CONSULTANT ACCREDITATION SCHEME

WATER SUPPLY

DESIGN

DRAWING CRITERIA

AND

CHECKLIST

Produced by SA Water Services
Reticulation Networks

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Contact Information Details
For both water design and recycled water design

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MAJOR LAND DEVELOPMENT
WATER INFRASTRUCTURE FLOWCHART

Initial Proposal

- Application received from DAC
  - Planning Report
  - Investigate
    - Concept plan
    - Determine SA Water requirements – technical, financial, augmentation
    - Reply to DAC
    - Req. letter sent to client

Agreement

- Request for agreement & drawing no's
  - Consulting Engineer understands Engineering requirements
  - Design received
    - Audit of design
  - Developer pays
    - Developer Agreement requirements finalised
  - Agreements issued

Construction

- Contractor works on site
  - SA Water audits work on site
    - Work complies
    - CPC issued
    - Mains gazetted
    - Final Certificate issued

Business Development
- Treatment & Network Planning
- Engineering Services
- Business Development
- Engineering Services
- Business Development
- Business Development
- Engineering Services
- Business Development
- Operations / Infrastructure Delivery
- Operations / Infrastructure Delivery
- Customer Services
- Customer Services
GENERAL

1. When a land division proposal is lodged, SA Water technical staff prepare a Concept Design to ensure that all internal subdivision and approach mains are sized accordingly and all link-up points are identified, whilst at the same time ensuring that SA Water’s long term planning requirements are met.

2. A copy of this concept design is available to the Consulting Engineer. Alternative designs are acceptable providing SA Water’s long term planning requirements are catered for and the alternative does not include an increase in easements and/or additional water main length.

3. A standard drawing template for Consulting Engineers is available from the SA Water website. Consulting Engineers will be advised when a change to the template or additional information is required on the drawings. All drawing attributes (e.g. line thicknesses, line types, layouts, etc.) must match those set out in the template.

4. Appendix A is a copy of the Audit Checklist, which will be used to ensure submitted designs meet the required criteria. It is recommended that Consulting Engineers also use the checklist to ensure everything has been covered prior to submitting the drawings for audit.

5. Example drawings are available on the SA Water website under Wastewater Examples (zip file).

REQUIREMENTS

1. Clarity of drawings is essential. Consulting Engineers’ design drawings need to be scanned and reproduced – therefore the need to provide the line thicknesses, styles and general layout as per the standard drawing template.

2. Drawing layout should be oriented so that the drawing text can be read looking from the bottom right of the drawing. Where possible the North Point should be upwards on the drawing sheet.

3. **Scales:**
   
   Only the following plan scales will be accepted:
   
   - Locality Plans: 1:1000 or 1:2500
   - Layout Plans: 1:500

4. The Location Plan, Limit of Contract, Total Length of mains and a Tally of Fittings are to be included on sheet 31.

5. Drawings are to be submitted for initial auditing on A1 size sheets.

6. All design drawings submitted, including the initial submission, must be checked and signed by the responsible Consulting Engineer. Drawings will be returned immediately if they have not been signed by the Consulting Engineer.
7. When the Consulting Engineer has submitted drawings that are represented, by the
designer, to comply with SA Water Standards the drawings, (one copy at A1 size and
one copy at A3 size), will be signed by SA Water for construction. As SA Water only
performs a partial audit of the design the Consulting Engineer accepts full
responsibility for the conformity of the design to SA Water Standards. If non-
conformity is discovered by SA Water’s Audit Inspectors on site, then the contractor is
to refer the issue to the Consulting Engineer in order to initiate steps to remedy the
situation.

8. As a minimum, design drawings must be submitted on good quality (80 gsm) paper.
Drawings submitted for issue should not be folded or tightly rolled, as it creates
problems during auditing and copying (Multiple copies of the drawings are required for
contract documentation, and for issue to various contractors, inspectors and regional
staff).

9. The Consulting Engineer’s Title block is to contain the company’s current information
e.g. phone number, fax number, printed name below signature etc. No company logos
are permitted

“AS CONSTRUCTED” DRAWINGS

1. “As Constructed” drawings shall be updated electronically.

2. “As Constructed” drawings to be submitted on A1 sheets at the same plan scales as the
issued design drawings.

3. Drawings are to be submitted on good quality paper of 80 gsm minimum thickness.

4. “As Constructed” drawings are to be signed off by the responsible person - either a
Licensed Surveyor or the Chartered Consulting Engineer.
Appendices

A  Audit Checklist
AUDIT CHECKLIST
FOR LAND DEVELOPMENT WATER SUPPLY DESIGNS

THE WATER SUPPLY CODE OF AUSTRALIA SUPPLEMENTED BY THE SA WATER STANDARDS IS TO BE ADHERED TO FOR ANY WATER SUPPLY DESIGN PROPOSAL.

Water Supply Design Drawings will ultimately be utilised as the permanent SA Water record of assets constructed. Clarity, neatness and accuracy are of utmost importance.

1. PRELIMINARY PROCEDURES

All drawings to
- Conform to the current sheet layout. ❌
- Clearly and neatly provide the appropriate design information. ❌
- Contain correct drawing numbers. ❌
- Contain correct docket numbers. ❌
- Contain correct land development numbers. ❌
- Contain correct contract numbers. ❌
- Possess appropriate scales. ❌
- Bear the signature of a Chartered Engineer ❌

2. LOCALITY / LAYOUT SHEETS

Do the Locality / Layout sheets:
- Meet the required drafting standards ❌
- Provide an accurate and complete limits of contract – Work by Constructor and Work by SA Water (at Developer’s Expense) ❌
- Contain accurate and complete foot notes e.g. conformation with common service trench, or special connection ❌
- Provide the Total Length of Mains ❌
- Provide a Tally of Fittings ❌
- Contain a North Point ❌
- Provide a drawing of the Subdivision at a scale of 1: 500 ❌
• Provide Land Division/Stage Boundaries
• Provide road names and lot numbers
• Provide ties to all buried and surface fittings (e.g. Tees, Bends, FPs, SVs, etc)
• Provide chainages to all buried and surface fittings (e.g. Tees, Bends, FPs, SVs, etc)
• Show cross referencing to existing infrastructure and reference to any future water main (size) and ensure future water mains commence from the subdivision boundary
• Provide information about existing and proposed services and meters (i.e. size, number, location, to be cut-off or shifted, installed by, etc)
• Show that all allotments in the subdivision/ stage are serviced by the design
• Show services to the correct size and type according to the SA Water and WSAA Standards
• Show that water appurtenances are in their correct allocated space
• Show that there is no conflict between water mains and other existing or proposed services e.g. Sewers, stormwater etc
• Indicate all easement requirements and the correct sizes
• Contain appropriate amendment notices where an amendment has been made