



**Ergon Energy Corporation Limited**

# **Specification for Precast Concrete Assemblies**

**ETS05-02-03**

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## 1. PURPOSE AND SCOPE

### 1.1 GENERAL

This specification sets out the technical requirements for the manufacture, testing, supply and delivery of precast concrete assemblies for use in Ergon Energy (referred to as the “Purchaser”) electricity distribution systems in Queensland.

Items covered by this specification are listed in Appendix A.

## 2. REFERENCES

### 2.1 ERGON ENERGY CONTROLLED DOCUMENTS

### 2.2 APPLICABLE STANDARDS

The Precast Concrete Assemblies must comply with the latest revision of all relevant Queensland Acts / Regulations and Australian Standards, and all amendments issued from time to time except where varied by this specification.

Should inconsistencies be identified between standards and/or this specification, the Tenderer / Supplier shall immediately refer such inconsistencies to the Purchaser for resolution.

STANDARD	TITLE
<b>CONCRETE</b>	
AS 1012	Methods of Testing Concrete
AS 1141	Methods for Sampling and Testing Aggregates
AS 1379	Specification and supply of concrete
AS 1478	Chemical admixtures for concrete, Mortar and grout
AS 2758.1	Aggregates and Rock for Engineering Purposes Part 1 – Concrete Aggregates
AS 3583	Methods of Test for Supplementary Cementitious Materials for Use with Portland and Blended Cement.
AS 3582	Supplementary Cementitious Materials for Use with Portland and Blended cement – Flyash
AS 3610	Formwork for Concrete: Part1 – Formwork
AS 3600	Concrete Structures Code
AS 3972	General Purpose and Blended Cements
<b>REINFORCING STEEL</b>	
AS 1111	ISO metric hexagon commercial bolts & screws
AS 1112	ISO metric Hexagon Nuts

STANDARD	TITLE
AS 1214	Hot-dip galvanised coatings on threaded fasteners (ISO metric coarse thread series)
AS 1237	Plan Washers For Metric Bolts, Screws and Nuts For General Purpose
AS/NZS 1252	High strength steel bolts with associated nuts and washers for structural engineering
AS/NZS 1554	Structural Steel Welding Part 1 – Welding of Steel Structures Part 3 - Welding of reinforcing steel
AS/NZS 4100	Steel Structures
AS/NZS 4671	Steel Reinforcing Materials
AS/NZS 4680	Hot-dip galvanised (zinc) coatings on fabricated ferrous articles
AS/NZS ISO9001	Quality systems – Requirements.
<p>The Equipment must comply with the recommendations of applicable parts of the following documents:</p> <ul style="list-style-type: none"> <li>• "Recommended Practice: Design and Detailing of Precast Concrete" published by the Concrete Institute of Australia.</li> <li>• "Hot Dip Galvanising Trade Association Manual" published by Galvanisers Association of Australia.</li> </ul>	

### 3. DEFINITIONS, ACRONYMS, AND ABBREVIATIONS

#### 3.1 DEFINITIONS

**3.1.1 Specification:** A statement of requirement to be satisfied by a material, product or service.

**3.1.2 Specification Document:** An Ergon Energy document type that contains written specifications.

**3.1.3 Supplier:** An internal or external individual or entity that provides a material, product or service to standards detailed in Ergon Energy Specifications.

**3.1.4 Shall:** Is used to indicate mandatory requirements strictly to be followed in order to conform to the specification and from which no deviation is permitted.

**3.1.5 Should:** Is used to indicate that among several possibilities one is recommended as particularly suitable.

**3.1.6 May:** Is used to indicate a course of action permissible within the limits of the specification.

**3.1.7 Purchaser:** Person or entity that is a recipient of goods or service provided under this specification.

#### 3.2 ACRONYMS AND ABBREVIATIONS

Nil

## 4. SECURITY

Nil

## 5. SAFETY, ENVIRONMENTAL AND ERGONOMIC CONSIDERATIONS

### 5.1 SAFETY CONSIDERATIONS

Refer to Section 10.

### 5.2 ENVIRONMENTAL CONSIDERATIONS

Tenderers / Suppliers are required to comment on the environmental soundness of the design and the materials used in the manufacture of the items offered. In particular, comments should address such issues as recyclability and disposability at the end of service life and also disposal of packaging materials.

### 5.3 ENVIRONMENTAL CONDITIONS

Precast Concrete Assemblies will be exposed to the environmental conditions as detailed below. All items will be installed outdoors and will be exposed to and must be able to withstand the following environmental conditions:

DESCRIPTION	CONDITION
<b>Humidity</b>	Extended periods of relative humidity, ranging from 10% to 90% (IEC60721-2-1 Figure 6)
<b>Solar Radiation Level</b>	1100 W/m <sup>2</sup> with high ultra violet content (IEC60721-2-4 Table 1)
<b>Ambient Air Temperature</b>	50°C summer daytime (maximum) -10°C winter night time (minimum) (for very hot climates – refer AS2650 Clause 2.2.3)
<b>Precipitation</b>	Annual rainfall in excess of 1500 mm (Bureau of Meteorology)
<b>Wind Speed</b>	Tropical summer storms with gust wind speeds above 160 km/h
<b>Isokeraunic Level</b>	35-40 (Bureau of Meteorology)
<b>Pollution / Atmospheric Classification</b>	Level IV – very heavy (for installation in polluted ambient air with areas of coastal salt spray and industrial pollution refer AS4436 Table 1) Equivalent salt deposits in the range of 2.0-3.0 g/m <sup>2</sup> (AS4436 Table 3)
<b>Below Ground Soil</b>	Variable soil conditions ranging from high resistivity rock to normal clays to areas of acidic soils with resistivity less than 20 Ω-m
<b>Below Ground Temperatures</b>	28°C summer day time (maximum) 18°C winter night time (minimum)

## 6. DRAWINGS

### 6.1 DRAWINGS BY THE PURCHASER

The following drawings form part of this specification.

ITEMS	DRAWING NO	REV	TITLE
1 & 2	875187-02	0A	Public Lighting Hardware, Road Lighting Pole Foundation Assembly (BPM), Minor Road.
1	875187-03	0A	Minor Road Assembly (BPM) Foundation 350 PCD, Minor Road Ref 1.
2	875187-03	0A	Minor Road Assembly (BPM) Foundation 350 PCD, Minor Road Ref 2.
3	950138-01	0C	Major Road BPM Steel Pole Square Precast Foundation (4 Bolt 2.25m 350PCD).
3	05-02-05	C	Public Lighting, Road Lighting Pole Foundation Assembly (BPM & SBM), Major Road.

Version Control – Before commencing manufacturing, contractors are responsible to check with the Purchaser that they are in possession of the latest version of the above drawings.

### 6.2 DRAWINGS BY THE TENDERER

The Tenderer / Supplier is not required to supply drawings under this specification.

## 7. DESIGN, CONSTRUCTION AND MANUFACTURE

### 7.1 GENERAL

The precast concrete assemblies supplied under this specification shall be manufactured in accordance with the drawings attached to this specification and any relevant standard which is mentioned in this specification.

### 7.2 CONCRETE

#### 7.2.1 Materials

Concrete materials shall be in accordance with AS/NZS 3600. Standards for concrete components are as follows:

- Cement – All cement shall be Portland type GP. Blended cement shall be to AS/NZS 3972
- Aggregate – Dense aggregate (fine and coarse) to AS/NZS 2758
- Chemical Admixtures – To AS/NZS1478 or AS MP20 Part 1, as applicable. Use only if specified or if prior approval has been given.
- Fly Ash – Fly ash shall be in accordance with AS/NZS 3582.1. Fly ash shall be incorporated as a replacement for part of the cement content in the concrete, and the amount incorporated shall be a minimum of 20% and a maximum of 25% by weight of the cement / fly ash blend, unless approved by the Purchaser.
- Water – All water shall be free of matter harmful to concrete or to reinforcement.

- Storing Materials – To AS/NZS 3600. Bags of cement and fly ash shall be dated on receipt and shall be used in chronological order.

## 7.2.2 Mix Proportions and Materials

The Supplier shall comply strictly with the mix proportions and materials as set out in the attached drawings.

Slump requirements shall be complied with and under no circumstances shall extra water be added to the mix.

If due to time or weather it becomes necessary to add additional water at the batching plant in order to produce the required slump, then an appropriate amount of additional cement shall be added to mix in order to maintain the water/cement ratio and hence the specified concrete strength. Set retarding admixtures may also be used with the prior approval of the Purchaser.

## 7.2.3 Ready-Mixed Supply

Ready-mixed concrete shall be prepared to AS/NZS 1379, from an approved supplier and delivered in agitating trucks.

## 7.3 TRANSPORTING AND PLACING CONCRETE

The mixing, transporting and placing of concrete shall comply with the requirements of AS/NZS 3600 and AS/NZS 1379.

### 7.3.1 Compaction

All concrete shall be well compacted by immersion vibrators having a minimum frequency to effectively compact the concrete. Vibrators shall be used only for compaction of concrete and not for transporting concrete within the forms. The number of vibrators provided shall not be less than one per five metres of concrete per hour placing rate. In addition one vibrator shall be provided as a reserve for emergency use. Excessive vibration which would cause settlement of coarse aggregate and excessive fine material and water on the surface shall be avoided.

Vibrators shall be applied in a systematic manner in the freshly deposited concrete at uniform spacings not further apart than twice the radius of visible vibration concrete. Vibrators shall not be used to move concrete and shall not damage or disturb the formwork. Vibrators shall not be held in contact with the reinforcement or formwork for any period of time.

If reinforcement is displaced, placing of concrete shall stop until the reinforcement has been fixed in the correct position.

## 7.4 CURING

Curing shall be carried out in accordance with AS/NZS 3600.

## 7.5 REINFORCEMENT

### 7.5.1 Supply of Steel Components

All steel components shall conform to the requirements of the following standards:

- AS/NZS 4671 For Concrete Reinforcing Steel
- AS/NZS 4671 For Hard Drawn Wire
- AS/NZS 1112 For Mild Steel Nuts and Washers

Identification: Reinforcement shall be readily identifiable as to grade and origin.



Surface Condition of Steel: to AS/NZS 3600 Clause 19.2.4.

## 7.5.2 Reinforcement Fabrication Standards and Other Requirements

- General - the Contractor shall comply with AS/NZS 4100 Section 14
- Galvanising of the Assembly - the complete fabricated assembly shall be galvanised to AS/NZS 4680. Galvanising shall be suitable to provide a thirty-five (35) service life to first maintenance for Macro-Environment conditions High Corrosivity C4.
- Galvanising of Nuts and Washers - nuts and washers shall be galvanised to AS/NZS 1214
- Galvanising of Other Fittings (eg Lifting Anchors and the like) – galvanised to AS/NZS 4680
- All nuts and washers shall be attached to the completed precast foundation.

## 7.5.3 Fixing of Reinforcement

Reinforcement shall be fixed in place in accordance with AS/NZS 3600 Section 19.

Spacing of reinforcement and concrete cover shall be in accordance with the attached drawings and AS/NZS 3600.

Reinforcement supports shall be in accordance with AS/NZS 3600 and shall be placed so as to position the reinforcement correctly within the formwork.

## 7.6 HOLD DOWN BOLTS

### 7.6.1 Drawings

Drawings 875187-03 (0A) for Minor Roads & 05-02-05 (C) for Major Roads are provided as reference for hold down bolt assemblies and define the required PCD bolt, nut, & washer diameters.

## 7.7 FORMWORK

### 7.7.1 General

All formwork shall be carried out in accordance with AS/NZS 3610, with particular note to the following:

- The standard of formwork, except for Tolerance Design shall be in accordance with AS/NZS 3610 so that the concrete when cast in forms will have the dimensions, shape and surface finish required by this Specification.
- The Contractor shall be responsible at all times for the sufficiency of the formwork.
- Note the requirements for form coatings, release agents and formwork removal.

### 7.7.2 Rejection of Formwork

If the formwork fails to meet the requirements of this Specification, the Purchaser may reject it and any concrete which has been cast in it. The Purchaser may require the Contractor to reconstruct formwork to the Purchaser's requirements.

### 7.7.3 Dimensional Tolerances

Dimensional tolerances shall be as noted in the drawings and in accordance with AS/NZS 3610.

### 7.7.4 Formed Surfaces

Formed surfaces shall be to AS/NZS 3610 to minimum Class 3 Surface, including recommendations relevant to the construction and use of formwork and to impermissible blemishes and irregularities.

## 8. EMBEDMENTS, CORES AND FIXINGS

### 8.1 LIFTING & HANDLING ATTACHMENT PROVISION

The Major Road Precast Foundation shall include two lifting & handling points on one vertical side surface of the foundation. The Tenderer / Supplier shall provide a methodology, the necessary instructions and lifting device for lowering the foundation into the required location on site without causing damage to the hold down bolts. The Tenderer / Supplier shall provide with their submission their proposed methodology and lifting device for the Purchasers approval.

The Minor Road Precast Foundation shall include two lifting & handling points on one vertical side surface of the foundation. The Tenderer / Supplier shall provide a methodology and the necessary instructions and equipment for lowering the foundation into the required location on site without causing damage to the hold down bolts. The Tenderer / Supplier shall provide with their submission their proposed methodology and lifting device for the Purchasers approval.

### 8.2 EMBEDDED ITEMS

Conduits, pipes, fittings, core holes and the like shall be installed in accordance with AS/NZS 3600. Other embedded items, including fixings, anchor bolts and the like, shall also comply with the size, spacing and cover requirements of that clause unless otherwise shown on the attached drawings or specified.

- Structural Integrity: In locating embedded items, do not cut or displace reinforcement, or cut hardened concrete, unless prior approval has been obtained.
- Tolerance on Placement: Unless otherwise shown on the attached drawings or specified, permitted deviations from correct positions shall be:
  - Embedded items generally: plus or minus 10 mm
  - Fixings, anchor bolts and the like: plus or minus 3 mm

### 8.3 PROTECTION OF FIXINGS

Threaded sections shall be greased to protect them from damage during placement of concrete. Fixings shall be protected adequately from physical damage during delivery to the Purchaser, including unloading.

### 8.4 INSERTED FIXINGS

Inserted fixings by drilling or other methods shall not be carried out without the written approval of the Purchaser.

## 9. PERFORMANCE AND TESTING

### 9.1 INSPECTION AND TESTING

The purchaser's representative shall be given access to the Manufacturer's works at all reasonable times during manufacture of the precast concrete assemblies and shall be given every assistance for the purpose of inspection and witnessing of test, together with any information which may be reasonably required regarding the materials, the methods of manufacture and the progress of the work.

All costs incurred by the Manufacturer in carrying out the tests and demonstrations specified, including the cost of all components damaged or destroyed, shall be borne by the Manufacturer and shall be included in the prices quoted.

## 9.2 SAMPLING AND TESTING OF CONCRETE

### 9.2.1 General

Concrete shall be sampled and tested in accordance with the relevant sections of AS/NZS 1012. Particular attention is brought to the following:

- Sampling – AS/NZS 1012, Part 1
- Slump Test – AS/NZS 1012 Part 3
- Making and Curing Specimens – AS/NZS 1012 Part 8
- Testing for Compressive Strength – AS/NZS 1012 Part 9

Concrete shall be sampled at the discharge point of the truck mixer or the agitator. The number of tests and the test method shall be according to AS/NZS 1012.

## 9.3 REJECTION

Where concrete in any portion of the work does not attain the specified strength or does not comply with this Specification in any other particular affecting its strength or durability the affected precast units shall be rejected.

## 9.4 MINIMUM STRIPPING TIMES

Refer to AS/NZS 3610, Clause 5.4.3. Minimum stripping times may be reduced subject to the furnishing of satisfactory evidence of concrete strength as required by AS/NZS 3610.

## 10. RISK ASSESSMENT

### 10.1 LEGISLATION

Tenderers must comply with the requirements of the Workplace Health and Safety Act 2011, Queensland Electrical Safety Act 2002 and associated regulations, codes of practice and compliance/ advisory to Schedule B - Risk Assessment.

### 10.2 DOCUMENTATION

Tendered / Supplied items shall be subjected to a formal risk assessment. The Plant Code of Practice 2005 requires the Tenderer / Supplier to perform a risk assessment and provide the resultant documentation to the Purchaser with their tender in accordance with the 'Risk Assessment' schedule (Schedule B - Risk Assessment) included with this specification. Where required in the attachment, full details to support answers must be furnished.

If the complete risk assessment documentation is not provided with the tender, or does not meet the required standard, the tender may be rejected. Any documented risk assessment that accompanies the tender must meet the requirements of the Risk Management Advisory Standard 2000 as a minimum standard and address the five main steps of the risk management process. It is preferred that the risk assessment methodology uses an energy model to identify hazards.

The risk assessment/s must both state recommended practices and identify hazards to the Corporation's personnel, public and property associated with the Precast Concrete assemblies offered as follows:

- Installation.
- Transport, handling and storage.
- Operation and maintenance during life expectancy.
- Dismantling/ disposal at end of life.
- The range of uses for which the offered items are intended.

- Effects of environmental conditions.
- The 'Risk Assessment' schedule (Schedule B - Risk Assessment) included with this specification shall be completed by the Tenderer. Where required by some questions, full details to support answers must be furnished.

## 11. QUALITY ASSURANCE

It is the Purchaser's policy to procure goods, equipment and services from sources that demonstrate the ability to supply quality products.

It is expected that Tenderers / Supplier and manufacturers will have a quality system certified to AS/NZS ISO 9001 in operation.

Documentary evidence shall be provided concerning the level of Quality System Certification associated with the Tenderer / Supplier and / or Manufacturer. This documentation shall include the Capability Statement associated with the Quality System Certification.

Tenderers / Suppliers shall complete Schedule C - Management Systems Information Schedule in documenting the above requirements and shall include it with their Tender submission.

With respect to any supplied product under this specification, a component of a supplied product or basic processed material. There shall be no change to the manufacturer, the location of manufacture or the manufacturing process without approval from Purchaser. This approval shall be subject to the submission by the supplier of relevant additional current QA documentation and re-qualification test certificates that are acceptable to the Purchaser and approved in writing by the Purchaser prior to delivery of goods.

## 12. SAMPLES

### 12.1 PRODUCTION SAMPLES

Tenderers and Suppliers may be requested to supply production samples for inspection and assessment.

### 12.2 DELIVERY & PURCHASE

Production samples shall be delivered freight free, suitably packaged and labelled including this Contract Number and Contract Item number. The Purchaser may at its discretion either purchase the samples at the tendered price or return the samples to the respective Tenderer after the contract has been awarded. Samples must be delivered within two weeks of the date requested to a location nominated at time of request.

## 13. PACKAGING

### 13.1 PACKAGING AND SHIPPING OF PRECAST FOUNDATIONS

Precast foundations supplied under this contract will not be palletised due to their weight.

Precast foundations shall however be adequately packaged so that they are protected from damage during handling and shipping, in particular the threaded studs.

Packaging shall be easily removed.

Damaged goods will not be accepted at any time.

## 13.2 ASSEMBLY

All nuts and washers shall be supplied fitted to the assembly, and not packaged separately.

The double nuts shall not be locked to prevent their dislodgement during transit, but shall be otherwise constrained from dislodgement by the fitting of an O-ring over the protruding thread (preferred method of constraint) or other suitable method of constraint.

## 13.3 MARKINGS

Each precast foundation shall be marked with the following information painted in black, in letters 50 mm high and on the side of the foundation:

- The Purchaser's Stock Code
- The Purchaser's Contract Number
- The Purchaser's Purchase Order Number
- Supplier's Name / Trade Mark
- Month & Year of Manufacture
- Pack Mass (kg).

## 14. SERVICE HISTORY

Potential first time Tenderers / Suppliers to the Purchaser shall state: -

- The period of service achieved by the items offered within Australian conditions;
- Australian electricity supply authorities who have a service history of the items offered;
- Contact names and phone numbers of relevant employees of those supply authorities who can verify the service performance claimed

## 15. RELIABILITY

### 15.1 GUARANTEE

Tenderers / Suppliers are required to guarantee the reliability and the performance of the precast concrete assemblies for the service life stated under the specified system and environmental conditions by specifying the guaranteed performance and service life in the Attachments of Technical Details.

### 15.2 SERVICE LIFE

Where the specified guaranteed service life is less than thirty-five (35) years Tenderers / Suppliers are required to provide comment and submit evidence in support of the reliability and performance claimed including detailed information on Failure Mode and Effect Analysis.

## 16. TRACEABILITY

Tenderers /Suppliers shall determine which sub-components in their products which require traceability and shall indicate these in the Schedule of Guaranteed Performance. The criteria for traceability shall be based on previously identified failure modes which may necessitate the recall of the product from service for rework or replacement should they occur either in the field or are discovered during manufacture or testing at works. The Purchaser will give due recognition to the number of sub-components incorporating traceability when assessing conformance of the Tenderer's Quality Assurance System to the specified requirements.

## 17. TRAINING

Training material in the form of drawings, instructions and/or audio visuals may be required for the items accepted under this offer. This material shall include but is not limited to the following topics:

- Handling
- Storage
- Application (particularly in areas of heavy coastal pollution)
- Installation
- Maintenance
- Environmental performance
- Mechanical performance
- Disposal

## 18. INFORMATION TO BE PROVIDED

### 18.1 GENERAL

**THE SPECIFIC TECHNICAL REQUIREMENTS FOR THE ITEMS OFFERED SHALL BE AS STATED IN SCHEDULES A OF THIS SPECIFICATION. THE TENDERER / SUPPLIER SHALL PROVIDE ALL DETAILS REQUESTED BY APPENDIX A – ITEMS COVERED BY THIS SPECIFICATION**

ITEM No.	STOCK CODE	DESCRIPTION
Public Lighting Foundation Assemblies		
1	2433670	Precast concrete 1.2 m foundation (square section) to support minor road 4-bolt 350 PCD base plate mounted street light pole and Luminaire
2	2433688	Precast concrete 1.5 m foundation (square section) to support minor road 4-bolt 350 PCD base plate mounted street light pole and Luminaire.
3	2427284	Precast concrete 2.00 m foundation (square section) to support major road 4-bolt 350 PCD base plate mounted street light pole and Luminaire.

Schedule A - Technical Details Public Lighting and shall guarantee such data. A separate Column of the Schedule shall be completed for each item offered.

## **18.2 RISK ASSESSMENT**

The Tenderer / Suppliers shall complete a risk assessment and respond to the referenced items in Schedule B - Risk Assessment of this specification.

## **18.3 TECHNICAL DOCUMENTATION**

Schedule E - Technical Documentation Checklist details a checklist of supporting technical documentation which is required to be submitted with the tender.

## **18.4 DEPARTURES**

The Tender / Supplier shall clearly identify on their submission all departures from this Technical Specification, Australian Standard or Drawings which form part of this specification. Departures shall include any changes to dimensions and their tolerances, materials or compliance with applicable Australian Standards.

## APPENDIX A – ITEMS COVERED BY THIS SPECIFICATION

ITEM No.	STOCK CODE	DESCRIPTION
Public Lighting Foundation Assemblies		
1	2433670	Precast concrete 1.2 m foundation (square section) to support minor road 4-bolt 350 PCD base plate mounted street light pole and Luminaire
2	2433688	Precast concrete 1.5 m foundation (square section) to support minor road 4-bolt 350 PCD base plate mounted street light pole and Luminaire.
3	2427284	Precast concrete 2.00 m foundation (square section) to support major road 4-bolt 350 PCD base plate mounted street light pole and Luminaire.



# Specification for Precast Concrete Assemblies



## 19. SCHEDULE A - TECHNICAL DETAILS PUBLIC LIGHTING

PARTICULARS	Specified Value	Item 1 (2433670) Minor Road Foundation Assembly	Item 2 (2433688) Minor Road Foundation Assembly	Item 3 (2427284) Major Road Foundation Assembly
<b>GENERAL INFORMATION</b>				
Manufacturer of Pre Cast Assemblies and country of manufacture				
Supplier Catalogue Number				
<b>STEEL COMPONENTS</b>				
Reinforcing steel to AS/NZS 4671	YES / NO			
Nuts to AS/NZS 1112				
Washers to AS/NZS 1237				
<b>FABRICATION</b>				
Compliance with Drawing 875187-02 (0A)	YES / NO			
Compliance with Drawing 875187-03 (0A)				
Compliance with Drawing 05-02-05 (C)				
Compliance with Drawing 950138-01 (0C)				
Compliance with AS/NZS 4100 Section 14				
Tolerances to AS/NZS 4100 Clause 14.4				
Welding to AS/NZS 4100 & AS/NZS 1554				
At time of manufacture, can a Welders Certificate be provided?				
Galvanising Assembly to AS/NZS 4680				
Thickness of Galvanising (µm)				
Galvanising nuts & washers to AS/NZS 1214	YES / NO			
Concrete strength (MPa)	25MPa min.			
<b>SERVICE PERFORMANCE (Clause 11.0)</b>				
Service performance information provided	YES / NO			
Gross mass of each foundation type (kg)				
Service life guarantee period (years)	35 years			
Pack Quantity	No.			
Pack Mass	kg			
Special Lifting or Handling Requirements	YES / NO			

Name & Signature of Tenderer /  
Supplier:

Date:

## 20. SCHEDULE B - RISK ASSESSMENT

Ref.	Particulars	Response
1.	<p>Does the Equipment offered comply with the Queensland Workplace Health and Safety Plant Code of Practice 2005?  <a href="http://www.deir.qld.gov.au/workplace/resources/pdfs/plant-cop-2005.pdf">http://www.deir.qld.gov.au/workplace/resources/pdfs/plant-cop-2005.pdf</a></p> <p>If so, have the following obligations been fulfilled for Manufacturers and/or Tenderers of Plant to ensure (according to the definitions under the Workplace Health and Safety Act 2011 s. 25):</p> <p>that the Equipment offered has been examined and tested to ensure it is safe and without risk to health when used properly?</p> <p>the Equipment offered is accompanied by information about the way the equipment must be used to ensure health and safety? In particular, information relating to the following points?  <a href="http://www.deir.qld.gov.au/workplace/resources/pdfs/plant-cop-2005.pdf">http://www.deir.qld.gov.au/workplace/resources/pdfs/plant-cop-2005.pdf</a> Section 3.6)</p> <p>If so, please provide provision of appropriate information?</p>	
2.	<p>Does the Equipment offered comply with the Queensland Electrical Safety Act 2002?  <a href="http://www.justice.qld.gov.au/fair-and-safe-work/electrical-safety/law-and-penalties/electrical-safety-legislation/the-electrical-safety-act-2002">http://www.justice.qld.gov.au/fair-and-safe-work/electrical-safety/law-and-penalties/electrical-safety-legislation/the-electrical-safety-act-2002</a></p>	
3.	<p>Has a Risk Assessment been performed on the Equipment offered, which meets the requirements of the How to Manage Work Health and Safety Risks Code of Practice 2011?  <a href="http://www.deir.qld.gov.au/workplace/resources/pdfs/manage-whs-risks-cop-2011.pdf">http://www.deir.qld.gov.au/workplace/resources/pdfs/manage-whs-risks-cop-2011.pdf</a></p> <p>If so, please include a copy of the risk assessment with the tender.</p>	
4.	<p>Do any of the items offered involve assembly of components from a variety of sources?</p> <p>If so, are the components compatible to ensure the item is safe and without risk to health and safety when used properly?</p>	
5.	<p>Has the Equipment been examined and tested to ensure it is safe when used properly?</p> <p>In particular, have all Test Certificates specified in this Technical Specification been supplied?</p> <p>Is information available for safe operation and maintenance of the Equipment?</p>	

Name of Tenderer / Supplier: \_\_\_\_\_

Signature of Tenderer /  
Supplier & Date: \_\_\_\_\_

Address: \_\_\_\_\_

Name of Witness: \_\_\_\_\_

Signature of Witness & Date: \_\_\_\_\_

## 21. SCHEDULE C - MANAGEMENT SYSTEMS INFORMATION SCHEDULE

### 1. Tenderer Details

Tenderer / Supplier:-	Representative's Name:-
Address:-	Telephone:- Facsimile:- Mobile / Other:-
Product / Service:-	ABN:-

### 2. Quality Assurance

Do you have a fully implemented Quality Management System in place which has been certified by an external certification body? (3 <sup>rd</sup> Party Industry Specific Certification)	YES / NO
If YES, advise name of certification body and Certificate number. Attach copy of the certificate and Standard number	Certified by: Certificate Number:
Copy of Certificate and Schedule(s) attached	YES / NO
Do you hold a current Ergon Energy or other Electricity Authority and/or the Queensland Government Contractor Rating? (2 <sup>nd</sup> Party)	YES / NO
If YES, advise Electricity Authority, Certificate Number and rating	Elec. Authority: Number: Rating:

If you answered “**YES**” to having 3<sup>rd</sup> Party Industry Specific Quality Certification and

- this is **not** “by association” with another entity please complete **Sections 5 and 6**.
- this **is** “by association” with another entity please complete **Section 3**.

If you answered “**NO**” to having 3<sup>rd</sup> Party Industry Specific Quality Accreditation, please complete **Section 4**.

### 3. Quality Assurance Certification by Association

If you have answered “**YES**” to having Quality Assurance Certification, and have used another entity in providing this answer please provide details of this entity below.

<b>Registered Company Name:</b>	
<b>Address:</b>	
<b>ABN:</b>	

Please complete **Sections 5 and 6**.

# Specification for Precast Concrete Assemblies



## 4. Internal Quality System Questions

Have you developed and implemented your own internal non-certified Quality Management System?	YES/NO
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If you answered “**NO**” to the above question please complete **Section 5**.

If you answered “**YES**” to the above question please complete the remaining questions in **Section 4**.

Do you have a Quality Manual?	YES/NO
Do you have procedures in place to ensure Quality of product and / or service?	YES/NO
Do you have a sample Quality Inspection and Test Plan or similar that you could provide on request?	YES/NO
Do you have an Internal Audit System?	YES/NO
Do you produce Internal Audit Reports that have suitable corrective action mechanisms?	YES/NO
Do you require your Tenderers / contractors to have a documented Quality Management System in place?	YES/NO
How do you evaluate your Tenderer’s / contractors quality performance?	Audit Yes/No Inspections Yes/No Performance History Yes/No
If requested, would your company be able to provide a copy of its Internal Quality Management System to Ergon Energy?	YES/NO

## 5. Environmental

Do you have a fully implemented Environmental Management System in place which has been certified by an external certification body? If YES attach a copy of the certificate.	YES/NO
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If YES go to **Section 6**.

Do you have an Environmental Management Policy that is available to the Purchaser within 7 days of request?	YES/NO
Do you have a formal Environmental Management Plan that is available to the Purchaser within 7 days of request that outlines how you will address environmental risks relevant to your activities and conditions?	YES/NO
Are the requirements of your Environmental Management Plan incorporated into your Work Procedures?	YES/NO
Do you have a fully implemented Environmental Management System in place in accordance with ISO14001 which has been certified by an external certification body?	YES / NO
If YES, advise name of certification body and Certificate number. Attach copy of the certificate and Standard number	Certified by: Certificate Number:
Copy of Certificate and Schedule(s) attached	YES / NO

## 6. Workplace Health and Safety

Do you have a formal Workplace Health and Safety Management Plan that is	YES/NO
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# Specification for Precast Concrete Assemblies



available to the Purchaser within 7 days of request that outlines how you will address safety risks relevant to your activities and conditions?	
Are the requirements of your Workplace Health and Safety Management Plan incorporated into your Work Procedures?	YES/NO
Do you have a Workplace Health and Safety Policy that is available to the Purchaser within 7 days of request?	YES/NO

<b>NAME OF TENDERER</b>	
<b>SIGNATURE</b> (FOR AND ON BEHALF OF TENDERER)	
<b>DATE</b>	



## 23. SCHEDULE E - TECHNICAL DOCUMENTATION CHECKLIST

The following information shall be supplied by the Tenderer whose attention is drawn to the relevant Clauses of the Specification.

Tenderer to answer each question "Yes" or "No"

Clause Ref.	Particulars	Response
	Have full and comprehensive details been submitted WITH the tender documents associated with each of the following?	
2.2.	Specifications – Compliance with applicable Australian & International Standards	
5.1.	Environmental Considerations	
10.	Risk Assessment	
11.	Documented evidence of the Quality systems of <b>both</b> the <b>Supplier</b> and the <b>Manufacturer</b> (including <b>Capability Statement</b> ), & also the Tenderer / Manufacturer's programme to update the QA system to AS/NZS ISO 9001	
12.	Samples	
14.	Service History	
15.	Reliability	
16.	Traceability	
17.	Training	
18.	Information to be provided	
18.4.	Specification – List of Departures	
19.	Complete Technical Details Schedule A	
20.	Complete Technical Details Schedule B	
21.	Complete Technical Details Schedule C	
21.	Complete Technical Details Schedule D	
23.	Complete Technical Details Schedule E	

Name of Tenderer /  
Supplier: \_\_\_\_\_

Signature of Tenderer /  
Supplier: \_\_\_\_\_

Date: \_\_\_\_\_