### A General

#### A.1 Qualification of consultants

A.1.1 Designers are suitably qualified to design works in accordance with the appropriate Australian Standards, the Code, other codes of practice and Government regulations and are on Gippsland Water’s Accredited Consultants list or are pre-qualified.

<table>
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<tr>
<th>Initial</th>
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#### A.2 Consultation during design

A.2.1 All affected property owners have been consulted  

A.2.2 Councils and other authorities have been consulted  

A.2.3 Signed Form 13 (Creation of Easement Document) has been signed by affected land owners outside of the subdivision  

| ________ |
| ________ |
| ________ |

#### A.3 Economic considerations

A.3.1 Most cost-effective & technically appropriate design has been selected  

| ________ |

#### A.4 Extent of works

A.4.1 All allotments in the development are serviced  

A.4.2 Future system expansion has been allowed for in accordance with the Code and Gippsland Water requirements  

| ________ |
A.4.3 Termination points conform with the Code

**B Environment considerations**

**B.1 Consideration of environment**

B.1.1 Works have been designed with consideration for environment issues in accordance with the Code

B.1.3 Environment requirements are listed on design plans

B.1.4 Permits for removal of vegetation have been obtained

**C Design Requirements**

**C.1 General Location**

C.1.1 All water mains has been located within road reserves or Gippsland Water easements

C.1.2 Duplicate or rider water mains have been provided in accordance with the Code

**C.2 Obstructions**

C.2.1 Allowance has been made for effect of surface obstructions on the alignment of mains

C.2.2 Location of all underground services has been determined and proven

C.2.3 Clearance from obstructions conforms to the Code

C.2.4 Prior approval has been given by Gippsland Water for water mains crossing under sewer mains and has been designed in accordance with the Code

C.2.5 Design Drawings show common/shared trenching and is designed in accordance with the Code

**C.3 Alignment**

C.3.1 Water main alignment has been approved by council

C.3.2 Pipeline alignment in road reserves in new subdivisions conforms to the Road Management Act 2004 Code of Practice, Management of Infrastructure in Road Reserves

C.3.3 Horizontal alignment is sufficiently detailed to enable accurate set-out of the works and checking by Gippsland Water
C.3.4 Horizontal deviations have been detailed on design plans

C.3.5 Title boundaries or set-out lines have been established by licensed surveyor

C.3.6 Deviations of pipes are in accordance with manufacturer’s recommendations

C.3.8 Deviations using bends are in accordance with the Code

C.3.9 Deflection around curved alignment is in accordance with manufacturer’s recommendations

C.4 Cover

C.4.1 Minimum cover is in accordance with the Code

C.4.2 Gippsland Water has given written approval where cover is in excess of 1.5 metres

C.4.3 Design Plans clearly show locality where water main exceeds 1.5 metres in depth

C.4.4 Cover has allowed for future road and driveway construction

C.4.5 Design levels allow for installation of valves, fittings and anchors

C.4.6 Design levels take into account existing and proposed services

C.4.7 Level schedule has been produced where water main construction will precede road or drainage construction in accordance with the design requirements.

D Selection of pipeline materials

D.1 Design pressure

D.1.1 Maximum supply pressure has been obtained from Gippsland Water

D.1.2 Design pressure has been calculated and is shown on drawings

D.1.3 Operating pressure is contained within the maximum and minimum operating pressure limits stated in the Code

D.2 Approved pipeline systems

D.2.1 Pipes and fittings have been selected in accordance with requirements of the Code

D.2.2 Corrosion protection measures have been investigated in accordance with the Code and marked accordingly on the design plans if required
E Pipeline assemblies

E.1 Thrust restraints
E.1.1 Thrust restraints have been designed in accordance with the Code

E.2 Valves
E.2.1 Valve design requirements have been met
E.2.2 Correct valve type has been selected
E.2.3 Location of valves has been selected in accordance with the Code

E.3 Hydrants
E.3.1 Hydrants are not to be installed on mains less than DN100
E.3.2 Hydrants have been located for water system operational requirements in accordance with the Code
E.3.3 Hydrants have been specified for terminal fittings on mains greater than or equal to DN100
E.3.4 Spacing of hydrants is in accordance with the Code
E.3.5 Hydrants have been located clear of driveways
E.3.6 Hydrant symbols have been shown correctly on plan
E.3.7 Hydrants are adjacent to valves where possible

E.4 Terminal fittings
E.4.1 Washout bends have been designed at permanent and temporary end of mains greater than or equal to DN100 in accordance with the Code
E.4.2 Flushing assemblies have been designed at permanent end of mains less than DN100 in accordance with the Code
E.4.3 Chlorination assemblies designed for 225 to 375 mm diameter mains are in accordance with the Code
E.4.4 Location of permanent swabbing points and direction of swabbing have been specified as required by Gippsland Water in accordance with the Code

E.5 Connections to existing water mains
E.5.1 Connections of all new mains to existing water mains are shown on the design plans and are in accordance with the Code
### E.5.2 Method of connection to transfer mains has been approved by Gippsland Water and shown on design plans

### E.6 Property service connections

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>E.6.1</td>
<td>All lots are fronted by a water main in accordance with relevant regulations</td>
</tr>
<tr>
<td>E.6.2</td>
<td>All lots are designed to have one property service connection each unless approved to by Gippsland Water</td>
</tr>
<tr>
<td>E.6.3</td>
<td>Property service connections to be installed in accordance with the Code</td>
</tr>
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</table>

### F Presentation of design

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
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<tbody>
<tr>
<td>F.1 Design plan contents</td>
<td></td>
</tr>
<tr>
<td>F.1.1</td>
<td>Design plans have been prepared in accordance with the Gippsland Water Drafting Standards</td>
</tr>
<tr>
<td>F.1.2</td>
<td>Design drawings provided in accordance with the Code</td>
</tr>
<tr>
<td>F.1.3</td>
<td>Drawing scale is in accordance with the Code</td>
</tr>
<tr>
<td>F.1.4</td>
<td>Content of drawings are in accordance with the Code</td>
</tr>
<tr>
<td>F.1.5</td>
<td>All relevant notes are included on the plans</td>
</tr>
</tbody>
</table>

### G Drafting standards

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
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<tbody>
<tr>
<td>G.1.1</td>
<td>Drafting standards are in accordance with the Code</td>
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<td>- Detail plans in accordance with the Code</td>
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<td>- Longitudinal plans in accordance with the Code</td>
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<td></td>
<td>- Standard drawing borders in accordance with the Code</td>
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<td></td>
<td>- Drawing legend in accordance with the Code</td>
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### H Documents to be submitted

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
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<tbody>
<tr>
<td>H.1 Design drawings</td>
<td></td>
</tr>
<tr>
<td>H.1.1</td>
<td>Two hard copies of final design drawings A3 size only</td>
</tr>
<tr>
<td>H.2 Civil drawings</td>
<td></td>
</tr>
<tr>
<td>H.2.1</td>
<td>Road and drainage civil drawings for the development only if requested by Gippsland Water</td>
</tr>
<tr>
<td>H.3 Correspondence with council</td>
<td></td>
</tr>
<tr>
<td>H.3.1</td>
<td>Approval of offsets and fixing of road levels have been approved by Council</td>
</tr>
<tr>
<td>H.3.2</td>
<td>Name and position of Council contact officer</td>
</tr>
</tbody>
</table>

### H.4 Correspondence with other bodies
H.4.1 Vic Track
H.4.2 Vic Roads
H.4.3 Relevant Gas Company/Authority
H.4.4 Telstra
H.4.5 Optus Communications
H.4.6 Electrical authorities/companies
H.4.7 Aboriginal Affairs Victoria
H.4.8 Council Planning
H.4.9 Department of Environment, Land Water & Planning
H.4.10 EPA Victoria
H.4.11 Southern Rural Water
H.4.12 Community Groups if requested by Gippsland Water
H.4.13 CFA
H.4.14 Other

H.5 Design information

H.5.1 Approval for common trenching

H.5.2 Design computations for special structures and special pipelines, including but not limited to:

☐ Soil loading
☐ Traffic loading
☐ Pipe stiffness
☐ Soil modulus
☐ Deflection calculations
☐ Deflection at 50 years
☐ Bend or joint deflection radius for PVC pipe
☐ Head calculations
Consultant’s Certification
As the Consultant’s nominated representative responsible for the design of the Works detailed in
Gippsland Water Drawing No(s): ___________________________________________________

I certify that:
1 The design is in accordance with WSA 03-2011-3.1 Melbourne Retail Water Agencies Edition
together with Gippsland Water’s Water Supply Code Supplement.
2 Drawings comply Gippsland Water Drafting Specifications
3 Each item listed on Form 1 Design Certification List has been either initialled or marked NA or AT
   by the Responsible Design Representative, where:
   - Initialling is my certification that the activity is completed and that it satisfies the requirements of
     Gippsland Water.
   - Activities marked as NA are not applicable to this design.
   - Activities marked as AT have an authorised attachment included.

___________________________________  ____________________________________
Name  Signature
(Design Consultant)

_______/_______/_______
Date

Documents Submitted with this form
☐ Plan of subdivision
☐ Application Form for conditions /agreement
☐ 2 sets of Design plans A3 size
☐ Estimate of construction costs
☐ Form 13 – Creation of Easement (if required)