



Unitywater

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Pr8701 - Specification for Asset Information

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Document Details

Document Sponsor	Infrastructure Standards and Product Approvals Committee
Document Owner	Head of Asset Management, SIS
Document Contact	Infrastructure Standards and Assurance Team
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Version History

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6.0	Laura Bryson, Policy & Documents Advisor	Laura Bryson, Policy & Documents Advisor	21/02/2020	Minor admin amendment to update reference title for Pr8843 and remove obsolete Pr9080 (as superseded by SEQ Asset Information Specification).
7.0	Laura Bryson, Policy & Documents Advisor	Laura Bryson, Policy & Documents Advisor	18/05/2020	Minor admin amendment to update reference title for Pr10360
8.0	Andrew Currie, Project Support Services Manager	Andrew Currie, Project Support Services Manager on behalf of Manager Capital Delivery	08/02/2021	Reviewed as part of Capital Works Reform program. Updates to references section, replacing F10435 - Project Deliverables Checklist with F10844 - Operational Readiness Checklist and template admin update.
9.0	Kate Welsh, Infrastructure Standards Engineer	Ben van Wegen, Manager Capital Delivery	11/04/2022	Minor update to add details and reference the SEQ code and certification stamps.
10.0	Alan White, Infrastructure Standards Engineer Civil Yvette Skinner, Infrastructure Standards Manager	Ivan Beirne, Head of Asset Management	15/08/2022	Updating RPEQ Certification stamps. Change of document owner.
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12.0	Yvette Skinner, Infrastructure Standards Manager	Ivan Beirne, Head of Asset Management	22/04/2025	Updating Certification stamps in Appendix C to align with SEQ Code Asset Information Specification and allow electronic submission
13.0	L. Bryson, Policy & Documents Advisor	N/A	N/A	Minor amend to update position / Branch titles as per current SIS org structure. Update STP to WWTP terminology.

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1. Introduction

The purpose of this Specification is to define Unitywater's requirements for the asset information documentation to be provided to Unitywater upon completion of construction and commissioning of projects undertaken for and on behalf of Unitywater.

2. Scope

Asset information comprises a suite of design, construction, commissioning, operating and maintenance documentation related to an asset or assets presented in a specified format.

In addition to providing information on operation and maintenance of an asset, the asset information provides a reference inventory for any future augmentations, operational modifications and assets that have been decommissioned.

Asset Information consist of two parts:

- Design Documentation
- As Built Documentation.

2.1 Responsibilities

- 2.1.1 Design Documentation shall be developed by the designer during the design phase of a project.
- 2.1.2 As Built Documentation shall be developed by the Constructor during the construction phase and finalised upon completion of commissioning.
- 2.1.3 'Practical Completion' will not be granted to the Constructor until all As Built documentation has been submitted to the satisfaction of Unitywater.

2.2 Applicable Sections

- 2.2.1 There is an Operational Readiness Checklist ([F10844](#)), specifying the requirements for design documentation and As Built documentation.
- 2.2.2 Unitywater will provide a completed checklist which is unique to each project and identifies all asset information required including the form of submission.
- 2.2.3 If any of the sections or subsections have been identified as Not Applicable in the Operational Readiness Checklist ([F10844](#)), then there is no requirement to provide Asset Information related to that section or subsection.
- 2.2.4 The Operational Readiness Checklist ([F10844](#)) will nominate whether a new document is required or updating of an existing document
- 2.2.5 Where new CAD drawings are required Unitywater will provide a CAD template file, Unitywater drawing number and any process tag numbers.



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3. Design Documentation

Design Documentation may comprise some or all of the following depending on the complexity of the project scope:

3.1 Design Report

Unitywater will provide a copy of the design report template ([F8586](#) - Design Report) to be completed by the Designer. The report shall contain, but be not limited to, the design criteria, land tenure, location, environmental issues, consultation with external parties, construction / operational issues, commissioning, safety in design and constraints that are relevant to the design. The report is to be RPEQ certified.

3.2 Design Report Attachments

Includes all associated reports used to support the design report.

3.3 Design Report Calculations

Includes all calculations used to support and validate the design in an editable format for Unitywater's future use.

3.4 Design Drawings

[F10844](#) - Operational Readiness Checklist will specify the level of design (concept or detailed) required and whether an update to existing drawings or creation of new drawings is required.

Design drawings shall be completed and approved by Unitywater in accordance with:

- SEQ Asset Information Specification
- [Pr8843](#) - Specification for Drawing, Document and Equipment Tag numbering.

Where Unitywater provide drawings of existing infrastructure in a standard other than those mentioned above the Designer shall, during design, amended such that they comply with the current standards.

3.5 Digital Engineering (2D or 3D Models)

2D CAD models are historically the accepted standard for submission of a digital design. Building Information Modelling (BIM) or other 3D graphic models are a relatively new method of digital design. Where BIM is nominated as the preferred method design, Unitywater will specify the associated Level of Detail (LOD). BIM Models shall be prepared and submitted in accordance with [Pr10360](#) - Project Information Requirements.



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4. As Built Documentation

As Built Documentation asset information may comprise any of the following.

4.1 Drawings

- Drawing Register
- Civil
- Electrical
- Mechanical
- Structural
- Building
- Process and Instrumentation (P&ID's)
- Process Flow
- Hydraulic Grade
- Mass Balance
- Hazardous Area Site Plans.

The form of documentation will vary according to the complexity of the works. Where both CAD and PDF's are specified for the same deliverable the PDF shall be in the format of a Smart PDF derived from the CAD file.

The following information shall comply with the applicable requirements as specified by the [Asset Information Specification](#) - SEQ Water Supply and Sewerage Design & Construction Code:

- As Constructed drawings
- Site mark-ups of "Issued for construction drawings"
- ADAC data files
- Approved design change notices.

Upon review and acceptance by Unitywater, the Constructor is to supply "As Constructed" signed (scanned) PDF copy with "As Constructed" certifying RPEQ stamp (refer Appendix C for certification stamps).

4.2 Digital Engineering Models

This is a relatively new method of capturing asset information and includes Building Information Modelling (BIM) or other 3D graphic models. Where BIM is nominated as the preferred method of asset capture, Unitywater will specify the associated Level of Detail (LOD). BIM Models shall be prepared and submitted in accordance with [Pr10360](#) (Project Information Requirements)

4.3 Active and Decommissioned Assets

Unitywater will provide an Excel template to be populated with active asset information. This template is configured to allow asset information to be directly imported into Unitywater's Asset Management System (Maximo). This also includes identifying any assets that may have been decommissioned during the project.



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4.4 Manuals

- Standard Operating Procedures (Wastewater Treatment Plant's (WWTPs) only)
- Unit Process Guidelines (WWTPs only)
- Operations Manual
- Maintenance Routines (active assets only).

Operations Manual shall be site specific and include sufficient information for the operation of the asset in its entirety. The information to be supplied shall include, but not be limited to, the following (where applicable):

- i. Site Specific Asset Operating Procedures – a step-by-step procedure detailing:
 - HMI / SCADA Operation
 - Checks before Starting
 - Starting
 - Continuous Operation
 - Stopping
 - Emergency Stopping
 - Isolating of Asset Components
 - Abnormal Operation as applicable
- ii. Acceptable ranges for operational control
- iii. Final commissioned equipment settings.

Maintenance Routines comprise the list of vendor recommended maintenance routines for each active asset. These will be submitted on the same template as Active and Decommissioned Assets (see Section 4.3 above).

4.5 Commissioning

- ITP's
- Process Performance Test Reports
- Commissioning Report
- Training Records
- Training Material.

4.6 Warranties

- Warranty Register.

4.7 Media

- CCTV Footage
- Photos.



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4.8 Certificates of Registration

- Lifting Equipment, Davits and Fall Arrest Points
- Pressure Vessels
- Dangerous Goods / Materials
- Electrical
- Fire
- Backflow Prevention (RPZ's)
- Cathodic Protection.

4.9 Control Systems

- Functional Description
- Functional Specification.

4.10 Operational Contingency

- Asset Contingency Plan.

5. Appendices

Appendix A – Definitions/Acronyms

Term	Meaning
Nil to define	

Appendix B – References

General

All design, equipment and workmanship shall conform to the most recent requirements of relevant local, State and Commonwealth statutory requirements and applicable, current Australian Standards.

Where no Australian Standard exists, work shall conform to the most applicable, current IEC Standard.

Where conflict exists between different Codes, Standards or Regulations, the higher requirement shall apply.

The following legislation, related Regulation and Codes apply to this specification:

- [Asset Information Specification](#) - SEQ Water Supply and Sewerage Design & Construction Code.

Relevant Unitywater documents that relate to this specification

Document No.	Title
F8586	Design Report
F10844	Operational Readiness Checklist
Pr10360	Project Information Requirements
Pr8843	Specification for Drawing, Document and Equipment Tag Numbering

International and Australian Standards referenced within this specification

Standard No.	Title
Nil to define	

Appendix C – Certification Stamps

C1 Registered Surveyor's Certification

Surveying information shall be certified for accuracy by a Registered Surveyor (QLD) either by individual certification on each drawing or by a covering letter which must include a list of all drawings (or electronic file names) and their current revision covered by the certification. Certification shall include the name and registration number of the certifying surveyor. The details of the certifying surveyor shall be included also in the ADAC XML file according to the ADAC schema.

<u>REGISTERED SURVEYOR'S CERTIFICATION</u>		
I,, hereby certify that the vertical and horizontal locations and dimensions shown on this plan/contained in this electronic file (delete whichever is not applicable) are a true and accurate record and were located by survey.		
----- Registered Surveyor (QLD) (sig.)	Reg. Surveyor No. _____	Date:

C2 Engineer's Design Certification

Design details including drawings, test results, structural calculations, hydraulic calculations, and electrical calculations shall be certified as correct and complying with the requirements of the SEQ Code by a Registered Engineer Queensland (RPEQ), registered for the appropriate professional discipline for each part of the works. For example, an RPEQ (Civil) cannot certify electrical work.

Documents and drawings shall be certified as accurate and complying with the requirements of the SEQ Code either by individual certification on each document or drawing or by a covering letter which must include a list of all drawings (or electronic file names) and their current revision covered by the RPEQ's certification. Certification shall include the name and registration number of the RPEQ. The details of the certifying RPEQ shall be included also in the ADAC XML file according to the ADAC schema.

Specialist technical reports shall be certified as having been checked by a person with the tertiary qualifications and experience appropriate to the subject of the report. The signed certification is to be incorporated into the text of the report by detailing the name, position and qualifications of the certifier.

C3 Engineer's As Constructed Certification

As-constructed details including drawings, test results, and calculations shall be certified as true and accurate by a Registered Engineer Queensland (RPEQ), registered for the appropriate professional discipline for each part of the works. For example, an RPEQ (Civil) cannot certify electrical work.

Where certification of as-constructed drawings is to be directly on the drawings themselves the constructor shall supply signed as-constructed drawings (scanned PDF) with an 'As Constructed' certifying stamp in the form given below or as otherwise agreed by Unitywater.

When certifying as-constructed drawings via a covering letter, the letter must include the wording found on the certification stamp below or as otherwise agreed by Unitywater. Additionally, it should provide a list of all relevant drawings (or electronic file names) along with their current revision numbers covered by the certification.



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ENGINEER'S CERTIFICATION

I,, hereby certify that the as-constructed details shown on this drawing/contained in this electronic file (delete whichever is not applicable) are a true and accurate record of the construction works, in compliance with the contract documents (delete if not applicable), approved drawings and approved design.

RPEQ (signature) RPEQ No. _____ Date:

Specialist technical reports shall be certified as having been checked by a person with the tertiary qualifications and experience appropriate to the subject of the report. The signed certification is to be incorporated into the text of the report by detailing the name, position and qualifications of the certifier.

Certification shall include the name and registration number of the RPEQ. The details of the certifying RPEQ shall be included also in the ADAC XML file according to the ADAC schema.

The RPEQ certification is deemed to include an assurance that the survey data certified by the surveyor has not been amended or manipulated.

C4 Principal Contractor's Certification

For more complex construction works Unitywater requires that the Principal Contractor certifies the as constructed information. Complex works would include with multiple (sub) contractors working on separate projects that form a larger program of works. For example:

- Sewage pump station with odour control
- Reticulation sewerage system, sewage pump station, and rising main.

Where certification of as-constructed drawings is to be directly on the drawings themselves the constructor shall supply signed as-constructed drawings (scanned PDF) with an 'As Constructed' certifying stamp in the form given below or as otherwise agreed by Unitywater.

When certifying as-constructed drawings via a covering letter, the letter must include the wording found on the certification stamp below or as otherwise agreed by Unitywater.

PRINCIPAL CONTRACTOR'S CERTIFICATION

I,, hereby certify that the as-constructed details shown on this drawing/contained in this electronic file (delete whichever is not applicable) are a true and correct record of the construction works, in compliance with the contract documents (delete if not applicable), approved drawings and approved design.

Company Name Signature Date



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C5 Licensed Electrical Contractors Certification

Under the *Queensland Electrical Safety Regulation 2013*, electrical contractors must provide Unitywater (or the Principal Contractor) a certificate of compliance using either:

- a “Certificate of testing and safety” for work on electrical equipment, or
- a “Certification of testing and compliance” for electrical installation work.

Both types of certificates must state the following:

- the name and address of the person for whom the work was performed
- the details of the electrical equipment or electrical installation tested
- the day the electrical equipment or electrical installation was tested
- the electrical contractor licence number under which the electrical equipment or electrical installation was tested.

Electrical as constructed drawings must be certified by the licensed electrician to verify that that the equipment has been installed as per the design, tested and reflects the certification provided in the certificate of compliance.

Where certification of as-constructed drawings is to be directly on the drawings themselves the constructor shall supply signed as-constructed drawings (scanned PDF) with an ‘As Constructed’ certifying stamp in the form given below or as otherwise agreed by Unitywater.

When certifying as-constructed drawings via a covering letter, the letter must include the wording found on the certification stamp below or as otherwise agreed by Unitywater.

<u>LICENCED ELECTRICAL CONTRACTOR'S CERTIFICATION</u>		
<p>I,, hereby certify that the as-constructed information shown on this drawing/contained in this electronic file (delete whichever is not applicable)is a true and correct record of the installed electrical works in compliance with the approved drawings and approved design.</p>		
<p>..... Lic. Electrician (Signature)</p>	<p>..... Lic. Electrician No.</p>	<p>...../...../..... Date</p>