1.5 How to progress developer initiated easement actions

1.5.1 General outline of responsibilities

The accredited Water Servicing Coordinator (WSC), Designer and Constructor engaged by the Developer have responsibilities and obligations on behalf of the Developer (as does the Developer), to contribute to and/or to ensure the creation of easements/covenants required by Sydney Water under the terms of the Developer Agreement.

This requires the 'Developer' to complete the 'Easement Requirement Form' for submission to Sydney Water and for those forms to be forwarded via eDeveloper portal to Sydney Water Operational Networks for approval then to Property Services, who will provide specific instructions and approve final Real Property plans and documents.

The following is a broad outline of those responsibilities and obligations, with more detailed information given under specific headings in Section 1.5.2.

1.5.1.1 Designer

It is the responsibility of the Designer:

- (a) To identify the need for the provision of easements/covenants in relation to new Sydney Water infrastructure in accordance with the requirements set out in these Guidelines (Section 1.3 refers).
- (b) To factor into the design, any relevant special Technical Requirements for works (that require the protection of easements), as set out in these Guidelines.
- (c) To ensure that, where works which will require the protection of easement/covenants are to be laid in adjoining lands not owned by the Developer before the design is finalised the Developer or Agent first negotiates with the affected land owner and obtains their written agreement in principle to grant that easement to Sydney Water.
- (d) To ensure that appropriate reference is made in the 'Design Development Checklist' to the required easement at the:
 - (i) Design
 - (ii) Input
 - (iii) Development
 - (iv) Output and
 - (v) Validation stages
- (e) To complete and submit the 'Easement Requirement Form' together with the 'Design' and the 'Design Development Checklist', to Sydney Water's Developer process area.
- (f) To liaise with Sydney Water as required to obtain their sign off to the easement requirements.

1.5.1.2 Constructor

It is the responsibility of the Constructor, to liaise with the WSC to ensure that, where easements are required over new works, trenches are not backfilled until the Developer's surveyor has carried out a detailed survey of the location of the pipe for the purposes of establishing the position of the required easement.

1.5.1.3 WSC

It is the responsibility of the WSC:

- (a) To develop a 'Project-Specific Quality Plan' for the design and construction of the works, which also addresses any easement/covenant requirements associated with the works.
- (b) To manage and review the development of the 'Design' and the 'Design Development Checklist' to ensure all easements/covenants required under these Guidelines are properly addressed and incorporated in the process.
- (c) To confirm that, where works which require the protection of easements affect adjoining lands not owned by the Developer, the Developer or Agent has negotiated with the affected land owner and obtained their written agreement in principle to grant that easement to Sydney Water, to Sydney Water's requirements.
- (d) To prepare a 'Project-Specific Inspection and Test Plan' for the construction of the works that ensures that the location of any works requiring easements is accurately surveyed in relation to Real Property features prior to backfilling of trenches so that the position of the required easement can be established relative to the works, to Sydney Water's specification.
- (e) To ensure that the 'Easement Requirement Form' is completed and submitted by the project Designer with all required attachments, to Sydney Water for approval by Customer Delivery.

Note: Sydney Water Property Services will provide detailed instructions as to how the required easements/covenants are to be defined and described by the Developer to facilitate their creation and will approve the final form of the plan of survey and associated documentation.

Therefore, to avoid unnecessary delays in approval of plans etc., ideally the 'Notice of Easement/Land Requirements' should be forwarded to Sydney Water Property Services **four weeks** prior to commencement of construction of the subject works.

- (f) To coordinate action by the Developer's surveyor and solicitor to prepare final plans and documentation to Sydney Water Property Services requirements.

In cases where a prior Sydney Water easement requirement was identified for creation in the Notice of Requirement, that action will need to be combined with the action to address easements over new works.

- (g) To forward copies of final survey plans and documents to Sydney Water Property Services for approval, together with the required property security deposit and Developer's payment of Sydney Water Property Services costs.
- (h) To coordinate the carrying out of any amendments to plans and documentation required by Sydney Water Property Services
- (i) To satisfy all Sydney Water Property Services requirements to obtain a 'Clearance Certificate' which is a prerequisite to Sydney Water issuing a Section 73 Certificate.
- (j) Upon registration of the subject plans and documentation creating Sydney Water easement/covenant interests, to provide registered copies of the plans and documentation to Sydney Water Property Services for verification and consequential release of the property security deposit.

1.5.1.4 Developer

Under the terms of the Developer Agreement, the **Developer** must:

- (a) Bear all costs associated with establishing Sydney Water's easement/covenant requirements associated with the development including Sydney Water Property Services charges and lodge the required property security deposit.
- (b) Ensure that any Works requiring easements/covenants are constructed before the associated easement is defined, which means **such Works cannot be bonded**.
- (c) Obtain a 'Clearance Certificate' from Sydney Water Property Services verifying that all property matters have been satisfactorily addressed before requesting the issue of a Section 73 Compliance Certificate for a development where easements/covenants are required by Sydney Water.

1.5.2 Detailed responsibilities for specific easement requirements

1.5.2.1 Prior easement requirement

Where Sydney Water advised in the Notice that the subdivision/development is affected by a 'prior Sydney Water easement proposal' and that it is appropriate the easement(s) be created in favour of Sydney Water, pursuant to Section 88B of the Conveyancing Act as part of the subject subdivision/development, the **Developer** or **Agent** must:

- (a) contact Sydney Water Property Services ([email: acquisitions@sydneywater.com.au](mailto:acquisitions@sydneywater.com.au)) to obtain specific details of Sydney Water's easement requirements for incorporation in the plan of subdivision/easement and accompanying Section 88B instrument;
- (b) liaise with Sydney Water Property Services to satisfy those requirements and obtain a Clearance Certificate so as to facilitate issue of the Section 73 Certificate.



1.5.2.2 Easement requirements for new works

Where Sydney Water has easement/covenant requirements over all or part of the Works as identified in the Design and Construction Package for a development, the **Developer** or **Agent** must ensure that those Works are constructed prior to the easement(s) being defined.

The **Developer** or **Agent** must create the easement(s)/covenant(s) in accordance with Sydney Water's requirements, and at no cost to Sydney Water, as part of subject subdivision/ development action.

Where Works requiring easements are to be constructed in **land adjoining the development which is not owned by the Developer**, the Developer or Agent is to:

- (a) Prior to the submission of a final Design to Sydney Water, obtain the affected land owner's written agreement in principle to grant the easement/covenant to Sydney Water. (This should occur following contact with Sydney Water Property Services, to confirm the general terms and conditions which will apply.)
- (b) Be responsible for negotiating and finalising the acquisition of those easements on behalf of Sydney Water and to its requirements.
- (c) Be responsible for all associated matters and costs including the payment of compensation to the affected land owner(s) in accordance with the provisions of the Land Acquisition (Just Terms Compensation) Act 1991.

The **Developer** or **Agent** must contact Sydney Water Property Services email:

acquisitions@sydneywater.com.au to obtain detailed requirements in respect of easements/covenants for these Works, for incorporation in the plan of subdivision/other action and associated documentation and to ensure the creation/grant of the easements occur prior to or concurrently with the formal dedication and/or vesting of any of the affected lands for any future purpose.

1.5.2.3 Survey definition of Sydney Water works/easements

Sydney Water easements must be defined by survey in relation to the as-laid positions of the subject works. This includes the definition of separate easements where any part of the works that are above the surface of the ground (e.g., aqueducts, syphons, ventshafts etc.).

The **Developer** or **Agent** must therefore:

- (a) Arrange to establish by survey the location of the centreline of any new Sydney Water Works requiring an easement and to carry out that survey during the construction process, prior to backfilling of the trenches, for the purposes of ultimately defining the location of the associated easement.
- (b) In the case of **existing Sydney Water Works** ('existing works') requiring easements and where a prior survey of the easement has not been carried out, liaise with the nominated Sydney Water Operational Personnel who will locate the existing works in the field to enable the Developer's surveyor to define its position.
- (c) Verify the accuracy of any easement survey by illustrating the centreline of the Works/existing works on two marked up copies of the plan of subdivision/easement. The plan is to be certified by the registered surveyor and must include sufficient survey information to confirm the relationship of the easement boundaries to the Works/existing works, all in accordance with Sydney Water Property Services requirements.
- (d) The Developer or Agent must ensure that all survey work satisfies the following requirements:
 - (i) in all cases, the survey definition of the Works/existing work, is to establish such survey information, that is necessary to accurately fix the position of the Works/existing works (including all major deflections and bends) so as to allow precise determination of the boundaries of the easement, to the offset specified from the Works/existing works. 'Cuts' are to be calculated/ determined where the easement crosses property boundaries;

- (ii) in the case of minor deflections, the centreline may be defined by a 'line of best fit' provided that the material of the Works/existing works is represented by the centreline defined;
- (iii) sufficient offsets with connections must be established, to verify on the 'certified copies', that the required relationship (minimum clearance) of the easement boundary to the Works/existing works has been satisfied, at the start and end of the pipe and at every change in its direction.

1.5.2.4 Request for surrender of Sydney Water easement

Where the **Developer** has requested the surrender of an existing Sydney Water easement ('the existing easement') located within the subject development and Sydney Water has determined that the existing easement is no longer required for its present or future needs, the existing easement will not be surrendered until:

- (a) All Sydney Water requirements for the disuse/removal of any existing works have been satisfied.
- (b) The Developer has accepted ownership of any such disused existing works.
- (c) Plans and documents to affect the surrender have been prepared and duly processed by the Developer at its cost, to Sydney Water Property Services requirements.
- (d) A new easement has been created by the Developer (at no cost to Sydney Water) if alternate works are needed that require protection of an easement.
- (e) The Developer has paid to Sydney Water the consideration it determines appropriate for the surrender of the existing easement by Sydney Water.
- (f) The Developer has paid all other costs associated with the matter including Sydney Water's final administration, valuation, registration and legal costs.

1.5.2.5 Issue of Section 73 compliance certificate

With respect to Sydney Water's easement/covenant requirements, a compliance certificate for the subject proposed development will not be issued by Sydney Water until a Clearance Certificate is signed off by Sydney Water Property Services. To obtain that Clearance Certificate, the following requirements must have been satisfied:

- (a) Plans and documentation defining Sydney Water easement/covenant requirements have been approved by Sydney Water Property Services.
- (b) Any easements/covenants required by Sydney Water within lands adjoining the development and not owned by the Developer have been transferred to/created in favour of Sydney Water to its satisfaction.
- (c) Sydney Water Property Services' costs associated with any easement/covenant requirement have been met.
- (d) A Property Security Deposit as required has been lodged with Sydney Water.

1.6 How to progress Sydney Water initiated easement actions

1.6.1 General

Where Sydney Water initiates the construction of Works (new works, amplifications, deviations etc.) that require the protection of easements/covenants under the requirements of these Guidelines, details of the job-specific easement/covenant requirements **must** be forwarded to Sydney Water Property Services (in a timely manner) who will initiate appropriate action to acquire the interests for Sydney Water. Property Services coordinates and manages the whole acquisition process including the surveying of the property interests, Real Property plan preparation, valuation and if necessary negotiation with the affected land owner, and conveyancing action to register the interest on title to the land.

The Sydney Water Project Manager responsible for the provision of the new works and the Designer engaged to design the works, have various responsibilities as follows in respect of easement action:

1.6.2 Project Manager

The Sydney Water Project Manager must:

- (a) Consider whether the work to be carried out will require the provision of associated easements/covenants under these Guidelines (refer Section 1.3).

Where requirements are identified, **contact must be made at the preliminary investigation stage** with Sydney Water Property Services ([email: acquisitions@sydneywater.com.au](mailto:acquisitions@sydneywater.com.au)) to establish likely time frames for the acquisition of property interests and to assess any potential difficulties caused by the status of the land, so that the **acquisition process can be factored into critical time frames** in the Management Control Plan for the new Works.

- (b) Ensure that the initial discussion/negotiation with land owners regarding design/impact of the proposed works also includes general advice to the owner of the need for the acquisition of associated easements/covenants over their land.
- (c) Once a viable design concept is established, provide to the Designer any special easement requirements set by the Client so that they can be factored into the Design.
- (d) On completion of the Design, ensure the Designer includes the relevant 'Easement Requirement Form' as appended to these Guidelines, for approval by the appropriate area of Sydney Water that will be responsible for the Works.
- (e) Complete a Sydney Water Easement Requirements Form and forward it with all required attachments to Sydney Water Property Services so ensuring Property Services has specific directions and can commence the required property action.
- (f) Ensure all underground works are surveyed before trenches are backfilled to enable associated easements to be accurately defined in relation to the actual location of the works.

Note: It is the Project Manager's responsibility, to ensure that there is appropriate arrangements with Sydney Water Property Services to enable them to co-ordinate the appropriate survey work with construction.

1.6.3 Designer

The **Designer** engaged on the project must:

- (a) Act on any instructions provided regarding the need for easements/covenants and/or identify the need for such interests as per the requirements of these Guidelines.
- (b) Complete and submit the 'Easement Requirement Form' with the completed Design, for approval by the Client.

1.7 Operational requirements for incorporation into easements

The requirements and conditions set out in Sections 2 to 5 following are appropriate in most circumstances and should only be varied where special circumstances exist.

- Refer to Section 2 for detail on Water Mains.
- Refer to Section 3 for detail on Sewer Mains.
- Refer to Section 4 for detail on Stormwater Works.
- Refer to Section 5 for detail on Miscellaneous Works

2. Water Mains

2.1 Types of easements

The three common types of easements which Sydney Water acquires over water mains are:

- (a) Easements for below ground works;
- (b) Easements for above ground works (e.g. aqueducts, syphons etc.); and
- (c) Easements within Community Title Subdivisions and/or Conventional Subdivisions with Private Access ways.

The normal requirements and conditions relevant to the easement types are described below. There are, however, other situations in which easements are acquired over water mains for which all the requirements and conditions outlined may not be appropriate or where it may be necessary to include additional or different conditions (an example is the acquisition of an easement over a water main which was originally laid in a public roadway but where the roadway has now been closed and the land transferred to private ownership). The appropriate easement conditions for those situations need to be determined by Sydney Water taking into account the particular circumstances.

2.2 Easements for below ground/above ground works

An Easement both for below ground and above ground works is one where typically Sydney Water requires that a pipeline be laid through private property to allow services to be provided to other areas. The burdened property is not connected to the pipeline and other property service connections are not normally permitted. There is normally no need for the provision of drainage facilities within the easement to cater for water from the main as a result of operations and maintenance activities. However, where drainage facilities such as scour lines are required, it is the responsibility of Sydney Water to make appropriate arrangements.

2.2.1 Easement width

The minimum easement widths for pipelines of various diameters are given in Supplementary Information 1. The pipeline should be laid in the centre of the easement in private property and offset as shown in Figure 2.1, in parks and reserves. The easement width may need to be increased locally to allow for such things as valve chambers, scour lines, pipeline supports (above ground works), drainage requirements and restricted access. In the case of drainage, scour and overflow lines, the easement should extend to include the last structure or pipe on the line. In locating water mains, consideration should be given to ensuring that the easement does not incorporate existing privately-owned structures on the property.

The calculation of minimum easement widths for below ground works in Supplementary Information 1 is based on the minimum requirements for water mains laid at standard depths in private property, to take into account the likely zone of influence around the pipe at an angle of 45° from either side of the outside of the pipe (see Figure 2.1). For most pipe sizes, the minimum easement width is equivalent to the calculated zone of influence which is rounded up to the nearest 0.5m. However, for pipe sizes DN 250 and smaller, a minimum width greater than the calculated zone of influence has been adopted to allow for minimum access requirements. A number of worked examples are given in Table 2.1.

Note: Refer to Supplementary Information 1 for minimum easement widths and Supplementary Information 2 and 3 for typical layouts.

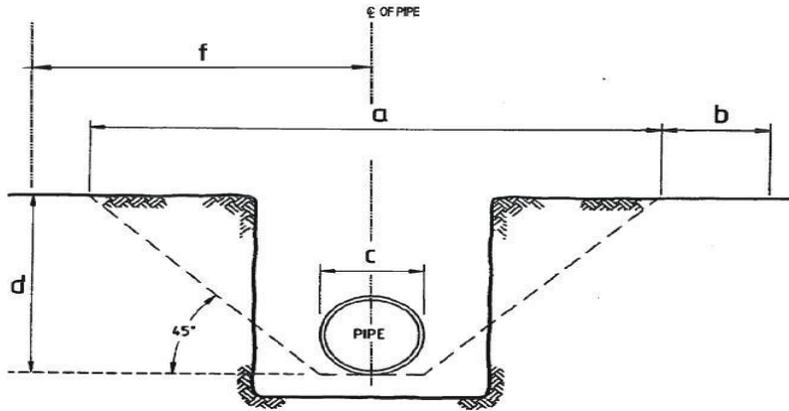


Figure 2.1 –

Key:

- (a) *Minimum easement width*
- (b) *Addition width in open land, parks and reserves*
- (c) *Outside diameter of pipe*
- (d) *Standard pipe depth in footway*
- (e) *Calculated width of zone of influence*

MinimumTable 2.1

Calculation of Minimum Easement Widths

| Pipe Size (DN) | c (m) | d (m) | e (2xd)+c (m) | a* (m) | b (m) |
|----------------|-------|-------|---------------|--------|-------|
| 100 | 0.122 | 0.625 | 1.37* | 2.5 | 0.5 |
| 250 | 0.286 | 0.925 | 2.13* | 3.0 | 0 |
| 750 | 0.830 | 1.570 | 3.97 | 4.0 | 2.0 |
| 1200 | 1.283 | 2.060 | 5.4 | 5.5 | 2.5 |

* For pipe sizes DN 250 and smaller, 'a' is greater than 'e' to allow for minimum access requirements.

Notwithstanding the foregoing, in determining the required easement width for any water main, a risk assessment shall be conducted in accordance with requirements set out in the Water Supply Code of Australia (Sydney Water Edition).

The extent of the easement required is to be shown on the water main design plan and the width estimated (subject to final survey).

When the plan is submitted to Sydney Water, it must be accompanied by a completed Easement Requirement.

2.2.2 Easement conditions

The following easement conditions are included in all Sydney Water Standard Easement Memoranda unless they are considered inappropriate by Sydney Water in special circumstances. In this document the conditions are written in plain English and ARE NOT intended for direct inclusion in easement documents without alteration to include appropriate legal wording. The conditions cover Sydney Water's rights and responsibilities and restrictions and obligations on the land owner to satisfy operational requirements.

2.2.2.1 Sydney Water rights and responsibilities

To reinforce relevant aspects of Sydney Water's statutory powers and to formalise other requirements, the following rights and responsibilities of Sydney Water are specified in easement documents:

- (a) the right to lay, construct, operate, maintain, inspect, replace and renew water supply works located within the easement at or below, but not above, the surface of the land for underground works and at, or above, the surface of the land for above ground works;
- (b) the right of support of Sydney Water's works within the easement;
- (c) the right to enter the easement with personnel, vehicles and plant 24 hours a day for the above purposes. Where security gates (or other form of restricted access) are installed, a means of entry acceptable to Sydney Water must be provided;
- (d) Sydney Water to be responsible for reasonable restoration to any area damaged as a result of Sydney Water's works, except as set out in Section 2.2.2.2(c) and (e); and
- (e) the right to drain water across the property and through existing pipes or replacement substitute pipes or through any other available drainage system, where appropriate. (This may involve more than one easement.)

2.2.2.2 Restrictions and obligations on the land owner

To reinforce relevant aspects of the statutory covenant in favor of Sydney Water and to formalise other requirements for the protection of works, the following restrictions and obligations are specified in easement documents:

- (a) The landowner **must not** do or allow to be done within the easement, any of the following:
 - (i) erect, construct or place any building, structure, retaining walls and/or fences (with the exception of boundary fences with removable panels which can be readily dismantled). Sydney Water shall not bear any responsibility for damage to any of the above which are constructed or placed within the easement in contravention of this clause, whatever the cause;
 - (ii) damage or interfere with any part of the pipeline or works;
 - (iii) cover, obscure or obstruct any surface fitting; or
 - (iv) permit the land to be used in any way that would restrict or prevent Sydney Water or its agents from gaining access to the works at any time for any reasonable purposes.

exception of boundary fences with removable panels which can be readily dismantled). Sydney Water shall not bear any responsibility for damage to any of the above which are constructed or placed within the easement in contravention of this clause, whatever the cause;

- (v) damage or interfere with any part of the pipeline or works;
 - (vi) cover, obscure or obstruct any surface fitting; or
 - (vii) permit the land to be used in any way that would restrict or prevent Sydney Water or its agents from gaining access to the works at any time for any reasonable purposes.
- (b) The land owner **must not** do or allow to be done any of the following without prior written approval from Sydney Water and then only in strict compliance with such conditions as Sydney Water may impose:
- (i) make any alterations to surface levels of the land within the easement;
 - (ii) place any pavement, including concrete or paved driveways and footpaths on the land within the easement;
 - (iii) stack or place any material or obstruction including without limitation timber, rubbish, fuel and building material;
 - (iv) plant any trees or shrubs or carry out any landscaping works;
 - (v) park any vehicle or item of plant which cannot readily and easily be removed; or
 - (vi) install or lay any service, pipe, conduit, cable or similar.
- (c) Where Sydney Water has given approval in relation to any of the items in (b) above:
- (i) the land owner will bear all responsibility for any damage to Sydney Water's works as a result of the matters approved; and
 - (ii) Sydney Water will not be held liable for damage to any approved structures or property located within the easement.
 - (iii) With respect to Sections 2.2.2.2(c) (i) and (ii), an indemnity in the form of a covenant registered on title is required to bind present and future owners of the property.
- (d) No modifications or renewals shall be made to any building or structure located within the easement, notwithstanding that the building or structure may have existed prior to the easement being acquired.
- (e) Where any building, structure or other property which would normally require Sydney Water's approval has been constructed, placed, modified or renewed within the easement area prior to the easement being acquired by Sydney Water and subsequent to the works being taken over by Sydney Water, the owner of the land **will** bear full responsibility for that building, structure or other property and any damage to it, whatever the cause.

2.3 Easements within community title subdivisions and conventional subdivisions with private access ways

2.3.1 Introduction

Community Title Subdivisions differ from conventional subdivisions of land in that they allow for the creation of common private property which is administered by an association or associations representing the landowners. The internal roads can be part of the common property and therefore would not be public roads. This form of subdivision provides a mechanism for the development of medium density housing and planned communities and may be developed in stages.

Conventional Subdivisions with Private Access ways include typical 'battle axe' arrangements which do not have public road access to all lots. Access is provided by means of a private road constructed either within commonly owned land or within the individual lots where all relevant lots have defined rights of access.

In both the above types of subdivision the owner or Developer may elect to provide a water supply system which will be owned and operated by Sydney Water. Such is typical of the normal subdivision process except that in many of those cases the water main will be laid in private property (the roadways in most circumstances will also be private property).

Note: In some situations, the subdivision may physically resemble a conventional subdivision with public roads, although the housing blocks may be smaller than normal. In other circumstances the Developer may elect to have a private water service in which case Sydney Water would not be responsible for operations and maintenance and no easement is required.

The usual property service connections are normally permitted in these subdivisions and other services may be in close proximity. Adequate drainage is required to dispose of water resulting from normal operations and maintenance activities.

In these subdivisions, water mains which are owned and operated by Sydney Water and laid in private property will be required to be within an easement.

In these circumstances Sydney Water's easement may be wider than normally required and would encompass the road and relevant drainage works as detailed more fully in Section 2.3.4.

2.3.2 General requirements for laying water mains

The following requirements apply generally to water mains not exceeding size DN 375, laid in subdivisions where Sydney Water owns and maintains the water main. The requirements for larger size water mains will need to be considered on an individual basis. In addition to any requirements shown below, all water mains must be laid in accordance with the Standard Drawings and Water Mains Design Manual.

(a) Location of water main

All water mains will:

- (i) be laid adjacent to a roadway or access way but not within the sealed roadway, except where the main crosses a road (**Note:** roadways which will form the access way to be used by Sydney Water for maintenance purposes and are to be incorporated in the easement must be constructed of a suitable all weather surface material to Council requirements and have a minimum width of 2.5 metres);
- (ii) be located off the roadway behind the kerb and gutter with a minimum clear horizontal spacing of 300 mm between the back of the kerb and the outside wall of the pipe (where no formed concrete kerb and gutter exists or is proposed, the main shall be laid off the roadway behind the gutter or drain line); and

- (iii) where the ground is sloping, be laid on the higher side of the road where this will facilitate drainage in the event of a main break or for maintenance purposes.

(b) Location of other services

Other Services include all below ground electrical, telecommunications, gas, water and waste water pipes, conduits, cables, ducts etc.

- (i) **OPTION 1** The water main shall be laid on the opposite side of the road or access way to all other below ground services laid or intended to be laid parallel to the water main (refer to Supplementary Information 4).
- (ii) **OPTION 2** Where **OPTION 1** is not practicable in relation to all services and where Sydney Water agrees, the water main may be located on the opposite side of the road to below ground *electrical* services laid or intended to be laid parallel to the water main. In respect of the other services, there shall be a minimum horizontal clear spacing between the outer surfaces of all other services and the water main of 600 mm unless the service is suitably marked with bricks or warning tape, in which case the spacing can be reduced to a minimum of 300 mm for DN 100 to DN 200 water mains and to 450 mm for DN 250 to DN 375 (refer to Supplementary Information 5).
- (iii) **OPTION 3** Where neither **OPTION 1** nor **OPTION 2** above is practicable and where Sydney Water agrees, the water main may be located on the same side of the road as other parallel services provided that:
- below ground electrical services are the furthest service away from the water main with a minimum horizontal clear spacing of 1000 mm from the outside of the water main and such services are suitably marked with bricks or warning tape; and
 - below ground services laid parallel to the water main, other than electrical services, have a minimum clear horizontal spacing between the outer surface of the service and the water main of 600 mm, unless such services are suitably marked with bricks or warning tape, in which case the spacing can be reduced to a minimum of 300 mm for DN 100 to DN 200 water mains and to 450 mm for DN 250 to DN 375 (refer to Supplementary Information 6).
- (iv) where any below ground services cross over the top of, or beneath, the water main, the minimum clear vertical spacing between the service and the outside of the water main shall be 150 mm, (except in the case of electrical services where the minimum clearance shall be 225 mm) and the service shall cross at an angle not less than 45 degrees and shall be suitably marked with bricks or warning tape;
- (v) no services shall be laid parallel to and directly beneath or above the water main;
- (vi) all below ground services within the clear working area (as defined in Section 2.3.5) must be clearly marked with permanent visible markers;
- (vii) notwithstanding any other requirements relating to other services, no services shall be laid that would or could compromise the integrity of Sydney Water's works.

(c) Drainage

A drainage system, which is suitable for the receipt and conveyance of the contents of the water main resulting from the operation or maintenance of the water main or in the event of a main break or leak, shall be provided and maintained by the Developer/land owner (**Note:** in normal circumstances, the stormwater drainage system provided to meet Council requirements should be adequate).

2.3.3 Easement width

For water mains laid in accordance with Section 2.3.2, the *Overall Easement* must embrace the Clear Working Area and extend on either side of that area, as appropriate; to include the formed roadway and relevant drainage works adjacent to the roadway. In determining the required easement width for any water main, a risk assessment shall be conducted in accordance with requirements set out in the Water Supply Code of Australia (Sydney Water Edition).

Easement widths may need to be increased locally to allow for such things as valve chambers, scour installations and drainage requirements. In the case of drainage or scour lines, the easement should extend to include the last structure or pipe on the drainage line.

In some circumstances, the easement may need to include a vehicle turning bay (where provided to satisfy Council requirements) to allow for maintenance trucks e.g. at the end of a narrow access way leading to private property.

The extent of the easement required is to be shown on the water main design plans and the width estimated (subject to final survey).

2.3.4 Clear Working Area

As outlined, within the overall easement there will be another easement specifically for the 'Clear Working Area' for which additional and more stringent conditions apply. The remaining area outside the clear working area, but still within the overall easement, includes access and drainage requirements and most of the restrictions applying to the 'Clear Working Area' are not appropriate. The 'Clear Working Area' easement should be at least as wide as the appropriate minimum easement width (as specified in Supplementary Information 1 for private property) with the water main laid centrally where practicable. For a DN 100 main this would mean a minimum Clear Working Area 2.5 m wide centred over the water main. This easement is also to be shown diagrammatically on the water main design plan. When the plan is submitted to Sydney Water, it must be accompanied by a completed Easement Requirement Form.

2.3.5 Easement Conditions

The following easement conditions are included in all Sydney Water Standard Easement Memorandum unless they are considered inappropriate by Sydney Water in special circumstances. **In this document, the conditions are written in plain English and ARE NOT intended for direct inclusion in easement documents without alteration to include appropriate legal wording.** The conditions cover Sydney Water's rights and responsibilities and restrictions and obligations on the land owner to satisfy operational requirements.

2.3.5.1 Sydney Water Rights and responsibilities

To reinforce relevant aspects of Sydney Water's statutory powers and to formalise other requirements, the following rights and responsibilities of Sydney Water are specified in easement documents:

- (a) The right to lay, construct, operate, maintain, inspect, replace and renew water supply works located within the easement;
- (b) The right to discharge and drain water resulting from cleaning and disinfection of the water main or any other activity or occurrence, into the storm water system within the easement and/or surrounding land;
- (c) The right of support of Sydney Water's works within the easement;
- (d) The right to enter the easement with personnel, vehicles and plant 24 hours a day for the above purposes. Where security gates (or other form of restricted access) are installed, a means of entry acceptable to Sydney Water must be provided;

- (e) Following any operation or maintenance activities by Sydney Water within the easement, Sydney Water will be responsible for making the surface safe and for reasonable restoration to the affected area. Sydney Water will make permanent restoration or pay the reasonable cost of restoration to a standard no exceeding that of the relevant Council as applied in a public roadway, for the pre-existing type of surface or pavement;
- (f) Sydney Water will not bear the risk and responsibility nor be liable for any damage or injury to persons or property (real or personal) resulting from any leak or break in, or escape of substances from, the water main, unless Sydney Water has been negligent; and
- (g) Sydney Water will not bear the risk and responsibility nor be liable for any damage to any private services (i.e. those services which are the responsibility of a land owner or land owner's association) laid within the clear working area.

2.3.5.2 Restrictions and obligations on the land owner

To reinforce relevant aspects of the statutory covenant in favor of Sydney Water and to formalise other requirements for the protection of works, the following restrictions and obligations are specified in easement documents:

- (a) *Within the Clear Working Area*, the land owner **must not** do or allow to be done any of the following:
 - (i) erect, construct or place any building, structure, retaining walls and/or fences (with the exception of boundary fences with removable panels which can be readily dismantled). Sydney Water shall not bear any responsibility for damage to any of the above which are constructed or placed within the easement in contravention of this clause, whatever the cause;
 - (ii) carry out any landscaping works except for landscaping of a minor nature which would not affect Sydney Water's rights, or plant any trees or shrubs except where trees or shrubs are at a minimum spacing of 3 m along the length of the water main and are not planted directly over the water main and do not obscure any hydrant or surface fitting or cause damage to any part of the water main;
 - (iii) use the land in any way that would restrict or prevent Sydney Water or its agents from gaining access to the works at any time for any purposes or rights specified in the easement terms.
 - (iv) damage or interfere with any part of the pipeline or works; or
 - (v) cover, obscure or obstruct any surface fitting.
- (b) *Within the Overall Easement* to ensure there will be no adverse effect on Sydney Water's ability to operate and maintain its works, the land owner **must not** subject to
 - (a) (i) erect, construct, place, modify or renew or allow to be erected, constructed, placed, modified or renewed any building or structure without prior written approval from Sydney Water and then only in strict compliance with such conditions as Sydney Water may impose.
- (c) *Within the Clear Working Area*, the land owner **must not** do or allow to be done any of the following without prior written approval from Sydney Water and then only in strict compliance with the conditions listed below or with such conditions as Sydney Water may impose in the future:
 - (i) make any alterations to surface levels;
 - (ii) place any pavement, including concrete, paved and bitumen roadways or driveways and footpaths except as follows:
 - roadways or access ways to be adjacent to but not over the water main (with a minimum clear spacing of 300 mm between the back of the kerb and the outside of the water main) and where the water main crosses the roadway.

- driveways for property access crossing over the water main to be generally at right angles to the water main
- (iii) stack or place any material or obstruction including, without limitation timber, rubbish, fuel and building material;
- (iv) park any vehicle or item of plant which cannot readily and easily be removed;
- (v) install or lay any private service, pipe, conduit, cable or similar (**Note:** private services refers to all below ground electrical, telecommunications, gas, water, wastewater and stormwater pipes, conduits, cables, ducts etc.). Where approval is given by Sydney Water for the installation of private services, such installations must comply with the requirements set out below:
- below-ground electrical services laid parallel to the water main shall have a minimum horizontal clear spacing between the outer surfaces of the service and the water main of 1000 mm and shall be suitably marked with bricks or warning tape;
 - below-ground services laid parallel to the water main, other than electrical services, shall have a minimum clear horizontal spacing between the outer surface of the service and the water main of 600 mm unless the services are suitably marked with bricks or warning tape, in which case the spacing can be reduced to a minimum of 300 mm for DN 100 to DN 200 water mains and to 450 mm for DN 250 to DN 375 (refer to Supplementary Information 6).
 - except in the case of electrical services where the minimum vertical clearance shall be 225 mm, below-ground services crossing over the top of, or beneath, the water main shall have a minimum vertical clearance between the service and the outside of the water main of 150 mm and the service shall cross at an angle not less than 45 degrees and shall be suitably marked with bricks or warning tape;
 - services shall not be laid directly beneath or above the water main and parallel to the water main;
 - all below-ground services shall be clearly marked above ground with permanent visible markers.
- (d) Where Sydney Water has given approval in relation to any of the items listed in Section 2.3.6.2 (b) and (c), the land owner **will**:
- (i) bear all responsibility for any damage to Sydney Water's works as a result of the matters approved; and
 - (ii) bear all responsibility for any damage to any approved items or property located within the easement, notwithstanding that prior approval had been obtained;
 - (iii) with respect to Sections 2.3.6.2 (d) (i) and (ii) an indemnity in the form of a covenant registered on title is required to bind present and future owners of the property.
- (e) In addition to the above the land owner **will**:
- (i) make no modifications or renewals to any building or structure located within the clear working area, notwithstanding that the building or structure may have existed prior to the easement being acquired;
 - (ii) bear full responsibility for any damage, whatever the cause, to any building, structure or other property which would normally require Sydney Water's approval, which is erected, constructed, placed, modified or renewed within the overall easement (including the Clear Working Area) prior to the easement being acquired;
 - (iii) provide and maintain an all-weather vehicular access way to Council standards, adjacent to but not over the water main (except where the water main crosses the access way);

- (iv) not permit the land to be used in any way that would restrict or prevent Sydney Water or its agents from gaining access to the works at any time for any reasonable purpose or right set out in the easement;
- (v) provide and maintain a suitable drainage system for the receipt and conveyance of the contents of the watermain resulting from the operation or maintenance of the water main or in the event of a main break or leak. The drainage system must be wholly within the subdivision and, subject to any environmental constraints, drain directly to either:
 - a Council stormwater system; or
 - a water course in an adjacent public reserve or Crown reserve.

The Developer is to provide easement rights for Sydney Water to make use of the private drainage system within the subdivision.

- (vi) bear all risk and responsibility for damage to any building, structure, service, fencing, landscaping or installation within the easement contrary to the easement conditions;
- (vii) bear all risk and responsibility for damage to the water main caused by the owner or the owner's agents except in the case of negligence by Sydney Water or where the damage caused was beyond the reasonable control of the owner;
- (viii) give Sydney Water at least 48 hours written notice of an intention to install any below-ground service within the 'Clear Working Area' together with plans indicating the size, type and location of the services and ensure that suitable permanent markers are provided and maintained to clearly identify the location, type and depth of services;
- (ix) acknowledge that the granting of permission by Sydney Water to lay services within the 'Clear Working Area' does not diminish Sydney Water's rights granted to it; and
- (x) bear all reasonable costs (including legal costs) incurred by Sydney Water resulting from one or more breaches by the owner of any clause in the easement.

3. Sewer Mains

3.1 Categories of sewer mains affected

There are two main categories of Sydney Water owned sewer mains that require easements, as set out in Section 1.3:

(a) Gravity Sewer Mains

These sewers rely on gravity to transport sewage from a location at a higher elevation to one at a lower elevation. These sewers are not normally pressurised although they can be under some circumstances. They include maintenance and other structures and fittings associated with the sewer main. Gravity sewers are laid at various depths depending on the conditions, generally between 1.0 and 1.5 m deep but may be much deeper.

- (i) **Sewer mains equal to or smaller than DN 600:** Easements **are not** required except in special circumstances determined by Sydney Water.
- (ii) **Sewer mains greater than 600 mm in diameter (not equal to or less than):** Easements **are** required wherever the main is to be located anywhere other than in a dedicated public road or pathway, riparian corridors, except in special circumstances determined by Sydney Water.
 - Where a ventshaft is connected to the sewer main the easement may be extended to incorporate the ventline and ventshaft. However, where a large diameter ventshaft is proposed or the location is in a sensitive area, acquisition of the land on which the ventshaft is located needs to be considered. The land and/or easement requirements for ventshafts shall be determined by Sydney Water on an individual basis depending on the circumstances.

- Where an overflow is connected to the sewer main, the easement does not need to incorporate the overflow unless the overflow is greater than 600 mm in diameter (not equal to or less than. Special provisions for the outlet/retention structure need to be determined on an individual basis.
 - Where another sewer main is to be connected to the main, the easement does not need to incorporate that main unless it is greater than DN.
 - All maintenance structures on the sewer main shall be incorporated into the easement.
- (iii) The easement requirements for aqueducts and other above ground structures will be determined by Sydney Water on an individual basis depending on the circumstances.
- (iv) Easements are **not** required for sewer tunnels, micro tunnels or boreholes, however, an easement may be required to provide clear surface access to such structures.

The easement requirements will be determined by Sydney Water on an individual basis depending on the circumstances. Where there is potential for development to impact on the integrity of the tunnel, micro tunnel or borehole consideration should be given to controlling and/or limiting the development by means of an easement or restrictive covenant on title.

(b) Rising Mains (Pressure Mains)

These sewers are pressurised by pumping. Rising mains are usually of the same pipe materials and laid at similar depths to water mains, although the internal pressure is often lower than that in many water mains.

Easements **are** required for all sewer rising mains located anywhere other than in a dedicated public road or pathway or at a depth greater than 9metres.

3.2 Gravity sewer mains easement

The easement requirements for gravity sewer mains which are greater than DN 600 and larger are as follows:

3.2.1 Easement width

The width of the easement required depends on a number of factors, including the size of the sewer main, its depth and the type of strata in which it is laid and any other support requirements (aqueducts etc.). Sydney Water will make the determination on the width of the easement required in each instance. A minimum easement width of 3 m is normally required, with the sewer main laid centrally.

3.2.2 Easement conditions

The following conditions are included in all Sydney Water Standard Easement Memoranda unless they are specifically varied, in special circumstances, by Sydney Water. In this document, the conditions are written in plain English and ARE NOT intended for direct inclusion in easement documents without alteration to include appropriate legal wording. The conditions cover Sydney Water's rights and

responsibilities and the restrictions and obligations on the land owner that are necessary to satisfy operational requirements. For the purposes of this document, 'works' includes sewer mains and associated structures and fittings.

3.2.2.1 Sydney Water's rights and responsibilities

To reinforce relevant aspects of Sydney Water's statutory powers and to formalise other requirements, the following rights and responsibilities of Sydney Water are specified in easement documents:

- (a) The right to lay, construct, operate, maintain, inspect, replace, repair and renew Sydney Water's works within the easement at or below, but not above, the surface of the land for underground works and at, or above, the surface of the land for above ground works;
- (b) The right of support of Sydney Water's works within the easement;
- (c) The right to enter the easement with personnel, vehicles and equipment 24 hours a day for the purposes set out in (a) and (b) above. Where security gates (or other forms of restricted access) are installed, a means of entry acceptable to Sydney Water shall be provided;
- (d) Sydney Water shall do as little damage as practicable and will compensate all persons who suffer damage, in accordance with the requirements of the Sydney Water Act 1994, Section 41, except as set out in Sections 3.2.2.2 (c) and (d) hereof.

3.2.2.2 Restrictions and obligations on the land owner

To reinforce relevant aspects of the statutory covenant in favour of Sydney Water and to formalise other requirements for the protection of works, the following restrictions and obligations are specified in easement documents:

- (a) The land owner **must not** do, nor allow to be done within the easement, any of the following:
 - (i) damage or interfere with any part of the works;
 - (ii) cover, obscure or obstruct any surface fitting; or
 - (iii) permit the land to be used in any way that would restrict or prevent Sydney Water or its agents from gaining access to the works with personnel and equipment, for any reasonable purpose.
- (b) The land owner **must not** do, nor allow to be done within the easement, any of the following, except **where expressly approved in writing by Sydney Water** as a result of an application for 'Building over Sewers' or other purpose, and then only in strict compliance with such conditions as Sydney Water may impose [refer Section 3.4(c)]:
 - (i) erect, construct, place, modify or renew any building, structure, retaining wall or fence (with the exception of boundary fences with removable panels that can be readily dismantled);
 - (ii) make any alterations to the surface levels of the land within the easement;
 - (iii) place any pavement, including concrete or paved driveways and footpaths on the land within the easement;
 - (iv) stack or place any material or obstruction including, without limitation, timber, rubbish, explosives, fuel and building materials;
 - (v) plant any trees or shrubs or carry out any landscaping works; park any vehicle or item of plant which cannot readily and easily be removed; or
 - (vii) install or lay any service pipe, conduit or similar.
- (c) Where Sydney Water has given approval in relation to any of the items in (b) above:
 - (i) the land owner shall bear all responsibility for any damage to Sydney Water's works as a result of the matters approved; and
 - (ii) Sydney Water will not be held liable for damage to any approved structures or property located within the easement;
 - (iii) With respect to Sections 3.2.2.2 (c) (i) and (ii) an indemnity in the form of a covenant registered on title is required to bind present and future owners of the property.
- (d) Where any building, structure or other property which would normally require Sydney Water's approval, has been constructed, placed, modified or renewed within the easement area prior to the easement being acquired by Sydney Water and subsequent to the works being taken over by

Sydney Water, the owner of the land **will** bear full responsibility for that building, structure and other property and any damage to it, whatever the cause.

3.3 Sewer rising mains easement

The easement requirements for sewer rising mains are as follows:

3.3.1 Easement width

The easement widths required for sewer rising mains are normally the same as those for the corresponding size water mains (refer to Section 2.2.1).

3.3.2 Easement conditions

The following easement conditions are included in all Sydney Water Standard Easement Memoranda unless they are considered inappropriate by Sydney Water in special circumstances. **In this document the conditions are written in plain English and ARE NOT intended for direct inclusion in easement documents without alteration to include appropriate legal wording.** The conditions cover Sydney Water's rights and responsibilities and restrictions and obligations on the land owner to satisfy operational requirements. For the purposes of this document, '**works**' includes sewer rising mains and associated structures and fittings.

3.3.2.1 Sydney Water's rights and responsibilities

To reinforce relevant aspects of Sydney Water's statutory powers and to formalise other requirements, the following rights and responsibilities of Sydney Water are specified in easement documents:

- (a) The right to lay, construct, operate, maintain, inspect, replace, repair and renew Sydney Water's works within the easement at or below, but not above, the surface of the land for underground works and at, or above, the surface of the land for above ground works;
- (b) The right of support of Sydney Water's works within the easement;
- (c) The right to enter the easement with personnel, vehicles and equipment 24 hours a day for the purposes set out in (a) and (b) above. Where security gates (or other forms of restricted access) are installed, a means of entry acceptable to Sydney Water shall be provided;
- (d) Sydney Water shall do as little damage as practicable and will compensate all persons who suffer damage, in accordance with the requirements of the Sydney Water Act 1994, Section 41, except as set out in Sections 3.2.2.2 (c) and (d) hereof.

3.3.2.2 Restrictions and obligations on the land owner

To reinforce relevant aspects of the statutory covenant in favour of Sydney Water and to formalise other requirements for the protection of works, the following restrictions and obligations are specified in easement documents:

- (a) The land owner **must not** do, nor allow to be done within the easement, any of the following:
 - (i) erect, construct, place, modify or renew any building, structure, retaining wall or fence (with the exception of boundary fences with removable panels that can be readily dismantled);
 - (ii) damage or interfere with any part of the works;
 - (iii) cover, obscure or obstruct any surface fitting; or
 - (iv) permit the land to be used in any way that would restrict or prevent Sydney Water or its agents from gaining access to the works with personnel and equipment, for any reasonable purpose.
- (b) The land owner **must not** do, nor allow to be done within the easement, any of the following, except **where expressly approved in writing by Sydney Water** as a result of an application for

'Building over Sewers' or other purpose, and then only in strict compliance with such conditions as Sydney Water may impose [refer Section 3.4(c)]:

- (i) erect, construct, place, modify or renew any building, structure, retaining wall or fence (with the exception of boundary fences with removable panels that can be readily dismantled);
 - (ii) make any alterations to the surface levels of the land within the easement;
 - (iii) place any pavement, including concrete or paved driveways and footpaths on the land within the easement;
 - (iv) stack or place any material or obstruction including, without limitation, timber, rubbish, explosives, fuel and building materials;
 - (v) plant any trees or shrubs or carry out any landscaping works;
 - (vi) park any vehicle or item of plant which cannot readily and easily be removed; or
 - (vii) install or lay any service pipe, conduit or similar.
- (c) Where Sydney Water has given approval in relation to any of the items in (b) above:
- (i) the land owner shall bear all responsibility for any damage to Sydney Water's works as a result of the matters approved; and
 - (ii) Sydney Water will not be held liable for damage to any approved structures or property located within the easement;
 - (iii) With respect to Sections 3.2.2.2 (c) (i) and (ii) an indemnity in the form of a covenant registered on title is required to bind present and future owners of the property.
- (d) No modifications or renewals shall be made to any building or structure located within the easement, notwithstanding that the building or structure may have existed prior to the easement being acquired.
- (e) Where any building, structure or other property which would normally require Sydney Water's approval has been constructed, placed, modified or renewed within the easement area prior to the easement being acquired by Sydney Water and subsequent to the works being taken over by Sydney Water, the owner of the land will bear full responsibility for that building, structure or other property and any damage to it, whatever the cause.

3.4 General notes

- (a) The Designer shall consult with Sydney Water to determine its easement requirements prior to finalising the sewer main design. 'Easement Requirement Form' shall be completed by the Designer and submitted to Sydney Water.
- (b) The Designer shall consult with affected land owners concerning the need for an easement and the likely easement conditions as soon as reasonably practicable.
- (c) The existence of an easement does not alter the land owner's obligation to comply with Sydney Water's requirements for building over or adjacent to sewers. Sydney Water has an established process in relation to applications for 'Building over Sewers' and where easements are required, the easement terms reinforce the land owner's obligations in this regard – refer Section 3.2.2.2 (b).

4. Stormwater Works

Designers should liaise with Sydney Water to determine specific easement requirements for individual works that fall within the category defined in Section 1.3 of these Guidelines.

In all cases, the final easement/covenant requirements should be incorporated into the design plan and a 'Easement Requirement Form' is to be completed and submitted to Sydney Water for approval.

4.1 Easement width

The width of the easement required depends on a number of factors, including the size of the stormwater works, its depth and the type of strata in which it is laid. Sydney Water will make the determination on the width of the easement required in each instance.

4.2 Easement conditions

The following easement conditions are included in all Sydney Water Standard Easement Memoranda unless they are considered inappropriate by Sydney Water in special circumstances. **In this document the conditions are written in plain English and ARE NOT intended for direct inclusion in easement documents without alteration to include appropriate legal wording.** The conditions cover Sydney Water's rights and responsibilities and restrictions and obligations on the land owner to satisfy operational requirements. For the purposes of this document, **'works'** includes stormwater works and associated structures and fittings.

4.2.1 Sydney Water rights and responsibilities

To reinforce relevant aspects of Sydney Water's statutory powers and to formalise other requirements, the following rights and responsibilities of Sydney Water are specified in easement documents:

- (a) The right to lay, construct, operate, maintain, inspect, replace, repair and renew Sydney Water's works within the easement at or below, but not above, the surface of the land for underground works and at, or above, the surface of the land for above ground works;
- (b) The right of support of Sydney Water's works within the easement;
- (c) The right to enter the easement with personnel, vehicles and equipment, 24 hours a day for the purposes set out in (a) and (b) above. Where security gates (or other forms of restricted access) are installed, a means of entry acceptable to Sydney Water shall be provided;
- (d) Sydney Water shall do as little damage as practicable and will compensate all persons who suffer damage, in accordance with the requirements of the Sydney Water Act, 1994, Section 41, except as set out in Sections 4.2.2 (c) and (d) hereof.

4.2.2 Restrictions and obligations on the land owner

To reinforce relevant aspects of the statutory covenant in favour of Sydney Water and to formalise other requirements for the protection of works, the following restrictions and obligations are specified in easement documents:

- (a) The land owner **must not** do, nor allow to be done within the easement, any of the following:
 - (i) damage or interfere with any part of the works;
 - (ii) erect, construct, place any retaining wall or fence that would impede the free flow of storm or flood waters over the surface of the land;
 - (iii) landscaping including the planting of trees that would impede the free flow of storm or flood waters over the surface of the land;
 - (iv) stack or place any material or obstruction including, without limitation, timber, rubbish, explosives, fuel and building materials;
 - (v) cover, obscure or obstruct any surface fitting; or
 - (vi) permit the land to be used in any way that would restrict or prevent Sydney Water or its agents from gaining access to the works with personnel and equipment, for any reasonable purpose.
- (b) The land owner **must not** do nor allow to be done within the easement any of the following, except **where expressly approved by Sydney Water in writing** as a result of an application for 'Building

over Works' or other purpose, and then only in strict compliance with such conditions as Sydney Water may impose [refer Section 4.4 (c)]:

- (i) erect, construct, place, modify or renew any building structure;
 - (ii) make any alterations to the surface levels of the land within the easement;
 - (iii) place any pavement, including concrete or paved driveways and footpaths on the land within the easement;
 - (iv) park any vehicle or item of plant which cannot readily and easily be removed; or
 - (v) install or lay any service pipe, conduit or similar.
- (c) Where Sydney Water has given approval in relation to any of the items in (b) above:
- (i) the land owner will bear all responsibility for any damage to Sydney Water's works as a result of the matters approved;
 - (ii) Sydney Water will not be held liable for damage to any approved structures or property located within the easement;
 - (iii) with respect to Sections 4.2.2 (c) (i) and (ii), an indemnity in the form of a covenant registered on title, is required to bind present and future owners of the property.
- (d) Where any building, structure or other property which would normally require Sydney Water's approval, has been constructed, placed, modified or renewed within the easement area prior to the easement being acquired by Sydney Water and subsequent to the works being taken over by Sydney Water, the owner of the land will bear full responsibility for that building, structure or other property and any damage to it, whatever the cause.

5. Miscellaneous Works

Miscellaneous Works include access, electrical, telemetry, drainage, batter, gauging stations etc. Easement guidelines for these various matters have not yet been documented for the purpose of this Manual.

By nature, most of these works are usually associated with major infrastructure such as a pumping station or reservoir where there would also be a requirement for the acquisition/provision of land for Sydney Water.

When designing Works involving the services listed above, Designers should first establish whether the services are to be the responsibility of Sydney Water or the relevant Supply Authority (e.g., telecommunications/energy supplier) and whether or not the relevant Supply Authority requires the creation of easements.

For services which are to be the responsibility of Sydney Water and for any of the other subject matters listed above, Designers should liaise with the Sydney Water Manager who will be responsible for operating the Works to determine specific easement/covenant requirements for items that fall into the categories defined in Section 1.3 of these Guidelines.

Note: Where land is to be provided/acquired to accommodate Sydney Water infrastructure (in addition to easements over services extending beyond the land) the following easement issues must be considered:

- **Access**

Where the land does not have direct frontage to a dedicated public road, an Easement for Access must be provided from the nearest public road over the access road to the site.

- **Batter/Retaining Walls**

Where there are to be earth works or retaining walls needed to support/stabilise the land in question, and they extend onto adjoining lands, appropriate Easements for Batter must be obtained.

- **Surface Drainage**

Where the natural run-off from the land to be owned by Sydney Water will flow onto adjoining lands before it reaches a Council Stormwater System, appropriate Drainage Easements must be obtained over the line of drainage pipes that Sydney Water will be responsible for/use within the adjoining lands.

- **Multi-Purpose Easements**

Where access and/or multiple services requiring easements are to occupy a common corridor, it is appropriate that one all-embracing multi-purpose easement in favour of Sydney Water be provided, typically, an 'Easement for Access, Electricity Purposes and Services'. Such is usually encountered with Sewage Pumping Stations.

The final easement/covenant requirements should be incorporated into the design plan and in all cases a 'Easement Requirement form' is to be completed and submitted to Sydney Water for approval.

6. Appendices

- **Easement Requirements Form**
- **Easement Width**
- **Easement Layouts**

EASEMENT REQUIREMENT FORM

Please ensure you submit this form with your Design Plan

EASEMENT TYPE:

- Create
 Release
 Deviation of existing asset (create and release)

EASEMENT DESCRIPTION:

- Water Supply Waste Water Storm water Private Line Service Private Road Private Lot

PART 1 – PROPOSAL (TO BE COMPLETED BY DESIGNER)

Project Initiated by: Developer Sydney Water

The following particulars are submitted for Sydney Water review:

PROJECT DESCRIPTION

Current Lot/s: DP LGA Street/s:
Suburb/s:
Developer:
Phone:
Email:
Designer:
Phone:

Sydney Water Project No: File No:

Pipe Diameter/s DN:

Date main laying expected to commence:

DETAILS OF EASEMENT

A copy of the design plan which includes the following details is attached:

- Proposed easement width m (show width and extent of easement)
- Is easement to be centered over the SW asset?
 Yes No (if no, show offset distance on plan)
- Is general or local widening, extension or variation of the easement required to allow for the risk of consequential damage or for fittings on the main (e.g. scour lines) or above ground structures and sections of the main (e.g. aqueducts etc.)?
 Yes No (if yes, show details on plan)
- Will an existing asset be disused?
 Yes No (if yes, show details on plan)
- Will the asset be exhumed or remain?
 Yes No (if yes, show details on plan)

PART 2 - EASEMENT REQUIREMENT FORM
Review (SYDNEY WATER USE ONLY)

EASEMENT:

The easement proposal detailed in Part 1 of this form has been reviewed and will satisfy Sydney Water's operational requirements.

EASEMENT CONDITIONS REQUIRED:

Are the easement conditions as set out in Easements Section 2.2.2 to be applied without modification?

Yes

No (If no, state details below):

Modifications:

Section No:

Section No:

Additional Requirements:

(If space insufficient, attach list)

Signed

Date:

Name (Print):

Position: Network Area Manager, Operations Division

Location:

Phone:

Email:

TO:

SYDNEY WATER PROPERTY SERVICES - Project Officer - Manager

FROM:

Designer Name:

Sign:

Date:

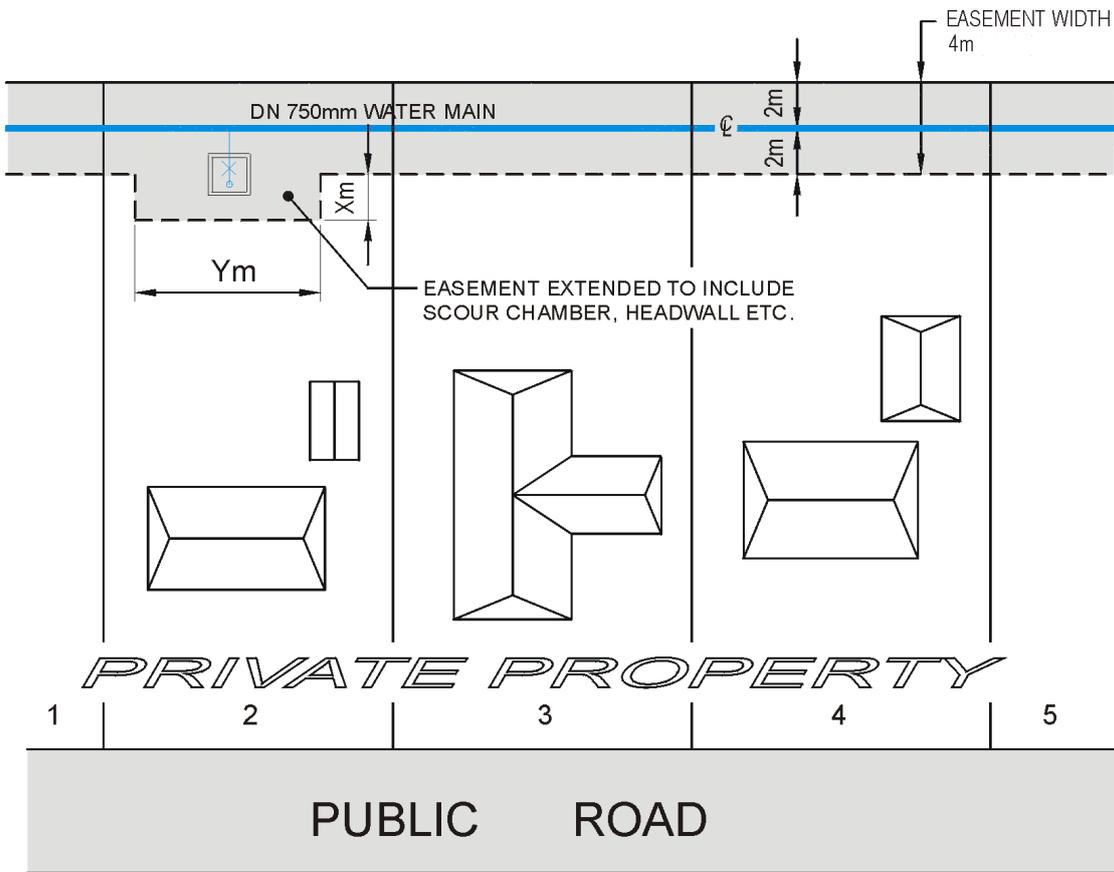
SUPPLEMENTARY INFORMATION 1

WATER MAINS – MINIMUM EASEMENT WIDTHS

| NOMINAL PIPE SIZE | PRIVATE PROPERTY | OPEN LAND, PARKS, RESERVES ETC | |
|-------------------|---------------------------------|-------------------------------------|----------------------------------|
| | TOTAL WIDTH (= a in Fig 2.1) | TOTAL WIDTH (= a + b in Fig 2.1) | PIPE OFF SET (= f in Fig 2.1) |
| DN (mm) | (m) | (m) | (m) |
| 100 | 2.5 | 3.0 | 1.5 |
| 150 | 2.5 | 3.0 | 1.5 |
| 200 | 3.0 | 3.0 | 1.5 |
| 250 | 3.0 | 3.0 | 1.5 |
| 300 | 3.0 | 4.5 | 1.5 |
| 375 | 3.0 | 5.0 | 2.0 |
| 450 | 3.5 | 5.0 | 2.0 |
| 500 | 3.5 | 5.0 | 2.0 |
| 600 | 3.5 | 5.0 | 2.0 |
| 750 | 4.0 | 6.0 | 2.0 |
| 900 | 4.5 | 6.0 | 2.0 |
| 1050 | 5.0 | 7.0 | 2.5 |
| 1200 | 5.5 | 8.0 | 3.0 |
| 1350 | 6.0 | 8.5 | 3.5 |
| 1500 | 6.0 | 9.0 | 3.5 |

SUPPLEMENTARY INFORMATION 2

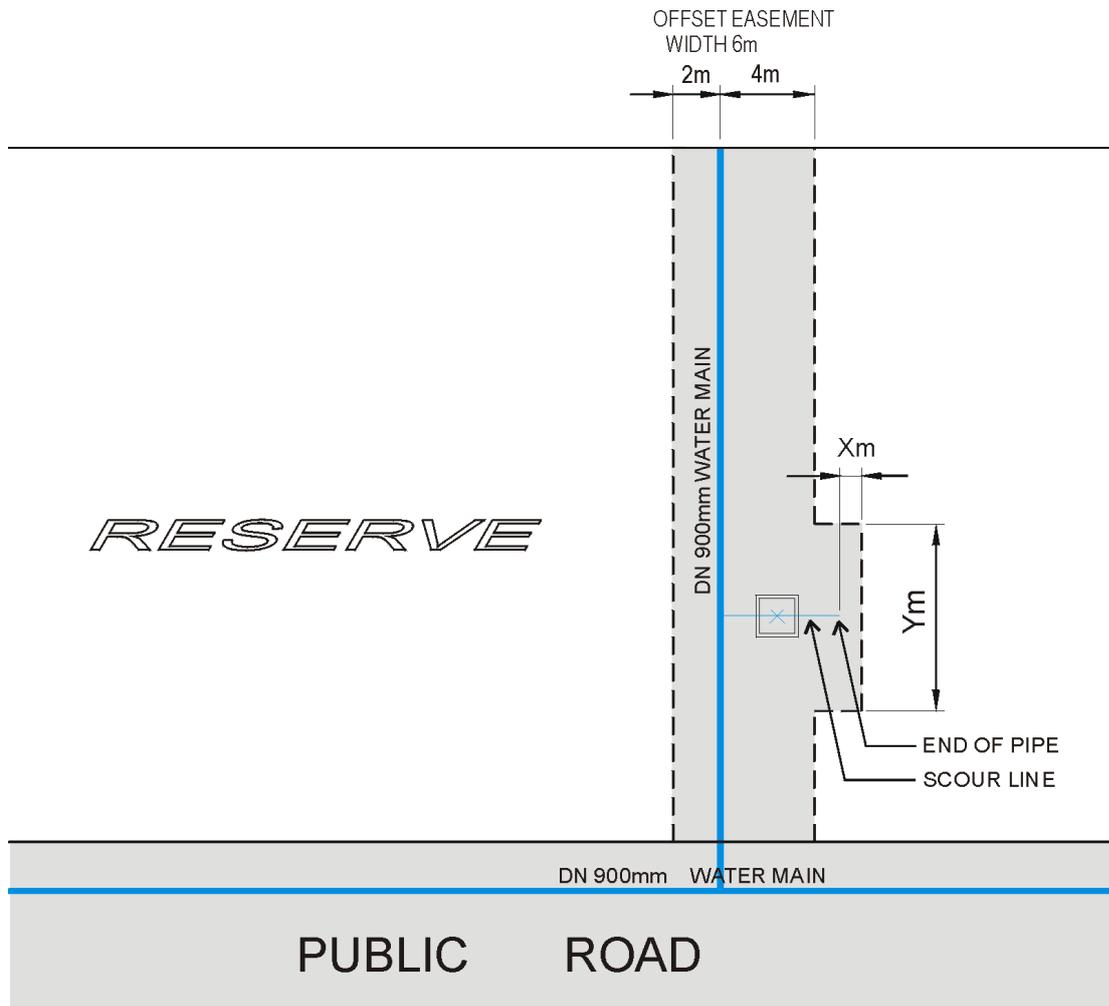
**WATER MAIN EASEMENT
(BELOW GROUND/ABOVE GROUND WORKS)
TYPICAL LAYOUT IN PRIVATE PROPERTY**



NOTE: Refer Easements Section 2.2

SUPPLEMENTARY INFORMATION 3

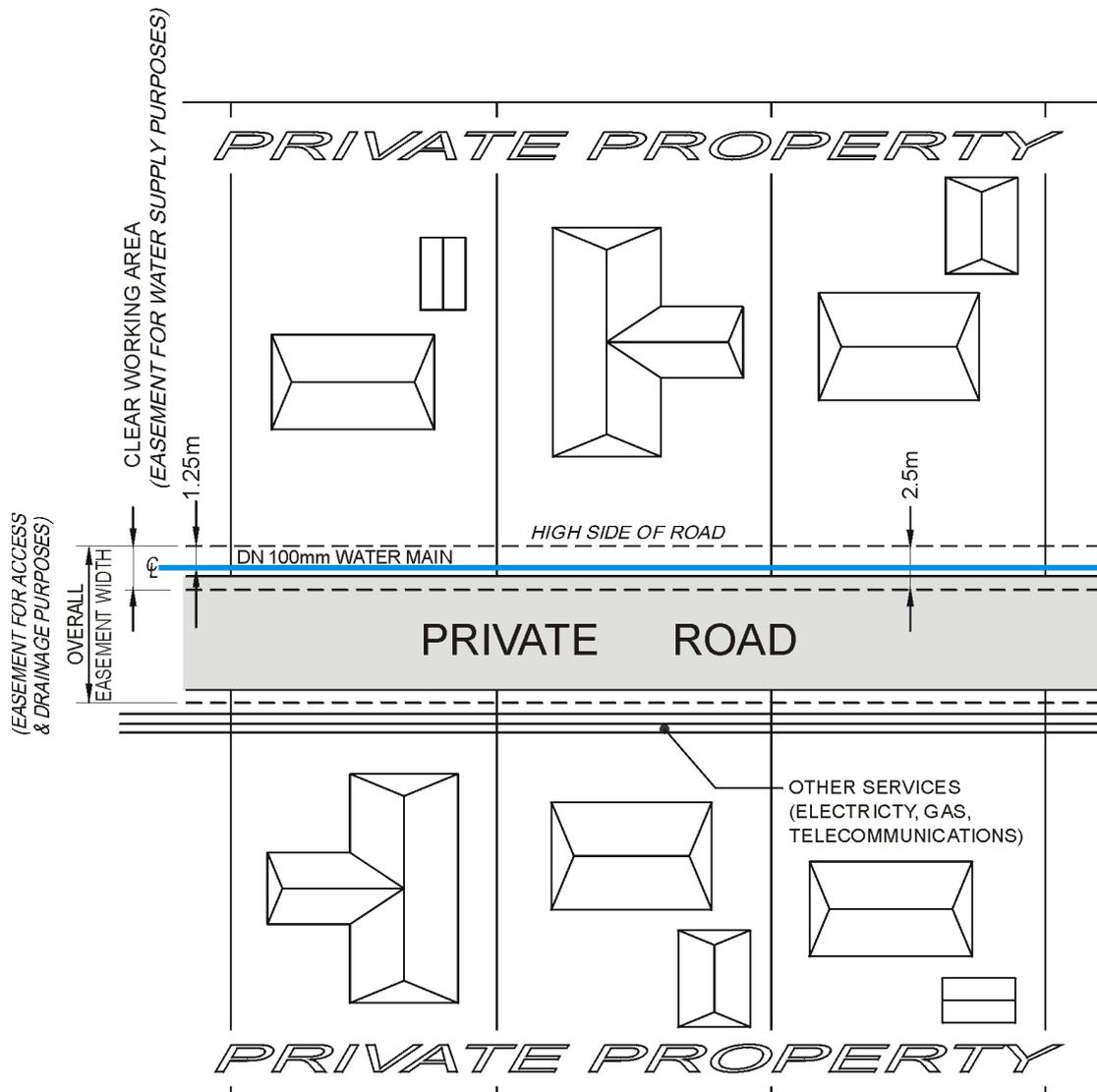
**WATER MAIN EASEMENT
(BELOW GROUND/ABOVE GROUND WORKS)
TYPICAL LAYOUT IN OPEN LAND, PARKS, RESERVES ETC.**



- NOTES:**
1. Refer Easements Section 2.2
 2. Dimensions are typical only

SUPPLEMENTARY INFORMATION 4

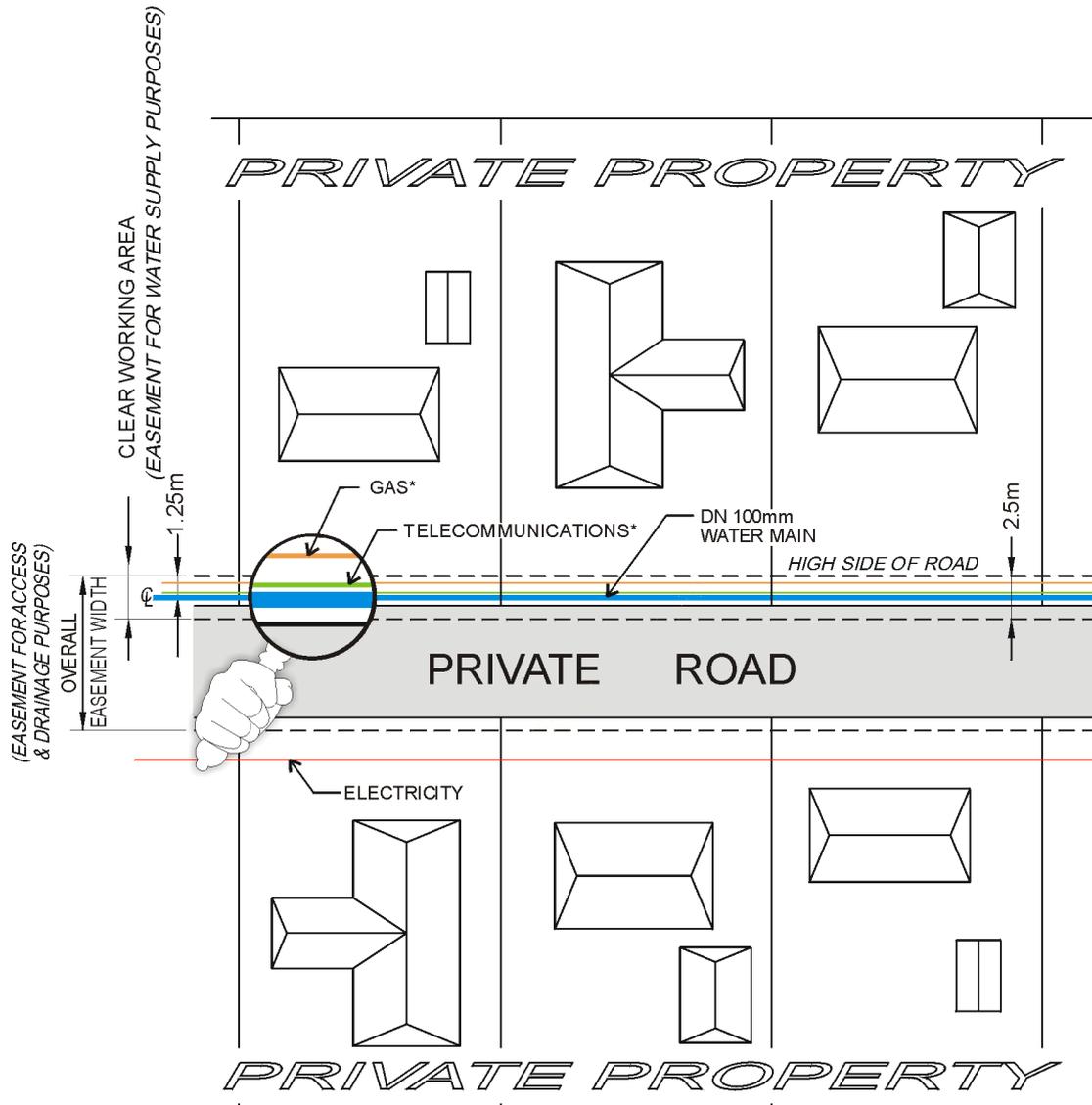
COMMUNITY TITLE SUBDIVISIONS
LOCATION OF WATER MAINS & EASEMENT LAYOUT
OPTION 1 (PREFERRED LOCATION)



- NOTES:**
1. Refer Easements Section 2.3.2 (b) (i)
 2. Water main on opposite side of roadway to all other services
 3. Option 1 also applies to water mains in conventional subdivisions with private

SUPPLEMENTARY INFORMATION 5

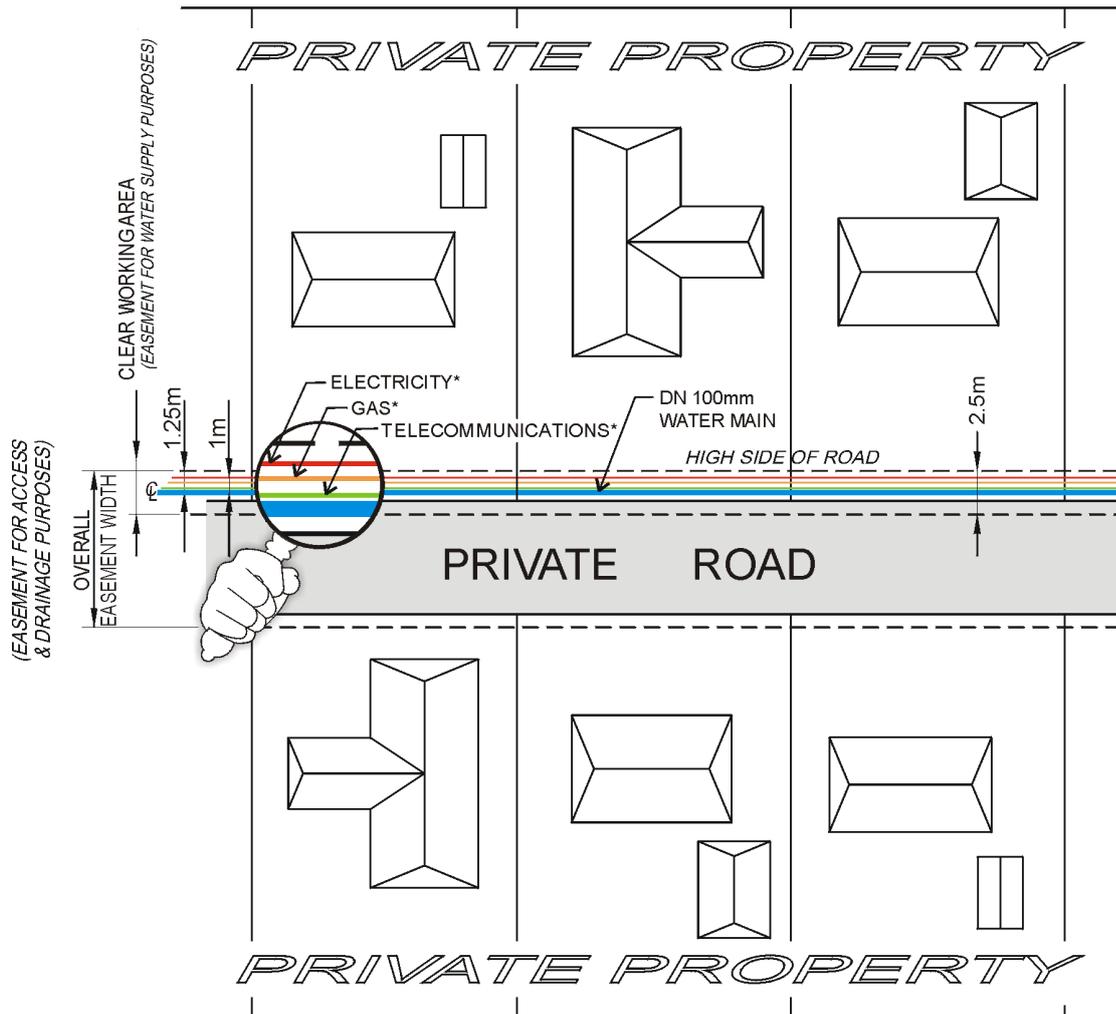
COMMUNITY TITLE SUBDIVISIONS
LOCATION OF WATER MAINS & EASEMENT LAYOUT
OPTION 2



- NOTES:**
1. Refer Easements Section 2.3.2 (b) (ii)
 2. Water main on opposite side of roadway to electrical services (*conditions apply)
 3. Option 2 also applies to water mains in conventional subdivisions with private accessways

SUPPLEMENTARY INFORMATION 6

COMMUNITY TITLE SUBDIVISIONS
LOCATION OF WATER MAINS & EASEMENT LAYOUT
OPTION 3

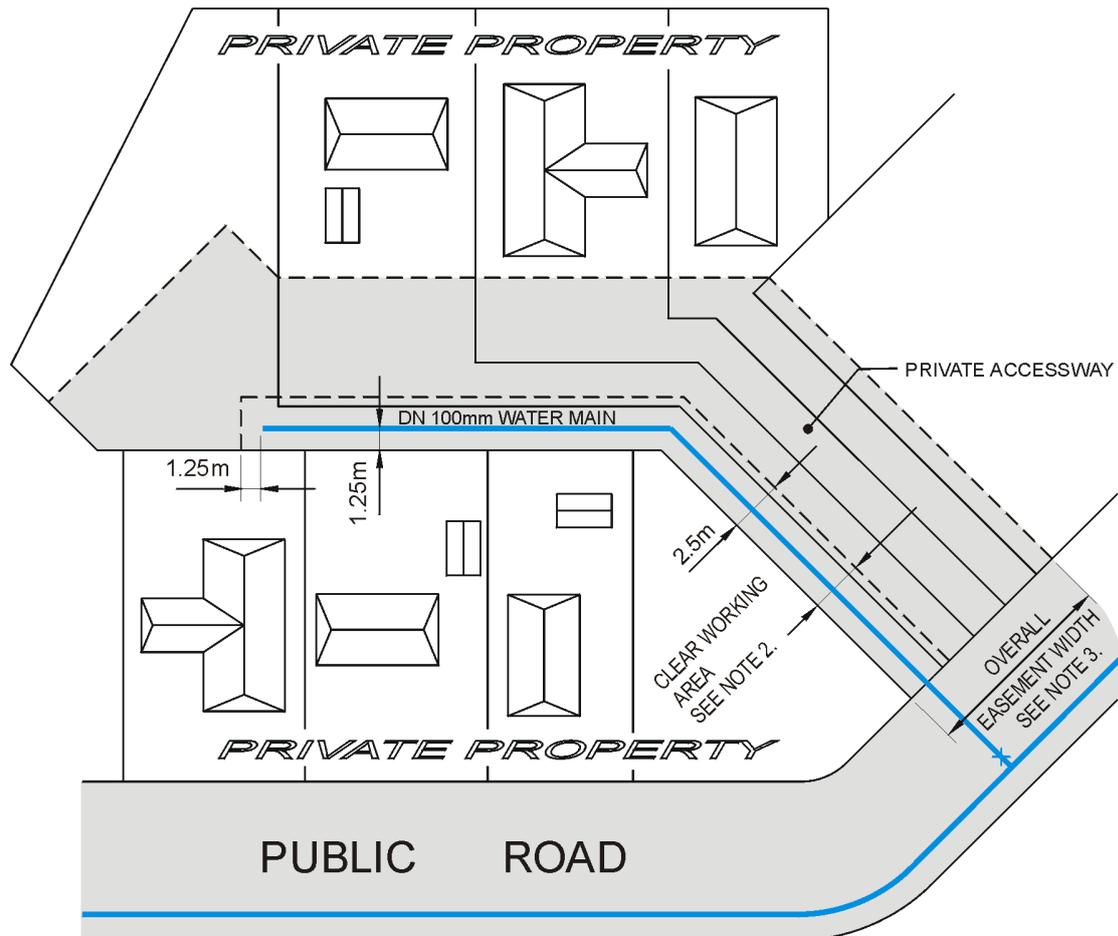


- NOTES:**
1. Refer Easements Section 2.3.2 (b) (iii)
 2. Water main on same side of roadway as other services including electrical services (*conditions apply)
 3. Option 3 also applies to water mains in conventional subdivisions with private accessways

UNCONTROLLED IF PRINTED OR DOWNLOADED

SUPPLEMENTARY INFORMATION 7

CONVENTIONAL SUBDIVISIONS WITH PRIVATE ACCESSWAYS
LOCATION OF WATER MAINS AND EASEMENT LAYOUT



- NOTES:**
1. Refer Easements Sections 2.3.1 to 2.3.5
 2. Easement for water supply purposes.
 3. Easement for access and drainage purposes.
 4. Location of water main – Options 1, 2 & 3 apply. Refer Easement Sections 2.3.2 (b) (i), (ii) & (iii) and Supplementary Information Nos. 4, 5 & 6.